PLANNING COMMISSION REGULAR MEETING
MONDAY, AUGUST 4, 2025
AGENDA

Monday, August 4, 2025 **6:00 PM** **Hearing Room**

Disclaimer - This packet is provided for informational purposes only and is subject to change. Some documents may have been unavailable at the time this agenda was prepared. For additional information, contact the responsible staff person.

Instructions to access the video or audio of the meeting are available here: https://www.douglas.co.us/board-county-commissioners/boards-commissions/planning-commission/ To submit written public comment and/or exhibits for a Planning Commission meeting, please send them, in advance, to planningcommission@douglas.co.us. Instructions for providing audio comments at the remote meeting are available at the webpage above.

1. Call to Order

a. Pledge of Allegiance

b. Roll Call

c. Attorney Certification of the Agenda

d. Planning Commission Disclosures

2. Approval of Minutes

a. Unofficial Minutes from July 7, 2025. **3743**

Attachments: Unofficial Minutes from July 7, 2025

3. Land Use Meeting Items

a. Sundown Oaks Metropolitan District - New Service Plan - Project File: SV2025-005. **3784**
DJ Beckwith, Principal Planner — *Department of Community Development*

Attachments: Staff Report - SV2025-005
Supplemental Memo - SV2025-005

4. Land Use Hearing Items

a. Ramblewood Planned Development - Rezoning - Project File: ZR2024-031. **3745**
Trevor Bedford, AICP, Senior Planner — *Department of Community Development*

Attachments: Staff Report - ZR2024-031

b. Keene Ranch Planned Development, 3rd Amendment - Major Amendment - Project File: ZR2023-007. **3748**
Matt Jakubowski, AICP, Chief Planner — *Department of Community Development*

Attachments: Staff Report - ZR2023-007

c. Highlands Ranch Planned Development, 80th Amendment - Major Amendment - Project File: ZR2025-001. **3760**
Matt Jakubowski, AICP, Chief Planner — *Department of Community Development*

Attachments: Staff Report - ZR2025-001

5. Adjournment

The Next Regular Meeting Will be Held on Monday, August 18, 2025 @ 6:00 p.m.

MEETING DATE: July 21, 2025

DESCRIPTION: Unofficial Minutes from July 7, 2025.

ATTACHMENTS:

Unofficial Minutes from July 7 2025

PLANNING COMMISSION REGULAR MEETING
MONDAY, JULY 7, 2025
MINUTES

Monday, July 7, 2025 | **6:00 PM** | **Hearing Room**

1. Call to Order

Commissioner Garbo presented virtual hearing instructions.

a. Pledge of Allegiance

b. Roll Call

PRESENT
Commissioner Len Abruzzo
Commissioner Stephen Allen
Commissioner Calvin Downs
Commissioner C.J. Garbo
Commissioner Jack Gilmartin
Commissioner Christian Schilder
Commissioner Jim Smallwood

EXCUSED
Commissioner Michael McKesson
Commissioner Edward Rhodes
Alternate Matt Collitt

c. Attorney Certification of the Agenda

Andrew Steers, Deputy County Attorney, stated that all items on today's agenda have been reviewed by the County Attorney's Office, they have been properly noticed and the Commission has jurisdiction to hear them.

d. Planning Commission Disclosures

None

2. Approval of Minutes

a. Unofficial Minutes from June 16, 2025.

Commissioner Calvin Downs moved that the Commission approve the Minutes from June 16, 2025.

RESULT: APPROVED
MOVER: Calvin Downs
SECONDER: Len Abruzzo

AYES: Len Abruzzo, Calvin Downs, C. J. Garbo, Jim Smallwood
ABSTAIN: Stephen Allen, Jack Gilmartin, Christian Schilder

3. Land Use Hearing Items

a. 9876 Democrat Road - Location and Extent - Project File: LE2025-008.

Trevor Bedford, AICP, Senior Planner - Department of Community Development - presented the proposed application.

Commissioner Garbo opened public comment.

There was no public comment.

Commissioner Garbo closed public comment.

Commissioner Garbo opened Planning Commission discussion.

Kelly Krause, Black Hills Energy- provided additional information.

Commissioner Len Abruzzo moved to approve the 9876 Democrat Road - Location and Extent - Project File: LE2025-008.

RESULT: APPROVED
MOVER: Len Abruzzo
SECONDER: Jim Smallwood
AYES: Len Abruzzo, Stephen Allen, Calvin Downs, C. J. Garbo, Jack Gilmartin, Christian Schilder, Jim Smallwood
NAYS: None.

b. 9375 Cresthill Lane - Location and Extent - Project File: LE2025-007.

Eric Pavlinek, Principal Planner - Department of Community Development - presented the proposed application.

Commissioner Garbo opened public comment.

There was no public comment.

Commissioner Garbo closed public comment.

Commissioner Garbo opened Planning Commission discussion.

Jackie Millet, Douglas County School District - provided additional information.

Thomas Lysne, Hollis + Miller Architects - provided additional information.

Aurom Mahobian, SK Design Group - provided additional information.

Commissioner Jack Gilmartin moved to approve the 9375 Cresthill Lane - Location and Extent - Project File: LE2025-007.

RESULT:	APPROVED
MOVER:	Jack Gilmartin
SECONDER:	Len Abruzzo
AYES:	Len Abruzzo, Stephen Allen, Calvin Downs, C. J. Garbo, Jack Gilmartin, Christian Schilder, Jim Smallwood
NAYS:	None

4. Adjournment

The meeting was adjourned at 6:31 p.m.

_____

Calvin Downs, Secretary

_____

Samantha Hutchison, Recording Secretary

MEETING DATE: August 4, 2025

STAFF PERSON RESPONSIBLE: DJ Beckwith, Principal Planner

DESCRIPTION: Sundown Oaks Metropolitan District - New Service Plan - Project File: SV2025-005.

SUMMARY: The request is for approval of a service plan for the purpose of providing water infrastructure and storm sewer.

STAFF ASSESSMENT: Should the Planning Commission find that the application meets the criteria found at C.R.S. § 32-1-203(2) & (2.5), the new service plan may be approved.

REVIEW:

Kati Carter	Approve	7/23/2025
Samantha Hutchison - FYI	Notified - FYI	7/23/2025

ATTACHMENTS:

Staff Report - SV2025-005
Supplemental Memo - SV2025-005

DOUGLAS COUNTY
COLORADO

Service Plan Staff Report

Date:	July 24, 2025
To:	Douglas County Planning Commission
CC:	DJ Beckwith, Principal Planner Lauren Pulver, Planning Supervisor Kati Carter, AICP, Assistant Director of Planning Resources
Subject:	**Sundown Oaks Metropolitan District – New Service Plan**
Project File:	**SV2025-005**

Planning Commission Meeting:	**August 4, 2025 @ 6:00 p.m.**
Board of County Commissioners Meeting:	**August 26, 2025 @ 1:30 p.m.**
Board of County Commissioners Hearing:	**September 9, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The request is for approval of a new service plan for the Sundown Oaks Metropolitan District (District). The purpose of the service plan is to serve the public improvement and service needs of the Sundown Oaks Development (Project) which includes the Sundown and Oak Bluff subdivisions.

The Project consists of approximately 173 acres of land that is zoned Rural Residential. The property is located in the Franktown Rural Community Area of the 2040 Comprehensive Master Plan (CMP).

II. APPLICATION INFORMATION

A. Applicant

Northstar Custom Homes
10226 Dransfeldt Road
Parker, CO 80134

B. Applicant's Representative

Nicole Peykov
Spencer Fane LLP
1700 Lincoln Street, Suite 2000
Denver, CO 80203

C. Request

Approval of a service plan for the purpose of providing the following services:

- Water Infrastructure
- Storm Sewer

- Sanitation and Wastewater Infrastructure
- Street Improvements
- Traffic Safety Protection
- Parks and Recreation
- Television Relay and Translation
- Mosquito Control
- Fire Protection
- Covenant Enforcement and Design Review
- Security

D. Process

Service plans and service plan amendments are processed in compliance with Colorado Revised Statutes (C.R.S.) Section 32-1-201 through 209 (the Control Act) and the County's Service Plan Review Procedures (Procedures).

The Procedures also provide that the Planning Commission (PC) review the service plan to determine its compliance with specific criteria set forth in the Control Act; see the discussion in Section VI – Staff Analysis.

E. Location

The District is located near the intersection of Burning Tree Drive and East Tanglewood Road, Douglas County, Colorado. Generally, the District is located north of State Highway 86 and east of Parker Road in the Franktown Rural Community as identified in the 2040 CMP.

III. CONTEXT

A. Background

The property within the District is zoned Rural Residential (RR) and is anticipated to include 37 residential lots and zero square feet of commercial space. The population of the District at build-out is expected to be 111 residents. Based upon the information provided by the applicant, each of the residential properties within the District will have an average value of approximately $2,200,000 once developed.

B. Adjacent Land Uses and Zoning

North, east, and west of the District is privately owned land zoned RR. South of the District is privately owned land zoned RR, Large Rural Residential (LRR) and Agricultural One (A-1).

IV. SERVICES

A. Water and Sanitary Sewer

It is anticipated that the District will not provide water or sanitation services. Each home within the Project will receive water from individual groundwater wells. The District also anticipates that each home within the Project will utilize individual on-site

septic to serve as their wastewater treatment system. The service plan includes powers that allow the District to build and maintain water and sanitation infrastructure, if needed.

B. Services to be Provided by Other Governmental Entities

It is anticipated that fire protection shall be provided by Franktown Fire Protection District.

V. REFERRALS

Referrals for the proposed service plan were sent to the following agencies, and a majority of the agencies either did not respond or responded with no comment; all responses received are included in the attachments.

- AT&T Long Distance - ROW
- Bannockburn HOA
- Black Hills Energy
- Burning Tree Ranch HOA
- CenturyLink (Lumen)
- Cherry Creek Basin Water Quality Authority
- Colorado Department of Transportation CDOT-Region # 1
- Colorado Division of Water Resources
- Colorado Geological Survey
- Comcast
- CORE Electric Cooperative
- Douglas County Addressing Analyst
- Douglas County Assessor
- Douglas County Building Services
- Douglas County Conservation District
- Douglas County Engineering Services
- Douglas County Health Department
- Douglas County Libraries
- Douglas County Office of Emergency Management
- Douglas County School District RE 1
- Douglas County Sheriff's Office
- Douglas County Wildfire Mitigation
- Foxhill Metro Districts #1 & 2
- Franktown Business Area Metro District
- Franktown Citizens Coalition II Inc
- Franktown FD
- Pinery Water and Wastewater District
- RTD – Planning & Development Dept
- Rural Water Authority of Douglas County
- Town of Castle Rock

- Two Bridges Metro District
- Villages at Castle Rock Metro District 6
- Xcel Energy-Right of Way & Permits

Douglas County staff requested technical revisions to the service plan. These revisions include formatting and language changes. The applicant submitted a revised service plan to address those comments.

Douglas County Engineering Services (Engineering) reviewed the proposed service plan and requested that clarifying language be added so that storm sewer and street improvements would all be subject to the approval of Douglas County. The applicant updated the language, and Engineering had no additional comments.

Bannockburn HOA reviewed the proposed plan and commented that all lots should be five acres to coincide with current Franktown area zoning standards. Bannockburn also had concerns regarding traffic, road uses and of the use of wells in the Upper Dawson aquifer. These comments have been provided to the applicants.

Franktown Citizens Coalition II Inc. (FCC II) reviewed the proposed plan and shared concerns with the impact of a metropolitan district on the Franktown Rural Community based on the power of eminent domain and conflicting needs of the community. A representative of FCC II has met with the service plan applicants. All comments from the FCC II have been provided to the applicants.

The service plan application was also sent to the following County consultants for review:
- Hilltop Securities, Inc (financial plan review)
- BBC Research & Consulting (market study review)

Hilltop Securities, Inc (Hilltop) reviewed the proposed service plan and concluded that, given the assumptions in the Financial Plan, it is reasonable that the District will be capable of extinguishing all bonds within the parameters established in the service plan.

BBC Researching & Consulting (BBC) reviewed the submitted market study and commented that the absorption analysis in the study makes unsupported assumptions on the estimated market demand for higher priced houses and questioned whether these projections would be realized. BBC commented that if the absorption rate followed the historical patterns, it would likely result in a delay in home sales which could impair the district's ability to generate the revenues necessary to service its debt on schedule. These comments have been shared with applicants.

Public comment was submitted by residents of the proposed District. Staff received numerous letters in opposition to the District. These letters are included in the attachments.

VI. STAFF ANALYSIS

The CMP promotes the sustainability of special districts in Goal 5-3. Essentially, it looks for special districts to be financially sound and managed in the best interest of County residents.

The PC is required to evaluate information pertaining to existing zoning, development growth rates, and projections for required services necessary to demonstrate a need for the District. These, and other issues requiring analysis as identified by the Control Act, are examined in the analysis of the approval criteria.

1. **There is sufficient existing and projected need for organized service in the area to be serviced by the proposed special district.**

   Staff Comment: The area encompassed by the District boundaries is currently zoned Rural Residential and there is a projected need for the District.

2. **The existing service in the area to be served by the proposed special district is inadequate for present and projected needs.**

   Staff Comment: The existing public service infrastructure within the proposed District's boundary area are lacking; therefore, existing services are inadequate for the projected needs of the service area.

3. **Adequate service is not, or will not be, available to the area through the County or other existing municipal or quasi-municipal corporations, including existing special districts, within a reasonable time and on a comparable basis.**

   Staff Comment: In addition to the County, the other municipal and special district entity providing services within the District's boundary area is Franktown Fire Protection District. These entities are not able, or are unwilling, to provide all the services desired within a reasonable time or on a comparable basis.

4. **The facility and service standards of the proposed special district are compatible with the facility and service standards of each county within which the proposed special district is to be located and each municipality which is an interested party under section 31-1-204(1), C.R.S.**

   Staff Comment: All facilities will be constructed in accordance with the standards of the County and any other applicable local, state, or Federal rules and regulations.

5. **The proposal is in substantial compliance with a master plan adopted pursuant to section 30-28-106, C.R.S.**

Staff Comment: The service area of the District falls within the Franktown Rural Community of the CMP. The density of the proposed District is consistent with a density of 1 dwelling unit per 5 acres identified within the CMP, based on the standards of the Preliminary Plan approved in 2019. The CMP also outlines goals for the Franktown Rural Community that support maintaining Franktown's historically rural character and preserving existing vegetation. The proposed development, which will be served by the proposed District, supports these concepts by setting aside 50% open space to preserve existing vegetation and natural features on the site.

Goal 5-3 of the 2040 Comprehensive Master Plan promotes the sustainability of special districts, including ensuring that special districts are financially sound through the independent evaluation of all financing plans. The County works closely with a third-party consultant to evaluate the financial feasibility of all new special districts and special district amendments.

6. **The proposal is in compliance with any duly adopted county, regional, or state long-range water quality management plan for the area.**

   Staff Comment: Based on information provided by the applicant, the District is in compliance with Colorado's Water Quality Management Plan.

7. **The creation of the proposed special district will be in the best interests of the area proposed to be served.**

   Staff Comment: Based upon the level of services proposed for the area, and lack of service provision from existing service providers in the area, the District appears to be in the best interest of the area proposed to be served.

VII. STAFF ASSESSMENT

Should the Planning Commission find that the application meets the criteria found at C.R.S. § 32-1-203(2) & (2.5), the new service plan may be approved.

ATTACHMENTS **PAGE**

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Douglas County Staff Correspondence 177

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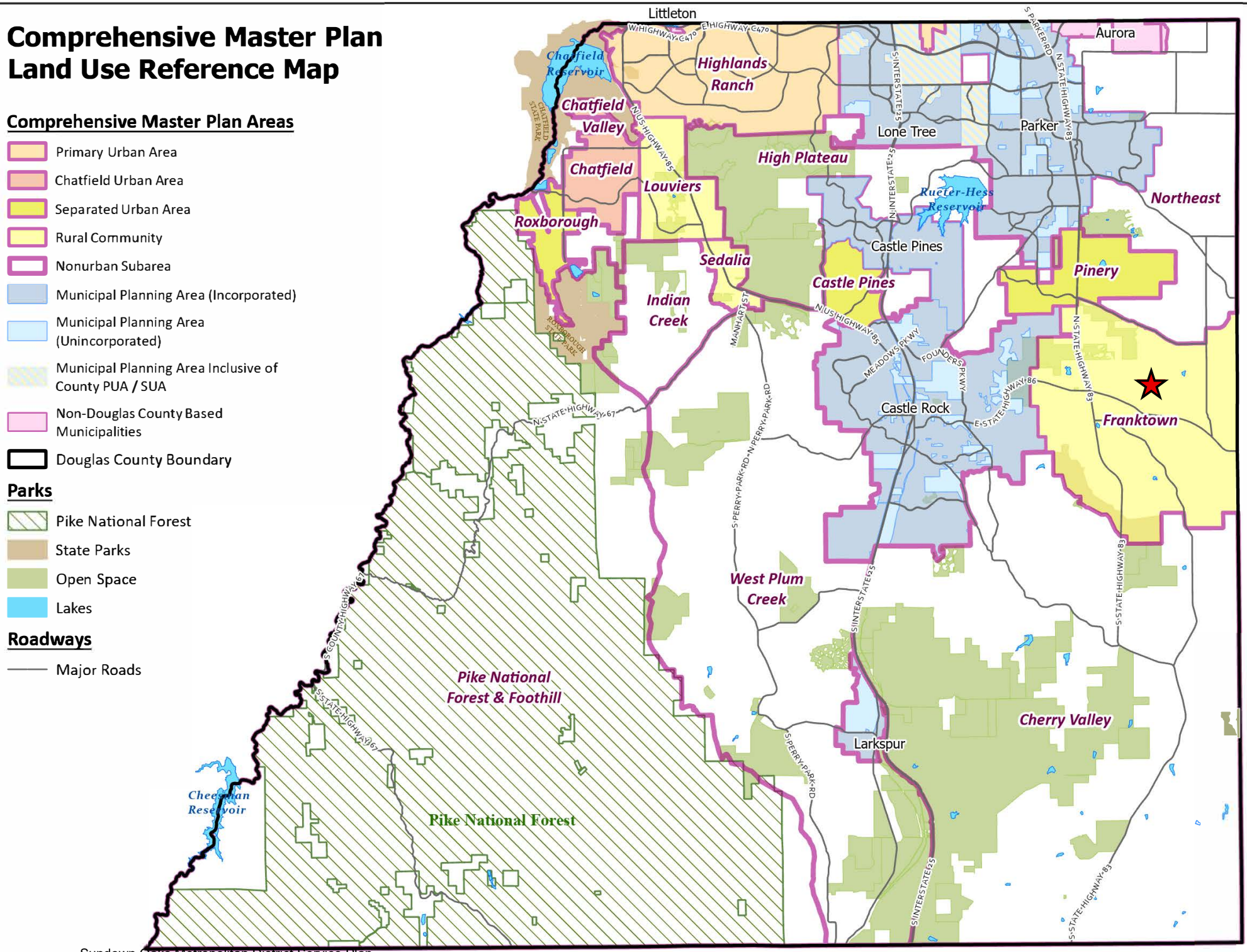
BBC Research and Consulting Review Letters 241
Public Comment 249

Comprehensive Master Plan Land Use Reference Map



Comprehensive Master Plan Areas

- Primary Urban Area
- Chatfield Urban Area
- Separated Urban Area
- Rural Community
- Nonurban Subarea
- Municipal Planning Area (Incorporated)
- Municipal Planning Area (Unincorporated)
- Municipal Planning Area Inclusive of County PUA / SUA
- Non-Douglas County Based Municipalities
- Douglas County Boundary

Parks

- Pike National Forest
- State Parks
- Open Space
- Lakes

Roadways

- Major Roads

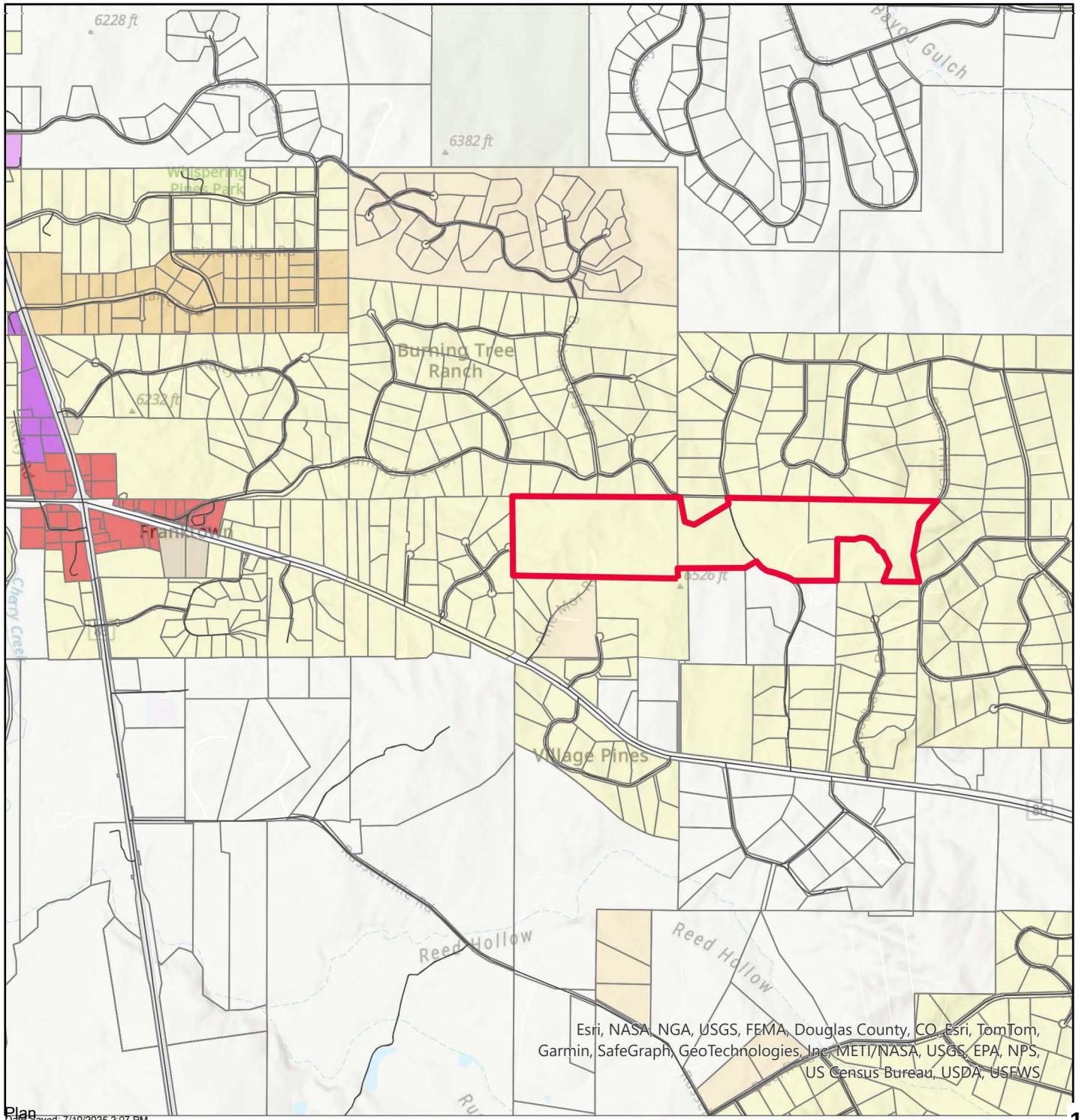
SUNDOWN OAKS METROPOLITAN DISTRICT

SV2025-005
ZONING MAP

N

LEGEND

- Roads
- Major Roads
- Parcels - PARCELS
- A1 - AGRICULTURAL ONE
- LRR - LARGE RURAL RESIDENTIAL
- RR - RURAL RESIDENTIAL
- ER - ESTATE RESIDENTIAL
- C - COMMERCIAL
- LI - LIGHT INDUSTRIAL
- GI - GENERAL INDUSTRIAL
- PD - PLANNED DEVELOPMENT



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DOUGLAS COUNTY
Department of Community Development
Planning Services
100 Third Street, Castle Rock, CO 80104
(303.660.7460)
www.douglas.co.us

SPECIAL DISTRICT SERVICE PLAN APPLICATION

PLEASE FILL OUT THIS APPLICATION FORM COMPLETELY

DISTRICT NAME: Sundown Oaks Metropolitan District

LOCATION: Intersection of Burning Tree Dr. and E. Tanglewood Rd.

LEGAL DESCRIPTION: (attach))

PLANNED DEVELOPMENT SUBDIVISIONNAME(S): Sundown Oaks

FILING#:

SECTION#: 1 6

TOWNSHIP: 8 South 8 South

RANGE: 66 West 65 West

PROPERTY TAX PARCEL #(s): PRESENT ZONING: Res./Vacant

2507-010-00-001 GROSS ACREAGE: 173

2509-060-00-040

2509-062-00-002

2509-061-00-001

PLANNING OFFICE USE ONLY

☐ NEW DISTRICT/PRESUBMITTAL ☐ MAJOR MODIFICATION

☑ NEW DISTRICT ☐ CONSOLIDATION

DATE COMPLETE APPLICATION SUBMITTED

COMPLETE

This service plan has been reviewed by the Douglas County Community Development Department and is considered complete for purposes of submittal to the County Clerk as a formal application for staff review and subsequent public hearings. This completeness finding is not an endorsement or approval of the service plan or special district.

Signed

PLANNER SIGNATURE Date 7/14/2025 DATE

FEE (if required) $500.00 PROJECT NO. SV2025-005

APPLICANT (Petitioner not Consultant)

NAME: Northstar Custom Homes

ADDRESS: 10226 Dransfeldt Road

Parker, CO 80134

PHONE: (303) 708-9100 FAX:

AUTHORIZED REPRESENTATIVE

NAME: Steve Gage

ADDRESS: 10226 Dransfeldt Road

Parker, CO 80134

PHONE: (303) 708-9100 FAX:

LEGAL CONSULTANT

NAME: Spencer Fane LLP; Nicole Peykov

ADDRESS: 1700 Lincoln Street, Suite 2000

Denver, CO 80203

PHONE: 303- 839-3715 FAX: 303-839-3838

FINANCIAL CONSULTANT

NAME: RBC Capital Markets, LLC Attn. Michael Persichitte

ADDRESS: 1801 California Street, Suite 3850; Denver, CO 80202

PHONE: 303-595-1292 FAX:

ENGINEERING CONSULTANT

NAME: Canyon Creek Engineering, Phil Geising

ADDRESS: PO Box 3072, Parker, CO 80134

PHONE: (303) 870-0953 FAX:

PROPERTY OWNER (Provide separate list if more than one owner)

NAME: Sundown Subdivision, LLC; Oak Bluff Subdivision LLC

ADDRESS: 609 W. Littleton Blvd., Suite 206

Littleton, CO 80120

PHONE: FAX:

To the best of my knowledge, the information contained on this application is true and accurate.

APPLICANT SIGNATURE 6/2/2025 DATE

SERVICE PLAN

FOR

SUNDOWN OAKS METROPOLITAN DISTRICT

DOUGLAS COUNTY, COLORADO

Prepared

by

Spencer Fane LLP
1700 Lincoln Street, Suite 2000
Denver, CO 80203

FORMAL SUBMITTAL: July 2, 2025

APPROVAL DATE: _____, 2025

APPROVAL SUMMARY

This Service Plan for the Sundown Oaks Metropolitan District was approved by the Douglas County Board of County Commissioners on (date). Resolution No. _____, approving this Service Plan, has been recorded at Reception No. _____ on (date). The organizational and TABOR elections took place on (date). The court decree organizing the District was recorded with the Douglas County Clerk and Recorder on (date) at Reception No. _____.

ORGANIZERS AND CONSULTANTS

This Service Plan has been prepared by the Organizers and the following participating consultants:

Organizer	District Counsel
NorthStar Custom Homes, Inc. Attn: Steven Gage 1128 Neptunite Place Castle Rock, CO 80108 Phone: 303-725-1466 Email: stevengage71@gmail.com	Spencer Fane LLP Attn: Nicole Peykov 1700 Lincoln Street, Suite 2000 Denver, CO 80203 Phone: 303-839-3800 Email: npeykov@spencerfane.com
Financial Advisor	Engineer
RBC Capital Markets, LLC Attn: Michael Persichitte 1801 California Street, Suite 3850 Denver, Colorado 80202 Phone: (303) 595-1292 E-mail: michael.persichitte@rbccm.com	Canyon Creek Engineering Attn: Phil Giesing, P.E. P.O. Box 3072 Parker, CO 80134 Phone: 303-805-1803 Email: phil@canyoncreekengineering.com

EXECUTIVE SUMMARY

This service plan is for the Sundown Oaks Metropolitan District (the "District"), which will serve the public improvement needs of Sundown Oaks. The District is generally located near the intersection of Burning Tree and East Tanglewood Road and contains approximately 173 acres. The District will include 37 residential units and 0 square feet of commercial space.

The District will have a single district structure. This structure will allow the District to control both financing and services.

The District shall be authorized to provide the following services: fire protection, mosquito control, parks and recreation, safety protection, sanitation, solid waste disposal facilities or collection and transportation of solid waste, street improvement, television relay and translation, and water and other services described in C.R.S. §§ 32-1-1001 and 1004, as amended, and subject to the limitations in this Service Plan.

The total authorized debt limit for the District shall be Ten Million Dollars ($10,000,000.00). The District anticipates the issuance of an initial series of bonds in the amount of Three Million Six Hundred and Twenty-Five Thousand Dollars ($3,625,000) in 2027. The initial debt service mill levy will be 50.000 mills, with a Maximum Debt Service Mill Levy of 50.000 mills. The initial operations and maintenance mill levy will be 10.000 mills, with a Maximum Operations and Maintenance Mill Levy of 20.000 mills. The combined initial mill levy for the District will be 60.000 mills, with a maximum combined mill levy of 70.000 mills.

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Exhibit B Legal Description

Exhibit C District Boundary Map

Exhibit D Cost of Improvements

Exhibit E Map of Improvements

Exhibit F Financial Plan

Exhibit G Resolution of Approval

Exhibit H Compliance with Section 18A, Water Supply – Overlay District

Exhibit I Compliance with Colorado's Water Quality Management Plan

Exhibit J Advance and Reimbursement Agreement

Exhibit K Intergovernmental Agreements

Exhibit L Annual Report Requirements

Exhibit M District Court Decree

I. INTRODUCTION

This service plan (the "Service Plan") for the Sundown Oaks Metropolitan District (the "District") is for a special district organized under Title 32 of the Colorado Revised Statutes to serve the public improvement needs of Sundown Oaks Development (the "Project"). The District is generally located near the intersection of Burning Tree Drive and East Tanglewood Road (see **Exhibit A**, Vicinity Map) and contains approximately 173 acres (see **Exhibits B & C**, Legal Description and District Boundary Map).

Pursuant to the requirements of the Special District Control Act, C.R.S. §32-1-201, *et seq.*, as amended, and the Special District Service Plan Review Procedures for Douglas County (the "County"), the following items are included in this Service Plan:

1. A description of the powers granted to and services to be provided by the District;
2. A general description of the facilities to be constructed and the standards of such construction, including a statement of how the facility and service standards of the District are compatible with facility and service standards of the County and of any municipalities and special districts which are interested parties;
3. A general written description of the estimated cost of acquiring land, engineering services, legal services, administrative services, initial indebtedness and estimated maximum interest rates and discounts, and other major expenses related to the organization and initial operation of the District;
4. A summary of general conditions regarding oversight of the District by the County;
5. A legal description and map of the District's boundaries and an estimate of the population and valuation for assessment of the District;
6. A summary of estimated costs for improvements to be financed and constructed by the District;
7. A preliminary engineering and architectural survey showing how the improvements and services are to be provided;
8. A financial plan showing how District improvements and services are to be financed, including the operating revenue for the first budget year of the District;
9. The resolution of approval adopted by the Board of County Commissioners;
10. Information demonstrating compliance with Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, and compliance with Colorado's Water Quality Management Plan;
11. A description of any advance and reimbursement agreements;
12. A description of any arrangement or agreement with any political subdivision for the performance of any services between the District and such other political subdivision; and
13. The recorded court decree organizing the District.

Exhibits A through **M,** attached hereto, are hereby incorporated into the Service Plan.

II. PURPOSE OF THE DISTRICT

The purpose of the District is to provide public improvements and services for the benefit of all anticipated inhabitants and taxpayers of the District, either within or without its boundaries. The District also serves to finance and oversee the construction of these public improvements and to provide for ongoing operations and maintenance services.

III. DISTRICT FRAMEWORK

The District will be organized under a single district structure and will be responsible for all aspects of financing and services authorized under this Service Plan.

IV. NEED FOR DISTRICT

There are currently no other governmental entities, including the County, located in the immediate vicinity of the District that consider it desirable, feasible, or practicable to undertake the planning, design, acquisition, construction, installation, relocation, redevelopment, financing, and ongoing operations of the public improvements needed for the Project. Formation of the District is therefore necessary in order for the public improvements and services required for the Project to be provided in the most economical manner possible.

V. LOCATION AND BOUNDARIES

The District is located near the intersection of Burning Tree Drive and East Tanglewood Road in Douglas County. A vicinity map is attached hereto as **Exhibit A**. The area of the initial District's boundary encompasses approximately 173 acres. A legal description of the District's boundaries is attached hereto as **Exhibit B**. A map of the initial District's boundaries is attached hereto as **Exhibit C**.

It is anticipated that the District's boundaries may change from time to time as it undergoes inclusions and exclusions pursuant to C.R.S. §§ 32-1-401, *et seq.*, and C.R.S. §§ 32-1-501, *et seq.*, as amended. Prior to any inclusions or exclusions, the District shall provide forty-five (45) days published notice and written notice to the Board of County Commissioners pursuant to C.R.S. § 32-1-207(3)(b). If, within such forty-five (45) day period, the Board of County Commissioners objects to the inclusion or exclusion, then the inclusion or exclusion shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

VI. ASSESSED VALUATION/PROJECTIONS/LAND USE/POPULATION

The property within the District is zoned vacant or Rural Residential. The current assessed value of property within the initial boundaries of the District is 0.00 as of the date of this Service Plan. The estimated assessed value at full build-out is Six Million Two Hundred and Five Thousand Six Hundred Fifty Three Dollars ($6,205,653) and is expected

to be sufficient to reasonably discharge the debt under the Financial Plan. Initially, the District will include 37 residential units and 0 square feet of commercial space. Based upon an estimated three (3) persons per residence, the population of the District at build-out will be One Hundred Eleven (111) residents.

Approval of this Service Plan by the County does not constitute nor imply approval of the development of a specific area within the District, nor does it constitute or imply approval of the number of residential units or the total site/floor area of commercial or industrial buildings identified in this Service Plan or any of the exhibits attached hereto, unless such land use plans have been approved by the Board of County Commissioners as part of a separate development review process.

VII. POWERS AND RESPONSIBILITIES

The District shall have the power and authority to provide the public improvements and related operation and maintenance services within and without the boundaries of the District as such power and authority is permitted by this Service Plan and described in the Special District Act, C.R.S. Title 32, and other applicable statutes, common law, and the Colorado Constitution, subject to the limitations set forth herein.

A. General Powers

The District shall have the authority to construct, operate, and maintain the services and facilities as described in Section VIII.A of this Service Plan.

B. Miscellaneous Powers

In addition to the powers enumerated above, the District's Board shall have the power and authority:

1. To amend this Service Plan as provided for in Section XV, Modification of Service Plan;

2. To forego, reschedule, or restructure the financing and construction of certain improvements and facilities in order to better accommodate the pace of growth, resource availability, and potential inclusions and exclusions of property within the District, with prior notice to the County in accordance with C.R.S. § 32-1-202(2)(b), as amended; and

3. To have and exercise all rights and powers necessary or incidental to, or implied from, the specific powers granted to the District in this Service Plan.

4. To have and exercise the power of eminent domain, but only as necessary to construct, install, access, relocate or redevelop the public improvements identified in this Service Plan in the locations shown in Exhibit E. Any other use of eminent domain shall require the District to provide forty-five (45) days published notice and written notice to the Board of County Commissioners pursuant to C.R.S. § 32-1-207(3)(b). If, within such

forty-five (45) day period, the Board of County Commissioners objects to the use of eminent domain, then it shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

VIII. DISTRICT SERVICES, FACILITIES, AND IMPROVEMENTS

A. Services and Facilities

The District shall have the authority pursuant to C.R.S. §§ 32-1-1001 and 32-1-1004, as amended, to provide the following services and public improvements described in this section.

1. Water

It is anticipated that each individual home within the Project will receive water service from its own groundwater well. The District, while not providing water services, shall have the power and authority to finance, design, construct, and install, potable water and irrigation water facilities and systems, including, but not limited to, water rights, water supply, treatment, storage, transmission, and distribution systems for domestic, irrigation, fire control, and other public purposes, together with all necessary and proper reservoirs, treatment facilities, wells, equipment, and appurtenances incident thereto, which may include, but shall not be limited to, transmission lines, pipes, distribution mains and laterals, storage facilities, and ditches, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto. The District shall have the power and authority to contract with other private or governmental entities to provide any or all of the services the District is authorized or empowered to provide.

2. Storm Sewer

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for flood and surface drainage improvements, including, but not limited to, culverts, dams, retaining walls, access way inlets, detention and retention ponds, paving, roadside swales, curbs and gutters, disposal works and facilities, water quality facilities, and all necessary and proper equipment, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto, all subject to the approval of Douglas County pursuant to Douglas County rules and regulations.

Stormwater improvements subject to Colorado Discharge Permit System Regulations, if applicable, shall be owned and maintained by the District or such other governmental entity that may accept dedication. Dedication to another governmental entity of stormwater improvements subject to such regulations shall be subject to approval by the County. In no event will the District dedicate such detention ponds or facilities to a private

homeowner's association, or other property owner's association, for operations or maintenance.

3. Sanitation and Wastewater Treatment

It is anticipated that each individual home within the Project will utilize its own on-site wastewater treatment system. Nonetheless, the District shall have the power and authority to finance, design, construct, acquire, install, assess tap or other facility fees, related to wastewater facilities and appurtenant facilities, land and easements, together with extensions and improvements thereto.

4. Street Improvements

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for arterial and collector streets and roadway improvements including, but not limited to, bridges, curbs, gutters, culverts, storm sewers and drainage facilities, detention and retention ponds, retaining walls and appurtenances, sidewalks, paving, lighting, grading, landscaping, streetscaping, placement of underground utilities, snow removal, tunnels, and other street improvements, and architectural enhancements to any or all of the above, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto, all subject to the approval of Douglas County pursuant to Douglas County rules and regulations.

5. Traffic Safety Protection

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for safety protection through traffic control devices and safety controls on streets, as well as such other facilities and improvements as are necessary or prudent, including, but not limited to, signalization at intersections, traffic signs, area identification signs, directional assistance and driver information signs, with all necessary and incidental and appurtenant facilities, and land and easements, together with extensions and improvements thereto. All traffic and safety control devices will be consistent with and in compliance with County rules and regulations.

6. Parks and Recreation

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for public park and public recreation centers and other recreation facilities, services, or programs including, but not limited to, grading, soil preparation, sprinkler systems, fencing, pavilions, playgrounds, playing fields, open space, bike trails, pedestrian trails, pedestrian bridges, picnic areas, common area landscaping, streetscaping, storage buildings and facilities, weed control, paving, decorative paving, outdoor functional and decorative lighting, community events, and other services, programs and facilities, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

7. Television Relay and Translation

The District shall have the power and authority to finance, design, construct, install, acquire, operate, and maintain television relay and translator facilities, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

8. Mosquito Control

The District shall have the power and authority to finance, design, construct, acquire, install, operate, maintain, and provide for systems and methods for elimination and control of mosquitoes.

9. Fire Protection

The District shall have the power and authority to finance, design, construct, acquire, install, operate, and provide for fire cisterns.

10. Covenant Enforcement and Design Review

The District shall have the power and authority to provide covenant enforcement and design review services subject to the limitations set forth in C.R.S. § 32-1-1004(8), as amended.

11. Security

The District shall have the power and authority to provide security services within the boundaries of the District, subject to the limitations set forth in C.R.S. § 32-1-1004(7), as amended. In no way is this power and authority intended to limit or supplant the responsibility and authority of local law enforcement (i.e., the Douglas County Sheriff's Department) within the boundaries of the District.

B. Estimated Costs and Phasing of Improvements

An estimate of the costs of the public improvements which may be planned for, designed, acquired, constructed, installed, relocated, redeveloped, maintained, or financed was prepared based upon a preliminary engineering survey on the property and is approximately Nine Million Fifty-Seven Thousand Five Hundred and Fifty-One Dollars ($9,057,551.00) as shown in **Exhibit D**. **Exhibit D** includes an engineer's opinion of costs in current dollars of each public improvement, together with an explanation of methods, basis, and/or assumptions used. All descriptions of the public improvements to be constructed, and their related costs, are estimates only and are subject to modification as engineering, development plans, economics, the County's requirements, and construction scheduling may require. The District will continue to develop and refine cost estimates contained herein and prepare for issuance of debt. Any increase in public improvement

costs greater than twenty percent (20%), but less than forty percent (40%), of the stated amount in **Exhibit D**, exclusive of any contingency shown in **Exhibit D,** shall require an administrative review by County staff. Any increase in public improvement costs in excess of forty percent (40%) of the stated amount in **Exhibit D**, exclusive of any contingency shown in **Exhibit D**, will constitute a material modification of the Service Plan and will require review by the County and action by the Board of County Commissioners in accordance with Section XIII. All construction cost estimates assume construction to applicable local, State, or Federal requirements.

Maps showing the preliminary location of the public improvements that the District is authorized to acquire or construct are attached hereto as **Exhibit E**. Phasing of construction shall be determined by the District to meet the needs of taxpayers within its boundaries. The District shall own, maintain, and replace public improvements constructed, installed, or acquired by the District or shall dedicate such public improvements to such other entity as shall accept dedication, subject to any limitations specified in this Service Plan.

In all instances, the District shall ensure that the public improvements are designed and constructed in accordance with the standards and specifications of the County or other such entity that may have authority over such design and construction. The District shall obtain approval of civil engineering and other plans and any applicable permits for the construction and installation of public improvements from the County and/or other appropriate regulatory agencies.

C. Services to be Provided by Other Governmental Entities

The Project is located within and fire protection services will be provided by the Franktown Fire Protection District.

D. Compliance with Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended

It is anticipated that each individual home within the Project will receive a water supply from its own groundwater well and will utilize its own on-site wastewater treatment system. It is anticipated that the District will construct an underground cistern for fire control purposes. The District has met the requirements of Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, as described in the Water Supply Plan in **Exhibit H**.

E. Compliance with Colorado's Clean Water Quality Management Plan

The Project will be served by individual septic sewer systems. Therefore, compliance with Colorado's Water Quality Management Plan is not applicable to this Project at this time.

IX. EXISTING AND PROPOSED AGREEMENTS

It is anticipated that the District may enter into an intergovernmental agreement with Franktown Fire Protection District.

X. FINANCIAL INFORMATION

A. General

This section describes the nature, basis, and method of funding and debt and mill levy limitations associated with the District's public improvements. A detailed Financial Plan and statement of assumptions is contained in **Exhibit F**.

B. Assumptions

The maximum debt limitation contained herein is based on the assumption that each of the 37 residential properties in the District will have an average value of approximately Two Million Two Hundred Thousand Dollars ($2,200,000). The Financial Plan demonstrates that the District has the ability to finance the public improvements identified herein, will be capable of discharging the indebtedness on a reasonable basis, and will operate on a sound fiscal basis.

C. Identification of District Revenue

The District will impose a mill levy on taxable property within its boundaries as a primary source of revenue for repayment of debt and for operations and maintenance. The District may also rely upon various other revenue sources authorized by law. At the District's discretion, these may include the power to assess fees, rates, tolls, penalties, or charges as provided for in C.R.S. § 32-1-1001(1), as amended.

A Maximum Total Mill Levy of 70.000 mills is authorized to support debt service and operations and maintenance of the District. The District may request an amendment to the Service Plan, in accordance with Section XIII, to eliminate mill levy caps when the debt to assessed value ratio falls below fifty percent (50%).

If, on or after January 1, 2026, there are changes in the method of calculating assessed valuation or any constitutionally mandated tax credit, cut, or abatement, the mill levy limitation applicable to such debt and operating and maintenance expenses may be increased or decreased to reflect such changes, such increases or decreases to be determined by the Board in good faith so that to the extent possible, the actual tax revenue generated by the mill levy are neither diminished nor enhanced as a result of such changes ("Mill Levy Adjustment"). For purposes of the foregoing, a change in the ratio of actual valuation and any constitutional or legislative changes in the actual value against which the assessment rate is applied shall be deemed to be a change in the method of calculating assessed valuation.

D. Debt Service Mill Levy

A maximum mill levy of 50.000 mills is authorized to support the debt service of the District, subject to the limitation of the Maximum Total Mill Levy. An initial debt service mill levy of 50.000 mills will produce revenue sufficient to support debt service costs through the bond repayment period (see **Exhibit F**, Financial Plan).

E. Maximum Debt Service Mill Levy Imposition Term

The District shall not impose a debt service mill levy which exceeds forty (40) years after the year of the initial imposition of such debt service mill levy unless (1) a majority of the Board of Directors of the District imposing the mill levy are residents of such District, and (2) such Board of Directors has voted in favor of issuing Debt with a term which requires or contemplates the imposition of a debt service mill levy for a longer period of time than the limitation contained herein.

F. Operations and Maintenance Mill Levy

A maximum mill levy of 20.000 mills is authorized to support the operations and maintenance of District services and public improvements, subject to the limitation of the Maximum Total Mill Levy. An initial operations and maintenance mill levy of 10.000 mills will produce revenue sufficient to support the operations and maintenance of District services and public improvements (see **Exhibit F**, Financial Plan).

G. District Expenditures

The estimated cost of public improvements for the District is Nine Million Fifty-Seven Thousand Five Hundred and Fifty-seven Dollars ($9,057,551.00). **Exhibit D** includes, in current dollars, the estimated cost of each public improvement, together with an explanation of the methods, basis, and/or assumptions used to establish such costs.

The District will require operating funds to plan and cause the public improvements contemplated herein to be constructed, operated, and maintained as permitted herein. Such costs are expected to include reimbursement of organizational costs, legal, engineering, accounting, bond issuance costs, and compliance with State budgeting, audit, and reporting, and other administrative and legal requirements. The organizational costs for the District for legal, engineering, surveying, and accounting services are estimated to be Seventy Five Thousand Dollars ($75,000). The first year's operating budget is estimated to be Fifty Thousand Dollars ($50,000).

H. Debt

1. Debt Limitation

The total debt limit for the District is Ten Million Dollars ($10,000,000), inclusive of costs of issuance, inflation, and other similar costs. For purposes of this

Service Plan, debt shall be considered any outstanding bonds, notes, contracts, or other financial obligations of the District payable in whole or in part from *ad valorem* taxes or other revenues of the District for the purposes of financing, acquiring, constructing, or improving any of the public improvements contemplated herein. The debt limit shall not be increased unless approved by the County and as permitted by statute and the Colorado Constitution. Any change in debt limit shall be considered a material modification of the Service Plan, subject to the provisions of Section XIII of this Service Plan. The maximum term of any bond issue, including refunding and refinancing, shall be thirty (30) years from the original date of issuance.

2. Maximum Voted Interest Rate and Maximum Underwriting Discount

The interest rate on any debt is limited to the market rate at the time debt is issued. In the event of a default, the maximum voted interest rate on any debt shall not exceed twelve percent (12%). The maximum underwriting discount shall be five percent (5%). Debt, when issued, shall comply with all relevant requirements of this Service Plan, State law, and Federal law as is then applicable to the issuance of public securities.

XI. DEVELOPER ADVANCES AND REIMBURSEMENTS

The District anticipates receiving initial funding for both capital and ongoing administrative requirements from developer advances. Such advances may be made to the District subject to the District's obligation to reimburse the same, as may be evidenced by short-term reimbursement agreements or other acceptable agreements or resolutions. The interest rate on developer reimbursements shall not exceed the current Bond Buyer 20-Bond GO Index plus four percent (4%).

Such advances, which the Board is obligated to appropriate on an annual basis, shall count against the maximum allowable debt limit under this Service Plan and may be repaid by the District from bond proceeds or other legally available sources of revenue. Developer advances shall be subordinate to the District general obligation bonds and refinancing of the same shall not require County approval. Any amount of outstanding principal and accrued interest on such developer advances that remains unpaid as of the expiration of the Maximum Debt Service Mill Levy Imposition Term shall be deemed to be forever discharged and satisfied in full. The total developer advances are anticipated to be approximately Nine Million Dollars ($9,000,000.00). Developer contributions, which will not be repaid by the District, are anticipated to be approximately Five Million Dollars ($5,000,000.00).

XII. ANNUAL REPORT

The District shall be responsible for submitting an annual report to the County no later than August 1 of each year in accordance with the procedures set forth in C.R.S. § 32-1-207(3)(c) and (d), as amended. The annual report shall conform to the format attached hereto as **Exhibit L**, or in a format agreed to by the County.

XIII. MODIFICATION OF SERVICE PLAN

Pursuant to C.R.S. § 32-1-207, as amended, the District shall obtain prior written approval of the County before making any material modification to this Service Plan. Material modifications require a Service Plan amendment and include modifications of a basic or essential nature, including, but not limited to, the following: any addition to the types of services provided by the District; a decrease in the level of services; a decrease in the financial ability of the District to discharge the existing or proposed indebtedness; or a decrease in the existing or projected need for organized service in the area. Inclusion of property that is located in a county or municipality with no other territory within the District may constitute a material modification of the Service Plan.

In the event the District plans to undertake an action which may not be permitted by this Service Plan, it shall be the District's responsibility to contact County staff to seek an administrative determination as to whether the action in question is permitted by the Service Plan. If County staff determines that the action may constitute a material modification, the District shall submit a proposal for action to the Board of County Commissioners. Thereafter, the Board of County Commissioners will determine whether the proposed action constitutes a material modification. If the Board of County Commissioners determines that the proposed action constitutes a material modification, then the action shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

XIV. DISCLOSURE STATEMENT

The District shall provide notice to all purchasers of property in the District regarding the District's authority to levy and collect *ad valorem* taxes and to impose and collect rates, fees, tolls, and charges, by recording a disclosure statement against the property within the District with the Office of the Douglas County Clerk and Recorder. Such disclosure statement shall also provide information concerning the structure of the Board and summarize how purchasers may participate in the affairs of the Board. The disclosure statement shall be recorded within thirty (30) days following the recordation of the court decree organizing the District.

XV. DISSOLUTION

It shall be mandatory for the District to initiate dissolution proceedings when the District has neither any financial obligations nor operations and maintenance obligations. The District may file a petition in the district court for dissolution when there are no financial obligations or outstanding bonds, or any such financial obligations or outstanding bonds are adequately secured by escrow funds or securities meeting the investment requirements in C.R.S. §§ 24-75-601, *et seq.,* as amended. The District's dissolution shall be subject to approval of a plan of dissolution in the district court of the County, pursuant to C.R.S. § 32-1-704, as amended.

XVI. DEFINITIONS

In this Service Plan, the following terms shall have the meanings indicated below, unless the context hereof clearly requires otherwise:

Board: the board of directors of the District

Board of County Commissioners: the Board of County Commissioners of Douglas County, Colorado

Control Act: Part 2 of Title 32 (Special Districts) of the Colorado Revised Statutes (C.R.S.), which outlines review procedures for service plans for a special district

County: Douglas County, Colorado

Debt: any bond, note debenture, contract, or other multiple-year financial obligation of a District

Developer: the owner of the property proposing development of the project

District: the Sundown Oaks Metropolitan District

District Boundaries: the boundaries of the area described in the legal description attached hereto as **Exhibit B**

District Boundary Map: the map attached hereto as **Exhibit C**, showing the District's boundaries

Financial Plan: the Financial Plan described in Section X and attached as **Exhibit F**, which describes: (a) how the public improvements are to be financed; (b) how the debt is expected to be incurred; and (c) the estimated operating revenue derived from property taxes for the first budget year.

General Obligation Bond: bonds or other obligations for the payment of which the District has promised to impose an *ad valorem* property tax mill levy

Maximum Debt Service Mill Levy: the maximum mill levy the District is permitted to impose for payment of debt as set forth in Section X.D

Maximum Debt Service Mill Levy Imposition Term: the maximum number of years the District is authorized to have a debt service mill levy in place, as set forth in Section X.E. below

Maximum Operations and Maintenance Mill Levy: the maximum mill levy the District is permitted to impose for the payment of operating and maintenance expenses as set forth in Section X.E

Maximum Total Mill Levy: the maximum mill levy the District is permitted to impose for the payment of debt as set forth in Section X.D. and operating and maintenance expenses as set forth in Section X.E

Project: the development or property commonly referred to as Sundown Oaks

Public Improvements: the improvements authorized to be planned, designed, acquired, constructed, installed, relocated, redeveloped, and financed as generally described in the Special District Act to serve the future taxpayers and inhabitants of the District as determined by the Board of the District

Revenue Bond: bonds issued by the District to finance a specific project, the income from which will be used for repaying the bond

Service Plan: the service plan for the District approved by the Board of County Commissioners

Special District Act: C.R.S. § 32-1-101, *et seq.*, as amended

State: the State of Colorado

XVII. RESOLUTION OF APPROVAL

The District incorporates the Board of County Commissioner's resolution approving this Service Plan into this Service Plan to be presented to the district court attached hereto as **Exhibit G**.

XVIII. STATUTORY FINDINGS AND CONCLUSIONS

It is submitted that this Service Plan for the District, as required by C.R.S. § 32-1-203, as amended, establishes that:

1. There is sufficient existing and projected need for organized service in the area to be served by the District;

The purpose of the District is to finance and construct certain public improvements and to provide other additional services necessary to support the Sundown Oaks development. The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the community through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

2. The existing service in the area to be served by the District is inadequate for present and projected needs;

The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the community through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

3. The District is capable of providing economical and sufficient service to the area within its boundaries;

The formation of the District will ensure that the public improvements and other services are sufficient and constructed within a reasonable period of time for the benefit of the property owners located in the community.

4. The area to be included in the District has, or will have, the financial ability to discharge the indebtedness on a reasonable basis.

The estimated costs of the improvements and facilities to be constructed, installed and/or acquired by the District are set forth in this Service Plan. The Financial Plan describes the anticipated issuance of debt and repayment based on the projected development within the District boundaries. The Financial Plan demonstrates the District's ability to finance the facilities identified in this Service Plan and capability of discharging the proposed indebtedness on a reasonable basis.

5. Adequate service is not, or will not be, available to the area through the County or other existing municipal or quasi-municipal corporations, including existing special districts, within a reasonable time and on a comparable basis;

The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the area through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

6. The facility and service standards of the District are compatible with the facility and service standards of each county within which the District is to be located and each municipality which is an interested party under C.R.S. § 32-1-204(1), as amended;

As stated elsewhere in this Service Plan, all facilities and services proposed will be constructed in accordance with the standards and specifications of Douglas County, the State of Colorado, and any other appropriate jurisdictions.

7. The proposal is in substantial compliance with the Douglas County Comprehensive Master Plan, as amended, adopted pursuant to C.R.S. § 30-28-106, as amended;

The Developer has reviewed the County's Comprehensive Master Plan and is aware of the County's desire to reflect, acknowledge and balance the common values, rights, and needs of all County residents and landowners, and its desire to honor and protect the unique, diverse communities and resources within the County. It is the Developer's belief that the proposal is compatible with the community vision for the future and complies with the policies necessary to achieve sustainable growth within the County as expressed in the Comprehensive Master Plan.

8. The proposal is in compliance with Colorado's Water Quality Management Plan, as amended; and

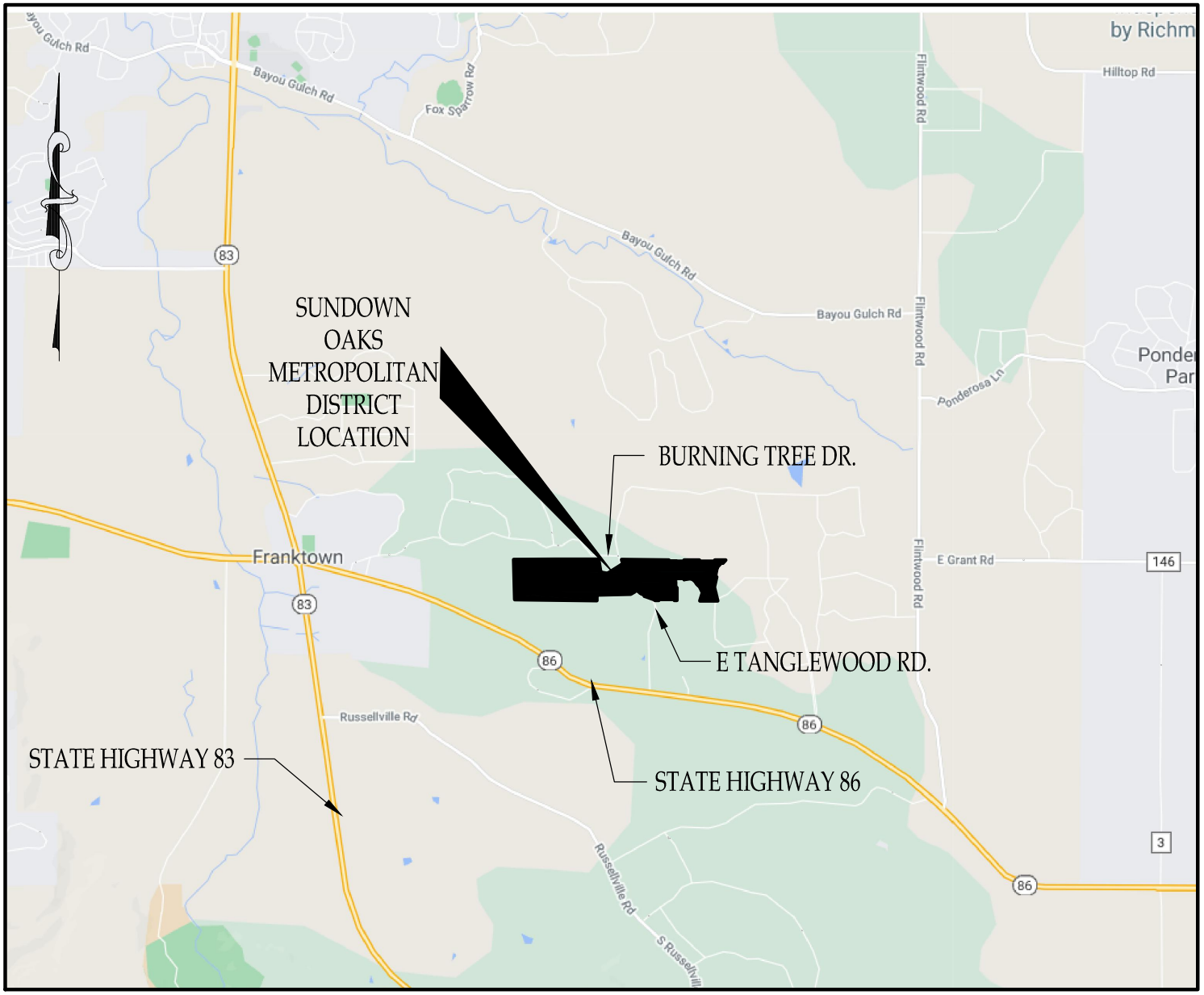
Each individual home and homeowner within the Project will be responsible for its own on-site wastewater treatment system.

9. The creation of the District will be in the best interests of the area to be served.

As described throughout this Service Plan, the proposed improvements and services necessary to serve the Project are not, and in good faith based upon information and belief, will not be available to the area through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis. The formation of the District will ensure that the public improvements and other services are sufficient and constructed within a reasonable period of time for the benefit of the property owners located in the community.

Exhibit A
Vicinity Map

SUNDOWN OAKS METROPOLITAN DISTRICT
VICINITY MAP



SCALE: 1" = 5000'

SECTIONS-1&6 TOWNSHIP-8 S RANGES-65&66 W

Exhibit B
Legal Description

DAVID E. ARCHER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS & ENGINEERS
105 Wilcox Street * Castle Rock, CO 80104
PHONE (303) 688-4642 * FAX (303) 688-4675 * karcher@davidearcher.com

Job No. 21-1638
August 16, 2021

PROPERTY DESCRIPTION:

A tract of land situated in the Northeast ¼ of Section 1, Township 8 South, Range 66 West and in the North ½ of Section 6, Township 8 South, Range 65 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the Northwest corner of the Northeast ¼ of Section 6 and considering the North line of said Northeast ¼ to bear S 89°29'42"E with all bearings contained herein relative thereto;
Thence S 89°29'42"E along said North line a distance of 1567.21 feet;
Thence S 42°22'33"W a distance of 350.63 feet;
Thence S 12°44'04"W a distance of 633.61 feet;
Thence S 13°28'32"E a distance of 450.11 feet;
Thence N 89°29'09"W a distance of 576.25 feet;
Thence N 18°19'51"E a distance of 278.59 feet;
Thence N 25°22'25"W a distance of 232.32 feet;
Thence Northwesterly along the arc of a curve to the right a distance of 140.13 feet, said curve has a radius of 199.00 feet, a central angle of 40°20'47" and a chord that bears N 47°22'57"W a distance of 137.25 feet to a point of tangent;
Thence N 27°12'34"W along said tangent a distance of 25.30 feet to a point of curve;
Thence Westerly along the arc of a curve to the left a distance of 290.99 feet, said curve has a radius of 230.00 feet and a central angle of 72°29'20" to a point of tangent;
Thence S 80°19'56"W along said tangent a distance of 119.06 feet to a point of curve;
Thence Westerly along the arc of a curve to the right a distance of 16.64 feet, said curve has a radius of 500.00 feet and a central angle of 01°54'26";
Thence N 88°53'53"W a distance of 230.46 feet to the East line of the Northwest ¼ of Section 6;
Thence S 01°06'41"W along said East line a distance of 674.50 feet;
Thence N 88°49'13"W a distance of 716.83 feet;
Thence Northwesterly along the arc of a curve to the left a distance of 75.70 feet, said curve has a radius of 311.60 feet, a central angle of 13°55'11" and a chord that bears N 62°10'55"W a distance of 75.52 feet to a point of curve;
Thence Northwesterly along the arc of a curve to the left a distance of 219.63 feet, said curve has a radius of 4169.13 feet and a central angle of 03°01'06" to a point of tangent;
Thence N 72°09'37"W along said tangent a distance of 112.92 feet to a point of curve;

PROPERTY DESCRIPTION (continued)

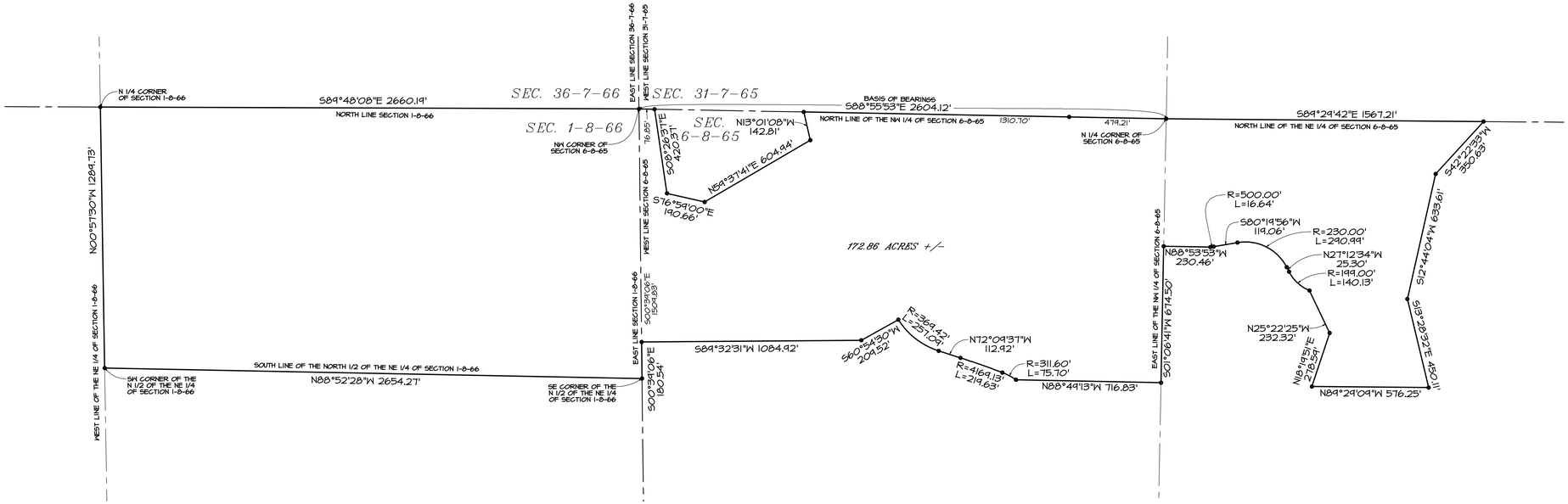
Thence Northwesterly along the arc of a curve to the right a distance of 257.09 feet, said curve has a radius of 369.42 feet and a central angle of 39°52'28";
Thence S 60°54'30"W a distance of 209.52 feet;
Thence S 89°32'31"W a distance of 1084.92 feet to the East line of the North ½ of the Northeast ¼ of Section 1;
Thence S 00°39'06"E a distance of 180.54 feet to the Southeast corner of said North ½ of the Northeast ¼;
Thence N 88°52'28"W a distance of 2654.27 feet to the Southwest corner of said North ½ of the Northeast ¼;
Thence N 00°57'30"W a distance of 1289.73 feet to the Northwest corner of said North ½ of the Northeast ¼;
Thence S 89°48'08"E a distance of 2660.19 feet to the Northeast corner of said North ½ of the Northeast ¼;
Thence S 88°55'53"E along the North line of the Northwest ¼ of Section 6 a distance of 76.85 feet;
Thence S 08°26'37"E a distance of 420.37 feet;
Thence S 76°59'00"E a distance of 190.66 feet;
Thence N 59°37'41"E a distance of 604.94 feet;
Thence N 13°01'08"W a distance of 142.81 feet to the North line of the Northwest ¼ of Section 6;
Thence S 88°55'53"E a distance of 1789.91 feet to the Point of Beginning.

Containing a total of 172.86 acres, more or less.
This description was prepared under the direct supervision of Johnny Calvin Hicks, PLS36570 for and on behalf of David E. Archer and associates, Inc.

Exhibit C
District Boundary Map

SUNDOWN OAKS METRO DISTRICT BOUNDARY

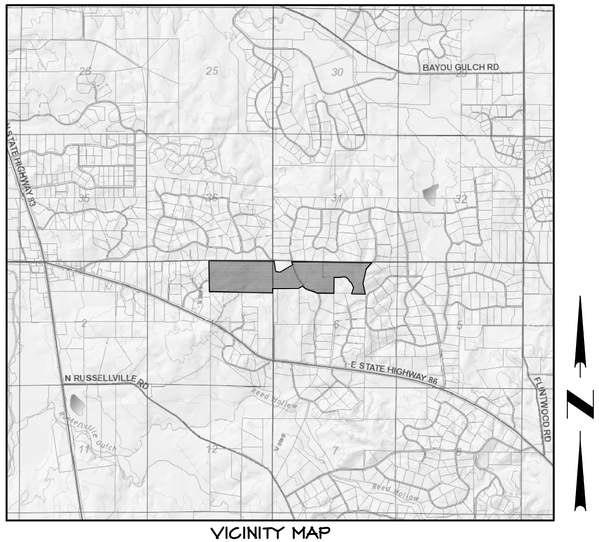
In Section 1, Township 8 South, Range 66 West, and In Section 6, Township 8 South, Range 65 West, 6th P.M., Douglas County, Colorado



PROPERTY DESCRIPTION:

A tract of land situated in the Northeast 1/4 of Section 1, Township 8 South, Range 66 West and in the North 1/2 of Section 6, Township 8 South, Range 65 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the Northwest corner of the Northeast 1/4 of Section 6 and considering the North line of said Northeast 1/4 to bear S 89°29'42"E with all bearings contained herein relative thereto;
Thence S 89°29'42"E along said North line a distance of 1567.21 feet;
Thence S 42°22'33"W a distance of 350.63 feet;
Thence S 12°44'04"W a distance of 633.61 feet;
Thence S 13°28'32"E a distance of 450.11 feet;
Thence N 89°29'09"W a distance of 576.25 feet;
Thence N 18°19'51"E a distance of 278.59 feet;
Thence N 25°22'25"W a distance of 232.32 feet;
Thence Northwesterly along the arc of a curve to the right a distance of 140.13 feet, said curve has a radius of 199.00 feet, a central angle of 40°20'47" and a chord that bears N 47°22'57"W a distance of 137.25 feet to a point of tangent;
Thence N 27°12'34"W along said tangent a distance of 25.30 feet to a point of curve;
Thence Westerly along the arc of a curve to the left a distance of 290.99 feet, said curve has a radius of 230.00 feet and a central angle of 72°29'20" to a point of tangent;
Thence S 80°19'56"W along said tangent a distance of 119.06 feet to a point of curve;
Thence Westerly along the arc of a curve to the right a distance of 16.64 feet, said curve has a radius of 500.00 feet and a central angle of 01°54'26";
Thence N 88°53'53"W a distance of 230.46 feet to the East line of the Northwest 1/4 of Section 6;
Thence S 01°06'41"W along said East line a distance of 674.50 feet;
Thence N 88°49'13"W a distance of 716.83 feet;
Thence Northwesterly along the arc of a curve to the left a distance of 75.70 feet, said curve has a radius of 311.60 feet, a central angle of 13°55'11" and a chord that bears N 62°10'55"W a distance of 75.52 feet to a point of curve;
Thence Northwesterly along the arc of a curve to the left a distance of 219.63 feet, said curve has a radius of 4169.13 feet and a central angle of 03°01'06" to a point of tangent;
Thence N 72°09'37"W along said tangent a distance of 112.92 feet to a point of curve;
Thence Northwesterly along the arc of a curve to the right a distance of 257.09 feet, said curve has a radius of 369.42 feet and a central angle of 39°52'28";
Thence S 60°54'30"W a distance of 209.52 feet;
Thence S 89°32'31"W a distance of 1084.92 feet to the East line of the North 1/2 of the Northeast 1/4 of Section 1;
Thence S 00°39'06"E a distance of 180.54 feet to the Southeast corner of said North 1/2 of the Northeast 1/4;
Thence N 88°52'28"W a distance of 2654.27 feet to the Southwest corner of said North 1/2 of the Northeast 1/4;
Thence N 00°57'30"W a distance of 1289.73 feet to the Northwest corner of said North 1/2 of the Northeast 1/4;
Thence S 89°48'08"E a distance of 2660.19 feet to the Northeast corner of said North 1/2 of the Northeast 1/4;
Thence S 88°55'53"E along the North line of the Northwest 1/4 of Section 6 a distance of 76.85 feet;
Thence S 08°26'37"E a distance of 420.37 feet;
Thence S 76°59'00"E a distance of 190.66 feet;
Thence N 59°37'41"E a distance of 604.94 feet;
Thence N 13°01'08"W a distance of 142.81 feet to the North line of the Northwest 1/4 of Section 6;
Thence S 88°55'53"E a distance of 1789.91 feet to the Point of Beginning.

Containing a total of 172.86 acres, more or less.
This description was prepared under the direct supervision of Johnny Calvin Hicks, PLS36570 for and on behalf of David E. Archer and associates, Inc.



VICINITY MAP

GRAPHIC SCALE 1"=3000'

0 3000 6000 9000

BASIS OF BEARINGS
Bearings are deeded and based on the consideration that the North line of the NW 1/4 of Section 6 bears N88°55'53"W as shown hereon between the identified monuments.

GRAPHIC SCALE 1"=300'

0 300 600 900

All measurements shown hereon are U.S. Survey Feet.

Conflicting boundary evidence is as shown.

REVISIONS

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4642
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE 1"=300'
DATE 08-16-2021
DRN. NDS CKD.
APVD.

TITLE SUNDOWN OAKS METRO DISTRICT BOUNDARY
In Sec. 1, Township 8 South, Range 66 West, and In Sec. 6, Township 8 South, Range 65 West, 6th P.M., Douglas County, Colorado.
CLIENT Sundown Oaks Metro District
JOB NUMBER 21-1638
Sheet 1 of 1

Plotted: Aug 25, 2025 @ 08:55:50 AM
G:\Drawings\2021\21-1638\Metro District\Sundown Oaks Metro District Boundary.pro

Exhibit D
Cost of Improvements

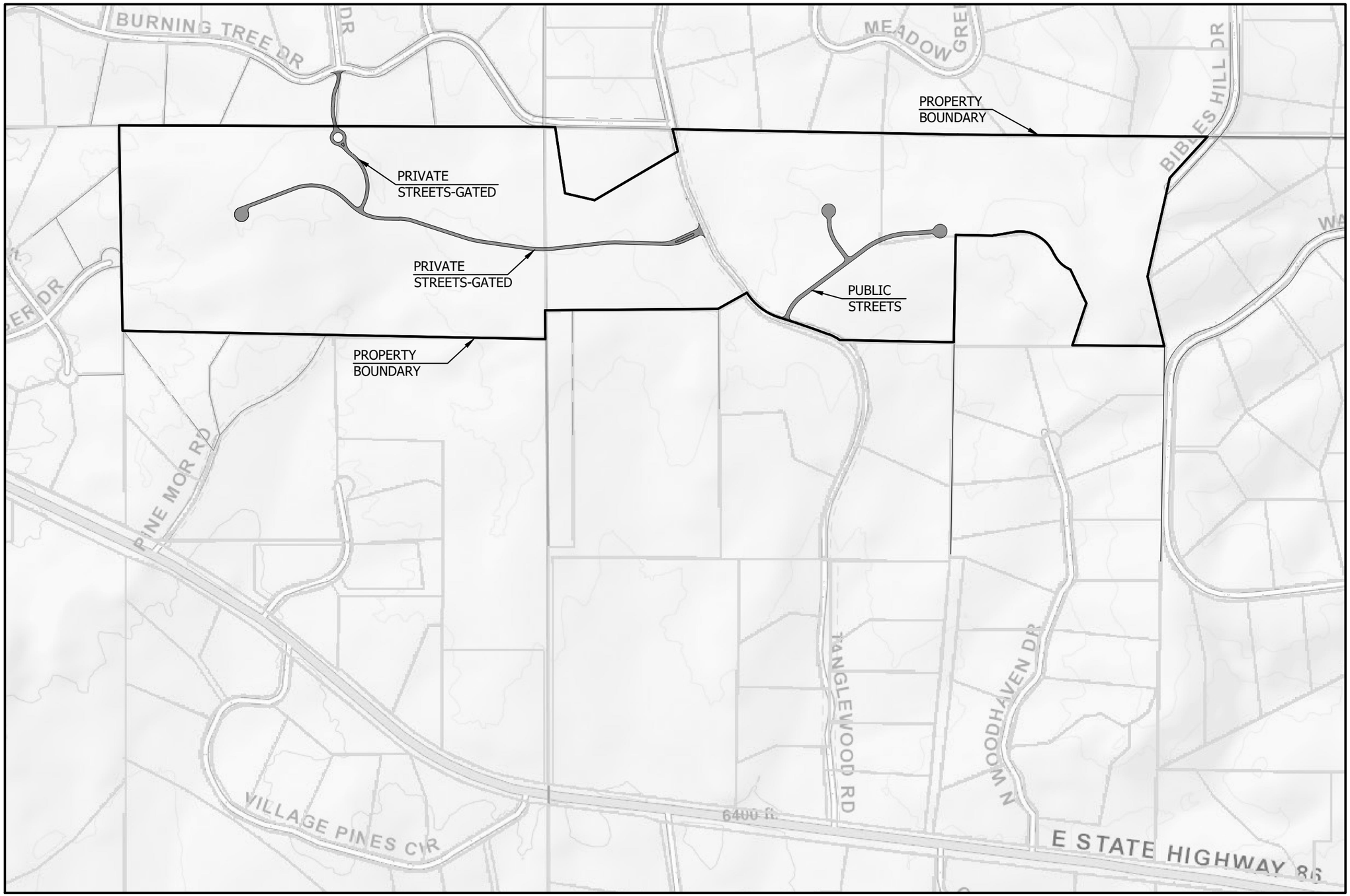
Cost Estimate Sundown Oaks Metro District		West Side (Oak Bluffs)	East Side (Sundown)
Mobilization		30,000.00	21,000.00
Surveying/Engineering		105,000.00	85,000.00
Permits/Bonds		80,000.00	60,000.00
Supervision		180,000.00	160,000.00
Erosion Control		90,000.00	66,000.00
Demo		78,000.00	60,300.00
	Hardscapes at tie in to Tanglewood		
	Tree and Brush Mitigation		
	Wood and wire fencing		
Earthwork & Paving		570,000.00	438,500.00
	Cuts & Fills		
	Rough cut and gutter prep		
	Rough prep for paving		
	4' wide trail system		
	10' pond road D and H		
	Shape ponds A, D and H		
	Curb and Gutter	144,000.00	98,000.00
	Asphalt Paving install (6" AC over *" ABC)(includes scarify, moisture, base under curb)	555,000.00	373,000.00
Storm System		1,166,000.00	719,500.00
	36" RCP		
	24" RCP		
	24" FES (2)		
	18" RCP		
	18" FES (8)		
	5' Storm manhole (3)		
	15' Type R		

	5' Type R (2)		
	Type C		
	Forebay (3)		
	Trickle Channels		
	Outlet Structure (3)		
	Riprap installations		
Entry Gate Assembly		160,000.00	155,000.00
	Pillars, Cementm Stone, Wall		
	Gates and motors		
	Electrical Connections		
	Spillway Wall		
Landscaping		94,000.00	82,000.00
Hardscaping		26,000.00	21,000.00
Tree Mitigation for Fire		185,000.00	125,000.00
CDOT Left Turn Lane			
	Mobilization	12,000.00	12,000.00
	Erosion Control	27,000.00	27,000.00
	Earthwork & Paving	898,000.50	898,000.50
	Surveying		
	Potholing		
	Traffic Control		
	Demo Paving		
	Demo Trees		
	Cuts and Fills		
	Import Fill		
	Over X existing subgrade for new shoulder paving 2"		
	Shoulder Paving		
	Shoulder Topsoil		
	Road signs and delineator post remove and reinstall existing		
	Striping		

Temporary driveway protections			
Contingency		722,250.00	534,000.00
SUBTOTAL EACH SUBDIVISION		5,122,250.50	3,935,300.50
TOTAL FOR 37 LOTS BOTH SUBDIVISIONS	9,057,551.00		

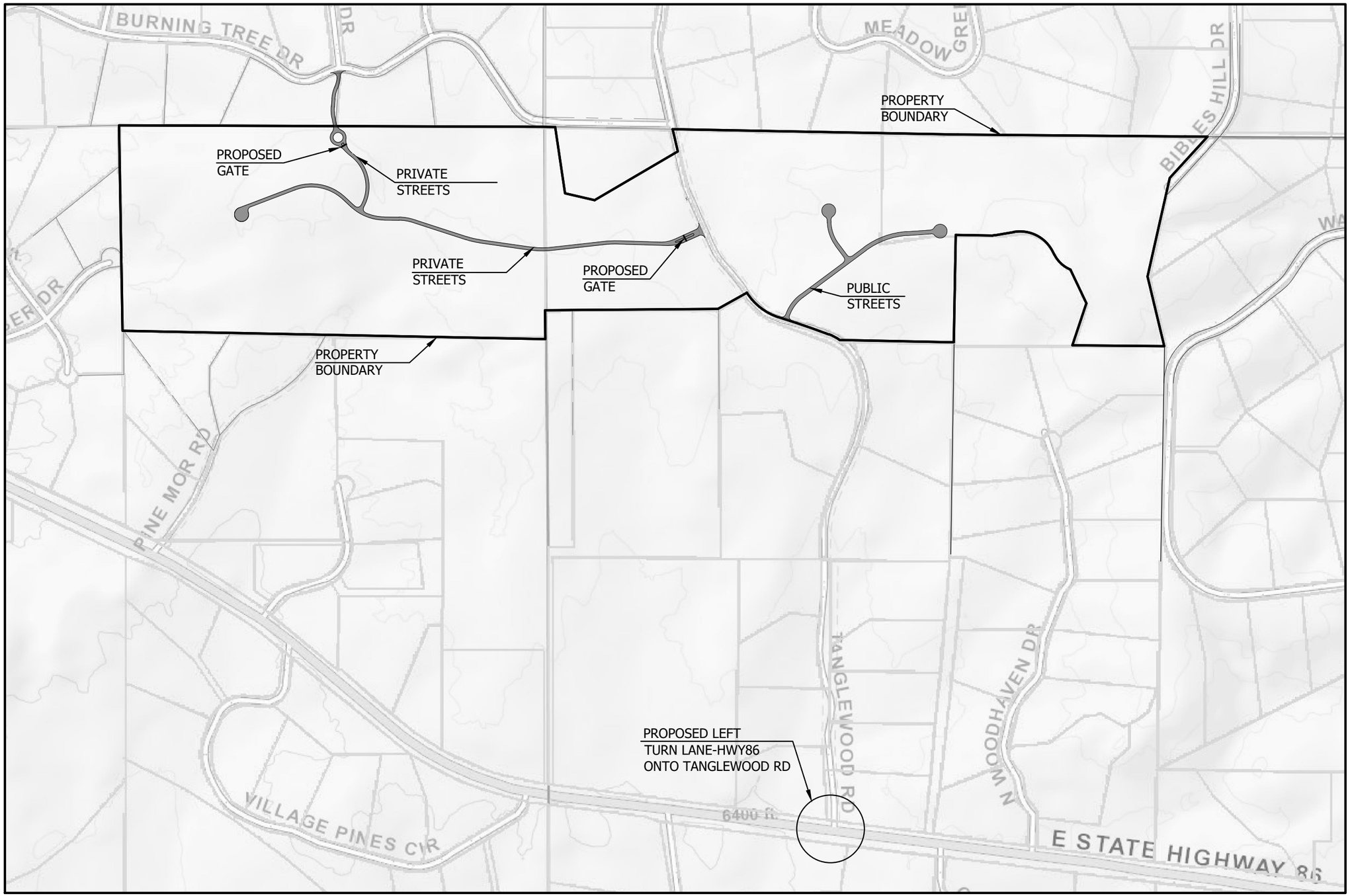
Exhibit E
Map of Improvements

SCALE:
1" = 600'



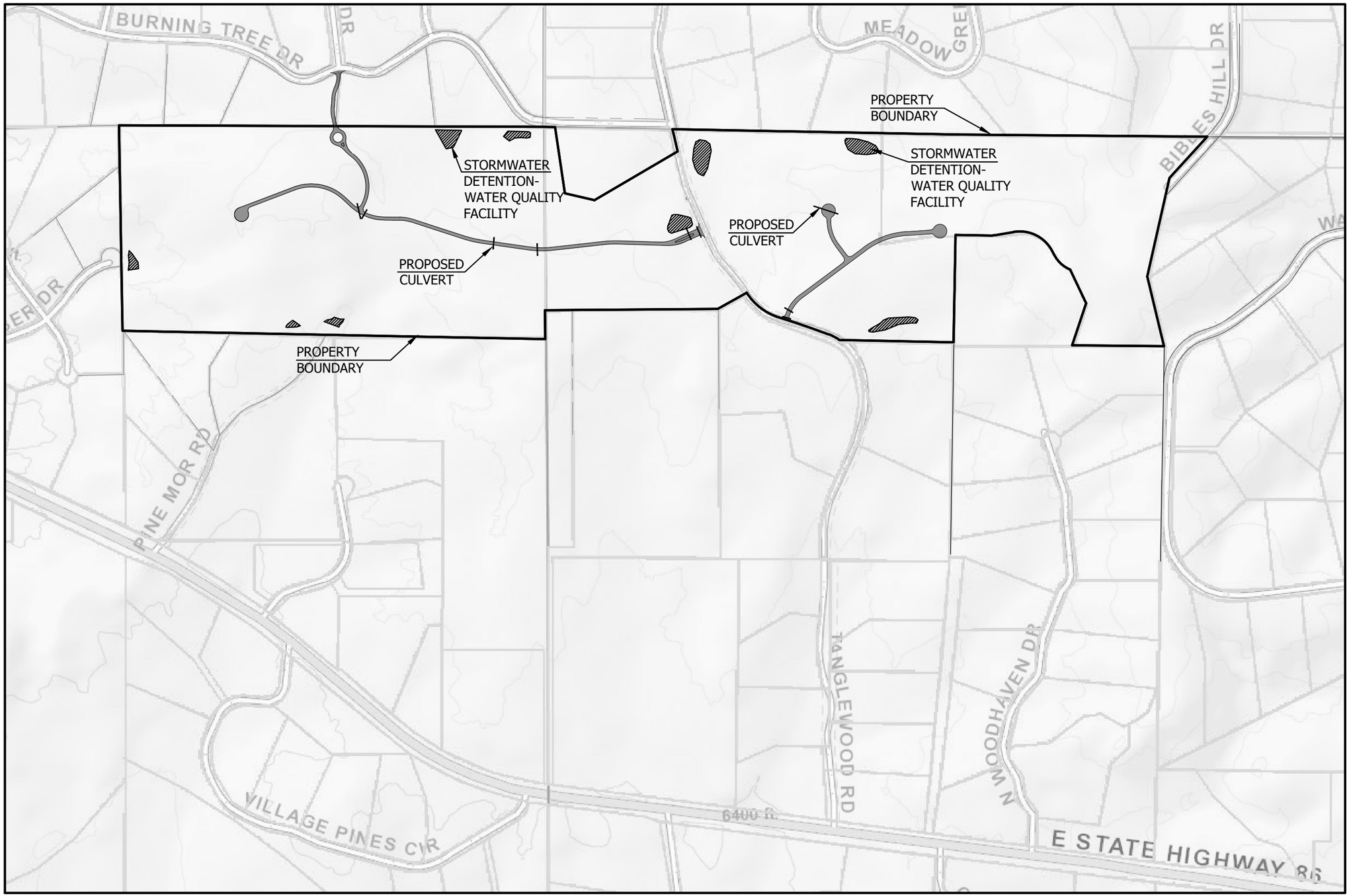
SERVICE PLAN EXHIBIT - STREETS

SCALE:
1" = 600'



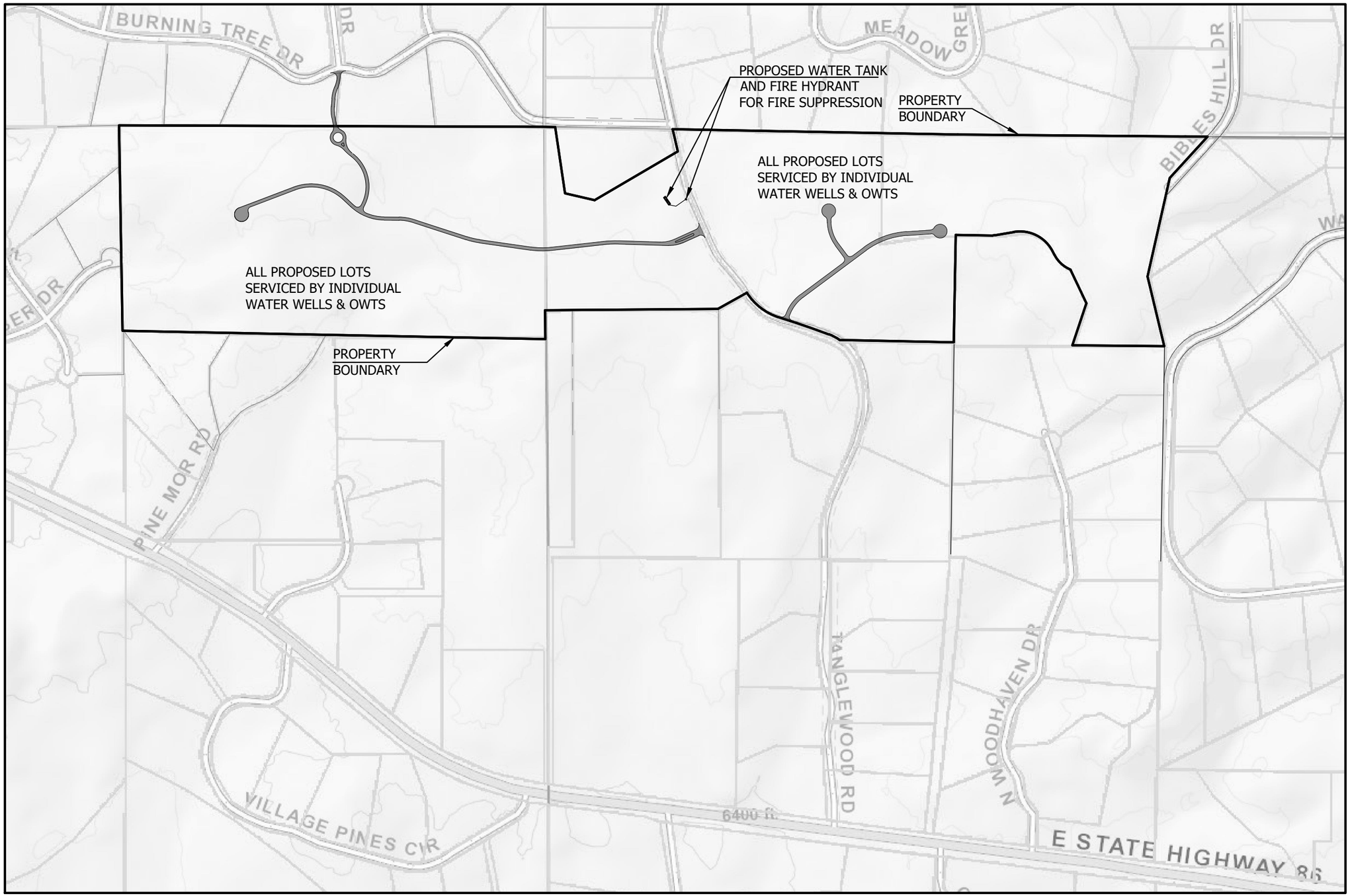
SERVICE PLAN EXHIBIT - TRAFFIC

SCALE:
1" = 600'



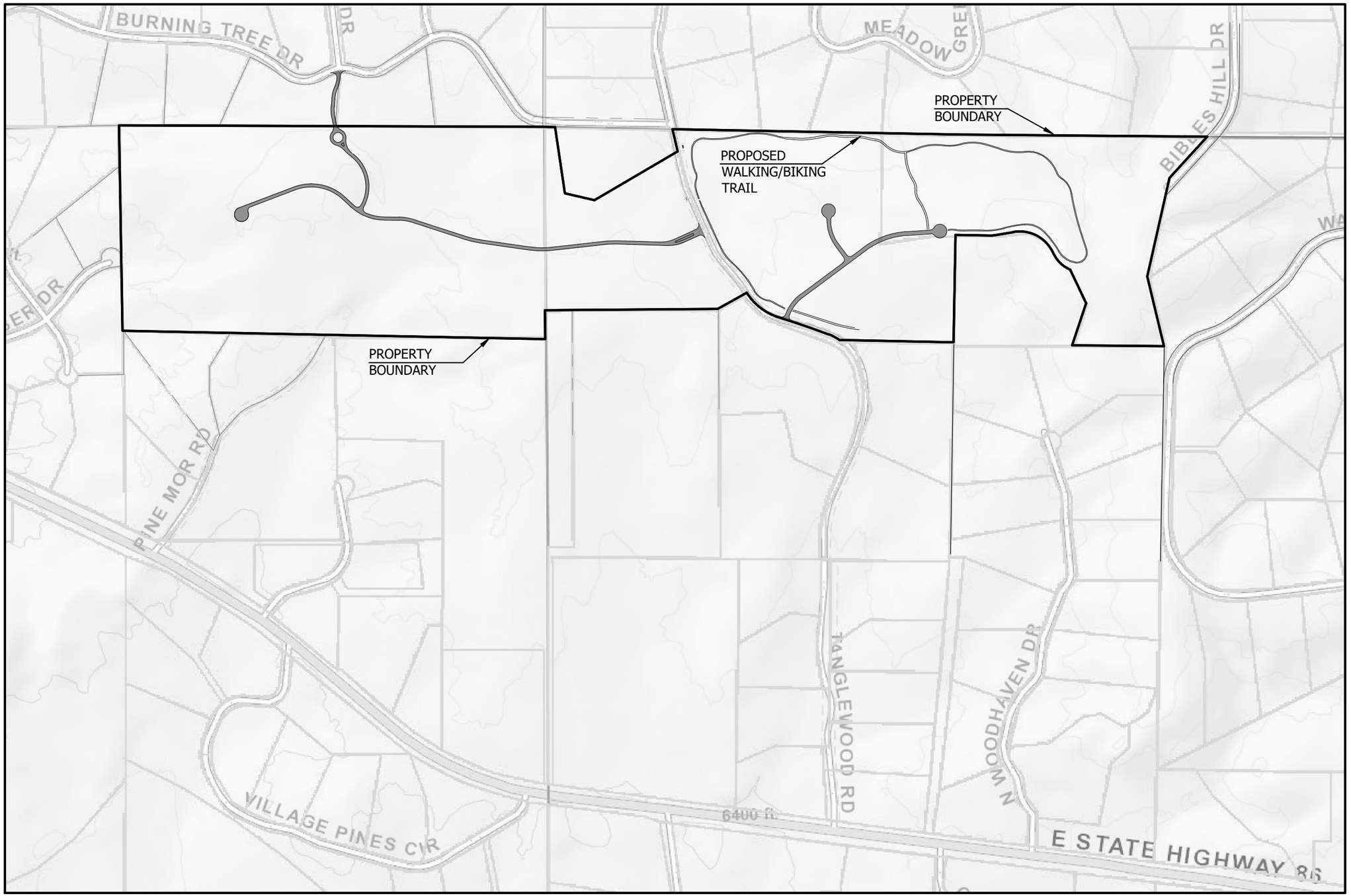
SERVICE PLAN EXHIBIT - DRAINAGE

SCALE:
1" = 600'



SERVICE PLAN EXHIBIT - WATER-SEWER

SCALE:
1" = 600'



SERVICE PLAN EXHIBIT - PARKS & REC

Exhibit F
Financial Plan

Sundown Oaks Metropolitan District

District Financing Analysis - DRAFT - 50 D/S MILLS

May 2025 Development Assumptions

SERVICE PLAN SUBMITTAL

Financing Summary

Sources and Uses

Sources	2027	Total
Par Amount	3,625,000	3,625,000
Premium/(Discount)	-	-
Other	-	-
Total Sources	**3,625,000**	**3,625,000**

Uses	2027	Total
Project Fund - Released at Closing	2,703,802	2,703,802
N/A	-	-
Total Project Fund	**2,703,802**	**2,703,802**
Capitalized Interest	400,260	400,260
Debt Service Reserve Fund	348,438	348,438
Costs of Issuance	172,500	172,500
Total Uses	**3,625,000**	**3,625,000**

Total Debt Service Summary

Stated Term (Each Issuance)	30.0 Yrs
Estimated Interest Rates	6.25%
Senior Principal	3,625,000
Senior Interest	5,360,808
Total Senior Principal & Interest	8,985,808
Less: Capitalized Interest (Principal & Earnings @ 0.00%)	(400,260)
Less: Debt Service Reserve Fund (Principal & Earnings @ 0.00%)	(348,438)
Senior Net Debt Service	8,237,110

Other Information

Total District D/S Mill Levy	50.000
Commercial Assessment %	27.90%
Residential Assessment %	6.70%
Property Tax Revenue %	100%

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
May 2025 Development Assumptions
TOTAL CAPACITY NORTH SIDE PHASE

Square Footage or Residential Units																		
Type	**Builder**	**Product**	**Desc**	**Units**	**Built**	**To Be Built**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Total**
Commercial	TBD	Single Family - Sundown	Lots Added	17		17			6	6	5							17
	TBD	Single Family - Oaks	Lots Added	20		20			2	5	5	5	3					20
Lots Added	**Total**			**37**		**37**			**8**	**11**	**10**	**5**	**3**					**37**
	TBD	Single Family - Sundown	Lots Deleted	-17		-17			-3	-5	-5	-4						-17
	TBD	Single Family - Oaks	Lots Deleted	-20		-20				-2	-5	-5	-5	-3				-20
Lots Deleted	**Total**			**-37**		**-37**			**-3**	**-7**	**-10**	**-9**	**-5**	**-3**				**-37**
Annual Change									**5**	**4**		**-4**	**-2**	**-3**				
Residential	TBD	Single Family - Sundown	Homes Added	17		17			3	5	5	4						17
	TBD	Single Family - Oaks	Homes Added	20		20				2	5	5	5	3				20
Annual Change				**37**		**37**			**3**	**7**	**10**	**9**	**5**	**3**				**37**
Cumulative Residential Built Total									**3**	**10**	**20**	**29**	**34**	**37**	**37**	**37**	**37**	

Inflated Market Value Per Square Foot or Residential Unit @ 2.00%																		
Type	**Builder**	**Product**	**Desc**	**2025 MV**	**Built**	**To Be Built**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Total**
Commercial	TBD	Single Family - Sundown	Lots Added	500,000		500,000			520,200	530,604	541,216							530,053
	TBD	Single Family - Oaks	Lots Added	500,000		500,000			520,200	530,604	541,216	552,040	563,081					542,447
Lots Added		**Weighted Avg**		**500,000**		**500,000**			**520,200**	**530,604**	**541,216**	**552,040**	**563,081**					**536,753**
	TBD	Single Family - Sundown	Lots Deleted	500,000		500,000			-520,200	-530,604	-541,216	-552,040						-536,933
	TBD	Single Family - Oaks	Lots Deleted	500,000		500,000				-530,604	-541,216	-552,040	-563,081	-574,343				-553,296
Lots Deleted		**Weighted Avg**		**500,000**		**500,000**			**-520,200**	**-530,604**	**-541,216**	**-552,040**	**-563,081**	**-574,343**				**-545,778**
Type	**Builder**	**Product**	**Desc**	**2025 MV**	**Built**	**To Be Built**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Total**
Residential	TBD	Single Family - Sundown	Homes Added	2,200,000		2,200,000			2,288,880	2,334,658	2,381,351	2,428,978						2,362,505
	TBD	Single Family - Oaks	Homes Added	2,200,000		2,200,000				2,334,658	2,381,351	2,428,978	2,477,557	2,527,108				2,434,503
		Weighted Avg		**2,200,000**		**2,200,000**			**2,288,880**	**2,334,658**	**2,381,351**	**2,428,978**	**2,477,557**	**2,527,108**				**2,401,423**

Inflated Market Value - Annual Additions																		
Type	**Builder**	**Product**	**Desc**	**2025 MV**	**Built**	**To Be Built**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**Total**
Commercial	Total		Lots Added	18,500,000		18,500,000			4,161,600	5,836,644	5,412,161	2,760,202	1,689,244					19,859,850
	Total		Lots Deleted	-18,500,000		-18,500,000			-1,560,600	-3,714,228	-5,412,161	-4,968,364	-2,815,406	-1,723,029				-20,193,787
Commercial Total									**2,601,000**	**2,122,416**		**-2,208,162**	**-1,126,162**	**-1,723,029**				**-333,937**
Residential	TBD	Single Family - Sundown	Homes Added	37,400,000		37,400,000			6,866,640	11,673,288	11,906,754	9,715,911						40,162,593
	TBD	Single Family - Oaks	Homes Added	44,000,000		44,000,000				4,669,315	11,906,754	12,144,889	12,387,787	7,581,325				48,690,070
Residential Total				**81,400,000**		**81,400,000**			**6,866,640**	**16,342,603**	**23,813,508**	**21,860,800**	**12,387,787**	**7,581,325**				**88,852,663**
Grand Total				**81,400,000**		**81,400,000**			**9,467,640**	**18,465,019**	**23,813,508**	**19,652,638**	**11,261,624**	**5,858,297**				**88,518,726**

Assessed Value - Annual Additions																
Completion Year					**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	
Collection Year		**2025 MV**	**Built**	**To Be Built**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**Total**
Commercial	**27.90%**						**725,679**	**592,154**		**-616,077**	**-314,199**	**-480,725**				**-93,168**
Residential	**6.70%**	**5,453,800**		**5,453,800**			**460,065**	**1,094,954**	**1,595,505**	**1,464,674**	**829,982**	**507,949**				**5,953,128**
Total Annual Additions		**5,453,800**		**5,453,800**			**1,185,744**	**1,687,108**	**1,595,505**	**848,597**	**515,782**	**27,224**				**5,859,960**

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
May 2025 Development Assumptions
SERVICE PLAN SUBMITTAL

Cash Flow Summary

		12/01/2025	12/01/2026	12/01/2027	12/01/2028	12/01/2029	12/01/2030	12/01/2031	12/01/2032	12/01/2033	12/01/2034	12/01/2035	12/01/2036
Property Tax Revenue Information	**Include**												
Beginning Assessed Value		-	-	-	1,185,744	2,872,852	4,525,814	5,374,411	5,997,682	6,024,905	6,205,653	6,205,653	6,391,822
Additions		-	-	1,185,744	1,687,108	1,595,505	848,597	515,782	27,224	-	-	-	
Reappraisal Adjustments		-	-	-	-	57,457	-	107,488	-	180,747	-	186,170	-
Total District Assessed Value		-	-	1,185,744	2,872,852	4,525,814	5,374,411	5,997,682	6,024,905	6,205,653	6,205,653	6,391,822	6,391,822
District Mill Levy		50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000	50.000
% Reappraisal Growth				0.00%		2.00%		2.00%		3.00%		3.00%	
District Property Tax Revenue		-	-	59,287	143,643	226,291	268,721	299,884	301,245	310,283	310,283	319,591	319,591
Specific Ownership Tax @ 7.00%		-	-	4,150	10,055	15,840	18,810	20,992	21,087	21,720	21,720	22,371	22,371
Treasurer's Fee - 2.00%		-	-	(1,186)	(3,074)	(4,843)	(5,751)	(6,418)	(6,447)	(6,640)	(6,640)	(6,839)	(6,839)
Property Tax Revenue		-	-	62,252	150,624	237,288	281,780	314,458	315,886	325,362	325,362	335,123	335,123
Capital Fee Revenue													
Capital Fee Per Lot		-	-	-	-	-	-	-	-	-	-	-	-
% Realized		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
% Growth/Inflation		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Lots		-	-	3	7	10	9	5	3	-	-	-	-
System Development Fees		-	-	-	-	-	-	-	-	-	-	-	-
Revenue After SDF's		-	-	62,252	150,624	237,288	281,780	314,458	315,886	325,362	325,362	335,123	335,123
Total Revenue for Debt Service		-	-	62,252	150,624	237,288	281,780	314,458	315,886	325,362	325,362	335,123	335,123
Senior Debt Service Information													
Principal		-	-	-	-	-	-	15,000	15,000	25,000	25,000	35,000	40,000
Additions		-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate		6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest		-	-	207,682	226,563	226,563	226,563	226,563	225,625	224,688	223,125	221,563	219,375
Capitalized Interest			-	(207,682)	(113,281)	(56,641)	(22,656)	-	-	-	-	-	-
Total Debt Service Payments		-	-	-	113,281	169,922	203,906	241,563	240,625	249,688	248,125	256,563	259,375
Debt Service Coverage					1.33	1.40	1.38	1.30	1.31	1.30	1.31	1.31	1.29
Operations Mill Levy		10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000
Revenues Available for Operations		-	-	11,857	28,729	45,258	53,744	59,977	60,249	62,057	62,057	63,918	63,918
Anticipated Expenses		-	-	(11,857)	(28,729)	(45,258)	(53,744)	(59,977)	(60,249)	(62,057)	(62,057)	(63,918)	(63,918)
Net Fund Balance		-	-	-	-	-	-	-	-	-	-	-	-

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
May 2025 Development Assumptions
SERVICE PLAN SUBMITTAL

Cash Flow Summary

		12/01/2037	12/01/2038	12/01/2039	12/01/2040	12/01/2041	12/01/2042	12/01/2043	12/01/2044	12/01/2045	12/01/2046	12/01/2047	12/01/2048
Property Tax Revenue Information	**Include**												
Beginning Assessed Value		6,391,822	6,583,577	6,583,577	6,781,084	6,781,084	6,984,517	6,984,517	7,194,052	7,194,052	7,409,874	7,409,874	7,632,170
Additions													
Reappraisal Adjustments		191,755	-	197,507	-	203,433	-	209,535	-	215,822	-	222,296	-
Total District Assessed Value		**6,583,577**	**6,583,577**	**6,781,084**	**6,781,084**	**6,984,517**	**6,984,517**	**7,194,052**	**7,194,052**	**7,409,874**	**7,409,874**	**7,632,170**	**7,632,170**
District Mill Levy		**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**
% Reappraisal Growth		**3.00%**		**3.00%**		**3.00%**		**3.00%**		**3.00%**		**3.00%**	
District Property Tax Revenue		329,179	329,179	339,054	339,054	349,226	349,226	359,703	359,703	370,494	370,494	381,608	381,608
Specific Ownership Tax @ 7.00%		23,043	23,043	23,734	23,734	24,446	24,446	25,179	25,179	25,935	25,935	26,713	26,713
Treasurer's Fee - 2.00%		(7,044)	(7,044)	(7,256)	(7,256)	(7,473)	(7,473)	(7,698)	(7,698)	(7,929)	(7,929)	(8,166)	(8,166)
Property Tax Revenue		**345,177**	**345,177**	**355,532**	**355,532**	**366,198**	**366,198**	**377,184**	**377,184**	**388,500**	**388,500**	**400,155**	**400,155**
Capital Fee Revenue													
Capital Fee Per Lot		-	-	-	-	-	-	-	-	-	-	-	-
% Realized		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
% Growth/Inflation		**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Lots		-	-	-	-	-	-	-	-	-	-	-	-
System Development Fees		-	-	-	-	-	-	-	-	-	-	-	-
Revenue After SDF's		**345,177**	**345,177**	**355,532**	**355,532**	**366,198**	**366,198**	**377,184**	**377,184**	**388,500**	**388,500**	**400,155**	**400,155**
Total Revenue for Debt Service		**345,177**	**345,177**	**355,532**	**355,532**	**366,198**	**366,198**	**377,184**	**377,184**	**388,500**	**388,500**	**400,155**	**400,155**
Senior Debt Service Information													
Principal		50,000	50,000	65,000	65,000	80,000	85,000	100,000	105,000	120,000	125,000	145,000	155,000
Additions		-	-	-	-	-	-	-	-	-	-	-	-
Interest Rate		6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest		216,875	213,750	210,625	206,563	202,500	197,500	192,188	185,938	179,375	171,875	164,063	155,000
Capitalized Interest		-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service Payments		266,875	263,750	275,625	271,563	282,500	282,500	292,188	290,938	299,375	296,875	309,063	310,000
Debt Service Coverage		**1.29**	**1.31**	**1.29**	**1.31**	**1.30**	**1.30**	**1.29**	**1.30**	**1.30**	**1.31**	**1.29**	**1.29**
Operations Mill Levy		**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**
Revenues Available for Operations		65,836	65,836	67,811	67,811	69,845	69,845	71,941	71,941	74,099	74,099	76,322	76,322
Anticipated Expenses		(65,836)	(65,836)	(67,811)	(67,811)	(69,845)	(69,845)	(71,941)	(71,941)	(74,099)	(74,099)	(76,322)	(76,322)
Net Fund Balance		-	-	-	-	-	-	-	-	-	-	-	-

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
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Cash Flow Summary

		12/01/2049	12/01/2050	12/01/2051	12/01/2052	12/01/2053	12/01/2054	12/01/2055	12/01/2056	12/01/2057	Totals
Property Tax Revenue Information	**Include**										
Beginning Assessed Value		7,632,170	7,861,135	7,861,135	8,096,969	8,096,969	8,339,878	8,339,878	8,590,074	8,590,074	
Additions											5,859,960
Reappraisal Adjustments		228,965	-	235,834	-	242,909	-	250,196	-	171,801	2,908,857
Total District Assessed Value		**7,861,135**	**7,861,135**	**8,096,969**	**8,096,969**	**8,339,878**	**8,339,878**	**8,590,074**	**8,590,074**	**8,761,876**	**8,768,817**
District Mill Levy		**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**50.000**	**40.000**	
% Reappraisal Growth		**3.00%**		**3.00%**		**3.00%**		**3.00%**		**2.00%**	
District Property Tax Revenue		393,057	393,057	404,848	404,848	416,994	416,994	429,504	429,504	350,475	10,470,785
Specific Ownership Tax @ 7.00%		27,514	27,514	28,339	28,339	29,190	29,190	30,065	30,065	24,533	707,431
Treasurer's Fee - 2.00%		(8,411)	(8,411)	(8,664)	(8,664)	(8,924)	(8,924)	(9,191)	(9,191)	(7,500)	(223,481)
Property Tax Revenue		**412,159**	**412,159**	**424,524**	**424,524**	**437,260**	**437,260**	**450,378**	**450,378**	**367,508**	**10,954,734**
Capital Fee Revenue											
Capital Fee Per Lot		-	-	-	-	-	-	-	-	-	
% Realized		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	
% Growth/Inflation		**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	
		100%	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	
Lots		-	-	-	-	-	-	-	-	-	
System Development Fees		-	-	-	-	-	-	-	-	-	
Revenue After SDF's		**412,159**	**412,159**	**424,524**	**424,524**	**437,260**	**437,260**	**450,378**	**450,378**	**343,466**	
Total Revenue for Debt Service		**412,159**	**412,159**	**424,524**	**424,524**	**437,260**	**437,260**	**450,378**	**450,378**	**367,508**	**10,954,734**
Senior Debt Service Information											
Principal		170,000	185,000	205,000	215,000	240,000	255,000	280,000	300,000	475,000	3,625,000
Additions		-	-	-	-	-	-	-	-		
Interest Rate		6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Interest		145,313	134,688	123,125	110,313	96,875	81,875	65,938	48,438	29,688	5,360,808
Capitalized Interest		-	-	-	-	-	-	-	-	(348,438)	
Total Debt Service Payments		315,313	319,688	328,125	325,313	336,875	336,875	345,938	348,438	156,250	8,237,109
Debt Service Coverage		**1.31**	**1.29**	**1.29**	**1.30**	**1.30**	**1.30**	**1.30**	**1.29**	**2.35**	
Operations Mill Levy		**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	**10.000**	
Revenues Available for Operations		78,611	78,611	80,970	80,970	83,399	83,399	85,901	85,901	87,619	2,838,332
Anticipated Expenses		(78,611)	(78,611)	(80,970)	(80,970)	(83,399)	(83,399)	(85,901)	(85,901)	(87,619)	(2,838,332)
Net Fund Balance		-	-	-	-	-	-	-	-	-	-

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
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Debt Service Summary

Senior - 2027

Date	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Principal	-	-	-	-	-	15,000	15,000	25,000	25,000	35,000	40,000
Coupon	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest	-	207,682	226,563	226,563	226,563	226,563	225,625	224,688	223,125	221,563	219,375
Total P+I	-	207,682	226,563	226,563	226,563	241,563	240,625	249,688	248,125	256,563	259,375
CAPI	-	(207,682)	(113,281)	(56,641)	(22,656)	-	-	-	-	-	-
DSRF	-	-	-	-	-	-	-	-	-	-	-
Net D/S	**-**	**-**	**113,281**	**169,922**	**203,906**	**241,563**	**240,625**	**249,688**	**248,125**	**256,563**	**259,375**

Senior - Total

Date	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Principal	-	-	-	-	-	15,000	15,000	25,000	25,000	35,000	40,000
Interest	-	207,682	226,563	226,563	226,563	226,563	225,625	224,688	223,125	221,563	219,375
Total P+I	-	207,682	226,563	226,563	226,563	241,563	240,625	249,688	248,125	256,563	259,375
CAPI	-	(207,682)	(113,281)	(56,641)	(22,656)	-	-	-	-	-	-
DSRF	-	-	-	-	-	-	-	-	-	-	-
Net D/S	**-**	**-**	**113,281**	**169,922**	**203,906**	**241,563**	**240,625**	**249,688**	**248,125**	**256,563**	**259,375**

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
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Debt Service Summary

Senior - 2027

Date	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Principal	50,000	50,000	65,000	65,000	80,000	85,000	100,000	105,000	120,000	125,000	145,000
Coupon	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
Interest	216,875	213,750	210,625	206,563	202,500	197,500	192,188	185,938	179,375	171,875	164,063
Total P+I	266,875	263,750	275,625	271,563	282,500	282,500	292,188	290,938	299,375	296,875	309,063
CAPI	-	-	-	-	-	-	-	-	-	-	-
DSRF	-	-	-	-	-	-	-	-	-	-	-
Net D/S	**266,875**	**263,750**	**275,625**	**271,563**	**282,500**	**282,500**	**292,188**	**290,938**	**299,375**	**296,875**	**309,063**

Senior - Total

Date	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Principal	50,000	50,000	65,000	65,000	80,000	85,000	100,000	105,000	120,000	125,000	145,000
Interest	216,875	213,750	210,625	206,563	202,500	197,500	192,188	185,938	179,375	171,875	164,063
Total P+I	266,875	263,750	275,625	271,563	282,500	282,500	292,188	290,938	299,375	296,875	309,063
CAPI	-	-	-	-	-	-	-	-	-	-	-
DSRF	-	-	-	-	-	-	-	-	-	-	-
Net D/S	**266,875**	**263,750**	**275,625**	**271,563**	**282,500**	**282,500**	**292,188**	**290,938**	**299,375**	**296,875**	**309,063**

Sundown Oaks Metropolitan District
District Financing Analysis - DRAFT - 50 D/S MILLS
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SERVICE PLAN SUBMITTAL

Debt Service Summary

Senior - 2027

Date	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	Totals
Principal	155,000	170,000	185,000	205,000	215,000	240,000	255,000	280,000	300,000	475,000	3,625,000
Coupon	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
Interest	155,000	145,313	134,688	123,125	110,313	96,875	81,875	65,938	48,438	29,688	5,360,807
Total P+I	310,000	315,313	319,688	328,125	325,313	336,875	336,875	345,938	348,438	504,688	8,985,807
CAPI	-	-	-	-	-	-	-	-	-	-	(400,260)
DSRF	-	-	-	-	-	-	-	-	-	(348,438)	(348,438)
Net D/S	**310,000**	**315,313**	**319,688**	**328,125**	**325,313**	**336,875**	**336,875**	**345,938**	**348,438**	**156,250**	**8,237,109**

Senior - Total

Date	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	Totals
Principal	155,000	170,000	185,000	205,000	215,000	240,000	255,000	280,000	300,000	475,000	3,625,000
Interest	155,000	145,313	134,688	123,125	110,313	96,875	81,875	65,938	48,438	29,688	5,360,807
Total P+I	310,000	315,313	319,688	328,125	325,313	336,875	336,875	345,938	348,438	504,688	8,985,807
CAPI	-	-	-	-	-	-	-	-	-	-	(400,260)
DSRF	-	-	-	-	-	-	-	-	-	(348,438)	(348,438)
Net D/S	**310,000**	**315,313**	**319,688**	**328,125**	**325,313**	**336,875**	**336,875**	**345,938**	**348,438**	**156,250**	**8,237,109**

Exhibit G
Resolution of Approval

RESOLUTION NO. R-025- _____

THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF DOUGLAS, COLORADO

A RESOLUTION APPROVING THE SERVICE PLAN OF
SUNDOWN OAKS METROPOLITAN DISTRICT

WHEREAS, on **[INSERT DATE]**, a service plan for the proposed Sundown Oaks Metropolitan District ("Service Plan") was filed with the Douglas County Clerk and Recorder ("Clerk"), and the Clerk, on behalf of the Board of County Commissioners ("Board"), mailed a Notice of Filing of Special District Service Plan to the Division of Local Government in the Department of Local Affairs on **[INSERT DATE]**; and

WHEREAS, on **[INSERT DATE]**, the Douglas County Planning Commission recommended approval of the Service Plan to the Board; and

WHEREAS, on **[INSERT DATE]**, the Board set a public hearing on the Service Plan for **[INSERT DATE]** ("Public Hearing"), and (1) ratified publication of the notice of the date, time, location and purpose of such Public Hearing, which was published in *The Douglas County News-Press* on **[INSERT DATE]**; and (2) caused notice of the date, time and location of the Public Hearing to be mailed on **[INSERT DATE]**, to the governing body of the existing municipalities and special districts which have levied an *ad valorem* tax within the next preceding tax year and which have boundaries within a radius of three miles of the proposed boundaries of Sundown Oaks Metropolitan District ("District") and, on **[INSERT DATE]**, to the petitioners and to the property owners, pursuant to the provisions of § 32-1-204(l.5), C.R.S.; and

WHEREAS, on **[INSERT DATE]**, a Public Hearing on the Service Plan was opened at which time all interested parties, as defined in § 32-1-204, C.R.S., were afforded an opportunity to be heard, and all testimony and evidence relevant to the Service Plan and the organization of the proposed District was heard, received and considered.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF THE COUNTY OF DOUGLAS, STATE OF COLORADO, THAT:

Section 1. The Board does hereby determine that all procedural requirements of §§ 32-1-201, *et seq.*, C.R.S., relating to the Service Plan have been fulfilled and that the Board has jurisdiction in the matter.

Section 2. The Board does hereby find:

(a) that there is sufficient existing and projected need for organized service in the area to be serviced by the proposed District; and

(b) that the existing service in the area to be served by the proposed District is inadequate for present and projected needs; and

(c) that the proposed District is capable of providing economical and sufficient service to the area within the proposed boundaries; and

(d) that the area to be included in the proposed District has, or will have, the financial ability to discharge the proposed indebtedness on a reasonable basis; and

(e) that adequate service is not, or will not be, available to the area through Douglas County or other existing municipal or quasi-municipal corporations, including existing special districts, within a reasonable time and on a comparable basis; and

(f) that the facility and service standards of the proposed District are compatible with the facility and service standards of Douglas County and each municipality which is an interested party under § 32-1-204, C.R.S.; and

(g) that the proposal is in substantial compliance with the Douglas County Comprehensive Master Plan; and

(h) that the proposal is in compliance with any duly adopted county, regional, or state long-range water quality management plan for the area; and

(i) that the creation of the proposed District will be in the best interests of the area proposed to be served; and

(j) that the Service Plan, based upon the statements set forth in the Service Plan and upon all evidence presented at the Public Hearing on the Service Plan, meets all conditions and requirements of §§ 32-1-201, *et seq.*, C.R.S.

Section 3. The Board hereby approves the Service Plan without conditions; provided, however, that such action shall not imply the approval of any land development activity within the proposed District or its service area, or of any specific number of buildable units identified in the Service Plan, unless the Board has approved such development activity as part of a separate development review process.

Section 4. The legal description of the District shall be as provided in **Exhibit A**, attached hereto and incorporated herein by reference.

Section 5. A certified copy of this resolution shall be filed in the records of Douglas County.

PASSED AND ADOPTED this ___ day of _____, 20__, in Castle Rock, Douglas County, Colorado.

THE BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF DOUGLAS, COLORADO

BY: _____
, Chair

ATTEST:

_____

_____
Deputy Clerk

EXHIBIT A
(Legal Description)

Exhibit H
Compliance with Section 18A, Water Supply – Overlay District

December 21, 2023 **WATER PLAN for 95CW288 and 2022CW3071 decrees**

Oak Bluff and Sundown Subdivisions Water Plan, approximately 179 acres

Oak Bluff subdivision consists of 21 Rural Residential home sites roughly 4.5 to 5 acres on 106acres. Sundown subdivision consists of 17 homesites, approximately 2 acres each, on 73 acres. Combined these subdivisions are approximately 179acres. These sites are located east of Franktown near the southwest corner of Burning Tree Drive and Tanglewood Road. The site lies in the NE quarter of Section 1, Township 8S, Range 66W and in the NW quarter of Section 6, Township 8S, Range 65W of the 6th P.M. The Rural Residential single family home sites will be served by individual well and septic systems. There are no wells currently on the property.

Source of Water

A water supply letter by Hayes Poznanovic Korver, LLC. dated 4-18-23 defines the amounts of water available under two decreed cases see attachment A. The water decreed in Case No. 95CW288 for Parcel A(190.73acres) and in Case No. 2022CW3071 used to serve the lot owners and the Home Owner's Association (HOA). Upper Dawson water will have groundwater reserved by the HOA's for augmentation.

Aquifer	Decreed volumes in Case No. 1995CW288	**Prorated amount for 179acres**
Upper Dawson	44.2 acre feet (NNT)	41.5 af (NNT)
Lower Dawson	24.0 acre feet (NT)	22.5 af (NT)
Denver	64.8 acre feet (NT)	60.8 af (NT)
Arapahoe	89.2 acre feet (NT)	83.7 af (NT)
Laramie-Fox Hills	55.8 acre feet (NT)	52.4 af (NT)

Aquifer	Decreed volumes in Case No. 2022CW3071
Upper Dawson	11.15acre feet (NNT)*decreed augmentation plan, 10.8 af (NNT)

Water Demand

As per the water demand standards in Douglas County Zoning Resolution Section 18A, the home sites will require 1 acre foot of water per year, and irrigated areas will require 2.5 acre feet per acre. In addition, a 30,000 gallon water tank will be constructed and filled on Tract A, 0.1 acre foot of water demand is dedicated for use to fill the 30,000 gallon fire water storage tank as necessary (proposed for Lower Dawson well). Augmentation water for the Upper Dawson aquifer withdraws will also be reserved in the Laramie-Fox Hills aquifer and dedicated to the Oak Bluff and Sundown Home Owner's Associations.

38 Rural Residential home sites (1acre foot, Douglas County requirement)	38.0 acre feet
.8 acre irrigated area at 2 entries	2.0 acre feet
Fire water storage and use	0.1 acre feet
Total demand from development	40.1 acre feet

Water Allocation Plan
OAK BLUFF and SUNDOWN

Upper Dawson Aquifer Total Available: 41.5+10.8 = 52.3 acre feet per year(100year supply)
Although the expected use is 1 acre foot per year (100year supply), all 38 lots will be allocated 1.3 acre feet as follows: Lots 1 through 12 in Sundown will be allocated 0.9af from Case No. 2022CW3071 for a total of 10.8af. Lots 1 through 12 Sundown will also be allocated 0.4af from Case No. 95CW288 for a total of 4.8af.
The remaining allocations are from Case No. 95CW288; Lots 13 through 17, Sundown and Lots 1 through 21, Oak Bluff will be allocated 1.3acre feet per year. The Oak Bluff HOA will be allocated 1.6 acre feet for irrigation. The Sundown Home Owner's Association will be allocated 1.3 acre feet for irrigation or other uses allowed in the decree. The total 52.3 acre feet will be augmented with water from the Laramie-Fox Hills aquifer, if necessary, augmentation water will be reserved by the respective HOA's.

Lower Dawson Aquifer Total: 22.5 acre feet
All 38 lots will be allocated 0.5 acre feet each (19 acre feet) in the Lower Dawson Aquifer for future use, the Oak Bluff Home Owners Association will be allocated 2 acre feet and Sundown HOA allocated 1.5 acre feet for a total of 22.5 acre feet. The Oak Bluff Home Owners Association may access the Lower Dawson Aquifer for filling of the 30,000gal. fire suppression water tank, if other methods of filling the tank are not chosen.

Denver Aquifer Total: 60.8 acre feet
All 38 residential lots will be allocated 1.6 acre feet per lot for a total of 60.8 acre feet.

Arapahoe Aquifer Total: 83.7 acre feet
All 38 residential lots will be allocated 2.1 acre feet per lot (79.8 acre feet).
The Oak Bluff Home Owners Association will be allocated 2.2 acre feet and Sundown HOA will be allocated 1.7 acre feet. Total allocation of Arapahoe aquifer 83.7 acre feet per year (100yr supply).

Laramie-Fox Hills Aquifer Total: 52.4 acre feet
The Oak Bluff Home Owners Association will be allocated 27.5af + 1.6af = 29.1 acre feet.
The Sundown Home Owner's Association will be allocated 22.3af + 1 af = 23.3 acre feet.
To be reserved by the HOA's for future augmentation.

These amounts in each aquifer will be conveyed at time of lot purchase and will remain attached to the lot and/or the respective Oak Bluff or Sundown Home Owners Associations. The property will have restrictive covenants to enforce this water plan and dedicate the water to the land owners and Home Owners Associations with the restriction the water cannot be conveyed or sold.

Attachment A	Water Supply Letter	
Attachment B	Water decrees	
Attachment C	Vicinity Map	Prepared by: Phil Giesing P.E.27384

HAYES POZNANOVIC KORVER LLC
ATTORNEYS AT LAW

700 17TH STREET, SUITE 1800
DENVER, COLORADO 80202

TELEPHONE (303) 825-1980 FACSIMILE (303) 825-1983

April 18, 2023

Douglas County Community & Development Services
100 Third St, #220
Castle Rock, CO 80104

Re: Oakbluff Minor Development
Sundown Minor Development

To Whom it May Concern:

The following provides an overview of the proposed water supplies that will serve up to thirty-eight (38) residential lots, on a total of 177.323 acres, generally located in the N1/2 of the NE1/4 of Section 1, Township 8 South, Range 66 West of the 6th P. M., and the N1/2 of the NW1/4, and the NW1/4 of the NW1/4 of Section 6, Township 8 South, Range 65 West of the 6th P.M., in Douglas County ("Subject Property"). This letter is based on amounts of groundwater decreed and the augmentation plan approved in Case Nos. 1995CW288 and 2022CW3071, District Court, Water Division 1. The groundwater appears to be owned by the Applicant. This letter provides no opinion on the actual physical supply of groundwater available and is not a title opinion. Each lot will each be served by an individual well.

Each subdivision will have the following number of single-family units:

- Oak Bluff – 21 lots
- Sundown – 17 Lots

Each subdivision will use individual wells into the Upper Dawson Aquifer.

Decreed Annual Volumes

The following volumes are available and approved for use, reuse, and successively use and, after use, leased, sold, or otherwise disposed of for the municipal, domestic, industrial, commercial, irrigation, stock watering, recreational, fish and wildlife, and any other beneficial purpose, to be used on or off the land. Said water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for exchange purposes, for replacement of depletions resulting from the use of water from other sources, and for augmentation purposes both on and off the Subject Property. The groundwater in the Lower Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers is nontributary ("NT") as defined in C.R.S. §§ 37-82-101(2) and 37-92-102(l)(b), and the groundwater in the Upper Dawson is not-nontributary ("NNT") as described in C.R.S. §§ 37-90-103(10.7) and 37-90-137(9)(c.5).

Decreed Volumes in Case No. 1995CW288:

Aquifer	Annual Amount (100 Years)
Upper Dawson (NNT)*	44.2 acre-feet
Lower Dawson (NT)	24.0 acre-feet
Denver (NT)	64.8 acre-feet
Arapahoe (NT)	89.2 acre-feet
Laramie-Fox Hills (NT)	55.8 acre-feet

* 12 acre-feet was reserved for future exempt wells, a portion of which was decreed in Case No. 22CW3071.

Decreed Volumes in Case No. 2022CW3071:

Aquifer	Annual Amount (100 Years)
Upper Dawson (NNT)	11.15 acre-feet

Augmentation Plans

Case No. 1995CW288:

The 1995CW288 Decree approved and augmentation plan for the use of up to 44.2 acre-feet per year of NNT Upper Dawson Aquifer groundwater for 100 years for in-house, stock watering, and irrigation uses.

Case No. 2022CW3071:

The 2022CW3071 Decree approved an augmentation plan for the use of up to 10.8 acre-feet per year NNT Upper Dawson Aquifer groundwater for 100 years for in-house, irrigation, and fire protection uses.

Water Supply Sufficiency

The amount of groundwater in the NNT Upper Dawson Aquifer underlying the Subject Property allowed to be withdraw under the augmentation plans is sufficient to provide in-house and irrigation use on the Subject Property for up to 38 residential wells, each withdrawing up to 1.3 acre-feet per year for 100 years.

If you have any questions or comments, please feel free to call.

Sincerely,

HAYES POZNANOVIC KORVER LLC

Eric K Trout

Eric K. Trout

DISTRICT COURT, WATER DIVISION 1, COLORADO Weld County Courthouse P.O. Box 2038 Greeley, CO 80632	DATE FILED: October 27, 2022 3:36 PM CASE NUMBER: 2022CW3071 **▲ COURT USE ONLY ▲**
APPLICATION FOR UNDERGROUND WATER RIGHTS AND PLAN FOR AUGMENTATION OF OAK BLUFF SUBDIVISION, LLC. and SUNDOWN SUBDIVISION, LLC., Applicants, IN DOUGLAS COUNTY	Case Number: 2022CW3071
FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, AND JUDGMENT AND DECREE	

A claim for a plan for augmentation was filed in this case on May 26, 2022. All matters contained in the application having been reviewed, such testimony having been taken and evidence presented as was necessary, and being otherwise fully advised in the premises, it is hereby the Findings of Fact, Conclusions of Law, Ruling of the Referee, and Judgment and Decree, as follows:

FINDINGS OF FACT

1. Name and address of Applicants:

   Oak Bluff Subdivision, LLC., a Colorado limited liability company
   Sundown Subdivision, LLC., a Colorado limited liability company
   609 W Littleton Blvd, Suite 206
   Littleton, CO 80120

2. Statements of Opposition: No statements of opposition were filed and the time for filing of such statements has expired.

3. Subject Matter Jurisdiction: Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not.

4. Consultation: The Water Referee consulted with the Division Engineer, as required by C.R.S. § 37-92-302(4), on the application, on August 8, 2022, and the Division Engineer filed its summary of consultation on August 31, 2022. The amounts herein are consistent with and conform to the values and amounts referenced in the State Engineer's Determinations of Facts dated August 9, 2022.

GROUNDWATER RIGHTS

5. Subject Property: Approximately 177.323 acres on 4 contiguous parcels generally located in the N1/2 of the NE1/4 of Section 1, Township 8 South, Range 66 West of the 6th P.M., and the N1/2 of the NW1/4, and the NW1/4 of the NE1/4,
6. of Section 6, Township 8 South, Range 65 West of the 6th, P.M., Douglas County, State of Colorado, as shown on Exhibit A ("Subject Property").

7. Prior Decree Information: The groundwater underlying the Subject Property was decreed in Case No. 1995CW288, District Court, Water Division 1 on July 25, 1996, (the "95CW288 Decree"). The groundwater was conveyed to the Applicants via the quitclaim deeds recorded at Reception Nos. 2020061315, 2020061316, 2020061328, 2020061329 on July 13, 2020, at the Douglas County Clerk and Recorder's Office.

8. Annual Amount: Upper Dawson Aquifer groundwater was reserved for exempt uses under Parcel A in the 95CW288 Decree. The Subject Property is a part of Parcel A. This decree adjudicates a portion of the reserved Upper Dawson Aquifer groundwater. The volume below is based on a 100-year aquifer life:

Aquifer	Annual Amount (acre-feet)	Total Amount (acre-feet)
Upper Dawson (NNT)	11.15	1,115

7. 95CW288 Decreed Uses: The water withdrawn from the subject aquifers will be used, reused, and successively used and, after use, leased, sold or otherwise disposed of for the municipal, domestic, industrial, commercial, irrigation, stock watering, recreational, fish and wildlife, and any other beneficial purpose, to be used on or off the land. Said water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for exchange purposes, for replacement of depletions resulting from the use of water from other sources, and for augmentation purposes.

8. Decreed Uses: Domestic, including in-house use, commercial, irrigation, stockwatering, fire protection, and augmentation purposes, including storage, both on and off the Subject Property.

PLAN FOR AUGMENTATION

9. Plan for Augmentation:

   9.1 Groundwater to be Augmented: 10.8 acre-feet per year for 100 years of not-nontributary Upper Dawson Aquifer groundwater.

   9.2 Water to be Used for Augmentation: Return flows associated with use of the not-nontributary Upper Dawson Aquifer and return flows or direct discharge of nontributary groundwater.

9.3 The Upper Dawson Aquifer groundwater will be used on up to twelve (12) lots, in up to twelve (12) individual wells (0.9 acre-feet per well), for in-house use in one single-family residence (0.3 acre-feet per year per well, 3.6 acre-feet per year total), irrigation, including lawn, garden, and trees of up to 12,000 square-feet per lot (0.6 acre-feet per well, 7.2 acre-feet per year), and fire protection, through one or more wells on the Subject Property. Conservatively, water use in single-family dwellings will equal at least 0.2 acre-feet of water annually for in-house uses, and the use of non-evaporative septic systems typically results in consumption of approximately 10% of such use, resulting in return flows of at least 0.18 acre-feet per year from each single-family residence, and 2.16 acre-feet per year at full build-out. Various components of this plan for augmentation are predicated on these estimations, and Applicants shall be required to use a non-evaporative septic system to treat and dispose of water used for in-house use.

9.4 Replacement During Pumping: During pumping of the Upper Dawson Aquifer groundwater, Applicants will replace actual depletions to the affected stream system pursuant to C.R.S. § 37-90-137(9)(c.5). In the 100th year, the total depletion is 12.49% of the amount withdrawn or 1.35 acre-feet total. Return flow from in-house use of the Upper Dawson Aquifer water for the residences is at least 0.18 acre-feet per year, and 2.16 acre-feet per year at full build-out, as described above, and such return flow is sufficient to replace actual depletions for pumping of the entire 10.8 acre-feet per year for 100 years. Return flows accrue to the South Platte River system via Cherry Creek. Because return flows from all uses are estimated rather than measured, Applicants agree that such return flows shall be used only to replace depletions under this plan for augmentation and will not be sold, leased, traded, or assigned in whole or in part for any other purpose. If for any reason, sufficient return flows are not available to replace the actual depletions shown on **Exhibit B**, the Applicants, or successors in interest, are required to pump water directly into the stream in the amount that has not been replaced by return flows. If such water is withdrawn from the Upper Dawson Aquifer well(s) operated under the augmentation plan the amount of water being pumped from the well(s) for other purposes must be reduced so that the allowed annual withdrawal from the well(s) is not exceeded. Such replacement must be made prior to the irrigation season for the following year.

9.5 Post-pumping Depletion Augmentation: Assuming maximum pumping of 10.8 acre-feet per year for 100 years from the Upper Dawson Aquifer, the maximum total depletion to the affected stream systems is approximately 13.92% of the annual amount withdrawn or 1.50 acre-feet in the 130th year. Applicants will reserve 10.8 acre-feet per year, 1,080 acre-feet total, of the nontributary Laramie-Fox Hills Aquifer groundwater decreed in the 95CW288 Decree, owned by Applicants, for use in this plan, but reserves the right to substitute the use of other nontributary groundwater, including return flows, either underlying the Subject Property, or from another location which is legally available for such purpose, for replacement of post-pumping depletions at such time that post-pumping

depletions may begin. The Court retains continuing jurisdiction in this matter to determine if the supply is adequate.

9.6 Applicants will begin making post pumping replacements when (1) the Applicants or successors in interest have acknowledged in writing that all withdrawals for beneficial use of the Upper Dawson Aquifer groundwater has permanently ceased, or (2) for a period of 10 consecutive years that no Upper Dawson Aquifer groundwater has been withdrawn. Until such time as the post pumping depletions begin the Applicant must continue to replace during pumping depletions to the stream using return flows, by pumping water directly to the stream to replace such depletions or using another replacement source approved by the Division Engineer. At the time that post pumping depletions begin as described in this paragraph, Applicant or successors in interest will be required to construct a well and pump groundwater to replace post-pumping depletions, subject to the terms and conditions of Paragraph 8.5. This condition constitutes a covenant running with the land.

9.7 Applicants will replace post-pumping depletions for the shortest of the following periods: (1) The period provided by C.R.S. § 37-90-137(9)(c.5), or (2) the expressed period specified by the Colorado Legislature, should it specify one and providing the Applicant obtain Water Court approval for such modification, or (3) the period determined by the State Engineer, should they choose to set such a period and have jurisdiction to do so, or (4) the period established through rulings of the Colorado Supreme Court on relevant cases, or (5) until Applicant petition the Water Court and the State Engineer's Office and prove that they have complied with any statutory requirement.

10. Failure of Applicants and/or successors in interest to comply with the terms of the decree may result in an order of the Division Engineer's office to curtail or eliminate pumping of the well. This decree shall be recorded in the real property records of Elbert County so that a title examination of the property, or any part thereof, shall reveal to all future purchasers the existence of this decree.

11. Administration of Plan for Augmentation:

11.1 Applicants shall report to the Division Engineer for Water Division 1 upon request, a summary of the amount of water pumped by each Denver Basin well, the annual depletion, the amount of replacement water provided by each replacement source, the net impact on the stream and any other information required by the Division Engineer to properly administer the decree on an accounting form acceptable to the Division Engineer.

11.2 All withdrawals which are the subject of this decree will be metered.

11.3 Pursuant to C.R.S. § 37-92-305(8), the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.

11.4 The Applicants, or successors in interest, at the direction of the Division Engineer shall make post-pumping replacements to the South Platte River stream system via Cherry Creek, or its tributaries, pursuant to the amounts referenced on the depletion curve attached on **Exhibit B**.

12. Retained Jurisdiction for Plan for Augmentation:

12.1 Pursuant to C.R.S. § 37-92-304(6), the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The Court also has jurisdiction for the purposes of determining compliance with the terms of the augmentation plan.

12.2 Any party seeking to invoke the retained jurisdiction of the Court shall file a verified petition with the Court. The petition to invoke retained jurisdiction or to modify this decree shall set forth with particularity the factual basis and the requested decretal language to effect the petition. The party lodging the petition shall have the burden of going forward to establish prima facie facts alleged in the petition. If the Court finds those facts to be established, Applicants shall thereupon have the burden of proof to show: (1) that any modification sought by Applicants will avoid injury to other appropriators, or (2) that any modification sought by Objector is not required to avoid injury to other appropriators, or (3) that any term or condition proposed by Applicants in response to the objector's petition does avoid injury to other appropriators.

12.3 The Court retains jurisdiction for the purpose of determining whether the continued reservation of the nontributary water for use on the Subject Property is required. After notice to the State Engineer's Office, if Applicants can demonstrate to the Court that post-pumping depletions need no longer be replaced, the Court may remove the requirement that the nontributary water must be reserved.

CONCLUSIONS OF LAW

13. Full and adequate notice of the application was given, and the Court has jurisdiction over the subject matter and over the parties whether they have appeared or not.

14. Applicants have complied with all requirements and met all standards and burdens of proof, including but not limited to C.R.S. §§ 37-90-137(9)(c.5), 37-92-103(9), 37-92-302, 37-92-304(6), 37-92-305(3), (4), (6), (8), to adjudicate the plan for augmentation and are

entitled to a decree confirming and approving the plan for augmentation as described in the Findings of Fact.

15. The Water Court has jurisdiction over this proceeding pursuant to C.R.S. § 37-90-137(6). This Court concludes as a matter of law that the application herein is one contemplated by law pursuant to C.R.S. § 37-90-137(4). The application for a decree confirming Applicants' right to withdraw and use groundwater decreed herein from the Upper Dawson Aquifer should be granted pursuant to C.R.S. §§ 37-90-137(4) and (9)(c.5), subject to the provisions of this decree. The withdrawal of up to 10.8 acre-feet per year and 1,080 acre-feet total of the Upper Dawson Aquifer groundwater, and in accordance with the terms of this decree and the 95CW288 Decree, will not injuriously affect the owner of or persons entitled to use water under a vested water right or a decreed conditional water right. The remaining amount of Upper Dawson Aquifer groundwater decreed in Case No. 95CW288 and herein will not be withdrawn and used until it is included in a separate plan for augmentation.

JUDGMENT AND DECREE

16. The Findings of Fact and Conclusions of Law set forth above are hereby incorporated into the terms of this Ruling and Decree as if the same were fully set forth herein.

17. Applicants and/or successors may withdraw the subject groundwater herein through wells to be permitted by the State Engineer's Office located anywhere on the Subject Property in the average annual amounts and at the estimated average rates of flow specified herein, subject to the limitations herein and the retained jurisdiction by this Court.

18. Applicants may withdraw an average annual amount of 10.8 acre-feet per year and not more than 1,080 acre-feet total of the Upper Dawson Aquifer groundwater under the plan for augmentation decreed herein pursuant to § 37-90-137(9)(c.5), C.R.S.

19. The groundwater rights described in the Findings of Fact are hereby approved, confirmed and adjudicated, including and subject to the terms and conditions specified herein and in the 95CW288 Decree. No owners of or persons entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the pumping of Applicants' groundwater resources as decreed herein.

20. Pursuant to C.R.S. § 37-92-305(5), the replacement water herein shall be of a quality so as to meet the requirements for which the water of the senior appropriator has normally used.

21. The plan for augmentation as described in the Findings of Fact is hereby approved, confirmed, and adjudicated, including and subject to the terms and conditions specified herein.

22. No owners of or person entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the operation of the plan for augmentation as decreed herein.

23. Retained Jurisdiction:

23.1 The Court retains jurisdiction as necessary to adjust the average annual amounts of groundwater available under the Subject Property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to C.R.S. § 37-92-305(11). Within 60 days after completion of any well decreed herein or any test hole(s), Applicants or any successor in interest to these water rights shall serve copies of such log(s) upon the State Engineer.

23.2 At such time as adequate data is available, any person, including the State Engineer, may invoke the Court's retained jurisdiction to make a Final Determination of Water Right. Within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final determination of water rights findings. The State Engineer shall submit such finding to the Water Court and the Applicants.

23.3 If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.

23.4 Except as otherwise provided in Paragraphs 23.1-23.3, above, pursuant to C.R.S. § 37-92-304(6), the plan for augmentation decreed herein shall be subject to the reconsideration of this Court on the question of material injury to vested water rights of other, for a period of five (5) years. Any person, within such period, may petition the Court to invoke its retained jurisdiction. Any person seeking to invoke the Court's retained jurisdiction shall file a verified petition with the Court setting forth with particularity the factual basis for requesting that the Court reconsider injury to petitioner' s vested water rights associated with the operation of this decree, together with proposed decretal language to effect the petition. The party filing the petition shall have the burden of proof of going forward to establish a prima facie case based on the facts alleged in the petition. If the Court finds those facts are established, Applicants shall thereupon have the burden of proof to show: (i) that the petitioner is not injured, or (ii) that any modification sought by the petitioner is not required to avoid injury to the petitioner, or (iii) that any term or condition proposed by Applicants in response to the petition does avoid injury to the petitioner. The Division of Water Resources as a petitioner shall be entitled to assert injury to the vested water rights of others. If no such petition is filed within such period and the retained jurisdiction period is not extended by the

Court in accordance with the provisions of the statute, this matter shall become final under its own terms.

Continuing Jurisdiction: Pursuant to C.R.S. § 37-92-304(6), the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration by the water judge on the question of injury to the vested rights of others for such period after the entry of such decision as is necessary or desirable to preclude or remedy any such injury.

24. The groundwater rights decreed herein are vested property rights appurtenant to the Subject Property and shall remain appurtenant unless expressly severed by conveyance to someone other than the property owner. If any deed for the Subject Property is silent to the conveyance of the water rights decreed herein, it is assumed that the water rights have been conveyed as an appurtenance to the Subject Property, unless all or part of the water rights have been previously severed.

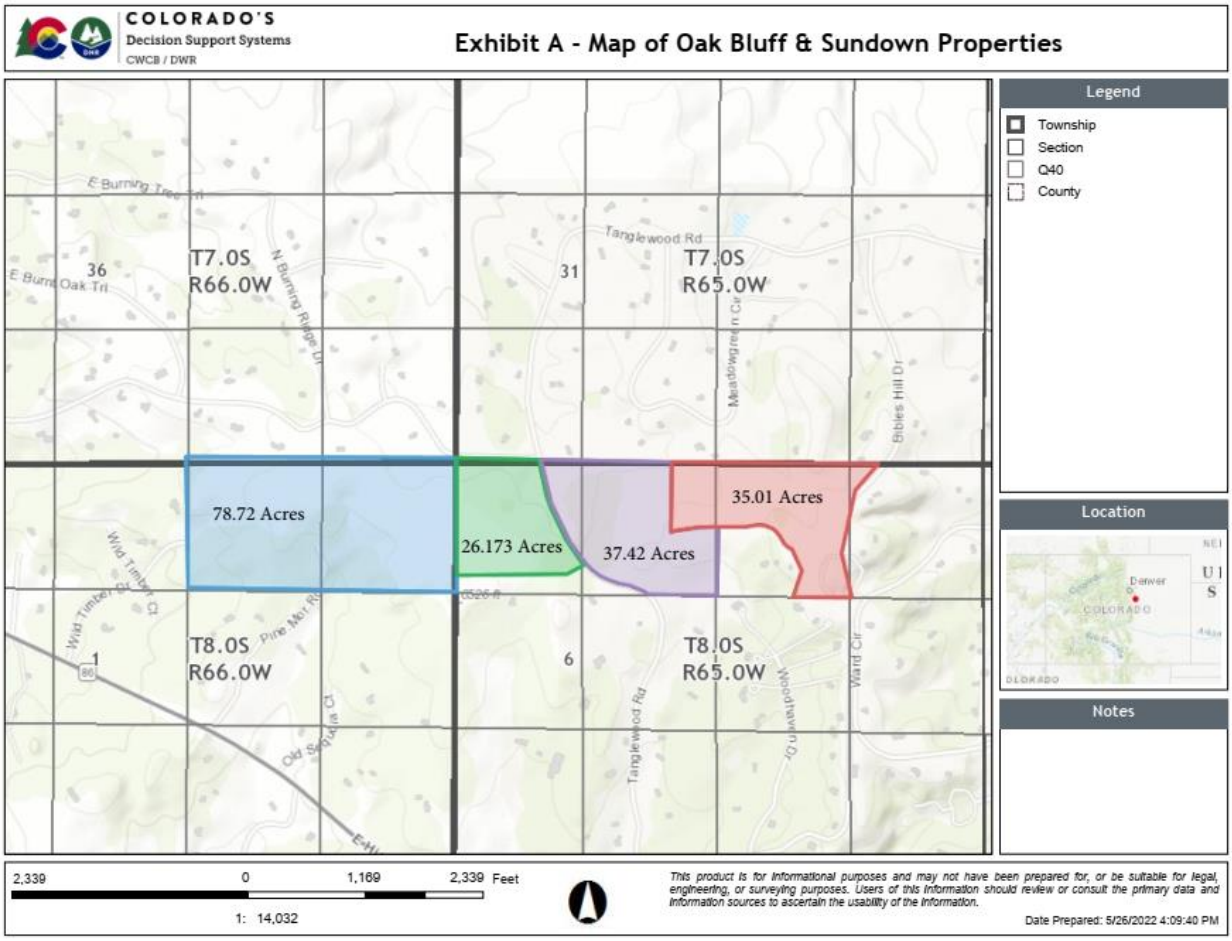
Date: October 5, 2022

John S. Cowan
Water Referee
Water Division One

The Court finds that no protest was filed in this matter. The foregoing is confirmed and is made the judgment and decree of this Court.

Date: October 27, 2022

_____
Shannon Lyons
Alternate Water Judge
Water Division One



Oak Bluff Subdivision, et al.
22CW3071

EXHIBIT A

Oak Bluff & Sundown Properties – Legal Descriptions

78.72 Acres – Oak Bluff Subdivision – Legal Description

N1/2 NE1/4, Section 1, Township 8 South, Range 66 West of the 6th P.M.

26.173 Acres – Oak Bluff Subdivision – Legal Description

A part of the W1/2 of Section 6, Township 8 South, Range 65 West of the 6th P.M., being more particularly described as follows: Commencing at the NW corner of said Section 6, said point being the point of beginning; thence South 88 degrees 47 minutes 54 seconds West and along the North line of the NW¼ of said Section 6, a distance of 814.21 feet to a point on the centerline of an 80.00 foot wide ingress and egress easement; thence Southerly distance of 299.99 feet to a point of curve; 2. Along a curve to the left have a delta of 11 degrees 14 minutes 18 seconds, a radius of 1,016.35 feet, a distance of 199.35 feet measured along the arc to a point of tangent; 3. South 24 degrees 07 minutes 28 seconds East, a distance of 295.52 feet to a point of curve; 4. Along a curve to the left having a delta of 22 degrees 51 minutes 10 seconds, a radius of 406.95 feet, a distance of 162.31 feet measured along the arc to a point of reverse curve; 5. Along a curve to the right having a delta of 14 degrees 49 minutes 25 seconds, a radius of 730.30 feet, a distance of 188.94 feet measured along the arc to a point of reverse curve; thence South 61 degrees 02 minutes 29 seconds West, a distance of 209.52 feet; thence South 89 degrees 40 minutes 30 seconds West, a distance of 1,088.84 feet to a point on the West line of the NW1/4 of said Section 6; thence North 00 degrees 19 minutes 25 seconds West, a distance of 1,152.05 feet to the point of beginning. Basis of bearing is the West center line of the NW1/4 of said Section 6, being considered to bear North 00 degrees 19 minutes 25 second West.

37.42 Acres – Sundown Subdivision – Legal Description

A tract of land situated in the Northwest ¼ of Section 6, Township 8 South, Range 65 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Commencing at the North 1/4 corner of Section 6 and considering the North line of the Northwest ¼ Section 6 to bear N 88°55'53"W with all bearings contained herein relative thereto;
Thence N 88°55'53"W along said North line a distance of 479.21 feet to the True Point of Beginning; Thence N 88°55'53"W along said North line a distance of 1310.70 feet to a point on the centerline of an 80 foot easement recorded at Book 636 at Page 142; Thence Southeasterly along said centerline the following 9 courses;

1. Thence S 13°01'07"E a distance of 300.00 feet to a point of curve;
2. Thence Southeasterly along the arc of a curve to the left a distance of 199.35 feet, said curve has a radius of 1016.35 feet, a central angle of 11 °14'18" to a point of tangent;
3. Thence S 24°15'27"E a distance of 295.52 feet to a point of curve;
4. Thence Southeasterly along the arc of a curve to the left a distance of 162.31 feet, said curve has a radius of 406.95 feet, a central angle of 22°51 '07" to a point of reverse curve;
5. Thence Southeasterly along the arc of a curve to the right a distance of 188.94 feet, said curve has a radius of 730.31 feet, a central angle of 14°49'25" to a point of reverse curve;
6. Thence Southeasterly along the arc of a curve to the left ° a distance of 257.09 feet, said curve has a radius of 369.42 feet, a central angle of 39 52'28" to a point of tangent;
7. Thence S 72°09'37"E a distance of 112.92 feet to a point of curve;
8. Thence Southeasterly along the arc of a curve to the right a distance of 219.63 feet, said curve has a radius of 4169.13 feet, a central angle of 3°01 '06" to a point of a compound curve;
9. Thence Southeasterly along the arc of a curve to the right a distance of 75.70 feet, said curve has a radius of 311.60 feet, a central angle of 13°55'11" to a point of nontangent;

Thence S 88°49'13"E a distance of 716.83 feet to a point on the East line of the Northwest¼ of Section 6;
Thence N 1 °06'41"E along said East line a distance of 674.50 feet to a point on the South right of way line of a 60 foot easement;
Thence Westerly along said South right of way line the following 4 courses;

1. Thence N 88°53'53"W a distance of 34.04 feet to a point of curve;
2. Thence Westerly along the arc of a curve to the left a distance of 215.18 feet, said curve has a radius of 1470.00 feet, a central angle of 8°23'13" to a point of tangent;
3. Thence S 82°42'54"W a distance of 135.66 feet to a point of curve;
4. Thence Westerly along the arc of a curve to the left a distance of 99.75 feet, said curve has a radius of 420.00 feet, a central angle of 13°36'28" to a point of nontangent;

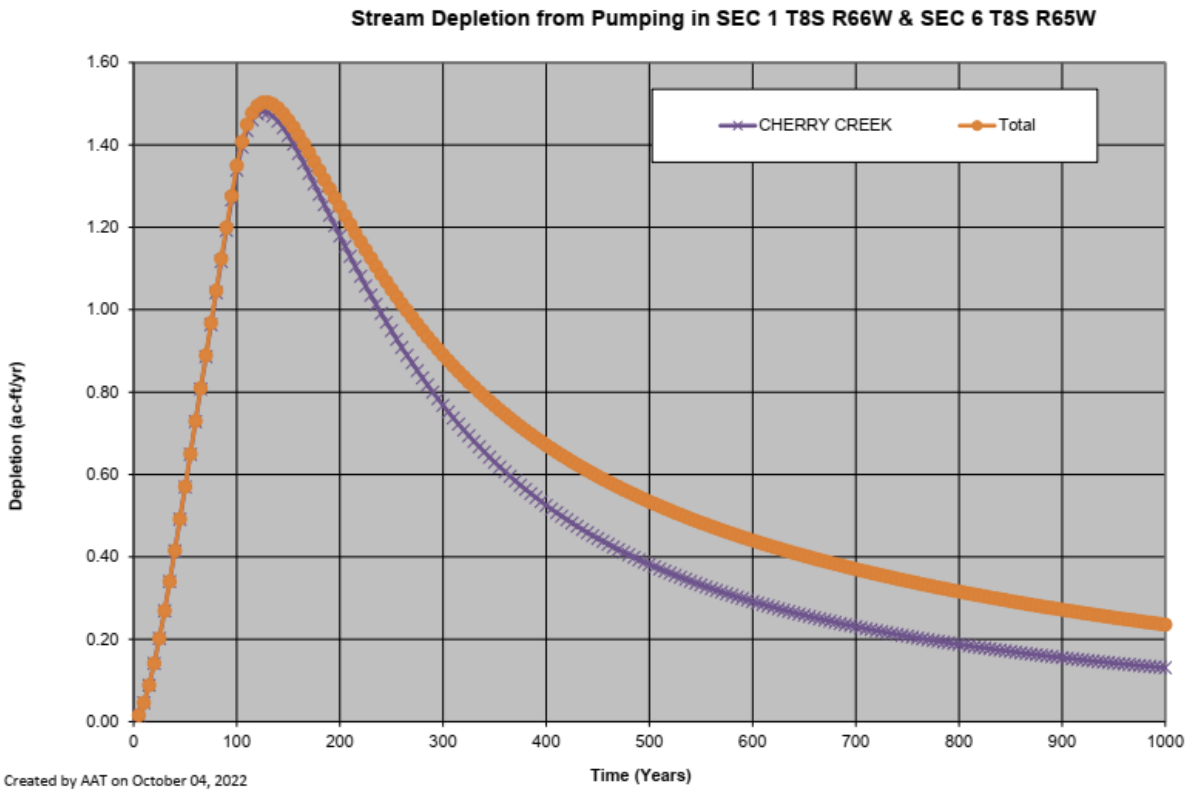
Thence N 1 °04'07"E a distance of 691.60 feet to the Point of Beginning.

35.01 Acres – Sundown Subdivision – Legal Description

A tract of land situated in the North 1/2 of Section, Township 8 South, Range 65 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the North 1/4 corner of Section 6 and considering the North line of the Northwest ¼ Section 6 to bear N 88°55'53"W with all bearings contained herein relative thereto;
Thence N 88°55'53"W along said North line a distance of 479.21 feet;
Thence S 1°04'07"W a distance of 691.60 to a point on the Suth right of way line of a 60 foot easement;
Thence Westerly along said South right of way line the following 9 courses;

1. Thence Easterly along the arc of a curve to the right a distance of 99.75 feet, said curve has a radius of 420.00 feet, a central angle of 13°36'28" and a cord that Bears N 75°54'40"E a distance of 99.52 to a point of tangent;
2. Thence N 82°42'54"E a distance of 135.66 feet to a point of curve;
3. Thence Easterly along the arc of a curve to the Right a distance of 215.18 feet, said curve has a radius of 1470.00 feet, a central angle of 8°23'13" to a point of tangent;
4. Thence S 88°53'53"E a distance of 264.50 feet to a point of curve;
5. Thence Easterly along the arc of a curve to the left a distance of 16.64 feet, said curve has a radius of 500.00 feet, a central angle of 1 °54'26" to a point of tangent;
6. Thence N 80°19'56"E a distance of 119.06 feet to a point of curve;
7. Thence Southeasterly along the arc of a curve to the right a distance of 290.99 feet, said curve has a radius of 230.00 feet, a central angle of 72°29'20" to a point of tangent;
8. Thence S 27°12'34"E a distance of 25.30 feet to a point of curve;
9. Thence Southeasterly along the arc of a curve to the left a distance of 140.13 feet, said curve has a radius of 199.00 feet, a central angle of 40° 20'47" to a point of nontangent;

Thence S 25°22'25"E a distance of 232.32 feet;
Thence S 18°19'51"W a distance of 278.59 feet;
Thence S 89°29'09"E a distance of 576.25 feet;
Thence N 13°28'32"W a distance of 450.11 feet;
Thence N 12°44'04"E a distance of 633.61 feet;
Thence N 42°22'33"Ea distance of 350.63 feet to a point on the North line of the Northeast¼ of section 6;Thence N 89°29'42"W along said North line a distance of 1567.21 feet to the Point of Beginning.



Oak Bluff Subdivision, et al.
22CW3071

EXHIBIT B

CENTRAL FILES

DISTRICT COURT, WATER DIVISION 1, COLORADO

Case No. 95CW288

RECEIVED
AUG 01 1996
WATER RESOURCES
STATE ENGINEER
COLO.

FILED IN
DISTRICT COURT
JUN 26 '96
WELD COUNTY, COLO.

FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, JUDGMENT AND DECREE

CONCERNING THE APPLICATIONS FOR WATER RIGHTS OF CARROLL LAND COMPANY, INC. AND THE ESTATE OF WALLACE E. CARROLL,

IN DOUGLAS COUNTY.

This claim for for nontributary and not nontributary groundwater and approval of plan for augmentation, having been filed on December 29, 1995, and all matters contained in the application having been reviewed, and testimony having been taken where such testimony is necessary, and such corrections made as are indicated by the evidence presented herein, the following is hereby the Ruling of the Referee as follows:

FINDINGS OF FACT

1. Name, address and telephone number of Applicants:

Carroll Land Company, Inc. and the Estate of Wallace E. Carroll
c/o 6300 South Syracuse Way, Suite 300
Englewood, Colorado 80111
(303) 773-2800

2. No statements of opposition were filed and the time for filing of such statements has expired.

3. Subject matter jurisdiction: Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not.

APPROVAL OF GROUNDWATER RIGHTS

4. Aquifers and location of ground water: Applicants seek a decree for rights to all ground water recoverable from the not nontributary Upper Dawson and nontributary Lower Dawson, Denver, Arapahoe and Laramie-Fox Hills aquifers underlying two noncontiguous parcels of land. Parcel A is comprised of approximately 190.73 acres of land, located in parts of Section 1, T8S, R66W and Section 6, T8S, R65W, both of the 6th P.M., as more particularly described on Attachment A hereto. Parcel B is comprised of approximately 82.20 acres of land, located in parts of Section 2, T8S, R66W of the 6th P.M., as more particularly described and shown on Attachment B hereto. Both Parcels A and B ate shown on Attachment C hereto and are hereafter referred to as the "Subject Property". The Subject Property is not located within the boundaries of a designated ground water basin.

5. Well locations, pumping rates and annual amounts: The ground water may be withdrawn at rates of flow necessary to efficiently withdraw the amounts decreed herein so long as the permitted rates are not exceeded. The ground water underlying Parcel A will be withdrawn through any number of wells necessary, to be located at any location on Parcel A, and the ground water underlying Parcel B will be withdrawn through any number of wells necessary, to be located at any location on Parcel B, so long as the wells are located within 200 feet of their respective permitted locations. Applicants hereby waive any 600 foot spacing rule. Applicants may withdraw Upper Dawson groundwater decreed herein as associated with Parcel A through existing well Permit No. 103741, which will is completed into the Upper Dawson aquifer as described in the Determination of Facts for the Upper Dawson dated February 9, 1996. Applicants will apply for a new well permit for the existing well to change the well from an exempt to a fee well to withdraw the Upper Dawson groundwater decreed herein. The estimated annual amounts available for withdrawal underlying Parcels A and B are as follows:

PARCEL A

Aquifer	Saturated Thickness	Amount
Upper Dawson	150 feet	44.2 acre-feet(NNT)*
Lower Dawson	63 feet	24.0 acre-feet(NT)

Denver	200 feet	64.8 acre-feet(NT)
Arapahoe	275 feet	89.2 acre-feet(NT)
Laramie-Fox Hills	195 feet	55.8 acre-feet(NT)

*Amount reduced for Permit No. 103741 pursuant to the Determination of Facts for this aquifer, and reduced by 12 acre-feet per year for uses which are legally available pursuant to Section 37-92-602, C.R.S., on four 47.68 acre tracts of land. The amount of excluded groundwater for use through these exempt wells is approximately 1200 acre-feet from the total amount of groundwater available in the Upper Dawson aquifer underlying Parcel A, or 6.29 acre-feet per surface acre.

PARCEL B

Aquifer	Saturated Thickness	Amount
Upper Dawson	98 feet	10.1 acre-feet(NNT)*
Lower Dawson	46 feet	7.6 acre-feet(NT)
Denver	250 feet	35.0 acre-feet(NT)
Arapahoe	270 feet	37.8 acre-feet(NT)
Laramie-Fox Hills	190 feet	23.4 acre-feet(NT)

*Amount reduced by 6 acre-feet per year for uses which are legally available pursuant to Section 37-92-602, C.R.S., on two 41.14 acre tracts of land. The amount of excluded groundwater for use through these exempt wells is approximately 600 acre-feet from the total amount of groundwater available in the Upper Dawson aquifer underlying Parcel B, or 7.29 acre-feet per surface acre.

The amounts conform with the values and amounts referenced in the State Engineer's Determination of Facts dated February 9, 1996.

6. Proposed Use: The water withdrawn from the subject aquifers will be used, reused, successively used, and after use leased, sold, or otherwise disposed of for the following beneficial purposes: municipal, domestic, industrial, commercial, irrigation, stock watering, recreational, fish and wildlife, and any other beneficial purpose, both on and off the Subject Property. Said water will be produced for immediate application to said uses, for storage and subsequent application to said uses, for exchange purposes, for replacement of depletions resulting from the use of water from other sources, and for augmentation purposes.

7. Final average annual amounts of withdrawal:

A. Final determination of the applicable average saturated sand thicknesses and resulting average annual amounts available to Applicants will be made pursuant to the retained jurisdiction of this Court, as described in paragraph 25 below. The court shall use the acre-foot

amounts in paragraph 5 herein in the interim period, until a final determination of water rights is made.

B. The allowed annual amount of ground water which may be withdrawn through the wells specified above and any additional wells, pursuant to 37-90-137(10), C.R.S., may exceed the average annual amount of withdrawal decreed herein for that aquifer, as long as the total volume of water withdrawn through such wells and any additional wells therefor subsequent to the date of this decree does not exceed the product of the number of years since the date of the issuance of any well permits or the date of this decree, whichever is earliest in time, multiplied by the average annual amount of withdrawal decreed herein for that aquifer, as specified above or as determined pursuant to the retained jurisdiction of the Court. However, amounts set forth in well permits will not be exceeded.

8. Source of ground water and limitations on consumption:

A. The ground water to be withdrawn from the Lower Dawson, Denver, Arapahoe and Laramie-Fox Hills aquifers is "nontributary groundwater" as defined in 37-90-103(10.5), C.R.S., and in the Denver Basin Rules, the withdrawal of which will not, within 100 years, deplete the flow of a natural stream, including a natural stream as defined in 37-82-101(2) and 37-92-102(1)(b), C.R.S., at an annual rate greater than 1/10 of 1% of the annual rate of withdrawal. The ground water to be withdrawn from the Upper Dawson aquifer is "not nontributary" as defined in 37-90-137(9)(c), C.R.S. and such water may be withdrawn pursuant to the plan for augmentation approved herein.

B. Applicants may not consume more than 98% of the annual quantity of water withdrawn from the nontributary Lower Dawson, Denver, Arapahoe and Laramie-Fox Hills aquifers. The relinquishment of 2% of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicants and accepted as satisfactory to the State Engineer, so long as Applicants can demonstrate that an amount equal to 2% of such withdrawals (by volume) have been relinquished to the stream system.

C. There is unappropriated groundwater available for withdrawal from the subject aquifers beneath the Subject Property, and the vested water rights of others will not be materially injured by such withdrawals as described herein. Withdrawals hereunder are allowed on the basis of an aquifer life of 100 years, assuming no substantial artificial recharge within 100 years. No material injury to vested water rights of others will result from the issuance of permits for wells which will withdraw nontributary groundwater or the exercise of the rights and limitations specified in this decree.

9. Additional wells and well fields:

A. Applicants may construct additional and replacement wells in order to maintain levels of production, to meet water supply demands or to recover the entire amount of groundwater in the subject aquifers underlying the Subject Property. As additional wells are planned, applications shall be filed in accordance with 37-90-137(10), C.R.S. However, water underlying Parcels A and B will only be withdrawn through wells located on each specific parcel.

B. Two or more wells constructed into a given aquifer on a specific parcel shall be considered a well field. In effecting production of water from such well field, Applicants may produce the entire amount which may be produced from any given aquifer through any combination of wells within the well field.

C. In considering applications for permits for wells or additional wells to withdraw the groundwater which is the subject of this decree, the State Engineer shall be bound by this decree and shall issue said permits in accordance with provisions of 37-90-137(10), C.R.S., subject to paragraph 5 herein.

D. In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, Applicants shall obtain permits to reflect such adjusted average annual amounts prior to withdrawing the adjusted amounts. Subsequent permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts decreed herein.

E. The water in the Upper Dawson aquifer is not nontributary and up to 54.3 acre-feet per year and no more than 54.3 acre-feet total may be withdrawn pursuant to the augmentation plan decreed herein.

APPROVAL OF PLAN FOR AUGMENTATION

10. Approval of plan for augmentation:

A. Water to be augmented: Up to 44.2 acre-feet per year and 10.1 acre-feet per year of not nontributary Upper Dawson aquifer, underlying Parcels A and B, respectively.

B. Water to be used for augmentation: Return flows associated with use of the not nontributary Upper Dawson ground water and return flows or direct discharge of not nontributary or nontributary ground water decreed herein.

C. Development and Consumptive Use: The Upper Dawson aquifer groundwater may be used on the Subject Property for inhouse, stockwatering, and irrigation uses. Approximately 90% of the amount used for inhouse use and approximately 20% of water used for irrigation will return to the stream systems. All water used for stockwatering is considered to be consumed. Sewage treatment of inhouse use will be provided by non-evaporative septic systems.

D. Replacement during pumping: During pumping of the Upper Dawson ground water, Applicants will replace depletions to Cherry Creek in an amount of water equal to the actual depletions pursuant to §37-90-137(9)(c). In the 100th year, the total depletion to the stream system from withdrawals from the Upper Dawson aquifer on the Subject Property is approximately 14.472% of the amount withdrawn on an annual basis (7.86 acre-feet). Return flows from inhouse use and irrigation use accrues to Cherry Creek and those return flows are sufficient to replace actual depletions caused by pumping of up to 54.3 acre-feet per year from the Upper Dawson aquifer while the wells are being pumped. However, if there is not enough inhouse use or land being irrigated to supply the necessary return flows, Applicants may be required to directly discharge the not nontributary groundwater underlying the Subject Property to Cherry Creek. Because return flows from all uses are estimated rather than measured, Applicants agree that such return flows shall be used only to replace depletions under this plan for augmentation, and will not be sold, traded or assigned in whole or in part for any other purpose.

E. Postpumping Depletion Augmentation: Assuming maximum pumping of 54.3 acre-feet per year from the Upper Dawson aquifer for one hundred years, the maximum depletion based on a total withdrawal of 5430 acre-feet under this plan for augmentation is 15.869% (8.616 acre-feet) which occurs to Cherry Creek in the 119th year. It is Applicants' position that depletions which occur after pumping ceases are not injurious. The Office of the State Engineer does not agree with this position. Nevertheless, in order to reach settlement with the Office of the State Engineer, Applicants will reserve 4420 acre-feet and 1010 acre-feet of nontributary Laramie-Fox Hills water underlying Parcels A and B, respectively, decreed herein for use in this plan. The Court retains continuing jurisdiction in this matter to determine if the supply is adequate.

F. Applicants shall replace post-pumping depletions for the shortest of the following periods: the period provided by C.R.S. 37-90-137(9)(c); the expressed period specified by the Colorado Legislature, should it specify one and providing the Applicants obtain water court approval for such modification; the period determined by the State Engineer, should he choose to set such a period and have jurisdiction to do so; the period established through rulings of the Colorado Supreme Court on relevant cases, or until Applicants petition the water court and after notice to the State Engineer and any parties in the case and proves that he has complied with any statutory requirement.

11. Applicants shall pay the cost imposed by operation of this augmentation plan. Failure of either the Applicants or successors in interest to the Subject Property to comply with the terms of the decree may result in an order of the Division Engineer's office to curtail or eliminate pumping of the Upper Dawson groundwater. This decree shall be recorded in the real property records of Douglas County so that a title examination of the property, or any part thereof, shall reveal to all future purchasers the existence of this decree.

12. Administration of plan for augmentation:

A. Applicants shall report annually to the Division Engineer for Water Division 1 and the appropriate Water Commissioner the monthly metered withdrawals of each well, on an accounting form acceptable to the Division Engineer.

B. All withdrawals which are the subject of this decree will be metered.

C. Pursuant to 37-92-305(8), C.R.S., the State Engineer shall curtail all out-of-priority diversions, the depletions from which are not so replaced as to prevent injury to vested water rights.

D. The Applicants at the direction of the Division Engineer, shall make post pumping replacements to the Cherry Creek stream system pursuant to the amounts referenced on the depletion curve attached hereto on Attachment D.

13. Retained jurisdiction for plan for augmentation:

A. Pursuant to 37-92-304(6), C.R.S. the Court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The Court also has jurisdiction for the purposes of determining compliance with the terms of the augmentation plan.

B. Any person seeking to invoke the retained jurisdiction of the Court shall file a verified petition with the Court. The petition to invoke retained jurisdiction or to modify the Decree shall set forth with particularity the factual basis upon which the requested decretal language to effect the petition. The party lodging the petition shall have the burden of going forward to establish prima facia facts alleged in the petition. If the court finds those facts to be established, Applicants shall thereupon have the burden of proof to show: (1) that any modification sought by Applicants will avoid injury to other appropriators, or (2) that any modification sought by Objector is not required to avoid injury to other appropriators or (3) that any term or condition proposed by Applicants in response to the Objectors' petition does avoid injury to other appropriators.

C. The Court retains jurisdiction for the purpose of determining whether the continued reservation of the nontributary water for use on the property is required. If

Applicants can demonstrate to the Court or by agreement with Objector that post-pumping depletions need no longer be replaced, the court may remove the requirement that the Laramie-Fox Hills nontributary water described above must be reserved.

CONCLUSIONS OF LAW

14. The Water Court has jurisdiction over this proceeding pursuant to 37-90-137(6), C.R.S. This Court concludes as a matter of law that the application herein is one contemplated by law. Section 37-90-137(4), C.R.S. The application for a decree confirming Applicant's right to withdraw and use all unappropriated ground water from the nontributary aquifers beneath the property as described herein pursuant to 37-90-137(4), C.R.S., should be granted, subject to the provisions of this decree. The application for a decree confirming Applicant's right to withdraw and use all ground water from the Upper Dawson aquifer should be granted pursuant to 37-90-137(4) and (9)(c), C.R.S., subject to the provisions of this decree. The withdrawal of up to 54.3 acre-feet annually of the Upper Dawson aquifer water in accordance with the terms of this decree will not result in material injury to vested water rights of others. Applicants shall apply for a new well permit for the existing well Permit No. 103741 to allow that well to withdraw Upper Dawson aquifer groundwater decreed herein.

15. This plan for augmentation satisfies the requirements of 37-90-137(9)(c), C.R.S. for replacement of actual depletions to the affected stream systems for withdrawals of up to 54.3 acre-feet per year and no more than 5430 acre-feet total from the Upper Dawson aquifer.

16. The rights to ground water determined herein shall not be administered in accordance with priority of appropriation. Such rights are not "conditional water rights" as defined by 37-92-103(6), C.R.S., requiring findings of reasonable diligence are not applicable to the ground water rights determined herein. The determination of ground water rights herein need not include a date of initiation of the withdrawal project. See 37-92-305(11), C.R.S

JUDGMENT AND DECREE

The Findings of Fact and Conclusions of Law set forth above are hereby incorporated into the terms of this Ruling and Decree as if the same were fully set forth herein.

17. Full and adequate notice of the application was given and the Court has jurisdiction over the subject matter, and over the parties whether they have appeared or not.

18. For purposes of jurisdiction in this case, § 37-92-302(2), C.R.S., does not require that the application be supplemented with a well permit or evidence of its denial.

19. The Applicants may withdraw the subject ground water herein through wells to be located anywhere on the property, in the average annual amounts and at the estimated average rates of flow specified herein, subject to paragraph 5 above, and the retained jurisdiction by this Court.

20. Applicants may withdraw up to 54.3 acre-feet per year and no more than 5430 acre-feet total of not nontributary ground water from the Upper Dawson aquifer under the plan for augmentation decreed herein pursuant to § 37-90-137(9)(c), C.R.S.

21. Applicants has complied with all requirements and met all standards and burdens of proof, including but not limited to §§37-90-137(9)(c), 37-92-103(9), 37-92-302, 37-92-304(6), 37-92-305(1), (2), (3), (4), (6), (8) and (9), C.R.S., to adjudicate their plan for augmentation, and is therefore entitled to a decree confirming and approving their plan for augmentation as described in the findings of fact.

22. Pursuant to section 37-92-305(5), C.R.S., the replacement water herein shall be of a quality so as to meet the requirements for which the water of the senior appropriator has normally used.

23. The proposed plan for augmentation as described in the findings of fact, is hereby approved, confirmed and adjudicated, including and subject to the terms and conditions specified herein.

24. No owners of, or person entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the operation of the plan for augmentation as decreed herein.

25. Retained Jurisdiction:

A. The Court retains jurisdiction as necessary to adjust the average annual amounts of groundwater available under the property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to § 37-92-305(11), C.R.S. Within 60 days after completion of any well decreed herein, or any test hole(s), Applicants or any successor in interest to these water rights shall serve copies of any geophysical or other log(s) obtained from such well or test hole(s) upon the State Engineer.

B. At such time as adequate data is available, any person including the State Engineer may invoke the Court's retained jurisdiction to make a finding and determination of water rights availability. Within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final finding and determination of water rights availability. The State Engineer shall submit such finding to the Water Court and to the Applicants.

C. If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.

26. Continuing Jurisdiction.

A. Pursuant to § 37-92-304(6), C.R.S. the court retains continuing jurisdiction over the plan for augmentation decreed herein for reconsideration of the question whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The court also retains continuing jurisdiction for the purposes of determining compliance with the terms of the augmentation plan, or for the purpose of amending this decree to provide for a different type of wastewater treatment.

Dated this 25 day of June, 1996.

Raymond S. Liesman
Water Referee
Water Division 1

THE COURT DOTH FIND THAT NO PROTEST WAS FILED IN THIS MATTER, THEREFOR THE FOREGOING RULING IS CONFIRMED AND APPROVED, AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Dated: July 25, 1996

Jonathan W. Hays
Water Judge
Water Division 1

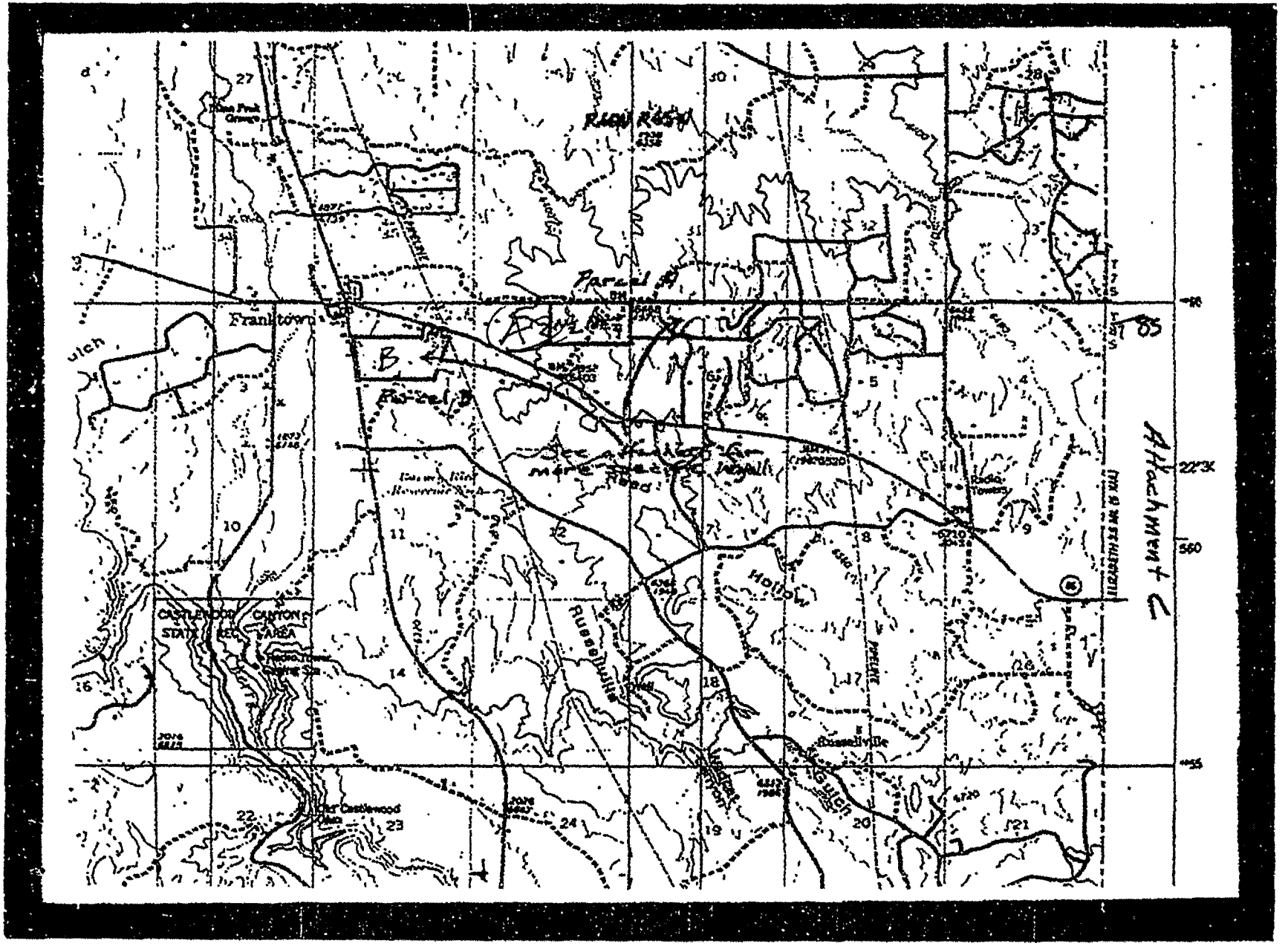

Attachment C
Parcel A
Parcel B
Franktown
Rich Rest
Castlewood Canyon State Rec. Area
Russellville
Russellville Gulch
Hollow
Roseliville
Gulch
Parcel
Road
Creek
Gulch
Hollow
Canyon
Area
Rec.
State
Castlewood
Dam
Lake
Reservoir
Ridge
Trail
Trailhead
Overlook
Picnic
Ranch
Farm
Mine
Tank
Tower
Cemetery
Church
Bridge
Crossing
Intersection
Junction
Divide
Valley
Creek
Gulch
Hollow
Canyon
Area
Rec.
State
Castlewood
Dam
Lake
Reservoir
Ridge
Trail
Trailhead
Overlook
Picnic
Ranch
Farm
Mine
Tank
Tower
Cemetery
Church
Bridge
Crossing
Intersection
Junction
Divide
Valley

EXHIBIT B

DISTRICT COURT, WATER DIVISION 1, COLORADO Court Address: P.O. Box 2038 Greeley, Colorado 80632	DATE FILED: December 2, 2015 11:01 AM CASE NUMBER: 2015CW3059
CONCERNING THE APPLICATION FOR WATER RIGHTS OF: CARROLL LAND COMPANY AND FRANKTOWN DEVELOPMENT COMPANY, Applicants, IN DOUGLAS COUNTY.	Δ COURT USE ONLY Δ Case Number: 2015CW3059

FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, AND JUDGMENT AND DECREE OF THE WATER COURT

A claim for approval of change of water right was filed in this case on May 29, 2015. All matters contained in the application having been reviewed, testimony having been taken where such testimony is necessary, and such corrections made as are indicated by the evidence presented herein, the following is hereby the Ruling of the Referee:

FINDINGS OF FACT

1. Name and address of Applicant:

Carroll Land Company and Franktown Development Company
7505 Village Square Drive, #200
Castle Pines, CO 80108

2. Opposers: No statements of opposition have been filed, and the time for filing of such statements has expired.

3. Subject matter jurisdiction: Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not.

4. Decree information: Case No. 95CW288, Water Division 1, decreed on July 25, 1996. The property which is the subject of the decree is approximately 273 acres located in parts of Sections 1 and 2, T8S, R66W, and Section 6, T8S, R65W of the 6th P.M., as shown on Attachment A (Subject Property).

5. Decreed change: In Case No. 95CW288, an augmentation plan was approved for the use of 54.3 acre-feet per year of not nontributary Upper Dawson aquifer groundwater for in-house, stock watering and irrigation uses. The decree also requires that an equal amount of nontributary

Laramie-Fox Hills aquifer groundwater be reserved for future use in the plan. By this change the augmentation plan is revised to reduce the annual amount of Upper Dawson aquifer groundwater which may be withdrawn pursuant to the plan for augmentation decreed in Case No. 95CW288 to 18.7 acre-feet per year. Also pursuant to this change, the amount of nontributary aquifer groundwater reserved for use in the augmentation plan is reduced to 18.7 acre-feet per year and 1870 acre-feet total.

6. No other parts of the decree in Case No. 95CW288 are changed herein.

CONCLUSIONS OF LAW

7. This Court has jurisdiction over the subject matter of these proceedings and over all who may be affected thereby, whether they have chosen to appear or not pursuant to Section 37-92-302, 37-92-304, and 37-92-305, C.R.S.

8. Timely and adequate notice of the pendency of this action was given in the manner provided by law.

9. The change of water rights decreed herein is, as a matter of law, permissible and comes within the definitions authorized by statute.

10. The terms and conditions as set forth in this decree are adequate to prevent injury to the owners of, or persons entitled to use, water under a vested water right or a decreed conditional water right pursuant to Section 37-92-305, C.R.S

11. Pursuant to Section 37-92-304(6), C.R.S., the Court retains continuing jurisdiction over the plan for augmentation as decreed in Case No. 95CW288 for reconsideration of the question of whether the provisions of this decree are necessary and/or sufficient to prevent injury to vested water rights of others. The Court also retains continuing jurisdiction for the purpose of determining compliance with the terms of the augmentation plan associated with the water herein.

JUDGMENT AND DECREE

12. The foregoing Findings of Fact and Conclusions of Law are fully incorporated herein.

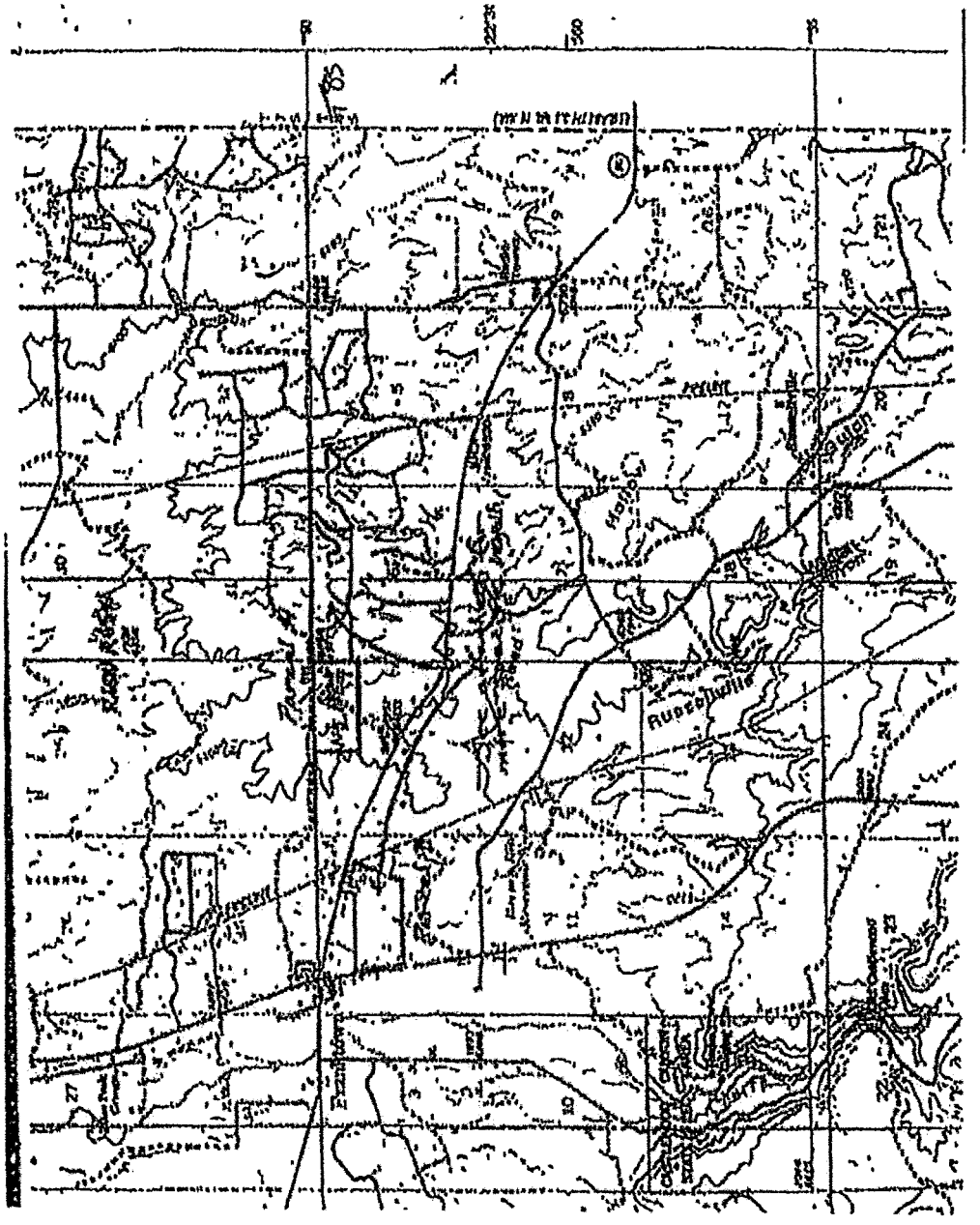
Date: November 9, 2015

John S. Cowan
Water Referee
Water Division 1

The court finds that no protest was filed in this matter. The foregoing ruling is confirmed and approved, and is made the judgment and decree of this Court.

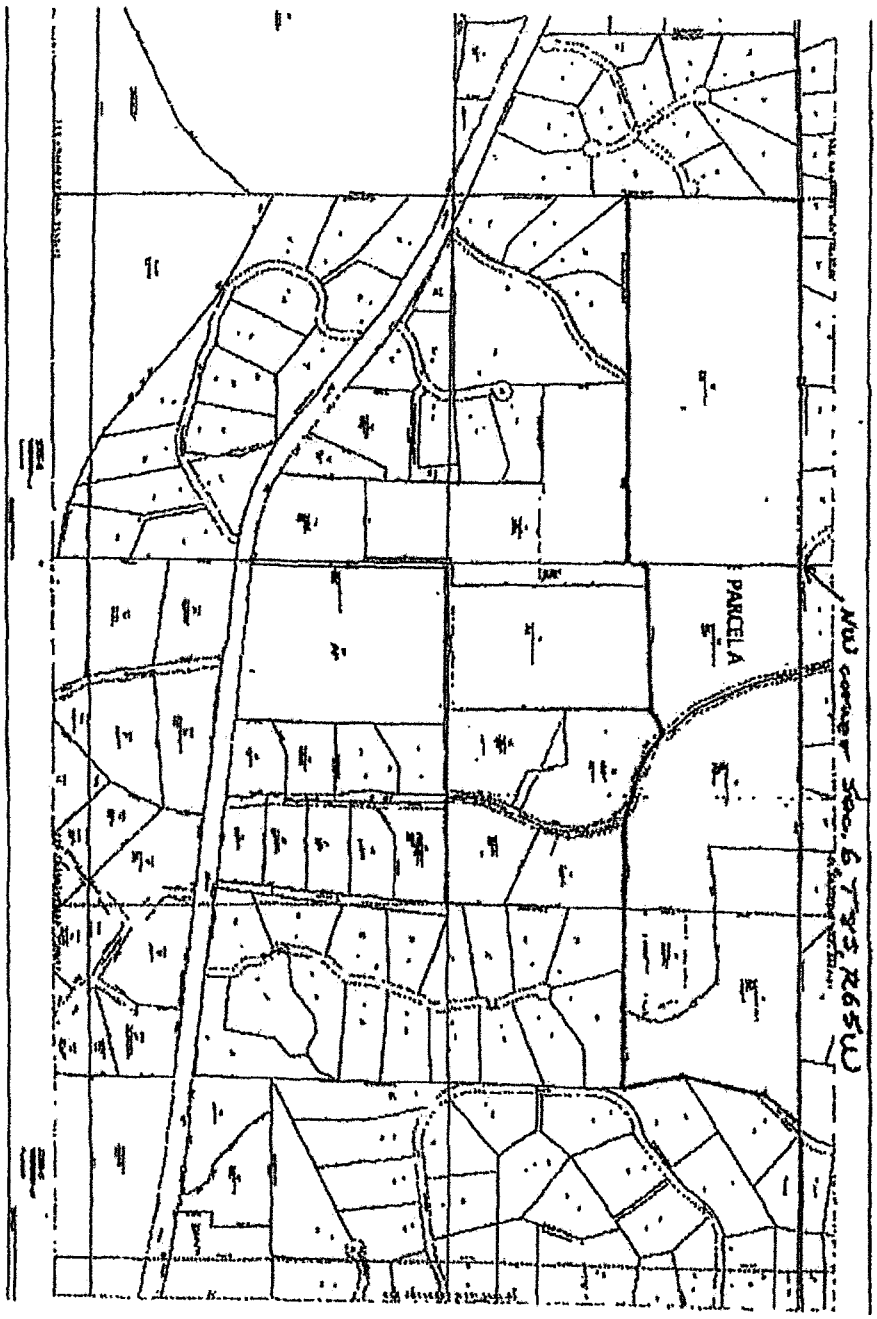
Date: December 2, 2015.

James F. Hartmann
Water Judge, Water Division 1



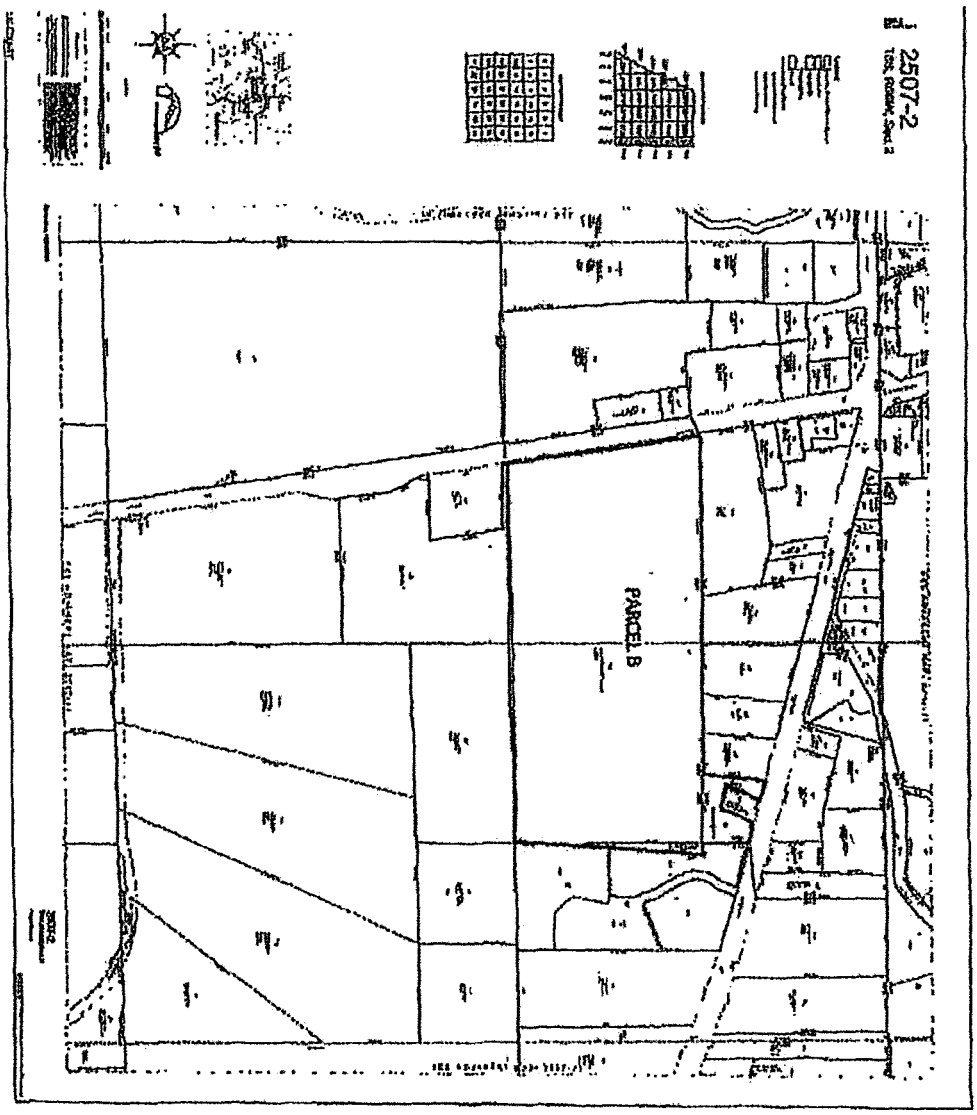
Carroll Land Company, et al.
15CW3059

ATTACHMENT A-1



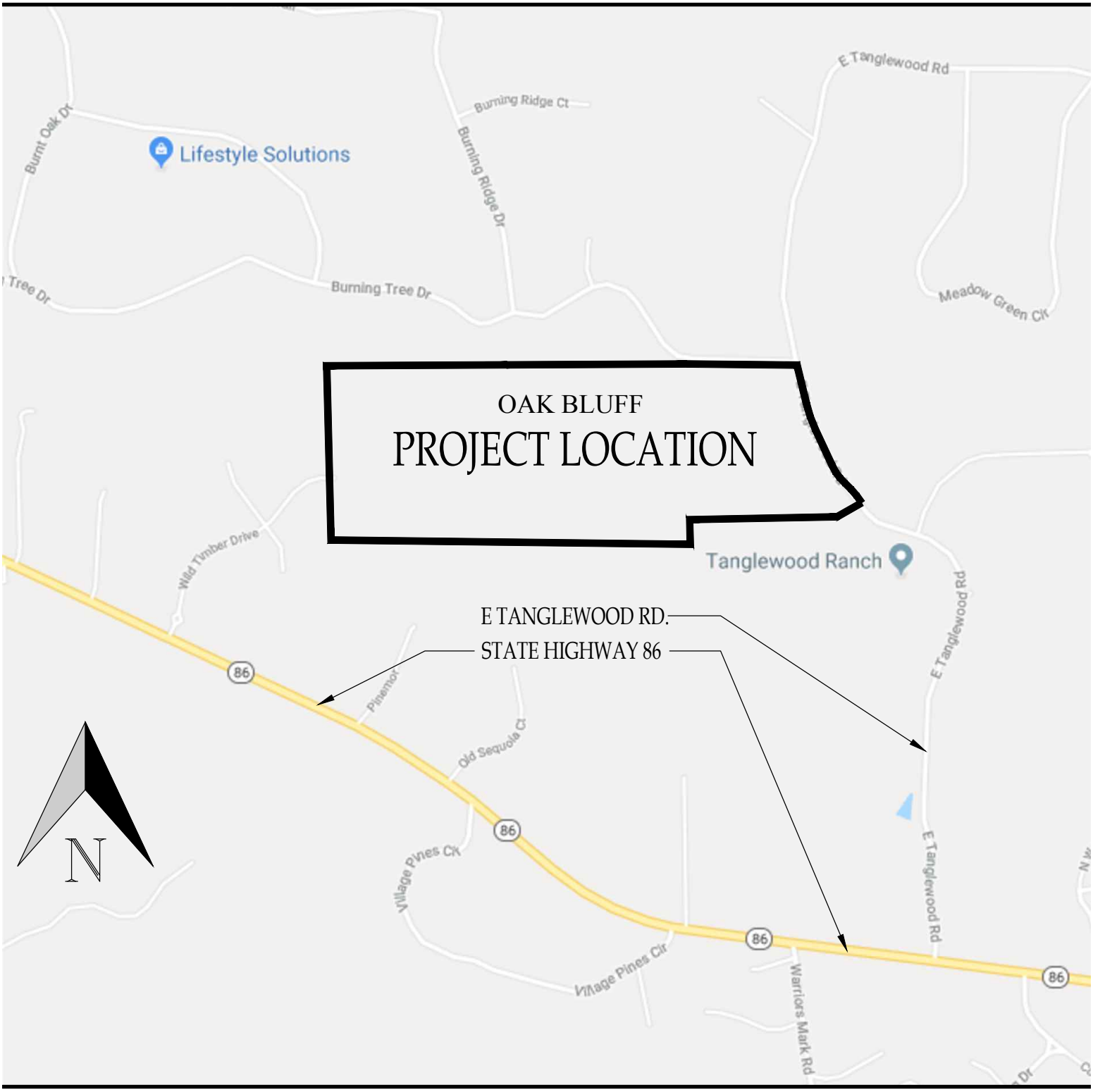
Carroll Land Company, et al.
15CW3059

ATTACHMENT A-2



Carroll Land Company, et al.
1SCW3059

ATTACHMENT A-3



VICINITY MAP

SCALE: 1" = 1000'-0"

SECTIONS-1&6 TOWNSHIP-8 S
RANGES-65&66 W

Exhibit I
Compliance with Colorado's Water Quality Management Plan

There will be individual septic systems that will be installed and operated pursuant to Douglas County regulations.

Exhibit J
Advance and Reimbursement Agreement

REIMBURSEMENT AGREEMENT
(Operations)

THIS REIMBURSEMENT AGREEMENT ("Agreement") is made and entered into this ____ day of _____, 2025, by and between SUNDOWN OAKS METROPOLITAN, a quasi-municipal corporations and political subdivision of the State of Colorado (the "District"); and _____, a Colorado _____ (the "Developer").

RECITALS

WHEREAS, the District is duly and validly organized as a quasi-municipal corporation and political subdivision of the State of Colorado in accordance with the provisions of Title 32, Colorado Revised Statutes; and

WHEREAS, the Developer has an interest related to property within the District's boundaries; and

WHEREAS, the District will use its best efforts to issue bonds to pay for certain capital expenditures, as contemplated in the Service Plan, as the same was approved by the Douglas County Board of County Commissioners; and

WHEREAS, the current financial model for the District acknowledges a deficiency in revenues expected to be generated by the District to pay costs related to the operations of the District; and

WHEREAS, the District anticipates that it will be unable to adequately fund initial administrative and operational expenses on an annual basis without financial assistance in the form of advances contemplated by this Agreement; and

WHEREAS, in order to encourage development within the boundaries of the District and to ensure the continued existence and operation of the District, the Developer anticipates providing funding to the District for the purposes of assisting with the provision of general administrative and operating functions of the District with the expectation of being reimbursed therefor; and

WHEREAS, the District intends to reimburse the Developer for the advances made to the District by the Developer on behalf of the District; and

WHEREAS, the District finds that this Agreement is in the best interests of its current and future taxpayers.

NOW, THEREFORE, for and in consideration of the premises and of the mutual representations, warranties, covenants, agreements, and undertakings set forth herein, the parties agree as follows:

COVENANTS AND AGREEMENT

1. Expenditures. As used in this Agreement, "Expenditures" means operating costs paid by the District to vendors of goods and services provided to or on behalf of the District. Expenditures also include those costs for which the Developer provides monetary advances to the District for administrative and operational expenses of the District, including but not limited to management fees, legal fees, financial consulting fees, engineering fees and general operations and maintenance costs related to the public purposes of the District.

2. Reimbursement. In consideration of advances made by the Developer to the general operating account of the District in accordance with the terms of this Agreement, the District agrees to pay reimbursements plus interest to the Developer pursuant to the terms hereof.

3. Liability. Subject to the terms of this Agreement, the obligations of the District to make the reimbursements plus interest (the "Reimbursement Obligation") arise upon the receipt of any advance of funds made by the Developer to the District, which the District's accountant shall record and track. No advance(s) shall be made until the District has advised the Developer of the amount of the requested advance(s) (the "Advance Request") and the Developer has been provided with an opportunity to review and approve the same. The District hereby agrees that all funds requested will be used for Expenditures permitted under this Agreement. Within ten (10) business days following receipt of an Advance Request, the Developer shall approve the same and cause the full amount of the Advance Request to be deposited into the general operating account of the District. If the Developer fails to approve any Advance Request made by the District, the specific reasons for such action shall be documented in writing and shall be provided to the District in accordance with section 17 hereof.

Reimbursement for advances made by the Developer to the District in each year shall include interest on the outstanding amounts due from the District to the Developer at the annual rate of eight percent (8%) simple interest beginning on the date of advance to the date of repayment, but in no event shall interest be charged that exceeds the AAA 30-year MMD (Municipal Market Data) index interest rate by more than 400 Basis Points for the year the interest is applied. Both such date of advance and date of repayment shall be counted in the determination of the number of days for which interest is payable.

All reimbursements made by the District to the Developer shall be duly recorded in the financial records of the District. The District shall determine and document repayments of amounts due for reimbursement.

4. No Pledge of Specific Revenues or Security. No specific source of funds is pledged, and no other form of security is pledged, to the payment of the Reimbursement Obligation. No security in the form of letters of credit, bond insurance, stand-by credit agreements, or other form of credit enhancement shall be utilized by the District for the payment of, or as security for, the Reimbursement Obligation.

5. No Indebtedness or Financial Obligation. It is the intent of the District and the Developer that this Agreement shall NOT constitute a "debt" or a "multiple-fiscal year direct or

indirect district debt" or other financial obligation whatsoever of the District within the meaning of the Colorado constitution or any other Colorado law and shall be subject to annual appropriation.

Nothing herein shall be construed to pledge District revenues for future years or impose obligations that would require the use of future revenues from a tax otherwise available for general purposes.

Nothing herein, however, shall prevent the Developer and the District from entering into an agreement that includes a reimbursement obligation in the future that has the effect of renewing this Agreement in substantially the same manner that a lease-purchase agreement may be renewed. The Developer has no claim or penalty against the District in the event that this Agreement is not renewed. The Developer agrees that the District has not pledged its credit to its obligations under this Agreement.

6. Termination. This Agreement shall remain in full force and effect until December 31, 2025, and shall be automatically renewed for additional one (1) year periods unless either party provides written notice to the other party at least thirty (30) days prior to December 31 of the then effective term.

7. Not Negotiable. This Agreement is not a negotiable instrument.

8. Enforcement. This Agreement shall be enforceable by either party by actions at law or in equity, and the non-breaching party shall be entitled to any and all remedies available at law or in equity, including, but not limited to, specific performance and/or damages.

9. Amendment. This Agreement is subject to amendment only by the written consent of the parties. Such amendment shall be effective as of the date the amendment is executed by the parties or such other date as the parties shall designate.

10. Severability. This Agreement is intended to be performed in accordance with and only to the extent permitted by all applicable laws, ordinances, rules, and regulations of the State of Colorado. If any provisions of this Agreement or application thereof to any person or circumstance shall for any reason and to any extent be invalid or unenforceable, the remainder of this Agreement and the application of such provision to other persons or circumstances shall not be affected thereby, but rather shall be enforced to the greatest extent permitted by law.

11. Construction of Language. The language used in this Agreement and all parts thereof shall be construed as a whole according to its fair meaning, and not strictly for nor against either party, and both parties have equally participated in the preparation of this Agreement.

12. Non-Waiver. No waiver of any conditions, remedy or provision of this Agreement shall be deemed to have been made unless expressly made in writing and signed by the party against whom such a waiver is charged; and

(a) The failure of either party to insist in any one or more cases upon the performance of any of the provisions, covenants, or conditions of this Agreement or to exercise

any option herein contained, shall not be construed as a waiver thereof or as a relinquishment for the future of any such provisions, covenants, conditions or options;

(b) The acceptance or performance of anything required by this Agreement to be performed with knowledge of the breach or failure of a covenant, condition or provision hereof shall not be deemed a waiver of such breach or failure; and

(c) No waiver by a party of a breach by the other party shall be construed as a waiver with respect to any other or subsequent breach.

13. Governing Law. The terms and provisions of this Agreement shall be governed by, and shall be construed in accordance with, the laws of the State of Colorado.

14. Assignment. This Agreement is personal to the Developer and District, and neither party has any right, power, or authority to assign all or part of this Agreement, or to delegate any duties or obligations arising hereunder unless both parties agree in writing to such assignment.

15. Captions and Headings. The headings throughout this Agreement are for convenience and reference only, and shall in no way be deemed to define, limit, or add to the meaning of any provision of this Agreement.

16. Integration. This Agreement embodies the entire agreement and understanding between the parties concerning the subject matter hereof and supersedes all prior agreements and understandings, if any, between the parties relating to the subject matter thereof.

17. Notices. All notices, requests, demands, consents and other communications hereunder shall be transmitted in writing and shall be deemed to have been duly given when hand delivered or sent by certified United States mail, postage prepaid, with return receipt requested, addressed to the parties as follows:

District: Sundown Oaks Metropolitan District
c/o Spencer Fane LLP
Attn: Nicole Peykov
1700 Lincoln Street, Suite 2000
Denver, CO 80203
Phone: 303-839-3800
Email: npeykov@spencerfane.com

Developer: _____
_____
_____
Attn: _____
Phone: _____
Email: _____

Either party may change the address at which it receives written notice by so notifying the other party in writing in the manner provided herein.

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of the date first above written.

SUNDOWN OAKS METROPOLITAN DISTRICT, a quasi-municipal corporation and political subdivision of the State of Colorado

_____
President

ATTEST:

_____
Secretary

_____,
a Colorado limited liability company

By: _____

Name: _____

Its: _____

FACILITIES FUNDING AND ACQUISITION AGREEMENT

THIS **FACILITIES FUNDING AND ACQUISITION AGREEMENT** ("Agreement") is made and entered into to be effective as of the __ day of _____, 2025, by and between **SUNDOWN OAKS METROPOLITAN DISTRICT**, a quasi-municipal corporation and political subdivision of the State of Colorado (the "District"), _____, a Colorado _____ (the "Developer") (collectively, the "Parties").

RECITALS

WHEREAS, Developer is the owner or developer of certain property situated in Douglas County, Colorado, that will be developed as part of a commercial development (the "Property"); and

WHEREAS, in order to serve the future property owners and taxpayers of the Property, certain public infrastructure improvements must be acquired, constructed or installed including but not limited to water, storm sewer, sanitation and wastewater treatment, road and street improvements, park and recreation improvements, and any other public improvements authorized by the District's Service Plan, as amended ("Improvements"); and

WHEREAS, the District does not currently have funds available for the construction and installation of the Improvements within the area to be developed by Developer; and

WHEREAS, Developer has agreed to either initially construct the Improvements to convey to the District or to initially fund the construction of the Improvements by the District; and

WHEREAS, the District and Developer have determined that for reasons of economic efficiency and timeliness it is in the best interests of the District to establish a means by which either: (1) Developer will construct or cause to have constructed by a general contractor ("Contractor") the Improvements which the District will acquire after they have been completed; or (2) Developer will initially fund the construction and installation of the Improvements by the District subject to reimbursement as provided herein; and

WHEREAS, the District's Service Plan authorizes the issuance of general obligation bonds in sufficient amounts to pay for all or a portion of the Improvements; and

WHEREAS, the District and Developer desire to set forth the procedures for the reimbursement of the costs related to the Improvements.

NOW, THEREFORE, in consideration of the foregoing and the respective agreements of the Parties contained herein, the Parties agree as follows:

COVENANTS AND AGREEMENTS

1. Improvements. Improvements constructed by Developer pursuant to the terms of this Agreement shall be eligible for acquisition by the District upon compliance by Developer with

the requirements of Section 2. Developer shall give notice to the District of its intent to either construct the Improvements pursuant to the provisions of Section 2 of this Agreement or advance the funds for the District to construct the Improvements pursuant to Section 3 of this Agreement.

2. Construction of Improvements. Developer agrees to design, construct, and complete the Improvements in full conformance with the design standards and specifications as established and in use by Douglas County, and any other applicable entities having jurisdiction ("Governmental Entities") pursuant to the provisions of this Agreement. The District will retain an independent, professional engineer licensed in the State of Colorado ("Engineer") to review the Improvements to determine if the Improvements are approved for reimbursement in accordance with the provisions of this Agreement.

A. Cost Verification Procedures. Developer agrees to advance funds to the District to allow the District to make reasonable verification of the costs and suitability of Improvements to be acquired by the District from Developer. One of the two following procedures shall be used to verify the costs of the Improvements:

(i) Prior to awarding a construction contract for any Improvements, Developer shall obtain a minimum of three (3) written bids for the Improvements. Developer shall provide the District with copies of all bids received for the Improvements prior to awarding the contract(s). In the event Developer determines that the lowest responsible bidder is not the lowest bidder on a contract, Developer shall provide documentation justifying the use of the contractor selected to the District prior to awarding the contract; or

(ii) Prior to requesting that the District acquire any Improvements pursuant to this Agreement, Developer shall obtain a certification of the Engineer that the costs for the design, construction and completion of the Improvements are reasonable and comparable for similar projects as constructed in the Denver Metropolitan Area, and complies with the requirements of Section 2.B.

B. Improvements Acquisition. Subject to the receipt of funding pursuant to Section 4 herein, the District agrees to make payment to Developer for all costs related to the Improvements, including but not limited to, organizational costs, all costs of design, testing, engineering, construction, and related consultant fees, plus simple interest thereon to be accrued at the rate of eight percent (8%) from the date of expenditure through the date of repayment. Prior to the District acquiring the Improvements, the Engineer shall certify that the costs for the design, construction, and completion of the Improvements are reasonable and comparable for similar projects as constructed in the Denver Metropolitan Area. The Engineer, in the Engineer's sole professional discretion, may request documents and information as the Engineer deems necessary and appropriate ("Certification Documents") from the Developer to determine if the costs of the Improvements shall be so certified.

The Developer shall only have an obligation to provide the Certification Documents to the Engineer and shall not have a contractual obligation to provide any other documents beyond the Certification Documents actually provided to the Engineer. The purpose of the Certification Documents is to allow the Engineer to examine and certify the costs of the Improvements. By

entering into this Agreement, the District has not directed or assigned to the Developer any obligation to have care, custody, or control of any District documents.

C. Dedication of Improvements. Improvements shall be dedicated as set forth in the District's Service Plan, as required with agreements with the Governmental Entities, or as otherwise directed by the District.

D. Warranty Requirements. All of the Improvements shall have at least a one (1) year warranty (or longer if required by the Governmental Entities) from the date of substantial completion of the completed Improvements and if requested by the District, a security mechanism in form approved by the District to secure the warranty if the District accepts such Improvements prior to the expiration of the warranty.

3. Construction by District/Advances from Developer. As an alternative to Developer's construction of and the District's subsequent acquisition of the Improvements in accordance with Section 2 hereof, at Developer's election, and upon notification to the District and subject to funding pursuant to Section 4, the District may construct all or a portion of the Improvements and acquire related real property interests. If Developer requests the District to construct the Improvements it shall do so subject to prior receipt of funding from Developer and compliance with notice, budget and all requirements for bidding of public improvements. In the event Developer elects to have the District construct the Improvements, the District and Developer acknowledge that until the District has moneys available to fund costs related to the construction of the Improvements, Developer will advance funds to the District to undertake the design, testing, engineering, construction, related consultant fees and construction management of the Improvements ("Construction Related Expenses"). The District shall submit a certified statement to Developer of the Construction Related Expenses based on the bids it receives, and prepared by its engineer. Developer agrees to advance funds to the District up to the amount of the certified Construction Related Expenses (the "Maximum Advance Amount"). Developer acknowledges that the District will be entering into contracts with engineers, architects, surveyors, accountants, managers, attorneys and others in reliance upon Developer's commitments herein to provide funding up to the Maximum Advance Amount. The District shall provide Developer written notice if an advance is required to cover Construction Related Expenses. Developer shall provide the requested advance, subject to the Maximum Advance Amount, within fifteen (15) business days of receipt of notice requesting such advance ("Developer Advance"). Failure of Developer to provide the Developer Advance shall be a default under this Agreement and the District may cease construction until the Developer Advance is made. In the event the cost of the Improvements exceeds the Maximum Advance Amount and the Developer will not advance sufficient funds to complete the Improvements, the District shall have no further responsibility to continue construction. Developer hereby agrees to indemnify the District against any damages caused by the Developer's failure to provide a requested Developer Advance.

A. Construction Contracts. The District agrees that it will enter into contracts for construction of the Improvements with the lowest responsible bidder, which contracts are incorporated herein by this reference ("Contracts"). References to the Contracts herein shall refer to the Contracts as may be constituted or modified by the parties thereto and shall refer to both singular and plural.

B. Construction. The District agrees to design, construct, and complete the Improvements in full conformance with the design standards and specifications as established and in use by the District and other Governmental Entities pursuant to the provisions of this Agreement and if applicable, approved by a professional engineer licensed in the State of Colorado.

C. Accounting. Within forty-five (45) days of final payment on any Contract awarded pursuant to this Agreement, the District shall conduct an accounting of the funds received pursuant to this Agreement. In the event Developer Advances deposited hereunder exceed the actual costs and expenses incurred for the Improvements, the District shall within thirty (30) days of such accounting refund such excess amounts to Developer or shall apply the remaining amounts to the unpaid balance of any other Contract.

4. Reimbursement. The Parties agree that no payment shall be required of the District for Improvements constructed and/or acquired under Section 2 hereof or for Developer Advances pursuant to Section 3 hereof unless and until the District issues bonds ("Bonds") or other appropriate legally available instruments. The Bonds or other instrument(s) may be secured by the collection of fees the District imposes, general property tax revenues of the District, or other available revenue the District receives. The Developer acknowledges that the limit of the District's reimbursement obligation under this Agreement shall be the amount of Bond proceeds or other revenues that can be obtained through collection of fees, property taxes or other revenues of the District, subject to the limitations of the Service Plan and applicable laws. Developer understands and agrees that any Bonds or other instrument shall comply with state statutes and regulations for registration or exemption. In the event the District is unable to reimburse Developer for Developer Advances or the acquisition of Improvements within thirty (30) years of the date of the advancement, any amount of principal and accrued interest outstanding at such time shall be deemed to be forever discharged and satisfied in full. *It is hereby agreed and acknowledged that this Agreement evidences an intent to reimburse Developer hereunder, but this Agreement shall not constitute a debt or indebtedness of the District within the meaning of any constitutional or statutory provision, nor shall it constitute a multiple fiscal year financial obligation, and the making of any reimbursement hereunder shall be at all times subject to annual appropriation by the District in its absolute discretion.*

A. Payment. Until such time as the District issues Bonds, payments made by the District to Developer shall be credited as follows: first against accrued and unpaid interest on Developer Advances; second against the principal amount due on Developer Advances; third against accrued and unpaid interest on the acquisition of Improvements; and finally against the principal amount due for acquisition of Improvements. Once Bonds or other reimbursement instruments are issued to the Developer, the terms contained therein will control and supersede this Agreement for amounts that have been reimbursed thereby.

B. Financial Capability of District. The District may cause to be prepared a financial plan that provides an example of how the District may finance some or all of the Improvements and for reimbursing the Developer. Any such financial plan is based on assumptions provided by the Developer and others and there are no guarantees that the projections are accurate or that the District will have the ability to issue bonds in the amounts or in the timeframes described in the Service Plan.

5. Representations.

A. Developer Representations. Developer hereby represents and warrants to and for the benefit of the District:

(i) That it has the full power and legal authority to enter into this Agreement; and

(ii) Neither the execution and delivery of this Agreement nor the compliance by Developer with any of its terms, covenants, or conditions is or shall become a default under any other agreement or contract to which Developer is a party or by which Developer is or may be bound; and

(iii) Developer has taken or performed all requisite acts or actions which may be required by the organizational or operational documents to confirm its authority to execute, deliver and perform each of its obligations under this Agreement.

These representations and warranties are made as of the date hereof and shall be deemed continually made by Developer to the District for the entire term of this Agreement.

B. District Representations. The District hereby represents and warrants to and for the benefit of the Developer:

(i) That it has the full power and legal authority to enter into this Agreement; and

(ii) To the best of the District's knowledge, neither the execution and delivery of this Agreement nor the compliance by the District with any of its terms, covenants, or conditions is or shall become a default under any other agreement or contract to which the District is a party or by which the District is or may be bound; and

(iii) To the best of the District's knowledge, the District has taken or performed all requisite acts or actions which may be required by the organizational or operational documents to confirm its authority to execute, deliver and perform each of its obligations under this Agreement.

These representations and warranties are made as of the date hereof and shall be deemed continually made by the District to the Developer for the entire term of this Agreement.

6. Term. The term of this Agreement shall extend from the date hereof through and including December 31, 2054, unless terminated earlier by the mutual written agreement of the Parties.

7. Notices. All notices, demands, requests or other communications to be sent by one party to the other hereunder or required by law shall be in writing and shall be deemed to have been validly given or served by delivery of same in person to the address or by courier delivery, via Federal Express or other nationally recognized overnight air courier service, via facsimile with

a hard copy immediately following thereafter by United States mail, or by depositing same in the United States mail, postage prepaid, addressed as follows:

To the District: Sundown Oaks Metropolitan District
c/o Spencer Fane LLP
1700 Lincoln Street, Suite 2000
Denver, CO 80203
Attention: Nicole Peykov
Phone: (303) 839-3715
Fax: (303) 839-3838
Email: npeykov@spencerfane.com

To the Developer: _____
_____
_____
_____

All notices, demands, requests or other communications shall be effective upon such personal delivery or one (1) business day after being deposited with Federal Express or other nationally recognized overnight air courier service or three (3) business days after deposit in the United States mail. By giving the other party hereto at least ten (10) days written notice thereof in accordance with the provisions hereof, each of the Parties shall have the right from time to time to change its address.

8. Assignment. Developer shall not assign any of its rights nor delegate any of its duties hereunder to any person or entity without having first obtained the prior written consent of the District, which may approve or reject such assignment in its sole and absolute discretion. Any purported assignment or delegation in violation of the provisions hereof shall be void and ineffectual.

9. Default/Remedies. In the event of a breach or default of this Agreement by either party, the non-defaulting party shall be entitled to exercise all remedies available at law or in equity, specifically including suits for specific performance and/or monetary damages. In the event of any proceeding to enforce the terms, covenants or conditions hereof, the prevailing party in such proceeding shall obtain as part of its judgment or award its reasonable attorneys' fees. Failure by Developer to provide Developer Advances as required hereunder shall be a default subject to immediate termination of this Agreement by the District.

10. Governing Law and Venue. This Agreement shall be governed and construed under the laws of the State of Colorado, and any proceedings shall take place in the County wherein the District is located, and not elsewhere.

11. Inurement. Each of the terms, covenants and conditions hereof shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.

12. Integration. This Agreement constitutes the entire agreement between the Parties with respect to the matters addressed herein. All prior discussions and negotiations regarding the subject matter hereof are merged herein.

13. Parties Interested Herein. Nothing expressed or implied in this Agreement is intended or shall be construed to confer upon, or to give to, any person other than the District and Developer any right, remedy, or claim under or by reason of this Agreement or any covenants, terms, conditions, or provisions thereof, and all the covenants, terms, conditions, and provisions in this Agreement by and on behalf of the District and Developer shall be for the sole and exclusive benefit of the District and Developer.

14. Severability. If any covenant, term, condition, or provision under this Agreement shall, for any reason, be held to be invalid or unenforceable, the invalidity or unenforceability of such covenant, term, condition, or provision shall not affect any other provision contained herein, the intention being that such provisions are severable.

15. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original and all of which shall constitute one and the same document.

16. Conditions Precedent. The performance by Developer of its obligations set forth herein shall constitute conditions precedent to the performance of the obligations of the District as set forth herein.

17. Paragraph Headings. Paragraph headings are inserted for convenience of reference only.

[*Signature page to follow*]

IN WITNESS WHEREOF, the Parties have executed this Facilities Funding and Acquisition Agreement as of the day and year first set forth above.

"DISTRICT"

SUNDOWN OAKS METROPOLITAN DISTRICT, a quasi-municipal corporation and political subdivision of the State of Colorado

By: _____
_____, President

ATTEST:

_____
_____, Secretary

"DEVELOPER"

_____
a Colorado _____

By: _____

Name: _____

Its: _____

EXHIBIT A

BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS that _____, hereinafter referred to as "Grantor," for and in consideration of Ten Dollars ($10.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, paid by Sundown Oaks Metropolitan District, hereinafter referred to as the "District," a quasi-municipal corporation and political subdivision of the State of Colorado, whose address is c/o Spencer Fane LLP, 1700 Lincoln Street, Suite 2000, Denver, Colorado 80203, organized and existing under the laws of the State of Colorado, County of Douglas, has bargained and sold, and by these presents, does grant and convey unto the District, its successors and assigns, all of its right, title and interest in the improvements as described below and shown on Exhibit A attached hereto and incorporated herein by this reference.

TO HAVE AND TO HOLD the same unto the District, its successors and assigns forever; and Grantor, its successors and assigns, shall warrant and defend the sale of said property, improvements, services and facilities made unto the District, its successors or assigns, against all and every person or persons whomsoever, and warrants that the conveyance of the property, improvements, services and facilities to the District, its successors or assigns, is made free from any claim or demand whatever.

IN WITNESS WHEREOF, Grantor, by and through its authorized representatives, hereby executes this Bill of Sale and sets it seal as of this ____ day of _____, 20__.

GRANTOR

_____

STATE OF COLORADO)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ___ day of _____, 20__, by_____, as _____ of_____.

Witness my hand and official seal.

My commission expires: _____

_____
Notary Public

Exhibit K
Intergovernmental Agreements

An agreement with the Franktown Fire Protection District is anticipated in regards to specific service requirements and operation of cistern and other firefighting facilities.

Exhibit L
Annual Report Requirements

The District shall be responsible for submitting an annual report to the County no later than August 1 of each year. The annual report shall conform to the following format:

Sundown Oaks Metropolitan District

Year ANNUAL REPORT

(For Activities Completed in Year, and With Information About Prospective Years)

I. District Description - General Information
   a. Board members, officers' titles, and terms
   b. Changes in board membership in past year
   c. Name and address for official District contact
   d. Elections held in the past year and their purpose

II. Boundary changes for the report year and proposed changes for the coming year

III. List of intergovernmental agreements (existing or proposed) and a brief description of each detailing the financial and service arrangements
   a. Contracts for operations, debt, and other contractual obligations with sub-districts or operating and taxing districts
   b. Reimbursement agreements with developers and/or builders for advances to fund capital costs and administrative/operational and maintenance costs of the District

IV. Service Plan
   a. List and description of services authorized in Service Plan
   b. List and description of facilities authorized in Service Plan
   c. List and description of any extraterritorial services, facilities, and agreements

V. Development Progress

a. Indicate the estimated year of build-out, as set forth in the Service Plan
b. List the services provided with the date service began compared to the date authorized by the Service Plan
c. List changes made to the Service Plan, including when the change was authorized, when it was implemented or is expected to be implemented
d. List facilities to be acquired or constructed or leased back as set forth in the Service Plan and compare the date of completion or operation with the date authorized by the Service Plan
e. List facilities not completed. Indicate the reason for incompletion and provide a revised schedule, if any
f. List facilities currently under construction with the percentage complete and an anticipated date of completion
g. Indicate the population of the District for the previous five (5) years and provide population projections for the next five (5) years
h. List the planned number of housing units by type and the number of commercial and industrial properties with respective square footage and anticipated dates of completion/operation. Compare the completed units and completed commercial and industrial properties to the amount planned in the Service Plan.
i. List any enterprises created by and/or operated by or on behalf of the District, and summarize the purpose of each

VI. Financial Plan and Financial Activities

a. Provide a copy of the audit or exemption from the audit for the reporting year.
b. Provide a copy of the budget, showing the reporting and previous years.
c. Show revenues and expenditures of the District for the previous five (5) years and provide projections for the next five (5) years. Include any non-District or non-governmental financial support. Include and list individually all fees, rates, tolls, etc., with a summary of the purpose of each. Show other miscellaneous tax revenue, such as specific ownership taxes.

For the same period, show actual and projected mill levies by purpose (showing mill levies for each individual general obligation, revenue-based obligation, or contractual obligation).

d. List all debt that has been issued, including all individual issuances with a schedule of service until the debt is retired
e. List individually all authorized but unissued debt, including the purpose, ballot issue letter designation and election date, and amounts authorized and unissued
f. List the total amount of debt issued and outstanding as of the date of the annual report and compare to the maximum authorized debt level as set forth in the Service Plan
g. Enterprises of the District
    i. Include revenues of the enterprise, showing both direct support from the District and all other sources
    ii. Include expenses of the enterprise, showing both direct payments to the District and all other obligations
h. Detail contractual obligations
    i. Describe the type of obligation, current year dollar amount, and any changes in the payment schedule, e.g. balloon payments.
    ii. Report any inability of the District to pay current obligations that are due within the current budget year
    iii. Describe any District financial obligations in default
i. Actual and Assessed Valuation History
    i. Report the annual actual and assessed valuation for the current year and for each of seven (7) years prior to current year
    ii. For each year, compare the certified assessed value with the Service Plan estimate for that year. If Service Plan estimates are not available, indicate the same and report the certified value.

j. Mill Levy History
    i. Report the annual mill levy for the current year and for each of the seven (7) years prior to current year. Break the mill levies out by purpose (e.g., debt issuance and operations and maintenance)
    ii. For each year, compare the actual mill levy with the Service Plan estimate for that year. If Service Plan estimates are not available, indicate the same and report the actual mill levies.

k. Miscellaneous Taxes History
    i. Report the annual miscellaneous tax revenue for the current year and for each of the seven (7) years prior to the current year. Break the tax revenue out by purpose (e.g., general operations, revenue-based obligations, debt by issue, contractual obligations, other)
    ii. For each year, compare the actual miscellaneous tax revenue with the Service Plan estimate for that year (if provided in Plan). If the Service Plan estimates are not available, indicate the same and report the actual taxes.

l. Estimated Assessed Valuation of District at 100% Build-Out
    i. Provide an updated estimate and compare this with the Service Plan estimate.

m. Estimated Amount of Additional General Obligation Debt to be Issued by the District between the End of Current Year and 100% Build-Out.
    i. Provide an updated estimate based on current events. Do not include refunding bonds.

Exhibit M
District Court Decree

SERVICE PLAN

FOR

SUNDOWN OAKS METROPOLITAN DISTRICT

DOUGLAS COUNTY, COLORADO

Prepared

by

~~[~~
~~[~~
~~[~~

~~[~~

~~[~~

Spencer Fane LLP
1700 Lincoln Street, Suite 2000
Denver, CO 80203

DRAFT: June 2, 2025

FORMAL SUBMITTAL: _____, 2025

APPROVAL DATE: _____, 2025

TEMPLATE

APPROVAL SUMMARY

This Service Plan for the Sundown Oaks Metropolitan District was approved by the Douglas County Board of County Commissioners on (date). Resolution No. _____, approving this Service Plan, has been recorded at Reception No. _____ on (date). The organizational and TABOR elections took place on (date). The court decree organizing the District was recorded with the Douglas County Clerk and Recorder on (date) at Reception No. _____.

TEMPLATE

ORGANIZERS AND CONSULTANTS

This Service Plan has been prepared by the Organizers and the following participating consultants:

Organizer	District Counsel
~~Company~~ NorthStar Custom Homes, Inc. Attn: ————Steven Gage ~~Address~~ ~~City, State Zip~~ 1128 Neptunite Place Castle Rock, CO 80108 Phone: 303-725-1466 ~~Fax:~~ Email: stevengage71@gmail.com	~~Company~~ Spencer Fane LLP Attn: Nicole Peykov ~~Address~~ ~~City, State Zip~~ 1700 Lincoln Street, Suite 2000 Denver, CO 80203 Phone: 303-839-3800 ~~Fax:~~ Email: npeykov@spencerfane.com
Financial Advisor	Engineer
~~Company~~ RBC Capital Markets, LLC Attn: Michael Persichitte ~~Address~~ ~~City, State Zip~~ 1801 California Street, Suite 3850 Denver, Colorado 80202 Phone: (303) 595-1292 ~~Fax:~~ ~~Email:~~E-mail: michael.persichitte@rbccm.com	~~Company~~ Canyon Creek Engineering Attn: Phil Giesing, P.E. ~~Address~~ ~~City, State Zip~~ P.O. Box 3072 Parker, CO 80134 Phone: 303-805-1803 ~~Fax:~~ Email: phil@canyoncreekengineering.com

~~[ADDITIONAL CONSULTANTS MAY BE ADDED AT THE DISCRETION OF THE ORGANIZERS.]~~

TEMPLATE

EXECUTIVE SUMMARY

This service plan is for the Sundown Oaks Metropolitan District (the "District"), which will serve the public improvement needs of ~~.~~Sundown Oaks. The District is generally located ~~at~~ near the intersection of Burning Tree and East Tanglewood Road and contains approximately 173 acres. The District will include 37 residential units and 0 square feet of commercial space.

The District will have a single district structure. This structure will allow the District to control both financing and services.

The District shall be authorized to provide the following services: fire protection, mosquito control, parks and recreation, safety protection, sanitation, solid waste disposal facilities or collection and transportation of solid waste, street improvement, television relay and translation, and water and other services described in C.R.S. §§ 32-1-1001 and 1004, as amended, and subject to the limitations in this Service Plan.

The total authorized debt limit for the District shall be ~~($).~~Ten Million Dollars ($10,000,000.00). The District anticipates the issuance of an initial series of bonds in the amount of ~~($) on .~~Three Million Six Hundred and Twenty-Five Thousand Dollars ($3,625,000) in 2027. The initial debt service mill levy will be 50.000 mills, with a Maximum Debt Service Mill Levy of ~~_____~~50.000 mills. The initial operations and maintenance mill levy will be 10.000 mills, with a Maximum Operations and Maintenance Mill Levy of ~~_____~~20.000 mills. The combined initial mill levy for the District will be 60.000 mills, with a maximum combined mill levy of ~~_____~~70.000 mills.

TEMPLATE

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Exhibit A Vicinity Map

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Exhibit H Compliance with Section 18A, Water Supply – Overlay District

Exhibit I Compliance with ~~DRCOG~~Colorado Clean Water Plan

Exhibit J Advance and Reimbursement Agreement

Exhibit K Intergovernmental Agreements

Exhibit L Annual Report Requirements

Exhibit M District Court Decree

TEMPLATE

I. INTRODUCTION

This service plan (the "Service Plan") for the Sundown Oaks Metropolitan District (the "District") is for a special district organized under Title 32 of the Colorado Revised Statutes to serve the public improvement needs of Sundown Oaks Development (the "Project"). The District is generally located near the intersection of Burning Tree Drive and East Tanglewood Road (see **Exhibit A**, Vicinity Map) and contains approximately 173 acres (see **Exhibits B & C**, Legal Description and District Boundary Map).

Pursuant to the requirements of the Special District Control Act, C.R.S. §32-1-201, *et seq.*, as amended, and the Special District Service Plan Review Procedures for Douglas County (the "County"), the following items are included in this Service Plan:

1. A description of the powers granted to and services to be provided by the District;
2. A general description of the facilities to be constructed and the standards of such construction, including a statement of how the facility and service standards of the District are compatible with facility and service standards of the County and of any municipalities and special districts which are interested parties;
3. A general written description of the estimated cost of acquiring land, engineering services, legal services, administrative services, initial indebtedness and estimated maximum interest rates and discounts, and other major expenses related to the organization and initial operation of the District;
4. A summary of general conditions regarding oversight of the District by the County;
5. A legal description and map of the District's boundaries and an estimate of the population and valuation for assessment of the District;
6. A summary of estimated costs for improvements to be financed and constructed by the District;
7. A preliminary engineering and architectural survey showing how the improvements and services are to be provided;
8. A financial plan showing how District improvements and services are to be financed, including the operating revenue for the first budget year of the District;
9. The resolution of approval adopted by the Board of County Commissioners;
10. Information demonstrating compliance with Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, and compliance with the ~~Denver Regional Council of Governments'~~Colorado Clean Water Plan;
11. A description of any advance and reimbursement agreements;
12. A description of any arrangement or agreement with any political subdivision for the performance of any services between the District and such other political subdivision; and
13. The recorded court decree organizing the District.

Exhibits A through **M,** attached hereto, are hereby incorporated into the Service Plan.

II. PURPOSE OF THE DISTRICT

The purpose of the District is to provide public improvements and services for the benefit of all anticipated inhabitants and taxpayers of the District, either within or without its boundaries. The District also serves to finance and oversee the construction of these public improvements and to provide for ongoing operations and maintenance services.

III. DISTRICT FRAMEWORK

The District will be organized under a single district structure and will be responsible for all aspects of financing and services authorized under this Service Plan.

IV. NEED FOR DISTRICT

There are currently no other governmental entities, including the County, located in the immediate vicinity of the District that consider it desirable, feasible, or practicable to undertake the planning, design, acquisition, construction, installation, relocation, redevelopment, financing, and ongoing operations of the public improvements needed for the Project. Formation of the District is therefore necessary in order for the public improvements and services required for the Project to be provided in the most economical manner possible.

V. LOCATION AND BOUNDARIES

The District is located ~~,~~near the intersection of Burning Tree Drive and East Tanglewood Road in Douglas County. A vicinity map is attached hereto as **Exhibit A**. The area of the initial District's boundary encompasses approximately 173 acres. A legal description of the District's boundaries is attached hereto as **Exhibit B**. A map of the initial District's boundaries is attached hereto as **Exhibit C**.

It is anticipated that the District's boundaries may change from time to time as it undergoes inclusions and exclusions pursuant to C.R.S. §§ 32-1-401, *et seq.*, and C.R.S. §§ 32-1-501, *et seq.*, as amended. ~~***Future inclusion and exclusion areas are identified in Exhibit C.***~~ Prior to any inclusions or exclusions ~~***that are not identified in Exhibit C***~~, the District shall provide forty-five (45) days published notice and written notice to the Board of County Commissioners pursuant to C.R.S. § 32-1-207(3)(b). If, within such forty-five (45) day period, the Board of County Commissioners objects to the inclusion or exclusion, then the inclusion or exclusion shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

VI. ASSESSED VALUATION/PROJECTIONS/LAND USE/POPULATION

The property within the District is zoned ~~as of .~~ vacant or residential. The current assessed value of property within the initial boundaries of the District is ~~($)~~0.00 as of the date of ~~,~~this Service Plan. The estimated assessed value at full build-out is ~~($)~~Six Million

Two Hundred and Five Thousand Six Hundred Fifty Three Dollars ($6,205,653) and is expected to be sufficient to reasonably discharge the debt under the Financial Plan. Initially, the District will include 37 residential units and 0 square feet of commercial space. Based upon an estimated ~~()~~three (3) persons per residence, the population of the District at build-out will be ~~()~~One Hundred Eleven (111) residents.

Approval of this Service Plan by the County does not constitute nor imply approval of the development of a specific area within the District, nor does it constitute or imply approval of the number of residential units or the total site/floor area of commercial or industrial buildings identified in this Service Plan or any of the exhibits attached hereto, unless such land use plans have been approved by the Board of County Commissioners as part of a separate development review process.

VII. POWERS AND RESPONSIBILITIES

The District shall have the power and authority to provide the public improvements and related operation and maintenance services within and without the boundaries of the District as such power and authority is permitted by this Service Plan and described in the Special District Act, C.R.S. Title 32, and other applicable statutes, common law, and the Colorado Constitution, subject to the limitations set forth herein.

A. General Powers

The District shall have the authority to construct, operate, and maintain the services and facilities as described in Section VIII.A of this Service Plan.

B. Miscellaneous Powers

In addition to the powers enumerated above, the District's Board shall have the power and authority:

1. To amend this Service Plan as provided for in Section XV, Modification of Service Plan;

2. To forego, reschedule, or restructure the financing and construction of certain improvements and facilities in order to better accommodate the pace of growth, resource availability, and potential inclusions and exclusions of property within the District, with prior notice to the County in accordance with C.R.S. § 32-1-202(2)(b), as amended; and

3. To have and exercise all rights and powers necessary or incidental to, or implied from, the specific powers granted to the District in this Service Plan.

4. To have and exercise the power of eminent domain, but only as necessary to construct, install, access, relocate or redevelop the public improvements identified in this Service Plan in the locations shown in Exhibit E. Any other use of eminent domain shall require the District to provide forty-five (45) days published notice and written notice to

the Board of County Commissioners pursuant to C.R.S. § 32-1-207(3)(b). If, within such forty-five (45) day period, the Board of County Commissioners objects to the use of eminent domain, then it shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

VIII. DISTRICT SERVICES, FACILITIES, AND IMPROVEMENTS

A. Services and Facilities

The District shall have the authority pursuant to C.R.S. §§ 32-1-1001 and 32-1-1004, as amended, to provide the following services and public improvements described in this section.

1. Water

~~The~~It is anticipated that each individual home within the Project will receive water service from its own groundwater well. Nonetheless, the District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for potable water and irrigation water facilities and systems, including, but not limited to, water rights, water supply, treatment, storage, transmission, and distribution systems for domestic, irrigation, fire control, and other public purposes, together with all necessary and proper reservoirs, treatment facilities, wells, equipment, and appurtenances incident thereto, which may include, but shall not be limited to, transmission lines, pipes, distribution mains and laterals, storage facilities, and ditches, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto. The District shall have the power and authority to contract with other private or governmental entities to provide any or all of the services the District is authorized or empowered to provide.

~~***As identified in the Service Plan Review Procedures, the Board of County Commissioners is interested in the provision of long term renewable water supplies in the County. Please be prepared to discuss any plans for long-term, renewable water service (including infrastructure and financial information), if applicable.***~~

2. Storm Sewer

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for flood and surface drainage improvements, including, but not limited to, culverts, dams, retaining walls, access way inlets, detention and retention ponds, paving, roadside swales, curbs and gutters, disposal works and facilities, water quality facilities, and all necessary and proper equipment, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

Stormwater improvements subject to Colorado Discharge Permit System Regulations, if applicable, shall be owned and maintained by the District or such other governmental entity that may accept dedication. Dedication to another governmental entity of stormwater improvements subject to such regulations shall be subject to approval by the County. In no event will the District dedicate such detention ponds or facilities to a private homeowner's association, or other property owner's association, for operations or maintenance.

3. Sanitation and Wastewater Treatment

~~The~~It is anticipated that each individual home within the Project will utilize its own on-site wastewater treatment system. Nonetheless, the District shall have the power and authority to finance, design, construct, acquire, install, maintain, assess tap or other facility fees, and provide for sanitary sewers and to transport wastewater to an appropriate wastewater treatment facility, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

4. Street Improvements

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for arterial and collector streets and roadway improvements including, but not limited to, bridges, curbs, gutters, culverts, storm sewers and drainage facilities, detention and retention ponds, retaining walls and appurtenances, sidewalks, paving, lighting, grading, landscaping, streetscaping, placement of underground utilities, snow removal, tunnels, and other street improvements, and architectural enhancements to any or all of the above, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

5. Traffic Safety Protection

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for safety protection through traffic control devices and safety controls on streets, as well as such other facilities and improvements as are necessary or prudent, including, but not limited to, signalization at intersections, traffic signs, area identification signs, directional assistance and driver information signs, with all necessary and incidental and appurtenant facilities, and land and easements, together with extensions and improvements thereto. All traffic and safety control devices will be consistent with and in compliance with County rules and regulations.

6. Parks and Recreation

The District shall have the power and authority to finance, design, construct, acquire, install, maintain, and provide for public park and public recreation centers and other recreation facilities, services, or programs including, but not limited to, grading, soil preparation, sprinkler systems, fencing, pavilions, playgrounds, playing fields, open space, bike trails, pedestrian trails, pedestrian bridges, picnic areas, common area landscaping,

streetscaping, storage buildings and facilities, weed control, paving, decorative paving, outdoor functional and decorative lighting, community events, and other services, programs and facilities, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

7. Television Relay and Translation

The District shall have the power and authority to finance, design, construct, install, acquire, operate, and maintain television relay and translator facilities, with all necessary and incidental and appurtenant facilities, land and easements, together with extensions and improvements thereto.

8. Mosquito Control

The District shall have the power and authority to finance, design, construct, acquire, install, operate, maintain, and provide for systems and methods for elimination and control of mosquitoes.

9. Fire Protection

The District shall have the power and authority to ~~provide fire protection, ambulance, and emergency medical and rescue services, including necessary equipment, personnel, and facilities~~finance, design, construct, acquire, install, operate, and provide for fire cisterns.

10. Covenant Enforcement and Design Review

The District shall have the power and authority to provide covenant enforcement and design review services subject to the limitations set forth in C.R.S. § 32-1-1004(8), as amended.

11. Security

The District shall have the power and authority to provide security services within the boundaries of the District, subject to the limitations set forth in C.R.S. § 32-1-1004(7), as amended. In no way is this power and authority intended to limit or supplant the responsibility and authority of local law enforcement (i.e., the Douglas County Sheriff's Department) within the boundaries of the District.

B. Estimated Costs and Phasing of Improvements

An estimate of the costs of the public improvements which may be planned for, designed, acquired, constructed, installed, relocated, redeveloped, maintained, or financed was prepared based upon a preliminary engineering survey on the property and is

approximately ~~($)~~Nine Million Fifty-Seven Thousand Five Hundred and Fifty-One Dollars ($9,057,551.00) as shown in **Exhibit D**. **Exhibit D** includes an engineer's opinion of costs in current dollars of each public improvement, together with an explanation of methods, basis, and/or assumptions used. All descriptions of the public improvements to be constructed, and their related costs, are estimates only and are subject to modification as engineering, development plans, economics, the County's requirements, and construction scheduling may require. The District will continue to develop and refine cost estimates contained herein and prepare for issuance of debt. Any increase in public improvement costs greater than twenty percent (20%), but less than forty percent (40%), of the stated amount in **Exhibit D**, exclusive of any contingency shown in **Exhibit D,** shall require an administrative review by County staff. Any increase in public improvement costs in excess of forty percent (40%) of the stated amount in **Exhibit D**, exclusive of any contingency shown in **Exhibit D**, will constitute a material modification of the Service Plan and will require review by the County and action by the Board of County Commissioners in accordance with Section XIII. All construction cost estimates assume construction to applicable local, State, or Federal requirements.

Maps showing the preliminary location of the public improvements that the District is authorized to acquire or construct are attached hereto as **Exhibit E**. Phasing of construction shall be determined by the District to meet the needs of taxpayers within its boundaries. The District shall own, maintain, and replace public improvements constructed, installed, or acquired by the District or shall dedicate such public improvements to such other entity as shall accept dedication, subject to any limitations specified in this Service Plan.

In all instances, the District shall ensure that the public improvements are designed and constructed in accordance with the standards and specifications of the County or other such entity that may have authority over such design and construction. The District shall obtain approval of civil engineering and other plans and any applicable permits for the construction and installation of public improvements from the County and/or other appropriate regulatory agencies.

C. Services to be Provided by Other Governmental Entities

The Project is located within and fire protection services will be provided by the Franktown Fire Protection District.

D. Compliance with Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended

~~The shall provide water supply services to the Project. **[PICK ONE OF THE FOLLOWING SENTENCES, AS APPROPRIATE] (1)** has met the requirements of Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, as described in its letter in **Exhibit H**. **(2)**~~ It is anticipated that each individual home within the Project will receive a water supply from its own groundwater well and

will utilize its own on-site wastewater treatment system. It is anticipated that the District will construct an underground cistern for fire control purposes. The District has met the requirements of Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, as described in the Water Supply Plan in **Exhibit H**.

E. Compliance with ~~DRCOG~~Colorado Clean Water Plan

~~has asserted its~~The Project will be served by individual septic sewer systems. Therefore, compliance with the ~~DRCOG~~ Clean Water Plan ~~as demonstrated in **Exhibit I**~~is not applicable to this Project at this time.

IX. EXISTING AND PROPOSED AGREEMENTS

It is anticipated that the District may enter into an intergovernmental agreement with Franktown Fire Protection District.

X. FINANCIAL INFORMATION

A. General

This section describes the nature, basis, and method of funding and debt and mill levy limitations associated with the District's public improvements. A detailed Financial Plan and statement of assumptions is contained in **Exhibit F**.

B. Assumptions

The maximum debt limitation contained herein is based on the assumption that each of the 37 residential properties in the District will have an average value of approximately ~~($), and commercial space will have an average value of ($) per square foot.~~Two Million Two Hundred Thousand Dollars ($2,200,000). The Financial Plan demonstrates that the District has the ability to finance the public improvements identified herein, will be capable of discharging the indebtedness on a reasonable basis, and will operate on a sound fiscal basis.

C. Identification of District Revenue

The District will impose a mill levy on taxable property within its boundaries as a primary source of revenue for repayment of debt and for operations and maintenance. The District may also rely upon various other revenue sources authorized by law. At the District's discretion, these may include the power to assess fees, rates, tolls, penalties, or charges as provided for in C.R.S. § 32-1-1001(1), as amended.

A Maximum Total Mill Levy of ~~——~~70.000 mills is authorized to support debt service and operations and maintenance of the District. The District may request an amendment to the Service Plan, in accordance with Section XIII, to eliminate mill levy caps when the debt to assessed value ratio falls below fifty percent (50%).

~~In the event of legislation implementing changes in the ratio of actual valuation to assessed valuation for residential real property, pursuant to Article X, section 3(1)(b) of the Colorado Constitution, the mill levy limitations provided herein will be increased or decreased as to all taxable property in the District to reflect such changes so that, to the extent possible, the actual tax revenues generated by the mill levy, as adjusted, are neither diminished nor enhanced as a result of such changes ("Gallagher Adjustment"). If~~If, on or after January 1, 2026, there are changes in the method of calculating assessed valuation or any constitutionally mandated tax credit, cut, or abatement, the mill levy limitation applicable to such debt and operating and maintenance expenses may be increased or decreased to reflect such changes, such increases or decreases to be determined by the Board in good faith so that to the extent possible, the actual tax revenue generated by the mill levy are neither diminished nor enhanced as a result of such changes~~.~~ ("Mill Levy Adjustment"). For purposes of the foregoing, a change in the ratio of actual valuation and any constitutional or legislative changes in the actual value against which the assessment rate is applied shall be deemed to be a change in the method of calculating assessed valuation.

D. Debt Service Mill Levy

A maximum mill levy of ~~——~~50.000 mills is authorized to support the debt service of the District, subject to the limitation of the Maximum Total Mill Levy. An initial debt service mill levy of 50.000 mills will produce revenue sufficient to support debt service costs through the bond repayment period (see **Exhibit F**, Financial Plan).

E. Operations and Maintenance Mill Levy

A maximum mill levy of ~~——~~20.000 mills is authorized to support the operations and maintenance of District services and public improvements, subject to the limitation of the Maximum Total Mill Levy. An initial operations and maintenance mill levy of 10.000 mills will produce revenue sufficient to support the operations and maintenance of District services and public improvements (see **Exhibit F**, Financial Plan).

F. District Expenditures

The estimated cost of public improvements for the District is ~~($).~~Nine Million Fifty-Seven Thousand Five Hundred and Fifty-seven Dollars ($9,057,551.00). **Exhibit D** includes, in current dollars, the estimated cost of each public improvement, together with an explanation of the methods, basis, and/or assumptions used to establish such costs.

The District will require operating funds to plan and cause the public improvements contemplated herein to be constructed, operated, and maintained as permitted herein. Such

costs are expected to include reimbursement of organizational costs, legal, engineering, accounting, bond issuance costs, and compliance with State budgeting, audit, and reporting, and other administrative and legal requirements. The organizational costs for the District for legal, engineering, surveying, and accounting services are estimated to be ~~($).~~Seventy Five Thousand Dollars ($75,000). The first year's operating budget is estimated to be ~~($).~~Fifty Thousand Dollars ($50,000).

G. Debt

1. Debt Limitation

The total debt limit for the District is ~~($),~~Ten Million Dollars ($10,000,000), inclusive of costs of issuance, inflation, and other similar costs. For purposes of this Service Plan, debt shall be considered any outstanding bonds, notes, contracts, or other financial obligations of the District payable in whole or in part from *ad valorem* taxes or other revenues of the District for the purposes of financing, acquiring, constructing, or improving any of the public improvements contemplated herein. The debt limit shall not be increased unless approved by the County and as permitted by statute and the Colorado Constitution. Any change in debt limit shall be considered a material modification of the Service Plan, subject to the provisions of Section XIII of this Service Plan. The maximum term of any bond issue, including refunding and refinancing, shall be thirty (30) years from the original date of issuance.

2. Maximum Voted Interest Rate and Maximum Underwriting Discount

The interest rate on any debt is limited to the market rate at the time debt is issued. In the event of a default, the maximum voted interest rate on any debt shall not exceed twelve percent (12%). The maximum underwriting discount shall be five percent (5%). Debt, when issued, shall comply with all relevant requirements of this Service Plan, State law, and Federal law as is then applicable to the issuance of public securities.

XI. DEVELOPER ADVANCES AND REIMBURSEMENTS

The District anticipates receiving initial funding for both capital and ongoing administrative requirements from developer advances. Such advances may be made to the District subject to the District's obligation to reimburse the same, as may be evidenced by short-term reimbursement agreements or other acceptable agreements or resolutions. The interest rate on developer reimbursements shall not exceed the current Bond Buyer 20-Bond GO Index plus four percent (4%).

Such advances, which the Board is obligated to appropriate on an annual basis, shall count against the maximum allowable debt limit under this Service Plan and may be repaid by the District from bond proceeds or other legally available sources of revenue. Developer advances shall be subordinate to the District general obligation bonds and refinancing of the same shall not require County approval. Any amount of outstanding principal and accrued interest on such developer advances that remains unpaid as of the

expiration of the Maximum Debt Service Mill Levy term shall be deemed to be forever discharged and satisfied in full. The total developer advances are anticipated to be ~~($).~~approximately Nine Million Dollars ($9,000,000.00). Developer contributions, which will not be repaid by the District, are anticipated to be ~~($).~~approximately Five Million Dollars ($5,000,000.00).

XII. ANNUAL REPORT

The District shall be responsible for submitting an annual report to the County no later than August 1 of each year in accordance with the procedures set forth in C.R.S. § 32-1-207(3)(c) and (d), as amended. The annual report shall conform to the format attached hereto as **Exhibit L**, or in a format agreed to by the County.

XIII. MODIFICATION OF SERVICE PLAN

Pursuant to C.R.S. § 32-1-207, as amended, the District shall obtain prior written approval of the County before making any material modification to this Service Plan. Material modifications require a Service Plan amendment and include modifications of a basic or essential nature, including, but not limited to, the following: any addition to the types of services provided by the District; a decrease in the level of services; a decrease in the financial ability of the District to discharge the existing or proposed indebtedness; or a decrease in the existing or projected need for organized service in the area. Inclusion of property that is located in a county or municipality with no other territory within the District may constitute a material modification of the Service Plan.

In the event the District plans to undertake an action which may not be permitted by this Service Plan, it shall be the District's responsibility to contact County staff to seek an administrative determination as to whether the action in question is permitted by the Service Plan. If County staff determines that the action may constitute a material modification, the District shall submit a proposal for action to the Board of County Commissioners. Thereafter, the Board of County Commissioners will determine whether the proposed action constitutes a material modification. If the Board of County Commissioners determines that the proposed action constitutes a material modification, then the action shall be prohibited and constitute a material modification of this Service Plan requiring an amendment, pursuant to Section XIII of the Service Plan and C.R.S. § 32-1-207(2).

XIV. DISCLOSURE STATEMENT

The District shall provide notice to all purchasers of property in the District regarding the District's authority to levy and collect *ad valorem* taxes and to impose and collect rates, fees, tolls, and charges, by recording a disclosure statement against the property within the District with the Office of the Douglas County Clerk and Recorder. Such disclosure statement shall also provide information concerning the structure of the Board and summarize how purchasers may participate in the affairs of the Board. The disclosure statement shall be recorded within thirty (30) days following the recordation of the court decree organizing the District.

XV. DISSOLUTION

It shall be mandatory for the District to initiate dissolution proceedings when the District has neither any financial obligations nor operations and maintenance obligations. The District may file a petition in the district court for dissolution when there are no financial obligations or outstanding bonds, or any such financial obligations or outstanding bonds are adequately secured by escrow funds or securities meeting the investment requirements in C.R.S. §§ 24-75-601, *et seq.,* as amended. The District's dissolution shall be subject to approval of a plan of dissolution in the district court of the County, pursuant to C.R.S. § 32-1-704, as amended.

XVI. DEFINITIONS

In this Service Plan, the following terms shall have the meanings indicated below, unless the context hereof clearly requires otherwise:

Board: the board of directors of the District

Board of County Commissioners: the Board of County Commissioners of Douglas County, Colorado

Control Act: Part 2 of Title 32 (Special Districts) of the Colorado Revised Statutes (C.R.S.), which outlines review procedures for service plans for a special district

County: Douglas County, Colorado

Debt: any bond, note debenture, contract, or other multiple-year financial obligation of a District

Developer: the owner of the property proposing development of the project

District: the Sundown Oaks Metropolitan District

District Boundaries: the boundaries of the area described in the legal description attached hereto as **Exhibit B**

District Boundary Map: the map attached hereto as **Exhibit C**, showing the District's boundaries

Financial Plan: the Financial Plan described in Section X and attached as **Exhibit F**, which describes: (a) how the public improvements are to be financed; (b) how the debt is expected to be incurred; and (c) the estimated operating revenue derived from property taxes for the first budget year.

General Obligation Bond: bonds or other obligations for the payment of which the District has promised to impose an *ad valorem* property tax mill levy

Maximum Debt Service Mill Levy: the maximum mill levy the District is permitted to impose for payment of debt as set forth in Section X.D

Maximum Operations and Maintenance Mill Levy: the maximum mill levy the District is permitted to impose for the payment of operating and maintenance expenses as set forth in Section X.E

Maximum Total Mill Levy: the maximum mill levy the District is permitted to impose for the payment of debt as set forth in Section X.D. and operating and maintenance expenses as set forth in Section X.E

Project: the development or property commonly referred to as Sundown Oaks.

Public Improvements: the improvements authorized to be planned, designed, acquired, constructed, installed, relocated, redeveloped, and financed as generally described in the Special District Act to serve the future taxpayers and inhabitants of the District as determined by the Board of the District

Revenue Bond: bonds issued by the District to finance a specific project, the income from which will be used for repaying the bond

Service Plan: the service plan for the District approved by the Board of County Commissioners

Special District Act: C.R.S. § 32-1-101, *et seq.*, as amended

State: the State of Colorado

XVII. RESOLUTION OF APPROVAL

The District incorporates the Board of County Commissioner's resolution approving this Service Plan into this Service Plan to be presented to the district court attached hereto as **Exhibit G**.

XVIII. STATUTORY FINDINGS AND CONCLUSIONS

It is submitted that this Service Plan for the District, as required by C.R.S. § 32-1-203, as amended, establishes that:

~~**[PLEASE INCLUDE A PARAGRAPH WITH EACH CONCLUSION EXPLAINING HOW THE DISTRICT HAS MET THIS REQUIREMENT]**~~

1. There is sufficient existing and projected need for organized service in the area to be served by the District;

The purpose of the District is to finance and construct certain public improvements and to provide other additional services necessary to support the Sundown Oaks development. The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the community through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

2. The existing service in the area to be served by the District is inadequate for present and projected needs;

The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the community through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

3. The District is capable of providing economical and sufficient service to the area within its boundaries;

The formation of the District will ensure that the public improvements and other services are sufficient and constructed within a reasonable period of time for the benefit of the property owners located in the community.

4. The area to be included in the District has, or will have, the financial ability to discharge the indebtedness on a reasonable basis~~;~~.

The estimated costs of the improvements and facilities to be constructed, installed and/or acquired by the District are set forth in this Service Plan. The Financial Plan describes the anticipated issuance of debt and repayment based on the projected development within the District boundaries. The Financial Plan demonstrates the District's ability to finance the facilities identified in this Service Plan and capability of discharging the proposed indebtedness on a reasonable basis.

5. Adequate service is not, or will not be, available to the area through the County or other existing municipal or quasi-municipal corporations, including existing special districts, within a reasonable time and on a comparable basis;

~~6.~~ The proposed improvements and services are not, and in good faith based upon information and belief, will not be available to the area through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis.

6. The facility and service standards of the District are compatible with the facility and service standards of each county within which the District is to be located and each municipality which is an interested party under C.R.S. § 32-1-204(1), as amended;

As stated elsewhere in this Service Plan, all facilities and services proposed will be constructed in accordance with the standards and specifications of Douglas County, the State of Colorado, and any other appropriate jurisdictions.

7. The proposal is in substantial compliance with the Douglas County Comprehensive Master Plan, as amended, adopted pursuant to C.R.S. § 30-28-106, as amended;

The Developer has reviewed the County's Comprehensive Master Plan and is aware of the County's desire to reflect, acknowledge and balance the common values, rights, and needs of all County residents and landowners, and its desire to honor and protect the unique, diverse communities and resources within the County. It is the Developer's belief that the proposal is compatible with the community vision for the future and complies with the policies necessary to achieve sustainable growth within the County as expressed in the Comprehensive Master Plan.

8. The proposal is in compliance with the regional Clean Water Plan, as amended; and

Each individual home and homeowner within the Project will be responsible for its own on-site wastewater treatment system.

9. The creation of the District will be in the best interests of the area to be served.

As described throughout this Service Plan, the proposed improvements and services necessary to serve the Project are not, and in good faith based upon information and belief, will not be available to the area through the County or other existing municipality or quasi-municipal corporation, including special districts, within a reasonable time and on a comparable basis. The formation of the District will ensure that the public improvements and other services are sufficient and constructed within a reasonable period of time for the benefit of the property owners located in the community.

Project Name: Sundown Oaks Metropolitan District
Project File #: SV2025-005
Date Sent: 06/04/2025 **Date Due:** 06/18/2025

Agency	Date Received	Agency Response	Response Resolution
AT&T Long Distance - ROW	06/05/2025	See Letter: No Conflict.	No Response Required.
Bannockburn HOA	06/18/2025	See Letter: Comments provided related to concerns with lot sizes, use of ground water, increased traffic, and possible financial burdens of Metro Districts.	This comment has been forwarded to the applicant.
Black Hills Energy		No Response Received.	No Response Required.
Burning Tree Ranch HOA		No Response Received.	No Response Required.
CenturyLink (Lumen)	06/21/2025	See Letter: No Objection.	No Response Required.
Cherry Creek Basin Water Quality Authority	06/09/2025	Received: The Cherry Creek Basin Water Quality Authority (Authority) acknowledges notification from Douglas County that the proposed development plans for SV2025-005, Sundown Oaks Metropolitan District, New Service Plan Application have been or will be reviewed by Douglas County for compliance with the applicable Regulation 72 construction and post-construction requirements. Based on the Authority's current policy, the Authority will no longer routinely conduct a technical review and instead the Authority will defer to Douglas County's review and ultimate determination that the proposed development plans comply with Regulation 72. If a technical review of the proposed development plan is needed, please contact LandUseReferral@ccbwqa.org. The review may include consultation with the Authority's Technical Manager to address specific questions or to conduct a more detailed Land Use Review, if warranted. (verbatim)	No Response Required.
Colorado Department of Transportation CDOT-Region # 1	06/05/2025	See Letter: No Comment	No Response Required.

Project Name: Sundown Oaks Metropolitan District
Project File #: SV2025-005
Date Sent: 06/04/2025 **Date Due:** 06/18/2025

Agency	Date Received	Agency Response	Response Resolution
Colorado Division of Water Resources	07/02/2025	See Letter: No additional comments on Sundown Oaks Metropolitan District Special District service plan.	No Response Required.
Colorado Geological Survey	06/18/2025	Received: No Comment. (verbatim)	No Response Required.
Comcast		No Response Received.	No Response Required.
CORE Electric Cooperative		No Response Received.	No Response Required.
Douglas County Addressing Analyst	06/05/2025	Received: No Comment. (verbatim)	No Response Required.
Douglas County Assessor		No Response Received.	No Response Required.
Douglas County Building Services	06/06/2025	Received: No Comment. (verbatim)	No Response Required.
Douglas County Conservation District	06/16/2025	See Letter: Comments provided related to the area's high wildfire risk, recommendation that a Noxious Weed Control plan be developed, references that there is no mention of wildlife protection or corridors. Additional comment that the Conservation District does not support development proposals located in or near drainages or disturbance of wetlands.	This comment has been forwarded to the applicant.
Douglas County Engineering Services	06/18/2025	See Letter: Section VIII #2 Storm Sewer and #4 Street Improvements – First Paragraphs should end with the following: "all subject to the approval of Douglas County."	The applicant has addressed this comment.
Douglas County Health Department	06/16/2025	See Letter: Comment provided related to domestic well drinking water contamination risks and all on-site wastewater treatment systems will need to be permitted and inspected by the DCHD.	This comment has been forwarded to the applicant.
Douglas County Libraries		No Response Received.	No Response Required.
Douglas County Office of Emergency Management	06/04/2025	Received: No Comment. (verbatim)	No Response Required.
Douglas County School District RE 1		No Response Received.	No Response Required.
Douglas County Sheriff's Office		No Response Received.	No Response Required.
Douglas County Wildfire Mitigation	06/18/2025	Received: No Comment. (verbatim)	No Response Required.
Foxhill Metro Districts #1 & 2		No Response Received.	No Response Required.

Project Name: Sundown Oaks Metropolitan District
Project File #: SV2025-005
Date Sent: 06/04/2025 **Date Due:** 06/18/2025

Agency	Date Received	Agency Response	Response Resolution
Franktown Business Area Metro District		No Response Received.	No Response Required.
Franktown Citizens Coalition II Inc	06/04/2025	See Letters: Comments provided related to concerns with approval of a Metropolitan District in the Franktown Rural Community.	Applicant has met with a representative of FCC II. All comments have been forwarded to applicants.
Franktown FD		No Response Received.	No Response Received.
Pinery Water and Wastewater District	06/13/2025	Received: No Comment. (verbatim)	No Response Required.
RTD – Planning & Development Dept	06/17/2025	Received: Department Comments Bus Operations No exceptions Bus Stop Program No exceptions Commuter Rail No exceptions Construction Management No exceptions Engineering No exceptions Light Rail No exceptions Real Property No exceptions Service Development No exceptions Transit Oriented Development No exceptions Utilities No exceptions This review is for Design concepts and to identify any necessary improvements to RTD stops and property affected by the design. This review of the plans does not eliminate the need to acquire, and/or go through the acquisition process of any agreements, easements or permits that may be required by the RTD for any work on or around our facilities and property. (verbatim)	No Response Required.
Rural Water Authority of Douglas County		No Response Received.	No Response Required.
Town of Castle Rock	06/10/2025	Received: No Comment. (verbatim)	No Response Required.
Two Bridges Metro District		No Response Received.	No Response Required.
Villages at Castle Rock Metro District 6		No Response Received.	No Response Required.
Xcel Energy-Right of Way & Permits	06/11/2025	See Letter: No apparent conflict.	No Response Required.

DJ Beckwith

From: annb cwc64.com <annb@cwc64.com>
Sent: Thursday, June 5, 2025 12:31 PM
To: DJ Beckwith
Cc: Pam Choy (pc2914@att.com); duanew cwc64.com; jt cwc64.com
Subject: Sundown Oaks Franktown, Colorado Douglas County eReferral #SV2025-005
Attachments: Sundown Oaks Franktown, Colorado.jpg

Follow Up Flag: Follow up
Flag Status: Flagged

Hi DJ,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Sundown Oaks Franktown, Colorado. The Earth map shows the project area in red and the buried AT&T Long Line Fiber Optics in yellow. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Line facilities.

Please feel free to contact us with any questions or concerns.

Ann Barnowski
Clearwater Consulting Group Inc
120 9th Avenue South
Suite 140
Nampa, ID 83651
Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

-----Original Message-----
From: dbeckwith@douglas.co.us <dbeckwith@douglas.co.us>
Sent: Wednesday, June 4, 2025 2:44 PM
To: annb cwc64.com <annb@cwc64.com>
Subject: Douglas County eReferral (SV2025-005) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:
https://apps.douglas.co.us/planning/projects/Login.aspx

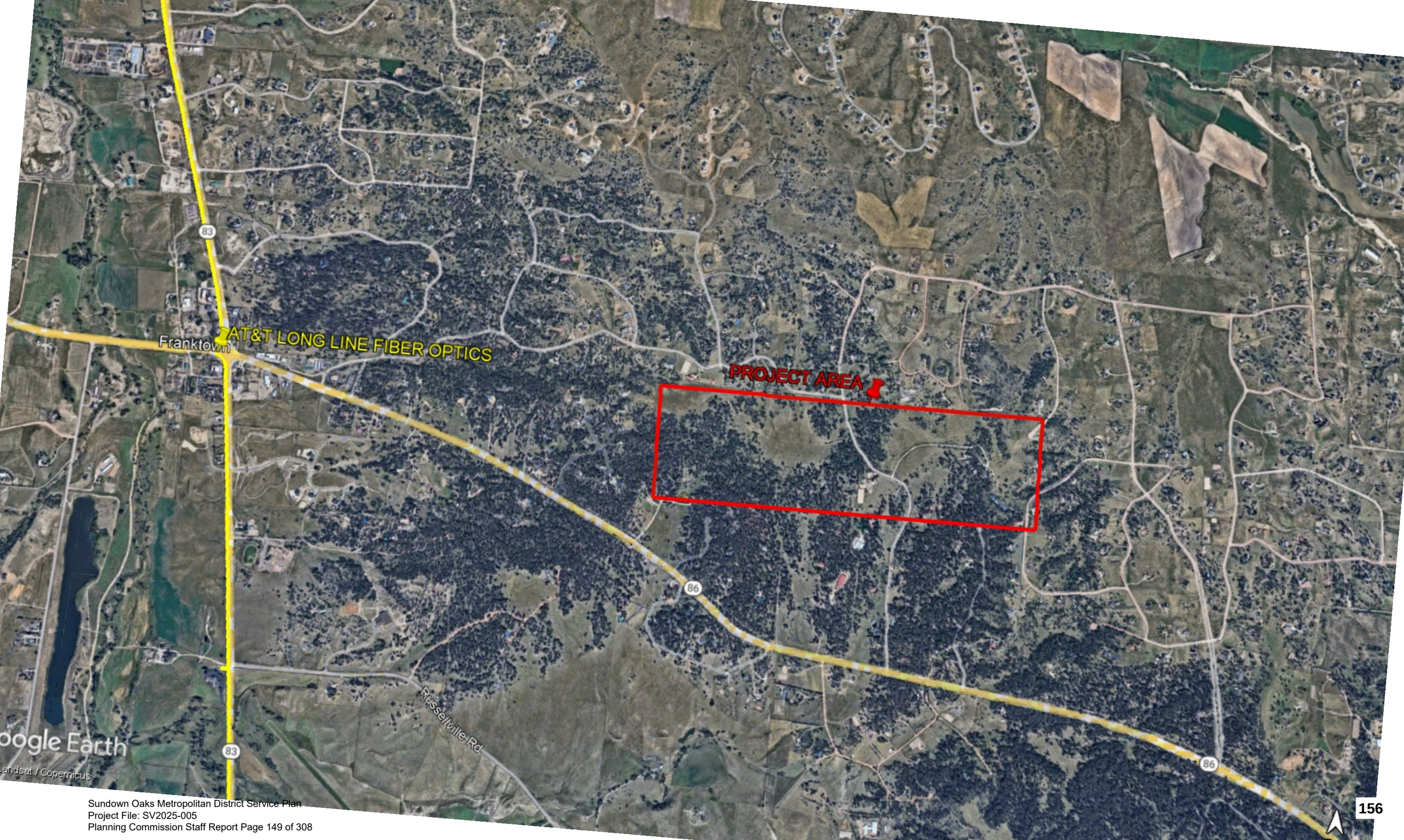
SV2025-005, Sundown Oaks Metropolitain District, new service plan application.

This referral will close on Wednesday, June, 18, 2025.

If you have any questions, please contact me.

Sincerely,

DJ Beckwith
Planning Resources


AT&T LONG LINE FIBER OPTICS
PROJECT AREA
Franktown
83
86
Russellville Rd
oogle Earth
andsat / Copernicus

DJ Beckwith

From: Dave Delgado <DDelgado@bannockburnhoa.org>
Sent: Wednesday, June 18, 2025 2:21 PM
To: DJ Beckwith
Subject: Bannockburn HOA input to Douglas county regarding proposed new Sundown Oaks Metropolitan District

Follow Up Flag: Follow up
Flag Status: Flagged

To whom it may concern,

On behalf of the Directors of the Bannockburn HOA, we appreciate this opportunity to provide our concerns regarding the proposed Sundown Oaks Metropolitan District, Project no. SV2025-005, which will be near our HOA. Our concerns include the following :

1. The minimum size of ALL LOTS should be five acres to coincide with current Franktown area zoning standards, as well as surrounding existing subdivision lot sizes. Therefore, we recommend a minimum five-acre lot size for ALL LOTS to be consistent with current resident preferences and zoning rules that are in support of maintaining the lifestyle already in place to current residents.
2. The Sundown Oaks Metropolitan District asserts that water to households will be provided by private wells and that there is sufficient ground water for each lot to have an individual well for both home and outdoor use. However, there is a significant concern among Franktown residents, including those in the Bannockburn HOA, that the ground source of water, the Upper Dawson aquifer, is already potentially oversubscribed/over-tapped to assure long term availability to current residents. Specifically, if new residents access this water source based on a higher density calculation, current homeowners could be required to pay costs associated with drilling deeper wells in the short term and potential future public water service connection and provision fees by a neighboring city. We find this to be an untenable financial burden to place on current homeowners in Franktown and surrounding cities and counties. We recommend that a different water source other than the Upper Dawson aquifer be identified and applied to the Project.
3. Access and roads will be significantly impacted when considering the planned Sundown Oaks Metropolitan District and other planned subdivisions in the immediate area. Costs for road enhancements and improvements are likely required to accommodate increased traffic on Tanglewood and Highway 86 that the developers should be responsible to pay in advance of development activities.
4. We are concerned that this Metropolitan District will introduce, amplify and perpetuate known issues and concerns about said "districts" since they are documented widely across Colorado as imposing long-term and in some cases indefinite negative financial impacts to new residents and the broader community.

In summary, your consideration of our concerns is appreciated. Please feel free to contact me with any questions you may have.

Best regards,

Dave Delgado
Bannockburn HOA - President

June 4, 2025

REFERRAL RESPONSE REQUEST

Comments Due By: June 18, 2025

File # / Name: SV2025-005 / Sundown Oaks Metropolitan District

Request: Metropolitan District – New Service Plan

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☐ No Comment

☑ Please be advised of the following concerns:

Qwest Corporation d/b/a CENTURYLINK, QC ("CenturyLink") has reviewed the request for the subject development and have determined there are no CenturyLink facilities within the subject area.
It is the intent and understanding of CenturyLink that this development shall not reduce our rights to any other existing easements or rights we have on this site or in the area. This No objection response is submitted WITH THE STIPULATION that IF CenturyLink facilities are damaged within the area as described, the Applicant will bear the cost of relocation (https://relocation-request.lumen.com/rmpp/#/relocationreq) and/or repair of said facilities. - P866415

Agency: Lumen/ CenturyLink	NIS| Right-of-Way Agent II | Contractor - Faulk & Foster VeShon.Sheridan@Lumen.com / nre.easement@lumen.com
Your Name: VeShon Sheridan *(please print)*	**Your Signature:** VeShon Sheridan **Date:** 6/18/2025

You are encouraged to attend the hearing(s) in the Commissioner's Hearing Room at 100 Third Street, Castle Rock. The hearing date(s) may be obtained by calling 303-660-7460. If you are unable to submit written comments by the due date or need additional materials/information, please contact this office.

Sincerely,

DJ Beckwith
Principal Planner

Enclosure

DJ Beckwith

From: Varner - CDOT, Jessica <jessica.varner@state.co.us>
Sent: Thursday, June 5, 2025 8:10 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District Service Plan (SV2025-005)

Follow Up Flag: Follow up
Flag Status: Flagged

Hi DJ,
I have reviewed the referral for (Sundown Oaks Metropolitan District Service Plan) and have no comment.
Thank you for the opportunity to review this referral.

--
Thank you,

Jessica Varner
Permits Unit- Region 1

P 720.541.0441 | F 303.757.9053
2829 W. Howard Pl. 2nd Floor, Denver, CO 80204
Jessica.varner@state.co.us | www.codot.gov | www.cotrip.org

July 2, 2025

DJ Beckwith, Principal Planner
Douglas County Planning Services
Transmission via email: dbeckwith@douglas.co.us

Re: Sundown Oaks Metropolitan District – New Service Plan
Case Number: SV2025-005
Part of Sec. 1, Twp. 8S, Rng. 66W, 6th P.M. and Sec. 6, Twp. 8S, Rng. 65W, 6th P.M., Douglas County
Water Division 1, Water District 8

Dear DJ Beckwith,

We have received your June 4, 2025 referral regarding the above referenced proposal for Sundown Oaks Metropolitan District New Service Plan.

This referral does not appear to qualify as a "subdivision" as defined in Section 30-28-101(10)(a), C.R.S. Therefore, pursuant to the State Engineer's March 4, 2005 and March 11, 2011 memorandums to county planning directors, this office will only perform a cursory review of the referral information and provide informal comments. The comments do not address the adequacy of the water supply plan for this project or the ability of the water supply plan to satisfy any County regulations or requirements. In addition, the comments provided herein cannot be used to guarantee a viable water supply plan or infrastructure, the issuance of a well permit, or physical availability of water.

The proposal seeks to create a Special District to construct, own, and operate certain public improvements for the Oak Bluff and Sundown residential development, to be known as the Sundown Oaks Metropolitan District. (hereinafter " District"). The Oak Bluff Development is for 21 single-family residential lots on 105 acres and the Sundown development is for 17 single-family residential on 71 acres.

The proposed water source for each residential lot is an individual on lots well to be constructed into the Upper Dawson aquifer to withdraw 1.0 acre-foot per year per lot, which will be operating pursuant to the decreed augmentation plans in case nos. 95CW288 and 22CW3071.

The plan for augmentation decreed in case no. 95CW288 for 190.73 acres allows for an average diversion of 44. 2 acre-feet annually for a maximum of 100 years for in house use, irrigation and stockwatering. The plan for augmentation decreed in case no. 22CW3071 allows for an average diversion of 10.8 acre-feet annually for a maximum of 100 years for use in up to 12 wells on 12 individual lots (0. 9 acre- feet per year per lot) for in-house use in one single family residence, irrigation, including lawn, garden, and trees of up to 12,000 square-feet per lot and fire protection. According to a letter dated December 21, 2023 from Canyon Creek Engineering, the HOA for Sundown will be dedicated 1.3 acre-feet from the Upper Dawson aquifer for irrigation for case no. 95CW288 and 1.5 acre-feet from the Lower Dawson aquifer for the filling of the 30,000-gallon fire water storage tank for use by Franktown Fire Department. In addition, the HOA for Oak Bluff will be dedicated 1.6 acre-feet from the Upper Dawson aquifer for irrigation for case no. 95CW288 and 2.0 acre-feet from the Lower Dawson aquifer for the filling of the 30,000-gallon fire water storage tank for use by Franktown Fire Department.

The State Engineer's Office provided comments on the water supply plan for the Sundown and Oak Bluff developments in letters dated February 6, 2004, therefore we have no additional comments on Sundown Oaks Metropolitan District Special District service plan.

Should you have any questions, please contact me at 303-866-3581 x8246 or at ioana.comaniciu@state.co.us

Sincerely,

Ioana Comaniciu, P.E.
Water Resources Engineer

Ec: Referral no. 34140

Docusign Envelope ID: CF0CA9C0-7A9E-47FC-9EFE-F1698883E752

DOUGLAS COUNTY
COLORADO

Department of Community Development

www.douglas.co.us

Planning Resources

June 4, 2025

REFERRAL RESPONSE REQUEST

Comments Due By: June 18, 2025

File # / Name: SV2025-005 / Sundown Oaks Metropolitan District

Request: Metropolitan District – New Service Plan

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☐ No Comment	
☐ Please be advised of the following concerns:	
☒ See letter attached for detail.	
Agency: Douglas County Conservation District	**Phone #:** (303) 218 - 2622
Your Name: David Shohet, President *(please print)*	**Your Signature:** Signed by: David.Shohet 6E6057CEE3D2404... **Date:** 6/16/2025

You are encouraged to attend the hearing(s) in the Commissioner's Hearing Room at 100 Third Street, Castle Rock. The hearing date(s) may be obtained by calling 303-660-7460. If you are unable to submit written comments by the due date or need additional materials/information, please contact this office.

Sincerely,

DJ Beckwith
Principal Planner

Enclosure

Docusign Envelope ID: CF0CA9C0-7A9E-47FC-9EFE-F1698883E752

DOUGLAS
—CONSERVES—
DOUGLAS COUNTY CONSERVATION DISTRICT
PO Box 688 / 7519A E. Hwy 86 Franktown, CO 80116 / Phone 303-218-2622

DATE: June 18, 2025

RE: SV2025-005

The Douglas County Conservation District (the District) provides Douglas County subdivision reviews as directed by Senate Bill 35. District comments are made on the suitability of soils for the proposed land uses, floodwater management, and watershed protection. The District also often submits advisory comments regarding rural water supply issues, agricultural land use conversion, and endangered species protection if the development plan affects those issues.

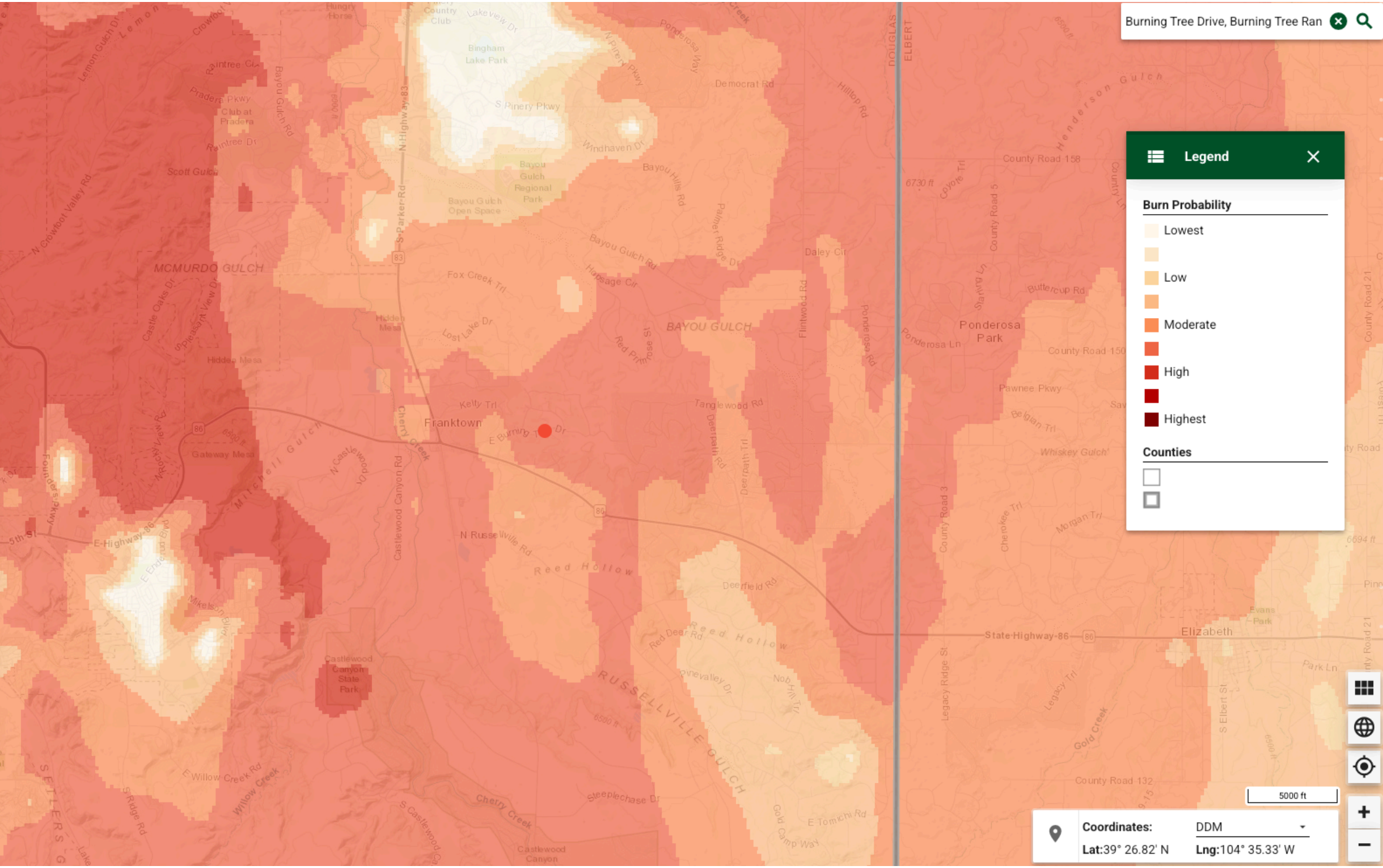
This Service Plan is for 173 acres and 37 residential units in the wildland – urban interface and carries "High" wildfire risk (attached and sourced from https://co-pub.coloradoforestatlas.org/#/). For more information on protecting property from wildfire https://www.douglas.co.us/building-division/wildfire-mitigation/protect-your-home-wildfire-mitigation/ . Wildfire in this area can negatively affect the water quality downhill in Cherry Creek.

There is no Integrated Noxious Weed Control plan and it is recommended that an integrated weed management program be reviewed and approved by the Douglas County Weed Inspector and/or Weed Advisory board, the County Extension Agent, Natural Resources Conservation Service, or a qualified weed management professional prior to the land use authority approval.

There is no mention of protecting wildlife or wildlife corridors in the design of the community as defined by the Douglas County Comprehensive Master Plan, Section 9 Wildlife https://www.douglas.co.us/planning/master-plans/comprehensive-master-plan/.

The channels of many of the major streams are not stable and undergo substantial shifts in alignment during flood events. Upstream development increases the magnitude and frequency of local flooding. Floods that exceed the computed 100-year storm do regularly occur. The District does not support development proposals that are located in or near drainages or development that disturbs wetlands. See FEMA note above.

Thank you for the opportunity to review this project. Direct any questions to Heather Kelly, District Manager, at Admin@DouglasConserves.org or (303) 218 – 2622.


Burning Tree Drive, Burning Tree Ran
Legend
Burn Probability
Lowest
Low
Moderate
High
Highest
Counties
MCMURDO GULCH
BAYOU GULCH
Franktown
Ponderosa Park
Elizabeth
RUSSELLVILLE GULCH
Reed Hollow
Castlewood Canyon State Park
Bayou Gulch Regional Park
Bingham Lake Park
Gateway Mesa
Hidden Mesa
State Highway 86
N Highway 83
S Parker Rd
Cherry Creek
Willow Creek
5000 ft
Coordinates:
DDM
Lat:39° 26.82' N
Lng:104° 35.33' W

June 4, 2025

REFERRAL RESPONSE REQUEST

Comments Due By: June 18, 2025

File # / Name: SV2025-005 / Sundown Oaks Metropolitan District

Request: Metropolitan District – New Service Plan

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☐ No Comment	
☒ Please be advised of the following concerns: Section VIII #2 Storm Sewer and #4 Street Improvements - First paragraphs should end withthe following: "all subject to the approval of Douglas County".	
☐ See letter attached for detail.	
Agency: Engineering	**Phone #:** 4318
Your Name: Al Peterson	**Your Signature:** Allan Peterson
(please print)	**Date:** 6/18/2025

You are encouraged to attend the hearing(s) in the Commissioner's Hearing Room at 100 Third Street, Castle Rock. The hearing date(s) may be obtained by calling 303-660-7460. If you are unable to submit written comments by the due date or need additional materials/information, please contact this office.

Sincerely,

DJ Beckwith
Principal Planner

Enclosure

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

June 16, 2025

DJ Beckwith
100 Third St.
Castle Rock, CO 80104

RE: SV2025-005

Dear Mr. Beckwith

Thank you for the opportunity to review and comment on the application for a Special District Service Plan. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has the following comments.

Domestic Wells
Drinking water contaminated with pathogens can cause a variety of illnesses in humans. It is important to protect source water from contamination, and to treat drinking water to eliminate pathogens before it is provided for human consumption. The Colorado Division of Water Resources (DWR) is the agency that regulates well permitting. More information can be found here https://dwr.colorado.gov/.

On-Site Wastewater Treatment System (OWTS)
Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. DCHD has no objection to the property being served by an OWTS provided that the system is permitted, inspected and operated in accordance with DCHD's current OWTS Regulation. In order to start the process, the applicant may contact DCHD at the time of development. More information is available at https://www.douglas.co.us/health-department/environmental-health/.

Please contact me at 720-907-4888 or bfreyer@douglas.co.us if you have any questions about our comments.

Sincerely,

Brent Freyer
Environmental Health Specialist II
Douglas County Health Department

DJ Beckwith

From: Diana Love <rllove1@msn.com>
Sent: Sunday, July 20, 2025 12:52 PM
To: Matt Jakubowski; DJ Beckwith
Cc: Troy Dayton; Debbie; Hyla Tryon Jenks
Subject: Renewed request for continuance of Sundown Oaks Planning Commission Hearing scheduled on August 4th

Mr. Jakubowski and Mr. Beckwith,

I am including you both because both of you have been involved with this project from two different perspectives. We have requested this continuance because of the complicated problems/issues/law with the Sundown Oaks application for a Metro District in Franktown. The significant amount of time that transpired for, and between, the time of the approval of the development that is the basis for the Metro District request, compared to the short time for the request for a Metro district, has been one of the reasons that created these complicated issues and the need for in-depth research of the application of Colorado laws. The Franktown Citizens Coalition (FCC II) requested at least a 90-day continuance of the Planning Commission hearing on August 4th. Sundown Oaks development was in the approval process for over 6 years without a request for a Metro District until just this June 2025 which gives the community very little time to prepare on the extremely complicated issues and laws.

Mr. Beckwith, your response to the FCC II's request for an extension was only that you forwarded it to the applicant but, as yet, had not received a reply. We understand and appreciated your response, but because of the shortness of time, we need a decision and so are renewing our request. We are hoping our request will be approved. To deny a continuance request from the community if the applicant either does not respond or has the authority to require our continuance request be denied, would put control of the County's hearing process in the applicant's control. This is not a balanced approach to County government where all sides' requests and issues must be equally considered and decided on.

We are also requesting an updated schedule for the whole process because there are different dates on submittals from the applicant.

Thank you very much for your consideration of this request.

Respectfully,

Diana Love
President
FCC II

DJ Beckwith

From: Diana Love <rllove1@msn.com>
Sent: Thursday, July 17, 2025 11:28 PM
To: DJ Beckwith
Subject: RE: Sundown Oaks Metro District hearings

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Beckwith,

So it's their decision alone? Constituents have no say even though the time frame picked by the applicant does not give the affected community very much time?? Something's wrong. Who would be the person at the County to reach out to in order to get the date changed?

Diana Love
President
FCC II

Sent from my T-Mobile 5G Device

-------- Original message --------
From: DJ Beckwith <dbeckwith@douglas.co.us>
Date: 7/17/25 12:53 PM (GMT-07:00)
To: Diana Love <rllove1@msn.com>
Subject: RE: Sundown Oaks Metro District hearings

Greetings Ms. Love,

The proposed dates are still the same as we discussed on the phone.

- PC Meeting August 4th, 2025 @ 6pm
- BCC Hearing September 9th, 2025 @ 2:30pm

Your request to postpone has been forwarded to the applicant. At this time, the applicant has not responded to that request and has shown that they wish to proceed with the application.

All the best,
DJ Beckwith | Principal Planner
Douglas County Department of Community Development
Planning Resources
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4330 **Main** | 303-660-7460
Email | dbeckwith@douglas.co.us

From: Diana Love <rllove1@msn.com>
Sent: Thursday, July 17, 2025 11:40 AM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Subject: Sundown Oaks Metro District hearings

Mr. Beckwith,

I am reaching out for information on a couple of things please.

First: I have received no notice on the hearing dates for Sundown Oaks application for a Metro District.

Second: People in my community have sent me emails from you to them about the tentative dates already.

Third: My organization has requested a continuance due to the short turn around time that Sundown Oaks has asked for giving the community little time to prepare.

Please let me know. Thank you.

Diana Love
President
FCC II, Inc.

Sent from my T-Mobile 5G Device

DJ Beckwith

From: Diana Love <rllove1@msn.com>
Sent: Tuesday, July 8, 2025 10:40 AM
To: DJ Beckwith
Cc: TROY Dayton; hyjinx79@q.com; Debbie; snoflke18@hotmail.com; Malcolm Bedell; Bob Skowron
Subject: Sundown Oaks Proposed Metro District's requested date for Planning Commission Hearing

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Beckwith,

We are requesting an extension of proposed Planning Commission date of August 4, 2025.

The Sundown Oaks proposed Metro District presubmittal plan has requested meeting and hearing dates. The first is a meeting with the staff which can include outside agencies, etc. It's not clear when this will occur. We would respectfully like to be included in those meetings.

Also,

We would ask staff to begin their review of these first issues below. Many more issues and facts will follow in an opposition paper we will be filing.

I. SUNDOWN OAKS PROBLEMS:

A. The FCC II, after review of the proposed Sundown Oaks service plan, sees MANY issues/problems with the service plan not meeting, just for example, the statutory requirements of:

C.R.S.,Section 32

And,

Douglas County's
Comprehensive Master Plan.

B. Problems with other areas:

1. Finances - the proposed financial plan is confusing and doesn't present well.

2. Service Plan has the most holes in areas dealing with: is there even a need (C.R.S 32) for a Metro District in this area? (There is NOT!). (Other C.R.S. requirements are not met, which will be addressed in our opposition paper) Issues like water quality safety (not water rights) problems are not met, etc.

3. Potential future eminent domain requests (areas that financially could have serious, negative effects)

4. Fees on top of County taxes and fees (property taxes, operation and maintenance fees, etc.)

5. Surrounding community needs that conflict with a Metro District. The controlling statute (C.R.S. 32) shows this.

6. Significant conflicts in service plan. One small example of many, see on commercial area of the service plan. Section 6, pg 3. Says "0 Sq feet of commercial space" but on the next paragraph it says "approval of the service plan does not constitute or imply approval of...the total site/floor area of commercial or industrial buildings identified in this service plan.

There are many, many more issues!

II. RESPECTFULLY, THE FCC II ASKS FOR A COPY OF ANY STAFF MEETING MINUTES WITH SUNDOWN OAKS.

III. Further comments/details will follow as issues with reviews of this plan. and facts on this, are developed. Our opposition paper will be extensive and detailed, so it will take time. Also, we are working with other Metro Districts, and experts, on the tremendous difficulties that Metro Districts cause. As you are aware, interacting with other districts takes time.

Because of that, and more, we respectfully ask that the Planning Commission date requested by the developer of August 4, 2025 not be set on that date, and it be extended 90 days, at a minimum.

Sincerely,

Diana Love
President
FCC II, Inc.

Sent from my T-Mobile 5G Device

DJ Beckwith

Subject: FW: Development in area of Metro District

From: Diana Love <rllove1@msn.com>
Sent: Tuesday, June 17, 2025 9:46 AM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Subject: RE: Development in area of Metro District

Mr. Beckwith,

Thank you again for your courtesy. Please do forward my request to meet with the applicant.

Best regards,

Diana Love
President
FCC II

Sent from my T-Mobile 5G Device

-------- Original message --------
From: DJ Beckwith <dbeckwith@douglas.co.us>
Date: 6/17/25 9:19 AM (GMT-07:00)
To: Diana Love <rllove1@msn.com>
Subject: RE: Development in area of Metro District

Good Morning Mrs. Love,

In response to your question on meeting with the applicant of Sundown Oaks MD. We can let the applicant know that you have reached out and would like to set time for a meeting, however, the County will not facilitate a meeting. The referral process is for the purpose of letting the applicants know what issues and concerns are present with any given project, and we forward that communication to the applicants so they are aware and can respond to those issues. The public hearings are another place to allow for public opinions to be heard and addressed by the applicant before the Planning Commission and the County Commissioners, as they make their determinations on approval of the project.

Please let me know if you would like me to forward your request to meet to the applicant.

I hope this helps clarify your question. Let me know if you have any additional questions.

All the best,
DJ Beckwith | Principal Planner

DJ Beckwith

From: Diana Love <rllove1@msn.com>
Sent: Wednesday, June 4, 2025 4:50 PM
To: DJ Beckwith
Cc: Troy Dayton; Debbie; Hyla Tryon Jenks
Subject: RE: Douglas County eReferral (SV2025-005) Is Ready For Review

Follow Up Flag: Follow up
Flag Status: Flagged

Thank you for the referral.

This has lots of issues/problems we will be addressing in detail and getting out to the community. Even as a start, there aren't even 5 acres per residence, as required by county zoning, etc. etc! There seems to a lot of "yo yo" effects where if they don't get/like one thing, they will keep going back and forth for approvals on different things. Also, it appears there are many issues regarding the CMP, regardless of the statement that it is in "substantial compliance with the CMP 30-28-106, as amended."

The problems laid out wherein the "existing services in the area to be served by the District is inadequate for present and PROJECTED (emphasis added) needs" are just a beginning of the problems, etc. this development brings.

Much more to follow.

Thank you again. Best regards,

Diana Love
President, FCC II

Sent from my T-Mobile 5G Device

-------- Original message --------
From: dbeckwith@douglas.co.us
Date: 6/4/25 2:45 PM (GMT-07:00)
To: rllove1@msn.com
Subject: Douglas County eReferral (SV2025-005) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:
https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fapps.douglas.co.us%2Fplanning%2Fprojects%2FLogin.aspx&data=05%7C02%7C%7C6d7c4a81e0514c08cae508dda3a8bbee%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C638846667287843757%7CUnknown%7CTWFpbGZsb3d8eyJFbXB0eU1hcGkiOnRydWUsIlYiOiIwLjAuMDAwMCIsIlAiOiJXaW4zMiIsIkFOIjoiTWFpbCIsIldUIjoyfQ%3D%3D%7C0%7C%7C%7C&sdata=i%2Fj24w%2Fer9xbT1wAXm3QBn3%2FhqACqnaip99eZoM%2BnMI%3D&reserved=0

SV2025-005, Sundown Oaks Metropolitain District, new service plan application.

This referral will close on Wednesday, June, 18, 2025.

If you have any questions, please contact me.

Sincerely,

DJ Beckwith
Planning Resources
100 Third Street
Castle Rock, CO 80104
303-660-7460 (main)

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

June 11, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Attn: DJ Beckwith

Re: Sundown Oaks Metropolitan District, Case # SV2025-005

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plans for **Sundown Oaks Metropolitan District** and currently has **no apparent conflict**.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center by dialing 811 for utility locates prior to construction.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

HilltopSecurities
A Hilltop Holdings Company.

Memorandum

8055 E. Tufts Avenue, Suite 350
Denver, CO 80237
(303) 248-2518 Direct

Mattie Prodanovic
Senior Vice President
Mattie.Prodanovic@hilltopsecurities.com

Date: June 30, 2025

To: Douglas County, Colorado

Subject: Review of Proposed Service Plan for the Sundown Oaks Metropolitan District

Hilltop Securities Inc. ("Hilltop") has been engaged by Douglas County, Colorado (the "County") to review the proposed Service Plan for the Sundown Oaks Metropolitan District (the "District").

Hilltop's review is based on the assumptions provided by the Organizer and other publicly available information. Our report should not be viewed as an independent economic forecast or as a confirmation of assumptions for the cost of public infrastructure, real estate market, development cycles, current or projected property values, or construction and absorption of homes within the development.

District Overview and Summary of the Service Plan

The District will utilize a single district structure and the total Service Area of the District is approximately 173 acres, all of which is expected to be utilized for residential development. At full build out, the Organizer anticipates the District will include 37 residential units that will be developed between 2027 and 2032, with an average home value of $2.2 million. The District's projected assessed value at full build out for collection in 2034, assuming development is completed in 2032, is projected to be approximately $6.2 million.

The Service Plan establishes a Maximum Total Mill Levy for the District of 70 mills, comprised of a debt service mill levy and operations and maintenance mill levy. The maximum levy for debt service is 50 mills and the maximum mill levy for operations and maintenance is 20 mills, although the Service Plan states a planned levy of 10 mills for operations and maintenance. Both District mill levies are subject to adjustment to changes in the calculation of assessed value based on changes to the calculation assuming a base year calculation of 2026. The Service Plan states that while the District can adjust its mill levies higher to account for changes in assessed value calculations that would otherwise negatively impact District revenues, it is also required to adjust mill levies lower if adjustments are made to the calculation of assessed value that increase revenues solely from the change in calculation such that any adjustment is revenue neutral.

The Service Plan limits the total amount of debt that can be issued by the District to $10 million. This debt limit is inclusive of all new money proceeds including funds allocated for project costs and costs of issuance. It is assumed that it is also inclusive of credit enhancements such as debt service reserve funds and capitalized interest funds, although it is not expressly stated in the Service Plan. The Service Plan requires that any individual series of bonds issued by the District have a maximum term of 30 years from the date of issuance including any refunding or refinancing. This language is somewhat unclear as it could be interpreted that all bonds related to an initial new money issuance must have a final term within 30 years of the original issuance or that each individual issuance could have its own 30-year term. In the latter scenario, the District could continue to perpetually refund an original bond issuance and restart the 30-year term at each refunding given there is no limit on time that the District may impose a debt service mill levy.

The Service Plan clearly states that developer advances will be counted against the debt limit and that these advances would be subordinate to general obligation bonds issued by the District. The Service Plan notes that the developer advances to the District are expected to be approximately $9 million, which matches the total anticipated costs as noted below and is within the debt limit established in the Service Plan. Additionally, the Service Plan notes that any developer advances remaining unpaid as of the expiration of the Maximum Debt Service Mill Levy term are deemed to be discharged. However, there is no term defined in the Service Plan for the debt service mill levy and as described above, the District's debt could

continually be extended in the future which would provide revenues to repay developer advances.

The Service Plan limits the maximum voted interest rate on any debt to a maximum of 12.00% and interest rate on developer reimbursements is limited to the current Bond Buyer 20-Bond GO Index plus 4%. The Service Plan does not specify that interest on any debt or developer advances should be simple, meaning interest on obligations of the District is allowed to compound. The Service Plan limits the maximum underwriting discount to 5.00%.

Proposed Financial Plan

Operation and Maintenance

The Service Plan estimates the first year's operating budget of the District at $75,000 and organizational costs to be approximately $50,000. The Financial Plan shows revenues from the operations and maintenance mill levy are sufficient to pay the estimated first year's operating budget beginning in collection year 2030. Prior to this time, the District may utilize developer advances to cover operating and organizational costs of the District.

Debt

The District currently estimates total costs of the improvements are approximately $9 million as detailed in Exhibit D of the Service Plan, which includes an estimated contingency of approximately 15%. The Service Plan contains language that the District will need to submit materials for administrative review if there is an increase in these costs greater than 20% but less than 40%. If costs increase in excess of 40%, it will constitute a material modification of the Service Plan and will require review by the County. The Financial Plan, included as Exhibit F, includes a bond issuance in 2027 in the aggregate par amount of $3,625,000 (the "Series 2027 Bonds"). The table below summarizes the key results of the projected Financial Plan.

Projected Financing Results	
Par Issued	$3,625,000
Project Fund Deposit	$2,703,802
Other Use of Proceeds	Reserve Fund Capitalized Interest Cost of Issuance

The projected par amount of approximately $3.6 million is within the debt limit in the Service Plan of $10 million. The estimated total project fund deposit of approximately $2.7 million is less than the anticipated development costs of $9 million by approximately $6.3 million. The Service Plan notes that it is anticipated there will be approximately $5 million of developer contributions which may not be repaid by the District, which is approximately $1.3 million less than the estimated shortfall. However, the Service Plan notes there will be an anticipated $9 million of developer advances, which would cover the estimated project costs.

Capitalized interest funded with proceeds from the bonds is used to fully pay debt service on the Series 2027 Bonds in collection year 2027 and partially pay debt service in collection years 2028 through 2030. Capitalized interest usually cannot be funded for longer than three years, so it is assumed that the amounts paid for in 2030 is due to the transaction closing later in 2027, but the financing details are not provided in the Financial Plan to verify that assumption. Proceeds from the Series 2027 Bonds are also used to fund a Debt Service Reserve Fund, which is fully funded at the maximum annual debt service on the bonds. The Financial Plan projects that revenues from the debt service mill levy, along with capitalized interest funds in the years described above, are sufficient to cover debt service on the Series 2027 Bonds through final maturity in 2057. The Financial Plan shows the District is able to retire the debt service on the Series 2027 Bonds within 30 years of issuance.

Financial Plan Assumptions

The Financial Plan makes certain assumptions regarding the structure and interest rates of each of the proposed issuances and the actual results will be different from the submitted Financial Plan based on what the market conditions are at each time of issuance. The table below summarizes these key assumptions.

Financial Plan Assumptions	
Interest Rate	6.25%
Debt Service Coverage	1.30x
Final Maturity / Term	2057 (30 Years)
Structure	Current Interest
Rating / Credit	Non-Rated
Biennial Reassessment	
Residential	3.00%

The interest rate assumption and targeted debt service coverage ratio are reasonable estimates given the current market and the inclusion of a debt service reserve fund is consistent with the credit structure. If, at the time of issuance, the interest rate or credit structure of the District's bonds are different than what is currently assumed in the Financial Plan, the District may generate more or less project funds than the amount currently shown.

Conclusion

As is true with sample financial projections included in any Service Plan for metropolitan districts, these financial projections do not constitute a commitment to construct any residential development, nor do they obligate the Organizer to begin new construction on any specific timetable. The actual implementation of the debt program may vary significantly from the projections in the Financial Plan. The timing, amounts, and interest rates of the planned debt issuances will be subject to market conditions and to the credit analysis performed at the time of issuance by third-party investors. The ability to issue debt in the future will also depend on the level of development achieved within the District, and on the rate of taxes imposed by the District in relationship to the limits created by the Service Plan.

Given the assumptions in the Financial Plan, it is reasonable that the District will be capable of extinguishing all bonds within the parameters established in the Service Plan. The actual amount the District will be able to borrow for the initial costs of the public improvements or to reimburse to the developer will be impacted by changes in these assumptions, market conditions, and investor demand between now and the time of issuance.

HilltopSecurities
A Hilltop Holdings Company.

Memorandum

8055 E. Tufts Avenue, Suite 350
Denver, CO 80237
(303) 248-2518 Direct

Mattie Prodanovic
Senior Vice President
Mattie.Prodanovic@hilltopsecurities.com

Date: July 3, 2025

To: Douglas County, Colorado

Subject: Review of Proposed Service Plan for the Sundown Oaks Metropolitan District

Hilltop Securities Inc. ("Hilltop") has been engaged by Douglas County, Colorado (the "County") to review the proposed Service Plan for the Sundown Oaks Metropolitan District (the "District").

Hilltop's review is based on the assumptions provided by the Organizer and other publicly available information. Our report should not be viewed as an independent economic forecast or as a confirmation of assumptions for the cost of public infrastructure, real estate market, development cycles, current or projected property values, or construction and absorption of homes within the development.

District Overview and Summary of the Service Plan

The District will utilize a single district structure and the total Service Area of the District is approximately 173 acres, all of which is expected to be utilized for residential development. At full build out, the Organizer anticipates the District will include 37 residential units that will be developed between 2027 and 2032, with an average home value of $2.2 million. The District's projected assessed value at full build out for collection in 2034, assuming development is completed in 2032, is projected to be approximately $6.2 million.

The Service Plan establishes a Maximum Total Mill Levy for the District of 70 mills, comprised of a debt service mill levy and operations and maintenance mill levy. The maximum levy for debt service is 50 mills and the maximum mill levy for operations and maintenance is 20 mills, although the Service Plan states a planned levy of 10 mills for operations and maintenance. The Service Plan also establishes a Maximum Debt Service Mill Levy Imposition Term of 40 years after initial imposition of the levy. Both District mill levies are subject to adjustment to changes in the calculation of assessed value based on changes to the calculation assuming a base year calculation of 2026. The Service Plan states that while the District can adjust its mill levies higher to account for changes in assessed value calculations that would otherwise negatively impact District revenues, it is also required to adjust mill levies lower if adjustments are made to the calculation of assessed value that increase revenues solely from the change in calculation such that any adjustment is revenue neutral.

The Service Plan limits the total amount of debt that can be issued by the District to $10 million. This debt limit is inclusive of all new money proceeds including funds allocated for project costs and costs of issuance. It is assumed that it is also inclusive of credit enhancements such as debt service reserve funds and capitalized interest funds, although it is not expressly stated in the Service Plan. The Service Plan requires that any individual series of bonds issued by the District have a maximum term of 30 years from the date of issuance including any refunding or refinancing. This language is somewhat unclear as it could be interpreted that all bonds related to an initial new money issuance must have a final term within 30 years of the original issuance or that each individual issuance could have its own 30-year term. In the latter scenario, the District could continue to perpetually refund an original bond issuance and restart the 30-year term at each refunding given there is no limit on time that the District may impose a debt service mill levy.

The Service Plan clearly states that developer advances will be counted against the debt limit and that these advances would be subordinate to general obligation bonds issued by the District. The Service Plan notes that the developer advances to the District are expected to be approximately $9 million, which matches the total anticipated costs as noted below and is within the debt limit established in the Service Plan. Additionally, the Service Plan notes that any developer advances remaining unpaid as of the expiration of

the Maximum Debt Service Mill Levy term are deemed to be discharged, which is 40 years as described above.

The Service Plan limits the maximum voted interest rate on any debt to a maximum of 12.00% and interest rate on developer reimbursements is limited to the current Bond Buyer 20-Bond GO Index plus 4%. The Service Plan does not specify that interest on any debt or developer advances should be simple, meaning interest on obligations of the District is allowed to compound. The Service Plan limits the maximum underwriting discount to 5.00%.

Proposed Financial Plan

Operation and Maintenance

The Service Plan estimates the first year's operating budget of the District at $75,000 and organizational costs to be approximately $50,000. The Financial Plan shows revenues from the operations and maintenance mill levy are sufficient to pay the estimated first year's operating budget beginning in collection year 2030. Prior to this time, the District may utilize developer advances to cover operating and organizational costs of the District.

Debt

The District currently estimates total costs of the improvements are approximately $9 million as detailed in Exhibit D of the Service Plan, which includes an estimated contingency of approximately 15%. The Service Plan contains language that the District will need to submit materials for administrative review if there is an increase in these costs greater than 20% but less than 40%. If costs increase in excess of 40%, it will constitute a material modification of the Service Plan and will require review by the County. The Financial Plan, included as Exhibit F, includes a bond issuance in 2027 in the aggregate par amount of $3,625,000 (the "Series 2027 Bonds"). The table below summarizes the key results of the projected Financial Plan.

Projected Financing Results	
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Other Use of Proceeds	Reserve Fund Capitalized Interest Cost of Issuance

The projected par amount of approximately $3.6 million is within the debt limit in the Service Plan of $10 million. The estimated total project fund deposit of approximately $2.7 million is less than the anticipated development costs of $9 million by approximately $6.3 million. The Service Plan notes that it is anticipated there will be approximately $5 million of developer contributions which may not be repaid by the District, which is approximately $1.3 million less than the estimated shortfall. However, the Service Plan notes there will be an anticipated $9 million of developer advances, which would cover the estimated project costs.

Capitalized interest funded with proceeds from the bonds is used to fully pay debt service on the Series 2027 Bonds in collection year 2027 and partially pay debt service in collection years 2028 through 2030. Capitalized interest usually cannot be funded for longer than three years, so it is assumed that the amounts paid for in 2030 is due to the transaction closing later in 2027, but the financing details are not provided in the Financial Plan to verify that assumption. Proceeds from the Series 2027 Bonds are also used to fund a Debt Service Reserve Fund, which is fully funded at the maximum annual debt service on the bonds. The Financial Plan projects that revenues from the debt service mill levy, along with capitalized interest funds in the years described above, are sufficient to cover debt service on the Series 2027 Bonds through final maturity in 2057. The Financial Plan shows the District is able to retire the debt service on the Series 2027 Bonds within 30 years of issuance which is also within the Maximum Debt Service Mill Levy Term of 40 years as established in the Service Plan.

Financial Plan Assumptions

The Financial Plan makes certain assumptions regarding the structure and interest rates of each of the proposed issuances and the actual results will be different from the submitted Financial Plan based on what

the market conditions are at each time of issuance. The table below summarizes these key assumptions.

Financial Plan Assumptions	
Interest Rate	6.25%
Debt Service Coverage	1.30x
Final Maturity / Term	2057 (30 Years)
Structure	Current Interest
Rating / Credit	Non-Rated
Biennial Reassessment	
Residential	3.00%

The interest rate assumption and targeted debt service coverage ratio are reasonable estimates given the current market and the inclusion of a debt service reserve fund is consistent with the credit structure. If, at the time of issuance, the interest rate or credit structure of the District's bonds are different than what is currently assumed in the Financial Plan, the District may generate more or less project funds than the amount currently shown.

Conclusion

As is true with sample financial projections included in any Service Plan for metropolitan districts, these financial projections do not constitute a commitment to construct any residential development, nor do they obligate the Organizer to begin new construction on any specific timetable. The actual implementation of the debt program may vary significantly from the projections in the Financial Plan. The timing, amounts, and interest rates of the planned debt issuances will be subject to market conditions and to the credit analysis performed at the time of issuance by third-party investors. The ability to issue debt in the future will also depend on the level of development achieved within the District, and on the rate of taxes imposed by the District in relationship to the limits created by the Service Plan.

Given the assumptions in the Financial Plan, it is reasonable that the District will be capable of extinguishing all bonds within the parameters established in the Service Plan. The actual amount the District will be able to borrow for the initial costs of the public improvements or to reimburse to the developer will be impacted by changes in these assumptions, market conditions, and investor demand between now and the time of issuance.

July 15, 2025

Laura Heinrich
Spencer Fane LLP
1700 Lincoln St, Suite 2000
Denver, CO 80203

Re: Sundown Oaks Metropolitan District – New Service Plan
Project File No. SV2025-005

Dear Ms. Heinrich:

The following schedule has been set for the above referenced application:

ACTION	DATE
Application stamped complete, Department of Community Development	**7/15/25**
PC meeting	**8/4/25, 6:00 pm**
BCC meeting to set hearing date	**8/26/25, 1:30 pm**
BCC hearing	**9/9/25, 2:30 pm**
BCC adopts resolution of approval or provides reason for denial	**9/9/25, 2:30 pm**

All meetings will be held in the Board of County Commissioners' Hearing Room at 100 Third Street, Castle Rock.

Please note some additional deadlines for this application; the staff report for the Board of County Commissioners hearing is to be mailed on August 28, 2025. The final version of the Service Plan, as it is to be delivered to the Board, should be provided to our office by Monday, August 25, 2025.

To ensure the applications are processed and heard according to the above schedule, it will be important for you to provide and comply with the following requirements.

A. NOTICING

State Statutes require public notice for the Board of County Commissioners hearing. The Douglas County *Service Plan Review Procedures* ("Review Procedures") require the

applicant to fulfill the following noticing requirements. Please also refer to Section 32-1-204, C.R.S. for further information:

1. Newspaper Noticing

   A notice needs to be published in the *Douglas County News-Press* at least 20 days before the BCC hearing. The notice shall include the date, time, location, purpose of the hearing, and a general description of the land contained within the boundaries of the metropolitan district and information outlining methods and procedures pursuant to Section 32-1-203 (3.5), C.R.S., concerning the filing of the petition for exclusion of territory. See the relevant section of the State Statutes and the Review Procedures for further explanation of this last issue.

   Please provide Planning Resources with a copy of the draft notice before it is sent to the newspaper for publishing so we can confirm all information is included.

2. Existing Surrounding Municipalities and Special Districts

   A written notice must be sent to "the governing body of any existing municipality or special district which has levied an ad valorem tax within the next preceding tax year and which has boundaries within a radius of three miles of the proposed special district boundaries" (Section 32-1-204 (1), C.R.S., as amended).

   This notice needs to state the date, time and location of the Board of Commissioners' public hearing. This notice must be sent out at least 20 days prior to the Board's hearing. Please provide Planning Resources with a copy of the above draft notice and a list of the municipalities or special districts prior to mailing the notice.

3. Property Owners

   Pursuant to Section 32-1-204(1.5), C.R.S., not more than 30 days or less than 20 days prior to the Board of County Commissioners hearing, a notice stating the date, time, location, and purpose of the Board of Commissioners public hearing, a reference to the type of special district, maximum mill levy, if any, or stating that there is no maximum that may be imposed by the proposed special district, and procedures for the filing of a petition for exclusion pursuant to Section 32-1-203(3.5), C.R.S., as amended, shall be sent to the owners of property within the proposed special district as listed on the records of the County Assessor.

   Please note that Planning Resources maintains its interpretation that public notice requirements as described within State statutes are applicable to this request. Based upon the identified Board of County Commissioners' hearing date of Tuesday, September 9, 2025, public notice to all property owners within the boundaries of the districts is required to be mailed between August 10 and August 20, 2025.

B. AFFIDAVIT OF NOTICE

Once the above noticing has been completed, an affidavit of publication will be required from the *Douglas County News-Press* to verify that the notice was published. In addition,

the Department of Community Development will need an affidavit of notice stating that the other two noticing requirements have been completed. These affidavits must be delivered to the Department of Community Development not less than five (5) business days prior to the Board of County Commissioners' hearing.

C. RESOLUTION

The applicant needs to provide the Department of Community Development a copy (electronic only is acceptable) of the resolution(s) by August 25, 2025, in time for the September 9, 2025, Board of County Commissioners' hearing.

Any revisions to the Service Plan pursuant to the conditions of approval that may be in the staff report for the September 9, 2025, hearing will need to be provided prior to the Board hearing of the same date.

If you have any questions on the above requirements, please call the undersigned at (303) 660-7460.

Sincerely,

DJ Beckwith
Principle Planner

cc: Lauren Pulver, Planning Supervisor
Katherine Carter, AICP, Assistant Director of Planning Services
Christopher Pratt, Managing County Attorney

June 23, 2025

Laura S. Heinrich
Spencer Fane LLP
1700 Lincoln St, Suite 2000
Denver, CO 80203

Re: Sundown Oaks Metropolitan District - New Service Plan
Project File No. SV2025-005

Dear Ms. Heinrich:

Thank you for the submittal of the Sundown Oaks Metropolitan District new service plan. We have completed the presubmittal review of the service plan and have comments as stated below. Additionally, copies of referral agency comments received to-date are enclosed.

General Formatting Comments:

1. Update all references to "Colorado Clean Water Plan" to "Colorado's Water Quality Management Plan."

2. In the first paragraph of Section VI, "Assessed Valuation/Projections/Land Use/Population" please Update the following language, "the property is zoned residential" to "the property is zoned Rural Residential".

3. In Section VIII, "Services, Facilities, And Improvements", A 1 and 3, please provide additional language explicitly stating that the District will not provide these services and narrow the language to include only the powers necessary for the District to build infrastructure but not provide water and sanitation services directly.

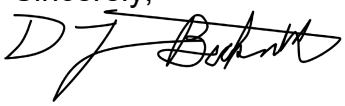
4. In Section XI, "Developer Advances and Reimbursements" first sentence of the second paragraph, please change the text style to match the rest of the service plan.

Referral Agency and County Consultant Comments:

1. Please address the comments provided by Douglas County Engineering.

If you have any questions on the above requirements, please call the undersigned at (303)-660-7460.

Sincerely,



DJ Beckwith, Principal Planner

cc: Lauren Pulver, Planning Supervisor
Kati Carter, AICP, Assistant Director of Planning Resources
Chris Pratt, Managing County Attorney

DJ Beckwith

From: DJ Beckwith
Sent: Thursday, July 3, 2025 10:22 AM
To: Heinrich, Laura
Cc: Peykov, Nicole; Lauren Pulver
Subject: RE: Sundown Oaks Metropolitan District- Formal Submittal

Thank you Laura,

We will plan for the following schedule:

PC meeting	**8/4/25, 6:00 pm**
BCC meeting to set hearing date	**8/26/25, 1:30 pm**
BCC hearing	**9/9/25, 2:30 pm**
BCC adopts resolution of approval or provides reason for denial	**9/9/25, 2:30 pm**

That is fine to have the check deliver on July 10th.

Let me know if you have any questions.

All the best,
DJ Beckwith | Principal Planner
Douglas County Department of Community Development
Planning Resources
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4330 **Main** | 303-660-7460
Email | dbeckwith@douglas.co.us

From: Heinrich, Laura <lheinrich@spencerfane.com>
Sent: Thursday, July 3, 2025 10:14 AM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Cc: Peykov, Nicole <npeykov@spencerfane.com>; Lauren Pulver <lpulver@douglas.co.us>
Subject: RE: Sundown Oaks Metropolitan District- Formal Submittal

Hi DJ,

I am writing to confirm that we would like the dates below. Steve Gage will be able to deliver a check around July 10. I believe that you said yesterday that this will be fine, but please let me know if you need a check sooner.

Thanks,

Laura

Planning Resources
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4330 **Main** | 303-660-7460
Email | dbeckwith@douglas.co.us

From: Heinrich, Laura <lheinrich@spencerfane.com>
Sent: Thursday, July 3, 2025 7:54 AM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Cc: Peykov, Nicole <npeykov@spencerfane.com>
Subject: RE: Sundown Oaks Metropolitan District- Formal Submittal

Good morning, DJ,

I have one more question for you. Would it be possible for us to bump the Planning Commission date out to August 4?

Thanks,

Laura

Laura S. Heinrich | Attorney
Spencer Fane LLP
_____
1700 Lincoln St, Suite 2000 | Denver, CO 80203
O 303.839.3979
lheinrich@spencerfane.com | spencerfane.com

From: Heinrich, Laura
Sent: Wednesday, July 2, 2025 5:00 PM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Cc: Peykov, Nicole <npeykov@spencerfane.com>
Subject: FW: Sundown Oaks Metropolitan District- Formal Submittal

Hi DJ,

Is it possible for the developer to pay the $500 fee with a credit card?

Thanks,

Laura

Laura S. Heinrich | Attorney
Spencer Fane LLP
_____
1700 Lincoln St, Suite 2000 | Denver, CO 80203
O 303.839.3979
lheinrich@spencerfane.com | spencerfane.com

Cc: Lauren Pulver <lpulver@douglas.co.us>; Peykov, Nicole <npeykov@spencerfane.com>
Subject: Sundown Oaks Metropolitan District- Formal Submittal

Good afternoon,

Attached for formal submittal for the proposed Sundown Oaks Metropolitan District are a cover letter, an updated Service Plan, and the application. We will also be overnighting a package to your attention with these documents. A check in the amount of $500 was previously delivered to your office. Please let us know if you need anything else.

Best,

Laura

Laura S. Heinrich | Attorney
Spencer Fane LLP

_____
1700 Lincoln St, Suite 2000 | Denver, CO 80203
O 303.839.3979
lheinrich@spencerfane.com | spencerfane.com

From: DJ Beckwith <dbeckwith@douglas.co.us>
Sent: Tuesday, June 24, 2025 8:52 AM
To: Peykov, Nicole <npeykov@spencerfane.com>; Heinrich, Laura <lheinrich@spencerfane.com>
Cc: Lauren Pulver <lpulver@douglas.co.us>
Subject: [EXTERNAL] RE: Sundown Oaks Metropolitan District Presubmittal

[Warning] This E-mail came from an External sender. Please do not open links or attachments unless you are sure it is trusted.

Greetings Laura and Nicole,

I have attached the County's comment letter that includes all comments received from referral agencies. There will be some additional comments coming in from our financial consultant as well as from the Franktown Citizens Coalition. We will provide those comments when they are received.

Once you have reviewed the comments and are prepared to submit the final application, please mail me a hard copy of the service plan, application, and a check for $500 made out to the Douglas County Clerk and Recorder.

Following formal submittal, we will finalize the Schedule Letter.
Please let me know if you have any questions.

All the best,
DJ Beckwith | Principal Planner
Douglas County Department of Community Development
Planning Resources
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4330 **Main** | 303-660-7460
Email | dbeckwith@douglas.co.us

DJ Beckwith

From: Heinrich, Laura <lheinrich@spencerfane.com>
Sent: Tuesday, July 1, 2025 11:38 AM
To: DJ Beckwith; Lauren Pulver
Cc: Peykov, Nicole
Subject: Sundown Oaks Metropolitan District- Maximum Debt Service Mill Levy Term
Attachments: 2025a_1219_signed.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning,

Pursuant to Section 2 of HB 25-1219, attached hereto, which was signed into law on May 29, 2025, we need to add a definition of "Maximum Debt Service Mill Levy Term" to the Service Plan for Sundown Oaks Metropolitan District. I prepared the definition below to include in the definitions section of the Service Plan, but we would like for you to confirm what the County's policy is regarding the term. Our recommendation is that the number of years that we include in the definition below be between 40 - 50 years.

> Maximum Debt Service Mill Levy Term: the maximum term for imposition of a debt service mill levy on any property after the initial year of imposition of such debt service mill levy, which has been determined by the County to be ___ years.

Thanks,

Laura

Laura S. Heinrich | Attorney
Spencer Fane LLP
_____
1700 Lincoln St, Suite 2000 | Denver, CO 80203
O 303.839.3979
lheinrich@spencerfane.com | spencerfane.com

SpencerFane

LAURA S. HEINRICH
DIRECT DIAL: 303-839-3979
lheinrich@spencerfane.com

File No. 5523490.0001

June 2, 2025

VIA FEDEX AND EMAIL

DJ Beckwith
Principal Planner
Douglas County Department of Community Development
Planning Resources
100 Third Street
Castle Rock, Colorado 80104
dbeckwith@douglas.co.us

Re: (Proposed) Sundown Oaks Metropolitan District

Dear Mr. Beckwith:

Enclosed for formal submittal are the updated Service Plan for Sundown Oaks Metropolitan District as well as the application that we previously submitted.

We reviewed your comment letter, dated June 23, 2025, as well as the referral agency and County consultant comments contained therein. We have also reviewed the memorandum from Hilltop Securities dated June 30, 2025. The following is a summary of the revisions that we made to the Service Plan:

- Addition of a "Maximum Debt Service Mill Levy Term" as Section X.E of the Service Plan to address the requirement in Section 2 of House Bill 25-1219, which was signed into law on May 29, 2025;
- Revised Section VIII.A.2 (Storm Sewer) and VIII.A.4 (Street Improvements) to add language to state that the power to install such improvements is subject to the approval of Douglas County pursuant to Douglas County rules and regulations;
- Revised Section VIII.A.1 (Water) and Section VIII.A.3 (Sanitation and Wastewater Treatment) in order to narrow the language;
- Updated all references to "Colorado Clean Water Plan" to "Colorado's Water Quality Management Plan"; and
- Revised the references to residential zoning in the first paragraph of Section VI, "Assessed Valuation/Projections/Land Use/Population" to be "Rural Residential".

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A check in the amount of $500 made out to the Douglas County Clerk and Recorder was previously delivered to your office.

We are hoping to be scheduled for Planning Commission and for a Board of County Commissioners Hearing as soon as possible. Please do not hesitate to contact us if you have any questions or if you need further information.

Best regards,

/s/ Laura S. Heinrich

Laura S. Heinrich

Enclosures

DE 10152882.1

DJ Beckwith

From: Heinrich, Laura <lheinrich@spencerfane.com>
Sent: Monday, June 2, 2025 3:53 PM
To: DJ Beckwith
Cc: Peykov, Nicole
Subject: Sundown Oaks Metropolitan District Presubmittal
Attachments: 2025 - Cover Letter - Sundown Oaks MD Pre-submittal(10071491.1).pdf; Application, Sundown Oaks Metropolitan District(10071524.1).pdf; Service Plan - Sundown Oaks MD, 2025-06-02(10071434.1).pdf; Redline Comparison, DC Model Service Plan to Sundown Oaks MD(10071483.1).docx; Proposed Sundown Oaks Metro - 3 Mile Radius - 5.30.2025.xlsx; November 2025 Organizational Schedule - Sundown Oaks Metropolitan District(10071551.1).pdf

Follow Up Flag: Follow up
Flag Status: Completed

Good afternoon,

Please find attached the following documents for Sundown Oaks Metropolitan District:

1. Cover Letter
2. Service Plan Application
3. Service Plan
4. Redline Comparison of Douglas County Model Service Plan to Service Plan for Sundown Oaks Metropolitan District
5. List of all Districts, Municipalities, and Counties within a 3-Mile Radius
6. Proposed Schedule

Let us know if you have any questions or need anything else from us.

Best,

Laura

Laura S. Heinrich | Attorney
Spencer Fane LLP

1700 Lincoln St, Suite 2000 | Denver, CO 80203
O 303.839.3979
lheinrich@spencerfane.com | spencerfane.com

RESIDENTIAL MARKET AND ABSORPTION ANALYSIS

SUNDOWN OAKS METROPOLITAN DISTRICT

Franktown, Colorado

PREPARED FOR:
SUNDOWN OAKS METROPOLITAN DISTRICT

Economic & Market Research / Land & Development Planning
Landscape Architecture / Community Planning & Design
Golf Feasibility Analysis

RESIDENTIAL MARKET AND ABSORPTION ANALYSIS

Sundown Oaks Metropolitan District

Franktown, Colorado

PREPARED FOR:
SUNDOWN OAKS METROPOLITAN DISTRICT

JUNE 23, 2025
THK REFERENCE #9183-000

PREPARED BY:

THK associates, inc
5675 DTC BOULEVARD, SUITE 200
GREENWOOD VILLAGE, COLORADO 80111
(303) 770-7201 PHONE
INFO@THKASSOC.COM

Economic & Market Research / Land & Development Planning
Landscape Architecture / Community Planning & Design
Golf Feasibility Analysis

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EXECUTIVE SUMMARY

Executive Summary

The Sundown and Oak Bluff community is located at the intersection of Burning Tree Drive and East Tanglewood Road in Franktown/Douglas County. Sundown is located on the eastern side of East Tanglewood Road southeast of Burning Tree Drive. The Sundown subject lots are located 34.0 miles south of Denver International Airport, 31.5 miles southeast of downtown Denver, 18.0 miles southeast of Centennial Airport, 15.8 miles south of E-470, 11.0 miles east of I-25, and 4.0 miles east of Highway 83. The Sundown subject sites are very strategically positioned parcels located approximately 18.6 miles southeast of the rapidly expanding interchange of E-470 and I-25. Oak Bluff is located south of Burning Tree Drive and west of East Tanglewood Road.

The Oak Bluff subject lots are located 32.5 miles south of Denver International Airport, 28 miles southeast of downtown Denver, 14.5 miles southeast of Centennial Airport, 13.2 miles south of E-470, 7.35 miles east of I-25, and 1.6 miles east of Highway 83. The Oak Bluff subject sites are very strategically positioned parcels located approximately 14.00 miles southeast of the rapidly expanding interchange of E-470 and I-25.

This study assessed the market demand for planned and anticipated development within the Sundown Oaks development along with reasonable market and assessed values created from this project, which is located within the Sundown Oaks Metropolitan District.

The Sundown Oaks Metropolitan Community is proposed for:

- 37 Residential Units

This report analyzes each of the proposed land use types outlined above and determines the market demand and expected absorption period for each land use type based on historical, current, and projected area market conditions. This report also analyzes market values for each of the proposed land use types, which are based on market values of comparable properties for sale as provided by Douglas County assessor's offices.

The tables on the following pages summarize the Sundown Oaks Metropolitan District absorption and market values. THK has determined to be supportable by historical, current, and projected area market conditions.

Sundown Oaks Proposed Land Use by Product Type

Unit Type	Total Homes	Anticpated Year of Completion	Value per Unit - 2025	Value per Lot - 2025
Single Family Detached	37	2030	$2,200,000	$500,000

Total	**37**

Source: THK Associates, Inc.

Sundown Oaks Detached Residential Absorption Schedule

		Single-Family Attached			
		Site Annual	Site Cumulative	Sundown Oaks	
Year	PTA Annual Market Demand	Market Demand (20%/ 25% Capture)	Market Demand	Annual Absorption	Cumulative Absorption
2025	187		**** Planning and Development****		
2026	191		**** Planning and Development****		
2027	195	9	9	9	9
2028	199	9	18	9	18
2029	204	9	27	9	27
2030	209	10	37	10	37
Total	1,185	37	37	37	**37**

Source: THK Associates, Inc.

Sundown Oaks is proposing a single-family detached development. All residential single-family detached homes are projected to be built-out by 2030. Average supportable market values for single-family detached homes are $2,200,000. It is THK's opinion that the metro district's values are reasonable in the marketplace. The Sundown Oaks Primary Trade Area has seen an annual inflation rate of 2.5% in home prices between 2021 and 2025 year-to-date. THK expects interest rates to decrease in the near future, which will increase the home inflation rate over the years to come, therefore in our market and assessed value calculation over the next 30 years THK utilized a 3.0% inflation rate.

I. INTRODUCTION

I. Introduction

The purpose of this market analysis has been to determine future absorption by product type for the Sundown Oaks community. The Sundown and Oak Bluff community is located at the intersection of Burning Tree Drive and East Tanglewood Road in Franktown/Douglas County. The entirety of the Sundown Oaks subject community is 177-acres. The Sundown property is approximately 73-acres and is planned for 17, 2-acre sites. The Oak Bluff property is approximately 104-acres and is planned for 20 home sites, averaging 4.71-acres in size.

The study examines the absorption and market and assessed values for the proposed residential uses in the community. THK's research includes market projections for a variety of residential product types. At the conclusion of THK's analysis, an absorption estimate of the proposed residential product type at the Sundown Oaks Community is detailed.

In order to estimate future residential construction absorption and market and assessed values for the Sundown Oaks site, THK has undertaken the following research:

- Prepared an economic base analysis of the Ten County market area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Elbert Counties, Jefferson, Larimer, and Weld).
- Profiled submarkets within the regional environs including population and household growth, employment growth, income characteristics, permit data, housing supply, and other relevant statistics.
- Inspected the Sundown Oaks site.
- Reviewed any documents related to the Sundown Oaks Metropolitan District.
- Inventoried active and upcoming single family home communities in the Sundown Oaks Primary Trade Area.
- Identified sales of single-family homes and lots within the Sundown Oaks Primary trade area over the past four years.
- This assessment of supply and demand allowed THK to estimate the absorption and pricing of the proposed homes.
- Estimated value estimates based on competitive communities.
- Researched and opined on a reasonable bi-annual inflation rate.

II. SITE AND AREA DESCRIPTION

II. Site and Area Description

The Sundown subject sites are located 34.0 miles south of Denver International Airport, 31.5 miles southeast of downtown Denver, 18.0 miles southeast of Centennial Airport, 15.8 miles south of E-470, 11.0 miles east of I-25, and 4.0 miles east of Highway 83. The Sundown subject sites are very strategically positioned parcels located approximately 18.6 miles southeast of the rapidly expanding interchange of E-470 and I-25.

The Oak Bluff subject sites are located 32.5 miles south of Denver International Airport, 28 miles southeast of downtown Denver, 14.5 miles southeast of Centennial Airport, 13.2 miles south of E-470, 7.35 miles east of I-25, and 1.6 miles east of Highway 83. Due to the decreasing availability of affordable and available land in Metro Denver, demand for housing continues to expand beyond Denver's core. The Oak Bluff subject sites are very strategically positioned parcels located approximately 14.00 miles southeast of the rapidly expanding interchange of E-470 and I-25.

Two miles east of I-25 and E-470 and 13 miles northwest of the Sundown Oaks subject sites, is the Compark Business Campus. It has added 312 homes, an 85,000 square foot data center, 425,000 square feet of retail space, and 220,000 square feet of office space. Near the interchange of E-470 and Highway 83, 10.5 miles north of the subject site, Ryland Homes has built 500 homes in Whispering Pines, Kings Point has plans for 3,000 homes, Toll Brothers and Standard Pacific built 1,800 age 55+ homes at Inspiration. Attractions include the Rueter-Hess Reservoir 9.0 miles northwest, and the Outlets at Castle Rock shopping destination located 9.4 miles west of the Sundown Oaks community. The Outlets at Castle Rock have over 100 stores and restaurants.

Area maps, aerials, and site photos are shown on the following pages.

Figure 1- Denver Metropolitan Area Regional Location

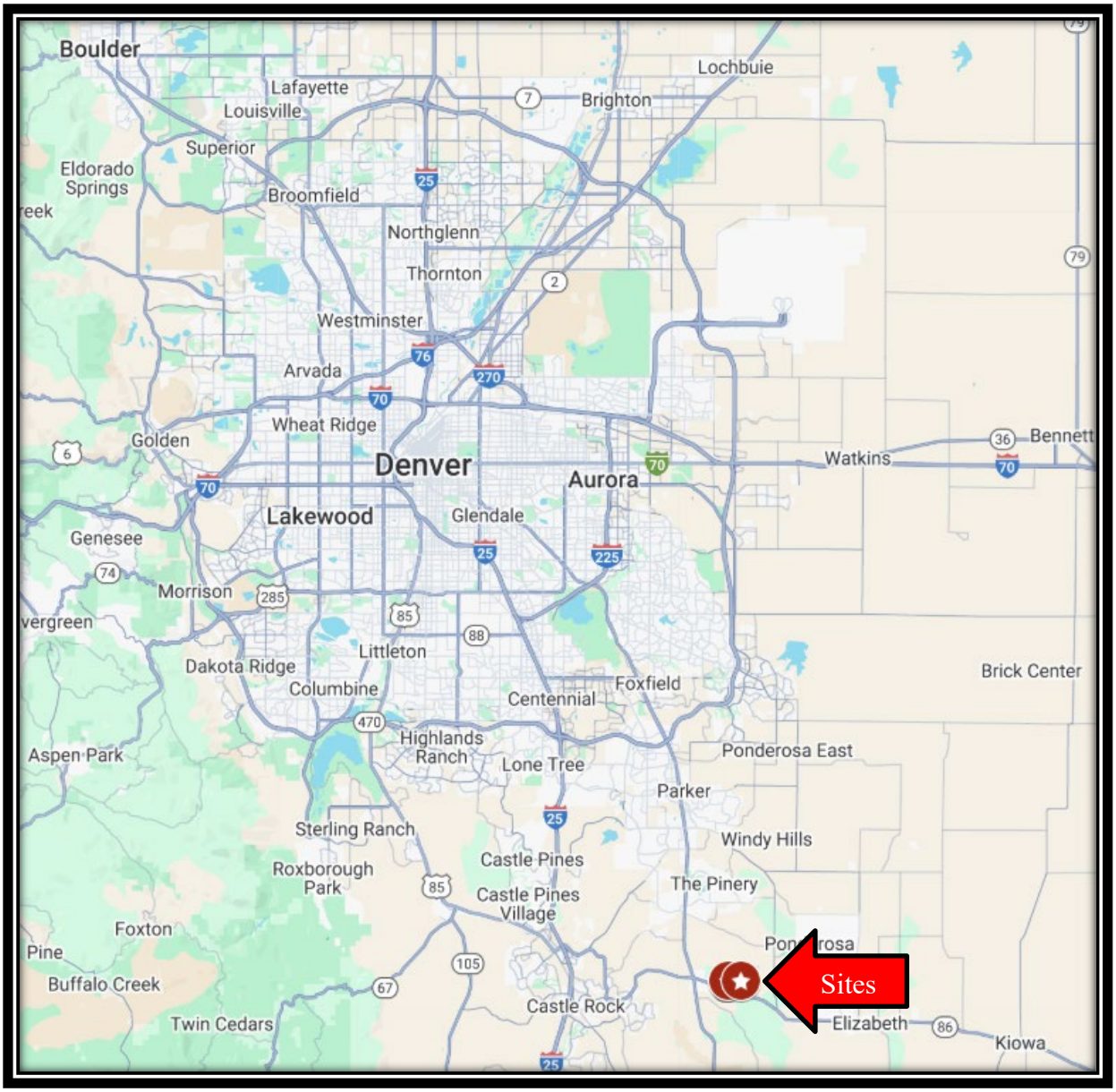


Figure 2- Sundown Oaks Regional Location

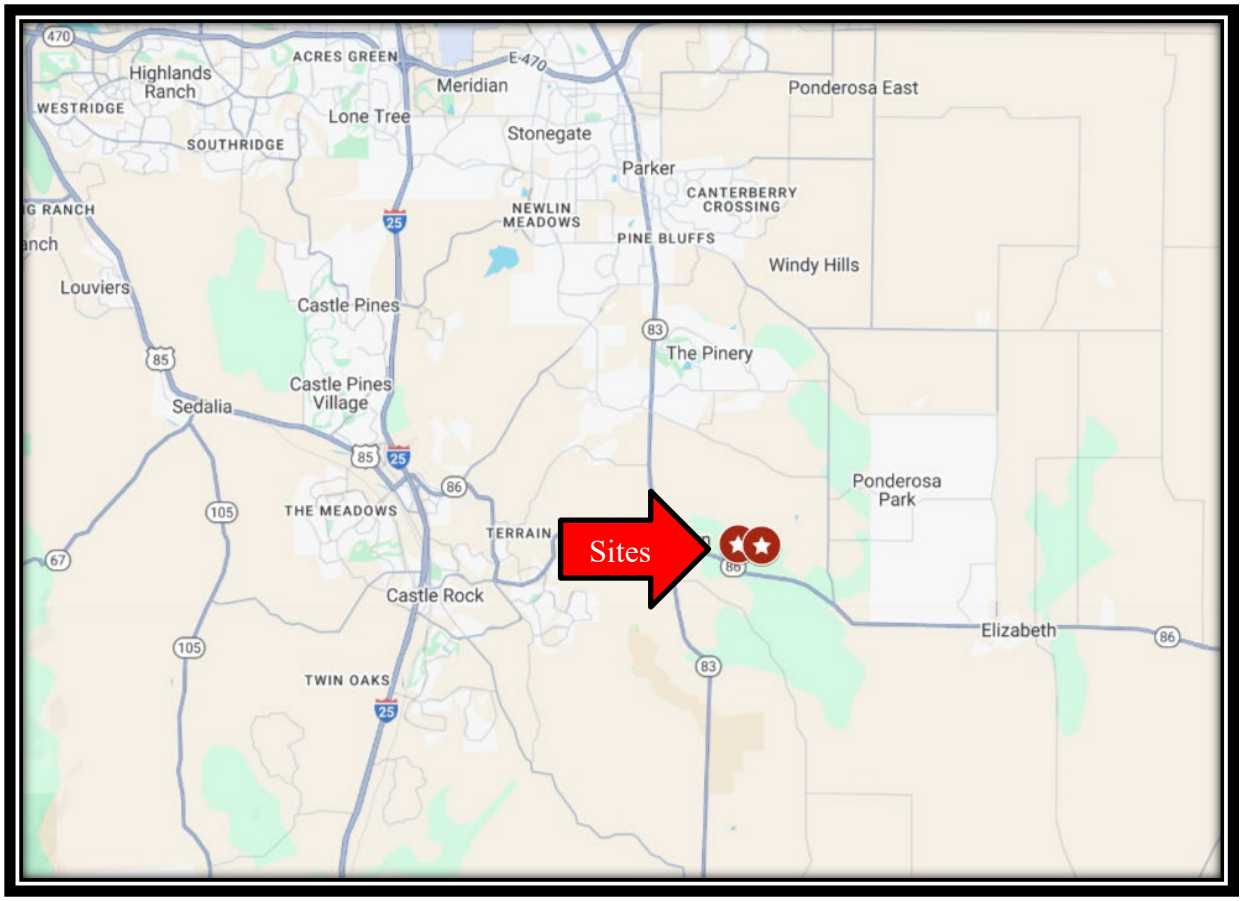
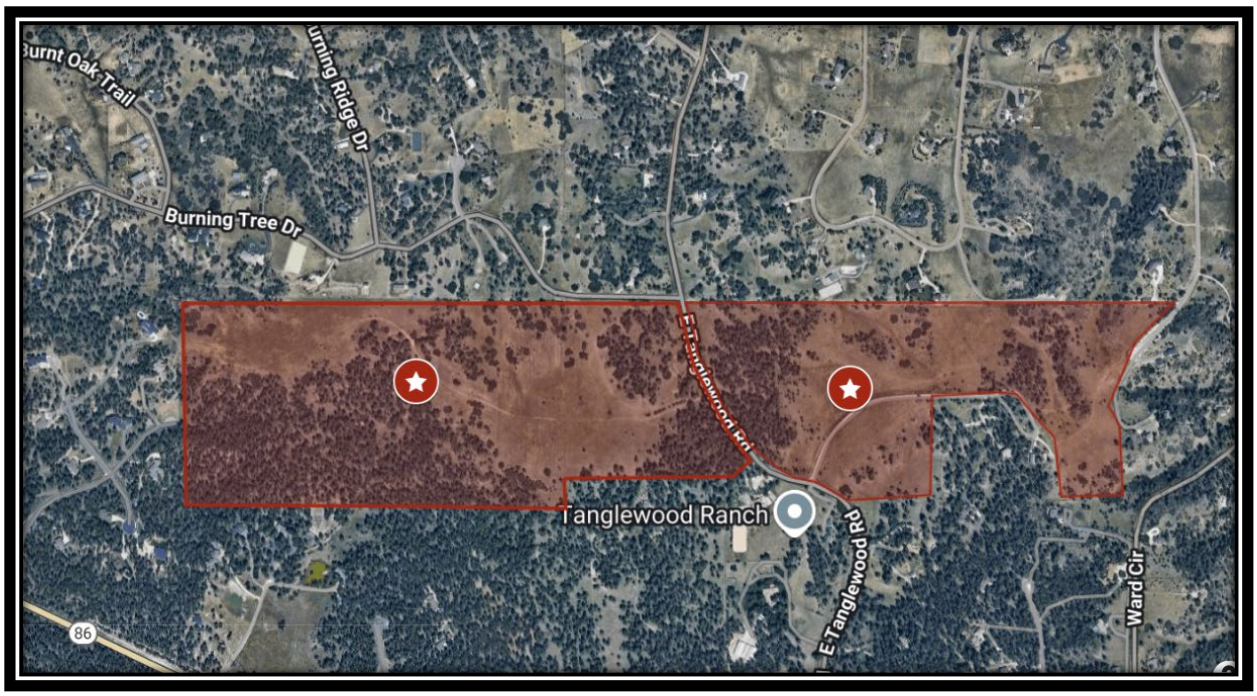


Figure 3- Sundown Oaks Site Aerial



Sundown Oaks Site

III. ECONOMIC BASE ANALYSIS

III. Economic Base Analysis

A. HISTORICAL EMPLOYMENT GROWTH

Table III-1 on the following page shows historical employment growth by year for The Ten County market area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Elbert, Jefferson, Larimer, and Weld counties).

Employment trends are prime indicators of the economic growth of an area. Increases in employment generate growth for most sectors of the local economy and dictate the rate at which it will expand.

Total full- and part-time employment in the Ten County market area grew from 1,152,005 in 1980 to 3,122,322 in 2025, for an average annual increase of 43,736 jobs. Over the last decade, 58,310 jobs per year were added, for an average annual growth rate of 2.3%.

Table III-1: Ten County Market Area Employment Trends, 1980-2025

Year	Total Employment	Annual Change	
		Numerical	Percent
1980	1,154,201	44,258	5.0%
1981	1,200,155	45,954	4.0%
1982	1,235,985	35,830	3.0%
1983	1,261,477	25,492	2.1%
1984	1,333,901	72,424	5.7%
1985	1,358,267	24,366	1.8%
1986	1,355,191	-3,076	-0.2%
1987	1,342,433	-12,758	-0.9%
1988	1,380,346	37,913	2.8%
1989	1,400,210	19,864	1.4%
1990	1,427,162	26,952	1.9%
1991	1,461,635	34,473	2.4%
1992	1,489,065	27,430	1.9%
1993	1,554,164	65,099	4.4%
1994	1,616,520	62,356	4.0%
1995	1,664,596	48,076	3.0%
1996	1,727,334	62,738	3.8%
1997	1,802,354	75,020	4.3%
1998	1,875,518	73,164	4.1%
1999	1,932,678	57,160	3.0%
2000	2,017,042	84,364	4.4%
2001	2,031,859	14,817	0.7%
2002	2,009,483	-22,376	-1.1%
2003	1,997,978	-11,505	-0.6%
2004	2,032,097	34,119	1.7%
2005	2,081,074	48,977	2.4%
2006	2,129,635	48,561	2.3%
2007	2,205,927	76,292	3.6%
2008	2,232,453	26,526	1.2%
2009	2,179,125	-53,328	-2.4%
2010	2,171,930	-7,195	-0.3%
2011	2,223,202	51,272	2.4%
2012	2,277,947	54,745	2.5%
2013	2,358,217	80,270	3.5%
2014	2,449,602	91,385	3.9%
2015	2,539,227	89,625	3.7%
2016	2,617,497	78,270	3.1%
2017	2,683,484	65,987	2.5%
2018	2,759,187	75,703	2.8%
2019	2,832,375	73,188	2.7%
2020	2,676,036	-156,339	-5.5%
2021	2,822,839	146,803	5.5%
2022	3,006,286	183,447	6.5%
2023 Estimate	3,032,439	26,153	0.9%
2024 Estimate	3,062,197	29,758	1.0%
2025 Estimate	3,122,322	60,125	2.0%
Annual Change			
1980-2025		43,736	2.2%
1990-2025		48,433	2.3%
2000-2025		44,211	1.8%
2010-2025		63,359	2.5%
2015-2025		58,310	2.3%
2020-2025		74,871	3.4%

Source: Bureau of Economic Analysis, and THK Associates, Inc.

B. PROJECTED EMPLOYMENT GROWTH

Table III-2, illustrates the projected job growth for the Ten County market area, which is expected to add approximately 69,582 jobs annually on average from 2025-2035.

Table III-2: Ten County Market Area Employment Projections, 2025-2035

Year	Total Employment	Annual Change	
		Numerical	Percent
2025	3,122,322	-	-
2026	3,184,259	61,937	2.0%
2027	3,247,749	63,490	2.0%
2028	3,312,843	65,094	2.0%
2029	3,379,593	66,751	2.0%
2030	3,448,056	68,462	2.0%
2031	3,518,288	70,232	2.0%
2032	3,590,348	72,061	2.0%
2033	3,664,301	73,952	2.1%
2034	3,740,210	75,909	2.1%
2035	3,818,142	77,933	2.1%
Annual Change 2025-2035		**69,582**	**2.0%**

Source: Bureau of Economic Analysis and THK Associates, Inc.

C. POPULATION AND HOUSEHOLD GROWTH TRENDS

Employment, population, and household growth drive demand for residential real estate development.

Table III-3 shows that in the Ten County market area, population and households have increased since 1980 by 2.0% and 2.0%, respectively. Since 2010, population has increased by 83,506 people per year to 4,612,340 in 2025, for an average annual growth rate of 2.0%.

Households in the Ten County market area have grown by 1.9% per year over the last fifteen years. Since 2010, households in the region have increased by 29,085 annually to 1,756,007 in 2025.

Table III-3: Estimates of Population and Households in the Denver Ten County Market Area, 1980-2025

	Adams County		Arapahoe County		Boulder County		Broomfield County		Denver County		Douglas County		Jefferson County		Larimer County		Weld County		Elbert County		**Ten County Total**	
Year	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	**Pop**	**HH**
1980	245,944	84,219	293,621	106,018	189,625	68,964	--	--	492,365	211,566	25,153	7,857	371,753	129,778	149,184	54,086	123,440	42,750	6,850	2,380	**1,897,935**	**707,618**
1990	257,874	93,914	391,902	155,367	208,913	82,510	25,032	8,992	467,229	210,943	60,406	20,786	437,056	166,520	186,137	70,575	131,729	47,533	9,644	3,351	**2,175,922**	**860,491**
2000	347,987	122,803	487,900	190,892	269,625	106,485	39,434	14,251	554,688	239,242	175,792	60,938	525,287	205,408	251,493	97,163	180,795	63,194	19,872	6,670	**2,852,873**	**1,107,046**
2010	441,603	153,764	572,003	224,011	294,567	119,300	55,889	21,414	600,158	263,107	285,465	102,018	534,543	218,160	299,630	120,295	252,825	89,349	23,068	8,380	**3,359,751**	**1,319,798**
2020	533,501	192,087	677,136	262,519	348,828	133,340	82,077	32,015	759,214	336,152	369,347	131,260	615,579	240,109	369,347	144,065	348,828	129,179	27,313	8,853	**4,131,170**	**1,609,579**
2025	578,829	208,407	740,631	280,204	369,771	140,720	101,496	35,008	863,616	371,470	430,487	151,573	644,683	249,695	402,029	157,289	448,881	151,364	31,916	10,345	**4,612,340**	**1,756,077**
(1980-2025):																						
Numerical	7,400	2,760	9,930	3,871	4,000	1,595	--	--	8,250	3,553	9,010	3,194	6,070	2,665	5,620	2,293	7,230	2,414	560	177	**60,320**	**23,299**
Percent	1.9%	2.0%	2.1%	2.2%	1.5%	1.6%	--	--	1.3%	1.3%	6.5%	6.8%	1.2%	1.5%	2.2%	2.4%	2.9%	2.8%	3.5%	3.3%	2.0%	2.0%
Percent of 10-County Total	12.3%	11.8%	16.5%	16.6%	6.6%	6.8%	--	--	13.7%	15.3%	14.9%	13.7%	10.1%	11.4%	9.3%	9.8%	12.0%	10.4%	0.9%	0.8%	100.0%	100.0%
(1990-2025):																						
Numerical	9,170	3,271	9,960	3,567	4,600	1,663	2,180	743	11,330	4,586	10,570	3,737	5,930	2,376	6,170	2,478	9,060	2,967	640	200	**69,612**	**25,588**
Percent	2.3%	2.3%	1.8%	1.7%	1.6%	1.5%	4.1%	4.0%	1.8%	1.6%	5.8%	5.8%	1.1%	1.2%	2.2%	2.3%	3.6%	3.4%	3.5%	3.3%	2.2%	2.1%
Percent of 10-County Total	13.2%	12.8%	14.3%	13.9%	6.6%	6.5%	3.1%	2.9%	16.3%	17.9%	15.2%	14.6%	8.5%	9.3%	8.9%	9.7%	13.0%	11.6%	0.9%	0.8%	100.0%	100.0%
(2000-2025):																						
Numerical	9,234	3,424	10,109	3,572	4,006	1,369	2,482	830	12,357	5,289	10,188	3,625	4,776	1,771	6,021	2,405	10,723	3,527	482	147	**70,379**	**25,961**
Percent	2.1%	2.1%	1.7%	1.5%	1.3%	1.1%	3.9%	3.7%	1.8%	1.8%	3.6%	3.7%	0.8%	0.8%	1.9%	1.9%	3.7%	3.6%	1.9%	1.8%	1.9%	1.9%
Percent of 10-County Total	13.1%	13.2%	14.4%	13.8%	5.7%	5.3%	3.5%	3.2%	17.6%	20.4%	14.5%	14.0%	6.8%	6.8%	8.6%	9.3%	15.2%	13.6%	0.7%	0.6%	100.0%	100.0%
(2010-2025)																						
Numerical	9,148	3,643	11,242	3,746	5,014	1,428	3,040	906	17,564	7,224	9,668	3,304	7,343	2,102	6,827	2,466	13,070	4,134	590	131	**83,506**	**29,085**
Percent	1.8%	2.0%	1.7%	1.5%	1.5%	1.1%	4.1%	3.3%	2.5%	2.3%	2.8%	2.7%	1.3%	0.9%	2.0%	1.8%	3.9%	3.6%	2.2%	1.4%	2.0%	1.9%
Percent of 10-County Total	11.0%	12.5%	13.5%	12.9%	6.0%	4.9%	3.6%	3.1%	21.0%	24.8%	11.6%	11.4%	8.8%	7.2%	8.2%	8.5%	15.7%	14.2%	0.7%	0.5%	100.0%	100.0%

Source: Bureau of Census and THK Associates, Inc.

D. TEN-COUNTY INCOME LEVELS

Table III-4 illustrates the per capita personal income level and annual change over the last 36 years for Ten County Market Area, by county, and the United States as a whole. Table III-4 illustrates an increase in wealth for the Ten County area, which will positively impact both residential and commercial real estate within the county over the next several years.

Table III-4: Per Capita Personal Income by County for the Ten County, 1990-2025

	Adams County		Arapahoe County		Boulder County		Broomfield County		Denver County		Douglas County		Jefferson County		Larimer County		Weld County		Elbert County		United States	
Year	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change
1990	$16,330	--	$24,379	--	$22,416	--	--	--	$23,320	--	$25,072	--	$21,661	--	$17,978	--	$15,533	--	$17,809	--	$19,621	--
1991	$16,796	2.9%	$24,876	2.0%	$23,149	3.3%	--	--	$23,438	0.5%	$30,328	21.0%	$22,760	5.1%	$18,583	3.4%	$16,077	3.5%	$18,507	3.9%	$20,030	2.1%
1992	$17,674	5.2%	$25,840	3.9%	$24,790	7.1%	--	--	$24,376	4.0%	$32,436	7.0%	$23,623	3.8%	$19,581	5.4%	$16,988	5.7%	$20,603	11.3%	$21,090	5.3%
1993	$18,522	4.8%	$26,998	4.5%	$25,987	4.8%	--	--	$25,277	3.7%	$35,653	9.9%	$24,781	4.9%	$20,606	5.2%	$18,168	6.9%	$22,588	9.6%	$21,733	3.0%
1994	$19,377	4.6%	$28,637	6.1%	$27,401	5.4%	--	--	$26,430	4.6%	$37,723	5.8%	$25,474	2.8%	$21,442	4.1%	$18,787	3.4%	$23,813	5.4%	$22,575	3.9%
1995	$20,154	4.0%	$30,209	5.5%	$29,080	6.1%	--	--	$28,277	7.0%	$39,511	4.7%	$27,051	6.2%	$22,754	6.1%	$19,323	2.9%	$24,273	1.9%	$23,607	4.6%
1996	$20,910	3.8%	$32,314	7.0%	$30,835	6.0%	--	--	$29,666	4.9%	$39,551	0.1%	$28,585	5.7%	$24,327	6.9%	$20,547	6.3%	$25,371	4.5%	$24,771	4.9%
1997	$22,347	6.9%	$33,388	3.3%	$32,791	6.3%	--	--	$31,002	4.5%	$39,282	-0.7%	$30,751	7.6%	$25,754	5.9%	$21,467	4.5%	$24,671	-2.8%	$25,993	4.9%
1998	$23,811	6.6%	$36,261	8.6%	$35,192	7.3%	--	--	$34,097	10.0%	$39,853	1.5%	$33,830	10.0%	$27,099	5.2%	$23,155	7.9%	$26,372	6.9%	$27,557	6.0%
1999	$25,270	6.1%	$38,739	6.8%	$37,436	6.4%	--	--	$35,915	5.3%	$41,387	3.8%	$35,172	4.0%	$28,273	4.3%	$24,333	5.1%	$28,038	6.3%	$28,675	4.1%
2000	$27,118	7.3%	$42,831	10.6%	$41,817	11.7%	--	--	$39,489	10.0%	$44,194	6.8%	$38,710	10.1%	$31,041	9.8%	$25,552	5.0%	$31,240	11.4%	$30,657	6.9%
2001	$27,864	2.8%	$41,679	-2.7%	$42,333	1.2%	--	--	$40,041	1.4%	$42,852	-3.0%	$41,783	7.9%	$32,229	3.8%	$26,116	2.2%	$32,788	5.0%	$31,589	3.0%
2002	$27,982	0.4%	$41,180	-1.2%	$41,489	-2.0%	$41,621	--	$40,220	0.4%	$38,955	-9.1%	$40,929	-2.0%	$31,997	-0.7%	$24,871	-4.8%	$31,518	-3.9%	$31,832	0.8%
2003	$28,307	1.2%	$41,502	0.8%	$42,260	1.9%	$41,593	-0.1%	$40,892	1.7%	$37,614	-3.4%	$41,040	0.3%	$31,878	-0.4%	$25,200	1.3%	$31,570	0.2%	$32,681	2.7%
2004	$28,551	0.9%	$40,776	-1.7%	$43,232	2.3%	$43,741	5.2%	$42,033	2.8%	$41,266	9.7%	$42,632	3.9%	$32,759	2.8%	$26,905	6.8%	$34,989	10.8%	$34,251	4.8%
2005	$28,932	1.3%	$41,791	2.5%	$46,245	7.0%	$47,412	8.4%	$46,511	10.7%	$46,527	12.7%	$43,338	1.7%	$34,106	4.1%	$28,569	6.2%	$36,645	4.7%	$35,849	4.7%
2006	$29,751	2.8%	$44,957	7.6%	$49,090	6.2%	$53,431	12.7%	$50,786	9.2%	$51,151	9.9%	$44,926	3.7%	$35,926	5.3%	$29,898	4.7%	$37,341	1.9%	$38,114	6.3%
2007	$30,849	3.7%	$46,420	3.3%	$50,834	3.6%	$57,868	8.3%	$52,270	2.9%	$54,897	7.3%	$46,169	2.8%	$37,874	5.4%	$32,016	7.1%	$40,282	7.9%	$39,844	4.5%
2008	$31,761	3.0%	$43,602	-6.1%	$52,114	2.5%	$62,872	8.6%	$54,509	4.3%	$56,270	2.5%	$46,753	1.3%	$38,191	0.8%	$33,762	5.5%	$42,293	5.0%	$40,904	2.7%
2009	$30,815	-3.0%	$39,767	-8.8%	$46,942	-9.9%	$57,309	-8.8%	$47,126	-13.5%	$55,031	-2.2%	$44,500	-4.8%	$36,870	-3.5%	$32,573	-3.5%	$41,876	-1.0%	$39,284	-4.0%
2010	$30,754	-0.2%	$40,980	3.1%	$50,465	7.5%	$54,157	-5.5%	$49,040	4.1%	$53,727	-2.4%	$45,302	1.8%	$37,455	1.6%	$33,092	1.6%	$39,126	-6.6%	$40,547	3.2%
2011	$32,392	5.3%	$46,782	14.2%	$52,309	3.7%	$56,309	4.0%	$54,236	10.6%	$56,700	5.5%	$47,361	4.5%	$39,105	4.4%	$35,055	5.9%	$48,200	23.2%	$42,739	5.4%
2012	$33,917	4.7%	$48,429	3.5%	$54,984	5.1%	$58,467	3.8%	$57,896	6.7%	$60,614	6.9%	$49,331	4.2%	$40,922	4.6%	$37,088	5.8%	$44,851	-6.9%	$44,605	4.4%
2013	$34,811	2.6%	$49,668	2.6%	$56,706	3.1%	$55,036	-5.9%	$61,732	6.6%	$62,501	3.1%	$51,347	4.1%	$42,550	4.0%	$38,793	4.6%	$47,758	6.5%	$44,860	0.6%
2014	$36,809	5.7%	$53,215	7.1%	$60,575	6.8%	$57,640	4.7%	$68,076	10.3%	$66,067	5.7%	$54,588	6.3%	$45,152	6.1%	$42,283	9.0%	$50,141	5.0%	$47,071	4.9%
2015	$38,452	4.5%	$54,455	2.3%	$64,287	6.1%	$58,798	2.0%	$67,037	-1.5%	$67,678	2.4%	$56,959	4.3%	$47,007	4.1%	$43,925	3.9%	$52,011	3.7%	$49,019	4.1%
2016	$39,565	2.9%	$55,207	1.4%	$65,363	1.7%	$60,556	3.0%	$64,209	-4.2%	$68,823	1.7%	$57,921	1.7%	$48,422	3.0%	$43,745	-0.4%	$54,434	4.7%	$50,015	2.0%
2017	$41,321	4.4%	$57,116	3.5%	$69,968	7.0%	$63,349	4.6%	$74,573	16.1%	$70,383	2.3%	$60,265	4.0%	$51,748	6.9%	$44,479	1.7%	$56,017	2.9%	$52,118	4.2%
2018	$43,544	5.4%	$61,906	8.4%	$73,518	5.1%	$68,038	7.4%	$79,023	6.0%	$75,255	6.9%	$63,319	5.1%	$54,207	4.8%	$48,035	8.0%	$60,057	7.2%	$54,606	4.8%
2019	$45,481	4.4%	$64,477	4.2%	$76,527	4.1%	$70,996	4.3%	$81,405	3.0%	$78,455	4.3%	$66,017	4.3%	$55,884	3.1%	$50,198	4.5%	$62,554	4.2%	$56,490	3.5%
2020	$48,115	5.8%	$66,691	3.4%	$79,649	4.1%	$67,495	-4.9%	$85,411	4.9%	$78,980	0.7%	$68,829	4.3%	$58,725	5.1%	$52,054	3.7%	$65,795	5.2%	$59,510	5.3%
2021	$49,983	3.9%	$70,178	5.2%	$83,544	4.9%	$72,544	7.5%	$91,695	7.4%	$82,895	5.0%	$71,541	3.9%	$61,220	4.2%	$54,403	4.5%	$71,818	9.2%	$61,556	3.4%
2022	$52,257	4.6%	$73,346	4.5%	$86,626	3.7%	$73,839	1.8%	$94,611	3.2%	$85,818	3.5%	$74,412	4.0%	$63,395	3.6%	$56,994	4.8%	$76,264	6.2%	$63,990	4.0%
2023 Estimate	$54,447	4.2%	$76,437	4.2%	$89,955	3.8%	$75,624	2.4%	$98,674	4.3%	$88,693	3.3%	$77,219	3.8%	$65,741	3.7%	$59,381	4.2%	$79,801	4.6%	$66,368	3.7%
2024 Estimate	$56,648	4.0%	$78,752	3.0%	$93,267	3.7%	$75,842	0.3%	$103,015	4.4%	$90,507	2.0%	$79,908	3.5%	$68,171	3.7%	$61,186	3.0%	$83,969	5.2%	$68,765	3.6%
2025 Estimate	$58,887	4.0%	$82,456	4.7%	$96,793	3.8%	$78,339	3.3%	$107,855	4.7%	$93,894	3.7%	$82,798	3.6%	$70,747	3.8%	$63,928	4.5%	$89,232	6.3%	$71,278	3.7%
1990-2025	**$1,216**	**3.7%**	**$1,659**	**3.5%**	**$2,125**	**4.3%**	**-**	**-**	**$2,415**	**4.5%**	**$1,966**	**3.8%**	**$1,747**	**3.9%**	**$1,508**	**4.0%**	**$1,383**	**4.1%**	**$2,041**	**4.7%**	**$1,476**	**3.8%**
2015-2025	**$2,043**	**4.4%**	**$2,800**	**4.2%**	**$3,251**	**4.2%**	**$1,954**	**2.9%**	**$4,082**	**4.9%**	**$2,622**	**3.3%**	**$2,584**	**3.8%**	**$2,374**	**4.2%**	**$2,000**	**3.8%**	**$3,722**	**5.5%**	**$2,226**	**3.8%**
2020-2025	**$2,154**	**4.1%**	**$3,153**	**4.3%**	**$3,429**	**4.0%**	**$2,169**	**3.0%**	**$4,489**	**4.8%**	**$2,983**	**3.5%**	**$2,794**	**3.8%**	**$2,404**	**3.8%**	**$2,375**	**4.2%**	**$4,687**	**6.3%**	**$2,354**	**3.7%**

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, & THK Associates, Inc.

E. RESIDENTIAL CONSTRUCTION TRENDS

Tables III-5A on the following pages show the quantity of single family and multifamily permits by year in the Ten County market area. The number of building permits being issued in the Ten County market area slowed with the economic downturn in the late 2000s. Permits issued within the Ten County market area over the last forty four, ten, and five-year periods have averaged 22,833, 28,456, and 29,898 respectively. From 1980 to 2024, single family permits accounted for 65.1% of the total permits issued. Over the last three-year period, this ratio has lowered slightly to 52.8%, indicating a slight market shift towards more multi-family housing.

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Single Family

	Adams		Arapahoe		Boulder		Broomfield		Denver		Douglas		Jefferson		Larimer		Weld		Elbert		Ten County Total
Year	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	**Permits**
1980	1,658	13.5%	4,367	35.5%	1,093	8.9%	0	0.0%	1,023	8.3%	377	3.1%	1,997	16.2%	1,309	10.6%	469	3.8%	111	0.9%	**12,293**
1981	951	8.3%	4,648	40.8%	825	7.2%	0	0.0%	808	7.1%	989	8.7%	2,061	18.1%	900	7.9%	210	1.8%	86	0.8%	**11,392**
1982	1,125	9.0%	4,753	38.1%	1,464	11.7%	0	0.0%	951	7.6%	938	7.5%	2,173	17.4%	840	6.7%	243	1.9%	117	0.9%	**12,487**
1983	2,139	9.8%	6,643	30.5%	2,451	11.2%	0	0.0%	1,943	8.9%	1,594	7.3%	4,632	21.2%	1,895	8.7%	507	2.3%	153	0.7%	**21,804**
1984	2,614	15.4%	3,546	20.9%	1,848	10.9%	0	0.0%	1,185	7.0%	1,910	11.2%	3,638	21.4%	1,794	10.6%	461	2.7%	158	0.9%	**16,996**
1985	2,152	15.5%	3,019	21.7%	1,359	9.8%	0	0.0%	757	5.4%	1,731	12.4%	2,777	20.0%	1,633	11.7%	486	3.5%	184	1.3%	**13,914**
1986	1,931	14.8%	1,778	13.6%	1,558	11.9%	0	0.0%	736	5.6%	2,171	16.6%	2,806	21.5%	1,711	13.1%	356	2.7%	225	1.7%	**13,047**
1987	826	9.5%	1,133	13.0%	1,259	14.5%	0	0.0%	404	4.6%	1,817	20.9%	1,748	20.1%	1,204	13.8%	317	3.6%	161	1.8%	**8,708**
1988	504	8.0%	565	9.0%	915	14.5%	0	0.0%	133	2.1%	1,626	25.8%	1,208	19.1%	1,085	17.2%	275	4.4%	137	2.2%	**6,311**
1989	413	6.9%	561	9.4%	889	14.9%	0	0.0%	149	2.5%	1,471	24.7%	1,171	19.7%	1,047	17.6%	254	4.3%	100	1.7%	**5,955**
1990	433	6.4%	656	9.8%	1,014	15.1%	0	0.0%	168	2.5%	1,587	23.6%	1,549	23.1%	1,053	15.7%	258	3.8%	97	1.4%	**6,718**
1991	691	7.5%	1,099	12.0%	1,531	16.7%	0	0.0%	278	3.0%	1,916	20.9%	2,026	22.1%	1,288	14.1%	336	3.7%	102	1.1%	**9,165**
1992	1,379	10.1%	1,814	13.2%	2,416	17.6%	0	0.0%	311	2.3%	2,586	18.9%	2,930	21.4%	1,772	12.9%	509	3.7%	194	1.4%	**13,717**
1993	1,947	11.5%	2,246	13.2%	2,864	16.9%	0	0.0%	375	2.2%	3,295	19.4%	3,060	18.0%	2,316	13.6%	868	5.1%	368	2.2%	**16,971**
1994	2,537	13.9%	2,348	12.9%	2,263	12.4%	0	0.0%	584	3.2%	4,042	22.2%	2,767	15.2%	2,564	14.1%	1,096	6.0%	558	3.1%	**18,201**
1995	2,416	13.8%	2,069	11.8%	2,154	12.3%	0	0.0%	501	2.9%	4,073	23.3%	2,707	15.5%	2,272	13.0%	1,310	7.5%	488	2.8%	**17,502**
1996	2,625	14.1%	2,500	13.4%	1,774	9.5%	0	0.0%	718	3.9%	4,812	25.9%	2,039	11.0%	2,458	13.2%	1,687	9.1%	416	2.2%	**18,613**
1997	2,667	13.2%	2,668	13.2%	2,401	11.9%	0	0.0%	1,028	5.1%	4,991	24.7%	2,294	11.4%	2,299	11.4%	1,839	9.1%	316	1.6%	**20,187**
1998	2,939	12.5%	3,029	12.9%	2,969	12.7%	0	0.0%	1,654	7.0%	5,286	22.5%	2,105	9.0%	2,659	11.3%	2,827	12.0%	295	1.3%	**23,468**
1999	3,280	12.8%	4,306	16.8%	2,383	9.3%	0	0.0%	1,966	7.7%	5,569	21.8%	2,016	7.9%	2,643	10.3%	3,403	13.3%	287	1.1%	**25,566**
2000	2,979	12.0%	4,246	17.1%	2,526	10.2%	0	0.0%	1,677	6.8%	4,760	19.2%	1,932	7.8%	2,748	11.1%	3,970	16.0%	317	1.3%	**24,838**
2001	4,446	19.0%	3,531	15.1%	1,960	8.4%	0	0.0%	1,271	5.4%	4,048	17.3%	1,524	6.5%	2,658	11.3%	3,982	17.0%	301	1.3%	**23,420**
2002	4,044	18.2%	3,294	14.8%	1,358	6.1%	514	2.3%	1,763	7.9%	3,516	15.8%	1,334	6.0%	2,586	11.6%	3,837	17.2%	185	0.8%	**22,246**
2003	4,081	19.5%	2,397	11.4%	1,165	5.6%	423	2.0%	2,122	10.1%	3,499	16.7%	1,237	5.9%	2,368	11.3%	3,682	17.6%	154	0.7%	**20,974**
2004	4,418	17.1%	3,071	11.9%	1,147	4.4%	615	2.4%	4,098	15.9%	4,227	16.4%	1,629	6.3%	2,758	10.7%	3,854	14.9%	219	0.8%	**25,817**
2005	4,197	17.1%	3,185	13.0%	824	3.4%	658	2.7%	2,081	8.5%	5,483	22.4%	1,641	6.7%	2,313	9.4%	4,120	16.8%	258	1.1%	**24,502**
2006	2,796	16.2%	2,747	15.9%	477	2.8%	918	5.3%	1,952	11.3%	3,279	19.0%	1,019	5.9%	1,496	8.7%	2,603	15.1%	244	1.4%	**17,287**
2007	1,453	13.5%	1,657	15.4%	407	3.8%	584	5.4%	1,407	13.1%	1,835	17.1%	702	6.5%	1,126	10.5%	1,556	14.5%	150	1.4%	**10,727**
2008	674	11.8%	755	13.2%	307	5.4%	190	3.3%	981	17.1%	926	16.2%	384	6.7%	657	11.5%	852	14.9%	57	1.0%	**5,726**
2009	487	12.6%	564	14.6%	142	3.7%	160	4.1%	559	14.4%	580	15.0%	296	7.7%	363	9.4%	718	18.6%	39	1.0%	**3,869**
2010	626	11.8%	802	15.2%	284	5.4%	232	4.4%	762	14.4%	822	15.5%	473	8.9%	499	9.4%	789	14.9%	33	0.6%	**5,289**
2011	537	10.0%	614	11.5%	195	3.6%	199	3.7%	852	15.9%	1,011	18.9%	440	8.2%	710	13.3%	794	14.8%	30	0.6%	**5,352**
2012	797	9.6%	961	11.6%	270	3.3%	162	2.0%	1,218	14.7%	1,698	20.5%	858	10.3%	1,153	13.9%	1,182	14.2%	45	0.5%	**8,299**
2013	1,025	9.7%	1,198	11.4%	350	3.3%	356	3.4%	1,526	14.5%	1,993	18.9%	977	9.3%	1,507	14.3%	1,611	15.3%	79	0.7%	**10,543**
2014	1,091	8.8%	1,260	10.1%	606	4.9%	439	3.5%	1,990	16.0%	2,224	17.9%	1,142	9.2%	1,705	13.7%	1,997	16.0%	116	0.9%	**12,454**
2015	1,463	10.6%	1,687	12.2%	739	5.3%	403	2.9%	1,981	14.3%	2,183	15.8%	1,431	10.3%	1,770	12.8%	2,181	15.8%	149	1.1%	**13,838**
2016	1,875	13.0%	2,031	14.1%	697	4.8%	533	3.7%	2,259	15.7%	2,014	14.0%	1,516	10.5%	1,650	11.5%	1,820	12.6%	120	0.8%	**14,395**
2017	1,874	11.9%	2,362	15.0%	710	4.5%	398	2.5%	2,560	16.3%	2,386	15.2%	1,229	7.8%	2,040	13.0%	2,166	13.8%	163	1.0%	**15,725**
2018	2,467	14.6%	2,186	13.0%	825	4.9%	587	3.5%	2,526	15.0%	2,723	16.2%	1,070	6.3%	1,729	10.3%	2,742	16.3%	217	1.3%	**16,855**
2019	2,283	14.4%	2,357	14.8%	658	4.1%	337	2.1%	2,257	14.2%	2,651	16.7%	830	5.2%	1,610	10.1%	2,911	18.3%	196	1.2%	**15,894**
2020	2,735	16.6%	2,918	17.7%	542	3.3%	223	1.4%	1,167	7.1%	2,816	17.1%	823	5.0%	2,193	13.3%	3,046	18.5%	296	1.8%	**16,463**
2021	2,823	15.0%	3,028	16.1%	343	1.8%	268	1.4%	1,550	8.3%	3,722	19.8%	1,073	5.7%	2,149	11.4%	3,814	20.3%	413	2.2%	**18,770**
2022	2,046	13.9%	1,552	10.5%	648	4.4%	179	1.2%	1,323	9.0%	3,219	21.8%	1,074	7.3%	1,395	9.5%	3,319	22.5%	252	1.7%	**14,755**
2023 Estimate	1,863	14.4%	2,265	17.5%	800	6.2%	119	0.9%	1,174	9.1%	1,988	15.4%	980	7.6%	1,266	9.8%	2,493	19.3%	349	2.7%	**12,948**
2024 Estimate	1,956	15.2%	2,359	18.3%	439	3.4%	57	0.4%	872	6.8%	2,120	16.4%	931	7.2%	1,370	10.6%	2,805	21.7%	780	6.0%	**12,909**
*2024 Permits are through December																					
44-Year Average 1980-2024	2,007	13.5%	2,373	16.0%	1,214	8.2%	193	1.3%	1,289	8.7%	2,645	17.8%	1,666	11.2%	1,709	11.5%	1,767	11.9%	203	1.4%	**14,864**
10-Year Average 2014-2024	2,052	13.5%	2,165	14.2%	657	4.3%	349	2.3%	1,879	12.4%	2,593	17.0%	1,117	7.3%	1,751	11.5%	2,649	17.4%	227	1.5%	**15,210**
5-Year Average 2020-2024	2,350	14.9%	2,424	15.4%	598	3.8%	225	1.4%	1,494	9.5%	2,879	18.3%	956	6.1%	1,723	10.9%	3,117	19.8%	301	1.9%	**15,766**
3-Year Average 2022-2024	2,244	14.5%	2,282	14.7%	597	3.9%	189	1.2%	1,349	8.7%	2,976	19.2%	1,042	6.7%	1,603	10.4%	3,209	20.7%	338	2.2%	**15,491**

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Multi-Family

	Adams		Arapahoe		Boulder		Broomfield		Denver		Douglas		Jefferson		Larimer		Weld		Elbert		Ten County Total
Year	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits	Percent of Total	Permits
1980	189	3.1%	2,443	39.5%	480	7.8%	0	0.0%	1,459	23.6%	33	0.5%	1,045	16.9%	434	7.0%	104	1.7%	0	0.0%	**6,187**
1981	264	4.8%	2,611	47.1%	416	7.5%	0	0.0%	1,008	18.2%	0	0.0%	910	16.4%	272	4.9%	58	1.0%	0	0.0%	**5,539**
1982	550	6.2%	3,083	34.9%	647	7.3%	0	0.0%	2,059	23.3%	82	0.9%	1,926	21.8%	297	3.4%	202	2.3%	4	0.0%	**8,846**
1983	1,577	11.6%	5,412	39.9%	1,905	14.0%	0	0.0%	1,856	13.7%	296	2.2%	1,884	13.9%	528	3.9%	116	0.9%	8	0.1%	**13,574**
1984	1,857	13.9%	4,768	35.7%	2,076	15.5%	0	0.0%	1,240	9.3%	243	1.8%	1,976	14.8%	1,091	8.2%	107	0.8%	4	0.0%	**13,358**
1985	1,328	14.6%	2,988	32.8%	699	7.7%	0	0.0%	882	9.7%	431	4.7%	1,345	14.7%	1,009	11.1%	441	4.8%	0	0.0%	**9,123**
1986	1,592	18.7%	2,468	29.0%	543	6.4%	0	0.0%	2,004	23.5%	189	2.2%	1,135	13.3%	240	2.8%	344	4.0%	0	0.0%	**8,515**
1987	268	6.7%	992	24.9%	493	12.4%	0	0.0%	922	23.2%	8	0.2%	808	20.3%	347	8.7%	144	3.6%	0	0.0%	**3,982**
1988	4	0.2%	1,293	55.3%	72	3.1%	0	0.0%	539	23.0%	0	0.0%	206	8.8%	199	8.5%	26	1.1%	0	0.0%	**2,339**
1989	96	7.1%	15	1.1%	254	18.8%	0	0.0%	477	35.4%	3	0.2%	458	34.0%	26	1.9%	20	1.5%	0	0.0%	**1,349**
1990	0	0.0%	0	0.0%	446	59.9%	0	0.0%	30	4.0%	0	0.0%	73	9.8%	183	24.6%	13	1.7%	0	0.0%	**745**
1991	46	9.1%	0	0.0%	19	3.8%	0	0.0%	137	27.2%	0	0.0%	25	5.0%	255	50.7%	21	4.2%	0	0.0%	**503**
1992	12	0.6%	476	23.0%	383	18.5%	0	0.0%	195	9.4%	360	17.4%	472	22.8%	156	7.6%	12	0.6%	0	0.0%	**2,066**
1993	542	20.4%	741	27.9%	203	7.7%	0	0.0%	623	23.5%	0	0.0%	145	5.5%	302	11.4%	97	3.7%	0	0.0%	**2,653**
1994	525	9.4%	2,032	36.4%	360	6.4%	0	0.0%	1,257	22.5%	0	0.0%	706	12.6%	638	11.4%	68	1.2%	0	0.0%	**5,586**
1995	944	14.0%	1,487	22.1%	940	14.0%	0	0.0%	285	4.2%	711	10.6%	1,675	24.9%	525	7.8%	160	2.4%	6	0.1%	**6,727**
1996	269	4.2%	1,221	19.1%	970	15.1%	0	0.0%	714	11.1%	918	14.3%	1,115	17.4%	1,033	16.1%	169	2.6%	2	0.0%	**6,409**
1997	1,414	19.2%	1,463	19.9%	858	11.7%	0	0.0%	1,233	16.7%	572	7.8%	1,068	14.5%	478	6.5%	278	3.8%	0	0.0%	**7,364**
1998	1,344	12.2%	1,428	13.0%	2,167	19.7%	0	0.0%	3,035	27.5%	1,156	10.5%	1,088	9.9%	563	5.1%	242	2.2%	16	0.1%	**11,023**
1999	450	6.1%	1,493	20.2%	609	8.2%	0	0.0%	1,413	19.1%	1,595	21.5%	747	10.1%	948	12.8%	154	2.1%	4	0.1%	**7,409**
2000	2,500	20.0%	3,894	31.1%	254	2.0%	0	0.0%	1,972	15.8%	1,635	13.1%	1,084	8.7%	776	6.2%	399	3.2%	0	0.0%	**12,514**
2001	1,684	11.4%	4,404	29.9%	1,361	9.2%	0	0.0%	3,187	21.6%	2,004	13.6%	785	5.3%	1,006	6.8%	319	2.2%	4	0.0%	**14,750**
2002	1,787	18.8%	1,511	15.9%	359	3.8%	368	3.9%	2,863	30.2%	987	10.4%	590	6.2%	450	4.7%	574	6.0%	12	0.1%	**9,489**
2003	597	14.1%	959	22.6%	263	6.2%	214	5.0%	914	21.5%	194	4.6%	189	4.5%	635	15.0%	281	6.6%	12	0.3%	**4,246**
2004	640	14.5%	777	17.7%	225	5.1%	119	2.7%	0	0.0%	870	19.8%	715	16.3%	494	11.2%	560	12.7%	0	0.0%	**4,400**
2005	375	9.4%	837	21.0%	317	7.9%	113	2.8%	1,083	27.1%	80	2.0%	453	11.4%	574	14.4%	159	4.0%	0	0.0%	**3,991**
2006	112	1.9%	787	13.1%	269	4.5%	164	2.7%	1,900	31.6%	690	11.5%	1,025	17.1%	744	12.4%	319	5.3%	0	0.0%	**6,010**
2007	356	5.2%	2,224	32.5%	228	3.3%	476	6.9%	2,275	33.2%	428	6.2%	360	5.3%	215	3.1%	291	4.2%	3	0.0%	**6,853**
2008	108	1.8%	1,009	16.6%	715	11.8%	637	10.5%	2,199	36.2%	467	7.7%	205	3.4%	608	10.0%	128	2.1%	0	0.0%	**6,076**
2009	6	0.4%	608	37.3%	203	12.4%	0	0.0%	329	20.2%	271	16.6%	83	5.1%	88	5.4%	43	2.6%	0	0.0%	**1,631**
2010	36	1.6%	477	20.9%	373	16.4%	0	0.0%	470	20.6%	93	4.1%	104	4.6%	654	28.7%	74	3.2%	0	0.0%	**2,281**
2011	12	0.4%	192	5.6%	114	3.4%	0	0.0%	1,698	50.0%	284	8.4%	524	15.4%	480	14.1%	95	2.8%	0	0.0%	**3,399**
2012	220	2.4%	754	8.2%	479	5.2%	1,848	20.1%	4,360	47.4%	590	6.4%	172	1.9%	711	7.7%	57	0.6%	0	0.0%	**9,191**
2013	4	0.0%	1,881	18.7%	861	8.5%	540	5.4%	4,346	43.1%	520	5.2%	736	7.3%	870	8.6%	315	3.1%	0	0.0%	**10,073**
2014	24	0.2%	637	6.6%	765	7.9%	381	3.9%	3,968	41.1%	1,006	10.4%	1,377	14.3%	793	8.2%	711	7.4%	0	0.0%	**9,662**
2015	123	1.2%	1,143	11.4%	425	4.2%	44	0.4%	5,959	59.2%	714	7.1%	420	4.2%	664	6.6%	576	5.7%	0	0.0%	**10,068**
2016	171	1.2%	2,636	18.4%	1,116	7.8%	13	0.1%	5,559	38.9%	1,318	9.2%	1,096	7.7%	1,874	13.1%	514	3.6%	0	0.0%	**14,297**
2017	522	3.7%	395	2.8%	844	6.1%	18	0.1%	7,965	57.1%	1,309	9.4%	1,147	8.2%	888	6.4%	853	6.1%	0	0.0%	**13,941**
2018	289	2.1%	1,375	9.9%	2,043	14.8%	198	1.4%	5,352	38.7%	1,342	9.7%	1,070	7.7%	1,211	8.8%	958	6.9%	0	0.0%	**13,838**
2019	381	3.5%	1,140	10.4%	906	8.3%	6	0.1%	5,073	46.5%	508	4.7%	986	9.0%	931	8.5%	986	9.0%	0	0.0%	**10,917**
2020	1,111	10.6%	1,188	11.3%	998	9.5%	204	1.9%	3,892	37.0%	573	5.5%	1,338	12.7%	400	3.8%	805	7.7%	0	0.0%	**10,509**
2021	1,864	9.2%	2,491	12.3%	894	4.4%	233	1.2%	8,450	41.8%	2,337	11.5%	1,442	7.1%	1,072	5.3%	1,454	7.2%	0	0.0%	**20,237**
2022	765	4.4%	1,774	10.1%	973	5.5%	359	2.0%	6,973	39.7%	1,548	8.8%	1,132	6.5%	1,202	6.9%	2,818	16.1%	32	0.2%	**17,544**
2023 Estimate	954	6.3%	3,199	21.1%	846	5.6%	1,158	7.7%	4,551	30.1%	1,580	10.4%	205	1.4%	1,415	9.3%	1,226	8.1%	0	0.0%	**15,134**
2024 Estimate	343	4.0%	1,568	18.1%	1,249	14.4%	348	4.0%	3,122	36.0%	1,011	11.7%	240	2.8%	416	4.8%	365	4.2%	0	0.0%	**8,662**
*2024 Permits are through December																					
44-Year Average																					
1980-2024	634	7.9%	1,652	20.5%	690	8.6%	161	2.0%	2,425	30.1%	635	7.9%	819	10.2%	643	8.0%	393	4.9%	2	0.0%	**8,053**
10-Year Average																					
2014-2024	620	4.6%	1,598	11.7%	981	7.2%	261	1.9%	5,774	42.4%	1,224	9.0%	1,021	7.5%	1,045	7.7%	1,090	8.0%	3	0.0%	**13,615**
5-Year Average																					
2020-2024	1,015	6.8%	1,958	13.2%	923	6.2%	392	2.6%	5,788	38.9%	1,309	8.8%	1,021	6.9%	1,004	6.8%	1,458	9.8%	6	0.0%	**14,868**
3-Year Average																					
2022-2024	1,194	6.8%	2,488	14.1%	904	5.1%	583	3.3%	6,658	37.7%	1,822	10.3%	926	5.3%	1,230	7.0%	1,833	10.4%	11	0.1%	**17,638**

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Total

Year	Adams Permits	Adams Percent of Total	Arapahoe Permits	Arapahoe Percent of Total	Boulder Permits	Boulder Percent of Total	Broomfield Permits	Broomfield Percent of Total	Denver Permits	Denver Percent of Total	Douglas Permits	Douglas Percent of Total	Jefferson Permits	Jefferson Percent of Total	Larimer Permits	Larimer Percent of Total	Weld Permits	Weld Percent of Total	Elbert Permits	Elbert Percent of Total	Ten County Total Permits
1980	1,847	10.0%	6,810	36.9%	1,573	8.5%	0	0.0%	2,482	13.4%	410	2.2%	3,042	16.5%	1,743	9.4%	573	3.1%	111	0.6%	**18,480**
1981	1,215	7.2%	7,259	42.9%	1,241	7.3%	0	0.0%	1,816	10.7%	989	5.8%	2,971	17.5%	1,172	6.9%	268	1.6%	86	0.5%	**16,931**
1982	1,675	7.9%	7,836	36.7%	2,111	9.9%	0	0.0%	3,010	14.1%	1,020	4.8%	4,099	19.2%	1,137	5.3%	445	2.1%	121	0.6%	**21,333**
1983	3,716	10.5%	12,055	34.1%	4,356	12.3%	0	0.0%	3,799	10.7%	1,890	5.3%	6,516	18.4%	2,423	6.8%	623	1.8%	161	0.5%	**35,378**
1984	4,471	14.7%	8,314	27.4%	3,924	12.9%	0	0.0%	2,425	8.0%	2,153	7.1%	5,614	18.5%	2,885	9.5%	568	1.9%	162	0.5%	**30,354**
1985	3,480	15.1%	6,007	26.1%	2,058	8.9%	0	0.0%	1,639	7.1%	2,162	9.4%	4,122	17.9%	2,642	11.5%	927	4.0%	184	0.8%	**23,037**
1986	3,523	16.3%	4,246	19.7%	2,101	9.7%	0	0.0%	2,740	12.7%	2,360	10.9%	3,941	18.3%	1,951	9.0%	700	3.2%	225	1.0%	**21,562**
1987	1,094	8.6%	2,125	16.7%	1,752	13.8%	0	0.0%	1,326	10.4%	1,825	14.4%	2,556	20.1%	1,551	12.2%	461	3.6%	161	1.3%	**12,690**
1988	508	5.9%	1,858	21.5%	987	11.4%	0	0.0%	672	7.8%	1,626	18.8%	1,414	16.3%	1,284	14.8%	301	3.5%	137	1.6%	**8,650**
1989	509	7.0%	576	7.9%	1,143	15.6%	0	0.0%	626	8.6%	1,474	20.2%	1,629	22.3%	1,073	14.7%	274	3.8%	100	1.4%	**7,304**
1990	433	5.8%	656	8.8%	1,460	19.6%	0	0.0%	198	2.7%	1,587	21.3%	1,622	21.7%	1,236	16.6%	271	3.6%	97	1.3%	**7,463**
1991	737	7.6%	1,099	11.4%	1,550	16.0%	0	0.0%	415	4.3%	1,916	19.8%	2,051	21.2%	1,543	16.0%	357	3.7%	102	1.1%	**9,668**
1992	1,391	8.8%	2,290	14.5%	2,799	17.7%	0	0.0%	506	3.2%	2,946	18.7%	3,402	21.6%	1,928	12.2%	521	3.3%	194	1.2%	**15,783**
1993	2,489	12.7%	2,987	15.2%	3,067	15.6%	0	0.0%	998	5.1%	3,295	16.8%	3,205	16.3%	2,618	13.3%	965	4.9%	368	1.9%	**19,624**
1994	3,062	12.9%	4,380	18.4%	2,623	11.0%	0	0.0%	1,841	7.7%	4,042	17.0%	3,473	14.6%	3,202	13.5%	1,164	4.9%	558	2.3%	**23,787**
1995	3,360	13.9%	3,556	14.7%	3,094	12.8%	0	0.0%	786	3.2%	4,784	19.7%	4,382	18.1%	2,797	11.5%	1,470	6.1%	494	2.0%	**24,229**
1996	2,894	11.6%	3,721	14.9%	2,744	11.0%	0	0.0%	1,432	5.7%	5,730	22.9%	3,154	12.6%	3,491	14.0%	1,856	7.4%	418	1.7%	**25,022**
1997	4,081	14.8%	4,131	15.0%	3,259	11.8%	0	0.0%	2,261	8.2%	5,563	20.2%	3,362	12.2%	2,777	10.1%	2,117	7.7%	316	1.1%	**27,551**
1998	4,283	12.4%	4,457	12.9%	5,136	14.9%	0	0.0%	4,689	13.6%	6,442	18.7%	3,193	9.3%	3,222	9.3%	3,069	8.9%	311	0.9%	**34,491**
1999	3,730	11.3%	5,799	17.6%	2,992	9.1%	0	0.0%	3,379	10.2%	7,164	21.7%	2,763	8.4%	3,591	10.9%	3,557	10.8%	291	0.9%	**32,975**
2000	5,479	14.7%	8,140	21.8%	2,780	7.4%	0	0.0%	3,649	9.8%	6,395	17.1%	3,016	8.1%	3,524	9.4%	4,369	11.7%	317	0.8%	**37,352**
2001	6,130	16.1%	7,935	20.8%	3,321	8.7%	0	0.0%	4,458	11.7%	6,052	15.9%	2,309	6.0%	3,664	9.6%	4,301	11.3%	305	0.8%	**38,170**
2002	5,831	18.4%	4,805	15.1%	1,717	5.4%	882	2.8%	4,626	14.6%	4,503	14.2%	1,924	6.1%	3,036	9.6%	4,411	13.9%	197	0.6%	**31,735**
2003	4,678	18.5%	3,356	13.3%	1,428	5.7%	637	2.5%	3,036	12.0%	3,693	14.6%	1,426	5.7%	3,003	11.9%	3,963	15.7%	166	0.7%	**25,220**
2004	5,058	16.7%	3,848	12.7%	1,372	4.5%	734	2.4%	4,098	13.6%	5,097	16.9%	2,344	7.8%	3,252	10.8%	4,414	14.6%	219	0.7%	**30,217**
2005	4,572	16.0%	4,022	14.1%	1,141	4.0%	771	2.7%	3,164	11.1%	5,563	19.5%	2,094	7.3%	2,887	10.1%	4,279	15.0%	258	0.9%	**28,493**
2006	2,908	12.5%	3,534	15.2%	746	3.2%	1,082	4.6%	3,852	16.5%	3,969	17.0%	2,044	8.8%	2,240	9.6%	2,922	12.5%	244	1.0%	**23,297**
2007	1,809	10.3%	3,881	22.1%	635	3.6%	1,060	6.0%	3,682	20.9%	2,263	12.9%	1,062	6.0%	1,341	7.6%	1,847	10.5%	153	0.9%	**17,580**
2008	782	6.6%	1,764	14.9%	1,022	8.7%	827	7.0%	3,180	26.9%	1,393	11.8%	589	5.0%	1,265	10.7%	980	8.3%	57	0.5%	**11,802**
2009	493	9.0%	1,172	21.3%	345	6.3%	160	2.9%	888	16.1%	851	15.5%	379	6.9%	451	8.2%	761	13.8%	39	0.7%	**5,500**
2010	662	8.7%	1,279	16.9%	657	8.7%	232	3.1%	1,232	16.3%	915	12.1%	577	7.6%	1,153	15.2%	863	11.4%	33	0.4%	**7,570**
2011	549	6.3%	806	9.2%	309	3.5%	199	2.3%	2,550	29.1%	1,295	14.8%	964	11.0%	1,190	13.6%	889	10.2%	30	0.3%	**8,751**
2012	1,017	5.8%	1,715	9.8%	749	4.3%	2,010	11.5%	5,578	31.9%	2,288	13.1%	1,030	5.9%	1,864	10.7%	1,239	7.1%	45	0.3%	**17,490**
2013	1,029	5.0%	3,079	14.9%	1,211	5.9%	896	4.3%	5,872	28.5%	2,513	12.2%	1,713	8.3%	2,377	11.5%	1,926	9.3%	79	0.4%	**20,616**
2014	1,115	5.0%	1,897	8.6%	1,371	6.2%	820	3.7%	5,958	26.9%	3,230	14.6%	2,519	11.4%	2,498	11.3%	2,708	12.2%	116	0.5%	**22,116**
2015	1,586	6.6%	2,830	11.8%	1,164	4.9%	447	1.9%	7,940	33.2%	2,897	12.1%	1,851	7.7%	2,434	10.2%	2,757	11.5%	149	0.6%	**23,906**
2016	2,046	7.1%	4,667	16.3%	1,813	6.3%	546	1.9%	7,818	27.2%	3,332	11.6%	2,612	9.1%	3,524	12.3%	2,334	8.1%	120	0.4%	**28,692**
2017	2,396	8.1%	2,757	9.3%	1,554	5.2%	416	1.4%	10,525	35.5%	3,695	12.5%	2,376	8.0%	2,928	9.9%	3,019	10.2%	163	0.5%	**29,666**
2018	2,756	9.0%	3,561	11.6%	2,868	9.3%	785	2.6%	7,878	25.7%	4,065	13.2%	2,140	7.0%	2,940	9.6%	3,700	12.1%	217	0.7%	**30,693**
2019	2,664	9.9%	3,497	13.0%	1,564	5.8%	343	1.3%	7,330	27.3%	3,159	11.8%	1,816	6.8%	2,541	9.5%	3,897	14.5%	196	0.7%	**26,811**
2020	3,846	14.3%	4,106	15.2%	1,540	5.7%	427	1.6%	5,059	18.8%	3,389	12.6%	2,161	8.0%	2,593	9.6%	3,851	14.3%	296	1.1%	**26,972**
2021	4,687	12.0%	5,519	14.1%	1,237	3.2%	501	1.3%	10,000	25.6%	6,059	15.5%	2,515	6.4%	3,221	8.3%	5,268	13.5%	413	1.1%	**39,007**
2022	2,811	8.9%	2,555	8.1%	1,621	5.1%	538	1.7%	8,296	26.3%	4,767	15.1%	2,206	7.0%	2,597	8.2%	6,137	19.5%	284	0.9%	**31,528**
2023 Estimate	2,817	11.2%	2,555	10.1%	1,646	6.5%	1,277	5.1%	5,725	22.7%	3,568	14.2%	1,185	4.7%	2,681	10.7%	3,719	14.8%	349	1.4%	**25,173**
2024 Estimate	2,299	11.4%	2,556	12.7%	1,688	8.4%	405	2.0%	3,994	19.8%	3,131	15.5%	1,171	5.8%	1,786	8.8%	3,170	15.7%	780	3.9%	**20,200**
*2024 Permits are through December																					
44-Year Average 1980-2024	2,641	11.6%	3,942	17.3%	1,904	8.3%	354	1.6%	3,714	16.3%	3,280	14.4%	2,486	10.9%	2,352	10.3%	2,160	9.5%	206	0.9%	**22,833**
10-Year Average 2014-2024	2,672	9.4%	3,394	11.9%	1,638	5.8%	610	2.1%	7,653	26.9%	3,816	13.4%	2,138	7.5%	2,796	9.8%	3,739	13.1%	230	0.8%	**28,456**
5-Year Average 2020-2024	3,365	11.3%	3,646	12.2%	1,522	5.1%	617	2.1%	7,282	24.4%	4,188	14.0%	1,977	6.6%	2,727	9.1%	4,574	15.3%	308	1.0%	**29,898**
3-Year Average 2022-2024	3,438	10.8%	3,543	11.1%	1,501	4.7%	772	2.4%	8,007	25.1%	4,798	15.0%	1,969	6.2%	2,833	8.9%	5,041	15.8%	349	1.1%	**31,903**

Source: U.S. Department of Commerce, HUD, C-40 Reports and THK Associates, Inc.

F. HISTORICAL POPULATION AND HOUSEHOLD GROWTH TRENDS

The following Table III-6 is the projected growth in employment, population and households in the Ten County market area. By way of comparison, the Ten County area currently has an employment participation rate of 67.7%. Proportionally, average annual employment growth from 2000 to 2010 was less than population growth, effectively causing the employment participation ratio to decrease over the 2000 to 2010 time period. The drop may be attributed in large part to the Great Recession which occurred over the late to middle part of the 2000 to 2010 decade. Even though employment participation dropped from 2000 to 2020, household and population growth still remained strong. Employment, population and households in the Ten County area are projected to grow by 69,582 jobs, 78,483 people and 29,858 households, respectively, on average annually from 2025 to 2035.

Table III-6: Projected Permanent Population and Households in Ten County Market Area, 2025-2035

Year	Total Employment	Employment Participation Ratio	Permanent January 1, Population	Annual Population Change	Population in Group Quarters	Permanent Population In Households	Permanent Population Per Household	Households	Annual Household Change
1980	1,154,201	0.608	1,897,935	---	35,112	1,862,823	2.6325	707,618	--
1990	1,427,162	0.656	2,175,922	27,800	39,167	2,136,755	2.4832	860,491	15,290
2000	2,017,042	0.707	2,852,873	67,700	49,901	2,802,972	2.5319	1,107,046	24,660
2010	2,171,930	0.646	3,359,751	50,690	56,735	3,303,016	2.5027	1,319,798	21,280
2020	2,676,036	0.648	4,131,170	77,140	56,155	4,075,015	2.5317	1,609,579	28,980
2025	3,122,322	0.677	4,612,340	102,463	56,124	4,556,216	2.5945	1,756,077	36,625
2026	3,184,259	0.680	4,683,160	70,821	56,138	4,627,022	2.5950	1,783,033	26,956
2027	3,247,749	0.683	4,755,543	72,383	56,152	4,699,391	2.5955	1,810,581	27,548
2028	3,312,843	0.686	4,829,537	73,994	56,166	4,773,371	2.5960	1,838,739	28,158
2029	3,379,593	0.689	4,905,194	75,657	56,180	4,849,014	2.5965	1,867,527	28,788
2030	3,448,056	0.692	4,982,566	77,372	56,194	4,926,372	2.5970	1,896,964	29,437
2031	3,518,288	0.695	5,061,709	79,143	56,208	5,005,500	2.5975	1,927,072	30,108
2032	3,590,348	0.698	5,142,680	80,971	56,222	5,086,457	2.5980	1,957,872	30,800
2033	3,664,301	0.701	5,225,538	82,859	56,236	5,169,302	2.5984	1,989,387	31,515
2034	3,740,210	0.704	5,310,347	84,809	56,250	5,254,096	2.5989	2,021,641	32,254
2035	3,818,142	0.707	5,397,170	86,823	56,265	5,340,905	2.5994	2,054,657	33,016
Average Annual Change (2025-2045)									
Numerical:	**69,582**		**78,483**		**14**	**78,469**		**29,858**	
Percent:	**2.0%**		**1.6%**		**0.0%**	**1.6%**		**1.6%**	

Source: Dept of Commerce, Bureau of the Census and THK Associates, Inc.

G. TEN-COUNTY HOUSING TRENDS

Table III-7 on the following page compares data among the 2000, 2010, and 2020 U.S. Census regarding total housing units in the Ten-County market area. The table also includes an estimate for the housing stock in 2025. The total housing units are separated into total occupied housing units and of those housing units which are occupied by renters. There is also a breakdown based on unit type.

Total housing units in the Ten-County market increased from 1,145,879 to 1,826,777 during the 2000-to-2025-time frame, while simultaneously owner-occupied units went from 67% to 65% over that same period. About 69% of the housing market in the Ten-Market area was made up of single-family residents in 2000, 28% of housing was multifamily and 3% was miscellaneous. In 2025, it is estimated that 69% of the housing stock is single family, 29% is multifamily and 2% is miscellaneous.

Table III-7: Total Housing Units and Type, 2000, 2010 US Census & 2020 US Census, 2025 Estimate, in the Denver Ten County Market Area

	2000 US Census		2010 US Census		2020 US Census		2025 Estimate			
	Ten County Total	% of Total	Ten County Total	% of Total	Ten County Total	% of Total	Douglas County	% of Total	Ten County Total	% of Total
Total # of Housing Units	1,145,879	100%	1,409,063	100%	1,675,041	100%	157,041	9%	1,826,777	100%
Occupied Units	1,100,376	96%	1,311,418	93%	1,600,726	96%	151,573	97%	1,745,732	96%
Owner Occupied	733,342	67%	869,596	66%	1,139,275	71%	119,841	79%	1,139,275	65%
Renter Occupied	367,034	33%	441,822	34%	606,458	38%	31,733	21%	606,458	35%
Unit Type Breakdown										
Single-Family	756,403	69%	916,019	70%	1,200,684	75%	124,003	82%	1,200,684	69%
Multi-Family	308,576	28%	361,161	28%	506,758	32%	26,680	18%	506,758	29%
Miscellaneous*	35,397	3%	34,239	3%	38,242	2%	890	1%	38,242	2%
1 Unit - Detached	675,915	61%	815,638	62%	1,058,592	66%	116,422	77%	1,058,592	61%
1 Unit - Attached	80,488	7%	100,380	8%	142,092	9%	7,581	5%	142,092	8%
2 Units	20,385	2%	19,271	1%	19,119	1%	217	0%	19,119	1%
3-4 Units	37,924	3%	40,521	3%	51,719	3%	2,070	1%	51,719	3%
5-9 Units	53,912	5%	67,454	5%	82,562	5%	5,755	4%	82,562	5%
10-19 Units	71,009	6%	90,994	7%	110,479	7%	6,326	4%	110,479	6%
20+ Units	125,346	11%	142,920	11%	95,631	6%	12,312	8%	95,631	5%
Mobile Homes	34,862	3%	33,737	3%	147,248	9%	747	0%	147,248	8%
Boat, RV, Van, etc.	535	0%	502	0%	36,258	2%	144	0%	36,258	2%

*Miscellaneous housing includes mobile homes, RV's, vans, boats, etc.

Source: US Census Bureau and THK Associates, Inc.

IV. RESIDENTIAL MARKET ANALYSIS

IV. Residential Market Analysis

A. Projected Residential Demand by Unit Type

The potentials for new residential development are subject to a variety of pressures including interest rates, inflation, and social, political, and other economic influences. These influences coupled with overall growth in population and household formations create the aggregate demand for new housing. Historical trends and housing permits for new housing construction were also examined to show how past construction levels and trends have coincided with population, demographic changes, and economic conditions.

Figure 4 on the following page depicts the Sundown Oaks Primary Trade Area (PTA), which consists of an approximate 15- to 20-minute drive time from the subject site. The Sundown Oaks PTA is the geographic area where a majority of potential residential buyers at the subject site would also be expected to search.

Tables IV-1 and IV-2 highlight the historical and projected population and household growth trends in the Two County market area and the Sundown Oaks PTA. From 1990 to 2025, the population within the Two County market area rose from 60,406 to 374,074, while households climbed from 20,786 to 133,090. Since 1990, population within the Two County area averaged 5.3% annual growth, while households averaged 5.4% annual growth. During the same period, the population within the Sundown Oaks PTA grew from 10,426 to 43,863, or 4.2% annually, while households rose from 3,353 to 15,193, or 4.4% per year.

From 2025 through 2035, THK forecasts population and households within the Two County area to grow to 481,846 and 173,217, respectively, or by 2.6% and 2.7% per year, respectively. During the same timeframe, the Sundown Oaks PTA is projected to increase to 55,387 people and 19,259 households, for an average growth rate of 2.4% and 2.4% respectively, per year.

Table IV-3 summarizes the projected demand for specific residential housing types for the Two County Market Area based on annual household growth from 2025 to 2035. During this period, THK projects demand for residential housing to grow 4,116 dwellings annually, including 2,881 ownership housing units and 1,235 rental housing dwellings.

Table IV-4 summarizes the projected demand for specific residential housing types for the Sundown Oaks PTA based on annual household growth from 2025 to 2035. During this period, THK projects demand for residential housing to grow by 419 dwellings annually, including by 335 ownership housing units and 84 rental housing dwellings. Based off market trends in the PTA and historical building permit activity, THK projects that 50% of new ownership demand will be for single-family detached units and 30% is projected for attached (townhome and condominium) dwellings, for an average of 210 and 125 units per year, respectively.

Figure 4- Sundown Oaks Primary Trade Area (PTA)

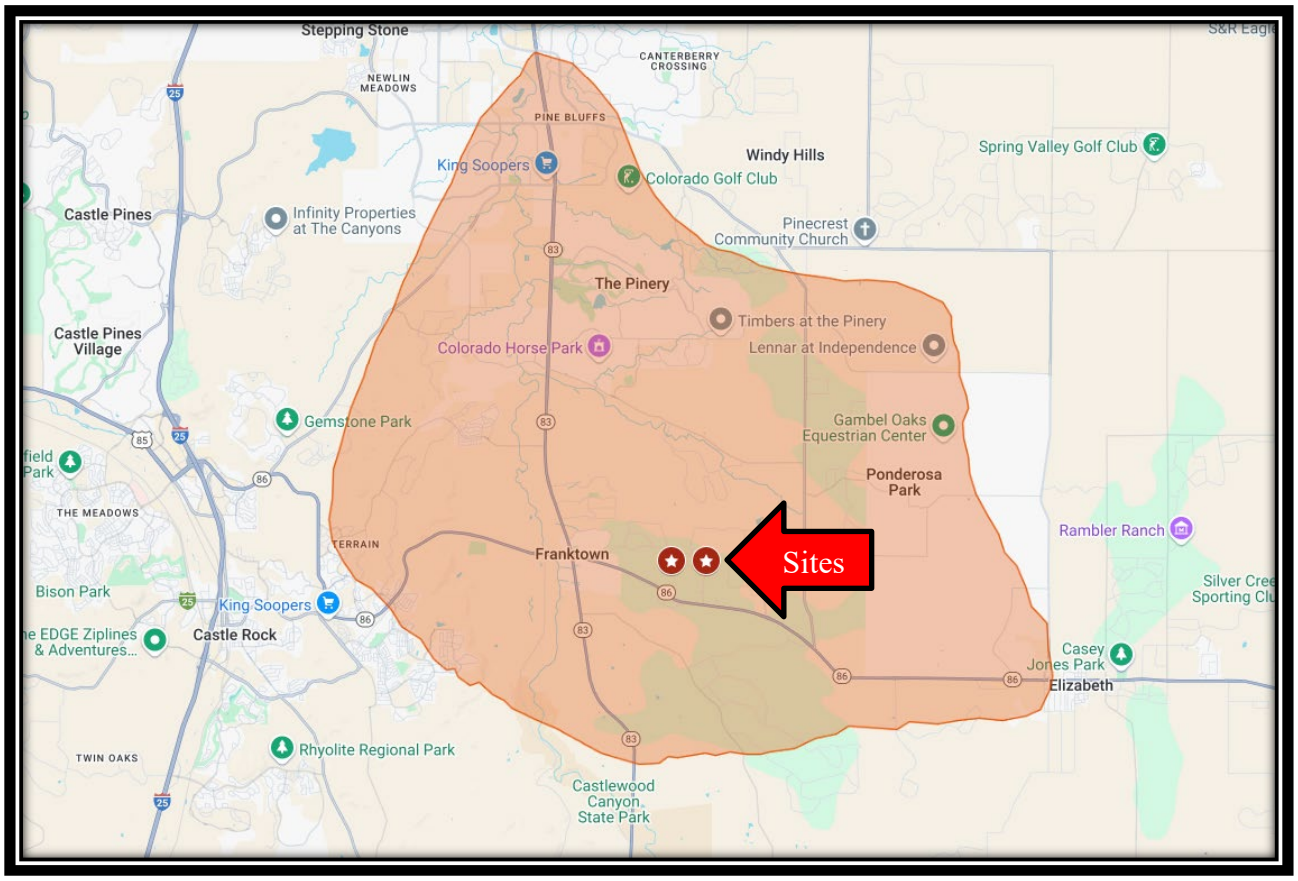


Table IV-1: Population and Household Trends in the Two County Market Area and Sundown Oaks PTA, 1990-2025

						Annual Average					
						1990-2025		2000-2025		2010-2025	
Two County Market Area	1990	2000	2010	2020	2025						
Population	60,406	175,792	285,465	366,888	374,074	8,962	5.3%	7,931	3.1%	5,907	1.8%
Households	20,786	60,938	102,018	130,534	133,090	3,209	5.4%	2,886	3.2%	2,071	1.8%
Sundown Oaks PTA											
Population	10,426	19,182	29,290	38,339	43,863	955	4.2%	987	3.4%	972	2.7%
Households	3,353	6,442	10,169	13,290	15,193	338	4.4%	350	3.5%	335	2.7%
Sundown Oaks PTA as a percent of Two County Market Area											
Population	17.3%	10.9%	10.3%	10.4%	11.7%	10.7%		12.4%		16.4%	
Households	16.1%	10.6%	10.0%	10.2%	11.4%	10.5%		12.1%		16.2%	

Source: U.S. Bureau of the Census and THK Associates, Inc.

Table IV-2: Population and Household Trends in the Two County Market Area and the Sundown Oaks, 2025-2035

				Annual Average			
				2025-2030		2025-2035	
Two County Market Area	2025	2030	2035	Numerical	Percent	Numerical	Percent
Population	374,074	423,536	481,846	9,892	2.5%	10,777	2.6%
Households	133,090	151,505	173,217	3,683	2.6%	4,013	2.7%
Sundown Oaks PTA							
Population	43,863	49,289	55,387	1,085	2.4%	1,152	2.4%
Households	15,193	17,106	19,259	383	2.4%	407	2.4%
Sundown Oaks PTA as a percent of Two County Market Area							
Population	11.7%	11.6%	11.5%	11.0%		10.7%	
Households	11.4%	11.3%	11.1%	10.4%		10.1%	

Source: U.S. Bureau of the Census, Pcensus & THK Associates, Inc.

Table IV-3: Two County Market Area Market Projected Residential Demand, 2025-2035

Year	Households	Annual Household Growth	Total Housing Unit Demand*	Ownership Units			Rental Housing
				Total Ownership Units	Detached Single Family	Attached Single Family	
2025	133,090	3,335	3,474	2,432	1,581	851	1,042
2026	136,538	3,448	3,591	2,514	1,634	880	1,077
2027	140,099	3,561	3,709	2,596	1,687	909	1,113
2028	143,778	3,678	3,832	2,682	1,743	939	1,150
2029	147,578	3,800	3,959	2,771	1,801	970	1,188
2030	151,505	3,927	4,091	2,864	1,862	1,002	1,227
2031	155,564	4,059	4,228	2,960	1,924	1,036	1,268
2032	159,759	4,195	4,370	3,059	1,988	1,071	1,311
2033	164,096	4,337	4,518	3,163	2,056	1,107	1,355
2034	168,580	4,484	4,671	3,270	2,126	1,144	1,401
2035	173,217	4,637	4,830	3,381	2,198	1,183	1,449
Average Annual Demand 2025-2035	**152,164**		**4,116**	**2,881**	**1,873**	**1,008**	**1,235**
		% of Total	**100.0%**	**70.0%**	**45.5%**	**24.5%**	**30.0%**
Total Demand 2025-2035			**45,273**	**31,692**	**20,600**	**11,092**	**13,581**

* Assumes 96% Occupancy in 2025 Remains Constant

Source: THK Associates, Inc.

Table IV-4: Sundown Oaks PTA Market Projected Residential Demand, 2025-2035

Year	Households	Annual Household Growth	Total Housing Unit Demand*	Ownership Units: Total Ownership Units	Ownership Units: Detached Single Family	Ownership Units: Attached Single Family	Rental Housing
2025	15,193	357	372	298	187	111	74
2026	15,558	365	380	304	191	113	76
2027	15,931	373	389	311	195	116	78
2028	16,313	382	398	318	199	119	80
2029	16,705	392	408	326	204	122	82
2030	17,106	401	418	334	209	125	84
2031	17,517	411	428	342	214	128	86
2032	17,937	420	438	350	220	130	88
2033	18,367	430	448	358	225	133	90
2034	18,808	441	459	367	230	137	92
2035	19,259	451	470	376	236	140	94
Average Annual Demand 2025-2035	**17,154**		**419**	**335**	**210**	**125**	**84**
		% of Total	**100%**	**80%**	**50%**	**30%**	**20%**
Total Demand 2025-2035			**4,608**	**3,684**	**2,310**	**1,374**	**924**

* Assumes 96% Occupancy in 2025 Remains Constant

Source: THK Associates, Inc.

B. Residential Purchasing Capacity, Rental Capacity and Demand by Price Range

To better quantify the demand for new residential units in the PTA, THK breaks down the existing households by income range and then converts those income ranges into monthly purchasing and rental capacity. In determining housing affordability, THK estimates that households that purchase a home will spend approximately 30% of their gross income on housing on average, and renter households will spend approximately 30% of their gross income on housing. According to SiteWise, the median household income within the Sundown Oaks PTA is $151,529. Based on this median household income, residents in the Sundown Oaks PTA could afford a $700,920 home, or monthly rental payments of $3,790. Roughly 55% of households can afford a home priced above $700,920. This is shown in Table IV-5 below.

Table IV-5: Residential Purchasing and Rental Capacity in the Sundown Oaks PTA

Income Range	Percent of Households	Number of Households	Home Purchasing Capacity	Estimated Monthly Payment (P&I)*	Monthly Rental Capacity**
Under $24,999	3%	413	Under $120,400	$620	Under $625
$25,000 - $39,999	4%	604	$120,500 - $192,700	$1,000	$625 - $999
$40,000 - $49,999	2%	301	$192,700 - $240,900	$1,250	$1,000 - $1,249
$50,000 - $59,999	3%	462	$240,900 - $289,100	$1,500	$1,250 - $1,499
$60,000 - $74,999	5%	776	$289,100 - $361,400	$1,880	$1,500 - $1,874
$75,000 - $99,999	11%	1,645	$361,400 - $481,800	$2,500	$1,875 - $2,499
$100,000 - $124,999	11%	1,708	$481,800 - $602,300	$3,130	$2,500 - $3,124
$125,000 - $149,999	10%	1,577	$602,300 $722,700	$3,750	$3,125 $3,749
$150,000 - $174,999	12%	1,813	$722,700 $843,200	$4,380	$3,750 $4,374
$175,000 - $199,999	11%	1,599	$843,200 $963,600	$5,000	$4,375 $4,999
$200,000 & Above	28%	4,295	$963,600 & Above	$6,250	$5,000 & Above
Median Income* $151,529	**100%**	**15,193**	**$700,920**		**$3,790**

* Assumes 30% of income used for housing (before taxes and insurance), 20% down payment, 30 yr term, 6.75% interest rate

** Assumes 30% of income used for rental payment

Source: Sitewise and THK Associates, Inc.

C. Home Sales in the Sundown Oaks PTA

THK inventoried lot sales and detached single family home sales, per ReColorado, in the Sundown Oaks PTA from January 1, 2021, through June 11, 2025. The sales showed a total of 30 and 262 sales respectively.

Table IV-6A: Lot Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Lot Sales - Sundown Oaks PTA

Year	Under $299,999	Percent of Total	$300,000 $399,999	Percent of Total	$400,000 $499,999	Percent of Total	$500,000 $599,999	Percent of Total	$600,000 Above	Percent of Total	Total Sales
2021	1	8.3%	3	25.0%	8	66.7%	0	0.0%	0	0.0%	12
2022	0	0.0%	0	0.0%	2	66.7%	1	33.3%	0	0.0%	3
2023	1	50.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	2
2024	1	11.1%	1	11.1%	6	66.7%	1	11.1%	0	0.0%	9
2025 YTD *	2	50.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	4
TOTAL	5	16.7%	4	13.3%	17	56.7%	3	10.0%	1	3.3%	30

* 2025 YTD, 6/11/2025
**2-5 acre lot sales

Source: REColorado and THK Associates, Inc.

Approximately 16.7% of lot sales during the period were for units priced below $299,999, with the $300,000 to $399,999 price range comprising a further 13.3% of sales. Lots sold in the $400,000 to $499,999 price range comprised 56.7% of total sales, lots sold in the $500,000 to $599,999 price range comprised 10% of total sales. Finally, lots sold in the price range of $600,000 and above comprised 3.3% of total sales.

Table IV-6B: Detached Single Family Home Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Detached Single Family - Sundown Oaks PTA

Year	Under $749,999	Percent of Total	$750,000 $999,999	Percent of Total	$1,000,000 $1,749,999	Percent of Total	$1,750,000 $2,499,999	Percent of Total	$2,500,000 Above	Percent of Total	Total Sales
2021	17	23%	15	20%	32	20%	7	9%	4	5%	75
2022	8	14%	13	22%	33	56%	1	2%	4	7%	59
2023	6	13%	7	15%	29	60%	3	6%	3	6%	48
2024	7	13%	6	11%	28	51%	9	16%	5	9%	55
2025 YTD	1	4%	6	24%	10	40%	5	20%	3	12%	25
TOTAL	39	14.9%	47	17.9%	132	50.4%	25	9.5%	19	7.3%	262

* 2025 YTD, 6/11/2025
**2-5 acre home sales

Source: REColorado and THK Associates, Inc.

Approximately 14.9% of homes sales during the period were for units priced below $749,999, with the $750,000 to $999,999 price range comprising a further 17.9% of sales. Homes sold in the $1,000,000 to $1,749,999 price range comprised 50.4% of total sales, whereas home sold in the $1,750,000 to $2,499,999 price range comprised 9.5% of total sales. Finally, homes sold in the price range of $2,500,000 and above comprised 7.3% of total sales.

D. Representative Comparable Communities in the Sundown Oaks PTA

THK looked at representative comparable communities in the Sundown Oaks PTA. THK found three similar communities, Arrowpoint Estates, Colorado Golf Club, and Tallman Gulch.

Arrowpoint Estates
Arrowpoint Estates is a luxury large-lot residential community located in Franktown, located near the intersection of highways 83 and 86. They offer both individual lots and detached single-family homes. Each lot comprises approximately two acres and includes well and septic systems. There are 19 total lots.

Between January 1, 2021, and June 11, 2025, a total of fifteen lots were sold within the community, with prices ranging from $400,000 to over $600,000. Of these, nine lots sold within the $400,000 to $499,000 range. The remaining six sales were evenly divided, with three lots selling between $500,000 and $599,999, and three exceeding $600,000.

During the same five-year period, Arrowpoint Estates also recorded three home sales, each priced between $1,750,000 and $2,499,999.

Colorado Golf Club

The Colorado Golf Club is a luxury large-lot residential community located in Parker, near the intersection of Parker Road and Stroh Road. The community offers both individual lots and detached single-family homes. There are 169 total lots.

Between January 1, 2021, and June 11, 2025, a total of thirteen lots were sold within the community, with prices ranging from $300,000 to over $600,000. Of these, one lot sold in the $300,000 to $399,999 range, while ten lots sold between $400,000 and $499,999. The remaining two sales were divided between the $500,000 to $599,999 range and above $600,000, with one sale in each category.

During the same five-year period, thirteen homes were sold in the Colorado Golf Club community. All homes sold for prices exceeding $2,500,000.

Tallman Gulch

Tallman Gulch is a luxury lot community located in Parker, near the intersection of Mainstreet and Hilltop Road. Residential home sales in the community began in 2017. As of January 2025, a total of 82 homes had been completed, with an additional 14 lots sold and currently under construction.

Cardel Homes has acquired the remaining lots and is constructing high-end, custom residences. The community consists of 121 total lots, with full lot sales anticipated by the end of 2026.
In 2024, the average home sales price was just under $1,850,000. As of March 2025, 14 homes were sold and under construction, with an average sales price of approximately $2.05 million.

E. Projected Detached Single Family Home Demand by Price Range

The projected demand for detached single family homes, broken down by price range, is illustrated in Table IV-7 below. Based on market trends, historic building permit activity, and analyses of ReColorado detached home sale data in the Sundown Oaks PTA. THK projects the following for attached homes. 7.5% of the total demand for new homes will be under $749,999, 7.5% of the total demand for new homes will be between $750,000 and $999,999, 45% for homes between $1,000,000 and $1,749,000, 30% for homes between $1,750,000 and $2,499,999 and the remaining 10% of the total demand will be for homes above $2,500,000. Based off annual average demand for detached single family homes of 210 units, as previously determined in Table IV-4, the aforementioned price ranges should have average annual demands of 16, 16, 95, 63, and 21 units per year, respectively.

Table IV-7: Average Annual Demand by Price Range Based On Income in the Sundown Oaks PTA

Price Range	Number of Units	Percentage
Detached Single Family		
Under - $749,999	16	7.5%
$750,000 $999,999	16	7.5%
$1,000,000 $1,749,999	95	45.0%
$1,750,000 $2,499,999	63	30.0%
$2,500,000 & Above	21	10.0%
Total Annual Average SF-Attached Demand	**210**	**100%**
10-Year Total SF-Attached Demand	**2,310**	

Source: THK Associates, Inc.

Based on the preceding analysis of residential supply and demand in the PTA, the following illustrates the recommendations for single family detached uses at the Sundown Oaks site.

F. Single Family Residential Potentials for the Sundown Oaks PTA

Based on the preceding analysis of residential supply and demand in the PTA, the following illustrates the recommendations for single family detached uses at the Sundown Oaks site.

As demonstrated in Table IV-8, the PTA is reported to have up to 4 competitive single-family detached properties in the sole price segment.

In the $1,750,000 to $2,499,999 price segment, there are four competitive subdivisions, which indicate a generic capture rate of 20%.

Spencer Fane's development summary illustrates that in 2027 there will be 3 detached homes sold, however THK's absorption analysis indicated demand for 9 attached townhomes.

In the Sundown Oaks environs, a 20% capture rate on units priced between $1,750,000 and $2,499,999, the proposed 37 single-family detached units at the site should be fully absorbed by the year end 2030.

Overall, these capture rates are based on the number of competitive properties within the market area and factor in demand generated from the subject sites' location as well as projected development of other supporting land use types in the region.

Table IV-8: Projected Single Family Detached Unit Demand and Absorption at Sundown Oaks, 2025-2035

Unit Prices:		Under $749,999	$750,000 - $999,999	$1,000,000 - $1,749,999	$1,750,000 - $2,499,999	$2,500,000 - Above	Annual Total	Cumulative Total
Percentage Demand		7.5%	7.5%	45.0%	30.0%	10.0%	100.0%	
Annual Avg. Unit Demand in the Competitive Market Area		16	16	95	63	21	189	189
Number of Competitors:		8	10	9	4	10	41	41
Generic Site Capture Rate:		N/A	N/A	N/A	20.0%	N/A	--	--
Projected Site Capture Rate:		N/A	N/A	N/A	15.0%	N/A	--	--
Annual Absorption (Units)								
	2025			***** Planning and Development *****				
	2026			***** Planning and Development *****				
	2027	N/A	N/A	N/A	9	N/A	9	9
	2028	N/A	N/A	N/A	9	N/A	9	18
	2029	N/A	N/A	N/A	9	N/A	9	27
	2030	N/A	N/A	N/A	10	N/A	10	**37**
Total		**N/A**	**N/A**	**N/A**	**37**	**N/A**	**37**	**37**
Annual Average		**N/A**	**N/A**	**N/A**	**9**	**N/A**	**9**	
Monthly Sales Average		**N/A**	**N/A**	**N/A**	**0.8**	**N/A**	**0.8**	

***N/A - Price Range Not Applicable to the Subject**

Source: THK Associates, Inc.

VI. ABSORPTION AND VALUE SUMMARY

VI. Absorption and Value Summary

THK Associates, Inc. has prepared an absorption schedule based on the preceding market analysis, as well as an estimate of market values that would result from the development of the 177-acre Sundown Oaks Metropolitan District community in Franktown, Douglas County, Colorado. The overall Sundown Oaks property is 177-acres, with Sundown being 73-acres and Oak Bluff being 104-acres.

The Sundown Oaks community is proposed for:

- 37 Residential Units, Including:
    - 37 Single Family Detached Homes

Based on the proposed land uses detailed above, and the market supportable absorption by land use type previously detailed in this analysis, THK was able to determine the expected build-out year.

Table VI-1 on the following page details the absorption schedule for the proposed land use type at the Sundown Oaks community.

Table VI-1: Sundown Oaks Detached Single Family Residential Absorption Schedule

Year	PTA Annual Market Demand	Single-Family Detached: Site Annual Market Demand (20%/ 25% Capture)	Single-Family Detached: Site Cumulative Market Demand	Sundown Oaks: Annual Absorption	Sundown Oaks: Cumulative Absorption
2025	187	**** Planning and Development****			
2026	191	**** Planning and Development****			
2027	195	9	9	9	9
2028	199	9	18	9	18
2029	204	9	27	9	27
2030	209	10	37	10	37
Total	1,185	37	37	37	**37**

Source: THK Associates, Inc.

With the absorption schedule for the Sundown Oaks Community, THK has estimated market values that would result from the development of the Sundown Oaks site. These values are based on the representative records for residential communities of Arrowpoint Estates, Tallman Gulch, and Colorado Golf Club. THK's estimated values do not allow for personal property.

Table VI-2 below summarizes the estimated market values of each land use type within the Metropolitan District making up the Sundown Oaks Metropolitan District.

Table VI-2: Sundown Oaks Proposed Land Use by Product Type

Unit Type	Total Homes	Anticpated Year of Completion	Value per Unit - 2025	Value per Lot - 2025
Single Family Detached	37	2030	$2,200,000	$500,000
Total	**37**			

Source: THK Associates, Inc.

All residential single-family detached homes are projected to be built-out by 2030. Average supportable market values for single-family detached homes are $2,200,000 per unit. It is THK's opinion that Sundown Oaks Metropolitan District's values are reasonable in the marketplace. Sundown Oaks Primary Trade Area has experienced a softened residential real estate market due to high interest rates, therefore the PTA has seen an annual inflation rate of 2.5% in home prices between 2021 and 2025 year-to-date. THK expects interest rates to decrease in the near future, which will increase the home inflation rate over the years to come, therefore in our market and assessed value calculation over the next 30 years THK utilized a 3.0% inflation rate.

End of Report

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MEMORANDUM

To: DJ Beckwith and Lauren Pulver, Douglas County Department of Community Development

From: Michael Verdone

Re: Sundown Oaks Metro District Market Study Review

Date: June 27, 2025

Findings

BBC Research & Consulting reviewed the assumptions, methodology, and findings of the referenced Residential Market and Absorption Analysis prepared by THK Associates, as well as the Service Plan prepared by Spencer Fane. BBC's review analyzed the study's conclusions regarding market price, price appreciation, and absorption, with attention to the financial feasibility of the proposed Sundown Oaks Metropolitan District in Douglas County, Colorado.

- The study assumes an average home price of approximately $2.2 million. This estimate is based on pricing data from comparable developments in the primary trade area. While the comparable sales lack specific detail on home characteristics, the developments provide a reasonable market reference. BBC found the assumed pricing to be plausible, contingent upon the builder delivering a product of comparable quality and positioning.
- The analysis also assumes an average annual price appreciation rate of 3 percent. While forecasting appreciation is inherently uncertain, BBC found this assumption reasonable given current market conditions and recent U.S. Census data (as of June 2025), which supports the expectation of continued, though moderate, home price growth.
- Absorption projections in the study assume an average of nine homes sold per year over a four-year buildout period. BBC found this estimate to be potentially optimistic. The study's absorption assumptions rely on a shift in the price distribution of future home sales: specifically, that 30 percent of new homes sold in the trade area will be priced between $1.75 million and $2.49 million. This contrasts with historical data showing only 9.5 percent of home sales in that price range over the past four years. BBC found no supporting data or justification for this shift in demand, and highlighted that using historical sales patterns would support a much lower average annual absorption rate of about 3 homes per year. Additionally, the analysis includes an apparent contradiction between its estimates of housing demand, citing both 210 homes and 52 homes per year as baseline figures. BBC recommends that these discrepancies be reconciled and the assumptions supporting price distribution shifts be more thoroughly substantiated.

If the assumptions in the original Residential Market and Absorption Analysis were totally accurate, the district's ability to generate sufficient property tax and fee revenues to support the proposed debt structure would be assured. However, in light of BBC's findings regarding the absorption analysis—particularly the unsupported assumption of a substantial shift in demand toward higher-priced homes and the internal contradiction in estimated market demand—there is reason to question whether these projections will be realized. If the actual pace of absorption more closely reflects historical patterns, the resulting delay in home sales could impair the district's ability to generate the revenues necessary to service its debt on schedule.

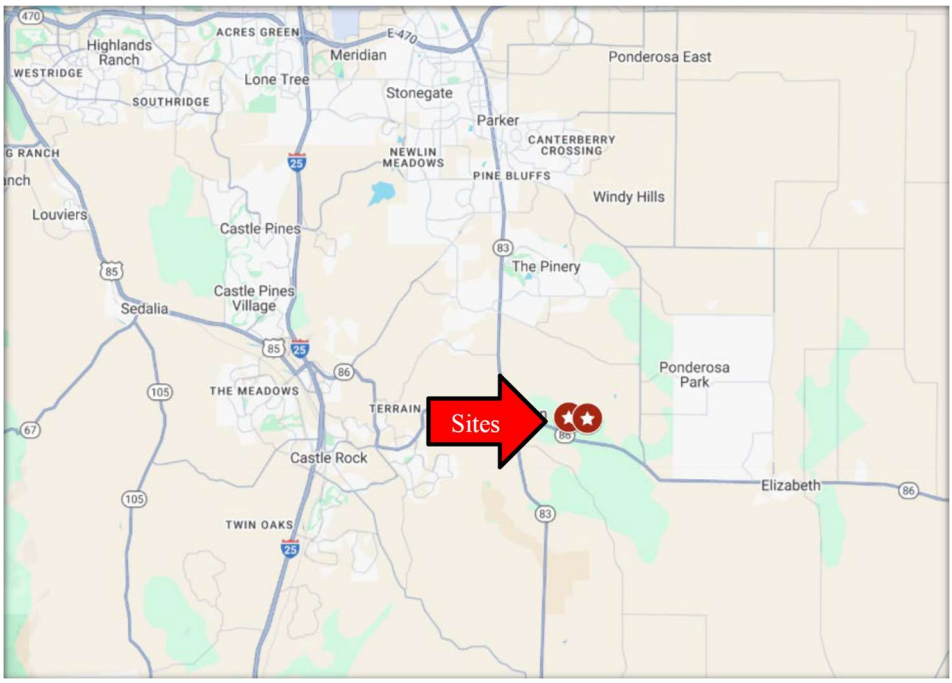
Background

BBC Research & Consulting (BBC) has been asked to review the assumptions, methodology, and findings of the referenced Residential Market and Absorption Analysis prepared by THK Associates dated June 23, 2025. In addition, BBC also reviewed information in the Service Plan for the Sundown Oaks Metropolitan District, prepared by Spencer Fane. The review is intended to provide a third-party objective evaluation to inform the creation of the proposed Sundown Oaks Metropolitan District in Douglas County, Colorado. Figures 1 and 2 provide additional financial and geographic context.

Figure 1.
Overview of Proposed Sundown Oaks Metropolitan District in Douglas County, Colorado

Developer:	Northstar Custom Homes Inc.
Organizer:	Northstar Custom Homes Inc.
Housing Product Mix:	37 large lot, detached single family lots
Average Home Value Assumptions:	$2,200,000
Aggregate Home Value Assumptions:	$81,400,000
Planned Public Improvements:	$9,057,551
First Issuance Anticipated	$3,625,000
Home Construction Start:	2026

Figure 2.
Overview of Proposed Sundown Oaks Metropolitan District in Douglas County, Colorado



Source: THK Associates

Scope of Review

BBC reviewed the data and assumptions used to estimate housing values and absorption rates in the Residential Market and Absorption Analysis prepared by THK Associates as well as the Service Plan prepared by Spencer Fane. The review centered on three primary factors that directly influence the metro district's capacity to service its debt obligations: market price, price appreciation, and absorption. Each of these parameters plays a distinct role in shaping the financial feasibility and timing of revenues tied to property sales, which in turn affect the district's ability to meet its bond or loan payments over time.

Market price is a function of both product positioning and prevailing market conditions. Developers can influence price to some extent through the quality, design, and features of the units, but these factors must be evaluated within the broader competitive landscape. Understanding where a given product sits relative to comparable offerings in the market helps establish realistic expectations for achievable sales prices. A project may aim for premium pricing, but if market demand or nearby alternatives constrain buyer willingness to pay, the actual selling price may fall short of projections. This comparative analysis is critical to ensure financial projections align with the market reality.

Price appreciation is more complex to assess because it involves forecasting future market behavior. While historical trends and supply-demand dynamics can inform these projections, the exercise is inherently speculative. Future home values are subject to a range of variables, including interest rates, inflation, employment, consumer confidence, and broader

macroeconomic shifts. Even with sound modeling, predicting appreciation is an uncertain process, and overly optimistic assumptions can expose a district to financial strain if revenues fall short of expectations.

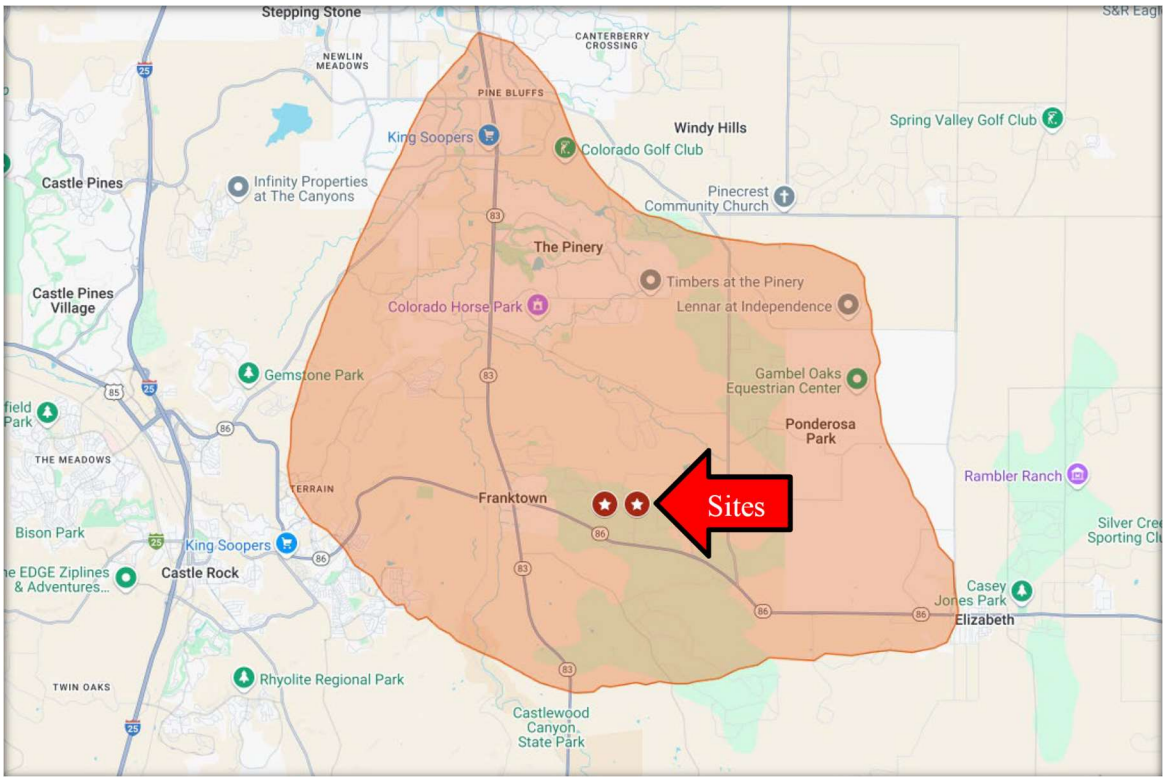
Absorption, or the rate at which homes are sold over time, is similarly challenging to forecast. While past absorption trends and current housing inventory levels provide some basis for estimates, actual sales pace is influenced by future buyer demand, competing developments, and overall market health. A slower-than-expected absorption rate can delay revenue realization, which could impair the district's ability to meet debt service schedules. For this reason, the analysis requires cautious interpretation, balancing ambition with grounded assumptions to ensure fiscal responsibility.

The remainder of this memorandum summarizes BBC's review and findings.

Competitive Market Area (Primary Trade Area)

The Residential Market and Absorption Analysis defined the primary trade area (PTA) as the area within a 15- to 20-minute drive of the subject site (Figure 3).

Figure 3.
Overview of Primary Trade Area Used in the Residential Market and Absorption Analysis of the Sundown Oaks Metropolitan District, Douglas County, Colorado



Source: THK Associates

Pricing

Unit prices. The Residential Market and Absorption Analysis compiled four years of lot and home sales data from 2021 through the first quarter of 2025 for three developments featuring homes similar to those proposed in the Sundown Oaks Metropolitan District: Tallman Gulch, Arrowpoint Estates, and Colorado Golf Club. While many parts of Douglas County include large-lot single-family subdivisions, these three developments were selected based on their recent construction activity within the PTA.

Figure 4 summarizes the sales prices of lots and newly constructed homes in each of the three developments, along with the average prices assumed for lots and completed homes in the proposed Sundown Oaks project. Over the past four years, a total of 30 homes sold across these developments, with prices ranging from a low of $1,750,000 in Arrowpoint Estates to over $2,500,000 in the Colorado Golf Club.

Figure 4.
Lot and Home Sales from 2021 – 2025 for Comparable Developments in the Sundown Oaks Metropolitan District Primary Trade Area

Development Name	Lots Sold	Lot Price Range	Homes Sold	Home Price Range
Sundown Oaks	**-**	**$500,000**	**37***	**$2,200,000**
Arrowpoint Estates	19	$400,000 - $600,000	3	$1,750,000 - $2,499,999
Colorado Golf Club	13	$300,000 - $600,000	13	$2,500,000+
Tallman Gulch	14	-	14	$2,050,000+

Source: THK Associates

Note: *Reflects the number of units that will be brought to market.

While the comparable sales data presented in Figure 4 offers helpful context for understanding market activity in nearby luxury and semi-luxury developments, it should be interpreted with some caution due to limited detail. The analysis does not include key information such as lot sizes, home square footage, architectural style, interior finishes, or other product characteristics that significantly influence home values. As a result, while the pricing data from Arrowpoint Estates, Colorado Golf Club, and Tallman Gulch provides useful benchmarks, it does not offer a precise indication of achievable prices at the subject site.

That said, builders typically design homes to align with specific price points and target buyer segments. If the builder at Sundown Oaks delivers a product comparable in size, quality, and finish level to those in the three reference developments, it is reasonable to expect that similar price points could be attained. In this context, the comparable data serves as a meaningful reference point to inform product planning and support pricing assumptions. Based on these considerations, BBC finds the assumed average home price of $2,200,000 to be reasonable.

Price appreciation. In addition to average home prices, the rate of home price appreciation is a core component of the Sundown Oaks Metro District's financial projections. The Residential Market and Absorption Analysis analyzed historical rates of home price appreciation and found that detached single-family homes have appreciated at an annual rate of about 2.5 percent per year since 2021. Based on that analysis, and the expectation of lower federal funds rates in the

near future, the report determined that a future rate of home price appreciation of 3 percent per year was reasonable.

It is always a difficult exercise to accurately forecast future economic conditions. However, recent data released by the U.S. Census Bureau on June 25, 2025, supports the price appreciation projections used in the Residential Market and Absorption Analysis. According to the U.S. Census release on new housing sales, the average sales price of new houses sold in May 2025 was 2.2 percent above the April 2025 price and 4.6 percent above the May 2024 price, indicating that while down from its peak in 2021, home price appreciation remains positive.[1]

Absorption

The Market Study assumes an average annual absorption rate of nine units over a four-year buildout period (Figure 5). To support this estimate, the Residential Market and Absorption Analysis calculates demand for new single-family homes in the PTA based on the existing population and an assumed annual population growth rate of 2.4 percent. Based on these inputs, the analysis estimates annual demand for approximately 210 new single-family homes in the PTA.

The study then evaluates recent sales activity within the PTA from 2021 through 2025, focusing on both the volume and price distribution of new home sales (Figure 5, below). During this period, approximately 262 new homes were sold, averaging about 52 homes per year. Of those, 15 percent sold for less than $750,000; 18 percent for $750,000 to $999,999; 50 percent for $1 million to $1.749 million; 10 percent for $1.75 million to $2.49 million; and 7 percent for more than $2.5 million.

Figure 5.
Table IV-6B from THK Associates' Residential Market and Absorption Analysis Showing the Distribution of New Home Sales by Price

Table IV-6B: Detached Single Family Home Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Detached Single Family - Sundown Oaks PTA

Year	Under $749,999	Percent of Total	$750,000 $999,999	Percent of Total	$1,000,000 $1,749,999	Percent of Total	$1,750,000 $2,499,999	Percent of Total	$2,500,000 Above	Percent of Total	Total Sales
2021	17	23%	15	20%	32	20%	7	9%	4	5%	75
2022	8	14%	13	22%	33	56%	1	2%	4	7%	59
2023	6	13%	7	15%	29	60%	3	6%	3	6%	48
2024	7	13%	6	11%	28	51%	9	16%	5	9%	55
2025 YTD	1	4%	6	24%	10	40%	5	20%	3	12%	25
TOTAL	39	14.9%	47	17.9%	132	50.4%	25	9.5%	19	7.3%	262

* 2025 YTD, 6/11/2025
**2-5 acre home sales

Source: THK Associates and REColorado

Using historical sales data, market trends, building permit activity, and ReColorado home sales within the Sundown Oaks PTA, the Residential Market and Absorption Analysis projects future demand for detached single-family homes by price segment. The projection estimates that 7.5 percent of new homes will be priced below $750,000; another 7.5 percent between $750,000

[1] https://www.census.gov/construction/nrs/pdf/newressales.pdf

and $999,999; 45 percent between $1 million and $1.749 million; 30 percent between $1.75 million and $2.49 million; and 10 percent above $2.5 million. While this segmentation provides a clear framework for estimating absorption, aspects of the analysis raise questions about the underlying assumptions and their implications for the district's financial outlook.

For example, the analysis estimates an annual demand for approximately 210 new detached single-family homes in the PTA, as shown in Table IV-4 of the Residential Market and Absorption Analysis. However, actual sales data from 2021 through 2025 (Table IV-6B of the Residential Market and Absorption Analysis) shows that an average of only 52 new detached single-family homes were sold per year in the PTA during that period. This discrepancy suggests the projected demand may be overstated relative to recent market performance.

In addition, the analysis assumes a notable shift in the price distribution of future home sales, with a significant increase in demand for higher-priced homes. Specifically, while historical data indicates that homes priced between $1.75 million and $2.49 million comprised just 9.5 percent of sales in recent years, the study assumes this segment will grow to 30 percent of all sales between 2026 and 2030. No clear rationale or supporting evidence is provided for this anticipated shift. Given that this assumption substantially affects the projected absorption rate and, by extension, the district's ability to service its debt, it would benefit from further explanation or empirical support.

Figures 6 and 7 illustrate the impact of these differing assumptions, comparing estimated annual absorption using the historical price distribution versus the distribution assumed in the Residential Market and Absorption Analysis. The comparison highlights how sensitive the absorption projections are to changes in the underlying assumptions about market demand.

Figure 6.
Projected Single Family Detached Unit Demand and Absorption at Sundown Oaks, 2025-2035, Using Percentage of Demand from Historical Sales Data

	Unit Prices					
Unit Prices	**Under - $749k**	**$750k - $999.9k**	**$1M - $1.749M**	**$1.75M - $2.49M**	**$2.5M +**	**Annual Total**
Percentage of Demand	14.9%	17.9%	50.4%	9.5%	7.3%	100.00%
Annual Avg. Unit Demand in Competitive Market Area	31	38	106	20	15	211
Project Site Capture Rate				15%		
Annual Absorption						
2025						
2026						
2027				3		
2028				3		
2029				3		
2030				4		
Total				**13**		
Average				**3**		

Note: Percentage of Demand data taken from table IV-6B of the Residential Market and Absorption Analysis.

Source: THK Associates

Figure 7.
Projected Single Family Detached Unit Demand and Absorption at Sundown Oaks, 2025-2035, Using Percentage of Demand Assumed by the Residential Market and Absorption Analysis

	Unit Prices					
Unit Prices	**Under - $749k**	**$750k - $999.9k**	**$1M - $1.749M**	**$1.75M - $2.49M**	**$2.5M +**	**Annual Total**
Percentage of Demand	7.50%	7.50%	45%	30%	10%	100.00%
Annual Avg. Unit Demand in Competitive Market Area	16	16	95	63	21	211
Project Site Capture Rate				15%		
Annual Absorption						
2025						
2026						
2027				9		
2028				9		
2029				9		
2030				10		
Total				**37**		
Average				**9**		

Note: Percentage of Demand data taken from table IV-7 of the Residential Market and Absorption Analysis.

Source: THK Associates

As shown in Figures 6 and 7, the projected absorption rate is highly sensitive to the assumed distribution of demand across price segments. If future sales follow the historical distribution where approximately 9.5 percent of homes sold fall within the $1.75 million to $2.49 million range, the resulting absorption rate would be closer to three homes per year. However, the Residential Market and Absorption Analysis assumes that 30 percent of future sales will occur in this price segment, leading to a projected absorption rate of nine homes per year.

The basis for this projected shift in demand from lower-priced to higher-priced homes is not clearly explained in the analysis. Specifically, the assumption that a reduction in demand for homes priced below $1 million will be offset by increased demand for homes priced at $1.75 million and above is a significant departure from recent market trends. Given the central role this assumption plays in the study's absorption estimates and, by extension, the district's projected revenue stream, additional justification and supporting evidence would strengthen the credibility of the analysis.

Furthermore, clarifying the discrepancy in Table IV-4—which suggests annual demand of approximately 210 homes per year—and Table IV-6B—which shows that an average of just 52 new detached single-family homes were sold annually between 2021 and 2025—would help provide a more transparent and reliable basis for evaluating the district's ability to meet its financial obligations.

DJ Beckwith

From: S Larsen <stephanielarsen23@gmail.com>
Sent: Friday, July 18, 2025 9:19 AM
To: DJ Beckwith
Subject: Re: Concern

Follow Up Flag: Follow up
Flag Status: Flagged

Yes, it is the Sundown Oaks Metro District (SV2025-005) that I oppose.

Thank you,
Stephanie Larsen
9250 Red Primrose St
Franktown, CO 80116

> On Jul 16, 2025, at 2:19 PM, DJ Beckwith <dbeckwith@douglas.co.us> wrote:
>
> Sundown Oaks Metro District (SV2025-005)?

DJ Beckwith

From: mojoincolorado@netscape.net
Sent: Wednesday, July 16, 2025 12:49 PM
To: DJ Beckwith
Subject: RE: Sundown Oaks SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Mr Beckwith,

I can't find any other information about this subdivision development aside from the metropolitan district plan.

Simply put, it does not conform on its face to the Franktown Subarea Master Plan.

Acreage per home is too low. Financial estimates to pay back bond issues and maintenance will be higher on a "per property" basis when the development is forced to conform to master plan requirements.

How can a metro district be formed based on illegitimate conditions?

Thank you,

Michael Cunningham
POB 42
Franktown CO 80116
720-998-2503

The other arguable explanation was Columbus's use of the term "una gest in Dios" or "a people in God" which was reduced to "Indios" for every day usage by the Spaniards and later was further changed to "Indian" as the word moved north. And what's more we hear that in 1492 Columbus could not have thought he had reached the Indies because at that time there was no Indies, but they instead were called Hindustan.

https://www.nativetimes.com/index.php/life/commentary/11389-native-american-vs-american-indian-political-correctness-dishonors-traditional-chiefs-of-old

DJ Beckwith

From: Kristine Jensen <msmanufaction@gmail.com>
Sent: Monday, July 14, 2025 6:22 AM
To: DJ Beckwith; Kristine Jensen
Subject: Opposition to Sundown Oaks Metropolitan District (Project No. SV2025-005)

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Beckwith,

I am writing to express my strong opposition to the proposed Sundown Oaks Metropolitan District (Project No. SV2025-005) in Franktown, Colorado.

As a concerned resident, I believe this development threatens the rural character, environmental sustainability, and quality of life in our community. Below are my primary concerns:
1. Violation of Zoning Requirements: Franktown's current zoning mandates a minimum of 5 acres per residence to preserve its rural character. The proposed development, with nearly 300 townhomes and a strip mall, disregards this requirement. Such dense development is inconsistent with the Douglas County Comprehensive Master Plan's vision for maintaining rural environments in areas like Franktown.
2. Concerns with the Metropolitan District: The creation of a Metropolitan District for Sundown Oaks raises significant red flags. Across Colorado, Metropolitan Districts have been linked to financial instability and governance issues, often prioritizing developer interests over those of residents. These districts wield considerable power, which could undermine local control and burden future residents with unforeseen costs.
3. Unsustainable Water Usage: The proposal to use Upper Dawson water, augmented by the Laramie Fox Hills aquifer, is deeply troubling. The Laramie Fox Hills aquifer is known to contain toxic elements, posing health risks to the community. Additionally, the increased water demand from a development of this scale threatens to deplete local wells, which many Franktown residents rely on, potentially disrupting our water supply and livelihoods.
4. Traffic and Infrastructure Impacts: The addition of hundreds of new residences and commercial spaces will significantly increase traffic at the already busy intersection of Highway 86 and Highway 83. This could overwhelm local infrastructure, exacerbate congestion, and compromise safety for residents.
5. Threat to Franktown's Rural Character: Franktown's small, tight-knit community of a few hundred residents values its rural charm and open spaces. Doubling the population with a large-scale development like Sundown Oaks would fundamentally alter the area's identity, straining resources and diminishing the quality of life for current and future residents.
I urge Douglas County to reject the Sundown Oaks Metropolitan District proposal and prioritize development that aligns with the Comprehensive Master Plan's goals of preserving rural character, protecting natural resources, and ensuring sustainable growth. I respectfully request that you consider the long-term impacts of this project on our community and deny its approval.
Thank you for your attention to this critical matter.
Sincerely
Kristine Jensen (Franktown Redsident)

DJ Beckwith

From: Flash5219 <flash5219@yahoo.com>
Sent: Sunday, July 13, 2025 11:24 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir, this Project should not be approved!

It would put more straws in the upper Dawson, more traffic on 86 already over loaded by all the projects in Elizabeth. The Franktown zoning is there for a reason and should remain 5 acres, not half acre which only benefits the developer not the people of Franktown. Then there's the the metropolitan district which should never be allowed do to it's corrupt nature and lack of transparency . Below are links to issues regarding metro districts:
https://www.cbsnews.com/colorado/news/state-lawmakers-metro-districts-colorado-house-weighs-oversight-bill/#
https://pagosadailypost.com/2025/05/07/editorial-an-unsettling-story-about-colorado-metro-districts-part-seven/

I would be fine if the developer wanted to develop his property within the current zoning of 5 acres and NOT as a metropolitan District.

Sincerely, William Davenport

DJ Beckwith

From: Karen Ralicke <kralicke@yahoo.com>
Sent: Sunday, July 13, 2025 10:53 AM
To: DJ Beckwith
Subject: Sundown Oaks Metro District proposal

Follow Up Flag: Follow up
Flag Status: Flagged

Douglas County can not sustain a new metro district, I strongly encourage a no on this plan. We don't have the infrastructure to support this and definitely not the water!

This plan to stop in it's tracks. Do not let this pass.

Karen Ralicke
11480 Antelope Lane
Parker CO 80138

DJ Beckwith

From: Christina@bigcountrypublishing.com
Sent: Tuesday, July 8, 2025 4:14 PM
To: DJ Beckwith; BOCC
Subject: Sundown Oaks Metro District

Follow Up Flag: Follow up
Flag Status: Flagged

As a resident for nearly 50 years in Douglas County, my childhood home in Surrey Ridge, my college years home in Oak Hills and I raised my kids for 20 years in Roxborough, I have now purchased a home in Franktown for it is one of few places in Douglas County that still feels rural.

I am currently serving as a member of the Douglas County Cultural Council and have done decades of volunteering in Douglas County.

I am absolutely heartbroken at the below proposal and ask for the Commissioners to stop this development.

Sincerely, Christina Winslow

Opposition to the Proposed Sundown Oaks Metropolitan District in Franktown
Dear Commissioners,

We, the undersigned and united residents of Franktown, write to express strong opposition to the proposed Sundown Oaks Metropolitan District. As members of a unique, rural, and environmentally conscious community, we urge you to deny the formation of this district due to the significant and lasting harm it would cause to our natural resources, rural character, and local governance under County Rule.

1. Environmental Impact
Franktown's identity is deeply tied to its land and ecology. The area's open spaces, wildlife corridors, and native habitats are irreplaceable. The proposed Sundown Oaks development would lead to:

Destruction of wildlife habitat and critical migration routes.
Loss of open space, which provides vital ecosystem services such as stormwater absorption, erosion control, and carbon capture.
Light pollution, disrupting nocturnal animal behavior and eliminating the dark skies that define Franktown's quiet, rural setting.
Increased risk of vector-borne diseases, such as those carried by ticks and mosquitoes, due to fragmentation of habitat and greater human-wildlife contact.
These environmental disruptions would permanently alter the character and health of our community.

2. Water Resource Concerns
Franktown depends entirely on deep, nonrenewable groundwater aquifers. These aquifers recharge extremely slowly, and many wells in the area have already experienced declining levels.

The type of high-density development enabled by a metropolitan district would dramatically increase demand on this limited water source—putting all current residents, wildlife, and agricultural uses at risk. There is no sustainable water plan in place that could support the scale of use a metropolitan district would require.

3. Threat to Rural Identity and County Rule

Franktown has consistently chosen to remain under County Rule for a reason. Residents here value low-density living, local decision-making, and protecting the rural way of life.

The formation of the Sundown Oaks Metropolitan District would transfer substantial power from residents to private developers. It would open the door to rapid, large-scale development that directly contradicts the community's long-standing planning values and the Franktown Village Subarea Plan, which emphasizes preservation of rural character, open space, and environmental stewardship.

Allowing a metro district here undermines the very fabric of how and why people live in Franktown.

We Ask That You Honor the Voice of the Community
The residents of Franktown are not against thoughtful, sustainable growth—but we are firmly opposed to development that erodes our water security, damages our natural environment, and compromises the County Rule structure that has protected this community for generations.

We respectfully request that you deny the approval of the Sundown Oaks Metropolitan District and support policies that reflect the values and concerns of Franktown residents.

Thank you for your time, service, and commitment to preserving what makes Douglas County and Franktown such a special place to call home.

Sincerely,
The Residents of Franktown, Colorado

DJ Beckwith

From: Theresa Derrick <tderrick2006@yahoo.com>
Sent: Friday, June 27, 2025 8:51 AM
To: DJ Beckwith
Subject: RE: Sundown oaks

Also 2 other wells have gone dry off of upper dawson

Yahoo Mail: Search, Organize, Conquer

On Thu, Jun 12, 2025 at 2:10 PM, DJ Beckwith <dbeckwith@douglas.co.us> wrote:

Greetings Mrs. Derrick,

Thank you for your comment on the proposed Sundown Oaks Metro District.

Your comment will be provided to the Planning Commission and the Board of County Commissioners as they consider the application for Sundown Oaks MD.

All the best,

DJ Beckwith | Principal Planner

Douglas County Department of Community Development

Planning Resources
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4330 **Main** | 303-660-7460

Email | dbeckwith@douglas.co.us

From: Theresa Derrick <tderrick2006@yahoo.com>
Sent: Wednesday, June 11, 2025 5:38 PM
To: DJ Beckwith <dbeckwith@douglas.co.us>
Subject: Sundown oaks

Do not use upper Dawson water. There are too many houses on this aquifer. I oppose this subdivision because franktown is a rural community

Yahoo Mail: Search, Organize, Conquer

DJ Beckwith

From: Marc Willency <mwillency@yahoo.com>
Sent: Wednesday, June 25, 2025 7:17 AM
To: DJ Beckwith
Subject: DISAPPROVE - Sundown Oaks Metro District - Project SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

This would be disastrous for our community.

NO Support

DJ Beckwith

From: Debra Demijohn <dademijohn@hotmail.com>
Sent: Tuesday, June 24, 2025 11:29 AM
To: DJ Beckwith
Subject: The unincorporated Dougco area

Follow Up Flag: Follow up
Flag Status: Flagged

Many agree that this is preposterous. Citizens of Colorado Do NOt Want this kind of
"stuff as many houses in as possible" attitude towards building—especially in farm areas!
Kiowa; Franktown; Parker; and -Castle Rock are places where Nature is an important feature. Take the CALIFORNIA OUT of Colorado!
Stop this nonsense

DJ Beckwith

From: Debra Shoemaker <debrashoemaker1979@gmail.com>
Sent: Thursday, June 19, 2025 8:47 AM
To: DJ Beckwith
Subject: Opposition to Sundown Oaks Metropolitan District Number SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

This email is in opposition to the proposed Sundown Oaks Metropolitan District Number SV2025-005 and in opposition to a metropolitan district in the middle of Franktown. This email is written and submitted on behalf of Franktown resident, Jeffrey Revoir, residing at 395 Willow Lake Drive.

My opposition is as follows:
-Franktown is an unincorporated town and its residents including me sought out this location for its quality of life, charm, rural culture/environment, rural amenities, natural/open space, wide array of wildlife, unique geography and its enduring beauty.
-Most importantly, however, many of my fellow neighbors and residents of Franktown share the same perspective and choose to live, raise their families, work and enjoy their free time in this very community - - for the very same reasons.
-Franktown has retained this exceptionally unique quality since its existence, only because both state and local government, planners, commissions along with their leadership, decision makers, planners, business and residents have consistently worked hard to resist the temptation to convert it into a big-city or a city just like other cities!
-It takes leadership, planners and the Franktown community working together to have great insight, wisdom and foresight to resist the temptation to change and convert Franktown into what its neighboring Castle Rock and Parker cities have gone through.
-I oppose the conversion of Franktown by the addition of a metropolitan district within it.
-The addition of the Metropolitan District would tap water from the Upper Dawson water supply and use water from the Laramie Fox Hills aquifer. Each of which would strain water supplies including water supplies that are limited already due to toxins in some water supplies, which adds strain to non-toxin water supplies.
-In addition, the short and long term effects of the addition of the Metropolitan District would place unknown financial strains on the local Franktown community and its resources due to strain on water resources, added traffic congestion on roadways and public services. All of which will impact local residents and businesses.
-It is disappointing and offensive to learn that the very developers who seek and would have financial gain from the proposed addition of the Metropolitan District have gained access to and decision making ability on planning boards and commissions and will cast votes in their own self interest on these commissions and boards. This is an inherent conflict of interest and an act of self-dealing in their own interests rather than the greater interest of the Franktown community and its residents. **At a minimum, individuals with voting and decision making power should be required to disclose their actual and potential conflicts of interest and also refrain from voting on this proposal and future proposals that involve their conflicted interests.**
-For the above reasons, I oppose the addition of the Sundown Oaks Metropolitan District Number SV2025-005 in Franktown Colorado.

DJ Beckwith

From: URLING KINGERY <urling8@aol.com>
Sent: Wednesday, June 18, 2025 11:08 AM
To: DJ Beckwith
Subject: Sundown oaks metropolitan district

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sirs, I am very opposed to the sundown Oaks metropolitan district number SV2025-005. water and congestion are my main concerns. We've already lowered our well 500 feet. The roads are more clogged every day.

Thank you,Urling Kingery, 751 Willow Lake Drive, Franktown, Co 80116

Sent from my iPad

DJ Beckwith

From: kira Piel <kirapiel@gmail.com>
Sent: Wednesday, June 18, 2025 3:44 PM
To: DJ Beckwith

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir or Ma'am,

We would like to formally express our concerns and disapproval regarding the proposed Sundown Oaks Subdivision. Our community believes that a metropolitan district is not suitable for our rural area. We are also concerned about the two-acre lot sizes, particularly as Franktown is developed with lots of five acres or more. We are also very concerned about our aquifers and so many homes tapping into it for water.

Could you please provide guidance on the formal channels available for submitting our objections? Thank you in advance foe your assistance in this matter.

Sincerely,
Michael and Kira Piel

Kira Piel
Realtor
BTT Real Estate
303-881-1516 - cell

www.PurchaseofaLifetime.com

WIRE FRAUD! During your representation by BTT Real Estate, you will NEVER be asked, via email, to wire or send funds to ANYONE, not even a title company. DO NOT COMPLY WITH EMAIL INSTRUCTIONS TO WIRE FUNDS!

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DJ Beckwith

From: Craig Smart <castlewood.acc.president@gmail.com>
Sent: Wednesday, June 18, 2025 5:36 PM
To: DJ Beckwith
Cc: Smart Craig; Castlewood.ACC.VicePresident@gmail.com; Von Probasco
Subject: Proposed Metropolitan Development - Sundown Oaks Metropolitan District No. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

DJ Beck,

I have been following the Proposed Metropolitan Development - Sundown Oaks Metropolitan District No. SV2025-005 in the Franktown Area at Tanglewood Road & Burning Tree Drive for quite some time. I have great concern and firmly oppose this plan. Franktown has prided itself on being a safe and manageable rural community for many years. The Sundown Oaks Metropolitan District No. SV2025-005 would destroy Franktown by overpopulating the area, increased traffic flow, contaminating Dawson with Laramie Fox Hills Water, increased water usage and availability, and more. Our community should not be impacted by rapacious developers and small lot development.

Question: Is there a plan for wastewater? Have you considered Arapahoe?

Respectfully request you DO NOT APPROVE this project (Sundown Oaks Metropolitan District No. SV2025-005).

Very Respectfully,

Craig Smart
Castlewood ACC President & Franktown Homeowner

DJ Beckwith

From: Brad Thomann <bradthomann1@aol.com>
Sent: Wednesday, June 18, 2025 6:50 PM
To: DJ Beckwith
Subject: Against Sundown Oaks Metro District Project # SV2025-005.

Follow Up Flag: Follow up
Flag Status: Flagged

To Whom it May Concern,

My wife and I strongly oppose this project for the following reasons:

1. Franktown Master Plan is Rural and 5 acre lots. This plan calls for 21 4.5-5 acre lots and 17 homes of 2 acres each. Clearly, this developer is not abiding by the Franktown Master Plan and his plan should be rejected. Franktown is one of three rural designated areas in Douglas County. Do not lower the bar and ruin our rural look and feel. 5 acres in Franktown. Period.

2. We object to the use of any water in the Upper Dawson.

3. We do not understand why Douglas County would approve a Metro District in Franktown. Metro Districts are cash cows for the developers and should not be allowed in Colorado much less Franktown. The developer should build the infrastructure needed and put the price of that directly into the cost of the home. Make the developers put out the capital expense - like any other company - and pass the cost to the consumer's who buy their house. If the cost of the development drives up the cost of the house to where it does not make financial sense, then the developer should rethink their investment. Do not let a Metro District into Franktown. Developers should not have the right to raise taxes on the people.

Thank you for hearing us out.

Kind regards,

Brad and Brenda Thomann
173 Red Deer Road
Franktown, CO
80116

DJ Beckwith

From: wesweaver@reagan.com
Sent: Wednesday, June 18, 2025 1:36 PM
To: DJ Beckwith
Cc: Craig Smart, Castlewood ACC President; Bowles, Tom T
Subject: Project # 2V2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

To the members of the Douglas County Planning .

I have become aware of a proposed development in the Franktown area. As we live in Franktown, I am genuinely concerned with the proposed Sundown Oaks development, Project # 2V2025-005.

1. Changing the density to less than 5 ac. Would cause significant impact to the already congested roads and greatly affect the whole feel of the area from a sum what rural to an extension of big city.
2. As you are aware the water in this county is of great concern. And the proposed water supply for this development is to use the upper Dawson and supplement it with water from the Laramie Fox Hills. This would be an unbelievably bad idea. The water quality of the Dawson is particularly good and does not require treatment, but the water from the Laramie Fox Hills is high in sulfur and other dissolved solids. and is not equal in the least to the Dawson.
3. I would like to know how you are going to assure equal quality.
4. Why are they not going to the Arapahoe aquifer instead? The Dawson does not provide the volume that the Arapahoe does and would require more wells and more cost, even though the Arapahoe is deeper . It would seam a better approach for all.
5. it is my request that you not approve this Project as proposed.

Sincerely ; Wesley Weaver

DJ Beckwith

From: Pat Bergin <bergin.pat@comcast.net>
Sent: Tuesday, June 17, 2025 10:22 PM
To: DJ Beckwith
Cc: Craig Smart
Subject: Opposition to Sundown Oaks Metropolitan District No. SV2025-005.

Follow Up Flag: Follow up
Flag Status: Flagged

Hello,
As residents of Franktown and homeowners in the Castlewood Canyon area, we would like to let you know that we strongly oppose Sundown Oaks Metropolitan District No. SV2025-005.

Sincerely,
Patrick and Patricia Bergin

Sent from my iPhone

DJ Beckwith

From: Matthew Jones <mdjones525@gmail.com>
Sent: Tuesday, June 17, 2025 4:43 PM
To: DJ Beckwith
Subject: Objection to Sundown Oaks Metro District
Attachments: Sundown Metro .pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Please see my dissent to the Sundown Oaks Metro District SV2025-005. Attached is my signed letter, if unable, due to county policy to open attachment, my unsigned dissent is in text form.

Matthew Jones
8576 Burning Tree Dr
Franktown, CO 80116
MDJONES525@GMAIL.COM
405-413-4130

June 17, 2025

Douglas County Board of County Commissioners
Department of Community Development
100 Third Street
Castle Rock, CO 80104

RE: Formal Objection to the Sundown Oaks Metropolitan District Service Plan (SV2025-005)

Dear Commissioners,

I am writing to submit a formal objection to the proposed Service Plan for the Sundown Oaks Metropolitan District (SV2025-005). The proposed district structure—relying on broad powers granted under C.R.S. Title 32—raises serious concerns about fiscal responsibility, environmental sustainability, and the democratic integrity of local governance.

The plan authorizes up to **$10 million in debt** and a **70-mill property tax** on just 37 future homeowners, *none of whom have any say in the creation or governance of the district*. The initial control lies solely with the developer and associated consultants, a structure that invites abuse. The **Colorado Court of Appeals**, in *In re Landmark Towers Ass'n, Inc., 2016 COA 61*, held that a district formed without proper resident disclosure and participation could be invalidated due to procedural flaws and lack of transparency. In that case, property owners were burdened with tax liabilities they had no realistic way to oppose.

Further, a **2004 Colorado Attorney General Opinion (04-2)** cautioned against the use of metropolitan districts as financing arms for private development without adequate public benefit or oversight, highlighting the need for counties to exercise discretion when approving service plans that favor private interests over public necessity.

From an environmental standpoint, the plan calls for **individual groundwater wells and septic systems** but includes no hydrological assessment or mitigation strategy. With multiple new wells drawing from the same aquifer and no centralized treatment or containment plan, there is significant risk of **aquifer depletion and**

contamination from construction runoff and septic failure. These omissions are particularly irresponsible in a designated Water Supply Overlay District.

Additionally, the plan authorizes eminent domain powers, redundant services (e.g., fire, stormwater, and mosquito control), and large-scale developer reimbursements—all without required voter approval or sufficient County-level controls.

I respectfully urge the County to deny or delay this Service Plan until:

1. A full hydrogeologic impact study is completed;

2. A binding environmental protection plan is included; and

3. County policy is updated to prevent overreliance on statutory authority that courts and legal experts have flagged as vulnerable to misuse.

Douglas County residents deserve special districts that reflect **true public need, not speculative financing vehicles for private gain**.

Sincerely,

///esigned///
Matthew Jones

DJ Beckwith

From: Patrick Naper <pnaper1@gmail.com>
Sent: Tuesday, June 17, 2025 9:39 PM
To: DJ Beckwith; rllove1@msn.com

Follow Up Flag: Follow up
Flag Status: Flagged

Sundown Oaks Metropolitan District, Project No. SV2025-005

Dear Mr. Beckwith,

Here we go again! Developers come out to the east side of Douglas County and try to find ways to skirt things that protect the property owners that are already here.

There is a reason this part of the county is designated rural. There is no 'city water'. We are on well water. As you should know, the rural designation calls for minimum 5 acre lots per residence. This is to preserve the aquifers.

The aquifers are not bottomless, yet developers are constantly coming out here and proposing standard developments where a home might have a .2 acre lot. This would allow approximately 20 homes where 1 would otherwise be.

This essentially makes these people like migratory geese. They fly in, take what they want, poop all over the place, and then leave there mess for someone else to clean up.

I guarantee, if you were to come out here, and knock on doors, you wouldn't find anybody that wants this. Your job, first and foremost, is to protect the current residents of Franktown, not cater to the desires of the latest developer looking at ways to skirt the rural designation, to line their pockets.

DO NOT APPROVE THIS.

Sincerely,

Patrick Naper
245 Pin Oak Circle
Franktown, CO 80116

DJ Beckwith

From: Kristin Ryan <KRyan@care4denver.org>
Sent: Tuesday, June 17, 2025 7:59 PM
To: DJ Beckwith
Subject: URGENT - PLEASE STOP SUNDOWN METRO IN FRANKTOWN

Follow Up Flag: Follow up
Flag Status: Flagged

Hi D Beckwith,

I am extremely concerned with the news regarding a proposed metropolitan development plan that is attempting to build in the middle of Franktown. The organization is called Sundown Metro. I just learned of these horrific plans they have in which they are attempting to contaminate our water, violate the current zoning laws, and disrupt the peace that Franktown currently offers.

I understand that the land around us will be built up, but I want to keep to the current zoning regulations as is which is set at 5 acres plus. We are all on the Upper Dawson water supply and this decision to allow this company to proceed with these plans would destroy the future of Franktown. Colorado is known for the West and the open land and beauty. Homes on land lots add the most value as opposed to just being another suburb, city, or Denver. With greedy developers with plans such as Sundown Metro, it brings more people, more damage, followed by more problems to come with it, which will require more resources (such as police etc.) while simultaneously taking away valuable resources like natural land, trees, wildlife, etc. Please put an immediate stop to this to protect the negative impact on the current high value that Franktown has to offer.

Value comes from being different than just another suburb, metropolitan city, or place like Denver. What is sold with the 5 acres and up IS Colorado (the thought of it), the West, peace, quiet, nature, wildlife, beauty, and the like. That is what gets sold. That is what people pay for. Something different than what would be considered the norm. Please focus on the high value based on improved wildlife, environmental, and custom homes. Not concrete sprawl. If more housing is needed build up, not out, or at least better managed.

If you have any questions or would like more information on this topic to stop Sundown Metro, please do not hesitate to contact me at 720-291-9568.

Kristin and Mathew Ryan
Franktown Homeowners

Kristin Ryan, MSN, RN | The Denver Hospice
Clinical Manager Inpatient Care Center & South Team
303.780.4600 Main | 720-291-9568 Mobile
Amy Davis Support Center
8289 E. Lowry Blvd | Denver, CO | 80230

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DJ Beckwith

From: Julie Warhola <juliemwarhola@gmail.com>
Sent: Monday, June 16, 2025 8:54 AM
To: DJ Beckwith
Subject: Sundown Metropolitan District Franktown SV2025-005

Good morning!

We are writing to oppose the proposed Sundown metropolitan district. This proposal contradicts the zoning and the rural nature of Franktown. This community will significantly affect water, noise and traffic in our area and ask that the county does not allow this proposal to pass.

Sincerely,

Dan and Julie Warhola
8682 Burning Tree Drive
Franktown, CO 80116

DJ Beckwith

From: Marlin <mweikum@gmail.com>
Sent: Monday, June 16, 2025 9:37 PM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District Application (Project: SV2025-005)

Follow Up Flag: Follow up
Flag Status: Flagged

Mr Beckwith,

My name is Marlin Weikum. I have lived at 1442 Columbine Dr. Franktown, CO 80116 for over 35 years. I am emailing you in reference to the Sundown Oaks Metropolitan District application, "Project: SV2025-005" which I just became aware of while reading about it on the county's website. I have a few concerns I would like to make you aware of related to this project.

Having my residents attached to the Upper Dawson aquifer makes me concerned with the proposal of using the Upper Dawson for this project and then expecting to augment it with water from the Laramie Fox Hills aquifer to meet water requirements. My understanding is Laramie Fox Hills water is toxic so I would suggest a complete study specifically tied to this application be required to make sure all appropriate options are followed before, during and after development of the project.

I also think it would be appropriate to not allow any lots for this project to be less than the 5 acre as recommended by Douglas County Planning for rural residential zoning. All residences near this development follow that zoning. This would control the number of wells needed and also up the number of lots that could use normal rural sewer systems and eliminate corner cutting when a designed sewer system might be required. Reading the application I believe it requires both a well and sewer to be paid for and supported by a lot's owner.

Finally, and this may be premature to mention at this time, I am a bit concerned, after an initial reading of the application, where relationships between the district and developer are discussed, how the language is not very specific. I see not being more specific could lead to bigger issues as already experienced by previously approved Metropolitan Districts. If this project is to go through I would hope the developer, new district owners, county administration, as well as other Douglas County residents would desire to see a vibrant, stable district developed that would remain a strong asset of Douglas County for a long time to come.

Thank you for your time,

Marlin Weikum

DJ Beckwith

From: Rebecca Bowles <beckyhbowles@gmail.com>
Sent: Sunday, June 15, 2025 5:45 PM
To: DJ Beckwith
Subject: Proposed Development in Franktown

Attention Dbeckwith,

I am writing to you against the proposed new Metropolitan District in Franktown. There are multiple reasons why. First of all, it does not follow the Franktown area zoning which is currently 5 acres per residence. Secondly, it goes against the idea of having a "rural" area in Douglas County such as we are currently, here in Franktown. People moved here for that reason, and if we wanted a metropolitan district we would have moved to one nearby, like Parker, or Castle Rock. We fought hard to preserve the rural area and they agreed to allow it years ago.
We already fought the town of Elizabeth when they attempted to annex into Douglas County along highway 86, and take our water rights, and now we are fighting suburban sprawl with our own County Commissioners!

Another very important reason is that we already are stretched thin in water provisions, there is no guarantee that we have water to support this many people from the Upper Dawson, and using the Fox HIlls aquifer, which is toxic, just means they will use more of the Upper Dawson water.

Needless to say, traffic congestion is already dangerous.

We don't want big metropolitan areas overtaking our rural area and making decisions that impact all of us -and many times they are not financially sound.

I graduated from Douglas County High School and taught for the district 25 years, and I have witnessed the uncontrolled sprawl of Douglas County. I refuse to see Franktown become a "Highlands Ranch" type of environment, and we will fight it to the end.

Please, please do not allow the Metropolitan District to be approved in Franktown.

Rebecca Bowles
303-913-6642
138 S White Tail Dr.
Franktown, CO 80116

DJ Beckwith

From: James Mcardle <jm80126@yahoo.com>
Sent: Sunday, June 15, 2025 7:02 AM
To: DJ Beckwith
Subject: sundown oaks metro district project SV2025-005

We are completely opposed to this project in Franktown that will further deplete the Upper Dawson and not conform to the surrounding area Franktown. Purely urban sprawl which will impact everyone's quality of life. If this is allowed to go forward, at minimum, surrounding wells just beyond the development with select wells beyond must be monitored for a reduction in water level. The owners must then be compensated at no cost to the owners. All impacts of this development to existing services requiring expansion must be paid for by the developer, not the rest of the citizens of Franktown, or Douglas County , for that matter.

Thank you for considering this protest against proceeding with approval of this development.

James and Mary McArdle, 686 Red Deer Road, Franktown, Colorado

DJ Beckwith

From: Scott Lindberg <scott@lindberg.us>
Sent: Saturday, June 14, 2025 10:25 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District, Project No. SV2025-005

Dear Douglas County Planning Department,
I am writing to express my opposition to the proposed Sundown Oaks Metropolitan District, Project No. SV2025-005. This proposal raises numerous concerns that directly threaten the rural character, environmental sustainability, and long-term financial well-being of the Franktown community.

1. Lot Sizes and Zoning Violations
The development does not adhere to the current zoning requirement for a minimum of 5 acres per residence in the Franktown area. This requirement exists to preserve the rural nature of our community and to protect essential resources—particularly water. Approving this project would set a dangerous precedent for overriding established land-use regulations in favor of high-density development that is incompatible with Franktown's identity.

2. Metropolitan District Concerns
The creation of a Metropolitan District in the heart of Franktown is deeply troubling. These districts have become notorious across Colorado for placing enormous taxing and governance power in the hands of developer-controlled boards. Too often, residents are left with long-term financial burdens and little recourse. Franktown must not be the next victim of a system that puts developer profits above community interests.

3. Critical Water Issues – Use of Upper Dawson and Laramie Fox Hills Aquifers
The Upper Dawson is already under significant stress, and further depletion risks long-term sustainability for the current residents of Franktown. The Laramie Fox Hills aquifer is known to be of concern for the issues below and would require careful testing and appropriate treatment before use—especially for drinking or augmentation purposes.

Laramie Fox Hills aquifer

- It often has **high mineral content** (TDS, sulfate) that may affect palatability and requires treatment.
- It occasionally contains **radon** or **trace contaminants** in small percentages.
- **Deeper zones** can yield **hot, sulfur-rich water** that is undesirable for drinking without treatment.

In summary, this project is wholly inconsistent with the values, zoning standards, and environmental protections that Franktown residents have long fought to uphold. I urge the County to reject Project No. SV2025-005 in the interest of protecting our land, our water, and our community.

Scott Lindberg
Mobile: 720-394-3308
2241 Burnt Oak Drive, Franktown, CO 80116

DJ Beckwith

From: Ginney <hkakita1@gmail.com>
Sent: Saturday, June 14, 2025 11:18 AM
To: DJ Beckwith
Subject: Community Development Special District Service Plan - New Service Plan (SV2025-005)

Dear Sirs:

In regard to:

- Special District Service Plan - New Service Plan (SV2025-005)

There are a number of reasons we oppose this project before the Douglas County Planning Commission. First, the proposed lots will not all be 5 acres per residence as required in the Franktown area zoning right now. And, second and probably the worst is that they are proposing a Metropolitan District in the middle of Franktown. These Metropolitan Districts are causing financial problems, and other problems, all over the state. Additionally, they are proposing
to use the Upper Dawson and water from the Laramie Fox Hills aquifer to augment that use of the Upper Dawson. To be clear the Laramie Fox Hills water is toxic. Lastly, the last Metropolitan District proposed to supply water for a development in Franktown, the developer's proposed expense was no where near the correct or actual cost. Developers have a habit of proposing projects knowing it isn't Douglas Counties Planning Commission responsibility to ensure
whether the criteria submitted is accurate. They simply do not have the manpower to do so or they would because it's the last thing the County needs is to have to take on expense that should have been the developers.

In numerous meetings before the Planning Commission as well as the County Commissioners the FCCII provided detailed facts as to why such a development in Franktown was and should again be denied. Over the years conditions in Franktown
have not changed except for significant increase in expense to build a Metropolitan District, provide the teachers and class rooms for children, or build the roadways to accommodate additional traffic.

Please stop this project before it goes any further.

Thank you,

Robert and Virginia Regan
101593 Pine Valley Drive
Franktown, CO

DJ Beckwith

From: jackson action <arcticf72003@yahoo.com>
Sent: Thursday, June 12, 2025 12:06 PM
To: DJ Beckwith
Subject: SV 2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Couldn't be more against this. Aquifers are not infinite, you people need to stop before you screw up everyone's water supply.

Sent from Yahoo Mail for iPhone

DJ Beckwith

From: Adam Rosenberg <adamr60@hotmail.com>
Sent: Thursday, June 12, 2025 5:57 AM
To: DJ Beckwith
Subject: Sundown Oaks Metro District proposal

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir/Madam,

I would like to formally object to the proposed Sundown Oaks Metro district—with specific concern for the 2ac lots proposed in the plan. Maintaining low-density growth, with a minimum of 5ac lots, is in the best interest of long-term water supply for residents in Franktown.

As a long-time resident of Franktown and reliant on Upper Dawson water for my home and property, I have an acute concern for over-utilization of this finite resource.

Thank you for your consideration.

Adam

Adam Rosenberg, DVM
720-840-3243 M

DJ Beckwith

From: Theresa Derrick <tderrick2006@yahoo.com>
Sent: Wednesday, June 11, 2025 5:38 PM
To: DJ Beckwith
Subject: Sundown oaks

Follow Up Flag: Follow up
Flag Status: Flagged

Do not use upper Dawson water. There are too many houses on this aquifer. I oppose this subdivision because franktown is a rural community

Yahoo Mail: Search, Organize, Conquer

DJ Beckwith

From: Joe Call <frcall3rd@gmail.com>
Sent: Tuesday, June 10, 2025 9:34 AM
To: DJ Beckwith
Subject: Sun Oaks Metro District Project Number SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

As residents of Douglas County and Franktown, my wife and I oppose the Sun Oaks Metro District Project. We are concerned about the effects on water and overdevelopment. We do not believe that lots smaller than five acres is in keeping with the Douglas County Master Plan for Franktown.

Sincerely,
Fred R. Call III
Commander, US Coast Guard, Ret.
5311 Fox Glen Ct, Franktown, CO 80116

DJ Beckwith

From: Diane Gray <DianeGrayCO@outlook.com>
Sent: Monday, June 9, 2025 4:10 PM
To: DJ Beckwith
Subject: Proposed project at E. Tanglewood Rd and Burning Tree Drive in Franktown.

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Madam/Sir,

I'm emailing you to express my concerns about the proposed project at E. Tanglewood Rd and Burning Tree Drive in Franktown. This project would have a direct impact on the quality of life that I have enjoyed in the rural area of Douglas County.

Thank you for considering my input, and I appreciate the work that you do to consider the community's interest

Regarding the proposed project at E Tanglewood and Burning Tree, I have several reservations.
Metropolitan Districts have a history of financial and other problems and are run by and for the benefit of the developers and not necessarily the residents. Metropolitan districts in Colorado, while intended to finance infrastructure, have faced challenges including escalating debt, conflicts of interest, and concerns about transparency and accountability. a big concern that I have is that the Metropolitain District may override the planning board and potentially be in violation of the current zoning rules of a minimum of five acres.

The project would increase traffic on Hwy 86 which is already seeing large traffic increases.
It would also further strain the limited resources of the upper Dawson.
In addition school resources including teachers and classrooms are already strained with the growth in the area.

In summary, I urge you to reject the project and the establishment of a metropolitan district due to these significant concerns.

Thank you for considering my perspective

Diane Gray

9694 Desert Paint Brush Ct
Parker CO 80134
303-646-7090

Get Outlook for iOS

DJ Beckwith

From: Benjamin Larrabee <benlarrabee@gmail.com>
Sent: Monday, June 9, 2025 3:41 PM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir,

I'm emailing you in regards to this proposal to which I'm adamantly opposed. Metropolitan Districts have a history of financial and other problems and are run by and for the benefit of the developer not the residents. Metropolitan Districts in Colorado, while intended to finance infrastructure, have faced challenges including escalating debt, conflicts of interest, and concerns about transparency and accountability. The Metropolitan District would override the planning board and be in violation of the zoning rules for a minimum of five acres. The project would increase traffic on Hwy 86 and further strain the limited resources of the Upper Dawson aquifer.

For these reasons, I urge you to reject this project, particularly regarding the establishment of a metropolitan district.

Benjamin Larrabee
I lead people to true identity, through reckless love and contagious encouragement.
The state of our lives is a direct result of choosing to love.

DJ Beckwith

From: Roger Loeb <rog1loeb@gmail.com> on behalf of Roger Loeb <roger@martech.com>
Sent: Tuesday, June 10, 2025 1:35 PM
To: DJ Beckwith
Subject: RE: Sundown Oaks Metropolitan District, Project no. SV2025-005

Dear Mr. Beckwith,

I am writing to voice my strong opposition to the proposed Sundown Oaks Metropolitan District.

Metropolitan Districts shift all the risk and financial burden of subdivision development from the developer onto the future property owners. There are way too many sad stories of people being forced from their homes by excessive property taxes, and there are numerous Metropolitan Districts where the indebtedness far exceeds the value of all the real estate. Legislative attempts to "level the playing" field have been largely defused by well-paid lobbyists and generous campaign contributions.

This specific plan includes an lengthy list of services to be provided without explaining why or how. Providing TV service is ridiculous with the popularity of streaming, but Internet service, now critical, isn't mentioned. A fire department for 37 homes would be expensive to operate, and the area is well-served by Franktown Fire. I question the need for a sewer service in an area where septic systems are common. Without understanding the topology of the property, I cannot understand the need for storm drains. I won't bore you with further observations on this ridiculous service plan that probably cannot be provided within the stated maximum mil levy.

Separately, it's questionable whether Upper Dawson water is sufficient for this number of homes in the limited area. At the very least, the developer should be required to adhere to a minimum lot size of five acres.

I also question the location of such a development adjacent to properties where the dense woods are a key feature. It doesn't seem like the proposed development is consistent with the existing neighborhood.

Thank you for representing all the residents of Douglas County in this matter.

Rog

--
Roger Loeb
President & CEO
The MarTech Group, Inc.
4673 Moonshine Ridge Trail
Parker, CO 80134
(720) 244-8233
roger@martech.com

DJ Beckwith

From: Esther Long <anedlong@icloud.com>
Sent: Monday, June 9, 2025 11:23 AM
To: DJ Beckwith
Subject: Sundown Metropolitan District Project #SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Surely, you are kidding!!! What is wrong with keeping rural land in parts of Douglas County? Franktown doesn't need a metropolitan district. They have enough water problems with everyone being on five acres. Housing developments are already infringing along Parker Road which are going to cause horrible traffic problems. I live in The Hills of Bayou and we have a life- style we love and we want to keep it that way. I can't imagine a housing development in Franktown. Please build it someplace else.

Esther D. Long
4959 Bayou Hills Road
Parker, CO 80134

DJ Beckwith

From: Carol Schultz <carolbschultz@protonmail.com>
Sent: Monday, June 9, 2025 12:59 PM
To: DJ Beckwith
Subject: Sundown Oaks metro district

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir, I'm emailing you in regards to this proposal to which I'm adamantly opposed. Metropolitan districts in Colorado, while intended to finance infrastructure, have faced challenges including escalating debt, conflicts of interest, and concerns about transparency and accountability. It would override the planning board and be in violation of the zoning rules of a minimum of five acres. The project would increase traffic on Hwy 86 and further strain the limited resources of the upper Dawson. For these reasons, I urge you to reject this project particularly regarding the establishment of a metropolitan district.

I do want to point out that this is done for the developers and NOT the residents of the county. I'm sick to death of every new development saying there's plenty of water. This county is one of three in the state running out of water. And a plan by the moron commissioners to steal water from someplace else in CO is just an abomination. It's time to have them sign waivers that they will be the first to have their own water cut off when there's too little to go around.

I moved here over 20 years ago and can't even stand it anymore.

Carol B Schultz
Home: 303-805-7635
Cell: 303-917-5554

DJ Beckwith

From: kathy.sullivan@myyahoo.com
Sent: Tuesday, June 10, 2025 5:04 PM
To: DJ Beckwith
Subject: re: Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

To Whom It May Concern,

I'm emailing you in regard to the Sundown Oaks Metropolitan District, Project no. SV2025-005 proposal to which I'm opposed. Metropolitan Districts have a history of financial and other problems and are run by and for the benefit of the developer not the residents.

Metropolitan districts in Colorado, while intended to finance infrastructure, have faced challenges including escalating debt, conflicts of interest, and concerns about transparency and accountability. It would override the planning board and be **in violation of the zoning rules of a minimum of five acres**. The project would increase traffic on Hwy 86 and further strain the limited resources of the upper Dawson acquifer. It also impedes on the rural way of life that those of us living in this area hold near and dear and why we have chosen to live in this area specifically.

For these reasons, I urge you to reject this project particularly regarding the establishment of a metropolitan district.

Kind regards,

Kathy Sullivan
4210 Bayou Hills Road
Parker, CO 80134
303-246-4052

DJ Beckwith

From: Flash5219 <flash5219@yahoo.com>
Sent: Monday, June 9, 2025 9:58 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir,

I'm emailing you in regards to this proposal to which I'm adamantly opposed. Metropolitan Districts have a history of financial and other problems and are run by and for the benefit of the developer not the residents. Metropolitan districts in Colorado, while intended to finance infrastructure, have faced challenges including escalating debt, conflicts of interest, and concerns about transparency and accountability. It would override the planning board and be in violation of the zoning rules of a minimum of five acres. The project would increase traffic on Hwy 86 and further strain the limited resources of the upper Dawson.

For these reasons, I urge you to reject this project particularly regarding the establishment of a metropolitan district.

Sincerely, William Davenport

Audit raises questions about financial health of Colorado metro districts
coloradonewsline.com

DJ Beckwith

From: Skip Johnson <skip.johnson@live.com>
Sent: Monday, June 9, 2025 9:59 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District

Follow Up Flag: Follow up
Flag Status: Flagged

I am a long term resident in Franktown. Actually a third generation native as well. I am writing to you in opposition of the proposed Metropolitan district. Please do not proceed with this inappropriate development.

Lloyd W Johnson (Skip)

DJ Beckwith

From: cokeiths@aol.com
Sent: Monday, June 9, 2025 9:17 AM
To: DJ Beckwith
Subject: Sundown Oaks Metro District

Follow Up Flag: Follow up
Flag Status: Flagged

To: Douglas County Principal Planner and Planning Group

DJ -

Our family moved to DougCo in 1996. We chose the area because a comprehensive comparison of all ratings and attributes pushed it to the top of the greater Denver area. We've lived in the South Pinery, East Parker, owned on Hilltop and are now in Franktown (Bannockburn). We are jealous of the Franktown development concepts and wish to keep the large tract limits in place. The minimum five-acre parcel concept is THE MOST IMPORTANT factor in property values.

We understand that Sunset Oaks is a proposed development that may have smaller lot sizes. The idea of a Metropolitan District is also troubling, as it brings uncertainty to local governance and compliance and may be independent and therefore not beholden to our local development statutes.

I urge you to keep Franktown "rural." Please ensure developers maintain the 5-acre minimum and keep our local jurisdiction format - no Metropolitan Districts, please.

Thank you for your consideration and thank you to you and your group for keeping the "feel" of our corner of DougCo (large lots). We LOVE our Franktown Rural Community!

Very respectfully,
Walt and Jenny Keith
2351 Frontier Ln
303.726.5433

DJ Beckwith

From: GENE R TAYLOR <porkyboy40@aol.com>
Sent: Monday, June 9, 2025 10:17 AM
To: DJ Beckwith
Subject: Franktown Metropolitan District

Follow Up Flag: Follow up
Flag Status: Flagged

We are totally opposed to this proposal. Gene and Sharron Taylor Sent from my iPhone

DJ Beckwith

From: Tamara Thiess <tamarathiess@gmail.com>
Sent: Monday, June 9, 2025 10:52 AM
To: DJ Beckwith
Subject: Against: Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Hello!
We live at 8480 Burning Tree Trail, Franktown, CO 80116. We strongly oppose the Sundown Oaks Metropolitan District, Project no. SV2025-005. This proposal for a Metro District is a bad idea. I'm a Realtor and I have seen the financial problems that these Metro Districts cause for both sellers and buyers along with the difficulty that sellers have selling their homes simply because they are in a Metro District.
Also, this proposal to use the Upper Dawson water and using water from the Laramie Fox Hills
Aquifer to augment that use of the Upper Dawson is a very poor plan.The Laramie Fox Hills water is toxic! Please do not let this happen!
--

Tamara Thiess
REALTOR®, SRES®, RENE, NAR, CAR
M: **720-318-7146** - feel free to text me!
Keller Williams Real Estate, LLC

Security Warning: I will never send wiring instructions via email.

Before you wire money, call me!

DJ Beckwith

From: Ray Deichsel <rldeichsel@gmail.com>
Sent: Sunday, June 8, 2025 2:02 PM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District Project number SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

We are totally against the above project. This project will have a devastating effect on Franktown. It will ruin the Quality of life, drain our water source (aquifer), destroy the water quality by mixing the Laramie Fox Hills Aquifer with the Upper Dawson and other negative issues plus putting in place a Metropolitan District, which will have far reaching financial and other issues for the county and the folks who call Douglas County their home.

Please don't go down this road. Please vote against this albatross.

Ray and Liz Deichsel, Franktown residents.

DJ Beckwith

From: Lynda Dirkse <lynda.dirkse@gmail.com>
Sent: Sunday, June 8, 2025 12:32 PM
To: DJ Beckwith
Subject: Sundown Oaks proposal

Follow Up Flag: Follow up
Flag Status: Flagged

We are long time residenrts who appreciate the master plan that preserved open areas and riral decelopment in Douglas County. This proposed development is not in keeping with that plan or any existing developments that preserve the rural nature we have and enjoy. Please do not allow this high density development that also puts our wells at risk. Douglas County is known as one of the best counties in the nation but that will not be the case when we allow it to become just another metropolitan area with all the provblems that will bring.

Lynda and David Dirkse

DJ Beckwith

From: Comcast <james_goar@comcast.net>
Sent: Sunday, June 8, 2025 9:10 PM
To: DJ Beckwith
Subject: Opposition to the Formation of a Metropolitan District in Franktown

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Commissioners,
As a **Colorado native** and a **new resident of Franktown**, I am writing to express my strong opposition to the formation of the **Sundown Oaks Metropolitan District**. I moved to Franktown because it represents something rare and deeply meaningful: open land, quiet skies, a deep connection to nature, and a community governed by County Rule—where residents, not developers, shape the future.
This place still feels like Colorado. It feels like what much of the Front Range has lost. And I fear that with the approval of this metropolitan district, we stand to lose it here too.

Our Water Supply Is Not Built for This

Franktown relies on ancient aquifers for its water—closed systems that recharge extremely slowly. With no access to large-scale renewable surface water sources, increased development like that proposed under the Sundown Oaks Metropolitan District would dramatically strain our already fragile water supply.
The wells that sustain families, livestock, and native vegetation cannot support the added demand that dense development brings. Over-pumping would lead to long-term depletion that can't be undone. Water scarcity is not a hypothetical problem here—it is a very real and growing threat.

Open Spaces Are Part of Our Identity and Our Ecosystem

One of the primary reasons I chose Franktown is for its wide open spaces. These are not just pretty views—they are living, breathing ecosystems. They provide habitat for deer, foxes, hawks, pollinators, and countless other species. They also serve as buffers for stormwater, help recharge aquifers, and offer protection against wildfires and erosion.
Development under the Sundown Oaks Metropolitan District would carve up these spaces irreversibly, breaking natural corridors and damaging the ecological balance of the area. The land here is fragile, and once it is disturbed, the damage is permanent.

Light Pollution Will Diminish Wildlife and Our Quality of Life

Franktown's dark skies are one of its quiet gifts. They connect us to the natural world—and to the night. But artificial lighting from roads, buildings, and increased traffic associated with metropolitan districts like Sundown Oaks will pollute that darkness.
This will disrupt migratory patterns, reproduction cycles, and feeding behavior in birds, insects, and mammals. It will also affect human residents—reducing sleep quality, increasing stress, and taking away one of the last places in this region where you can look up and truly see the stars.

Fragmented Land Brings Public Health and Disease Risk

Development that cuts into natural habitats brings unintended consequences—like an increase in ticks, mosquitoes, and the diseases they carry. When animals are pushed into smaller spaces and into closer contact with people, the risk of

zoonotic disease transmission grows. This has been seen in other rapidly suburbanized areas and should not be ignored here.

We Moved Here for County Rule and Self-Determination

One of the defining reasons I chose Franktown over other places was County Rule. I wanted to live in a place where community values come before unchecked growth—where people choose to protect land and water instead of paving it over. A metropolitan district like Sundown Oaks goes directly against that.
It shifts control away from residents and toward developers. It opens the door to dense, unsustainable expansion that will fundamentally alter the soul of this town. That's not what we moved here for.

In Closing

I came to Franktown for the land, the peace, and the values it represents. I'm proud to be a new member of this community, and I feel a deep responsibility to help protect it.
Please do not approve the Sundown Oaks Metropolitan District. It would irreversibly damage the water, land, wildlife, and character of this unique part of Colorado. Franktown deserves better. It deserves to remain what it is—a place where the land still comes first.
Thank you for your time and for hearing the voices of those who love this place.
Sincerely,
Ashley Goar and the Goar household
Residents of Franktown and
Native Coloradan

Sent from my iPhone

DJ Beckwith

From: Hugh Kingery <ouzels8@aol.com>
Sent: Sunday, June 8, 2025 4:00 PM
To: DJ Beckwith
Subject: Sundown Oaks Metro District

Follow Up Flag: Follow up
Flag Status: Flagged

I object to this expansive proposal.

It fails to follow our existing standards of lot size. It will gobble up more of our water, and apparently tap a toxic water source.

Hugh Kingery

DJ Beckwith

From: Kathi Maddox <kathi.maddox@outlook.com>
Sent: Monday, June 9, 2025 8:12 AM
To: DJ Beckwith
Subject: Franktown development

Follow Up Flag: Follow up
Flag Status: Flagged

Please do not let this large development happen in Franktown that supercedes 5 acre housing. We are already way overrun by water supply and traffic—--concerned homeowner in bayou hills—--kathi madddox 4715 bayou hills rd parker co. 303 489-2348 -thank you for this consideration.

DJ Beckwith

From: Dorothy Nelson <dorodon@att.net>
Sent: Sunday, June 8, 2025 7:54 AM
To: DJ Beckwith
Subject: Metropolitan District development in Franktown, Colorado

Follow Up Flag: Follow up
Flag Status: Flagged

To whom it may concern,

As a long time resident of Franktown, I am OPPOSED to this Metropolitan Development !
As an older citizen, I am distressed over the continual disruption of our lives and our state.
PLEASE, do not allow this to happen!
Thank you,
Dorothy Nelson
Sent from my iPhone

DJ Beckwith

From: William Paxton <willpaxton@hotmail.com>
Sent: Sunday, June 8, 2025 8:23 AM
To: DJ Beckwith
Subject: TOTALLY OPPOSE : Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Please accept this email as our opposition to the Sundown Oaks development.

This rampant rubber stamping of these developments must stop. The water will never support this and it's totally irresponsible for you to allow it to happen.

Not only this but being a Metro District will subject all the property owners to a never-ending financial obligation (most buyers will NEVER know about it until it's too late) they will never be able to get out from under.

All this does is make the developers rich on the backs for future homeowners.

DO THE RIGHT THING AND STOP THIS NOW!!!!

W.P.

DJ Beckwith

From: David Price <dkp1960@gmail.com>
Sent: Sunday, June 8, 2025 8:21 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Beckwith,

I am contacting you in strong opposition to the proposed development called Sundown Oaks Metropolitan District, Project no. SV2025-005 This is a large development with a Metropolitan District and lots which will not all be 5 acres per residence as required in Franktown area zoning.

A large METROPOLITAN DISTRICT in the middle of Franktown goes completely against the protected rural character of the city! Metropolitan Districts are causing financial and other problems throughout the state!

This development also proposes using Upper Dawson water and using water from the Laramie Fox Hills aquifer to augment that use of the Upper Dawson. Laramie Fox Hills water is toxic and the Upper Dawson is being drained at an alarming rate.

There are many other problem/issues with this development.

Please protect the quality of life of your Franktown constituents by ensuring this development does not come to fruition.

Thank you for your careful consideration of this matter.

David Price
2290 Deerpath Road
Franktown, CO 80116

DJ Beckwith

From: justwrite123 <justwrite123@aol.com>
Sent: Sunday, June 8, 2025 8:18 AM
To: DJ Beckwith
Subject: Sundown Oaks Metropolitan District, Project no. SV2025-005

Follow Up Flag: Follow up
Flag Status: Flagged

Mr. Beck with,

I am contacting you in strong opposition to the proposed development called Sundown Oaks Metropolitan District, Project no. SV2025-005 This is a large development with a Metropolitan District and lots which ***will not all be 5 acres per residence*** as required in Franktown area zoning.

A large METROPOLITAN DISTRICT in the middle of Franktown goes completely against the protected rural character of the city! Metropolitan Districts are causing financial and other problems throughout the state!

This development also proposes using Upper Dawson water and using water from the Laramie Fox Hills aquifer to augment that use of the Upper Dawson. Laramie Fox Hills water is toxic and the Upper Dawson is being drained at an alarming rate.

There are many other problem/issues with this development.

Please protect the quality of life of your Franktown constituents by ensuring this development does not come to fruition.

Thank you for your careful consideration of this matter.

Julie Price
2290 Deerpath Road
Franktown, CO 80116

Sent from my T-Mobile 5G Device

TO: Dbeckwith@douglas.co.us

RE: Sundown Oak Metropolitan District

https://apps.douglas.co.us/planning/projects/Default.aspx?PossePresentation=SpecialDistrictServicePlanJob&PosseObjectId=98354579

FROM: David Tomsick
9379 Tanglewood Road
Franktown, CO 80116
dtomsick@communiquemarketing.com

I am writing to oppose the ***Sundown Oak Metropolitan District*.**

I live at 9379 East Tanglewood Road in eyeshot of the proposed district. Let me say, I have no opposition to the proposed area being divided up, as long as each lot meets the minimum 5 acre requirements for the area.

Here are my reasons for opposing this proposed district:

1. Proposed lots are under 5 acres. The Bannockburn area was developed in the ***1980s***. The property sites in Bannockburn range in size from 5-10 acres and many of them feature equestrian facilities such as barns, outbuildings, horse fencing, and corrals. The characteristics of this community in which I and my neighbors should not be changed as described in this proposal.

2. According to the proposal, "The purpose of the District is to provide public improvements and services for the benefit of all anticipated inhabitants and taxpayers of the District, either within or without its boundaries..."

   I strongly oppose changing anything outside this proposed area, especially allowing this proposed district control over any previously built communities in the area.

3. According to the proposal, "It is anticipated that the District's boundaries may change from time to time as it undergoes inclusions and exclusions pursuant...

   Does that mean that neighbors in the area are at risk of being absorbed by the district and being required to pay the districts fees, taxes and possibly debt? See the article below on the Meadows District in Castle Rock.

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4. According to the proposal, “To have and exercise the power of eminent domain, but only as necessary to construct, install, access, relocate or redevelop the public improvements identified in this Service Plan in the locations shown in Exhibit.

   The power of eminent domain scares me. Who decides? The developer? How can a developer or a newly created “District” be given so much power as to affect citizens who have lived in homes that were built decades before?

5. The owner of this property has continually proposed questionable development for this property over the past 10 years in which he has put forth plans with little regard for his neighbors.

6. Here’s the best reason for not allowing the development is this article: I have yellow highlighted the key points, the most important being… A metropolitan district empowers developers. ***It's like a lifetime annuity that pays out, guaranteed by the most secure source of revenue you can imagine -- taxes***:

   ## The largest neighborhood of this Colorado city is $434M in debt. Neighbors are now seeking board control.

   Olivia Young, Updated on: February 28, 2025 / 1:49 PM MST / CBS Colorado

It's Castle Rock's largest neighborhood. But many of its residents likely don't know they're paying more than some neighboring communities in taxes. The Meadows is a master-planned community located south of U.S. 85 and west of Interstate 25 in Castle Rock.

A CBS News Colorado investigation is taking a closer look at the community's metro districts and the bond debt that homeowners' taxes are paying.

If you've checked your mailbox recently, you may have found your property tax bill. If you live in The Meadows, you'll see how much you paid your metro district. But where is that money going?

"I've been looking into it for about five years," said Jim Garcia, Meadow’s resident, and real estate agent. Garcia started digging and learned his community was hundreds of millions of dollars in debt to pay off roads built decades ago. "The numbers just didn't add up," Garcia said.

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According to the Meadows metro districts, they issued $70 million in bonds in 1989 to finance roads and infrastructure in the community. That debt was to be paid by neighbors to the developer through property taxes.

In 1993, the bonds were restructured when a new developer took over and capped the property tax rate at 35 mills. "It should have been paid off years ago, and now we have years to go to pay it off," Garcia said.

In 2023, the Districts collected nearly $14 million from homeowners in property taxes, plus over $1 million in car registrations. But despite that revenue, the debt increased by more than $20 million that year.

"So where is all the money going that these residents have been paying for decades?" CBS Colorado's Olivia Young asked John Henderson.

"I believe it's all going to the developers. It's like a lifetime annuity that pays out, guaranteed by the most secure source of revenue you can imagine -- taxes," Henderson responded.

Henderson helped found Coloradans for Metro District Reform. He says The Meadows is the "poster child" for metro district abuses.

“They can't begin to meet the interest payments that are due. So, under the bond agreement that the developers wrote for themselves, the residents can't pay the interest that's due that year, so the unpaid interest continues to be due, plus interest," said Henderson. "It's structured so that the residents will never, ever be able to pay it off. And so, the debt is everlasting."

Henderson has spent years advocating for legislation to reform metro districts and increase oversight. "There's no check and balance at the state level. There's no check and balance at the city/county level," said Henderson.

He says a bill, HB25-1079, recently passed the committee in the Colorado General Assembly that would give the Independent Ethics Commission jurisdiction to hear complaints related to special district officials or employees. Henderson says previous attempts to pass state laws like this have been "buried" in the appropriations committee.

The Meadows is split into seven different metro districts that all share the debt. Each one has its own board. District 4 is the master district, while District 1 is the only one that is controlled by residents.

The same [board] names appear over and over again on Boards 2-7, all tied to the parent company of the current developer. Meeting records indicate the board meets at the development company's offices.

"What recourse do residents in The Meadows have at this point?" CBS Colorado's Olivia Young asked Henderson.

Please do not allow this developer to do the same. Remember, he has not had the interest of his neighbors when proposing development in the past.

DOUGLAS COUNTY
COLORADO

Memorandum

Date: August 1, 2025

To: Douglas County Planning Commission

From: DJ Beckwith, Principal Planner
Lauren Pulver, Planning Supervisor
Kati Carter, AICP, Assistant Director of Planning Resources

Subject: **SV2025-005 Sundown Oaks Metropolitan District New Service Plan – Supplemental Information**

UPDATED MARKET STUDY

Since the submission of the staff report dated July 24, 2025, the applicant has provided an updated Market Study to address comments from BBC related to absorption timelines. BBC has also provided an attached revised Market Study Review letter assessing the changes made. BBC concluded that if the assumptions prove accurate, the District will be well-positioned to generate sufficient property tax and fee revenues to support the proposed debt structure.

ADDITIONAL REFERRAL AGENCY AND PUBLIC COMMENT

Franktown Citizens Coalition II provided additional comment related to concerns of the impacts of Metropolitan Districts. Bannockburn HOA provided an additional comment letter stating concerns over density, groundwater use, and traffic impacts. Russellville Home and Property Owners Association provided a comment letter in opposition to the District stating concerns of the impacts of Metropolitan Districts and impacts to groundwater.

Additional public comments received have also been included.

ATTACHMENTS PAGE

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BBC Updated Market Study Review Letter 55
Franktown Citizens Coalition Referral Response Letter 61
Bannockburn HOA Referral Response Letter 109
Russellville Home and Property Owners Association Letter 112
Public Comments 115
Letter from Wolfersberger, LLC 127

RESIDENTIAL MARKET AND ABSORPTION ANALYSIS

SUNDOWN OAKS METROPOLITAN DISTRICT

Franktown, Colorado

PREPARED FOR:
SUNDOWN OAKS METROPOLITAN DISTRICT

Economic & Market Research / Land & Development Planning
Landscape Architecture / Community Planning & Design
Golf Feasibility Analysis

RESIDENTIAL MARKET AND ABSORPTION ANALYSIS

Sundown Oaks Metropolitan District

Franktown, Colorado

PREPARED FOR:
SUNDOWN OAKS METROPOLITAN DISTRICT

JULY 24, 2025
THK REFERENCE #9183-000

PREPARED BY:

THK associates, inc
5675 DTC BOULEVARD, SUITE 200
GREENWOOD VILLAGE, COLORADO 80111
(303) 770-7201 PHONE
INFO@THKASSOC.COM

Economic & Market Research / Land & Development Planning
Landscape Architecture / Community Planning & Design
Golf Feasibility Analysis

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EXECUTIVE SUMMARY

Executive Summary

The Sundown and Oak Bluff community is located at the intersection of Burning Tree Drive and East Tanglewood Road in Franktown/Douglas County. Sundown is located on the eastern side of East Tanglewood Road southeast of Burning Tree Drive. The Sundown subject lots are located 34.0 miles south of Denver International Airport, 31.5 miles southeast of downtown Denver, 18.0 miles southeast of Centennial Airport, 15.8 miles south of E-470, 11.0 miles east of I-25, and 4.0 miles east of Highway 83. The Sundown subject sites are very strategically positioned parcels located approximately 18.6 miles southeast of the rapidly expanding interchange of E-470 and I-25. Oak Bluff is located south of Burning Tree Drive and west of East Tanglewood Road.

The Oak Bluff subject lots are located 32.5 miles south of Denver International Airport, 28 miles southeast of downtown Denver, 14.5 miles southeast of Centennial Airport, 13.2 miles south of E-470, 7.35 miles east of I-25, and 1.6 miles east of Highway 83. The Oak Bluff subject sites are very strategically positioned parcels located approximately 14.00 miles southeast of the rapidly expanding interchange of E-470 and I-25.

This study assessed the market demand for planned and anticipated development within the Sundown Oaks development along with reasonable market and assessed values created from this project, which is located within the Sundown Oaks Metropolitan District.

The Sundown Oaks Metropolitan Community is proposed for:

- 37 Residential Units

This report analyzes each of the proposed land use types outlined above and determines the market demand and expected absorption period for each land use type based on historical, current, and projected area market conditions. This report also analyzes market values for each of the proposed land use types, which are based on market values of comparable properties for sale as provided by Douglas County assessor's offices.

The tables on the following pages summarize the Sundown Oaks Metropolitan District absorption and market values. THK has determined to be supportable by historical, current, and projected area market conditions.

Sundown Oaks Proposed Land Use by Product Type

Unit Type	Total Homes	Anticpated Year of Completion	Value per Unit - 2025	Value per Lot - 2025
Single Family Detached	37	2030	$2,200,000	$500,000
Total	**37**			

Source: THK Associates, Inc.

Sundown Oaks Attached Residential Absorption Schedule

Year	PTA Annual Market Demand	Single-Family Attached: Site Annual Market Demand (20%/ 25% Capture)	Single-Family Attached: Site Cumulative Market Demand	Sundown Oaks: Annual Absorption	Sundown Oaks: Cumulative Absorption
2025	187	**** Planning and Development****			
2026	191	**** Planning and Development****			
2027	195	9	9	9	9
2028	199	9	18	9	18
2029	204	9	27	9	27
2030	209	10	37	10	37
Total	1,185	37	37	37	**37**

Source: THK Associates, Inc.

Sundown Oaks is proposing a single-family detached development. All residential single-family detached homes are projected to be built-out by 2030. Average supportable market values for single-family detached homes are $2,200,000. It is THK's opinion that the metro district's values are reasonable in the marketplace. The Sundown Oaks Primary Trade Area has seen an annual inflation rate of 2.5% in home prices between 2021 and 2025 year-to-date. THK expects interest rates to decrease in the near future, which will increase the home inflation rate over the years to come, therefore in our market and assessed value calculation over the next 30 years THK utilized a 3.0% inflation rate.

I. INTRODUCTION

I. Introduction

The purpose of this market analysis has been to determine future absorption by product type for the Sundown Oaks community. The Sundown and Oak Bluff community is located at the intersection of Burning Tree Drive and East Tanglewood Road in Franktown/Douglas County. The entirety of the Sundown Oaks subject community is 177-acres. The Sundown property is approximately 73-acres and is planned for 17, 2-acre sites. The Oak Bluff property is approximately 104-acres and is planned for 20 home sites, averaging 4.71-acres in size.

The study examines the absorption and market and assessed values for the proposed residential uses in the community. THK's research includes market projections for a variety of residential product types. At the conclusion of THK's analysis, an absorption estimate of the proposed residential product type at the Sundown Oaks Community is detailed.

In order to estimate future residential construction absorption and market and assessed values for the Sundown Oaks site, THK has undertaken the following research:

- Prepared an economic base analysis of the Ten County market area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Elbert Counties, Jefferson, Larimer, and Weld).
- Profiled submarkets within the regional environs including population and household growth, employment growth, income characteristics, permit data, housing supply, and other relevant statistics.
- Inspected the Sundown Oaks site.
- Reviewed any documents related to the Sundown Oaks Metropolitan District.
- Inventoried active and upcoming single family home communities in the Sundown Oaks Primary Trade Area.
- Identified sales of single-family homes and lots within the Sundown Oaks Primary trade area over the past four years.
- This assessment of supply and demand allowed THK to estimate the absorption and pricing of the proposed homes.
- Estimated value estimates based on competitive communities.
- Researched and opined on a reasonable bi-annual inflation rate.

II. SITE AND AREA DESCRIPTION

II. Site and Area Description

The Sundown subject sites are located 34.0 miles south of Denver International Airport, 31.5 miles southeast of downtown Denver, 18.0 miles southeast of Centennial Airport, 15.8 miles south of E-470, 11.0 miles east of I-25, and 4.0 miles east of Highway 83. The Sundown subject sites are very strategically positioned parcels located approximately 18.6 miles southeast of the rapidly expanding interchange of E-470 and I-25.

The Oak Bluff subject sites are located 32.5 miles south of Denver International Airport, 28 miles southeast of downtown Denver, 14.5 miles southeast of Centennial Airport, 13.2 miles south of E-470, 7.35 miles east of I-25, and 1.6 miles east of Highway 83. Due to the decreasing availability of affordable and available land in Metro Denver, demand for housing continues to expand beyond Denver's core. The Oak Bluff subject sites are very strategically positioned parcels located approximately 14.00 miles southeast of the rapidly expanding interchange of E-470 and I-25.

Two miles east of I-25 and E-470 and 13 miles northwest of the Sundown Oaks subject sites, is the Compark Business Campus. It has added 312 homes, an 85,000 square foot data center, 425,000 square feet of retail space, and 220,000 square feet of office space. Near the interchange of E-470 and Highway 83, 10.5 miles north of the subject site, Ryland Homes has built 500 homes in Whispering Pines, Kings Point has plans for 3,000 homes, Toll Brothers and Standard Pacific built 1,800 age 55+ homes at Inspiration. Attractions include the Rueter-Hess Reservoir 9.0 miles northwest, and the Outlets at Castle Rock shopping destination located 9.4 miles west of the Sundown Oaks community. The Outlets at Castle Rock have over 100 stores and restaurants.

Area maps, aerials, and site photos are shown on the following pages.

Figure 1- Denver Metropolitan Area Regional Location

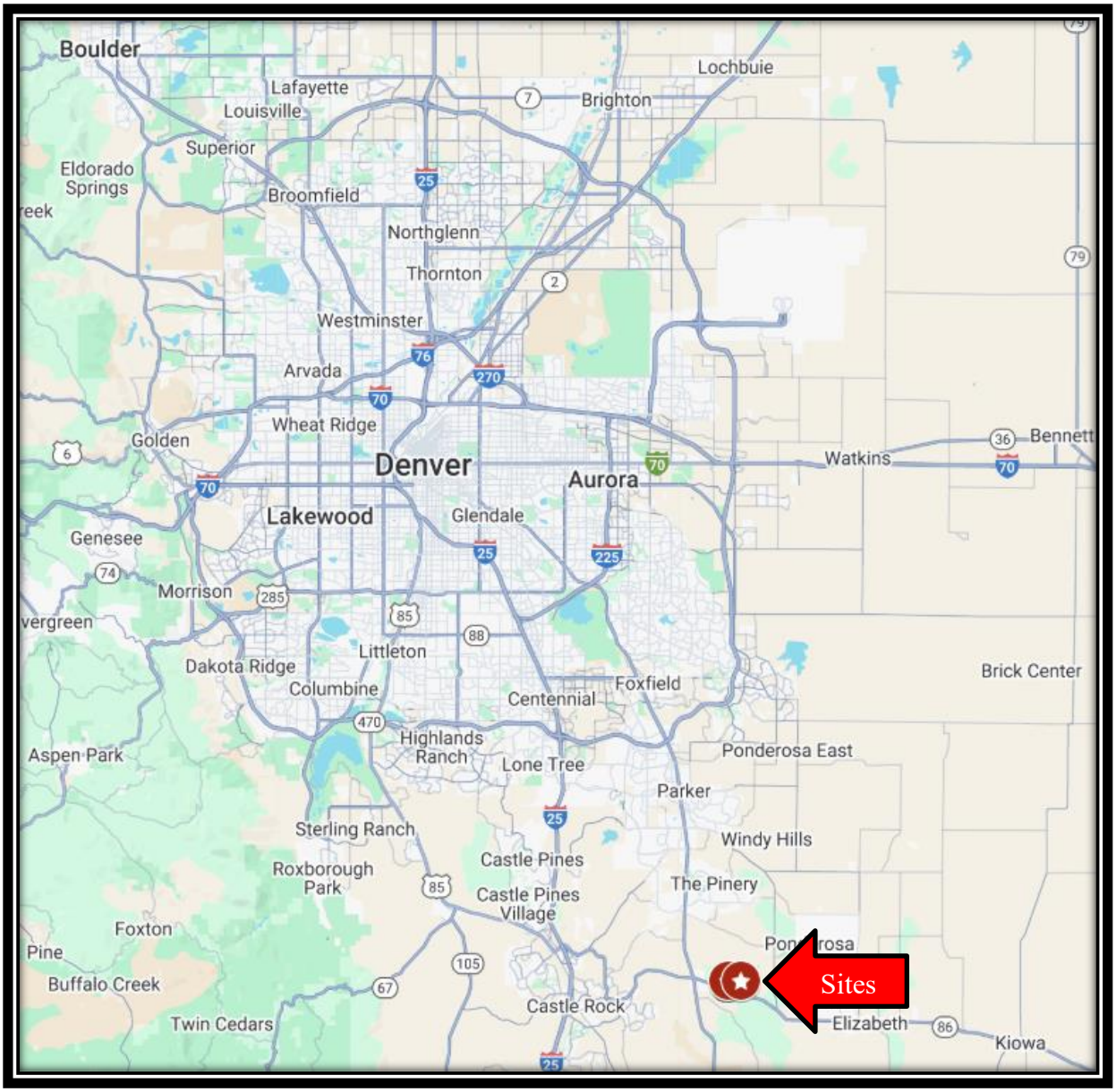


Figure 2- Sundown Oaks Regional Location

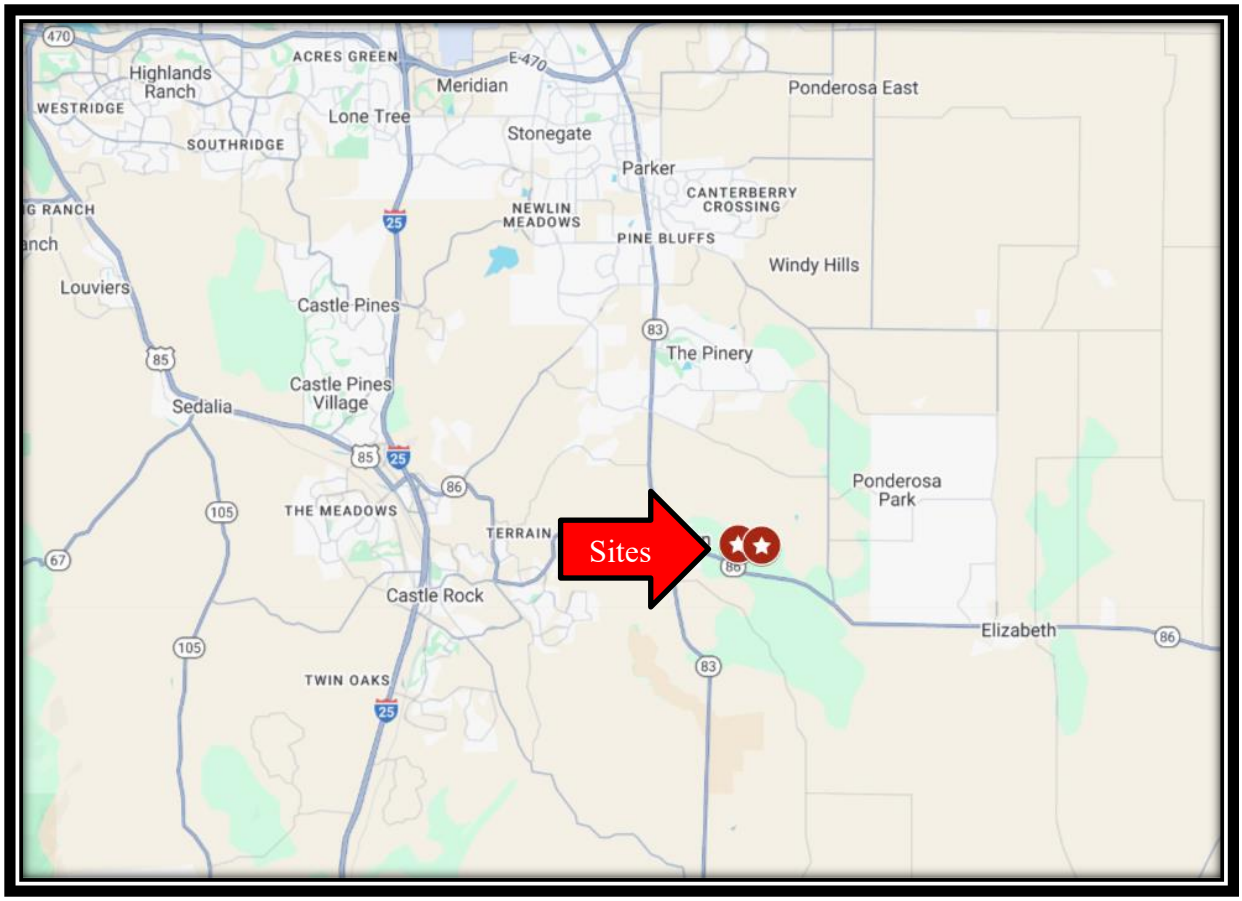
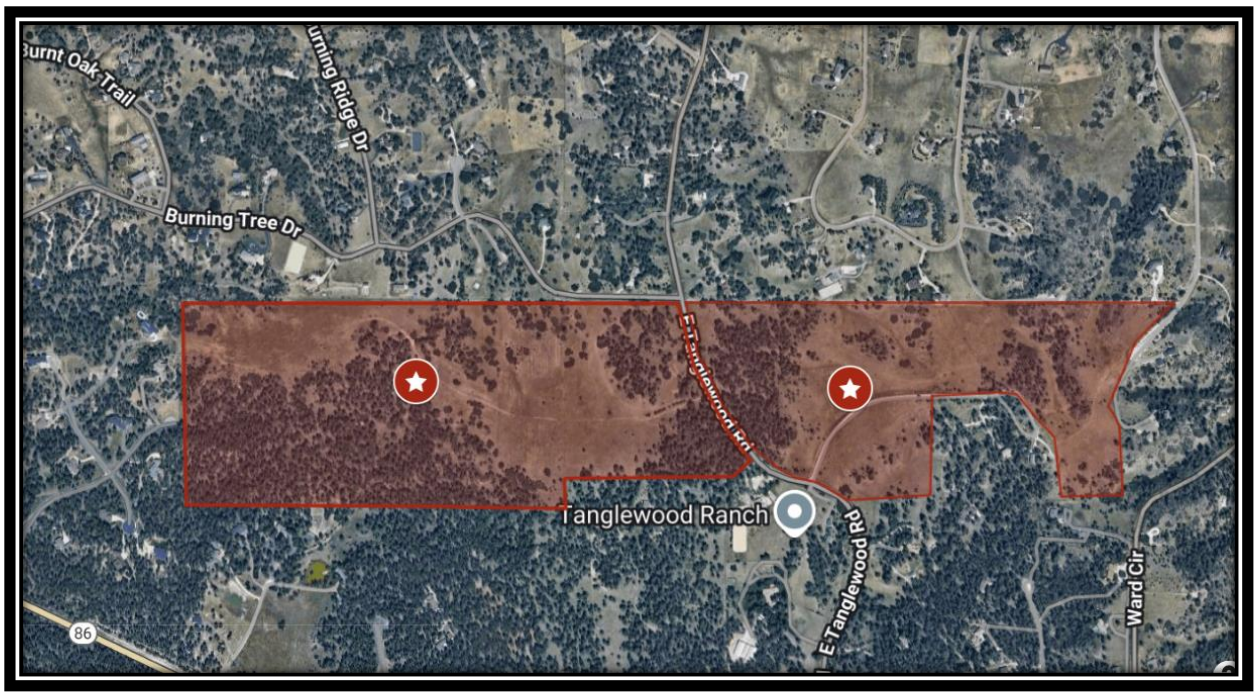


Figure 3- Sundown Oaks Site Aerial



Sundown Oaks Site

III. ECONOMIC BASE ANALYSIS

III. Economic Base Analysis

A. HISTORICAL EMPLOYMENT GROWTH

Table III-1 on the following page shows historical employment growth by year for The Ten County market area (Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, Elbert, Jefferson, Larimer, and Weld counties).

Employment trends are prime indicators of the economic growth of an area. Increases in employment generate growth for most sectors of the local economy and dictate the rate at which it will expand.

Total full- and part-time employment in the Ten County market area grew from 1,152,005 in 1980 to 3,122,322 in 2025, for an average annual increase of 43,736 jobs. Over the last decade, 58,310 jobs per year were added, for an average annual growth rate of 2.3%.

Table III-1A: Ten County Market Area Employment Trends, 1980-2025

Year	Total Employment	Annual Change	
		Numerical	Percent
1980	1,154,201	44,258	5.0%
1981	1,200,155	45,954	4.0%
1982	1,235,985	35,830	3.0%
1983	1,261,477	25,492	2.1%
1984	1,333,901	72,424	5.7%
1985	1,358,267	24,366	1.8%
1986	1,355,191	-3,076	-0.2%
1987	1,342,433	-12,758	-0.9%
1988	1,380,346	37,913	2.8%
1989	1,400,210	19,864	1.4%
1990	1,427,162	26,952	1.9%
1991	1,461,635	34,473	2.4%
1992	1,489,065	27,430	1.9%
1993	1,554,164	65,099	4.4%
1994	1,616,520	62,356	4.0%
1995	1,664,596	48,076	3.0%
1996	1,727,334	62,738	3.8%
1997	1,802,354	75,020	4.3%
1998	1,875,518	73,164	4.1%
1999	1,932,678	57,160	3.0%
2000	2,017,042	84,364	4.4%
2001	2,031,859	14,817	0.7%
2002	2,009,483	-22,376	-1.1%
2003	1,997,978	-11,505	-0.6%
2004	2,032,097	34,119	1.7%
2005	2,081,074	48,977	2.4%
2006	2,129,635	48,561	2.3%
2007	2,205,927	76,292	3.6%
2008	2,232,453	26,526	1.2%
2009	2,179,125	-53,328	-2.4%
2010	2,171,930	-7,195	-0.3%
2011	2,223,202	51,272	2.4%
2012	2,277,947	54,745	2.5%
2013	2,358,217	80,270	3.5%
2014	2,449,602	91,385	3.9%
2015	2,539,227	89,625	3.7%
2016	2,617,497	78,270	3.1%
2017	2,683,484	65,987	2.5%
2018	2,759,187	75,703	2.8%
2019	2,832,375	73,188	2.7%
2020	2,676,036	-156,339	-5.5%
2021	2,822,839	146,803	5.5%
2022	3,006,286	183,447	6.5%
2023 Estimate	3,032,439	26,153	0.9%
2024 Estimate	3,062,197	29,758	1.0%
2025 Estimate	3,122,322	60,125	2.0%
Annual Change			
1980-2025		43,736	2.2%
1990-2025		48,433	2.3%
2000-2025		44,211	1.8%
2010-2025		63,359	2.5%
2015-2025		58,310	2.3%
2020-2025		74,871	3.4%

Source: Bureau of Economic Analysis, and THK Associates, Inc.

B. PROJECTED EMPLOYMENT GROWTH

Table III-2, illustrates the projected job growth for the Ten County market area, which is expected to add approximately 69,582 jobs annually on average from 2025-2035.

Table III-2A: Ten County Market Area Employment Projections, 2025-2035

Year	Total Employment	Annual Change	
		Numerical	Percent
2025	3,122,322	-	-
2026	3,184,259	61,937	2.0%
2027	3,247,749	63,490	2.0%
2028	3,312,843	65,094	2.0%
2029	3,379,593	66,751	2.0%
2030	3,448,056	68,462	2.0%
2031	3,518,288	70,232	2.0%
2032	3,590,348	72,061	2.0%
2033	3,664,301	73,952	2.1%
2034	3,740,210	75,909	2.1%
2035	3,818,142	77,933	2.1%
Annual Change 2025-2035		**69,582**	**2.0%**

Source: Bureau of Economic Analysis and THK Associates, Inc.

C. POPULATION AND HOUSEHOLD GROWTH TRENDS

Employment, population, and household growth drive demand for residential real estate development.

Table III-3 shows that in the Ten County market area, population and households have increased since 1980 by 2.0% and 2.0%, respectively. Since 2010, population has increased by 83,506 people per year to 4,612,340 in 2025, for an average annual growth rate of 2.0%.

Households in the Ten County market area have grown by 1.9% per year over the last fifteen years. Since 2010, households in the region have increased by 29,085 annually to 1,756,007 in 2025.

Table III-3A: Estimates of Population and Households in the Denver Ten County Market Area, 1980-2025

	Adams County		Arapahoe County		Boulder County		Broomfield County		Denver County		Douglas County		Jefferson County		Larimer County		Weld County		Elbert County		**Ten County Total**	
Year	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	Pop	HH	**Pop**	**HH**
1980	245,944	84,219	293,621	106,018	189,625	68,964	--	--	492,365	211,566	25,153	7,857	371,753	129,778	149,184	54,086	123,440	42,750	6,850	2,380	**1,897,935**	**707,618**
1990	257,874	93,914	391,902	155,367	208,913	82,510	25,032	8,992	467,229	210,943	60,406	20,786	437,056	166,520	186,137	70,575	131,729	47,533	9,644	3,351	**2,175,922**	**860,491**
2000	347,987	122,803	487,900	190,892	269,625	106,485	39,434	14,251	554,688	239,242	175,792	60,938	525,287	205,408	251,493	97,163	180,795	63,194	19,872	6,670	**2,852,873**	**1,107,046**
2010	441,603	153,764	572,003	224,011	294,567	119,300	55,889	21,414	600,158	263,107	285,465	102,018	534,543	218,160	299,630	120,295	252,825	89,349	23,068	8,380	**3,359,751**	**1,319,798**
2020	533,501	192,087	677,136	262,519	348,828	133,340	82,077	32,015	759,214	336,152	369,347	131,260	615,579	240,109	369,347	144,065	348,828	129,179	27,313	8,853	**4,131,170**	**1,609,579**
2025	578,829	208,407	740,631	280,204	369,771	140,720	101,496	35,008	863,616	371,470	430,487	151,573	644,683	249,695	402,029	157,289	448,881	151,364	31,916	10,345	**4,612,340**	**1,756,077**
(1980-2025):																						
Numerical	7,400	2,760	9,930	3,871	4,000	1,595	--	--	8,250	3,553	9,010	3,194	6,070	2,665	5,620	2,293	7,230	2,414	560	177	**60,320**	**23,299**
Percent	1.9%	2.0%	2.1%	2.2%	1.5%	1.6%	--	--	1.3%	1.3%	6.5%	6.8%	1.2%	1.5%	2.2%	2.4%	2.9%	2.8%	3.5%	3.3%	2.0%	2.0%
Percent of 10-County Total	12.3%	11.8%	16.5%	16.6%	6.6%	6.8%	--	--	13.7%	15.3%	14.9%	13.7%	10.1%	11.4%	9.3%	9.8%	12.0%	10.4%	0.9%	0.8%	100.0%	100.0%
(1990-2025):																						
Numerical	9,170	3,271	9,960	3,567	4,600	1,663	2,180	743	11,330	4,586	10,570	3,737	5,930	2,376	6,170	2,478	9,060	2,967	640	200	**69,612**	**25,588**
Percent	2.3%	2.3%	1.8%	1.7%	1.6%	1.5%	4.1%	4.0%	1.8%	1.6%	5.8%	5.8%	1.1%	1.2%	2.2%	2.3%	3.6%	3.4%	3.5%	3.3%	2.2%	2.1%
Percent of 10-County Total	13.2%	12.8%	14.3%	13.9%	6.6%	6.5%	3.1%	2.9%	16.3%	17.9%	15.2%	14.6%	8.5%	9.3%	8.9%	9.7%	13.0%	11.6%	0.9%	0.8%	100.0%	100.0%
(2000-2025):																						
Numerical	9,234	3,424	10,109	3,572	4,006	1,369	2,482	830	12,357	5,289	10,188	3,625	4,776	1,771	6,021	2,405	10,723	3,527	482	147	**70,379**	**25,961**
Percent	2.1%	2.1%	1.7%	1.5%	1.3%	1.1%	3.9%	3.7%	1.8%	1.8%	3.6%	3.7%	0.8%	0.8%	1.9%	1.9%	3.7%	3.6%	1.9%	1.8%	1.9%	1.9%
Percent of 10-County Total	13.1%	13.2%	14.4%	13.8%	5.7%	5.3%	3.5%	3.2%	17.6%	20.4%	14.5%	14.0%	6.8%	6.8%	8.6%	9.3%	15.2%	13.6%	0.7%	0.6%	100.0%	100.0%
(2010-2025)																						
Numerical	9,148	3,643	11,242	3,746	5,014	1,428	3,040	906	17,564	7,224	9,668	3,304	7,343	2,102	6,827	2,466	13,070	4,134	590	131	**83,506**	**29,085**
Percent	1.8%	2.0%	1.7%	1.5%	1.5%	1.1%	4.1%	3.3%	2.5%	2.3%	2.8%	2.7%	1.3%	0.9%	2.0%	1.8%	3.9%	3.6%	2.2%	1.4%	2.0%	1.9%
Percent of 10-County Total	11.0%	12.5%	13.5%	12.9%	6.0%	4.9%	3.6%	3.1%	21.0%	24.8%	11.6%	11.4%	8.8%	7.2%	8.2%	8.5%	15.7%	14.2%	0.7%	0.5%	100.0%	100.0%

Source: Bureau of Census and THK Associates, Inc.

D. TEN-COUNTY INCOME LEVELS

Table III-4 illustrates the per capita personal income level and annual change over the last 36 years for Ten County Market Area, by county, and the United States as a whole. Table III-4 illustrates an increase in wealth for the Ten County area, which will positively impact both residential and commercial real estate within the county over the next several years.

Table III-4: Per Capita Personal Income by County for the Ten County, 1990-2025

	Adams County		Arapahoe County		Boulder County		Broomfield County		Denver County		Douglas County		Jefferson County		Larimer County		Weld County		Elbert County		United States	
Year	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change	Income	Annual Change
1990	$16,330	--	$24,379	--	$22,416	--	--	--	$23,320	--	$25,072	--	$21,661	--	$17,978	--	$15,533	--	$17,809	--	$19,621	--
1991	$16,796	2.9%	$24,876	2.0%	$23,149	3.3%	--	--	$23,438	0.5%	$30,328	21.0%	$22,760	5.1%	$18,583	3.4%	$16,077	3.5%	$18,507	3.9%	$20,030	2.1%
1992	$17,674	5.2%	$25,840	3.9%	$24,790	7.1%	--	--	$24,376	4.0%	$32,436	7.0%	$23,623	3.8%	$19,581	5.4%	$16,988	5.7%	$20,603	11.3%	$21,090	5.3%
1993	$18,522	4.8%	$26,998	4.5%	$25,987	4.8%	--	--	$25,277	3.7%	$35,653	9.9%	$24,781	4.9%	$20,606	5.2%	$18,168	6.9%	$22,588	9.6%	$21,733	3.0%
1994	$19,377	4.6%	$28,637	6.1%	$27,401	5.4%	--	--	$26,430	4.6%	$37,723	5.8%	$25,474	2.8%	$21,442	4.1%	$18,787	3.4%	$23,813	5.4%	$22,575	3.9%
1995	$20,154	4.0%	$30,209	5.5%	$29,080	6.1%	--	--	$28,277	7.0%	$39,511	4.7%	$27,051	6.2%	$22,754	6.1%	$19,323	2.9%	$24,273	1.9%	$23,607	4.6%
1996	$20,910	3.8%	$32,314	7.0%	$30,835	6.0%	--	--	$29,666	4.9%	$39,551	0.1%	$28,585	5.7%	$24,327	6.9%	$20,547	6.3%	$25,371	4.5%	$24,771	4.9%
1997	$22,347	6.9%	$33,388	3.3%	$32,791	6.3%	--	--	$31,002	4.5%	$39,282	-0.7%	$30,751	7.6%	$25,754	5.9%	$21,467	4.5%	$24,671	-2.8%	$25,993	4.9%
1998	$23,811	6.6%	$36,261	8.6%	$35,192	7.3%	--	--	$34,097	10.0%	$39,853	1.5%	$33,830	10.0%	$27,099	5.2%	$23,155	7.9%	$26,372	6.9%	$27,557	6.0%
1999	$25,270	6.1%	$38,739	6.8%	$37,436	6.4%	--	--	$35,915	5.3%	$41,387	3.8%	$35,172	4.0%	$28,273	4.3%	$24,333	5.1%	$28,038	6.3%	$28,675	4.1%
2000	$27,118	7.3%	$42,831	10.6%	$41,817	11.7%	--	--	$39,489	10.0%	$44,194	6.8%	$38,710	10.1%	$31,041	9.8%	$25,552	5.0%	$31,240	11.4%	$30,657	6.9%
2001	$27,864	2.8%	$41,679	-2.7%	$42,333	1.2%	--	--	$40,041	1.4%	$42,852	-3.0%	$41,783	7.9%	$32,229	3.8%	$26,116	2.2%	$32,788	5.0%	$31,589	3.0%
2002	$27,982	0.4%	$41,180	-1.2%	$41,489	-2.0%	$41,621	--	$40,220	0.4%	$38,955	-9.1%	$40,929	-2.0%	$31,997	-0.7%	$24,871	-4.8%	$31,518	-3.9%	$31,832	0.8%
2003	$28,307	1.2%	$41,502	0.8%	$42,260	1.9%	$41,593	-0.1%	$40,892	1.7%	$37,614	-3.4%	$41,040	0.3%	$31,878	-0.4%	$25,200	1.3%	$31,570	0.2%	$32,681	2.7%
2004	$28,551	0.9%	$40,776	-1.7%	$43,232	2.3%	$43,741	5.2%	$42,033	2.8%	$41,266	9.7%	$42,632	3.9%	$32,759	2.8%	$26,905	6.8%	$34,989	10.8%	$34,251	4.8%
2005	$28,932	1.3%	$41,791	2.5%	$46,245	7.0%	$47,412	8.4%	$46,511	10.7%	$46,527	12.7%	$43,338	1.7%	$34,106	4.1%	$28,569	6.2%	$36,645	4.7%	$35,849	4.7%
2006	$29,751	2.8%	$44,957	7.6%	$49,090	6.2%	$53,431	12.7%	$50,786	9.2%	$51,151	9.9%	$44,926	3.7%	$35,926	5.3%	$29,898	4.7%	$37,341	1.9%	$38,114	6.3%
2007	$30,849	3.7%	$46,420	3.3%	$50,834	3.6%	$57,868	8.3%	$52,270	2.9%	$54,897	7.3%	$46,169	2.8%	$37,874	5.4%	$32,016	7.1%	$40,282	7.9%	$39,844	4.5%
2008	$31,761	3.0%	$43,602	-6.1%	$52,114	2.5%	$62,872	8.6%	$54,509	4.3%	$56,270	2.5%	$46,753	1.3%	$38,191	0.8%	$33,762	5.5%	$42,293	5.0%	$40,904	2.7%
2009	$30,815	-3.0%	$39,767	-8.8%	$46,942	-9.9%	$57,309	-8.8%	$47,126	-13.5%	$55,031	-2.2%	$44,500	-4.8%	$36,870	-3.5%	$32,573	-3.5%	$41,876	-1.0%	$39,284	-4.0%
2010	$30,754	-0.2%	$40,980	3.1%	$50,465	7.5%	$54,157	-5.5%	$49,040	4.1%	$53,727	-2.4%	$45,302	1.8%	$37,455	1.6%	$33,092	1.6%	$39,126	-6.6%	$40,547	3.2%
2011	$32,392	5.3%	$46,782	14.2%	$52,309	3.7%	$56,309	4.0%	$54,236	10.6%	$56,700	5.5%	$47,361	4.5%	$39,105	4.4%	$35,055	5.9%	$48,200	23.2%	$42,739	5.4%
2012	$33,917	4.7%	$48,429	3.5%	$54,984	5.1%	$58,467	3.8%	$57,896	6.7%	$60,614	6.9%	$49,331	4.2%	$40,922	4.6%	$37,088	5.8%	$44,851	-6.9%	$44,605	4.4%
2013	$34,811	2.6%	$49,668	2.6%	$56,706	3.1%	$55,036	-5.9%	$61,732	6.6%	$62,501	3.1%	$51,347	4.1%	$42,550	4.0%	$38,793	4.6%	$47,758	6.5%	$44,860	0.6%
2014	$36,809	5.7%	$53,215	7.1%	$60,575	6.8%	$57,640	4.7%	$68,076	10.3%	$66,067	5.7%	$54,588	6.3%	$45,152	6.1%	$42,283	9.0%	$50,141	5.0%	$47,071	4.9%
2015	$38,452	4.5%	$54,455	2.3%	$64,287	6.1%	$58,798	2.0%	$67,037	-1.5%	$67,678	2.4%	$56,959	4.3%	$47,007	4.1%	$43,925	3.9%	$52,011	3.7%	$49,019	4.1%
2016	$39,565	2.9%	$55,207	1.4%	$65,363	1.7%	$60,556	3.0%	$64,209	-4.2%	$68,823	1.7%	$57,921	1.7%	$48,422	3.0%	$43,745	-0.4%	$54,434	4.7%	$50,015	2.0%
2017	$41,321	4.4%	$57,116	3.5%	$69,968	7.0%	$63,349	4.6%	$74,573	16.1%	$70,383	2.3%	$60,265	4.0%	$51,748	6.9%	$44,479	1.7%	$56,017	2.9%	$52,118	4.2%
2018	$43,544	5.4%	$61,906	8.4%	$73,518	5.1%	$68,038	7.4%	$79,023	6.0%	$75,255	6.9%	$63,319	5.1%	$54,207	4.8%	$48,035	8.0%	$60,057	7.2%	$54,606	4.8%
2019	$45,481	4.4%	$64,477	4.2%	$76,527	4.1%	$70,996	4.3%	$81,405	3.0%	$78,455	4.3%	$66,017	4.3%	$55,884	3.1%	$50,198	4.5%	$62,554	4.2%	$56,490	3.5%
2020	$48,115	5.8%	$66,691	3.4%	$79,649	4.1%	$67,495	-4.9%	$85,411	4.9%	$78,980	0.7%	$68,829	4.3%	$58,725	5.1%	$52,054	3.7%	$65,795	5.2%	$59,510	5.3%
2021	$49,983	3.9%	$70,178	5.2%	$83,544	4.9%	$72,544	7.5%	$91,695	7.4%	$82,895	5.0%	$71,541	3.9%	$61,220	4.2%	$54,403	4.5%	$71,818	9.2%	$61,556	3.4%
2022	$52,257	4.6%	$73,346	4.5%	$86,626	3.7%	$73,839	1.8%	$94,611	3.2%	$85,818	3.5%	$74,412	4.0%	$63,395	3.6%	$56,994	4.8%	$76,264	6.2%	$63,990	4.0%
2023 Estimate	$54,447	4.2%	$76,437	4.2%	$89,955	3.8%	$75,624	2.4%	$98,674	4.3%	$88,693	3.3%	$77,219	3.8%	$65,741	3.7%	$59,381	4.2%	$79,801	4.6%	$66,368	3.7%
2024 Estimate	$56,648	4.0%	$78,752	3.0%	$93,267	3.7%	$75,842	0.3%	$103,015	4.4%	$90,507	2.0%	$79,908	3.5%	$68,171	3.7%	$61,186	3.0%	$83,969	5.2%	$68,765	3.6%
2025 Estimate	$58,887	4.0%	$82,456	4.7%	$96,793	3.8%	$78,339	3.3%	$107,855	4.7%	$93,894	3.7%	$82,798	3.6%	$70,747	3.8%	$63,928	4.5%	$89,232	6.3%	$71,278	3.7%
1990-2025	**$1,216**	**3.7%**	**$1,659**	**3.5%**	**$2,125**	**4.3%**	**-**	**-**	**$2,415**	**4.5%**	**$1,966**	**3.8%**	**$1,747**	**3.9%**	**$1,508**	**4.0%**	**$1,383**	**4.1%**	**$2,041**	**4.7%**	**$1,476**	**3.8%**
2015-2025	**$2,043**	**4.4%**	**$2,800**	**4.2%**	**$3,251**	**4.2%**	**$1,954**	**2.9%**	**$4,082**	**4.9%**	**$2,622**	**3.3%**	**$2,584**	**3.8%**	**$2,374**	**4.2%**	**$2,000**	**3.8%**	**$3,722**	**5.5%**	**$2,226**	**3.8%**
2020-2025	**$2,154**	**4.1%**	**$3,153**	**4.3%**	**$3,429**	**4.0%**	**$2,169**	**3.0%**	**$4,489**	**4.8%**	**$2,983**	**3.5%**	**$2,794**	**3.8%**	**$2,404**	**3.8%**	**$2,375**	**4.2%**	**$4,687**	**6.3%**	**$2,354**	**3.7%**

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis, & THK Associates, Inc.

E. RESIDENTIAL CONSTRUCTION TRENDS

Tables III-5A on the following pages show the quantity of single family and multifamily permits by year in the Ten County market area. The number of building permits being issued in the Ten County market area slowed with the economic downturn in the late 2000s. Permits issued within the Ten County market area over the last forty four, ten, and five-year periods have averaged 22,833, 28,456, and 29,898 respectively. From 1980 to 2024, single family permits accounted for 65.1% of the total permits issued. Over the last three-year period, this ratio has lowered slightly to 52.8%, indicating a slight market shift towards more multi-family housing.

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Single Family

Year	Adams Permits	Adams Percent of Total	Arapahoe Permits	Arapahoe Percent of Total	Boulder Permits	Boulder Percent of Total	Broomfield Permits	Broomfield Percent of Total	Denver Permits	Denver Percent of Total	Douglas Permits	Douglas Percent of Total	Jefferson Permits	Jefferson Percent of Total	Larimer Permits	Larimer Percent of Total	Weld Permits	Weld Percent of Total	Elbert Permits	Elbert Percent of Total	Ten County Total Permits
1980	1,658	13.5%	4,367	35.5%	1,093	8.9%	0	0.0%	1,023	8.3%	377	3.1%	1,997	16.2%	1,309	10.6%	469	3.8%	111	0.9%	**12,293**
1981	951	8.3%	4,648	40.8%	825	7.2%	0	0.0%	808	7.1%	989	8.7%	2,061	18.1%	900	7.9%	210	1.8%	86	0.8%	**11,392**
1982	1,125	9.0%	4,753	38.1%	1,464	11.7%	0	0.0%	951	7.6%	938	7.5%	2,173	17.4%	840	6.7%	243	1.9%	117	0.9%	**12,487**
1983	2,139	9.8%	6,643	30.5%	2,451	11.2%	0	0.0%	1,943	8.9%	1,594	7.3%	4,632	21.2%	1,895	8.7%	507	2.3%	153	0.7%	**21,804**
1984	2,614	15.4%	3,546	20.9%	1,848	10.9%	0	0.0%	1,185	7.0%	1,910	11.2%	3,638	21.4%	1,794	10.6%	461	2.7%	158	0.9%	**16,996**
1985	2,152	15.5%	3,019	21.7%	1,359	9.8%	0	0.0%	757	5.4%	1,731	12.4%	2,777	20.0%	1,633	11.7%	486	3.5%	184	1.3%	**13,914**
1986	1,931	14.8%	1,778	13.6%	1,558	11.9%	0	0.0%	736	5.6%	2,171	16.6%	2,806	21.5%	1,711	13.1%	356	2.7%	225	1.7%	**13,047**
1987	826	9.5%	1,133	13.0%	1,259	14.5%	0	0.0%	404	4.6%	1,817	20.9%	1,748	20.1%	1,204	13.8%	317	3.6%	161	1.8%	**8,708**
1988	504	8.0%	565	9.0%	915	14.5%	0	0.0%	133	2.1%	1,626	25.8%	1,208	19.1%	1,085	17.2%	275	4.4%	137	2.2%	**6,311**
1989	413	6.9%	561	9.4%	889	14.9%	0	0.0%	149	2.5%	1,471	24.7%	1,171	19.7%	1,047	17.6%	254	4.3%	100	1.7%	**5,955**
1990	433	6.4%	656	9.8%	1,014	15.1%	0	0.0%	168	2.5%	1,587	23.6%	1,549	23.1%	1,053	15.7%	258	3.8%	97	1.4%	**6,718**
1991	691	7.5%	1,099	12.0%	1,531	16.7%	0	0.0%	278	3.0%	1,916	20.9%	2,026	22.1%	1,288	14.1%	336	3.7%	102	1.1%	**9,165**
1992	1,379	10.1%	1,814	13.2%	2,416	17.6%	0	0.0%	311	2.3%	2,586	18.9%	2,930	21.4%	1,772	12.9%	509	3.7%	194	1.4%	**13,717**
1993	1,947	11.5%	2,246	13.2%	2,864	16.9%	0	0.0%	375	2.2%	3,295	19.4%	3,060	18.0%	2,316	13.6%	868	5.1%	368	2.2%	**16,971**
1994	2,537	13.9%	2,348	12.9%	2,263	12.4%	0	0.0%	584	3.2%	4,042	22.2%	2,767	15.2%	2,564	14.1%	1,096	6.0%	558	3.1%	**18,201**
1995	2,416	13.8%	2,069	11.8%	2,154	12.3%	0	0.0%	501	2.9%	4,073	23.3%	2,707	15.5%	2,272	13.0%	1,310	7.5%	488	2.8%	**17,502**
1996	2,625	14.1%	2,500	13.4%	1,774	9.5%	0	0.0%	718	3.9%	4,812	25.9%	2,039	11.0%	2,458	13.2%	1,687	9.1%	416	2.2%	**18,613**
1997	2,667	13.2%	2,668	13.2%	2,401	11.9%	0	0.0%	1,028	5.1%	4,991	24.7%	2,294	11.4%	2,299	11.4%	1,839	9.1%	316	1.6%	**20,187**
1998	2,939	12.5%	3,029	12.9%	2,969	12.7%	0	0.0%	1,654	7.0%	5,286	22.5%	2,105	9.0%	2,659	11.3%	2,827	12.0%	295	1.3%	**23,468**
1999	3,280	12.8%	4,306	16.8%	2,383	9.3%	0	0.0%	1,966	7.7%	5,569	21.8%	2,016	7.9%	2,643	10.3%	3,403	13.3%	287	1.1%	**25,566**
2000	2,979	12.0%	4,246	17.1%	2,526	10.2%	0	0.0%	1,677	6.8%	4,760	19.2%	1,932	7.8%	2,748	11.1%	3,970	16.0%	317	1.3%	**24,838**
2001	4,446	19.0%	3,531	15.1%	1,960	8.4%	0	0.0%	1,271	5.4%	4,048	17.3%	1,524	6.5%	2,658	11.3%	3,982	17.0%	301	1.3%	**23,420**
2002	4,044	18.2%	3,294	14.8%	1,358	6.1%	514	2.3%	1,763	7.9%	3,516	15.8%	1,334	6.0%	2,586	11.6%	3,837	17.2%	185	0.8%	**22,246**
2003	4,081	19.5%	2,397	11.4%	1,165	5.6%	423	2.0%	2,122	10.1%	3,499	16.7%	1,237	5.9%	2,368	11.3%	3,682	17.6%	154	0.7%	**20,974**
2004	4,418	17.1%	3,071	11.9%	1,147	4.4%	615	2.4%	4,098	15.9%	4,227	16.4%	1,629	6.3%	2,758	10.7%	3,854	14.9%	219	0.8%	**25,817**
2005	4,197	17.1%	3,185	13.0%	824	3.4%	658	2.7%	2,081	8.5%	5,483	22.4%	1,641	6.7%	2,313	9.4%	4,120	16.8%	258	1.1%	**24,502**
2006	2,796	16.2%	2,747	15.9%	477	2.8%	918	5.3%	1,952	11.3%	3,279	19.0%	1,019	5.9%	1,496	8.7%	2,603	15.1%	244	1.4%	**17,287**
2007	1,453	13.5%	1,657	15.4%	407	3.8%	584	5.4%	1,407	13.1%	1,835	17.1%	702	6.5%	1,126	10.5%	1,556	14.5%	150	1.4%	**10,727**
2008	674	11.8%	755	13.2%	307	5.4%	190	3.3%	981	17.1%	926	16.2%	384	6.7%	657	11.5%	852	14.9%	57	1.0%	**5,726**
2009	487	12.6%	564	14.6%	142	3.7%	160	4.1%	559	14.4%	580	15.0%	296	7.7%	363	9.4%	718	18.6%	39	1.0%	**3,869**
2010	626	11.8%	802	15.2%	284	5.4%	232	4.4%	762	14.4%	822	15.5%	473	8.9%	499	9.4%	789	14.9%	33	0.6%	**5,289**
2011	537	10.0%	614	11.5%	195	3.6%	199	3.7%	852	15.9%	1,011	18.9%	440	8.2%	710	13.3%	794	14.8%	30	0.6%	**5,352**
2012	797	9.6%	961	11.6%	270	3.3%	162	2.0%	1,218	14.7%	1,698	20.5%	858	10.3%	1,153	13.9%	1,182	14.2%	45	0.5%	**8,299**
2013	1,025	9.7%	1,198	11.4%	350	3.3%	356	3.4%	1,526	14.5%	1,993	18.9%	977	9.3%	1,507	14.3%	1,611	15.3%	79	0.7%	**10,543**
2014	1,091	8.8%	1,260	10.1%	606	4.9%	439	3.5%	1,990	16.0%	2,224	17.9%	1,142	9.2%	1,705	13.7%	1,997	16.0%	116	0.9%	**12,454**
2015	1,463	10.6%	1,687	12.2%	739	5.3%	403	2.9%	1,981	14.3%	2,183	15.8%	1,431	10.3%	1,770	12.8%	2,181	15.8%	149	1.1%	**13,838**
2016	1,875	13.0%	2,031	14.1%	697	4.8%	533	3.7%	2,259	15.7%	2,014	14.0%	1,516	10.5%	1,650	11.5%	1,820	12.6%	120	0.8%	**14,395**
2017	1,874	11.9%	2,362	15.0%	710	4.5%	398	2.5%	2,560	16.3%	2,386	15.2%	1,229	7.8%	2,040	13.0%	2,166	13.8%	163	1.0%	**15,725**
2018	2,467	14.6%	2,186	13.0%	825	4.9%	587	3.5%	2,526	15.0%	2,723	16.2%	1,070	6.3%	1,729	10.3%	2,742	16.3%	217	1.3%	**16,855**
2019	2,283	14.4%	2,357	14.8%	658	4.1%	337	2.1%	2,257	14.2%	2,651	16.7%	830	5.2%	1,610	10.1%	2,911	18.3%	196	1.2%	**15,894**
2020	2,735	16.6%	2,918	17.7%	542	3.3%	223	1.4%	1,167	7.1%	2,816	17.1%	823	5.0%	2,193	13.3%	3,046	18.5%	296	1.8%	**16,463**
2021	2,823	15.0%	3,028	16.1%	343	1.8%	268	1.4%	1,550	8.3%	3,722	19.8%	1,073	5.7%	2,149	11.4%	3,814	20.3%	413	2.2%	**18,770**
2022	2,046	13.9%	1,552	10.5%	648	4.4%	179	1.2%	1,323	9.0%	3,219	21.8%	1,074	7.3%	1,395	9.5%	3,319	22.5%	252	1.7%	**14,755**
2023 Estimate	1,863	14.4%	2,265	17.5%	800	6.2%	119	0.9%	1,174	9.1%	1,988	15.4%	980	7.6%	1,266	9.8%	2,493	19.3%	349	2.7%	**12,948**
2024 Estimate	1,956	15.2%	2,359	18.3%	439	3.4%	57	0.4%	872	6.8%	2,120	16.4%	931	7.2%	1,370	10.6%	2,805	21.7%	780	6.0%	**12,909**
*2024 Permits are through December																					
44-Year Average 1980-2024	2,007	13.5%	2,373	16.0%	1,214	8.2%	193	1.3%	1,289	8.7%	2,645	17.8%	1,666	11.2%	1,709	11.5%	1,767	11.9%	203	1.4%	**14,864**
10-Year Average 2014-2024	2,052	13.5%	2,165	14.2%	657	4.3%	349	2.3%	1,879	12.4%	2,593	17.0%	1,117	7.3%	1,751	11.5%	2,649	17.4%	227	1.5%	**15,210**
5-Year Average 2020-2024	2,350	14.9%	2,424	15.4%	598	3.8%	225	1.4%	1,494	9.5%	2,879	18.3%	956	6.1%	1,723	10.9%	3,117	19.8%	301	1.9%	**15,766**
3-Year Average 2022-2024	2,244	14.5%	2,282	14.7%	597	3.9%	189	1.2%	1,349	8.7%	2,976	19.2%	1,042	6.7%	1,603	10.4%	3,209	20.7%	338	2.2%	**15,491**

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Multi-Family

Year	Adams Permits	Adams Percent of Total	Arapahoe Permits	Arapahoe Percent of Total	Boulder Permits	Boulder Percent of Total	Broomfield Permits	Broomfield Percent of Total	Denver Permits	Denver Percent of Total	Douglas Permits	Douglas Percent of Total	Jefferson Permits	Jefferson Percent of Total	Larimer Permits	Larimer Percent of Total	Weld Permits	Weld Percent of Total	Elbert Permits	Elbert Percent of Total	Ten County Total Permits
1980	189	3.1%	2,443	39.5%	480	7.8%	0	0.0%	1,459	23.6%	33	0.5%	1,045	16.9%	434	7.0%	104	1.7%	0	0.0%	**6,187**
1981	264	4.8%	2,611	47.1%	416	7.5%	0	0.0%	1,008	18.2%	0	0.0%	910	16.4%	272	4.9%	58	1.0%	0	0.0%	**5,539**
1982	550	6.2%	3,083	34.9%	647	7.3%	0	0.0%	2,059	23.3%	82	0.9%	1,926	21.8%	297	3.4%	202	2.3%	4	0.0%	**8,846**
1983	1,577	11.6%	5,412	39.9%	1,905	14.0%	0	0.0%	1,856	13.7%	296	2.2%	1,884	13.9%	528	3.9%	116	0.9%	8	0.1%	**13,574**
1984	1,857	13.9%	4,768	35.7%	2,076	15.5%	0	0.0%	1,240	9.3%	243	1.8%	1,976	14.8%	1,091	8.2%	107	0.8%	4	0.0%	**13,358**
1985	1,328	14.6%	2,988	32.8%	699	7.7%	0	0.0%	882	9.7%	431	4.7%	1,345	14.7%	1,009	11.1%	441	4.8%	0	0.0%	**9,123**
1986	1,592	18.7%	2,468	29.0%	543	6.4%	0	0.0%	2,004	23.5%	189	2.2%	1,135	13.3%	240	2.8%	344	4.0%	0	0.0%	**8,515**
1987	268	6.7%	992	24.9%	493	12.4%	0	0.0%	922	23.2%	8	0.2%	808	20.3%	347	8.7%	144	3.6%	0	0.0%	**3,982**
1988	4	0.2%	1,293	55.3%	72	3.1%	0	0.0%	539	23.0%	0	0.0%	206	8.8%	199	8.5%	26	1.1%	0	0.0%	**2,339**
1989	96	7.1%	15	1.1%	254	18.8%	0	0.0%	477	35.4%	3	0.2%	458	34.0%	26	1.9%	20	1.5%	0	0.0%	**1,349**
1990	0	0.0%	0	0.0%	446	59.9%	0	0.0%	30	4.0%	0	0.0%	73	9.8%	183	24.6%	13	1.7%	0	0.0%	**745**
1991	46	9.1%	0	0.0%	19	3.8%	0	0.0%	137	27.2%	0	0.0%	25	5.0%	255	50.7%	21	4.2%	0	0.0%	**503**
1992	12	0.6%	476	23.0%	383	18.5%	0	0.0%	195	9.4%	360	17.4%	472	22.8%	156	7.6%	12	0.6%	0	0.0%	**2,066**
1993	542	20.4%	741	27.9%	203	7.7%	0	0.0%	623	23.5%	0	0.0%	145	5.5%	302	11.4%	97	3.7%	0	0.0%	**2,653**
1994	525	9.4%	2,032	36.4%	360	6.4%	0	0.0%	1,257	22.5%	0	0.0%	706	12.6%	638	11.4%	68	1.2%	0	0.0%	**5,586**
1995	944	14.0%	1,487	22.1%	940	14.0%	0	0.0%	285	4.2%	711	10.6%	1,675	24.9%	525	7.8%	160	2.4%	6	0.1%	**6,727**
1996	269	4.2%	1,221	19.1%	970	15.1%	0	0.0%	714	11.1%	918	14.3%	1,115	17.4%	1,033	16.1%	169	2.6%	2	0.0%	**6,409**
1997	1,414	19.2%	1,463	19.9%	858	11.7%	0	0.0%	1,233	16.7%	572	7.8%	1,068	14.5%	478	6.5%	278	3.8%	0	0.0%	**7,364**
1998	1,344	12.2%	1,428	13.0%	2,167	19.7%	0	0.0%	3,035	27.5%	1,156	10.5%	1,088	9.9%	563	5.1%	242	2.2%	16	0.1%	**11,023**
1999	450	6.1%	1,493	20.2%	609	8.2%	0	0.0%	1,413	19.1%	1,595	21.5%	747	10.1%	948	12.8%	154	2.1%	4	0.1%	**7,409**
2000	2,500	20.0%	3,894	31.1%	254	2.0%	0	0.0%	1,972	15.8%	1,635	13.1%	1,084	8.7%	776	6.2%	399	3.2%	0	0.0%	**12,514**
2001	1,684	11.4%	4,404	29.9%	1,361	9.2%	0	0.0%	3,187	21.6%	2,004	13.6%	785	5.3%	1,006	6.8%	319	2.2%	4	0.0%	**14,750**
2002	1,787	18.8%	1,511	15.9%	359	3.8%	368	3.9%	2,863	30.2%	987	10.4%	590	6.2%	450	4.7%	574	6.0%	12	0.1%	**9,489**
2003	597	14.1%	959	22.6%	263	6.2%	214	5.0%	914	21.5%	194	4.6%	189	4.5%	635	15.0%	281	6.6%	12	0.3%	**4,246**
2004	640	14.5%	777	17.7%	225	5.1%	119	2.7%	0	0.0%	870	19.8%	715	16.3%	494	11.2%	560	12.7%	0	0.0%	**4,400**
2005	375	9.4%	837	21.0%	317	7.9%	113	2.8%	1,083	27.1%	80	2.0%	453	11.4%	574	14.4%	159	4.0%	0	0.0%	**3,991**
2006	112	1.9%	787	13.1%	269	4.5%	164	2.7%	1,900	31.6%	690	11.5%	1,025	17.1%	744	12.4%	319	5.3%	0	0.0%	**6,010**
2007	356	5.2%	2,224	32.5%	228	3.3%	476	6.9%	2,275	33.2%	428	6.2%	360	5.3%	215	3.1%	291	4.2%	3	0.0%	**6,853**
2008	108	1.8%	1,009	16.6%	715	11.8%	637	10.5%	2,199	36.2%	467	7.7%	205	3.4%	608	10.0%	128	2.1%	0	0.0%	**6,076**
2009	6	0.4%	608	37.3%	203	12.4%	0	0.0%	329	20.2%	271	16.6%	83	5.1%	88	5.4%	43	2.6%	0	0.0%	**1,631**
2010	36	1.6%	477	20.9%	373	16.4%	0	0.0%	470	20.6%	93	4.1%	104	4.6%	654	28.7%	74	3.2%	0	0.0%	**2,281**
2011	12	0.4%	192	5.6%	114	3.4%	0	0.0%	1,698	50.0%	284	8.4%	524	15.4%	480	14.1%	95	2.8%	0	0.0%	**3,399**
2012	220	2.4%	754	8.2%	479	5.2%	1,848	20.1%	4,360	47.4%	590	6.4%	172	1.9%	711	7.7%	57	0.6%	0	0.0%	**9,191**
2013	4	0.0%	1,881	18.7%	861	8.5%	540	5.4%	4,346	43.1%	520	5.2%	736	7.3%	870	8.6%	315	3.1%	0	0.0%	**10,073**
2014	24	0.2%	637	6.6%	765	7.9%	381	3.9%	3,968	41.1%	1,006	10.4%	1,377	14.3%	793	8.2%	711	7.4%	0	0.0%	**9,662**
2015	123	1.2%	1,143	11.4%	425	4.2%	44	0.4%	5,959	59.2%	714	7.1%	420	4.2%	664	6.6%	576	5.7%	0	0.0%	**10,068**
2016	171	1.2%	2,636	18.4%	1,116	7.8%	13	0.1%	5,559	38.9%	1,318	9.2%	1,096	7.7%	1,874	13.1%	514	3.6%	0	0.0%	**14,297**
2017	522	3.7%	395	2.8%	844	6.1%	18	0.1%	7,965	57.1%	1,309	9.4%	1,147	8.2%	888	6.4%	853	6.1%	0	0.0%	**13,941**
2018	289	2.1%	1,375	9.9%	2,043	14.8%	198	1.4%	5,352	38.7%	1,342	9.7%	1,070	7.7%	1,211	8.8%	958	6.9%	0	0.0%	**13,838**
2019	381	3.5%	1,140	10.4%	906	8.3%	6	0.1%	5,073	46.5%	508	4.7%	986	9.0%	931	8.5%	986	9.0%	0	0.0%	**10,917**
2020	1,111	10.6%	1,188	11.3%	998	9.5%	204	1.9%	3,892	37.0%	573	5.5%	1,338	12.7%	400	3.8%	805	7.7%	0	0.0%	**10,509**
2021	1,864	9.2%	2,491	12.3%	894	4.4%	233	1.2%	8,450	41.8%	2,337	11.5%	1,442	7.1%	1,072	5.3%	1,454	7.2%	0	0.0%	**20,237**
2022	765	4.4%	1,774	10.1%	973	5.5%	359	2.0%	6,973	39.7%	1,548	8.8%	1,132	6.5%	1,202	6.9%	2,818	16.1%	32	0.2%	**17,544**
2023 Estimate	954	6.3%	3,199	21.1%	846	5.6%	1,158	7.7%	4,551	30.1%	1,580	10.4%	205	1.4%	1,415	9.3%	1,226	8.1%	0	0.0%	**15,134**
2024 Estimate	343	4.0%	1,568	18.1%	1,249	14.4%	348	4.0%	3,122	36.0%	1,011	11.7%	240	2.8%	416	4.8%	365	4.2%	0	0.0%	**8,662**
*2024 Permits are through December																					
44-Year Average 1980-2024	634	7.9%	1,652	20.5%	690	8.6%	161	2.0%	2,425	30.1%	635	7.9%	819	10.2%	643	8.0%	393	4.9%	2	0.0%	**8,053**
10-Year Average 2014-2024	620	4.6%	1,598	11.7%	981	7.2%	261	1.9%	5,774	42.4%	1,224	9.0%	1,021	7.5%	1,045	7.7%	1,090	8.0%	3	0.0%	**13,615**
5-Year Average 2020-2024	1,015	6.8%	1,958	13.2%	923	6.2%	392	2.6%	5,788	38.9%	1,309	8.8%	1,021	6.9%	1,004	6.8%	1,458	9.8%	6	0.0%	**14,868**
3-Year Average 2022-2024	1,194	6.8%	2,488	14.1%	904	5.1%	583	3.3%	6,658	37.7%	1,822	10.3%	926	5.3%	1,230	7.0%	1,833	10.4%	11	0.1%	**17,638**

Table III-5A: Residential Building Permits Issued by County in the Metro Ten County, 1980 - 2024

Total

Year	Adams Permits	Adams Percent of Total	Arapahoe Permits	Arapahoe Percent of Total	Boulder Permits	Boulder Percent of Total	Broomfield Permits	Broomfield Percent of Total	Denver Permits	Denver Percent of Total	Douglas Permits	Douglas Percent of Total	Jefferson Permits	Jefferson Percent of Total	Larimer Permits	Larimer Percent of Total	Weld Permits	Weld Percent of Total	Elbert Permits	Elbert Percent of Total	Ten County Total Permits
1980	1,847	10.0%	6,810	36.9%	1,573	8.5%	0	0.0%	2,482	13.4%	410	2.2%	3,042	16.5%	1,743	9.4%	573	3.1%	111	0.6%	**18,480**
1981	1,215	7.2%	7,259	42.9%	1,241	7.3%	0	0.0%	1,816	10.7%	989	5.8%	2,971	17.5%	1,172	6.9%	268	1.6%	86	0.5%	**16,931**
1982	1,675	7.9%	7,836	36.7%	2,111	9.9%	0	0.0%	3,010	14.1%	1,020	4.8%	4,099	19.2%	1,137	5.3%	445	2.1%	121	0.6%	**21,333**
1983	3,716	10.5%	12,055	34.1%	4,356	12.3%	0	0.0%	3,799	10.7%	1,890	5.3%	6,516	18.4%	2,423	6.8%	623	1.8%	161	0.5%	**35,378**
1984	4,471	14.7%	8,314	27.4%	3,924	12.9%	0	0.0%	2,425	8.0%	2,153	7.1%	5,614	18.5%	2,885	9.5%	568	1.9%	162	0.5%	**30,354**
1985	3,480	15.1%	6,007	26.1%	2,058	8.9%	0	0.0%	1,639	7.1%	2,162	9.4%	4,122	17.9%	2,642	11.5%	927	4.0%	184	0.8%	**23,037**
1986	3,523	16.3%	4,246	19.7%	2,101	9.7%	0	0.0%	2,740	12.7%	2,360	10.9%	3,941	18.3%	1,951	9.0%	700	3.2%	225	1.0%	**21,562**
1987	1,094	8.6%	2,125	16.7%	1,752	13.8%	0	0.0%	1,326	10.4%	1,825	14.4%	2,556	20.1%	1,551	12.2%	461	3.6%	161	1.3%	**12,690**
1988	508	5.9%	1,858	21.5%	987	11.4%	0	0.0%	672	7.8%	1,626	18.8%	1,414	16.3%	1,284	14.8%	301	3.5%	137	1.6%	**8,650**
1989	509	7.0%	576	7.9%	1,143	15.6%	0	0.0%	626	8.6%	1,474	20.2%	1,629	22.3%	1,073	14.7%	274	3.8%	100	1.4%	**7,304**
1990	433	5.8%	656	8.8%	1,460	19.6%	0	0.0%	198	2.7%	1,587	21.3%	1,622	21.7%	1,236	16.6%	271	3.6%	97	1.3%	**7,463**
1991	737	7.6%	1,099	11.4%	1,550	16.0%	0	0.0%	415	4.3%	1,916	19.8%	2,051	21.2%	1,543	16.0%	357	3.7%	102	1.1%	**9,668**
1992	1,391	8.8%	2,290	14.5%	2,799	17.7%	0	0.0%	506	3.2%	2,946	18.7%	3,402	21.6%	1,928	12.2%	521	3.3%	194	1.2%	**15,783**
1993	2,489	12.7%	2,987	15.2%	3,067	15.6%	0	0.0%	998	5.1%	3,295	16.8%	3,205	16.3%	2,618	13.3%	965	4.9%	368	1.9%	**19,624**
1994	3,062	12.9%	4,380	18.4%	2,623	11.0%	0	0.0%	1,841	7.7%	4,042	17.0%	3,473	14.6%	3,202	13.5%	1,164	4.9%	558	2.3%	**23,787**
1995	3,360	13.9%	3,556	14.7%	3,094	12.8%	0	0.0%	786	3.2%	4,784	19.7%	4,382	18.1%	2,797	11.5%	1,470	6.1%	494	2.0%	**24,229**
1996	2,894	11.6%	3,721	14.9%	2,744	11.0%	0	0.0%	1,432	5.7%	5,730	22.9%	3,154	12.6%	3,491	14.0%	1,856	7.4%	418	1.7%	**25,022**
1997	4,081	14.8%	4,131	15.0%	3,259	11.8%	0	0.0%	2,261	8.2%	5,563	20.2%	3,362	12.2%	2,777	10.1%	2,117	7.7%	316	1.1%	**27,551**
1998	4,283	12.4%	4,457	12.9%	5,136	14.9%	0	0.0%	4,689	13.6%	6,442	18.7%	3,193	9.3%	3,222	9.3%	3,069	8.9%	311	0.9%	**34,491**
1999	3,730	11.3%	5,799	17.6%	2,992	9.1%	0	0.0%	3,379	10.2%	7,164	21.7%	2,763	8.4%	3,591	10.9%	3,557	10.8%	291	0.9%	**32,975**
2000	5,479	14.7%	8,140	21.8%	2,780	7.4%	0	0.0%	3,649	9.8%	6,395	17.1%	3,016	8.1%	3,524	9.4%	4,369	11.7%	317	0.8%	**37,352**
2001	6,130	16.1%	7,935	20.8%	3,321	8.7%	0	0.0%	4,458	11.7%	6,052	15.9%	2,309	6.0%	3,664	9.6%	4,301	11.3%	305	0.8%	**38,170**
2002	5,831	18.4%	4,805	15.1%	1,717	5.4%	882	2.8%	4,626	14.6%	4,503	14.2%	1,924	6.1%	3,036	9.6%	4,411	13.9%	197	0.6%	**31,735**
2003	4,678	18.5%	3,356	13.3%	1,428	5.7%	637	2.5%	3,036	12.0%	3,693	14.6%	1,426	5.7%	3,003	11.9%	3,963	15.7%	166	0.7%	**25,220**
2004	5,058	16.7%	3,848	12.7%	1,372	4.5%	734	2.4%	4,098	13.6%	5,097	16.9%	2,344	7.8%	3,252	10.8%	4,414	14.6%	219	0.7%	**30,217**
2005	4,572	16.0%	4,022	14.1%	1,141	4.0%	771	2.7%	3,164	11.1%	5,563	19.5%	2,094	7.3%	2,887	10.1%	4,279	15.0%	258	0.9%	**28,493**
2006	2,908	12.5%	3,534	15.2%	746	3.2%	1,082	4.6%	3,852	16.5%	3,969	17.0%	2,044	8.8%	2,240	9.6%	2,922	12.5%	244	1.0%	**23,297**
2007	1,809	10.3%	3,881	22.1%	635	3.6%	1,060	6.0%	3,682	20.9%	2,263	12.9%	1,062	6.0%	1,341	7.6%	1,847	10.5%	153	0.9%	**17,580**
2008	782	6.6%	1,764	14.9%	1,022	8.7%	827	7.0%	3,180	26.9%	1,393	11.8%	589	5.0%	1,265	10.7%	980	8.3%	57	0.5%	**11,802**
2009	493	9.0%	1,172	21.3%	345	6.3%	160	2.9%	888	16.1%	851	15.5%	379	6.9%	451	8.2%	761	13.8%	39	0.7%	**5,500**
2010	662	8.7%	1,279	16.9%	657	8.7%	232	3.1%	1,232	16.3%	915	12.1%	577	7.6%	1,153	15.2%	863	11.4%	33	0.4%	**7,570**
2011	549	6.3%	806	9.2%	309	3.5%	199	2.3%	2,550	29.1%	1,295	14.8%	964	11.0%	1,190	13.6%	889	10.2%	30	0.3%	**8,751**
2012	1,017	5.8%	1,715	9.8%	749	4.3%	2,010	11.5%	5,578	31.9%	2,288	13.1%	1,030	5.9%	1,864	10.7%	1,239	7.1%	45	0.3%	**17,490**
2013	1,029	5.0%	3,079	14.9%	1,211	5.9%	896	4.3%	5,872	28.5%	2,513	12.2%	1,713	8.3%	2,377	11.5%	1,926	9.3%	79	0.4%	**20,616**
2014	1,115	5.0%	1,897	8.6%	1,371	6.2%	820	3.7%	5,958	26.9%	3,230	14.6%	2,519	11.4%	2,498	11.3%	2,708	12.2%	116	0.5%	**22,116**
2015	1,586	6.6%	2,830	11.8%	1,164	4.9%	447	1.9%	7,940	33.2%	2,897	12.1%	1,851	7.7%	2,434	10.2%	2,757	11.5%	149	0.6%	**23,906**
2016	2,046	7.1%	4,667	16.3%	1,813	6.3%	546	1.9%	7,818	27.2%	3,332	11.6%	2,612	9.1%	3,524	12.3%	2,334	8.1%	120	0.4%	**28,692**
2017	2,396	8.1%	2,757	9.3%	1,554	5.2%	416	1.4%	10,525	35.5%	3,695	12.5%	2,376	8.0%	2,928	9.9%	3,019	10.2%	163	0.5%	**29,666**
2018	2,756	9.0%	3,561	11.6%	2,868	9.3%	785	2.6%	7,878	25.7%	4,065	13.2%	2,140	7.0%	2,940	9.6%	3,700	12.1%	217	0.7%	**30,693**
2019	2,664	9.9%	3,497	13.0%	1,564	5.8%	343	1.3%	7,330	27.3%	3,159	11.8%	1,816	6.8%	2,541	9.5%	3,897	14.5%	196	0.7%	**26,811**
2020	3,846	14.3%	4,106	15.2%	1,540	5.7%	427	1.6%	5,059	18.8%	3,389	12.6%	2,161	8.0%	2,593	9.6%	3,851	14.3%	296	1.1%	**26,972**
2021	4,687	12.0%	5,519	14.1%	1,237	3.2%	501	1.3%	10,000	25.6%	6,059	15.5%	2,515	6.4%	3,221	8.3%	5,268	13.5%	413	1.1%	**39,007**
2022	2,811	8.9%	2,555	8.1%	1,621	5.1%	538	1.7%	8,296	26.3%	4,767	15.1%	2,206	7.0%	2,597	8.2%	6,137	19.5%	284	0.9%	**31,528**
2023 Estimate	2,817	11.2%	2,555	10.1%	1,646	6.5%	1,277	5.1%	5,725	22.7%	3,568	14.2%	1,185	4.7%	2,681	10.7%	3,719	14.8%	349	1.4%	**25,173**
2024 Estimate	2,299	11.4%	2,556	12.7%	1,688	8.4%	405	2.0%	3,994	19.8%	3,131	15.5%	1,171	5.8%	1,786	8.8%	3,170	15.7%	780	3.9%	**20,200**
*2024 Permits are through December																					
44-Year Average 1980-2024	2,641	11.6%	3,942	17.3%	1,904	8.3%	354	1.6%	3,714	16.3%	3,280	14.4%	2,486	10.9%	2,352	10.3%	2,160	9.5%	206	0.9%	**22,833**
10-Year Average 2014-2024	2,672	9.4%	3,394	11.9%	1,638	5.8%	610	2.1%	7,653	26.9%	3,816	13.4%	2,138	7.5%	2,796	9.8%	3,739	13.1%	230	0.8%	**28,456**
5-Year Average 2020-2024	3,365	11.3%	3,646	12.2%	1,522	5.1%	617	2.1%	7,282	24.4%	4,188	14.0%	1,977	6.6%	2,727	9.1%	4,574	15.3%	308	1.0%	**29,898**
3-Year Average 2022-2024	3,438	10.8%	3,543	11.1%	1,501	4.7%	772	2.4%	8,007	25.1%	4,798	15.0%	1,969	6.2%	2,833	8.9%	5,041	15.8%	349	1.1%	**31,903**

Source: U.S. Department of Commerce, HUD, C-40 Reports and THK Associates, Inc.

F. HISTORICAL POPULATION AND HOUSEHOLD GROWTH TRENDS

The following Table III-6 is the projected growth in employment, population and households in the Ten County market area. By way of comparison, the Ten County area currently has an employment participation rate of 67.7%. Proportionally, average annual employment growth from 2000 to 2010 was less than population growth, effectively causing the employment participation ratio to decrease over the 2000 to 2010 time period. The drop may be attributed in large part to the Great Recession which occurred over the late to middle part of the 2000 to 2010 decade. Even though employment participation dropped from 2000 to 2020, household and population growth still remained strong. Employment, population and households in the Ten County area are projected to grow by 69,582 jobs, 78,483 people and 29,858 households, respectively, on average annually from 2025 to 2035.

Table III-6: Projected Permanent Population and Households in Ten County Market Area, 2025-2035

Year	Total Employment	Employment Participation Ratio	Permanent January 1, Population	Annual Population Change	Population in Group Quarters	Permanent Population In Households	Permanent Population Per Household	Households	Annual Household Change
1980	1,154,201	0.608	1,897,935	---	35,112	1,862,823	2.6325	707,618	--
1990	1,427,162	0.656	2,175,922	27,800	39,167	2,136,755	2.4832	860,491	15,290
2000	2,017,042	0.707	2,852,873	67,700	49,901	2,802,972	2.5319	1,107,046	24,660
2010	2,171,930	0.646	3,359,751	50,690	56,735	3,303,016	2.5027	1,319,798	21,280
2020	2,676,036	0.648	4,131,170	77,140	56,155	4,075,015	2.5317	1,609,579	28,980
2025	3,122,322	0.677	4,612,340	102,463	56,124	4,556,216	2.5945	1,756,077	36,625
2026	3,184,259	0.680	4,683,160	70,821	56,138	4,627,022	2.5950	1,783,033	26,956
2027	3,247,749	0.683	4,755,543	72,383	56,152	4,699,391	2.5955	1,810,581	27,548
2028	3,312,843	0.686	4,829,537	73,994	56,166	4,773,371	2.5960	1,838,739	28,158
2029	3,379,593	0.689	4,905,194	75,657	56,180	4,849,014	2.5965	1,867,527	28,788
2030	3,448,056	0.692	4,982,566	77,372	56,194	4,926,372	2.5970	1,896,964	29,437
2031	3,518,288	0.695	5,061,709	79,143	56,208	5,005,500	2.5975	1,927,072	30,108
2032	3,590,348	0.698	5,142,680	80,971	56,222	5,086,457	2.5980	1,957,872	30,800
2033	3,664,301	0.701	5,225,538	82,859	56,236	5,169,302	2.5984	1,989,387	31,515
2034	3,740,210	0.704	5,310,347	84,809	56,250	5,254,096	2.5989	2,021,641	32,254
2035	3,818,142	0.707	5,397,170	86,823	56,265	5,340,905	2.5994	2,054,657	33,016
Average Annual Change (2025-2035)									
Numerical:	**69,582**		**78,483**		**14**	**78,469**		**29,858**	
Percent:	**2.0%**		**1.6%**		**0.0%**	**1.6%**		**1.6%**	

Source: Dept of Commerce, Bureau of the Census and THK Associates, Inc.

G. TEN-COUNTY HOUSING TRENDS

Table III-7 on the following page compares data among the 2000, 2010, and 2020 U.S. Census regarding total housing units in the Ten-County market area. The table also includes an estimate for the housing stock in 2025. The total housing units are separated into total occupied housing units and of those housing units which are occupied by renters. There is also a breakdown based on unit type.

Total housing units in the Ten-County market increased from 1,145,879 to 1,826,777 during the 2000-to-2025-time frame, while simultaneously owner-occupied units went from 67% to 65% over that same period. About 69% of the housing market in the Ten-Market area was made up of single-family residents in 2000, 28% of housing was multifamily and 3% was miscellaneous. In 2025, it is estimated that 69% of the housing stock is single family, 29% is multifamily and 2% is miscellaneous.

Table III-7: Total Housing Units and Type, 2000, 2010 US Census & 2020 US Census, 2025 Estimate, in the Denver Ten County Market Area

	2000 US Census			2010 US Census			2020 US Census			2025 Estimate			
	Ten County Total	% of Total		Ten County Total	% of Total		Ten County Total	% of Total		Douglas County	% of Total	Ten County Total	% of Total
Total # of Housing Units	1,145,879	100%	**Total # of Housing Units**	1,409,063	100%	**Total # of Housing Units**	1,675,041	100%	**Total # of Housing Units**	157,041	9%	1,826,777	100%
Occupied Units	1,100,376	96%	**Occupied Units**	1,311,418	93%	**Occupied Units**	1,600,726	96%	**Occupied Units**	151,573	97%	1,745,732	96%
Owner Occupied	733,342	67%	**Owner Occupied**	869,596	66%	**Owner Occupied**	1,139,275	71%	**Owner Occupied**	119,841	79%	1,139,275	65%
Renter Occupied	367,034	33%	**Renter Occupied**	441,822	34%	**Renter Occupied**	606,458	38%	**Renter Occupied**	31,733	21%	606,458	35%
Unit Type Breakdown			**Unit Type Breakdown**			**Unit Type Breakdown**			**Unit Type Breakdown**				
Single-Family	756,403	69%	**Single-Family**	916,019	70%	**Single-Family**	1,200,684	75%	**Single-Family**	124,003	82%	1,200,684	69%
Multi-Family	308,576	28%	**Multi-Family**	361,161	28%	**Multi-Family**	506,758	32%	**Multi-Family**	26,680	18%	506,758	29%
Miscellaneous*	35,397	3%	**Miscellaneous***	34,239	3%	**Miscellaneous***	38,242	2%	**Miscellaneous***	890	1%	38,242	2%
1 Unit - Detached	675,915	61%	**1 Unit - Detached**	815,638	62%	**1 Unit - Detached**	1,058,592	66%	**1 Unit - Detached**	116,422	77%	1,058,592	61%
1 Unit - Attached	80,488	7%	**1 Unit - Attached**	100,380	8%	**1 Unit - Attached**	142,092	9%	**1 Unit - Attached**	7,581	5%	142,092	8%
2 Units	20,385	2%	**2 Units**	19,271	1%	**2 Units**	19,119	1%	**2 Units**	217	0%	19,119	1%
3-4 Units	37,924	3%	**3-4 Units**	40,521	3%	**3-4 Units**	51,719	3%	**3-4 Units**	2,070	1%	51,719	3%
5-9 Units	53,912	5%	**5-9 Units**	67,454	5%	**5-9 Units**	82,562	5%	**5-9 Units**	5,755	4%	82,562	5%
10-19 Units	71,009	6%	**10-19 Units**	90,994	7%	**10-19 Units**	110,479	7%	**10-19 Units**	6,326	4%	110,479	6%
20+ Units	125,346	11%	**20+ Units**	142,920	11%	**20+ Units**	95,631	6%	**20+ Units**	12,312	8%	95,631	5%
Mobile Homes	34,862	3%	**Mobile Homes**	33,737	3%	**Mobile Homes**	147,248	9%	**Mobile Homes**	747	0%	147,248	8%
Boat, RV, Van, etc.	535	0%	**Boat, RV, Van, etc.**	502	0%	**Boat, RV, Van, etc.**	36,258	2%	**Boat, RV, Van, etc.**	144	0%	36,258	2%

*Miscellaneous housing includes mobile homes, RV's, vans, boats, etc.

Source: US Census Bureau and THK Associates, Inc.

IV. RESIDENTIAL MARKET ANALYSIS

IV. Residential Market Analysis

A. Projected Residential Demand by Unit Type

The potentials for new residential development are subject to a variety of pressures including interest rates, inflation, and social, political, and other economic influences. These influences coupled with overall growth in population and household formations create the aggregate demand for new housing. Historical trends and housing permits for new housing construction were also examined to show how past construction levels and trends have coincided with population, demographic changes, and economic conditions.

Figure 4 on the following page depicts the Sundown Oaks Primary Trade Area (PTA), which consists of an approximate 15- to 20-minute drive time from the subject site. The Sundown Oaks PTA is the geographic area where a majority of potential residential buyers at the subject site would also be expected to search.

Tables IV-1 and IV-2 highlight the historical and projected population and household growth trends in the Two County market area and the Sundown Oaks PTA. From 1990 to 2025, the population within the Two County market area rose from 60,406 to 374,074, while households climbed from 20,786 to 133,090. Since 1990, population within the Two County area averaged 5.3% annual growth, while households averaged 5.4% annual growth. During the same period, the population within the Sundown Oaks PTA grew from 10,426 to 43,863, or 4.2% annually, while households rose from 3,353 to 15,193, or 4.4% per year.

From 2025 through 2035, THK forecasts population and households within the Two County area to grow to 481,846 and 173,217, respectively, or by 2.6% and 2.7% per year, respectively. During the same timeframe, the Sundown Oaks PTA is projected to increase to 55,387 people and 19,259 households, for an average growth rate of 2.4% and 2.4% respectively, per year.

Table IV-3 summarizes the projected demand for specific residential housing types for the Two County Market Area based on annual household growth from 2025 to 2035. During this period, THK projects demand for residential housing to grow 4,116 dwellings annually, including 2,881 ownership housing units and 1,235 rental housing dwellings.

Table IV-4 summarizes the projected demand for specific residential housing types for the Sundown Oaks PTA based on annual household growth from 2025 to 2035. During this period, THK projects demand for residential housing to grow by 419 dwellings annually, including by 335 ownership housing units and 84 rental housing dwellings. Based off market trends in the PTA and historical building permit activity, THK projects that 50% of new ownership demand will be for single-family detached units and 30% is projected for attached (townhome and condominium) dwellings, for an average of 210 and 125 units per year, respectively.

Figure 4- Sundown Oaks Primary Trade Area (PTA)

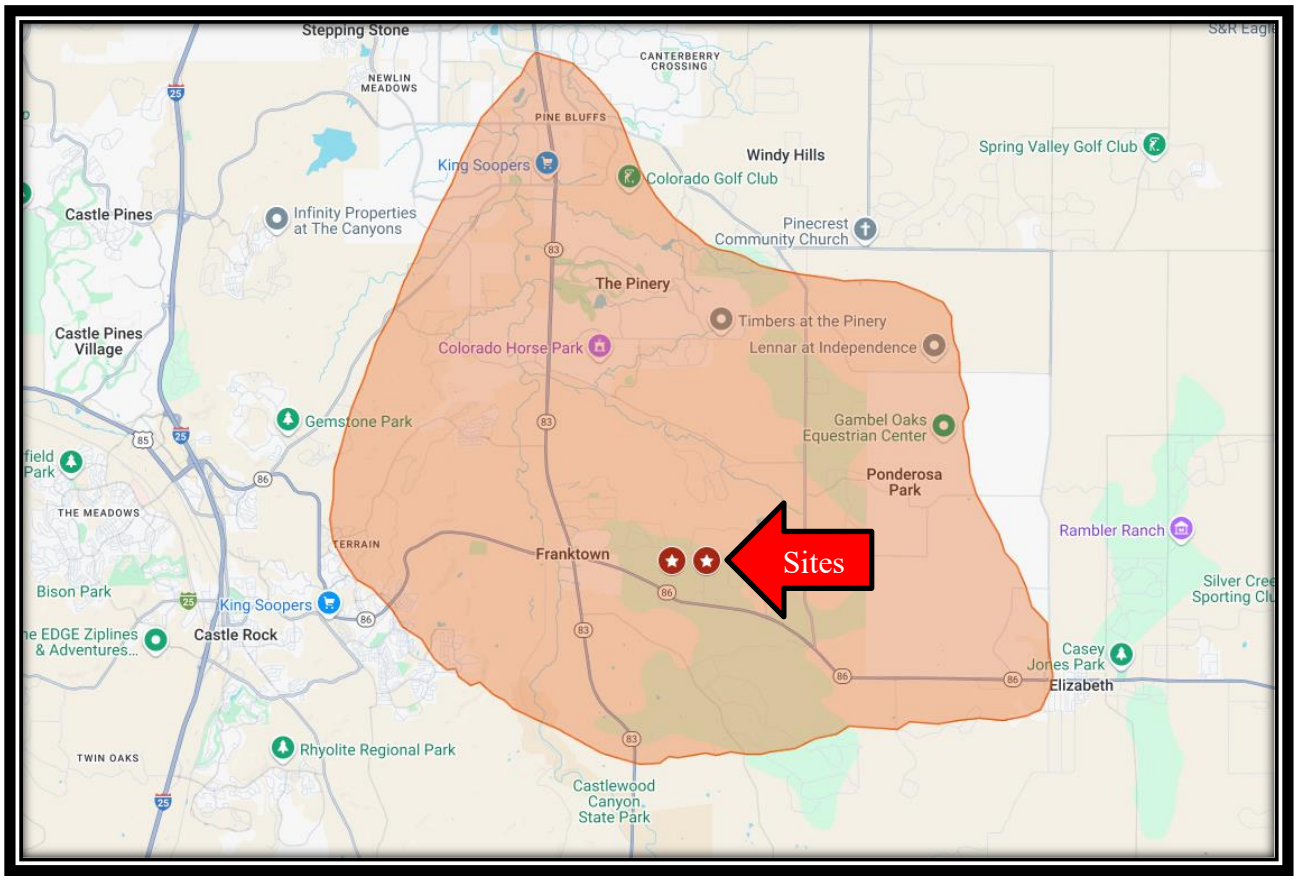


Table IV-1: Population and Household Trends in the Two County Market Area and Sundown Oaks PTA, 1990-2025

						Annual Average 1990-2025		Annual Average 2000-2025		Annual Average 2010-2025	
Two County Market Area	1990	2000	2010	2020	2025						
Population	60,406	175,792	285,465	366,888	374,074	8,962	5.3%	7,931	3.1%	5,907	1.8%
Households	20,786	60,938	102,018	130,534	133,090	3,209	5.4%	2,886	3.2%	2,071	1.8%
Sundown Oaks PTA											
Population	10,426	19,182	29,290	38,339	43,863	955	4.2%	987	3.4%	972	2.7%
Households	3,353	6,442	10,169	13,290	15,193	338	4.4%	350	3.5%	335	2.7%
Sundown Oaks PTA as a percent of Two County Market Area											
Population	17.3%	10.9%	10.3%	10.4%	11.7%	10.7%		12.4%		16.4%	
Households	16.1%	10.6%	10.0%	10.2%	11.4%	10.5%		12.1%		16.2%	

Source: U.S. Bureau of the Census and THK Associates, Inc.

Table IV-2: Population and Household Trends in the Two County Market Area and the Sundown Oaks, 2025-2035

				Annual Average 2025-2030		Annual Average 2025-2035	
Two County Market Area	2025	2030	2035	Numerical	Percent	Numerical	Percent
Population	374,074	423,536	481,846	9,892	2.5%	10,777	2.6%
Households	133,090	151,505	173,217	3,683	2.6%	4,013	2.7%
Sundown Oaks PTA							
Population	43,863	49,289	55,387	1,085	2.4%	1,152	2.4%
Households	15,193	17,106	19,259	383	2.4%	407	2.4%
Sundown Oaks PTA as a percent of Two County Market Area							
Population	11.7%	11.6%	11.5%	11.0%		10.7%	
Households	11.4%	11.3%	11.1%	10.4%		10.1%	

Source: U.S. Bureau of the Census, Pcensus & THK Associates, Inc.

Table IV-3: Two County Market Area Market Projected Residential Demand, 2025-2035

Year	Households	Annual Household Growth	Total Housing Unit Demand*	Ownership Units			Rental Housing
				Total Ownership Units	Detached Single Family	Attached Single Family	
2025	133,090	3,335	3,474	2,432	1,581	851	1,042
2026	136,538	3,448	3,591	2,514	1,634	880	1,077
2027	140,099	3,561	3,709	2,596	1,687	909	1,113
2028	143,778	3,678	3,832	2,682	1,743	939	1,150
2029	147,578	3,800	3,959	2,771	1,801	970	1,188
2030	151,505	3,927	4,091	2,864	1,862	1,002	1,227
2031	155,564	4,059	4,228	2,960	1,924	1,036	1,268
2032	159,759	4,195	4,370	3,059	1,988	1,071	1,311
2033	164,096	4,337	4,518	3,163	2,056	1,107	1,355
2034	168,580	4,484	4,671	3,270	2,126	1,144	1,401
2035	173,217	4,637	4,830	3,381	2,198	1,183	1,449
Average Annual Demand 2025-2035	**152,164**		**4,116**	**2,881**	**1,873**	**1,008**	**1,235**
		% of Total	**100.0%**	**70.0%**	**45.5%**	**24.5%**	**30.0%**
Total Demand 2025-2035			**45,273**	**31,692**	**20,600**	**11,092**	**13,581**

* Assumes 96% Occupancy in 2025 Remains Constant

Source: THK Associates, Inc.

Table IV-4: Sundown Oaks PTA Market Projected Residential Demand, 2025-2035

Year	Households	Annual Household Growth	Total Housing Unit Demand*	Ownership Units			Rental Housing
				Total Ownership Units	Detached Single Family	Attached Single Family	
2025	15,193	357	372	298	187	111	74
2026	15,558	365	380	304	191	113	76
2027	15,931	373	389	311	195	116	78
2028	16,313	382	398	318	199	119	80
2029	16,705	392	408	326	204	122	82
2030	17,106	401	418	334	209	125	84
2031	17,517	411	428	342	214	128	86
2032	17,937	420	438	350	220	130	88
2033	18,367	430	448	358	225	133	90
2034	18,808	441	459	367	230	137	92
2035	19,259	451	470	376	236	140	94
Average Annual Demand 2025-2035	**17,154**		**419**	**335**	**210**	**125**	**84**
		% of Total	**100%**	**80%**	**50%**	**30%**	**20%**
Total Demand 2025-2035			**4,608**	**3,684**	**2,310**	**1,374**	**924**

* Assumes 96% Occupancy in 2025 Remains Constant

Source: THK Associates, Inc.

B. Residential Purchasing Capacity, Rental Capacity and Demand by Price Range

To better quantify the demand for new residential units in the PTA, THK breaks down the existing households by income range and then converts those income ranges into monthly purchasing and rental capacity. In determining housing affordability, THK estimates that households that purchase a home will spend approximately 30% of their gross income on housing on average, and renter households will spend approximately 30% of their gross income on housing. According to SiteWise, the median household income within the Sundown Oaks PTA is $151,529. Based on this median household income, residents in the Sundown Oaks PTA could afford a $700,920 home, or monthly rental payments of $3,790. Roughly 55% of households can afford a home priced above $700,920. This is shown in Table IV-5 below.

Table IV-5: Residential Purchasing and Rental Capacity in the Sundown Oaks PTA

Income Range	Percent of Households	Number of Households	Home Purchasing Capacity	Estimated Monthly Payment (P&I)*	Monthly Rental Capacity**
Under $24,999	3%	413	Under $120,400	$620	Under $625
$25,000 - $39,999	4%	604	$120,500 - $192,700	$1,000	$625 - $999
$40,000 - $49,999	2%	301	$192,700 - $240,900	$1,250	$1,000 - $1,249
$50,000 - $59,999	3%	462	$240,900 - $289,100	$1,500	$1,250 - $1,499
$60,000 - $74,999	5%	776	$289,100 - $361,400	$1,880	$1,500 - $1,874
$75,000 - $99,999	11%	1,645	$361,400 - $481,800	$2,500	$1,875 - $2,499
$100,000 - $124,999	11%	1,708	$481,800 - $602,300	$3,130	$2,500 - $3,124
$125,000 - $149,999	10%	1,577	$602,300 $722,700	$3,750	$3,125 $3,749
$150,000 - $174,999	12%	1,813	$722,700 $843,200	$4,380	$3,750 $4,374
$175,000 - $199,999	11%	1,599	$843,200 $963,600	$5,000	$4,375 $4,999
$200,000 & Above	28%	4,295	$963,600 & Above	$6,250	$5,000 & Above
Median Income* $151,529	**100%**	**15,193**	**$700,920**		**$3,790**

* Assumes 30% of income used for housing (before taxes and insurance), 20% down payment, 30 yr term, 6.75% interest rate

** Assumes 30% of income used for rental payment

Source: Sitewise and THK Associates, Inc.

C. Home Sales in the Sundown Oaks PTA

THK inventoried lot sales and detached single family home sales, per REColorado, in the Sundown Oaks PTA from January 1, 2021, through June 11, 2025. The sales showed a total of 30 and 262 sales respectively.

Table IV-6A discusses lot sales by price in the Sundown Oaks PTA between the years of 2021-2025. Approximately 16.7% of lot sales during the period were for units priced below $299,999, with the $300,000 to $399,999 price range comprising a further 13.3% of sales. Lots sold in the $400,000 to $499,999 price range comprised 56.7% of total sales, lots sold in the $500,000 to $599,999 price range comprised 10% of total sales. Finally, lots sold in the price range of $600,000 and above comprised 3.3% of total sales.

Table IV-6A: Lot Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Lot Sales - Sundown Oaks PTA

Year	Under $299,999	Percent of Total	$300,000 $399,999	Percent of Total	$400,000 $499,999	Percent of Total	$500,000 $599,999	Percent of Total	$600,000 Above	Percent of Total	Total Sales
2021	1	8.3%	3	25.0%	8	66.7%	0	0.0%	0	0.0%	12
2022	0	0.0%	0	0.0%	2	66.7%	1	33.3%	0	0.0%	3
2023	1	50.0%	0	0.0%	0	0.0%	0	0.0%	1	50.0%	2
2024	1	11.1%	1	11.1%	6	66.7%	1	11.1%	0	0.0%	9
2025 YTD *	2	50.0%	0	0.0%	1	25.0%	1	25.0%	0	0.0%	4
TOTAL	5	16.7%	4	13.3%	17	56.7%	3	10.0%	1	3.3%	30

* 2025 YTD, 6/11/2025
**2-5 acre lot sales

Source: REColorado and THK Associates, Inc.

Table IV-6B discusses detached single family home sales in the Sundown Oaks PTA between the years of 2021-2025. Approximately 14.9% of homes sales during the period were for units priced below $749,999, with the $750,000 to $999,999 price range comprising a further 17.9% of sales. Homes sold in the $1,000,000 to $1,749,999 price range comprised 50.4% of total sales, whereas homes sold in the $1,750,000 to $2,499,999 price range comprised 9.5% of total sales. Finally, homes sold in the price range of $2,500,000 and above comprised 7.3% of total sales.

Table IV-6B: Detached Single Family Home Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Detached Single Family - Sundown Oaks PTA

Year	Under $749,999	Percent of Total	$750,000 $999,999	Percent of Total	$1,000,000 $1,749,999	Percent of Total	$1,750,000 $2,499,999	Percent of Total	$2,500,000 Above	Percent of Total	Total Sales
2021	17	23%	15	20%	32	20%	7	9%	4	5%	75
2022	8	14%	13	22%	33	56%	1	2%	4	7%	59
2023	6	13%	7	15%	29	60%	3	6%	3	6%	48
2024	7	13%	6	11%	28	51%	9	16%	5	9%	55
2025 YTD	1	4%	6	24%	10	40%	5	20%	3	12%	25
TOTAL	39	14.9%	47	17.9%	132	50.4%	25	9.5%	19	7.3%	262

* 2025 YTD, 6/11/2025
**2-5 acre home sales

Source: REColorado and THK Associates, Inc.

It should be noted that REColorado does not report all home sales, only sales that are in the REColorado system. Most home builders have an on-site sales office and while they generally cooperate with Realtors and Brokers, their sales are not included in the REColorado database. For example, from January of 2021 to July of 2025, REColorado reports 4,570 sales of new homes. Based on the building permit data shown earlier in this report (see page 20), in Douglas County 11,099 single family building permits were issued. As of July 2025, 11,819 permits have been issued. The REColorado data only includes approximately 38% of actual homes constructed.

Furthermore, in larger lor luxury communities it is typical for a home buyer to purchase a lot and then have a custom home built. This also is not reflected in REColorado records. This is reflected in the Tallman Gulch community, which has experienced 10.8 home sales per year (see page 37).

D. Representative Comparable Communities in the Sundown Oaks PTA

THK looked at representative comparable communities in the Sundown Oaks PTA. THK found three similar communities, Arrowpoint Estates, Colorado Golf Club, and Tallman Gulch.

Arrowpoint Estates
Arrowpoint Estates is a luxury large-lot residential community located in Franktown, located near the intersection of highways 83 and 86. They offer both individual lots and detached single-family homes. Each lot comprises approximately two acres and includes well and septic systems. There are 19 total lots.

Between January 1, 2021, and June 11, 2025, all 19 lots have been sold which is an annual absorption of 6.3 lots per year, with prices ranging from $400,000 to over $600,000. Of these, nine lots sold within the $400,000 to $499,000 range. The remaining thirteen sales were evenly divided, with seven lots selling between $500,000 and $599,999, and six exceeding $600,000.

Colorado Golf Club

The Colorado Golf Club is a luxury large-lot residential community located in Parker, near the intersection of Parker Road and Stroh Road. The community offers both individual lots and detached single-family homes. There are 169 total lots.

Between January 1, 2021, and June 11, 2025, a total of thirteen lots were sold within the community, with prices ranging from $300,000 to over $600,000. Of these, one lot sold in the $300,000 to $399,999 range, while ten lots sold between $400,000 and $499,999. The remaining two sales were divided between the $500,000 to $599,999 range and above $600,000, with one sale in each category.

During the same five-year period, thirteen homes were sold in the Colorado Golf Club community. All homes sold for prices exceeding $2,500,000.

Tallman Gulch

Tallman Gulch is a luxury lot community located in Parker, near the intersection of Mainstreet and Hilltop Road. Residential home sales in the community began in 2017. As of January 2025, a total of 82 homes had been completed, with an additional 14 lots sold and currently under construction.

Cardel Homes has acquired the remaining lots and is constructing high-end, custom residences. The community consists of 121 total lots, with full lot sales anticipated by the end of 2026. In 2024, the average home sales price was just under $1,850,000. At the beginning of 2025, 72 homes have been constructed with an additional 14 homes sold and under construction, with an average sales price of approximately $2.05 million. Since the beginning of development at Tallman Gulch the annual sales pace has been 10.8 homes per year.

E. Projected Detached Single Family Home Demand by Price Range

The projected demand for detached single family homes, broken down by price range, is illustrated in Table IV-7 below. Based on market trends, historic building permit activity, and analyses of REColorado detached home sale data in the Sundown Oaks PTA. THK projects the following for attached homes. 7.5% of the total demand for new homes will be under $749,999, 7.5% of the total demand for new homes will be between $750,000 and $999,999, 45% for homes between $1,000,000 and $1,749,000, 30% for homes between $1,750,000 and $2,499,999 and the remaining 10% of the total demand will be for homes above $2,500,000. Based off annual average demand for detached single family homes of 210 units, as previously determined in Table IV-4, the aforementioned price ranges should have average annual demands of 16, 16, 95, 63, and 21 units per year, respectively.

Table IV-7: Average Annual Demand by Price Range Based On Income in the Sundown Oaks PTA

Price Range	Number of Units	Percentage
Detached Single Family		
Under - $749,999	16	7.5%
$750,000 $999,999	16	7.5%
$1,000,000 $1,749,999	95	45.0%
$1,750,000 $2,499,999	63	30.0%
$2,500,000 & Above	21	10.0%
Total Annual Average SF-Attached Demand	**210**	**100%**
10-Year Total SF-Attached Demand	**2,310**	

Source: THK Associates, Inc.

Based on the preceding analysis of residential supply and demand in the PTA, the following illustrates the recommendations for single family detached uses at the Sundown Oaks site.

F. Single Family Residential Potentials for the Sundown Oaks PTA

Based on the preceding analysis of residential supply and demand in the PTA, the following illustrates the recommendations for single family detached uses at the Sundown Oaks site.

As demonstrated in Table IV-8, the PTA is reported to have up to 4 competitive single-family detached properties in the sole price segment.

In the $1,750,000 to $2,499,999 price segment, there are four competitive subdivisions, which indicate a generic capture rate of 20%.

In the Sundown Oaks environs, a 20% capture rate on units priced between $1,750,000 and $2,499,999, the proposed 37 single-family detached units at the site should be fully absorbed by the year end 2030. This projected absorption pace is reasonable and consistent with the Tallman Gulch and Arrowpoint Estates communities' performance.

Overall, these capture rates are based on the number of competitive properties within the market area and factor in demand generated from the subject sites' location as well as projected development of other supporting land use types in the region.

Table IV-8: Projected Single Family Detached Unit Demand and Absorption at Sundown Oaks, 2025-2035

Unit Prices:		Under $749,999	$750,000 - $999,999	$1,000,000 - $1,749,999	$1,750,000 - $2,499,999	$2,500,000 - Above	Annual Total	Cumulative Total
Percentage Demand		7.5%	7.5%	45.0%	30.0%	10.0%	100.0%	
Annual Avg. Unit Demand in the Competitive Market Area		16	16	95	63	21	189	189
Number of Competitors:		8	10	9	4	10	41	41
Generic Site Capture Rate:		N/A	N/A	N/A	20.0%	N/A	--	--
Projected Site Capture Rate:		N/A	N/A	N/A	15.0%	N/A	--	--
Annual Absorption (Units)								
	2025			***** Planning and Development *****				
	2026			***** Planning and Development *****				
	2027	N/A	N/A	N/A	9	N/A	9	9
	2028	N/A	N/A	N/A	9	N/A	9	18
	2029	N/A	N/A	N/A	9	N/A	9	27
	2030	N/A	N/A	N/A	10	N/A	10	**37**
Total		**N/A**	**N/A**	**N/A**	**37**	**N/A**	**37**	**37**
Annual Average		**N/A**	**N/A**	**N/A**	**9**	**N/A**	**9**	
Monthly Sales Average		**N/A**	**N/A**	**N/A**	**0.8**	**N/A**	**0.8**	

***N/A - Price Range Not Applicable to the Subject**

Source: THK Associates, Inc.

V. ABSORPTION AND VALUE SUMMARY

V. Absorption and Value Summary

THK Associates, Inc. has prepared an absorption schedule based on the preceding market analysis, as well as an estimate of market values that would result from the development of the 177-acre Sundown Oaks Metropolitan District community in Franktown, Douglas County, Colorado. The overall Sundown Oaks property is 177-acres, with Sundown being 73-acres and Oak Bluff being 104-acres.

The Sundown Oaks community is proposed for:

- 37 Residential Units, Including:
    - 37 Single Family Detached Homes

Based on the proposed land uses detailed above, and the market supportable absorption by land use type previously detailed in this analysis, THK was able to determine the expected build-out year.

Table V-1 on the following page details the absorption schedule for the proposed land use type at the Sundown Oaks community.

Table V-1: Sundown Oaks Detached Single Family Residential Absorption Schedule

		Single-Family Detached			
		Site Annual	Site Cumulative	Sundown Oaks	
Year	PTA Annual Market Demand	Market Demand (20%/ 25% Capture)	Market Demand	Annual Absorption	Cumulative Absorption
2025	187	**** Planning and Development****			
2026	191	**** Planning and Development****			
2027	195	9	9	9	9
2028	199	9	18	9	18
2029	204	9	27	9	27
2030	209	10	37	10	37
Total	1,185	37	37	37	**37**

Source: THK Associates, Inc.

With the absorption schedule for the Sundown Oaks Community, THK has estimated market values that would result from the development of the Sundown Oaks site. These values are based on the representative records for residential communities of Arrowpoint Estates, Tallman Gulch, and Colorado Golf Club. THK's estimated values do not allow for personal property.

Table V-2 below summarizes the estimated market values of each land use type within the Metropolitan District making up the Sundown Oaks Metropolitan District.

Table V-2: Sundown Oaks Proposed Land Use by Product Type

Unit Type	Total Homes	Anticpated Year of Completion	Value per Unit - 2025	Value per Lot - 2025
Single Family Detached	37	2030	$2,200,000	$500,000
Total	**37**			

Source: THK Associates, Inc.

All residential single-family detached homes are projected to be built-out by 2030. Average supportable market values for single-family detached homes are $2,200,000 per unit. It is THK's opinion that Sundown Oaks Metropolitan District's values are reasonable in the marketplace. Sundown Oaks Primary Trade Area has experienced a softened residential real estate market due to high interest rates, therefore the PTA has seen an annual inflation rate of 2.5% in home prices between 2021 and 2025 year-to-date. THK expects interest rates to decrease in the near future, which will increase the home inflation rate over the years to come, therefore in our market and assessed value calculation over the next 30 years THK utilized a 3.0% inflation rate.

End of Report

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MEMORANDUM

To: DJ Beckwith and Lauren Pulver, Douglas County Department of Community Development

From: Michael Verdone

Re: Sundown Oaks Metro District Market Study Review

Date: June 27, 2025 [Revised July 29, 2025]

Findings

BBC Research & Consulting reviewed the assumptions, methodology, and findings of the referenced Residential Market and Absorption Analysis prepared by THK Associates, as well as the Service Plan prepared by Spencer Fane. BBC's review analyzed the study's conclusions regarding market price, price appreciation, and absorption, with attention to the financial feasibility of the proposed Sundown Oaks Metropolitan District in Douglas County, Colorado.

- The study assumes an average home price of approximately $2.2 million. This estimate is based on pricing data from comparable developments in the primary trade area. While the comparable sales lack specific detail on home characteristics, the developments provide a reasonable market reference. BBC found the assumed pricing to be plausible, contingent upon the builder delivering a product of comparable quality and positioning.
- The analysis also assumes an average annual price appreciation rate of 3 percent. While forecasting appreciation is inherently uncertain, BBC found this assumption reasonable given current market conditions and recent U.S. Census data (as of June 2025), which supports the expectation of continued, though moderate, home price growth.
- The absorption analysis in the study consists of two components: first, an estimate of overall demand for new detached single-family homes in the Primary Trade Area (PTA), and second, an estimate of the share of that demand that will be captured by the subject development. The study projects average annual demand for approximately 210 single family detached homes in the PTA, based on demographic and housing trend data. However, BBC found this estimate to be somewhat optimistic when compared to actual home sales reported in the REColorado database and County building permit records, which suggest a lower volume of market activity. The second part of the analysis assumes that the subject site will capture approximately 9 to 10 of those annual sales. While this projection ultimately relies on the absorption history of a single comparable development (Tallman Gulch, which saw strong sales during the 2021–2022 housing boom) it is broadly consistent with the performance of other similar developments in the area. As such,

although the overall demand assumptions may overstate market conditions, the projected annual absorption rate for the subject site appears to fall within a reasonable range.

If the assumptions in the original Residential Market and Absorption Analysis prove accurate, the district would be well-positioned to generate sufficient property tax and fee revenues to support the proposed debt structure. Based on BBC's review, the analysis appears reasonable overall, but lies near the edge of plausibility. The projected absorption rate of 9 to 10 homes per year at the subject site is supported by the experience of a comparable development—Tallman Gulch—which saw strong sales during a recent period of market strength. However, because the projection ultimately relies on a single development as precedent, there remains some uncertainty. As such, while the study's conclusions are defensible, they reflect an optimistic scenario that may not allow much margin for slower-than-expected absorption.

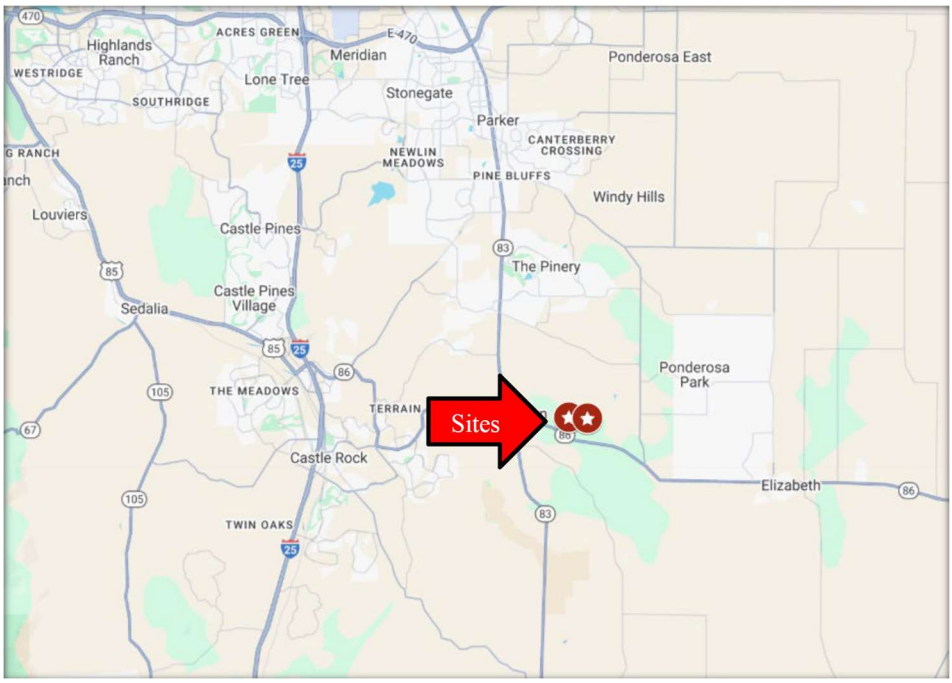
Background

BBC Research & Consulting (BBC) has been asked to review the assumptions, methodology, and findings of the referenced Residential Market and Absorption Analysis prepared by THK Associates dated June 23, 2025. In addition, BBC also reviewed information in the Service Plan for the Sundown Oaks Metropolitan District, prepared by Spencer Fane. The review is intended to provide a third-party objective evaluation to inform the creation of the proposed Sundown Oaks Metropolitan District in Douglas County, Colorado. Figures 1 and 2 provide additional financial and geographic context.

Figure 1.
Overview of Proposed Sundown Oaks Metropolitan District in Douglas County, Colorado

Developer:	Northstar Custom Homes Inc.
Organizer:	Northstar Custom Homes Inc.
Housing Product Mix:	37 large lot, detached single family lots
Average Home Value Assumptions:	$2,200,000
Aggregate Home Value Assumptions:	$81,400,000
Planned Public Improvements:	$9,057,551
First Issuance Anticipated	$3,625,000
Home Construction Start:	2026

Figure 2.
Overview of Proposed Sundown Oaks Metropolitan District in Douglas County, Colorado



Source: THK Associates

Scope of Review

BBC reviewed the data and assumptions used to estimate housing values and absorption rates in the Residential Market and Absorption Analysis prepared by THK Associates as well as the Service Plan prepared by Spencer Fane. The review centered on three primary factors that directly influence the metro district's capacity to service its debt obligations: market price, price appreciation, and absorption. Each of these parameters plays a distinct role in shaping the financial feasibility and timing of revenues tied to property sales, which in turn affect the district's ability to meet its bond or loan payments over time.

Market price is a function of both product positioning and prevailing market conditions. Developers can influence price to some extent through the quality, design, and features of the units, but these factors must be evaluated within the broader competitive landscape. Understanding where a given product sits relative to comparable offerings in the market helps establish realistic expectations for achievable sales prices. A project may aim for premium pricing, but if market demand or nearby alternatives constrain buyer willingness to pay, the actual selling price may fall short of projections. This comparative analysis is critical to ensure financial projections align with the market reality.

Price appreciation is more complex to assess because it involves forecasting future market behavior. While historical trends and supply-demand dynamics can inform these projections, the exercise is inherently speculative. Future home values are subject to a range of variables, including interest rates, inflation, employment, consumer confidence, and broader

macroeconomic shifts. Even with sound modeling, predicting appreciation is an uncertain process, and overly optimistic assumptions can expose a district to financial strain if revenues fall short of expectations.

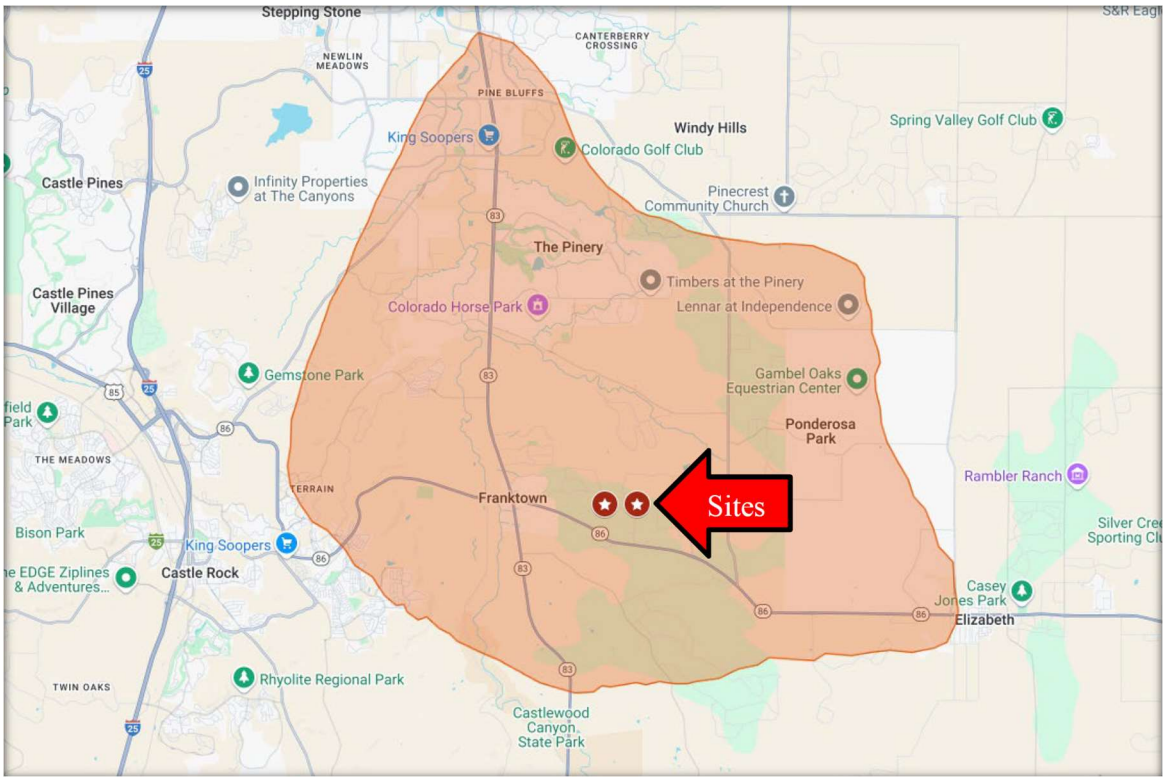
Absorption, or the rate at which homes are sold over time, is similarly challenging to forecast. While past absorption trends and current housing inventory levels provide some basis for estimates, actual sales pace is influenced by future buyer demand, competing developments, and overall market health. A slower-than-expected absorption rate can delay revenue realization, which could impair the district's ability to meet debt service schedules. For this reason, the analysis requires cautious interpretation, balancing ambition with grounded assumptions to ensure fiscal responsibility.

The remainder of this memorandum summarizes BBC's review and findings.

Competitive Market Area (Primary Trade Area)

The Residential Market and Absorption Analysis defined the primary trade area (PTA) as the area within a 15- to 20-minute drive of the subject site (Figure 3).

Figure 3.
Overview of Primary Trade Area Used in the Residential Market and Absorption Analysis of the Sundown Oaks Metropolitan District, Douglas County, Colorado



Source: THK Associates

Pricing

Unit prices. The Residential Market and Absorption Analysis compiled four years of lot and home sales data from 2021 through the first quarter of 2025 for three developments featuring homes similar to those proposed in the Sundown Oaks Metropolitan District: Tallman Gulch, Arrowpoint Estates, and Colorado Golf Club. While many parts of Douglas County include large-lot single-family subdivisions, these three developments were selected based on their recent construction activity within the PTA.

Figure 4 summarizes the sales prices of lots and newly constructed homes in each of the three developments, along with the average prices assumed for lots and completed homes in the proposed Sundown Oaks project. Over the past four years, a total of 30 homes sold across these developments, with prices ranging from a low of $1,750,000 in Arrowpoint Estates to over $2,500,000 in the Colorado Golf Club.

Figure 4.
Lot and Home Sales from 2021 – 2025 for Comparable Developments in the Sundown Oaks Metropolitan District Primary Trade Area

Development Name	Lots Sold	Lot Price Range	Homes Sold	Home Price Range
Sundown Oaks	**-**	**$500,000**	**37***	**$2,200,000**
Arrowpoint Estates	19	$400,000 - $600,000	3	$1,750,000 - $2,499,999
Colorado Golf Club	13	$300,000 - $600,000	13	$2,500,000+
Tallman Gulch	14	-	14	$2,050,000+

Source: THK Associates

Note: *Reflects the number of units that will be brought to market.

While the comparable sales data presented in Figure 4 offers helpful context for understanding market activity in nearby luxury and semi-luxury developments, it should be interpreted with some caution due to limited detail. The analysis does not include key information such as lot sizes, home square footage, architectural style, interior finishes, or other product characteristics that significantly influence home values. As a result, while the pricing data from Arrowpoint Estates, Colorado Golf Club, and Tallman Gulch provides useful benchmarks, it does not offer a precise indication of achievable prices at the subject site.

That said, builders typically design homes to align with specific price points and target buyer segments. If the builder at Sundown Oaks delivers a product comparable in size, quality, and finish level to those in the three reference developments, it is reasonable to expect that similar price points could be attained. In this context, the comparable data serves as a meaningful reference point to inform product planning and support pricing assumptions. Based on these considerations, BBC finds the assumed average home price of $2,200,000 to be reasonable.

Price appreciation. In addition to average home prices, the rate of home price appreciation is a core component of the Sundown Oaks Metro District's financial projections. The Residential Market and Absorption Analysis analyzed historical rates of home price appreciation and found that detached single-family homes have appreciated at an annual rate of about 2.5 percent per year since 2021. Based on that analysis, and the expectation of lower federal funds rates in the

near future, the report determined that a future rate of home price appreciation of 3 percent per year was reasonable.

It is always a difficult exercise to accurately forecast future economic conditions. However, recent data released by the U.S. Census Bureau on June 25, 2025, supports the price appreciation projections used in the Residential Market and Absorption Analysis. According to the U.S. Census release on new housing sales, the average sales price of new houses sold in May 2025 was 2.2 percent above the April 2025 price and 4.6 percent above the May 2024 price, indicating that while down from its peak in 2021, home price appreciation remains positive.[1]

Absorption

The Market Study assumes an average annual absorption rate of nine units over a four-year buildout period (Figure 5). To support this estimate, the Residential Market and Absorption Analysis calculates demand for new single-family homes in the PTA based on the existing population and an assumed annual population growth rate of 2.4 percent. Based on these inputs, the analysis estimates annual demand for approximately 210 new single-family homes in the PTA.

The study then evaluates recent sales activity within the PTA from 2021 through 2025, focusing on both the volume and price distribution of new home sales (Figure 5, below). During this period, approximately 262 new homes were sold, averaging about 52 homes per year. Of those, 15 percent sold for less than $750,000; 18 percent for $750,000 to $999,999; 50 percent for $1 million to $1.749 million; 10 percent for $1.75 million to $2.49 million; and 7 percent for more than $2.5 million.

Figure 5.
Table IV-6B from THK Associates' Residential Market and Absorption Analysis Showing the Distribution of New Home Sales by Price

Table IV-6B: Detached Single Family Home Sales by Price in the Sundown Oaks PTA, 2021-2025 YTD

Detached Single Family - Sundown Oaks PTA

Year	Under $749,999	Percent of Total	$750,000 $999,999	Percent of Total	$1,000,000 $1,749,999	Percent of Total	$1,750,000 $2,499,999	Percent of Total	$2,500,000 Above	Percent of Total	Total Sales
2021	17	23%	15	20%	32	20%	7	9%	4	5%	75
2022	8	14%	13	22%	33	56%	1	2%	4	7%	59
2023	6	13%	7	15%	29	60%	3	6%	3	6%	48
2024	7	13%	6	11%	28	51%	9	16%	5	9%	55
2025 YTD	1	4%	6	24%	10	40%	5	20%	3	12%	25
TOTAL	39	14.9%	47	17.9%	132	50.4%	25	9.5%	19	7.3%	262

* 2025 YTD, 6/11/2025
**2-5 acre home sales

Source: THK Associates and REColorado

Using historical sales data, market trends, building permit activity, and ReColorado home sales within the Sundown Oaks PTA, the Residential Market and Absorption Analysis projects future demand for detached single-family homes by price segment. The projection estimates that 7.5 percent of new homes will be priced below $750,000; another 7.5 percent between $750,000

[1] https://www.census.gov/construction/nrs/pdf/newressales.pdf

and $999,999; 45 percent between $1 million and $1.749 million; 30 percent between $1.75 million and $2.49 million; and 10 percent above $2.5 million. While this segmentation provides a clear framework for estimating absorption, aspects of the analysis raise questions about the underlying assumptions and their implications for the district's financial outlook.

For example, the analysis estimates an annual demand for approximately 210 new detached single-family homes in the PTA, as shown in Table IV-4 of the Residential Market and Absorption Analysis. However, actual sales data from 2021 through 2025 (Table IV-6B of the Residential Market and Absorption Analysis) shows that an average of only 52 new detached single-family homes were sold per year in the PTA during that period.

The report attempts to reconcile this discrepancy by noting that REColorado data may capture only about 38 percent of all home sales. This estimate is based on a comparison between the number of building permits issued in Douglas County from January 2021 to July 2025 and the number of sales recorded in the REColorado database. If this 38 percent ratio holds, the 52 home sales reported in Table IV-6B would correspond to approximately 140 actual home sales per year. However, this adjusted figure is still roughly 70 sales short of the 210-home annual demand projected in Table IV-4. The report further suggests that luxury builders often do not report sales to REColorado, but since they presumably obtain building permits from the County, it remains unclear how the analysis derives an average annual sales estimate of 210 homes given the underlying data.

The report estimates annual absorption by referencing historical sales activity in three comparable developments: Arrowpoint Estates, Colorado Golf Club, and Tallman Gulch. However, it ultimately relies exclusively on Tallman Gulch to support its projected absorption rate. While this approach is reasonable, it has two notable limitations. First, the absorption forecast is based on a single development's experience, which may not fully capture the variability of market conditions across the area. Second, the sales activity at Tallman Gulch contains the housing boom of 2021 and 2022, a period marked by unusually rapid home sales. In contrast, the 2025 market is experiencing a contraction in home closings, raising questions about how representative past sales volumes are under current market conditions.

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FRANKTOWN CITIZENS COALITION'S OPPOSITION TO SUNDOWN OAKS PROPOSED METROPOLITION DISTRICT

ARE METRO DISTRICTS JUST SCAMS TO PUSH THE FINANCIAL BURDEN DOWN THE ROAD TO RESIDENTS?

I. STATUTORY REQUIREMENTS NECESSARY FOR APPROVAL OF METRO DISTRICT

Colorado statutes delineate ALL the requirements that are necessary to approve a metro district in "**Action on a Service Plan**,"

C.R.S. 32-1-203 (2)

(2) The board of county commissioners ***shall disapprove*** *(Emphasis added)* the Service Plan unless evidence satisfactory to the board of each of the following is present:

(a) There is sufficient existing and projected ***need*** (*emphasis added)* for organized service in the area to be serviced by the proposed special district.

A METRO DISTRICT IS DEFINITELY NOT NEEDED.

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 1 AND 5 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS BELOW AT II)

(b) The existing area to be served by the proposed special district is inadequate for the present and projected needs.

THE EXISTING AREA IS MORE THAN ADEQUATE FOR PRESENT AND PROJECTED NEEDS.

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 2 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS BELOW AT III)

(c) The proposed special district is capable of provided economical and sufficient service to the area within its proposed boundaries.

THERE IS NOTHING ECONOMICAL ABOUT THE SERVICES

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 3 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS BELOW AT IV)

(d) The area to be included in the proposed district has, or will have, the financial ability to discharge the proposed indebtedness on a reasonable basis.

THE DISTRICT DOES NOT HAVE THE ABILITY TO DISCHARGE THE PROPOSED INDEBTEDNESS ON A REASONABLE BASIS.

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 4 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS BELOW AT V)

II. DEVELOPER MUST PROVE:

C.R.S. 32-1-203 (2)(a)

(a) There is sufficient existing and projected *need* (*emphasis added)* for organized service in the area to be serviced by the proposed special district.

A METRO DISTRICT IS DEFINITELY NOT NEEDED.

The Service Plan describing the "Need for the District," page 2, is vague, ambiguous, disingenuous and conclusory. It has no facts or evidence to support any need for a metro district. There are large developments all over rural Franktown that meet Douglas County's Article 5 (Subdivision and planned Developments) and meet infrastructure requirements, traffic control/safety requirements, deceleration lanes, fire protection

requirements, surface drainage requirements, street improvements, parks and recreation, covenant design and enforcement, and television relay and translation **WITHOUT** a metro district. Developer/builders advanced the funds to pay for the infrastructure, including supportive projects outside the district boundary (i.e., sidewalks, intersections, roads, ditches, culverts, water lines, sewer lines, deceleration lanes out onto highways, etc.). The developer/builders were paid back the costs (and received a handsome profit) of building these infrastructure items with the proceeds from selling the now "developed lot" (connected to the infrastructure and supported by the other improvements inside and outside the district boundary) to homebuilders or homeowners. By purchasing homes, the homeowners ultimately repaid those costs and profits just as they repaid the costs and paid profits for the person building the home on the developed lot.

WITH A METRO DISTRICT, IT'S DIFFERENT. IN A METRO DISTRICT THE HOMEOWNER WOULD BE "STUCK" WITH EVER CONTINUING EXTRA TAXES OVER AND ABOVE COUNTY PROPERTY TAXES, EXTRA OPERATION AND MAINTENANCE FEES AND AN EVER BURGEONING DEBT AS THEY ARE IN A METRO DISTRICT. THIS DEBT CONTINUES EVEN AFTER THEY'VE PAID OFF THEIR MORTGAGE!

SIGNIFICANT: A SPECIFIC EXAMPLE OF A DEVELOPMENT IN FRANKTOWN CALLED ARROWPOINT ESTATES IS IRREFUTABLE EVIDENCE THAT THIS DEVELOPER/BUILDER'S REQUEST FOR A METRO DISTRICT IS NOT NEEDED. ARROWPOINT ESTATES IS AN ALMOST IDENTICAL, POINT FOR POINT, DEVELOPMENT MIRRORING THE PROPOSED METRO DISTRICT BUT IS NOT A METRO DISTRICT. IT IS VESTED IN BY THE SAME DEVELOPER/BUILDER[1] THAT IS PROPOSING A METRO DISTRICT FOR SUNDOWN OAKS .

Arrowpoint Estates Subdivision is at Hwy 83 and 86 in Franktown. The very ***SAME VESTED DEVELOPER/BUILDER*** (Northstar Custom Homes) of that Arrowpoint Estates is the very ***SAME VESTED DEVELOPER/BUILDER*** for the development in the proposed Sundown Oaks Metro District. **It's important to note** that an advertisement for a home in Arrowpoint listed for $2.697 million has an even **lower purchase price** than the advertised homes in the proposed metro district, (1.8 million to 3.5 million for Sundown and 2 million to 4 million for Oak Bluff))[2] but still lists very similar development plans,

[1] Website for Vision Commercial Development and Residential, 2023, Owner Mr. Steve Gage, "Vision is proud to be responsible for the land acquisition of this project. We manage the entitlements and oversaw the infrastructure development.

[2] Advertised by Vision Commercial Development and Residential, Owner Mr. **Steve Gage.**

infrastructure and amenities as Sun down Oaks proposal and Arrowpoint is NOT a metro district! **IN FACT,** the advertisement for Arrowpoint uses, and emphasizes, the fact that there is no metro district to sell the homes. It states: "Arrowpoint Estates is a gated community with ***NO Metro District*** (Emphasis added), low property taxes and deeded water rights."[3] There is no basic difference with Sundown Oaks' plans!

IT SHOULD BE NOTED THAT on June 30, 2025 the president of the FCC II, Inc., Diana Love and the member-at-large of the FCC II, Richard Love, met with the vested Builder/Developer of the proposed Sundown Oaks Metro District, Mr. Steven Gage. When Mr. Gage was asked the reasons for proposing a metro district when the community was against it, Mr. Gage only gave one reason. He responded: "I don't like metro districts either. But the County has required a deceleration lane at Tanglewood and 86. Of the four estimates I got, $2.4 million was the least amount. If you can get me $800,000, I will pull the request for a metro district."

Mr. Gage also stated that he "planned to ask $700,000 for some of the large back, five acre lots with a gorgeous view of Pikes Peak." It appears (See analysis in (d) below) that the prices for the lots and the

[3] Advertisement for home in Arrowpoint Development, 1555 Arrowpoint Cr., Franktown, Builder and owner, Northstar Custom Homes, Date February 28, 2025,. **Megan Gage** at Brokers Guild Real Estate, Zillow

homes will more than pay for the infrastructure, the home buildings and the turn lane for $2.4 million plus a very large profit over and above ALL the costs.

IT IS INTERESTING THAT MR. GAGE SAID HE NEEDED A METRO DISTRICT BECAUSE THE COUNTY REQUIRED A DECELERATION LANE ON TO HWY 86. BECAUSE, ON THE COUNTY'S WEBSITE FOR ARROWPOINT ESTATES, THE CONCLUSION OF THE BUILDER/DEVELOPERS' PROJECT NARRATIVE MAKES CLEAR THAT <u>NO</u> METRO DISTRICT WAS NEEDED EVEN THOUGH A DECELERATION LANE WAS REQUIRED JUST LIKE IN THIS METRO DISTRICT PROPOSAL.

"*CONCLUSION* Arrowpoint subdivision will provide secluded home sites with quick access to the county road network. Homeowners will enjoy vistas of the Cherry Creek valley as well as some mountain views within their own lots or along the trails within the open space tracts. The Arrowpoint Home Owners Association will be responsible for maintaining the roadway, open space, trails, and drainage facilities within the development. **The developer plans on constructing all of the roads, private and *CDOT turn lane*, [emphasis added] and drainage features in one phase."[4]**

So even though the Builder/Developer constructed/will construct almost the same scenario for both developments, including a

[4] Douglas County Planning Pro, SB2020-032

deceleration lane/left turn lane and there's no metro district in Arrowpoint, and EVEN THOUGH HE IS CHARGING MUCH MORE FOR SOME OF THE SUNDOWN OAKS HOMES, he's still asking for a metro district for Sundown Oaks. What's the catch? Money.

One more very notable point: The Builder/developer has known about, and showed his intention to apply for, the aforementioned deceleration lane as far back as, at least, 2021, or farther. This is laid out in his engineer's report to the County[5] as part of the construction for the underlying *development projects*, Sundown Oaks, that was started in 2019. But despite all of this time, he did not apply for a metro district to the County until June 2025, over six years from the start of the development project at Sundown Oaks. **This significant lapse in time between the start of the development project and the application for a metro district appears to show the proposal for a metro district was only an afterthought not a "need."**

To underscore that evidence, in this proposed metro district, the Developer has not shown that the land within the District cannot/and or will not be sold at a substantial profit to cover the costs of the proposed improvements. The Developer/Builder is currently pre-marketing the fully completed houses and properties within the District

[5] "*A left turn deceleration lane for eastbound Highway 86 will be applied for and constructed per CDOT standards*." Canyon Creek Engineering, 11-15-21, SB2019-038

between $1.8 million and $4 million.[6] There are 37 home lots planned between the two areas to be developed. The anticipated infrastructure cost is $9,057,551 in the service plan, Exhibit D. That is $244,799[7] per lot to recover 100% of the Developer's investment. Is that cost, plus a substantial profit, already built into the $1.8 - $4 million anticipated price of the homes? Are the homeowners then going to be obligated to pay a metro tax of $9,009 for the 1.8 million dollar home per year, and $20,020 for the 4 million dollar home per year at the maximum 70 mills levy rate, to reimburse the developer for those SAME costs?

The Developer has provided a cost estimate for the infrastructure, but the Commissioners should require the Developer to also provide an estimate for all costs the Developer will incur such as the cost of the lots, and if the Developer is also the Builder this disclosure should also include the estimated costs of constructing the house on the lot, landscaping, and other costs incurred to fully develop the lot. Then they should be required to disclose how much the homebuilder or home buyer will be expected to pay for the developed lot. Without an estimate of anticipated profit margins apart from any revenue from the metro district, there is no way to determine the need criteria for the

[6] Advertised by Vision Commercial Development and Residential, Owner Mr. Steve Gage, See Exhibits Nos. 11 & 12

[7] It should be noted that in Exhibit 3 from Charles Wolfersberger this calculation is based on the Douglas County Assessor's valuation of the land at $2, 901, 500. Here we used the developers own valuation of $0. Service plan at VII, page 2.

proposed metro district. A very large profit here would not be surprising as studies have shown that "developers routinely pay themselves 200 to 1000% profit in metro district development, when the industry average nationwide is 15 – 30% profit."[8] The Board of Douglas County Commissioners has the authority to require additional disclosures. See below under Board of County Commissioners Authority.

There is no evidence in the service plan showing any need for a metro district. In fact, it is patently obvious, that comparing the facts between Sundown Oaks and Arrowpoint, coupled with the finances (see also (d) below), will completely undermine the service plan's supposed "Need for District."

The statute is clear that for ANY approval for a metro district the service plan MUST MEET the statute's requirements for "NEED." The service plan does not meet that requirement.

III. THE BUILDER/DEVELOPER MUST PROVE:

C.R.S. 32-1-203 (2)(b)

[8] See Exhibit 6, John Henderson, founder of Coloradans for Metro District Reform

The existing area to be served by the proposed special district is inadequate for the present and projected needs.

THE EXISTING AREA IS MORE THAN ADEQUATE FOR PRESENT AND PROJECTED NEEDS.

A. NO WATER SYSTEM NEEDED

Because of the topography and location, water systems cannot even be built at this location!

The service plan, VIII, page 4, requests the "power and authority" to provide services that are *unattainable* in Franktown, e.g. distribution systems, treatment facilities, etc. The Service Plan then states: “It is anticipated that each individual home within the Project will receive water service from its ***own*** *(emphasis added)* groundwater well.”

This is the same as Arrowpoint Estates that has no metro district because it’s not needed. Wells are attainable for every individual home therefore, water systems are NOT needed.

B. NO SOLID WASTE DISPOSAL FACILITY NEEDED.

There are numerous private companies in the Franktown area, separate from a metro district, that handle solid waste disposal that homeowners would have, and should have, the ability to choose from instead of being forced to use the metro district's choice.

C. NO SANITATION AND WASTEWATER TREATMENT FACILITY NEEDED.

Only individual septic tanks can be installed to handle this. Private companies pump out the septic tanks. Because the treatment of wastewater in this area is through septic systems and private company sanitation pumpers, sanitation and wastewater facilities are absolutely not necessary.

Regardless that these are not necessary, nor can they even be built in this area because of the topography, the service plan, still says it "shall have the power and authority . . . to assess tap or other facility FEES (emphasis added)...to transport wastewater to an appropriate wastewater treatment facility." (VIII, page 5) This sentence, as do many throughout the service plan, underscores the developer's *only* reason for their request for a metro district, *MONEY*, not the need for a metro district.

The same as no water system needed, this is also the same as Arrowpoint Estates that has no metro district because it's not needed. Septic system, i.e. each homeowners on-site wastewater treatment

system, are attainable for every individual home, therefore, sanitary sewers and wastewater treatment systems re NOT needed.

D. FIRE PROTECTION NOT NEEDED TO BE PROVIDED BY A METRO DISTRICT. The service plan acknowledges that Franktown Fire Protection District will provide "fire protection services" NOT the metro district. Under “Service to be Provided by Other Government Entities, the service plan states “The Project is located within and fire protection will be provided by the Franktown Fire Protection District.” This is in direct conflict with the service plan’s Executive Summary which states, the “District shall be authorized to provide the following services: fire protection . . .”

IV. THE BUILDER/DEVELOPER MUST PROVE:

C.R.S. 32-1-203(2)(c)

The proposed special district is capable of provided economical and sufficient service to the area within its proposed boundaries.

THERE IS NOTHING ECONOMICAL ABOUT THE SERVICES.

How is charging a resident twice for the cost of the same infrastructure "economical"?

How is financing the cost of the infrastructure through developer advances with high interest rates and then re financing that debt with a second level of debt - paying interest on the interest on the advances where there is no marketplace control or accountability for developer government spending (metro districts) and adding the high cost of management companies, lawyers, consultants, accountants?

How is all this more "economical" than simply adding it to the cost of the home (which is done anyway - see first point)?

V. THE BUILDER/DEVELOPER MUST PROVE:

C.R.S. 32-1-203(2)(d)

The area to be included in the proposed district has, or will have, the financial ability to discharge the proposed indebtedness on a reasonable basis.

THE FINANCIAL DESIGN IN THE SERVICE PLAN SHOWS THAT THE METRO DISTRICT DOES NOT HAVE THE FINANCIAL ABILITY TO DISCHARGE THE PROPOSED INDEBTEDNESS ON A REASONBLE BASIS.[9]

"Colorado metro districts and developers create billions in debt, leaving homeowners with soaring tax bills."[10]

A. The Service Plan at Section XVIII(4) incorrectly states the District has, or will have, the financial ability to discharge the indebtedness on a reasonable basis. As will be shown, the District does not have the financial ability to discharge the debt the Developer proposes to advance. The Financial Plan also clearly shows that the District can only barely afford to pay off a $3.625 million debt. The Service Plan is completely silent on any reasonable basis for discharging the amount of debt allowed by the Service Plan and anticipated by the Developer.

There are also, in general, multiple contradictions and ambiguities scattered throughout the Service Plan. The interest rate on Developer advances changes several times throughout the Service plan. There are

[9] Contributed by Debbie Bowman, FCC II, Secretary and Hyla Jenks, FCC II, T+reasurer
[10] The Denver Post, 6/26/2020

multiple references to the debt the District is obligated to pay to the Developer, such as debt limitation, repayment of debt, debt service, debt shall be considered any outstanding bonds, notes, contracts, or other financial obligation of the District, and the interest rate on debt. Yet Exhibit J, Reimbursement Agreement, at number 5, states that the Reimbursement Agreement does not constitute a debt or other financial obligation of the District. Why is this financial obligation suddenly not a debt? The Financial Plan Exhibit F Page 1 shows the property tax revenue is based on a Douglas County residential assessment rate of 6.7%; however, that rate was a temporary rate for the year 2024, and the assessment rate as of 2025 is 7.15%. The revenue that can be obtained through fees and miscellaneous other sources has no limit, and appears to be at the discretion of the District when and how much they chose to inflict on the future home owners. And there is no accounting for the $75,000 annual anticipated organizational and maintenance costs.

B. COSTS

The Developer estimates the costs of the infrastructure or public improvements for the District to be $9,057,551. Service Plan Section VIII(B) and Exhibit D.

There is also a litany of administrative, operational, maintenance and organizational costs which include, but are not limited to, legal fees,

engineering services, accounting services, bond issuance costs, compliance with state budgeting, audit and reporting costs, other administrative and legal requirements, financial consulting fees, general operations and maintenance costs. See Service Plan Section VIII(B) and Exhibit J (1). Section X(F) estimates the organizational costs for the District for legal, engineering, surveying and accounting services to be $75,000; however they estimate the first year's operating budget to be $50,000. It is unclear if the other services and costs besides legal, engineering, surveying and accounting are in addition to the estimated $75,000 annual operating expenses.

C. DEVELOPER ADVANCES AND REIMBURSEMENTS Section XI

The developer anticipates advancing the funding to the District for both capital and ongoing administrative expenses. The District is obligated to reimburse all the Developer's advances, which may be repaid from "bond proceeds or other legally available sources of revenue" Section XI, page 10. These other available sources of revenue "may include the power to assess fees, rates, tolls, penalties or charges," Section X(C). All advances shall count against the maximum allowable debt limit of the Service Plan.

Section XI also states that refinancing of the advances "shall not require County approval." Do the homeowners have a say in the refinancing of the debt they are responsible for?

The Developer anticipates advancing approximately $9,000,000. However, the cost of the infrastructure alone is $9,057,051. The miscellaneous administrative, operational, organizational and maintenance costs are a minimum of $75,000 annually; however there appears to be no limit on the fees, nor other sources of revenue, that can be assessed.

D. DEBT

The maximum debt limit is $10,000,000, which is all financial obligations of the District.

The Service Plan Section X(G) states that the interest rate on any debt is limited to the market rate, yet Section XI states that Developer reimbursements shall not exceed current Bond Buyer GO Index plus 4%. However, Exhibit J, Reimbursement Agreement, states that reimbursements shall be made at the annual rate of 8% simple interest, but shall not exceed the AAA 30-year MMD (Municipal Market Data) index interest rate by more than 400 Base Points. It is unclear at what interest rate the Developer expects to be reimbursed, but at a minimum of 8%.

Even though the Developer expects to advance about $9,000,000, the Financial Plan is based on a total debt for project funds of only $3,625,000. This amount is expected to be acquired through the

issuance of 30 year bonds at 6.25% interest. This debt will be repaid by imposing a maximum mill levy on taxable property in the District of 50 mills. The primary source of revenue to support operations and maintenance will be a maximum mill levy of 20 mills. They are imposing an initial levy of 10 mills for operations and maintenance, which leaves another 10 mill levy available to them, which can be assessed at any time. Additionally, the bond yield is at 6.25% interest, yet the Developer is expecting to be reimbursed at the rate of at least 8% interest.

The total bond interest on the $3,625,000 debt is $5,360,808 for a total debt service of $8,985,808. The projected revenue from the 50 mill property tax is $10,470,785. The projected tax revenue for operations and maintenance at 10 mills is $2,838,332. This is assuming that all 37 homes are built, and sold, and the average value of all the homes is the minimum value of $2,200,000, with a consistent 3% growth rate.

Since the Developer anticipates advancing about $9,000,000 for the proposed improvements of the District, yet is only issuing $3,625,000 of debt, that leaves a deficit of $5,375,000. The total debt limit is $10,000,000, which is available at any time with no one's permission or approval. This would allow for another $6,375,000 of debt. Yet they have maximized the revenue available through the 50 mills property tax levy, which just barely pays off the $3,625,000 debt. They have initial

infrastructure costs of $9,057,551 plus an unknown amount of miscellaneous operations and maintenance costs. Despite their claims otherwise, they have no ability to repay any additional debt above the $3,625,000. How do they plan on funding any such additional debt? Are they planning on using the unlimited fees, rates, tolls, penalties and charges available to them?

The Developer also states that the total anticipated assessed value of the District at full build out is approximately $6,205,653. Service Plan Section VI. The debt limit is $10,000,000. That is a debt to assessed value ratio of approximately 161%, well above what is considered a safe ratio.

Subordinate Debt There is also a type of debt that creates even more potential financial disaster. That type of debt is called subordinate debt. Subordinate debt, also known as junior or subordinated debt, is a type of debt that has a lower priority for repayment compared to senior debt.[11] The catch is that "payments on Subordinate debt **cannot be made** until the General Obligation bonds are paid off."[12] Subordinate debt is repaid after senior debt. This means it carries more risk for investors, and as a result, it typically has a higher interest rate. Subordinate debt in metro districts is often structured

[11] AI Overview

[12] Larry Gable, Wild Point Metro District, Exhibit 6

as cash flow bonds, meaning principal and interest payments are not scheduled until maturity, and unpaid interest may compound.[13] A big problem for these debts is that investors in subordinate debt face a higher risk of non-payment if the district's revenue is insufficient to cover all debt obligations. **And if a metro district struggles to repay its debt, it may need to increase taxes on residents to meet its obligations.[14]**

VI. SECTION 18A, WATER SUPPLY COMPLIANCE IS NECESSARY TO COMPLY WITH THE DOUGLAS COUNTY MASTER PLAN.[15]

THE SERVICE PLAN DOES NOT COMPLY WITH SECTION 18A, THUS, IT DOES NOT COMPLY WITH THE COMPREHENSIVE MASTER PLAN.

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 7 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS HERE)

[13] AI Overview
[14] AI Overview
[15] Section 1503-10 of Section 18 A. AI Overview

The particular part of the zoning regulations that this information is most closely related to would be Section 1503-10 of Section 18A.

The Service Plan states: "The District has met the requirements of Section 18A, Water Supply – Overlay District, of the Douglas County Zoning Resolution, as amended, as described in the Water Supply Plan in Exhibit H. " In reviewing Exhibit H, the problems with proper augmentation of the Upper Dawson prevent the service plan from meeting the requirements of Section 1503-10 of Section 18A.

Therefore, the service plan has NOT shown that Section 1503-10 of Section 18 A has been met. This Douglas County Zoning Resolution is "intrinsically linked" to and part of the implementation of the Douglas County Comprehensive Master Plan (CMP). "The CMP serves as a basis for regulatory actions, including the zoning regulations. Therefore, the Water Supply Overlay District (Section 18A) helps implement the CMP's goals regarding water conservation and management, according to the Colorado Division of Local Government."[16] Without complying with Section 1503-10, Section 18A, there also is NO compliance with the Douglas County Master Plan.

[16] Colorado Department of Local Affairs, Colorado Division of Local Government., AI Overview

IMPORTANT: THE WATER PLAN FOR THE SUNDOWNOAKS DEVELOPMENT IS A SIGNIFICANT PROBLEM FOR BOTH THE DEVELOPMENT AND THE PROPOSAL FOR A METRO DISTRICT.

The water plan for this development requires augmentation for the Upper Dawson as per law. Unfortunately, the Service Plan in the Canyon Creek Engineering report, page 1, states that the augmentation is reserved from the Laramie Fox Hills Aquifer (LFHA). See, also, Court Order 95CW288. That is untenable. The LFHA is extremely toxic. To use it to augment the Upper Dawson would poison wells in the Upper Dawson. The developer will need to go back to the water court, which has retained jurisdiction to determine adequacy, for a hearing on the water plan for the development. That hearing would be necessary in order to prevent the use of the LFHA and to have another adequate aquifer decreed as the only one allowed for use to augment the Upper Dawson.

The reasons are myriad and supported by all of the scientific literature, and corresponding media literature and the reactions of several different municipalities to the problems manifested by water from the LFHA would seem to indicate definitively that this water is, if not sufficiently treated and diluted (but not just diluted), unfit for human

consumption. Additionally, in most parts of the Denver Basin (including the Sundown-Oaks development area), LFHA is somewhere between 2500 and 3000 feet below the surface, which would require wells costing considerably over one million dollars each, with pumps equally prohibitive in cost to the average homeowner. This is an absurd choice as part of an augmentation agreement for the Upper Dawson aquifer if Upper Dawson is to be used for human drinking and bathing water.

LARAMIE-FOX HILLS WATER QUALITY AND ACCESSIBILITY[17]

a) The Laramie-Fox Hills lies in the Denver Basin system of aquifers, and is the deepest of the 4 major aquifers (2 of which may be further subdivided). Its furthest vertical reaches are almost directly under Franktown, at nearly 2400 feet. A well drilled to that depth can easily cost over one million dollars; the pumps alone can be in the hundreds of thousands. This great depth also makes the water physically hot, once acquired.

(b) It is depleting very fast where it is being used. While it does recharge, this process is infinitesimally slow and nowhere near as fast as the use rates – slower than that of all the aquifers above it, from

[17] Contributed by Malcolm Bedell, Franktown, 80116, Is a published paleontologist with training in geology and other hydrology related subjects.

which it is sealed-off by impermeable rock layers. Essentially, once it is gone, it is not replaceable.

c) It is the least potable water of any Denver Basin Aquifer, and the oldest. It is also associated with coal deposits as much as 10 feet thick in the confining rock, which has been extensively mined (over 300 known mines). Heat and bacteria working on the coal form noxious compounds like Hydrogen sulfates and sulfides, methane, and nitrites – all exceeding EPA standards. Manganese, selenium and iron are also present in large quantities, the iron staining clothes; the other metals having other detrimental effects. Hydrogen sulfide is corrosive to iron, steel, copper, brass, and silver cooking utensils. Coffee and cooked food are affected. Ion bases of water softening systems are destroyed, producing black slime. Sulfates can have a strong laxative effect on both people and livestock, leading to dehydration – a special maximum allowable level of 250 mg. per liter. Levels hundreds of times that have been found in L-FH wells.

d) Only 5-10 percent of Elbert and Douglas County wells (as of 2014) were L-FH, used mostly for livestock and industry. Mathematical models devised to show what should be found in many of these wells have not corroborated well with actual findings – it can be far worse.

e) The process of cleaning this water is more difficult than with any other in the Denver Basin. This involves treatment with acids, dilution with water from other aquifers in a continuous process over time. Sometimes, expensive “shock treatment” of wells becomes necessary. Simple chlorination is inadequate.

f) Robson and Banta (1995) describe “putrid odor and little value for most uses, such as drinking water.” Douglas County says, “In the deeper portions of the basin, high water temperatures and sulfur content in the coal beds makes this water less desirable for municipal supply.” Highlands Ranch blends water from other aquifers with the Laramie-Fox Hills (20 % L-FH) but had to build an entire treatment plant to do so which involves adding sodium hypochlorite, ammonia and other chemicals to clear the water of poisons of various kinds, then restore disturbed pH balances with caustic soda. While this is for human consumption, it is very expensive and is only allowed at peak water use times in the middle of summer. The town of Bennett found also that it had to build an entire treatment plant (theirs over 2.5 million dollars in 1990s currency value) and, once again, could only use it sparingly. The town of Castle Rock will reduce development credit to 1/3 of normal if Laramie-Fox Hills water is being proposed as part of a plan due to the “speculative yield and exceptional production and treatment costs of

this resource." If L-FH is "encumbered under a not-non-tributary augmentation plan," then no development credit will be allowed at all.

g) Laramie-Fox Hills water is proposed to be part of the augmentation plan for the "not-non-tributary "Upper Dawson water at Sundown-Oak which, in turn, is proposed as the subdivision's primary water supply. To our best knowledge, no test wells have been drilled there to the L-FH which would result in an inadequate well field analysis. Further, there are no L-FH wells in anything like the immediate vicinity. Everything about this part of the proposal is supposition and surmise. In court, that would be called "hearsay."

h) How exactly could this water practically be considered for its designated purpose when it is the dirtiest, deepest, most expensive to drill, and most difficult to treat and clean?

Therefore, this service plan is NOT credible in order to prove required compliance with 1503-10, Section 18A either as part of an augmentation plan for the use of the Upper Dawson, nor as any sort of back-up for future well failures in the Upper Dawson.

Parenthetically, using maybe the Lower Dawson as a source for the 38,000 gallon cistern offered as a solution to the needs of firefighters who would be charged with protecting the new subdivision might, also,

not be a best choice considering the high use rate for this aquifer both in terms of how fast measurements at known sensing stations have seen decreases in the height of its water table as well as its popularity among homeowners in surrounding subdivisions, thus, the needed water court's review for an adequate augmentation aquifer for the Upper Dawson

VII. THIS PROPOSED SPECIAL DISTRICT IS NOT IN THE BEST INTERESTS OF THE AREA TO BE SERVED C.R.S. 32-1-203

2.5) The creation of the proposed special district will be in the best interests of the area proposed to be served.

THIS PROPOSED METRO DISTRICT IS NOT IN THE BEST INTERESTS OF THE PEOPLE TO BE SERVED.

THEREFORE, REQUIRED DOUGLAS COUNTY SERVICE PLAN REVIEW PROCEDURES IN XVIII STATUTORY FINDINGS AND CONCLUSIONS NUMBER 9 HAVE ALSO NOT BEEN MET. (SEE ANALYSIS HERE)

The Service Plan makes the bold claim that the proposed District is in the best interest of the area to be served and also that the financial agreements are in the best interest of the current and future taxpayers, but is it actually in the future taxpayers best interest to have all this debt burden placed on them before they even purchase property in the District? Who is actually looking out for the future tax payers? **They have no voice in the formation of the proposed District, nor the financial agreements that create the debt that they will ultimately be responsible for repaying**.

"***Colorado law permits developers to elect themselves to serve on a district's board of directors, then use that position to approve tens of millions of dollars in public financing for their businesses, and leverage the property taxes on homes they haven't yet built. No regulations stop these developer-controlled boards from approving arrangements that are financially advantageous to their business, allowing them to finance overly ambitious plans without fear of liability, knowing future homeowners ultimately shoulder the burden."***[18]

In fact, in this proposed metro district, the future homeowners will be subject to the following exorbitant tax rates for the combination of the

[18] EDITORIAL: An Unsettling Story About Colorado Metro Districts, Part Two, Bill Hudson, 4/30/2025

district taxes (70 mills maximum) and the County taxes for Franktown (86.184 mill levy):

For the minimum priced 1.8 million dollar home, the district property taxes are $9009. The county property taxes are $11,092, for a total of $20,101 per year.

For the maximum priced $4 million dollar home, the district property taxes are $20,020. The county property taxes are $24,648 for a total of $44,668 per year.

A metro District Board can add these property taxes and any fees (no limit on these in the service plan) to each home even before there are any buyers!

VIII. ENFORCEMENT OF METRO DISTRICT MISHANDLING:

A. More often than not, metro districts which are mishandled ***generally have no enforcement for violations***. "Colorado's 2,000+ metropolitan districts remain one of the least regulated forms of government in Colorado. "[19] "The Colorado Division of Local Affairs (DOLA) strengthens local communities by providing resources, funding, and technical assistance in areas like housing, property tax, and community

[19] Wolfersberger, LLC

development. DOLA works with local governments and community leaders to enhance governance, address housing challenges, and improve property tax administration,"[20] but it does not have regulatory oversight over metro districts. "There is no state agency or division that has regulatory oversight over metro districts,"[21] so there is no oversight or enforcement for violations of C.R.S. 32, fraud, breached contracts, violations of the service plan, TABOR election violations, misuse of public funds, noncompliance with voter imposed borrowing limits, and ethical violations by Metro Districts and their developers.[22] "Colorado voters passed Amendment 41 which added Article XXIX "Ethics in Government" to the State of Colorado's constitution. Amendment 41 created the Colorado Independent Ethics Commission (CIEC). . . [But, even though Metro Districts are quasigovernment entities],. . . Per Section 2 of Article XXIX, the definition of "local government" includes counties and municipalities ***but "it excludes special districts created under the Special District Act***"[23](emphasis added) And A <u>*Denver Post* investigation</u> into the inner workings of the state's 1,800 metro districts found a "governmental system that operates without the usual oversight of voters, without the usual restrictions on conflicts of

[20]Colorado Division of Local Affairs, AI overview
[21] Colorado Department of Local Affairs, Jacob Miler, Administrative Assistant II, 7/22/2025, See Exhibit No. 1
[22] See Exhibit No. 2
[23] Wolfersberger, LLC

interest, and without the usual checks and balances to ensure communities won't spiral into insolvency."[24]

AN EXAMPLE HAPPENING RIGHT NOW: Mount Carbon Metro District. A developer in that district has no water connection which leaves the homeowners with no water at all, yet the developer is still selling homes! "Re: More Red Rocks Ranch homeowners left high and dry. And around the Denver metro area and beyond, a reported 30 prospective Red Rocks Ranch homeowners are living in hotels, Airbnb's and with family members, waiting to close on new homes that have no water taps to serve them. . . . Mount Carbon Metro District agreed to build the town infrastructure required to meet the development's needs, but hasn't yet completed all that work or finished a required update to its intergovernmental agreement with Morrison. . .. David O'Leary, an attorney for Mount Carbon, said in October 2024 that he believed the new IGA would be ready in about a month. ***Nine months later,*** [emphasis added] it remains unfinished and unapproved. . . Meanwhile, Lennar's Red Rocks website says it is "actively selling" and offering "incredible deals."[25]

[24] The Denver Post, 6/26/2020
[25] Colorado Community Media

B. BECAUSE THERE'S NO STATE ENFORCEMENT, MUNICIPALITIES ARE PROHIBITING OR RESTRICTING METRO DISTRICTS

Municipalities dealing with metro district problems are increasing in number. Because of the problems with metro districts for the municipalities, and, especially the homeowners, municipalities across Colorado are either ending metro districts in their municipality or putting significant restrictions on them. Just some examples are:

1. Pagosa Springs.

At a town council meeting, April 29, 2025, "Planning Commission member Mark Weiler begin to open the discussion to the most crucial question: why would the Town want to allow a problematic form of government that can end up doubling the property tax burdens for homeowners?"[26] On June 3. 2025, the city of Pagosa Springs passed a law *prohibiting* metro districts in the town limits.

2. Aurora

"Limits mill levy for debt repayment to 50 mills and sets a maximum term for mill levy imposition at 40 years. Financial Restrictions:

- Mill Levy Cap:

Metro districts are limited to a maximum mill levy of 50 mills for debt repayment, with adjustments allowed for the Gallagher Amendment.

[26] EDITORIAL: An Unsettling Story About Colorado Metro Districts, Part Two, Bill Hudson, 4/30, 2025

- Mill Levy Term:

The term for imposing a mill levy for debt repayment is capped at 40 years.

- Debt Limitations:

Restrictions are placed on the structure and interest rates of privately placed debt, requiring external financial advice.

- Taxation Oversight:

The City of Aurora requires developers to provide written notice to homebuyers about the maximum debt mill levy and the district's taxing authority"[27]

3. Loveland

"Established Title 20 of the Loveland Municipal Code to regulate metro districts, including 18 requirements for service plans covering taxation, debt management, transparency, and ongoing oversight. . . .amendments to the city's metro district code, including expanded disclosure requirements for homebuyers, mandatory signage in metro district neighborhoods, and the requirement for intergovernmental agreements between metro districts and the city. These changes aim to enhance transparency and accountability for metro districts, addressing concerns about debt management and mill levies.

Here's a more detailed breakdown:

[27] Aurora Metro District restrictions, AI overview

- **Disclosure Requirements:**

New amendments require developers to disclose more information to prospective homebuyers, including a notation in online property listings about the property being within a metro district and the potential for additional tax assessments.

- **Signage:**

Mandatory signage will be required in metro district neighborhoods to further alert potential buyers about their status.

- **Intergovernmental Agreements:**

Metro districts will now be required to enter into intergovernmental agreements with the city to ensure better coordination and enforcement of regulations.

- **Ongoing Refinement:**

The city is continuing to refine its metro district policies, including the service plan."[28]

4. Fort Collins

"Key Aspects of Fort Collins Metro District Policies:

- **Transparency and Disclosure:**

The City requires that residents buying homes in a metro district understand how it will impact their property taxes, including the mill levy and debt term.

- **Public Benefits:**

[28] Loveland Metro District restrictions, AI Overview

The city prioritizes metro districts that offer extraordinary public benefits, such as affordable housing, and may award points to development proposals meeting certain criteria in areas like housing and infrastructure.

- **Council Discretion:**

  City Council retains the authority to approve, conditionally approve, or reject service plans for metro districts on a case-by-case basis.

- **Review Process:**

  The city reviews metro district service plans, and there's an automatic review in two years to assess the policy's effectiveness and make necessary adjustments.

- **Limitations:**

  The maximum mill levy for a metro district is 50 mills, and debt terms are typically limited to 40 years."[29]

5. Commerce City "Their municipal code outlines sanctions for metro districts that violate service plans or applicable laws." [30]

6. Berthoud . . . "has restrictions related to property development, including specific rules for subdivisions, driveways, and public improvements. Additionally, there are regulations for parking, vehicle storage, and even pet control in parks and open spaces." [31]

7. Longmont "Longmont City Council has placed restrictions on the creation of metro districts, particularly those focused on residential

[29] Fort Collins metro ddistrict restrictions, AI overview
[30] Commerce City metro district restrictions, AI overview
[31] Berthoud Metro District restrictions, AI overview

development. These restrictions include limits on the number of residential units in mixed-use developments and require increased oversight by the council. Additionally, Longmont has ordinances regulating activities in commercial areas and addressing noise levels, among other things."[32]

IX. COLORADO STATUTES AND CASE LAW ALLOW THE TAKING OF PRIVATE PROPERTY BY METRO DISTRICTS UNDER EMINENT DOMAIN

(C.R.S. 32-1-1004, C.R.)

Pursuant to certain restrictions by statute, a metro district does have the power of eminent domain. This power gives metro districts the ability to reach OUTSIDE its boundaries and, USING EMINENT DOMAIN A METRO DISTRICT, CAN affect surrounding properties for certain purposes.

The statute reads.

"A metropolitan district may have and exercise the power of eminent domain and dominant eminent domain and, in the manner provided by article 1 of title 38, may take any property necessary to the exercise of the powers granted, both within and *without the special district*

[32] Longmont Metro District restrictions, AI overview

(Emphasis added), only for the purposes of fire protection, sanitation, street improvements, television relay and translator facilities, water, or water and sanitation, except for the acquisition of water rights, and, within the boundaries of the district, if the district is providing park and recreation services, only for the purpose of easements and rights-of-way for access to park and recreational facilities operated by the special district and only where no other access to such facilities exists or can be acquired by other means. A metropolitan district shall not exercise its power of dominant eminent domain within a municipality or the unincorporated area of a county, other than within the boundaries of the jurisdiction that approved its service plan, without *a written resolution approving the exercise of dominant eminent domain* (Emphasis added) by the governing body of the municipality in connection with property that is located within an incorporated area or by the board of county commissioners of the county in connection *with property that is located within an unincorporated area(Emphasis added)*."

In 2019 "the Colorado Supreme Court confirmed that the exercise of condemnation authority by a developer-formed metropolitan district constitutes public use, so long as the purpose of the taking is for some public benefit."[33] ***Carousel Farms Metropolitan District v. Woodcrest***

[33] News and Events, Otten Johnson Robinson Nef and Raganetti, 2019

Homes, Inc. **"The Colorado Supreme Court's decision reverses a Colorado Court of Appeals decision that had stymied many metropolitan districts' efforts to condemn public right of ways, utility easements, and parks and trails in connection with new development projects." Thus, if the proposed Metro District is approved, any of these that fit within the statute that Sundown Oaks wishes to use eminent domain to accomplish will now be allowed!**

The question then is; do any of the areas delineated in the proposed metro district fit within the statute? The service plan states at POWERS AND RESPONSIBLITIES, VII, page 5, Parks and Recreation, "The District SHALL [emphasis added] have the power and authority to . . .construct, acquire, install . . . public park and public recreation centers . . .bike trails, pedestrian trails, pedestrian bridges . . . and other services, programs and facilities, . . land and easements, together with extensions and improvements thereto."

Based on the requested POWERS AND RESPONSIBLITIES service plan request and the case law, IF APPROVED, the proposed metro district can use eminent domain for the taking of private property outside the boundaries of the proposed metro district!

The areas around this proposed metro district are rural residential HOAs and should **NOT** ever be subject to eminent domain from a metro district.

X. BOARD OF COUNTY COMMISSIONERS AUTHORITY. THE BOARD OF COUNTY COMMISSIONERS HAS THE AUTHORITY TO REQUIRE INFORMATION IN THE SERVICE PLAN, TO APPROVE THE SERVICE PLAN, TO DISAPPROVE THE SERVICE OR TO CONDITIONALLY APPROVE THE SERVICE PLAN.

Because of the service plan's significant deficiencies, this service plan should be denied. In the alternative, the Board has authority to request further information.

1. C.R.S. 32-1-202 states:

2) The service plan shall contain the following:

(h) Information, along with other evidence presented at the hearing, satisfactory to establish that each of the criteria set forth in section 32-1-203, if applicable, is met;

(i) Such additional information as the board of county commissioners may require by resolution on which to base its findings pursuant to section 32-1-203;

2. C.R.S.32-1-203 STATES:

1. . . . WITH REFERENCE TO THE REVIEW OF ANY SERVICE PLAN, THE BOARD OF COUNTY COMMISSIONERS HAS THE FOLLOWING AUTHORITY:

(c) To conditionally approve the service plan subject to the submission of additional information relating to or the modification of the proposed service plan.

For the BOCC to accurately assess if the service meets the statutory and County requirements, in addition to the financial disclosures required above, the BOCC should also require the following:

a) The Commissioners should require prior approval of the TABOR election ballot measures, to ensure the following:

(1)The total amount of authorized debt in the TABOR election is no more than the amount of debt authorized in the Service Plan, and preferably no more than the $3,625,000 proposed in their financial plan that can be repaid. If the developer needs to issue more debt, they must come back to the County for permission until the residents begin to arrive and can provide checks and balances on issuing debt they will be obligated to pay.

(2) The TABOR ballots do not eliminate the right of future residents to vote on issuing bond debt and expressly expire in 3 years.

AND:

(3) No fees may be assessed by a board which includes persons affiliated with or receiving any income from the developer without first submitting the question to a vote of the residents who will be paying the fees, and any fees must be re-approved annually.

(4) The price paid for each developed lot must be confirmed with affidavits from the homebuilder or homeowner.

(5)The Developer must provide monthly documentation of all money received, the source of the income, and the costs paid to any vendor for operations related to the metro district.

(6) Any financial agreement entered into by the developer on behalf of the future residents should expire once the residents begin to arrive, and may only be validated by a ballot measure presented at an election of the residents by more than 10% of home-owning residents who have no financial interest in such agreement.

XI. CONCLUSION

For all the reasons stated above, and as has been shown, the Service Plan has failed to show that a metro district is necessary to serve the future residents of the area. The District does not have the ability to discharge the proposed indebtedness on a reasonable basis, and there is also no evidence that the proposed District is in the best interest of the future residents. Profit alone is definitely NOT sufficient to meet the statutory requirements.

A. DENIAL OF THE PROPOSED METRO DISTRICT:

Based on all of the above, the Franktown Citizens' Coalition respectfully requests that Douglas County deny the developer's request for the Sundown Oaks Metropolitan District.

B. FURTHERMORE, in the interest of ALL of the citizens of Douglas County, the Franktown Citizens' Coalition requests that the Douglas County Board of Commissioners takes a public position that the creation of anymore metro districts in Douglas County **Will Not** be approved. **Because metro districts at least DOUBLE the homeowners' tax burden, plus uncontrolled fees, they are not in the best interests of the citizens of Douglas County. "Financing through a metro district is more expensive because in most cases the developer is double dipping . . ." With a metro district "financing there are two loans, two**

sets of interest and paying interest on interest." [34] With a position of not approving any more metro districts in Douglas County, the Commissioners will protect their citizens of Douglas County from the over burdensome, financial problems that metro districts create. See a prime example, Exhibit 2, Two Bridges Metro District. Also, supporting this request is the potential damage caused by metro districts clearly explained by John Henderson, a published expert on metro district abuse in his letter to the County included herein.[35]

Respectfully submitted by,

FRANKTOWN CITIZENS' COALITION II, INC., BOARD AND STEERING COMMITTEE
Diana Love, President
Troy Dayton, Vice President
Debra Bowman, Secretary
Hyla Jenks, Treasurer
Richard Love, Member-at-Large

Steering Committee
Malcolm Bedell
Bob Skowron
Kimberly Adams

[34] See Exhibit 6, page 2. John Henderson, founder of Coloradans for Metro District Reform
[35] See Exhibit 6, John Henderson, founder of Coloradans for Metro District Reform

XII. EXHIBIT LIST

1. Email from the Colorado Department of Local Affairs

2. Opposition Letter and timeline from Korin Barr, past President of Twin Bridges Metro District.

3. Letter from Charles Wolfersberger LLC, President

4. Letter from Chuck Howell, past board member. Fox Hills Metro District

5. Letter from John Henderson, founder of Coloradans for Metro District Reform

6. Opposition letter from Larry Gable, Wild Point Metro District

7. Opposition letter from Dave Delgado, President, Bannockburn HOA

8. Opposition Letter from Alan Erickson, President, Fox Glen HOA

9. Letter from Bob Speaker, Broker Owner, Keller Williams Action Realty

10. Vision Commercial and Residential advertisement, Mr. Steven Gage, Owner

11. Vision Commercial and Residential advertisement, Mr. Steven Gage, Owner

Outlook

Subject: Bannockburn HOA updated and amended input to Douglas County Board of County Commissioners regarding proposed new Sundown Oaks Metropolitan District

From Dave Delgado <DDelgado@bannockburnhoa.org>
Date Tue 7/29/2025 5:21 PM
To DJ Beckwith <dbeckwith@douglas.co.us>
Cc Jack Shuler <jshuler@bannockburnhoa.org>; Diana Love <rllove1@msn.com>

1 attachment (51 KB)
Douglas County Board of County Commissioners Input Letter (vFinal).pdf;

To whom it may concern,

Please find attached a letter to the Douglas County Board of County Commissioners on behalf of the Directors of the Bannockburn HOA, communicating our updated and amended comments and concerns regarding the proposed Sundown Oaks Metropolitan District, Project no. SV2025-005, which will be near our HOA. Thank you, in advance, for forwarding this to the Board of Commissioners and for the opportunity to state our position on this matter.

Please feel free to contact me with any questions you may have.

Best regards,

Dave Delgado
Bannockburn HOA - President

July 29, 2025

To: Douglas County Board of County Commissioners via "DJ Beckwith" <dbeckwith@douglas.co.us>

Subject: Subject: Bannockburn HOA updated and amended input to Douglas County regarding proposed new Sundown Oaks Metropolitan District

On behalf of the Directors of the Bannockburn HOA, we appreciate this opportunity to provide our updated and amended comments and concerns regarding the proposed Sundown Oaks Metropolitan District, Project no. SV2025-005, which will be near our HOA. Our concerns include the following:

1. After further review, it is our understanding that because of the application of the bonus density regulation that was requested and approved, Douglas County has already provided approval for lot sizes less than the minimum size of five acres on a portion of the development. We are disappointed since a minimum five-acre lot size for all lots would be more consistent with current resident preferences to support and maintain the lifestyle already in place for current residents. Another concern is that their consultant, Canyon Creek Engineering, indicated that the larger lot will be "roughly 4.5 to 5 acres". Under Franktown's rural residential zoning, 5 acres is the minimum.
2. The Sundown Oaks Metropolitan District asserts that water to households will be provided by private wells and that there is sufficient ground water for each lot to have an individual well for both home and outdoor use. This alone should negate the need for a Metropolitan District. However, there is a significant concern among Franktown residents, including those in the Bannockburn HOA, that the ground source of water, the Upper Dawson aquifer, is already potentially oversubscribed/over-tapped to assure long term availability to current residents. Specifically, if new residents access this water source based on a higher density calculation, current homeowners could be required to pay costs associated with drilling deeper wells in the short term and potential future public water service connection and provision fees by a neighboring city. We find this to be an untenable financial burden to place on current homeowners in Franktown and surrounding cities and counties. We recommend that a different water source other than the Upper Dawson aquifer be identified and applied to the Project. Further, it is our understanding that a water source for augmentation of the Upper Dawson is the Larimer Fox Hills Aquifer, which we understand to be highly toxic. The potential use of that aquifer, in combination with the Upper Dawson aquifer or another water source, could literally poison and contaminate the water sourced from the Upper Dawson aquifer or to another water source, and should be avoided entirely. Lastly, since a wastewater treatment facility is not

allowed or feasible in Franktown, this is another reason there is no need for a Metropolitan District regardless of the water source.

3. Access and roads will be impacted when considering the planned Sundown Oaks Metropolitan District and other planned subdivisions in the immediate area. Costs for any road enhancements and improvements are likely required to accommodate increased traffic on Tanglewood and Highway 86 that the developers should be responsible to pay in advance of development activities. This does not necessitate the need for a Metropolitan District as those costs could be incorporated into lot and development costs paid by future homeowners as a one-time cost. For example, the nearby Arrowpoint development did not require a Metropolitan District, and it too required enhancements to roads to the subdivision.
4. We are concerned that this Metropolitan District will introduce, amplify and perpetuate known issues and concerns about said "districts" since they are well documented widely across Colorado as imposing long-term and, in some cases, indefinite negative financial impacts to new residents and the broader community.

In summary, your consideration of our concerns is appreciated. Please feel free to contact me with any questions you may have.

Best regards,

Dave Delgado

Dave Delgado
Bannockburn HOA - President

Outlook

Sundown Oaks Metro District (SOMD)

From Ed Hayden <edhayden@me.com>
Date Wed 7/30/2025 7:42 PM
To DJ Beckwith <dbeckwith@douglas.co.us>
Cc Diana Love <rllove1@msn.com>; Jack Hume <cochise1952@gmail.com>; JoeC Webmail <jcasasanta@earthlink.net>; Toby Cromwell <Cromwell.toby@gmail.com>; Dennis Smith <dennisski89@gmail.com>; Jacki Hayden - ICE <jackihayden@me.com>; Mark Passarini <mjpassarini@yahoo.com>

1 attachment (33 KB)
RHPOA Response to Sundown Oaks Metro District_07302025.pdf;

Mr Beckwith,

Attached is a letter from the Board of Directors of the Russellville Home and Property Owners Association (RHPOA), Franktown, CO, documenting our opposition to the proposed Sundown Oaks Metro District. Our Board requests the Douglas County Commissioners disapprove the proposed SOMD.

Fee free to contact me with any questions.

Respectfully,

Ed

Edward R Hayden
President, RHPOA
720-551-0083

July 30, 2025

Douglas County Board of County Commissioners
Attn: dbeckwith@douglas.co.us
100 Third Street, Castle Rock, CO 80104

Re: Proposed Formation of the Sundown Oaks Metropolitan District (SOMD)

From: Russellville HomeOwners and Property Owners Association (RHPOA), Franktown, CO.

To Whom It May Concern:

After reviewing the planned development at Burning Tree Dr and Tanglewood, the impacts on the Franktown area, and the potential impacts upon the residents of our Russellville neighborhood, we OPPOSE the formation of the SOMD, for the following reasons:

- The proposed SOMD does not meet the Statutory Requirements necessary to approve a Metro District in “Action on a Service Plan,” C.R.S. 32-1-203 (2).

- Disproportionate additional taxes and costs to the individual lot purchasers as well as for the potential impact on taxes to established homes in the Franktown area.

- Potential reduction or loss of water to the current users, and / or the contamination of the Dawson Aquifer.

A Metropolitan District is definitely not needed. There is insufficient project need for organized service in the area to be serviced by the proposed special district. The existing area is more than adequate for present and projected needs. There is nothing economical about the services that would be provided by the Special District.

A bond for this purpose will place long-term financial harm to the individual lot purchasers — purchasers and Realtors would not be aware of the scheme due to inadequate disclosure. The problem with Metro Districts is there is not adequate disclosure, nor does the statute adequately protect them. Metro Districts have gravely harmed their people financially. There is no state agency that investigates or enforces the requirements of the law or the service plans that have been approved in Colorado by cities and counties. Should the SOMD be approved and the 37 lots sold as described above using a bond issue, this would cause a terrible financial impact on the individual land purchasers. Each may likely be required to pay additional property taxes and SOMD’s administrative costs of thousands of dollars per year for the 30–40 years life of

the bonds. These additional taxes would result in additional annual cost of living expenses.

Even more, upon the subsequent sale of their home, they may encounter reduced selling prices due to this clever addition to their property taxes. This is a very adverse financial position for the land purchasers. In Addition, we understand the applying Developer is planning to provide water to the 37 lots from the Upper Dawson Aquifer. Russellville neighborhood residents and many of the surrounding long-established Franktown residents have been granted rights to use the Upper Dawson Aquifer. Due to the addition of many new subdivisions over time, this has resulted in dramatic and excessive use of this critical resource. Allowing the Developer to access this resource for an additional 37 lots threatens loss of water to our established residents. We of the RHPOA oppose the formation of the SOMD for these reasons:

- The proposed SOMD does not meet the Statutory Requirements necessary to approve a Metro District in “Action on a Service Plan,” C.R.S. 32-1-203 (2).

- Disproportionate additional costs and taxes to individual lot purchasers due to the new bonds requiring landowners to finance the subdivision infrastructure and incur the SOMD’s administrative costs.

- Potential reduction or loss of water to current users, and / or the contamination of the Dawson Aquifer.

We, the Board of Directors of the RHPOA, ask the Douglas County Commissioners to disapprove the proposed Sundown Oaks Metropolitan District.

Respectfully Submitted,

ER Hayden

Edward R Hayden
President
Russellville HomeOwners and Property Owners Association

Opposition to the formation of a Metro District in Sundown Oaks, Franktown, CO

July 30, 2025

My husband and I are residents in Foxhill, which is near to the planned Sundown Oaks development. I am on the board of a residential metro district. I oppose the formation of the Sundown Oaks metro district. This opposition is solely as an individual and in no way represents the position of the metro district I serve on. While I oppose the formation of the Sundown Oaks metro district, I am not opposed to the proposed development.

While the legislation enabling Metro Districts had good intentions and allows for communities and infrastructure to support them, without the appropriate oversight and accountability, unintended outcomes potentially placing a tremendous burden on the community can occur. The major issues with metro district financing today are:

- Conflicts of Interest – While the developer and board members can declare conflicts of interest, they do not have to take steps to ensure the community will not be adversely impacted by said conflicts.
- Oversight – No government agency is responsible for enforcing a developer's requirement to file audited financials. This lack of oversight can create a tremendous burden on the community. There are no checks and balances to ensure the developer or developer led board allows for residential representation.
- Enforcement – If a developer does not adhere to the IGA or the Service Plan, the residents' or taxing board's remedies are arduous or non-existent. One example of this is no government agency is responsible for enforcing developer's requirements to file audited financials in a timely manner.

I am sure you would agree that the egregious situation the Meadows homeowners are in today is a result of the issues outlined above. I am sure you are also aware of the handful of municipalities that have restricted or eliminated metro districts because of these issues. Without proper and knowledgeable oversight of metro districts, I urge you to deny the aforementioned metro district for the benefit of the future residents of Sundown Oaks. The developer has other alternative financing options for infrastructure development.

Thank you for your consideration.

Martha Mortell

11455 Evening Hunt Rd, Franktown, CO 80116

Opposition to the formation of a Metro District in Sundown Oaks, Franktown, CO

July 30, 2025

My wife and I are residents in Foxhill, which is near to the planned Sundown Oaks development. I am on the board of a residential metro district. I oppose the formation of the Sundown Oaks metro district. This opposition is solely as an individual and in no way represents the position of the metro district I serve on. While I oppose the formation of the Sundown Oaks metro district, I am not opposed to the proposed development.

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I am sure you would agree that the egregious situation the Meadows homeowners are in today is a result of the issues outlined above. I am sure you are also aware of the handful of municipalities that have restricted or eliminated metro districts because of these issues. Without proper and knowledgeable oversight of metro districts, I urge you to deny the aforementioned metro district for the benefit of the future residents of Sundown Oaks. The developer has other alternative financing options for infrastructure development.

Thank you for your consideration.

William Mickle

2375 Fox View Trail, Franktown, CO 80116

July 30, 2025

Department of Community Development Planning Services
Attn: DJ Beckwith, Principal Planner
100 Third Street
Castle Rock, CO 80104

RE: Proposed Organization of Sundown Oaks Metropolitan District SV25-005
COMMENTS ON SERVICE PLAN FOR PLANNING COMMISSION HEARING AUG. 4, 2025

Dear Commissioners and Mr. Beckwith,

I recently was asked by several residents of Douglas County to review and comment on the proposed service plan for the organization of Sundown Oaks Metropolitan District. I am a licensed Colorado attorney who has more than 19 years of experience in the area of Colorado metropolitan district law. I have served on the Board of Directors of a metropolitan district for 18 years, and represented numerous metropolitan districts as general counsel. I have also represented several homeowner groups (including some in Douglas County) challenging abusive practices and excessive taxation by several metropolitan districts. The Special District Association selected me as runner-up for Distinguished Board Member of the Year in 2012. I was selected by the Colorado Legislature in 2023-24 to serve on the Metropolitan District Task Force to recommend improvements in metropolitan district policy. I have testified as an expert witness in depositions and court proceedings, and been accepted by courts as an expert witness.

I have serious concerns about the proposed Sundown Oaks Metropolitan District service plan and in particular, the excessive proposed debt for this district. As you should know, Douglas County has received extensive **negative publicity** in recent years due to the failed debt structure of a group of metropolitan districts in the Castle Rock area (Meadows at Castle Rock) in which original debt issued nearly 40 years ago has ballooned to about **half a billion dollars** so that taxpayers cannot even service the debt interest, and therefore the principal grows by millions of dollars each year. This debt may never be paid off, resulting in perpetual excessive taxation of homeowners for improvements that are long obsolete.

The proposed Sundown Oaks Metropolitan District also has excessive debt structure built into the service plan.

Legal Standard for Approval/Disapproval

The criteria for approval of a service plan is in statute, CRS 32-1-203. In particular, Subsection 2 provides that the County **shall disapprove the service plan** unless evidence satisfactory to the board of **each** of the following is presented:

(a)There is sufficient existing and projected need for organized service in the area to be serviced by the proposed special district.

(b)The existing service in the area to be served by the proposed special district is inadequate for present and projected needs.

(c)The proposed special district is capable of providing economical and sufficient service to the area within its proposed boundaries.

(d)The area to be included in the proposed special district has, or will have, the financial ability to discharge the proposed indebtedness on a reasonable basis.

It can be demonstrated that the requirements of clauses 2(c) and 2(d) cannot be met.

Factual Basis

1) The proposed district would consist of only 37 residential units. Service Plan at 3.
2) The estimated assessed value of the proposed district at full build out would be only $6,205,653. Service Plan at 2. And that is based on a residential assessment ratio of 6.7% - the current residential assessment ratio is 6.25%.
3) The proposed cost of the infrastructure improvements to be constructed is $9,057,551. Service Plan at 6.
4) In spite of the estimated cost of improvements limit, the service plan allows the cost of improvements to increase up to 20% without any action by the County, and up to 40% with only administrative approval. Service Plan at 6-7. Therefore, the cost of the improvements could be as much as $12,680,571 without the need for an amendment to the service plan by the County Commissioners.
5) The service plan authorizes the District to issue up to $10 million of debt. Service Plan at 9.
6) The service plan authorizes the District to issue debt at interest rates of up to 12% per annum. Service Plan at 10.
7) The service plan authorizes reimbursement to developers for funds advanced at a rate of 4% above the Bond Buyer 20-year GO Bond Index. Service Plan at 10. As of today that index is 5.3% which would allow developer advances to accrue interest at 9.3%.

8) The proposed reimbursement agreement attached to the service plan uses a different index (the AAA 30-year MMD(Municipal Market Data) index interest rate) than the service plan (20-year GO Bond Index).
9) The service plan authorizes the District to levy up to 70 mills property taxes, 50 mills for debt service and 20 mills for operations. Service Plan at 9.
10) The financing plan proposes issuing $3,625,000 of bonds at 6.25% interest to generate $2,703,802 of cash to pay for improvements. District Financial Analysis at 1. The remaining $921,192 would be borrowed by the District to pay for debt issuance costs and reserve funds to protect the bondholders, for which the District would be forced to pay interest. This corresponds to 34% of the cash generated.
11) The financial plan only shows the ability to pay $3.625 million of the $10 million authorized debt. The financial plan does not show how the remaining authorized debt of $6,375,000 including developer advances would be repaid.
12) The financial plan is based on a residential assessment ratio of 6.7%. The current Colorado residential assessment ratio is 6.25%.

Concerns About Service Plan

1. One of the most important ratios to determine whether a district has the ability to service its debt is the debt-to-assessed value ratio. You obtain this number by dividing the District's authorized debt by the assessed value of the district at full buildout. Colorado statutes recognize that when the debt-to-assessed value ratio exceeds 50%, there is a significant risk that the debt will be unsustainable and therefore limits the ability of a district to borrow above this limit. A district **cannot in general issue general obligation debt above 50% of its assessed value.**

   Yet, this district's authorized debt-to-assessed value ratio at full buildout is $10,000,000/$6,205,653 or 161.14%. That is a truly outrageous and unsustainable ratio for a district. It invites issuance of debt that can never be repaid.

2. Another important ratio is the pro-rata debt burden per home. With $10 million authorized debt and only 37 homes, this translates to $270,270 of debt burden per home. At 6.25% interest, the interest burden per homeowner per year would be $16,892 per home per year. And in addition, homeowners would be required to pay down principal and pay up to 20 mills per year for operations, which together could mean an additional $5,000 to $10,000 per year per home. In other

words, the service plan would impose a tax burden on an individual homeowner of perhaps $21,000 to $27,000 per year.

3. The cost of the improvements per lot to be paid by the District also appears to be uneconomical. Based on an estimated $9,057,551 cost for 37 lots, the cost of improvements per lot is $244,799. If the 40% allowed cost increase is included, the estimated cost could be as high as $342,718. By contrast, the homebuilders association estimates the typical cost of infrastructure per lot in Colorado as of 2022 was approximately $40,000. Even assuming an inflationary increase to $50,000, the estimated cost of improvements is 5-7 times as much as is typical in this area.

4. Although the service plan sets an "initial" 70-mill limit (consisting of 50 mills debt service and 20 mills operations), this limit may be increased each year depending on how the residential assessment rate is set. As you know, the residential assessment rate has been decreasing significantly in recent years and is now 6.25%. If that rate is further adjusted, the mill levy could increase significantly.

5. The financial plan does not show how the developer advances would be repaid, if ever. It only demonstrates the ability to satisfy the $3,625,000 of initial bonds.

Conclusion

The Commission should not approve the service plan as submitted because it does not satisfy the requirements of CRS 32-1-203. In particular:

- The District is unable to provide economical service because the proposed cost of improvements would be $245,000 - $340,000 per lot, far in excess of typical improvement costs per lot of $40,000 - $50,000 per lot
- The Financial Plan does not demonstrate the ability of the District to service $10 million of authorized debt as it only shows the ability to service $3.625 million of debt which would generate only $2.7 million of cash to the District
- The Financial Plan does not demonstrate the ability to repay developer advances at interest rates of 8% (under the proposed draft reimbursement agreement) or 9.3% (based on the service plan limit of 4% above the Bond Buyer index).

- The proposed additional tax cost per home would be $21,000 to $27,000 per year which appears excessive.

Thank you for considering these comments.

Very truly yours,

Brian K. Matise
5378 S Harvest Way
Aurora CO 80016

brian@bkmatise.com

Opposition to the formation of a Metro District in Sundown Oaks, Franktown, CO

July 29,2025

My wife and I are residents in Foxhill, which is near to the planned Sundown Oaks development. I am the President of two metro districts, one commercial and one residential. I also am employed by a large commercial real estate services firm. My opposition to the formation of the said metro district is solely as an individual and in no way represents the position of the two metro districts I serve on nor my employer. In addition, I have no issue with said proposed development, only with the proposed financing utilizing a metro district.

While the legislation enabling metro districts had good intentions, what has occurred over time has led to outcomes I am sure were unintended by the legislature. The major issues with metro district financing today are:

- Conflicts of Interest – While the developer and board members can declare conflicts of interest, they do not have to take steps to insure and provide evidence that future and existing residents are represented. This is a big problem given the time period between when a development begins and when residents finally arrive.
- Enforcement – If a developer does not adhere to the Service Plan and/or the IGA, the residents or taxing board's remedies are arduous or non-existent. One example of this is no government agency is responsible for enforcing developer's requirements to file audited financials in a timely manner.
- Unjust Enrichment – As a result of the two aforementioned issues, developers can manipulate the cost of infrastructure and the placement of revenue bonds in a way that their return is significantly above what their risk adjusted return should be.

I am sure you would agree that the egregious situation the Meadows homeowners are in today are a result of the three issues outlined above. I am sure you are also aware of the handful of municipalities that have restricted or eliminated metro districts because of these issues. Unless you are ready to make significant changes to the Service Plan and IGA to address these three issues, I urge you to deny the aforementioned metro district for the benefit of the future residents of Sundown Oaks. The developer has other alternative financing options for infrastructure development.

Thank you for your consideration.

Steve Schwab

2740 Morning Run Court, Franktown, CO 80116

DJ Beckwith

From: Larry Gable <larrythegableguy74@gmail.com>
Sent: Tuesday, July 29, 2025 10:12 AM
To: DJ Beckwith
Subject: Metro District Opposition

Commissioners,

My name is Larry Gable and I live in Elbert County. I was an Accountant for 40+ years and currently live in a Metro District. Knowing what I know today, I would never buy a property in a Metro District. Their use by Developers is egregious and abusive. After 16 years, myself and 4 neighbors took control of our Metro District and immediately saved our community $20,000 per year in annual costs. Unfortunately, the majority of the damage to our community was already done.

I would like to address the topic of "Subordinated Debt". When Developers create a Metro and issue the general obligation bonds, interest and payments begin immediately with interest payments every 6 months. The first two or three years there are no homes to assess, so the Developer must make the payments accordingly. These payments are "expensed" by the Developer and end up on the Balance Sheet as a receivable known as "Developer Advances".

I will use the Ritoro Metro District as a classic example. The General Obligation bonds were issued in 2019 for $13,000,000. In 2022, the Developer, his wife and children controlled the Metro District and decided to convert the "Developer Advances" of $3,100,000 into Municipal "tax-exempt bonds", aka, Subordinated Debt at 7.50%. The prevailing interest rate was around 4.50%.

Here is the catch, payments on Subordinated Debt **cannot be made** until the General Obligation bonds are paid off. In this case, that will be 2049. Compound interest will accrue until the first payment is made in 2050. The balance of the Debt in 2050 with principal and interest will be $22,600,000. Payments of principal and interest over the next 13 years will total $36,300,000, completely tax free to the bondholder, the Developer or his family in this case. The average annual Metro District property tax for this will be a minimum of $8,335 for the 13 years on top of their customary property taxes.

Developers use the Metro District to literally rip their consumers off. They are the only ones who benefit at the expense of the homeowner. There is no oversight by DOLA. An ethical Developer will pass the "infrastructure costs" on to the home buyer upfront and all of this nonsense will go away.

Developers will tell you the average cost per home is $30,000 to $35,000 for the infrastructure. I would bet money they do not reduce the price of their homes by this amount. The long term cost to the homeowner after 30 years will be in the neighborhood of $150,000 when Metro District Management fees are included.

Should you require additional input, please feel free to contact me.

Respectfully,

Larry Gable

33265 Wyndham Cir
Elizabeth, CO 80107

303-632-6140

Outlook

Opposition to a new Metro District in Douglas County

From Chuck Howell <chowell1949@gmail.com>
Date Tue 7/29/2025 4:02 PM
To DJ Beckwith <dbeckwith@douglas.co.us>
Cc Diana Love <rllove1@msn.com>

Mr. Beckwith,

Please see below. I have a 5 year history of living in a Metro District in Douglas County. I have also served as a resident board member in Fox Hill Metro District #2.

I appreciate the opportunity to share my experience with Metro Districts.

Chuck Howell
3095 Red Kit Rd.
Franktown, CO 80116

Metropolitan Districts (MD's) perspective points

- **All** Metro Districts in Colorado lack any real government oversight as stated by the Attorney General of Colorado's office...Kurtis Morrison, Asst. Attorney General of Colorado, 7-10-2025.
- Metro Districts have a lack of timely enforcement and mechanism for enforcement of issues for residents when there are issues. Example is audited financial. There is no government agency that has authority to enforce the audit laws for MD as stated by the State of Colorado's Auditor's office. Marissa Edwards officials in the state auditor's office. In the Fox Hill development the developer is two years behind in required state audits with no penalty for lack of compliance.
- In MD's with only a single board that is controlled by the developer by that time residents are allowed to be elected to the board the developer board has already imposed on residents financial conditions through their property taxes conditions that they had no voice in and no recourse action.
- In the Metro District structure of a Service District and a Taxing District (Master – Servant) as in Fox Hill (Douglas County) this structure is actually inefficient, contrary to what service plans outline. Service plans are confusing and contradictory as written by the legal team of the developer. In the case of Fox Hill the service plan was written by David O'Leary, the attorney for the developer. The Developer initially and controls both boards and selects its members. In Fox Hill those two boards were made up of the same members. The taxing district board is now made up of residents but based on the service

plan have no legal authority to manage the district. So residents while even serving on the board have no authority to run or manage the district.

- County Commissioners are not knowledgeable about MD's and the legal staff of the county also is not very knowledgeable about MD's so you see how legal teams of developers dictate the conditions for MD's in Douglas County.
- In MD's you have taxation without the representation of residents. Developer controlled boards set the mill levies that MD residents will pay. NO resident input is required or allowed by these developer controlled boards.
- MD's hide the financial debt that future residents will be responsible for through their Douglas County property taxes. There is not full disclosure to property owners who buy property in a MD. Once a buyer purchases property in a MD they are indebted to the district for the repayment of debt issued by the developer. This in essence is a “Tax for Profit” scheme allowed by Colorado MD laws.
- The majority of home buyers are not fully informed of the taxing authority of a MD and most real estate agents are not aware of what a MD is and in fact fail to disclose to their potential buyers what a MD is. A third party real estate listing more often than not does not disclose that a property is in a MD example....In Fox Hill all third party listing list the for sale property has having HOA fees when in fact Fox Hill has no HOA or HOA fees but does have MD quarterly fees above and beyond MD property taxes.
- The bottom line is that MD's are not resident friendly and allow Developers to make millions in profit by using Douglas County property taxes to repay them for infrastructure that is already paid for through the sale of lots within the MD.
- MD district housing is NOT more affordable in fact the housing in a MD is more expensive as shown by many studies. Example: Metro District Impacts on Housing Costs, Anderson Economic Group, March 2021
- This spring of 2025 the Town Council of Pagosa Springs, Colorado voted to not allow the creation of MD's in their jurisdiction after months of study on the subject.

Chuck Howell

3095 Red Kit Rd.

Franktown, CO 80116

former Treasure Fox Hill Metro District #2

Wolfersberger, LLC
Unlocking Neighborhood Wealth

8354 Northfield Blvd
Building G, Suite 3700
Denver, CO 80238
(720) 541-7725

July 25, 2025

Douglas County
Department of Community Development
Planning Services
100 Third Street, Castle Rock, CO 80104

Re: Proposed formation of the Sundown Oaks Metropolitan District

To whom it may concern:

I have been asked by certain citizens within the County to share information and my professional experiences that may be useful in evaluating whether a need exists for the proposed formation of the Sundown Oaks Metropolitan District (District) in Franktown.

I am the president and owner of Wolfersberger, LLC, which specializes in providing management and accounting services for Colorado metropolitan districts. Wolfersberger, LLC serves over 35 metropolitan districts in Colorado and its clients are comprised solely of homeowner-controlled metropolitan districts.

I am a CPA and, prior to starting my firm in 2011, worked 9 years for the Public Company Accounting Oversight Board, an agency formed by the US Government to oversee the work and conduct of CPA firms that audit the financial statements of companies that are publicly traded on the US stock markets.

For the past three years, I have testified at the State Capital in favor of a bill (that has failed three years in a row) that would cause metropolitan district boards to become subject to the oversight of the Colorado Independent Ethics Commission (which was created by Colorado voters in 2006 through an amendment to the Colorado Constitution).

Home Lot Sales Analysis

Per the Douglas County Assessor's website, the current assessed value of the four undeveloped land tracts (totaling 177.3 acres) that comprise most, or substantially all, taxable land within the District is approximately **$2,901,500**.

Per Exhibit D to the District's proposed service plan, the total estimated cost to install public improvements within the District is **$9,057,551** – which includes a cost contingency totaling $1,256,250 or 13.8% of the total cost estimate.

Per the proposed service plan, the total number of home lots within this District totals **37 home lots**.

Between 2012 and 2021, annual operating profits of the seven largest home builders in the United States ranged between **(2.0%) and 23.9%** and the 10-year average operating profit margins of these builders ranged between **8.3% and 18.5%**.

If home lots within this proposed District sold for an average of $400,500 per lot, such lot sales would generate revenue of approximately $14,818,500 – which is 23.9% above $11,959,051, which is the combination of the current assessed value of the land plus 100% of the total estimated cost to install public improvements within the District. 23.9% is the highest annual operating profit margin achieved among the seven largest national home builders between 2012 and 2021.

Generally, land developers should be allowed to earn a reasonable rate of return on their land development activities or else it will be difficult for land to be developed. However, governments should *not* be used to assist private companies with earning extraordinary rates of return on their investments. **If the landowner is projecting the average lot price to be greater than $400,500, then it is likely the formation of the Sundown Oaks Metro District and subsequent issuance of debt by this District will force homeowners of the District to pay property tax assessments for the next 30 years to fund extraordinary profits realized by the developer of this project.**

Undeveloped home lots between 1.5 areas and 2 acres (half the size of the average 4-acre sized lots within the proposed District) within the Fox Hill subdivision – which is less than 2 miles east of this undeveloped land – sold in the approximate range of **$235,000 and $399,000 between 2018 and 2022**. Based on the home lot sales history in Fox Hill, it appears reasonable that the landowner within the District could sell vacant lots at or above $400,500 per lot, which would likely result in the landowner not only recovering most or all costs incurred to install the public infrastructure but also earn a reasonable profit from such construction activities.

Conclusion: If the average home lot sales price within the District **exceeds $400,500**, it may be difficult for the petitioner of the proposed District to reasonably support its claim and conclusion (per XVIII of the proposed Service Plan) that "sufficient need" exists for government-financed public infrastructure within the District.

Proposed Borrowing Limit of Proposed District

Section X.G.1 of the proposed service plan establishes a maximum borrowing limit of **$10 million**.

Exhibit F (Financial Plan) to the Service Plan contains a payoff projection for the District issuing $3,625,000 in debt. The payoff projection assumes the District levies the maximum allowed debt levy (50 mills) over a 30-year period.

Based on the financial assumptions provided in Exhibit F, the proposed District will not generate sufficient tax revenue under a 50-mill debt levy to repay a debt greater than $3,625,000.

Conclusion: The proposed $10 million maximum borrowing limit provided in the proposed District's service plan is **275% higher** than the maximum amount of debt the District is able to repay per the Financial Plan in Exhibit F to the Service Plan.

The General Economics of Current Land Development Does Not Support the Need to Create Metro Districts

I have evaluated the purchase and sales of land developed for residential use over the past 10 years in Colorado by reviewing deeds filed with the Clerk & Recorder's Office of several counties that document the price of raw land purchased by developers and, subsequent to the installation of public infrastructure on such land, the prices of vacant home lots on such land sold by developers to home builders.

I have also evaluated the cost of public infrastructure constructed by such developers by reviewing the financial statements of developer-controlled metro districts that provide the developers with debt-funded subsidies that are equal to all or a majority of all public infrastructure construction costs such developers claim they have incurred to develop their raw land.

I am aware of numerous instances over the past 10 years where land purchased by a developer is developed and then subsequently sold by the developer to home builders at substantially higher prices than the developer's land purchase cost and the developer's claimed costs to construct the public infrastructure on such land. In many cases, the revenue from home lots sales collected by developers has been well over 100% higher than the developers' original land purchase prices and public infrastructure construction costs.

Based on land purchase and sales data I have collected, funds from debt issued by metro districts and provided to such developers in most cases cause the net profits realized by developers from home lot sales to exceed 200% (and as high as 1,500%).

The County should consider the following two basic facts related to land development:

Fact #1: Generally, developed land is more valuable than raw, undeveloped land.

Fact #2: Generally, developed land (which enjoys the benefits of public infrastructure) can be sold for a higher price than raw undeveloped land.

Conclusion: The County should consider NOT approving the creation of this proposed district unless the developer can demonstrate home lot prices will be substantially lower than $400,500 and the construction of the public infrastructure on this land is not financially viable without receiving tax-funded subsidies from a metro district.

Respectfully submitted,

Charles Wolfersberger, CPA
Wolfersberger, LLC

MEETING DATE: August 4, 2025

STAFF PERSON RESPONSIBLE: Trevor Bedford, AICP, Senior Planner

DESCRIPTION: Ramblewood Planned Development - Rezoning - Project File: ZR2024-031.

SUMMARY: The request is for the proposed rezoning of 176.79 acres of land from Agricultural One and Rural Residential to Planned Development to allow for a maximum of 70 single-family residential lots and 13.9 acres of open space.

STAFF ASSESSMENT: Staff has evaluated the planned development rezoning in accordance with Section 15 of the Douglas County Zoning Resolution. Should the Planning Commission find that the approval criteria for a Planned Development rezoning application are met, the following conditions may be considered with its motion:

1. Prior to the Board of County Commissioners public hearing, the applicant shall submit a signed Declaration of Restrictive Covenants in a form acceptable to Douglas County.
2. Prior to recordation, all minor technical corrections will be made to the Planned Development document to the satisfaction of Douglas County.

REVIEW:

Steven E Koster	Approve	7/9/2025
Samantha Hutchison - FYI	Notified - FYI	7/9/2025

ATTACHMENTS:

Staff Report - ZR2024-031

DOUGLAS COUNTY
COLORADO

Planned Development Rezoning Staff Report

Date:	July 9, 2025
To:	Douglas County Planning Commission
From:	Trevor Bedford, AICP, Senior Planner TB Curtis J. Weitkunat, AICP, Planning Manager CW Steven E. Koster, AICP, Assistant Director of Planning Services SK
Subject:	**Ramblewood Planned Development - Rezoning**
Project File:	**ZR2024-031**

Planning Commission Hearing:	**July 21, 2025 @ 6:00 p.m.**
Board of County Commissioners Hearing:	**August 26, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The applicant requests a rezoning of approximately 176.79 acres from Agricultural One (A-1) and Rural Residential (RR) to Planned Development (PD). The site is located on the south side of Hilltop Road, across from its intersection with Merryvale Trail.

The PD establishes 13.9 acres of open space within two open space planning areas, a maximum of 68 residential lots within a 77-acre single-family residential planning area, and up to two agricultural lots within an 82.5-acre agricultural planning area. An additional 3.3-acre agricultural planning area is located south of Alpine Drive that allows agricultural uses with no dwellings.

The project is located within the Northeast Subarea as designated in the 2040 Douglas County Comprehensive Master Plan (CMP).

II. APPLICATION INFORMATION

A. Applicants

Hilltop Jam, LLC
2554 Aspen Drive
Park City, UT 84060

Bradley A Whittlesey & Joan V Whittlesey
4700 E Princeton Ave
Englewood, CO 80113

B. Applicant's Representative

Dan Sheldon
6900 E Bellview Avenue, Suite 300
Greenwood Village, CO 80111

C. Request

Proposed rezoning of 176.79 acres of land from A-1 and RR to PD to allow for a maximum of 70 single-family residential lots and 13.9 acres of open space.

D. Process

A PD Rezoning application is processed pursuant to Section 15 of the Douglas County Zoning Resolution (DCZR). Per DCZR Section 1505.06 "The Planning Commission shall evaluate the rezoning request, staff report, referral agency comments, applicant responses, and public comment and testimony, and make a recommendation to the Board to approve, approve with conditions, continue, table for further study, or deny the rezoning request. The Planning Commission's decision shall be based on the evidence presented, compliance with the adopted County standards, regulations, policies, and other guidelines."

E. Location

The project is located on the south side of Hilltop Road, across from its intersection with Merryvale Trail.

F. Project Description

The Ramblewood PD proposes to allow a maximum of 68 residential lots within a 77-acre single-family residential planning area, and up to two agricultural lots within an 82.5-acre agricultural planning area. It also proposes 13.9 acres of open space within two open space planning areas, as well as a 3.3-acre agricultural planning area located south of Alpine Drive that allows agricultural uses with no dwellings. The proposed gross density of the PD is 1 dwelling unit per 2.53 acres. The following are highlights of the PD's proposed commitments and development standards:

- Statement of Commitments:
  - Parks and Trails – The applicant plans to construct a 1.5-acre public park within the development. A network of trails will serve the development. Details of the trails will be determined during the subdivision process. Additional park and trail dedication requirements will be determined at final plat in accordance with Section 1003 of the Douglas County Subdivision Resolution.
  - Roads – The applicant is responsible for their fair share contribution towards the paving of Alpine Drive in the amount of $27,554.32. This payment will be made prior to recordation of the final plat. The applicant will dedicate right-of-way for Hilltop Road as necessary and will dedicate 80-feet of right-of-way for Alpine Drive. The applicant will also be responsible for construction of access improvements into the subdivision from Hilltop Road.

- Schools – No school land will be dedicated. Cash-in-lieu of land dedication will be determined at final plat and paid prior to recordation of the first final plat.
- Water and Sewer – Central water and sewer services are proposed for PA-A. Well and Septic are proposed for PA-B.

- Development Standards:
  - PA-A, Residential: Single-family detached dwellings on a minimum 10,000 square-foot lot with a maximum height of 35 feet.
  - PA-B, Agricultural: Single-family detached and agricultural properties with a minimum lot size of 20 acres with a maximum height of 35 feet.
  - PA-C, Agricultural: No dwelling units are permitted. Agricultural uses are allowed.
  - PA-D and PA-E, Open Space: Provides open space buffer to adjacent development. Only open space and trails are allowed.

III. CONTEXT

A. Background

The property has been historically zoned and used for agriculture. The surrounding properties to the west, south, and east are part of the Hidden Village subdivision, which was rezoned from agricultural to residential in 1970. These properties are now zoned RR to the south and west and Estate Residential (ER) to the east. The 3.3-acre portion of the project south of Alpine Drive is zoned RR and appears to have been rezoned with Hidden Village in the 1960s, although it is not a part of any Hidden Village plat.

B. Adjacent Land Uses and Zoning

The property is primarily surrounded by residential and agricultural properties.

Zoning and Land Use

	Zoning	Use
North	Rural Residential and Open Space	Single-Family Residential and Open Space Tracts
East	Estate Residential	Single-Family Residential
South	Estate Residential and Rural Residential	Single-Family Residential
West	Rural Residential and Agricultural One	Single-Family Residential and Agricultural

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

The northern portion of the site generally slopes to the north towards Hilltop Road. The southern portion of the site has varying topography, generally sloping to the south towards Alpine Drive.

B. Transportation and Access

The subject property is located south of Hilltop Road. Primary access will be taken off of Hilltop Road with secondary access from Alpine Drive to the south. Hilltop Road is a major arterial roadway with plans to widen in the future.

The applicant submitted a traffic impact analysis that was accepted by Douglas County. The applicant will be required to dedicate right-of-way for Alpine Drive and Hilltop Road. The applicant will additionally be required to construct access improvements from Hilltop Road and contribute towards the paving of Alpine Drive.

C. Soils and Geology

The CMP Class 3 Hazards and Environmental Constraints map indicated no constraints on the site. Future land use review will require a referral to Colorado Geological Survey and submittal of a preliminary geotechnical and sub-surface soil investigation.

D. Drainage and Erosion

The applicant submitted a Phase I drainage report which was accepted by Douglas County Public Works Engineer. Future subdivision plans will require Phase II and Phase III drainage reports.

E. Floodplain

A portion of the agricultural planning areas contains floodplain. The project does not intend to impact the floodplain and will be reviewed with future development plans.

F. Wildlife

The CMP Wildlife Resources map identifies the site as having low habitat value. The applicant provided an ecological resources survey of the site that concluded no threatened or endangered species, or their obvious habitat were seen on the property. The project includes open space buffers on the east and west sides of PA-A and wildlife friendly fencing adjacent to open space.

G. Historic Preservation

The applicant will complete a cultural resources survey at the time of preliminary plan. A referral will be made to the Douglas County Historic Preservation Board during the preliminary plan review process.

V. PROVISION OF SERVICES

A. Schools

The Douglas County School District (DCSD) indicated in its referral comments that the project generates a land dedication requirement of 1.646 acres. Since this is smaller than DCSD's minimum school site size, DCSD requests cash-in-lieu of land dedication. Cash-in-lieu of land dedication shall be determined at final plat, with payment due prior to recordation.

B. Fire Protection

Central water is proposed for PA-A, supporting fire protection services. South Metro Fire Rescue (SMFR) responded to the referral request with no objections to the proposal. SMFR will continue to review future subdivision applications.

C. Sheriff Services

The Douglas County Sheriff's Office (DCSO) provide emergency services to the site. The Office of Emergency Management responded to the referral request with no concerns. DCSO and DCSO E911 did not respond to the referral request.

D. Water and Sanitation

The applicant has proposed central water and sanitation services for 68 single-family residential lots in PA-A and individual well and septic systems for up to two agricultural lots in PA-B. The applicant has provided a will-serve letter from Parker Water and Sanitation District (PWSD) indicating sufficient capacity to serve the 68 lots. The applicant provided a letter from a qualified attorney demonstrating ownership of sufficient water rights to serve the two agricultural properties with individual wells.

For fulfillment of Section 18A, the applicant is required to submit a Declaration of Restrictive Covenants acceptable to Douglas County to reserve ground water in perpetuity for the benefit of future property owners within Ramblewood. An executed Declaration of Restrictive Covenants will be provided for the Board of County Commissioners' hearing as stated within staff report condition number one.

F. Utilities

Utility service is provided by CORE Electric and Xcel Energy. CORE and Xcel responded to the referral request with notes regarding easements to be added to future preliminary plan and final plat exhibits.

VI. AMENITIES

A. Parks, Trails, and Open Space

The applicant proposes approximately 14 acres of open space that will provide trails for the development and buffers to adjacent properties. The applicant is also proposing a 1.5-acre public park to be owned and maintained by the future Ramblewood Metropolitan District. Additional contributions, including cash-in-lieu of land dedication will be determined at subdivision.

VII. PUBLIC NOTICE AND INPUT

Notifications of an application in process were mailed to the owners of all abutting properties. DCZR Section 1511 requires mailed, published, and posted notice of the public hearing. The applicant also held multiple outreach meetings with abutting residents and other property owners prior to and during the review process. Additionally, the applicant

chose to mail notices of public hearings to a larger area than required in the DCZR to include all residents of Hidden Valley.

Multiple emails regarding the application were received. Comments in favor of the application typically noted the public outreach by the applicant and the open space buffers provided. One abutting property owner noted concerns of future nuisance complaints as he has an operating farm abutting the northwestern portion of the project.

All public correspondence is included as an attachment to this staff report.

VIII. STAFF ANALYSIS

1503.01 Whether the application is in compliance with the requirements of this Resolution and the Douglas County Comprehensive Master Plan.
Staff Comment: The property is located within the Northeast Subarea as identified in Section 3 of the 2040 CMP. The CMP states that wile approval criteria for land use applications require a finding of compliance with the CMP, "…the competing values of the plan must be balanced through the public review process to achieve the larger vision of the community." As such, the CMP acknowledges its own competing values and that implementation can only be achieved through the balancing of community values during the review process. The Ramblewood PD attempts to balance the competing values of the CMP.

Goals, objectives, and policies within Section 3 often discuss open space and wildlife (Policy 3-1E.1, Policy 3-2A.2, Policy 3-2D.1, Policy 3-3E.6), compatibility with the natural and rural characteristics of the area (Objective 3-2A, Objective 3-2B, Policy 3-2B.1, Policy 3-3E.1, Policy 3-3E.2, Policy 3-3E.3, Policy 3-3E.7) and availability of services including central water and sewer services (Policy 3-3E.2 and Policy 3-3E.3).

The applicant identified open space buffers and trails and will require wildlife fencing on properties adjacent to open space. The densest portions of the property will be clustered to preserve open space buffers and natural features to limit land disturbance while providing large enough lots to take existing vegetation into account when siting homes. To account for availability of services, the applicant provided will serve letters from the Parker Water and Sanitation District, Douglas County School District, and South Metro Fire Rescue.

Policy 3-3E.1 states that "A maximum gross density of one dwelling unit per 2.5 acres is supported in the Northeast Subarea where it is logical infill, where approximately 50 percent of the property boundary is adjacent to zoned lands or parcel sizes consistent with the proposed development, and where site characteristics can generally support it." The applicant provided a detailed response in its narrative.

In summary, the applicant explained that the Tallman Gulch development to the north was developed at approximately 2.1 dwelling units per acre. The Hidden Village subdivision

was developed under a previous zoning resolution and generally consists of properties ranging from 3 to 4 acres in size and zoned RR to the west and south and ER to the north. The applicant has pointed out that the lot sizes of all of Hidden Village are most consistent with the current ER zoning. Finally, the applicant points out that the density requested for the Ramblewood PD is one unit per 2.5 acres, which is consistent with densities allowed in the ER zone district. The applicant provided an exhibit in the narrative that shows approximately 79 percent of the site is surrounded by either the Tallman Gulch or Hidden Village developments.

1503.02 Whether the application is in compliance with all applicable statutory provisions.
Staff Comment: The application complies with applicable provisions of the Colorado Revised Statues.

1503.03 Whether there has been a substantial change in the character of the neighborhood, since the land was last zoned.
Staff Comment: Since the land was last zoned, the Hidden Village development surrounding the property to the west, south, and east has developed with RR and ER zoning and lots typically ranging from 3 to 4 acres in size. The Tallman Gulch property to the north across Hilltop Road was rezoned in for approximately one dwelling unit per 2.1 acres.

1503.04 Whether the application demonstrates public facilities and services necessary to accommodate the proposed development will be available concurrently with the impacts of such development.
Staff Comment: The rezoning was reviewed by South Metro Fire Rescue, which indicated no objection to the request. Xcel Energy and CORE Electric provided no objection to the development. The Douglas County Sheriff's Office provided no response to the application.

Douglas County School District reviewed the application and requested cash-in-lieu of land dedication. The applicant has provided a commitment to pay cash-in-lieu for schools prior to recordation of the final plat.

1503.05 Whether the roadway capacity necessary to maintain the adopted level-of-services for the proposed development will be available concurrently with the impacts of such development.
Staff Comment: A Traffic Impact Study was submitted by the applicant and reviewed and accepted by Douglas County Public Works Engineering. The applicant will be required to dedicate right-of-way for Hilltop Road and Alpine Drive as well as make necessary access improvements off of Hilltop Road and contribute towards the paving of Alpine Drive to address its impacts to roadway capacity.

1503.06 Whether the proposed zoning is compatible with surrounding land uses.
Staff Comment: The development has provided similar densities to nearby developments. The development will be single-family residential on the northern portion and agricultural

on the southern portion. The single-family residential areas will be buffered from adjacent development to preserve the rural character of the area.

1503.07 Whether the subject land is suitable for the intended use and is compatible with the natural environment.
Staff Comment: The development is using open space buffers to cluster development, minimizing the impact on the natural environment. The development also allows for the preservation of approximately 85.8 acres of existing agricultural land on the southern portion of the property. The plan also avoids major impacts to the floodplain located in the southern, agricultural portion of the project.

1503.08 Whether the proposed development plan complies with the general requirements in 1502 herein.
Staff Comment: The general requirements in Section 1502 provide for the unified development of a PD and bind the owners of the property to the requirements of the PD. The proposed PD provides for unified development with a plan that is binding on the current and future owners.

1503.09 Whether the planned development provides for unified development control under a unified plan.
Staff Comment: The owners, successors, and assigns are bound by the terms of the development plan which will provide for unified control.

1503.10 Whether the application is in conformance with Section 18A, Water Supply Overlay District, herein.
Staff Comment: DCZR Section 1803A established approval standards to be used in the evaluation of land use applications reviewed under Section 18A.

1803A.01 The applicant has demonstrated that the water rights can be used for the proposed uses.
Staff Comment: The will-serve letter from PWSD demonstrates that the water rights owned by PWSD can be used for the proposed use since the Ramblewood PD is within the PWSD services area which already includes significant residential development.

The Water Supply Summary and Demand Analysis and the Supplemental Water Supply Summary demonstrate that the groundwater rights under the 160-acres are decreed for proposed uses.

1803A.02 The reliability of a renewable right has been analyzed and is deemed sufficient by the County based on its priority dates within the Colorado System of Water Rights Administration.
Staff Comment: PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard. The Water Supply Summary and Demand Analysis demonstrates the water supply is sufficient and thus meets the requirements of this standard.

1803A.03 The Water Plan is deemed adequate and feasible by the County to ensure that water supply shortage will not occur due to variations in the hydrologic cycle.
Staff Comment: PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard. The Water Supply Summary and Demand Analysis demonstrates the water supply is sufficient and thus meets the requirements of this standard.

1803A.04 The Water Plan is sufficient to meet the demand applicable to the project based on the minimum water demand standards in Section 1805A herein.
Staff Comment: The will-serve letter from PWSD provided sufficient information to conclude that PWSD can meet the demand for the 68 single-family residential lots in the Ramblewood Development. The application also provided a basis for the estimated water supply demand for the two agricultural lots that will be served by individual wells and a letter from a qualified attorney stating ownership of water rights.

IX. STAFF ASSESSMENT

Staff has evaluated the planned development rezoning in accordance with Section 15 of the DCZR. The application proposes clustered single-family residential with open space buffers and agricultural development. Central water and sewer are proposed for the future residential lots, which reduces reliance on groundwater. Should the Planning Commission find that the approval criteria for a Planned Development rezoning application are met, the following conditions may be considered with its motion:

1. Prior to the Board of County Commissioners public hearing, the applicant shall submit a signed Declaration of Restrictive Covenants in a form acceptable to Douglas County.

2. Prior to recordation, all minor technical corrections will be made to the Planned Development document to the satisfaction of Douglas County.

ATTACHMENTS **PAGE**

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DOUGLAS COUNTY
COLORADO

Department of Community Development

www.douglas.co.us

Planning Services

LAND USE APPLICATION

Please fill in this application form completely. An incomplete application will not be processed.

Note: Neither the Planning Commission nor the Board of County Commissioners should be contacted regarding an open application.

OFFICE USE ONLY

PROJECT FILE #:

PROJECT NAME:

PROJECT TYPE: Rezoning - Planned Development

PLANNING FEES:

MARKETING NAME: Ramblewood

SITE ADDRESS: Douglas County Parcel #s: 2347-061-00-001 & 2347-063-00-001

ENGINEERING FEES:

OWNER(S):

TOTAL FEES:

Name(s):	Hilltop Jam, LLC	Bradley A Whittlesey & Joan V Whittlesey
Address:	2554 Aspen Drive, Park City, UT 84060	4700 E Princeton Ave, Englewood, CO 80113
Phone:	435-649-6686	720-205-6441
Email:	jahapc@yahoo.com	brad.whittlesey@gmail.com; whittlejv@gmail.com

RELATED PROJECTS:

AUTHORIZED REPRESENTATIVE *(requires notarized letter of authorization if other than owner)*

Name: Dan Sheldon

Address: 6900 E. Belleview Avenue, Suite 300, Greenwood Village, CO 80111

Phone: 303-886-2838

Email: dsheldon@miller-united.com

LEGAL DESCRIPTION:

Subdivision Name: N/A

Filing #: N/A Lot #: N/A Block #: N/A Section #: 6 Township: 7 S Range: 65 W

STATE PARCEL NUMBER(S): Parcel #s: 2347-061-00-001 & 2347-063-00-001

ZONING:

Present Zoning: Agricultural One Proposed Zoning: Planned Development Gross Acreage: 176.794

Gross Site Density (DU per AC): 0.39 DU/AC # of Lots or Units Proposed: 70

SERVICE PROVIDERS:

Fire District: South Metro Fire Rescue Metro District: To be formed Gas: Black Hills Energy

Water: Parker Water & Sanitation (to be included) Sewer: Parker Water & Sanitation (to be included) Electric: CORE

Roads: ☒ Public ☐ Private (please explain):

To the best of my knowledge, the information contained on this application is true and correct. ***I have received the County's information sheet regarding the Preble's Meadow Jumping Mouse.***

Daniel R. Sheldon
Applicant Signature

11/5/24
Date

PREBLE'S MEADOW JUMPING MOUSE

What is the Prebles' meadow jumping mouse?

The Preble's meadow jumping mouse is a rare mouse designated by the United States Fish and Wildlife Service as a "threatened species" under the Endangered Species Act. The federal threatened species designation prohibits the unlawful "take" of the Preble's meadow jumping mouse or its habitat.

Where does the mouse live?

The Preble's meadow jumping mouse lives primarily in heavily vegetated riparian habitats. In Douglas County, the mouse has been located in or near many drainages, including tributaries and the main stream reaches, of East and West Plum Creek. However, ***any*** stream reach or potential habitat within Douglas County may be subject to the requirements of the Endangered Species Act.

The mouse has also been found in Boulder, Elbert, El Paso, Jefferson and Larimer counties and in parts of Wyoming.

What activities may be considered a violation of the Endangered Species Act?

In its listing decision, the United States Fish and Wildlife Service identified activities that may result in violation of the Endangered Species Act to include:

1. Unauthorized or unpermitted collection, handling, harassing, or taking of the species;
2. Activities that directly or indirectly result in the actual death or injury death of the mouse, or that modify the known habitat of the species, thereby significantly modifying essential behavioral patterns (e.g., plowing, mowing, or cutting; conversion of wet meadow or riparian habitats to residential, commercial, industrial, recreational areas, or cropland; overgrazing; road and trail construction; water development or impoundment; mineral extraction or processing; off-highway vehicle use; and, hazardous material cleanup or bioremediation); and;
3. The application or discharge of agrichemicals, or other pollutants, and pesticides, onto plants, soil, ground water, or other surfaces in violation of label directions or any use following Service notification that such use, application or discharge is likely to harm the species; would be evidence of unauthorized use, application or discharge.

ANY APPROVAL GIVEN BY DOUGLAS COUNTY DOES NOT OBVIATE THE NEED TO COMPLY WITH APPLICABLE FEDERAL, STATE, OR LOCAL LAWS AND/OR REGULATIONS.

How to determine if a proposed activity would violate the Endangered Species Act.

Any questions regarding whether an activity will impact the Preble's meadow jumping mouse or its habitat should be directed to:

Liisa Niva
Fish and Wildlife Biologist
Ecological Services
Colorado Field Office
P.O.Box 25486, DFC (MS 65412)
Denver, CO 80225-0486
303-236-4773

Where to find more information on the Preble's meadow jumping mouse.

More information can be found at the US Fish and Wildlife Service website at:
https://ecos.fws.gov/ecp/species/4090

NORRIS DESIGN
PEOPLE + PLACEMAKING

1101 Bannock Street
Denver, Colorado 80204
303.892.1166

July 2, 2025

Douglas County, Department of Community Development
100 Third Street, #220
Castle Rock, CO 80104

RE: APPLICATION FOR THE REZONING OF THE HILLTOP JAM AND WHITTLESEY PARCELS

Dear Douglas County Department of Community Development,

On behalf of Miller United Real Estate, Norris Design is pleased to submit an application for the Rezoning of the Hilltop JAM LLC and Whittlesey properties, also known as Ramblewood. The subject site is composed of two separate parcels of land: the 16.9-acre Hilltop JAM LLC Parcel (County Parcel: 2347-061-00-001), the 159.2-acre Whittlesey Parcel (County Parcel: 2347-063-00-001) (the "Site"). The Site is bordered by Hilltop Road to the north, Alpine Drive to the southwest, and residential homes to the west, east, and southeast.

This application proposes rezoning these properties to Planned Development (PD) from the current zoning classification of Agricultural One, (A-1) and Rural Residential (RR). The intent of this Rezoning is to allow a portion of the Site to be developed with single-family residential lots through future development processes. The applicant envisions a future subdivision layout, with homes clustered in small residential lots, located towards the center of the Site and two large lots allowing agricultural uses located along the southern half of the Site.

PROJECT TEAM

Owner:
Hilltop JAM LLC
2554 Aspen Springs Drive
Park City, UT 84060
435.649.6686
Contact: James Helfand
jahapc@yahoo.com

Applicant:
Miller United Real Estate, LLC
6900 E. Belleview Avenue, Suite 300
Greenwood Village, CO 80111
303.886.2838
Contact: Dan Sheldon
dsheldon@miller-united.com

Civil Engineer/Surveyor:
LJA Engineering
1765 West 121st Avenue, Suite 300
Westminster, CO 80234
303.421.4224
Contact: Kevin Lovelace, PE
klovelace@lja.com

Owner:
Bradley A. Whittlesey & Joan V. Whittlesey
4700 E Princeton Ave
Englewood, CO 80113
720.205.6441
Contact: Brad Whittlesey
Brad.whittlesey@gmail.com

Planner and Landscape Architect:
Norris Design
1101 Bannock Street
Denver, Colorado 80204
303.892.1166
Contact: Daniel Jennings
djennings@norris-design.com

Traffic Engineer:
SM Rocha, LLC
8700 Turnpike Drive, Suite 240
Westminster, Colorado 80031
303.458.9798 Ext. 106
Contact: Stephen Simon
stephen@smrocha.com

Parcel # 2347-061-00-001 has water rights which belong to the property owner, Hilltop JAM LLC. Parcel # 2347-063-00-001 has water rights which belong to the property owner, Bradley A. Whittlesey & Joan V. Whittlesey. As for mineral rights interests, a review of the title commitment for both properties and a severed interest search on the Douglas County's Assessor's records reveals no severed mineral interests for either property. Also, no one has filed a request for notification.

REQUEST

Proposed rezoning of roughly 176 acres of land from A-1 and RR to PD.

The following commitments are made with the proposed Ramblewood PD:

- On and Off-Site Improvements
    - The owners and their assigns are responsible for their fair share contribution towards the paving of Alpine Drive in the amount of $27,554.32 (the "Alpine Drive Contribution") Said payment shall be made prior to the recordation of the final plat for the Ramblewood development. In the event that the County has not completed the paving of Alpine Drive by December 31, 2027, the Owner and/or Assigns may request a refund of the Alpine Drive Contribution and the County agrees to reimburse Owner and/or Assigns within 30 days after such a request is made.
    - The owners and their assigns shall be responsible for the construction of the improvements at the intersection of Hilltop Road and the access into the Ramblewood development.
    - The owners and their assigns shall dedicate public right-of-way for Hilltop Road as determined by the County.
    - The owners and their assigns shall dedicate 80-ft public right-of-way for Alpine Drive.
- Parks and Trails – Local Park and Trail dedication requirements shall meet the criteria provided in Article 10, Section 1003.11.1 and 1003.11.3 of the Douglas County Subdivision Resolution, as amended. Regional Park and Trail dedication requirements shall meet the criteria provided in Article 10, Section 1003.11.2 and 1003.11.4 of the Douglas County Subdivision Resolution.
    - An approximately 1.5-acre public park (to be owned and maintained by the to-be-formed Ramblewood Metropolitan District) will serve the development. The details of this park will be determined at the time of the Subdivision Final Plat process.
    - A network of trails will serve the development. The details of the proposed trails will be determined at the time of the Subdivision Final Plat process.
- Schools – No school land is proposed to be dedicated. Cash-in-lieu of dedication shall be determined with the Subdivision Final Plat process and be paid pursuant to an agreement with the Douglas County School District.
- Water and Sewer – Central Water and Sewer will be provided to all future lots within PA-A through an inclusion agreement with Parker Water and Sanitation District. The applicant will evaluate the option for Pinery Water and Wastewater District to provide sewer service through an Intergovernmental Agreement between Pinery Water and Wastewater District and Parker Water and Sanitation District. Water and sewer will be provided to PA-B through domestic well and septic. While the inclusion will begin processing concurrently with the Rezoning application, it is not expected that the inclusion will be finalized until the Preliminary Plan process and recorded concurrently with the recordation of the Final Plat.

DCZR 1505.09

A PD Rezoning application is processed pursuant to Section 15 of the Douglas County Zoning Resolution (DCZR). Per DCZR Section 1505.09, "The Board shall evaluate the rezoning request, staff report, referral agency comments, applicant responses, the Planning Commission recommendation, and public comment and testimony, and shall approve, approve with conditions, continue, table for further study, remand to the Planning Commission, or deny the rezoning request. The Board's action shall be based on the evidence presented, compliance with the adopted County standards, regulations, policies, and other guidelines."

PROJECT DESCRIPTION

The applicant, Miller United Real Estate LLC, requests a rezone for the two Site parcels from Agricultural One and Rural Residential to Planned Development. If approved, the PD will allow up to 70 single family units to infill the site with a use complementary to surrounding neighborhoods.

This Rezoning application involves the creation of the Ramblewood PD which outlines the location and development standards of future land uses allowed on the Site. Keeping in mind the character of the surrounding area, the Site is envisioned as featuring a mix of single-family residential, parks, open space, and agricultural uses. Single-family residential is envisioned for the northern portion of the Site, transitioning to agricultural uses in the southern portion of the Site.

To allow for the Site to develop as envisioned, the Ramblewood PD proposes five Planning Areas: Planning Area A (PA-A), Planning Area B (PA-B), Planning Area C (PA-C), Planning Area D (PA-D), and Planning Area E (PA-E). The primary use for Planning Area A is single-family residential, the primary use for Planning Area B is agricultural uses, the primary use for Planning Area C is agricultural uses, and the primary use for Planning Area D and Planning Area E is open space and trails. The PD does not allow dwelling units to be developed within Planning Areas C, D, or E.

Planning Area A encompasses the northern 93-acres of the Site. Through development standards such as a minimum lot size of 10,000 square feet and by establishing open space buffers along the edges of the Site (Planning Area D and Planning Area E), and pursuant to the Nonurban Land Use Comprehensive Plan Policy 3-2B.1, Planning Area A allows for a smaller lot, clustered residential development. While Planning Area A allows for a smaller lot, clustered residential development, the overall character of the area is not disturbed as all adjacent lots will be adjacent to open space or large ranch lots in the case of lots adjacent to Planning Area B.

As a portion of the Site is adjacent to several neighboring properties and has significant topography, the applicant has committed to restricting development to be internal to the Site. Planning Area D provides a buffer of 300 ft from the western property boundary to the edge of Planning Area A. On the opposite side of Planning Area A is Planning Area E which provides a buffer of 200 ft from the eastern property boundary. Open Space and Trails are the only allowed use within Planning Area D and Planning Area E. These two Planning Areas ensure the preservation of open space and natural topography along the Site's edges.

The southern portion of the Site is comprised of Planning Area B. This portion of the Site is allowed to retain its agricultural land uses but is subject to additional development standards which restrict buildings from being built within 50 feet of Planning Area A to the north and within 100 feet of external property lines to the west, east, and south. Similar to the buffers in Planning Area A, these setbacks ensure that existing open space is maintained along the edges of the Site. Planning Area B is envisioned as primarily agricultural in terms of use and as such the PD establishes a minimum lot size of 20 acres and allows for the development of only 2 residential dwelling units across the 82.5 acres of the Planning Area.

At the southern end of Planning Area B is Alpine Drive, an unplatted dirt road. The roughly 2.5 acres of the Site located south of Alpine Drive are proposed as Planning Area C. This small parcel is allowed to retain its agricultural land uses. The PD does not allow dwelling units to be developed within this Planning Area.

A maximum of 70 single-family dwelling units are allowed across the entire 176-acre Site, resulting in a density of one dwelling unit per 2.5 acres. This density is consistent with the maximum allowable density of the Northeast Subarea as outlined in the Douglas County 2040 Comprehensive Master Plan (CMP) (Policy 3-3E.1). This density is also aligned with the allowed density of the Estate Residential (ER) Zoning District, of which adjacent properties to the south and east of the Site are zoned.

Attached to this Project Summary are tables (Exhibit 1) which compare the proposed development standards of the PD to the zone district requirements of the Zoning Resolution.

The Applicant intends on forming a new Title 32 Special District to be called the Ramblewood Metropolitan District. While the application, service plan and any other supporting documents for the district are not included with this PD application, the Applicant does intend on processing the review and approval of the District, concurrent with the PD Zoning application.

Following approval of this Rezoning-Planned Development application, the development team intends on processing a Preliminary Plan and Final Plat application to develop the Site consistent with the Ramblewood PD. The focus of those applications will be residential development of Planning Area A and the related infrastructure in one phase. The timing of the development of Planning Areas B & C is unknown at this time.

CONTEXT

Background

The Hilltop JAM LLC Parcel, located in the east half of Section 6, Township 7 South, Range 65 West of the 6th principal meridian, County of Douglas, State of Colorado, lies vacant of structures and paved roads. Directly adjacent to the south lies the Whittlesey Parcel, located in the southwest quarter and the southeast quarter of Section 6, Township 7 South, Range 65 West of the 6th principal meridian, County of Douglas, State of Colorado, and is additionally vacant of any structures and paved roads. Both parcels are currently zoned Agricultural One (A-1) and a small portion of the Whittlesey Parcel, roughly 2 acres south of Alpine Drive, is zoned Rural Residential.

DCZR 1507.04 Existing and Adjacent Land Uses

The Ramblewood property is bound by an eclectic mix of residential zoning, densities, and lot sizes dating back to the 1970's when the County Regulations were quite different than today, and there was no Comprehensive Master Plan in existence. At the time of development, adjacent neighborhoods were not required to develop Open Space which resulted in lower densities.

The Ramblewood Planned Development proposes a logical infill development of the site and is consistent with Policy 3-3E.1 of the 2040 CMP, as stated below and depicted on the "Adjacent Property Gross Density Comparison" **(Exhibit 2),** attached to this Project Summary.

79% of the overall Ramblewood Planned Development property boundary is adjacent to lands with approved gross densities consistent with the proposed development. The Ramblewood PD proposes a gross density of one dwelling unit per 2.5 acres, consistent with approved adjacent property densities and as allowed in the Northeast Subarea of the 2040 Comprehensive Master Plan.

- NORTHEAST: Adjacent to the northeast of Ramblewood is the Tallman Gulch development, located across Hilltop Road. Tallman Gulch was rezoned in the early 2000's with an approved gross density of one dwelling unit per 2.1 acres, which is a higher density than currently allowed in the 2040 CMP.
- SOUTH, EAST, and WEST: Hidden Village was rezoned in the 1970's as "Residential", prior to the current Douglas County Zone Districts classifications. The Hidden Village approved gross density allows for "one dwelling per 3 to 4 acres", densities which are consistent with today's "Estate Residential Zone District" which allows for one dwelling unit per 2.5-4.9 acres. Of note: Douglas County did not have "Zone Districts" or a Comprehensive Master Plan back in the 1970's. Ramblewood's proposed density of one dwelling unit per 2.5 acres is comparable to Hidden Village's approved density. The 1970 Zoning documents for Hidden Village (**Exhibit 3**) are included as an attachment.
- NORTHWEST CORNER: To the northwest of Ramblewood's project boundary is an unplatted parcel with A-1 Zoning. This parcel currently has one dwelling unit, giving it a density of one dwelling unit per 53.2 acres which is not consistent with Ramblewood.

Though not adjacent to any existing Planned Developments, the proposed Ramblewood PD allows for single-family residential and agricultural uses which is consistent with the allowed uses of all zoned properties adjacent to the site. The Ramblewood PD is consistent with the current Zoning Resolution and the current 2040 Comprehensive Master Plan and proposes to cluster the residential lots within the center of the property consistent with the 2024 CMP policies. The PD commits to approximately 14 acres of open space (Planning Area D and E) to provide adjacent properties with significant buffer to future development on the Site. Although the PD commits to 14 acres of open space, there will likely be considerably more open space proposed for the Site at the time of Preliminary Plan application. The Ramblewood PD offers public benefits (central services, open space and trails) that many of the adjacent properties do not provide.

DCZR 1507.06 Changes in Character of Neighborhood

The Northeast Subarea of the 2040 CMP supports infill and semi-rural development where there is adequate public infrastructure. Changes in the surrounding neighborhoods since this property was last zoned have taken place as early as 1970 through 2024. The Hidden Village rezone was

approved in 1970. The most recent developments in the area, Vivant (a.k.a. Tallman Gulch) and The Fields were both rezoned from A-1 to allow for residential development. Vivant was built as a cluster residential development with open space buffers located along the Site's edges, similar to the layout of residential development that would be allowed with the proposed Ramblewood PD. The Fields development, located a quarter mile from the Site along Hilltop Road, was rezoned in 2022 to allow for similar cluster residential development at the same density of one dwelling unit per 2.5 acres, that is proposed with the Ramblewood Planned Development.

PHYSICAL SITE CHARACTERISTICS

Site Characteristics and Constraints

The northernmost portion of the Site, (the Hilltop JAM or Helfand Parcel) is generally sloped to the north, towards Hilltop Road. The rest of the Site (the Whittlesey Parcel) has varying topography, but it is generally sloped to the south, towards Alpine Drive.

Access

Access to the Site will be provided through a primary connection from Hilltop Road, at the northern end of the Site lining up with Merryvale Trail (the access into Tallman Gulch/Vivant) and a secondary connection from Alpine Drive at the southern end of the Site. These access points will feed a network of local streets which will provide internal organization and circulation through the Site. The location and alignment of these streets shall be determined at the time of the subdivision Preliminary Plan and Final Plat process.

Soils and Geology

The Site does not include area of known geologic hazard. A Geotech Report for the Site is included with the PD application.

Floodplain and Drainage

A small portion of the southern half of the Site is located within a floodplain. A Phase 1 Drainage Report is included with the PD application. It is the intent of the Ramblewood project not to impact the floodplain.

Wildlife

The CMP Wildlife Resources Map identifies the Site as having a low habitat value. No environmentally hazardous, sensitive, or natural resource areas are found on the Site. An Ecological Resources Survey of the Site was performed and concluded that no threatened or endangered species or their obvious habitat were seen on the property. A report documenting the findings of the Survey is included with this application. It is worth reiterating that the PD proposes standards and buffers to limit the impact of development on the Site so that future development retains significant open space and much of the natural environment remains undisturbed.

The PD makes a commitment to provide Wildlife Friendly Fencing adjacent to open spaces in Planning Area A.

PROVISION OF SERVICES

Schools

The Douglas County School District has provided a Will Serve Letter for the Site. As the land dedication requirement anticipated from the Student Generation is smaller than the District's minimum school site requirement, the District has requested cash-in-lieu of land dedication to be paid pursuant to an agreement with the Douglas County School District.

Fire Protection Service

As the Site is located within the jurisdictional boundaries of South Metro Fire Rescue, the Fire District will provide fire prevention, fire suppression, emergency medical, and special team response services to the property. A Will Serve Letter stating South Metro's commitment is included with the PD application. The Applicant will provide a Wildfire Mitigation Plan with the submittal of the Preliminary Plan.

Water and Sanitation

Parker Water and Sanitation District has provided a Will Serve Letter describing its willingness and ability to serve the development. Central Water and Sewer will be provided to all future lots within PA-A through an inclusion agreement with Parker Water and Sanitation District. The applicant will evaluate the option for Pinery Water and Wastewater District to provide sewer service through an Intergovernmental Agreement between Pinery Water and Wastewater District and Parker Water and Sanitation District. Water and sewer will be provided to PA-B through domestic well and septic. While the inclusion will begin processing concurrently with the Rezoning application, it is not expected that the inclusion will be finalized until the Preliminary Plan process and recorded concurrently with the recordation of the Final Plat.

Utilities

Utility improvements will be provided as the project proceeds through the County's development process. Both on-site and off-site water and sanitary sewer improvements, as well as associated stormwater improvements adjacent to Hilltop Road, if required, will be provided to serve the Site.

AMENITIES

Parks, Trails, and Open Space

An approximately 1.5-acre public park (to be owned and maintained by the to-be-formed Ramblewood Metropolitan District) will be located central to Planning Area A. A network of trails throughout Planning Areas A, D, and E will offer future residents and existing surrounding residents recreation opportunities and provide walkable connections to the public park. The park and trails will be open to the public.

PUBLIC NOTICE AND INPUT

Community engagement is an important part of the development process. Ahead of submitting this application, the project team held a virtual neighborhood meeting via Zoom on Wednesday, October 9, 2024, at 6:00 pm to present and discuss the potential rezoning of the Ramblewood site. Notification of the Neighborhood Meeting (including links to the Zoom Webinar and the project website: www.LiveRamblewood.com) were sent to adjacent property owners two weeks prior to the event.

The meeting was attended by approximately 40 neighbors and 5 members of the project team, including Dan Sheldon with Miller United Real Estate, LLC, the developer of the site. Members of the project team gave an overview of the proposed development application, shared several conceptual plans for how the site might develop, and provided an outline of the development process and timeline. At the conclusion of the presentation, members of the project team spent time answering questions asked by the neighbors in attendance.

Following the meeting, a video recording of the meeting, a copy of the presentation, a summary of the Questions & Answers, a letter from the landowner, and a message from the developer, Dan Sheldon, were posted on the project website. Neighbors who provided their contact information for future correspondence were sent a link to these materials.

Continuing community engagement, the project team held an in-person meeting with the Hidden Village HOA Board on Wednesday, March 12, 2025 at 6:00 pm to present and discuss the potential rezoning of the Ramblewood site. While this meeting was not a requirement, it was organized to continue the mutual relationship between Ramblewood and Hidden Village.

The meeting was attended by approximately 8 neighbors and 2 members of the project team, including Dan Sheldon with Miller United Real Estate, LLC. Members of the project team gave an overview of the proposed development application with attention to concerns previously raised at the first neighborhood meeting, including but not limited to access, trail preservation, water supply, and tree preservation. At the conclusion of the presentation, members of the project team continued dialogue to ensure all concerns were appropriately addressed.

Following the meeting, an email was sent to attendees summarizing takeaways and action items. Neighbors were also provided with the Water Supply Report as included in the application. As a follow-up to the March meeting, members of the project team attended another Hidden Village HOA meeting on Sunday, May 4th to provide project updates and answer questions. This meeting was attended by 3 board members and 27 neighborhood residents.

The project team intends to continue hosting future neighborhood meetings and keeping the community up to date on the project through correspondence and updates posted on the project website: www.LiveRamblewood.com.

COMPLIANCE WITH THE DOUGLAS COUNTY COMPREHENSIVE MASTER PLAN (CMP) AND ZONING RESOLUTION

Douglas County Zoning Resolution Section 124: Interpretation

DCZR states: *"While the approval criteria for many land use applications defined herein require "compliance with", consistency with", or "general conformance with" the Comprehensive Master Plan (CMP) or the goals, objectives and policies of the CMP, the individual goals, objectives, and policies are not, themselves, approval criteria. The Board will consider the diversity of community values, application of laws and regulations, private property rights, and unique characteristics of each application when balancing the goals, objectives, and policies set forth in the CMP. A property's designation on the CMP Land Use Map is the primary basis for establishing future use and density."*

2040 CMP Section 1: Interpretation: How the Sections Relate To Each Other

2040 CMP states: *"As a guiding document, the CMP uses language different than found in the regulatory and the subdivision resolution. Words like "encourage", "support", "promote", and "ensure" provide flexibility in prioritizing the competing values in the CMP and remind us that the document is not a checklist."*

Douglas County Comprehensive Master Plan Compliance

Under the Douglas County Comprehensive Master Plan, the Site is identified within the Northeast Subarea and classified under Section 3 – Nonurban Land Use. The proposed development complies with several objectives and policies of the Comprehensive Master Plan, notably:

- Policy 3-1E.1: *Identify and set aside, through the land use and development review processes, important open spaces in tracts or easements, where appropriate.*
    - The Ramblewood PD makes commitments to set aside specific open space areas and proposes significant building setbacks to ensure that ample open space is provided for once the site is developed.

- Objective 3-2A: *Ensure the character and intensity of development is appropriate for the Nonurban Area.*
    - The Ramblewood PD proposes a density of one dwelling unit per 2.5 acres which is consistent with the maximum allowable density of the Northeast Subarea. The proposed density is also consistent with adjacent parcels zoned Estate Residential directly to the east and south of the property. Setbacks and buffers proposed with the PD allow for clustering of residential lots similar to the recent adjacent developments of Vivant and The Fields.

- Policy 3-2A.2: *Where possible, fencing should be wildlife friendly, in accordance with standards recommended by the Colorado Division of Wildlife.*
    - The PD makes a commitment to provide wildlife friendly fencing adjacent to open spaces within Planning Area A will continue to have agricultural uses and therefore shall require wildlife friendly fencing.

- Objective 3-2B: *Design development to conserve and showcase important natural and rural features.*
    - Through commitments to open space buffers and building setbacks, the Ramblewood PD restricts future development design to clustering, which will preserve important natural features along the Site's edge and reinforce the area's rural character. Clustering lots ensures minimal natural land is disturbed. While the allowed lot sizes of the PD are smaller than those immediately surrounding the Site, future lots will still be large enough for the homebuilder to site the homes in a manner that will be conciencious to the existing trees and vegetation on the homebuilding sites.

- Policy 3-2B.1: *Use building envelopes, clustering and other site design techniques, where appropriate, to direct building away from environmentally and visually-sensitive lands.*

- The Ramblewood PD encourages clustering through specific open space buffers along the Site's edges and restrictive building setbacks in Planning Area B to direct building away from visually-sensitive lands.

- Policy 3-2D.1: *Require the provision of open space and trail corridors within residential development to promote recreation and exercise opportunities.*
  - Through commitments to open space and trails, the Ramblewood PD ensures that future residential development promotes recreation and exercise opportunities not only for the residents, but for the general public as well.

- Policy 3-3E.1: *A maximum gross density of one dwelling unit per 2.5 acres is supported in the Northeast Subarea where it is logical infill, where approximately 50 percent of the property boundary is adjacent to zoned lands or parcel sizes consistent with the proposed development, and where site characteristics can generally support it.*
  - The Ramblewood PD allows for logical infill development of the Site at a maximum gross density of one dwelling unit per 2.5 acres. The proposed PD allows for single family residential and agricultural uses which is consistent with the allowed uses of all zoned properties adjacent to the Site (Rural Residential, Estate Residential, and Agricultural-One).
  - The Ramblewood property is bound by an eclectic mix of residential zoning, densities, and lot sizes dating back to the 1970's when the County Regulations were quite different than today, and there was no Comprehensive Master Plan in existence. At the time of development, adjacent neighborhoods were not required to develop Open Space which resulted in lower densities.
  - The Ramblewood Planned Development proposes a logical infill development of the site and is consistent with Policy 3-3E.1 of the 2040 CMP, as stated below and depicted on the "Adjacent Property Gross Density Comparison" **(Exhibit 2),** attached to this Project Summary.
  - **79% of the overall Ramblewood Planned Development property boundary is adjacent to lands with approved gross densities consistent with the proposed development.** The Ramblewood PD proposes a gross density of one dwelling unit per 2.5 acres, consistent with approved adjacent property densities and as allowed in the Northeast Subarea of the 2040 Comprehensive Master Plan.
    - NORTHEAST: Adjacent to the northeast of Ramblewood is the Tallman Gulch development, located across Hilltop Road. Tallman Gulch was rezoned in the early 2000's with an approved gross density of one dwelling unit per 2.1 acres, which is a higher density than currently allowed in the 2040 CMP.
    - SOUTH, EAST, and WEST: Hidden Village was rezoned in the 1970's as "Residential", prior to the current Douglas County Zone Districts classifications. The Hidden Village approved gross density allows for "one dwelling per 3 to 4 acres", densities which are consistent with today's "Estate Residential Zone District" which allows for one dwelling unit per 2.5-4.9 acres. Of note: Douglas County did not have "Zone Districts" or a Comprehensive Master Plan back in the 1970's. Ramblewood's proposed density of one dwelling unit per 2.5 acres is comparable to Hidden Village's

approved density. The 1970 Zoning documents for Hidden Village (**Exhibit 3**) are included as an attachment.

- NORTHWEST CORNER: To the northwest of Ramblewood's project boundary is an unplatted parcel with A-1 Zoning. This parcel currently has one dwelling unit, giving it a density of one dwelling unit per 53.2 acres which is not consistent with Ramblewood.

- Policy 3-3E.2: *A maximum gross density of one dwelling unit per 2.5 acres is supported in the Northeast Subarea where there is adequate public infrastructure to support the proposed development and where the other goals, objectives, and policies of the Plan have been met.*
  - Adequate public infrastructure is available to support the Ramblewood PD. A Traffic Impact Study, as well as will serve letters from the Douglas County School District, South Metro Fire and Rescue, and Parker Water and Sanitation are included with this application. The PD outlines the commitment to Public Land Dedication that will be assessed pursuant to agreements with the providers.

- Policy 3-3E.3: *Encourage connections to central water and sewer district systems, when possible.*
  - Central water and sewer will be provided to all future lots within PA-A through an Inclusion to Parker Water and Sanitation District or other central services provider. Water and wastewater will be provided to PA-B through domestic well and septic.

- Policy 3-3E.5: *New development within the Northeast Subarea should be designed to minimize the removal of vegetation and to use trees and landforms to screen development, where possible. Additional trees and vegetation should be planted, where necessary and appropriate, to screen development.*
  - In determining the location of allowable land uses, the project team has considered the view planes of the surrounding properties and the natural topography of the Site. The buffers of the proposed PD (Planning Area D & E) are designed to preserve large swaths of existing trees along the Site's edge to minimize the removal of vegetation and allow the natural landscape to screen future development of the Site.

- Policy 3-3E.6: *Maintain natural drainages for wildlife movement, where possible, and provide open space linkages within and between large-lot developments.*
  - Recognizing the sensitivity of adjacent properties, the Ramblewood PD makes commitments to open space buffers along the Site's edges adjacent to large-lot developments and will provide wildlife friendly fencing where needed.

- Policy 3-3E.7: *Development along existing roads in the Northeast Subarea should be carefully sited and designed to minimize visual impacts, particularly of distant Front Range Mountain views and open meadows.*
  - Primary access to the Site is envisioned from Hilltop Road. The PD restricts development within 100' of Hilltop Road to ensure a visually appealing front door to future development, respecting the views of homes located across Hilltop Road to the north. It should also be noted that the homes along Hilltop Road shall be

designed to front Hilltop Road providing a more visually pleasing view from the north. Secondary access to the Site is envisioned from Alpine Drive to the south.

Douglas County Zoning Resolution Compliance

Per the Douglas County Zoning Resolution (DCZR) Section 15, a Planned Development is intended *"to encourage innovative and creative design and to facilitate a mix of use in the development of a balanced community including residential, business, commercial, recreational, open space, and other selected secondary uses, in accordance with Section 24-67-101, et. seq., C.R.S. Growth should occur in a phased and contiguous manner to save on the costly, premature extension of basic infrastructure."*

The DCZR outlines the following points, under which the proposed Planned Development's intent is explained.

- *Ensure that provision is made for ample open space;*
  - The PD allows for ample open space through specific buffers and setbacks and through lot standards that ensure cluster residential development. The PD establishes Open Space Planning Areas D & E which only allow Open Space / Trails to be developed within 300 feet of the western property boundary and 200 feet of the eastern property boundary for the portion of Planning Area A adjacent to residential zone districts. This totals to 14 acres of Open Space. As well, Planning Area B is subject to specific building setbacks of 100 feet from external property lines to the east, south, and west. Finally, while not technically considered open space, the two larger agricultural lots will act as private open space as it relates to non-buildable areas. The proposed PD will only allow for minimal structures on the combined 82.5 acres making up Planning Area B hence allowing it to act as private open space.

- *Ensure that environmentally and visually sensitive areas are preserved;*
  - Any environmentally sensitive areas will be preserved. The aforementioned open space buffer and setback standards of the PD serve to promote development that is visually sensitive from the surrounding properties.

- *Promote layout, design and construction of residential development that is sensitive to the natural landform and environmental conditions of the immediate and surrounding area;*
  - The PD proposes buffers and lot standards to cluster development of the Site with the intent of minimal intrusion to natural topography and features.

- *Provide or be located in proximity to employment and activity centers such as shopping, recreational, and community centers, health care facilities, and public transit;*
  - The site's proximity to Hilltop Road offers future residents vehicular connections to the range of employment and activity centers of the nearby Town of Parker and other surrounding areas.

- *Ensure the adequacy of public facilities to accommodate population growth;*
  - The PD application includes an analysis of public facilities to accommodate population growth with the project. A Traffic Impact Study, as well as will-serve

letters from the Douglas County School District, South Metro Fire and Rescue, and Parker Water and Sanitation are included with this application. The PD outlines a commitment to Public Land Dedication that will be assessed pursuant to agreements with the providers.

- *Encourage the provision of dwellings with a range of affordability;*
    - The Ramblewood PD will allow for the development of smaller lot single family residential on a portion of the Site, promoting smaller lots that are rural in nature and in line with market rate demands.

Approval Criteria for Planned Development Rezoning

According to the Douglas County Zoning Resolution the following criteria shall be considered by the Planning Commission and Board in the review of Planned Development rezoning applications.

- 1503.1 *Whether the application is in compliance with the requirements of this Resolution and the Douglas County Comprehensive Master Plan;*
    - The Ramblewood PD is in compliance with the requirements of the DCZR and the Douglas County Comprehensive Master Plan.

- 1503.02 *Whether the application is in compliance with all applicable statutory provisions;*
    - The Ramblewood PD is in compliance with all applicable statutory provisions.

- 1503.03 *Whether there has been a substantial change in the character of the neighborhood, since the land was last zoned;*
    - The Northeast Subarea of the 2040 CMP supports infill and semi-rural development where there is adequate public infrastructure. Changes in the surrounding neighborhoods since this property was last zoned have taken place as early as 1970 through 2024. The Hidden Village rezone was approved in 1970, the Tallman Gulch rezone was approved in the mid 2000's, and the Fields rezone (southeast of the subject property down Hilltop Road) was approved in 2022.

- 1503.04 *Whether the application demonstrates public facilities and services necessary to accommodate the proposed development will be available concurrently with the impacts of such development;*
    - The Ramblewood PD demonstrates public facilities and services necessary to accommodate the proposed development.

- 1503.05 *Whether the roadway capacity necessary to maintain the adopted roadway level-of-service for the proposed development will be available concurrently with the impacts of such development;*
    - A Traffic Impact Study included with the Ramblewood PD application demonstrates that the roadway capacity necessary to maintain the adopted roadway level-of-service for the proposed development will be available concurrently with the development.

- 1503.06 *Whether the proposed rezoning is compatible with the surrounding land uses;*

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- The Ramblewood PD allows for single family residential and agricultural uses which is consistent with the surrounding land uses. As well the Ramblewood PD's proposed gross density is compatible with the gross densities of the surrounding subdivisions.

- 1503.07 *Whether the subject land is suitable for the intended use and is compatible with the natural environment;*
  - The Site of the Ramblewood PD is suitable for the intended PD uses allowing single family residential and agricultural.

- 1503.08 *Whether the proposed Development Plan complies with the general requirements in 1502 herein;*
  - The Ramblewood PD complies with the general requirements in Sections 1502.

- 1503.09 *Whether the planned development provides for unified development control under a unified plan; and*
  - The Ramblewood PD provides for unified development control under a unified plan.

- 1503.10 *Whether the application is in conformance with Section 18A, Water Supply Overlay District, herein*
  - The Ramblewood PD is in conformance with Section 18A, Water Supply Overlay District as seen with the Will Serve and Evidence of Supply.

We believe the proposed Rezoning to Planned Development advances the County's goals and objectives for this particular property and that the Ramblewood PD will allow an appropriate infill of homes, designed to fit in, not stand out, in respect to the established neighborhoods the site lies between. Our team looks forward to continuing our work with Douglas County throughout the review process for this PD. Please contact me at djennings@norris-design.com or 303.892.1166 should you have any questions or concerns.

Thank you,

Daniel Jennings

Daniel Jennings
Senior Associate

Development Standards Comparison Tables

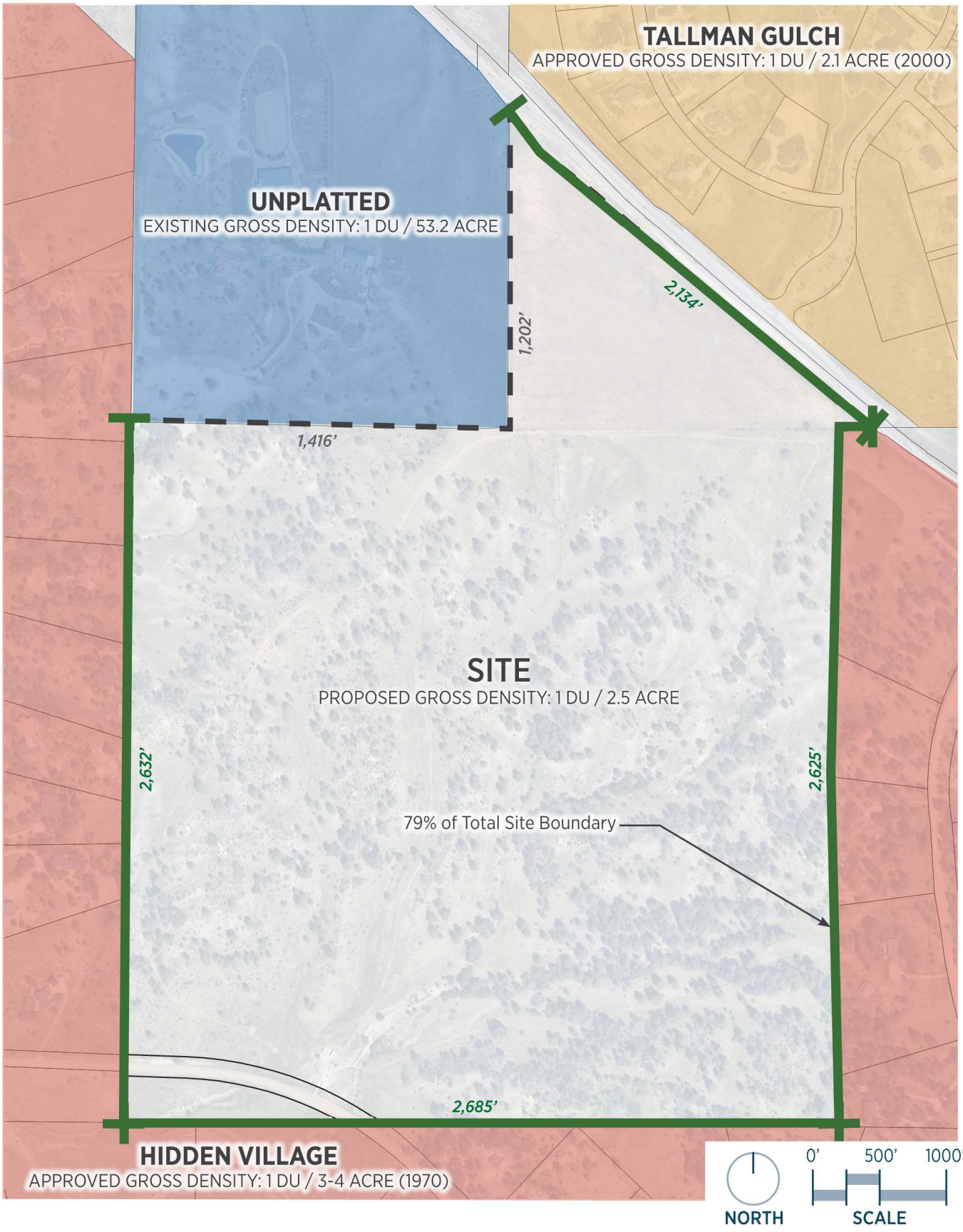
Development Standards Comparison of PA-A to SR of the Douglas County Zoning Resolution (Section 7)		
Standard	Planning Area A	Suburban Residential District
Maximum Gross Density	0.88 du/ac	4.36 du/ac
Minimum Lot Size		
Single-Family Detached	10,000 sq. ft.	9,000 sq. ft.
Minimum Building Setbacks		
Regional or Major Arterial Street	100 ft.	100 ft.
Other Streets	20 ft.	20 ft.
Side	5 ft.	5 ft.
Rear	15 ft.	15 ft.
Maximum Building Height		
Principal Building	35 ft.	35 ft.
Accessory Building	20 ft.	20 ft.

Development Standards Comparison of PA-B and PA-C to A-1 of the Douglas County Zoning Resolution (Section 3)				
Standard	Planning Area B	Agriculture One (Parcels 9-34.9 ac)	Planning Area C	Agriculture One (Parcels <2.3 ac)
Maximum Gross Density	0.03	N/A	0	N/A
Minimum Lot Size				
Single-Family Detached	20 ac	35* ac	1.5 ac	35* ac
Minimum Building Setbacks				
Regional or Major Arterial Street	N/A	100 ft.	N/A	100 ft.
Other Streets	50 ft.	100 ft.	25 ft.	25 ft.
Side	50' from Planning Area-A; 100' from External Property Lines to the West, South, And East	50 ft.	15 ft.	15 ft.**
Rear	50' from Planning Area-A; 100' from External Property Lines to the West, South, And East	50 ft.** ; accessory 25 ft.	15 ft.	25 ft.** ; accessory 15'
Maximum Building Height	35 ft.	35 ft.	35 ft.	35 ft.

*The minimum lot area may be decreased with a clustered design through the exemption process. (DCZR 306)

**Schools and buildings within recreation areas shall be set back 50'

Exhibit 2



RAMBLEWOOD | ADJACENT PROPERTY GROSS DENSITY COMPARISON

03/04/2025

NORRIS DESIGN
PEOPLE + PLACEMAKING

APPLICATION (Execute in triplicate)

RE-ZONING OF COUNTY ZONING UNDER RESOLUTION NO. 201

To COUNTY PLANNING COMMISSION	Date November 17, 1970
From Hidden Village Inc.	Address Parker , Colorado

A change in the zoning map of Douglas County is being requested.

The location of the proposed change in the County is:
(Describe as to nearest town in miles, and direction)
5 miles southeast of Parker

The legal description is as follows (attach legal description if this space is not adequate)
N ½ Se ction 8 T7S R65W

Area of subject property, acres. 320	Present Zone Agricultural	Proposed Zone Residential

The present uses of the area are Agricultural and the applicant proposes to use the parcel, when rezoned for Residential

BE SURE TO FURNISH PLAT MAP OF THE AREA (If for business or industrial development also furnish site plan showing proposed construction.)

Residential	Business	Industrial
No. of units proposed 64 Minimum lot area per unit 3 to 4 acres No. of units Single family All Double Apartments Other Utilities available (name) Public Service Mountain Bell Land uses surrounding subject area North Agriculture East Singing Hills South Agriculture West Hidden Village	No. and types of businesses proposed Area to be served Combined floor area (sq. ft.) Area reserved for off-street parking and loading (sq. ft.) Estimated traffic volume Cars per day caused by proposed business Land uses surrounding subject area North East South West	No. and types of industries proposed Features which make area suitable for industry (topography, street pattern, railroad access, etc.): Land uses surrounding subject area North East South West

(Use reverse side for further information)

NAMES OF ADJOINING LANDOWNERS	POST OFFICE ADDRESSES
North..... Clarence Wallden	Parker , Colo.
East ..... Residents of Singing Hills	"
South ..... Belmont Bldg. Corp.	1050 Sherman Denver , Colo.
West ..... Residents of Hidden Village	Parker , Colo.

NAMES OF NON-ADJOINING LANDOWNERS WHO ARE WITHIN 500 FEET	POST OFFICE ADDRESSES
Terracor Inc.	Parker , Colo.
Raymond Wallden	"
Emil Wallden	"

ACTION TAKEN
(Set out material listed under (action))

Hidden Village Inc.
Sign
C. B. Taylor Pres.

REVIEW OF PROPOSED SUBDIVISION

Name of Subdivision: Hidden Village, Filing No. 5

Date January 29, 1971

Location: Part of N. 1/2 of Section 8, T. 7 S., R. 65 W., Douglas County, Colorado

Preliminary Plat [ ]

Final Plat [X]

Review of this plat indicates the following omissions or variances from the adopted county subdivision regulations:

Reference	Requirement	This Plat	Correction
2.3(15)	Assurance of Improvements	--	Provide.

RECOMMENDATION:

Approve [X] subject to: Provision of above-noted item.

Disapprove [ ] because of:

Table [ ]

John A Davis by Wallace Sinclair

Assistant Planner

cc: Mr. KEN R. WITTE COMPANY, 3955 East Exposition, Denver 744-1861

Name of
Subdivision: Hidden Village
Filing No. 6
Location: N.E. 1/4, Section 8,
T. 7 S., R. 65 W.,
Douglas County, Colorado

Date May 17, 1971

Preliminary Plat ☐

Final Plat ☒

Review of this plat indicates the following omissions or variances from the adopted county subdivision regulations:

Reference	Requirement	This Plat	Correction
2.3(1)	Conformance to Preliminary Plat.	Lots have been enlarged which eliminates the need for the north-south street. A short cul-de-sac has been substituted which serves the purpose.	None.
2.3(15)	Assurance of improvements.	---.	Provide.

RECOMMENDATION:

Approve ☒ subject to: Provision of above-noted item.

Disapproved ☐ because of:

Table ☐

John Davis /mhp

JOHN A. DAVIS, Principal Planner

Prepared by THE KEN R. WILLIAMS COMPANY, 3955 East Exposition, Denver 744-1861

APPLICATION (Execute in triplicate)

RE-ZONING OF COUNTY ZONING UNDER RESOLUTION NO. 201

To COUNTY PLANNING COMMISSION	Date April 15, 1966
From O. E. Taylor	Address Parker, Colorado

A change in the zoning map of Douglas County is being requested.

The location of the proposed change in the County is: 4 miles Southeast of Parker
(Describe as to nearest town in miles, and direction)

The legal description is as follows (attach legal description if this space is not adequate)

W½ of the W½ Sec. 6 N½ of Sec.7 T7S R 65 W of the 6th P.M. Douglas Co.

Area of subject property, acres.	Present Zone	Proposed Zone
480	Agriculture	Residential

The present uses of the area are grazing and the applicant proposes to use the parcel, when rezoned for homesites

BE SURE TO FURNISH PLAT MAP OF THE AREA (If for business or industrial development also furnish site plan showing proposed construction.)

Hidden Village

Residential	Business	Industrial
No. of units proposed 85 Minimum lot area per unit 3 acres No. of units Single family 85 Double Apartments Other Utilities available (name) R E A Elec. Eastern Slope Phone Land uses surrounding subject area North Agriculture East " South " West "	No. and types of businesses proposed Area to be served Combined floor area (sq. ft.) Area reserved for off-street parking and loading (sq. ft.) Estimated traffic volume Cars per day caused by proposed business Land uses surrounding subject area North East South West	No. and types of industries proposed Features which make area suitable for industry (topography, street pattern, railroad access, etc.): Land uses surrounding subject area North East South West

(Use reverse side for further information)

NAMES OF ADJOINING LANDOWNERS	POST OFFICE ADDRESSES
Robert L. Whittlesey	2775 E. 7th. Ave. Denver
Richard L. Crowther	2735 E. 7th. Ave. Denver
F. Burr Betts	Security Life Bldg. Denver
Belmont Bldg. Corp.	1080 Sherman Denver
Glenn , Catherine Curtis	7792 So. Vine Littleton Colo.
Donald Vestal	Parker, Colo.
Percey Boegel	Parker, Colo.
F. Burr Betts Jr.	Parker, Colo.
Clarence Wallden	Parker, Colo.

NAMES OF NON-ADJOINING LANDOWNERS WHO ARE WITHIN 500 FEET	POST OFFICE ADDRESSES
As. Listed above	
Glenn and Catherine Curtis	7792 So. Vine Littleton,Colo.

ACTION TAKEN
(Set out material listed under (action))

C. G. Taylor
Sign

APPLICATION (Execute in triplicate)

RE-ZONING OF COUNTY ZONING UNDER RESOLUTION NO. 201

To COUNTY PLANNING COMMISSION	Date
From	Address

A change in the zoning map of Douglas County is being requested.

The location of the proposed change in the County is:
(Describe as to nearest town in miles, and direction)

The legal description is as follows (attach legal description if this space is not adequate)

Area of subject property, acres.	Present Zone	Proposed Zone
430	Agriculture	Rural

The present uses of the area are pasture and the applicant proposes to use the parcel, when rezoned for homesites

BE SURE TO FURNISH PLAT MAP OF THE AREA (If for business or industrial development also furnish site plan showing proposed construction.)

Residential	Business	Industrial
No. of units proposed 3 Minimum lot area per unit 5 acres	No. and types of businesses proposed	No. and types of industries proposed
No. of units Single family 3 Double Apartments Other	Area to be served Combined floor area (sq. ft.) Area reserved for off-street parking and loading (sq. ft.) Estimated traffic volume Cars per day caused by proposed business	Features which make area suitable for industry (topography, street pattern, railroad access, etc.):
Utilities available (name) Water Electric		
Land uses surrounding subject area North East South West	Land uses surrounding subject area North East South West	Land uses surrounding subject area North East South West

(Use reverse side for further information)

NAMES OF ADJOINING LANDOWNERS	POST OFFICE ADDRESSES
Robert L. Whittlesey	2775 E. 7th. Ave. Denver
Richard L. Crowther	2735 E. 7th. Ave. Denver
F. Burr Betts	Security Life Bldg. Denver
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Donald Vestal	Parker, Colo.
Percey Boegel	Parker, Colo.
F. Burr Betts Jr.	Parker, Colo.
Clarence Wallden	Parker, Colo.

NAMES OF NON-ADJOINING LANDOWNERS WHO ARE WITHIN 500 FEET	POST OFFICE ADDRESSES
As. Listed above	
Glenn and Catherine Curtis	7792 So. Vine Littleton,Colo.

ACTION TAKEN
(Set out material listed under (action))

C B Taylor
Sign

APPLICATION (Execute in triplicate)

RE-ZONING OF COUNTY ZONING UNDER RESOLUTION NO. 201

To COUNTY PLANNING COMMISSION	Date April 25, 1966
From D. J. Taylor	Address Parker, Colorado

A change in the zoning map of Douglas County is being requested.

The location of the proposed change in the County is: 4 miles Southeast of Parker
(Describe as to nearest town in miles, and direction)

The legal description is as follows (attach legal description if this space is not adequate)

N½ of the N½ Sec. 6 N½ of Sec.7 T7S R 65 W of the 6th P.M. Douglas Co.

Area of subject property, acres.	Present Zone	Proposed Zone
480	Agriculture	Residential

The present uses of the area are grazing and the applicant proposes to use the parcel, when rezoned for homesites

BE SURE TO FURNISH PLAT MAP OF THE AREA (If for business or industrial development also furnish site plan showing proposed construction.)

Hidden Village

Residential	Business	Industrial
No. of units proposed 85 Minimum lot area per unit 3 acres No. of units Single family 85 Double Apartments Other Utilities available (name) R. E. A. Elec. Eastern Slope Phone Land uses surrounding subject area North Agriculture East " South " West "	No. and types of businesses proposed Area to be served Combined floor area (sq. ft.) Area reserved for off-street parking and loading (sq. ft.) Estimated traffic volume Cars per day caused by proposed business Land uses surrounding subject area North East South West	No. and types of industries proposed Features which make area suitable for industry (topography, street pattern, railroad access, etc.): Land uses surrounding subject area North East South West

(Use reverse side for further information)

NAMES OF ADJOINING LANDOWNERS	POST OFFICE ADDRESSES
Robert L. Whittlesey	2775 E. 7th. Ave. Denver
Richard L. Crowther	2725 E. 7th. Ave. Denver
F. Carr Betts	Security Life Bldg. Denver
Belmont Bldg. Corp.	1080 Sherman Denver
Glenn , Catherine Curtis	7792 So. Vine Littleton Colo.
Donald Westal	Parker, Colo.
Percy Voegel	Parker, Colo.
F. [illegible] Betts Jr.	Denver, Colo.
Clarence Wilder	Denver, Colo.

NAMES OF NON-ADJOINING LANDOWNERS WHO ARE WITHIN 500 FEET	POST OFFICE ADDRESSES
As. Listed Above	
Glenn and Catherine Curtis	7792 So. Vine Littleton, Colo.

ACTION TAKEN
(Set out material listed under (action))

C. B. Taylor
Sign

Douglas County School District
Learn Today, Lead Tomorrow
620 Wilcox Street
Castle Rock, Colorado 80104

October 15th, 2024

Daniel R. Sheldon, Principal
Miller United Real Estate
6900 E. Belleview Avenue, Suite 300
Greenwood Village, CO 80111

Cell: (303) 886-2838
Email: dsheldon@miller-united.com
Web: www.miller-united.com

RE: Ramblewood Planned Development

Dear Mr. Sheldon,

It is our understanding that a formal submittal will be made to Douglas County to establish a planned development on approximately 177 acres of land located on the south side of Hilltop Road approximately 3.25 miles east of Parker Road. As per the current draft concept plan (attached), 70 dwelling units are proposed over ~177 acres for an estimated density of .4 du/acre.

The proposed development is located within the Mountain View/Northeast Elementary Schools attendance area. Sagewood Middle School and Ponderosa High School are the neighborhood middle and high schools for this location. Please see the current and projected student enrollment and facility capacity information for these 4 schools.

	2024 Enrollment	2024 Percent of Ideal Facility Capacity	2029 Projected Enrollment	2029 Projected Percent of Ideal Facility Capacity
Mountain View ES	337	81%	289	70%
Northeast ES	327	102%	317	98%
Sagewood MS	817	70%	870	75%
Ponderosa HS	1,410	71%	1,420	72%

While DCSD is forecasting available seats at the schools currently assigned for this area, the anticipated continual growth of the nearby Looking Glass and Tanterra developments, as well as residual enrollment growth from the recently completed Cobblestone Ranch, Trails at Crowfoot, Cielo, Meadowlark, and Stone Creek Ranch developments, is expected to place continual pressure on DCSD school facilities serving these locations. DCSD anticipates needing to implement capacity management strategies in this region over the next 5 years in order to balance enrollment growth amongst district facilities. Please see the current and projected student enrollment and facility capacity information for the schools serving these adjacent residential developments.

	2024 Enrollment	2024 Percent of Ideal Facility Capacity	2029 Projected Enrollment	2029 Projected Percent of Ideal Facility Capacity
Franktown ES	339	105%	322	100%
Legacy Point ES	520	126%	774	187%
Mountain View ES	337	81%	289	70%
Northeast ES	327	102%	317	98%
Sagewood MS	817	70%	870	75%
Ponderosa HS	1,410	71%	1,420	72%

DCSD has calculated the amount of school site land requirement for students generated by the proposed planned development. Student generation and the associated land dedication requirement are shown below. A total of 38 elementary school students, 11 middle school student, and 22 high school students are expected from the development (as proposed) generating a land dedication requirement of 1.646 acres. Since this is smaller than DCSD's minimum school site size, DCSD would request cash-in-lieu of land dedication.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: RAMBLEWOOD PD-PRESUBMITTAL/WILL SERVE-10.15.2024				
DU/	ACRES		DENSITY	
70	177		0.40	
			Generation	Number
STUDENT GENERATION RATES	No. of DU's		Rate	of Students
ELEMENTARY	70	X	0.54	38
MIDDLE SCHOOL	70	X	0.15	11
HIGH SCHOOL	70	X	0.31	22
				Required
			School	Land
	Number		Acreage	Dedication
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage
ELEMENTARY	38	X	0.018	0.680
MIDDLE SCHOOL	11	X	0.030	0.315
HIGH SCHOOL	22	X	0.030	0.651
			TOTAL	1.646

As per Article 1004.05.3 of the Douglas County Subdivision Regulations, "The cash-in-lieu fee shall be equivalent to the full market value of the acreage required for school land dedication. Value shall be based on anticipated market value after completion of platting. The applicant shall submit a proposal for the cash-in-lieu fee and supply the information necessary for the Board to evaluate the adequacy of the proposal. This information shall include at least one appraisal of the property by a qualified appraiser." And as per Article 1004.06, "The conveyance of land or payment of fees obtained through the County's dedication requirement shall be required prior to the recordation of the first final plat for the subdivision. The conveyance of dedicated school land to Douglas County shall be by warranty deed and the title shall be free and clear of all liens and encumbrances, including real property taxes prorated to the time of conveyance. The applicant shall provide a title insurance

policy in the County's name and a certified survey at the time of conveyance."

DCSD looks forward to future collaboration with United Miller on this proposal. Please feel free to reach out with any further questions or comments regarding DCSD service to the proposed Ramblewood Planned Development.

Shavon Caldwell, Planning Manager
DCSD Planning & Construction
scaldwell2l@dcsdk12.org
desk: 303.387.0417

SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

October 17, 2024

2347-063-00-001 and 2347-061-00-001

Attn: Kevin Lovelace

RE: "Will-Serve" Letter for parcel numbers 2347-063-00-001 and 2347-061-00-001

Kevin,

The purpose of this letter is to confirm that the subject address is within the jurisdictional boundaries of South Metro Fire Rescue, a Special District in the State of Colorado with powers and duties outlined in section 32-1-1002 of the Colorado Revised Statutes. South Metro Fire Rescue provides fire prevention, fire suppression, emergency medical, and special team response services to properties within its jurisdictional boundaries. Any questions regarding our services may be directed to our office at 720-989-2230.

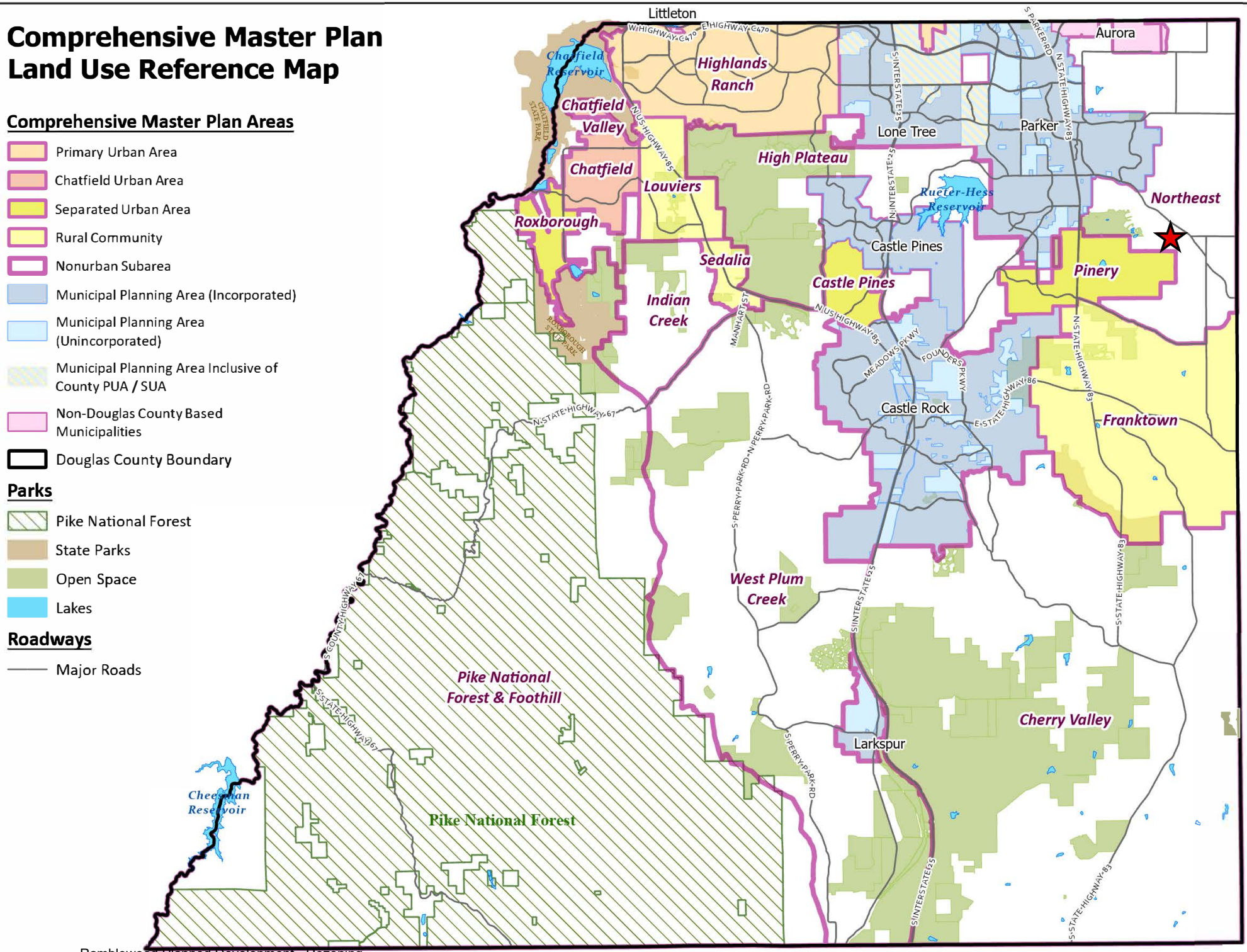
Sincerely,

Roberta Payan

Roberta Payan
Permit Coordinator

cc: file Parcel numbers 2347-063-00-001 and 2347-061-00-001

Comprehensive Master Plan Land Use Reference Map



Comprehensive Master Plan Areas

- Primary Urban Area
- Chatfield Urban Area
- Separated Urban Area
- Rural Community
- Nonurban Subarea
- Municipal Planning Area (Incorporated)
- Municipal Planning Area (Unincorporated)
- Municipal Planning Area Inclusive of County PUA / SUA
- Non-Douglas County Based Municipalities
- Douglas County Boundary

Parks

- Pike National Forest
- State Parks
- Open Space
- Lakes

Roadways

- Major Roads

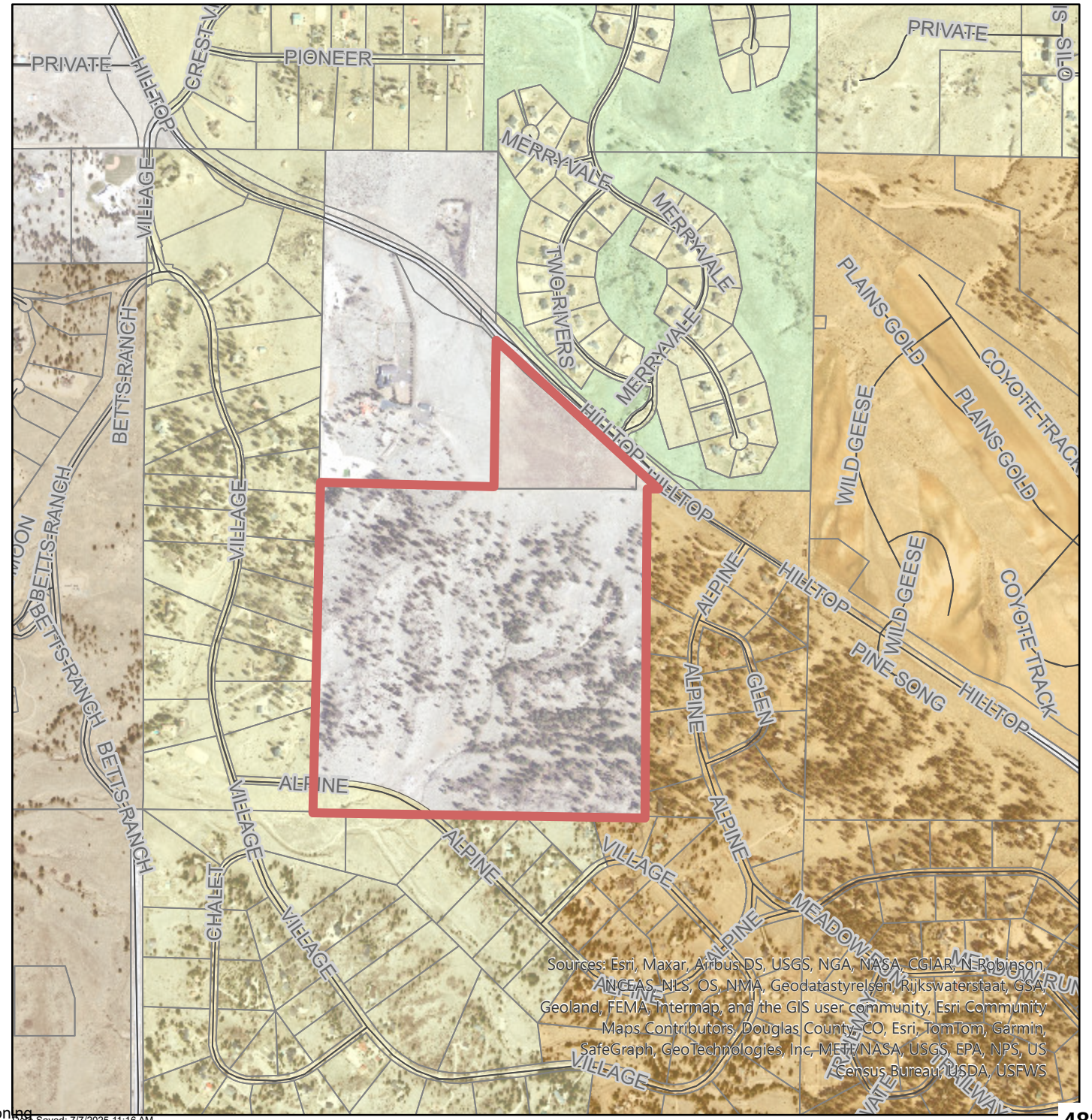
Ramblewood Planned Development

ZR2024-031
Zoning Map

N

LEGEND

- Roads
- Major Roads
- Parcels - PARCELS
- A1 - AGRICULTURAL ONE
- RR - RURAL RESIDENTIAL
- ER - ESTATE RESIDENTIAL
- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION



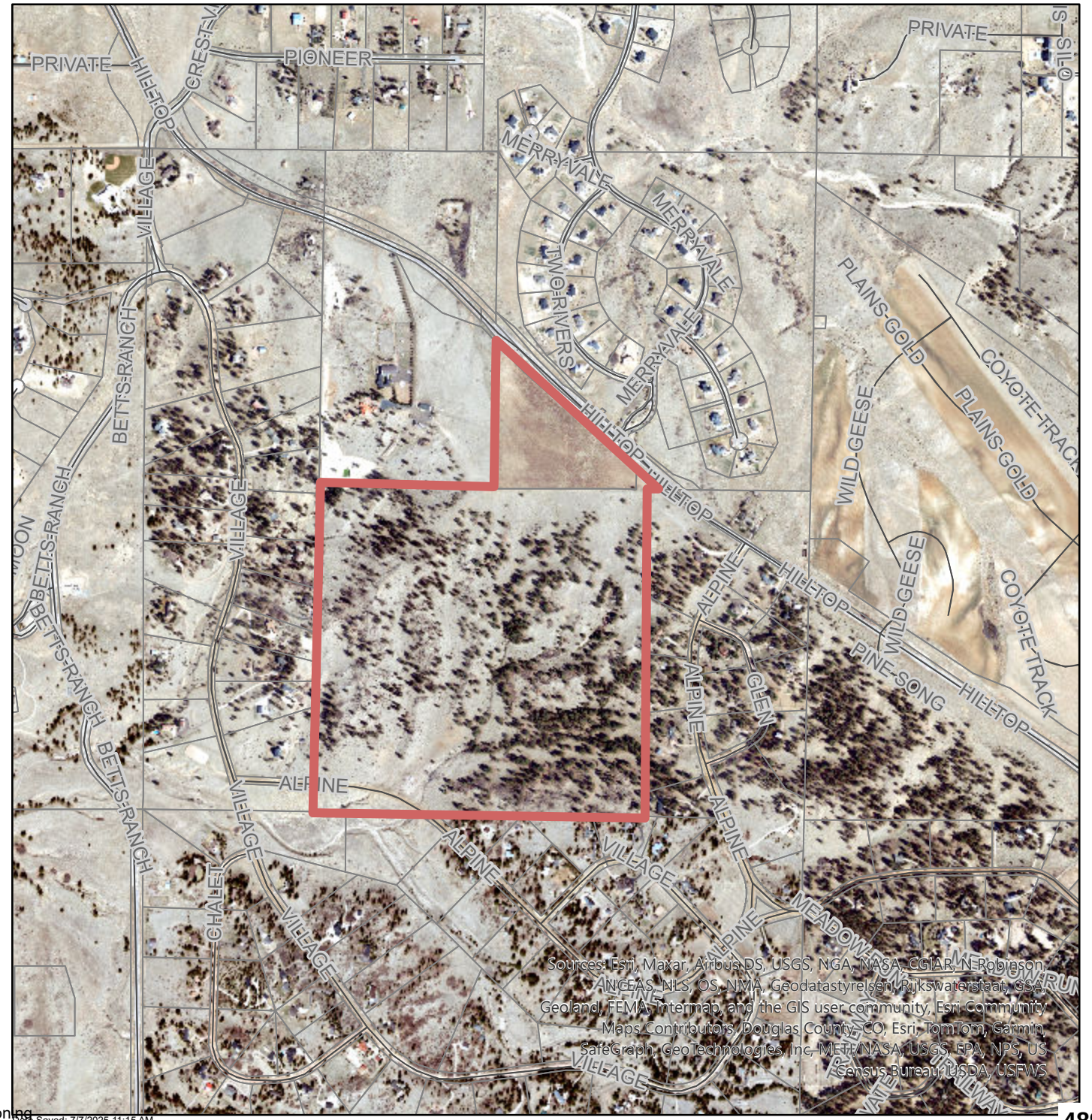
Date Saved: 7/7/2025 11:16 AM

Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0

Ramblewood Planned Development

ZR2024-031
Aerial Map

LEGEND
- Roads
- Major Roads
- Parcels - PARCELS



Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	03/20/2025	No Comment:	No response necessary
AT&T Long Distance - ROW		No Response Received:	No response necessary
Black Hills Energy		No Response Received:	No response necessary
Building Services	03/21/2025	No Comment:	No response necessary
CenturyLink	04/03/2025	Received: Qwest Corporation, d/b/a CenturyLink QC ("CenturyLink") has reviewed the request for comment on the project described above and has determined that it has No Comments/No Objections. It is the intent and understanding of CenturyLink that this Letter of No Objection shall not reduce our rights to any existing easement or rights we have on this site or in the area. This Letter of No Comment/No Objection response is submitted WITH THE STIPULATION that if CenturyLink facilities are found and/or damaged within the area as described, the Applicant will notify Lumen and bear the cost of relocation and repair of said facilities. If you have any questions please contact Lumen Engineering at Bobby.Hight@lumen.com or Stephanie Canary at (352) 425-8763 or stephanie.canary@lumen.com.	Applicant acknowledged comments

Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
Cherry Creek Basin Water Quality Authority	03/31/2025	Received: The Cherry Creek Basin Water Quality Authority (Authority) acknowledges notification from Douglas County that the proposed development plans for ZR2024-031, Ramblewood Planned Development have been or will be reviewed by Douglas County for compliance with the applicable Regulation 72 construction and post-construction requirements. Based on the Authority's current policy, the Authority will no longer routinely conduct a technical review and instead the Authority will defer to Douglas County's review and ultimate determination that the proposed development plans comply with Regulation 72. If a technical review of the proposed development plan is needed, please contact LandUseReferral@ccbwqa.org. The review may include consultation with the Authority's Technical Manager to address specific questions or to conduct a more detailed Land Use Review, if warranted.	Applicant acknowledged comments
Colorado Division of Water Resources	04/09/2025	Received: See attached letters Summary 04/09/2025: Requested additional information regarding uses and aquifer source for agricultural lots. Summary 05/12/2025: The proposed water supply is adequate so long as the District is committed to serving the 68 lots.	Applicant provided requested information and received updated comments that the water supply is adequate.
Colorado Geological Survey		No Response Received:	Applicant acknowledged comments
Colorado Parks and Wildlife (East DC - Dist 549)		No Response Received:	Applicant acknowledged comments

Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
Comcast		No Response Received:	Applicant acknowledged comments
CORE Electric Cooperative	04/28/2025	Received: CORE Electric Cooperative will require the revised setback language not allowing encroachment into setbacks. Setbacks include utility easements; CORE will not allow encroachments into utility easements. CORE will require a minimum front lot 15-foot setback. CORE will the following require notes added: No improvements that conflict with or interfere with construction, maintenance or access to utilities shall be placed within the utility easements. Prohibited improvements include, but are not limited to, permanent structures, buildings, counterforts, decks, attached porches, attached stairs, window wells, air conditioning units, retaining walls/components and other objects that may interfere with the utility facilities or access, use and maintenance thereof.	Applicant acknowledged comments and will incorporate notes into future Preliminary Plan and Final Plat
Crest View Estates HOA		No Response Received:	No response necessary
Douglas County Conservation District		No Response Received:	No response necessary
Douglas County Health Department	03/19/2025	Received: See attached letter Summary: Noted concerns about fugitive dust during construction and provided information regarding mitigation.	Applicant acknowledged comments.
Douglas County Historic Preservation	03/20/2025	Received: Please see attached letter Summary: Requests a Class II Cultural Resources Survey with future applications. Noted process to follow if artifacts are discovered.	Applicant acknowledged comments and will provide the Cultural Resources Survey with Preliminary Plan application.

Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
Douglas County Parks and Trails	04/29/2025	Received: They would need to follow the Park Land Dedication standards as outlined in Article 10 of the Douglas County Subdivision Resolution, so I believe they are covering that in the plan.	Applicant acknowledged. Land dedication will follow Article 10 of the Douglas County Subdivision Resolution.
Douglas County School District RE 1	04/28/2025	Received: See attached letter Summary: Provided information regarding student generation. Requested cash-in-lieu of land dedication.	Applicant will provide cash-in-lieu of land dedication at final plat.
Engineering Services	04/09/2025	Received: See attached letters Summary: Requested revisions to traffic impact analysis and noted required improvements and contributions to roadways.	Applicant revised traffic impact analysis and added commitments to roadway improvements and right-of-way dedications.
Hidden Village POA		No Response Received:	No response necessary
Mile High Flood District		No Response Received:	No response necessary
Office of Emergency Management	03/18/2025	Received: OEM has no issues with this project	No response necessary
Open Space and Natural Resources		No Response Received:	No response necessary
Parker Water & Sanitation District	03/18/2025	Received: Please note This Project has not included into the Parker Water district at this time, no reviews will be completed until this project is a part of the Parker Water District.	Applicant provided a will serve letter from Parker Water and Sanitation.
Rural Water Authority of Douglas County		No Response Received:	No response necessary
Sheriff's Office		No Response Received:	No response necessary
Sheriff's Office E911		No Response Received:	No response necessary
South Metro Fire Rescue	04/11/2025	Received: South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD Rezoning. Applicants are encouraged to contact SMFR regarding the applicable fire code requirements for the proposed project.	Applicant acknowledged information.

Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
The Pinery HOA	04/08/2025	No Comment:	No response necessary
Town of Parker Development Review		No Response Received:	No response necessary
Town of Parker Public Works	03/18/2025	No Comment:	No response necessary
Wildfire Mitigation	04/07/2025	Received: A wildfire hazard assessment has been completed for the property and a wildfire mitigation plan will be required for the development. Please contact the wildfire mitigation and resilience coordinator directly with questions or for consultation regarding expectations and related requirements for plan development and execution.	Applicant will provide a wildfire mitigation plan for review with the Preliminary Plan.

Xcel Energy-Right of Way & Permits	03/31/2025	Received: Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the documents for Ramblewood Planned Development. As always, thank you for the opportunity to take part in the review process. For these single-family residential lots and to ensure that adequate utility easements are available within this development and per state statutes, Public Service Company requests that the following language or plat note is placed on the preliminary and final plats for the subdivision: Six-foot (6') wide dry utility easements are hereby dedicated on private property adjacent to each front lot line of each lot. In addition, eight-foot (8') wide dry utility easements are hereby dedicated around the perimeter of tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant	

Project Name: Ramblewood Planned Development
Project File #: ZR2024-031
Date Sent: 03/18/2025 **Date Due:** 04/08/2025

Agency	Date Received	Agency Response	Response Resolution
		PSCo an easement on its standard form. Public Service Company also requests that all utility easements are depicted graphically on the preliminary and final plats. While these easements should accommodate the majority of utilities to be installed in the subdivision, some additional easements may be required as planning and building progresses. The property owner/developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent. As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.	

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

March 19th, 2025

Trevor Bedford
100 Third St.
Castle Rock, CO 80104

RE: ZR2024-031

Dear Mr. Thomas

Thank you for the opportunity to review and comment on the Ramblewood Planned Development project. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has the following comment(s).

Fugitive Dust – Permanent uses
Exposure to air pollution is associated with several health problems including asthma, lung cancer, and heart disease. The Colorado Department of Public Health and Environment Air Pollution Control Division (APCD) regulates air emissions, including fugitive dust. Control measures may be necessary to minimize the amount of fugitive emissions from site activities including haul roads, stockpiles, and erosion. The applicant shall contact the APCD, at (303) 692-3100 for more information. Additional information is available at https://cdphe.colorado.gov/air-emissions-from-business-and-industry.

Stormwater Impacts
Development of the subject parcel will potentially result in an increase of stormwater and snowmelt runoff that may contribute significant pollutant loadings. These pollutants include bacteria, nutrients, metals, and oxygen consuming contaminants.

DCHD noted the Phase one drainage report.

Sincerely,

Caden Thompson
Environmental Health Specialist I
Douglas County Health Department

REFERRAL RESPONSE REQUEST

Date Sent: March 18, 2025 Comments due by: **April 8, 2025**

Project Name:	Ramblewood Planned Development
Project File #:	ZR2024-031
Project Summary:	The applicant is proposing a Planned Development (PD) rezoning to establish the Ramblewood PD consisting of up to 70 single-family dwelling units and 14 acres of open space within a total 176 acres. The site is located on the south side of Hilltop Road approximately across from the intersection of Hilltop Road and Merryvale Trail.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☒ No Comment	
☐ Please be advised of the following concerns:	
☒ See letter attached for detail.	
Agency: CenturyLink (Lumen)	**Phone #:** 352-425-8763
Your Name: Stephanie Canary	**Your Signature:** Stephanie Canary
(please print)	**Date: April 3, 2025**

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Trevor Bedford, AICP, Project Planner *Enclosure*

April 3, 2025

Trevor Bedford, AICP
Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Sent To: tbedford@douglas.co.us
Copied To: Bobby.Hight@lumen.com

P845397
No Reservations/No Objection

No Reservations/No Objection for: Douglas County Project Number ZR2024-031/ Ramblewood Planned Development / 9757 Hilltop Road, Parker, CO / Douglas County PID # 2347-061-00-001 & 2347-063-00-001

Dear Mr. Bedford:

Qwest Corporation, d/b/a CenturyLink QC ("CenturyLink") has reviewed the request for comment on the project described above and has determined that it has No Comments/No Objections.

It is the intent and understanding of CenturyLink that this Letter of No Objection shall not reduce our rights to any existing easement or rights we have on this site or in the area.

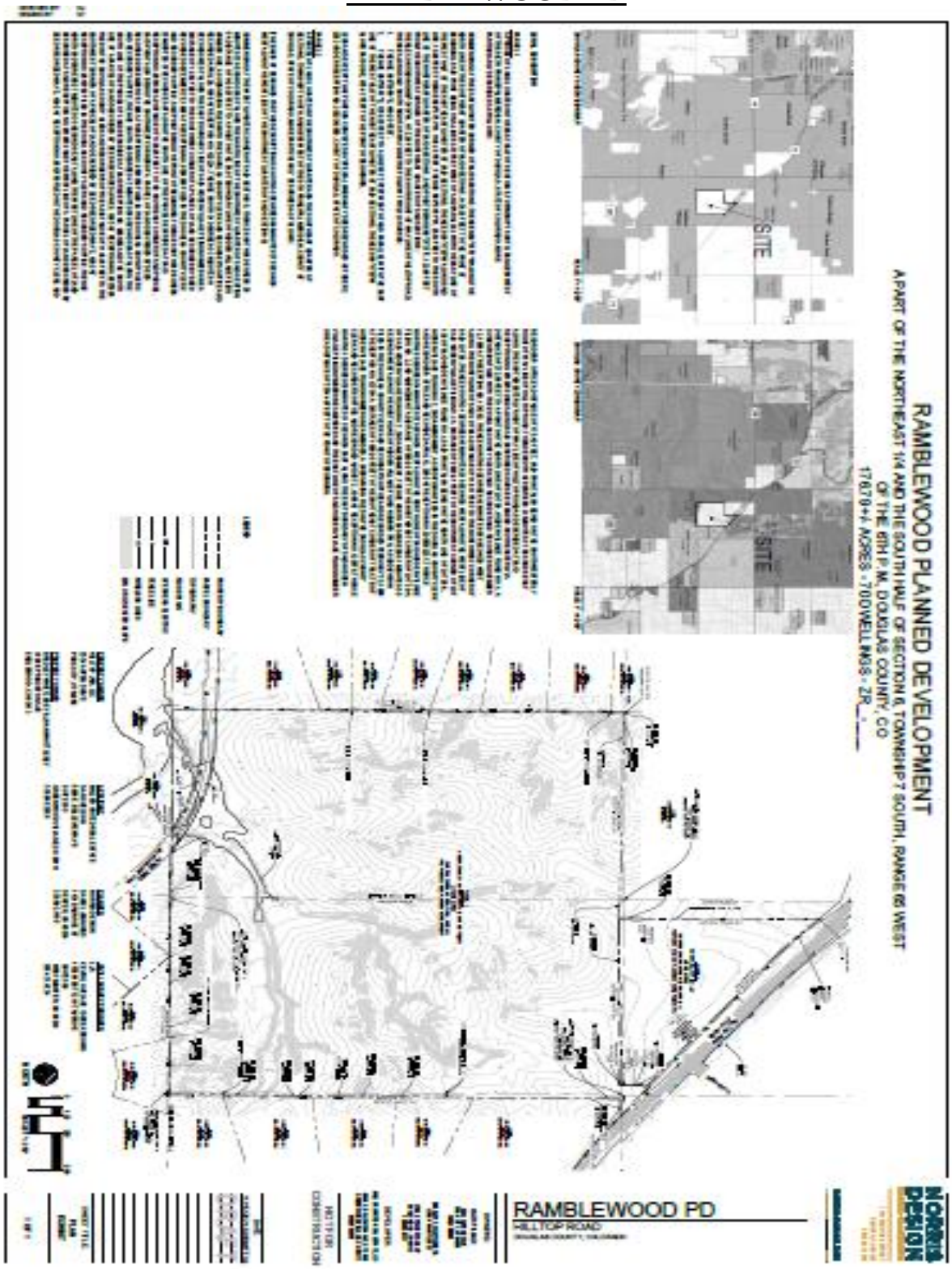
This Letter of No Comment/No Objection response is submitted WITH THE STIPULATION that if CenturyLink facilities are found and/or damaged within the area as described, the Applicant will notify Lumen and bear the cost of relocation and repair of said facilities.

If you have any questions please contact Lumen Engineering at Bobby.Hight@lumen.com or Stephanie Canary at (352) 425-8763 or stephanie.canary@lumen.com.

Sincerely yours,

CenturyLink Right of Way Team

EXHIBIT P865397
RAMBLEWOOD PD



NOT TO SCALE-FOR ILLUSTRATION ONLY

REFERRAL RESPONSE REQUEST

Date Sent: March 18, 2025 Comments due by: **April 8, 2025**

Project Name:	Ramblewood Planned Development
Project File #:	ZR2024-031
Project Summary:	The applicant is proposing a Planned Development (PD) rezoning to establish the Ramblewood PD consisting of up to 70 single-family dwelling units and 14 acres of open space within a total 176 acres. The site is located on the south side of Hilltop Road approximately across from the intersection of Hilltop Road and Merryvale Trail.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☐ No Comment

☒ Please be advised of the following concerns:

The Phase I Drainage Report is acceptable. Refer to the attached redlines and email from our traffic engineer.

☐ See letter attached for detail.

Agency: DC Engineering	**Phone #:** 303-660-7490
Your Name: Chuck Smith	**Your Signature:** *Chuck Smith*
(please print)	**Date:** 4/2/2025

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Trevor Bedford, AICP, Project Planner

Enclosure

Trevor Bedford

From: Chris Martin
Sent: Friday, April 4, 2025 3:12 PM
To: Chuck Smith
Cc: Amy Strouthopoulos; Benjamin Pierce; Trevor Bedford
Subject: RE: Ramblewood Subdivision off Hilltop Road - TIA

Chuck,

I have reviewed the TIA for the above project and have the following comments:

Hilltop Rd at Access A/Merryvale Trail

- Future year intersection geometry: per Figure 7 this analysis assumes that the northwest bound left turns from Hilltop Rd will be made from a shared through/left turn lane. This is not typical for higher classification – 4-lane roadways. This study should analyze this approach assuming a dedicated left turn lane for all the future scenarios.

- For the northeast bound approach to Hilltop Rd (Access A) it is assumed in the analysis that left, through, and right turning movements are made from a single lane approach. Although it will likely not make a significant change to the LOS for this approach, this study should assume that there would be a dedicated left turn lane and a shared through/right turn lane.

- This intersection is shown to operate at poor levels of service during both peak hours and in both short (2029) and long term (2044) future horizons. This is due to the delay experience by the stop controlled approaches. As the study indicates, this is not uncommon for stop controlled approaches to operate with noticeable delays. The delay for this approach is:
  - 2029 horizon; 36.2 second per vehicle (sec/v) in the AM peal and 64.3 sec/v in the PM peak.
  - 2044 horizon; 167.7 sec/v in the AM peak and 145.5 sec/v in the PM peak.

  County criteria requires that for intersections within the study area with a projected LOS "E" or worse, mitigations measures shall be identified to bring the intersection operation to an acceptable level (this would be LOS D).

  The study identifies the potential mitigation for this intersection is conversion of the intersection to signal-control operation. While signal-control of this intersection is likely to improve the side street LOS, this would come at the expense of the free flow movements on Hilltop Rd. Also, traffic-signal operation is not likely to be warranted by volume warrants.
  Other potential mitigations would include:
  - Roundabout
  - Restricting/prohibiting left turn movements.

  It is not likely that implementation of any of these mitigation would be needed in the short term horizon.

Percentage of site trips on local roads

Because paving of the area local roads in 2025 is currently planned for by the County, a cost-share percentage has been determined for the two unpaved road segments impacted by the Ramblewood project trips. The Ramblewood project's share is calculated as:

- 45% for Alpine Dr from the proposed site access to Village Rd.
- 21% for Village Rd.

Methodology:
Existing daily volume projections for the unpaved segments of local roads were calculated based on the assumption that the daily volumes would be 10 times the PM peak hour volumes (found on Figure 3 – EXISTING TRAFFIC). The segments and existing projected daily volumes are:

- Alpine Dr from Village Rd to the east (80 tpd) and
- Village Road from Alpine Dr north to the existing end of pavement south of Betts Ranch Rd intersection (250 tpd).

Using the same method as above, the daily site generated trips were calculated for the two segments using the data provided on Figure 6 – SITE- GENERATED TRIPS. The projected site generated trips using Alpine Dr from site access and up Village Rd to the north is 65 tpd.

Using these numbers, the projected total buildout volumes (existing plus site) were determine to be 145 tpd on Alpine Dr and 315 on Village Rd from Alpine Dr to the north.

Summary

The Ramblewood TIA needs to be revised based on the comments provided above for the intersection of Hilltop Rd/Access A/Merryvale Tr.

Improvements related to this project are:

- The south leg of the intersection of Hilltop Rd/Access A/Merryvale Tr, stop controlled with a single southwest bound lane and 2 northbound approach lanes (dedicated left turn lane and combined through/right turn lane at Hilltop Rd.
- A northwest bound left turn lane on Hilltop Rd into the development access.
  Note: if Access A is constructed prior to the Hilltop Rd widening project planned by the County, then the Ramblewood development will be responsible to improve Hilltop Rd to include this improvement. Otherwise the improvement would be constructed with the County's project with a fair-share contribution from the development.
- Fair-share contribution (as described above) to the County for the paving of the two local road segments impacted by the development.

Let me know if you have any comments or questions on the above or need any additional information.

Thanks
Chris

From: Chuck Smith <CSmith@douglas.co.us>
Sent: Thursday, February 6, 2025 8:42 AM
To: Chris Martin <CMartin@douglas.co.us>
Subject: Ramblewood Subdivision off Hilltop Road - TIA

Hi Chris – attached is the traffic study for DV 2024-510 - thanks

Chuck Smith, CFM | Engineer III – Douglas County Engineering
Douglas County Department of Public Works Engineering
Engineering Services
Address | 100 Third St., Castle Rock, CO 80104
Main | 303-660-7490
Email | CSmith@douglas.co.us

RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031

SHEET INDEX

1 COMMITMENTS & PROVISIONS
2 DEVELOPMENT STANDARDS
3 DEVELOPMENT PLAN

GENERAL PROVISIONS

AUTHORITY

THIS DEVELOPMENT PLAN IS AUTHORIZED BY SECTION 15 - PLANNED DEVELOPMENT DISTRICT OF THE DOUGLAS COUNTY ZONING RESOLUTION ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

APPLICABILITY

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THIS DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE COMMUNITY DEVELOPMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.

ADOPTION

THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCE THE FINDINGS AND DECISION OF THE DOUGLAS COUNTY BOARD OF COMMISSIONERS THAT THIS DEVELOPMENT PLAN FOR RAMBLEWOOD IS IN GENERAL CONFORMITY WITH THE DOUGLAS COUNTY COMPREHENSIVE MASTER PLAN; IS AUTHORIZED BY THE PROVISION OF SECTION 15 OF THE DOUGLAS COUNTY ZONING RESOLUTION; AND THAT SUCH SECTION 15 AND THIS DEVELOPMENT PLAN COMPLY WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

RELATIONSHIP TO COUNTY REGULATIONS

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF RAMBLEWOOD, PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT, THE RELEVANT PROVISIONS OF THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF DOUGLAS COUNTY, SHALL BE APPLICABLE.

ENFORCEMENT

TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PLANNED DEVELOPMENT AND OF THE PUBLIC IN THE PRESERVAT
PROVISIONS OF THIS PLAN RELATING TO THE USE OF L
SPACE SHALL RUN IN FAVOR OF DOUGLAS COUNTY ANI
EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY I
BY LAW.

CONFLICT

WHERE THERE IS MORE THAN ONE PROVISION WITHIN
SAME SUBJECT MATTER, THE PROVISION WHICH IS MO
STANDARDS OR REQUIREMENTS SHALL GOVERN UNLE
OF COMMUNITY DEVELOPMENT.

MAXIMUM LEVEL OF DEVELOPMENT

THE TOTAL NUMBER OF DWELLINGS OR THE TOTAL CO
INTENSITY APPROVED FOR DEVELOPMENT WITHIN THE
DEVELOPMENT REQUESTED FOR PLATTING OR CONSTR
TRANSFERS, IF ANY). THE ACTUAL NUMBER OF DWELL
COMMERCIAL, BUSINESS, OR INDUSTRIAL PROPERTIES
IMPROVEMENT PLAN REQUIREMENTS, LAND CARRYING
BOARD OF COUNTY COMMISSIONERS.

PROJECT TRACKING

AT THE TIME OF SUBDIVISION FINAL PLAT, THE APPLICA
DEVELOPMENT, TO DATE, ALONG WITH THE FINAL PLAT
DIVISION, IN ORDER TO ASSURE MAXIMUM DEVELOPME

STATEMENT OF COMMITMENTS

THE FOLLOWING SECTIONS DESCRIBE THE REQUIRED DEVELOPMENT COMMITMENTS FOR THE RAMBLEWOOD PLANNED DEVELOPMENT. THE REQUIRED DEVELOPMENT COMMITMENTS MUST BE COMPLETED BY THE OWNER OR ITS SUCCESSORS OR ASSIGNS, AND SHALL BE BINDING UPON ITS HEIRS, SUCCESSORS, AND ASSIGNS WITH RESPECT TO THE LAND WITHIN THE RAMBLEWOOD PLANNED DEVELOPMENT.

1. DEDICATIONS: ALL DEDICATIONS OF PUBLIC FACILITIES, INCLUDED BUT NOT LIMITED TO PARK AND OPEN SPACE LANDS, STREETS, DRAINAGE FACILITIES, AND EASEMENTS SHALL BE DEDICATED AT NO COST TO DOUGLAS COUNTY. TITLE INSURANCE SHALL BE PROVIDED FOR ALL COUNTY-DEDICATED LAND. ALL REQUIRED UTILITY EASEMENTS SHALL BE DEDICATED TO THE SERVICE PROVIDER(S). DEDICATIONS SHALL BE MADE AT THE TIME OF FINAL PLAT OR AS REQUIRED BY DOUGLAS COUNTY. IN ACCORDANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, DEDICATED LAND SHALL BE CONVEYED TO DOUGLAS COUNTY AND THE COUNTY MAY FURTHER CONVEY THE LAND TO THE APPROPRIATE AGENCY.

2. SCHOOL LAND DEDICATION

   A. SCHOOL LAND DEDICATION SHALL BE IN COMPLIANCE WITH SECTION 1004 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. NO LAND SHALL BE DEDICATED FOR SCHOOL CONSTRUCTION ON THE PROPERTY.
   C. THE OWNERS AND THEIR ASSIGNS SHALL PAY CASH-IN-LIEU OF LAND DEDICATION FOR SCHOOLS PRIOR TO RECORDING THE FIRST FINAL PLAT.

3. PARK LAND DEDICATION

   A. LOCAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.1 AND 1003.11.3 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. REGIONAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.2 AND 1003.11.4 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION.

4. THE DEVELOPER INTENDS ON FORMING A NEW TITLE 32 SPECIAL DISTRICT TO BE CALLED THE RAMBLEWOOD METROPOLITAN DISTRICT. WHILE THE APPLICATION, SERVICE PLAN, AND ANY OTHER SUPPORTING DOCUMENTS FOR THE DISTRICT ARE NOT INCLUDED WITH THIS PD APPLICATION, THE DEVELOPER DOES INTEND ON PROCESSING THE REVIEW AND APPROVAL OF THE DISTRICT CONCURRENT WITH THE PD ZONING.

5. ROADWAY IMPROVEMENTS

   ROADWAY IMPROVEMENTS WILL BE MADE AS DETERMINED NECESSARY BY DOUGLAS COUNTY ENGINEERING PUBLIC WORKS.

6. STORMWATER MANAGEMENT, FLOODPLAIN, AND DRAINAGE IMPROVEMENTS

   STORMWATER MANAGEMENT SHALL ADHERE TO CURRENT STORMWATER MANAGEMENT PRACTICES AS REQUIRED IN THE DOUGLAS COUNTY STORM DRAINAGE AND TECHNICAL CRITERIA MANUAL. DEVELOPMENT WITHIN DESIGNATED FLOODPLAIN AREA IS EXPECTED TO BE AVOIDED.

7. UTILITY IMPROVEMENTS

   THE PROJECT WILL BE REQUIRED TO COMPLETE BOTH ON-SITE AND OFF-SITE WATER AND SANITARY SEWER IMPROVEMENTS, AS WELL AS ASSOCIATED STORMWATER IMPROVEMENTS ADJACENT TO HILLTOP ROAD IF REQUIRED AND AS NEEDED TO SERVE THE SITE.

8. WATER AND SEWER

   CENTRAL WATER AND SEWER WILL BE PROVIDED TO ALL FUTURE LOTS WITHIN PA-A THROUGH AN INCLUSION TO PARKER WATER AND SANITATION DISTRICT. WATER AND WASTEWATER WILL BE PROVIDED TO PA-B THROUGH DOMESTIC WELL AND SEPTIC.

9. FIRE PROTECTION

   FIRE PROTECTION SHALL BE PROVIDED BY SOUTH METRO FIRE RESCUE.

10. WILDFIRE MITIGATION PLAN

    A WILDFIRE MITIGATION PLAN SHALL BE COMPLETED FOR COMPLIANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION SECTION 17 - WILDFIRE HAZARD OVERLAY DISTRICT, AS AMENDED. OWNER, ITS SUCCESSORS AND ASSIGNS SHALL PROVIDE A WILDFIRE MITIGATION PLAN(S) CONCURRENT WITH PRELIMINARY PLAN AND COMPLETED WITH THE FINAL PLAT. IN PREPARATION OF WILDFIRE MITIGATION PLAN(S) ROADS SHALL MEET DOUGLAS COUNTY ROADWAYS STANDARDS, CUL-DE-SACS SHALL BE PROVIDED ON ALL DEAD-END ROADS, AND SECONDARY ACCESS SHALL BE PROVIDED TO ALLOW FOR EMERGENCY ACCESS AND EVACUATION IF NECESSARY.

11. PROJECT PHASING

    THERE SHALL BE NO PHASING RESTRICTIONS.

12. FLOODPLAIN, RIPARIAN, AND WETLANDS PRESERVATION

    OWNER, ITS SUCCESSORS AND ASSIGNS SHALL COMPLY WITH REQUIREMENTS OF REGULATORY AGENCIES DURING THE PRELIMINARY PLAN, FINAL PLATTING AND SUBSEQUENT PROCESSES.

13. WILDLIFE PRESERVATION

    A. WILDLIFE FRIENDLY FENCING IS REQUIRED ADJACENT TO OPEN SPACES IN PLANNING AREA A. PLANNING AREAS B, C, D, AND E SHALL NOT REQUIRE WILDLIFE FRIENDLY FENCING, AS AGRICULTURAL AND OPEN SPACE USES ARE ALLOWED AND LIVESTOCK WILL NEED TO BE CONTAINED.
    B. AN ECOLOGICAL RESOURCES SURVEY WAS PREPARED BY WESTERN ENVIRONMENT AND ECOLOGY, INC. ON OCTOBER 17, 2024, TO ESTABLISH PRESENCE OR ABSENCE OF THREATENED AND/OR ENDANGERED SPECIES ON THE PROPERTY, AS WELL AS IDENTIFY ECOLOGICAL SENSITIVE AREAS, AND MAKE RECOMMENDATIONS BASED ON THIS STUDY. METRO DISTRICT OR OWNER SHALL IMPLEMENT AND ENFORCE RECOMMENDATIONS CONTAINED WITHIN THE PLAN AT TIME OF FINAL PLAT.

13. CULTURAL RESOURCES SURVEY

    A CULTURAL RESOURCES SURVEY SHALL BE PREPARED AT THE TIME OF PRELIMINARY PLAN. THE FINDINGS OF THE SURVEY WILL BE EVALUATED AND NECESSARY ACCOMMODATIONS WILL BE PROVIDED AT THE TIME OF PRELIMINARY PLAN.

14. NOISE STUDY

    A NOISE STUDY SHALL BE PREPARED AT THE TIME OF PRELIMINARY PLAN. THE FINDINGS OF THE STUDY WILL BE EVALUATED AND NECESSARY ACCOMMODATIONS WILL BE PROVIDED AT THE TIME OF PRELIMINARY PLAN.

15. OVERLOT GRADING

    LAYOUT OF PROPOSED DEVELOPMENT AND IMPROVEMENTS SHALL BE EVALUATED TO PRESERVE THE NATURAL SITE FEATURES AND TOPOGRAPHY. OVERLOT GRADING SHALL BE EVALUATED AT THE TIME OF SUBDIVISION.

6. ON AND OFF-SITE IMPROVEMENTS

A. The owners and their assigns are responsible for their fair share contribution towards the future paving improvements to Alpine Drive and Village Road. The paving improvements on Alpine Drive from the easterly property line to Village Road is estimated at $86,076.00 and this developments projected daily traffic volumes equals 45% of the projected total traffic on Alpine Drive. This developments fair share contribution towards the paving improvements is $38,734.00. The paving improvements on Village Road from Alpine Drive to the existing pavement is estimated at $209,844.00 and this developments projected daily traffic volumes equals 21% of the projected total traffic on Village Road. This developments fair share contribution towards the paving improvements is $44,067.00. These amounts shall be paid prior to the recordation of the final plat.
B. The owners and their assigns shall be responsible for the construction of the improvements at the intersection of Hilltop Road and the access into the Ramblewood Development.
C. The owners and their assigns shall dedicate public right-of-way for Hilltop Road as determined by the County
D. The owners and their assigns shall dedicate 80-ft. public right-of-way for Alpine Drive.

PARKS / TRAI

USE	AREA	PLAN PREPARATION AND APPROVAL			MAINTENANCE RESPONSIBILITY	OWNERSHIP
PUBLIC PARK	1.5 ACRES	WITH SUBDIVISION FINAL PLAT			HOA OR METRO DISTRICT	HOA OR METRO DISTRICT
TRAILS	TBD	WITH SUBDIVISION FINAL PLAT	WITH BUILD OUT OF CORRESPONDING PLANNING AREA	OWNER / DEVELOPER	HOA OR METRO DISTRICT	HOA OR METRO DISTRICT

OWNERSHIP CERTIFICATION
PARCEL 1 (COUNTY PARCEL #2347-061-00-001)
HILLTOP JAM, LLC
JAMES HELFAND

_____

STATE OF UTAH)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY HILLTOP JAM, LLC AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

OWNERSHIP CERTIFICATION
PARCEL 2 (COUNTY PARCEL #2347-063-00-001)
BRADLEY A WHITTLESEY

_____

JOAN V WHITTLESEY

_____

STATE OF COLORADO)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY BRADLEY A WHITTLESEY AND JOAN V WHITTLESEY AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

COUNTY CERTIFICATION
THIS REZONING REQUEST TO PLANNED DEVELOPMENT HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE _____APPROVING THE PLANNED DEVELOPMENT AND ALL APPLICABLE DOUGLAS COUNTY REGULATIONS.

_____ _____ _____
CHAIRMAN, BOARD OF COUNTY COMMISSIONERS (DATE)

_____ _____ _____
DIRECTOR, COMMUNITY DEVELOPMENT (DATE)

CLERK AND RECORDER CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS _____ OF _____, 20___, A.D. AT ____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

_____
DOUGLAS COUNTY CLERK AND RECORDER

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

RAMBLEWOOD PD
HILLTOP ROAD
DOUGLAS COUNTY, COLORADO

OWNERS:
HILLTOP JAM, LLC
2554 ASPEN SPRINGS DRIVE
PARK CITY, UT 84060
435.649.6686

BRADLEY A WHITTLESEY &
JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113
720.205.6441

DEVELOPER:
MILLER UNITED REAL ESTATE, LLC
6900 E. BELLEVIEW AVE, STE 300
GREENWOOD VILLAGE, CO 80111
303.886.2838

NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL

DRAFT

SHEET TITLE:
COMMITMENTS & PROVISIONS

1 OF 3

DJ
ST
CHECKED BY:
DRAWN BY:

RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031

USES

PLANNING AREA A IS ALLOWED THE FOLLOWING USES [1]:

PRINCIPAL USES
- CONSTRUCTION OFFICE - TEMPORARY [2]
- OPEN SPACE / TRAILS
- PARK / PLAYGROUND
- RECREATION FACILITY - NEIGHBORHOOD [3]
- SALES OFFICE - TEMPORARY [2]
- SINGLE FAMILY DETACHED DWELLING [4]
- TEMPORARY RESIDENCE [2]
- UTILITY SERVICE FACILITY [3]

ACCESSORY USES
- ACCESSORY USES AND BUILDINGS
- ANIMALS [5]
- DAY-CARE HOME - SMALL [6]
- GARAGE - PRIVATE [7]
- HOME OCCUPATION - CLASS 1 [8]
- IN-HOME ELDER CARE
- SATELLITE RECEIVING DISH

PLANNING AREA B & C ARE ALLOWED ALL OF THE USES FROM THE A-1 (AGRICULTURAL ONE) ZONING DISTRICT, DEFINED IN SECTION 3 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.

PLANNING AREA D & E ARE ALLOWED THE FOLLOWING USES:

PRINCIPAL USES
- OPEN SPACE AND TRAILS

ALLOWED USE NOTES:
1. USES FOR **PLANNING AREA A** NOT SPECIFICALLY ADDRESSED IN THIS PLANNED DEVELOPMENT ZONING DOCUMENT SHALL CONFORM TO THE REGULATIONS OF THE ER (ESTATE RESIDENTIAL) ZONING DISTRICT OR OTHER SECTIONS OF THE DOUGLAS COUNTY ZONING RESOLUTION, AS APPLICABLE, AT THE TIME OF RECORDATION OF THIS PD.
2. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 22 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
3. DEVELOPMENT OF THIS LAND USE REQUIRES A SITE IMPROVEMENT PLAN IN ACCORDANCE WITH SECTION 27 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
4. EXCLUDING MOBILE HOME.
5. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 24 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
6. AS DEFINED BY THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
7. FOR LOTS LESS THAN 1 ACRE IN SIZE - A MAXIMUM OF ONE (1) DETACHED GARAGE OF NO MORE THAN 1,000 SQUARE FEET IN AREA IS PERMITTED.
8. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 23 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.

LEGAL DESCRIPTION

PARCEL 1

A PARCEL OF LAND LOCATED IN THE EAST HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 6; THENCE N89°37'37"W ALONG THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 6, 1401.02 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON A LINE 63.72 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 6; THENCE S00°17'50"W ALONG SAID LINE, 10.98 FEET;
THENCE S89°37'54"W, 1148.45 FEET;
THENCE N00°01'01"W, 25.84 FEET TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 6, SAID POINT BEING S89°37'37"E, 123.96 FEET FROM THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 6;
THENCE CONTINUING N00°01'01"W, 1175.26 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF HILLTOP ROAD; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE THE FOLLOW TWO (2) COURSES:
1. THENCE S36°30'00"E, 180.00 FEET;
2. THENCE S50°03'47"E, 1359.35 FEET TO A LINE 63.72 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE WEST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 6;
THENCE S00°17'50"W ALONG SAID LINE, 165.42 FEET TO THE POINT OF BEGINNING,

LESS AND EXCEPT THAT PORTION CONVEYED BY SPECIAL WARRANTY DEED RECORDED OCTOBER 3, 2023 UNDER RECEPTION NO. 2023042659,

COUNTY OF DOUGLAS, STATE OF COLORADO.

PARCEL 2

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

(THE BASIS OF BEARINGS FOR THIS DESCRIPTION IS SOUTH 00 DEGREES 00 MINUTES 27 SECONDS WEST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 6)

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 6; THENCE SOUTH 88 DEGREES 58 MINUTES 23 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 6 A DISTANCE OF 1426.97 FEET TO A POINT ON THE EAST BOUNDARY LINE OF HIDDEN VILLAGE FILING NUMBER ONE, A SUBDIVISION FILED WITH THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED APRIL 29, 1966 AT RECEPTION NO. 125234; THENCE SOUTH 01 DEGREES 03 MINUTES 11 SECONDS WEST ALONG THE EAST BOUNDARY LINE OF SAID HIDDEN VILLAGE FILING NUMBER ONE A DISTANCE OF 12.62 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED DECEMBER 26, 1995 AT RECEPTION NO. 9561360 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE, SAID POINT BEING THE POINT OF BEGINNING; THENCE SOUTH 88 DEGREES 26 MINUTES 07 SECONDS EAST ALONG THE SOUTH LINE OF THE PARCEL DESCRIBED AT SAID RECEPTION NO. 9561360 A DISTANCE OF 1408.26 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL, SAID POINT ALSO BEING THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED DECEMBER 26, 1995 AT RECEPTION NO. 9561359 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE; THENCE SOUTH 89 DEGREES 42 MINUTES 56 SECONDS EAST ALONG THE SOUTH LINE OF THE PARCEL OF LAND DESCRIBED AT SAID RECEPTION NO. 9561359 AND THE SOUTH LINE OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED JUNE 8, 1995 AT RECEPTION NO. 9525595 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE A DISTANCE OF 1148.46 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF

LAND DESCRIBED BY DEED RECORDED MAY 5, 1995 AT RECEPTION NO. 9519762 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE; THENCE NORTH 00 DEGREES 57 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF THE PARCEL OF LAND DESCRIBED AT SAID RECEPTION NO. 9519762 AND THE WEST LINE OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED MAY 5, 1995 AT RECEPTION NO. 9519760 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE A DISTANCE OF 176.40 FEET, SAID POINT ALSO BEING ON THE SOUTHWESTERLY RIGHT OF WAY LINE OF HILLTOP ROAD; THENCE SOUTH 49 DEGREES 24 MINUTES 37 SECONDS EAST ALONG THE SOUTHWESTERLY RIGHT OF WAY LINE OF HILLTOP ROAD AS DESCRIBED AT SAID RECEPTION NO. 9519760 (AND ALONG SAID DESCRIBED COURSE EXTENDED SOUTHEASTERLY) A DISTANCE OF 272.68 FEET TO A POINT ON THE NORTH LINE OF LOT 98, HIDDEN VILLAGE FILING NO. 4, A SUBDIVISION FILED WITH THE DOUGLAS COUNTY CLERK AND RECORDER AND RECORDED NOVEMBER 12, 1968 AT RECEPTION NO. 131583; THENCE NORTH 89 DEGREES 42 MINUTES 56 SECONDS WEST ALONG THE NORTH LINE OF SAID LOT 98 A DISTANCE OF 118.17 FEET TO THE NORTHWEST CORNER OF SAID LOT 98; THENCE SOUTH 01 DEGREES 16 MINUTES 51 SECONDS WEST ALONG THE WEST LINE OF SAID HIDDEN VILLAGE FILING NO. 4 A DISTANCE OF 2633.91 FEET TO THE SOUTHWEST CORNER OF LOT 102 OF SAID HIDDEN VILLAGE FILING NO. 4, SAID POINT ALSO BEING ON THE NORTH LINE OF LOT 58-A, HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED APRIL 13, 2005 AT RECEPTION NO. 2005032337; THENCE NORTH 89 DEGREES 04 MINUTES 32 SECONDS WEST ALONG THE NORTH LINE OF SAID HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT A DISTANCE OF 950.95 FEET TO THE NORTHWEST CORNER OF LOT 59-A OF SAID HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT; THENCE NORTH 89 DEGREES 01 MINUTES 58 SECONDS WEST ALONG THE NORTH LINE OF HIDDEN VILLAGE FILING NUMBER TWO, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED FEBRUARY 20, 1966 AT RECEPTION NO. 127014 A DISTANCE OF 1686.96 FEET TO THE SOUTHEAST CORNER OF TRACT B OF HIDDEN VILLAGE FILING NUMBER ONE AMENDED, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED AUGUST 2, 1966 AT RECEPTION NO. 125878; THENCE NORTH 01 DEGREES 03 MINUTES 11 SECONDS EAST ALONG THE EAST BOUNDARY OF SAID HIDDEN VILLAGE FILING NUMBER ONE AMENDED AND THE EAST LINE OF SAID HIDDEN VILLAGE FILING NUMBER ONE A DISTANCE OF 2634.49 FEET TO THE POINT OF BEGINNING.

LOT STANDARDS					
PLANNING AREA	MINIMUM LOT SIZE	MINIMUM SETBACKS FROM [1, 2, 3]:			MAXIMUM BUILDING HEIGHT [4]
		STREET	SIDE LOT LINE	REAR LOT LINE	
A	10,000 SF	REGIONAL OR MAJOR ARTERIAL: 100' OTHER: 20'	5'	15'	PRINCIPAL: 35' ACCESSORY: 20'
B	20 ACRES	50'	50' FROM PLANNING AREA-A; 100' FROM EXTERNAL PROPERTY LINES TO THE WEST, SOUTH, AND EAST	50' FROM PLANNING AREA-A; 100' FROM EXTERNAL PROPERTY LINES TO THE WEST, SOUTH, AND EAST	35'
C	1.5 ACRES	25'	15'	15'	35'

NOTES:
1. THE SETBACK IS MEASURED FROM THE LOT LINE TO THE WALL OF THE STRUCTURE HORIZONTALLY AND PERPENDICULAR TO THE LOT LINE.
2. ALL PLANNING AREAS ARE ALLOWED THE FOLLOWING ENCROACHMENTS:
   a. A CORNICE, CANOPY, EAVE, FIREPLACE, WING WALL OR SIMILAR ARCHITECTURAL FEATURE MAY EXTEND 3 FEET INTO A REQUIRED SETBACK.
   b. A COVERED OR UNCOVERED DECK OR PORCH MAY EXTEND 6 FEET INTO A REQUIRED SETBACK, EXCEPT FOR A SIDE SETBACK.
   c. FOUNDATION ANCHORING AND FOUNDATION REPAIR SYSTEMS MAY BE LOCATED WITHIN A REQUIRED SETBACK.
   d. A BUILDING PERMIT SHALL NOT BE ISSUED FOR ANY STRUCTURE WHICH IS TO BE LOCATED WITHIN AN EASEMENT UNLESS WRITTEN APPROVAL BY THE EASEMENT HOLDER(S) IS PROVIDED.
   e. UTILITY DISTRIBUTION LINES AND RELATED EQUIPMENT COMMONLY LOCATED ALONG PROPERTY LINES MAY BE LOCATED WITHIN A REQUIRED SETBACK. A NEIGHBORHOOD SUBSTATION OR GAS REGULATOR/METER STATION SHALL MEET THE REQUIRED SETBACKS.
3. IN **PLANNING AREA A**, STRUCTURES THAT DO NOT REQUIRE BUILDING PERMITS MAY ENCROACH INTO A REAR SETBACK. ANY ENCROACHMENT INTO AN EASEMENT REQUIRES PERMISSION FROM THE EASEMENT HOLDER.
4. THE MAXIMUM BUILDING HEIGHT SHALL NOT APPLY TO BELFRIES, CUPOLAS, PENTHOUSES OR DOMES NOT USED FOR HUMAN OCCUPANCY, ROOF-MOUNTED CHURCH SPIRES, CHIMNEYS, SKYLIGHTS, VENTILATORS, WATER TANKS, SILOS, PARAPET WALLS, CORNICES, ANTENNAS, UTILITY POLES, AND NECESSARY MECHANICAL APPURTENANCES USUALLY CARRIED ABOVE THE ROOF LEVEL.

CHECKED BY: DJ
DRAWN BY: ST

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

RAMBLEWOOD PD
HILLTOP ROAD
DOUGLAS COUNTY, COLORADO

OWNERS:
HILLTOP JAM, LLC
2554 ASPEN SPRINGS DRIVE
PARK CITY, UT 84060
435.649.6686

BRADLEY A WHITTLESEY &
JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113
720.205.6441

DEVELOPER:
MILLER UNITED REAL ESTATE, LLC
6900 E. BELLEVIEW AVE., STE 300
GREENWOOD VILLAGE, CO 80111
303.886.2838

NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL

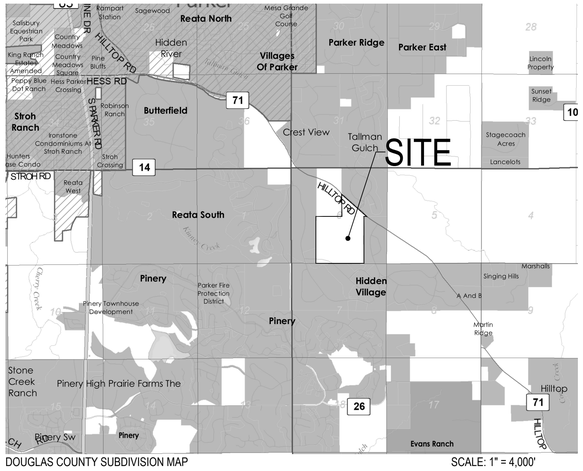
DRAFT

SHEET TITLE:
DEVELOPMENT STANDARDS

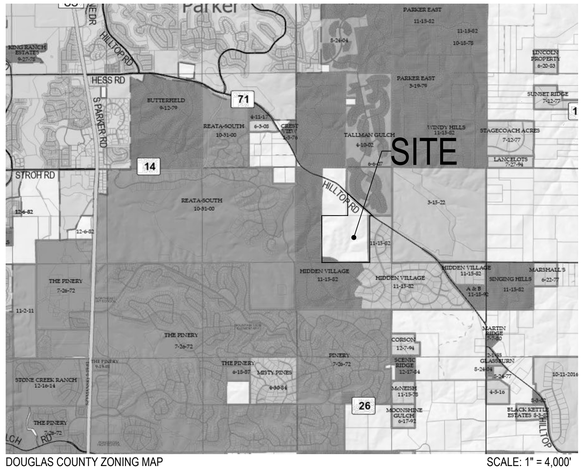
RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031



DOUGLAS COUNTY SUBDIVISION MAP SCALE: 1" = 4,000'



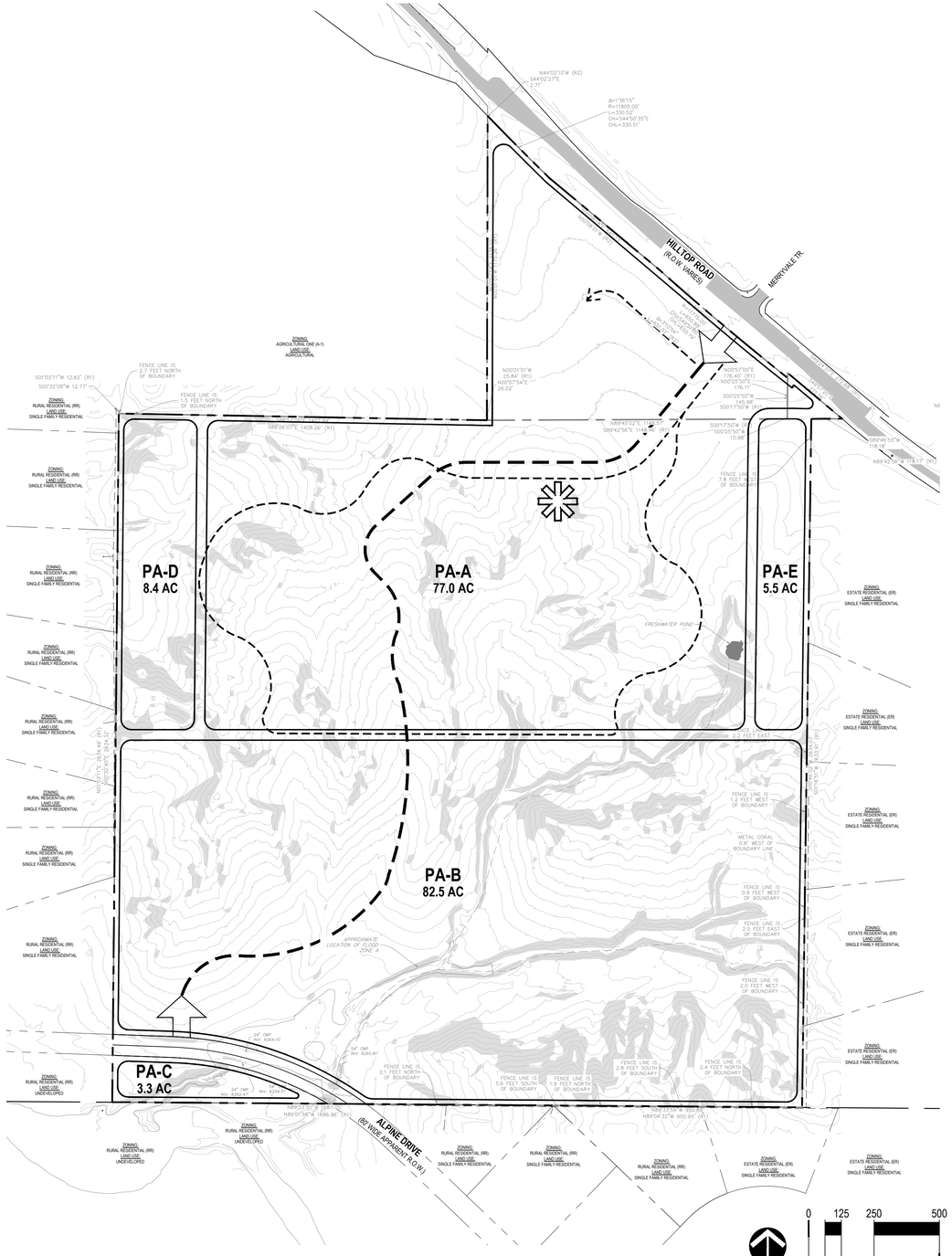
DOUGLAS COUNTY ZONING MAP SCALE: 1" = 4,000'

LAND USE TABLE					
PLANNING AREA	**LAND USE**	**ACRES**	**% OF SITE**	**GROSS DENSITY**	**DWELLING UNITS**
A	SINGLE FAMILY RESIDENTIAL	77.0	43.5%	0.88 DU / AC	68
B	AGRICULTURAL	82.5	46.7%	0.02 DU / AC	2
C	AGRICULTURAL	3.3	1.9%	0 DU / AC	0
D	OPEN SPACE / TRAILS	8.4	4.8%	0 DU / AC	0
E	OPEN SPACE / TRAILS	5.5	3.1%	0 DU / AC	0
	TOTAL	**176.7**	**100%**	**0.39 DU / AC**	**70**

NOTES:
1. ACCESS POINTS SHOWN ARE CONCEPTUAL. FINAL ALIGNMENTS AND CIRCULATION WILL BE DETERMINED THROUGH THE SUBDIVISION FINAL PLAT PROCESS.
2. THIS PLAN DEPICTS THE GENERAL LOCATION AND SIZE OF PARKS, TRAILS, AND OPEN SPACE AREAS. FINAL SIZE, LOCATION, ALIGNMENT, AND DESIGN WILL BE DETERMINED THROUGH THE SUBDIVISION FINAL PLAT PROCESS.

LEGEND

- SITE BOUNDARY
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- PROPOSED PLANNING AREA BOUNDARY
- CONCEPTUAL ROADWAYS
- CONCEPTUAL TRAILS
- TOPOGRAPHY
- FLOODPLAIN
- RIVERINE
- 20% OR GREATER SLOPE
- OPEN SPACE / TRAILS BUFFER
- PROPOSED ACCESS
- CONCEPTUAL PARK



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NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL

SHEET TITLE:
DEVELOPMENT PLAN

3 OF 3

RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031

SHEET INDEX

1 COMMITMENTS & PROVISIONS
2 DEVELOPMENT STANDARDS
3 DEVELOPMENT PLAN

GENERAL PROVISIONS

AUTHORITY

THIS DEVELOPMENT PLAN IS AUTHORIZED BY SECTION 15 - PLANNED DEVELOPMENT DISTRICT OF THE DOUGLAS COUNTY ZONING RESOLUTION ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

APPLICABILITY

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THIS DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE COMMUNITY DEVELOPMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.

ADOPTION

THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCE THE FINDINGS AND DECISION OF THE DOUGLAS COUNTY BOARD OF COMMISSIONERS THAT THIS DEVELOPMENT PLAN FOR RAMBLEWOOD IS IN GENERAL CONFORMITY WITH THE DOUGLAS COUNTY COMPREHENSIVE MASTER PLAN; IS AUTHORIZED BY THE PROVISION OF SECTION 15 OF THE DOUGLAS COUNTY ZONING RESOLUTION; AND THAT SUCH SECTION 15 AND THIS DEVELOPMENT PLAN COMPLY WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

RELATIONSHIP TO COUNTY REGULATIONS

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF RAMBLEWOOD, PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT, THE RELEVANT PROVISIONS OF THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF DOUGLAS COUNTY, SHALL BE APPLICABLE.

ENFORCEMENT

TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PLANNED DEVELOPMENT AND OF THE PUBLIC IN THE PRESERVATION OF THE INTEGRITY OF THE PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND AND THE LOCATION OF COMMON OPEN SPACE SHALL RUN IN FAVOR OF DOUGLAS COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW.

CONFLICT

WHERE THERE IS MORE THAN ONE PROVISION WITHIN THE DEVELOPMENT PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISION WHICH IS MOST RESTRICTIVE OR IMPOSES HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN UNLESS DETERMINED OTHERWISE BY THE DIRECTOR OF COMMUNITY DEVELOPMENT.

MAXIMUM LEVEL OF DEVELOPMENT

THE TOTAL NUMBER OF DWELLINGS OR THE TOTAL COMMERCIAL, BUSINESS, OR INDUSTRIAL INTENSITY APPROVED FOR DEVELOPMENT WITHIN THE PLANNING AREAS IS THE MAXIMUM DEVELOPMENT REQUESTED FOR PLATTING OR CONSTRUCTION (PLUS APPROVED DENSITY TRANSFERS, IF ANY). THE ACTUAL NUMBER OF DWELLINGS OR LEVEL OF DEVELOPMENT FOR COMMERCIAL, BUSINESS, OR INDUSTRIAL PROPERTIES MAY BE LESS DUE TO SUBDIVISION OR SITE IMPROVEMENT PLAN REQUIREMENTS, LAND CARRYING CAPACITY, OR OTHER REQUIREMENTS OF THE BOARD OF COUNTY COMMISSIONERS.

PROJECT TRACKING

AT THE TIME OF SUBDIVISION FINAL PLAT, THE APPLICANT SHALL PROVIDE A SUMMARY OF THE DEVELOPMENT, TO DATE, ALONG WITH THE FINAL PLAT SUBMITTAL TO THE PLANNING SERVICES DIVISION, IN ORDER TO ASSURE MAXIMUM DEVELOPMENT LIMITS ARE NOT EXCEEDED.

STATEMENT OF COMMITMENTS

THE FOLLOWING SECTIONS DESCRIBE THE REQUIRED DEVELOPMENT COMMITMENTS FOR THE RAMBLEWOOD PLANNED DEVELOPMENT. THE REQUIRED DEVELOPMENT COMMITMENTS MUST BE COMPLETED BY THE OWNER OR ITS SUCCESSORS OR ASSIGNS, AND SHALL BE BINDING UPON ITS HEIRS, SUCCESSORS, AND ASSIGNS WITH RESPECT TO THE LAND WITHIN THE RAMBLEWOOD PLANNED DEVELOPMENT.

1. DEDICATIONS: ALL DEDICATIONS OF PUBLIC FACILITIES, INCLUDED BUT NOT LIMITED TO PARK AND OPEN SPACE LANDS, STREETS, DRAINAGE FACILITIES, AND EASEMENTS SHALL BE DEDICATED AT NO COST TO DOUGLAS COUNTY. TITLE INSURANCE SHALL BE PROVIDED FOR ALL COUNTY-DEDICATED LAND. ALL REQUIRED UTILITY EASEMENTS SHALL BE DEDICATED TO THE SERVICE PROVIDER(S). DEDICATIONS SHALL BE MADE AT THE TIME OF FINAL PLAT OR AS REQUIRED BY DOUGLAS COUNTY. IN ACCORDANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, DEDICATED LAND SHALL BE CONVEYED TO DOUGLAS COUNTY AND THE COUNTY MAY FURTHER CONVEY THE LAND TO THE APPROPRIATE AGENCY.

2. SCHOOL LAND DEDICATION

   A. SCHOOL LAND DEDICATION SHALL BE IN COMPLIANCE WITH SECTION 1004 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. NO LAND SHALL BE DEDICATED FOR SCHOOL CONSTRUCTION ON THE PROPERTY.
   C. THE OWNERS AND THEIR ASSIGNS SHALL PAY CASH-IN-LIEU OF LAND DEDICATION FOR SCHOOLS PRIOR TO RECORDING THE FIRST FINAL PLAT.

3. PARK LAND DEDICATION

   A. LOCAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.1 AND 1003.11.3 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. REGIONAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.2 AND 1003.11.4 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION.

4. THE DEVELOPER INTENDS ON FORMING A NEW TITLE 32 SPECIAL DISTRICT TO BE CALLED THE RAMBLEWOOD METROPOLITAN DISTRICT. WHILE THE APPLICATION, SERVICE PLAN, AND ANY OTHER SUPPORTING DOCUMENTS FOR THE DISTRICT ARE NOT INCLUDED WITH THIS PD APPLICATION, THE DEVELOPER DOES INTEND ON PROCESSING THE REVIEW AND APPROVAL OF THE DISTRICT CONCURRENT WITH THE PD ZONING.

5. ROADWAY IMPROVEMENTS

   ROADWAY IMPROVEMENTS WILL BE MADE AS DETERMINED ENGINEERING PUBLIC WORKS.

6. ON AND OFF-SITE IMPROVEMENTS

   A. THE OWNERS AND THEIR ASSIGNS ARE RESPONSIBLE FOR NEGOTIATING THEIR FAIR SHARE CONTRIBUTIONS TOWARDS THE FUTURE PAVING IMPROVEMENTS TO ALPINE DRIVE AND VILLAGE ROAD.
   B. THE OWNERS AND THEIR ASSIGNS SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE IMPROVEMENTS AT THE INTERSECTION OF HILLTOP ROAD AND THE ACCESS INTO THE RAMBLEWOOD DEVELOPMENT.
   C. THE OWNERS AND THEIR ASSIGNS SHALL DEDICATE PUBLIC RIGHT-OF-WAY FOR HILLTOP ROAD AS DETERMINED BY THE COUNTY.
   D. THE OWNERS AND THEIR ASSIGNS SHALL DEDICATE 80-FT. PUBLIC RIGHT-OF-WAY FOR ALPINE DRIVE.

7. STORMWATER MANAGEMENT, FLOODPLAIN, AND DRAINAGE IMPROVEMENTS

   STORMWATER MANAGEMENT SHALL ADHERE TO CURRENT STORMWATER MANAGEMENT PRACTICES AS REQUIRED IN THE DOUGLAS COUNTY STORM DRAINAGE AND TECHNICAL CRITERIA MANUAL. DEVELOPMENT WITHIN DESIGNATED FLOODPLAIN AREA IS EXPECTED TO BE AVOIDED.

8. UTILITY IMPROVEMENTS

   THE PROJECT WILL BE REQUIRED TO COMPLETE BOTH ON-SITE AND OFF-SITE WATER AND SANITARY SEWER IMPROVEMENTS, AS WELL AS ASSOCIATED STORMWATER IMPROVEMENTS ADJACENT TO HILLTOP ROAD IF REQUIRED AND AS NEEDED TO SERVE THE SITE.

9. WATER AND SEWER

   CENTRAL WATER AND SEWER WILL BE PROVIDED TO ALL FUTURE LOTS WITHIN PA-A THROUGH AN INCLUSION AGREEMENT WITH PARKER WATER AND SANITATION DISTRICT. THE APPLICANT WILL EVALUATE THE OPTION FOR PINERY WATER AND WASTEWATER DISTRICT TO PROVIDE SEWER SERVICE THROUGH AN INTERGOVERNMENTAL AGREEMENT BETWEEN PINERY WATER AND WASTEWATER DISTRICT AND PARKER WATER AND SANITATION DISTRICT. WATER AND SEWER WILL BE PROVIDED TO PA-B THROUGH DOMESTIC WELL AND SEPTIC.

10. FIRE PROTECTION

    FIRE PROTECTION SHALL BE PROVIDED BY SOUTH METRO FIRE RESCUE.

11. WILDFIRE MITIGATION PLAN

    A WILDFIRE MITIGATION PLAN SHALL BE COMPLETED FOR COMPLIANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION SECTION 17 - WILDFIRE HAZARD OVERLAY DISTRICT, AS AMENDED. OWNER, ITS SUCCESSORS AND ASSIGNS SHALL PROVIDE A WILDFIRE MITIGATION PLAN(S) CONCURRENT WITH PRELIMINARY PLAN AND COMPLETED WITH THE FINAL PLAT. IN PREPARATION OF WILDFIRE MITIGATION PLAN(S) ROADS SHALL MEET DOUGLAS COUNTY ROADWAYS STANDARDS, CUL-DE-SACS SHALL BE PROVIDED ON ALL DEAD-END ROADS, AND SECONDARY ACCESS SHALL BE PROVIDED TO ALLOW FOR EMERGENCY ACCESS AND EVACUATION IF NECESSARY.

12. PROJECT PHASING

    THERE SHALL BE NO PHASING RESTRICTIONS.

13. FLOODPLAIN, RIPARIAN, AND WETLANDS PRESERVATION

    OWNER, ITS SUCCESSORS AND ASSIGNS SHALL COMPLY WITH REQUIREMENTS OF REGULATORY AGENCIES DURING THE PRELIMINARY PLAN, FINAL PLATTING AND SUBSEQUENT PROCESSES.

14. WILDLIFE PRESERVATION

    A. WILDLIFE FRIENDLY FENCING IS REQUIRED ADJACENT TO OPEN SPACES IN PLANNING AREA A. PLANNING AREAS B, C, D, AND E SHALL NOT REQUIRE WILDLIFE FRIENDLY FENCING, AS AGRICULTURAL AND OPEN SPACE USES ARE ALLOWED AND LIVESTOCK WILL NEED TO BE CONTAINED.
    B. AN ECOLOGICAL RESOURCES SURVEY WAS PREPARED BY WESTERN ENVIRONMENT AND ECOLOGY, INC. ON OCTOBER 17, 2024, TO ESTABLISH PRESENCE OR ABSENCE OF THREATENED AND/OR ENDANGERED SPECIES ON THE PROPERTY, AS WELL AS IDENTIFY ECOLOGICAL SENSITIVE AREAS, AND MAKE RECOMMENDATIONS BASED ON THIS STUDY. METRO DISTRICT OR OWNER SHALL IMPLEMENT AND ENFORCE RECOMMENDATIONS CONTAINED WITHIN THE PLAN AT TIME OF FINAL PLAT.

15. CULTURAL RESOURCES SURVEY

    PRELIMINARY PLAN. THE MODATIONS WILL BE

    A NOISE STUDY SHALL BE PREPARED AT THE TIME OF PRELIMINARY PLAN. THE FINDINGS OF THE STUDY WILL BE EVALUATED AND NECESSARY ACCOMMODATIONS WILL BE PROVIDED AT THE TIME OF PRELIMINARY PLAN.

17. OVERLOT GRADING

    LAYOUT OF PROPOSED DEVELOPMENT AND IMPROVEMENTS SHALL BE EVALUATED TO PRESERVE THE NATURAL SITE FEATURES AND TOPOGRAPHY. OVERLOT GRADING SHALL BE EVALUATED AT THE TIME OF SUBDIVISION.

The Owners and their Assigns are responsible for their fair share contribution towards the paving of Alpine Drive (32% of the total cost is $27,544.32. They also are responsible for their fair share contribution towards the paving of Village Road (14% of the total cost is $29,378.16.

PARKS / TRAILS / OPEN SPACE COMMITMENTS MATRIX

USE	AREA	PLAN PREPARATION AND APPROVAL	CONSTRUCTION TIMING	CONSTRUCTION RESPONSIBILITY	MAINTENANCE RESPONSIBILITY	OWNERSHIP
PUBLIC PARK	1.5 ACRES	WITH SUBDIVISION FINAL PLAT	WITH BUILDOUT OF PLANNING AREA A	OWNER / DEVELOPER	HOA OR METRO DISTRICT	HOA OR METRO DISTRICT
TRAILS	TBD	WITH SUBDIVISION FINAL PLAT	WITH BUILD OUT OF CORRESPONDING PLANNING AREA	OWNER / DEVELOPER	HOA OR METRO DISTRICT	HOA OR METRO DISTRICT

OWNERSHIP CERTIFICATION
PARCEL 1 (COUNTY PARCEL #2347-061-00-001)
HILLTOP JAM, LLC
JAMES HELFAND

_____

STATE OF UTAH)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY HILLTOP JAM, LLC AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

OWNERSHIP CERTIFICATION
PARCEL 2 (COUNTY PARCEL #2347-063-00-001)
BRADLEY A WHITTLESEY

_____

JOAN V WHITTLESEY

_____

STATE OF COLORADO)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY BRADLEY A WHITTLESEY AND JOAN V WHITTLESEY AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

COUNTY CERTIFICATION
THIS REZONING REQUEST TO PLANNED DEVELOPMENT HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE _____APPROVING THE PLANNED DEVELOPMENT AND ALL APPLICABLE DOUGLAS COUNTY REGULATIONS.

_____ _____ _____
CHAIRMAN, BOARD OF COUNTY COMMISSIONERS (DATE)

_____ _____ _____
DIRECTOR, COMMUNITY DEVELOPMENT (DATE)

CLERK AND RECORDER CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS _____ OF _____, 20___, A.D. AT ____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

_____
DOUGLAS COUNTY CLERK AND RECORDER

All other comments have been addressed

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

RAMBLEWOOD PD
HILLTOP ROAD
DOUGLAS COUNTY, COLORADO

OWNERS:
HILLTOP JAM, LLC
2554 ASPEN SPRINGS DRIVE
PARK CITY, UT 84060
435.649.6686

BRADLEY A WHITTLESEY &
JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113
720.205.6441

DEVELOPER:
MILLER UNITED REAL ESTATE, LLC
6900 E. BELLEVIEW AVE, STE 300
GREENWOOD VILLAGE, CO 80111
303.886.2838

NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL
05/12/2025 SUBMITTAL

SHEET TITLE:
COMMITMENTS & PROVISIONS

1 OF 3

CHECKED BY: DJ
DRAWN BY: ST

Trevor Bedford

From: Chuck Smith
Sent: Tuesday, July 1, 2025 9:25 AM
To: Dan Sheldon
Cc: Trevor Bedford; Daniel Jennings; Sarah Tengen
Subject: RE: (External) Ramblewood - Paving Cost Share

Thanks Dan

Chuck Smith, CFM | Engineer III – Douglas County Engineering
Douglas County Department of Public Works Engineering
Engineering Services
Address | 100 Third St., Castle Rock, CO 80104
Main | 303-660-7490
Email | CSmith@douglas.co.us

From: Dan Sheldon <dsheldon@miller-united.com>
Sent: Tuesday, July 1, 2025 9:23 AM
To: Chuck Smith <CSmith@douglas.co.us>
Cc: Trevor Bedford <tbedford@douglas.co.us>; Daniel Jennings <djennings@norris-design.com>; Sarah Tengen <stengen@norris-design.com>
Subject: RE: (External) Ramblewood - Paving Cost Share

Chuck:

Ok, that's fine. We'll pay it concurrent with the final plat recordation. Meaning, the plat recordation will not occur without the payment being made. We're in agreement.

Thanks.

Daniel & Sarah: let's simply change the language in the PD to say the following:

"The Owners and their Assigns are responsible for their fair share contribution towards the paving of Alpine Drive in the amount of $27,554.32 (the "**Alpine Drive Contribution**"). Said payment shall be made ~~within 30 days after~~ prior to the recordation of the final plat for the Ramblewood development. In the event that the County has not completed the paving of Alpine Drive by December 31, 2027, the Owner and/or Assigns may request a refund of the Alpine Drive Contribution and the County agrees to reimburse Owner and/or Assigns within 30 days after such a request is made."

Please get Trevor the updated sheet or entire submittal (whichever is easier and/or he prefers).

Thanks all!

MILLER UNITED
REAL ESTATE
Daniel R. Sheldon
Principal
Miller United Real Estate
Email: dsheldon@miller-united.com

From: Chuck Smith <CSmith@douglas.co.us>
Sent: Tuesday, July 1, 2025 8:36 AM
To: Dan Sheldon <dsheldon@miller-united.com>
Cc: Trevor Bedford <tbedford@douglas.co.us>
Subject: FW: (External) Ramblewood - Paving Cost Share

Good Morning Dan – based on our attorney review, we would like the monies paid prior to the recordation of the final plat - thanks

Chuck Smith, CFM | Engineer III – Douglas County Engineering
Douglas County Department of Public Works Engineering
Engineering Services
Address | 100 Third St., Castle Rock, CO 80104
Main | 303-660-7490
Email | CSmith@douglas.co.us

From: Christopher Pratt <cpratt@douglas.co.us>
Sent: Monday, June 30, 2025 2:57 PM
To: Trevor Bedford <tbedford@douglas.co.us>; Chuck Smith <CSmith@douglas.co.us>
Subject: RE: (External) Ramblewood - Paving Cost Share

My only thought is that AFTER the plat is recorded we have no leverage to make any pay anything so it would probably be preferrable to have them deposit those funds PRIOR to recordation. I believe that is normally when we would ask for it anyway – but if I am wrong let me know. Otherwise no legal issues.

From: Trevor Bedford <tbedford@douglas.co.us>
Sent: Monday, June 30, 2025 9:49 AM
To: Christopher Pratt <cpratt@douglas.co.us>; Chuck Smith <CSmith@douglas.co.us>
Subject: FW: (External) Ramblewood - Paving Cost Share

Chris,

Can you look at the language suggested by Dan Sheldon below about roadway contributions and let us know if you are ok with it?
If you have any questions about the intent of it, please check with Chuck as I haven't been involved in the meetings to discuss this.

Thank you,

Trevor Bedford, AICP | Senior Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303.814.4372 **Main** | 303.660.7460
Email tbedford@douglas.co.us

From: Chuck Smith <CSmith@douglas.co.us>
Sent: Monday, June 30, 2025 9:33 AM
To: Dan Sheldon <dsheldon@miller-united.com>; Chris Martin <CMartin@douglas.co.us>; Trevor Bedford <tbedford@douglas.co.us>
Cc: Stephen Simon <stephen@smrocha.com>; Mike Rocha <mike@smrocha.com>; Kevin Lovelace <klovelace@lja.com>;

Daniel Jennings <djennings@norris-design.com>; Sarah Tengen <stengen@norris-design.com>
Subject: RE: (External) Ramblewood - Paving Cost Share

Good Morning Dan – I'm good with the proposed language – I'm sure Trevor will run this past our attorney's as well - thanks

Chuck Smith, CFM | Engineer III – Douglas County Engineering
Douglas County Department of Public Works Engineering
Engineering Services
Address | 100 Third St., Castle Rock, CO 80104
Main | 303-660-7490
Email | CSmith@douglas.co.us

From: Dan Sheldon <dsheldon@miller-united.com>
Sent: Monday, June 30, 2025 9:15 AM
To: Chuck Smith <CSmith@douglas.co.us>; Chris Martin <CMartin@douglas.co.us>; Trevor Bedford <tbedford@douglas.co.us>
Cc: Stephen Simon <stephen@smrocha.com>; Mike Rocha <mike@smrocha.com>; Kevin Lovelace <klovelace@lja.com>; Daniel Jennings <djennings@norris-design.com>; Sarah Tengen <stengen@norris-design.com>
Subject: RE: (External) Ramblewood - Paving Cost Share

Chuck:

Per our conversation on Friday afternoon, we are in agreement with your proposal below. To that end, I'm requesting that Daniel & Sarah from Norris Design resubmit a page (or the whole submittal if desired) to Trevor with the following revised commitment under #6A in the PD:

"The Owners and their Assigns are responsible for their fair share contribution towards the paving of Alpine Drive in the amount of $27,554.32 (the "**Alpine Drive Contribution**"). Said payment shall be made within 30 days after the recordation of the final plat for the Ramblewood development. In the event that the County has not completed the paving of Alpine Drive by December 31, 2027, the Owner and/or Assigns may request a refund of the Alpine Drive Contribution and the County agrees to reimburse Owner and/or Assigns within 30 days after such a request is made."

Please let us know if this language is acceptable before we resubmit this page back to Trevor to include as the final PD Zoning document in the upcoming Planning Commission and Board of County Commissioners packets. I believe his deadline to submit is one week from today.

Thank you for your cooperation on this matter.

MILLER UNITED
REAL ESTATE
Daniel R. Sheldon
Principal
Miller United Real Estate
Email: dsheldon@miller-united.com

From: Chuck Smith <CSmith@douglas.co.us>
Sent: Friday, June 27, 2025 2:06 PM
To: Dan Sheldon <dsheldon@miller-united.com>; Chris Martin <CMartin@douglas.co.us>; Trevor Bedford <tbedford@douglas.co.us>

Cc: Stephen Simon <stephen@smrocha.com>; Mike Rocha <mike@smrocha.com>; Kevin Lovelace <klovelace@lja.com>; Daniel Jennings <djennings@norris-design.com>; Sarah Tengen <stengen@norris-design.com>
Subject: RE: (External) Ramblewood - Paving Cost Share

Hi Dan,

I talked with Janet Herman & Dan Roberts and they are willing to remove the requirement of paving Village Road since it is currently budgeted for next year, however Alpine Drive is currently not in the budget for paving next year. The plan is to pave Alpine Drive in 2026 or 2027. The County would require the commitment from this developer to pay their fair share for the paving of Alpine Drive – per the redlines below. The County would be willing to include language in the PD that if the paving of Alpine Drive is not complete by the end of year 2027, the developer could request their money back.

Let me know if this would be acceptable.

Thanks

Chuck Smith, CFM | Engineer III – Douglas County Engineering
Douglas County Department of Public Works Engineering
Engineering Services
Address | 100 Third St., Castle Rock, CO 80104
Main | 303-660-7490
Email | CSmith@douglas.co.us

From: Dan Sheldon <dsheldon@miller-united.com>
Sent: Friday, June 13, 2025 11:14 AM
To: Chris Martin <CMartin@douglas.co.us>; Chuck Smith <CSmith@douglas.co.us>; Trevor Bedford <tbedford@douglas.co.us>
Cc: Stephen Simon <stephen@smrocha.com>; Mike Rocha <mike@smrocha.com>; Kevin Lovelace <klovelace@lja.com>; Daniel Jennings <djennings@norris-design.com>; Sarah Tengen <stengen@norris-design.com>
Subject: Ramblewood - Paving Cost Share

Chris & Chuck:

Good morning. I hope this finds you both well.

I wanted to thank you both for your assistance over the past few years on my Elora project in Elbert County. We were able to finalize all of our entitlements and have now broken ground on construction. As you know, that was a complicated deal as it sits at the intersection of County Line Road and Delbert/Monahan straddled by Elbert/Douglas/Arapahoe counties as well as the City of Aurora. We were pleased that we were able to work with Douglas County on various intersection issues and we look forward to seeing that intersection be dramatically improved.

We're working with Trevor Bedford to get our Ramblewood PD ready for Planning Commission and BoCC hearings on 7/21 and 8/26 respectively. The requested note below (screenshot) from you is still an outstanding item that needs to be finalized. It is my belief that the County's request for us to make a contribution towards the Alpine Road and Village Road paving projects is unreasonable for the following reasons:

1. Are you sending a bill to all the other property owners along Village Road and Alpine Drive for their "fair share"? The answer is "no", you are not. The County is paying for it out of taxpayer

money. My property is a taxpayer as well and is current on its tax bill. Why would we get what's essentially as special assessment?

2. If there was no pending application for zoning on this my property, would you be hitting up the current underlying property owner for his "fair share"? He drives the roads to get to his horses several days a week.

3. There are undeveloped lots within Hidden Village that will eventually have a house on it and therefore generate 8-10 vehicle trips per day onto Alpine and Village Roads. Are you sending those owners a special assessment for their fair share? Of course you aren't. My site is no different.

4. Because you're asking for me to pay my "fair share" of Alpine and Village Road paving based on the premise that our future residents will use those roads, should I then assume that the County is going to pay its fair share of the construction of the roads in my Ramblewood development? It's just as reasonable of an assumption that the existing Hidden Village residents will use our new roads. That would only be fair wouldn't it?

5. We aren't even zoned yet. As a result, we certainly don't have a preliminary plan or final plat done yet for our project. So even if we were willing to pay our fair share of Alpine and Village Roads paving, how on earth could we accurately determine what our fair share it? Just because we're seeking zoning for a certain number of lots, the preliminary plan and final plat are a year and year and a half away respectively. We won't know whether we'll have 68 lots there or 12 lots there. A good example is The Fields. They had zoning for twice the number of lots that they eventually got approved at preliminary and final plat. It's impossible to set a number today.

6. If the County paved the roads this past spring, would they be asking for a reimbursement? My point is that at what point is a project far enough along to request such a contribution. In addition to all my other arguments above, I'm concerned over the still speculative nature of my project. We have nothing yet at this point, yet I'm being asked to commit to a $57K contribution that but for our request for a PD being submitted to the County, you wouldn't be otherwise requesting.

7. Finally, the County must have had this budgeted to be 100% a County expense. There's no way that the County could have predicted that my site would come in for entitlements. Point being that the County has the full funding for this project in place and this appears to be simply an attempt to recoup some of those costs at the expense of a developer.

I know you've already discussed this topic internally and with my traffic engineers from SM Rocha, but until now I don't think anyone has provided any of the common sense reasons why this doesn't make any sense. I'd respectfully ask that you reconsider your position on this. Otherwise, I think we should start looking at what the County's fair share of the cost of constructing my new roads will be. Please discuss and get back to me ASAP.

Thanks, and have a great weekend.

RAMBLEWOOD METROPOLITAN DISTRICT. WHILE THE APPLICATION, SERVICE PLAN, AND ANY OTHER SUPPORTING DOCUMENTS FOR THE DISTRICT ARE NOT INCLUDED WITH THIS PD APPLICATION, THE DEVELOPER DOES INTEND ON PROCESSING THE REVIEW AND APPROVAL OF THE DISTRICT CONCURRENT WITH THE PD ZONING.

The Owners and their Assigns are paving of Alpine Drive (32% of the their fair share contribution toward $29,378.16.

5. ROADWAY IMPROVEMENTS

ROADWAY IMPROVEMENTS WILL BE MADE AS DETERMINED ENGINEERING PUBLIC WORKS.

6. ON AND OFF-SITE IMPROVEMENTS

A. THE OWNERS AND THEIR ASSIGNS ARE RESPONSIBLE FOR NEGOTIATING THEIR FAIR SHARE CONTRIBUTIONS TOWARDS THE FUTURE PAVING IMPROVEMENTS TO ALPINE DRIVE AND VILLAGE ROAD.

B. THE OWNERS AND THEIR ASSIGNS SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE IMPROVEMENTS AT THE INTERSECTION OF HILLTOP ROAD AND THE ACCESS INTO THE RAMBLEWOOD DEVELOPMENT.

MILLER UNITED
REAL ESTATE

Daniel R. Sheldon
Principal
Miller United Real Estate
6900 E. Belleview Avenue, Suite 300
Greenwood Village, CO 80111
Cell: (303) 886-2838
Email: dsheldon@miller-united.com
Web: www.miller-united.com

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.285.6612**
violeta.ciocanu@xcelenergy.com

March 31, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Attn: Trevor Bedford

Re: Ramblewood Planned Development, Case # ZR2024-031

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the documents for **Ramblewood Planned Development**. As always, thank you for the opportunity to take part in the review process. For these *single-family residential* lots and to ensure that adequate utility easements are available within this development and per state statutes, Public Service Company requests that the following language or plat note is placed on the preliminary and final plats for the subdivision:

> *Six-foot (6') wide dry utility easements are hereby dedicated on private property adjacent to each front lot line of each lot. In addition, eight-foot (8') wide dry utility easements are hereby dedicated around the perimeter of tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.*

Public Service Company also requests that all utility easements are depicted graphically on the preliminary and final plats. While these easements should accommodate the majority of utilities to be installed in the subdivision, some additional easements may be required as planning and building progresses.

The property owner/developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. It is then the responsibility of the

developer to contact the Designer assigned to the project for approval of design details.

Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent.

As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

COLORADO
Division of Water Resources
Department of Natural Resources

April 8, 2025

Trevor Bedford
Douglas County Planning Services
Transmission via email: tbedford@douglas.co.us

Re: Ramblewood Subdivision – Planned Development Rezone
Case Number: ZR2024-031
Applicants: Hilltop Jam, LLC and Bradley & Joan Whittlesey
Part of Sec. 6, Twp. 7S, Rng. 65W, 6th P.M., Douglas County
Water Division 1, Water District 8

Dear Trevor Bedford,

We have received your March 18, 2025 proposal to rezone and subdivide 176.794 +/- acres located in Sec. 6, Twp. 7S, Rng. 65W, 6th P.M., Douglas County (Parcel ID No. 234706100001 and 234706300001). This application proposes rezoning from Agricultural-1 to Planned Development and subdividing the 176.794 +/- acres into seventy lots of varying size, with the remaining 60 +/- acres being open space. Two of the lots will be primarily agricultural in use, with Ranch Lot 1 being 25 acres in size and Ranch Lot 2 being 58 acres in size.

Water Supply Demand

68 Lots in area PA-A

The annual water demand per single family equivalent (SFE) for the 68 lots located in area PA-A of the proposed subdivision is 92.4 acre-feet/year as shown in the table below:

Use	Demand (af/yr/sfe)	No. Units	Total Demand (af/yr)
Indoor/Outdoor residential	1.1	68	74.8
Outdoor non-residential (irrigation of 6.86 acres)	-	-	17.6
-	-	**Total**	**92.4**

2 Lots in area PA-B

Water demands for the two lots (Ranch Lot 1 and Ranch Lot 2) located in area PA-B of the proposed subdivision are unknown. The application documents indicate these two lots will be mainly used for agricultural purposes, with an allowance for up to two residential dwelling units in area PA-B.

Source of Water Supply

68 Lots in area PA-A

The proposed water supplier for the 68 single-family lots located in area PA-A of the proposed subdivision is service provided by the Parker Water and Sanitation District (District). A conditional "will-serve" letter dated January 17, 2025 indicates that the District is willing to serve the proposed subdivision, conditioned upon compliance with all the District Rules and Regulations, Standard and Specifications, and/or conditions specific to the property; including payment of the appropriate fees and any charges related to water and/or sanitation service, as established from time to time by the District Directors. Service from the District is also conditional upon successful completion of the property inclusion into the District service area.

According to the "will-serve" letter, the District has a combination of decreed Denver Basin supplies, junior and senior tributary water rights, and storage rights in Rueter-Hess Reservoir totaling 71,920 af/yr. The anticipated yield of these rights in an average or dry year is 41,134 af/yr, which exceeds the estimated buildout demand of 23,500 af/yr.

The majority of the District's supply is water from Denver Basin bedrock aquifers. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to section 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this **allocation** approach, the annual amounts of water in the District's decrees are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.

The Applicant has indicated that a portion of the Denver Basin groundwater underlying the Southern 160 acres that was decreed in case no. 07CW0107 by the Division 1 Water Court will be conveyed to the District in return for providing water service. Similarly, a portion of the Denver Basin groundwater (which has not yet been decreed or claimed) underlying the 17 acres to the North will also be conveyed to the District. The Applicant intends to convey an estimated total 92.4 af/year of Denver Basin groundwater from the Lower Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers to the District in order to offset the anticipated demand from the subdivision.

The groundwater underlying the 160 acre property was adjudicated in case no. 07CW0107 for domestic, industrial, commercial, irrigation, stock watering,

recreational, fire protection, and augmentation purposes, both on and off the subject property. Table 1 summarizes the amounts quantified in each aquifer in case no. 07CW0107, the amount estimated underlying the undecreed 17 acres, and the amounts estimated to be conveyed to the District:

Aquifer	Annual amount from 07CW0107 underlying 160 acres (100 year aquifer allocation)	Annual amount available estimated by Applicant underlying 17 acres (100 year aquifer allocation)	Annual amount estimated to be conveyed to the District from 07CW01007[1] and the undecreed 17 acres[2]	Type
Lower Dawson	32.0	3.6	- 1.8[2]	NT*
Denver	70.7	8.5	35.4[1] 4.3[2]	NT*
Arapahoe	68.0	7.2	51.0[1] 5.4[2]	NT*
Laramie Fox-Hills	46.8	5.0	- 2.5[2]	NT*
Total	**217.5**	**24.3**	**86.4[1]** **14.0[2]**	-

*Nontributary

2 Lots in area PA-B

The proposed water supply for the 2 lots located in area PA-B are on-lot domestic wells. It is unclear what specific aquifer source will supply these 2 lots.

A review of our records does not show any permitted wells located on the subject property. However, well permit no. 31958 (located on an adjacent property) was decreed in case no. W-5628 by the Division 1 Water Court as Bowman Well No. 31958

for domestic, stock watering, and agricultural irrigation uses on approximately 80 acres in the E ½ of the NW ¼ of Sec. 6, Twp. 7S, Rng. 65W. Well no. 31958 has an appropriation based on the law as it existed before the enactment of Senate Bill 73-213 and is known as a "Pre-213 Well" and the well currently claims all Upper Dawson groundwater underlying the subject property.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I), this office has not received information sufficient to render an opinion regarding whether the proposed water supply is adequate and can be provided without causing injury to decreed water rights. Prior to further review of the subdivision water supply plan, the following information is required:

1. Clarify the proposed uses and aquifer source for Ranch Lots 1 and 2.

Additional Comments

The applicant should be aware that any proposed detention pond for this development, must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), Colorado Revised Statutes, otherwise the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at https://maperture.digitaldataservices.com/gvh/?viewer=cswdif, to meet the notification requirements.

Please contact Mike Matz at 303-866-3581 x8241 or at michael.matz@state.co.us with any questions.

Sincerely,

Ioana Comaniciu, P.E.

Water Resources Engineer

Ec: Referral no. 33884

COLORADO
Division of Water Resources
Department of Natural Resources

May 12, 2025

Trevor Bedford
Douglas County Planning Services
Transmission via email: tbedford@douglas.co.us

Re: Ramblewood Subdivision – Planned Development Rezone (2nd Letter)
Case Number: ZR2024-031
Applicants: Hilltop Jam, LLC and Bradley & Joan Whittlesey
Part of Sec. 6, Twp. 7S, Rng. 65W, 6th P.M., Douglas County
Water Division 1, Water District 8

Dear Trevor Bedford,

We have received your March 18, 2025 proposal and additional information provided on May 1, 2025 to rezone and subdivide 176.794 +/- acres located in Sec. 6, Twp. 7S, Rng. 65W, 6th P.M., Douglas County (Parcel ID No. 234706100001 and 234706300001). This application proposes rezoning from Agricultural-1 to Planned Development and subdividing the 176.794 +/- acres into seventy lots of varying size, with the remaining 60 +/- acres being open space. Two of the lots will be primarily agricultural in use, with Ranch Lot 1 being 25 acres in size and Ranch Lot 2 being 58 acres in size.

Our office previously provided comments in a letter dated April 8, 2025. The comments contained in this 2nd letter supersede those that were previously provided.

Water Supply Demand

68 Lots in area PA-A

The annual water demand per single family equivalent (SFE) for the 68 lots located in area PA-A of the proposed subdivision is 92.4 acre-feet/year as shown in the table below:

Use	Demand (af/yr/sfe)	No. Units	Total Demand (af/yr)
Indoor/Outdoor residential	1.1	68	74.8
Outdoor non-residential (irrigation of 6.86 acres)	-	-	17.6
-	-	**Total**	**92.4**

2 Lots in area PA-B

The application documents indicate that Ranch Lot 1 and Ranch Lot 2 will be mainly used for agricultural purposes, with an allowance for up to two residential dwelling units in area PA-B. The annual water demand for Ranch Lot 1 and Ranch Lot 2 located in area PA-B of the proposed subdivision is estimated to be 3.5 acre-feet/year as shown in the table below:

Use	Demand (af/yr/lot)	No. Lots	Total Demand (af/yr)
Indoor residential	0.2	2	0.4
Residential irrigation (30,000 SF)	1.5	2	3.0
Domestic animal watering (4 animals)	0.05	2	0.1
-	-	**Total**	**3.5**

Source of Water Supply

68 Lots in area PA-A

The proposed water supplier for the 68 single-family lots located in area PA-A of the proposed subdivision is service provided by the Parker Water and Sanitation District (District). A conditional "will-serve" letter dated January 17, 2025 indicates that the District is willing to serve the proposed subdivision, conditioned upon compliance with all the District Rules and Regulations, Standard and Specifications, and/or conditions specific to the property; including payment of the appropriate fees and any charges related to water and/or sanitation service, as established from time to time by the District Directors. Service from the District is also conditional upon successful completion of the property inclusion into the District service area.

According to the "will-serve" letter, the District has a combination of decreed Denver Basin supplies, junior and senior tributary water rights, and storage rights in Rueter-Hess Reservoir totaling 71,920 af/yr. The anticipated yield of these rights in an average or dry year is 41,134 af/yr, which exceeds the estimated buildout demand of 23,500 af/yr.

The majority of the District's supply is water from Denver Basin bedrock aquifers. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to section 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this **allocation** approach, the annual amounts of water in the District's decrees are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.

The Applicant has indicated that a portion of the Denver Basin groundwater underlying the Southern 160 acres that was decreed in case no. 07CW0107 by the Division 1 Water Court will be conveyed to the District in return for providing water service. Similarly, a portion of the Denver Basin groundwater (which has not yet been decreed or claimed) underlying the 17 acres to the North will also be conveyed to the District. The Applicant intends to convey an estimated total 92.4 af/year of Denver Basin groundwater from the Lower Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers to the District in order to offset the anticipated demand from the subdivision.

The groundwater underlying the 160 acre property was adjudicated in case no. 07CW0107 for domestic, industrial, commercial, irrigation, stock watering, recreational, fire protection, and augmentation purposes, both on and off the subject property. Table 1 summarizes the amounts quantified in each aquifer in case no. 07CW0107, the amount estimated underlying the undecreed 17 acres, and the amounts estimated to be conveyed to the District:

Aquifer	**Annual amount from 07CW0107 underlying 160 acres (100 year aquifer allocation)**	**Annual amount available estimated by Applicant underlying 17 acres (100 year aquifer allocation)**	**Annual amount estimated to be conveyed to the District from 07CW01007[1] and the undecreed 17 acres[2]**	**Type**
Lower Dawson	32.0	3.6	- 1.8[2]	NT*
Denver	70.7	8.5	35.4[1] 4.3[2]	NT*
Arapahoe	68.0	7.2	51.0[1] 5.4[2]	NT*
Laramie Fox-Hills	46.8	5.0	-	NT*

			2.5[2]	
Total	**217.5**	**24.3**	**86.4[1]** **14.0[2]**	-

*Nontributary

2 Lots in area PA-B

The proposed water supply for the 2 lots located in area PA-B are on-lot domestic wells. According to the additional information provided by the Applicant on May 1, 2025, 2 acre-feet per year of Lower Dawson ground water decreed under Water Court Division 1 case no. 07CW0107 will be conveyed to each lot (Ranch Lot 1 and Ranch Lot 2). The Lower Dawson aquifer under the subject property is considered to be non-tributary.

Applications for on lot well permits, submitted by an entity other than the original decree holder must include evidence that the applicant has acquired the right to the portion of water being requested on the application.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I) and section 30-28-136(1)(h)(II), C.R.S., it is our opinion that the proposed water supply is adequate and can be provided without causing injury to decreed water rights, **so long as the District is committed to serving the 68 lots**.

Our opinion that the water supply is **adequate** is based on our determination that the amount of water required annually to serve the subdivision is currently physically available, based on current estimated aquifer conditions.

Our opinion that the water supply can be **provided without causing injury** is based on

our determination that the amount of water that is legally available on an annual basis, according to the statutory **allocation** approach, for the proposed uses is greater than the annual amount of water required to supply existing water commitments and the demands of the proposed subdivision.

Our opinion is qualified by the following:

The Division 1 Water Court has retained jurisdiction over the final amount of water available pursuant to the above-referenced water rights, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifer, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocations of which are based on a 100-year aquifer life. The county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years used for allocation due to anticipated water level declines. We recommend that the county determine whether it is appropriate to require development of renewable water resources for this subdivision to provide for a long-term water supply.

Additional Comments

The applicant should be aware that any proposed detention pond for this development, must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), Colorado Revised Statutes, otherwise the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado to ensure that the notification, construction and operation of the proposed structure

meets statutory and administrative requirements. The applicant is encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at https://maperture.digitaldataservices.com/gvh/?viewer=cswdif, to meet the notification requirements.

Please contact Mike Matz at 303-866-3581 x8241 or at michael.matz@state.co.us with any questions.

Sincerely,

Ioana Comaniciu, P.E.
Water Resources Engineer

Ec: Referral no. 33884

March 20, 2025

Trevor Bedford, AICP
Douglas County Department of Community Development
Planning Services Division
100 Third St., Castle Rock, CO 80104

Re: ZR2024-031 Ramblewood Planned Development

Dear Mr. Bedford,

This letter provides comments regarding the request for approval for a Planned Development (PD) rezoning to establish the Ramblewood PD consisting of up to 70 single-family dwelling units and 14 acres of open space within a total 176 acres. The site is located on the south side of Hilltop Road approximately across from the intersection of Hilltop Road and Merryvale Trail.

After reviewing the property there has been no previous cultural surveys performed. At this time the Curator has no further recommendations, but if there are future development plans that involve any ground disturbance a Class II survey will need to be performed to evaluate for cultural resources before any disturbance occurs.

There is potential for buried archaeological resources related to prehistoric activities in the project area and potential for the discovery of subsurface cultural deposits during ground moving activities. Should buried artifacts and features be discovered, we recommend completion of the appropriate Colorado Office of Archaeology and Historic Preservation (OAHP) Data Management and Historic and/or Prehistoric Component forms, following OAHP guidelines, with accompanying sketch maps and photographs. Completed forms are submitted to OAHP to ensure that Douglas County's historic or prehistoric data is included in the Colorado OAHP state-wide database of cultural resources.

Thank you in advance for your attention to the preservation and protection of Douglas County's cultural resources for future generations.

Sincerely,

Brittany Cassell

Brittany Cassell, Curator

SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

Trevor Bedford, AICP, Project Planner
Douglas County Department of Community Development, Planning Services
100 Third St
Castle Rock Co 80104
303.660.7460
303.660.9550 Fax

Project Name:	Ramblewood Planned Development
Project File #:	**ZR2024-031**
S Metro Review #	REFXRP25-00067
Review date:	April 11, 2025
Plan reviewer:	Aaron Miller 720.989.2246 aaron.miller@southmetro.org
Project Summary:	The applicant is proposing a Planned Development (PD) rezoning to establish the Ramblewood PD consisting of up to 70 single-family dwelling units and 14 acres of open space within a total 176 acres. The site is located on the south side of Hilltop Road approximately across from the intersection of Hilltop Road and Merryvale Trail.
Code Reference:	Douglas County Fire Code, 2018 International Fire Code, and 2021 International Building Code with amendments as adopted by Douglas County.

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD Rezoning. Applicants are encouraged to contact SMFR regarding the applicable fire code requirements for the proposed project.

Douglas County School District
Learn Today, Lead Tomorrow
620 Wilcox Street
Castle Rock, Colorado 80104

April 28th, 2025

Trevor Bedford, AICP | Senior Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303.814.4372 Main | 303.660.7460
Email tbedford@douglas.co.us

RE: Ramblewood Planned Development (ZR2024-031)

Dear Mr. Bedford,

It is our understanding that the applicant is requesting to rezone approximately 176 acres of land from A1 and RR to Planned Development (PD) for future subdivision and residential development. It is our understanding that the applicant is proposing 70 single family residential units. The property is generally located south of Hilltop Road at the intersection of Hilltop Road and Merryvale Trail.

DCSD has calculated the amount of school site land requirement for students generated by the proposed planned development. A total of 38 elementary school students, 11 middle school students, and 22 high school students are expected from the development (as proposed) generating a land dedication requirement of 1.646-acres. Since this is smaller than DCSD's minimum school site size, and since the applicant has stated in their project summary that no school land dedication is proposed and they propose meeting school obligations with cash in lieu, DCSD requests cash-in-lieu of land. dedication.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: RAMBLEWOOD PLANNED DEVELOPMENT (ZR2024-031)					
DU/	**ACRES**		**DENSITY**		
70	**176.1**		**0.40**		
			Generation	**Number**	
STUDENT GENERATION RATES	**No. of DU's**		**Rate**	**of Students**	
ELEMENTARY	**70**	**X**	**0.54**	**38**	
MIDDLE SCHOOL	**70**	**X**	**0.15**	**11**	
HIGH SCHOOL	**70**	**X**	**0.31**	**22**	
			TOTAL	**70**	
				Required	
			School	**Land**	
	Number		**Acreage**	**Dedication**	
SCHOOL LAND DEDICATION	**of Students**		**Per Student**	**Acreage**	
ELEMENTARY	**38**	**X**	**0.018**	**0.680**	
MIDDLE SCHOOL	**11**	**X**	**0.030**	**0.315**	
HIGH SCHOOL	**22**	**X**	**0.030**	**0.651**	
			TOTAL	**1.646**	

As per Article 1004.05.3 of the Douglas County Subdivision Regulations, “The cash-in-lieu fee shall be equivalent to the full market value of the acreage required for school land dedication. Value shall be based on anticipated market value after completion of platting. The applicant shall submit a proposal for the cash-in-lieu fee and supply the information necessary for the Board to evaluate the adequacy of the proposal. This information shall include at least one appraisal of the property by a qualified appraiser.” And as per Article 1004.06, “The conveyance of land or payment of fees obtained through the County's dedication requirement shall be required prior to the recordation of the first final plat for the subdivision. The conveyance of dedicated school land to Douglas County shall be by warranty deed and the title shall be free and clear of all liens and encumbrances, including real property taxes prorated to the time of conveyance. The applicant shall provide a title insurance policy in the County's name and a certified survey at the time of conveyance.”

Granted neither the applicant nor Douglas County object to these fees DCSD has no objection to the proposed project. DCSD looks forward to future collaboration with the applicant and Douglas County on this proposal.

Shavon Caldwell, Planning Manager
DCSD Planning & Construction
scaldwell2l@dcsdk12.org
303.387.0417

NORRIS DESIGN
PEOPLE + PLACEMAKING

1101 Bannock Street
Denver, Colorado 80204
303.892.1166

July 2, 2025

Trevor Bedford
Department of Community Development
100 Third Street
Castle Rock, CO 80104

Re: Referral Submittal Review (ZR2024-031) for a Planned Development (PD) for Ramblewood

Dear Mr. Bedford,

Thank you for your comments for the referral submittal review of a Planned Development (PD) application for the property known as Ramblewood (formerly known as Hilltop 117). We are pleased to make our third submittal for a Planned Development, addressing the comments provided by the County. Please see below for the responses provided to all written County comments.

We look forward to continuing to work with the County during the review and approval process for this application. Please contact us if you have any questions or if you need additional information.

Sincerely,
Norris Design

Daniel Jennings

Daniel Jennings
Senior Associate

ADDRESSING ANALYST

- No comment.
  Response: Thank you for your review.

BUILDING SERVICES

- No comment.
  Response: Thank you for your review.

CENTURY LINK

- Qwest Corporation, d/b/a CenturyLink QC ("CenturyLink") has reviewed the request for comment on the project described above and has determined that it has No Comments/No Objections.
  Response: Thank you for your review.

CHERRY CREEK BASIN WATER QUALITY AUTHORITY

- The Cherry Creek Basin Water Quality Authority (Authority) acknowledges notification from Douglas County that the proposed development plans for ZR2024-031, Ramblewood Planned Development have been or will be reviewed by Douglas County for compliance with the applicable Regulation 72 construction and post-construction requirements. Based on the Authority's current policy, the Authority will no longer routinely conduct a technical review and instead the Authority will defer to Douglas County's review and ultimate determination that the proposed development plans comply with Regulation 72. If a technical review of the proposed development plan is needed, please contact LandUseReferral@ccbwqa.org. The review may include consultation with the Authority's Technical Manager to address specific questions or to conduct a more detailed Land Use Review, if warranted.
  Response: Thank you for your response.

COLORADO DIVISION OF WATER RESOURCES

- Based upon the above and pursuant to section 30-28-136(1)(h)(I), this office has not received information sufficient to render an opinion regarding whether the proposed water supply is adequate and can be provided without causing injury to decreed water rights. Prior to further review of the subdivision water supply plan, the following information is required:
  - Clarify the proposed uses and aquifer source for Ranch Lots 1 and 2.

  Response: Clarification has been provided in the attached Supplemental Water Supply Summary, dated May 1, 2025 from Jehn Water Consultants, Inc.

- The applicant should be aware that any proposed detention pond for this development, must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), Colorado Revised Statutes, otherwise the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use Colorado Stormwater Detention and Infiltration Facility Notification Portal, located at

https://maperture.digitaldataservices.com/gvh/?viewer=cswdif, to meet the notification requirements. Please contact Mike Matz at 303-866-3581 x8241 or at michael.matz@state.co.us with any questions.
Response: Noted, the standard practices and procedures for EDB's will be adhered to in future design submittals of this project's technical application process.

CORE ELECTRIC COOPERATIVE

- CORE Electric Cooperative will require the revised setback language not allowing encroachment into setbacks. Setbacks include utility easements; CORE will not allow encroachments into utility easements. CORE will require a minimum front lot 15-foot setback.
Response: Noted, these will be incorporated in the Preliminary Plat (and Final Plat) for review.

- CORE will require the following notes to be added:
    - No improvements that conflict with or interfere with construction, maintenance or access to utilities shall be placed within the utility easements. Prohibited improvements include, but are not limited to, permanent structures, buildings, counterforts, decks, attached porches, attached stairs, window wells, air conditioning units, retaining walls/components and other objects that may interfere with the utility facilities or access, use and maintenance thereof.

Response: This note will be added on the Preliminary and Final Plats and is not applicable to the PD Document.

DOUGLAS COUNTY HEALTH DEPARTMENT

- Exposure to air pollution is associated with several health problems including asthma, lung cancer, and heart disease. The Colorado Department of Public Health and Environment Air Pollution Control Division (APCD) regulates air emissions, including fugitive dust. Control measures may be necessary to minimize the amount of fugitive emissions from site activities including haul roads, stockpiles, and erosion. The applicant shall contact the APCD, at (303) 692-3100 for more information. Additional information is available at https://cdphe.colorado.gov/air-emissions-from-business-and-industry.
Response: Comment noted, thank you.

DOUGLAS COUNTY HISTORIC PRESERVATION

- After reviewing the property there has been no previous cultural surveys performed. At this time the Curator has no further recommendations, but if there are future development plans that involve any ground disturbance a Class II survey will need to be performed to evaluate cultural resources before any disturbance occurs.
Response: A Cultural Resources Survey shall be prepared at the time of Preliminary Plan. The findings of the survey will be evaluated and necessary accommodations will be provided at the time of Preliminary Plan.

- There is potential for buried archaeological resources related to prehistoric activities in the project area and potential for the discovery of subsurface cultural deposits during ground moving activities. Should buried artifacts and features be discovered, we recommend the completion of the appropriate Colorado Office of Archaeology and Historic Preservation (OAHP) Data Management

and Historic and/or Prehistoric Component forms, following OAHP guidelines, with accompanying sketch maps and photographs. Completed forms are submitted to OAHP to ensure that Douglas County's historic or prehistoric data is included in the Colorado OAHP state-wide database of cultural resources.
Response: Understood, thank you.

DOUGLAS COUNTY HEALTH DEPARTMENT

- Exposure to air pollution is associated with several health problems including asthma, lung cancer, and heart disease. The Colorado Department of Public Health and Environment Air Pollution Control Division (APCD) regulates air emissions, including fugitive dust. Control measures may be necessary to minimize the amount of fugitive emissions from site activities including haul roads, stockpiles, and erosion. The applicant shall contact the APCD, at (303) 692-3100 for more information. Additional information is available at https://cdphe.colorado.gov/air-emissions-from-business-and-industry.

  Response: Comment noted, thank you.

- Development of the subject parcel will potentially result in an increase of stormwater and snowmelt runoff that may contribute significant pollutant loadings. These pollutants include bacteria, nutrients, metals, and oxygen consuming contaminants.
  Response: Stormwater Management shall adhere to current stormwater management practices as required in the Douglas County Storm Drainage and Technical Criteria Manual to mitigate consumption of contaminants.

- DCHD noted the Phase one drainage report.
  Response: Thank you. Acknowledged.

DOUGLAS COUNTY ENGINEERING

- The Phase I Drainage Report is acceptable. Refer to the attached redlines and email from our traffic engineer.
  Response: LJA Acknowledges the conditional approval of the Phase 1 Drainage report. See responses to traffic items below.

- Hilltop Rd at Access A/Merryvale Trail
  - Future year intersection geometry: per Figure 7 this analysis assumes that the northwest bound left turns from Hilltop Rd will be made from a shared through/left turn lane. This is not typical for higher classification – 4-lane roadways. This study should analyze this approach assuming a dedicated left turn lane for all the future scenarios.
    Response: Noted. Auxiliary lane analysis added.

  - For the northeast bound approach to Hilltop Rd (Access A) it is assumed in the analysis that left, through, and right turning movements are made from a single lane approach. Although it will likely not make a significant change to the LOS for this approach, this study should assume that there would be a dedicated left turn lane and a shared through/right turn lane.

Response: Noted. Study updated to assume Access A geometry will include a dedicated left turn lane, and a shared through and right turn lane.

- This intersection is shown to operate at poor levels of service during both peak hours and in both short (2029) and long term (2044) future horizons. This is due to the delay experience by the stop controlled approaches. As the study indicates, this is not uncommon for stop controlled approaches to operate with noticeable delays. The delay for this approach is:
  - 2029 horizon; 36.2 second per vehicle (sec/v) in the AM peal and 64.3 sec/v in the PM peak.
  - 2044 horizon; 167.7 sec/v in the AM peak and 145.5 sec/v in the PM peak.

  County criteria requires that for intersections within the study area with a projected LOS "E" or worse, mitigations measures shall be identified to bring the intersection operation to an acceptable level (this would be LOS D).

  The study identifies the potential mitigation for this intersection is conversion of the intersection to signal-control operation. While signal-control of this intersection is likely to improve the side street LOS, this would come at the expense of the free flow movements on Hilltop Rd. Also, traffic-signal operation is not likely to be warranted by volume warrants. Other potential mitigations would include:
  - Roundabout
  - Restricting/prohibiting left turn movements.

  It is not likely that implementation of any of these mitigation would be needed in the short term horizon.

  Response: Comments acknowledged. Additional discussion of long-term mitigation options added.

- Because paving of the area local roads in 2025 is currently planned for by the County, cost-share percentage has been determined for the two unpaved road segments impacted by the Ramblewood project trips. The Ramblewood project's share is calculated as:
  - 45% for Alpine Dr from the proposed site access to Village Rd.
  - 21% for Village Rd.

  Response: The need for contribution to paving projects is to be further coordinated with the County, as it is not considered to be applicable to this application. However, it is noted that in discussion with County Staff, an alternative method for calculating a potential contribution is proposed based on the collected ADT on the northern end of Village Road of 3,340 vpd. Utilizing the summation of total peak hour volumes passing through the intersection at Village Road and Betts Ranch Road, the percent split of volumes that use Village Road can be calculated and applied to this ADT. From this method the following values are derived:
  - ***ADT on Village Road: 401***
  - ***ADT on Alpine Drive: 129***
  - ***Total ADT's with addition of site-traffic (65 vpd): 466 and 194, respectively***
  - ***Percent contribution to total volume: 14% on Village Rd, and 34% on Alpine Dr.***

- Summary
    - The south leg of the intersection of Hilltop Rd/Access A/Merryvale Tr, stop controlled with a single southwest bound lane and 2 northbound approach lanes (dedicated left turn lane and combined through/right turn lane at Hilltop Rd.
      Response: Noted. Auxiliary lane analysis added and geometry updated.

    - A northwest bound left turn lane on Hilltop Rd into the development access.
        - Note: if Access A is constructed prior to the Hilltop Rd widening project planned by the County, then the Ramblewood development will be responsible to improve Hilltop Rd to include this improvement. Otherwise the improvement would be constructed with the County's project with a fair-share contribution from the development.
          Response: Noted. Auxiliary lane analysis added and geometry updated.

    - The Owners and their Assigns are responsible for their fair share contribution towards the paving of Alpine Drive (32% of the total cost is $27,544.32. They also are responsible for their fair share contribution towards the paving of Village Road (14% of the total cost is $29,378.16.
      Response: Applicant worked with County to reach the following agreement. "The Owners and their assigns are responsible for their fair share contribution towards the paving of Alpine Drive in the amount of $27,554.32 (the "Alpine Drive Contribution"). Said payment shall be made prior to the recordation of the Final Plat for the Ramblewood Development. In the event that the County has not completed the paving of Alpine Drive by December 31, 2027, the Owner and/or assigns may request a refund of the Alpine Drive Contribution and the County agrees to reimburse Owner and/or assigns within 30 days after such a request is made."

DOUGLAS COUNTY PARKS AND TRAILS

- They would need to follow the Park Land Dedication standards as outlined in Article 10 of the Douglas County Subdivision Resolution, so I believe they are covering that in the plan.
  Response: Park Land Dedication standards shall be followed as outlined in Article 10.

DOUGLAS COUNTY SCHOOL DISTRICT

- DCSD has calculated the amount of school site land requirement for students generated by the proposed planned development. A total of 38 elementary school students, 11 middle school students, and 22 high school students are expected from the development (as proposed) generating a land dedication requirement of 1.646-acres. Since this is smaller than DCSD's minimum school site size, and since the applicant has stated in their project summary that no school land dedication is proposed and they propose meeting school obligations with cash in lieu, DCSD requests cash-in-lieu of land dedication.
  Response: Comment noted. Thank you.

OFFICE OF EMERGENCY MANAGEMENT

- OEM has no issues with this project.

Response: Thank you for your review.

PARKER WATER & SANITATION DISTRICT

- Please note this Project has not included into the Parker Water district at this time, no reviews will be completed until this project is a part of the Parker Water District.
  Response: Noted

RESPEC

- 1803A.01 - The will-serve letter from PWSD demonstrates that the water rights owned by PWSD can be used for the proposed use since the Ramblewood Development is within the PWWD service area which already includes significant residential development. The Water Supply Summary and Demand Analysis and the Supplemental Water Supply Summary demonstrate that the groundwater rights under the 160-acres are decreed for proposed uses.
  Response: Thank you for your review.

- 1803A.02 - The PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard. The Water Supply Summary and Demand Analysis demonstrates the water supply is sufficient and thus meets the requirements of this standard.
  Response: Thank you for your review.

- 1803A.03 - The PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard. The Water Supply Summary and Demand Analysis demonstrates the water supply is feasible and shortages will not occur and thus meets the requirements of this standard.
  Response: Thank you for your review.

- 1803A.04 - The application in this case provided a basis for the estimated water supply demand for the 68 SFE lots and the will-serve letter provided sufficient information to conclude PWSD can meet the demand for the 68 lots in the Ramblewood Development. The application also provided a basis for the estimated water supply demand for the two larger plots that will be served by individual wells. The Water Supply Summary and Demand Analysis and the Supplemental Water Supply Summary provided sufficient information to conclude that the Lower Dawson aquifer can meet the demand for the two larger lots. Douglas County Zoning Resolution Section 1806A provides the required documentation standards to be used to determine if the application meets the provisions of Section 18A. Section 1806A.02 is the required standard for the 68 SFE lots since they will be served for a District entity. Section 1806.01.4 through 1806.01.7 are the required standard for the two larger lots since they will be served with individual wells.
  Response: Thank you for your review.

- 1806A.02.1 - The application included a will-serve letter from PWSD and a Water Supply Report from the District. The will-serve letter stated District's intent and ability to serve the development, the conditions under which the District will commit to serving the development, proposed uses, the allowed uses of the District's water rights, and that the proposed uses correspond to the allowed

uses of the District's water rights, and the feasibility of extending service to the development. The will-serve letter included the estimated demand of the 68 SFE lots in the development based on the water demand standards as established in Section 1805A. Therefore, the application did fulfill all requirements of 1806A.02.1 for rezoning applications.
Response: Thank you for your review.

- 1806A.01.4- The application in this case did not include a letter from a qualified attorney stating ownership by the applicant of, or an executed contract granting rights to the applicant for, adjudicated water rights and a copy of the court decree adjudicating the water rights. Therefore, the application did not fulfill all requirements of 1806A.01.4
  Response: Water Supply Letter stating ownership was provided on June 13,2025 from McGeady Becher Cortese Williams P.C.

- 1806A.01.5 - In this application there was not enough information for the State Engineer to decide on whether the proposed water supply is adequate and can be provided without causing injury to decreed water rights. Therefore, it is unclear if an augmentation plan is required by the State Engineer, and it cannot be determined if 1806A.01.5 is fulfilled.
  Response: Since all the water rights being utilized for the project are nontributary ground water rights, they do not require an augmentation plan.1806A.01.5 does not apply to this project.

- 1806A.01.6 - The application in this case did not include proof that the water rights in all Denver Basin aquifers have been reserved in perpetuity, for the benefit of future landowners within the proposed development, pursuant to a declaration of restrictive covenants in a form prescribed by the county. Therefore, the application did not fulfill all requirements of 1806A.01.06 for rezoning applications.
  Response: Within the second comment letter from the State dated 5/12/2025, the State provided their opinion that the water rights are adequate for the project.

- 1806A.01.6 – Water Plan - In this application, the Water Supply Summary and Demand Analysis and the Supplemental Water Supply Summary provide which water rights from the Denver Basin aquifers will be dedicated to PWSD and which will be available for the two ranch plots. Therefore, all requirements for 1806A.01.7 were fulfilled. If you have any questions regarding our review of the water supply availability and demand, please do not hesitate to give us a call.
  Response: Thank you for your review.

SOUTH METRO FIRE RESCUE

- South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD Rezoning. Applicants are encouraged to contact SMFR regarding the applicable fire code requirements for the proposed project.
  Response: Comment noted, thank you.

THE PINERY HOA

- No comment.
  Response: Thank you for your review.

TOWN OF PARKER PUBLIC WORKS

- No comment.
  Response: Thank you for your review.

WILDFIRE MITIGATION

- A wildfire hazard assessment has been completed for the property and a wildfire mitigation plan will be required for the development. Please contact the wildfire mitigation and resilience coordinator directly with questions or for consultation regarding expectations and related requirements for plan development and execution.
  Response: Noted. A Wildfire Mitigation Plan will be completed at the time of Preliminary Plan.

XCEL ENERGY

- Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the documents for Ramblewood Planned Development. As always, thank you for the opportunity to take part in the review process. For these single-family residential lots and to ensure that adequate utility easements are available within this development and per state statutes, Public Service Company requests that the following language or plat note is placed on the preliminary and final plats for the subdivision: Six-foot (6') wide dry utility easements are hereby dedicated on private property adjacent to each front lot line of each lot. In addition, eight-foot (8') wide dry utility easements are hereby dedicated around the perimeter of tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities).
  Response: This note will be added on the Preliminary and Final Plats and is not applicable to the PD Document.

- Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.
  Response: Noted, standard expectations and practices will be followed.

- Public Service Company also requests that all utility easements are depicted graphically on the preliminary and final plats. While these easements should accommodate the majority of utilities to be installed in the subdivision, some additional easements may be required as planning and building progresses. The property owner/developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent. As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.

NORRIS DESIGN
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1101 Bannock Street
Denver, Colorado 80204
303.892.1166

Response: All easements will be shown on the Preliminary and Final Plats and is not applicable to the PD Document.

End of response to comments

Trevor Bedford

From: Cynthia Zimpfer <czimpfer@earthlink.net>
Sent: Friday, April 18, 2025 10:35 AM
To: Trevor Bedford
Subject: Ramblewood Planned Development, Project File # ZR2024-031

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Bedford,

I am sorry I am late in replying to your email dated March 18 concerning an application for a development of 70 houses under the name of the Ramblewood Planned Development as I was out of the US on business.

I am a resident of Hidden Village and own Lot 13 directly behind the proposed development.
I moved from New Jersey and spent 5 years building my house on this property which was completed in December 2020.
I wanted to be in a location that had low density…and a rural quality of life.
This development will significantly lower the value of my 5.9 acre property and change the quality of life in Hidden Village.

Here are my specific concerns:

1. WATER.
How will the water be accessed for these homes? Will each home have its own well? And if so, I am concerned that they will be connecting into the Hidden Village aquifer.
We, in Hidden Village, each have our own well.

2. FENCING AROUND PROPOSED DEVELOPMENT.
What kind of fence is proposed which would abut to my property and how would it be maintained? There is a private bridal trail for Hidden Village residents directly behind this proposed development and I can imagine that the residents of this new development would be very enticed to trespass onto these trails which are maintained by Hidden Village residents!!

3. INCREASED TRAFFIC
I understand that the Ramblewood proposal would have the main access onto HillTop road, but that the fire department requires that there also be an exit onto Alpine Road in Hidden Village.
A development of 70 homes may add up to 300-400 people who would have access to our community which add lots of traffic and noise.

4. LIGHT AND NOISE POLLUTION.
Part of the attraction of Hidden Village has been the low light and low noise. With an addition of 70 homes abutting to Hidden Village, there will be a significant increase in light and noise pollution.

5. CURBS & SIDEWALKS in the Proposed development.
As you may know, the roads in Hidden Village are dirt roads and are maintained as such for the equestrian asset in our community.
The paved surfaces in this development would cause run off onto the impervious rooftops, roads and other surfaces causing damage..

6. WILDLIFE
There is abundant wildlife in and around Hidden Village and the property under consideration of development. There is worry about where the animals and birds will be displaced given this extensive development.

I understand that there is always a push and pull with developers who wish to maximize their investments and the homeowners who surround developments, but I just do not understand how Douglas County would allow 70 homes to be built in under 100 acres.
A way to maintain the value of property in and around Hidden Village is to limit the development to 5 or 10 acre lot homesteads.

I will await your comments.

Respectfully yours,

Cynthia Zimpfer
7292 Village Road
Parker, CO 80134
Tel: (862) 250 0159

Trevor Bedford

From: Gus Burkard <gusburkard@gmail.com>
Sent: Thursday, April 17, 2025 10:44 AM
To: BOCC
Cc: Trevor Bedford
Subject: Ramblewood PD - ZR2024-031

Follow Up Flag: Follow up
Flag Status: Flagged

April 15, 2025

The Honorable Douglas County Commissioners
100 Third Street
Castle Rock, CO 80104
RE: Ramblewood PD Application – ZR2024-031

Dear Commissioners:
My name is Gus Burkard and I live at 6499 Village Road in Hidden Village. My home abuts the southern property line of the proposed Ramblewood project. I am writing today to express my support of the Ramblewood PD Application.

I have discussed the application in detail with the developer Dan Sheldon of Miller United Real Estate, have attended the neighborhood meetings, and been following the application through the process. Mr. Sheldon's team has paid close attention to the needs of the community by addressing our concerns over buffers, traffic and wildlife amongst others.

I appreciate the thoughtfulness that he and his team have put into their application as it relates to these important design features. I have discussed the application with a number of my neighbors and they too have been happy with the developers proposal. Being that we are on well and septic in Hidden Village, I am specifically pleased that Ramblewood will be connecting to Parker Water & Sanitation District's water and sewer system.

By connecting to PWSD's water system, they will not compete with us existing neighbors for water in our aquifers. Dan has also

committed to installing a hydrant and fire apparatus turnaround location specifically to address the Hidden Village neighbors' concerns over fire protection.

Depending on when the hearings are scheduled for the zoning and subsequent public hearing processes, I hope to be able to attend and provide my in-person testimony to the same effect.

Please let me know if you have any questions.

Sincerely,

Gus Burkard
6499 Village Road
303-841-4456

CC: Trevor Bedford, Senior Planner
Douglas County Department of Community Development

April 30, 2025

The Honorable Douglas County Commissioners
100 Third Street
Castle Rock, CO 80104

RE: Ramblewood PD Application – ZR2024-031

Dear Commissioners:

My name is Joe Liebherr and my partner, Jeanette and I live at 6559 Alpine Dr. in the Hidden Village neighborhood. I have lived in Hidden Village for twenty-one years now and really appreciate the uniqueness of our subdivision. I was dreading the potential development of the adjacent land fearing that it would change the feeling of where we live. I feel that the Ramblewood plan is the best compromise that we could have reached. We sincerely appreciate you taking the time to review our feedback, especially because our home is located adjacent to the proposed Ramblewood community.

Jeanette and I would like to express our support for the Ramblewood PD application for the following reasons:

1. Miller United, led by Dan Sheldon, has meaningfully engaged with our community since the beginning of the entitlement process. He's taken our feedback into consideration and even before meeting with neighbors in the area, he was putting together land plans that sought to preserve setbacks, open space, topography and foliage on the Ramblewood property. Having a developer that respects the beauty of this area is important to us.

2. The Ramblewood plan has a maximum of 70 lots and that proposed density aligns with your Comprehensive Planning documents. We appreciate that Mr. Sheldon did not push the envelop on density, but instead is developing a community that fits in well with its surroundings.

3. The proposed connection to Parker Water & Sanitation means future homes in Ramblewood will not compete with our water supply in the Upper and Lower Dawson aquifers.

4. Miller United is willing, on their own dime, to support our community events and put up additional signage that makes it clear our bridal trails are for Hidden Village resident use only. We appreciate them being a good community partner with these kinds of commitments well before any homes are ever built.

Thank you for taking our feedback into consideration as an adjacent neighbor. We appreciate all you do for the County, and we hope you'll support this thoughtful development project.

Sincerely,

Joe Liebherr / Jeanette White
6559 Alpine Dr in Hidden Village

CC: Trevor Bedford, Senior Planner
Douglas County Department of Community Development
tbedford@douglas.co.us

Trevor Bedford

From: Erick Hahne <erick.hahne@gmail.com>
Sent: Tuesday, May 13, 2025 10:54 AM
To: BOCC; Trevor Bedford
Subject: Ramblewood Development off of Hilltop Application – ZR2024-031

Follow Up Flag: Follow up
Flag Status: Completed

Douglas County Commissioners
100 Third Street
Castle Rock, CO 80104

RE: Ramblewood PD Application – ZR2024-031

Dear Commissioners:

My name is Erick Hahne. My wife Stephanie and I live at 6840 Chalet Circle in Hidden Village, just less than 1,000 feet away from the proposed Ramblewood project. I am writing today to express our support of the Ramblewood PD Application.

We have attended several of the neighborhood meetings that have been hosted by the developer Dan Sheldon of Miller United Real Estate and following the application through the process. We both believe Mr. Sheldon's team has paid close attention to the needs of the Hidden Village community by addressing our concerns over, water, lot sizes, buffers, traffic and wildlife amongst others.

I appreciate the thoughtfulness that he and his team have put into their application as it relates to these important design features. I have discussed the application with a number of my neighbors, and they too have been happy with the developer's proposal. Being that we are on well and septic in Hidden Village, I am specifically pleased that Ramblewood will be connecting to Parker Water & Sanitation District's water and sewer system. By connecting to PWSD's water system, they will not compete with us and our existing neighbors for water in our aquifers. Dan has also committed to installing a hydrant and fire apparatus turnaround location specifically to address the Hidden Village neighbors' concerns over fire protection. This new hydrant would be very much appreciated!

I am also pleased with the amount of communication the developer has been providing and the transparency of development plans.

Depending on when the hearings are scheduled for the zoning and subsequent public hearing processes, I hope to be able to attend and provide my in-person testimony to the same effect.

Please let me know if you have any follow up questions.

Thank you for your time,
Erick Hahne
6840 Chalet Circle

Trevor Bedford

From: Holly Wilbur <bass2364@gmail.com>
Sent: Monday, May 12, 2025 11:28 AM
To: BOCC; Trevor Bedford
Subject: Ramblewood PD Application – ZR2024-031

Follow Up Flag: Follow up
Flag Status: Flagged

The Honorable Douglas County Commissioners
100 Third Street
Castle Rock, CO 80104

RE: Ramblewood PD Application – ZR2024-031

Dear Commissioners:

My name is Holly Wilbur and my husband, Brian, and I live at 6511 Village Road in Hidden Village. My home abuts the southern property line of the proposed Ramblewood project. I am writing today to express my support for the Ramblewood PD Application.

We are supportive for the following reasons:

- Dan Sheldon with Miller United Real Estate and his project team have been open and transparent with our community since the first meeting about the project. They've listened to our feedback and have taken it to heart.
    - This includes providing ample setbacks between our homes that border the property and those that may be built in the future as well as providing a fire hydrant on the Ramblewood property to support fire protection efforts in Hidden Village if an emergency were ever to arise.
- Instead of pushing the envelope with more density, Dan and his team came to us with a proposal that aligned with your current comprehensive plan. We appreciate that the plan will also take advantage of the opportunity to cluster homes, thereby increasing buffers, but also creating less disturbance to existing topography/foliage on the site.

As an adjacent neighbor, we hope you'll take our feedback into account and support this thoughtful project.

Please let me know if you have any questions.

Sincerely,

Holly and Brian Wilbur
6511 Village Road
303-564-8604
bass2364@gmail.com

CC: Trevor Bedford, Senior Planner
Douglas County Department of Community Development
tbedford@douglas.co.us

---------- Forwarded message ---------
From: **Annette Bonner** <annettebonner777@gmail.com>
Date: Sun, Jul 6, 2025, 12:35 PM
Subject: FileZR2024-031 Ramblewood Planned Development Zoning
To: whittlejv@gmail.com <whittlejv@gmail.com>

Our names are James and Annette Bonner, we own, and live at 6541 Alpine Dr., Parker,CO, near the above referenced subject property. I have been following the progress of the PD submitted and wish to submit our position on this land use application for the file. After discussions with the developer and landowner, we have concluded that we are in favor of the proposed Ramblewood Planned Development Zoning. We appreciate that the developer has made considerable efforts to provide buffers to the adjacent Hidden Village community, and minimize invasive land development and operations by designing around the topography and trees, as well as commit to be served, and depend on, domestic water and sanitation services from Parker Water, and sanitation, instead of wells and septic .

-- James and Annette Bonner

Trevor Bedford

From: Ken Evans <gravelkingjr@yahoo.com>
Sent: Tuesday, April 8, 2025 5:03 PM
To: Trevor Bedford
Subject: Fwd: Ramblewood plan development ZR2024-031

Follow Up Flag: Follow up
Flag Status: Flagged

> Good afternoon Mr Bedford
> and Douglas County Planning Services,
>
> As the owner of the A1 property addressed as 9358 Hilltop Rd. I like to point out a few details.
>
> 1) I have not been able to find a copy of the description of the project as listed in the notice.It was not sent to me and it's not online.
>
> 2) It is important when considering the rezone from A1 for this particular application to residential development and PD that the cluster of homes, wherever they may be placed would not be allowed to touch the property line of the A1 9358 property or if allowed would be a minimum of 2.5 acres per lot in size and must have a buffer.
>
> 3) It is important to note that 9358 is a working agricultural facility with cattle, poultry, forage production, dairy facilities, and many days of the year operates on a 24/7 schedule. It is a necessity to understand the Colorado (right to farm laws) and some of the litigation that has ensued with these very same circumstances across the state over the years. Again there must be a buffer.
>
> 4) When considering access it should be important to consider the language that was written into the declaration during the hidden village zoning /plat with regards to the impact of density in traffic on the interior roads of hidden Village.
>
> 5) 3-2A when looking at the appropriateness, it appears that the consideration was for residential to the east and the south of the property and not the larger parcel of A1 address 9358 hilltop a greater consideration needs to be given for the larger less dense property.
>
> 6) 3-2B again understanding the PD and its intentions. It is important to keep the buffering around the entire border of the proposed Ramblewood rezoning.
> Consistent with projects in the Piney and Mountain development projects, it would be prudent to see the large Native Ponderosa, pine trees marked and considered when choosing the foundation site as to avoid unnecessary destruction of the historical trees on this site for multiple reasons, including showcasing, important natural and rural features. With consideration for surrounding property owners and view corridors.
>
> 7) 3-2B.1 again. The minimum requirement needs to be followed through with regards to clustering with open space, buffers along property lines and visually sensitive land i.e. adjacent landowners.
>
> 8) Please provide me Ken Evans property owner 9358 Hilltop Rd. Parker, CO 80134 with notice of all new hearings.
>
>
>

> Thank you,
>
> Ken Evans

Trevor Bedford

From: Atfcoloinc <atfcoloinc@aol.com>
Sent: Tuesday, July 1, 2025 6:06 PM
To: Trevor Bedford
Subject: Ramblewood PD Application #ZR2024-031

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Douglas County Planning Commission and Board of County Commissioners

My name is Theodore P Wittmann and with a relative Stanley E Schneider own the property located at 7265 Alpine Drive in the Hidden Village subdivision immediately adjacent to the proposed Ramblewood project. I have attended the developer's neighborhood meetings and am pleased to report that I am satisfied with their proposed rezoning. I appreciate that they are clustering the lots, including dedicated open space, and not having to mass grade the property. I believe that the developer has done a nice job listening to the community feedback and incorporating it into their plans.

This is a pearl of property with hundreds of Ponderosa Pines and views from Longs Peak to Pikes Peak. It deserves proper development and Ramblewood delivers.

In conclusion, I support the Ramblewood PD zoning. We encourage you to approve it at the upcoming hearings.

Sincerely,

Theodore Wittmann and Stanley Schneider

7265 Alpine Drive
LOT # 99
Hidden Village
Parker, CO 80134

May 20, 2025

The Honorable Douglas County Commissioners
100 Third Street
Castle Rock, CO 80104

RE: Ramblewood PD Application – ZR2024-031

Dear Commissioners:

My name is Jim Graham and my wife Darlene and I reside at 6525 Village Rd in the Hidden Village community in unincorporated Douglas County. We are writing to express our support for the proposed Ramblewood PD application that you'll consider in the coming months.

Over the past few months, the developer Dan Sheldon with Miller United Real Estate has actively engaged with the Hidden Village community, listened to our feedback and worked to incorporate it into the Ramblewood project. We sincerely appreciate Mr. Sheldon's collaboration and believe the project will be better for it.

There are a handful of reasons we're supportive of the proposal, but we'd like to take the opportunity to highlight a couple. First, we believe the Ramblewood proposal aligns with the County's comprehensive plan. The proposed density is in accordance with the plan and the decision to cluster homes on the northern portion of the property means greater setbacks for us and our neighbors. The proposal allows new development to occur while making sure that development is symbiotic with the surrounding community.

We also appreciate that Mr. Sheldon is choosing to connect and receive water from Parker Water & Sanitation. This means the new homes will not be competing with our wells in the Upper and Lower Dawson Aquifers.

We thank you very much for your time and consideration. We hope you'll support this thoughtful proposal and take into account our feedback given that we are neighbors adjacent to the project.

Sincerely,

Jim and Darlene Graham
6525 Village Rd

CC: Trevor Bedford, Senior Planner
Douglas County Department of Community Development
tbedford@douglas.co.us

General Ecological Resources Survey

Approximately 176.224 Acres within Section 6, Township 7 South, Range 65 West Douglas County, Colorado

Prepared for:

Miller United Real Estate, LLC
6900 East Belleview Avenue, Suite 300
Greenwood Village, Colorado 80111

Western Environment and Ecology, Inc.
2217 West Powers Avenue
Littleton, Colorado 80120
(303) 730-3452
(303) 730-3461 (fax)
www.westernenvironment.com

General Ecological Resources Survey

Approximately 176.224 Acres within Section 6, Township 7 South, Range 65 West Douglas County, Colorado

Western Environment and Ecology, Inc.
Project Number: 936-003-01

October 17th, 2024

Prepared for:

Miller United Real Estate, LLC
6900 East Belleview Avenue, Suite 300
Greenwood Village, Colorado 80111

Prepared by

Brendan Calonge
Senior Staff Scientist

WESTERN ENVIRONMENT AND ECOLOGY, INC.
2217 West Powers Avenue
Littleton, Colorado 80120
(303) 730-3452
(303) 730-3461 (fax)
westernenvironment.com

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1.0 INTRODUCTION

Western Environment and Ecology, Inc. (Western Environment) was retained by Mr. Daniel Sheldon, Principal for Miller United Real Estate, LLC., to conduct a general survey of ecological resources, including threatened and endangered species, wetlands, and other significant habitats, on approximately 176.224 acres in Section 6, Township 7 South, Range 65 West, unincorporated Douglas County, Colorado. Mr. Sheldon indicated that the report was in response to the potential purchase and development of the property.

The objectives of this study were to (1) establish presence/absence and potential habitat of any federal or state threatened and endangered species on the property, (2) identify any wetlands or other ecologically sensitive areas on and adjacent to the property, and (3) make practical recommendations based on the results of the study.

View of the property from the southeast

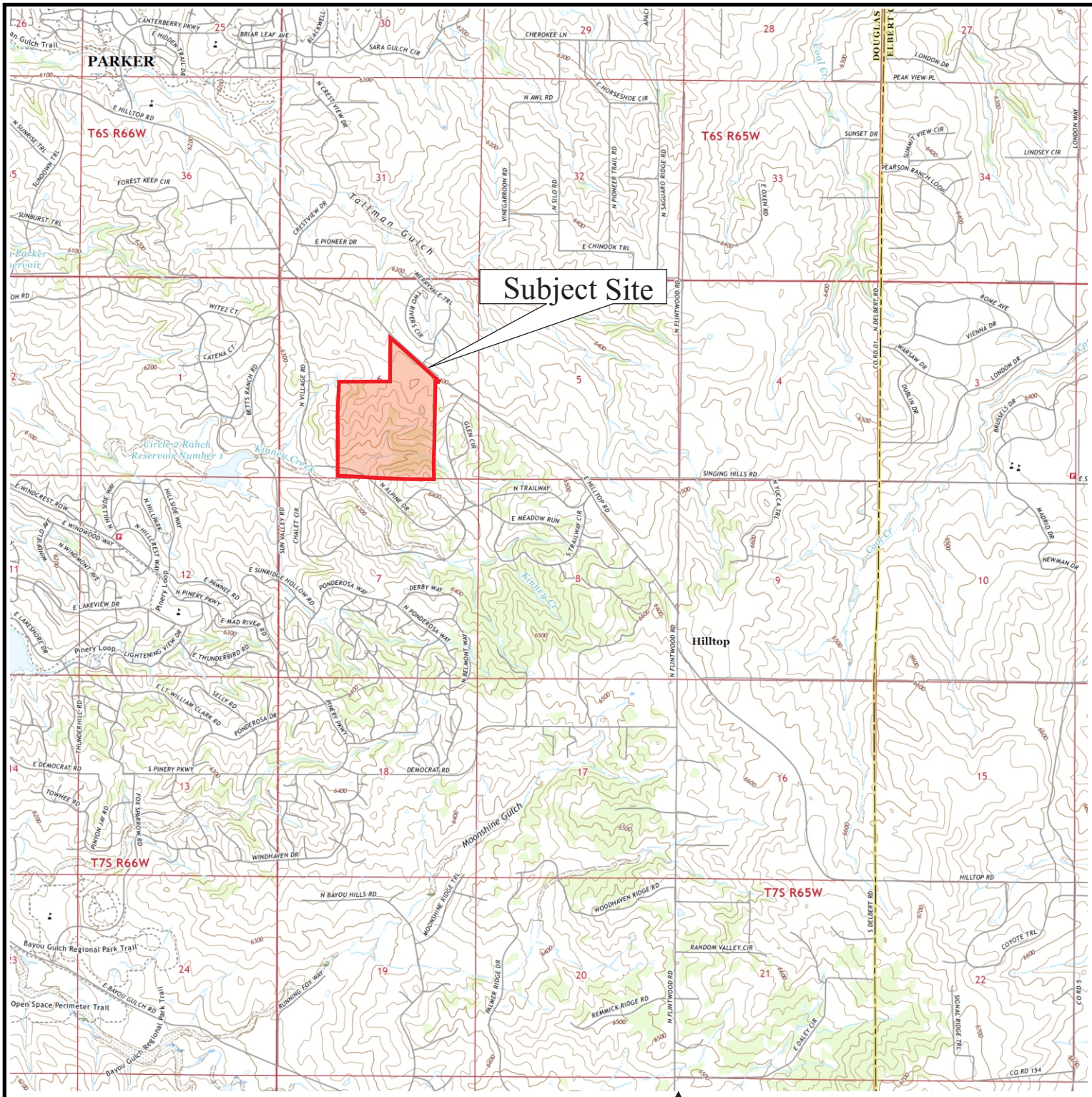
2.0 STUDY AREA

This General Ecological Resource Survey was conducted for approximately 176.224 acres in Section 6, Township 7 South, Range 65 West, unincorporated Douglas County, Colorado (Figure 1). The site is located approximately 3,900 feet east of the intersection of Hilltop Road and Singing Hills Road (Figure 2). According to the Douglas County Assessors Office, the vacant property consists of two adjacent parcels (Douglas County Parcel #'s 2347-061-00-001 and 2347-063-00-001) currently classified as agricultural grazing land. Xcel Energy supplies natural gas, and CORE Electric Cooperative supplies electric services to the area.

Surrounding properties consist of single family residences. The site is bordered to the northeast by Hilltop Road and to southwest by Alpine Drive. Kinney Creek is present along the southwestern property border. Additionally, an unnamed tributary to Kinney Creek originates on and bisects the site, confluencing with the Creek southwest of the property. A stock pond is present in the western portion of the site.

The site occurs at an elevation ranging from 6,260 to 6,400 feet above sea level (USGS Ponderosa Park 7.5 Minute Quadrangle, 2019). Topography of the site is hilly, with a regional slope south and west towards Kinney Creek. The US Resource Conservation Service identifies site soils as Bresser-Truckton sandy loams on 5 to 25 percent slopes, Fondis clay loam on 3 to 9 percent slopes, Fondis-Kutch association, Kutch Sandy loam on 5 to 20 percent slopes, Newlin-Satanta complex on 5 to 20 percent slopes, Sandy alluvial land, and Stapleton-Bresser association. Geology consists of the Tertiary Age Upper Part of the Dawson Arkose (Tweto, 1979). The Federal Emergency Management Agency Flood Maps (attached) indicate that a portion of the unnamed tributary to Kinney Creek in the southern portion of the property is within the 100 year flood plain.

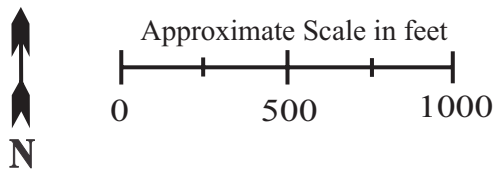
Records maintained by the Colorado Division of Water Resources (DWR) identified a stock well adjacent to the southeast of the subject property. Lithologic logs for the well identified intermittent layers of sand, and sandy clays to a total depth of 250 feet. Static groundwater was encountered at 90 feet below grade with a sustained yield of 15 gallons per minute.



USGS Ponderosa Park Quadrangle 7.5 Minute Series 2019

WESTERN ENVIRONMENT AND ECOLOGY, INC.
2217 West Powers Avenue
Littleton, Colorado 80120

Figure 1 - Project Location Map
Approximately 177 Acres within Section 6,
Township 7 South, Range 65 West
Douglas County, Colorado



WESTERN ENVIRONMENT AND ECOLOGY, INC.
2217 West Powers Avenue
Littleton, Colorado 80120

Figure 2 - Site Map
Approximately 177 Acres within Section 6,
Township 7 South, Range 65 West
Douglas County, Colorado

3.0 METHODS

Species that are federally or state listed as threatened or endangered, including federally proposed and candidate species, occurring or having historically occurred in Douglas County were considered for this study (Table 1). The county classification was determined by following the Colorado Field Office of the U.S. Fish and Wildlife Service's county checklist (USFWS, 2018). The list was narrowed based on habitat requirements of the species relative to existing habitats on the project.

The property was surveyed on August 29th, 2024. Information was collected on topography, ecosystems, and species of flora and fauna found on and adjacent to the property. Photographs were taken, and emphasis was placed on potential habitat of threatened and endangered species, and the presence of wetlands.

View of the property from the north

At the time of the inspection, the property was vacant, the northeastern parcel in agricultural production and the southwestern parcel in use as horse pasture. Vegetation in the northeastern parcel consisted primarily of sunflower. The southern parcel consisted of unmanaged native and invasive upland grasses and shrubs including field bindweed, white sage, rabbit brush, Russian thistle, prickly poppy, prickly pear cactus, and yucca. Woody vegetation included eastern plains cottonwood, gambel oak, Ponderosa pine, and pinyon pine. Kinney Creek was present along the southwestern property border. Additionally, several unnamed tributaries to Kinney Creek originated on site, confluencing at the southern portion of the property, conveyed under Alpine Drive though a culvert. The Tributary then confluenced with the Creek southwest of the property. A stock pond was present in the western portion of the site. At the time of the inspection, the stock pond had standing water; however, the unnamed Trubutary was dry. Riparian habitat, including bed and bank, and wetland type vegetation were observed within the unnamed tributary to Kinney Creek.

Prairie dog burrows were observed along the eastern border of the property. No prairie dogs were observed; however, recent scat and digging activity was observed at the entrance of several burrows.

View within the unnamed Tributary to Kinney Creek

Table 1. Common name, scientific name, and status of federal and state threatened and endangered species that could occur or historically occurred in the Colorado Piedmont (CPW, 2018; USFWS, 2018).

Common Name	Scientific Name	Status[1]
Birds		
Bald eagle	*Haliaeetus leucocephalus*	ST
Whooping crane	*Grus americana tabida*	FE, SE
Least Tern	*Sterna antillarum*	FE, SE
Mexican spotted owl	*Strix occidentalis lucida*	FT, ST
Mountain plover	*Charadrius montanus*	FPT, SC
Piping plover	*Charadrius melodus*	FT, ST
Plains Sharp-Tailed Grouse	*Tympanuchus phasianellus jamesii*	SE
Western burrowing owl	*Athene cunicularia*	ST
Lesser Prairie Chicken	*Tympanuchus pallidicinctus*	ST
Ferruginous Hawk	*Buteo regalis*	SC
Mammals		
Preble's meadow jumping mouse	*Zapus hudsonius preblei*	FT, ST
Black-tailed prairie dog	*Cynomys ludovicianus*	SC
Plants		
Ute ladies'-tresses	*Spiranthes diluvialis*	FT
Western prairie fringed orchid	*Platanthera praeclara*	FT

[1]Status Codes: FE = Federally Endangered, FT = Federally Threatened, FPT = Federally Proposed as Threatened, FC = Federal Candidate, SE = State Endangered, ST = State Threatened, SC = State Concerned

4.0 RESULTS AND DISCUSSION

4.1 Wetlands

Kinney Creek was present along the southwestern property border. Additionally, an unnamed tributaries to Kinney Creek originated from on site, from several drainage swales along the northern portion of the southern parcel (Figure 2), confluencing at the southern portion of the property. The Tributary was conveyed under Alpine Drive though a culvert, and then confluenced with the Creek southwest of the property. A stock pond was present in the western portion of the site. At the time of the inspection, the stock pond had standing water; however, the unnamed Trubutary was dry. Riparian habitat, including bed and bank, and wetland type vegetation were observed within the unnamed tributary to Kinney Creek.

The U.S. Army Corps of Engineers (Corps) regulates the discharge of dredged or fill materials into Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Waters of the U.S. include ephemeral, intermittent and perennial streams, their surface connected wetlands and adjacent wetlands, certain lakes, ponds, drainage ditches and irrigation ditches that have a nexus to interstate commerce.

Western Environment evaluated, to the best of our ability, based upon site conditions at the time of the survey, the three components of a jurisdictional wetland as defined in the US Army Corp of Engineers, (ACOE) Wetland Delineation Manual (1987). These components are: 1) Vegetation, 2) Soil and 3) Hydrology.

The ACOE Manual defines Nonwetlands as "including upland areas that are neither deepwater aquatic habitats, wetlands, nor other special aquatic sites. They are seldom or never inundated, or if frequently inundated, they have saturated soils for only brief periods during the growing season, and, if vegetated, they normally support a prevalence of vegetation typically adapted for life only in aerobic soil conditions."

The U.S. Fish and Wildlife Service's Wetland Mapper identified Kinney Creek as R4SBA (Riverine, Intermittent, Streambed, Temporarily Flooded) and the Unnamed Tributary to Kinney Creek as R4SBC (Riverine, Intermittent, Streambed, Seasonally Flooded). Review of the FEMA flood map (attached) indicated a portion of the unnamed tributary to Kinney Creek in the southern portion of the property is within the 100 year flood plain. Kinney Creek has a nexus with Cherry Creek approximately 3 miles west of the subject property.

On May 25, 2023, the Supreme Court issued a decision in Sackett v. EPA that reinterpreted the scope of federal jurisdiction under the Clean Water Act (the Sackett decision).

The Court's decision held that the significant nexus test, used by EPA and the Corps to determine the scope of federal Clean Water Act jurisdiction since the Rapanos v. United States and Carabell v. United States (Dec. 2, 2008) decision, is no longer valid. The Court articulated a new jurisdictional test for adjacent wetlands that extends Clean Water Act jurisdiction to only those wetlands that are as a practical matter indistinguishable from waters of the United States. This requires a party asserting jurisdiction over adjacent wetlands to establish first that the adjacent body of water constitutes "waters of the United States," which the Court defines as "a relatively permanent body of water connected to traditional interstate navigable waters." Second, a party asserting jurisdiction must also show that the wetland has a continuous surface connection with that water, making it difficult to determine where the "water" ends, and the "wetland" begins.

Following the Sackett decision, the Colorado Department of Public Health and Environment, Water Quality Control Division (WQCD) approved Implementation Policy CW-17 on July 6th, 2023. This policy addressed the protections of State Waters under the Colorado Water Quality Control Act that are now outside of federal Clean Water Act jurisdiction as the result of the Sackett decision. These waters, described as Sackett Gap Waters, are under the jurisdiction of the WCD, and any impact to these waters requires consultation with the WQCD.

On May 30th, 2024, House Bill 24-1379 was signed into law. This law directs the WQCD to develop a dredge and fill authorization program and the Water Quality Control Commission to establish permitting and mitigation rules by December 31st, 2025. As such, Implementation Policy CW-17 remains in effect.

Based on the Sackett decision, Kinney Creek and the Unnamed Tributary to Kinney Creek are likely not Jurisdictional Waters of the U.S. subject to regulation under Section 404 of the Clean Water Act. However, based on the nexus with Cherry Creek, Kinney Creek and the Unnamed Tributary to Kinney Creek are likely considered Sackett Gap Waters, subject to requirements described in Implementation Policy CW-17. Any permanent or temporary impact to, or discharge into these aquatic resources will require consultation with the WQCD.

View of the unnamed Tributary to Kinney Creek

4.3 Wildlife Species Eliminated from Consideration as Occurring on the Project

The following threatened and endangered species that have historically been thought to occur in Douglas County were immediately ruled out of serious consideration for this project based on available habitat: Mexican spotted owl, whooping crane, least tern, and western prairie fringed orchid.

The Mexican spotted owl was eliminated because it requires forests that are not present on the project. The whooping crane was also eliminated due to rarity in Colorado, and no known nesting or feeding habitat exists on or adjacent to the property. Less than 20 sightings of whooping cranes along the eastern plains and mountainous regions of Colorado have been recorded since 1931 (Andrews and Righter, 1992). The least tern inhabits sandy shorelines of reservoirs, lakes, and rivers with bare sandy shorelines. This shore bird is a casual to very rare spring and fall migrant on the northeastern plains of Colorado, and is unlikely to occur on the subject project.

The western prairie fringed orchid is restricted to west of the Mississippi River, however only currently occurs in Iowa, Kansas, Minnesota, Nebraska, North Dakota and in Manitoba, Canada (USFWS, 2001).

4.4 Species Included in Survey

Western Burrowing Owl *(Athene cunicularia)*

State Threatened

Western burrowing owl, photo acquired on www.corbis.com.

The burrowing owl is found primarily in eastern Colorado as a summer resident. Two aspects of the biology of the western burrowing owl appear to influence both its regional and local abundance: 1) it prefers areas of short vegetation, and 2) it rarely, if ever, digs its own burrows. Historically, burrowing owls were common wherever there were prairie dog colonies in northeastern Colorado. During the inspection, prairie dog burrows were observed on the eastern border of the property. (Figure 2). **The Colorado Division of Parks and Wildlife (CPW) recommends that a burrowing owl survey be performed if construction is planned on abandoned or active prairie dog colonies during the owl's nesting season (March 1st to November 1st). The CPW recommends a 150 foot buffer for development near an observed owl nest. Due to the proximity of the prairie dog burrows, Western Environment recommends performing a burrowing owl survey prior to construction during the owl's nesting season (March 1st to November 1st)**.

Bald Eagle *(Haliaeetus leucocephalus)*

State Threatened

The bald eagle was removed from the Federal Endangered and Threatened Species List on July 9th, 2007. Western Environment reviewed data maintained by the Colorado Division of Parks and Wildlife (CPW 2018), which identified no known bald eagle nests in proximity to the property. No bald eagles or bald eagle nests were observed during the inspection**.**

Mountain Plover (*Charadrius montanus*)

State Concerned Species

Typical habitat characteristics of the mountain plover are a mixture of short vegetation, bare ground, and a flat topography at both breeding and wintering locations. This small shorebird

breeds in Colorado, and in parts of its breeding range the species commonly shows a preference for prairie dog colonies and sites that are heavily grazed by domestic livestock. Prairie dog grazing promotes the short grasses that the plover prefers, and their digging creates areas of bare soil important for plover nesting. Plovers breed in Eastern Colorado from approximately April 1st through August 1st. Mountain plovers were proposed for federal listing as threatened on February 16th, 1999 (USFWS, 1999b), however the USFWS withdrew the proposal on September 8th, 2003. The Mountain plover is a migratory bird and protected under the Migratory Bird Treaty Act. Harassment or destruction of the species or its nest is a federal offense. **Therefore, to ensure avoidance of the species, development within grazed sites or prairie dog colonies should not begin without a pre-construction inspection during plover breeding months from April to November.**

Piping Plover (*Charadrius melodus*)

Federally Threatened, State Threatened

This small shorebird can be found on very sparsely vegetated beaches, mudflats and sandy areas near water on shores and islands. Piping Plovers usually arrive in Colorado in late April or early May, and leave when the nesting cycle is completed, or by late August. Nesting populations have been documented in eastern Colorado along the South Platte and Arkansas River drainages. Food sources for Piping Plovers include insects, crustaceans and other small aquatic animals. Plovers feed along beaches, especially in areas where waves have washed up debris (CDOW, 1994). **Due to the lack of sandbars or mud-flats in the vicinity of the project, Piping Plover are unlikely to occur.**

Plains Sharp-Tailed Grouse *(Tympanuchus phasianellus jamesii*)

State Endangered

The Plains Sharp-Tailed Grouse historically occurred on Colorado's eastern grasslands. Grouse habitat is characterized by rolling hills with Gambles oak, sage brush, service berries and grassy glades. This grouse is a

Plains Sharp-Tailed Grouse

resident from Alaska east to the Hudson Bay, and south to northern New Mexico. Currently, Colorado populations are located in Douglas County, northern and eastern Weld County, and Logan County east of Sterling. **No known populations of the Plains Sharp-Tailed Grouse occur in proximity to the subject project (CPW, 2018).**

Lesser Prairie Chicken (*Tympanuchus pallidicinctus*)

State Threatened

Historically, this bird occupied the grasslands of Texas, Oklahoma, New Mexico, Kansas and southeastern Colorado. It prefers sandy grassland areas abundant in midgrasses, sandsage and yucca. The majority of Colorado breeding pairs occur in the southeastern portion of the state in Baca, Prowers, Kiowa and Cheyenne Counties, and for the most part, on the Comanche National Grasslands near Campo. **No known populations of the Lesser Prairie Chicken occur in proximity to the subject project (CPW, 2018).**

Ferruginous Hawk (*Buteo regalis*)

State Concerned

This hawk is known to occur throughout eastern Colorado and in northwestern Colorado. In Colorado, the species is a common winter resident, but is considered an uncommon summer resident on the eastern plains (Andrews and Righter, 1992). Areas that could be potential nesting sites include large trees, rock outcrops, manmade structures such as windmills and power poles, or the ground. These birds often can be seen associated with prairie dog colonies, which they utilize for foraging. This hawk, as are all birds of prey, is federally protected under the Migratory Bird Species Act. **At the time of the survey, no Ferruginous Hawks or nests were observed on or adjacent to the property.**

Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*)

Federally Threatened, State Threatened

Preble's meadow jumping mouse

Typical Preble's habitat has been described as "well-developed plains riparian vegetation with relatively undisturbed grassland and a water source in close proximity," and "dense herbaceous vegetation consisting of a variety of grasses, forbs and thick shrubs" (Armstrong et al., 1997). Although any vegetation could offer cover and hibernacula for Preble's, the species is mostly known from habitat containing shrub cover, such as willow or narrow-leaf cottonwood.

Preble's are known to regularly range outward into adjacent uplands to feed and hibernate. For this reason, the U.S. Fish and Wildlife Service generally requires a 300 foot development buffer from the edge of the 100 year flood plain. Riparian vegetation, suitable for Preble's was observed adjacent to Kinney Creek. However, there is no critical habitat designated by the USFWS in the area. Western Environment reviewed the Douglas County Habitat Conservation Plan and Environmental Assessment, dated May 2006. This report designated Riparian Conservation Zone (RCZ) containing potential Preble's habitat and included trapping events between 1999 and 2005. Kinney Creek was initial designated as a RCZ; however, its inclusion was eliminated because it does not have permanent water year round. **Therefore, it is the opinion of Western Environment that the proposed project will not affect Preble's habitat. However, we recommend requesting a "Finding of No Significant Impact" from the U.S. Fish and Wildlife Service confirming that development will not impact Preble's.**

Black-tailed Prairie Dog (*Cynomys ludovicianus*)

Former Candidate for Federal Listing, State Concerned

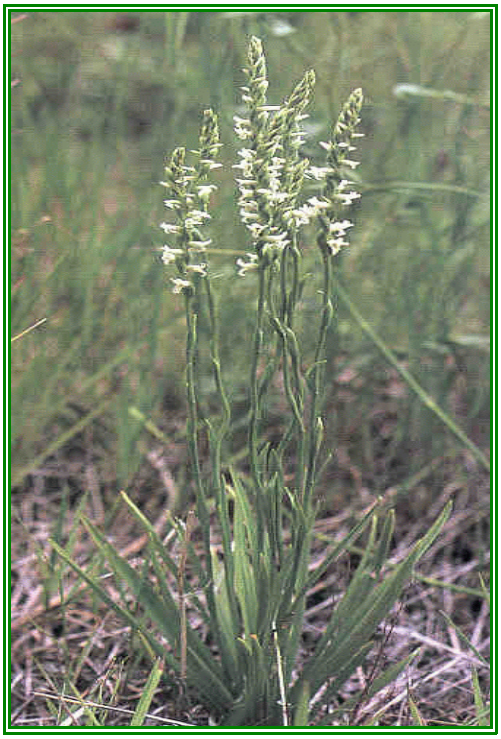
The U.S. Fish and Wildlife Service was petitioned to list the black-tailed prairie dog as a threatened species in July of 1998. The agency determined on February 3rd, 2000, that listing the species was warranted, but it was precluded because other species were in greater need of protection (USFWS, 2000). The black-tailed prairie dog was added to the candidate list, and the species' status was reviewed annually. On August 12th, 2004 the USFWS determined that the black-tailed prairie dog no longer meets the Endangered Species Act definition as threatened, and was removed as a candidate for federal listing. At the time of the inspection, Prairie dog burrows were observed along the eastern border of the property. No prairie dogs were observed; however, recent scat and digging activity was observed at the entrance of several burrows.

The Colorado Parks and Wildlife recommends "humane removal" of prairie dogs immediately prior to development. Removal strategies may include trapping and relocation, or donation to the U.S. Fish and Wildlife Service black-footed ferret recovery program or an approved raptor rehabilitation program as a food source. Additional options include the extermination of the prairie dogs by an approved pest control firm.

View of prairie dog burrows on the property

Ute Ladies'-Tresses Orchid (*Spiranthes diluvialis*)

Federally Threatened



Ute Ladies'-Tresses Orchid

This orchid usually occurs in "...old stream channels, alluvial terraces, wet meadows, and other sites where the soil is saturated to within 18" of the surface at least temporarily during the growing seasons" (USFWS, 1992). The eastern Colorado populations of species are located in mesic riparian meadows in relict tall grass prairie areas near Boulder Creek, South Boulder Creek, and Saint Vrain Creek in Boulder County, Colorado, and in mesic meadows in the riparian woodland under story along Clear Creek in Jefferson County, Colorado (USFWS 50 CFR Part 17). One population was historically identified in Weld County east of Greeley near Crow Creek in 1856, but is now considered extirpated. Soil conditions and vegetation composition of known *Spiranthes* sites suggest that wetlands regulated by the Corps under the Clean Water Act qualify as potential *Spiranthes* habitat. **No perennial waters occur on the property, nor is *Spiranthes* designated Critical Habitat. It is the opinion of Western Environment that *Spiranthes* does not inhabit the project.**

Other Wildlife

No wildlife was observed on the property during the site visit.

5.0 CONCLUSIONS AND RECOMMENDATIONS

At the time of the survey, no threatened or endangered species or their obvious habitat were seen on the subject property. However, prior to development, the following actions are recommended:

- **Based on the Sackett decision, Kinney Creek and the Unnamed Tributary to Kinney Creek are likely not Jurisdictional Waters of the U.S. subject to regulation under Section 404 of the Clean Water Act. However, based on the nexus with Cherry Creek, Kinney Creek and the Unnamed Tributary to Kinney Creek are likely considered Sackett Gap Waters, subject to requirements described in Implementation Policy CW-17. Any permanent or temporary impact to, or discharge into these aquatic resources will require consultation with the Colorado Water Quality Control Division (WQCD).**

- Riparian vegetation, suitable for Preble's was observed adjacent to Kinney Creek; however, there is no critical habitat designated by the USFWS in the area. It is the opinion of Western Environment that the proposed project will not affect Preble's habitat. **However, we recommend requesting a "Finding of No Significant Impact" from the U.S. Fish and Wildlife Service confirming that development will not impact Preble's.**

- During the site inspection, Prairie dog burrows were observed along the eastern border of the property. No prairie dogs were observed; however, recent scat and digging activity was observed at the entrance of several burrows. The Colorado Parks and Wildlife recommends "humane removal" of prairie dogs immediately prior to development. Removal strategies may include trapping and relocation, or donation to the U.S. Fish and Wildlife Service black-footed ferret recovery program or an approved raptor rehabilitation program as a food source. Additional options include the extermination of the prairie dogs by an approved pest control firm.

- Due to the presence of prairie dogs and prairie dog burrows on the property, Western Environment recommends performing a burrowing owl and mountain plover survey prior to the development of the site.

No other Ecological Issues were found.

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9757 HILLTOP RD
PARKER, CO 80134

Ownership Information
BRADLEY A WHITTLESEY & JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113

Account #: R0622871

State Parcel #: 2347-063-00-001
Account Type: Agricultural
Tax District: 0324
Neighborhood-Ext:

Building Permit Authority

Douglas County
Phone: 303-660-7497

Subdivision

Name: METES AND BOUNDS
Reception No: 0000051

Location Description

TR IN PT E1/2SW1/4 & PT W1/2SE1/4 & PT S1/2NE1/4 & PT S1/2E1/2NW1/4 159.235 AM/L

Public Land Survey System (PLSS)

Quarter: SW; Section: 6
Township: 7; Range: 65

Land and Location

Land Type: Agricultural
Class Code: 4142
Descr.: GRAZING AG
Acreage: 159.235 acres
LEA Code: 9L2

Land Valuation

Actual Value: $7,153

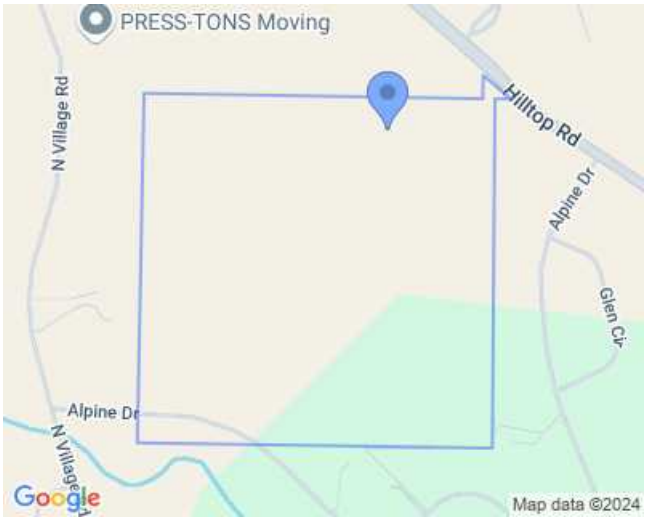
Land Attributes: Arterial Road Proximity, Open Area Local, Open Area Medium Impact, Road Proximity No Impact

Property Type: N/A

Year Built: N/A
Square Footage: 0 sqft
Style: N/A
Quality: N/A
% Complete: N/A

Stories: N/A
Bedrooms: N/A
Bathrooms: N/A
Basement Area: N/A
Finished Bsmt. Area: N/A(0)
Total Finished Area: 0 sqft
Walkout: N/A
Fireplaces: N/A
Porch/Deck Area: N/A
Garage Type: N/A
Attached: N/A
Detached: N/A

Building Use: N/A
Building Use %: N/A
Actual Value: N/A



Valuation Summary

Total Actual Value: $7,153 Current Tax Rate: 8.4396%
Total Assessed Value: $1,890 Est. Tax Amount: $160

No Address

Ownership Information
HILLTOP JAM LLC
2554 ASPEN SPRINGS DR
PARK CITY, UT 84060

Account #: R0620578

State Parcel #: 2347-061-00-001
Account Type: Agricultural
Tax District: 0324
Neighborhood-Ext:

Building Permit Authority

Douglas County
Phone: 303-660-7497

Subdivision

Name: METES AND BOUNDS
Reception No: 0000051

Location Description

TRACT IN SW1/4NE1/4 & N1/2N1/2NW1/4SE1/4 6-7-65 16.989 AM/L

Public Land Survey System (PLSS)

Quarter: NE; Section: 6
Township: 7; Range: 65

Land and Location

Land Type: Agricultural
Class Code: 4123
Descr.: DRY AG
Acreage: 16.989 acres
LEA Code: 9C1

Land Valuation

Actual Value: $6,374

Land Attributes: Arterial Road Proximity, Road Proximity Medium Impact

Property Type: N/A

Year Built: N/A
Square Footage: 0 sqft
Style: N/A
Quality: N/A
% Complete: N/A

Stories: N/A
Bedrooms: N/A
Bathrooms: N/A
Basement Area: N/A
Finished Bsmt. Area: N/A(0)
Total Finished Area: 0 sqft
Walkout: N/A
Fireplaces: N/A
Porch/Deck Area: N/A
Garage Type: N/A
Attached: N/A
Detached: N/A

Building Use: N/A
Building Use %: N/A
Actual Value: N/A

Valuation Summary

Total Actual Value: $6,374 Current Tax Rate: 8.4396%
Total Assessed Value: $1,680 Est. Tax Amount: $142

National Flood Hazard Layer FIRMette

FEMA

104°42'42"W 39°28'26"N

104°42'5"W 39°27'58"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/25/2024 at 6:18 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

104°42'51"W 39°28'13"N

104°42'13"W 39°27'45"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
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- Coastal Transect
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- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

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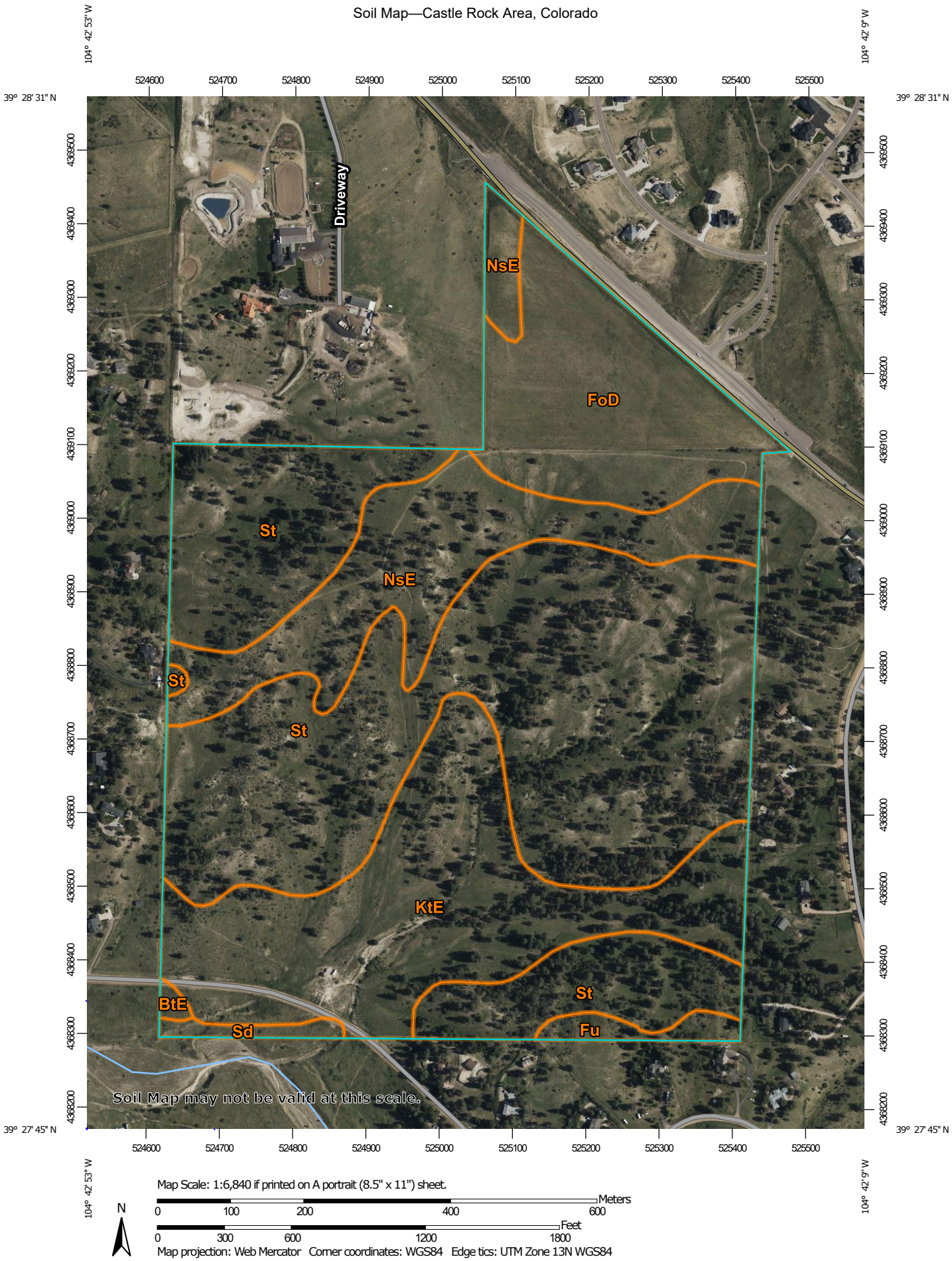
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 9/25/2024 at 6:09 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Soil Map—Castle Rock Area, Colorado



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 16, Aug 24, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BtE	Bresser-Truckton sandy loams, 5 to 25 percent slopes	0.4	0.2%
FoD	Fondis clay loam, 3 to 9 percent slopes	22.4	12.6%
Fu	Fondis-Kutch association	2.0	1.1%
KtE	Kutch sandy loam, 5 to 20 percent slopes	37.5	21.1%
NsE	Newlin-Satanta complex, 5 to 20 percent slopes	24.8	14.0%
Sd	Sandy alluvial land	1.3	0.7%
St	Stapleton-Bresser association	89.5	50.3%
Totals for Area of Interest		**177.9**	**100.0%**

WRJ-26-72

THIS FORM MUST BE SUBMITTED WITHIN 60 DAYS OF COMPLETION OF THE WORK DESCRIBED HEREON. TYPE OR PRINT IN BLACK INK.

COLORADO DIVISION OF WATER RESOURCES

101 Columbine Bldg., 1845 Sherman St.
Denver, Colorado 80203

WELL COMPLETION AND PUMP INSTALLATION REPORT

PERMIT NUMBER 6-2488

RECEIVED OCT 1972 WATER RESOURCES STATE ENGINEER COLO.

WELL OWNER Lewis Wiser

ADDRESS 24 Alpine Dr. Parker Colo 80134

SE ¼ of the SW ¼ of Sec. 6,

T. 7 S, R. 65 W, 6 P.M.

DATE COMPLETED 9-7, 1972

WELL LOG

From	To	Type and Color of Material	Water Loc.
0	1	Sandy Topsoil	
1	12	Sand & Gravel	
12	48	Gray Clay	
48	56	Sandy Clay	
56	68	Gray Clay	
68	73	Soft Green Clay	
73	82	Brown Clay	
82	90	Gray Clay	
90	107	Sand	
107	157	White Sandy Clay	
157	172	Sandy Clay	
172	198	Hard Clay	
198	220	White Sandy Clay	
220	248	Good Sand	E
248	250	Brown Clay	

TOTAL DEPTH 250

Use additional pages necessary to complete log.

HOLE DIAMETER

10½ in. from 0 to 24 ft.

6 in. from 24 to 250 ft.

___ in. from ___ to ___ ft.

CASING RECORD:

Plain Casing

Size 6⅝ & kind Steel from 0 to 24 ft.

Size 4½ & kind Steel from 21 to 209 ft.

Size ___ & kind ___ from ___ to ___ ft.

Perforated Casing

Size 4½ & kind Steel from 209 to 250 ft.

Size ___ & kind ___ from ___ to ___ ft.

Size ___ & kind ___ from ___ to ___ ft.

GROUTING RECORD

Material Cement

Intervals Yes Casing

Placement Method Poured

GRAVEL PACK: Size —

Interval —

TEST DATA

Date Tested 9-7, 1972

Static Water Level Prior to Test 90' ft.

Type of Test Pump Bailed

Length of Test 4 hours

Sustained Yield (Metered) 15 GPM

Final Pumping Water Level 160'

PUMP INSTALLATION REPORT

Pump Make _____

Type _____

Powered by _____ HP _____

Pump Serial No. _____

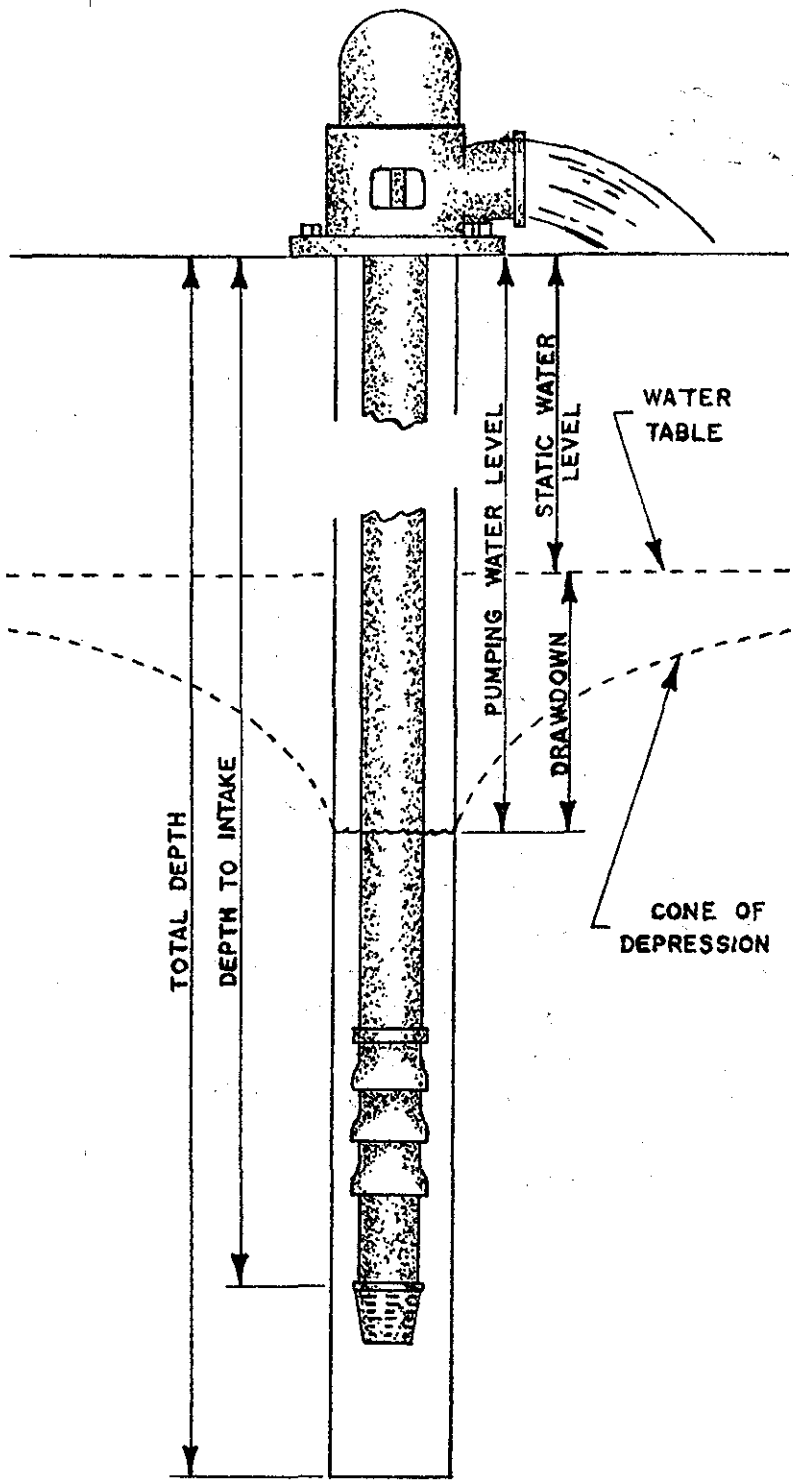
Motor Serial No. _____

Date Installed _____

Pump Intake Depth _____

Remarks _____

_____



WELL TEST DATA WITH PERMANENT PUMP

Date Tested _____

Static Water Level Prior to Test _____

Length of Test _____ Hours

Sustained yield (Metered) _____ GPM

Pumping Water Level _____

Remarks _____

_____

CONTRACTORS STATEMENT

The undersigned, being duly sworn upon oath, deposes and says that he is the contractor of the well or pump installation described hereon; that he has read the statement made hereon; knows the content thereof, and that the same is true of his own knowledge.

Signature Paul J. Wonsetler License No. 709

State of Colorado, County of Douglas SS

Subscribed and sworn to before me this 30th day of October, 1972.

My Commission expires: My Commission expires Mar. 12, 1975, 19 ____.

Notary Public Connie L. Borell

FORM TO BE MADE OUT IN QUADRUPLICATE: WHITE FORM must be an original copy on both sides and signed. WHITE AND GREEN copies must be filed with the State Engineer. PINK COPY is for the Owner and YELLOW COPY is for the Driller.

WRJ-5-71

COLORADO DIVISION OF WATER RESOURCES
101 Columbine Bldg., 1845 Sherman Street, Denver, Colorado 80203

RECEIVED
JUN 28 '72
WATER RESOURCES STATE ENGINEER COLO.

TYPE OR PRINT IN BLACK INK. APPLICATION MUST BE COMPLETED BEFORE ACCEPTANCE.

APPLICATION FOR:
- ____ A PERMIT TO USE GROUND WATER
- ✓ A PERMIT TO CONSTRUCT A WELL
- ____ REPLACEMENT FOR NO. ____
- ✓ A PERMIT TO INSTALL A PUMP
- ____ OTHER ____

GROUND WATER TO BE USED FOR:
- ✓ DOMESTIC (1)
- ____ LIVESTOCK (2)
- ____ MUNICIPAL (8)
- ____ OTHER ____
- ____ COMMERCIAL (4)
- ____ INDUSTRIAL (5)
- ____ IRRIGATION (6)

APPLICANT Lewis J. Wiser

Street Address 4 Alpine Dr.

City & State Parker, Colo.

Telephone No. 841-3314

NAME OF AQUIFER GROUND WATER IS TO BE OBTAINED FROM: Dawsan

PROPOSED TOTAL DEPTH OF WELL 300 Ft.

ESTIMATED MAXIMUM PUMPING RATE 15 GPM

AVERAGE ANNUAL AMOUNT OF GROUND WATER TO BE APPROPRIATED 1 Acre-feet

ANTICIPATED GROUT PROGRAM

Material # 2 cement

Intervals 0 - 20

Placement Method Poured

PROPOSED CASING:

Plain	6 5/8	in. from 0	ft. to 20	ft.
	4½	in. from 20	ft. to 250	ft.
Perf.	4½	in. from 250	ft. to 300	ft.
	____	in. from ____	ft. to ____	ft.

Driller R. Worsello No. 709

Address ____

WELL LOCATION
COUNTY Douglas

SE ¼ of the SW ¼ of Section 6

T. 7 South, R. 65 West, 6 P.M.

IN ADDITION TO THE ABOVE, THE WELL MUST BE LOCATED WITH REFERENCE TO GOVERNMENT SURVEY CORNERS, MONUMENTS OR SECTION LINES BY DISTANCE AND BEARING (DOMESTIC WELLS MAY BE LOCATED BY LOT, BLOCK, & SUBDIVISION.)

350 ft. from South (North or South) section lin

1600 ft. from West (East or West) section lin

LOT 62 BLOCK ____ FILING # 2

SUBDIVISION Hidden Village

Ground Water Basin ____

Water Mgmnt. Dist. ____

Anticipated drilling date Aug 15 1972

Owner of land on which well is located: Lewis J. Wiser

Other water rights on this land ____

Lewis J. Wiser
Signature of Applicant

IF WELL IS USED FOR IRRIGATION, BACK SIDE OF THIS APPLICATION MUST BE COMPLETED.

FOR OFFICE USE ONLY 35432

CONDITIONS OF APPROVAL

This well shall be used in such a way as to not cause material injury to existing water rights. The issuance of this permit does not assure the applicant that no injury will occur to another vested water right or preculde another owner of a vested water right from seeking relief in a civil court action June 8/18/72

APPLICATION APPROVED: VALID FOR ~~ONE~~ (2) YEARS AFTER DATE ISSUED UNLESS EXTENDED FOR GOOD CAUSE SHOWN TO THE ISSUING AGENCY.

PERMIT NO. 63488

DATE ISSUED AUG 21 1972

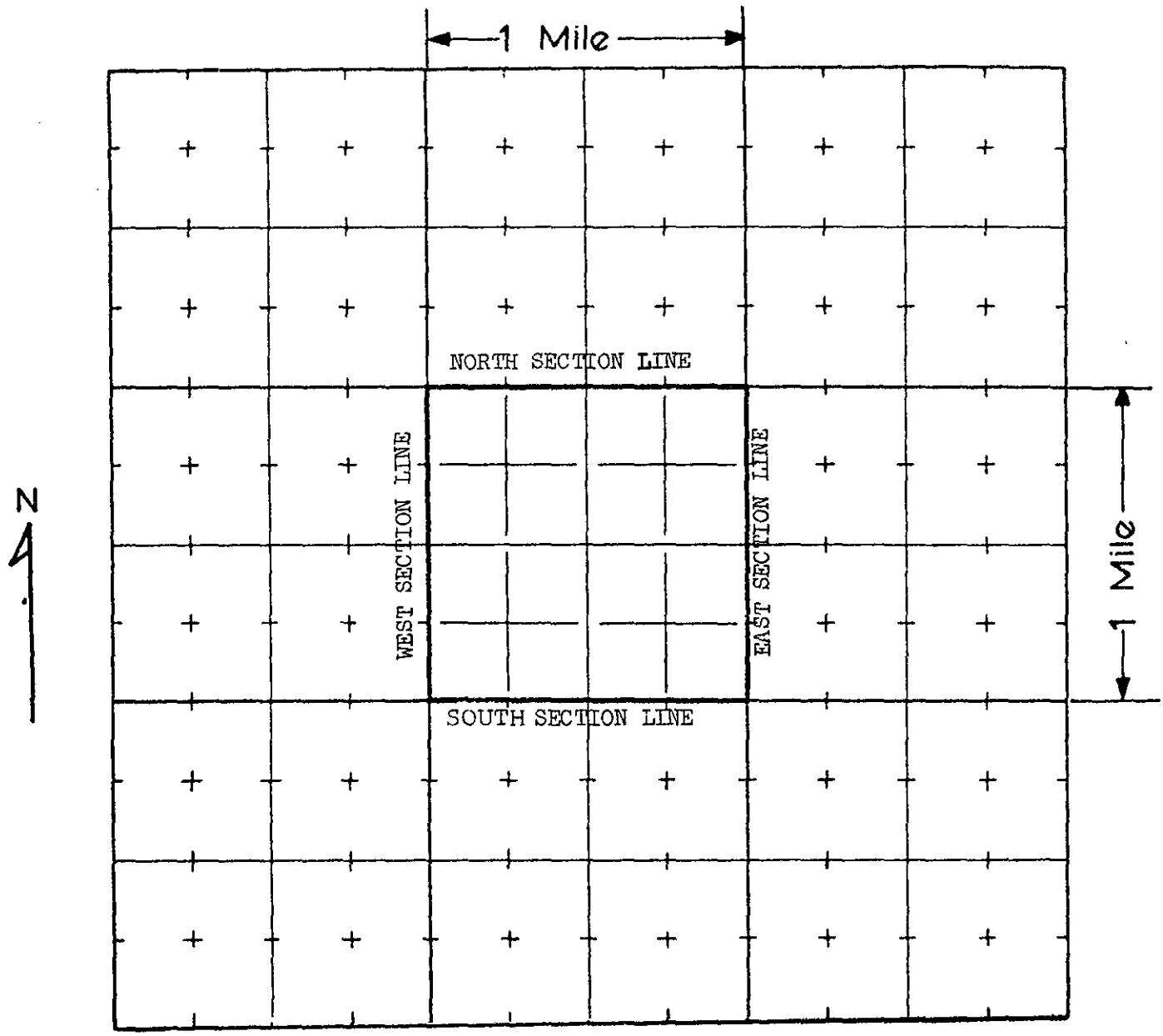
STATE ENGINEER

BY ____

590

THE LOCATION OF THE PROPOSED WELL MUST BE SHOWN AND THE AREA TO BE IRRIGATED MUST BE SHADED OR CROSS-HATCHED ON THE DIAGRAM BELOW

This diagram represents nine (9) sections. Use the CENTER SQUARE (one section) to indicate the location of the well, if possible.



THE SCALE OF THE DIAGRAM IS TWO INCHES EQUALS ONE-MILE

Owner of irrigated land _____ Number of acres to be irrigated _____

Legal description of irrigated land _____

WATER EQUIVALENTS TABLE (Rounded Figures)

An acre-foot covers 1 acre of land 1 foot deep.
1 cubic foot per second (cfs) .... 449 gallons per minute
1 acre-foot .... 43,560 cubic feet .... 325,900 gallons.
1,000 gpm pumped continuously for one day produces 4.42 acre-feet.
100 gpm pumped continuously for one year produces 160 acre-feet.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands

October 17, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

TRAFFIC IMPACT STUDY

For

Ramblewood
Douglas County, Colorado

October 2024
Revised May 2025

Prepared for:

MU Hilltop LLC
6900 E Belleview Avenue, Suite 300
Greenwood Village, Colorado 80111

Prepared by:

SM ROCHA, LLC
TRAFFIC AND TRANSPORTATION CONSULTANTS

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Colorado Springs, Colorado 80903
(719) 203-6639

Project Manager:
Stephen Simon, EIT

Project Engineer:
Zac Trotter, EIT

Engineer in Responsible Charge:
Fred Lantz, PE

24-082230

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APPENDIX B LEVEL OF SERVICE DEFINITIONS
APPENDIX C CAPACITY WORKSHEETS
APPENDIX D FIELDS TRIP GENERATION
APPENDIX E PERCENT CONTRUBTION CALCULATIONS

I. Introduction

Project Overview

This traffic impact study is provided as a planning document and addresses the capacity, geometric, and control requirements associated with the development entitled Ramblewood.

This traffic impact study has been revised to address County review comments made to the October 2024 version regarding updated intersection geometry and additional long-term mitigation methods.

This proposed residential is located to the southwest of Hilltop Road, north of Alpine Drive, and east of Village Road in Douglas County, Colorado.

Study Area Boundaries

The study area to be examined in this analysis encompasses the area bounded by Hilltop Road from Village Road east to Alpine Drive, Village Road from Betts Ranch Road east to Alpine Drive, and includes proposed site accesses. Site Access Drives internal to the overall development were not included in this analysis as internal intersection operations are expected to be comparable to, or better than, those projected for Hilltop Road and Alpine Drive.

Figure 1 illustrates location of the site and study intersections.

Site Description

Land for the development is currently vacant and surrounded by residential land uses.

The proposed development is understood to entail the new construction of 70 single-family detached homes.

Proposed access to the development is provided at the following locations: one-full movement access onto Hilltop Road aligning with Merryvale Trail (referred to as Access A) and one full-movement access onto Alpine Drive (referred to as Access B).

For purposes of this study, it is anticipated that development construction would be completed by end of Year 2029.

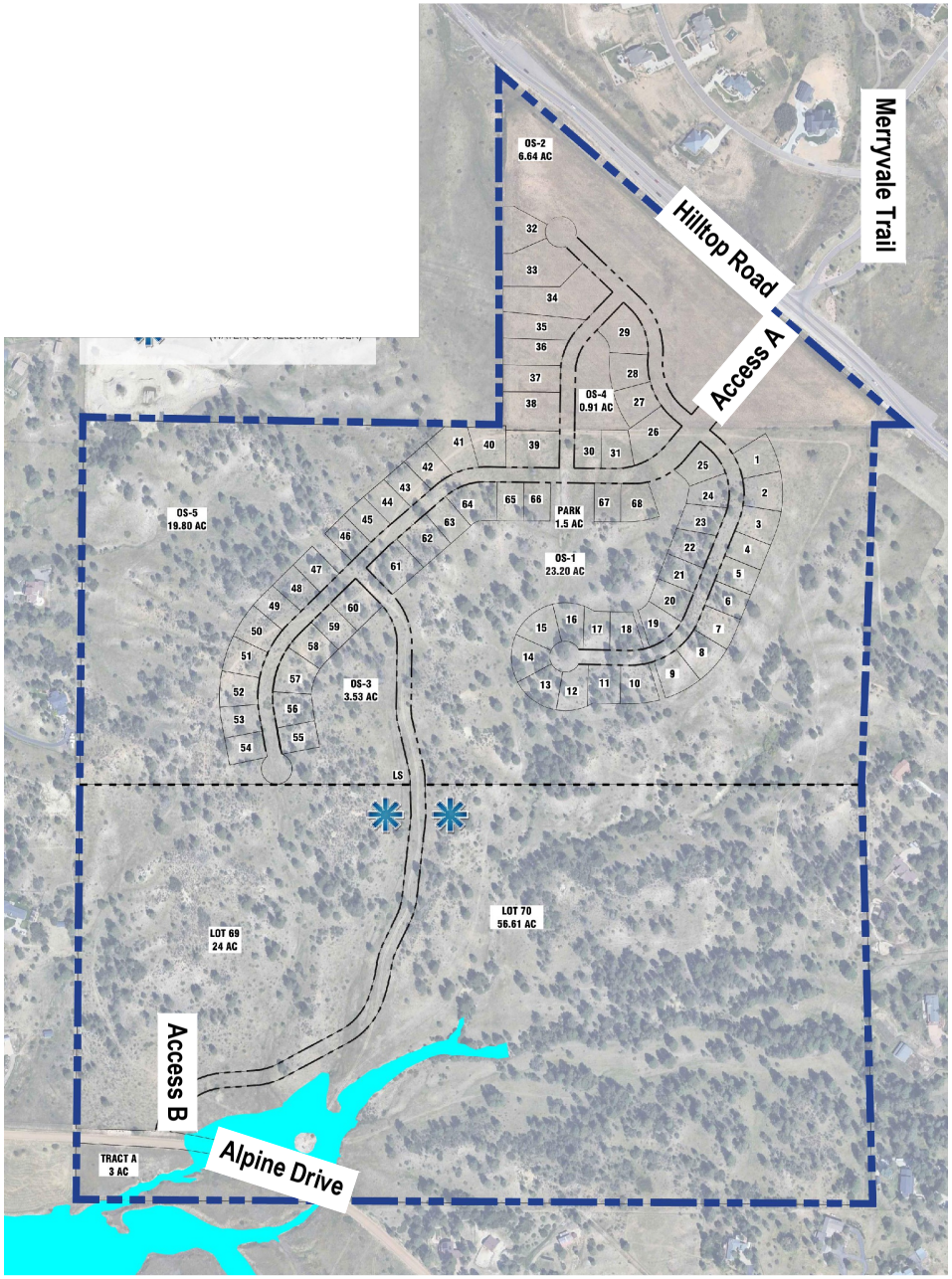
General site and access locations are shown on Figure 1.

A conceptual site plan, as prepared by Norris Design is shown on Figure 2. This plan is provided for illustrative purposes only.

Figure 1
SITE LOCATION
May 2025
Page 2

RAMBLEWOOD
Traffic Impact Study

SM ROCHA, LLC
Traffic and Transportation Consultants


Merryvale Trail
Hilltop Road
Access A
Access B
Alpine Drive
OS-2
6.64 AC
OS-4
0.91 AC
OS-5
19.80 AC
PARK
1.5 AC
OS-1
23.20 AC
OS-3
3.53 AC
LS
LOT 69
24 AC
LOT 70
56.61 AC
TRACT A
3 AC
North
Not to Scale

Existing and Committed Surface Transportation Network

Within the study area, Hilltop Road and Alpine Drive are the primary roadways that will accommodate traffic to and from the proposed development. The secondary roadways include Village Road, Merryvale Trail, Crest View Drive, and Betts Ranch Road. A brief description of each roadway, based on the County's 2040 Transportation Master Plan (TMP)[1] and Douglas County Roadway Design & Construction Standards (Roadway Standards)[2], is provided below:

Hilltop Road is generally a northwest-southeast expressway roadway having two through lanes (one lane in each direction) with a combination of shared and exclusive turn lanes at the intersection within the study area. Hilltop Road provides a posted speed limit of 45 MPH.

Alpine Drive is generally a north-south roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersections within the study area. Alpine Drive is unclassified in the County's TMP. However, per Section 4.2 and Table 4-1 and the roadway's estimated right-of-way (ROW) width, Alpine Drive is assumed to be classified as a rural local roadway with a posted speed limit of 25 MPH. Alpine Drive is unpaved.

Village Road is generally a north-south roadway having two through lanes (one lane in each direction) with shared and exclusive turn lanes at the intersections within the study area. Alpine Drive is unclassified in the County's TMP. However, per Section 4.2 and Table 4-1 and the roadway's estimated ROW width, Village Road is assumed to be classified as a rural local roadway with a posted speed limit of 25 MPH. East of Betts Ranch Road, Village Road is unpaved.

Merryvale Trail is a north-south roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Merryvale Trail is unclassified in the County's TMP. However, per Section 4.2 and Table 4-1 and the roadway's estimated ROW width, Merryvale Trails is assumed to be classified as a rural local roadway with a posted speed limit of 25 MPH.

Betts Ranch Road is generally a north-south roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Betts Ranch Road is unclassified in the County's TMP. However, per Section 4.2 and Table 4-1, the roadway's estimated ROW width, and a posted speed limit of 40 MPH, Merryvale Trails is assumed to be classified as a rural local roadway.

Crest View Drive is generally a north-south roadway having two through lanes (one lane in each direction) with shared turn lanes at the intersection within the study area. Merryvale Trail is unclassified in the County's TMP. However, per Section 4.2 and Table 4-1 and the roadway's estimated ROW width, Merryvale Trails is assumed to be classified as a rural Local roadway with a posted speed limit of 25 MPH.

[1] 2040 Douglas County Transportation Plan, David Evans and Associates, Inc., September 2019.
[2] Douglas County Roadway Design and Construction Standards, Douglas County, June 2020.

All study intersections operate under a stop-controlled condition. A stop-controlled intersection is defined as a roadway intersection where vehicle rights-of-way are controlled by one or more "STOP" signs.

Pursuant to the Hilltop Road (Legend High School to Crest View Drive) Improvements Project Webpage[3], Hilltop Road will be widened and reconstructed in three phases.

- Phase one (Hilltop Road from Legend High School to Crestview Drive/Village Road) – Construction is anticipated to begin in early 2025 with completion of the project taking between 12 to 18 months.

- Phase two (Hilltop Road from Crestview Drive/Village Road to Alpine Drive) - Construction is anticipated to begin in late 2025 or early 2026 with completion taking between nine to 12 months.

- Phase three (Alpine Drive on Hilltop Road to Flintwood Road on Signing Hills Road) - Construction is anticipated to begin in 2027 with completion taking between 12 to 18 months.

For purposes of this analysis, it is assumed that Hilltop Road will be widened from two to four to the east of Alpine Drive and the intersection of Hilltop Road and Village Road will be improved to a roundabout-controlled intersection by Year 2029. Additionally, it is assumed that Hilltop Road will be widened from two to four through lanes west of Alpine Drive by Year 2044.

No regional or specific improvements for the above-described roadways are known to be planned or committed at this time.

[3] Hilltop Road (Legend High School to Crest View Drive) Improvements Project, Douglas County, October 7, 2024.

II. Existing Traffic Conditions

Morning (AM) and afternoon (PM) peak hour traffic counts were collected at the Hilltop Road intersections with Village Road, Merryvale Trail, and Alpine Drive as well as the Village Road intersections with Betts Ranch Road and Alpine Drive. Average daily traffic (ADT) volumes were collected over a 24-hour period on Hilltop Road, Village Road, and Alpine Drive. Counts were collected on Wednesday, September 25, 2024, with AM peak hour counts being collected during the period of 7:00 a.m. to 9:00 a.m. and PM peak hour counts being collected during the period of 4:00 p.m. to 6:00 p.m.

Existing volumes and intersection geometry are shown on Figure 3. Traffic count data is included for reference in Appendix A.

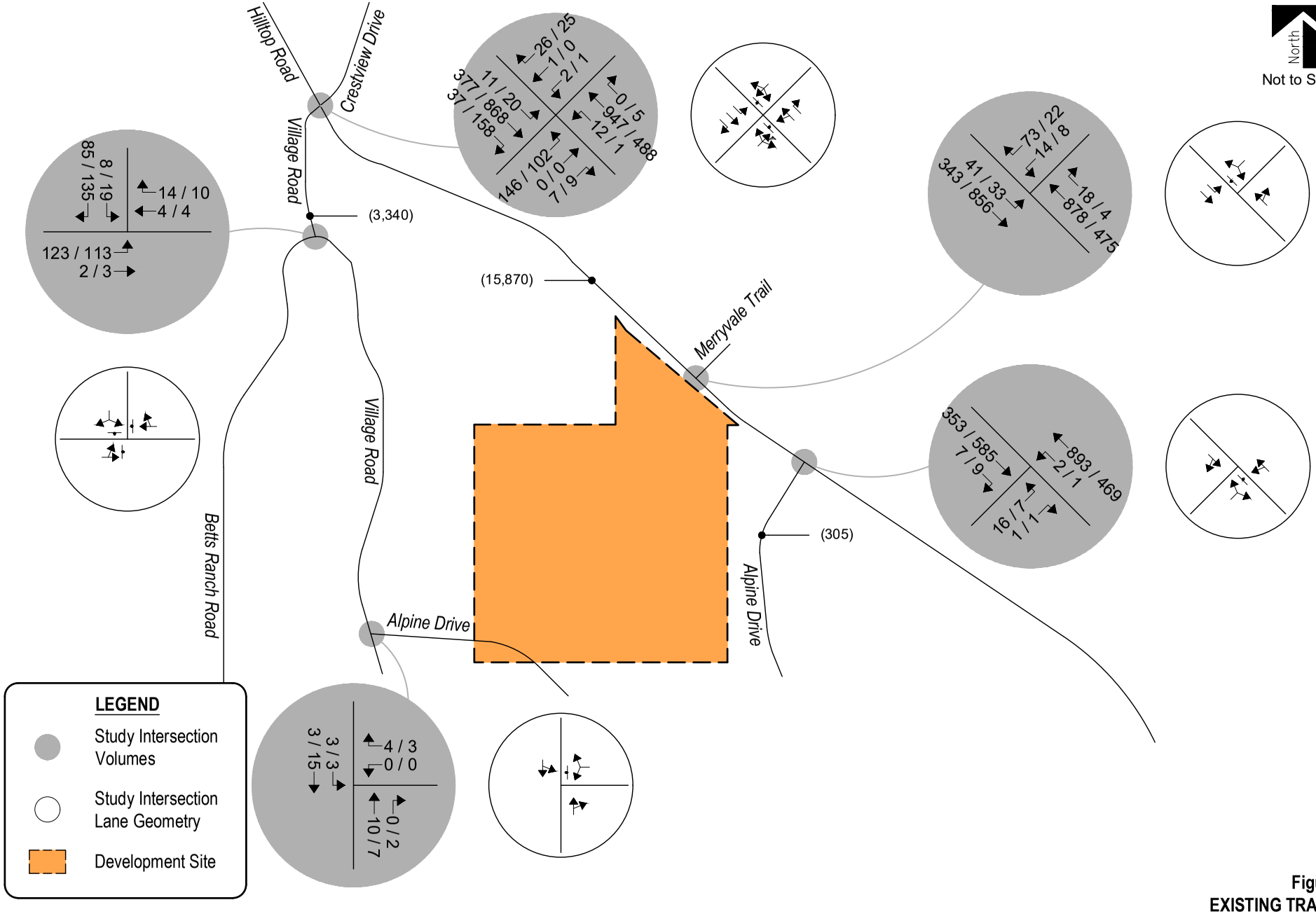


Figure 3
EXISTING TRAFFIC
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

Peak Hour Intersection Levels of Service – Existing Traffic

The Unsignalized Intersection Analysis techniques, as published in the Highway Capacity Manual (HCM), 7th Edition, by the Transportation Research Board and as incorporated into the SYNCHRO computer program, was used to analyze the study intersections for existing and future traffic conditions. This nationally accepted technique allows for the determination of intersection level of service (LOS) based on the congestion and delay of each traffic movement.

Level of service is a method of measurement used by transportation professionals to quantify a driver's perception of travel conditions that include travel time, number of stops, and total amount of stopped delay experienced on a roadway network. The HCM categorizes level of service into a range from "A" which indicates little, if any, vehicle delay, to "F" which indicates a level of operation considered unacceptable to most drivers. These levels of service grades with brief descriptions of the operating condition, for unsignalized and signalized intersections, are included for reference in Appendix B and have been used throughout this study.

The level of service analyses results for existing conditions are summarized in Table 1.

Intersection capacity worksheets developed for this study are provided in Appendix C.

Table 1 – Intersection Capacity Analysis Summary – Existing Traffic

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
Hilltop Road / Village Road / Crest View Road (Stop-Controlled)		
Southeastbound Left	B	A
Northwestbound Left and Through	A	B
Northeastbound Left, Through and Right	F	F
Southwestbound Left, Through and Right	C	B
Hilltop Road / Merryvale Trail (Stop-Controlled)		
Southeastbound Left	B	A
Southwestbound Left and Right	D	C
Hilltop Road / Alpine Drive (Stop-Controlled)		
Northwestbound Through and Left	A	A
Northeastbound Left and Right	D	D
Betts Ranch Road / Village Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Right and Through	A	A
Southbound Left and Right	A	A
Village Road / Alpine Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A

Key: Stop-Controlled Intersection: Level of Service

Existing Traffic Analysis Results

Under existing conditions, operational analysis shows that the unsignalized intersection of Hilltop Road and Village Road has turning movement operations at LOS C or better during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour. Exceptions include the northeast turning movement which operates at LOS F during the morning and afternoon peak traffic hours. The LOS F operations are attributed to the through traffic volume along Hilltop Road and the stop-controlled nature of the intersection. However, pursuant to planned and ongoing roadway improvements as discussed in Section I, conversion of the intersection to a roundabout is anticipated to mitigate these operations.

The unsignalized intersection of Hilltop Road and Merryvale Trail has turning movement operations at LOS D or better during the morning peak traffic hours and LOS C or better during the afternoon peak traffic hours.

The unsignalized intersection of Hilltop Road and Alpine Drive has turning movement operations at LOS D or better during the morning and afternoon peak traffic hours.

The unsignalized intersection of Betts Ranch Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The unsignalized intersection of Village Road and Alpine Drive has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals.

III. Future Traffic Conditions Without Proposed Development

Background traffic is the traffic projected to be on area roadways without consideration of the proposed development. Background traffic includes traffic generated by development of vacant parcels in the area.

To account for projected increases in background traffic for Years 2029 and 2044, a compounded annual growth rate of approximately two percent was applied to existing traffic volumes.

It is important to note that ingress and egress traffic volumes for some roadways are not subject to annual growth patterns since these roads do not provide connection to other roadways, therefore do not serve regional traffic. The following intersections include:

- The southwest leg of Alpine Drive and Hilltop Road
- The east leg of Betts Ranch Road and Village Road
- The northeast leg of Hilltop Road and Village Road
- The intersection of Village Road and Alpine Drive

To account for projected traffic from adjacent developments not yet built, trip generations from the Fields[4] traffic study were added to background traffic volumes with an updated density as described by County Staff. Trip generation information for the Fields traffic study is included for reference in Appendix D.

Pursuant to the proposed area roadway improvements discussed in Section I, Year 2029 assumes the expansion of Hilltop Road from two to four through lanes from Village Road to Alpine Drive as well as the intersection of Hilltop Road and Village Road being converted to a roundabout-controlled intersection. Year 2044 assumes the expansion of Hilltop Road from two to four through lanes east past Alpine Drive. This assumption provides for a conservative analysis.

Projected background traffic volumes and intersection geometry for Years 2029 and 2044 are shown on Figure 4 and Figure 5, respectively.

[4] Fields: Traffic Impact Analysis, Felsberg, Holt, and Ullevig, November, 2021

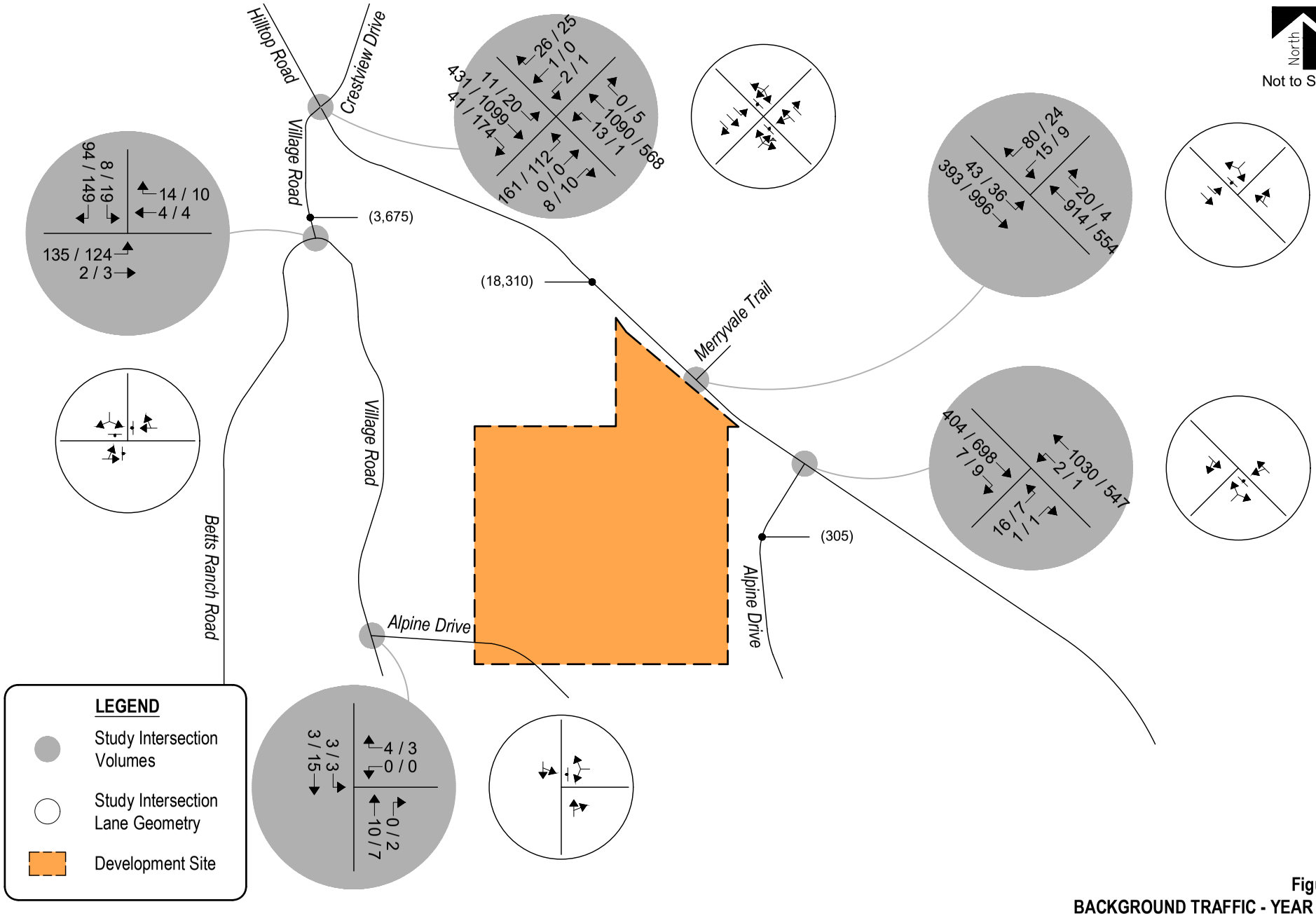


Figure 4
BACKGROUND TRAFFIC - YEAR 2029
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

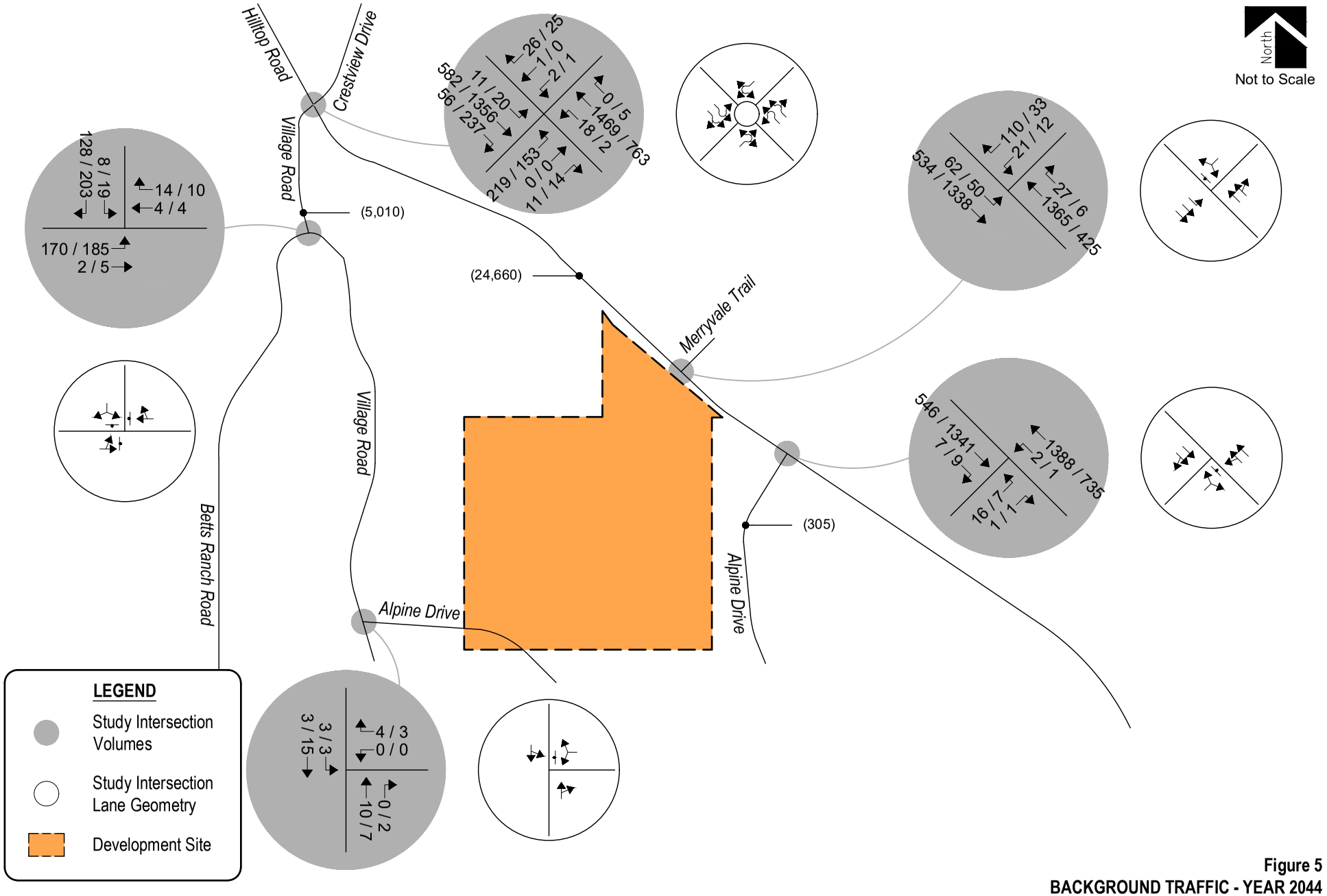


Figure 5
BACKGROUND TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

Peak Hour Intersection Levels of Service – Background Traffic

As with existing traffic conditions, the operations of study intersections were analyzed under background conditions, without the proposed development, using the SYNCHRO computer program.

Background traffic level of service analysis results for Year 2029 are listed in Table 2. Year 2044 operational results are summarized in Table 3.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 2 – Intersection Capacity Analysis Summary – Background Traffic – Year 2029

INTERSECTION	LEVEL OF SERVICE	
LANE GROUPS	AM PEAK HOUR	PM PEAK HOUR
Hilltop Road / Village Road / Crest View Road (Roundabout-Controlled)		
Southeastbound Left and Through	A	A
Southeastbound Through and Right	A	A
Northwestbound Left and Through	A	A
Northwestbound Through and Right	A	A
Northeastbound Left, Through and Right	A	B
Southwestbound Left, Through and Right	A	A
Hilltop Road / Merryvale Trail (Stop-Controlled)		
Southeastbound Left	B	A
Southwestbound Left and Right	C	C
Hilltop Road / Alpine Drive (Stop-Controlled)		
Northwestbound Through and Left	A	A
Northeastbound Left and Right	E	D
Betts Ranch Road / Village Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Right and Through	A	A
Southbound Left and Right	A	A
Village Road / Alpine Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A

Key: Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Background Traffic Analysis Results – Year 2029

Year 2029 background traffic analysis indicates that the roundabout-controlled intersection of Hilltop Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hilltop Road and Merryvale Trail has turning movement operations at LOS C or better during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hilltop Road and Alpine Drive has turning movement operations at LOS A during the morning peak traffic hour and LOS D or better during the afternoon peak traffic hour. Exceptions include the northeastbound turning movement which has operations at LOS E during the morning peak traffic hour. The LOS E operation is attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection. Potential mitigations may include the addition of a northeastbound to a northwestbound left turn acceleration lane along Hilltop Road.

The unsignalized intersection of Betts Ranch Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The unsignalized intersection of Village Road and Alpine Drive has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

Table 3 – Intersection Capacity Analysis Summary – Background Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Hilltop Road / Village Road / Crest View Road (Roundabout-Controlled)		
Southeastbound Left and Through	A	B
Southeastbound Through and Right	A	B
Northwestbound Left and Through	C	A
Northwestbound Through and Right	C	A
Northeastbound Left, Through and Right	A	C
Southwestbound Left, Through and Right	C	A
Hilltop Road / Merryvale Trail (Stop-Controlled)		
Southeastbound Left	B	A
Southwestbound Left and Right	F	C
Hilltop Road / Alpine Drive (Stop-Controlled)		
Northwestbound Through and Left	A	B
Northeastbound Left and Right	D	F
Betts Ranch Road / Village Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Right and Through	A	A
Southbound Left and Right	A	A
Village Road / Alpine Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A

Key: Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Background Traffic Analysis Results – Year 2044

By Year 2044 and without the proposed development, the roundabout controlled intersection of Hilltop Road and Village Road has turning movement operations at LOS C or better during the morning and afternoon peak traffic hours.

The unsignalized intersection of Hilltop Road and Merryvale Trail has turning movement operations at LOS B during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the southwestbound turning movement which has operations at LOS F during the morning peak traffic hour. The LOS F operation is attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection. Potential mitigations may include the addition of a southwestbound to southeastbound left turn acceleration lane along Hilltop Road or conversion of the intersection to either a signal-controlled intersection or a roundabout controlled intersection.

The unsignalized intersection of Hilltop Road and Alpine Drive has turning movement operations at LOS D during the morning peak traffic hour and LOS B during the afternoon peak traffic hour. Exceptions include the northeastbound turning movement which has operations at LOS F during the afternoon peak traffic hour. The LOS F operation is attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection. Potential mitigations continue to include the addition of a northeastbound to northwestbound left turn acceleration lane along Hilltop Road.

The unsignalized intersection of Betts Ranch Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The unsignalized intersection of Village Road and Alpine Drive has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals.

IV. Proposed Project Traffic

Trip Generation

Standard traffic generation characteristics compiled by the Institute of Transportation Engineers (ITE) in their report entitled Trip Generation Manual, 11th Edition, were applied to the proposed land use in order to estimate average daily traffic (ADT), AM Peak Hour, and PM Peak Hour vehicle trips. A vehicle trip is defined as a one-way vehicle movement from a point of origin to a point of destination.

The ITE land use code 210 (Single-Family Detached Housing) was used for estimating trip generation because of its conservative rates and best fit to the proposed land use description.

Trip generation rates used in this study are presented in Table 4.

Table 4 – Trip Generation Rates

			TRIP GENERATION RATES						
ITE			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	UNIT	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.53	0.70	0.59	0.35	0.94

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

Table 5 illustrates projected ADT, AM Peak Hour, and PM Peak Hour traffic volumes likely generated by the proposed development upon build-out.

Table 5 – Trip Generation Summary

			TOTAL TRIPS GENERATED						
ITE			24	AM PEAK HOUR			PM PEAK HOUR		
CODE	LAND USE	SIZE	HOUR	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	70 DU	660	12	37	49	41	24	66
		Total:	*660*	*12*	*37*	*49*	*41*	*24*	*66*

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

Upon build-out, Table 5 illustrates that the proposed development has the potential to generate approximately 660 daily vehicle trips with 49 of those occurring during the morning peak hour and 66 during the afternoon peak hour.

Adjustments to Trip Generation Rates

A development of this type is not likely to attract trips from within area land uses nor pass-by or diverted link trips from the adjacent roadway system, therefore no trip reduction was taken in this analysis.

Trip Distribution

The overall directional distribution of site-generated traffic was determined based on the location of development site within the County, proposed and existing area land uses, allowed turning movements, and available roadway network.

Overall trip distribution patterns for the development are shown on Figure 6.

Trip Assignment

Traffic assignment is how generated and distributed vehicle trips are expected to be loaded onto the available roadway network.

Applying trip distribution patterns to site-generated traffic provides the overall site-generated trip assignments shown on Figure 6.

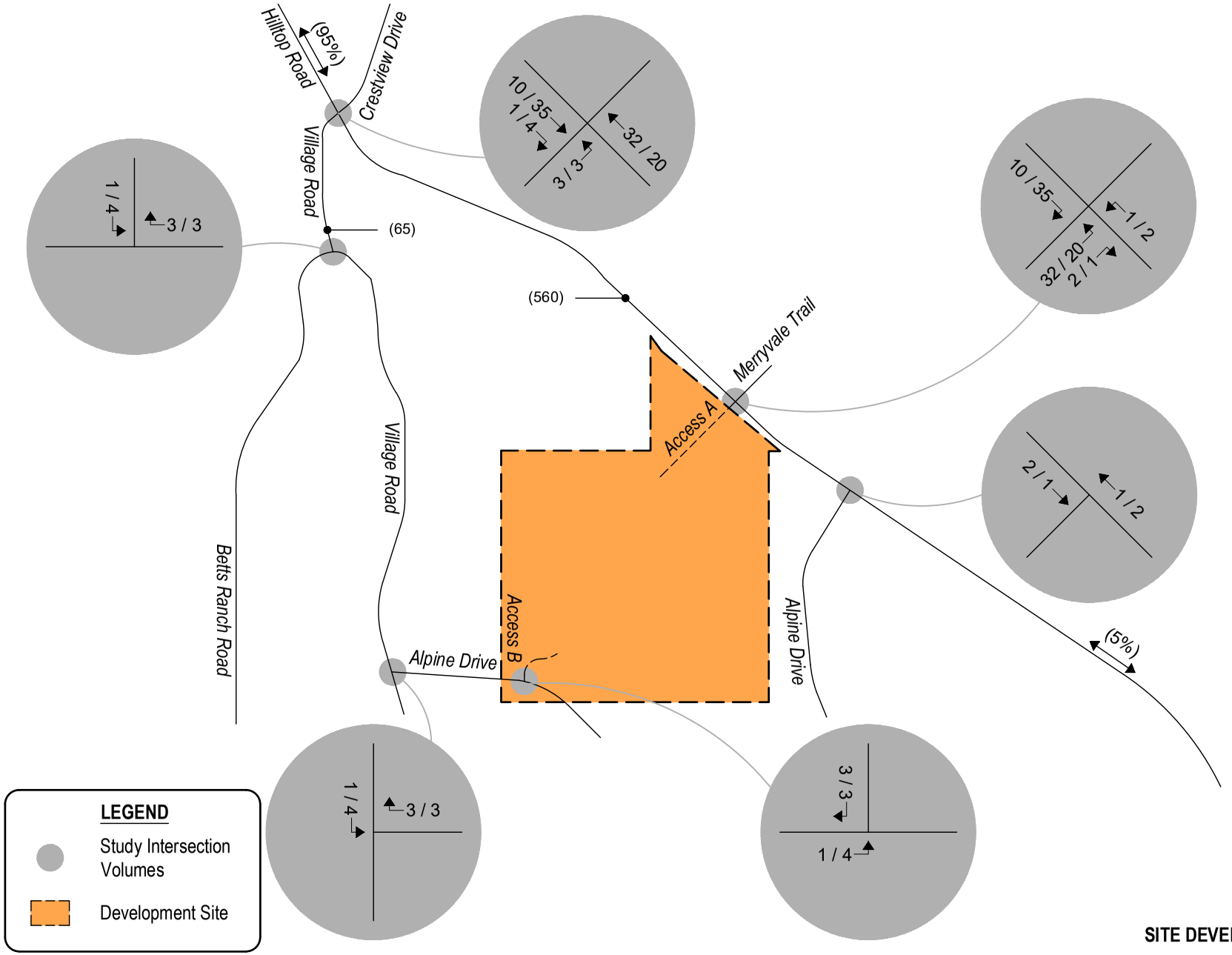


Figure 6
SITE DEVELOPMENT DISTRIBUTION
(%) : Overall
SITE-GENERATED TRIPS
AM / PM Peak Hour
(ADT) : Average Daily Traffic

V. Future Traffic Conditions With Proposed Developments

Total traffic is the traffic projected to be on area roadways with consideration of the proposed development. Total traffic includes background traffic projections for Years 2029 and 2044 with consideration of site-generated traffic. For analysis purposes, it was assumed that development construction would be completed by end of Year 2029.

Pursuant to area roadway improvement discussions provided in Section III, Year 2029 and Year 2044 total traffic conditions assume no roadway improvements to accommodate regional transportation demands. Roadway improvements associated with site development are expected to be limited to site access and frontage as required by the governing agency.

Total Traffic Auxiliary Lane Analysis

Auxiliary lanes for Hilltop Road were evaluated and are to be based on the County's Roadway Standards.

Section 4.13 of the County's Roadway Standards also indicates that the need for auxiliary lanes on roadways that have greater than two lanes are to be established by an accepted traffic impact study. Considering build-out traffic, an evaluation of auxiliary lane requirements, pursuant to Section 4.13 of the County's Roadway Standards, analysis results indicate that a shared northwestbound left turn lane operates at LOS B or better and with minimal queues. However, it is understood pursuant to County review that a left-turn lane is required with the planned widening of Hilltop Road to a four-lane roadway section.

Projected Year 2029 total traffic volumes and intersection geometry are shown in Figure 7.

Figure 8 shows projected total traffic volumes and intersection geometry for Year 2044.

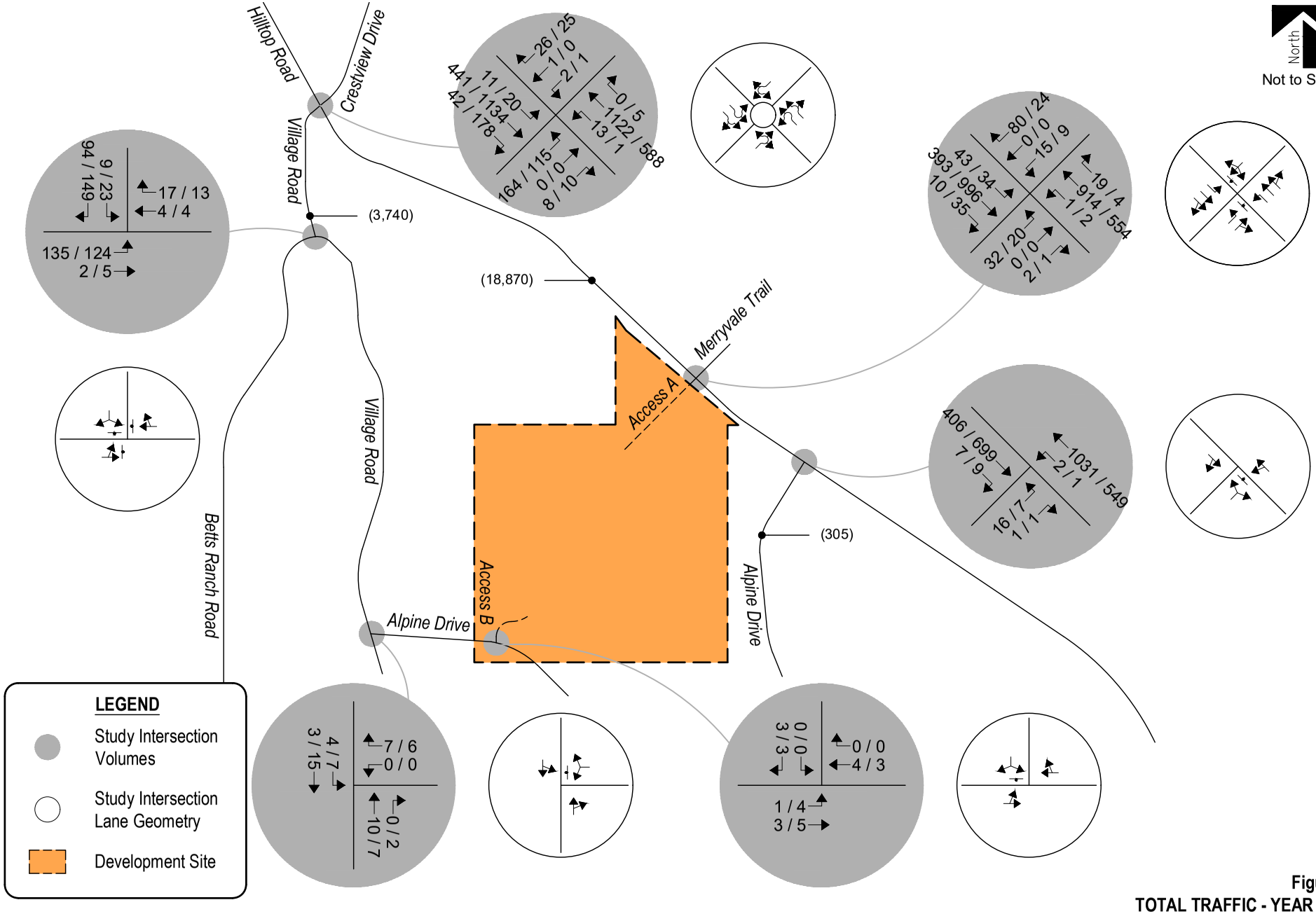


Figure 7
TOTAL TRAFFIC - YEAR 2029
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

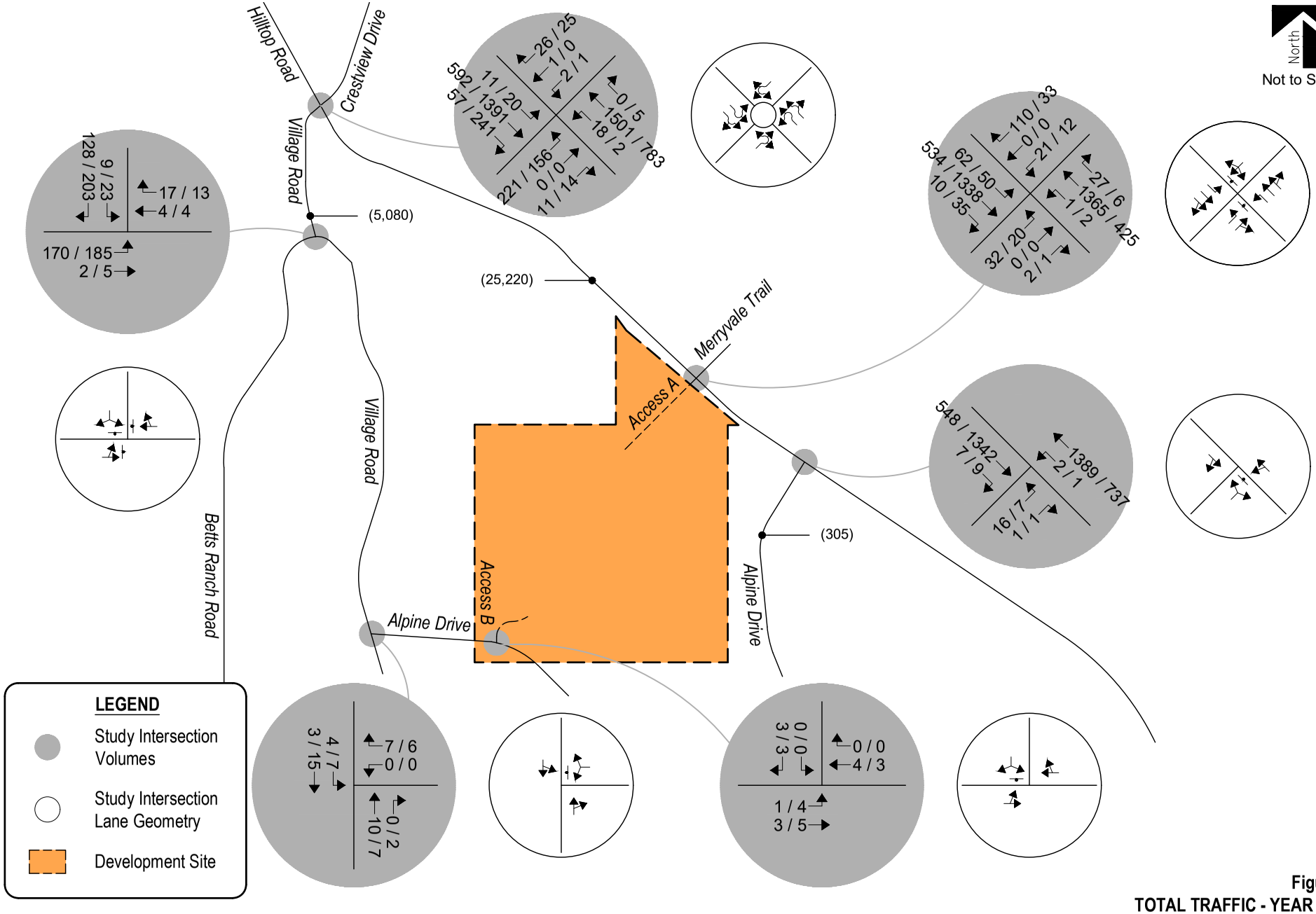


Figure 8
TOTAL TRAFFIC - YEAR 2044
Volumes & Intersection Geometry
AM / PM Peak Hour
(ADT) : Average Daily Traffic

VI. Project Impacts

The analyses and procedures described in this study were performed in accordance with the latest HCM are based upon the worst-case conditions that occur during a typical weekday upon build-out of site development and analyzed land uses. Therefore, study intersections are likely to operate with traffic conditions better than those described within this study, which represent the peak hours of weekday operations only.

Peak Hour Intersection Levels of Service – Total Traffic

As with background traffic, the operations of the study intersections were analyzed under projected total traffic conditions using the SYNCHRO computer program. Total traffic level of service analysis results for Years 2029 and 2044 are summarized in Table 6 and Table 7, respectively.

Definitions of levels of service are given in Appendix B. Intersection capacity worksheets are provided in Appendix C.

Table 6 – Intersection Capacity Analysis Summary – Total Traffic – Year 2029

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Hilltop Road / Village Road / Crest View Road (Roundabout-Controlled)		
Southeastbound Left and Through	A	A
Southeastbound Through and Right	A	A
Northwestbound Left and Through	A	A
Northwestbound Through and Right	A	A
Northeastbound Left, Through and Right	A	B
Southwestbound Left, Through and Right	A	A
Hilltop Road / Merryvale Trail / Access A (Stop-Controlled)		
Southeastbound Left	B	A
Northwestbound Left	A	B
Northeastbound Left	E	F
Northeastbound Through and Right	A	B
Southwestbound Left, Through and Right	C	C
Hilltop Road / Alpine Drive (Stop-Controlled)		
Northwestbound Through and Left	A	A
Northeastbound Left and Right	E	D
Betts Ranch Road / Village Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Right and Through	A	A
Southbound Left and Right	A	A
Village Road / Alpine Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Alpine Drive / Access B (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	A	A

Key: Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Table 7 – Intersection Capacity Analysis Summary – Total Traffic – Year 2044

INTERSECTION LANE GROUPS	LEVEL OF SERVICE AM PEAK HOUR	 PM PEAK HOUR
Hilltop Road / Village Road / Crest View Road (Roundabout-Controlled)		
Southeastbound Left and Through	A	B
Southeastbound Through and Right	A	B
Northwestbound Left and Through	C	A
Northwestbound Through and Right	C	A
Northeastbound Left, Through and Right	A	C
Southwestbound Left, Through and Right	C	A
Hilltop Road / Merryvale Trail / Access A (Stop-Controlled)		
Southeastbound Left	B	A
Northwestbound Left	A	B
Northeastbound Left	F	F
Northeastbound Through and Right	B	B
Southwestbound Left, Through and Right	F	C
Hilltop Road / Alpine Drive (Stop-Controlled)		
Northwestbound Through and Left	A	B
Northeastbound Left and Right	D	F
Betts Ranch Road / Village Road (Stop-Controlled)		
Eastbound Left and Through	A	A
Westbound Right and Through	A	A
Southbound Left and Right	A	A
Village Road / Alpine Drive (Stop-Controlled)		
Westbound Left and Right	A	A
Southbound Left and Through	A	A
Alpine Drive / Access B (Stop-Controlled)		
Eastbound Left and Through	A	A
Southbound Left and Right	A	A

Key: Stop-Controlled Intersection: Level of Service
Roundabout Intersection: Level of Service

Total Traffic Analysis Results Upon Development Build-Out

Table 7 illustrates how, by Year 2044 and upon development build-out, the roundabout-controlled intersection has turning movement operations at LOS C or better during the morning and afternoon peak traffic hours. Compared to the background traffic analysis, the traffic generated by the proposed development is not expected to significantly change the operations of the study intersection.

The stop-controlled intersection of Hilltop Road and Access A has turning movement operations at LOS B or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hours. Exceptions include the southwestbound turning movement, which operates at LOS F during the morning peak traffic hour, and the northeastbound left turning movement, which operates at LOS F during the morning and afternoon peak traffic hour. The LOS F operations are attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection. Similar to background traffic conditions potential mitigations include conversion of the intersection to either a signal-controlled intersection or a roundabout controlled intersection. It is important to note that this development does not significantly contribute or change operations compared to background traffic conditions.

The stop-controlled intersection of Hilltop Road and Alpine Drive has turning movement operations at LOS D or better during the morning peak traffic hour and LOS B during the afternoon peak traffic hour. Exceptions continue to include the northeastbound turning movement which has turning movement operations at LOS F during the afternoon peak traffic hour. The LOS F operation continues to be attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection. As with background traffic conditions, potential mitigations continue to include the addition of a northeastbound to northwestbound left turn acceleration lane along Hilltop Road.

The stop-controlled intersection of Betts Ranch Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The stop-controlled nature of the intersection of Village Road and Alpine Drive has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

The stop-controlled nature of the intersection of Alpine Drive and Access B has turning movement operations at LOS A during the morning and afternoon peak traffic hours.

It is to be noted that it is not uncommon for unsignalized movements to or from an arterial roadway, in urban areas, to operate with noticeable delays during peak traffic hours. It is, however, likely that turn movements will operate better than the results obtained with this HCM Two-Way Stop-Control (TWSC) level of service analysis would indicate, as the HCM analysis may not accurately account for the effect of vehicle platooning and gaps caused by upstream signals.

These intersection operations are similar to background conditions.

Compared to Year 2044 background traffic conditions along Hilltop Road, a potential increase of approximately 560 trips per day is expected as shown in Figure 6. This equates to an approximate 2% increase from background traffic volumes and is considered minor. Percent contribution calculations are provided for reference in Appendix E.

Queue Length Analysis

Queue lengths for the study intersections were analyzed using Year 2044 total traffic conditions. The analysis yields estimate of 95th percentile queue lengths, which have only a five percent probability of being exceeded during the analysis time period. An average vehicle length of 25 feet was assumed. Queue lengths were modeled and are included with the Synchro worksheets in Appendix C.

Table 8 summarizes the 95th percentile queue results in comparison to the projected storage requirements for turn movements within study area for Year 2044.

Table 8 – Turn Lane Queues and Storage Requirements – Total Traffic – Year 2041

Intersection	Turn Movement		Existing Turn Lane Length (feet)	AM Peak Hour		PM Peak Hour		Recommended Turn Lane Length (feet)
				95th Percentile Queue Length (feet)	Vehicle Equivalent (vehicles)	95th Percentile Queue Length (feet)	Vehicle Equivalent (vehicles)	
Roundabout-Controlled Intersections								
Hilltop Road / Village Road / Crest View Road	SEB	L,T	-	25'	1	130'	6	-
		T,R	-	25'	1	150'	6	-
	NWB	L,T	-	175'	7	50'	2	-
		T,R	-	200'	8	50'	2	-
	NEB	L,T,R	-	25'	1	75'	3	-
	SWB	L,T,R	-	0'	0	0'	0	-
Stop-Controlled Intersections								
Hilltop Road / Merryvale Trail / Access A	SEB	L	315'	13'	0	5'	0	315'
		T,R	-	0'	0	0'	0	-
	NWB	L	-	0'	0	0'	0	315'
		T,R	-	0'	0	0'	0	-
	NEB	L	-	70'	0	45'	0	75'
		T,R	-	0'	0	0'	0	-
	SWB	L,T,R	-	185'	0	15'	0	-
Hilltop Road / Alpine Drive	SEB	T,R	-	0'	0	0'	0	-
	NWB	L,T	-	0'	0	0'	0	-
	NEB	L,R	-	10'	0	10'	1	-
Village Road / Betts Ranch Road	EB	L,T	-	23'	1	28'	2	-
	WB	T,R	-	3'	1	3'	0	-
	SB	L,R	-	15'	1	28'	0	-
Village Road / Alpine Drive	WB	L,R	-	0'	0	0'	0	-
	NB	T,R	-	0'	0	0'	0	-
	SB	L,R	-	0'	0	0'	0	-
Alpine Drive / Access B	EB	L,T	-	0'	0	0'	0	-
	WB	T,R	-	0'	0	0'	0	-
	SB	L,R	-	0'	0	0'	0	-

Note: Turn Lane Length does not include taper length.

As Table 8 shows, all turn lane lengths at stop-controlled intersections have sufficient storage to accommodate future traffic volumes.

VII. Conclusion

This traffic impact study addressed the capacity, geometric, and control requirements associated with the development entitled Ramblewood. This proposed residential development development consists of a single-family home development. The development is located to the southwest of Hilltop Road, north of Alpine Drive, and east of N Village Road in Douglas County, Colorado.

The study area examined in this analysis encompassed the area bounded by Hilltop Road from Village Road east to Alpine Drive, Village Road from Betts Ranch Road east to Alpine Drive, and includes proposed site accesses.

Analysis was conducted for critical AM Peak Hour and PM Peak Hour traffic operations for existing traffic conditions, Year 2029 and Year 2044 background traffic conditions, and Year 2029 and Year 2044 total traffic conditions.

Analysis of existing traffic conditions indicates that the unsignalized intersections within the study area have turning movement operations at LOS D or better during the morning and afternoon peak traffic hour. Exceptions include the northeastbound turning movement which operates at LOS F during the morning and afternoon peak traffic hour at the intersection of Hilltop Road and Village Road.

Without the proposed development, Year 2029 background operational analysis shows that the roundabout-controlled intersection of Hilltop Road and Village Road has turning movement operations at LOS A during the morning and afternoon peak traffic hours. The unsignalized intersections within the study area have turning movement operations at LOS D or better during the morning peak traffic hour and LOS B or better during the afternoon peak traffic hour. Exceptions include the northeastbound turning movement at the intersection of Hilltop Road and Alpine Drive which operates at LOS E during the afternoon peak traffic hour. The LOS E operation is attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection.

By Year 2044 and without the proposed development, the roundabout-controlled intersection of Hilltop Road and Village Road has turning movement operations at LOS C or better during the morning and afternoon peak traffic hours. The unsignalized intersections within the study area have turning movement operations at LOS D or better during the morning peak traffic hour and LOS C or better during the afternoon peak traffic hour. Exceptions include the southwestbound turning movement at the intersection of Hilltop Road and Merryvale Trail which operates at LOS F during the morning peak traffic and the northeastbound turning movement at the intersection of Hilltop Road and Alpine Drive which operates at LOS F during the afternoon peak traffic hour. The LOS F operations are attributed to the through traffic volumes along Hilltop Road and the stop-controlled nature of the intersection.

Analysis of future traffic conditions indicates that the addition of site-generated traffic is expected to create no negative impact to traffic operations for the existing and surrounding roadway system upon consideration of the various roadway and intersection control improvements assumed within this analysis. With all conservative assumptions defined in this analysis, the study intersections are projected to operate at future levels of service comparable to Year 2044 background traffic conditions. Proposed site accesses have long-term operations at LOS A or better during peak traffic periods and upon build-out. Exceptions include the northeastbound left turning movement at the intersection of Hilltop Road and Access A, which operates at LOS F during the morning and afternoon peak traffic hours. Potential mitigations may include converting the intersection to a signal-control. It is again important to note that this development does not significantly contribute or change operations compared to background traffic conditions. It is recommended that County Staff monitor the study intersections in order to determine when specific mitigation measures may be necessary as planned corridor improvements occur.

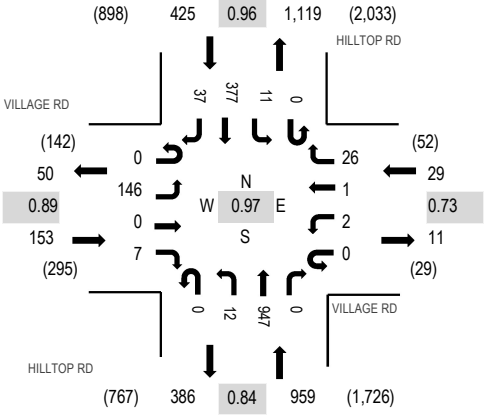
APPENDIX A

Traffic Count Data
Approved Base Assumptions

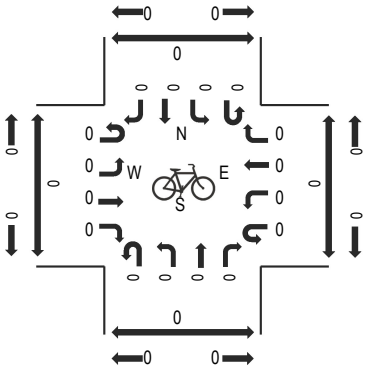
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HILLTOP RD & VILLAGE RD AM
Date: Wednesday, September 25, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

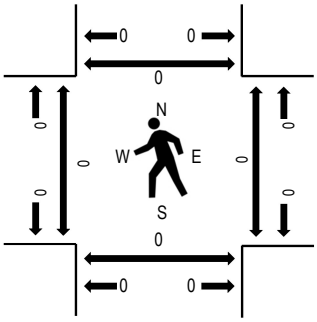
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

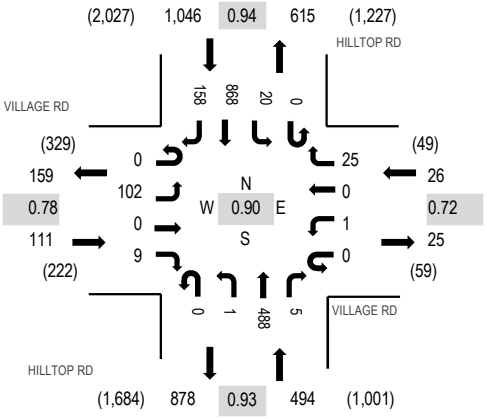
Traffic Counts - Motorized Vehicles

Interval Start Time	VILLAGE RD Eastbound				VILLAGE RD Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	42	0	0	0	1	0	6	0	1	284	0	0	0	66	5	405	1,566	0	0	0	0
7:15 AM	0	27	0	4	0	1	0	9	0	4	223	0	0	5	115	11	399	1,538	0	0	0	0
7:30 AM	0	36	0	1	0	0	1	5	0	3	215	0	0	4	101	11	377	1,494	0	0	0	0
7:45 AM	0	41	0	2	0	0	0	6	0	4	225	0	0	2	95	10	385	1,464	0	0	0	0
8:00 AM	0	40	0	0	0	0	0	5	0	2	215	1	0	4	88	22	377	1,405	0	0	0	0
8:15 AM	0	28	0	1	0	1	0	6	0	3	201	0	0	5	91	19	355		0	0	0	0
8:30 AM	0	25	0	1	0	0	0	4	0	2	194	0	0	3	99	19	347		0	0	0	0
8:45 AM	0	46	0	1	0	0	0	7	0	6	143	0	0	5	99	19	326		0	0	0	0
Count Total	0	285	0	10	0	3	1	48	0	25	1,700	1	0	28	754	116	2,971		0	0	0	0
Peak Hour	0	146	0	7	0	2	1	26	0	12	947	0	0	11	377	37	1,566		0	0	0	0

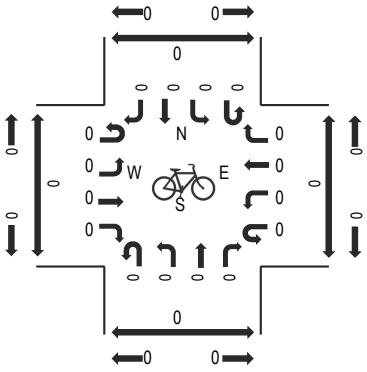
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 1 HILLTOP RD & VILLAGE RD PM
Date: Wednesday, September 25, 2024
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

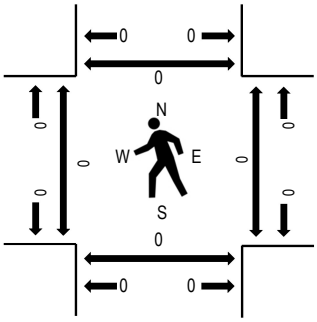
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

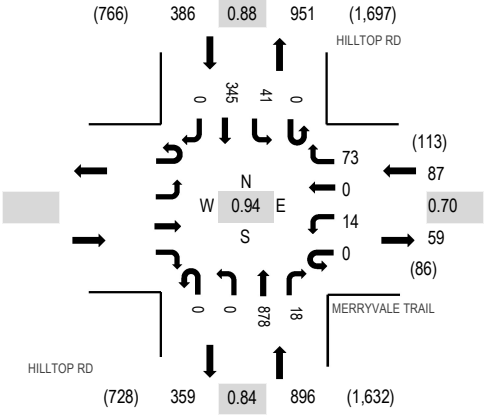
Traffic Counts - Motorized Vehicles

Interval Start Time	VILLAGE RD Eastbound				VILLAGE RD Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	30	0	5	0	0	0	4	0	0	114	0	0	4	171	32	360	1,630	0	0	0	0
4:15 PM	0	36	0	4	0	0	0	9	0	1	139	0	0	6	214	57	466	1,677	0	0	0	0
4:30 PM	0	20	0	2	0	0	0	6	0	0	128	2	0	1	218	38	415	1,641	0	0	0	0
4:45 PM	0	25	0	2	0	0	0	7	0	0	96	1	0	6	223	29	389	1,653	0	0	0	0
5:00 PM	0	21	0	1	0	1	0	3	0	0	125	2	0	7	213	34	407	1,669	0	0	0	0
5:15 PM	0	20	1	5	0	1	0	5	0	4	133	1	0	12	215	33	430		0	0	0	0
5:30 PM	0	27	0	3	0	1	0	7	0	2	136	2	0	10	198	41	427		0	0	0	0
5:45 PM	0	19	0	1	0	0	0	5	0	2	112	1	0	3	206	56	405		0	0	0	0
Count Total	0	198	1	23	0	3	0	46	0	9	983	9	0	49	1,658	320	3,299		0	0	0	0
Peak Hour	0	102	0	9	0	1	0	25	0	1	488	5	0	20	868	158	1,677		0	0	0	0

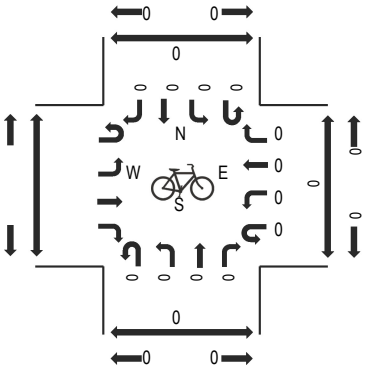
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 2 HILLTOP RD & MERRYVALE TRAIL AM
Date: Wednesday, September 25, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

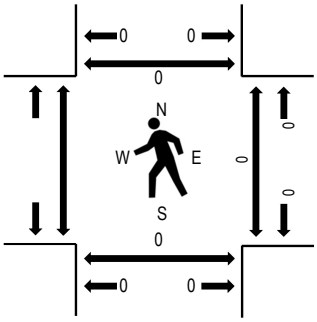
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	Eastbound				MERRYVALE TRAIL Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	1	0	26	0	0	261	5	0	7	65	0	365	1,369	0	0	0	0
7:15 AM					0	6	0	25	0	0	198	5	0	12	102	0	348	1,301	0	0	0	0
7:30 AM					0	3	0	11	0	0	196	6	0	14	90	0	320	1,253	0	0	0	0
7:45 AM					0	4	0	11	0	0	223	2	0	8	88	0	336	1,223	0	0	0	0
8:00 AM					0	3	0	5	0	0	201	2	0	8	78	0	297	1,142	0	0	0	0
8:15 AM					0	0	0	5	0	0	191	4	0	5	95	0	300		0	0	0	0
8:30 AM					0	2	0	4	0	0	195	1	0	4	84	0	290		0	0	0	0
8:45 AM					0	3	0	4	0	0	141	1	0	2	104	0	255		0	0	0	0
Count Total					0	22	0	91	0	0	1,606	26	0	60	706	0	2,511		0	0	0	0
Peak Hour					0	14	0	73	0	0	878	18	0	41	345	0	1,369		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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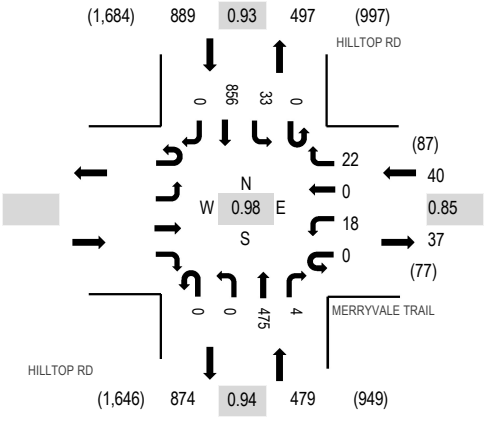
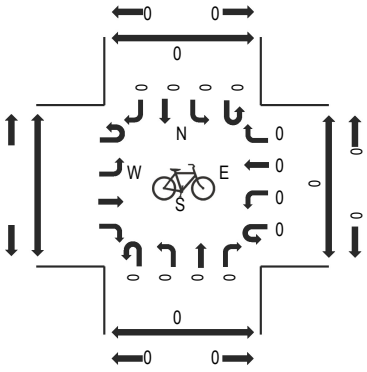
Location: 2 HILLTOP RD & MERRYVALE TRAIL PM
Date: Wednesday, September 25, 2024
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

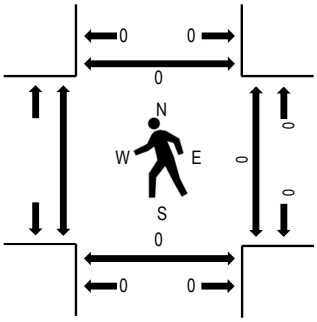
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	Eastbound				MERRYVALE TRAIL Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	3	0	9	0	0	106	1	0	1	171	0	291	1,340		0	0	0
4:15 PM					0	6	0	8	0	0	128	0	0	9	207	0	358	1,408		0	0	0
4:30 PM					0	4	0	3	0	0	120	2	0	7	209	0	345	1,381		0	0	0
4:45 PM					0	4	0	6	0	0	98	0	0	6	232	0	346	1,398		0	0	0
5:00 PM					0	4	0	5	0	0	129	2	0	11	208	0	359	1,380		0	0	0
5:15 PM					0	4	0	8	0	0	121	1	0	12	185	0	331			0	0	0
5:30 PM					0	3	0	10	0	0	131	0	0	14	204	0	362			0	0	0
5:45 PM					0	4	0	6	0	0	109	1	0	10	198	0	328			0	0	0
Count Total					0	32	0	55	0	0	942	7	0	70	1,614	0	2,720			0	0	0
Peak Hour					0	18	0	22	0	0	475	4	0	33	856	0	1,408			0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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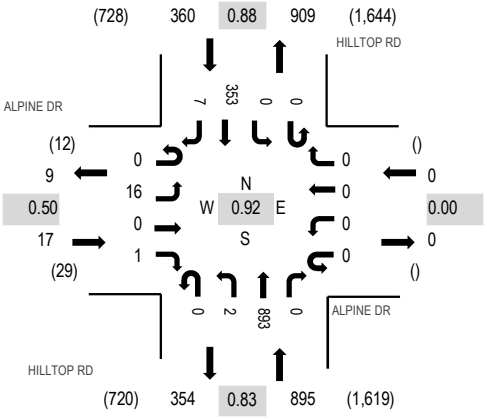
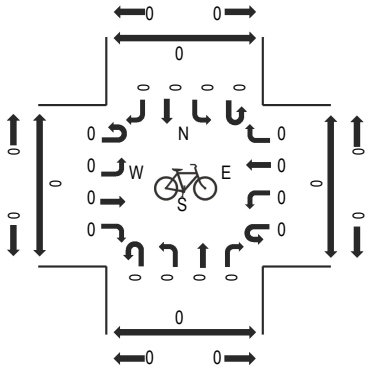
Location: 3 HILLTOP RD & ALPINE DR AM
Date: Wednesday, September 25, 2024
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:00 AM - 07:15 AM

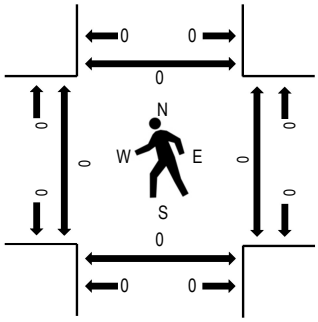
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

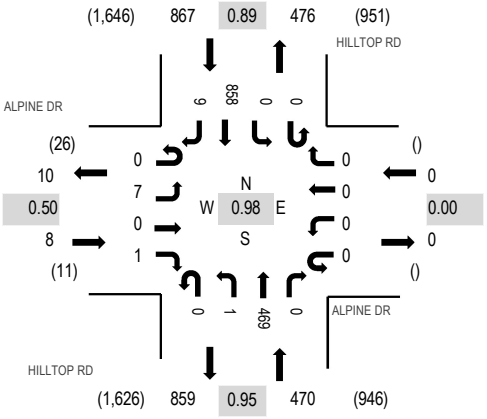
Traffic Counts - Motorized Vehicles

Interval Start Time	ALPINE DR Eastbound				ALPINE DR Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	5	0	0	0	0	0	0	0	1	269	0	0	0	68	1	344	1,272	0	0	0	0
7:15 AM	0	2	0	1	0	0	0	0	0	1	201	0	0	0	105	1	311	1,215	0	0	0	0
7:30 AM	0	9	0	0	0	0	0	0	0	0	191	0	0	0	93	2	295	1,195	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	232	0	0	0	87	3	322	1,182	0	0	0	0
8:00 AM	0	3	0	0	0	0	0	0	0	0	201	0	0	0	82	1	287	1,104	0	0	0	0
8:15 AM	0	5	0	1	0	0	0	0	0	0	191	0	0	0	92	2	291		0	0	0	0
8:30 AM	0	2	0	0	0	0	0	0	0	0	193	0	0	0	87	0	282		0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	139	0	0	0	104	0	244		0	0	0	0
Count Total	0	27	0	2	0	0	0	0	0	2	1,617	0	0	0	718	10	2,376		0	0	0	0
Peak Hour	0	16	0	1	0	0	0	0	0	2	893	0	0	0	353	7	1,272		0	0	0	0

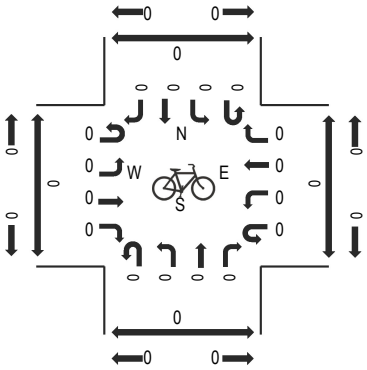
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 3 HILLTOP RD & ALPINE DR PM
Date: Wednesday, September 25, 2024
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

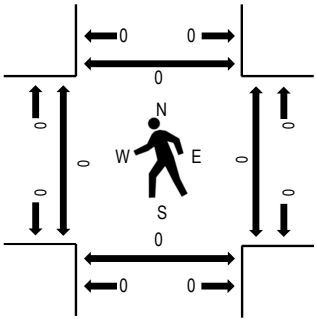
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

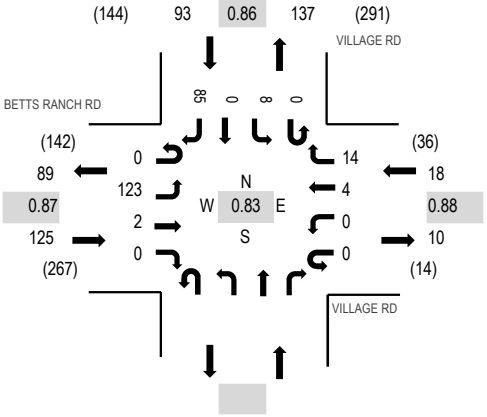
Traffic Counts - Motorized Vehicles

Interval Start Time	ALPINE DR Eastbound				ALPINE DR Westbound				HILLTOP RD Northbound				HILLTOP RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	1	0	0	0	0	0	0	109	0	0	0	173	2	285	1,293	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	130	0	0	0	209	3	342	1,345	0	0	0	0
4:30 PM	0	3	0	0	0	0	0	0	0	0	114	0	0	0	206	1	324	1,321	0	0	0	0
4:45 PM	0	3	0	1	0	0	0	0	0	0	95	0	0	0	242	1	342	1,333	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	1	130	0	0	0	201	4	337	1,310	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	1	0	123	0	0	0	190	4	318		0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	2	129	0	0	0	199	6	336		0	0	0	0
5:45 PM	0	2	0	0	0	0	0	0	0	0	112	0	0	0	203	2	319		0	0	0	0
Count Total	0	9	0	2	0	0	0	0	1	3	942	0	0	0	1,623	23	2,603		0	0	0	0
Peak Hour	0	7	0	1	0	0	0	0	0	1	469	0	0	0	858	9	1,345		0	0	0	0

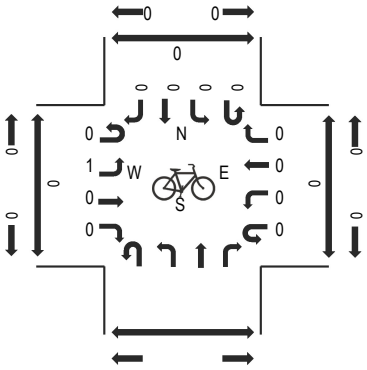
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 VILLAGE RD & VILLAGE RD AM
Date: Wednesday, September 25, 2024
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

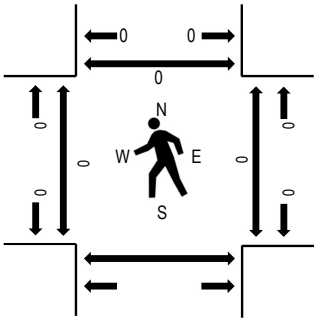
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

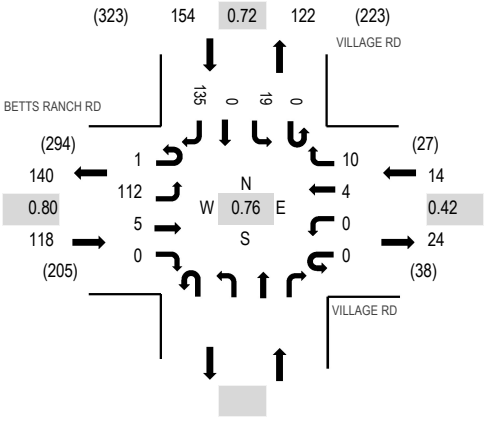
Traffic Counts - Motorized Vehicles

Interval Start Time	BETTS RANCH RD Eastbound				VILLAGE RD Westbound				Northbound				VILLAGE RD Southbound					Rolling Hour	Pedestrian Crossings		
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South North
7:00 AM	0	41	0	0	0	0	1	0					0	1	0	5	48	211	0	0	0
7:15 AM	0	26	0	0	0	0	2	4					0	2	0	14	48	224	0	0	0
7:30 AM	0	35	1	0	0	0	1	5					0	0	0	14	56	231	0	0	0
7:45 AM	0	39	0	0	0	0	1	4					0	0	0	15	59	224	0	0	0
8:00 AM	0	34	0	0	0	0	1	3					0	0	0	23	61	236	0	0	0
8:15 AM	0	30	1	0	0	0	0	1					0	3	0	20	55		0	0	0
8:30 AM	0	22	0	0	0	0	1	6					0	2	0	18	49		0	0	0
8:45 AM	0	37	1	0	0	0	2	4					0	3	0	24	71		0	0	0
Count Total	0	264	3	0	0	0	9	27					0	11	0	133	447		0	0	0
Peak Hour	0	123	2	0	0	0	4	14					0	8	0	85	236		0	0	0

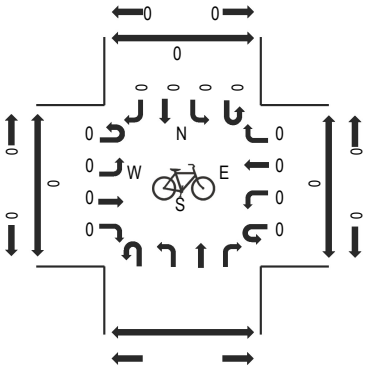
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 4 VILLAGE RD & VILLAGE RD PM
Date: Wednesday, September 25, 2024
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:15 PM - 04:30 PM

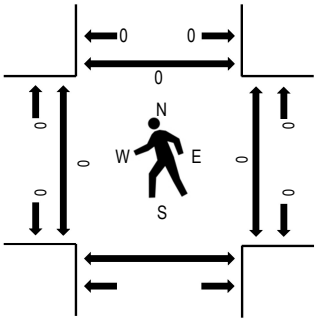
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BETTS RANCH RD Eastbound				VILLAGE RD Westbound				Northbound				VILLAGE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	35	1	0	0	0	1	0					0	4	0	27	68	286	0	0		0
4:15 PM	1	35	1	0	0	0	1	3					0	9	0	44	94	272	0	0		0
4:30 PM	0	18	1	0	0	0	2	3					0	5	0	36	65	240	0	0		0
4:45 PM	0	24	2	0	0	0	0	4					0	1	0	28	59	247	0	0		0
5:00 PM	0	21	0	0	0	0	0	2					0	2	0	29	54	269	0	0		0
5:15 PM	0	25	0	0	0	0	0	0					0	0	0	37	62		0	0		0
5:30 PM	0	21	0	0	0	0	0	9					0	4	0	38	72		0	0		0
5:45 PM	0	20	0	0	0	0	0	2					1	8	0	50	81		0	0		0
Count Total	1	199	5	0	0	0	4	23					1	33	0	289	555		0	0		0
Peak Hour	1	112	5	0	0	0	4	10					0	19	0	135	286		0	0		0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
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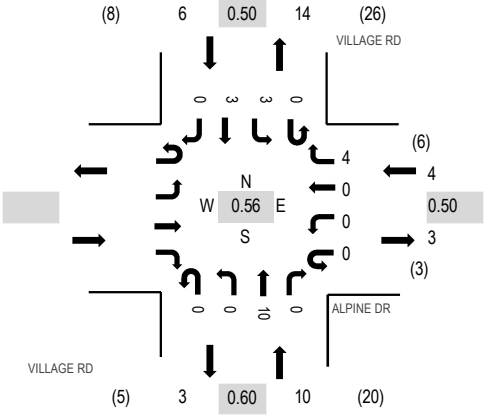
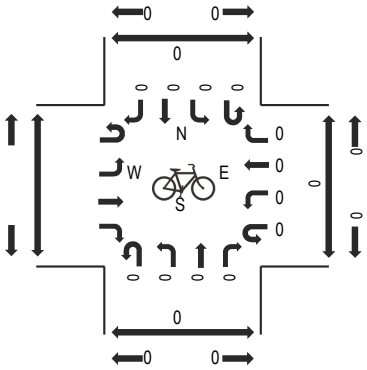
Location: 5 VILLAGE RD & ALPINE DR AM
Date: Wednesday, September 25, 2024
Peak Hour: 08:00 AM - 09:00 AM
Peak 15-Minutes: 08:45 AM - 09:00 AM

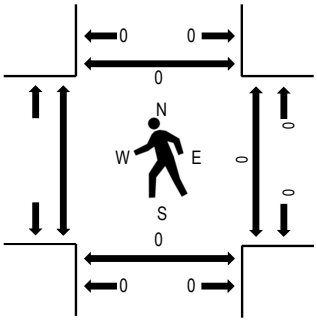
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

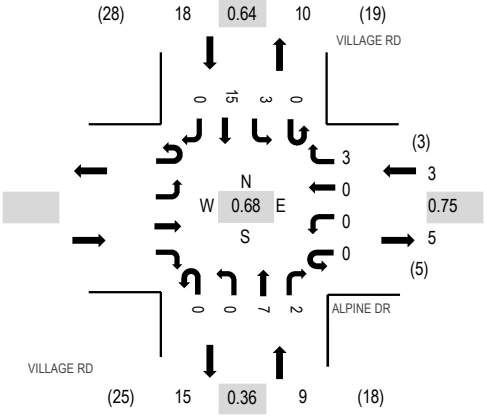
Traffic Counts - Motorized Vehicles

Interval Start Time	Eastbound				ALPINE DR Westbound				VILLAGE RD Northbound				VILLAGE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM					0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0
7:15 AM					0	0	0	0	0	0	5	0	0	0	1	0	6	16	0	0	0	0
7:30 AM					0	0	0	2	0	0	2	0	0	0	0	0	4	14	0	0	0	0
7:45 AM					0	0	0	0	0	0	3	0	0	0	1	0	4	15	0	0	0	0
8:00 AM					0	0	0	0	0	0	2	0	0	0	0	0	2	20	0	0	0	0
8:15 AM					0	0	0	1	0	0	1	0	0	0	2	0	4		0	0	0	0
8:30 AM					0	0	0	2	0	0	2	0	0	0	1	0	5		0	0	0	0
8:45 AM					0	0	0	1	0	0	5	0	0	3	0	0	9		0	0	0	0
Count Total					0	0	0	6	0	0	20	0	0	3	5	0	34		0	0	0	0
Peak Hour					0	0	0	4	0	0	10	0	0	3	3	0	20		0	0	0	0

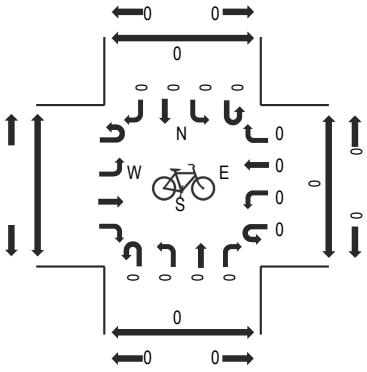
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: 5 VILLAGE RD & ALPINE DR PM
Date: Wednesday, September 25, 2024
Peak Hour: 04:00 PM - 05:00 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

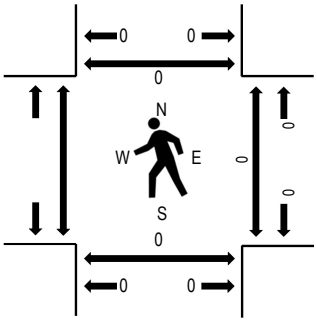
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	Eastbound				ALPINE DR Westbound				VILLAGE RD Northbound				VILLAGE RD Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM					0	0	0	0	0	0	1	1	0	1	2	0	5	30	0	0	0	0
4:15 PM					0	0	0	1	0	0	1	1	0	1	6	0	10	27	0	0	0	0
4:30 PM					0	0	0	1	0	0	3	0	0	1	6	0	11	18	0	0	0	0
4:45 PM					0	0	0	1	0	0	2	0	0	0	1	0	4	16	0	0	0	0
5:00 PM					0	0	0	0	0	0	0	0	0	0	2	0	2	19	0	0	0	0
5:15 PM					0	0	0	0	0	0	1	0	0	0	0	0	1		0	0	0	0
5:30 PM					0	0	0	0	0	0	7	0	0	0	2	0	9		0	0	0	0
5:45 PM					0	0	0	0	0	0	1	0	0	0	6	0	7		0	0	0	0
Count Total					0	0	0	3	0	0	16	2	0	3	25	0	49		0	0	0	0
Peak Hour					0	0	0	3	0	0	7	2	0	3	15	0	30		0	0	0	0

All Traffic Data Services
12200 W 52nd Ave
Wheat Ridge, CO 80033
www.alltrafficdata.net

Site Code: 6
Station ID: 6
HILLTOP RD N.O. MERRYVALE TRL

Start Time	25-Sep-24 Wed	NB	SB							Total
12:00 AM		5	23							28
01:00		4	8							12
02:00		9	3							12
03:00		21	4							25
04:00		107	9							116
05:00		295	31							326
06:00		707	160							867
07:00		**951**	**386**							**1337**
08:00		746	380							1126
09:00		527	349							876
10:00		494	356							850
11:00		469	383							852
12:00 PM		442	442							884
01:00		476	454							930
02:00		494	492							986
03:00		**520**	705							1225
04:00		478	**842**							1320
05:00		519	842							**1361**
06:00		384	689							1073
07:00		232	478							710
08:00		130	362							492
09:00		53	192							245
10:00		33	118							151
11:00		10	56							66
Total		8106	7764							15870
Percent		51.1%	48.9%							
AM Peak	-	07:00	07:00	-	-	-	-	-	-	07:00
Vol.	-	951	386	-	-	-	-	-	-	1337
PM Peak	-	15:00	16:00	-	-	-	-	-	-	17:00
Vol.	-	520	842	-	-	-	-	-	-	1361
Grand Total		8106	7764							15870
Percent		51.1%	48.9%							
ADT		ADT 15,870		AADT 15,870						

Ramblewood Planned Development - Rezoning
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All Traffic Data Services
12200 W 52nd Ave
Wheat Ridge, CO 80033
www.alltrafficdata.net

Site Code: 7
Station ID: 7
ALPINE DR W.O. HILLTOP RD

Start Time	25-Sep-24 Wed	EB	WB							Total
12:00 AM		0	0							0
01:00		0	0							0
02:00		0	0							0
03:00		1	0							1
04:00		1	0							1
05:00		1	1							2
06:00		6	2							8
07:00		**17**	9							26
08:00		12	3							15
09:00		9	**20**							**29**
10:00		12	11							23
11:00		10	11							21
12:00 PM		**17**	8							**25**
01:00		11	11							22
02:00		10	9							19
03:00		8	5							13
04:00		8	7							15
05:00		3	**19**							22
06:00		11	11							22
07:00		9	9							18
08:00		2	8							10
09:00		0	4							4
10:00		1	5							6
11:00		1	0							1
Total		150	153							303
Percent		49.5%	50.5%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	09:00
Vol.	-	17	20	-	-	-	-	-	-	29
PM Peak	-	12:00	17:00	-	-	-	-	-	-	12:00
Vol.	-	17	19	-	-	-	-	-	-	25
Grand Total		150	153							303
Percent		49.5%	50.5%							
ADT		ADT 303		AADT 303						

Ramblewood Planned Development - Rezoning
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All Traffic Data Services
12200 W 52nd Ave
Wheat Ridge, CO 80033
www.alltrafficdata.net

Site Code: 8
Station ID: 8
VILLAGE RD W.O. HILLTOP RD

Start Time	25-Sep-24 Wed	EB	WB							Total
12:00 AM		2	8							10
01:00		2	1							3
02:00		0	1							1
03:00		5	0							5
04:00		9	2							11
05:00		40	2							42
06:00		98	22							120
07:00		**153**	50							203
08:00		142	92							**234**
09:00		112	**99**							211
10:00		98	88							186
11:00		110	93							203
12:00 PM		97	101							198
01:00		108	114							222
02:00		119	126							245
03:00		120	147							267
04:00		**124**	157							**281**
05:00		98	**172**							270
06:00		89	153							242
07:00		51	132							183
08:00		25	75							100
09:00		12	51							63
10:00		4	25							29
11:00		2	10							12
Total		1620	1721							3341
Percent		48.5%	51.5%							
AM Peak	-	07:00	09:00	-	-	-	-	-	-	08:00
Vol.	-	153	99	-	-	-	-	-	-	234
PM Peak	-	16:00	17:00	-	-	-	-	-	-	16:00
Vol.	-	124	172	-	-	-	-	-	-	281
Grand Total		1620	1721							3341
Percent		48.5%	51.5%							
ADT		ADT 3,341		AADT 3,341						

Ramblewood Planned Development - Rezoning
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Transportation Impact Study
Base Assumptions

Project Information			
Project Name	Hilltop 177		
Location	Douglas County, Colorado		
Study Area Boundaries	Hilltop Road from Village Road to Alpine Drive,		
	Village Road from Hilltop Road to Alpine Drive, and		
	Alpine Drive from Village Road to Hilltop Road		
Study Area Intersections	Hilltop Road / Village Road, Hilltop Road / Merryvale Trail		
	Hilltop Road / Alpine Drive, Village Road / Betts Ranch Road		
	Village Road / Alpine Drive		
	And includes proposed site accesses		
Study Assumptions			
Type of Study	Traffic Impact Study		
Trip Generation Rate Reference	ITE 11th Edition		
Study Years	Short Term: 2026	Long Term: 2044	
Peak Hour Time Period	AM: 7:00 – 9:00	PM: 4:00 – 6:00	Weekend: N/A
Overall Trip Distribution	See Attached Sketch		
Future Traffic Growth Rate	2%		
Trip Adjustment Factors	Pass-by: None Proposed	Internal Capture Rate: None Proposed	
Mode Split Assumption	None		
Committed Roadway Improvements	Expansion of Hilltop Road to four lanes to just east of Alpine Drive.		
Areas Requiring Special Study	None		
Other Traffic Studies	Fields Traffic Impact Study, Felsberg Holt, and Ullevig, November 2021.		

Date: September 17, 2024
Traffic Engineer: SM Rocha, LLC
Jurisdiction Engineer: _____

SITE DATA	
SITE AREA	177 AC
SINGLE-FAMILY LOTS	70
DENSITY	0.4 DU/AC
OPEN SPACE	37.23 AC
AVERAGE LOT SIZE (EXCLUDING LOT 69 & 70)	14,913 SF
MINIMUM LOT SIZE	11,700 SF
MAXIMUM LOT SIZE (EXCLUDING LOT 69 & 70)	33,793 SF
PARK PARCEL	1.25 AC

100-YEAR FLOODPLAIN

PROPERTY LINE

OS-2
7 AC

PARK
1.25 AC

LOT 69
35 AC

OS-1
28 AC

LOT 69
APPROXIMATE
BUILDING
FOOTPRINT
AREA

LOT 70
71 AC

LOT 70 -
APPROXIMATE
BUILDING
FOOTPRINT
AREA

TRACT A
3 AC

MILLER UNITED
REAL ESTATE

Hilltop 177 | Douglas County, CO

THIS PLAN IS CONCEPTUAL AND SUBJECT TO CHANGE.

NORTH

0' 75' 150' 300'
SCALE

NORRIS DESIGN
PEOPLE + PLACEMAKING

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.53	0.70	0.59	0.35	0.94

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	70 DU	660	12	37	49	41	24	66
		Total:	*660*	*12*	*37*	*49*	*41*	*24*	*66*

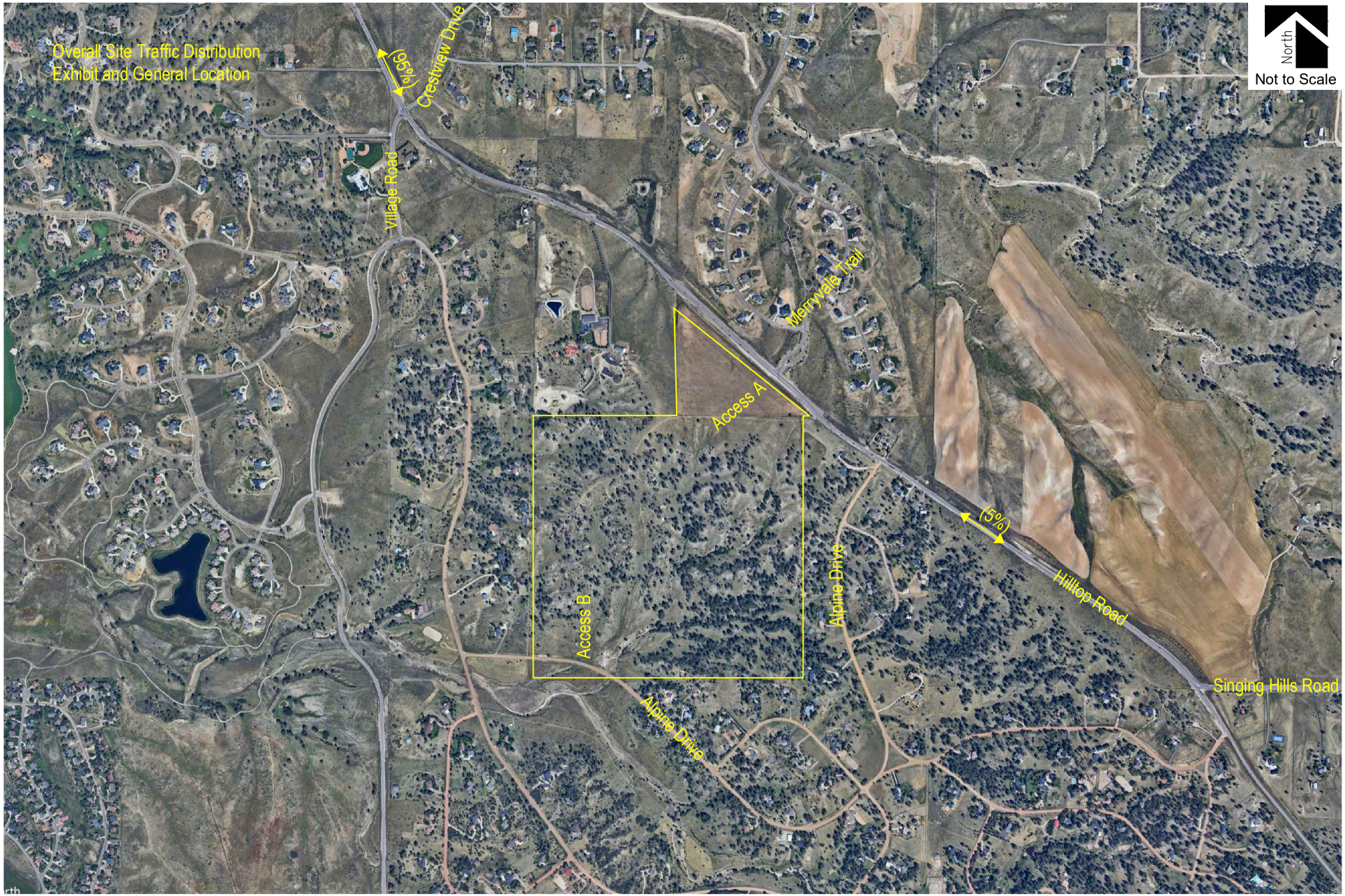
Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

HILLTOP 177
Base Assumption

SM ROCHA, LLC
Traffic and Transportation Consultants

Figure 1
STUDY AREA INTERSECTIONS

September 2024
Page 4


Overall Site Traffic Distribution
Exhibit and General Location
North
Not to Scale
Crestview Drive
(5%)
Village Road
Merryvale Trail
Access A
Access B
Alpine Drive
Alpine Drive
(5%)
Hilltop Road
Singing Hills Road

APPENDIX B

Level of Service Definitions

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 19 – Signalized Intersections.

Motorized Vehicle Level of Service (LOS) for Signalized Intersections

Levels of service are defined to represent reasonable ranges in control delay.

LOS A Describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B Describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C Describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
≤ 10	A	F
> 10 – 20	B	F
> 20 – 35	C	F
> 35 – 55	D	F
> 55 – 80	E	F
> 80	F	F

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

The following information is referenced from the Highway Capacity Manual: A Guide for Multimodal Mobility Analysis, 7th Edition, Transportation Research Board, 2022: Chapter 20 – Two-Way Stop-Controlled Intersections, Chapter 21 – All-Way Stop-Controlled Intersections, and Chapter 22 - Roundabouts.

Motorized Vehicle Level of Service (LOS) for Unsignalized & Roundabout Intersections

LOS is a quantitative stratification of performance measure(s) representing quality of service. Quality of service describes how well a transportation facility or service operates from a traveler's perspective. LOS is measured on an A – F scale, with LOS A representing the best operating conditions from a traveler's perspective.

Control Delay (s/veh)	LOS by Volume-to-Capacity Ratio[a]	
	$v/c \leq 1.0$	$v/c > 1.0$
0 – 10	A	F
> 10 – 15	B	F
> 15 – 25	C	F
> 25 – 35	D	F
> 35 – 50	E	F
> 50	F	F

Note: The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

[a] For approaches and intersectionwide assessment, LOS is defined solely by control delay.

APPENDIX C

Capacity Worksheets

Intersection	
Int Delay, s/veh	48.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	11	377	37	12	947	0	146	0	7	2	1	26
Future Vol, veh/h	11	377	37	12	947	0	146	0	7	2	1	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	100	-	200	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	410	40	13	1029	0	159	0	8	2	1	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1029	0	0	450	0	0	1490	1489	410	1489	1529	1029
Stage 1	-	-	-	-	-	-	434	434	-	1055	1055	-
Stage 2	-	-	-	-	-	-	1056	1055	-	434	474	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	675	-	-	1110	-	-	~ 102	124	642	102	117	284
Stage 1	-	-	-	-	-	-	601	581	-	273	302	-
Stage 2	-	-	-	-	-	-	272	302	-	601	558	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	675	-	-	1110	-	-	~ 87	118	642	96	112	284
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 87	118	-	96	112	-
Stage 1	-	-	-	-	-	-	590	571	-	265	294	-
Stage 2	-	-	-	-	-	-	238	294	-	583	548	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	0.27	0.1	$ 488.55	22.33
HCM LOS			F	C

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	91	23	-	-	675	-	- 239
HCM Lane V/C Ratio	1.825	0.012	-	-	0.018	-	- 0.132
HCM Control Delay (s/veh)	$ 488.5	8.3	0	-	10.4	-	- 22.3
HCM Lane LOS	F	A	A	-	B	-	- C
HCM 95th %tile Q(veh)	13.9	0	-	-	0.1	-	- 0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	41	345	878	18	14	73
Future Vol, veh/h	41	345	878	18	14	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	375	954	20	15	79

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	974	0	-	0	1428	964
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	464	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	708	-	-	-	149	310
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	633	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	708	-	-	-	139	310
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	633	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.11	0	26.72
HCM LOS			D

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	708	-	259
HCM Lane V/C Ratio	-	-	0.063	-	0.366
HCM Control Delay (s/veh)	-	-	10.4	-	26.7
HCM Lane LOS	-	-	B	-	D
HCM 95th %tile Q(veh)	-	-	0.2	-	1.6

Intersection	
Int Delay, s/veh	0.4

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	353	7	2	893	16	1
Future Vol, veh/h	353	7	2	893	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	384	8	2	971	17	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	391	0	1362	387
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	975	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1167	-	163	661
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	366	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1167	-	162	661
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	364	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	28.76
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	170	4	-	-	-
HCM Lane V/C Ratio	0.109	0.002	-	-	-
HCM Control Delay (s/veh)	28.8	8.1	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	123	2	4	14	8	85
Future Vol, veh/h	123	2	4	14	8	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	134	2	4	15	9	92
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.2	6.9	7.2
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	98%	0%	9%
Vol Thru, %	2%	22%	0%
Vol Right, %	0%	78%	91%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	125	18	93
LT Vol	123	0	8
Through Vol	2	4	0
RT Vol	0	14	85
Lane Flow Rate	136	20	101
Geometry Grp	1	1	1
Degree of Util (X)	0.163	0.02	0.103
Departure Headway (Hd)	4.324	3.749	3.67
Convergence, Y/N	Yes	Yes	Yes
Cap	829	945	959
Service Time	2.352	1.812	1.757
HCM Lane V/C Ratio	0.164	0.021	0.105
HCM Control Delay, s/veh	8.2	6.9	7.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.3

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	10	0	3	3
Future Vol, veh/h	0	4	10	0	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	11	0	3	3

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	21	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	996	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	994	1070	-	-	1608	-
Mov Cap-2 Maneuver	994	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.38	0	3.62
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	900	-
HCM Lane V/C Ratio	-	-	0.004	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	16.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	20	868	158	1	488	5	102	0	9	1	0	25
Future Vol, veh/h	20	868	158	1	488	5	102	0	9	1	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	100	-	200	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	943	172	1	530	5	111	0	10	1	0	27

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	536	0	0	1115	0	0	1520	1525	943	1520	1691	530
Stage 1	-	-	-	-	-	-	987	987	-	533	533	-
Stage 2	-	-	-	-	-	-	533	538	-	987	1159	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1032	-	-	626	-	-	~ 97	118	318	97	93	549
Stage 1	-	-	-	-	-	-	298	325	-	531	525	-
Stage 2	-	-	-	-	-	-	531	522	-	298	270	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1032	-	-	626	-	-	~ 90	115	318	92	91	549
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 90	115	-	92	91	-
Stage 1	-	-	-	-	-	-	292	319	-	529	524	-
Stage 2	-	-	-	-	-	-	503	521	-	283	264	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	0.16	0.02	244.15	13.32
HCM LOS			F	B

Minor Lane/Major Mvmt	NELn1	NWL	NWT	NWR	SEL	SET	SERSWLn1
Capacity (veh/h)	98	4	-	-	1032	-	- 461
HCM Lane V/C Ratio	1.228	0.002	-	-	0.021	-	- 0.061
HCM Control Delay (s/veh)	244.1	10.8	0	-	8.6	-	- 13.3
HCM Lane LOS	F	B	A	-	A	-	- B
HCM 95th %tile Q(veh)	8.3	0	-	-	0.1	-	- 0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	33	856	475	4	8	22
Future Vol, veh/h	33	856	475	4	8	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	36	930	516	4	9	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	521	0	-	0	1521	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	1002	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1046	-	-	-	131	557
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	355	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1046	-	-	-	126	557
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	355	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.32	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1046	-	291
HCM Lane V/C Ratio	-	-	0.034	-	0.112
HCM Control Delay (s/veh)	-	-	8.6	-	18.9
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	858	9	1	469	7	1
Future Vol, veh/h	858	9	1	469	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	933	10	1	510	8	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	942	0	1449	938
Stage 1	-	-	-	-	938	-
Stage 2	-	-	-	-	512	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	728	-	144	321
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	602	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	728	-	144	321
Mov Cap-2 Maneuver	-	-	-	-	144	-
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	600	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	29.66
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	155	4	-	-	-
HCM Lane V/C Ratio	0.056	0.001	-	-	-
HCM Control Delay (s/veh)	29.7	10	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	113	5	4	10	19	135
Future Vol, veh/h	113	5	4	10	19	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	123	5	4	11	21	147
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.3	7	7.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	96%	0%	12%
Vol Thru, %	4%	29%	0%
Vol Right, %	0%	71%	88%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	118	14	154
LT Vol	113	0	19
Through Vol	5	4	0
RT Vol	0	10	135
Lane Flow Rate	128	15	167
Geometry Grp	1	1	1
Degree of Util (X)	0.158	0.016	0.171
Departure Headway (Hd)	4.433	3.9	3.681
Convergence, Y/N	Yes	Yes	Yes
Cap	805	904	957
Service Time	2.478	1.984	1.77
HCM Lane V/C Ratio	0.159	0.017	0.175
HCM Control Delay, s/veh	8.3	7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	7	2	3	15
Future Vol, veh/h	0	3	7	2	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	8	2	3	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	32	9	0	0	10	0
Stage 1	9	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	982	1073	-	-	1610	-
Stage 1	1014	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	980	1073	-	-	1610	-
Mov Cap-2 Maneuver	980	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.36	0	1.21
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	300	-
HCM Lane V/C Ratio	-	-	0.003	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	525	1199	184	31
Demand Flow Rate, veh/h	535	1223	188	32
Vehicles Circulating, veh/h	17	190	491	1401
Vehicles Exiting, veh/h	1417	488	61	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.3	9.1	5.9	9.7
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	251	284	575	648	188	32
Cap Entry Lane, veh/h	1329	1400	1133	1208	935	432
Entry HV Adj Factor	0.982	0.979	0.980	0.981	0.979	0.968
Flow Entry, veh/h	247	278	564	636	184	31
Cap Entry, veh/h	1306	1370	1111	1185	916	418
V/C Ratio	0.189	0.203	0.507	0.536	0.201	0.074
Control Delay, s/veh	4.3	4.3	9.1	9.2	5.9	9.7
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	3	3	1	0

Intersection	
Int Delay, s/veh	1.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	45	393	914	20	15	80
Future Vol, veh/h	45	393	914	20	15	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	427	993	22	16	87

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1015	0	-	0	1316	508
Stage 1	-	-	-	-	1004	-
Stage 2	-	-	-	-	311	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	679	-	-	-	149	510
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	716	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	679	-	-	-	138	510
Mov Cap-2 Maneuver	-	-	-	-	138	-
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	716	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.1	0	19.06
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	679	-	358
HCM Lane V/C Ratio	-	-	0.072	-	0.288
HCM Control Delay (s/veh)	-	-	10.7	-	19.1
HCM Lane LOS	-	-	B	-	C
HCM 95th %tile Q(veh)	-	-	0.2	-	1.2

Intersection	
Int Delay, s/veh	0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	404	7	2	1030	16	1
Future Vol, veh/h	404	7	2	1030	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	439	8	2	1120	17	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	447	0	1563	439
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	1124	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1114	-	123	618
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	310	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1114	-	122	618
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	309	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	37.71
HCM LOS			E

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	128	3	-	-	-
HCM Lane V/C Ratio	0.144	0.002	-	-	-
HCM Control Delay (s/veh)	37.7	8.2	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	135	2	4	14	8	94
Future Vol, veh/h	135	2	4	14	8	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	2	4	15	9	102
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.3	6.9	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	8%
Vol Thru, %	1%	22%	0%
Vol Right, %	0%	78%	92%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	137	18	102
LT Vol	135	0	8
Through Vol	2	4	0
RT Vol	0	14	94
Lane Flow Rate	149	20	111
Geometry Grp	1	1	1
Degree of Util (X)	0.18	0.021	0.117
Departure Headway (Hd)	4.342	3.777	3.785
Convergence, Y/N	Yes	Yes	Yes
Cap	823	934	952
Service Time	2.381	1.855	1.785
HCM Lane V/C Ratio	0.181	0.021	0.117
HCM Control Delay, s/veh	8.3	6.9	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.1	0.4

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	10	0	3	3
Future Vol, veh/h	0	4	10	0	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	11	0	3	3

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	21	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	996	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	994	1070	-	-	1608	-
Mov Cap-2 Maneuver	994	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.38	0	3.62
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	900	-
HCM Lane V/C Ratio	-	-	0.004	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1406	623	133	28
Demand Flow Rate, veh/h	1434	635	135	29
Vehicles Circulating, veh/h	2	146	1242	754
Vehicles Exiting, veh/h	781	1231	194	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.1	5.4	11.5	5.4
Approach LOS	A	A	B	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.469	0.531	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	674	760	298	337	135	29
Cap Entry Lane, veh/h	1347	1418	1180	1254	494	748
Entry HV Adj Factor	0.981	0.981	0.982	0.979	0.985	0.966
Flow Entry, veh/h	661	745	293	330	133	28
Cap Entry, veh/h	1321	1390	1159	1228	487	722
V/C Ratio	0.500	0.536	0.253	0.269	0.273	0.039
Control Delay, s/veh	7.9	8.2	5.4	5.3	11.5	5.4
LOS	A	A	A	A	B	A
95th %tile Queue, veh	3	3	1	1	1	0

Intersection	
Int Delay, s/veh	0.5

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	36	996	554	4	9	24
Future Vol, veh/h	36	996	554	4	9	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	1083	602	4	10	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	607	0	-	0	1224	303
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	620	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	968	-	-	-	171	693
Stage 1	-	-	-	-	508	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	968	-	-	-	164	693
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	499	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.31	0	15.79
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	968	-	369
HCM Lane V/C Ratio	-	-	0.04	-	0.097
HCM Control Delay (s/veh)	-	-	8.9	-	15.8
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.1	-	0.3

Intersection	
Int Delay, s/veh	0.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	698	9	1	547	7	1
Future Vol, veh/h	698	9	1	547	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	759	10	1	595	8	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	768	0	1355	759
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	597	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	846	-	165	407
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	846	-	164	407
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	549	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	26.32
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	178	3	-	-	-
HCM Lane V/C Ratio	0.049	0.001	-	-	-
HCM Control Delay (s/veh)	26.3	9.3	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	124	5	4	10	19	149
Future Vol, veh/h	124	5	4	10	19	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	5	4	11	21	162
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.5	7.1	7.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	96%	0%	11%
Vol Thru, %	4%	29%	0%
Vol Right, %	0%	71%	89%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	129	14	168
LT Vol	124	0	19
Through Vol	5	4	0
RT Vol	0	10	149
Lane Flow Rate	140	15	183
Geometry Grp	1	1	1
Degree of Util (X)	0.174	0.017	0.192
Departure Headway (Hd)	4.459	4.041	3.794
Convergence, Y/N	Yes	Yes	Yes
Cap	798	891	951
Service Time	2.521	2.041	1.794
HCM Lane V/C Ratio	0.175	0.017	0.192
HCM Control Delay, s/veh	8.5	7.1	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.7

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	7	2	3	15
Future Vol, veh/h	0	3	7	2	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	8	2	3	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	32	9	0	0	10	0
Stage 1	9	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	982	1073	-	-	1610	-
Stage 1	1014	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	980	1073	-	-	1610	-
Mov Cap-2 Maneuver	980	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.36	0	1.21
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	300	-
HCM Lane V/C Ratio	-	-	0.003	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	706	1617	250	31
Demand Flow Rate, veh/h	720	1649	255	32
Vehicles Circulating, veh/h	23	255	660	1892
Vehicles Exiting, veh/h	1901	660	83	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	16.1	8.2	15.3
Approach LOS	A	C	A	C

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.469	0.531	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	338	382	775	874	255	32
Cap Entry Lane, veh/h	1322	1393	1068	1143	810	284
Entry HV Adj Factor	0.982	0.980	0.981	0.981	0.980	0.968
Flow Entry, veh/h	332	374	760	857	250	31
Cap Entry, veh/h	1298	1365	1047	1121	794	275
V/C Ratio	0.256	0.274	0.726	0.764	0.315	0.113
Control Delay, s/veh	5.0	5.0	15.6	16.6	8.2	15.3
LOS	A	A	C	C	A	C
95th %tile Queue, veh	1	1	7	8	1	0

Intersection	
Int Delay, s/veh	5.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	62	534	1365	27	21	110
Future Vol, veh/h	62	534	1365	27	21	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	67	580	1484	29	23	120

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1513	0	-	0	1923	757
Stage 1	-	-	-	-	1498	-
Stage 2	-	-	-	-	425	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	438	-	-	-	59	350
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	438	-	-	-	50	350
Mov Cap-2 Maneuver	-	-	-	-	50	-
Stage 1	-	-	-	-	145	-
Stage 2	-	-	-	-	627	-

Approach	SE	NW	SW
HCM Control Delay, s/v	1.53	0	76.86
HCM LOS			F

Minor Lane/Major Mvmt	NWT	NWR	SEL	SETSWLn1	
Capacity (veh/h)	-	-	438	-	178
HCM Lane V/C Ratio	-	-	0.154	-	0.801
HCM Control Delay (s/veh)	-	-	14.7	-	76.9
HCM Lane LOS	-	-	B	-	F
HCM 95th %tile Q(veh)	-	-	0.5	-	5.4

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	546	7	2	1388	16	1
Future Vol, veh/h	546	7	2	1388	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	593	8	2	1509	17	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	601	0	1356	301
Stage 1	-	-	-	-	597	-
Stage 2	-	-	-	-	759	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	972	-	140	696
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	423	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	972	-	140	696
Mov Cap-2 Maneuver	-	-	-	-	140	-
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	421	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.05	33.03
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	147	5	-	-	-
HCM Lane V/C Ratio	0.126	0.002	-	-	-
HCM Control Delay (s/veh)	33	8.7	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	170	2	4	14	8	128
Future Vol, veh/h	170	2	4	14	8	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	185	2	4	15	9	139
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.8	7.1	7.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	6%
Vol Thru, %	1%	22%	0%
Vol Right, %	0%	78%	94%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	172	18	136
LT Vol	170	0	8
Through Vol	2	4	0
RT Vol	0	14	128
Lane Flow Rate	187	20	148
Geometry Grp	1	1	1
Degree of Util (X)	0.229	0.022	0.159
Departure Headway (Hd)	4.406	3.972	3.864
Convergence, Y/N	Yes	Yes	Yes
Cap	810	904	933
Service Time	2.466	1.985	1.866
HCM Lane V/C Ratio	0.231	0.022	0.159
HCM Control Delay, s/veh	8.8	7.1	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.1	0.6

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	10	0	3	3
Future Vol, veh/h	0	4	10	0	3	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	4	11	0	3	3

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	21	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	10	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	996	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	994	1070	-	-	1608	-
Mov Cap-2 Maneuver	994	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1011	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.38	0	3.62
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	900	-
HCM Lane V/C Ratio	-	-	0.004	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1754	836	181	28
Demand Flow Rate, veh/h	1788	853	184	29
Vehicles Circulating, veh/h	3	191	1526	1017
Vehicles Exiting, veh/h	1043	1519	265	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	10.7	6.7	20.0	6.8
Approach LOS	B	A	C	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	840	948	401	452	184	29
Cap Entry Lane, veh/h	1346	1417	1132	1207	388	598
Entry HV Adj Factor	0.981	0.980	0.980	0.981	0.984	0.966
Flow Entry, veh/h	824	929	393	443	181	28
Cap Entry, veh/h	1321	1389	1110	1184	382	578
V/C Ratio	0.624	0.669	0.354	0.374	0.474	0.048
Control Delay, s/veh	10.3	11.0	6.8	6.7	20.0	6.8
LOS	B	B	A	A	C	A
95th %tile Queue, veh	5	6	2	2	2	0

Intersection	
Int Delay, s/veh	0.6

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	50	1338	425	6	12	33
Future Vol, veh/h	50	1338	425	6	12	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	315	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	1454	462	7	13	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	468	0	-	0	1301	234
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	836	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1089	-	-	-	153	768
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	386	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1089	-	-	-	145	768
Mov Cap-2 Maneuver	-	-	-	-	145	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	386	-

Approach	SE	NW	SW
HCM Control Delay, s/v	0.31	0	16.65
HCM LOS			C

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1089	-	358
HCM Lane V/C Ratio	-	-	0.05	-	0.137
HCM Control Delay (s/veh)	-	-	8.5	-	16.6
HCM Lane LOS	-	-	A	-	C
HCM 95th %tile Q(veh)	-	-	0.2	-	0.5

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1341	9	1	735	7	1
Future Vol, veh/h	1341	9	1	735	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1458	10	1	799	8	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1467	0	1864	734
Stage 1	-	-	-	-	1462	-
Stage 2	-	-	-	-	402	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	456	-	64	363
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	456	-	64	363
Mov Cap-2 Maneuver	-	-	-	-	64	-
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	643	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.06	62.15
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	72	5	-	-	-
HCM Lane V/C Ratio	0.122	0.002	-	-	-
HCM Control Delay (s/veh)	62.2	12.9	0	-	-
HCM Lane LOS	F	B	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	185	5	4	10	19	203
Future Vol, veh/h	185	5	4	10	19	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	5	4	11	21	221
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.4	7.4	8.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	97%	0%	9%
Vol Thru, %	3%	29%	0%
Vol Right, %	0%	71%	91%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	190	14	222
LT Vol	185	0	19
Through Vol	5	4	0
RT Vol	0	10	203
Lane Flow Rate	207	15	241
Geometry Grp	1	1	1
Degree of Util (X)	0.268	0.018	0.264
Departure Headway (Hd)	4.668	4.25	3.942
Convergence, Y/N	Yes	Yes	Yes
Cap	774	842	915
Service Time	2.668	2.276	1.956
HCM Lane V/C Ratio	0.267	0.018	0.263
HCM Control Delay, s/veh	9.4	7.4	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.1	1.1

Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	7	2	3	15
Future Vol, veh/h	0	3	7	2	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	8	2	3	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	32	9	0	0	10	0
Stage 1	9	-	-	-	-	-
Stage 2	23	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	982	1073	-	-	1610	-
Stage 1	1014	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	980	1073	-	-	1610	-
Mov Cap-2 Maneuver	980	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	998	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.36	0	1.21
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	300	-
HCM Lane V/C Ratio	-	-	0.003	0.002	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	537	1234	134	31
Demand Flow Rate, veh/h	548	1258	137	32
Vehicles Circulating, veh/h	17	140	503	1386
Vehicles Exiting, veh/h	1401	500	62	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	4.4	8.7	5.4	9.5
Approach LOS	A	A	A	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.471	0.529	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	258	290	591	667	137	32
Cap Entry Lane, veh/h	1329	1400	1187	1261	926	437
Entry HV Adj Factor	0.979	0.982	0.981	0.980	0.978	0.968
Flow Entry, veh/h	253	285	580	654	134	31
Cap Entry, veh/h	1301	1375	1164	1236	906	423
V/C Ratio	0.194	0.207	0.498	0.529	0.148	0.073
Control Delay, s/veh	4.4	4.3	8.6	8.8	5.4	9.5
LOS	A	A	A	A	A	A
95th %tile Queue, veh	1	1	3	3	1	0

Intersection	
Int Delay, s/veh	2.5

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	45	393	10	1	914	20	32	0	2	15	0	80
Future Vol, veh/h	45	393	10	1	914	20	32	0	2	15	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	315	-	-	150	-	-	150	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	49	427	11	1	993	22	35	0	2	16	0	87

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1015	0	0	438	0	0	1029	1548	219	1318	1542	508
Stage 1	-	-	-	-	-	-	530	530	-	1007	1007	-
Stage 2	-	-	-	-	-	-	499	1017	-	311	536	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	679	-	-	1118	-	-	188	113	785	115	114	510
Stage 1	-	-	-	-	-	-	500	525	-	258	317	-
Stage 2	-	-	-	-	-	-	522	313	-	674	522	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	679	-	-	1118	-	-	144	105	785	106	106	510
Mov Cap-2 Maneuver	-	-	-	-	-	-	144	105	-	106	106	-
Stage 1	-	-	-	-	-	-	464	487	-	258	317	-
Stage 2	-	-	-	-	-	-	433	313	-	623	484	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	1.08	0.01	35.99	21.59
HCM LOS			E	C

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	144	785	1118	-	-	679	-	-	319
HCM Lane V/C Ratio	0.241	0.003	0.001	-	-	0.072	-	-	0.324
HCM Control Delay (s/veh)	37.6	9.6	8.2	-	-	10.7	-	-	21.6
HCM Lane LOS	E	A	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.9	0	0	-	-	0.2	-	-	1.4

Intersection	
Int Delay, s/veh	0.5

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	406	7	2	1031	16	1
Future Vol, veh/h	406	7	2	1031	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	441	8	2	1121	17	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	449	0	1566	441
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	1125	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1111	-	122	616
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	310	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1111	-	122	616
Mov Cap-2 Maneuver	-	-	-	-	122	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	308	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	37.88
HCM LOS			E

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	128	3	-	-	-
HCM Lane V/C Ratio	0.145	0.002	-	-	-
HCM Control Delay (s/veh)	37.9	8.2	0	-	-
HCM Lane LOS	E	A	A	-	-
HCM 95th %tile Q(veh)	0.5	0	-	-	-

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	135	2	4	17	9	94
Future Vol, veh/h	135	2	4	17	9	94
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	2	4	18	10	102
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.3	6.9	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	9%
Vol Thru, %	1%	19%	0%
Vol Right, %	0%	81%	91%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	137	21	103
LT Vol	135	0	9
Through Vol	2	4	0
RT Vol	0	17	94
Lane Flow Rate	149	23	112
Geometry Grp	1	1	1
Degree of Util (X)	0.18	0.024	0.118
Departure Headway (Hd)	4.346	3.76	3.798
Convergence, Y/N	Yes	Yes	Yes
Cap	823	938	949
Service Time	2.386	1.838	1.798
HCM Lane V/C Ratio	0.181	0.025	0.118
HCM Control Delay, s/veh	8.3	6.9	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0.1	0.4

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	10	0	4	3
Future Vol, veh/h	0	7	10	0	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	11	0	4	3

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	23	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	12	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	993	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	991	1070	-	-	1608	-
Mov Cap-2 Maneuver	991	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.39	0	4.14
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1029	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	4	0	0	3
Future Vol, veh/h	1	3	4	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	4	0	0	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	4	0	-	0	10	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1617	-	-	-	1010	1079
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1617	-	-	-	1010	1079
Mov Cap-2 Maneuver	-	-	-	-	1010	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1018	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.81	0	8.35
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	450	-	-	-	1079
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s/veh)	7.2	0	-	-	8.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1448	645	136	28
Demand Flow Rate, veh/h	1477	658	139	29
Vehicles Circulating, veh/h	2	150	1281	781
Vehicles Exiting, veh/h	808	1270	198	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.3	5.5	12.3	5.5
Approach LOS	A	A	B	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	694	783	309	349	139	29
Cap Entry Lane, veh/h	1347	1418	1176	1250	478	731
Entry HV Adj Factor	0.981	0.980	0.981	0.980	0.978	0.966
Flow Entry, veh/h	681	768	303	342	136	28
Cap Entry, veh/h	1322	1390	1154	1225	468	706
V/C Ratio	0.515	0.552	0.263	0.279	0.291	0.040
Control Delay, s/veh	8.2	8.5	5.5	5.5	12.3	5.5
LOS	A	A	A	A	B	A
95th %tile Queue, veh	3	4	1	1	1	0

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	36	996	35	2	554	4	20	0	1	9	0	24
Future Vol, veh/h	36	996	35	2	554	4	20	0	1	9	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	315	-	-	150	-	-	150	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	1083	38	2	602	4	22	0	1	10	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	607	0	0	1121	0	0	1485	1791	560	1228	1808	303
Stage 1	-	-	-	-	-	-	1180	1180	-	609	609	-
Stage 2	-	-	-	-	-	-	305	611	-	620	1199	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	968	-	-	619	-	-	86	80	471	134	78	693
Stage 1	-	-	-	-	-	-	202	262	-	449	484	-
Stage 2	-	-	-	-	-	-	679	483	-	442	257	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	968	-	-	619	-	-	80	77	471	128	75	693
Mov Cap-2 Maneuver	-	-	-	-	-	-	80	77	-	128	75	-
Stage 1	-	-	-	-	-	-	194	252	-	448	482	-
Stage 2	-	-	-	-	-	-	651	481	-	424	246	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	0.3	0.04	63.94	17.92
HCM LOS			F	C

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	80	471	619	-	-	968	-	-	314
HCM Lane V/C Ratio	0.273	0.002	0.004	-	-	0.04	-	-	0.114
HCM Control Delay (s/veh)	66.5	12.7	10.8	-	-	8.9	-	-	17.9
HCM Lane LOS	F	B	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1	0	0	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	0.2

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	699	9	1	549	7	1
Future Vol, veh/h	699	9	1	549	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	760	10	1	597	8	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	770	0	1359	760
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	599	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	845	-	164	406
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	549	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	845	-	164	406
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	462	-
Stage 2	-	-	-	-	548	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.02	26.42
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	177	3	-	-	-
HCM Lane V/C Ratio	0.049	0.001	-	-	-
HCM Control Delay (s/veh)	26.4	9.3	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.2	0	-	-	-

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	124	3	4	13	23	149
Future Vol, veh/h	124	3	4	13	23	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	3	4	14	25	162
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.5	7.1	7.8
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	98%	0%	13%
Vol Thru, %	2%	24%	0%
Vol Right, %	0%	76%	87%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	127	17	172
LT Vol	124	0	23
Through Vol	3	4	0
RT Vol	0	13	149
Lane Flow Rate	138	18	187
Geometry Grp	1	1	1
Degree of Util (X)	0.171	0.021	0.198
Departure Headway (Hd)	4.472	4.02	3.81
Convergence, Y/N	Yes	Yes	Yes
Cap	795	896	948
Service Time	2.54	2.02	1.812
HCM Lane V/C Ratio	0.174	0.02	0.197
HCM Control Delay, s/veh	8.5	7.1	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.1	0.7

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	6	7	2	7	15
Future Vol, veh/h	0	6	7	2	7	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	8	2	8	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	40	9	0	0	10	0
Stage 1	9	-	-	-	-	-
Stage 2	32	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	971	1073	-	-	1610	-
Stage 1	1014	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	967	1073	-	-	1610	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	986	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.38	0	2.31
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	573	-
HCM Lane V/C Ratio	-	-	0.006	0.005	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	5	3	0	0	3
Future Vol, veh/h	4	5	3	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	3	0	0	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	3	0	-	0	17	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	14	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1619	-	-	-	1001	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1009	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1619	-	-	-	998	1081
Mov Cap-2 Maneuver	-	-	-	-	998	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1009	-

Approach	EB	WB	SB
HCM Control Delay, s/v	3.21	0	8.34
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	800	-	-	-	1081
HCM Lane V/C Ratio	0.003	-	-	-	0.003
HCM Control Delay (s/veh)	7.2	0	-	-	8.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	717	1652	252	31
Demand Flow Rate, veh/h	731	1685	257	32
Vehicles Circulating, veh/h	23	257	670	1930
Vehicles Exiting, veh/h	1939	670	84	12
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.0	17.0	8.3	15.9
Approach LOS	A	C	A	C

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.471	0.529	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	344	387	792	893	257	32
Cap Entry Lane, veh/h	1322	1393	1066	1141	803	275
Entry HV Adj Factor	0.980	0.982	0.981	0.981	0.981	0.968
Flow Entry, veh/h	337	380	777	876	252	31
Cap Entry, veh/h	1295	1368	1045	1119	788	266
V/C Ratio	0.260	0.278	0.743	0.782	0.320	0.116
Control Delay, s/veh	5.1	5.0	16.4	17.6	8.3	15.9
LOS	A	A	C	C	A	C
95th %tile Queue, veh	1	1	7	8	1	0

Intersection	
Int Delay, s/veh	11.6

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	62	534	10	1	1365	27	32	0	2	21	0	110
Future Vol, veh/h	62	534	10	1	1365	27	32	0	2	21	0	110
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	315	-	-	150	-	-	150	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	580	11	1	1484	29	35	0	2	23	0	120

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1513	0	0	591	0	0	1465	2236	296	1926	2227	757
Stage 1	-	-	-	-	-	-	721	721	-	1501	1501	-
Stage 2	-	-	-	-	-	-	744	1515	-	425	726	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	438	-	-	980	-	-	90	42	701	40	43	350
Stage 1	-	-	-	-	-	-	385	430	-	128	183	-
Stage 2	-	-	-	-	-	-	373	180	-	578	428	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	438	-	-	980	-	-	50	35	701	34	36	350
Mov Cap-2 Maneuver	-	-	-	-	-	-	50	35	-	34	36	-
Stage 1	-	-	-	-	-	-	326	364	-	128	183	-
Stage 2	-	-	-	-	-	-	245	180	-	487	362	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	1.51	0.01	164.82	142.14
HCM LOS			F	F

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	50	701	980	-	-	438	-	-	140
HCM Lane V/C Ratio	0.698	0.003	0.001	-	-	0.154	-	-	1.014
HCM Control Delay (s/veh)	174.5	10.2	8.7	-	-	14.7	-	-	142.1
HCM Lane LOS	F	B	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2.8	0	0	-	-	0.5	-	-	7.4

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	548	7	2	1389	16	1
Future Vol, veh/h	548	7	2	1389	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	596	8	2	1510	17	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	603	0	1359	302
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	759	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	970	-	140	694
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	423	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	970	-	139	694
Mov Cap-2 Maneuver	-	-	-	-	139	-
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	421	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.05	33.16
HCM LOS			D

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	146	5	-	-	-
HCM Lane V/C Ratio	0.126	0.002	-	-	-
HCM Control Delay (s/veh)	33.2	8.7	0	-	-
HCM Lane LOS	D	A	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	170	2	4	17	9	128
Future Vol, veh/h	170	2	4	17	9	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	185	2	4	18	10	139
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	8.8	7.1	7.6
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	7%
Vol Thru, %	1%	19%	0%
Vol Right, %	0%	81%	93%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	172	21	137
LT Vol	170	0	9
Through Vol	2	4	0
RT Vol	0	17	128
Lane Flow Rate	187	23	149
Geometry Grp	1	1	1
Degree of Util (X)	0.229	0.025	0.16
Departure Headway (Hd)	4.41	3.957	3.875
Convergence, Y/N	Yes	Yes	Yes
Cap	808	908	931
Service Time	2.471	1.968	1.877
HCM Lane V/C Ratio	0.231	0.025	0.16
HCM Control Delay, s/veh	8.8	7.1	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.9	0.1	0.6

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	10	0	4	3
Future Vol, veh/h	0	7	10	0	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	11	0	4	3

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	23	11	0	0	11	0
Stage 1	11	-	-	-	-	-
Stage 2	12	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	993	1070	-	-	1608	-
Stage 1	1012	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	991	1070	-	-	1608	-
Mov Cap-2 Maneuver	991	-	-	-	-	-
Stage 1	1012	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.39	0	4.14
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1070	1029	-
HCM Lane V/C Ratio	-	-	0.007	0.003	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	4	0	0	3
Future Vol, veh/h	1	3	4	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	4	0	0	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	4	0	-	0	10	4
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	5	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1617	-	-	-	1010	1079
Stage 1	-	-	-	-	1019	-
Stage 2	-	-	-	-	1018	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1617	-	-	-	1010	1079
Mov Cap-2 Maneuver	-	-	-	-	1010	-
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1018	-

Approach	EB	WB	SB
HCM Control Delay, s/v	1.81	0	8.35
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	450	-	-	-	1079
HCM Lane V/C Ratio	0.001	-	-	-	0.003
HCM Control Delay (s/veh)	7.2	0	-	-	8.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Approach	SE	NW	NE	SW
Entry Lanes	2	2	1	1
Conflicting Circle Lanes	2	2	2	2
Adj Approach Flow, veh/h	1796	858	185	28
Demand Flow Rate, veh/h	1831	875	188	29
Vehicles Circulating, veh/h	3	195	1565	1043
Vehicles Exiting, veh/h	1069	1558	269	27
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.1	6.9	21.6	7.0
Approach LOS	B	A	C	A

Lane	Left	Right	Left	Right	Left	Left
Designated Moves	LT	TR	LT	TR	LTR	LTR
Assumed Moves	LT	TR	LT	TR	LTR	LTR
RT Channelized						
Lane Util	0.470	0.530	0.470	0.530	1.000	1.000
Follow-Up Headway, s	2.667	2.535	2.667	2.535	2.535	2.535
Critical Headway, s	4.645	4.328	4.645	4.328	4.328	4.328
A (Intercept)	1350	1420	1350	1420	1420	1420
B (Slope)	9.199e-4	8.501e-4	9.199e-4	8.501e-4	8.501e-4	8.501e-4
Entry Flow, veh/h	861	970	411	464	188	29
Cap Entry Lane, veh/h	1346	1417	1128	1203	375	585
Entry HV Adj Factor	0.980	0.981	0.981	0.980	0.984	0.966
Flow Entry, veh/h	844	952	403	455	185	28
Cap Entry, veh/h	1320	1390	1107	1179	369	565
V/C Ratio	0.640	0.685	0.364	0.386	0.501	0.050
Control Delay, s/veh	10.6	11.4	6.9	6.9	21.6	7.0
LOS	B	B	A	A	C	A
95th %tile Queue, veh	5	6	2	2	3	0

Intersection	
Int Delay, s/veh	2.3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	50	1338	35	2	425	6	20	0	1	12	0	33
Future Vol, veh/h	50	1338	35	2	425	6	20	0	1	12	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	315	-	-	150	-	-	150	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	54	1454	38	2	462	7	22	0	1	13	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	468	0	0	1492	0	0	1817	2055	746	1305	2071	234
Stage 1	-	-	-	-	-	-	1582	1582	-	470	470	-
Stage 2	-	-	-	-	-	-	235	473	-	836	1601	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1089	-	-	446	-	-	49	55	356	118	53	768
Stage 1	-	-	-	-	-	-	114	167	-	543	559	-
Stage 2	-	-	-	-	-	-	747	557	-	328	164	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1089	-	-	446	-	-	44	52	356	111	51	768
Mov Cap-2 Maneuver	-	-	-	-	-	-	44	52	-	111	51	-
Stage 1	-	-	-	-	-	-	108	159	-	541	556	-
Stage 2	-	-	-	-	-	-	708	554	-	311	155	-

Approach	SE	NW	NE	SW
HCM Control Delay, s/v	0.3	0.06	143.95	19.47
HCM LOS			F	C

Minor Lane/Major Mvmt	NELn1	NELn2	NWL	NWT	NWR	SEL	SET	SER	SWLn1
Capacity (veh/h)	44	356	446	-	-	1089	-	-	298
HCM Lane V/C Ratio	0.496	0.003	0.005	-	-	0.05	-	-	0.164
HCM Control Delay (s/veh)	150.4	15.1	13.1	-	-	8.5	-	-	19.5
HCM Lane LOS	F	C	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.8	0	0	-	-	0.2	-	-	0.6

Intersection	
Int Delay, s/veh	0.3

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Traffic Vol, veh/h	1342	9	1	737	7	1
Future Vol, veh/h	1342	9	1	737	7	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1459	10	1	801	8	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1468	0	1866	734
Stage 1	-	-	-	-	1464	-
Stage 2	-	-	-	-	403	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	455	-	64	362
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	644	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	455	-	64	362
Mov Cap-2 Maneuver	-	-	-	-	64	-
Stage 1	-	-	-	-	179	-
Stage 2	-	-	-	-	642	-

Approach	SE	NW	NE
HCM Control Delay, s/v	0	0.06	62.37
HCM LOS			F

Minor Lane/Major Mvmt	NELn1	NWL	NWT	SET	SER
Capacity (veh/h)	71	5	-	-	-
HCM Lane V/C Ratio	0.122	0.002	-	-	-
HCM Control Delay (s/veh)	62.4	12.9	0	-	-
HCM Lane LOS	F	B	A	-	-
HCM 95th %tile Q(veh)	0.4	0	-	-	-

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	185	5	4	13	23	203
Future Vol, veh/h	185	5	4	13	23	203
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	5	4	14	25	221
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay, s/veh	9.4	7.4	8.4
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	97%	0%	10%
Vol Thru, %	3%	24%	0%
Vol Right, %	0%	76%	90%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	190	17	226
LT Vol	185	0	23
Through Vol	5	4	0
RT Vol	0	13	203
Lane Flow Rate	207	18	246
Geometry Grp	1	1	1
Degree of Util (X)	0.269	0.022	0.27
Departure Headway (Hd)	4.683	4.232	3.962
Convergence, Y/N	Yes	Yes	Yes
Cap	772	846	909
Service Time	2.683	2.259	1.978
HCM Lane V/C Ratio	0.268	0.021	0.271
HCM Control Delay, s/veh	9.4	7.4	8.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.1	0.1	1.1

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	6	7	2	7	15
Future Vol, veh/h	0	6	7	2	7	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	8	2	8	16

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	40	9	0	0	10	0
Stage 1	9	-	-	-	-	-
Stage 2	32	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	971	1073	-	-	1610	-
Stage 1	1014	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	967	1073	-	-	1610	-
Mov Cap-2 Maneuver	967	-	-	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	986	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.38	0	2.31
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1073	573	-
HCM Lane V/C Ratio	-	-	0.006	0.005	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	5	3	0	0	3
Future Vol, veh/h	4	5	3	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	5	3	0	0	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	3	0	-	0	17	3
Stage 1	-	-	-	-	3	-
Stage 2	-	-	-	-	14	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1619	-	-	-	1001	1081
Stage 1	-	-	-	-	1020	-
Stage 2	-	-	-	-	1009	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1619	-	-	-	998	1081
Mov Cap-2 Maneuver	-	-	-	-	998	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1009	-

Approach	EB	WB	SB
HCM Control Delay, s/v	3.21	0	8.34
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	800	-	-	-	1081
HCM Lane V/C Ratio	0.003	-	-	-	0.003
HCM Control Delay (s/veh)	7.2	0	-	-	8.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

APPENDIX D

Fields Trip Generation

ITE CODE	LAND USE	UNIT	TRIP GENERATION RATES						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	DU	9.43	0.18	0.53	0.70	0.59	0.35	0.94

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

ITE CODE	LAND USE	SIZE	TOTAL TRIPS GENERATED						
			24 HOUR	AM PEAK HOUR			PM PEAK HOUR		
				ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
210	Single-Family Detached Housing	118 DU	1,113	21	62	83	70	41	111
-	Rural Lots	2 DU	29	1	2	3	2	1	3
-	Rural Estate Lots	6 DU	78	1	4	5	5	2	7
		Total:	*1,220*	*23*	*68*	*91*	*77*	*44*	*121*

Key: DU = Dwelling Units.
Note: All data and calculations above are subject to being rounded to nearest value.

APPENDIX E

Percent Contribution Calculation

Percent Contribution Calculations

Hilltop Road ADT (between Village & Merryvale)	
Background 2044	24,660
Total 2044	25,220
Percent Contribution	2.22%

ParkerWater
& SANITATION DISTRICT

April 29, 2025

Mr. Kevin Lovelace, P.E.
LIA Land Development
1765 West 121st Avenue, Suite #300
Westminster, CO 80234

RE: Will Serve Letter
Ramblewood, South of Hilltop Road, Douglas County Previously known as Hilltop 177 renamed to "Ramblewood";
Total of seventy lots, (sixty-eight standard SFE, two larger lots, exact size TDB)
County of Douglas, State of Colorado.

Dear Mr. Lovelace:

The Parker Water & Sanitation District (PWSD) acknowledges its willingness and ability to serve Ramblewood as described above. The parcel is identified as future build out and will be part of PWSD upon successful completion of inclusion.

COMMITMENT TO SERVE

PWSD is committed to providing service to all future developments within its service area, based on the water supply sources available within the PWSD's water rights portfolio. Such commitment to provide service is conditioned upon compliance with all PWSD Rules and Regulations, Standard and Specifications, and/or conditions specific to the property; including payment of the appropriate fees and any charges related to water and/or sanitation service, as established from time to time by PWSD Directors.

DISTRICT WATER DEMAND

The current PWSD water demand is approximately 7,700 acre-feet per year (Acre Feet/yr), while at build out, the total of 23,500 Acre Feet/yr. The proposed development of **Ramblewood** will be included in our future projections.

PROPOSED RAMBLEWOOD DEMAND (1805A)

The projected demand based on PWSD Section 3, Rules and Regulations, Landscape/Irrigation worksheet is equivalent to 92.4 Acre feet/yr. The districts demand calculation of 1.1 Acre Feet/yr. Per SFE plus additional irrigation requirements require a higher standard than the Douglas County's 1805A of 0.75 Acre Feet/Yr per residence.

DISTRICT WATER SUPPLY

PWSD has an extensive water rights portfolio of adjudicated Denver Basin aquifer groundwater rights, both junior and senior tributary water rights, storage rights in Rueter-Hess Reservoir of 71,920 AF, return flows from effluent and lawn irrigation for use in the PWSD augmentation plan.

The attached Table 1 summarizes PWSD's adjudicated first-use rights, which indicates a total of 41,134 AF/yr (the anticipated yield of these rights in both an average and dry year (Section 1805A.01.2(2)b. of the DCZR). Not included in Table 1 are the rights associated with storage in

Rueter-Hess Reservoir or any of PWSD's reuse rights, which will provide significant additional supplies to PWSD.

In summary, with the estimated buildout demand of 23,500 AF/yr, and PWSD's 41,134 AF/yr of adjudicated first-use water rights and the Denver Basin groundwater that Ramblewood will dedicate with successful inclusion, PWSD has significant excess water supplies which can serve **Ramblewood**, and all future planned buildout within PWSD.

WATERQUALITY

PWSD is in compliance with the Colorado Department of Public Health and Environment testing and quality requirements and provides a high-quality water supply to all customers.

SANITARY SERVICE

PWSD shall provide sanitary service for all water taps requested for **Ramblewood**.

FEASIBILITY OF SERVICE

It is physically and economically feasible for PWSD to provide service to the proposed development of **Ramblewood**.

If you have any questions regarding any of the information provided or PWSD's ability to provide service to the proposed development, please do not hesitate to call us.

Sincerely,
Parker Water & Sanitation District
Heather Justus
Water Resource Manager

Attachments and Links:

Exhibit Plan
Table 1 Summary of PWSD Water Rights
Map of the existing PWSD's service area (Section 1805A.01.2(2)f. of the DCZR)
2022 Evidence of potability of PWSD's water supply for the subdivision (Section 1805A.01.2(3) of the DCZR). 2022
https://www.pwsd.org/DocumentCenter/View/3584/2022-Consumer- Confidence-Report-PDF?bidId=
2023 Consumer Confidence Report
https://www.pwsd.org/DocumentCenter/View/3763/2023- PWSD-Consumer-Confidence-Report-PDF

LOT SIZE	TOTAL
SFD (90’ X 130’ MINIMUM)	68
RANCH LOT 1 (25 ACRES)	1
RANCH LOT 2 (58 ACRES)	1

COMMUNITY SUMMARY

- 177 Acres
- 68 SFD Lots
- 2 Ranch Lots Totaling 83 Acres
- Approximately 60 Acres of Open Space
- Located in Unincorporated Douglas County
- Douglas County School District
  - Mountain View Elementary
  - Sagewood Middle School
  - Ponderosa High School

SITE PLAN IS CONCEPTUAL AND SUBJECT TO CHANGE

TABLE 1
SUMMARY OF PWSD WATER RIGHTS

DECREED WATER AVAILABLE FOR PWSD USE

SOURCE	Volume (ac-ft/yr) Decreed in Case No.												
	83CW348(A)	95CW039	87CW104(A) [2]	87CW104(B) [2]	95CW089 [2]	99CW006 [2]	06CW179 [2]	02CW227 [3]	94CW042 [4]	03CW258, et al [5]	82CW434 [6]	85CW448, 04CW348 [7]	TOTAL
Cherry Creek alluvium [1]	726.7	132.3										24,130	859.0
Lower Dawson-NT			742.6	631.8	391.8	430.2	868.6	30.6	178.3	821.0	364.0		4,458.9
Lower Dawson-NNT			219.4	0.0	79.5	380.8	807.6						1,487.3
Denver-NT			430.1	908.6	272.6	611.9	235.6	94.4	104.0	1258.0	422.0		4,337.2
Denver-NNT			1016.2	9.0	377.9	616.1	1980.6						3,999.8
Arapahoe-NT			1161.7	627.0	698.3	1945.7	2447.1	64.5	547.3	2954.0	487.0		10,932.6
Laramie-Fox Hills-NT			1044.1	625.3	419.2	700.8	1350.0	49.4	16.0	980.0	310.0		5,494.8
												TOTAL [8] =	31,569.6

DENVER BASIN WATER DEEDED AS PART OF INCLUSION (NOT CURRENTLY PART OF PWSD WELL FIELDS)

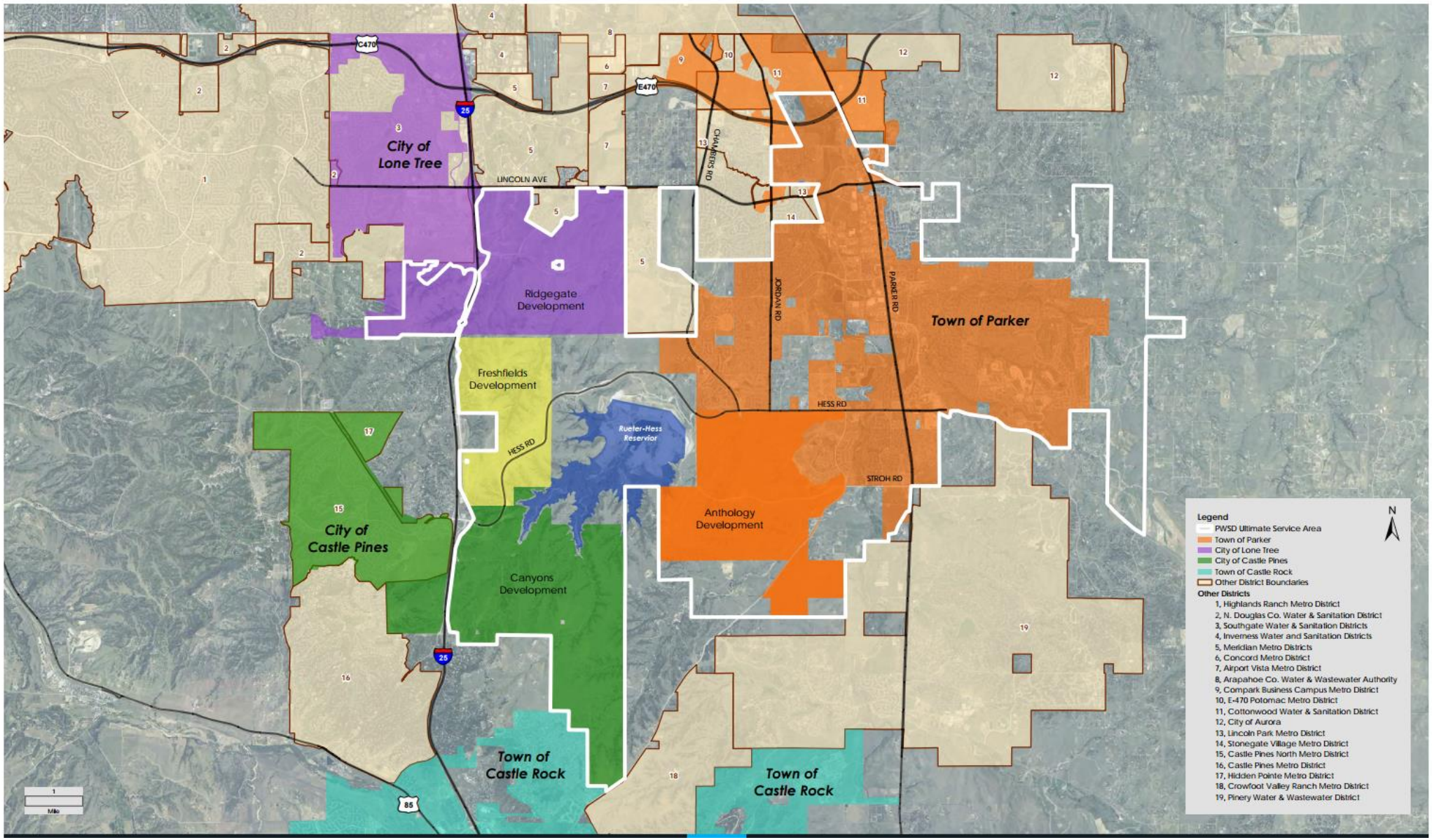
SOURCE	Annual Volume (ac-ft) Dedicated as Part of PWSD Inclusion [9]												
	Carousel Farms	Cielo	Developmental Pathways	Dransfeldt Place	Gregg East	Harvie Park	Hess Ranch	Hess Road Gailen Buck	Hess Road Town of Parker	Meadowlark	Miller Creek	Parker Parcel	Parker Homestead Parcel A
Upper Dawson - NNT		13.8				4.1	38.4						
Lower Dawson-NT		41.8	0.4	1.7	1.7	20.0	457.6	6.0	4.7	19.4	5.7	14.5	
Lower Dawson-NNT	11.2												51.0
Denver-NT		73.4			3.1	24.6	655.0	7.5	6.1	89.1	7.9	20.4	
Denver-NNT	18.1		0.5	9.1			164.6						71.0
Arapahoe-NT	17.6	75.2	0.5	8.1	3.1	0.0	780.7	8.3	6.6	108.4	7.0	21.4	75.3
Laramie-Fox Hills-NT	11.3	47.4	0.3	6.3	2.3	22.6	474.7	5.1	4.0	65.0	5.7	14.2	45.9

SOURCE	Annual Volume (ac-ft) Dedicated as Part of PWSD Inclusion [9]										
	Parker Point	Public Service CO Sec 20	Public Service CO Sec 21	Public Service CO Sec 22	Reata Ridge Parcel	Salisbury Heights	Sierra Ridge	Steven's Ranch	Stroh Ranch Parcel	Twenty Mile Town Center II	TOTAL
Upper Dawson - NNT								43.8			100.1
Lower Dawson-NT	4.2		3.7		15.4	4.1		442.8	595.9	0.9	1640.5
Lower Dawson-NNT		4.4		6.4			77.9				150.9
Denver-NT	5.8			10.4	21.4	5.1		318.4	855.7	1.3	2105.1
Denver-NNT		6.6	4.8				132.5	387.2			794.4
Arapahoe-NT	7.4	6.6	4.9	9.4	26.4	5.4	143.1	724.0	920.3	1.2	2960.8
Laramie-Fox Hills-NT	4.6	4.0	3.2	7.3	16.5	3.5	89.6	431.5	546.7	0.9	1812.6
										TOTAL =	9,564.4

GRAND TOTAL (DENVER BASIN AND CHERRY CREEK WATER RIGHTS) [10] =	41,134.0

1) Water rights changed to municipal use. All of this water is fully consumable and reusable.
2) PWSD well field decree.
3) Hover parcel.
4) Well field established between PWSD and Stroh Ranch for full Stroh Ranch water supply, but water availability limited to volume of water deeded to PWSD from Stroh Ranch.
5) Rights also include water decreed in 82CW116, W-8033, 81CW403, 83CW333, and 98CW459. Water deeded to PWSD from RidgeGate property but not part of the PWSD well fields.
6) Water deeded to PWSD from Freshfields property but not part of the PWSD well fields.
7) Combined RHR and Lake Gulch storage rights - RHR as alternate place of storage, not included in totals
8) Total potential yield of these rights
9) All wellfield inclusion volumes are preliminary and subject to change
10) Updated March, 2019

PWSD Service Area



Jehn Water Consultants, Inc.
Water Resources Consulting
Celebrating Over 30 Years of Excellence

88 Inverness Circle East
Suite K-102
Englewood, Colorado 80112
(303) 321-8335

MEMORANDUM

TO: Dan Sheldon

FROM: Gina Burke

DATE: May 1, 2025

SUBJECT: Supplemental Water Supply Summary - Ramblewood

JOB NO: 1075.1

The purpose of this Memorandum it to provide additional information to our March 11, 2025 Ramblewood Water Supply Summary and Demand analysis letter. The additional information is in regard to the two large lots, Ranch Lot 1 and Ranch Lot 2, in area PA-B of the Ramblewood Planned Development. These two lots will not be served by Parker Water and Sanitation District. Each of the lots will be served with individual well and septic systems. 2 af/yr from the Lower Dawson aquifer ground water will be conveyed to each lot which is sufficient to provide in-house (0.2 af/yr), irrigation (30,000 sqft of lawn and garden) and domestic animal watering (example: 4 horses) per lot. This also exceeds the Residential Demand Standards for lots this size as outlined in 1805A.02.1 of the Douglas County Zoning Resolution.

As stated in our original report, the ground water rights underlying 160-acres of the Property, which includes Ranch Lot 1 and Ranch Lot 2, were decreed in Division 1 Water Court in Case No. 2007CW107 for the Lower Dawson, Denver, Arapahoe and Laramie-Fox Hills aquifers. The decreed uses include domestic, industrial, commercial, irrigation, stock watering, recreational, fire protection, and augmentation purposes, both on and off the property.

The conveyance of Lower Dawson aquifer ground water outlined in this Memorandum to Ranch Lot 1 and Ranch Lot 2 within area PA-B of the Ramblewood Planned Development is more than sufficient to meet all demands.

Please feel free to contact our office with any questions or additional information.

June 13, 2025

Douglas County Department of Community Development
Planning Service Division
100 Third Street
Castle Rock, CO 80104

Re: Water Supply – Ramblewood Subdivision Rezone, ZR2024-031

Dear Staff:

The purpose of this letter is to provide additional information for the 2025 Ramblewood Water Supply Summary and Demand analysis letter provided on March 11, 2025, as supplemented on May 1, 2025, by Jehn Water Consultants, Inc. This letter is intended to fulfill the requirements of Section 1806A.01.04 of the Douglas County Zoning Resolution dated April 17, 2017.

MU Hilltop is under contract for the purchase of property from Hilltop Jam, LLC as well as adjacent property from Brad and Joan Whittlesey (the "**Contract**"). The Contract includes water rights sufficient to support the proposed Development. The groundwater for the proposed Development identified in the Contract was adjudicated in Case No. 2007CW107, District Court, Water Division 1, on February 20, 2008 (the "**07CW107 Decree**"). A copy of the 07CW107 Decree is attached hereto.

If you have any questions or comments, please feel free to call.

Very truly yours,

McGeady Becher Cortese Williams P.C.

Enclosure

2008022919 12 PGS

OFFICIAL RECORDS
DOUGLAS COUNTY CO
JACK ARROWSMITH
CLERK & RECORDER
RECORDING FEE: $61.00
12 PGS
2008022919
03/31/2008 01:51 PM

DISTRICT COURT, WATER DIVISION 1, COLORADO Court Address: 901-9th Street Greeley, CO 80632	
Concerning the Application of: **BRADLEY A. WHITTLESEY; DAVID C. WHITTLESEY; SUSAN L. WHITTLESEY; AND CYNTHIA L. WHITTLESEY;** **Applicants,** **IN DOUGLAS COUNTY.**	**▲COURT USE ONLY▲** **Case Number: 07-CW-107**

FINDINGS OF FACT, CONCLUSIONS OF LAW, RULING OF THE REFEREE, JUDGMENT AND DECREE

This claim for nontributary and not nontributary ground water, having been filed in May, 2007, and all matters contained in the application having been reviewed, and testimony having been taken where such testimony is necessary, and such corrections made as are indicated by the evidence presented herein, the following is hereby the Ruling of the Referee:

FINDINGS OF FACT

1. **Name, Address, and Telephone Number of Applicants:**

Bradley A. Whittlesey, David C. Whittlesey, Susan L. Whittlesey, and Cynthia L. Whittlesey
c/o Joan V. Whittlesey, Esq.
4700 East Princeton Avenue
Englewood, CO 80113 [Telephone: 303-756-8266]

2. **Background:**

A. Applicants are the owners of a parcel of land consisting of 160 acres, more or less, in Douglas County, generally described as the E ½ of the SW ¼ and the W ½ of the SE ¼ of Section 6, Township 7 South, Range 65 West of the 6th P.M., as shown on the General Location Map, attached as **Exhibit A**, the Site Location Map, attached as **Exhibit B**, and as described in the Property Legal Description, attached as **Exhibit C**, hereto ("Applicants' Property").

B. Applicants certify that they own all such described parcel and that no other person or entity has a financial interest in such land. Accordingly, Applicants certify their compliance with the notice requirements of § 37-92-302(2), C.R.S.

3. **Objections:** One party, Parker Water and Sanitation District, filed a statement of opposition to the application in this case. Such party has consented to the entry of this ruling and decree. No other statements of opposition were filed in this matter and the time for filing such statements has expired.

4. **State and Division Engineer Comments:**

A. The Office of the State Engineer issued its Determination of Facts in this case on August 8, 2007. The findings of fact contained in this ruling and decree are consistent with such Determination of Facts.

B. The Division Engineer's Office for Water Division 1 submitted its Summary of Consultation Report in this case on August 22, 2007, and Applicants submitted and served their Responses thereto on August 28, 2007. This ruling and decree adequately addresses all issues raised in the Division Engineer's Summary of Consultation.

5. **Subject Matter Jurisdiction:** Timely and adequate notice of the application was published as required by statute, and the Court has jurisdiction over the subject matter of this proceeding and over the parties affected hereby, whether they have appeared or not. The ground water adjudicated herein is not within the boundaries of a designated ground water basin.

APPROVAL OF GROUND WATER RIGHTS

6. **Wells and Well Permits:**

A. Well permit applications for wells to be constructed pursuant to this ruling and decree will be applied for at a later time pursuant to the terms herein. Applicants may construct such wells anywhere on the Applicants' property in order to recover the entire amount of ground water found to be available in each aquifer.

B. The groundwater may be withdrawn at rates of flow necessary to efficiently withdraw the amounts decreed herein. Applicants hereby waive any 600 foot spacing rule for wells located on the Subject Property, but must satisfy Section 37-90-137(4), C.R.S., for wells owned by others on adjacent properties.

7. **Average Annual Amounts:**

Aquifer	Land Area	Saturated Thickness	Specific Yield	Average Annual Amount
Upper Dawson	160 Ac.	125 Feet	20 %	-0- AF
Lower Dawson	160 Ac.	100 Feet	20 %	32.0 AF
Denver	160 Ac.	260 Feet	17 %	70.7 AF
Arapahoe	160 Ac.	250 Feet	17 %	68.0 AF
Laramie-Fox Hills	160 Ac.	195 Feet	15 %	46.8 AF

Note: The above values and amounts are consistent with the values and amounts referenced in the State Engineer's Determination of Facts ("Findings") in this case, dated August 8, 2007. Pursuant to such Findings, there is no ground water available in the Upper Dawson aquifer at this location due to the existence of a prior-appropriation by Well No. 31958.

8. **Uses:** The groundwater decreed herein will be used and reused for domestic, industrial, commercial, irrigation, stock watering, recreational, fire protection, and augmentation purposes, both on and off the Subject Property. The ground water subject to this ruling and decree may also be used for municipal purposes if such ground water is conveyed to a municipality or a quasi-municipal entity.

9. **Final Average Annual Amounts of Withdrawal; Banking of Unused Amounts:**

A. Final determination of the applicable average saturated sand thicknesses and resulting average annual amounts available to Applicants will be made pursuant to the retained jurisdiction of this Court, as described in paragraph 25 below. The Court shall use the annual acre-foot amounts in shown Paragraph 7 above in the interim period, until a final determination of water rights is made.

B. The allowed annual amount of ground water which may be withdrawn through the wells specified above and any additional wells, pursuant to Section 37-90-137(10), C.R.S., may exceed the average annual amount of withdrawal, as long as the total volume of water withdrawn through such wells and any additional wells therefor subsequent to the date of this decree does not exceed the product of the number of years since the date of the issuance of any well permits or the date of this decree, whichever is earliest in time, multiplied by the average annual amount of withdrawal, as specified above or as determined pursuant to the retained jurisdiction of the Court. However, amounts set forth in well permits will not be exceeded.

10. **Sources of Ground Water and Limitations on Consumption:**

A. The ground water to be withdrawn from the Lower Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers is "nontributary ground water" as defined in Section 37-90-103(10.5), C.R.S., and in the Denver Basin Rules, the withdrawal of which will not, within 100 years, deplete the flow of a natural stream, including a natural stream as defined in Section 37-82-101(2) and Section 37-92-102(1)(b), C.R.S., at an annual rate greater than 1/10 of 1% of the annual rate of withdrawal.

B. Applicants may not consume more than 98% of the annual quantity of water withdrawn from the nontributary aquifers. The relinquishment of 2% of the annual amount of water withdrawn to the stream system, as required by the Denver Basin Rules effective January 1, 1986, may be satisfied by any method selected by the Applicants and satisfactory to the State Engineer, so long as Applicants can demonstrate that an amount equal to 2% of such withdrawals (by volume) has been relinquished to the stream system.

C. The ground water to be withdrawn from the Upper Dawson aquifer is "not nontributary" as defined in Sections 37-90-103(10.7) and 37-90-137(9)(c), C.R.S. Such not nontributary ground water decreed herein may be withdrawn only pursuant to an augmentation plan to be sought separate from this ruling and decree. No such plan was sought in this case.

D. There is unappropriated groundwater available for withdrawal from the subject aquifers beneath the Applicants' Property, and the vested water rights of others will not be materially injured by such withdrawals as described herein. Withdrawals hereunder are allowed on the basis of an aquifer life of 100 years, assuming no substantial artificial recharge within 100 years. No material injury to vested water rights of others will result from the issuance of permits for wells which will withdraw nontributary ground water or the exercise of the rights and limitations specified in this decree.

11. **Additional Wells and Well Fields:**

A. Applicants may construct additional and replacement wells in order to maintain levels of production, to meet water supply demands or to recover the entire amount of ground water in the subject aquifers underlying the Subject Property. As additional wells are planned, applications shall be filed in accordance with Section 37-90-137(10), C.R.S.

B. Two or more wells constructed into a given aquifer shall be considered a well field. In effecting production of water from such well field, Applicants may produce the entire amount which may be produced from any given aquifer through any combination of wells within the well field.

C. In considering applications for permits for wells or additional wells to withdraw the ground water which is the subject of this decree, the State Engineer shall be bound by this decree and shall issue said permits in accordance with provisions of this decree and Section 37-90-137(10), C.R.S.

D. In the event that the allowed average annual amounts decreed herein are adjusted pursuant to the retained jurisdiction of the Court, Applicants shall obtain permits to reflect such adjusted average annual amounts. Subsequent permits for any wells herein shall likewise reflect any such adjustment of the average annual amounts.

E. The ground water in the Upper Dawson aquifer is not nontributary and may not be withdrawn unless and until an augmentation plan has been applied for and approved by this Court in a separate proceeding.

12. **Well Construction Conditions:** For each well constructed pursuant to this decree, Applicants shall comply with the following conditions:

A. A totalizing flow meter shall be installed on the well discharge pipe prior to withdrawing any water therefrom, and shall be maintained and operational at all times for the life of the well. Applicants shall keep accurate records of all withdrawals by the well, make any calculations necessary, and submit such records to the Water Division 1 Engineer upon request.

B. The entire length of the open bore hole shall be geophysically surveyed prior to casing and copies of the geophysical log submitted to the Division of Water Resources. Applicants may provide a geophysical log from an adjacent well or test hole, pursuant to Rule 9A of the Statewide Rules and acceptable to the State Engineer, which fully penetrates the aquifer, in satisfaction of the above requirement.

C. Groundwater production shall be limited to the subject aquifers. Plain, unperforated casing must be installed and properly grouted to prevent withdrawal from or intermingling of water from zones other than those for which the well was designed.

D. Each well shall be permanently identified by its permit number, this Water Court Case Number, and the name of the producing aquifer on the above-ground portion of the well easing or on the well's pumphouse.

13. **Additional Terms and Conditions:**

A. Applicants shall make available to the Opposer Parker Water and Sanitation District upon request for inspection or copying (at the expense of the requesting party) well production records, maps of well locations, well permits, pending well permit applications, and well logs.

B. Applicants shall develop the groundwater in each aquifer under the Subject Property only in accordance with the decreed water rights, and shall pursue any changes or additions to such rights by spacing wells, and producing water therefrom, in a reasonably uniform manner. Surface topography, land use, streets, existing and proposed reasonable alignments of water lines and other facilities, and other factors, will prevent complete uniformity. Also, local variations in aquifer characteristics, while not yet identified, may cause a reasonable deviation from uniformity. Applicants shall avoid a concentration of pumping which would have a substantially disproportionate effect on the aquifer or the Opposing Party hereto.

[See Voss v. Lundvall Bros., 830 P.2d 1061 (Colo. 1992) (an irregular drilling pattern can impact on the correlative rights of the [other] owners...in a common source or pool by exaggerating production in one area and depressing it in another)]. This condition applies to large capacity wells to withdraw amounts decreed in Paragraph 6 above and not to individual wells which may be constructed by individual lot owners as a water supply on their own lots.

C. In the event that Opposers believe that Applicants are operating or constructing, or proposing to operate or construct wells in a manner inconsistent with these conditions, they shall notify the Applicants of such concerns. If those concerns are not resolved with sixty (60) days, the party raising such concerns may bring such issues before this Court under retained jurisdiction in the appropriate proceeding, unless the parties mutually agree to arbitration.

D. These provisions shall be binding upon all successors in interest of Applicants.

14. **Recharge:** Nothing herein is intended to restrict the ability of Applicants to withdraw water that has recharged to an aquifer, consistent with law. It is not anticipated that such withdrawal would create any unreasonable localized depression or drawdown in the aquifer.

CONCLUSIONS OF LAW

15. The Water Court has jurisdiction over this proceeding pursuant to Section 37-90-137(6), C.R.S. This Court concludes as a matter of law that the application herein is one contemplated by law. Section 37-90-137(4), C.R.S.

16. The application for a decree confirming Applicants' right to withdraw and use all unappropriated ground water from the nontributary aquifers beneath the Subject Property as described herein pursuant to Section 37-90-137(4), C.R.S., should be granted, subject to the provisions of this decree. The application for a decree confirming Applicants' right to withdraw and use ground water decreed herein from the Upper Dawson aquifer, if any, should be granted pursuant to Section 37-90-137(4) and (9)(c), C.R.S., subject to the provisions of this decree.

17. The rights to ground water determined herein shall not be administered in accordance with priority of appropriation. Such rights are not "conditional water rights" as defined by Section 37-92-103(6), C.R.S., and findings of reasonable diligence are not applicable to the ground water rights determined herein. The determination of ground water rights herein need not include a date of initiation of the withdrawal project. See Section 37-92-305(11), C.R.S.

JUDGMENT AND DECREE

18. The Findings of Fact and Conclusions of Law set forth above are hereby incorporated into the terms of this Ruling and Decree as if the same were fully set forth herein.

19. Full and adequate notice of the application was given, and the Court has jurisdiction over the subject matter and over the parties whether they have appeared or not.

20. The Applicants may withdraw the subject ground water herein through wells to be located anywhere on the Applicants' Property, in the average annual amounts and at the estimated average rates of flow specified herein, subject to the limitations herein and the retained jurisdiction by this Court.

21. Applicants may not withdraw ground water from the not nontributary Upper Dawson aquifer until a plan for augmentation therefore is decreed by this Court pursuant to Section 37-90-137(9)(c), C.R.S.

22. Applicants have complied with all requirements and met all standards and burdens of proof, including but not limited to Sections 37-92-103(9), 37-92-302, 37-92-304(6), 37-92-305(1), (2), (3), (4), (6), (8), (9), C.R.S., to adjudicate their underlying ground water and are therefore entitled to a decree confirming such ground water rights as described herein.

23. The ground water rights described in the above Findings of Fact are hereby approved, confirmed, and adjudicated, including and subject to the terms and conditions specified herein.

24. No owners of or person entitled to use water under a vested water right or decreed conditional water right will be injured or injuriously affected by the pumping of Applicants' ground water resources as decreed herein.

25. **Retained Jurisdiction**:

A. The Court retains jurisdiction as necessary to adjust the average annual amounts of ground water available under the property to conform to actual local aquifer characteristics as determined from adequate information obtained from wells, pursuant to Section 37-92-305(11), C.R.S. Within 60 days after completion of any well decreed herein or any test hole(s), Applicants or any successor in interest to these water rights shall serve copies of such log(s) upon the State Engineer and the parties herein.

B. At such time as adequate data are available, any person, including the State Engineer, may invoke the Court's retained jurisdiction to make a Final Determination of Water Right.

C. Within four months of notice that the retained jurisdiction for such purpose has been invoked, the State Engineer shall use the information available to him to make a final determination of water rights findings. The State Engineer shall submit such finding to the Water Court, Applicants, and parties herein.

D. If no protest to such finding is made within 60 days, the Final Determination of Water Rights shall be incorporated into the decree by the Water Court. In the event of a protest, or in the event the State Engineer makes no determination within four months, such final determination shall be made by the Water Court after notice and hearing.

26. The ground water rights decreed herein are vested property rights decreed to the Applicants and shall be owned by the Applicants until such time as the Applicants expressly convey all the water underlying the Subject Property, or a portion of the water to another entity through a deed that identifies this case number, the specific aquifer, and the annual volume (based on a 100 year aquifer life) or a total volume of ground water being conveyed. If any deed for the Subject Property is silent to the conveyance of the water rights decreed herein, it is assumed that the water rights have been conveyed with the Subject Property, unless all or part of the water rights have been specifically reserved by the Grantor in that deed.

RULING ENTERED this 15th day of January, 2008.

Raymond S. Liesman
Water Referee
Water Division 1

THE COURT DOTH FIND THAT NO PROTEST TO THE RULING OF THE REFEREE HAS BEEN FILED. THE FOREGOING RULING IS CONFIRMED AND APPROVED AND IS HEREBY MADE THE JUDGMENT AND DECREE OF THIS COURT.

Date: FEB 20 2008

Honorable Roger A. Klein
Water Judge
Water Division 1
State of Colorado

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Table of Exhibits

Exhibit A	.....	General Location Map.
Exhibit B	.....	Site Location Map.
Exhibit C	.....	Property Legal Description.

APPROVED AS TO FORM AND CONTENT:

DUNCAN, OSTRANDER & DINGESS, P.C.

By: _____
Robert E. Schween, No. 12923
3600 So. Yosemite Street, Suite 500
Denver, Colorado 80237-1829
Phone: 303.779.0200

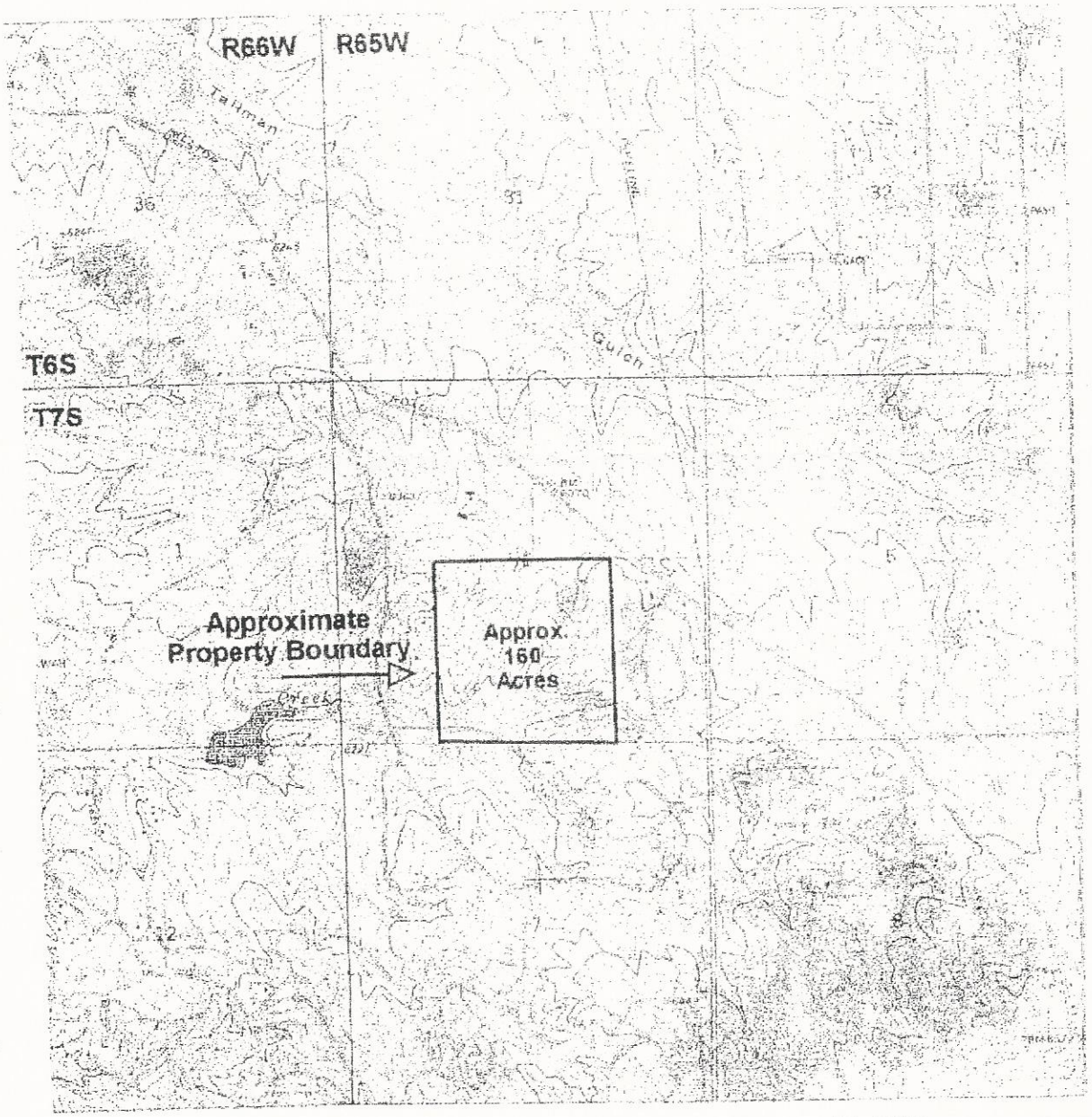
ATTORNEYS FOR APPLICANTS BRADLEY A. WHITTLESEY; DAVID C. WHITTLESEY; SUSAN L. WHITTLESEY; AND CYNTHIA L. WHITTLESEY

KRASSA & MILLER, LLC

By: See Stipulation Dated Oct. 18, 2007
Robert F. T. Krassa, No. 7947
2344 Spruce Street, Suite A
Boulder, Colorado 80301-2611
Phone: 303.442.2156

ATTORNEYS FOR OPPOSER
PARKER WATER AND SANITATION DISTRICT

07CW107



Source: USGS 7.5 Minute Quadrangle Ponderosa Park, CO (PR 1978)

EXHIBIT A

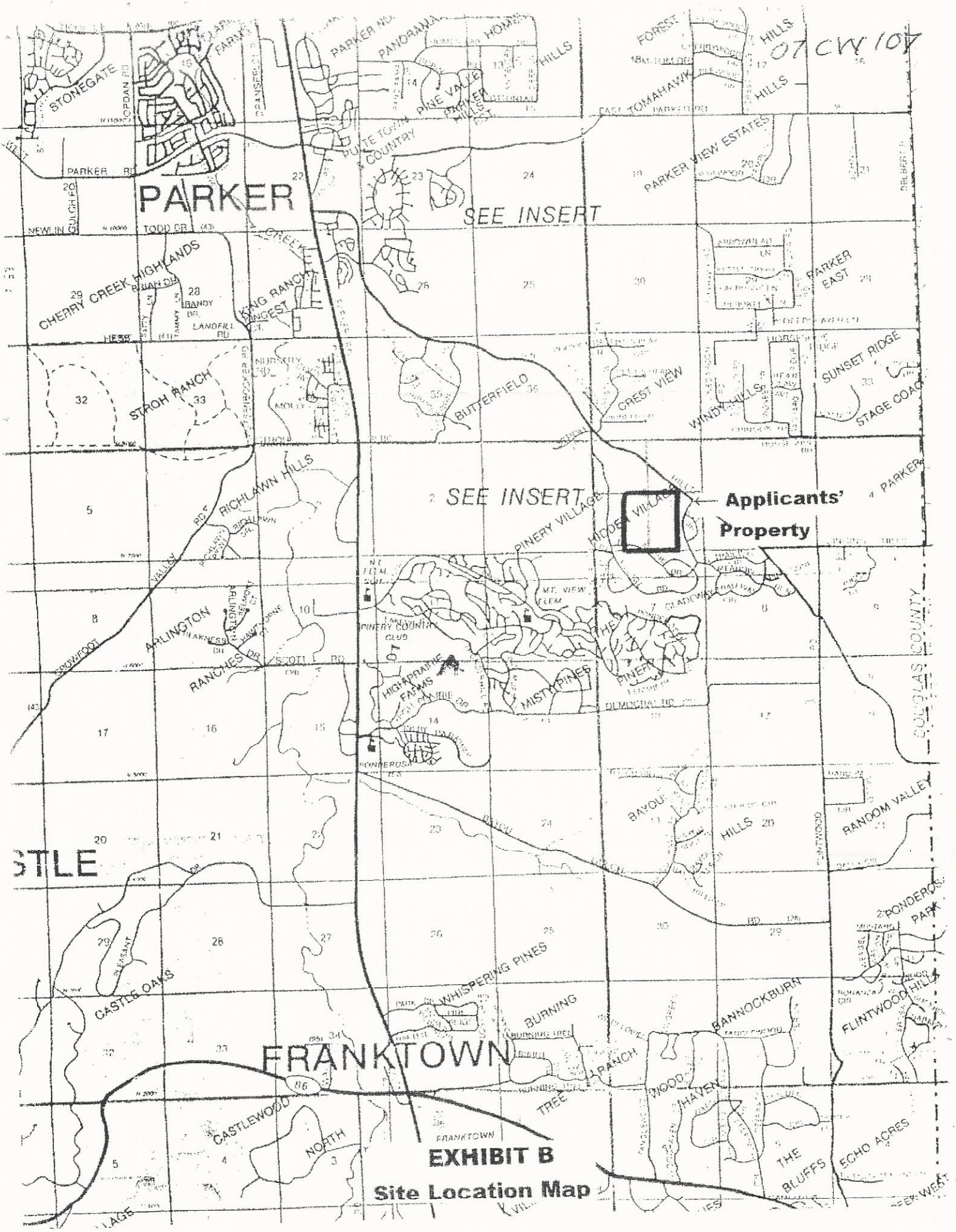
General Location Map

Jehn Water Consultants, Inc.
1565 Gilpin Street
Denver, Colorado 80218

WHITTLESEY PROPERTY LOCATION MAP
Douglas County, Colorado

May 21, 1999

Job No. 447.1


07CW107
PARKER
SEE INSERT
SEE INSERT
Applicants'
Property
FRANKTOWN
EXHIBIT B
Site Location Map

PROPERTY LEGAL DESCRIPTION

160 Acres, M/L, described as follows:

The E ½ of the SW ¼, and the W ½ of the SE ¼, Section 6, Township 7 South, Range 65 West, 6th P.M.

EXHIBIT C

RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031

SHEET INDEX

1 COMMITMENTS & PROVISIONS
2 DEVELOPMENT STANDARDS
3 DEVELOPMENT PLAN

GENERAL PROVISIONS

AUTHORITY

THIS DEVELOPMENT PLAN IS AUTHORIZED BY SECTION 15 - PLANNED DEVELOPMENT DISTRICT OF THE DOUGLAS COUNTY ZONING RESOLUTION ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

APPLICABILITY

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THIS DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE COMMUNITY DEVELOPMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.

ADOPTION

THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCE THE FINDINGS AND DECISION OF THE DOUGLAS COUNTY BOARD OF COMMISSIONERS THAT THIS DEVELOPMENT PLAN FOR RAMBLEWOOD IS IN GENERAL CONFORMITY WITH THE DOUGLAS COUNTY COMPREHENSIVE MASTER PLAN; IS AUTHORIZED BY THE PROVISION OF SECTION 15 OF THE DOUGLAS COUNTY ZONING RESOLUTION; AND THAT SUCH SECTION 15 AND THIS DEVELOPMENT PLAN COMPLY WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.

RELATIONSHIP TO COUNTY REGULATIONS

THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF RAMBLEWOOD, PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT, THE RELEVANT PROVISIONS OF THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF DOUGLAS COUNTY, SHALL BE APPLICABLE.

ENFORCEMENT

TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PLANNED DEVELOPMENT AND OF THE PUBLIC IN THE PRESERVATION OF THE INTEGRITY OF THE PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND AND THE LOCATION OF COMMON OPEN SPACE SHALL RUN IN FAVOR OF DOUGLAS COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW.

CONFLICT

WHERE THERE IS MORE THAN ONE PROVISION WITHIN THE DEVELOPMENT PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISION WHICH IS MOST RESTRICTIVE OR IMPOSES HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN UNLESS DETERMINED OTHERWISE BY THE DIRECTOR OF COMMUNITY DEVELOPMENT.

MAXIMUM LEVEL OF DEVELOPMENT

THE TOTAL NUMBER OF DWELLINGS OR THE TOTAL COMMERCIAL, BUSINESS, OR INDUSTRIAL INTENSITY APPROVED FOR DEVELOPMENT WITHIN THE PLANNING AREAS IS THE MAXIMUM DEVELOPMENT REQUESTED FOR PLATTING OR CONSTRUCTION (PLUS APPROVED DENSITY TRANSFERS, IF ANY). THE ACTUAL NUMBER OF DWELLINGS OR LEVEL OF DEVELOPMENT FOR COMMERCIAL, BUSINESS, OR INDUSTRIAL PROPERTIES MAY BE LESS DUE TO SUBDIVISION OR SITE IMPROVEMENT PLAN REQUIREMENTS, LAND CARRYING CAPACITY, OR OTHER REQUIREMENTS OF THE BOARD OF COUNTY COMMISSIONERS.

PROJECT TRACKING

AT THE TIME OF SUBDIVISION FINAL PLAT, THE APPLICANT SHALL PROVIDE A SUMMARY OF THE DEVELOPMENT, TO DATE, ALONG WITH THE FINAL PLAT SUBMITTAL TO THE PLANNING SERVICES DIVISION, IN ORDER TO ASSURE MAXIMUM DEVELOPMENT LIMITS ARE NOT EXCEEDED.

STATEMENT OF COMMITMENTS

THE FOLLOWING SECTIONS DESCRIBE THE REQUIRED DEVELOPMENT COMMITMENTS FOR THE RAMBLEWOOD PLANNED DEVELOPMENT. THE REQUIRED DEVELOPMENT COMMITMENTS MUST BE COMPLETED BY THE OWNER OR ITS SUCCESSORS OR ASSIGNS, AND SHALL BE BINDING UPON ITS HEIRS, SUCCESSORS, AND ASSIGNS WITH RESPECT TO THE LAND WITHIN THE RAMBLEWOOD PLANNED DEVELOPMENT.

1. DEDICATIONS: ALL DEDICATIONS OF PUBLIC FACILITIES, INCLUDED BUT NOT LIMITED TO PARK AND OPEN SPACE LANDS, STREETS, DRAINAGE FACILITIES, AND EASEMENTS SHALL BE DEDICATED AT NO COST TO DOUGLAS COUNTY. TITLE INSURANCE SHALL BE PROVIDED FOR ALL COUNTY-DEDICATED LAND. ALL REQUIRED UTILITY EASEMENTS SHALL BE DEDICATED TO THE SERVICE PROVIDER(S). DEDICATIONS SHALL BE MADE AT THE TIME OF FINAL PLAT OR AS REQUIRED BY DOUGLAS COUNTY. IN ACCORDANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION, AS AMENDED, DEDICATED LAND SHALL BE CONVEYED TO DOUGLAS COUNTY AND THE COUNTY MAY FURTHER CONVEY THE LAND TO THE APPROPRIATE AGENCY.

2. SCHOOL LAND DEDICATION

   A. SCHOOL LAND DEDICATION SHALL BE IN COMPLIANCE WITH SECTION 1004 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. NO LAND SHALL BE DEDICATED FOR SCHOOL CONSTRUCTION ON THE PROPERTY.
   C. THE OWNERS AND THEIR ASSIGNS SHALL PAY CASH-IN-LIEU OF LAND DEDICATION FOR SCHOOLS PRIOR TO RECORDING THE FIRST FINAL PLAT.

3. PARK LAND DEDICATION

   A. LOCAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.1 AND 1003.11.3 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION, AS AMENDED.
   B. REGIONAL PARK AND TRAIL DEDICATION REQUIREMENTS SHALL MEET THE CRITERIA PROVIDED IN ARTICLE 10, SECTION 1003.11.2 AND 1003.11.4 OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION.

4. THE DEVELOPER INTENDS ON FORMING A NEW TITLE 32 SPECIAL DISTRICT TO BE CALLED THE RAMBLEWOOD METROPOLITAN DISTRICT. WHILE THE APPLICATION, SERVICE PLAN, AND ANY OTHER SUPPORTING DOCUMENTS FOR THE DISTRICT ARE NOT INCLUDED WITH THIS PD APPLICATION, THE DEVELOPER DOES INTEND ON PROCESSING THE REVIEW AND APPROVAL OF THE DISTRICT CONCURRENT WITH THE PD ZONING.

5. ROADWAY IMPROVEMENTS

   ROADWAY IMPROVEMENTS WILL BE MADE AS DETERMINED NECESSARY BY DOUGLAS COUNTY ENGINEERING PUBLIC WORKS.

6. ON AND OFF-SITE IMPROVEMENTS

   A. THE OWNERS AND THEIR ASSIGNS ARE RESPONSIBLE FOR THEIR FAIR SHARE CONTRIBUTION TOWARDS THE PAVING OF ALPINE DRIVE IN THE AMOUNT OF $27,554.32 (THE "ALPINE DRIVE CONTRIBUTION"). SAID PAYMENT SHALL BE MADE PRIOR TO THE RECORDATION OF THE FINAL PLAT FOR THE RAMBLEWOOD DEVELOPMENT. IN THE EVENT THAT THE COUNTY HAS NOT COMPLETED THE PAVING OF ALPINE DRIVE BY DECEMBER 31, 2027, THE OWNER AND/OR ASSIGNS MAY REQUEST A REFUND OF THE ALPINE DRIVE CONTRIBUTION AND THE COUNTY AGREES TO REIMBURSE OWNER AND/OR ASSIGNS WITHIN 30 DAYS AFTER SUCH A REQUEST IS MADE.
   B. THE OWNERS AND THEIR ASSIGNS SHALL BE RESPONSIBLE FOR THE CONSTRUCTION OF THE IMPROVEMENTS AT THE INTERSECTION OF HILLTOP ROAD AND THE ACCESS INTO THE RAMBLEWOOD DEVELOPMENT.
   C. THE OWNERS AND THEIR ASSIGNS SHALL DEDICATE PUBLIC RIGHT-OF-WAY FOR HILLTOP ROAD AS DETERMINED BY THE COUNTY.
   D. THE OWNERS AND THEIR ASSIGNS SHALL DEDICATE 80-FT. PUBLIC RIGHT-OF-WAY FOR ALPINE DRIVE.

7. STORMWATER MANAGEMENT, FLOODPLAIN, AND DRAINAGE IMPROVEMENTS

   STORMWATER MANAGEMENT SHALL ADHERE TO CURRENT STORMWATER MANAGEMENT PRACTICES AS REQUIRED IN THE DOUGLAS COUNTY STORM DRAINAGE AND TECHNICAL CRITERIA MANUAL. DEVELOPMENT WITHIN DESIGNATED FLOODPLAIN AREA IS EXPECTED TO BE AVOIDED.

8. UTILITY IMPROVEMENTS

   THE PROJECT WILL BE REQUIRED TO COMPLETE BOTH ON-SITE AND OFF-SITE WATER AND SANITARY SEWER IMPROVEMENTS, AS WELL AS ASSOCIATED STORMWATER IMPROVEMENTS ADJACENT TO HILLTOP ROAD IF REQUIRED AND AS NEEDED TO SERVE THE SITE.

9. WATER AND SEWER

   CENTRAL WATER AND SEWER WILL BE PROVIDED TO ALL FUTURE LOTS WITHIN PA-A BY PARKER WATER AND SANITATION DISTRICT OR OTHER CENTRAL SERVICES PROVIDER. WATER AND SEWER WILL BE PROVIDED TO PA-B THROUGH DOMESTIC WELL AND SEPTIC.

10. FIRE PROTECTION

    FIRE PROTECTION SHALL BE PROVIDED BY SOUTH METRO FIRE RESCUE.

11. WILDFIRE MITIGATION PLAN

    A WILDFIRE MITIGATION PLAN SHALL BE COMPLETED FOR COMPLIANCE WITH THE DOUGLAS COUNTY ZONING RESOLUTION SECTION 17 - WILDFIRE HAZARD OVERLAY DISTRICT, AS AMENDED. OWNER, ITS SUCCESSORS AND ASSIGNS SHALL PROVIDE A WILDFIRE MITIGATION PLAN(S) CONCURRENT WITH PRELIMINARY PLAN AND COMPLETED WITH THE FINAL PLAT. IN PREPARATION OF WILDFIRE MITIGATION PLAN(S) ROADS SHALL MEET DOUGLAS COUNTY ROADWAYS STANDARDS, CUL-DE-SACS SHALL BE PROVIDED ON ALL DEAD-END ROADS, AND SECONDARY ACCESS SHALL BE PROVIDED TO ALLOW FOR EMERGENCY ACCESS AND EVACUATION IF NECESSARY.

12. PROJECT PHASING

    THERE SHALL BE NO PHASING RESTRICTIONS.

13. FLOODPLAIN, RIPARIAN, AND WETLANDS PRESERVATION

    OWNER, ITS SUCCESSORS AND ASSIGNS SHALL COMPLY WITH REQUIREMENTS OF REGULATORY AGENCIES DURING THE PRELIMINARY PLAN, FINAL PLATTING AND SUBSEQUENT PROCESSES.

14. WILDLIFE PRESERVATION

    A. WILDLIFE FRIENDLY FENCING IS REQUIRED ADJACENT TO OPEN SPACES IN PLANNING AREA A. PLANNING AREAS B, C, D, AND E SHALL NOT REQUIRE WILDLIFE FRIENDLY FENCING, AS AGRICULTURAL AND OPEN SPACE USES ARE ALLOWED AND LIVESTOCK WILL NEED TO BE CONTAINED.
    B. AN ECOLOGICAL RESOURCES SURVEY WAS PREPARED BY WESTERN ENVIRONMENT AND ECOLOGY, INC. ON OCTOBER 17, 2024, TO ESTABLISH PRESENCE OR ABSENCE OF THREATENED AND/OR ENDANGERED SPECIES ON THE PROPERTY, AS WELL AS IDENTIFY ECOLOGICAL SENSITIVE AREAS, AND MAKE RECOMMENDATIONS BASED ON THIS STUDY. METRO DISTRICT OR OWNER SHALL IMPLEMENT AND ENFORCE RECOMMENDATIONS CONTAINED WITHIN THE PLAN AT TIME OF FINAL PLAT.

15. CULTURAL RESOURCES SURVEY

    A CULTURAL RESOURCES SURVEY SHALL BE PREPARED AT THE TIME OF PRELIMINARY PLAN. THE FINDINGS OF THE SURVEY WILL BE EVALUATED AND NECESSARY ACCOMMODATIONS WILL BE PROVIDED AT THE TIME OF PRELIMINARY PLAN.

16. NOISE STUDY

    A NOISE STUDY SHALL BE PREPARED AT THE TIME OF PRELIMINARY PLAN. THE FINDINGS OF THE STUDY WILL BE EVALUATED AND NECESSARY ACCOMMODATIONS WILL BE PROVIDED AT THE TIME OF PRELIMINARY PLAN.

17. OVERLOT GRADING

    LAYOUT OF PROPOSED DEVELOPMENT AND IMPROVEMENTS SHALL BE EVALUATED TO PRESERVE THE NATURAL SITE FEATURES AND TOPOGRAPHY. OVERLOT GRADING SHALL BE EVALUATED AT THE TIME OF SUBDIVISION.

PARKS / TRAILS / OPEN SPACE COMMITMENTS MATRIX

USE	AREA	PLAN PREPARATION AND APPROVAL	CONSTRUCTION TIMING	CONSTRUCTION RESPONSIBILITY	MAINTENANCE RESPONSIBILITY	OWNERSHIP
PUBLIC PARK	1.5 ACRES	WITH SUBDIVISION FINAL PLAT	WITH BUILDOUT OF PLANNING AREA A	OWNER / DEVELOPER	HOA OR METRO DISTRICT	HOA OR METRO DISTRICT
TRAILS	TBD	WITH SUBDIVISION FINAL PLAT	WITH BUILD OUT OF CORRESPONDING PLANNING AREA	OWNER / DEVELOPER	HOA OR METRO DISTRICT	HOA OR METRO DISTRICT

OWNERSHIP CERTIFICATION
PARCEL 1 (COUNTY PARCEL #2347-061-00-001)
HILLTOP JAM, LLC
JAMES HELFAND

_____

STATE OF UTAH)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY HILLTOP JAM, LLC AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

OWNERSHIP CERTIFICATION
PARCEL 2 (COUNTY PARCEL #2347-063-00-001)
BRADLEY A WHITTLESEY

_____

JOAN V WHITTLESEY

_____

STATE OF COLORADO)
)
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS __ DAY OF _____, 20__ BY _____.

MY COMMISSION EXPIRES _____.

WITNESS MY HAND AND OFFICIAL SEAL

_____
NOTARY PUBLIC

I/WE_____, (ONE OF THE FOLLOWING: QUALIFIED TITLE INSURANCE COMPANY, TITLE COMPANY, TITLE ATTORNEY, OR ATTORNEY AT LAW), DULY QUALIFIED, INSURED OR LICENSED BY THE STATE OF COLORADO, DO HEREBY CERTIFY THAT I/WE HAVE EXAMINED THE TITLE OF ALL LANDS DEPICTED AND DESCRIBED HEREON AND THAT TITLE TO SUCH LAND IS OWNED IN FEE SIMPLE BY BRADLEY A WHITTLESEY AND JOAN V WHITTLESEY AT THE TIME OF THIS APPLICATION.

_____ _____ _____
NAME OF AUTHORIZED OFFICIAL (DATE)

COUNTY CERTIFICATION
THIS REZONING REQUEST TO PLANNED DEVELOPMENT HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH THE _____APPROVING THE PLANNED DEVELOPMENT AND ALL APPLICABLE DOUGLAS COUNTY REGULATIONS.

_____ _____ _____
CHAIRMAN, BOARD OF COUNTY COMMISSIONERS (DATE)

_____ _____ _____
DIRECTOR, COMMUNITY DEVELOPMENT (DATE)

CLERK AND RECORDER CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS ____ OF _____, 20___, A.D. AT ____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

_____
DOUGLAS COUNTY CLERK AND RECORDER

DJ
ST

CHECKED BY:
DRAWN BY:

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

RAMBLEWOOD PD
HILLTOP ROAD
DOUGLAS COUNTY, COLORADO

OWNERS:
HILLTOP JAM, LLC
2554 ASPEN SPRINGS DRIVE
PARK CITY, UT 84060
435.649.6686

BRADLEY A WHITTLESEY &
JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113
720.205.6441

DEVELOPER:
MILLER UNITED REAL ESTATE, LLC
6900 E. BELLEVIEW AVE, STE 300
GREENWOOD VILLAGE, CO 80111
303.886.2838

NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL
07/02/2025 SUBMITTAL

SHEET TITLE:
COMMITMENTS & PROVISIONS

RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031

USES

PLANNING AREA A IS ALLOWED THE FOLLOWING USES [1]:

PRINCIPAL USES
- CONSTRUCTION OFFICE - TEMPORARY [2]
- OPEN SPACE / TRAILS
- PARK / PLAYGROUND
- RECREATION FACILITY - NEIGHBORHOOD [3]
- SALES OFFICE - TEMPORARY [2]
- SINGLE FAMILY DETACHED DWELLING [4]
- TEMPORARY RESIDENCE [2]
- UTILITY SERVICE FACILITY [3]

ACCESSORY USES
- ACCESSORY USES AND BUILDINGS
- ANIMALS [5]
- DAY-CARE HOME - SMALL [6]
- GARAGE - PRIVATE [7]
- HOME OCCUPATION - CLASS 1 [8]
- IN-HOME ELDER CARE
- SATELLITE RECEIVING DISH

PLANNING AREA B & C ARE ALLOWED ALL OF THE USES FROM THE A-1 (AGRICULTURAL ONE) ZONING DISTRICT, DEFINED IN SECTION 3 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.

PLANNING AREA D & E ARE ALLOWED THE FOLLOWING USES:

PRINCIPAL USES
- OPEN SPACE AND TRAILS

ALLOWED USE NOTES:
1. USES FOR **PLANNING AREA A** NOT SPECIFICALLY ADDRESSED IN THIS PLANNED DEVELOPMENT ZONING DOCUMENT SHALL CONFORM TO THE REGULATIONS OF THE ER (ESTATE RESIDENTIAL) ZONING DISTRICT OR OTHER SECTIONS OF THE DOUGLAS COUNTY ZONING RESOLUTION, AS APPLICABLE, AT THE TIME OF RECORDATION OF THIS PD.
2. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 22 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
3. DEVELOPMENT OF THIS LAND USE REQUIRES A SITE IMPROVEMENT PLAN IN ACCORDANCE WITH SECTION 27 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
4. EXCLUDING MOBILE HOME.
5. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 24 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
6. AS DEFINED BY THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.
7. FOR LOTS LESS THAN 1 ACRE IN SIZE - A MAXIMUM OF ONE (1) DETACHED GARAGE OF NO MORE THAN 1,000 SQUARE FEET IN AREA IS PERMITTED.
8. THIS USE IS SUBJECT TO THE REQUIREMENTS OF SECTION 23 OF THE DOUGLAS COUNTY ZONING RESOLUTION, AT THE TIME OF RECORDATION OF THIS PD.

LEGAL DESCRIPTION

PARCEL 1

A PARCEL OF LAND LOCATED IN THE EAST HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 6; THENCE N89°37'37"W ALONG THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 6, 1401.02 FEET TO THE POINT OF BEGINNING, SAID POINT BEING ON A LINE 63.72 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 6; THENCE S00°17'50"W ALONG SAID LINE, 10.98 FEET;
THENCE S89°37'54"W, 1148.45 FEET;
THENCE N00°01'01"W, 25.84 FEET TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 6, SAID POINT BEING S89°37'37"E, 123.96 FEET FROM THE SOUTHWEST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 6;
THENCE CONTINUING N00°01'01"W, 1175.26 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF HILLTOP ROAD; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE THE FOLLOW TWO (2) COURSES:
1. THENCE S36°30'00"E, 180.00 FEET;
2. THENCE S50°03'47"E, 1359.35 FEET TO A LINE 63.72 FEET WEST OF AND PARALLEL WITH THE EAST LINE OF THE WEST HALF OF THE NORTHEAST QUARTER OF SAID SECTION 6;
THENCE S00°17'50"W ALONG SAID LINE, 165.42 FEET TO THE POINT OF BEGINNING,

LESS AND EXCEPT THAT PORTION CONVEYED BY SPECIAL WARRANTY DEED RECORDED OCTOBER 3, 2023 UNDER RECEPTION NO. 2023042659,

COUNTY OF DOUGLAS, STATE OF COLORADO.

PARCEL 2

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER AND THE SOUTHEAST QUARTER OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

(THE BASIS OF BEARINGS FOR THIS DESCRIPTION IS SOUTH 00 DEGREES 00 MINUTES 27 SECONDS WEST ALONG THE WEST LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 6)

COMMENCING AT THE WEST QUARTER CORNER OF SAID SECTION 6; THENCE SOUTH 88 DEGREES 58 MINUTES 23 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 6 A DISTANCE OF 1426.97 FEET TO A POINT ON THE EAST BOUNDARY LINE OF HIDDEN VILLAGE FILING NUMBER ONE, A SUBDIVISION FILED WITH THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED APRIL 29, 1966 AT RECEPTION NO. 125234; THENCE SOUTH 01 DEGREES 03 MINUTES 11 SECONDS WEST ALONG THE EAST BOUNDARY LINE OF SAID HIDDEN VILLAGE FILING NUMBER ONE A DISTANCE OF 12.62 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED DECEMBER 26, 1995 AT RECEPTION NO. 9561360 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE, SAID POINT BEING THE POINT OF BEGINNING; THENCE SOUTH 88 DEGREES 26 MINUTES 07 SECONDS EAST ALONG THE SOUTH LINE OF THE PARCEL DESCRIBED AT SAID RECEPTION NO. 9561360 A DISTANCE OF 1408.26 FEET TO THE SOUTHEAST CORNER OF SAID PARCEL, SAID POINT ALSO BEING THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED DECEMBER 26, 1995 AT RECEPTION NO. 9561359 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE; THENCE SOUTH 89 DEGREES 42 MINUTES 56 SECONDS EAST ALONG THE SOUTH LINE OF THE PARCEL OF LAND DESCRIBED AT SAID RECEPTION NO. 9561359 AND THE SOUTH LINE OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED JUNE 8, 1995 AT RECEPTION NO. 9525595 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE A DISTANCE OF 1148.46 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF

LAND DESCRIBED BY DEED RECORDED MAY 5, 1995 AT RECEPTION NO. 9519762 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE; THENCE NORTH 00 DEGREES 57 MINUTES 00 SECONDS EAST ALONG THE WEST LINE OF THE PARCEL OF LAND DESCRIBED AT SAID RECEPTION NO. 9519762 AND THE WEST LINE OF A PARCEL OF LAND DESCRIBED BY DEED RECORDED MAY 5, 1995 AT RECEPTION NO. 9519760 FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE A DISTANCE OF 176.40 FEET, SAID POINT ALSO BEING ON THE SOUTHWESTERLY RIGHT OF WAY LINE OF HILLTOP ROAD; THENCE SOUTH 49 DEGREES 24 MINUTES 37 SECONDS EAST ALONG THE SOUTHWESTERLY RIGHT OF WAY LINE OF HILLTOP ROAD AS DESCRIBED AT SAID RECEPTION NO. 9519760 (AND ALONG SAID DESCRIBED COURSE EXTENDED SOUTHEASTERLY) A DISTANCE OF 272.68 FEET TO A POINT ON THE NORTH LINE OF LOT 98, HIDDEN VILLAGE FILING NO. 4, A SUBDIVISION FILED WITH THE DOUGLAS COUNTY CLERK AND RECORDER AND RECORDED NOVEMBER 12, 1968 AT RECEPTION NO. 131583; THENCE NORTH 89 DEGREES 42 MINUTES 56 SECONDS WEST ALONG THE NORTH LINE OF SAID LOT 98 A DISTANCE OF 118.17 FEET TO THE NORTHWEST CORNER OF SAID LOT 98; THENCE SOUTH 01 DEGREES 16 MINUTES 51 SECONDS WEST ALONG THE WEST LINE OF SAID HIDDEN VILLAGE FILING NO. 4 A DISTANCE OF 2633.91 FEET TO THE SOUTHWEST CORNER OF LOT 102 OF SAID HIDDEN VILLAGE FILING NO. 4, SAID POINT ALSO BEING ON THE NORTH LINE OF LOT 58-A, HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED APRIL 13, 2005 AT RECEPTION NO. 2005032337; THENCE NORTH 89 DEGREES 04 MINUTES 32 SECONDS WEST ALONG THE NORTH LINE OF SAID HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT A DISTANCE OF 950.95 FEET TO THE NORTHWEST CORNER OF LOT 59-A OF SAID HIDDEN VILLAGE FILING NO. 2, 2ND AMENDMENT; THENCE NORTH 89 DEGREES 01 MINUTES 58 SECONDS WEST ALONG THE NORTH LINE OF HIDDEN VILLAGE FILING NUMBER TWO, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED FEBRUARY 20, 1966 AT RECEPTION NO. 127014 A DISTANCE OF 1686.96 FEET TO THE SOUTHEAST CORNER OF TRACT B OF HIDDEN VILLAGE FILING NUMBER ONE AMENDED, A SUBDIVISION FILED IN THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AND RECORDED AUGUST 2, 1966 AT RECEPTION NO. 125878; THENCE NORTH 01 DEGREES 03 MINUTES 11 SECONDS EAST ALONG THE EAST BOUNDARY OF SAID HIDDEN VILLAGE FILING NUMBER ONE AMENDED AND THE EAST LINE OF SAID HIDDEN VILLAGE FILING NUMBER ONE A DISTANCE OF 2634.49 FEET TO THE POINT OF BEGINNING.

LOT STANDARDS

PLANNING AREA	MINIMUM LOT SIZE	MINIMUM SETBACKS FROM [1, 2, 3]:			MAXIMUM BUILDING HEIGHT [4]
		STREET	SIDE LOT LINE	REAR LOT LINE	
A	10,000 SF	REGIONAL OR MAJOR ARTERIAL: 100' OTHER: 20'	5'	15'	PRINCIPAL: 35' ACCESSORY: 20'
B	20 ACRES	50'	50' FROM PLANNING AREA-A; 100' FROM EXTERNAL PROPERTY LINES TO THE WEST, SOUTH, AND EAST	50' FROM PLANNING AREA-A; 100' FROM EXTERNAL PROPERTY LINES TO THE WEST, SOUTH, AND EAST	35'
C	1.5 ACRES	25'	15'	15'	35'

NOTES:
1. THE SETBACK IS MEASURED FROM THE LOT LINE TO THE WALL OF THE STRUCTURE HORIZONTALLY AND PERPENDICULAR TO THE LOT LINE.
2. ALL PLANNING AREAS ARE ALLOWED THE FOLLOWING ENCROACHMENTS:
   a. A CORNICE, CANOPY, EAVE, FIREPLACE, WING WALL OR SIMILAR ARCHITECTURAL FEATURE MAY EXTEND 3 FEET INTO A REQUIRED SETBACK.
   b. A COVERED OR UNCOVERED DECK OR PORCH MAY EXTEND 6 FEET INTO A REQUIRED SETBACK, EXCEPT FOR A SIDE SETBACK.
   c. FOUNDATION ANCHORING AND FOUNDATION REPAIR SYSTEMS MAY BE LOCATED WITHIN A REQUIRED SETBACK.
   d. A BUILDING PERMIT SHALL NOT BE ISSUED FOR ANY STRUCTURE WHICH IS TO BE LOCATED WITHIN AN EASEMENT UNLESS WRITTEN APPROVAL BY THE EASEMENT HOLDER(S) IS PROVIDED.
   e. UTILITY DISTRIBUTION LINES AND RELATED EQUIPMENT COMMONLY LOCATED ALONG PROPERTY LINES MAY BE LOCATED WITHIN A REQUIRED SETBACK. A NEIGHBORHOOD SUBSTATION OR GAS REGULATOR/METER STATION SHALL MEET THE REQUIRED SETBACKS.
3. IN **PLANNING AREA A**, STRUCTURES THAT DO NOT REQUIRE BUILDING PERMITS MAY ENCROACH INTO A REAR SETBACK. ANY ENCROACHMENT INTO AN EASEMENT REQUIRES PERMISSION FROM THE EASEMENT HOLDER.
4. THE MAXIMUM BUILDING HEIGHT SHALL NOT APPLY TO BELFRIES, CUPOLAS, PENTHOUSES OR DOMES NOT USED FOR HUMAN OCCUPANCY, ROOF-MOUNTED CHURCH SPIRES, CHIMNEYS, SKYLIGHTS, VENTILATORS, WATER TANKS, SILOS, PARAPET WALLS, CORNICES, ANTENNAS, UTILITY POLES, AND NECESSARY MECHANICAL APPURTENANCES USUALLY CARRIED ABOVE THE ROOF LEVEL.

CHECKED BY: DJ
DRAWN BY: ST

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 BANNOCK STREET
DENVER, CO 80204
P 303.892.1166
NORRIS-DESIGN.COM

RAMBLEWOOD PD
HILLTOP ROAD
DOUGLAS COUNTY, COLORADO

OWNERS:
HILLTOP JAM, LLC
2554 ASPEN SPRINGS DRIVE
PARK CITY, UT 84060
435.649.6686

BRADLEY A WHITTLESEY &
JOAN V WHITTLESEY
4700 E PRINCETON AVE
ENGLEWOOD, CO 80113
720.205.6441

DEVELOPER:
MILLER UNITED REAL ESTATE, LLC
6900 E. BELLEVIEW AVE, STE 300
GREENWOOD VILLAGE, CO 80111
303.886.2838

NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
02/03/2025 SUBMITTAL
03/12/2025 SUBMITTAL
07/02/2025 SUBMITTAL

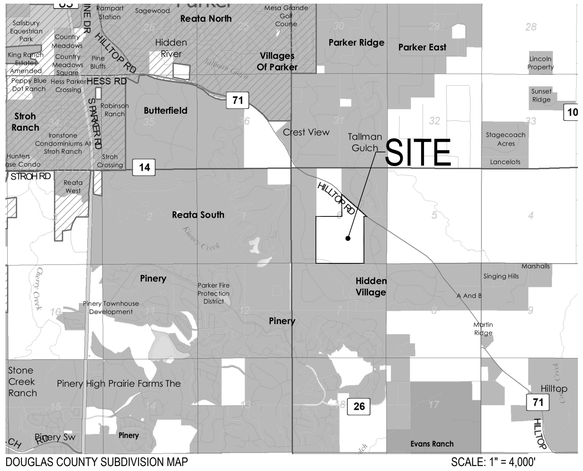
SHEET TITLE:
DEVELOPMENT STANDARDS

2 OF 3

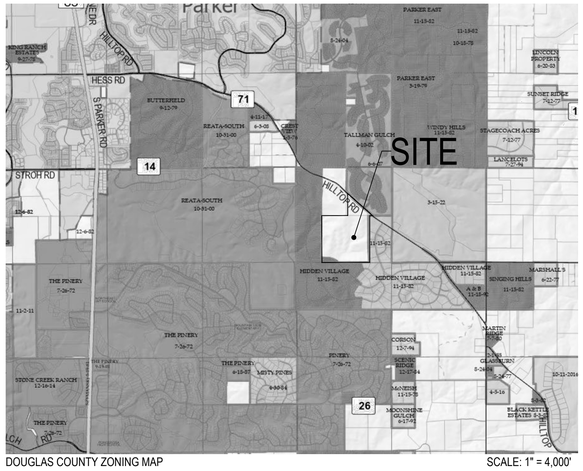
RAMBLEWOOD PLANNED DEVELOPMENT

A PART OF THE NORTHEAST 1/4 AND THE SOUTH HALF OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH P.M., DOUGLAS COUNTY, CO

176.79 +/- ACRES - 70 DWELLINGS - ZR2024-031



DOUGLAS COUNTY SUBDIVISION MAP SCALE: 1" = 4,000'



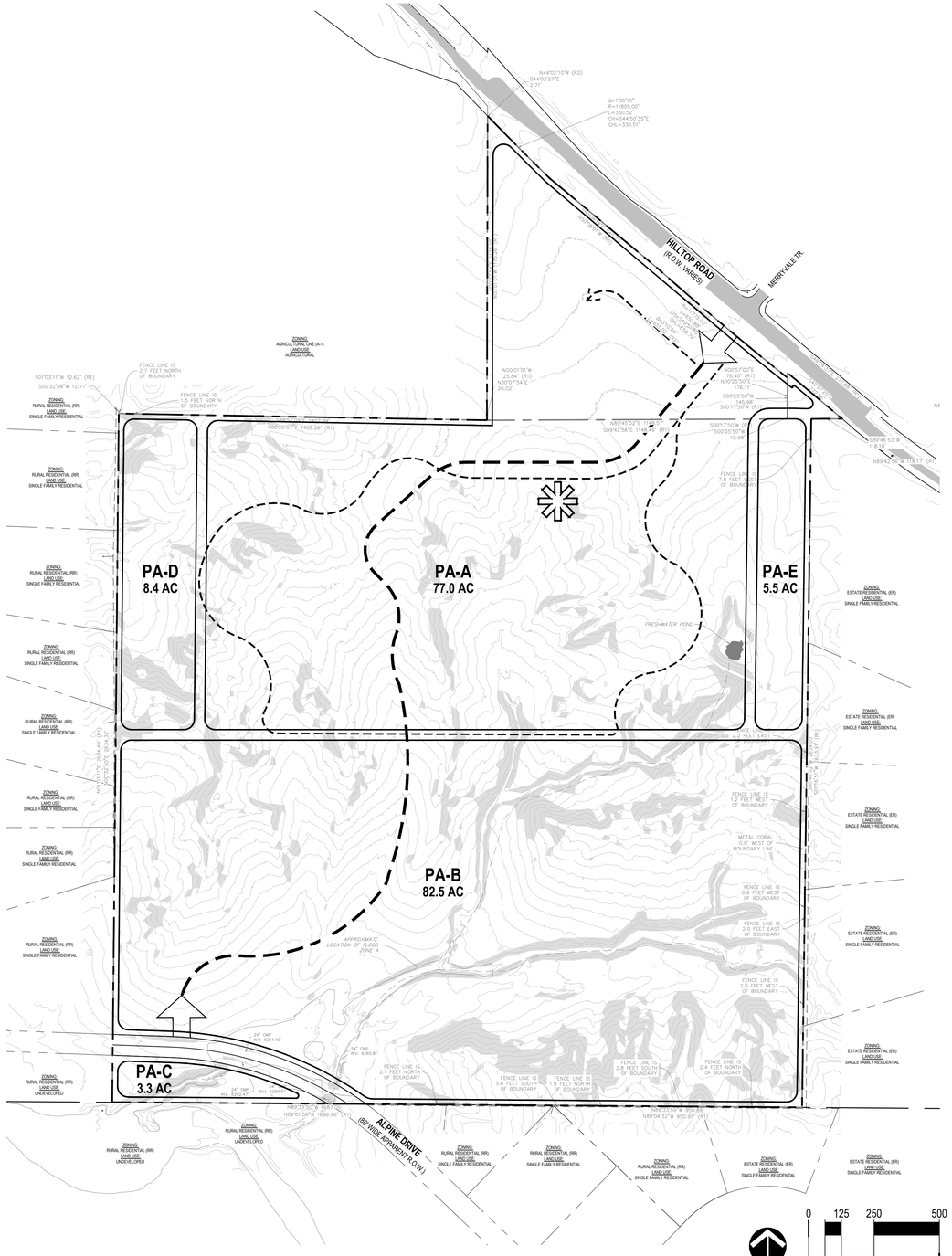
DOUGLAS COUNTY ZONING MAP SCALE: 1" = 4,000'

LAND USE TABLE					
PLANNING AREA	**LAND USE**	**ACRES**	**% OF SITE**	**GROSS DENSITY**	**DWELLING UNITS**
A	SINGLE FAMILY RESIDENTIAL	77.0	43.5%	0.88 DU / AC	68
B	AGRICULTURAL	82.5	46.7%	0.02 DU / AC	2
C	AGRICULTURAL	3.3	1.9%	0 DU / AC	0
D	OPEN SPACE / TRAILS	8.4	4.8%	0 DU / AC	0
E	OPEN SPACE / TRAILS	5.5	3.1%	0 DU / AC	0
	TOTAL	**176.7**	**100%**	**0.39 DU / AC**	**70**

NOTES:
1. ACCESS POINTS SHOWN ARE CONCEPTUAL. FINAL ALIGNMENTS AND CIRCULATION WILL BE DETERMINED THROUGH THE SUBDIVISION FINAL PLAT PROCESS.
2. THIS PLAN DEPICTS THE GENERAL LOCATION AND SIZE OF PARKS, TRAILS, AND OPEN SPACE AREAS. FINAL SIZE, LOCATION, ALIGNMENT, AND DESIGN WILL BE DETERMINED THROUGH THE SUBDIVISION FINAL PLAT PROCESS.

LEGEND

- SITE BOUNDARY
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- PROPOSED PLANNING AREA BOUNDARY
- CONCEPTUAL ROADWAYS
- CONCEPTUAL TRAILS
- TOPOGRAPHY
- FLOODPLAIN
- RIVERINE
- 20% OR GREATER SLOPE
- OPEN SPACE / TRAILS BUFFER
- PROPOSED ACCESS
- CONCEPTUAL PARK



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NOT FOR CONSTRUCTION

DATE:
11/15/2024 SUBMITTAL
~~02/03/2025 SUBMITTAL~~
~~03/12/2025 SUBMITTAL~~
07/02/2025 SUBMITTAL

SHEET TITLE:
DEVELOPMENT PLAN

3 OF 3

MEETING DATE: August 4, 2025

STAFF PERSON RESPONSIBLE: Matt Jakubowski, AICP, Chief Planner

DESCRIPTION: Keene Ranch Planned Development, 3rd Amendment - Major Amendment - Project File: ZR2023-007.

SUMMARY: The request is for a Major Planned Development Amendment to the Planning Area-1 and Planning Area-2 Development Standards to remove a restriction prohibiting fencing within 50 feet of right-of-way.

STAFF ASSESSMENT: Staff has evaluated the Major PD Amendment request in accordance with Section 15 of the Douglas County Zoning Resolution. Should the Planning Commission find that the approval standards for the Major Planned Development Amendment are met; the following proposed condition should be considered for inclusion in the motion:

1. Prior to recordation, all technical corrections to the Keene Ranch Planned Development, 3rd Amendment document shall be made to the satisfaction of Douglas County.

REVIEW:

Steven E Koster	Approve	7/9/2025
Samantha Hutchison - FYI	Notified - FYI	7/9/2025

ATTACHMENTS:

Staff Report - ZR2023-007

DOUGLAS COUNTY
COLORADO

Planned Development Major Amendment Staff Report

Date:	July 9, 2025
To:	Douglas County Planning Commission
From:	Matt Jakubowski, AICP, Chief Planner MAJ Curt Weitkunat, AICP, Long Range Planning Manager CW Steven E. Koster, AICP, Assistant Director of Planning Services SK
Subject:	**Keene Ranch Planned Development, 3rd Amendment**
Project File:	**ZR2023-007**

Planning Commission Hearing:	**July 21, 2025 @ 6:00 p.m.**
Board of County Commissioners Hearing:	**August 12, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The Keene Ranch Homeowners Association (HOA) requests a Major Amendment to the Keene Ranch Planned Development (PD) to amend the Planning Area-1 (PA-1) and Planning Area-2 (PA-2) Development Standards to remove text that prohibits the installation of fencing within 50 feet of any right-of-way (ROW). Removal of the text will allow for installation of fencing along a property's boundary with a road ROW in Keene Ranch. Technical cleanup to formatting, clarification of map boundaries, and correction of typographical errors is also proposed. The PD is located approximately 1.5 miles west of the Interstate 25 (I-25) and Tomah Road interchange at Tomah Road and Castle Butte Drive.

II. APPLICATION INFORMATION

A. Applicant

Keene Ranch Homeowners Association
C/O LCM Property Management, Inc.
1776 S. Jackson Street, Suite 300
Denver, Colorado 80210

B. Applicant's Representative

David Hicks
Keene Ranch Homeowners Association Board
1364 Colt Circle
Castle Rock, Colorado 80109

C. Request

The HOA requests a Major PD Amendment to the PA-1 and PA-2 Development Standards to remove a restriction prohibiting fencing within 50 feet of right-of-way.

The proposed amendment includes technical cleanup to formatting, clarification of map boundaries, and correction of typographical errors in the PD. The proposed text change regarding fencing is as follows:

- Single Family Residential – All Districts; PA-1 Development Standards

    f. Fencing Standards:
    Permitted fencing shall be constructed in accordance with the A-1 Section of the Douglas County Zoning Resolution as Amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un-restricted pedestrian, equestrian and wildlife movement. ~~**Fencing shall be prohibited within 50 feet of any Road Right of Way.**~~

- Single Family Residential – All Districts; PA-2 Development Standards

    f. Fencing Standards:
    Permitted fencing shall be constructed in accordance with the R.R. Section of the Douglas County Zoning Resolution as Amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un-restricted pedestrian, equestrian and wildlife movement. ~~**Fencing shall be prohibited within 50 feet of any Road Right of Way.**~~

D. Process

A Major PD Amendment application is processed pursuant to Douglas County Zoning Resolution (DCZR) Sections 1519 through 1523 because the proposed text change represents a substantial change to the PD development standards.

Per Section 1522.06 of the DCZR, "The Planning Commission shall evaluate the application, referral comments, staff report, and public testimony, and make a recommendation to the Board to approve, approve with conditions, table for further study, or deny the amendment request. The Planning Commission's comments shall be based on the evidence presented, compliance with the adopted County standards, regulations, policies, and other guidelines."

E. Location

Keene Ranch is located approximately 1.5 miles west of the I-25 and Tomah Road interchange.

III. CONTEXT

A. Background

The original Keene Ranch PD was approved by the Douglas County Board of County Commissioners in 1989 for 730 units, public open space, and an elementary school site. A major PD amendment (Keene Ranch PD, 1st Amendment) was approved by the Board in 1994 that simplified and downzoned the PD into its current form of 247 units and open space. The Keene Ranch PD, 2nd Amendment, which proposed amendment to allow fencing within a natural drainage easement, was submitted to Douglas County, but was withdrawn.

The purpose of the HOA's 3rd PD Amendment request is to allow flexibility for property owners to install fencing along the property line.

B. Adjacent Land Uses and Zoning

The PD is generally surrounded by agricultural and ranching land, conserved land, and single-family residential development (ranging from unsubdivided large lots to subdivided 5 to 10-acre lots). The undeveloped Dawson Trails development in the Town of Castle Rock shares much of the eastern border with the PD.

Zoning and Land Use

Direction	Zoning	Land Use
North	Rural Residential (RR), Estate Residential (ER), and Agricultural One (A-1)	Single-family residential and grazing land
South	Open Space Conservation and A-1	Conserved land, single-family residential, and grazing land
East	Town of Castle Rock and A-1	Undeveloped Dawson Trails subdivision and grazing land
West	RR, Large Rural Residential (LRR), and A-1	Single-family residential, grazing land, and undeveloped land

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

Douglas County Engineering Services commented that 20-foot roadway and utility easements are platted adjacent to roads within Keene Ranch and potential conflicts with installed fencing are possible if work is required within the easements. The applicant acknowledges work within easements could require temporary removal or modification of fencing. The HOA will educate residents on having fences within easements. The HOA also indicated that installation of fencing does not alter or eliminate easements, or the right to access easements. Per the PD, fencing will continue to be prohibited within natural drainage easements and pedestrian and equestrian easements to allow for pedestrian, equestrian, and wildlife movement.

B. Access

The main point of entry to Keene Ranch is from Tomah Road and Castle Butte Drive. The proposed PD amendment provides no impact to site access.

C. Drainage and Erosion

Douglas County Engineering provided no comment regarding drainage or erosion. The PD currently restricts fencing within any natural drainage easement. Natural drainage easements are delineated on the plat.

D. Floodplain

100-year floodplain is present within the PD and is identified within plat documents as within natural drainage easements. Plat notes prohibit fencing in natural drainage easements, and thereby within the floodplain area.

V. PROVISION OF SERVICES

A. Schools

The proposed PD amendment does not increase the number of dwelling units within the PD and does not impact on the Douglas County School District.

B. Fire Protection

Fire protection is provided by the Castle Rock Fire and Rescue Department, the Larkspur Fire Protection District, and the Jackson 105 Fire Protection District. Castle Rock and Larkspur Fire provided no response to the referral. Jackson 105 provided a no comment response.

C. Sheriff Services

The Douglas County Sheriff's Office (DCSO) provides police protection services to the PD. A no comment response was received from DCSO. No response was received from DCSO E911 and the DCSO Office of Emergency Management.

D. Water

Water service is provided by individual wells not impacted by the amendment.

E. Sanitation

Sanitation is provided by an Onsite Wastewater Treatment System (OWTS). The proposal does not impact OWTS.

F. Utilities

Utility service providers are AT&T (long distance ROW), Black Hills Energy (gas), CenturyLink (telephone), Comcast (cable), CORE Electric Cooperative (electric) and Xcel Energy. AT&T and Xcel responded that no conflicts exist with their facilities. CORE provided a no comment response. No response was received from Black Hills, Comcast, and CenturyLink.

G. Parks and Trails

Douglas County Parks, Trails, and Building Grounds provided no comment response to the proposal.

VI. PUBLIC NOTICE AND INPUT

Notifications of an application in process were mailed to all landowners abutting the boundaries of the PD, as well as all property owners within the PD itself. DCZR Section 1523 requires mailed, published, and posted notice of the public hearing. Mailed notices were sent to all property owners within the PD, as well as those abutting the PD.

During the planning process, several comments were received from property owners within the PD. Two residents expressed support for the proposed PD amendment. One resident called to inquire about the project and requested confirmation that fencing would not be allowed to restrict existing equestrian and pedestrian easements in the PD. As indicated above, fencing is prohibited within pedestrian and equestrian easements.

All referral agency comments are outlined in the Referral Response Report attached to this staff report. No HOAs responded to the referral request.

VII. STAFF ANALYSIS

Section 1520 of the DCZR establishes criteria to be considered in the review of a Major PD Amendment application. Following is an analysis of the application in light of these criteria:

1520.01: Whether the amendment is consistent with the development standards, commitments, and overall intent of the planned development.
Staff Comment: The proposed PD amendment provides flexibility in the placement of fencing within residential lots typical to residential communities throughout Douglas County. The PD is composed of residential properties, except for open space acreage in the southwest corner of the PD. The proposed amendment benefits residential property owners, and enhances the use of residential property in the PD, thus supporting the residential intent of the PD. The proposed amendment does not contradict with existing development standards.

1520.02: Whether the amendment is consistent with the intent, efficient development and preservation of the entire planned development.
Staff Comment: The application is consistent with the intent, efficient development, and preservation of the entire planned development. The allowance of fencing along property lines maintains the beneficial use of the properties within the PD. The amendment will not provide detrimental impacts on property within the PD, and does not injure the intent of the overall Keene Ranch PD.

1520.03: Whether the amendment will adversely affect the public interest or enjoyment of the adjacent land.
Staff Comment: The amendment will not adversely affect the public interest or enjoyment of the adjacent land. The amendment benefits all residential property owners within the PD. Existing pedestrian and equestrian easements remain in place and will not be fenced.

1520.04: Whether the sole purpose of the amendment is to confer a special benefit upon an individual.
Staff Comment: The application does not as its sole purpose confer a benefit upon an individual. The proposal benefits all residential property owners within the PD.

1520.05: For applications proposing an increase in the intensity of allowed land-uses, including changes in densities, whether the amendment is consistent with the water supply standards in Section 18A, Water Supply Overlay District, of this Resolution.
Staff Comment: The proposed amendment does not impact water supply standards.

1520.06: Whether the public facilities and services necessary to accommodate the proposed development will be available concurrently with the impacts of such development.
Staff Comment: The proposed amendment does not impact public facilities and services.

1520.07: Whether the roadway capacity necessary to maintain the adopted roadway level of service for the proposed development will be available concurrently with the impacts of such development.
Staff Comment: The proposed amendment does not impact roadway capacity or the current level of service.

VIII. STAFF ASSESSMENT

Staff has evaluated the Major PD Amendment request in accordance with Section 15 of the DCZR. The PD Amendment request provides Keene Ranch residents more flexibility in the placement of fencing adjacent to the right-of-way. Should the Planning Commission find that the approval standards for the Major PD Amendment are met; the following proposed condition should be considered for inclusion in the motion:

1. Prior to recordation, all technical corrections to the Keene Ranch Planned Development, 3rd Amendment document shall be made to the satisfaction of Douglas County.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 8
Applicant's Narrative 9
Vicinity Map 10
Zoning Map 11
Aerial Map 12
Referral Agency Response Report 13
Referral Response Letters 15
Public Correspondence 22
Applicant Response to Referral Comments 31
Planned Development Redlined Exhibit 33
Planned Development Clean Exhibit 36

DOUGLAS COUNTY
COLORADO

Department of Community Development

www.douglas.co.us

Planning Services

LAND USE APPLICATION

Please fill in this application form completely. An incomplete application will not be processed.

Note: Neither the Planning Commission nor the Board of County Commissioners should be contacted regarding an open application.

OFFICE USE ONLY

PROJECT NAME:

PROJECT FILE #:

PROJECT TYPE: Planned Development Community

MARKETING NAME: Keene Ranch

SITE ADDRESS: Multiple

OWNER(S):

Name(s): Multiple

Address:

Phone:

Email:

AUTHORIZED REPRESENTATIVE *(requires notarized letter of authorization if other than owner)*

Name: David Hicks

Address: 1364 Colt Circle, Castle Rock, CO 80109

Phone: 281-702-3337

Email: dhickskrhoa@gmail.com

PLANNING FEES:

ENGINEERING FEES:

TOTAL FEES:

RELATED PROJECTS:

LEGAL DESCRIPTION:

Subdivision Name: Keene Ranch

Filing #: 1-4 Lot #: lot 1-232; Parcel 1-15 Block #: n/a Section #: 5, 29-32 Township: 8 south and 9 south Range: 67 West

STATE PARCEL NUMBER(S): Multiple

ZONING:

Present Zoning: PD Proposed Zoning: PD Gross Acreage: 2057.87

Gross Site Density (DU per AC): 247 # of Lots or Units Proposed: 247

SERVICE PROVIDERS:

Fire District: Castle Rock, Jackson 105 and Larkspur Metro District: n/a Gas: Black Hills Energy

Water: Private wells Sewer: Septic Electric: CORE

Roads: ☑ Public ☐ Private (please explain):

To the best of my knowledge, the information contained on this application is true and correct. ***I have received the County's information sheet regarding the Preble's Meadow Jumping Mouse.***

Applicant Signature

4/7/23
Date

Request to Amend Narrative for the Keene Ranch Planned Development First Amendment

The Keene Ranch HOA is proposing an Amendment to the Keene Ranch Planned Development First Amendment document to change the fence regulations relating to "*allowed distance within 50 feet of any Road Right of Way"*. This change would apply to all properties within the Keene Ranch Planned Development.

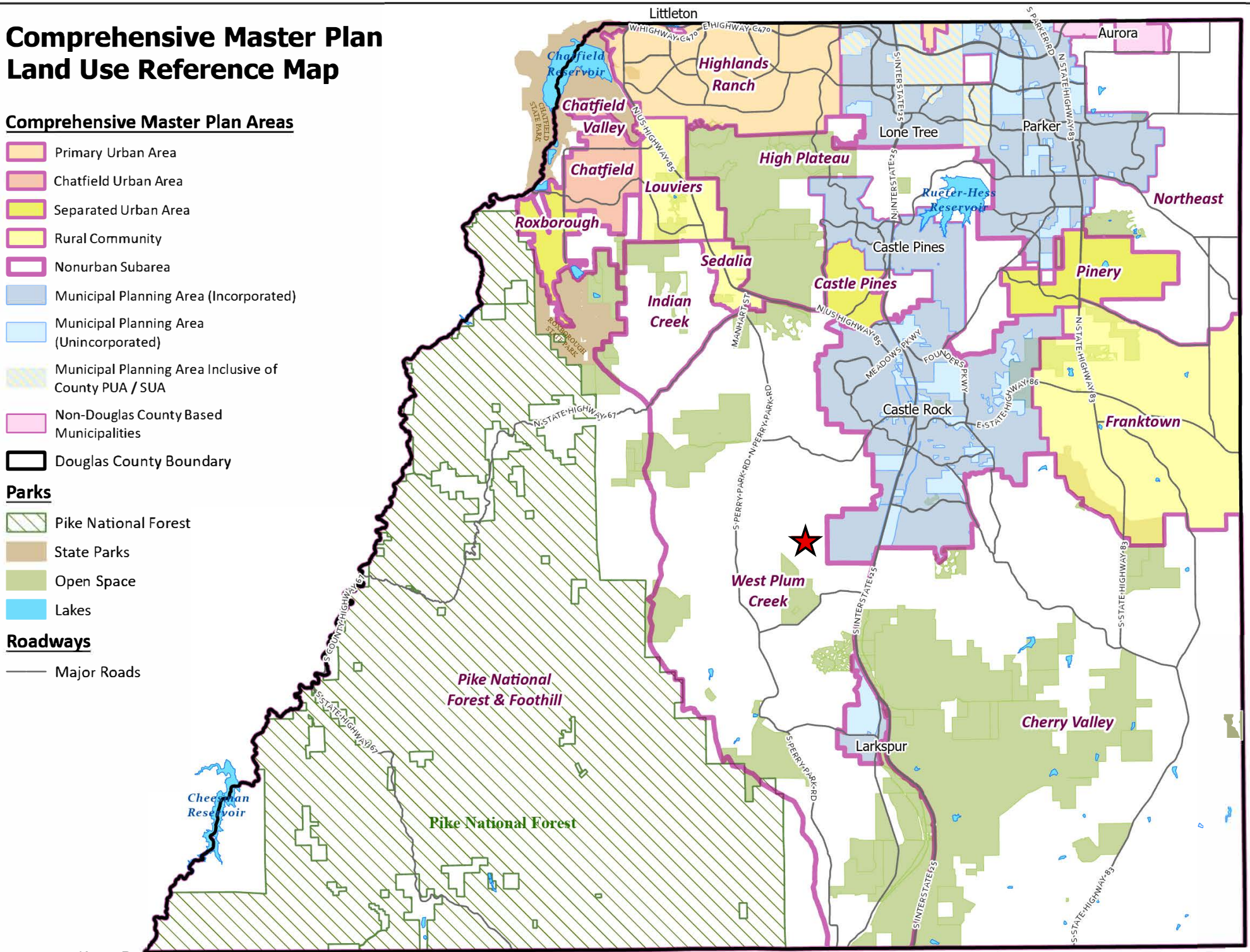
Current language in both, PA-1 Development Standards f) Fencing Standards and PA-2 Development Standards f) Fencing Standards, is "Fencing shall be prohibited within 50 feet of any Road Right of Way". We ask that this restriction be removed in this amendment to PA-1 and PA-2 Sections of the Keene Ranch Planned Development First Amendment document.

At the time that the Planned Development document was approved the community fencing had not been defined in the Declaration. The Declaration limits the fences to "painted pipe corral fencing and approved wooden fences". Fences are also not allowed to exceed 48 inches in height.

The Declarant chose a 48-inch tall 3-rail wooden post and dowel fence as the "approved wooden fence", and the Community has only approved this wooden fence for perimeter fencing on the Keene Ranch properties, since 1995.

Based on the Community approvable fencing, the sentences restricting the distance from any Road Right of Way should be removed from the PD. The allowed fencing, per the Declaration and the Keene Ranch Rules, Regulations and Policies, was defined to limit the visual impact within the community. This type of fence also does not impact the line of sight, so the fencing prohibition within 50 feet of any Road Right of Way is not a safety issue, and should be removed from the PD.

Comprehensive Master Plan Land Use Reference Map



Comprehensive Master Plan Areas

- Primary Urban Area
- Chatfield Urban Area
- Separated Urban Area
- Rural Community
- Nonurban Subarea
- Municipal Planning Area (Incorporated)
- Municipal Planning Area (Unincorporated)
- Municipal Planning Area Inclusive of County PUA / SUA
- Non-Douglas County Based Municipalities
- Douglas County Boundary

Parks

- Pike National Forest
- State Parks
- Open Space
- Lakes

Roadways

- Major Roads

Keene Ranch Planned Development, 3rd Amendment

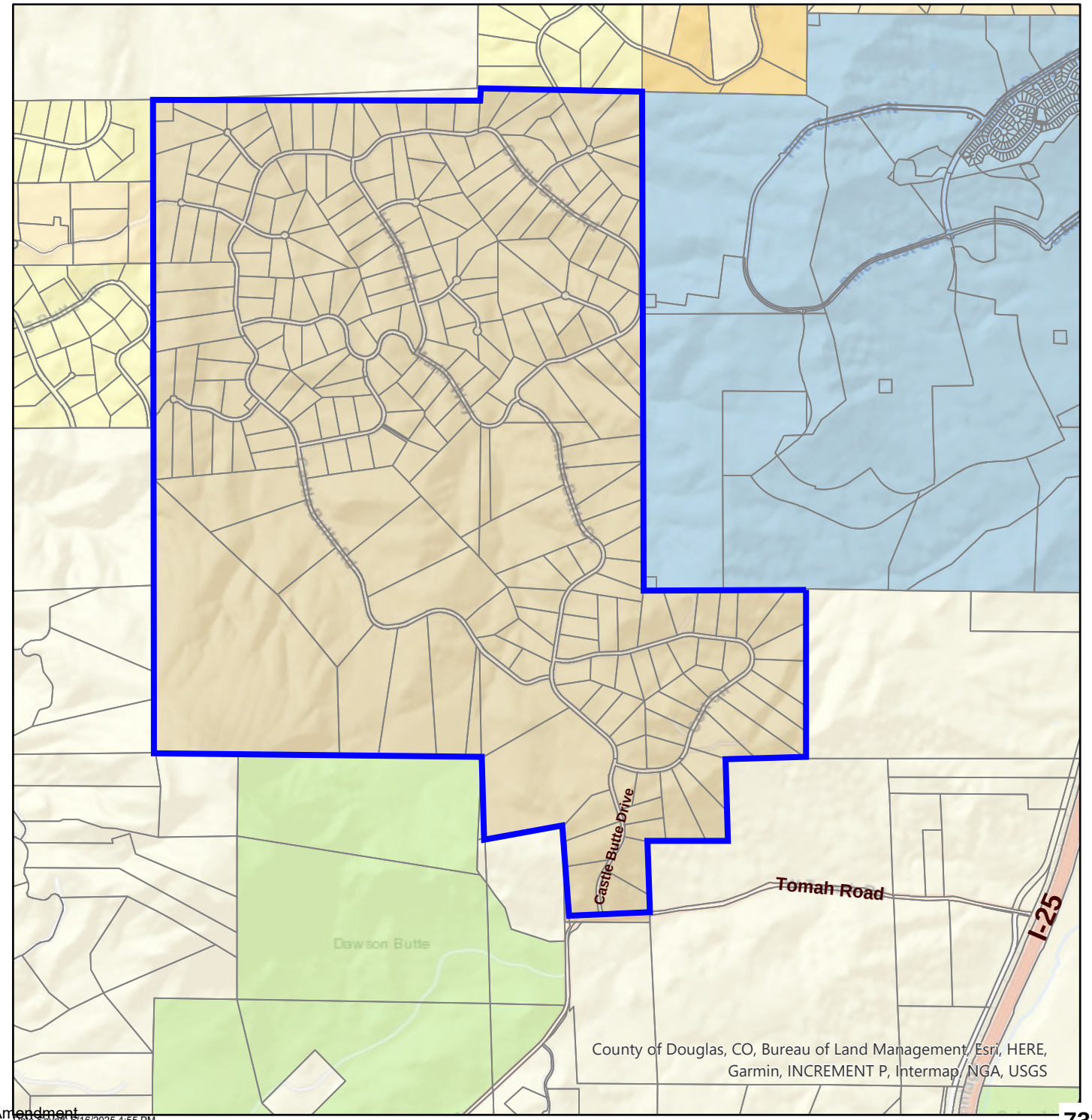
ZR2023-007

Zoning Map

N

LEGEND

- KEENE RANCH PD
- A1 - AGRICULTURAL ONE
- LRR - LARGE RURAL RESIDENTIAL
- RR - RURAL RESIDENTIAL
- ER - ESTATE RESIDENTIAL
- CTY
- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION



Date Saved: 6/16/2025 4:55 PM

Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0

Keene Ranch Planned Development, 3rd Amendment

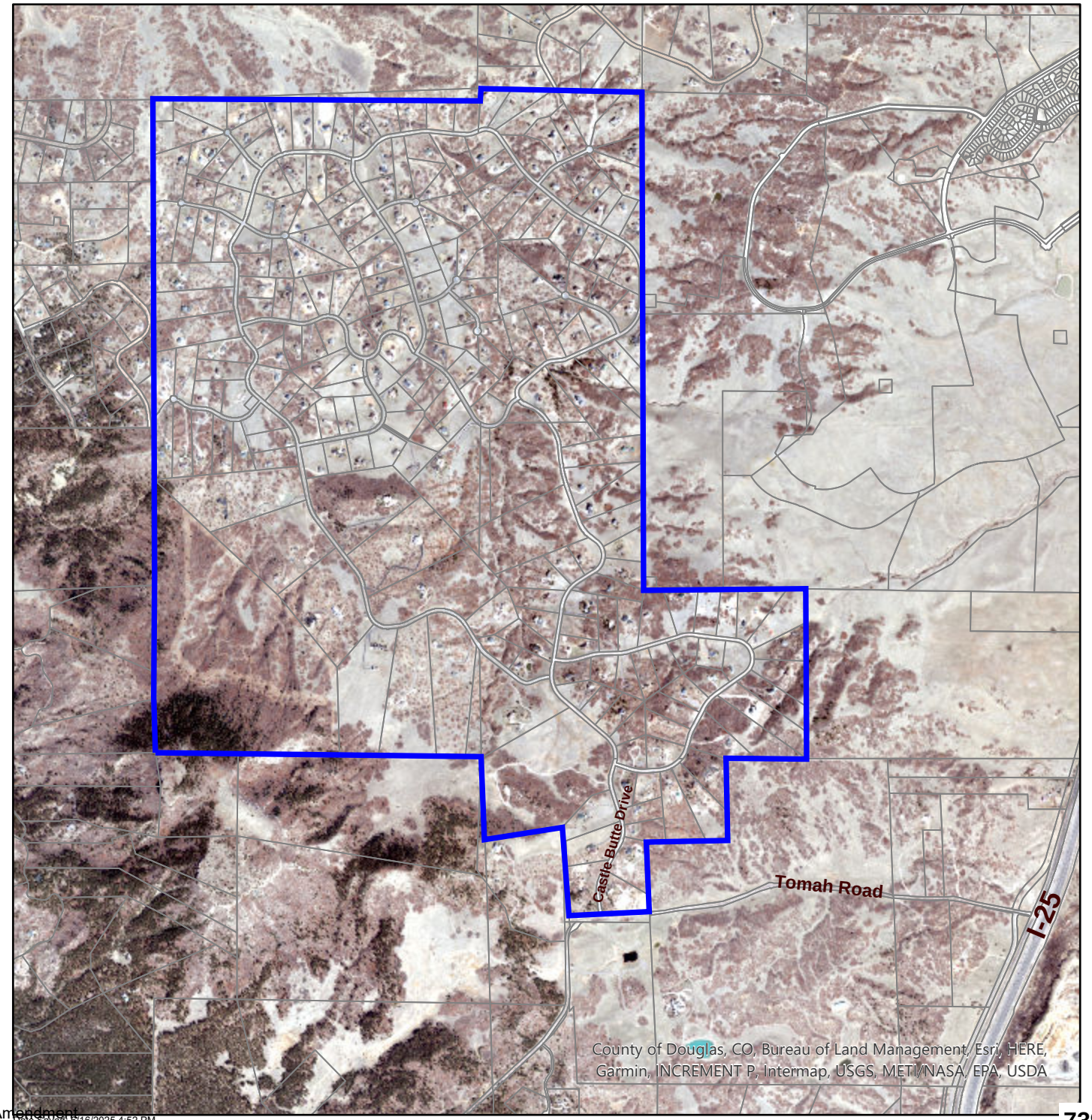
ZR2023-007

Aerial Map

N

LEGEND

KEENE RANCH PD



Date Saved: 6/16/2025 4:52 PM

Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0

Project Name: Keene Ranch Planned Development, 3rd Amendment
Project File #: ZR2023-007
Date Sent: 05/15/2023 **Date Due:** 06/05/2023

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	06/02/2023	No Comment.	No action necessary.
Allis Ranch HOA		No Response Received.	No action necessary.
AT&T Long Distance - ROW	05/17/2023	Received: Following is a summary of comments received from AT&T. See full letter for detail. Long line fiber optics are located on S. Perry Park Rd. No conflicts.	No action necessary.
Bear Canyon Ranch HOA		No Response Received.	No action necessary.
Bell Mountain Ranch HOA		No Response Received.	No action necessary.
Black Hills Energy		No Response Received.	No action necessary.
Building Services	05/16/2023	No Comment.	No action necessary.
Castle Rock Fire and Rescue Department		No Response Received.	No action necessary.
CenturyLink		No Response Received.	No action necessary.
Chatfield Watershed Authority		No Response Received.	No action necessary.
Christy Ridge HOA		No Response Received.	No action necessary.
Comcast		No Response Received.	No action necessary.
CORE Electric Cooperative	06/05/2023	No Comment.	No action necessary.
Douglas County Health Department	06/05/2023	Received: DCHD has no comments.	No action necessary.
Douglas County Parks and Trails	05/31/2023	No Comment.	No action necessary.
Engineering Services	05/17/2023	Received: Following is a summary of the referral response received from Douglas County Engineering. See full letter for detail. <u>PD Amendment Comment</u> Comment # 1 - Final Plat, Filing #1 and #2 dedicated 20-foot utility and roadway easements adjacent to platted roadways. Roadway easements were only dedicated on Filing #1. Engineering recommends that fencing stay out of these easements. Comment #2 - $500 engineering review fee required.	Applicant acknowledges the comment from County Engineering that 20-foot utility and roadway easements are platted adjacent to ROWs within Keene Ranch. The plat and plat notes within Keene Ranch Filings 1 through 4 have no restriction on the erection of fencing within these easements. The HOA acknowledges that if fencing is installed within easements, conflicts are possible if work, repairs, or other required improvements occur. Fencing may require temporary removal or replacement as necessary. The HOA will educate residents on having fencing in easements. Engineering fees are paid.
Jackson 105 FD	05/23/2023	No Comment.	No action necessary.
Larkspur FD		No Response Received.	No action necessary.
Office of Emergency Management		No Response Received.	No action necessary.

Project Name: Keene Ranch Planned Development, 3rd Amendment
Project File #: ZR2023-007
Date Sent: 05/15/2023 **Date Due:** 06/05/2023

Agency	Date Received	Agency Response	Response Resolution
Sheriff's Office	05/22/2023	No Comment.	No action necessary.
Sheriff's Office E911		No Response Received.	No action necessary.
The Plum Creek/View Ridge Voice		No Response Received.	No action necessary.
Town of Castle Rock	05/16/2023	Received: Following is an excerpt from Town of Castle Rock comments: No concerns from the Town reviewers.	No action necessary.
Twin Oaks HOA		No Response Received.	No action necessary.
Xcel Energy-Right of Way & Permits	05/23/2023	Received: Following is an excerpt of comments received from Xcel Energy. No apparent conflict.	No action necessary.

From: annb cwc64.com
Sent: Thursday, May 18, 2023 2:16 PM
To: Matt Jakubowski
CC: Pam Choy (pc2914@att.com); duanew cwc64.com; jt cwc64.com
Subject: RE: Colt Cir Castle Rock, Colorado Douglas County eReferral #ZR2023-007

Hi Matt,

Thank you for the updated map. Our long line fiber optics is located on S Perry Park Rd and your project won't conflict with it.

Ann

-----Original Message-----
From: Matt Jakubowski <mjakubow@douglas.co.us>
Sent: Thursday, May 18, 2023 11:37 AM
To: annb cwc64.com <annb@cwc64.com>
Cc: Pam Choy (pc2914@att.com) <pc2914@att.com>; duanew cwc64.com <duanew@cwc64.com>; jt cwc64.com <jt@cwc64.com>
Subject: RE: Colt Cir Castle Rock, Colorado Douglas County eReferral #ZR2023-007

Good Morning Anne,

Just so you are aware, the proposed amendment is to allow fences up to road right-of-way in the entirety of the Keene Ranch PD which is highlighted in blue on the attached map. Based on your comments, I'm not sure if you realized the larger area that it covers? It's no problem to send a revised response. I haven't put the comments in our tracking system yet.

Matt

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development Planning Services Division Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460 Email | mjakubow@douglas.co.us

-----Original Message-----
From: annb cwc64.com <annb@cwc64.com>
Sent: Wednesday, May 17, 2023 11:08 AM
To: Matt Jakubowski <mjakubow@douglas.co.us>
Cc: Pam Choy (pc2914@att.com) <pc2914@att.com>; duanew cwc64.com <duanew@cwc64.com>; jt cwc64.com <jt@cwc64.com>
Subject: Colt Cir Castle Rock, Colorado Douglas County eReferral #ZR2023-007

Hi Matt,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Colt Cir Castle Rock, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.

Please feel free to contact us with any questions or concerns.

Ann Barnowski
Clearwater Consulting Group Inc
120 9th Avenue South
Suite 140
Nampa, ID 83651
Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

-----Original Message-----
From: mjakubow@douglas.co.us <mjakubow@douglas.co.us>
Sent: Monday, May 15, 2023 4:45 PM
To: annb cwc64.com <annb@cwc64.com>
Subject: Douglas County eReferral (ZR2023-007) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:
https://apps.douglas.co.us/planning/projects/Login.aspx

Project Name: Keene Ranch Planned Development, 3rd Amendment
Project File #: ZR2023-007
Project Summary: Keene Ranch HOA is requesting a Major Planned Development (PD) amendment to the Keene Ranch PD removing a prohibition from the fencing standards in PA-1 and PA-2 that restricts installation of fencing within 50 feet of any right-of-way. The proposed amendment would allow fencing to be installed up to the property line.

This referral will close on Monday, June 5, 2023.

If you have any questions, please contact me.

Sincerely,

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development Planning Services Division Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460 Email | mjakubow@douglas.co.us

External Referral Comments

TO: Matt Jakubowski, Douglas County Planning

FROM: Pam Hall, Planner I Development Services Department

DATE: May 16, 2023

SUBJECT: COU23-0013, Project No. ZR2023-007

Thank you for the opportunity to review and respond to Keene Ranch Planned Development, 3rd Amendment. The application was reviewed by various Town Departments with no concerns from the Town reviewers. Please keep us informed of any changes to the proposal. Thank you.

DEVELOPMENT SERVICES
100 North Wilcox Street, Castle Rock, CO 80104. P: 720.733.2205 F: 720.733.2217 E: phall@crgov.com

May 17, 2023

David Hicks
Authorized Representative
Keene Ranch Homeowners Association
1364 Colt Circle
Castle Rock, CO 80109

DV 2023-181

Subject: Keene Ranch Planned Development – 3rd Amendment

Dear David,

Plan Review Summary:

Submitted to Engineering	-	5/15/23
Comments Sent Out	-	5/17/23

PD Amendment Comment

Comment #1-The final plats for filings #1 & #2 dedicated 20-ft. Utility & Roadway Easements (roadway easements were only dedicated on filing 1) adjacent to the platted roadways within the subdivisions. We would recommend that the proposed fencing stay out of these easements.

Comment #2-Please coordinate with our department regarding the payment of the engineering review fee ($500.00).

If you have any questions, please give me a call.

Sincerely,

Chuck Smith
Development Review Engineer

cc: Matt Williams, P.E.; Assistant Director of Public Works Engineering
Matt Jakubowski, AICP, Chief Planner

DV23181

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

June 05, 2023

Matt Jakubowski
100 Third St.
Castle Rock, CO 80104

RE: ZR2023-005

Dear Mr. Jakubowski,

Thank you for the opportunity to review and comment on the request for a change to fencing standards in relation to right-of-way setbacks. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has no comments.

Please feel free to contact me at 720-907-4888 or bfreyer@douglas.co.us if you have any questions about our comments.

Sincerely,

Brent Freyer
Environmental Health Specialist I
Douglas County Health Department

DOUGLAS COUNTY
COLORADO

www.douglas.co.us

Department of Community Development
Planning Services

REFERRAL RESPONSE REQUEST – MAJOR PLANNED DEVEL. AMD.

Date sent: May 15, 2023

Comments due by: **June 5, 2023**
Fax: 303.660.9550

Project Name:	Keene Ranch Planned Development, 3rd Amendment
Project File #:	ZR2023-007
Project Summary:	Keene Ranch HOA is requesting a Major Planned Development (PD) amendment to the Keene Ranch PD removing a prohibition from the fencing standards in PA-1 and PA-2 that restricts installation of fencing within 50 feet of any right-of-way. The proposed amendment would allow fencing to be installed up to the property line.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☒ No Comment	
☐ Please be advised of the following concerns:	
☐ See letter attached for detail.	
Agency: Jackson 105	**Phone #:** (303) 688-1218
Your Name: Benjamin Ohlin *(please print)*	**Your Signature:**
	Date: 5/18/2023

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Matt Jakubowski, Chief Planner
Enclosure

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

May 23, 2023

Douglas County Department of Community Development
100 Third Street
Castle Rock, CO 80104

Attn: Matt Jakubowski

Re: Keene Ranch Planned Development, 3rd Amendment, Case # ZR2023-007

Public Service Company of Colorado's (PSCo) Right of Way & Permits Referral Desk has reviewed the plan for **Keene Ranch Planned Development, 3rd Amendment** and has **no apparent conflict**.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center by dialing 811 for utility locates prior to construction.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

From: Matt Jakubowski
Sent: Monday, May 22, 2023 8:05 AM
To: mark hansen
Subject: RE: Keene Ranch Planned Development, 3rd Amendment.

Good Morning,

Thank you for your comments on the Keene Ranch, 3rd Amendment. These comments will be included in the public file, provided to the HOA (applicant), and included in a future staff report for the proposal.

Regards,

Matt

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460
Email | mjakubow@douglas.co.us

From: mark hansen <hrspwrranch@yahoo.com>
Sent: Sunday, May 21, 2023 7:31 AM
To: Matt Jakubowski <mjakubow@douglas.co.us>
Subject: Keene Ranch Planned Development, 3rd Amendment.

We are in support of the zoning changes in Keene Ranch. The fences were places on the property line by the developer originally on the Parcel lots. Fences on the property line were the standard of the community for 20+ years. This amendment will make what has been the practice for many years.

Please recommend that the commissioners approve this change.

Regards,

Mark and Cammie Hansen
2586 Browning Dr
Castle Rock, CO 80109

From: Matt Jakubowski
Sent: Wednesday, May 24, 2023 4:32 PM
To: Jon Memsic
Subject: RE: Project ZR2023-007 Keene Ranch

Good Afternoon,

Thank you for your comments on the Keene Ranch, 3rd Amendment. These comments will be included in the public file, provided to the HOA (as applicant), and included in a future staff report for the proposal.

Regards,

Matt

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460
Email | mjakubow@douglas.co.us

From: Jon Memsic <jonmemsic1@gmail.com>
Sent: Wednesday, May 24, 2023 9:58 AM
To: Matt Jakubowski <mjakubow@douglas.co.us>
Subject: Project ZR2023-007 Keene Ranch

Dear Mr. Jakubowski,
Please reference ZR2023-007. We have lived in the Keene Ranch for 5 1/2 years. When we moved into the neighborhood included many homes with 3 rail approved fencing along property lines, many homes that were built over 20 years ago. The HOA board a few years ago imposed a ruling that insisted that fences must be 50' from any property line. We believe this was a power trip to not allow one neighbor to put their fence along the property line. There are a lot of politics within the KR HOA that favor some neighbors and not others.

We are totally in favor of the County approving 3 rail approved fencing along property lines like the ruling has been for over the past 20 years. The rules should be consistent for all neighbors whether they are liked by the HOA or not. While we do not have plans on installing a 3 rail fence along our property line, a future tenant should have that right.

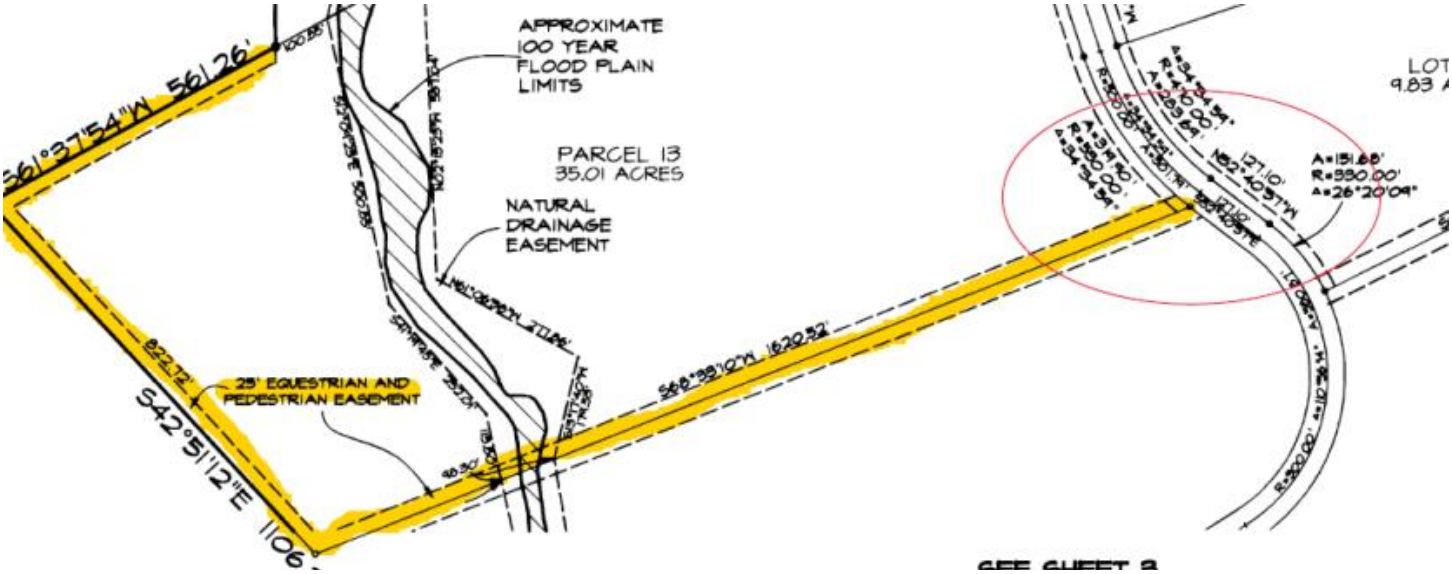
Regards Jon and Patricia Memsic
2964 Castle Butte Drive.
970-389-6599

From: Matt Jakubowski
Sent: Friday, May 26, 2023 3:52 PM
To: debmakinney@gmail.com
Subject: Keene Ranch PD, 3rd Amd. - Comments
Attachments: KeeneRanchF1-PlatSB1995-045.pdf

Hi Debbie,

It was nice talking to you today. You can provide comments in response to this email at any time. The referral period is open for a little more than a week to June 5th, so it would be great to have comments within the referral period.

I have attached the 1st subdivision filing as an example (there are 4 filings total). There are multiple situations in Keene Ranch where the bridle easements (labeled on the plat as equestrian and pedestrian easements) meet roads within the community. I have copied/pasted an example below. Thus, constructing a fence at the property line within certain lots could create a conflict. I should say, however, that plat Note #3 on Sheet 2 restricts fencing within these easements. Between the plat note and review of fencing by the HOA (unsure how/if the HOA reviews fencing), there are checks to restrict fencing from blocking those easements. I do think it is a good reminder that the bridle easements need to be kept clear; but it is clear that even if zoning were to allow fencing on other lots to the property line, the plat would restrict the location of fencing within a bridle easement in certain situations. The same note restricting fencing within the bridle easements is present on Filings #2, #3 and #4.



Regards,

Matt

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460
Email | mjakubow@douglas.co.us

PLAT IDENTIFICATION SHEET

RECEPTION # : DC9523375

DATE: 5-25-95

TIME:

FEE: $ 40.00 **(4 Pages)**

GRANTOR: Castle Butte L.L.C
(OWNER/SIGNER)

GRANTEE: Keene Ranch #1
(SUBDIVISION NAME OR NAME OF PLAT)

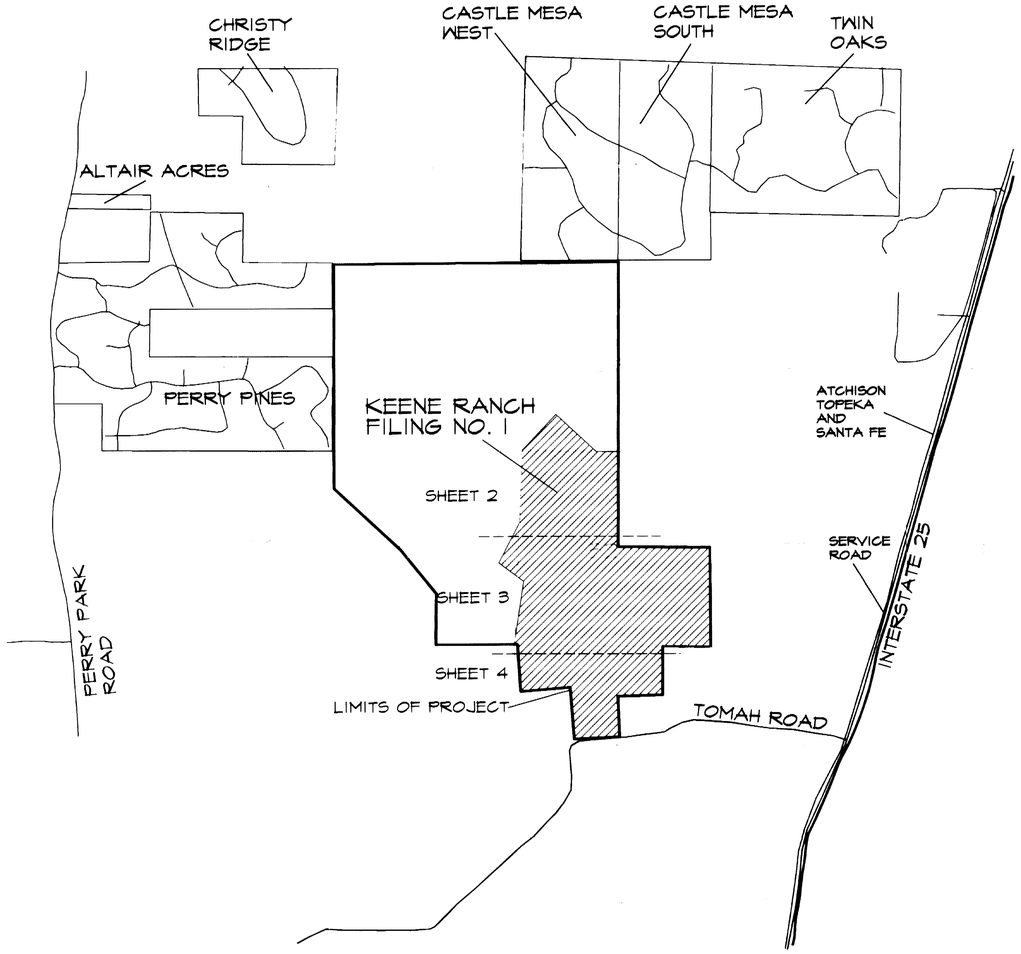
LEGAL: 29, 31, 32 - 8 - 67
5 - 9 - 67
(SECTION-TOWNSHIP-RANGE)

KEENE RANCH FILING 1

A PORTION OF PLANNING AREA PA 1 AND PA 2
A PORTION OF SECTIONS 29,31, AND 32, T8S, R67W AND A PORTION OF SECTION 5, T9S, R67W OF THE 6th. P.M., DOUGLAS COUNTY, COLORADO
643.98 ACRES, 67 RESIDENTIAL LOTS
SHEET 1 OF 4

Property Description

A tract of land situated in Sections 29, 32, and a portion of 31, Township 8 South, Range 67 West and in Section 5, Township 9 South, Range 67 West of the 6th. Principal Meridian, Douglas County, Colorado more particularly described as follows:
Beginning at the East 1/4 corner of said Section 32, and considering the North line of the Southeast 1/4 bears South 89°59'23" West, with all bearings contained herein relative thereto;
Thence South 89°59'23"W, a distance of 2623.87 feet along said North line of said Southeast 1/4, to the Center of said Section 32:
Thence North 00°17'50" East, along the East line of the Northwest 1/4 of Section 32 a distance of 2497.60 feet;
Thence South 84°29'28" West, a distance of 700.00feet;
Thence North 37°09'16" West, a distance of 1479.43 feet;
Thence South 49°59'03" West, a distance of 492.12 feet to a point of curve;
Thence Southwesterly along the arc of a curve to the Left a distance of 233.14 feet, said curve has a radius of 145.00 feet and a central angle of 92°07'21";
Thence South 59°48'09" West, a distance of 102.96 feet to point of curve;
Thence Southwesterly along the arc of a curve to the Left a distance of 112.65' feet, said curve has a radius of 170.00 feet and a central angle of 37°58'01" to a point of tangent;
Thence South 21°50'07" West along said tangent a distance of 131.40 feet to a point of curve;
Thence westerly along the arc of a curve to the Right a distance of 390.50 feet, said curve has a radius of 330.00 feet and a central angle of 67°47'59";
Thence South 00°21'54" East, a distance of 1490.98 feet;
Thence South 61°37'54" West, a distance of 561.26 feet;
Thence South 42°51'12" East a distance of 1106.33 feet;
Thence South 21°01'40" East, a distance of 541.45 feet;
Thence South 57°19'58" West, a distance of 472.36 feet;
Thence South 64°01'57" East, a distance of 511.40 feet;
Thence South 34°50'00" West, a distance of 408.80 feet;
Thence South 51°52'41" East, a distance of 250.00 feet to a point of curve;
Thence Easterly along the arc of acurve to the left a distance of 182.71 feet, said curve has a radius of 170.00 feet and a central angle of 61°34'52" to a point of tangent;
Thence North 66°32'28" East along said tangent a distance of 80.47 feet to a point of curve;
Thence Easterly along the arc of a curve to the right a distance of 187.19 feet, said curve has a radius of 530.00 feet and a central angle of 20°14'09" to a point of tangent;
Thence North 86°46'37" East along said tangent a distance of 39.67 feet to a point on a curve;
Thence Southerly along the arc of a curve to the left a distance of 60.03 feet, said curve has a radius of 530.00 feet and a central angle of 06°29'23" and a chord that bears South 03°13'24" East a distance of 60.00' feet;
Thence South 86°46'36" West a distance of 39.67 feet to a point of curve;
Thence Westerly along the arc of a curve to the left a distance of 165.99 feet, said curve has a radius of 470.00 feet and a central angle of 20°14'09" to a point of tangent;
Thence South 66°32'28" West along said tangent a distance of 80.47 feet to a point of curve;
Thence Westerly along the arc of a curve to the right a distance of 247.20 feet, said curve has a radius of 230.00 feet and a central angle of 61°34'52" to a point of tangent;
Thence North 51°52'41" West along said tangent a distance of 708.34 feet to a point of curve;
Thence Northwesterly along the arc of a curve to the right a distance of 184.06 feet, said curve has a radius of 530.00 feet and a central angle of 19°53'51";
Thence South 05°45'56" West, a distance of 1804.74 feet to the South line of Section 31;
Thence South 88°55'41" East, a distance of 247.72 feet to the Northwest corner of the Northwest 1/4 of said Section 5;
Thence South 02°17'08" East, along the West line of said Northwest 1/4 a distance of 1286.89 feet;
Thence North 81°27'47" East, a distance of 1289.45 feet;
Thence South 01°07'14" West, a distance of 253.13 feet;
Thence South 89°35'43" East, a distance of 46.09 feet to the Northwest corner of the Southeast 1/4 of the Northwest 1/4 of said Section 5,
Thence South 02°13'07" East, a distance of 1302.86 feet to the Southwest corner of the Southeast 1/4 of the Northwest 1/4 of said Section 5;
Thence South 89°31'21" East, a distance of 1312.79 feet to the Center of said Section 5;
Thence North 02°09'06" West, a distance of 1304.46 feet to the Northeast corner of the Southeast 1/4 of the Northwest 1/4 of said Section 5;
Thence South 89°35'43" East, a distancce of 1314.24 feet to the Southeast corner of the Northwest 1/4 of the Northeast 1/4 of said Section 5;
Thence North 02°05'06" West, a distance of 1342,63 feet to the Northeast corner of the Northwest 1/4 of the Northeast 1/4 of said Section 5;
Thence South 89°38'30" East, a distance of 1315.75 feet to the Southeast corner of the Southeast 1/4 of the Southeast 1/4 of said Sectin 32,
Thence North 00°08'10" East, a distance of 2730.13 feet to the point of beginning. Containing 643.98 Acres, more or less.



VICINITY MAP
SCALE 1" = 2000'

DEDICATION STATMENT:

The undersigned, being all the owners, mortgagees, beneficiaries of deeds of trust and holders of other interests of the land described herein, have laid out, subdivided and platted said lands into lots, tracts, parcels, streets and easements as shown hereon under the name and subdivision of KEENE RANCH, FILING 1. The utility and drainage easements shown hereon are hereby dedicated for public utilities and cable communication systems drainage and other purposes as shown hereon. The entities responsible for providing the service for which the easements are established are hereby granted the perpetual right of ingress and egress from and to adjacent properties for installation, maintenance and replacement of utility lines and related facilities. All streets and rights-of-way, shown hereon are dedicated and conveyed to Douglas County, CO. in fee simple absolute, with marketable title for public uses and purposes.

Owner: CASTLE BUTTE L.L.C. BY: David E. Bradley as MANAGER

Subscribed and sworn to before me this 23 day of May, 1995,
by Thomas L. Hartley as Manager OF CASTLE BUTTE L.L.C.
WITNESS my hand and official seal.
Notary Public Sareen E Archer
My Commission expires: 8-22-98

MORTGAGEE:
First Bank of Castle Rock N.A. by Jay N. Hall as PRESIDENT

Subscribed and sworn to before me this 23RD day of MAY, 1995,
by THOMAS L. HARTLEY as MANAGER OF CASTLE BUTTE L.L.C.
WITNESS my hand and official seal.
Notary Public Judith Ann Sellers
My Commission expires: 10/19/96

PLANNING COMMISSION

The sketch and preliminary plan for this plat were reviewed by the Planning Commission on 12/19/94 and 4/17/95.
File No. SB 95-045
Planning Director, on behalf of the Planning Commission
File No. SB95-045

BOARD OF COUNTY COMMISSIONERS

This plat was approved for filing by the Board of County Commissioners of Douglas County, CO., on the 25th day of April, 1995. The dedications are hereby accepted.

All expenses incurred with respect to the improvements for all utility services, paving grading, curbs, gutters, sidewalks, road lighting, road signs, flood protection devices, drainage structures, and all other improvements that may be required shall be the responability of the subdivider and not Douglas County. The County shall accept maintenance of any such improvements after construction has been completed in accordance with County regulations.

This acceptance does not guarantee that the soils conditions, subsurface geology, groundwater conditions or flooding conditions of any lot shown hereon are such that a building permit, well permit or sewage disposal permit will be issued.

5/24/95
Chair, Board of County Commissioners

TITLE VERIFICATION

We, North American Title Company, a qualified title insurance company, do hereby certify that we have examined the title of all lands platted hereon and that title to such land is in the dedicator free and clear of all liens, taxes, and encumbrances.

5/23/95 Date — Christine B Brown as Vice President
North American Title Company — Title

SURVEYOR'S CERTFICATE

I, David E. Archer, a duly registered Professional Land Surveyor in the State of Colorado, do hereby certify that this plat truly and correctly represents the results of a survey made during December, by me or under my direct supervision and that all monuments exist as shown hereon: that mathematical closure errors are less than 1:50,000; and that said plat has been prepared in full compliance with all applicable laws of the State of Colorado dealing with monuments, subdivisions or surveying of land and all provisions, within my control, of the Douglas County Subdivision Regulations.

I attest the above on this 23rd day of May, 1995.
David E. Archer, A Colorado Professional
Land Surveyor, Number 6935

CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO)
COUNTY OF DOUGLAS)

I hereby certify that this plat was filed in my office on this 5th day of May, 1995,A.D., at 14:15 a.m./p.m., and was recorded at Reception Number 95037375.
County Clerk and Recorder

REVISIONS
3/02/95
4/27/95
5/15/95
5/23/95

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4642
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE 1" =2000'
DATE 1/16/95
DRN MAH CKD DEA CLIENT
APVD DEA

TITLE: KEENE RANCH FILING 1
CASTLE BUTTE LLC
LAKEWOOD, COLORADO 80228
JOB NUMBER 92-802
Sheet 1 of 4

KEENE RANCH FILING 1

SHEET 2 OF 4

NOTES:

1. **Restricted Building Area:** No structures are permitted within any area labeled "Restricted Building Area" or "Natural Drainage Easement"

2. **Natural Drainage Easements:** Fencing shall be prohibited to allow complete and unrestricted pedestrian, equestrian and wild life movement. A flood plain permit (from Douglas County Engineering) may be required for any crossings of or construction in said natural drainage easements.

   A grading permit shall be require for all lots which are adjacent to a natural drainage easement of have said easement within the lot.

3. **Equestrian and Pedestrian Easements:** Fencing shall be prohibited to allow complete and unrestricted pedestrian, equestrian and wild life movement

4. **Individual Domestic Wells:** Each site shall be allowed one individual domestic well into the Denver aquifer pursuant to the augmentation plan 93CW102. The individual wells shall be allocated a minimum of one acre foot per year. Water in the lower Arapahoe and Larine Fox Hills Aquifers shall not be available to individual lot owners.

5. **Individual Septic Systems:** Each site shall be required to install an on-site sewage disposal system approved by Tri-County District Health Department. Where practical, unique natural site features and mature vegetation shall be preserved. All individual septic disposal systems shall be of the non-evaporative type in accordance with the Water Court Case No. 93CW102

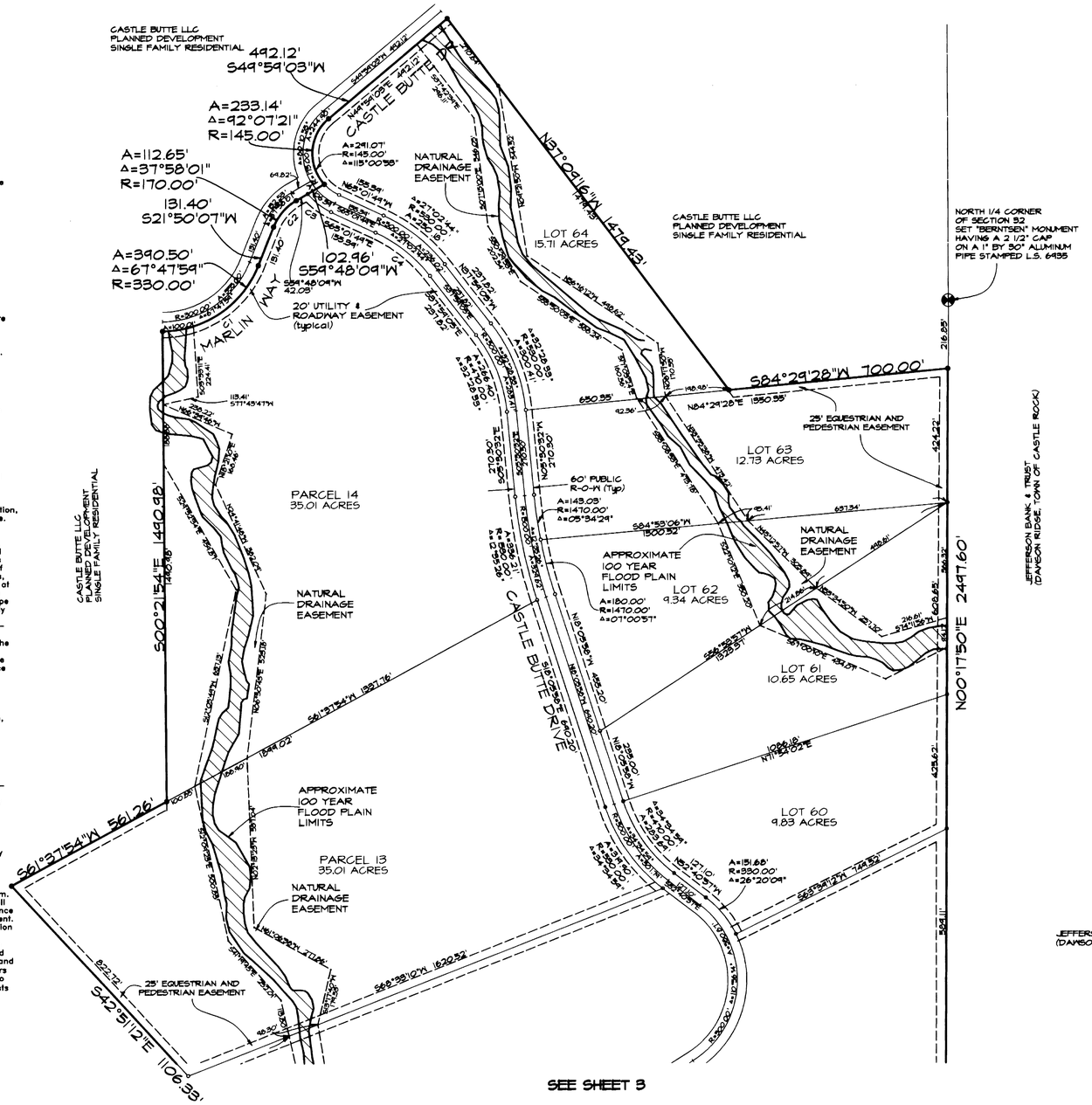
6. **Utility, drainage and Roadway Easements:** The 20 foot utility, drainage and roadway easements as shown hereon are reserved for utility installation and maintenance, drainage, and roadway, construction, slopes and snow removal storage.

7. **Xeriscape:** "Prior to issuance of the first building permit within this filing, the owners, their successors and assigns, shall provide to Douglas County Building Division, a list of lots to be used as model homes, if any, and a planting plan for at least one model home lot within this filing that depicts a xeriscape style of landscaping (as generally defined within the Denver/Boulder metro area). Implementation of the planting plan shall occur prior to the issuance of the certificate of occupancy for the affected lot(s), and the xeriscape landscaping shall remain in place until the structure is no longer used as a model home"

8. **Residential Fire Sprinkler Systems:** With the submittal of a building permit request, a set of plans for an in home sprinkler system, acceptable to Douglas County Building Department shall be included. The system shall be automatically monitored for flow and tamper.

9. **Common Use Easements:** All pedestrian and equestrian easements and all natural drainage easements are reserved for the exclusive use and benefit of the owners of Keene Ranch

10. **Easement Maintenance:** All pedestrian and equestrian easements, all natural drainage easements and the fire cistern easement shall be maintained by the Homeowners Association. "Maintenance Access Shall be provided to all Natural Drainage Easements to ensure continuous operation capability of the system. The Homeowners Association shall be responsible for the maintenance of said Natural Drainage Easement. Should the Homeowners Association fail to adequately maintain said easement, the County shall have have the right to enter said land for the purposes of operations and maintenance and the Homeowners Associations shall be obligated to reimburse the county for all costs and expenses incurred for said operations and maintenance."



CURVE TABLE

CURVE #	RADIUS	DELTA	ARC	CHORD BEARING	CHORD
C1	330.00'	67°47'59"	390.50'	S55°44'06"W	368.11'
C2	170.00'	37°58'01"	112.65'	S40°49'08"W	110.60'
C3	205.00'	26°25'04"	94.52'	N51°48'17"W	93.64'
C4	470.00'	27°02'44"	221.86'	N51°30'27"W	219.80'

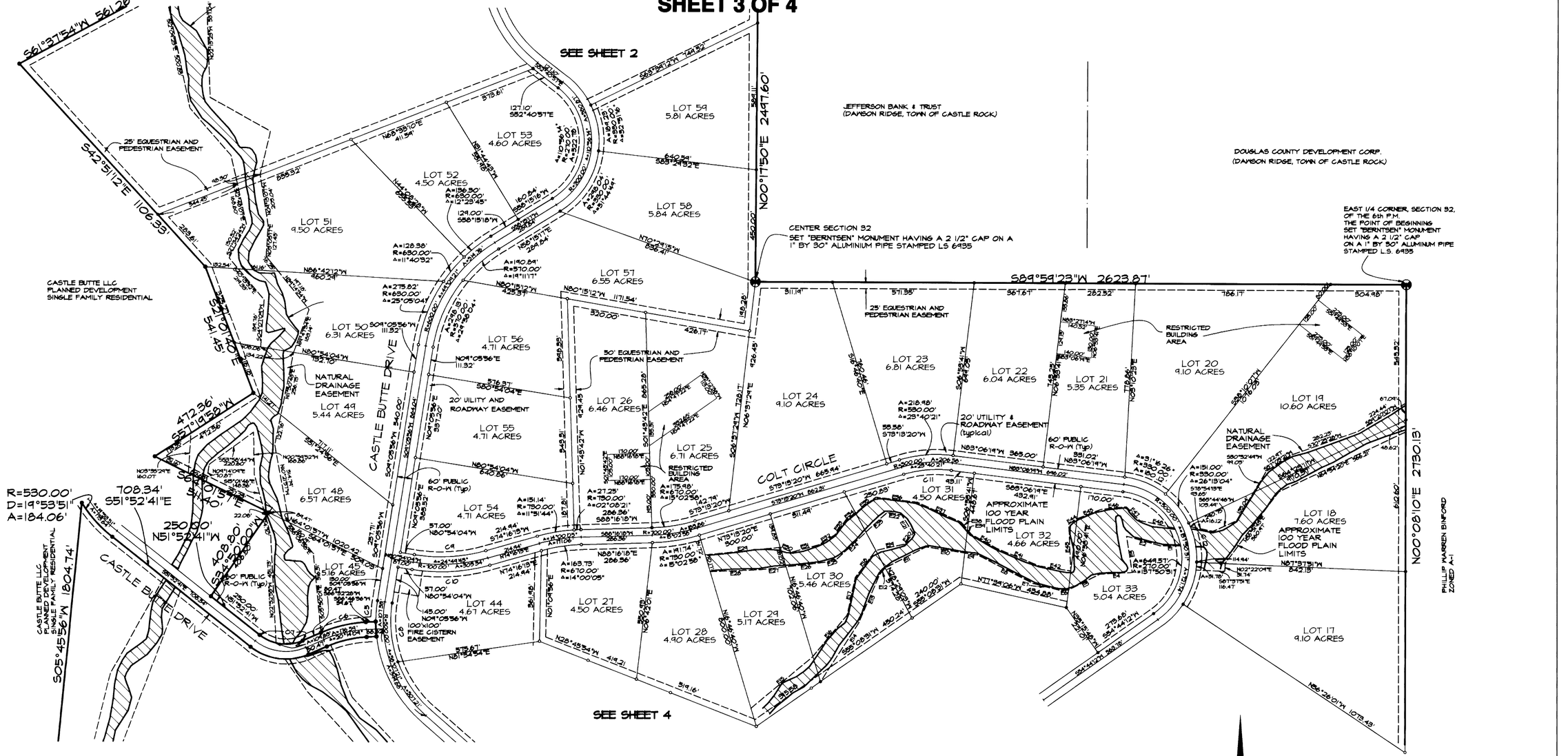
SCALE 1" = 200'
0 200 400 600

• = SET 18" LONG NO. 5 REBAR W/ 1 1/4" PLASTIC CAP STAMPED L.S. 6935

REVISIONS	DAVID E. ARCHER & ASSOCIATES, INC.	TITLE
CHANGED BOUNDARY 4/27/15	LAND DEVELOPMENT CONSULTING SURVEYING & ENGINEERING PHONE (303) 688-4642 105 WILCOX ST. CASTLE ROCK, COLORADO 80104	KEENE RANCH FILING 1
	SCALE 1" = 200'	CLIENT: CASTLE BUTTE LLC, LAKEWOOD, COLORADO 80228
	DATE 1/16/95	
	DR'N. M.A.H. CK'D. D.E.A.	
	APV'D. D.E.A.	JOB NUMBER 92-802
		Sheet 2 of 4

KEENE RANCH FILING 1

SHEET 3 OF 4



CURVE TABLE

CURVE #	RADIUS	DELTA	ARC	CHORD BEARING	CHORD
C5	530.00'	09°04'38"	83.97'	S04°33'37"W	83.88'
C6	530.00'	20°14'09"	187.19'	S16°39'32"W	186.21'
C7	170.00'	61°34'52"	182.71'	N82°40'07"W	174.05'
C8	470.00'	29°10'03"	239.26'	N05°29'05"W	236.64'
C9	670.00'	24°49'43"	290.34'	S86°41'04"W	288.07'
C10	730.00'	24°49'43"	316.34'	N86°41'04"E	313.87'
C11	470.00'	23°40'21"	194.19'	N85°09'30"E	192.81'
C12	330.00'	21°58'58"	161.17'	S11°37'21"E	159.57'

EASEMENT TABLE

LINE #	BEARING	DISTANCE
E1	S84°38'32"E	83.14'
E2	S74°16'23"E	140.39'
E3	S06°57'09"W	147.47'
E4	N86°51'36"E	129.66'
E5	S63°11'52"W	142.16'
E6	S88°24'12"W	36.88'
E7	N76°08'41"W	108.25'
E8	N83°06'37"W	251.08'
E9	N81°20'46"W	58.16'
E10	N81°20'46"W	156.66'
E11	S62°55'14"W	186.10'
E12	S84°38'29"W	34.08'
E13	S28°55'16"W	212.47'
E14	S85°01'54"W	282.35'
E15	N50°09'22"E	326.31'
E16	N84°29'06"E	218.11'
E17	N12°02'55"E	151.66'
E18	N87°04'58"E	157.46'
E19	N77°48'09"E	119.99'
E20	N81°26'32"E	55.57'
E21	N82°06'14"W	81.27'
E22	N81°19'20"W	54.45'
E23	S47°06'51"W	116.56'
E24	S47°06'51"W	155.70'

EASEMENT TABLE CONT.

E25	S78°28'55"W	58.45'
E26	S83°14'09"W	157.46'
E27	S83°14'09"W	104.81'
E28	S87°40'06"W	208.21'
E29	N84°11'04"E	305.58'
E30	S68°30'47"E	50.77'
E31	N75°06'08"E	111.51'
E32	N88°25'15"E	76.42'
E33	N85°48'15"E	75.71'
E34	N52°44'55"E	49.64'
E35	N52°44'55"E	108.76'
E36	S83°18'48"E	164.19'
E37	S65°45'10"E	143.94'
E38	S84°52'48"E	58.77'
E39	S84°52'48"E	27.65'
E40	S61°48'46"E	119.72'
E41	S67°56'31"E	188.32'
E42	S80°58'08"E	130.05'
E43	S02°14'54"E	188.17'
E44	S86°37'15"W	94.54'
E45	S68°18'39"W	108.42'
E46	S83°57'48"W	102.80'
E47	N43°54'10"W	77.85'
E48	N78°08'58"W	148.71'

REVISIONS
CHANGED BOUNDARY 4/21/15

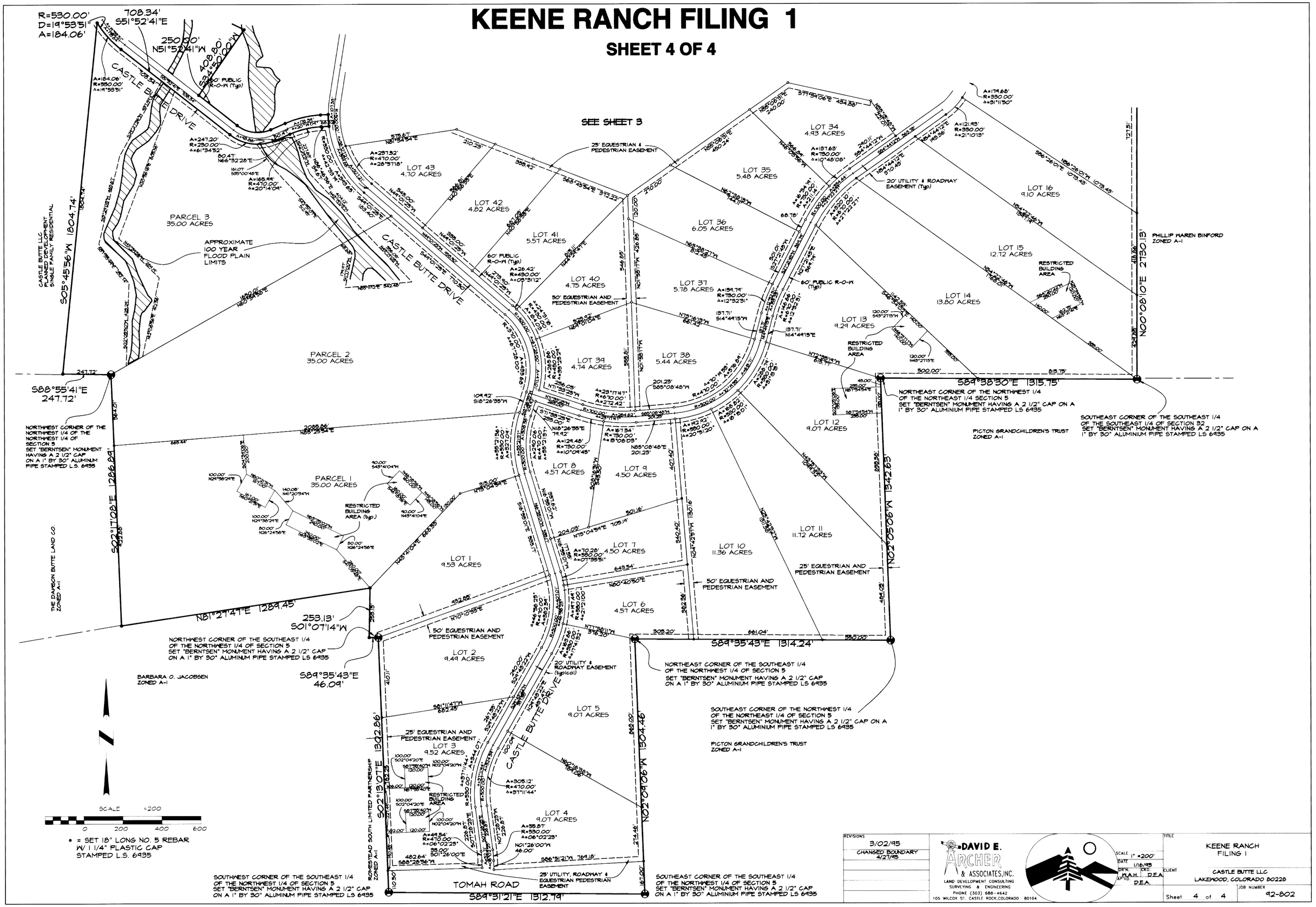
DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4642
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE 1" =200'
DATE 1/16/15
DRWN W.A.H. CKD D.E.A.
APVD D.E.A.

TITLE: KEENE RANCH FILING 1
CLIENT: CASTLE BUTTE LLC LAKEWOOD, COLORADO 80228
JOB NUMBER 92-802
Sheet 3 of 4

KEENE RANCH FILING 1

SHEET 4 OF 4


SEE SHEET 3
CASTLE BUTTE DRIVE
CASTLE BUTTE DRIVE
CASTLE BUTTE DRIVE
R=530.00'
D=19°53'51"
A=184.06'
708.34'
S51°52'41"E
250.00'
N51°52'41"W
408.80'
S34°50'00"W
50' PUBLIC R-O-W (Typ)
A=184.06'
R=530.00'
Δ=19°53'51"
A=247.20'
R=230.00'
Δ=61°34'52"
50.47'
N66°32'28"E
161.01'
S35°00'48"E
A=165.98'
R=470.00'
Δ=20°14'04"
A=287.52'
R=470.00'
Δ=28°57'18"
S75.67'
N81°54'54"E
210.39'
359.42'
368°16'54"E 377.32'
25' EQUESTRIAN & PEDESTRIAN EASEMENT
LOT 43
4.10 ACRES
LOT 42
4.82 ACRES
LOT 41
5.57 ACRES
LOT 40
4.75 ACRES
LOT 39
4.74 ACRES
LOT 38
5.44 ACRES
LOT 37
5.78 ACRES
LOT 36
6.05 ACRES
LOT 35
5.48 ACRES
LOT 34
4.93 ACRES
PARCEL 3
35.00 ACRES
PARCEL 2
35.00 ACRES
PARCEL 1
35.00 ACRES
APPROXIMATE
100 YEAR
FLOOD PLAIN
LIMITS
CASTLE BUTTE LLC
PLANED DEVELOPMENT
SINGLE FAMILY RESIDENTIAL
S05°45'56"W 1804.74'
1804.74'
N60°09'29"E
N40°01'25"W
348.00'
S40°01'25"E
125.40'
N40°01'25"W 356.00'
S40°01'25"E 710.52'
N85°11'12"E 542.48'
60' PUBLIC
R-O-W (Typ)
N40°01'25"W
278.90'
A=26.42'
R=430.00'
Δ=05°31'12"
50' EQUESTRIAN AND
PEDESTRIAN EASEMENT
N40°01'25"W 529.52'
A=245.86'
R=480.00'
Δ=29°20'52"
A=24.51'
R=15.00'
Δ=93°36'18"
R=530.00'
Δ=26°12'00"
N71°39'25"W
296.05'
109.92'
S18°26'35"W
A=29°17'47"
R=470.00'
A=274.42'
N71°39'25"W
228.00'
N18°26'35"E
74.42'
A=129.48'
R=730.00'
Δ=10°09'45"
A=15.34'
R=730.00'
Δ=1°08'08"
N85°08'48"E
201.23'
201.23'
S85°08'48"W
A=182.42'
R=580.00'
Δ=20°51'20"
A=55°21'36"
R=530.00'
A=512.01'
A=240.06'
R=470.00'
Δ=29°15'51"
A=176.84'
R=730.00'
Δ=13°53'05"
N=1342.63'
N02°05'06"W
N=1342.63'
N02°05'06"W
N=1342.63'
N02°05'06"W

From: Deb Makinney
Sent: Saturday, May 27, 2023 8:12 AM
To: Matt Jakubowski
Subject: Re: Keene Ranch PD, 3rd Amd. - Comments
Attachments: image002.png

Thank you. It was a pleasure chatting with you as well.

I'll review the plot . As we discussed, my concern is that we protect access to the equestrian paths.

Have a wonderful weekend.
Deb Makinney

Keene Ranch Homeowners Association

c/o LCM Property Management Company, Inc.

mchavez@lcmpm.com

1776 South Jackson Street, Suite 300

Denver, CO 80210

Telephone: 303/221-1117, ext. 112

Fax: 303/339-7104

Re: PD Amendment Referral Comments Response

Dear Douglas County Planning Staff,

On behalf of the Keene Ranch Homeowners Association, please find below our responses to the comments received during the referral period for the proposed PD Amendment:

1. 1. Douglas County Engineering Comment:

Douglas County Engineering indicated that 20-foot utility and roadway easements are platted adjacent to roads within Keene Ranch. The PD Amendment would allow fences up to a property line, and potentially within these easements. Engineering had a concern that if work is required within these easements, fencing may be required to be temporarily removed, which can be a disruption or an added expense.

HOA Response:

The HOA acknowledges the existence of utility and roadway easements and the potential need for access within them. The proposed amendment does not alter or eliminate these easements or the rights of utility providers and public entities to access them. Any fences constructed within these easements are understood to be subject to removal or modification if access is required. The HOA will continue to educate homeowners that encroachments within easements are undertaken at the property owner's risk and may need to be removed temporarily at the owner's expense if access is necessary.

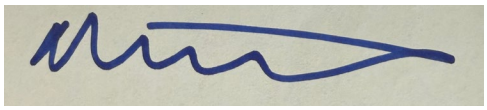
2. 2. Public Comment:

A member of the public expressed concern that the PD Amendment could allow fencing that would block access to the community's established pedestrian and equestrian trail easement system.

HOA Response:

The HOA fully agrees that protecting access to the pedestrian and equestrian trail system is vital to the community. The PD Amendment does not eliminate or alter these existing trail easements. All fencing proposals that may affect access to these trails will continue to be carefully reviewed and will not be approved if they obstruct access to the easement system. The HOA remains committed to ensuring uninterrupted public and resident use of all designated trail corridors.

Sincerely,



David Hicks

Member at Large, Keene Ranch HOA

https://apps.douglas.co.us//LandMarkWeb//Document/GetDocumentForPrintPNG/?request=AQAAANCMnd8BFdERjHoAwE/Cl+sBAAAAQo4Mkj2nbkWXxfZ3BEASZgAAAAACAAAAAAADZgAAwAAAABAAAAAAqK1SWBDHPWap4/rsb1jMAAAAAASAAACgAAAAEAAAA/bi0D3ADDXoiN80qCCb

KEENE RANCH PLANNED DEVELOPMENT Third AMENDMENT

A Major Amendment to PA-1 and PA-2 Development Standards, F. Fencing Standards

SECTIONS 29,30,31 & 32 TOWNSHIP 8 SOUTH, RANGE 67 WEST and SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST
2057.87 ACRES 247 DU'S

ZR2023-007

KEENE RANCH PLANNED DEVELOPMENT Third AMENDMENT

DEVELOPMENT GUIDE

GENERAL PROVISIONS

Authority

This Development Plan is authorized by Section 15-Planned Development District of the Douglas County Zoning Resolution adopted pursuant to the Colorado Planned Unit Development Act of 1972.

Applicability

The provisions of this Development Plan shall run with the land. The landowners their successors, heirs, or assigns shall be bound by this Development Plan, as amended and approved by the Planning Director or Board of County Commissioners.

Adoption

The adoption of this Development Plan shall evidence the findings and decision of the Douglas County Board of Commissioners that this Development Plan for Keene Ranch Planned Development Third Amendment is in general conformity with the Douglas County Master Plan; is authorized by the provision of Section 15 of the Douglas County zoning Resolution; and that such Section 15 and this Development Plan comply with the Colorado Planned Unit Development Act of 1972, as amended.

Relationship to County Regulations

The provisions of this Development Plan shall prevail and govern the development of Keene Ranch Planned Development Third Amendment, provided, however, that where the provisions of this Development Plan do not address a particular subject, the relevant provisions of the Douglas County Zoning Resolution, as amended, or any other applicable resolutions or regulations of Douglas County, shall be applicable.

Enforcement

To further the mutual interest of the residents, occupants, and owners of the Planned Development and of the public in the preservation of the integrity of the Plan, the provisions of this Plan relating to the use of land and the location of common open space shall run in favor of Douglas County and shall be enforceable at law or in equity by the County without limitation on any power or regulation otherwise granted by law.

Conflict

Where there is more than one provision within the Development Plan that covers the same subject matter, the provision which is most restrictive or imposes higher standards or requirements shall govern unless determined otherwise by the Director of Planning and Community Development.

Maximum level of Development

The total number of dwellings approved for development within the Planning Areas is the maximum development requested for platting or construction (plus approved density transfers, if any). The actual number of dwellings commercial, may be less due to subdivision or site improvement plan requirements or other requirements of the Board of County Commissioners.

Project Tracking

At the time of subdivision final plat, the applicant shall provide a summary of the development, to date, along with the final plat submittal to the Planning Division, In order to assure maximum development limits are not exceeded.

Continued Agricultural Uses

Prior to final platting or dedication of property for public use, all uses permitted by right and by Special Review under the Douglas County A-1 Zoning category shall continue to be allowed for all properties not platted or dedicated. Such permitted uses or uses by Special Review shall be subject to all provisions of the Douglas County Zoning Resolution relating to the A-1 Zone District.

Commitments

In order to implement the Planned Development District, the developer hereby submits to the following commitments which shall be binding upon itself and its successors and assigns in interest with the respect to its properties within the Keene Ranch Planned Development Third Amendment, and upon the County, upon approval by the Board of Douglas County Commissioners of the Development Plan and related Development Guide. Said commitments are as follows:

Schools

The developer, its successors and assigns shall pay cash-in-lieu of school land dedication is accordance with Article 10 of the Douglas County Subdivision Resolution. The payment shall be made prior to recordation of any final plat approved within Keene Ranch Third Amendment. The dollar value amount to be used in determining said payment shall be determined by Douglas County at the time of said payment.

Parks

The developer, its successors and assigns shall pay cash-in-lieu of park land dedication in accordance with Article 10 of the Douglas County Subdivision Resolution. The payments shall be made prior to recordation of any final plat approved within Keene Ranch Third Amendment. The dollar value amount to be used in determining said payment shall be determined by Douglas County at the time of said payment.

TRANSPORTATION

1. **Right of Way Dedication**

   a. All public road Rights of Way within the development shall be dedicated in fee simple absolute to Douglas County at no cost to Douglas County at the time of the Final Plat approval.
   b. Additional Right of Way for Tomah Road as required by the County Engineer shall be dedicated in fee simple absolute to Douglas County at no cost to Douglas County at the time of the first Final Plat.

2. **Road Construction**

   a. All public roads (except the emergency vehicle access roads) within the development shall be constructed and paved to Douglas County Standards.
   b. Tomah Road shall be constructed and paved from the entrance of Keene Ranch First Phase as shown hereon, Easterly to the end of the existing paving.
   c. The costs of roadway improvements shall be secured by bond, letter of credit or other security acceptable to Douglas County prior to recordation of the final plat (on a per phase or filing basis).

WATER SUPPLY

Each residential site within PA-1 and PA-2 shall be allowed one individual domestic well into the Denver aquifer pursuant to the augmentation plan 93CW102. The individual wells shall each be allocated a minimum of one acre foot per year. All water contained within the underlying Arapahoe and Laramie Fox-Hills Aquifers shall not be conveyed to the purchasers of Lots within Keene Ranch Third Amendment.

WASTE WATER TREATMENT

Each residential site within PA-1 and PA-2 shall be required to install an on-site sewage disposal system approved by Tri-County District Health Department. Where practical, unique natural site features and mature vegetation shall be preserved. All individual septic disposal systems shall be of the non-evaporative type in accordance with the Water Court Case No. 93CW102.

, its successors and assigns.

FIRE PROTECTION

1. **Water Source**

   Prior to issuance of the first certificate of occupancy, the developer, its successors and assigns shall install up to three (3) 20,000 gallon below-grade cisterns, each complete with a dedicated well for a water source for said cisterns, at no cost to Douglas County or the applicable fire district. Each well and cistern shall be part of an automated system to ensure the cisterns are kept full at all times while not in use by the fire districts. It is the intent of the developer to provide one cistern system as noted above within each of the first three of four (4) phases. Said cistern systems shall be located in easements or within the public right of way (as approved by Douglas County Engineering Division) and shall be shown on each applicable final plat.

2. **Emergency Access**

   The developer, its successors and assigns shall construct at no cost to Douglas County one emergency access along the Western boundary to connect to Butte Circle (in the Southeast corner of Perry Pines). Such access shall be constructed and maintained to acceptable County standards and shall have a locked gate to prevent public vehicular use. The perpetual maintenance of such access including snow removal shall be the responsibility of the Developer, its successors and assigns. Timing of the construction of said emergency access shall be determined by Douglas County Engineering Division in conjunction with the three affected fire districts as part of the access phasing plan (as noted in approval condition # 2 at the December 21, 1994 Board of County Commissioners public hearing.)

3. **Residential Fire Sprinkler Systems**

   Prior to approval of the first final plat within Keene Ranch Third Amendment, the developer, its successors and assigns shall develop a plan in conjunction with the Douglas County Building Department and affected fire districts, to ensure every home within the development is constructed with a individual residential fire sprinkler system. The system shall be automatically monitored for flow and tamper. The homeowners association shall be responsible to keep the necessary paperwork on file, regarding periodic maintenance, for inspection by the affected fire districts.

WILDLIFE MITIGATION'S

In an effort to reduce possible conflicts between human inhabitants of Keene Ranch Planned Development Third Amendment and its native wildlife species, the developer shall provide to Douglas County with the submittal of the first final plat, covenants to satisfy the concerns of the Division of Wildlife as noted in their referral letter. Said covenants shall include, but not be limited to, the following.

   a. Providing food or salt licks for any animal species except livestock, birds or household pets shall be prohibited.
   b. Household pets shall be fed indoors or within an enclosed area to avoid attracting nearby wildlife.
   c. Household pets shall not be allowed to run at large and are subject to Douglas County's leash law, as well as State law regarding wildlife harassment.
   d. Garbage shall be stored in an enclosed area prior to removal and shall not be set out for removal in containers without lids which can easily be opened (i.e. boxes, plastic or paper bags) by any animal.
   e. No wildlife species, especially young or injured animals, should be petted or taken home as pets. In the case of an injured animal, the Division of Wildlife should be contacted.
   f. Fencing shall be of a type approved by the Colorado Department of Wildlife and as noted hereon in the "Fencing Standards" for PA-1 and PA-2.

PHASING

Development of this project shall occur in 4 (four) phases, the first phase being the Southern portion, the second phase being the Northeast portion, the third phase being the Northwest portion and the fourth and final phase being the Southwest or remaining portion.

COUNTY REGULATIONS

The Developer its successors and assigns and the County agree that any off-site mitigation/impact fee and service cost recovery regulations, guidelines or other authority of general applicability adopted or promulgated by the County shall apply to Keene Ranch Planned Development Third Amendment if such regulations, guidelines or other authority are of general applicability to the County, Additionally, the Developer shall cause the payment of fees, as applicable, into the Countywide "Trust Fund" specific to school impact fees.

HOMEOWNERS ASSOCIATION

A mandatory Master Homeowners Association shall be established with the right to assess fees on all property within Keene Ranch Planned Development Third Amendment sufficient for the maintenance of certain facilities and programs including, but not limited to perpetual maintenance of emergency access easements, including snow removal, development of a program to satisfy the requirements of the augmentation plan (Case No. 93CW102) item #9 (Administration of Plan for Augmentation), drainage easements and pedestrian and equestrian trails.

SINGLE FAMILY RESIDENTIAL- ALL DISTRICTS

Intent

Within Keene Ranch Planned Development Third Amendment, Two types of single family planning areas have been established. These are PA-1 and PA-2.

To provide a mix of large-lot residential homesites, that create country living in a rural atmosphere while preserving the vegetation, significant geological features, wildlife habitat/corridors, views and privacy, and provide an appropriate transition form urban development to agricultural areas, The density range is from one dwelling per 35 acres to one dwelling per 5 acres.

Some lots shall be required to allow for easements as a method of providing for pedestrian, equestrian and wildlife corridors as indicated on the Keene Ranch P.D. - First Amendment, Sketch Plan - File No. SB94-001. The maintenance of any such easements shall be the responsibility of the Keene Ranch Homeowners Association. Some lots may also, include major natural drainage systems. In such cases, dwellings must be built outside of the 100 year flood plain for that drainage. Maintenance of these drainage's shall be the responsibility of the Keene Ranch Homeowners Association. These easements shall be identified on the final plat for each phase. Motorized or wheeled vehicles shall be prohibited within these easements. These drainage easements shall be precisely identified on the preliminary and final plats for each Phase.

PA-1 DEVELOPMENT STANDARDS

a. Principal Uses:	All those per the A-1 Section of the Douglas County Zoning Resolutions as amended
b. Accessory Uses:	All those per the A-1 Section of the Douglas County Zoning Resolution as amended
c. Uses Permitted by Special Review:	All those per the A-1 Section of the Douglas County Zoning Resolution as amended except the following: Aircraft-related recreational facility Airport/heliport Bed & Breakfast Boarding house Campground Cemetery Church/church school Cultural facility Entertainment event Feed yard - commercial Firing range Fur farm - commercial Group home Guest ranch, including accompanying Resort cabins Heliport Zoo
d. Setbacks:	All setbacks shall be in accordance with the A-1 Sections of the Douglas County Zoning Resolution as amended
e. Building Height:	Building height shall be in accordance with A-1 Sections of the Douglas County Zoning Resolution as amended
f. Fencing Standards:	Permitted fencing shall be constructed in accordance with the A-1 Section of the Douglas County Zoning Resolution as Amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un-restricted pedestrian, equestrian and wildlife movement. ~~Fencing shall be prohibited within 50 feet of any Road Right of Way.~~
g. Minimum Lot Size:	35 acres

Remove

PA-2 DEVELOPMENT STANDARDS

a. Principal Uses:	All those per the R. R. Section of the Douglas County Zoning Resolution as amended
b. Accessory Uses:	All those per Section R. R. of the Douglas County Zoning Resolution as amended
c. Uses Permitted by Special Review:	All those per the R. R. Section of the Douglas County Zoning Resolution as amended, except Bed & Breakfast Boarding House Church/church school Cultural facility Group home Nursing or convalescent home or other Extended-care facility Retirement home Septic waste and domestic sludge application Water/wastewater treatment and water storage for domestic use in excess of 5,000 gallons for public, private or multiple use Wind energy conversion system
d. Setbacks:	All structures shall be setback a minimum of 100 feet from any lot line adjacent to a street, except as shown on the final plat. All structures shall be setback a minimum of 50 feet from any side or rear lot line.
e. Building Heights:	Building Height shall be in accordance with the R. R. Section of the Douglas County Zoning Resolution as amended
f. Fencing Standards:	Permitted fencing shall be constructed in accordance with the R. R. Section of the Douglas County Zoning Resolution as Amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un-restricted pedestrian, equestrian and wildlife movement. Fencing shall be prohibited within 50 feet of any Road Right of Way.
g. Minimum Lot Size:	The minimum lot size shall be as shown on Sheets 1 & 2 of the Keene Ranch P.D. - 1ST Amendment, Douglas County Planning Department File No. SB94-001, however at the time of final platting, lot sizes may very in size, however no lot shall be less than 195,000 square feet. In no event however shall the number of lots within PA-2 exceed 232 lots.

Remove

COUNTY CERTIFICATION

THIS MAJOR AMENDMENT OF THE KEENE RANCH DEVELOPMENT PLAN AMENDING THE FENCING STANDARDS OF PA-1 AND PA-2 AS DEPICTED HEREON PURSUANT TO PA-1 DEVELOPMENT STANDARDS F. FENCING STANDARDS, AND PA-2 DEVELOPMENT STANDARDS F. FENCING STANDARDS HAS BEEN APPROVED BY BOARD RESOLUTION NO._____ ON _____, 2024.
THIS AMENDMENT NO. 3 AFFECTS ONLY PA-1 AND PA-2 AS DESCRIBED IN FILE NO. ZR2023-007

_____ _____
Chair, Board of Douglas County Commissioners Date

_____ _____
Director of Community Development Date

CLERK AND RECORDER CERTIFICATION

I hereby certify that this Plan was filed in my office on this _____ of _____, 2024, A.D. at _____o'clock a.m./p.m., and was recorded per Reception No. _____.

_____
Douglas County Clerk and Recorder

REVISIONS
Misc. 11-7-94
Rev. 1-23-95
Title Cert. 1-26-95
Revised 3-2-95

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4642
108 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE
DATE SEPT. 1994
DR. BY CHK.
JOB NO.

TITLE
KEENE RANCH
PLANNED DEVELOPMENT FIRST AMENDMENT
A MAJOR AMENDMENT TO THE KEENE RANCH PLANNED DEVELOPMENT

CLIENT
CASTLE BUTTE L.L.C.

Sheet 1 of 3 JOB NUMBER 92-802

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KEENE RANCH PLANNED DEVELOPMENT Third AMENDMENT

A Major Amendment to PA-1 and PA-2 Development Standards, F. Fencing Standards

SECTIONS 29,30,31 & 32 TOWNSHIP 8 SOUTH, RANGE 67 WEST and SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST

2057.87 ACRES 247 DU'S ZR2023-007

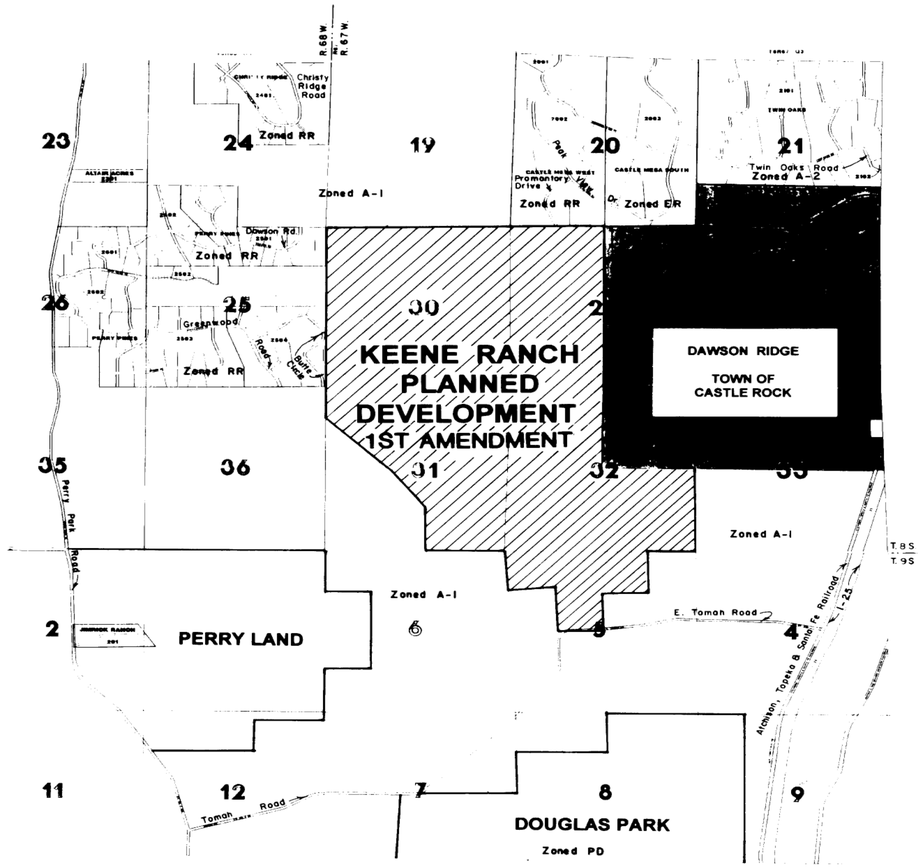
PROPERTY DESCRIPTION: PLANNING AREA PA-1

A tract of land situated in Sections 29, 30, 31 and 32, Township 8 South, Range 67 West and in Section 5, Township 9 South, Range 67 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the Southeast corner of Section 31 and considering the South line of Section 31 to bear N 88°55'41"W with all bearings contained herein relative thereto;
Thence N 88°55'41"W along said South line a distance of 2364.46 feet;
Thence N 00°22'48"E a distance of 1442.54 feet;
Thence N 38°28'49"W a distance of 1494.59 feet;
Thence N 46°42'53"W a distance of 2695.61 feet to a point on the West line of Section 31, said point being S 00°54'10"E a distance of 845.88 feet from the Northwest corner of Section 31;
Thence N 85°22'22"E a distance of 2354.68 feet;
Thence S 10°18'45"E a distance of 211.44 feet;
Thence N 81°48'42"E a distance of 1496.90 feet;
Thence S 42°51'12"E a distance of 350.00 feet;
Thence N 44°33'57"E a distance of 1452.21 feet;
Thence Easterly along the arc of a curve to the left a distance of 733.97 feet, said curve has a radius of 330.00 feet and a central angle of 127°26'02" to a point of tangent;
Thence N 21°50'07"E along said tangent a distance of 131.40 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 112.65 feet, said curve has a radius of 170.00 feet and a central angle of 37°58'01" to a point of tangent;
Thence N 59°48'08"E along said tangent a distance of 42.03 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 94.52 feet, said curve has a radius of 205.00 feet and a central angle of 26°25'03" to a point of tangent;
Thence S 65°01'49"E along said tangent a distance of 155.39 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 221.86 feet, said curve has a radius of 470.00 feet and a central angle of 27°02'44" to a point of tangent;
Thence S 37°59'05"E along said tangent a distance of 237.82 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 266.40 feet, said curve has a radius of 470.00 feet and a central angle of 32°28'33" to a point of tangent;
Thence S 05°30'32"E along said tangent a distance of 270.30 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 336.21 feet, said curve has a radius of 1530.00 feet and a central angle of 12°35'26" to a point of tangent;
Thence S 18°05'58"E along said tangent a distance of 690.20 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 319.90 feet, said curve has a radius of 530.00 feet and a central angle of 34°34'59";
Thence S 68°33'10"W a distance of 1620.52 feet;
Thence S 42°51'12"E a distance of 283.61 feet;
Thence S 52°04'07"W a distance of 931.19 feet;
Thence Southeasterly along the arc of a curve to the right a distance of 48.82 feet, said curve has a radius of 470.00 feet and a central angle of 05°57'04" to a point of tangent;
Thence S 31°58'49"E along said tangent a distance of 395.44 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 184.06 feet, said curve has a radius of 530.00 feet and a central angle of 19°53'52" to a point of tangent;
Thence S 51°52'41"E along said tangent a distance of 708.34 feet to a point of curve;
Thence Easterly along the arc of a curve to the left a distance of 247.20 feet, said curve has a radius of 230.00 feet and a central angle of 61°34'51" to a point of tangent;
Thence N 66°32'28"E along said tangent a distance of 80.47 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 165.99 feet, said curve has a radius of 470.00 feet and a central angle of 20°14'08" to a point of tangent;
Thence N 86°46'36"E along said tangent a distance of 39.67 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 393.65 feet, said curve has a radius of 530.00 feet and a central angle of 42°33'20" to a point of tangent;
Thence S 49°01'25"E along said tangent a distance of 953.90 feet to a point of curve;
Thence Southerly along the arc of a curve to the right a distance of 435.68 feet, said curve has a radius of 370.00 feet and a central angle of 67°28'00" to a point of tangent;
Thence S 18°26'35"W along said tangent a distance of 109.92 feet to a point of curve;
Thence Southerly along the arc of a curve to the left a distance of 327.09 feet, said curve has a radius of 530.00 feet and a central angle of 35°21'36";
Thence S 73°04'59"W a distance of 315.00 feet;
Thence S 43°41'04"W a distance of 668.33 feet;
Thence S 81°27'47"W a distance of 1289.45 feet;
Thence N 02°17'08"W a distance of 1286.89 feet to the point of beginning;
Containing 531.948 acres, more or less.
This property description was prepared under the direct supervision of David E. Archer (P.L.S. 6935), 105 Wilcox Street, Castle Rock, CO 80104.

SEE Graphic Exhibit of Property Description of PA-1 and PA-2 on Sheet 3 of 5 Sheets.

PROPERTY DESCRIPTION: PLANNING AREA PA-2

A tract of land situated in Sections 29, 30, 31 and 32, Township 8 South, Range 67 West and in Section 5, Township 9 South, Range 67 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the Northwest corner of Section 31 and considering the West line of Section 31 to bear S 00°54'10"E with all bearings contained herein relative thereto;
Thence S 00°54'10"E along said West line a distance of 845.88 feet;
Thence N 85°22'22"E a distance of 2354.68 feet;
Thence S 10°18'45"E a distance of 211.44 feet;
Thence N 81°48'42"E a distance of 1496.90 feet;
Thence S 42°51'12"E a distance of 350.00 feet;
Thence N 44°33'57"E a distance of 1452.21 feet;
Thence Easterly along the arc of a curve to the left a distance of 733.97 feet, said curve has a radius of 330.00 feet and a central angle of 127°26'02" to a point of tangent;
Thence N 21°50'07"E along said tangent a distance of 131.40 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 112.65 feet, said curve has a radius of 170.00 feet and a central angle of 37°58'01" to a point of tangent;
Thence N 59°48'08"E along said tangent a distance of 42.03 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 94.52 feet, said curve has a radius of 205.00 feet and a central angle of 26°25'03" to a point of tangent;
Thence S 65°01'49"E along said tangent a distance of 155.39 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 221.86 feet, said curve has a radius of 470.00 feet and a central angle of 27°02'44" to a point of tangent;
Thence S 37°59'05"E along said tangent a distance of 237.82 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 266.40 feet, said curve has a radius of 470.00 feet and a central angle of 32°28'33" to a point of tangent;
Thence S 05°30'32"E along said tangent a distance of 270.30 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 336.21 feet, said curve has a radius of 1530.00 feet and a central angle of 12°35'26" to a point of tangent;
Thence S 18°05'58"E along said tangent a distance of 690.20 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 319.90 feet, said curve has a radius of 530.00 feet and a central angle of 34°34'59";
Thence S 68°33'10"W a distance of 1620.52 feet;
Thence S 42°51'12"E a distance of 283.61 feet;
Thence S 52°04'07"W a distance of 931.19 feet;
Thence Southeasterly along the arc of a curve to the right a distance of 48.82 feet, said curve has a radius of 470.00 feet and a central angle of 05°57'04" to a point of tangent;
Thence S 31°58'49"E along said tangent a distance of 395.44 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 184.06 feet, said curve has a radius of 530.00 feet and a central angle of 19°53'52" to a point of tangent;
Thence S 51°52'41"E along said tangent a distance of 708.34 feet to a point of curve;
Thence Easterly along the arc of a curve to the left a distance of 247.20 feet, said curve has a radius of 230.00 feet and a central angle of 61°34'51" to a point of tangent;
Thence N 66°32'28"E along said tangent a distance of 80.47 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 165.99 feet, said curve has a radius of 470.00 feet and a central angle of 20°14'08" to a point of tangent;
Thence N 86°46'36"E along said tangent a distance of 39.67 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 393.65 feet, said curve has a radius of 530.00 feet and a central angle of 42°33'20" to a point of tangent;
Thence S 49°01'25"E along said tangent a distance of 953.90 feet to a point of curve;
Thence Southerly along the arc of a curve to the right a distance of 435.68 feet, said curve has a radius of 370.00 feet and a central angle of 67°28'00" to a point of tangent;
Thence S 18°26'35"W along said tangent a distance of 109.92 feet to a point of curve;
Thence Southerly along the arc of a curve to the left a distance of 327.09 feet, said curve has a radius of 530.00 feet and a central angle of 35°21'36";
Thence S 73°04'59"W a distance of 315.00 feet;
Thence S 43°41'04"W a distance of 668.33 feet;
Thence S 01°07'14"W a distance of 253.13 feet to the North line of the Southwest ¼ of the Northwest ¼ of Section 5;
Thence S 89°35'43"E a distance of 46.09 feet to the Northwest corner of the Southeast ¼ of the Northwest ¼ of Section 5;
Thence S 02°13'07"E a distance of 1302.86 feet to the Southwest corner of said Southeast ¼ of the Northwest ¼;
Thence S 89°31'21"E a distance of 1312.79 feet to the Southeast corner of the Southeast ¼ of the Northwest ¼;
Thence N 02°09'06"W a distance of 1304.46 feet to the Northeast corner of the Southeast ¼ of the Northwest ¼;
Thence S 89°35'43"E a distance of 1314.24 feet to the Southeast corner of the Northwest ¼ of the Northeast ¼ of Section 5;
Thence N 02°05'06"W a distance of 1342.63 feet to the Northeast corner of the Northwest ¼ of the Northeast ¼;
Thence S 89°38'30"E a distance of 1315.75 feet to the Southeast corner of Section 32;
Thence N 00°08'10"E a distance of 2730.13 feet to the East ¼ corner of Section 32;
Thence S 89°59'23"W a distance of 2623.87 feet to the Center ¼ corner of Section 32;
Thence N 00°17'50"E a distance of 2714.45 feet to the North ¼ corner of Section 32;
Thence N 00°01'35"W a distance of 5308.70 feet to the Northeast corner of the West ½ of Section 29;
Thence N 88°24'38"W a distance of 2661.03 feet to the Northeast corner of Section 30;
Thence S 88°05'32"W a distance of 5205.81 feet to the Northwest corner of Section 30;
Thence S 01°00'18"W a distance of 1309.88 feet to the Southwest corner of the Northwest ¼ of the Northwest ¼ of Section 30;
Thence S 00°35'54"W a distance of 1308.87 feet to the West ¼ corner of Section 30;
Thence S 00°22'54"W a distance of 2651.22 feet to the point of beginning;
Containing 1525.922 acres, more or less.
This property description was prepared under the direct supervision of David E. Archer (P.L.S. 6935), 105 Wilcox Street, Castle Rock, CO 80104.



VICINITY MAP 1"= 2000'

REVISIONS
Misc. 11-7-94
Rev. 1-25-95

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4643
105 WILCOX ST. CASTLE ROCK,COLORADO 80104

SCALE
DATE SEPT. 1994
DR'N. CKD.
SUP'VD.

TITLE KEENE RANCH
PLANNED DEVELOPMENT FIRST AMENDMENT
A MAJOR AMENDMENT TO THE KEENE RANCH PLANNED DEVELOPMENT
CLIENT CASTLE BUTTE L.L.C.
Sheet 2 of 3 JOB NUMBER 92-802

https://apps.douglas.co.us//LandMarkWeb//Document/GetDocumentForPrintPNG/?request=AQAAANCMnd8BFdERjHoAwE/Cl+sBAAAAQo4Mkj2nbkWXxfZ3BEA8ZgAAAAACAAAAAADZgAAwAAAABAAAAAAqK1SWBDHPWap4/rsb1jMAAAAASAAACgAAAEAAAAA/bi0D3ADDXoiN80qCC

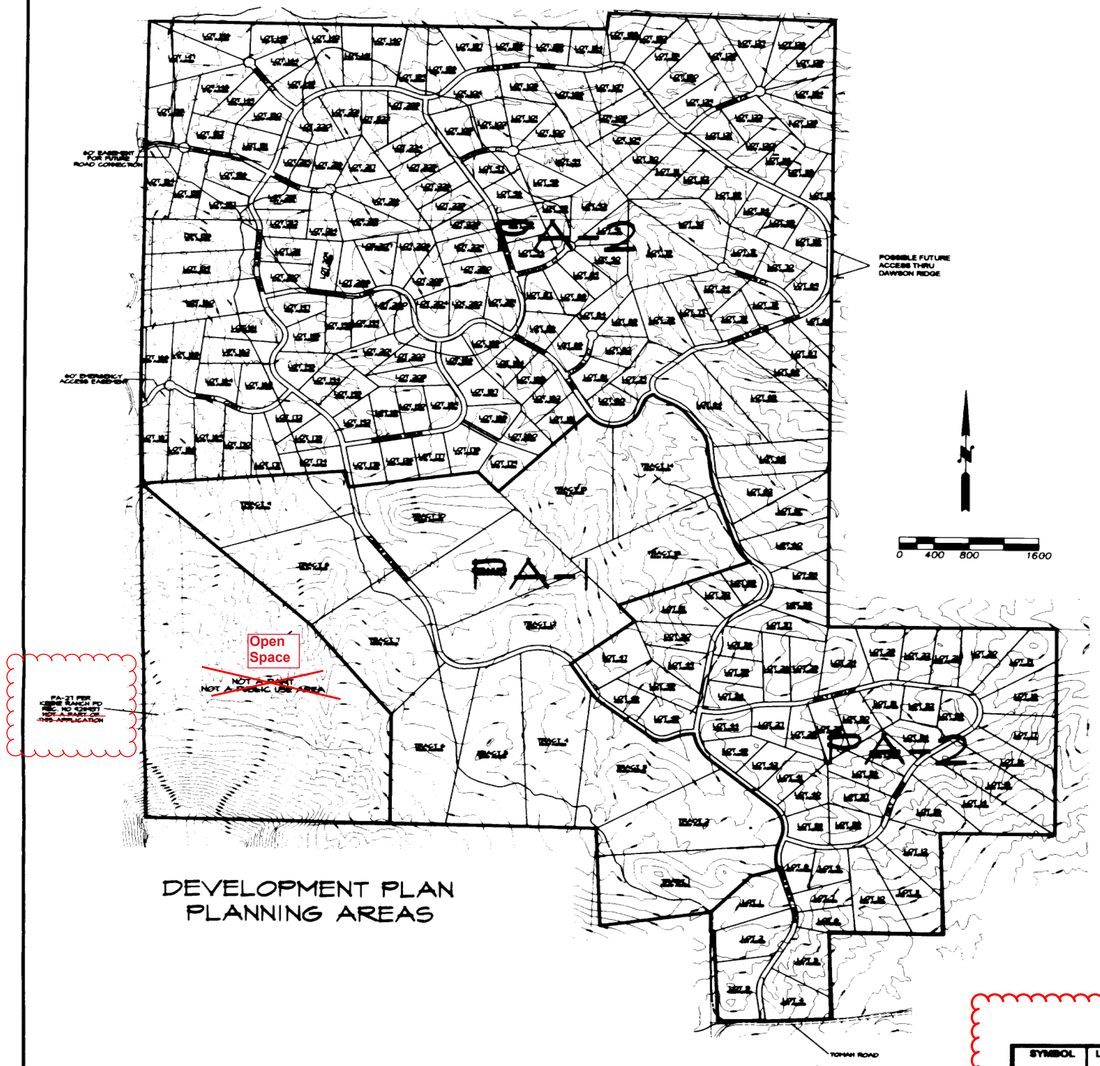
KEENE RANCH PLANNED DEVELOPMENT Third AMENDMENT

A Major Amendment to PA-1 and PA-2 Development Standards, F. Fencing Standards

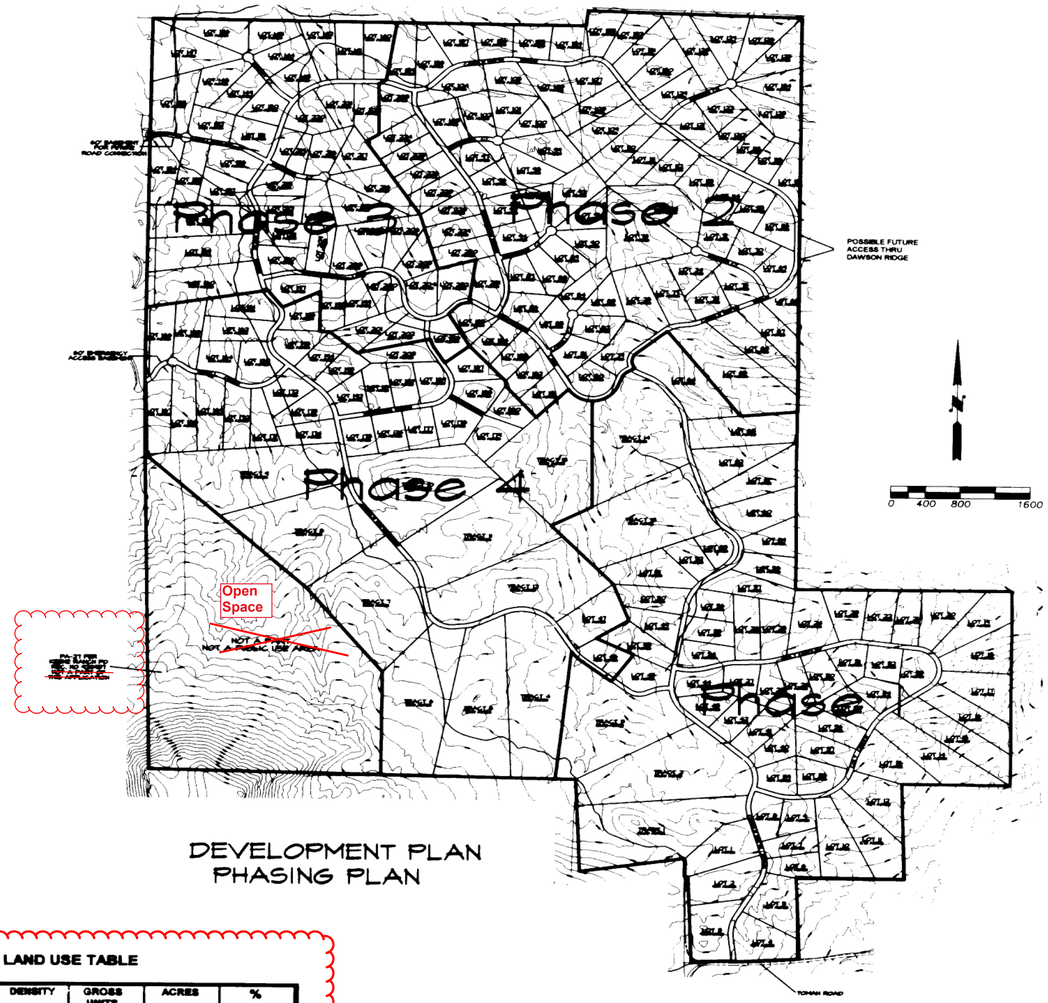
SECTIONS 29,30,31 & 32 TOWNSHIP 8 SOUTH, RANGE 67 WEST and SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST

2057.87 ACRES 247 DU'S

ZR2023-007



DEVELOPMENT PLAN
PLANNING AREAS



DEVELOPMENT PLAN
PHASING PLAN

LAND USE TABLE

SYMBOL	LAND USE	DENSITY	GROSS UNITS	ACRES	%
PA-1	Residential	0.036	15	531.948	24
PA-2	Residential	0.15	232	1525.922	68
OS	Open Space			197.145	8
TOTAL		0.120	247	2,255	100

REVISIONS	Misc. 11-7-44 Rev. 1-29-45
DAVID E. ARCHER & ASSOCIATES, INC.	LAND DEVELOPMENT CONSULTING SURVEYING & ENGINEERING PHONE (303) 688-4848 105 WILCOX ST. CASTLE ROCK, COLORADO 80104
SCALE	DATE SEPT. 1944
TITLE	KEENE RANCH PLANNED DEVELOPMENT FIRST AMENDMENT A MAJOR AMENDMENT TO THE KEENE RANCH PLANNED DEVELOPMENT
CLIENT	CASTLE BUTTE L.L.C.
Sheet 3 of 3	JOB NUMBER 92-802

KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT

A MAJOR AMENDMENT TO PA-1 AND PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS SECTIONS 29, 30, 31 & 32, TOWNSHIP 8 SOUTH, RANGE 67 WEST & SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST OF THE 6TH P.M., DOUGLAS COUNTY, COLORADO

2057.87 ACRES 247 DU'S ZR2023-007

KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT DEVELOPMENT GUIDE

GENERAL PROVISIONS

Authority
This Development Plan is authorized by Section 15–Planned Development District of the Douglas County Zoning Resolution adopted pursuant to the Colorado Planned Unit Development Act of 1972.

Applicability
The provisions of this Development Plan shall run with the land. The land–owners, their successors, heirs, or assigns shall be bound by this Development Plan, as amended and approved by the Planning Director or Board of County Commissioners.

Adoption
The adoption of this Development Plan shall evidence the findings and decision of the Douglas County Board of Commissioners that this Development Plan for Keene Ranch Planned Development Third Amendment is in general conformity with the Douglas County Master Plan; is authorized by the provision of Section 15 of the Douglas County Zoning Resolution; and that such Section 15 and this Development Plan comply with the Colorado Planned Unit Development Act of 1972, as amended.

Relationship to County Regulations
The provisions of this Development Plan shall prevail and govern the development of Keene Ranch Planned Development Third Amendment, provided, however, that where the provisions of this Development Plan do not address a particular subject, the relevant provisions of the Douglas County Zoning Resolution, as Amended, or any other applicable resolutions or regulations of Douglas County, shall be applicable.

Enforcement
To further the mutual interest of the residents, occupants, and owners of the Planned Development and of the public in the preservation of the integrity of the Plan, the provisions of this Plan relating to the use of land and the location of common open space shall run in favor of Douglas County and shall be enforceable at law or in equity by the County without limitation on any power or regulation otherwise granted by law.

Conflict
Where there is more than one provision within the Development Plan that covers the same subject matter, the provision which is most restrictive or imposes higher standards or requirements shall govern unless determined otherwise by the Director of Planning and Community Development.

Maximum Level of Development
The total number of dwellings approved for development within the Planning Areas is the maximum development requested for platting or construction (plus approved density transfers, if any). The actual number of dwellings commercial, may be less due to subdivision or site improvement plan requirements or other requirements of the Board of County Commissioners.

Project Tracking
At the time of subdivision final plat, the applicant shall provide a summary of the development, to date, along with the final plat submittal to the Planning Division, in order to assure maximum development limits are not exceeded.

Continued Agricultural Uses
Prior to final platting or dedication of property for public use, all uses permitted by right and by Special Review under the Douglas County A–1 Zoning category shall continue to be allowed for all properties not platted or dedicated. Such permitted uses or uses by Special Review shall be subject to all provisions of the Douglas County Zoning Resolution relating to the A–1 Zone District.

Commitments
In order to implement the Planned Development District, the developer hereby submits to the following commitments which shall be binding upon itself and its successors and assigns in interest with the respect to its properties within the Keene Ranch Planned Development Third Amendment, and upon the County, upon approval by the Board of Douglas County Commissioners of the Development Plan and related Development Guide. Said commitments are as follows:

Schools
The developer, its successors and assigns shall pay cash–in–lieu of school land dedication in accordance with Article 10 of the Douglas County Subdivision Resolution. The payment shall be made prior to recordation of any final plat approved within Keene Ranch, Third Amendment. The dollar value amount to be used in determining said payment shall be determined by Douglas County at the time of said payment.

Parks
The developer, its successors and assigns shall pay cash–in–lieu of park land dedication in accordance with Article 10 of the Douglas County Subdivision Resolution. The payments shall be made prior to recordation of any final plat approved within Keene Ranch, Third Amendment. The dollar value amount to be used in determining said payment shall be determined by Douglas County at the time of said payment.

TRANSPORTATION

1. Right of Way Dedication

a. All public road Rights of Way within the development shall be dedicated in fee simple absolute to Douglas County at no cost to Douglas County at the time of the Final Plat approval.
b. Additional Right of Way for Tomah Road as required by the County Engineer shall be dedicated in fee simple absolute to Douglas County at no cost to Douglas County at the time of the first Final Plat.

2. Road Construction

a. All public roads (except the emergency vehicle access roads) within the development shall be constructed and paved to Douglas County Standards.
b. Tomah Road shall be constructed and paved from the entrance of Keene Ranch First Filing Phase as shown hereon, Easterly to the end of the existing paving.
c. The costs of roadway improvements shall be secured by bond, letter of credit or other security acceptable to Douglas County prior to recordation of the final plat (on a per phase or filing basis).

WATER SUPPLY

Each residential site within PA–1 and PA–2 shall be allowed one individual domestic well into the Denver aquifer pursuant to the augmentation plan 93CW102. The individual wells shall each be allocated a minimum of one acre foot per year. All water contained within the underlying Arapahoe and Laramie Fox–Hills Aquifers shall not be conveyed to the purchasers of Lots within Keene Ranch, Third Amendment.

WASTE WATER TREATMENT

Each residential site within PA–1 and PA–2 shall be required to install an on–site sewage disposal system approved by Tri–County District Health Department, its successors and assigns. Where practical, unique natural site features and mature vegetation shall be preserved. All individual septic disposal systems shall be of the non–evaporative type in accordance with the Water Court Case No. 93CW102.

FIRE PROTECTION

1. Water Source

Prior to issuance of the first certificate of occupancy, the developer, its successors and assigns shall install up to three (3) 20,000 gallon below–grade cisterns, each complete with a dedicated well for a water source for said cisterns, at no cost to Douglas County or the applicable fire district. Each well and cistern shall be part of an automated system to ensure the cisterns are kept full at all times while not in use by the fire districts. It is the intent of the developer to provide one cistern system as noted above within each of the first three of four (4) phases. Said cistern systems shall be located in easements or within the public Right of Way (as approved by Douglas County Engineering Division) and shall be shown on each applicable final plat.

2. Emergency Access

The developer, its successors and assigns shall construct at no cost to Douglas County one emergency access along the Western boundary to connect to Butte Circle (in the Southeast corner of Perry Pines). Such access shall be constructed and maintained to acceptable County standards and shall have a locked gate to prevent public vehicular use. The perpetual maintenance of such access including snow removal shall be the responsibility of the Developer, its successors and assigns. Timing of the construction of said emergency access shall be determined by Douglas County Engineering Division in conjunction with the three affected fire districts as part of the access phasing plan (as noted in approval condition #2 of the December 21, 1994 Board of County Commissioners public hearing).

3. Residential Fire Sprinkler Systems

Prior to approval of the first final plat within Keene Ranch Third Amendment, the developer, its successors and assigns shall develop a plan in conjunction with the Douglas County Building Department and affected fire districts, to ensure every home within the development is constructed with an individual residential fire sprinkler system. The system shall be automatically monitored for flow and tamper. The homeowners association shall be responsible to keep the necessary paperwork on file, regarding periodic maintenance, for inspection by the affected fire districts.

WILDLIFE MITIGATION'S

In an effort to reduce possible conflicts between human inhabitants of Keene Ranch Planned Development Third Amendment and its native wildlife species, the developer shall provide to Douglas County with the submittal of the first final plat, covenants to satisfy the concerns of the Division of Wildlife as noted in their referral letter. Said covenants shall include, but not be limited to, the following:

a. Providing food or salt licks for any animal species except live–stock, birds or household pets shall be prohibited.
b. Household pets shall be fed indoors or within an enclosed area to avoid attracting nearby wildlife.
c. Household pets shall not be allowed to run at large and are subject to Douglas County's leash law, as well as State law regarding wildlife harassment.
d. Garbage shall be stored in an enclosed area prior to removal and shall not be set out for removal in containers without lids which can easily be opened (i.e. boxes, plastic or paper bags) by any animal.
e. No wildlife species, especially young or injured animals, should be petted or taken home as pets. In the case of an injured animal, the Division of Wildlife should be contacted.
f. Fencing shall be of a type approved by the Colorado Depart–ment of Wildlife and as noted hereon in the "Fencing Standards" For PA–1 and PA–2.

PHASING

Development of this project shall occur in four (4) phases, the first phase being the Southern portion, the second phase being the Northeast portion, the third phase being the Northwest portion and the fourth and final phase being the Southwest or remaining portion.

COUNTY REGULATIONS

The Developer, its successors and assigns and the County agree that any off–site mitigation/impact fee and service cost recovery regulations, guide–lines or other authority of general applicability adopted or promulgated by the County shall apply to Keene Ranch Planned Development Third Amendment if such regulations, guidelines or other authority are of general applicability to the County. Additionally, the Developer shall cause the payment of fees, as applicable, into the Countywide "Trust Fund" specific to school impact fees.

HOMEOWNERS ASSOCIATION

A mandatory Master Homeowners Association shall be established with the right to assess fees on all property within Keene Ranch Planned Development Third Amendment sufficient for the maintenance of certain facilities and programs including, but not limited to, perpetual maintenance of emergency access easements, including snow removal, development of a program to satisfy the requirements of the augmentation plan (Case No. 93CW102) item #8 (Administration of Plan for Augmentation), drainage easements and pedestrian and equestrian trails.

SINGLE FAMILY RESIDENTIAL – ALL DISTRICTS

Intent
Within Keene Ranch Planned Development Third Amendment, two types of single family planning areas have been established. These are PA–1 and PA–2.

To provide a mix of large–lot residential homesites, that create country living in a rural atmosphere while preserving the vegetation, significant geological features, wildlife habitat/corridors, views and privacy, and provide an appropriate transition from urban development to agricultural areas. The density range is from one dwelling per 35 acres to one dwelling per 5 acres.

Some lots shall be required to allow for easements as a method of providing for pedestrian, equestrian and wildlife corridors as indicated on the Keene Ranch P.D. – First Amendment, Sketch Plan – File No. SB94–001. The maintenance of any such easements shall be the responsibility of the Keene Ranch Homeowners Association. Some lots may also include major natural drainage systems. In such cases, dwellings must be built outside of the 100 year flood plain for that drainage. Maintenance of these drainage's shall be the responsibility of the Keene Ranch Homeowners Association. These easements shall be identified on the final plat for each phase. Motorized or wheeled vehicles shall be prohibited within these easements. These drainage easements shall be precisely identified on the preliminary and final plats for each Phase.

PA–1 DEVELOPMENT STANDARDS

a. Principal Uses: All those per the A–1 Section of the Douglas County Zoning Resolution as Amended.

b. Accessory Uses: All those per the A–1 Section of the Douglas County Zoning Resolution as Amended.

c. Uses Permitted by Special Review: All those per the A–1 Section of the Douglas County Zoning Resolution as Amended except the following:
Aircraft–related recreational facility
Airport/heliport
Bed & Breakfast
Boarding house
Campground
Cemetery
Church/church school
Cultural facility
Entertainment event
Feed yard . commercial
Firing range
Fur farm . commercial
Group home
Guest ranch, including accompanying resort cabins
Heliport
Zoo

d. Setbacks: All setbacks shall be in accordance with the A–1 Sections of the Douglas County Zoning Resolution as amended.

e. Building Height: Building height shall be in accordance with A–1 Sections of the Douglas County Zoning Resolution as Amended

f. Fencing Standards: Permitted fencing shall be constructed in accordance with the A–1 Section of the Douglas County Zoning Resolution as amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un–restricted pedestrian, equestrian and wildlife movement.

g. Minimum Lot Size: 35 acres

PA–2 DEVELOPMENT STANDARDS

a. Principal Uses: All those per the R.R. Section of the Douglas County Zoning Resolution as Amended

b. Accessory Uses: All those per the R.R. Section of the Douglas County Zoning Resolution as Amended

c. Uses Permitted by Special Review: All those per the R.R. Section of the Douglas County Zoning Resolution as Amended, except the following:
Bed & Breakfast
Boarding house
Church/church school
Cultural facility
Group home
Nursing or convalescent home or other extendedcare facility
Retirement home
Septic waste and domestic sludge application
Water/wastewater treatment and water storage for domestic use in excess of 5,000 gallons for public, private or multiple use
Wind energy conversion System

d. Setbacks: All structures shall be setback a minimum of 100 feet from any lot line adjacent to a street, except as shown on the final plat. All structures shall be setback a minimum of 50 feet from any side or rear lot line

e. Building Height: Building height shall be in accord–ance with the R.R. Section of the Douglas County Zoning Resolution as Amended

f. Fencing Standards: Permitted fencing shall be constructed in accordance with the R.R. Section of the Douglas County Zoning Resolution as amended. Fencing of any kind shall be prohibited within any "Natural drainage easement" or within any pedestrian and equestrian easement as said easements shall be left open so as to allow complete and un–restricted pedestrian, equestrian and wildlife movement.

g. Minimum Lot Size: The minimum lot size shall be as shown on Sheets 1 & 2 of the Keene Ranch P.D.–1st Amendment, Douglas County Planning Department File No. SB94–001, however, at the time of final platting, lot sizes may vary in size, however, no lot shall be less than 195,000 square feet. In no event however, shall the number of lots within PA–2 exceed 232 lots.

COUNTY CERTIFICATION

THIS MAJOR AMENDMENT OF THE KEENE RANCH DEVELOPMENT PLAN AMENDING THE FENCING STANDARDS OF PA–1 AND PA–2 AS DEPICTED HEREON PURSUANT TO PA–1 DEVELOPMENT STANDARDS F. FENCING STANDARDS AND PA–2 DEVELOPMENT STANDARDS F. FENCING STANDARDS HAS BEEN APPROVED BY BOARD RESOLUTION NO._____ ON _____, 2024
THIS AMENDMENT NO. 3 AFFECTS ONLY PA–1 AND PA–2 AS DESCRIBED IN FILE ZR2023–007

_____ _____
Chair, Board of Douglas County Commissioners Date

_____ _____
Director of Community Development Date

CLERK AND RECORDER CERTIFICATION

I hereby certify that this plan was filed in my office on this _____day of _____,2024 at _____O'clock _____.M.

and was recorded per Reception No. _____

_____
Douglas County Clerk and Recorder

REVISIONS
Misc. 11-7-94
Rev. 1-25-95
3rd Amend. 7-10-24

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688–4642
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE
DATE Sept. 1994
DRN. CHK.
APVD.

TITLE: KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT
A MAJOR AMENDMENT TO THE PA-1 and PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS
CLIENT: KEENE RANCH HOMEOWNERS ASSOCIATION
JOB NUMBER 92-802
Sheet 1 of 3

Text

KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT

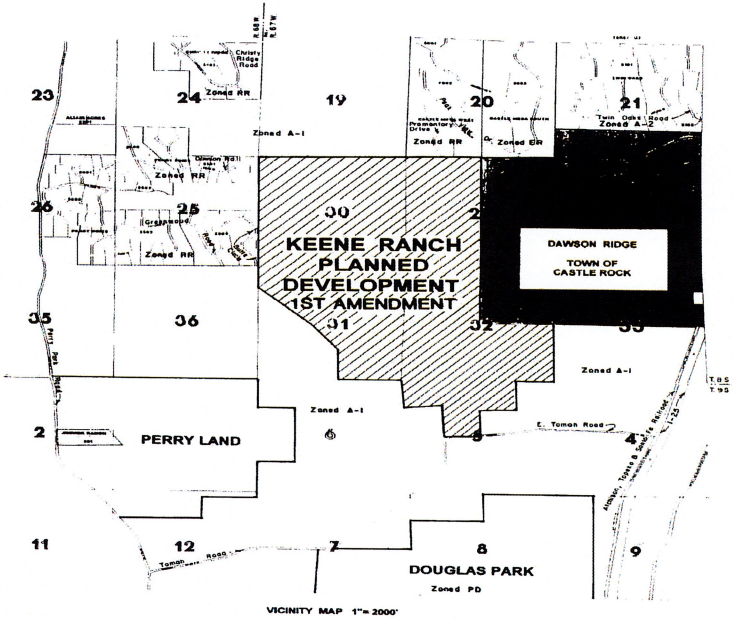
A MAJOR AMENDMENT TO PA-1 AND PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS SECTIONS 29, 30, 31 & 32, TOWNSHIP 8 SOUTH, RANGE 67 WEST & SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST OF THE 6TH P.M., DOUGLAS COUNTY, COLORADO 2057.87 ACRES 247 DU'S ZR2023-007

PROPERTY DESCRIPTION: PLANNING AREA PA-1

A Tract of land situated in Section 29, 30, 31 and 32, Township 8 South, Range 67 West and in Section 5, Township 9 South, Range 67 West of the 6th Principal Meridian, Douglas County, Colorado. More particularly described as follows:
Beginning at the Southeast corner of Section 31 and considering the South line of Section 31 to bear N 88°55.41'W with all bearings contained herein relative thereto;
Thence N 88°55'41"W along said South line a distance of 2364.46 feet;
Thence N 00°22'48"E a distance of 1442.54 feet;
Thence N 38°28'49"W a distance of 1494.59 feet;
Thence N 46°42'53"W a distance of 2695.61 feet to a point on the West line of Section 31, said point being S 00°54'10"E a distance of 845.88 feet from the Northwest corner of Section 31;
Thence N 89°22'22"E a distance of 2354.68 feet;
Thence S 10°18'45"E a distance of 211.44 feet;
Thence N 81°48'42"E a distance of 1496.90 feet;
Thence S 42°51'12"E a distance of 350.00 feet;
Thence N 44°33'57"E a distance of 1452.21 feet;
Thence Easterly along the arc of a curve to the left a distance of 733.97 feet, said curve has a radius of 330.00 feet and a central angle of 127°26'02" to a point of tangent;
Thence N 21°50'07"E along said tangent a distance of 131.40 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 112.65 feet, said curve has a radius of 170.00 feet and a central angle of 37°58'01" to a point of tangent;
Thence N 59°48'08"E along said tangent a distance of 42.03 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 94.52 feet, said curve has a radius of 205.00 feet and a central angle of 26°25'03" to a point of tangent;
Thence S 85°01'49"E along said tangent a distance of 155.39 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 221.86 feet, said curve has a radius of 470.00 feet and a central angle of 27°02'44" to a point of tangent;
Thence S 37°59'05"E along said tangent a distance of 237.82 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 266.40 feet, said curve has a radius of 470.00 feet and a central angle of 32°28'33" to a point of tangent;
Thence S 05°30'32"E along said tangent a distance of 270.30 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 336.21 feet, said curve has a radius of 1530.00 feet and a central angle of 12°35'28" to a point of tangent;
Thence S 18°05'58"E along said tangent a distance of 680.20 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 319.90 feet, said curve has a radius of 530.00 feet and a central angle of 34°34'59";
Thence S 68°33'10"W a distance of 1620.52 feet;
Thence S 42°51'12"E a distance of 283.61 feet;
Thence S 52°04'07"W a distance of 931.19 feet;
Thence Southeasterly along the arc of a curve to the right a distance of 48.82 feet, said curve has a radius of 470.00 feet and a central angle of 05°57'04" to a point of tangent;
Thence S 31°58'49"E along said tangent a distance of 395.44 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 184.06 feet, said curve has a radius of 530.00 feet and a central angle of 19°53'52" to a point of tangent;
Thence S 51°52'41"E along said tangent a distance of 708.34 feet to a point of curve;
Thence Easterly along the arc of a curve to the left a distance of 247.20 feet, said curve has a radius of 230.00 feet and a central angle of 61°34'51" to a point of tangent;
Thence N 66°32'28"E along said tangent a distance of 80.47 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 165.99 feet, said curve has a radius of 470.00 feet and a central angle of 20°14'08" to a point of tangent;
Thence N 86°46'36"E along said tangent a distance of 39.67 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 393.65 feet, said curve has a radius of 530.00 feet and a central angle of 42°33'20" to a point of tangent;
Thence S 49°01'25"E along said tangent a distance of 953.90 feet to a point of curve;
Thence Southerly along the arc of a curve to the right a distance of 435.68 feet, said curve has a radius of 370.00 feet and a central angle of 67°28'00" to a point of tangent;
Thence S 18°26'35"W along said tangent a distance of 109.92 feet to a point of curve;
Thence Southerly along the arc of a curve to the left a distance of 327.09 feet, said curve has a radius of 530.00 feet and a central angle of 35°21'36";
Thence S 73°04'59"W a distance of 315.00 feet;
Thence S 43°41'04"W a distance of 688.33 feet;
Thence S 81°27'47"W a distance of 1289.45 feet;
Thence N 02°17'08"W a distance of 1288.89 feet to the point of beginning;
Containing 531.948 acres, more or less.

PROPERTY DESCRIPTION: PLANNING AREA PA-2

A tract of land situated in Sections 29, 30, 31 and 32, Township 8 South, Range 67 West and in Section 5, Township 9 South, Range 67 West of the 6th Principal Meridian, Douglas County, Colorado, more particularly described as follows:
Beginning at the Northwest corner of Section 31 and considering the West line of Section 31 to bear S 00°54'10"E with all bearings contained herein relative thereto;
Thence S 00°54'10"E along said West line a distance of 845.88 feet;
Thence N 89°22'22"E a distance of 2354.68 feet;
Thence S 10°18'45"E a distance of 211.44 feet;
Thence N 81°48'42"E a distance of 1496.90 feet;
Thence S 42°51'12"E a distance of 350.00 feet;
Thence N 44°33'57"E a distance of 1452.21 feet;
Thence Easterly along the arc of a curve to the left a distance of 733.97 feet, said curve has a radius of 330.00 feet and a central angle of 127°26'02" to a point of tangent;
Thence N 21°50'07"E along said tangent a distance of 131.40 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 112.65 feet, said curve has a radius of 170.00 feet and a central angle of 37°58'01" to a point of tangent;
Thence N 59°48'08"E along said tangent a distance of 42.03 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 94.52 feet, said curve has a radius of 205.00 feet and a central angle of 26°25'03" to a point of tangent;
Thence S 85°01'49"E along said tangent a distance of 155.39 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 221.86 feet, said curve has a radius of 470.00 feet and a central angle of 27°02'44" to a point of tangent;
Thence S 37°59'05"E along said tangent a distance of 237.82 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the right a distance of 266.40 feet, said curve has a radius of 470.00 feet and a central angle of 32°28'33" to a point of tangent;
Thence S 05°30'32"E along said tangent a distance of 270.30 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 336.21 feet, said curve has a radius of 1530.00 feet and a central angle of 12°35'28" to a point of tangent;
Thence S 18°05'58"E along said tangent a distance of 680.20 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 319.90 feet, said curve has a radius of 530.00 feet and a central angle of 34°34'59";
Thence S 68°33'10"W a distance of 1620.52 feet;
Thence S 42°51'12"E a distance of 283.61 feet;
Thence S 52°04'07"W a distance of 931.19 feet;
Thence Southeasterly along the arc of a curve to the right a distance of 48.82 feet, said curve has a radius of 470.00 feet and a central angle of 05°57'04" to a point of tangent;
Thence S 31°58'49"E along said tangent a distance of 395.44 feet to a point of curve;
Thence Southeasterly along the arc of a curve to the left a distance of 184.06 feet, said curve has a radius of 530.00 feet and a central angle of 19°53'52" to a point of tangent;
Thence S 51°52'41"E along said tangent a distance of 708.34 feet to a point of curve;
Thence Easterly along the arc of a curve to the left a distance of 247.20 feet, said curve has a radius of 230.00 feet and a central angle of 61°34'51" to a point of tangent;
Thence N 66°32'28"E along said tangent a distance of 80.47 feet to a point of curve;
Thence Northeasterly along the arc of a curve to the right a distance of 165.99 feet, said curve has a radius of 470.00 feet and a central angle of 20°14'08" to a point of tangent;
Thence N 86°46'36"E along said tangent a distance of 39.67 feet;
Thence Southeasterly along the arc of a curve to the left a distance of 393.65 feet, said curve has a radius of 530.00 feet and a central angle of 42°33'20" to a point of tangent;
Thence S 49°01'25"E along said tangent a distance of 953.90 feet to a point of curve;
Thence Southerly along the arc of a curve to the right a distance of 435.68 feet, said curve has a radius of 370.00 feet and a central angle of 67°28'00" to a point of tangent;
Thence S 18°26'35"W along said tangent a distance of 109.92 feet to a point of curve;
Thence Southerly along the arc of a curve to the left a distance of 327.09 feet, said curve has a radius of 530.00 feet and a central angle of 35°21'36";
Thence S 73°04'59"W a distance of 315.00 feet;
Thence S 43°41'04"W a distance of 688.33 feet;
Thence S 01°07'14"W a distance of 253.13 feet to the North line of the Southwest 1/4 of the Northwest 1/4 of Section 5;
Thence S 89°35'43"E a distance of 48.09 feet to the Northwest corner of the Southeast 1/4 of the Northwest 1/4 of Section 5;
Thence S 02°13'07"E a distance of 1302.86 feet to the Southwest corner of said Southeast 1/4 of the Northwest 1/4;
Thence S 88°31'21"E a distance of 1312.79 feet to the Southeast corner of the Southeast 1/4 of the Northwest 1/4;
Thence N 02°09'06"W a distance of 1304.48 feet to the Northeast corner of the Southeast 1/4 of the Northwest 1/4;
Thence S 89°35'43"E a distance of 1314.24 feet to the Southeast corner of the Northwest 1/4 of the Northeast 1/4 of Section 5;
Thence N 02°05'06"W a distance of 1342.63 feet to the Northeast corner of the Northwest 1/4 of the Northeast 1/4;
Thence S 89°36'50"E a distance of 1315.75 feet to the Southeast corner of Section 32;
Thence N 00°08'10"E a distance of 2730.13 feet to the East 1/4 corner of Section 32;
Thence S 89°59'25"W a distance of 2623.87 feet to the Center 1/4 corner of Section 32;
Thence N 00°17'50"E a distance of 2714.45 feet to the North 1/4 corner of Section 32;
Thence N 00°01'35"W a distance of 5308.70 feet to the Northeast corner of the West 1/2 of Section 29;
Thence N 88°24'38"W a distance of 2651.03 feet to the Northeast corner of Section 30;
Thence S 88°08'52"W a distance of 5205.51 feet to the Northwest corner of Section 30;
Thence S 01°00'18"W a distance of 1309.88 feet to the Southwest corner of the Northwest 1/4 of the Northwest 1/4 of Section 30;
Thence S 01°33'54"W a distance of 1308.87 feet to the West 1/4 corner of Section 30;
Thence S 00°22'54"W a distance of 2651.22 feet to the point of beginning;
Containing 1525.922 acres, more or less.



VICINITY MAP 1"= 2000'

REVISIONS
Misc. 11-7-94
Rev. 1-25-95
3rd Amend. 7-10-24

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING SURVEYING & ENGINEERING
PHONE (303) 688-4848
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

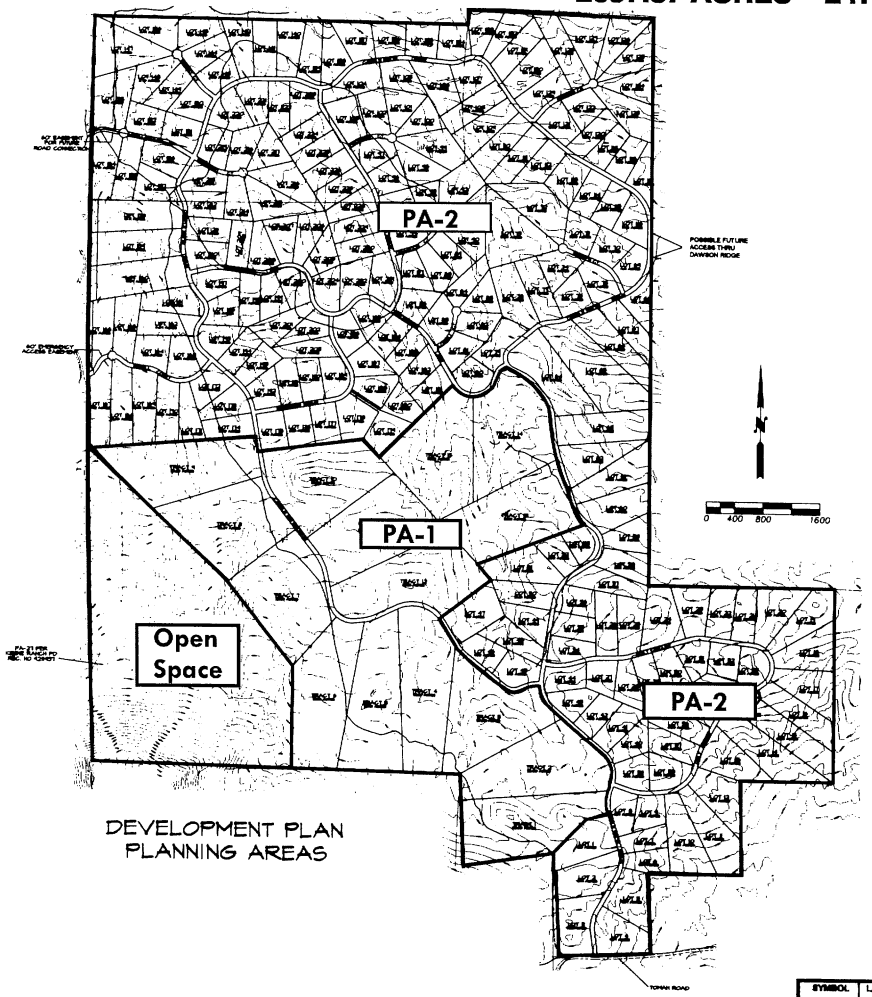
SCALE
DATE Sept. 1994
DRWN. CHKD.
APPVD.

TITLE: KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT A MAJOR AMENDMENT TO THE PA-1 and PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS
CLIENT: KEENE RANCH HOMEOWNERS ASSOCIATION
JOB NUMBER 92-802
Sheet 2 of 3

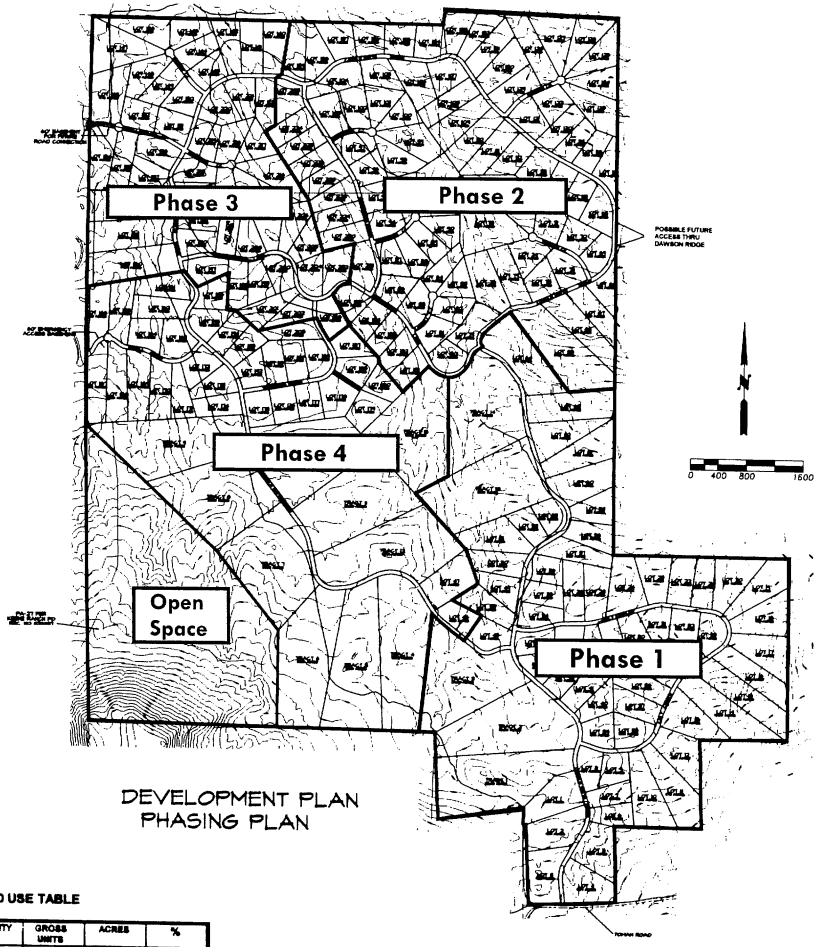
PLOT DATE: 08-08-2024
PLOT BY: Jeff Archer
FILE: G:\92-802\Dwg\Plat third amendment\3RD AMENDMENT.dwg

KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT

A MAJOR AMENDMENT TO PA-1 AND PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS
SECTIONS 29, 30, 31 & 32, TOWNSHIP 8 SOUTH, RANGE 67 WEST & SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST OF THE 6TH P.M., DOUGLAS COUNTY, COLORADO
2057.87 ACRES 247 DU'S ZR2023-007



DEVELOPMENT PLAN
PLANNING AREAS



DEVELOPMENT PLAN
PHASING PLAN

LAND USE TABLE

SYMBOL	LAND USE	DENSITY	GROSS UNITS	ACRES	%
PA-1	Residential	0.035	15	431.948	24
PA-2	Residential	0.15	232	1626.922	68
OS	Open Space			197.145	8
TOTAL		0.120	247	2,255	100

Misc. 11-1-44	
Rev. 1-25-95	
3rd Amend. 7-10-24	

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTANTS
SURVEYING & ENGINEERING
PHONE: (303) 933-1645
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE: 1" = 800'
DATE: SEPT. 1994
DRN. BY:
APPR.:

TITLE: KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT
A MAJOR AMENDMENT TO THE PA-1 AND PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS

SUBDIV: KEENE RANCH HOMEOWNERS ASSOCIATION

Sheet 3 of 3 | JOB NUMBER 92-802

MEETING DATE: July 21, 2025

STAFF PERSON RESPONSIBLE: Matt Jakubowski, AICP, Chief Planner

DESCRIPTION: Highlands Ranch Planned Development, 80th Amendment - Major Amendment - Project File: ZR2025-001.

SUMMARY: The request is for approval of a Major Planned Development Amendment to the Highlands Ranch Planned Development through the addition of 400 dwelling units in Planning Area 85.

STAFF ASSESSMENT: Staff has evaluated the request in accordance with Section 15 of the Douglas County Zoning Resolution. Should the Planning Commission find that the approval standards for a Major Planned Development Amendment are met, the following condition should be considered for inclusion in the recommendation to the Board of County Commissioners:

1. Prior to recordation, all technical corrections to the Highlands Ranch Planned Development, 80th Amendment document shall be made to the satisfaction of Douglas County.

REVIEW:

Steven E Koster	Approve	7/10/2025
Samantha Hutchison - FYI	Notified - FYI	7/10/2025
Steven E Koster	Approve	7/23/2025
Samantha Hutchison - FYI	Notified - FYI	7/23/2025

ATTACHMENTS:

Staff Report - ZR2025-001

DOUGLAS COUNTY
COLORADO

Planned Development Major Amendment Staff Report

Date: July 23, 2025

To: Douglas County Planning Commission

From: Matt Jakubowski, AICP, Chief Planner MAJ
Curt Weitkunat, AICP, Long Range Planning Manager CW
Steven E. Koster, AICP, Assistant Director of Planning Services SK

Subject: **Highlands Ranch Planned Development, 80th Amendment**

Project File: **ZR2025-001**

Planning Commission Hearing:	**July 21, 2025 @ 6:00 p.m.**
Planning Commission Hearing (Continued Hearing):	**August 4, 2025 @ 6:00 p.m.**
Board of County Commissioners Hearing:	**August 12, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The applicant is requesting a Major Planned Development (PD) Amendment to the Highlands Ranch PD (HRPD) to add 400 residential dwelling units to Planning Area 85 (PA 85) of the HRPD. The applicant intends to develop multi-family residential units on two adjacent parcels, 4.61 and 10.2 acres in size, owned by the Englewood McLellan Reservoir Foundation. PA 85 currently allows "multiple-family dwellings" by right, but does not have assigned units available for development. The applicant requested a continuance of this item from the July 21, 2025 Planning Commission hearing to allow it to re-publish notice in the Douglas County News Press.

II. APPLICATION INFORMATION

A. Applicant

Adam Wallace
Pagewest Acquisitions, LLC
414 N. Mill Street, Floor 2
Aspen, Colorado 801611

B. Applicant's Representative

Norris Design
1101 Bannock Street
Denver, Colorado 80204

C. Request

The applicant requests approval of a Major PD Amendment to the HRPD through the addition of 400 dwelling units in PA 85.

D. Process

A Major PD Amendment application is processed pursuant to Douglas County Zoning Resolution (DCZR) Sections 1519 through 1523. The request is considered a major amendment because the total number of units in the planning area would increase by more than 20%.

Per Section 1522.06 of the DCZR, "The Planning Commission shall evaluate the application, referral comments, staff report, and public testimony, and make a recommendation to the Board to approve, approve with conditions, table for further study, or deny the amendment request. The Planning Commission's comments shall be based on the evidence presented, compliance with the adopted County standards, regulations, policies and other guidelines."

E. Location

PA 85 is located in northwest Douglas County at C-470 and Kendrick Castillo Way. The project area is accessible from Plaza Drive and Plaza Circle. A Vicinity Map, Zoning Map, and Aerial Map highlight site location and existing conditions and are within the staff report attachments.

F. Project Description

The applicant is proposing a Major PD Amendment to the HRPD through the addition of 400 dwelling units to PA 85 within the High Density residential dwelling unit subcategory of the Development Plan Zoning Map. The proposed amended Development Plan Zoning Map is attached to the staff report. The proposal would increase total units within the HRPD to 36,468. The applicant intends to develop two parcels, 4.61 and 10.2 acres in size, into a 400-unit multi-family development. A future Site Improvement Plan process would be required for development of the site.

III. CONTEXT

A. Background

The HRPD was originally approved in 1979. PA 85 was added to the PD in 1988. Residential development, including one-family attached, two-family, and multi-family dwellings were allowed by right in PA 85, but no units were assigned to the PA. In 2015, the HRPD was amended to create PA 85-A within a portion of PA 85. With creation of PA 85-A, 285 dwelling units were transferred from PA 84 (north of the site, across C-470) to PA 85-A. In 2015, a minor development plat was approved covering PA 85-A, the subject parcels, a potential transit station site, and Ben Franklin Academy. In 2016, PA 85-A was developed into a 285-unit multi-family development.

B. Adjacent Land Uses and Zoning

The site is located in an area with a variety of land uses common to a major highway interchange and potential transit station, including multi-family residences, offices, and a hospital.

Zoning and Land Use

Direction	Zoning	Land Use
North	HRPD	Multi-family residential, potential RTD station & park-and-ride, C-470 right-of-way
South	HRPD	Multi-family residential and Children's Hospital
East	HRPD	Right-of-way for C-470 and Kendrick Castillo Way, and parking lot for an office use
West	HRPD	Ben Franklin Academy Charter School

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

No existing physical conditions impact the proposed amendment.

B. Access

The project area includes frontage along both Plaza Drive and Plaza Circle. The applicant's Traffic Impact Study (TIS) anticipates access to the development exclusively from Plaza Circle. Implementation of intersection and other traffic improvements as identified by County Engineering and the TIS will be completed as part of future development of the site.

C. Soils and Geology

Based on a review of the 2040 Douglas County Comprehensive Master Plan (CMP) Class 3 Hazards and Environmental Constraints Map, the property does not include any hazardous geologic or soil conditions.

D. Drainage and Erosion

The applicant will be required to meet all engineering requirements for drainage, grading, and erosion control during future development of the site.

E. Floodplain

No floodplain is present on the site.

V. PROVISION OF SERVICES

A. Schools

The Douglas County School District (DCSD) estimates 20 elementary school students, 3 middle school students, and 7 high school students to be generated by this development, with a land dedication requirement of 0.66 acres. DCSD requests a cash-in-lieu of land dedication payment to be determined with a property appraisal at the time of site development.

B. Fire Protection

South Metro Fire Rescue (South Metro) provides fire protection services in the area. South Metro indicated that future development of the site will require compliance with applicable fire code requirements.

C. Sheriff Services

The Douglas County Sheriff's Office (DCSO) provides police protection. The DCSO provided no objection to the application. The DCSO Office of Emergency Management provided a no comment response. DCSO E911 provided no response.

D. Water

Water service will be provided by the Highlands Ranch Water and Sanitation District (HR Water). The Colorado Division of Water Resources (CDWR) provided a referral response request and has no objection to the proposal.

E. Sanitation

Sanitary sewer service is also provided by HR Water.

F. Utilities

Utility service providers are Xcel (electrical service and natural gas), AT&T, CenturyLink, and Comcast (phone and data services). AT&T and Xcel have no conflicts. CenturyLink has no objection to the proposal. No response was received from Comcast.

G. Parks and Trails

Douglas County Parks, Trails, and Building Grounds provided referral comments on the proposal and indicated that park land dedication is determined per Douglas County Subdivision Resolution Article 10. Per Article 10, the applicant is required to either provide a park land dedication or an equivalent cash-in-lieu of land dedication. Determination of a park land dedication for the proposal will be finalized at the time of site development.

VI. PUBLIC NOTICE AND INPUT

In accordance with DCZR Section 1523, public notice is required to be published in the Douglas County News Press, posted on site by the applicant, and mailed to abutting property owners and owners within PA 85.

Courtesy notices of an application in process were also sent to adjacent property owners as part of the referral period. No comments from adjacent property owners or members of the public have been received. Staff provided referrals to the Highlands Ranch Community Association (HRCA), the Highlands Ranch Golf Club HOA (HRGCA), and the Highlands Ranch Backcountry Association (Backcountry). The HRCA Development Review Committee formally approved the proposal. No response was received from HRGCA or Backcountry.

All referral agency comments are outlined in the Referral Agency Response Report attached to the staff report. The applicant provided responses to referral comments within a separate letter included in the staff report appendix.

VII. STAFF ANALYSIS

Per Section 1520 of the DCZR, the following criteria shall be considered for approval of a major amendment:

1520.01: Whether the amendment is consistent with the development standards, commitments, and overall intent of the planned development.
Staff Comment: The application is consistent with the development standards and intent of the HRPD. The HRPD states an intent "to accommodate a balanced mix of residential, commercial, industrial, educational, recreational, and non-urban uses," as well as be "responsive to changing community needs." While additional unit density is requested in PA 85, multi-family development is allowed as a right and the site is well-suited for density considering its location adjacent to a potential transit station abutting C-470. The proposal furthers PD intent by adding to the diversity of housing options in Highlands Ranch addressing a community need.

1520.02: Whether the amendment is consistent with the intent, efficient development and preservation of the entire planned development.
Staff Comment: The application supports the intent, efficient development, and preservation of the entire planned development. The proposal adds residential dwelling units, which are already allowed in PA 85, in an area of Highlands Ranch that has trended toward multi-family development. Aside from this proposal and adjacent multi-family development, a site to the west (also on the north side of Plaza Drive) is being processed for multi-family development.

1520.03: Whether the amendment will adversely affect the public interest or enjoyment of the adjacent land.
Staff Comment: The proposal does not adversely impact the public interest or enjoyment of adjacent land. Multi-family development is allowed as of right in PA 85. Moreover, the site is adjacent to other complimentary land uses, including an existing multi-family development, a potential transit station and park-and-ride, C-470, a hospital, and a school.

1520.04: Whether the sole purpose of the amendment is to confer a special benefit upon an individual.
Staff Comment: The application does not as its sole purpose confer a benefit upon an individual. The proposal benefits the development of the HRPD and facilitates 400 additional housing units to Highlands Ranch.

1520.05: For applications proposing an increase in the intensity of allowed land-uses, including changes in densities, whether the amendment is consistent with the water supply standards in Section 18A, Water Supply Overlay District, of this Resolution.
Staff Comment: DCZR Section 1803A establishes approval standards to be used in the evaluation of land use applications reviewed under Section 18A. HR Water has the capacity to serve the proposed development and has issued a will serve letter as requested by the applicant.

1803A.01: The applicant has demonstrated that the water rights can be used for the proposed uses.
Water and sewer service are to be provided by HR Water.

1803A.02: The reliability of a renewable water right has been analyzed and is deemed sufficient by the County based on its priority date within the Colorado System of Water Rights Administration.
No new renewable water rights are being used to serve this project. HR Water has identified renewable water rights that it currently owns within its portfolio of water rights.

1803A.03: The Water Plan is deemed adequate and feasible by the County to ensure that water supply shortages will not occur due to variations in the hydrologic cycle.
A water plan is not required when water is provided by a District.

1803A.04: The Water Plan is sufficient to meet the demand applicable to the project based on the minimum water demand standards in Section 1805A herein.
A water plan is not required when water is provided by a District.

1520.06: Whether the public facilities and services necessary to accommodate the proposed development will be available concurrently with the impacts of such development.
Staff Comment: The proposal does not significantly impact public facilities and services as the site is in a developed area connected to infrastructure. HR Water will provide water and sewer service. The application has been reviewed by South Metro Fire, utility providers, and the Douglas County Sheriff's Office. None of these agencies expressed an inability to serve the development. Douglas County School District and Douglas County Parks, Trails, and Building Grounds will determine land dedication or cash-in-lieu fees as part of future development.

1520.07: Whether the roadway capacity necessary to maintain the adopted roadway level of service for the proposed development will be available concurrently with the impacts of such development.
Staff Comment: Public Works Engineering has reviewed the applicant's TIS. The applicant will implement the recommendations proposed within the TIS in conjunction with future development of the site.

VIII. STAFF ASSESSMENT

Staff has evaluated the request in accordance with Section 15 of the DCZR. Should the Planning Commission find that the approval standards for a Major PD Amendment are met, the following condition should be considered for inclusion in the recommendation to the Board of County Commissioners:

1. Prior to recordation, all technical corrections to the Highlands Ranch Planned Development, 80th Amendment document shall be made to the satisfaction of Douglas County.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 8
Applicant's Narrative 9
Vicinity Map 14
Zoning Map 15
Aerial Map 16
Referral Agency Response Report 17
Referral Response Letters 25
Applicant Public Outreach Summary 60
Applicant Response to Referral Comments 61
Traffic Impact Study 73
Water Documentation 302
Planned Development Redlined Exhibit 308
Planned Development Clean Exhibit 309

DOUGLAS COUNTY
COLORADO

Department of Community Development

www.douglas.co.us

LAND USE APPLICATION

Please complete, sign, and date this application. Return it with the required items listed on the Submittal Checklist to planningsubmittals@douglas.co.us. Submittals may also be mailed or submitted in person to Planning Services. *NOTE: The Planning Commission or the Board of County Commissioners should not be contacted regarding an open application.*

OFFICE USE ONLY
PROJECT TITLE:
PROJECT NUMBER:

PROJECT TYPE: PD Amendment to add residential units in Highlands Ranch

MARKETING NAME: Lucent Station

PRESUBMITTAL REVIEW PROJECT NUMBER: PS2024-247

PROJECT SITE:

Address: Plaza Drive and Lucent Drive

State Parcel Number(s): Parcel 1: 2229-042-08-001 ; Parcel 2: 2229-042-09-002

Subdivision/Block#/Lot# *(if platted)*:

PROPERTY OWNER(S):

Name(s): Englewood McLellan Reservoir Foundation

Address: 414 N Mill St., Floor 2, Aspen, CO 81611

Phone: 512-788-1428

Email: adam@pagewestco.com

AUTHORIZED REPRESENTATIVE: *(Notarized Letter of Authorization is required from the property owner, unless the owner is acting as the representative)*

Name: Pagewest Acquisitions, LLC; Norris Design

Address: 1101 Bannock St., Denver, CO 80204

Phone: 303-892-1166

Email: mmooney@norris-design.com

To the best of my knowledge, the information contained on this application is true and correct. I have received the County's information sheet regarding the *Preble's Meadow Jumping Mouse*.

Applicant Signature

2/27/25
Date

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 Bannock Street
Denver, Colorado 80204
303.892.1166

April 4, 2025

Douglas County, Department of Community Development
100 Third Street #220
Castle Rock, CO 80104

RE: NARRATIVE FOR AMENDMENT 80 TO THE HIGHLANDS RANCH PLANNED DEVELOPMENT

Dear Douglas County Department of Community Development,

On behalf of Pagewest Acquisitions, LLC, Norris Design is pleased to present the following proposal to amend the Highlands Ranch Planned Development to allow for multi-family development in Planning Area 85 (PA-85).

OWNER: Englewood McLellan Reservoir Foundation 1000 Englewood Parkway Englewood, CO 80110	**DEVELOPER:** Pagewest Acquisitions, LLC 414 N Mill Street, Floor 2 Aspen, CO 81611 Contact: Adam Wallace, Partner adam@pagewestco.com 512-788-1428
ENTITLEMENTS: Norris Design 1101 Bannock St. Denver, CO 80204 Contact: Mallory Mooney, Project Manager mmooney@norris-design.com 720-782-0059	**CIVIL ENGINEER:** Kimley-Horn 1125 17th St #1400 Denver, CO 80202 Contact: Eric McDaniel, PE eric.mcdaniel@kimley-horn.com 720-943-5657

PROJECT OVERVIEW

The subject Site is composed of two separate parcels of land currently owned by the Englewood McLellan Reservoir Foundation. Parcel #1 (County Parcel #2229-042-08-001) is roughly 4.61 acres in size and Parcel #2 (County Parcel #2229-042-09-002) is roughly 10.2 acres in size. The Site is located within Planning Area 85 of the Highlands Ranch Planned Development.

The applicant team is exploring a multifamily development for the two parcels and intends to amend the Highlands Ranch Planned Development to support this development. This Amendment proposes the addition of 400 residential dwelling units to the Highlands Ranch Planned Development, increasing the Total Dwelling Units of the PD from 36,068 to 36,468. These additional residential units would be designated to Planning Area 85 so that the Site may be developed with multifamily residential through a future land use application.

This Amendment does not propose to rezone land within the Highlands Ranch Planned Development, it simply increases the allowed number of dwelling units by roughly 1%. Multifamily residential is already a Use Permitted by Right in Planning Area 85 per Section X-B of the Highlands Ranch Planned Development.

The applicant team has met with the Highlands Ranch Metro District (HRMD) and Highlands Ranch Water (HR Water), who confirmed that there are adequate taps and sufficient water for a residential development of up to 400 units. The Site has existing infrastructure to serve a future development of this size.

The team also reached out to the Highlands Ranch Community Association (HRCA), sending them an outline of the proposed Amendment in order to get preliminary feedback ahead of submitting a formal application for their review as a referral agency. The application was presented to the HRCA Board of Directors who took no exception to the proposed project. On March 11, 2025, the HRCA issued a memo to the development team which stated that a proposed multi-family development on the Site was consistent with the adjacent land use in Planning Area 85-A. The application will be reviewed by the HRCA Development Review Committee as part of the County's review process.

Community input is an important part of the development process. Following the submittal of this application, the development team intends on hosting a neighborhood meeting via Zoom to present and discuss the proposed Amendment with adjacent property owners.

TRAFFIC, ACCESS AND CIRCULATION

The Site is accessed through existing roadways – Plaza Drive and Plaza Circle. The nearby connection of Kendrick Castillo Way is an important thoroughfare in Highlands Ranch, with C-470 also nearby as a major regional highway.

Access and circulation, which will be detailed in a future site plan will comply with all applicable local, state and emergency regulations at the time of Site Improvement Plan. The development team will work with the County and the Metro District on requirements.

PROJECT IMPROVEMENTS

The proposed Amendment will allow the Site to be developed as a multifamily residential community. The development team is proposing a community that will complement the existing character of the neighborhood while delivering a premier experience for its residents. The development will enhance the area by providing high-quality housing that supports growing nearby employers, promotes a healthy lifestyle, minimizes traffic impact, and fits within the area's existing infrastructure capacity.

The architecture will utilize premium materials, including masonry, glazing, and cementitious siding. Ample on-site parking, including covered garages and surface spaces, will fully accommodate residents and guests, preventing any overflow onto surrounding streets.

The community will feature a state-of-the-art fitness center equipped with weight training, cardio facilities, and spin bikes as well as an outdoor pool and spa, dog parks, pet wash stations, pedestrian-friendly pathways, bicycle storage and repair stations, and wellness-focused gathering spaces such as yoga areas and passive outdoor courtyards.

The proposed community will bring much needed housing for nearby employment centers, prioritize high-quality design, thoughtful infrastructure integration, and lifestyle-driven amenities in a location well suited for density.

CONFORMANCE WITH THE GOALS, OBJECTIVES, AND POLICIES OF THE COMPREHENSIVE PLAN

The proposed PD Amendment is in conformance with the Douglas County 2040 Comprehensive Master Plan in the following ways.

Goal 2-1: Improve and enhance existing Infrastructure; support healthy living; reduce vehicle miles travelled; maintain air quality standards; and conserve open space.
The project is proposed within the Primary Urban Area (PUA), in accordance with Objective 2-1A to "Direct urban-level development to designated urban areas". Additionally, as the Site is in close proximity to two major hospital systems, a school, and one of the area's premier employment centers, the community intends for future residents to live and work in the same area. This supports healthy living and reduces vehicle miles traveled while maintaining air quality standards. Further, future residential development of the Site is intended to be programmed with abundant fitness and recreation facilities both indoors and outdoors.

Goal 2-5: Minimize the impact of development on natural and historic resources.
The proposed PD Amendment will allow future residential development of the Site which will not impact natural and historic resources. The Site is already served by existing streets and it is not located near environmentally or visually-sensitive lands, making it an appropriate location for development.

Policy 2-5A.5: Encourage compact development patterns that conserve natural resources.
Future residential development of the Site would be infill development which is more sustainable than a greenfield development because instead of building new infrastructure, it will improve the existing infrastructure that is already in place.

Goal 2-6: Achieve compatibility between residential and nonresidential land uses, In terms of land use and design.
The Site is adjacent to existing higher-density residential development. The proposed PD Amendment will allow for higher-density residential ensuring that future development is consistent with surrounding land uses. The proximity of a nearby school, hospital, office, and retail will provide services to future residents as well as housing for the nearby employers

Objective 2-6F: Ensure residential and nonresidential building design, scale, and orientation are compatible with the natural and built environment.
The PD Amendment only proposes to add residential units to PA-85 of the Highlands Ranch Planned Development. No changes to the existing residential standards of the Highlands Ranch PD are proposed with this application. Future residential development will comply with the existing standards of the PD ensuring development will be compatible with the natural and built environment of the area.

Policy 2-7B.3: Create opportunities for residents to access transportation and community services
Given the Site's location, future development would provide residents with excellent access to transportation and community services. The Site is located close to the intersection of Kendrick Castillo Way, a major arterial, and C-470, a state freeway, offering future residents' easy access to major road corridors in the region. The parcel directly north of the Site is owned by RTD and if it were to ever develop as a transit center, it would provide future residents with adjacent transit access. For bicyclists and other outdoor enthusiasts, Fly'n B Park is located to the north of the Site along Plaza Drive. The park is a trailhead for the Highline Canal, a major regional trail corridor throughout the larger metro area. To the east of the Site is the nearby Central Park retail center as well as the Arc 470 business park campus.

Goal 2-9: Ensure development occurs concurrently with essential services and Infrastructure.
The applicant team has met with the Highlands Ranch Metro District (HRMD) and Highlands Ranch Water (HR Water), who confirmed that there are adequate taps and sufficient water for

residential development of up to 400 units. The project site has existing infrastructure to serve a future development of this size.

COMPLIANCE WITH CRITERIA FOR APPROVAL

1. **Whether the Amendment is consistent with the development standards, commitments, and overall intent of the planned development.**
   The proposed Amendment is consistent with the development standards, commitments, and overall intent of the Highlands Ranch Planned Development (HRPD). The HRPD Master Plan and Development Guide provides a comprehensive controlling document for the regulation of land within the HRPD area and this Amendment to the HRPD proposes development consistent with the overall intent of the Planned Development. The HRPD features lots and standards consistent with what is proposed by this Amendment. The proposed amendment will allow for the subject property to be developed in a land use pattern that was approved previously and that is in concert with the surrounding area. The development standards for this property will be those found in Section VI – High Density Residential of the HRPD Development Guide and represent a development approach for the subject property that is consistent with the surrounding area.

2. **Whether the Amendment is consistent with the intent, efficient development and preservation of the entire planned development.**
   The proposed Amendment is consistent with the intent, efficient development and preservation of the entire Planned Development. One of the stated Objectives of the Highlands Ranch Planned Development Guide is to be "…responsive to changing community needs". The Site has remained vacant for many years, while a need for housing, particularly near major employers, has grown. This demonstrates a changing community need for the planning area.
   Further, a portion of PA 85 has already been re-designated for high-density housing, and the proposed multifamily use is consistent with the surrounding area, which includes the Creekside at Highlands Ranch Apartments, Longs Ridge Apartments, Solana Lucent Sation Apartments, and Windcrest Summit Square Apartments.

   The proposed land use does not represent a significant change from the existing land use pattern and allows for the continued success of the HRPD by activating a long vacant property with needed housing. Also, future residential development of the Site is supported by the capacity of existing infrastructure which aligns with the Highlands Ranch Planned Development's Legislative Intent C.5. to "Encourage a more efficient use of land and public services".

3. **Whether the Amendment will adversely affect the public interest or enjoyment of the adjacent land.**
   The proposed Amendment will not adversely affect the public interest or enjoyment of the adjacent land. The proposed Amendment allows for the Site to develop as a residential community similar in size and character to existing nearby uses. The proposed land use is compatible with the surrounding area and will not increase or change the nature and character of the area. Included with this application is a Traffic Study which revealed that the proposal would have minimal impact on the existing traffic patterns in Highlands Ranch. Potential roadway improvements such as a full service intersection at Plaza Circle and Plaza Drive will improve traffic safety in the area. The intent of the proposal is to allow for the development of the subject property in a manner consistent and in harmony with the surrounding area.

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 Bannock Street
Denver, Colorado 80204
303.892.1166

4. **Whether the sole purpose of the Amendment is to confer a special benefit upon an individual.**
   The sole purpose of the Amendment is not to confer a special benefit upon an individual. The purpose of this Amendment is to allow for the subject property to be developed in a manner consistent with the surrounding area. The benefit is to the entire community by adding additional and more diverse housing to Highlands Ranch.

5. **For applications proposing an increase in the intensity of allowed land uses, including changes in densities, whether the Amendment is consistent with the water supply standards in Section 18A, Water Supply Overlay District, of this Resolution.**
   A meeting was held with the Highlands Ranch Water (HR Water) on December 20, 2024. HR Water expressed their capacity to serve this proposed community and stated they will need the final unit count plus the size of proposed irrigation meters and the proposed tap for community center in order to issue a will serve letter. Once this information is available, the development team will provide it to HR Water to obtain the will serve letter and comply with the water supply standards in Section 18A.

6. **Whether the public facilities and services necessary to accommodate the proposed development will be available concurrently with the impacts of such development.**
   Public facilities and services such as school and fire protection are available and have the capacity to support the proposed development. Please see the attached will serve letter from South Metro Fire Rescue stating the capacity to provide fire prevention, fire suppression, emergency medical, and special team response services to properties within its jurisdictional boundaries of which the subject parcel is within. A will serve letter from the Douglas County School District is also included with the application materials.

7. **Whether the roadway capacity necessary to maintain the adopted roadway level of service for the proposed development will be available concurrently with the impacts of such development.**
   Included with this application is a detailed traffic study that examined the impact of proposal on the roadway level of service available in the area. The adopted roadway level of service for the proposed development will be available concurrently with the impacts of the development.

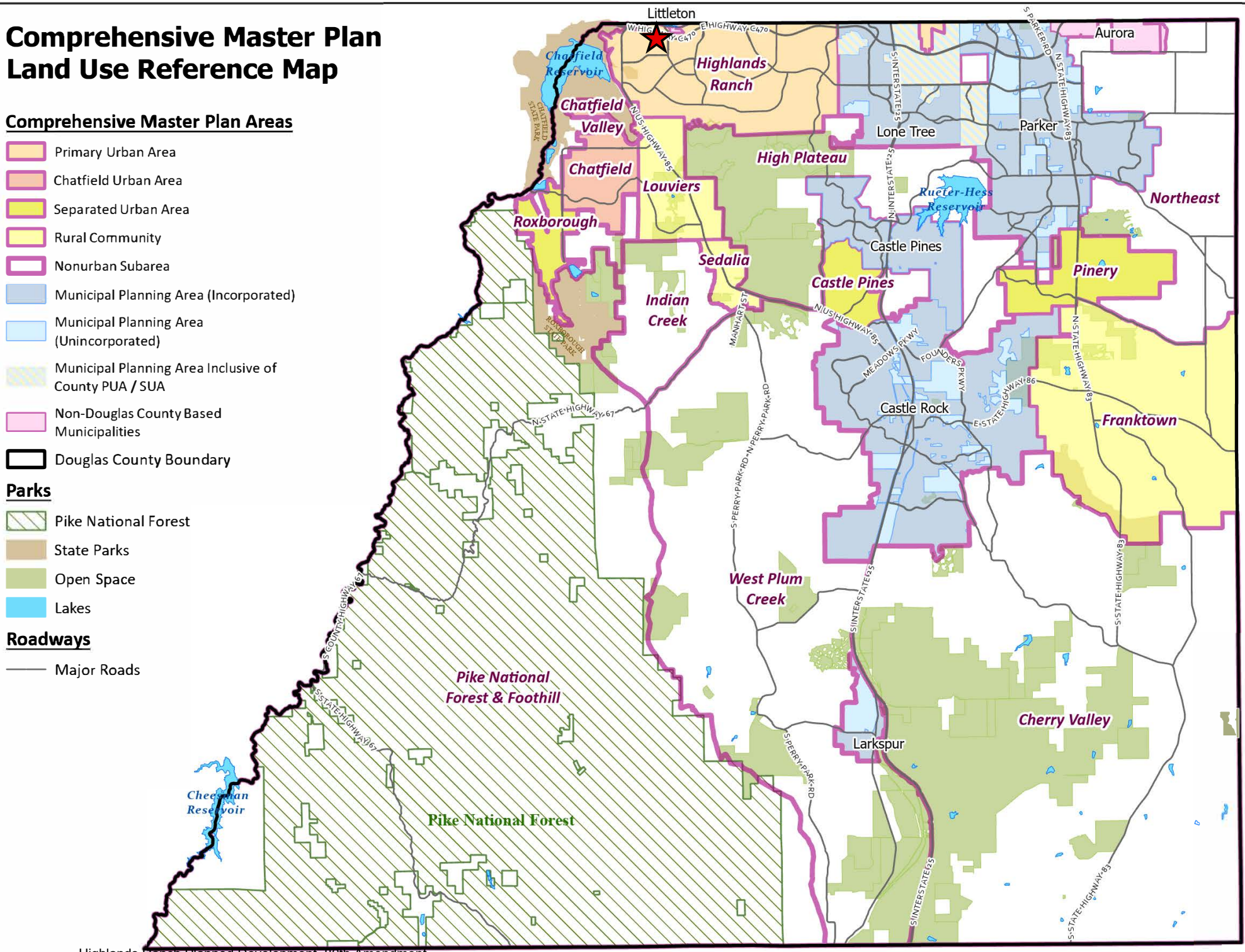
We are excited to work with Douglas County again to make this project a success, and we look forward to meeting with you.

Sincerely,
Norris Design

Mallory Mooney

Mallory Mooney
Project Manager

Comprehensive Master Plan Land Use Reference Map



Highlands Ranch Planned Development, 80th Amendment

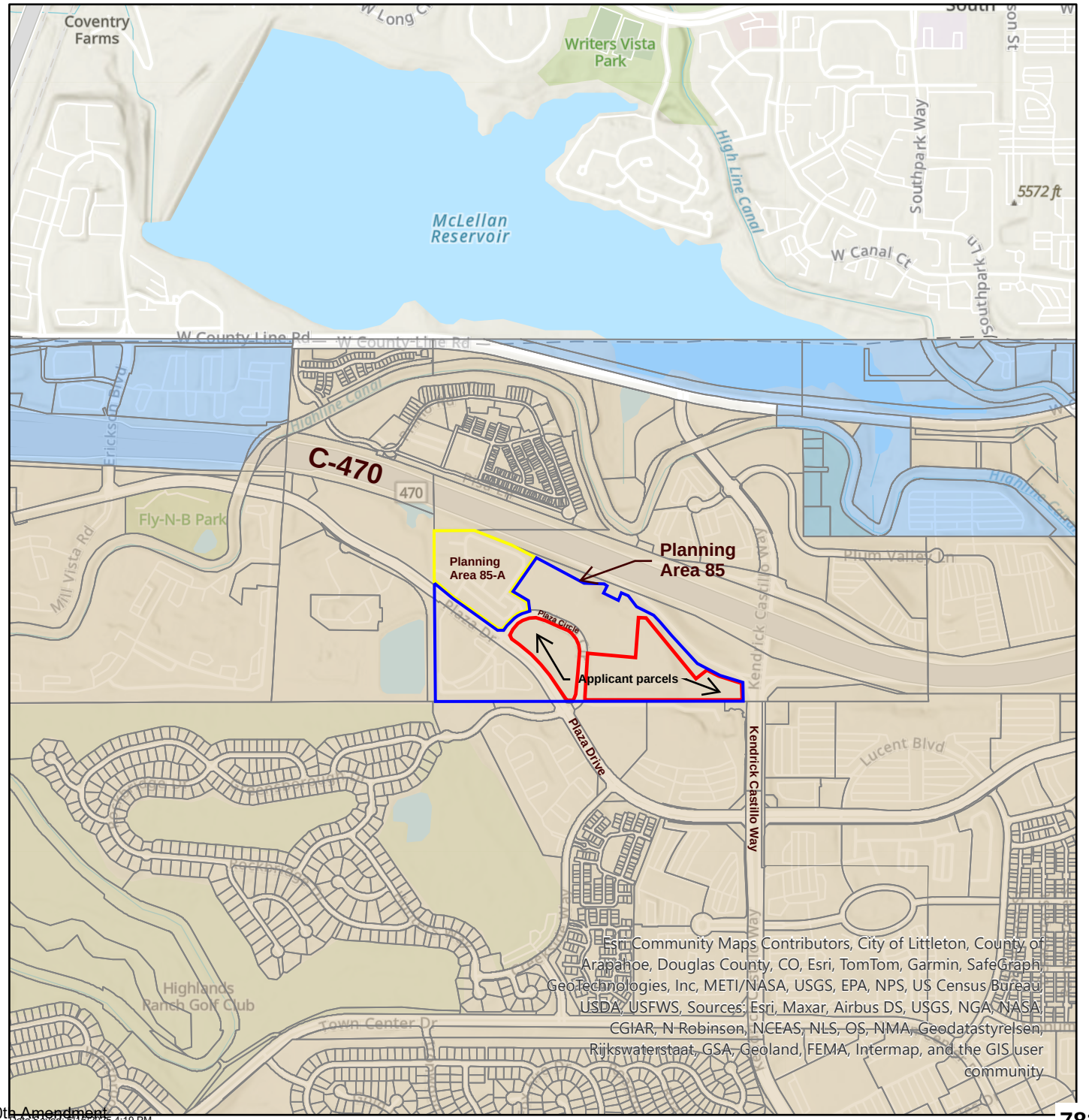
ZR2025-001

Zoning Map

N

LEGEND

- A1 - AGRICULTURAL ONE
- CTY
- PD - PLANNED DEVELOPMENT
- PLANNING AREA 85
- APPLICANT PARCELS
- PLANNING AREA 85-A



Date Saved: 6/16/2025 4:19 PM

Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0

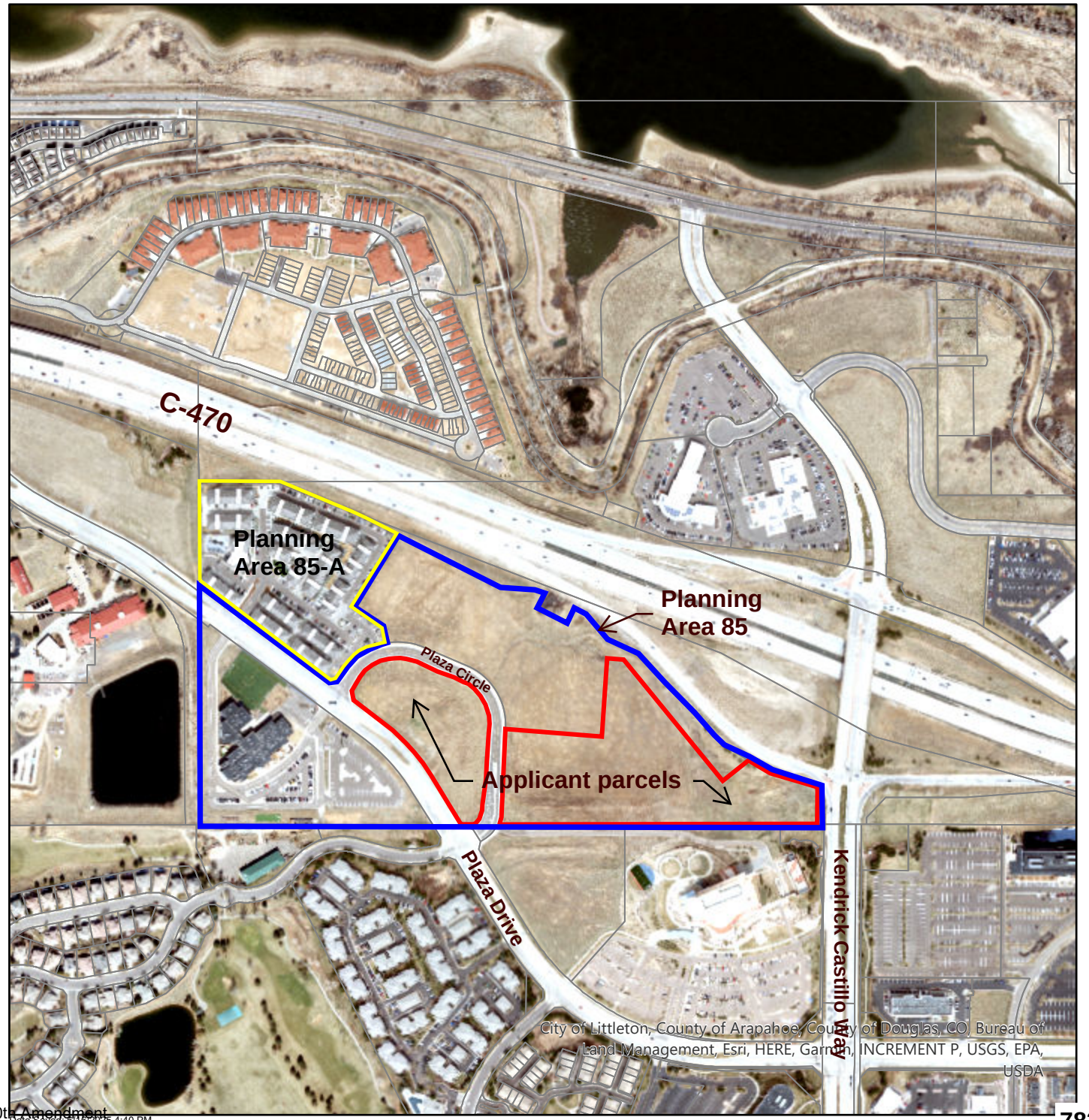
Highlands Ranch Planned Development, 80th Amendment

ZR2025-001
Aerial Map

N

LEGEND

- PLANNING AREA 85
- APPLICANT PARCELS
- PLANNING AREA 85-A



Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	04/28/2025	No Comment.	No action necessary.
Arapahoe County Engineering Services Division	04/24/2025	Received: Following is a summary of comments received from Arapahoe County Engineering. See full letter for detail. No comments, although other divisions may comment on the application.	No action necessary.
Arapahoe County PWD/ Planning	04/24/2025	Received: Following is a summary of comments received from Arapahoe County Planning. See full letter for detail. No comments, although other divisions may comment on the application.	No action necessary.
AT&T Long Distance - ROW	05/07/2025	Received: Following is a summary of comments received from AT&T. See the full letter for detail. A map is also attached to the comment letter. There should be no conflicts with AT&T lines in the project area.	No action necessary.
Backcountry Association, Inc		No Response Received.	No action necessary.
Building Services	04/25/2025	No Comment.	No action necessary.
CenturyLink	05/23/2025	Received: Following is a summary of comments from CenturyLink. No comment and no objection.	No action necessary.
City of Centennial	04/29/2025	No Comment.	No action necessary.
Colorado Department of Transportation CDOT-Region # 1	04/24/2025	Received: I have reviewed the referral of the Highlands Ranch Planned Development, 80th Amendment and the request for a Major Planned Development amendment to the Highlands Ranch PD to add 400 residential units to PA 85 and have the following comments. • Due to the proximity of these developments to C470 we would like to review the drainage report when available in order to ensure there will be no negative impact. • Any signing for this development that advertises to C470 must comply with CDOT rules pertaining to outdoor advertising per 2 CCR 601-3	Applicant will provide drainage reports to CDOT during future development of the site and will comply with CDOT rules for outdoor advertising as necessary.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Colorado Division of Water Resources	05/20/2025	Received: Following is a summary of the referral comments received from the Colorado Division of Water Resources (CDWR). See full letter for detail. Water Supply Demand Per an April 22, 2025 will serve letter from the Highlands Ranch Water and Sanitation District (HR Water), 400 additional units of multi-family development will generate a demand of 117 acre-feet of water per year (approximately 234 SFEs). Source of Water Supply HR Water's will serve letter indicates 34,137 acre-feet of secure water supplies, plus the right of use of stored water supplies in various reservoirs and an aquifer recharge program. HR Water indicates the demand of all existing and future customers ranges between 19,600 and 22,600 acre-feet per year. State Engineer's Office Opinion Water supply is adequate and can be provided without causing injury to decreed water rights. CDWR's opinion is based on a 100-year aquifer life. CDWR recommends that the County consider requiring development of renewable water resources to provide for a long-term supply. Additional Comments Applicant must comply with State regulations regarding storm water detention if proposed.	Project area is being served by HR Water and will comply with applicable State Law regarding stormwater detention.
Comcast		No Response Received.	No action necessary.
Douglas County Health Department	04/25/2025	Received: Following is a summary of referral comments received from the Douglas County Health Department (DCHD). See the full letter for detail. Fugitive Dust – Recommendations for temporary uses During development, DCHD recommends mitigation and control of fugitive dust, such as watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.	Applicant will comply with best practices for dust management during future development of the site.
Douglas County Housing Partnership		No Response Received.	No action necessary.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Douglas County Parks and Trails	05/15/2025	Received: Applicant would be responsible for meeting park land dedication as outlined in Article 10 of the Douglas County Subdivision Resolution. 1003 Parks Whenever land is proposed for residential or non-residential use, the owner of the land is to provide land or cash-in-lieu of land for active and specialized recreation generated by the proposed use. In general, these lands need to be suitable for the development of active play areas, trails, or in some instances serve to preserve unique landforms or natural areas. Where no suitable land is available in a residential or non-residential development, cash-in-lieu of land or of equivalent value in the donation of recreational facilities may be substituted at the County's discretion. Additional dedication for open land may be required by the Board if deemed necessary to preserve areas of special countywide significance (refer to Sections 1003.11.5 and 1003.12.5 of these regulations). 1003.01 The following formula is used to calculate the minimum amount of land dedication required in residential developments which is deemed necessary to provide the needed parks. This formula is based on 15 acres/1000 population. Local Park = Dwelling units x 0.015 acres/unit Regional Park = Dwelling units x 0.030 acres/unit Total = Dwelling units x 0.045 acres/unit The Board reserves the right to adjust the acreage requirement between local and regional park categories as deemed necessary to meet specific needs and to determine the amount of developed park acreage required. The Board may also consider alternative park land dedication formulas for multi-family development proposals.	Final determination of land dedication or parks cash-in-lieu will occur during any future Site Improvement Plan for development of the property.
Douglas County School District RE 1	04/28/2025	Received: Following is a summary of the referral response received from the Douglas County School District (DCSD). See the letter for full detail. DCSD has calculated a total of 20 elementary students, 3 middle school students, and 7 high school students, and a land dedication requirement of 0.660 acres from the proposed development. DCSD requests cash-in-lieu of land dedication per Douglas County Subdivision Resolution 1004.05.03. DCSD requests a proposal for the cash-in-lieu fee with adequate information for the school district to review the proposal. Assuming the applicant agrees to payment of fees, DCSD has no objection to the proposal.	Final cash-in-lieu determination will occur during any future Site Improvement Plan for development of the property.

Engineering Services	05/16/2025	Received: Following is a summary of the referral comments received from Douglas County Engineering. See the full letter for detail. I have reviewed the traffic study provided for the Highlands Ranch PD - 80th Amendment project and have the following comments: <u>Section 3.4 Unspecified Development Traffic Growth</u> In addition to establishing an annual growth rate, this section needs to include narrative related to the remaining undeveloped adjacent land that will assumably also take access to Plaza Cir in the future. Items to be discussed would include but not be limited to the type and intensity of the potential development of this land. It's not clear if this property (currently owned by RTD) and its potential traffic impacts have been accounted for in this study. <u>Section 5.2 Key Intersection Operational Analysis</u> *Plaza Cir & Plaza Drive,* The delay shown for the southbound approach at this intersection in the 2045 horizon (>300 sec/veh) warrants discussion. Mitigation of this level of delay should be identified in this study. If there is no potential mitigation, then that should be stated in the study. *Project Accesses* Accesses to the western lot are located on curves and roadway ROW is limited. It should be noted that sight-light easement outside of ROW as appropriate will be needed to provide control of the sight distance. <u>Section 5.3 Vehicle Queuing Analysis</u> This section identifies an operational issue that has no mitigation other than limiting the level of development for this project. There is no way to provide the needed southbound left turn land storage at the Plaza Cir & Plaza Dr intersection due to spacing to the Percy Ln intersection. This issue will be magnified with development of the RTD site. Queues could potentially prevent vehicles from getting onto Plaza Cir from Percy Ln. This analysis needs to be revised to address the issues above. Let me know if you have any questions or need additional information.	Applicant has addressed the traffic comments from County Engineering and has revised its Traffic Impact Study. Implementation of the recommendations within the Traffic Impact Study will occur during future development of the site.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Douglas County Water Commission	05/19/2025	No Comment.	No action necessary.
High Line Canal Conservancy		No Response Received.	No action necessary.
Highlands Ranch Community Association	05/15/2025	Received: Mr. Wallace and Ms. Mooney presented their PD Amendment proposal to the HRCA Development Review Committee (DRC) last night. I'm pleased to report that the DRC formally APPROVED the application as presented. The Committee looks forward to continued coordination as the project moves through the County's design and review process. We appreciate the opportunity to provide input on the application and remain available to support next steps as needed. Should you have any questions or wish to discuss any of the details further, please don't hesitate to reach out to me at (303) 471-8802 / commercialreview@hrcaonline.org, or to John Mezger at (303) 471-8823 / john.mezger@hrcaonline.org. Respectfully, Weylan A. "Woody" Bryant, M LS, PE Director: Community Improvement Services	No action necessary.
Highlands Ranch Golf Club HOA		No Response Received.	No action necessary.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Highlands Ranch Metro District	05/13/2025	Received: Parks & Parkways Manager Dirk Ambrose - No comment Natural Resource Manager Nick Adamson - No comment Director of Operations & Maintenance Ken Standen -No comment Director of Parks, Recreation & Open Space Neil Alderson Construction and Facilities Maintenance - Manager Tyler Ensign Public Works Manager of Development Engineering Forrest Dykstra Director of Engineering & Public Works Ryan Edwards Public Works HR Water - Project Engineer Austin Long Public Works HR Water - Project Manager - Site Civil and ARCH/MEP plans must be submitted to the District for review and approval. Jon Klassen, Project Manager Finance Department There are generally three developments fees applicable to residential development in Highlands Ranch: • Tap Fees • Meter Fees • System Development Fees (SDF) Information regarding Procedures, Definition of Service, Meter Sizing, Fees and Application for Service can be found in The Highlands Ranch Development Guidelines which can be found on our website.	Applicant will comply with all requirements to receive service from HR Water and HRMD at time of development of the project site.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Highlands Ranch Water and Sanitation District	05/13/2025	Received: See Highlands Ranch Metro District comments	Applicant will comply with all requirements to receive service from HR Water and HRMD at time of development of the project site.
Jefferson County Planning and Zoning		No Response Received.	No action necessary.
Littleton		No Response Received.	No action necessary.
Mile High Flood District		No Response Received.	No action necessary.
Office of Emergency Management	04/24/2025	No Comment.	No action necessary.
RTD - Planning & Development Dept	05/15/2025	No Comment.	No action necessary.
Sheriff's Office	05/12/2025	Received: Deputy Jeff Pelle reviewed this regarding security, keeping Crime Prevention Through Environmental Design (CEPTD) concepts in mind. There are no comments or concerns at this time regarding this DCSO request.	No action necessary.
Sheriff's Office E911		No Response Received.	No action necessary.
South Metro Fire Rescue	04/29/2025	Received: South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD amendment. Applicants and designers are encouraged to contact SMFR to ensure the Site Improvement Plans will meet the applicable Fire Code requirements for the proposed project prior to submitting the SIP.	No action necessary.

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

Agency	Date Received	Agency Response	Response Resolution
Xcel Energy-Right of Way & Permits	05/13/2025	Received: Following is a summary of the referral response received from Xcel Energy. See the full letter for detail. No apparent conflicts. In the future, Xcel requests the following note: Minimum 10-foot-wide dry utility easements are hereby dedicated on private property abutting all public streets, and around the perimeter of each lot in the subdivision or platted area including tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form. Property owner must apply to Xcel and receive design approval for any new gas or electric service. Additional easements needed must be acquired by separate document.	Applicant will comply with all requirements to receive service from Xcel Energy. The requested note is not applicable to the PD Amendment process. The location of utilities and any potential new easements will be determined as part of future development of the site.

ARAPAHOE COUNTY

PUBLIC WORKS AND DEVELOPMENT

BRYAN D. WEIMER, PWLF
Director

Lima Plaza
6924 South Lima Street
Centennial, Colorado 80112-3853
720-874-6500
arapahoeco.gov

Engineering Services Division Referral Comments

April 24, 2025

Douglas County – Planning Services Division
100 Third St
Castle Rock, CO 80104
Attn: Case Manager

RE: Highlands Ranch Planned Development, 80th Amendment
ZR2025-001

Engineering Services Division of Arapahoe County Public Works and Development (Staff) thanks you for the opportunity to review the outside referral for the proposed project. Staff has no comments regarding the referral at this time based on the information submitted.

Please know that other Divisions in the Public Works Department may submit comments as well.

If you have any questions, please feel free to contact our offices at 720-874-6500.

Respectfully,

Sue Liu

Sue Liu, PE, CFM

Arapahoe County Public Works & Development
Engineering Services Division
cc Arapahoe County Case No. O25-089

From: Terri Maulik
Sent: Thursday, April 24, 2025 10:51 AM
To: Matt Jakubowski
CC: Referrals
Subject: FW: AC CASE NO. O25-089 - DOUGCO REF / ZR2025-001 / LUCENT STATION PUD AMENDMENT

Matt,

Thank you for the opportunity to review and comment on this project. The Arapahoe County Planning Division has no comments; however, other departments and/or divisions may submit comments.

I am happy to start posting to the website, but I am not sure what our account is. Do we need to register one or have you set something up for us?

ARAPAHOE COUNTY

Terri Maulik (she/her/hers)
Planning Technician
Planning Division
Department of Public Works and Development
6924 S Lima St., Centennial, CO 80112
O: 720-874-6840
tmaulik@arapahoegov.com
www.arapahoeco.gov

From: Kim Lynch <KLynch@arapahoegov.com>
Sent: Thursday, April 24, 2025 10:30 AM
To: Sue Liu <SLiu@arapahoegov.com>; Ava Pecherzewski <APecherzewski@arapahoegov.com>; Ceila Rethamel <CRethamel@arapahoegov.com>; James Katzer <JKatzer@arapahoegov.com>; Joe Schiel <JSchiel@arapahoegov.com>; Michelle Lengyel <MLengyel@arapahoegov.com>; Referrals <Referrals@arapahoegov.com>; Roger Harvey <RHarvey@arapahoegov.com>; Ryan Seacrist <RSeacrist@arapahoegov.com>
Subject: AC CASE NO. O25-089 - DOUGCO REF / ZR2025-001 / LUCENT STATION PUD AMENDMENT

LOCATION: PLAZA DR & LUCENT RD
DUE: 05-15-2025

With gratitude,

ARAPAHOE COUNTY
PUBLIC WORKS & DEVELOPMENT

KIM LYNCH
Planning Technician | PWD Planning Division
6924 S Lima St., Centennial, CO 80112
720-874-6650

From: annb cwc64.com
Sent: Wednesday, May 7, 2025 2:45 PM
To: Matt Jakubowski
CC: CHOY, PAM; duanew cwc64.com; jt cwc64.com
Subject: Plaza Dr Circle Highlands Ranch, Colorado Douglas County eReferral #ZR2025-001
Attachments: Plaza Dr Circle Highlands Ranch, Colorado.jpg

Hi Matt,

This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Plaza Dr Circle Highlands Ranch, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.

Please feel free to contact us with any questions or concerns.

Ann Barnowski
Clearwater Consulting Group Inc
120 9th Avenue South
Suite 140
Nampa, ID 83651
Annb@cwc64.com

The attached google earth maps are intended to show approximate locations of the buried AT&T long line fiber optic cable. The maps are provided for informational purposes only. In no way should the maps be used for anything other than general guidelines as to where the fiber is or is not and any other use of these maps is strictly prohibited.

-----Original Message-----
From: mjakubow@douglas.co.us <mjakubow@douglas.co.us>
Sent: Thursday, April 24, 2025 8:46 AM
To: annb cwc64.com <annb@cwc64.com>
Subject: Douglas County eReferral (ZR2025-001) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:
https://apps.douglas.co.us/planning/projects/Login.aspx

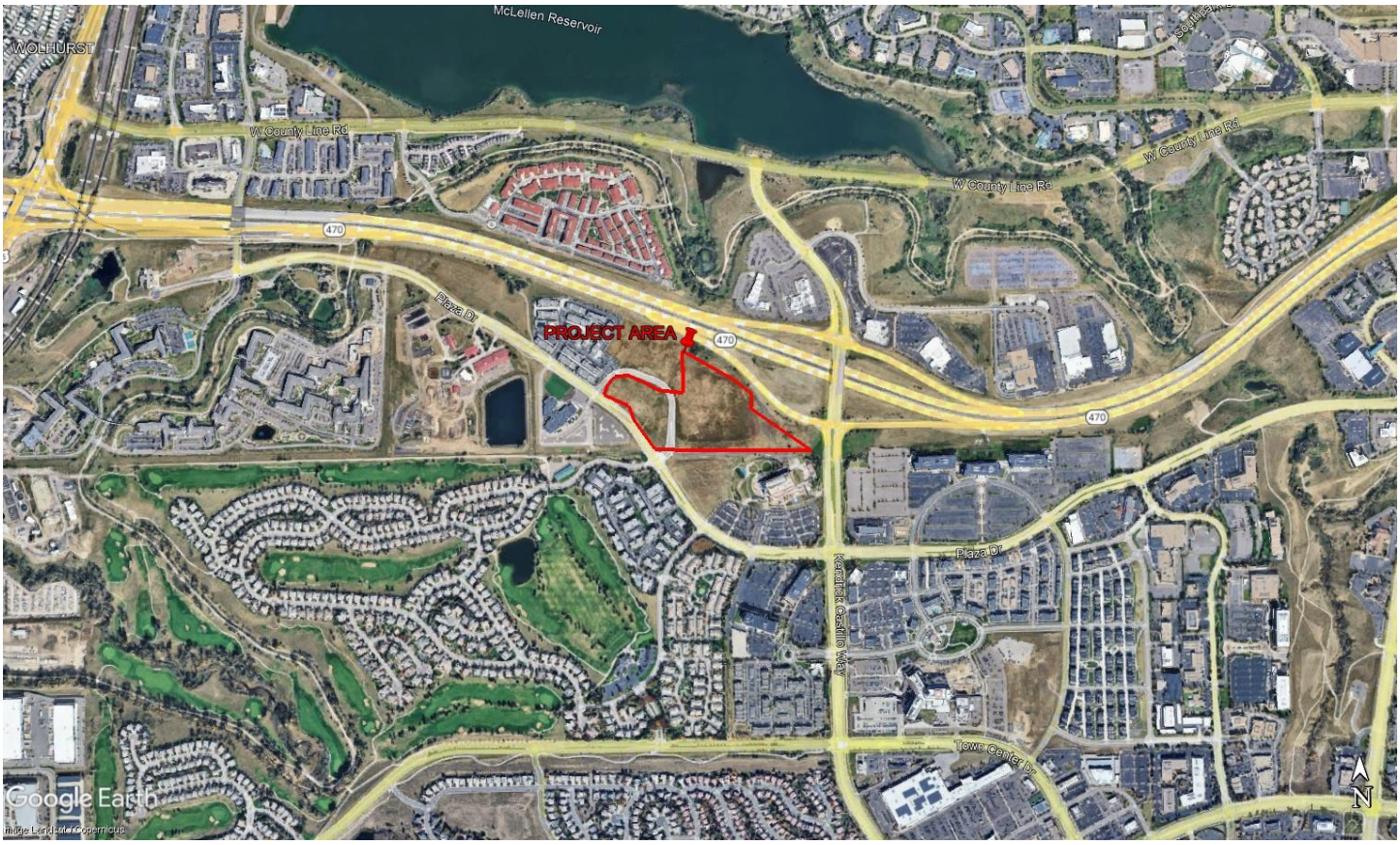
Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Project Summary: Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.

This referral will close on Thursday, May 15, 2025.

If you have any questions, please contact me.

Sincerely,

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development Planning Services Division Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460 Email | mjakubow@douglas.co.us


McLellen Reservoir
WOLHURST
W County Line Rd
W County Line Rd
W County Line Rd
470
Plaza Dr
PROJECT AREA
470
470
Plaza Dr
Kendrick Castillo Way
Town Center Dr
Google Earth
Image Landsat / Copernicus
N

From: Loeffler - CDOT, Steven
Sent: Thursday, April 24, 2025 11:36 AM
To: Matt Jakubowski
CC: Joseph Tripple - CDOT; Aaron Eyl
Subject: Re: Douglas County eReferral (ZR2025-001) Is Ready For Review

Matt,

I have reviewed the referral of the Highlands Ranch Planned Development, 80th Amendment and the request for a Major Planned Development amendment to the Highlands Ranch PD to add 400 residential units to PA 85 and have the following comments.

- Due to the proximity of these developments to C470 we would like to review the drainage report when available in order to ensure there will be no negative impact.
- Any signing for this development that advertises to C470 must comply with CDOT rules pertaining to outdoor advertising per **2 CCR 601-3**

Thank you for the opportunity to review this referral.

Steve Loeffler
Permits Unit- Region 1

COLORADO
Department of Transportation

P 303.757.9891 | F 303.757.9053
2829 W. Howard Pl. 2nd Floor, Denver, CO 80204
steven.loeffler@state.co.us | www.codot.gov | www.cotrip.org

On Thu, Apr 24, 2025 at 8:47 AM <mjakubow@douglas.co.us> wrote:

> There is an eReferral for your review. Please use the following link to log on to your account:
> https://urldefense.com/v3/__https://apps.douglas.co.us/planning/projects/Login.aspx__;!!PUG2raq7KiCZwBk!Y27VDSYWHFV_d2hpbB9rgaz4MUrj_VFuKmFEAqCubZ2gj7aN7RPLZmne-GfqFsHd3fa_xrgjasfiCyZ2AsX98jua_Je0$
>
> Project Name: Highlands Ranch Planned Development, 80th Amendment
> Project File #: ZR2025-001
> Project Summary: Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ″ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future

multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.

This referral will close on Thursday, May 15, 2025.

If you have any questions, please contact me.

Sincerely,

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460
Email | mjakubow@douglas.co.us

REFERRAL RESPONSE REQUEST – MAJOR PLANNED DEVEL. AMD.

Date sent: April 24, 2025

Comments due by: **May 15, 2025**
Fax: 303.660.9550

Project Name:	Highlands Ranch Planned Development, 80th Amendment
Project File #:	ZR2025-001
Project Summary:	Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☒	No Comment	
☐	Please be advised of the following concerns:	
☒	See letter attached for detail.	
Agency: CenturyLink		**Phone #:** 352-425-8763
Your Name: Stephanie Canary *(please print)*		**Your Signature:** Stephanie Canary **Date:** 5-23-2025

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Matt Jakubowski, Chief Planner
Enclosure

May 23, 2025

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
100 Third St.
Castle Rock, CO 80104

Sent To: mjakubow@douglas.co.us
Copied To: Lumen Engineering

P865825
No Reservations/No Objection

No Reservations/No Objection for: Douglas County Encroachment- ZR2025-001/ Highlands Ranch Project Development, 80th Amendment / Plaza Dr & Lucent Blvd, Highlands Ranch, CO / *Highlands Ranch Filing No.157*, Lot 3 & 4/ Douglas County APN R0490949 & R0490951

Dear Mr. Jakubowski :

Qwest Corporation, d/b/a CenturyLink QC ("CenturyLink") has reviewed the request for comment on the project described above and has determined that it has No Comments/No Objections.

It is the intent and understanding of CenturyLink that this Letter of No Objection shall not reduce our rights to any existing easement or rights we have on this site or in the area.

This Letter of No Comment/No Objection response is submitted WITH THE STIPULATION that if CenturyLink facilities are found and/or damaged within the area as described, the Applicant will notify Lumen and bear the cost of relocation and repair of said facilities.

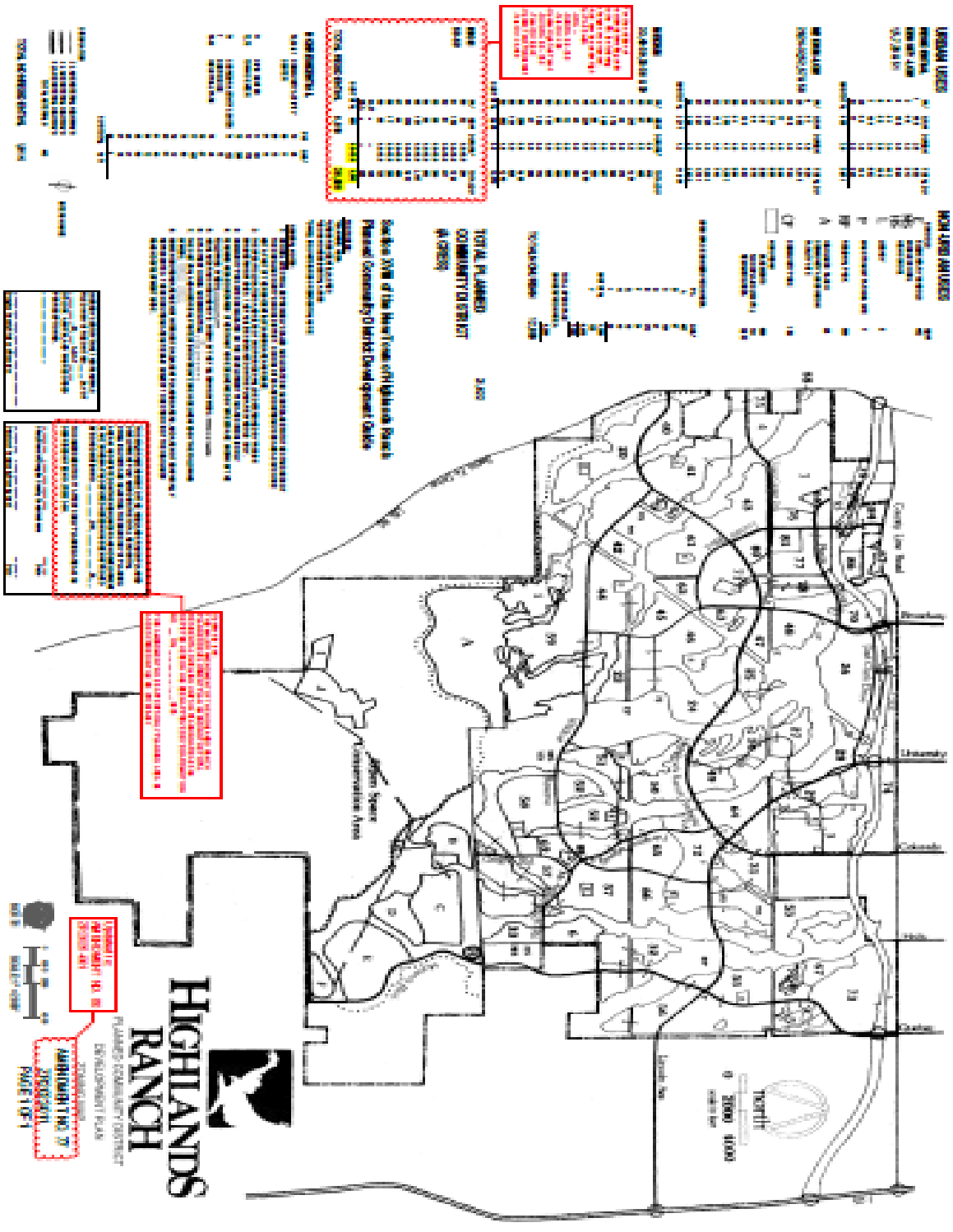
If you have any questions please contact Stephanie Canary at (352) 425-8763 or stephanie.canary@lumen.com.

Sincerely yours,

CenturyLink Right of Way Team

EXHIBIT P865825

Not to Scale-For Illustration Only



COLORADO
Division of Water Resources
Department of Natural Resources

May 20, 2025

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Transmission via email: mjakubow@douglas.co.us

Re: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Part of the S ½ NW ¼ of Sec. 4, T6S, R68W, 6th P.M.
Water Division 1, Water District 8

Dear Matt Jakubowski:

We have reviewed your April 24, 2025 submittal concerning the above reference proposal for a major amendment to the Highlands Ranch Planned Development to add 400 residential units to planning area 85 (PA85). This major Amendment proposes to include a multi-family community on the two parcels of 4.61 acres (Lot 3, Highlands Ranch Filing 157) and 10.2 acres (Lot 4, Highlands Ranch Filing 157). PA85 already allows for one-family attached, two-family, and multi-family dwelling units.

Water Supply Demand

According to a letter from the Highlands Ranch Water and Sanitation District ("District") dated April 22, 2025, this amendment will include approximately 234 Single Family Equivalent (SFE) taps. Based on District's water demand requirements, the total demand for this project will be 117 acre-feet per year.

Source of Water Supply

The proposed water source is the District. A letter of commitment for service from the District was provided in the referral material. According to the Statement of Water Availability dated April 22, 2025 the District currently has 34,137 acre-feet of secure water supplies (approximately 16,420 acre-feet of surface water and 17,717 acre-feet of decreed Denver Basin groundwater). The District also has use of 3,885 acre-feet of storage in McLellan Reservoir, 6,400 acre-feet of storage in the South Platte Reservoir, 205 acre-feet of storage in James Tingle Reservoir, and 6,922 acre-feet storage in the Chatfield Reservoir Reallocation Project. In addition, the District operates an aquifer recharge program that contains approximately 15,300 acre-feet of stored water that is available when needed. According to the District, the projected demand to serve all existing and future customers in its service area is in the range of 19,600 to 22,600 acre-feet per year. The annual demand for the last few years has averaged around 17,000 acre-feet with the service area approximately 95% developed.

The proposed source of water for this subdivision includes bedrock aquifer ground water in the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to section 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this **allocation** approach, the annual amounts of water decreed by Centennial in the Denver Basin are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.

State Engineer's Office Opinion

Based upon the above and pursuant to sections 30-28-136(1)(h)(II) and 30-28-136(1)(h)(II), C.R.S., the State Engineer's office offers the opinion that, with District as the water supplier for the proposed development, the proposed water supply is **adequate and can be provided**

without causing material injury to existing water rights, so long as Highlands Ranch Water and Sanitation District is committed to supplying all 400 residential units.

Our opinion that the water supply is **adequate** is based on our determination that the amount of water required annually to serve the subdivision is physically available, based on current conditions.

Our opinion that the water supply can be **provided without causing injury** is based on our determination that the amount of water that is legally available to the District on an annual basis, according to the statutory allocation approach, for the proposed uses is greater than the annual amount of water required to supply the District's water commitments at build-out and the demands of the proposed subdivision.

Our opinion is qualified by the following:

For the decreed Denver Basin water, the Division 1 Water Court has retained jurisdiction over the final amount of water available pursuant to the decrees referenced in District's court cases, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifers, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocations of which are based on a 100 year aquifer life. The county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years used for allocation due to anticipated water level declines. We recommend that the county determine whether it is appropriate to require development of renewable water resources for this subdivision to provide for a long-term water supply.

Additional Comments

The applicant should be aware that any storm water detention structure for this project must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., otherwise the structure may be subject to administration by this office. The applicant should review DWR's *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*, attached, to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use *Colorado Stormwater Detention and Infiltration Facility Notification Portal*, located at to meet the notification requirements, located at: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif.

Please contact me at (303) 866-3581 x8246 or ioana.comaniciu@state.co.us with questions.

Sincerely,

Ioana Comaniciu, P.E.
Water Resource Engineer

Ec: Subdivision File # 34043
Highlands Ranch Water & Sanitation District File

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

April 25th, 2025

Matt Jakubowski
100 Third St.
Castle Rock, CO 80104

RE: ZR2025-001

Dear Mr. Jakubowski

Thank you for the opportunity to review and comment on the Highlands Ranch Planned Development Amendment. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has the following comment(s).

Fugitive Dust – Recommendations for temporary uses
Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, and heart disease. Development of the land may contribute to increased fugitive dust emissions. We recommend that the applicant utilize all available methods to minimize fugitive dust. Control measures or procedures that may be employed include, but are not limited to, watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.

Sincerely,

Caden Thompson
Environmental Health Specialist I
Douglas County Health Department

620 Wilcox Street
Castle Rock, Colorado 80104

April 28th, 2025

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development
Planning Services Division
Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460
Email | mjakubow@douglas.co.us

RE: Highlands Ranch Planned Development, 80th Amendment

Dear Mr. Jakubowski,

It is our understanding that the applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. It is also our understanding that the amendment, if approved, would increase the total allowed dwelling units in the PD from 36,068 to 36,468. The property is located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive.

DCSD has calculated the amount of school site land requirement for students generated by the proposed planned development. A total of 20 elementary school students, 3 middle school students, and 7 high school students are expected from the development (as proposed) generating a land dedication requirement of 0.660-acres. Since this is smaller than DCSD's minimum school site size, DCSD would request cash-in-lieu of land dedication.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: HIGHLANDS RANCH PLANNED DEVELOPMENT, 80TH AMENDMENT (ZR2025-001)					
DU/	ACRES		DENSITY		
400	14.81		27.01		
			Generation	Number	
STUDENT GENERATION RATES	No. of DU's		Rate	of Students	
ELEMENTARY	400	X	0.05	20	
MIDDLE SCHOOL	400	X	0.008	3	
HIGH SCHOOL	400	X	0.017	7	
			TOTAL	30	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage	
ELEMENTARY	20	X	0.018	0.360	
MIDDLE SCHOOL	3	X	0.030	0.096	
HIGH SCHOOL	7	X	0.030	0.204	
			TOTAL	0.660	

As per Article 1004.05.3 of the Douglas County Subdivision Regulations, “The cash-in-lieu fee shall be equivalent to the full market value of the acreage required for school land dedication. Value shall be based on anticipated market value after completion of platting. The applicant shall submit a proposal for the cash-in-lieu fee and supply the information necessary for the Board to evaluate the adequacy of the proposal. This information shall include at least one appraisal of the property by a qualified appraiser.” And as per Article 1004.06, “The conveyance of land or payment of fees obtained through the County's dedication requirement shall be required prior to the recordation of the first final plat for the subdivision. The conveyance of dedicated school land to Douglas County shall be by warranty deed and the title shall be free and clear of all liens and encumbrances, including real property taxes prorated to the time of conveyance. The applicant shall provide a title insurance policy in the County's name and a certified survey at the time of conveyance.”

Granted neither the applicant nor Douglas County object to these fees DCSD has no objection to the proposed project. DCSD looks forward to future collaboration with the applicant and Douglas County on this proposal.

Shavon Caldwell, Planning Manager
DCSD Planning & Construction
scaldwell2l@dcsdk12.org
303.387.0417

DOUGLAS COUNTY
COLORADO

www.douglas.co.us

Department of Community Development
Planning Services

REFERRAL RESPONSE REQUEST – MAJOR PLANNED DEVEL. AMD.

Date sent: April 24, 2025

Comments due by: **May 15, 2025**
Fax: 303.660.9550

Project Name:	Highlands Ranch Planned Development, 80th Amendment
Project File #:	ZR2025-001
Project Summary:	Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.

Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☐ No Comment	
☐ Please be advised of the following concerns:	
☒ See letter attached for detail.	
Agency: ENGINEERING	**Phone #:** 4318
Your Name: AL PETERSON *(please print)*	**Your Signature:**
	Date: 5/19/25

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Matt Jakubowski, Chief Planner
Enclosure

Al Peterson

From: Chris Martin
Sent: Friday, May 16, 2025 4:39 PM
To: Al Peterson
Cc: Matt Jakubowski
Subject: RE: Highlands Ranch PD - 80th Amendment Dv25-164

Al,

I have reviewed the traffic study provided for the Highlands Ranch PD - 80th Amendment project and have the following comments:

Section 3.4 Unspecified Development Traffic Growth

In addition to establishing an annual growth rate, this section needs to include narrative related to the remaining undeveloped adjacent land that will assumably also take access to Plaza Cir in the future. Items to be discussed would include but not be limited to the type and intensity of the potential development of this land.

Its not clear if this property (currently owned by RTD) and its potential traffic impacts have been accounted for in this study.

Section 5.2 Key Intersection Operational Analysis

Plaza Cir & Plaza Drive,

- the delay shown for the southbound approach at this intersection in the 2045 horizon (>300 sec/veh) warrants discussion. Mitigation of this level of delay should be identified in this study.

  If there is not potential mitigation, then that should be stated in the study.

Project Accesses

- Accesses to the western lot are located on curves and roadway ROW is limited. It should be noted that sight-light easement outside of ROW as appropriate will be needed to provide control of the sight distance.

Section 5.3 Vehicle Queuing Analysis

This section identifies an operational issue that has no mitigation other than limiting the level of development for this project. There is no way to provide the needed southbound left turn land storage at the Plaza Cir & Plaza Dr intersection due to spacing to the Percy Ln intersection.

This issue will be magnified with development of the RTD site. Queues could potentially prevent vehicles from getting onto Plaza Cir from Percy Ln.

This analysis needs to be revised to address the issues above. Let me know if you have any questions or need additional information.

Thanks
Chris

HIGHLANDS RANCH
COMMUNITY ASSOCIATION

MEMORANDUM

Date: Tuesday - March 11, 2025

Sent Via: ☐ 1st Class ☐ FedEx ☐ Courier ☒ Hand Deliver
☐ Facsimile to: ☐ Email to:

ACTION: ☐ Rush ☒ F.Y.I. ☐ Call Me ☐ Follow Up ☐ Please Handle ☒ Other: **Comment**

To: Mike Bailey, HRCA GM
HRCA Board of Directors

From: Weylan A. "Woody" Bryant, M LS, PE (Director: Community Improvement Services)

Subject: **Highlands Ranch Apartments**
Plaza Drive, West of Children's Hospital (Highlands Ranch, CO)

Development Team Seeking HRCA Initial Support for Major PD Amendment

DISCUSSION:

ISSUE:

Is the Board of Directors willing to provide initial support (e.g., No Exceptions Taken) for a Major PD Amendment to assign dwelling units to Planning Area 85?

FACTS:

The applicant is proposing a multi-family development consisting of approximately 364 apartments in 12 buildings, along with supportive elements including a leasing/clubhouse, pool, garages, door parks, and open space (reference: Conceptual Plan, attached). The property is located on the northeast side of Plaza Drive, west of Children's Hospital and east of Solana Lucent Station Apartments.

The property is composed of two separate parcels of land currently owned by the Englewood McLellan Reservoir Foundation. The first parcel (#229-042-08-001) is approximately 4.6-acres in size; the second parcel (#229-042-09-002) is approximately 10.2-acres in size. The land is in Planning Area 85.

While multi-family residential is a Use Permitted by Right per HRPDG §X-B(B)(19), no dwelling units are currently assigned to PA 85.

The applicant, through their consultant (Norris Design), based on a suggestion from the Douglas County Board of County Commissioners, is seeking a letter from the HRCA noting that we are in general support of this development moving forward with the Planned Development (PD) Amendment and Site Improvement Plan (SIP) processes.

ANALYSIS:

The current Highlands Ranch Planned Development, Amendment #79, is dated October, 2023. In 2022 (ZR2022-011) the PD was amended (Amendment #77, see attached Amendment #77 Mapping) to "remove non-urban area in Westridge Glen (former Douglas County School Property) and

add 49 dwelling units to PA 43, increasing the HRPD total dwelling units to 36,058). Amendments #78 & #79 did not impact the dwelling unit count but rather allowed animal clinic/hospital as permitted uses in Planning Area 71-C and F and Planning Area 90, and Planning Area 72, respectively.

This application is similar in context to what was approved as part of Amendment #77 (reduce non-urban land area to increase dwelling units).

The following questions were presented to the project consultant (their initial responses are provided in *blue italicized serif-font*):

1. **HRPDG Zoning Map:**

   While multi-family residential is a Use Permitted by Right per HRPDG §X-B(B)(19), no dwelling units are currently assigned to PA 85.

   Question: Is your team intending to amend the PD Zoning Map to create another sub-area (e.g., PA 85-B, PA 85-A was created as part of Amendment #69, circa 2013) and reassign the proposed 364 units from other PAs with excess availability? Is the intent to increase the overall cap of 36,068 dwelling units to account for these additional residential units?

   Our application intends to amend the PD Zoning Map by adding 400 units of High Density Residential to Planning Area 85. Through early discussions with the County Planning Department, we have been advised that we do not need to create a new sub-area on the map, we simply need to transfer the acreage of our Site out of Nonresidential and into Residential, because, as you mentioned, multi-family residential is a Use Permitted by Right. Attached is a mark up of the PD Zoning Map, which indicates the map changes we will be proposing to the County with our application.

   We will not be transferring units from other Planning Areas with excess availability, our application proposes to indeed add units to the HRPD, just like the 77th Amendment did.

2. **Non-Residential to Residential Conversion:**

   Historically, converting areas designated as Industrial Park to residential has raised concerns about potential impacts on the future tax base if Highlands Ranch were to incorporate.

   In this case, the planned RTD light-rail station adds a layer of consideration. However, this may be mitigated by preserving land for the station and allowing for ancillary tax-generating uses (e.g., coffee shops, small retail). Additionally, since only approximately 15 acres are being considered, it's unlikely the site would support a significant tax generator.

   This concern may be minimal here, but it's worth discussing with your client so they're prepared to address it as the project advances. I do agree with your observation that this use is consistent with the nearby multi-family developments southwest and west of the site (Solana and Creekside).

   We appreciate the insight on this. This is super helpful to understand!

3. **Traffic Impact:**

I don't have a copy of the TIS you referenced, but I hope it accounts for the substantial drop-off and pick-up traffic at Ben Franklin Academy (BFA) on Plaza Drive, directly across from the northern loop driveway intersection.

A traffic signal at the southern loop intersection with Plaza/Greensborough makes sense and may help manage BFA-related queuing. If the TIS hasn't addressed BFA specifically, I recommend your traffic consultant do so.

Again, we very much appreciate the insight. Our TIS will absolutely account for the traffic conditions that you have mentioned, thanks for pointing those out!

4. **Stormwater Management:**

I understand you're still early in design, but has stormwater management been considered? Is there an existing regional system this development will be tied into? From the preliminary site plans, it doesn't appear on-site stormwater facilities are currently proposed.

Appreciate you pointing this out. Again, the design that was shared is very much in the early stages and there are still many details that are still to be determined but Stormwater Management will absolutely be considered as our Site Plan advances.

5. **Architecture and Landscaping:**

I expect the building elevations will reflect a high-quality design, with visual interest and character similar to Solana and Creekside. As you know, this will be a focus of DRC review. The same applies to landscape design, where a thoughtful and diverse plant palette will be important.

Understood 100%. We know the approach and quality of design that the DRC expects and will assess our application by at the time of DRC review. If it's helpful at this stage, our team can share some example character imagery of the type of building elevations we anticipate being built.

CONCLUSION:

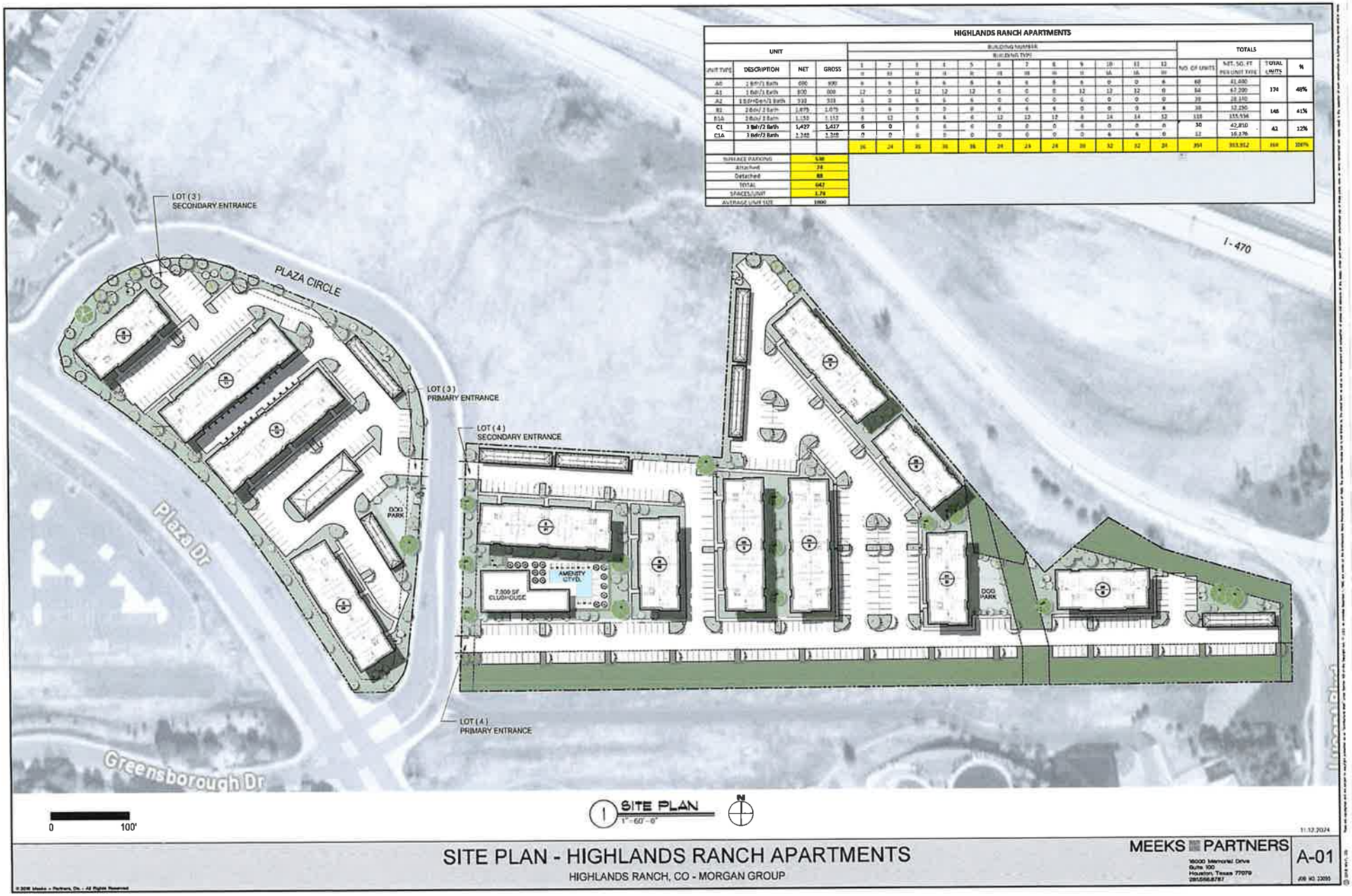
The inclusion of multi-family residential in this Planning Area is consistent with what was created in 2013 with Planning Area 85-A. However, it comes at a greater net loss of non-residential land area (15-acres), which could nominally impact development of commercial and/or industrial tax generating businesses. This potential revenue impact may be mitigated with the ultimate development of the RTD "Lucent Station," when/if that occurs.

The project will include reviews by the HRCA Development Review Committee (DRC) during both the PD Amendment phase and the Site Improvement Plan (SIP) phase.

Staff position is neutral.

REQUIREMENTS / RESOLUTION / STATUS:

☐ Obtain BOD direction and coordinate with developer's consultant accordingly. STATUS: IN PROGRESS.



HIGHLANDS RANCH APARTMENTS

UNIT				BUILDING NUMBER / BUILDING TYPE												TOTALS			
UNIT TYPE	DESCRIPTION	NET	GROSS	1 II	2 III	3 II	4 II	5 III	6 III	7 III	8 III	9 II	10 IIA	11 IIA	12 III	NO. OF UNITS	NET SQ. FT PER UNIT TYPE	TOTAL UNITS	%
A0	1 BR/1 Bath	690	690	6	6	6	6	6	6	6	6	6	0	0	6	68	46,920	174	48%
A1	1 Bdr/1 Bath	800	800	12	0	12	12	12	0	0	0	12	12	12	0	94	67,200		
A2	1 BdrDen/1 Bath	938	938	6	0	6	6	6	0	0	0	6	0	0	0	30	28,140		
B1	2 Bdr/ 2 Bath	1,075	1,075	0	6	0	0	0	6	6	6	0	0	0	6	30	32,250	148	41%
B1A	2 Bdr/ 2 Bath	1,152	1,152	6	12	6	6	6	12	12	12	6	14	14	12	118	135,936		
C1	3 Bdr/2 Bath	1,427	1,427	6	0	6	6	6	0	0	0	6	0	0	0	30	42,810	42	12%
C1A	3 Bdr/2 Bath	1,248	1,248	0	0	0	0	0	0	0	0	0	6	6	0	12	14,976		
				36	24	36	36	36	24	24	24	36	32	32	24	354	383,912	364	100%

SURFACE PARKING	530
Attached	24
Detached	88
TOTAL	642
SPACES/UNIT	1.74
AVERAGE UNIT SIZE	1000

SITE PLAN - HIGHLANDS RANCH APARTMENTS

HIGHLANDS RANCH, CO - MORGAN GROUP

MEEKS PARTNERS
16000 Memorial Drive
Suite 100
Houston, Texas 77079
2815568787

A-01

11.12.2024

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Urban Uses

Residential

Density-Low	PA[1]	GRA[2]	DU/GRA[3]	Total DU
1,5,7,23&51	1	165	2.6	435
	2	66	3.2	212
	3	165	3.6	594
	4	51	2.0	102
	5	53	3.8	198
	7	194	2.9	562
	23	64	1.6	104
	51	72	3.2	246
	Sub Total	824	2.9	2,451
Medium-Low	6	87	4.9	429
20,24-32,57,57&58	20	353	4.3	1,518
	24	185	4.0	740
	25	77	4.0	308
	26	252	4.0	936
	27	95	4.0	380
	28	94	4.0	376
	29	108	4.0	432
	30	91	4.0	364
	31	253	4.1	1,032
	33	187	4.0	748
	52	226	4.4	1,004
	57	391	4.4	1,737
	58	336	4.2	1,400
	Sub Total	2,717	4.2	11,464
Medium	33	65	6.4	419
33,40-50,53-56&59	40	87	5.3	465
	41	216	5.3	1,134
	42	45	5.8	275
	43	169	5.0	845
	44	186	5.0	957
	45	56	5.0	430
	46	224	5.9	1,330
	47	46	5.0	230
	48	72	5.0	360
	49	98	5.0	490
	50	181	5.0	905
	53	154	5.0	770
	54	47	5.6	265
	55	258	5.8	1,495
	56	201	5.0	985
	59	362	4.8	1,749
	Sub Total	2,395	5.3	12,625
High	60	32	8.0-15.0	284
60-69	61	168	8.0-15.0	1,794
	62	53	8.0-15.0	447
	63	35	8.0-15.0	280
	64	98	8.0-15.0	862
	65	151	8.0-15.0	2,187
	66	229	8.0-15.0	1,832
	67	44	8.0-15.0	456
	68	17	8.0-15.0	255
	69	36	8.0-15.0	725
	84,87	–	–	135
	85-A	–	–	285
	Sub Total	861	8.0-15.0	9,543
Total Residential		6,807		36,020

Nonresidential

		PA[1]	GNA[2]
70, 89-91	Community Activity Center	70	85
		89	11
		90	13
		91	14
71	Civic Center	71	151
72, 73	Town Center	72	173
		73	286
74	Corridor Activity Center	74	132
–	Shop-N-Ride		13
75-88	Industrial Park	75	45
		76	57
		77	107
		78	80
		79	12
		80	61
		81	40
		84	72
		83	69
		86	27
		87	15
		88	8
	Sub Total		1,471

Circulation
- 2 Lane Arterial Highways
- 4 Lane Arterial Highways
- 6 Lane Arterial Highways

Total Arterials 443

Interchange

Total Nonresidential 1,914

Nonurban Uses

		GNA[2]
E	Schools	472
MS	Elementary School	
HS	Middle School	
	High School	
L	Library	3
P	Mass Transit Parking Site	7
RP	Regional Park	300
A	Highlands Ranch Community Association Facility Site	35
CP	Community Park	160
	Nonurban	
	Easements	600
	Floodplains (100 yr.)	741
	Remaining Area	2,382

Open Space Conservation Area

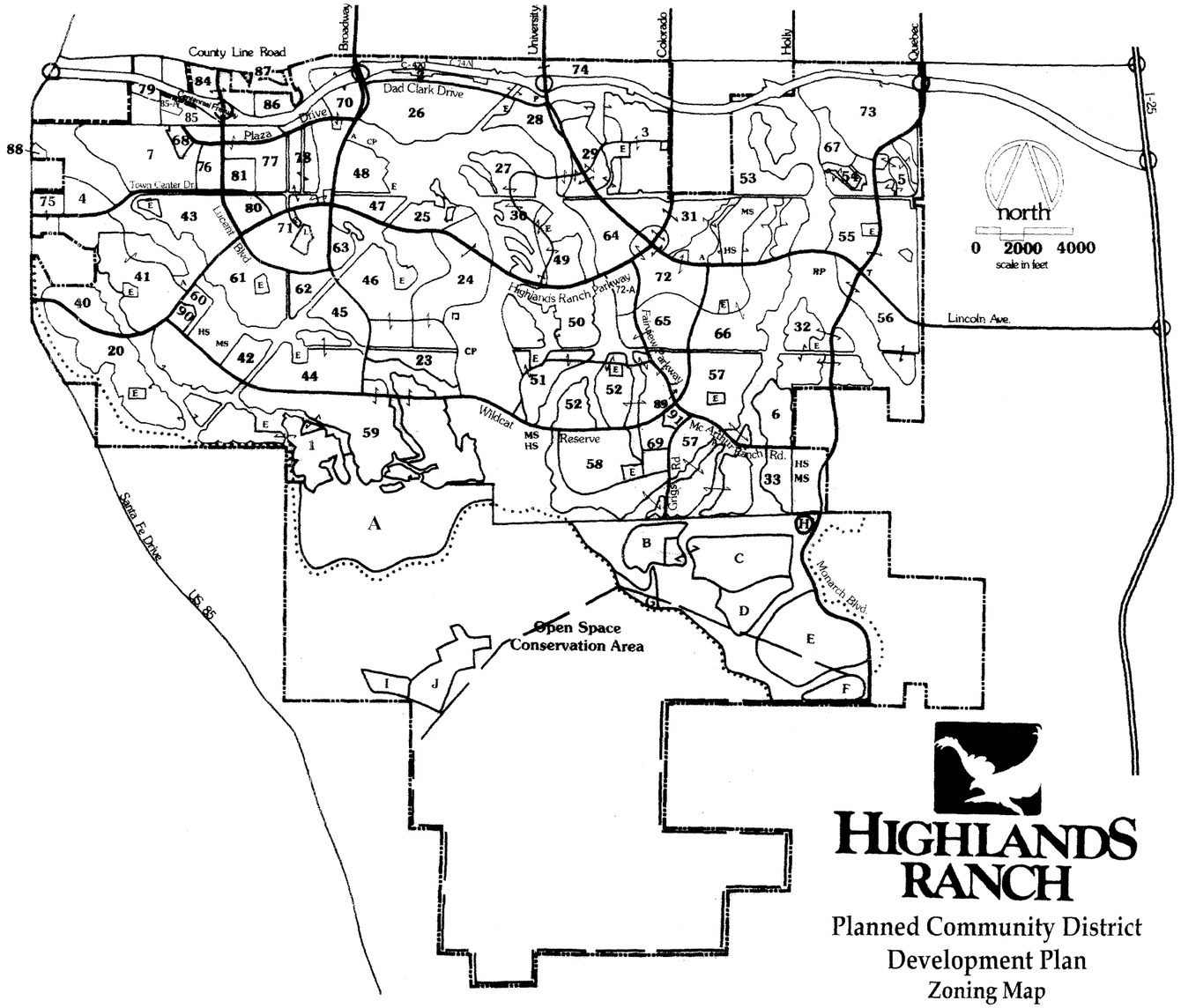
PA	GNA
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
Subtotal	1,200
J	125
	6,875
Total Open Space	7,000
Conservation Area	8,200

Total Nonurban	12,900
Total Planned Community District (acres)	21,621

Section XVIII of The New Town of Highlands Ranch Planned Community District Development Guide

Footnotes
[1]Planning Area
[2]Gross Residential Acres
[3]Gross Nonresidential Acres
[4]Dwelling Units/Gross Residential Acre

General Notes
1. School sites will be precisely scaled and located in accordance with the standards of the Douglas County School District. School sites are Nonurban Uses and as such are not a part of the residential planning area acreage.
2. The specific locations and sizes of Shop-N-Rides will be determined by precise engineering studies. The facilities indicated on this plan are symbolic only.
3. Community park sites designated on the Development Plan are symbolic only.
4. Planning Area boundaries other than those delineated by streets are shown by the following symbol: ———
5. Highlands Ranch boundary is shown by the following symbol: ——— a p ———
6. • • • • • • • • • • Off Street Hiking and Biking Trail
7. The Cultural and Historical Protection Overlay Zone is delineated by the following symbol ———— ————
8. Some nonurban areas exist interior to adjacent planning areas, and are not graphically represented. These nonurban areas remain subject to Section XIII of the Highlands Ranch Development Guide.



HIGHLANDS RANCH

Planned Community District Development Plan Zoning Map

EXHIBIT 'A' - AS AMENDED
Amendment No. 69
ZR2013-022
PAGE 1 OF 1

THE HIGHLANDS RANCH PLANNED DEVELOPMENT, 77TH AMENDMENT

TRACT A HIGHLANDS RANCH FILING 112-A 2ND AMENDMENT WITHIN PLANNING AREA 43 OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT
DOUGLAS COUNTY, STATE OF COLORADO

URBAN USES

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
RESIDENTIAL DENSITY-LOW 1,5,7,23 & 51	1	165	2.6	433
	2	66	3.2	212
	3	165	3.6	594
	4	51	2.0	102
	5	53	3.8	198
	7	194	2.9	562
	23	64	1.6	104
	51	77	3.2	246
SUB TOTAL		835	2.9	2,451
MEDIUM-LOW 20,24-32,52,57 & 58	6	87	4.9	429
	20	353	4.3	1,518
	24	185	4.0	740
	25	77	4.0	308
	26	234	4.0	936
	27	95	4.0	380
	28	94	4.0	376
	29	108	4.0	432
	30	91	4.0	364
	31	253	4.1	1,032
	32	187	4.0	748
	52	226	4.4	1,004
	57	391	4.4	1,737
	58	336	4.2	1,400
SUB TOTAL		2,717	4.2	11,404
MEDIUM 33,40-50,53-56 & 59	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	33	65	6.4	419
	40	87	5.3	465
	41	216	5.3	1,134
	42	43	5.9	275
	43	179	5.0	893
	44	186	5.0	957
	45	86	5.0	430
	46	224	5.9	1,330
	47	46	5.0	230
	48	72	5.0	360
	49	98	5.0	490
	50	181	5.0	905
	53	154	5.0	770
	54	47	5.6	265
	55	258	5.8	1,493
	56	101	5.0	505
	59	362	4.8	1,749
SUB TOTAL		2,405	5.3	12,670
HIGH 60-69	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	60	32	8.0-15.0	284
	61	168	8.0-15.0	1,794
	62	51	8.0-15.0	447
	63	35	8.0-15.0	280
	64	98	8.0-15.0	863
	65	151	8.0-15.0	2,187
	66	229	8.0-15.0	1,832
	67	44	8.0-15.0	456
	68	17	8.0-15.0	255
	69	36	8.0-15.0	725
	84,87	–	–	135
	85-A	–	–	285
SUB TOTAL		861	8.0-15.0	9,543
TOTAL RESIDENTIAL		6,818		36,068

NONRESIDENTIAL

		PA[2]	GNA[3]
70, 89-91	COMMUNITY ACTIVITY CENTER	70	85
		89	11
		90	13
		91	14
71	CIVIC CENTER	71	151
72,73	TOWN CENTER	72	173
		73	286
74	CORRIDOR ACTIVITY CENTER	74	132
T	SHOP-N-RIDE		13
75-88	INDUSTRIAL PARK	75	45
		76	57
		77	107
		78	80
		79	12
		80	61
		81	40
		84	72
		85	69
		86	27
		87	15
		88	8
SUB TOTAL			1,471

CIRCULATION

- 2 LANE ARTERIAL HIGHWAYS
- 4 LANE ARTERIAL HIGHWAYS
- 6 LANE ARTERIAL HIGHWAYS

TOTAL ARTERIALS 443

INTERCHANGE

TOTAL NONRESIDENTIAL 1,914

NON-URBAN USES

		GNA[3]
SCHOOLS		
E	ELEMENTARY SCHOOLS	462
MS	MIDDLE SCHOOL	
HS	HIGH SCHOOL	
L	LIBRARY	3
P	MASS TRANSIT PARKING SITE	7
RP	REGIONAL PARK	300
A	HIGHLANDS RANCH COMMUNITY ASSOCIATION FACILITY SITE	35
CP	COMMUNITY PARK	160
	NONURBAN	
	EASEMENTS	600
	FLOODPLAINS (100 YR.)	741
	REMAINING AREA	2,382

OPEN SPACE CONSERVATION AREA

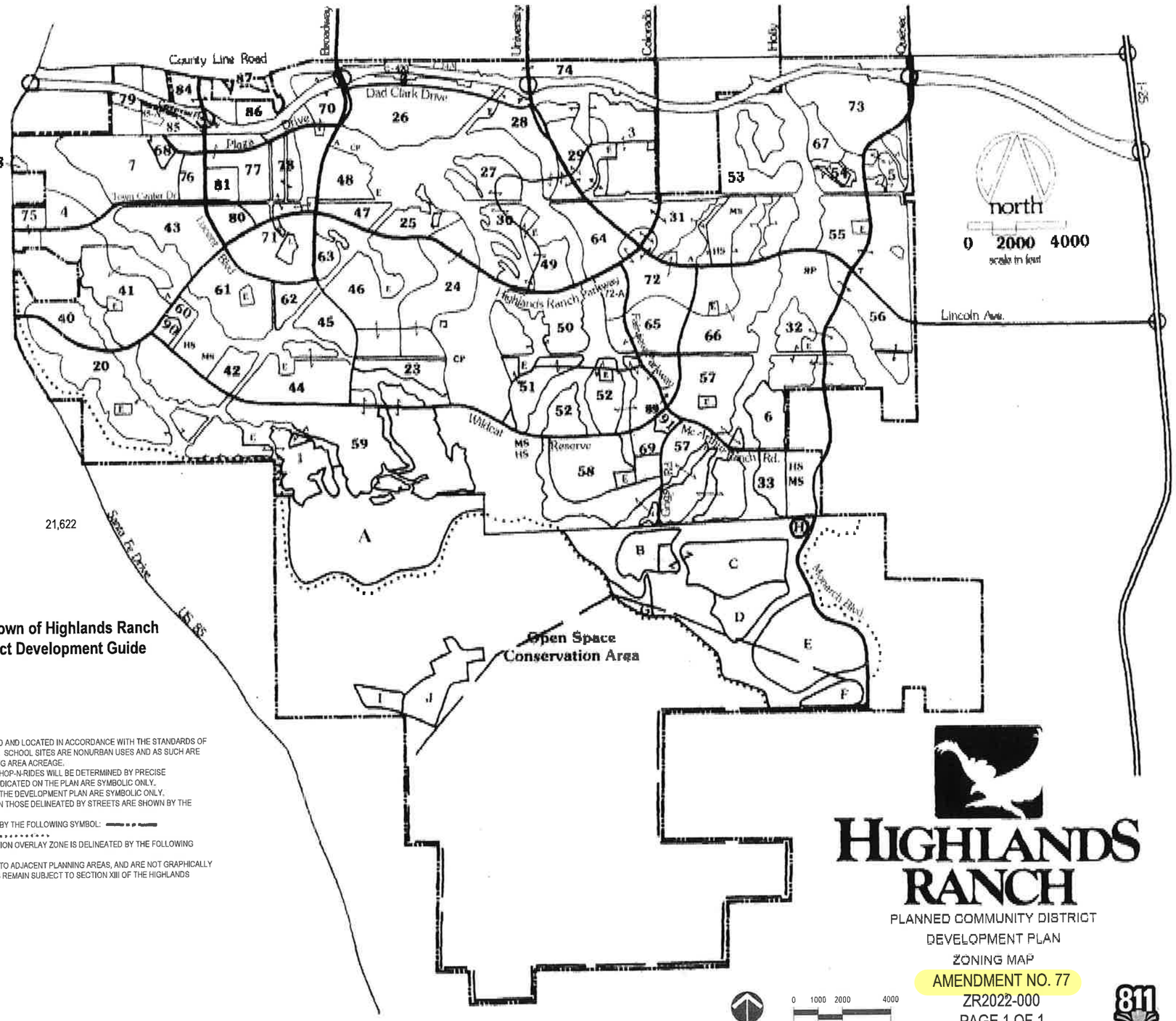
	GNA[3]
PA	
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
SUBTOTAL	1,200
J	125
	6,875
	7,000
TOTAL OPEN SPACE CONSERVATION AREA	8,200
TOTAL NONURBAN	12,890

TOTAL PLANNED COMMUNITY DISTRICT (ACRES) 21,622

Section XVIII of the New Town of Highlands Ranch Planned Community District Development Guide

FOOTNOTES:
[1]PLANNING AREA
[2]GROSS RESIDENTIAL ACRES
[3]GROSS NONRESIDENTIAL ACRES
[4]DWELLING UNITS/GROSS RESIDENTIAL ACRE

GENERAL NOTES:
1: SCHOOL SITES WILL BE PRECISELY SCALED AND LOCATED IN ACCORDANCE WITH THE STANDARDS OF THE DOUGLAS COUNTY SCHOOL DISTRICT. SCHOOL SITES ARE NONURBAN USES AND AS SUCH ARE NOT A PART OF THE RESIDENTIAL PLANNING AREA ACREAGE.
2: THE SPECIFIC LOCATIONS AND SIZES OF SHOP-N-RIDES WILL BE DETERMINED BY PRECISE ENGINEERING STUDIES. THE FACILITIES INDICATED ON THE PLAN ARE SYMBOLIC ONLY.
3: COMMUNITY PARK SITES DESIGNATED ON THE DEVELOPMENT PLAN ARE SYMBOLIC ONLY.
4: PLANNING AREA BOUNDARIES OTHER THAN THOSE DELINEATED BY STREETS ARE SHOWN BY THE FOLLOWING SYMBOL: ———
5: HIGHLANDS RANCH BOUNDARY IS SHOWN BY THE FOLLOWING SYMBOL: —— • • ——
6: OFF-STREET HIKING AND BIKING TRAIL • • • • • • • • • •
7: THE CULTURAL AND HISTORICAL PROTECTION OVERLAY ZONE IS DELINEATED BY THE FOLLOWING SYMBOL: ——— ———
8: SOME NONURBAN AREAS EXIST INTERIOR TO ADJACENT PLANNING AREAS, AND ARE NOT GRAPHICALLY REPRESENTED. THESE NONURBAN AREAS REMAIN SUBJECT TO SECTION XIII OF THE HIGHLANDS RANCH DEVELOPMENT GUIDE.



HIGHLANDS RANCH
PLANNED COMMUNITY DISTRICT
DEVELOPMENT PLAN
ZONING MAP

AMENDMENT NO. 77
ZR2022-000
PAGE 1 OF 1

811

NORRIS DESIGN
Planning | Landscape Architecture | Branding
1101 Bannock Street
Denver, Colorado 80204
P 303.892.1166
www.norris-design.com

Highlands Ranch PD Amendment 77
State Parcel #: 2229-081-06-030
Douglas County, CO

OWNER:
Douglas County School District
620 Wilcox St
Castle Rock, CO

DEVELOPER:
Miller United
6900 E. Belleview Ave, Suite 300
Greenwood Village, CO 80111

NOT FOR CONSTRUCTION

DATE:
02/11/22 SUBMITTAL

SHEET TITLE:

Allowed residential units to increase by 400 units

URBAN USES

RESIDENTIAL DENSITY-LOW 1,5,7,23 & 51

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	1	165	2.6	433
	2	66	3.2	212
	3	165	3.6	594
	4	51	2.0	102
	5	53	3.8	198
	7	194	2.9	562
	23	64	1.6	104
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	46	224	5.9	1,330
	47	46	5.0	230
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	55	258	5.8	1,493
	56	101	5.0	505
	59	362	4.8	1,749
SUB TOTAL		2,405	5.3	12,670

HIGH 60-69

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	60	32	8.0-15.0	284
	61	168	8.0-15.0	1,794
	62	51	8.0-15.0	447
	63	35	8.0-15.0	280
	64	98	8.0-15.0	863
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	67	44	8.0-15.0	456
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	69	36	8.0-15.0	725
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TOTAL RESIDENTIAL 6,818 36,068

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75-88	INDUSTRIAL PARK	75	45
		76	57
		77	107
		78	80
		79	12
		80	61
		81	40
		84	72
		85	69
		86	27
		87	15
		88	8
SUB TOTAL		1,471	

CIRCULATION

	2 LANE ARTERIAL HIGHWAYS
	4 LANE ARTERIAL HIGHWAYS
	6 LANE ARTERIAL HIGHWAYS
TOTAL ARTERIALS	443

TOTAL NONRESIDENTIAL 1,914

Total Nonresidential = 1899

NON-URBAN USES

		GNA[3]
SCHOOLS		
E	ELEMENTARY SCHOOLS	462
MS	MIDDLE SCHOOL	
HS	HIGH SCHOOL	
L	LIBRARY	3
P	MASS TRANSIT PARKING SITE	7
RP	REGIONAL PARK	300
A	HIGHLANDS RANCH COMMUNITY ASSOCIATION FACILITY SITE	35
CP	COMMUNITY PARK	160
	NONURBAN	
	EASEMENTS	600
	FLOODPLAINS (100 YR.)	741
	REMAINING AREA	2,362

OPEN SPACE CONSERVATION AREA

PA	GNA[3]
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
SUBTOTAL	1,200
J	125
	6,875
	7,000

TOTAL OPEN SPACE CONSERVATION AREA 8,200

TOTAL NONURBAN 12,890

TOTAL PLANNED COMMUNITY DISTRICT (ACRES) 21,622

-Moving 15 acres of PA-85 from non-residential to residential
-GRA increases by 15 acres
-Total Dwelling Units = 400
-DU/GRA = 8-25 du/ac

Sect... Town of Highlands Ranch
Plan... rict Development Guide

FOOTNOTES:
[1]PLANNING AREA
[2]GROSS RESIDENTIAL ACRES
[3]GROSS NONRESIDENTIAL ACRES
[4]DWELLING UNITS/GROSS RESIDENTIAL ACRE

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-PA 85 - 15 acres becomes residential, then reduces GNA by 15 acres
-GNA for PA 85 is proposed to be 54 acres
-Subtotal = 1456 acres

I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS ____ DAY OF _____, 20___, A.D. AT _____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

_____
Douglas County Clerk and Recorder

THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING THE TOTAL RESIDENTIAL DWELLING UNITS AND ADJUSTING THE BOUNDARY OF PLANNING AREA 43 AS DEPICTED ON THE HIGHLANDS RANCH DEVELOPMENT PLAN ZONING MAP AS DEPICTED HEREON HAS BEEN APPROVED BY BOARD MOTION NO. _____ ON _____, ____, 20___.

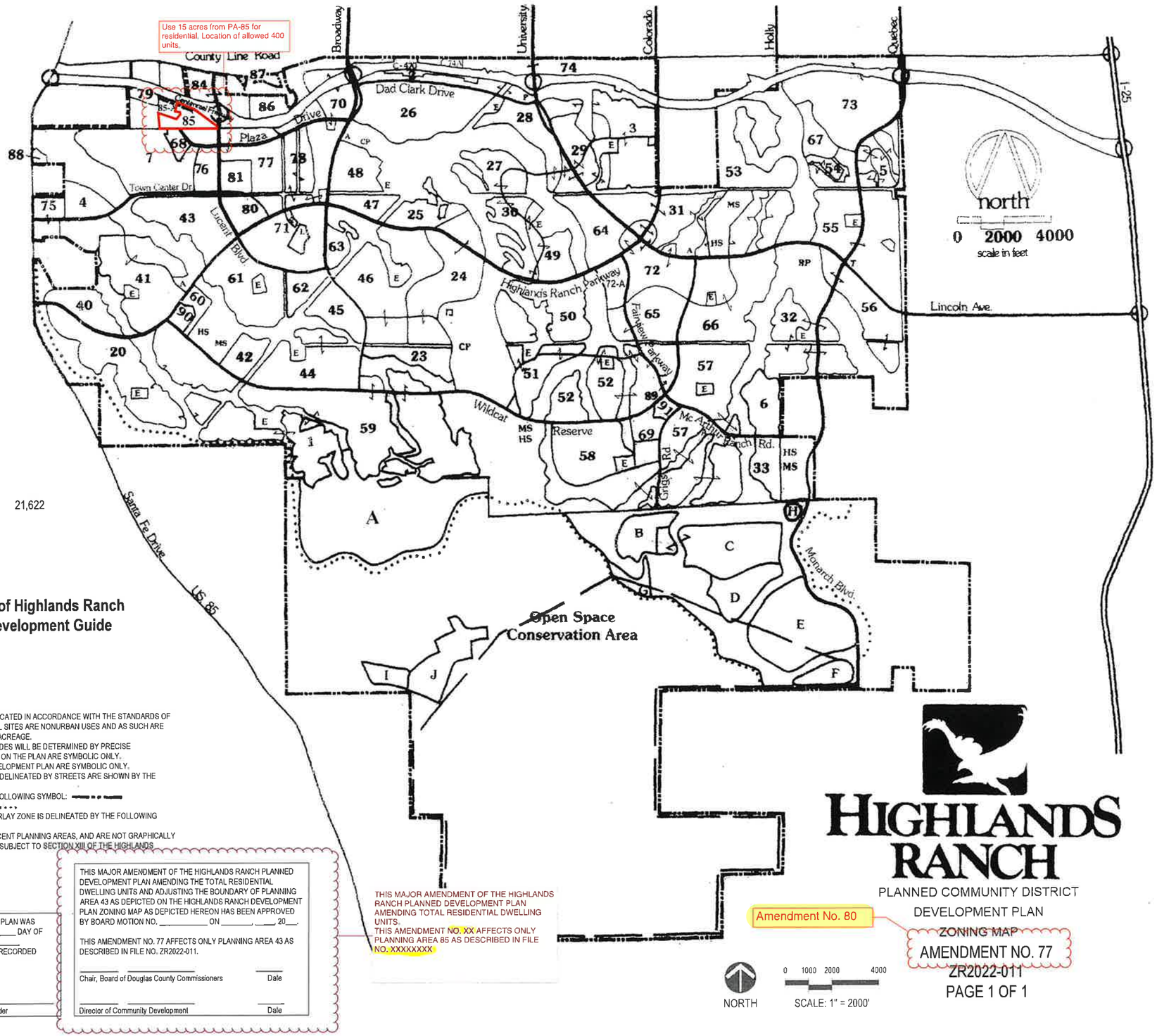
THIS AMENDMENT NO. 77 AFFECTS ONLY PLANNING AREA 43 AS DESCRIBED IN FILE NO. ZR2022-011.

_____ _____ _____
Chair, Board of Douglas County Commissioners Date

_____ _____ _____
Director of Community Development Date

THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING TOTAL RESIDENTIAL DWELLING UNITS.
THIS AMENDMENT NO. XX AFFECTS ONLY PLANNING AREA 85 AS DESCRIBED IN FILE NO. XXXXXXXX

Use 15 acres from PA-85 for residential. Location of allowed 400 units.



HIGHLANDS RANCH

PLANNED COMMUNITY DISTRICT
DEVELOPMENT PLAN
ZONING MAP
AMENDMENT NO. 77
ZR2022-011
PAGE 1 OF 1

Amendment No. 80

From: Commercial Review
Sent: Thursday, May 15, 2025 6:57 AM
To: Matt Jakubowski
CC: Adam Wallace; Mallory Mooney; John Mezger
Subject: Douglas County eReferral (ZR2025-001) | HRCA DRC REVIEW COMMENTS

Importance: High

Good morning, Matt...

Mr. Wallace and Ms. Mooney presented their PD Amendment proposal to the HRCA Development Review Committee (DRC) last night.

I'm pleased to report that the DRC formally APPROVED the application as presented. The Committee looks forward to continued coordination as the project moves through the County's design and review process.

We appreciate the opportunity to provide input on the application and remain available to support next steps as needed.

Should you have any questions or wish to discuss any of the details further, please don't hesitate to reach out to me at (303) 471-8802 / commercialreview@hrcaonline.org, or to John Mezger at (303) 471-8823 / john.mezger@hrcaonline.org.

Respectfully,

Weylan A. "Woody" Bryant, M LS, PE
Director: Community Improvement Services

CommercialReview@hrcaonline.org
(303) 471-8802 (direct) | (303) 471-8821 (admin)
Eastridge Rec Center: Admin Wing
9568 University Blvd, Highlands Ranch, CO 80126

https://hrcaonline.org/

NOTICE: This communication (including attachments) is covered by the Electronic Communication Privacy Act, U.S.C. Section 2510-2521, is confidential, and may contain privileged information. If you are not the intended recipient or if you believe you may have received this communication in error, please do not print, copy, retransmit, disseminate, or otherwise use this communication or any of the information contained herein. Also, please notify sender that you have received this communication in error and delete the copy you received. This email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system, it is the responsibility of the recipient to ensure that it is virus-free, and no responsibility is accepted by the sender for any damage arising in any way in the event that such a virus or defect exists. Thank you.

-----Original Message-----
From: Commercial Review
Sent: Thursday, April 24, 2025 2:09 PM
To: mjakubow@douglas.co.us
Cc: Daniel Jennings <djennings@norris-design.com>; Greg Banks <gbanks@norris-design.com>; Adam Wallace <adam@pagewestco.com>; Mallory Mooney <mmooney@norris-design.com>; John Mezger <john.mezger@hrcaonline.org>
Subject: RE: Douglas County eReferral (ZR2025-001) Is Ready For Review
Importance: High

Good afternoon, Matt...

This PD Amendment will require review by the HRCA Development Review Committee. Their next meeting is Wednesday, May 14th - one day before this referral is closed. I've spoken with the Applicant, and they are aware of HRCA's process. I've also reviewed this proposal with our Board of Directors (BOD) and provided the Applicant with our BOD's "conceptual no exceptions taken" reading (which I believe they've provided to your team); however, our BOD has directed that our DRC is to review the project. I will coordinate directly with the Applicant to get our process started. Thanks!!

Good afternoon, Norris-Design Team and Mr. Wallace...

As we've discussed in the past, as your project progresses through the various steps, engagement with the HRCA Development Review Committee (DRC) is required. The next DRC meeting, as I noted to Matt above, is on Wednesday, May 14th. We need to move quickly to ensure we can get you on the agenda for that meeting so that your project isn't delayed. Please reach out to me at your earliest convenience so we can discuss applications, fees, and documents that will be necessary. My contact information is provided below for ease of reference. Thank you!

Feel free to call me (303.471.8802) or email me (mailto:Woody.Bryant@hrcaonline.org) with questions or if you wish to review the information discussed above in greater detail. Thank you.

Respectfully,

Weylan A. "Woody" Bryant, M LS, PE
Director: Community Improvement Services

mailto:Woody.Bryant@hrcaonline.org
(303) 471-8802 (direct) | (303) 471-8821 (admin) Eastridge Rec Center: Admin Wing
9568 University Blvd, Highlands Ranch, CO 80126

https://hrcaonline.org/
NOTICE: This communication (including attachments) is covered by the Electronic Communication Privacy Act, U.S.C. Section 2510-2521, is confidential, and may contain privileged information. If you are not the intended recipient or if you believe you may have received this communication in error, please do not print, copy, retransmit, disseminate, or otherwise use this communication or any of the information contained herein. Also, please notify sender that you have received this communication in error and delete the copy you received. This email and any attachments are believed to be free of any virus or other defect that might negatively affect any computer system, it is the responsibility of the recipient to ensure that it is virus-free, and no responsibility is accepted by the sender for any damage arising in any way in the event that such a virus or defect exists. Thank you.

-----Original Message-----
From: mailto:mjakubow@douglas.co.us <mailto:mjakubow@douglas.co.us>
Sent: Thursday, April 24, 2025 8:46 AM
To: Commercial Review <mailto:commercialreview@hrcaonline.org>
Subject: Douglas County eReferral (ZR2025-001) Is Ready For Review

There is an eReferral for your review. Please use the following link to log on to your account:
https://apps.douglas.co.us/planning/projects/Login.aspx

Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Project Summary: Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.

This referral will close on Thursday, May 15, 2025.

If you have any questions, please contact me.

Sincerely,

Matt Jakubowski, AICP | Chief Planner
Douglas County Department of Community Development Planning Services Division Address | 100 Third St., Castle Rock, CO 80104
Phone | 303-660-7460 Email | mailto:mjakubow@douglas.co.us

DOUGLAS COUNTY PLANNING REFERRALS

REFERRAL NUMBER: ZR2025-001 DATE RECEIVED: 5/5/25

PROJECT NAME: HR Planned Development-Lucent Station 400 Residential Units

PLANNER:

DUE DATE: 5/13/2025

Parks & Parkways Manager
Dirk Ambrose

No comment

Natural Resource Manager
Nick Adamson

No comment

Director of Operations & Maintenance
Ken Standen

No comment

Director of Parks, Recreation & Open Space
Neil Alderson

Construction and Facilities Maintenance - Manager
Tyler Ensign

Highlands Ranch Metropolitan District Highlands Ranch Water & Sanitation District
62 Plaza Drive Highlands Ranch CO 80129

Public Works Manager of Development Engineering
Forrest Dykstra

Director of Engineering & Public Works
Ryan Edwards

Public Works HR Water - Project Engineer
Austin Long

Public Works HR Water - Project Manager
Jon Klassen

Site Civil and ARCH/MEP plans must be submitted to the District for review and approval.

Jon Klassen
Project Manager

Finance Department

There are generally three developments fees applicable to residential development in Highlands Ranch:

- Tap Fees
- Meter Fees
- System Development Fees (SDF)

Information regarding Procedures, Definition of Service, Meter Sizing, Fees and Application for Service can be found in The Highlands Ranch Development Guidelines which can be found on our website.

Highlands Ranch Metropolitan District Highlands Ranch Water & Sanitation District
62 Plaza Drive Highlands Ranch CO 80129

REFERRAL RESPONSE REQUEST – MAJOR PLANNED DEVEL. AMD.

Date sent: April 24, 2025

Comments due by: **May 15, 2025**
Fax: 303.660.9550

Project Name:	Highlands Ranch Planned Development, 80th Amendment
Project File #:	ZR2025-001
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Information on the identified development proposal located in Douglas County is enclosed. Please review and comment in the space provided.

☒	No Comment	
☐	Please be advised of the following concerns:	
☐	See letter attached for detail.	
Agency: RTD		**Phone #:** 303-299-2943
Your Name: C. Scott Woodruff		**Your Signature:**
(please print)		**Date:** 5-15-25

Agencies should be advised that failure to submit written comments prior to the due date, or to obtain the applicant's written approval of an extension, will result in written comments being accepted for informational purposes only.

Sincerely,

Matt Jakubowski, Chief Planner
Enclosure

RTD Engineering Review Comments

Prepared by: C. Scott Woodruff

5/15/2025

Project Name: ZR2025-001

Department	Comments
Bus Operations	No exceptions
Bus Stop Program	No exceptions
Commuter Rail	No exceptions
Construction Management	No exceptions
Engineering	No exceptions
Light Rail	No exceptions
Real Property	No exceptions
Service Development	No exceptions
Transit Oriented Development	No exceptions
Utilities	No exceptions

This review is for Design concepts and to identify any necessary improvements to RTD stops and property affected by the design. This review of the plans does not eliminate the need to acquire, and/or go through the acquisition process of any agreements, easements or permits that may be required by the RTD for any work on or around our facilities and property.

SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

December 13, 2024

County Parcel #'s 2229-042-08-001 & 2229-042-09-002

Attn: Mallory Mooney

RE: "Will-Serve" Letter for County Parcel #'s 2229-042-08-001 & 2229-042-09-002

Mallory,

The purpose of this letter is to confirm that the subject address is within the jurisdictional boundaries of South Metro Fire Rescue, a Special District in the State of Colorado with powers and duties outlined in section 32-1-1002 of the Colorado Revised Statutes. South Metro Fire Rescue provides fire prevention, fire suppression, emergency medical, and special team response services to properties within its jurisdictional boundaries. Any questions regarding our services may be directed to our office at 720-989-2230.

Sincerely,

Roberta Payan

Roberta Payan
Permit Coordinator

cc: file County Parcel #'s 2229-042-08-001 & 2229-042-09-002

SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

Matthew Jakubowski, AICP, Chief Planner
Douglas County Department of Community Development, Planning Services
100 Third St
Castle Rock Co 80104
303.660.7460
303.660.9550 Fax

Project Name:	Highlands Ranch Planned Development, 80th Amendment.
Project File #:	**ZR2025-001**
S Metro Review #	REFMDP25-00080
Review date:	April 29, 2025
Plan reviewer:	Aaron Miller 720.989.2246 aaron.miller@southmetro.org
Project Summary:	Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, and multifamily dwelling units are allowed uses in PA 85, additional units must be assigned to develop such uses. The applicant ultimately proposes a multifamily community on the two subject parcels (4.61 acres & 10.2 acres). The parcels are located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive. Approval of future multifamily development on the property requires a separate Site Improvement Plan approval, which is not subject of this application.
Code Reference:	Douglas County Fire Code, 2018 International Fire Code, and 2021 International Building Code with amendments as adopted by Douglas County.

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD amendment. Applicants and designers are encouraged to contact SMFR to ensure the Site Improvement Plans will meet the applicable fire code requirements for the proposed project prior to submitting the SIP.

Xcel Energy℠
PUBLIC SERVICE COMPANY

Right of Way & Permits

1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: 303.285.6612
violeta.ciocanu@xcelenergy.com

May 13, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Attn: Matt Jakubowski

Re: Highlands Ranch Planned Development, 80th Amendment, Case # ZR2025-001

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plan for **Highlands Ranch Planned Development, 80th Amendment and** currently has **no apparent conflict** .

In the future and to ensure that adequate utility easements are available within this development and per state statutes §31-23-214 (3) and 30-28-133(e), PSCo requests that the following language or plat note be placed on the preliminary and final plats for the subdivision:

> *Minimum 10-foot-wide dry utility easements are hereby dedicated on private property abutting all public streets, and around the perimeter of each lot in the subdivision or platted area including tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.*

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.

Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent.

As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.

Violeta Ciocanu (Chokanu)
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-285-6612 – Email: violeta.ciocanu@xcelenergy.com

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 Bannock Street
Denver, Colorado 80204
303.892.1166

MEETING NOTES

PROJECT:	HR PD Amendment #80	**DATE:**	4/16/25
SUBJECT:	Neighborhood Meeting	**TIME:**	6:00 PM
MINUTES BY:	Mallory Mooney	**LOCATION:**	Zoom

COMPANY	ATTENDEES	EMAIL
Development Team:		
Pagewest	Adam Wallace	x@x.com
Norris Design	Daniel Jennings	
Norris Design	Mallory Mooney	
Kimley-Horn	Jeff Planck	
Kimley-Horn	Eric McDaniel	
Neighbors:		

Summary:
The development team hosted a virtual neighborhood meeting on Wednesday, April 16, 2025 at 6:00 PM. Notices were sent to adjacent property owners and stakeholders on Thursday, April 3, 2025. However, as of 6:15 PM, no one other than the development team was in attendance. As a result, the team ended the meeting early.

Questions/Comments:
None.

NORRIS DESIGN
PEOPLE + PLACEMAKING

1101 Bannock Street
Denver, Colorado 80204
303.892.1166

June 11, 2025

Matt Jakubowski
Department of Community Development
100 Third Street
Castle Rock, CO 80104

Re: Highlands Ranch Planned Development, 80th Amendment (ZR2025-001) – Response to 2nd Review Letter

Dear Mr. Jakubowski,

Thank you for your comments for the initial review of a PD Major Amendment to the Highlands Ranch Planned Development to develop the property known as Lucent Station.

We are pleased to make our submittal for a Planned Development, addressing the comments provided by the County on May 9, 2025. We have provided below a response to all written County comments.

Sincerely,
Norris Design

Mallory Mooney

Mallory Mooney
Project Manager

NORRIS DESIGN
PEOPLE + PLACEMAKING
1101 Bannock Street
Denver, Colorado 80204
303.892.1166

DOUGLAS COUNTY STAFF COMMENTS:

PLANNING

1. No additional PD exhibit corrections are required at this time. You may prepare a "clean" version of the PD exhibit based on the attached PD redline. This is the same exhibit that went on the referral period and is only provided for your reference. I am available to discuss preparation of the clean exhibit at any time.
   Response: Comment noted; a clean exhibit is included with this resubmittal.

2. Douglas County Parks, Trails and Buildings Grounds responded to the referral and indicated that the applicant is responsible for meeting park land dedication requirements outlined in Article 10, Section 1003 of the Douglas County Subdivision Resolution (DCSR). Final determination of land dedication acreage or cash-in-lieu of land dedication fees would occur as part of a future Site Improvement Plan (SIP) or platting process (if necessary) following a property appraisal.
   a. No comments regarding parks, recreation, or open space were provided by the Highlands Ranch Community Association (HRCA) or the Highlands Ranch Metro District.
      Response: Comment noted; final determination of land dedication acreage or cash-in-lieu of land dedication fees will occur as part of a future Site Improvement Plan (SIP) or platting process (if necessary) following a property appraisal.

3. The Douglas County School District (DCSD) indicated an estimated impact of 20 elementary students, 3 middle school students, and 7 high school students from the development. This generates a land dedication requirement of 0.660 acres. DCSD requests cash-in-lieu of land dedication to be calculated per DCSR Section 1004.05.03. Final calculation of cash-in-lieu fees would be determined during a future SIP or plat process (if needed) following a property appraisal.
   Response: Comment noted; final calculation of cash-in-lieu fees will be determined during a future SIP or plat process (if needed) following a property appraisal.

4. Douglas County Engineering Services provided comments on the applicant's traffic study that will need to be addressed. The applicant may wish to contact Al Peterson at 303-660-7490 or apeterso@douglas.co.us to discuss the comments.
   Response: A revised Traffic Study is included with this submittal which addresses the comments provided.

5. In your response letter to referral comments, please also respond or acknowledge the outstanding referral comments not summarized above from CDOT, the Colorado Division of Water Resources, Douglas County Health Department, Highlands Ranch Metro District / Highlands Ranch Water, and Xcel Energy.
   Response: Comment noted; applicant is working with CDOT, Xcel Energy and Highlands Ranch Metro District/Water on the project and will continue to do so with future steps in the project's life cycle.

6. Douglas County encourages community outreach with abutting property owners, nearby neighbors, and homeowners' associations, as these groups may have interest in the proposed PD amendment. If any correspondence is generated from future outreach beyond that which has already been provided from HRCA, please provide such documentation to staff.
   Response: A virtual neighborhood meeting was held on April 16, 2025. Other than the

development team, no interested stakeholders attended the meeting. A summary of this meeting was included with the 2nd Submittal on April 29, 2025.

7. Next Steps: Please respond to the referral comments and prepare a clean PD exhibit. Douglas County Planning Services reserves the right to provide further comments based upon your resubmittal and referral comment response. It is typical to wait on discussion of potential public hearing dates until a resubmittal has been received, particularly since the traffic study will need to be accepted by Engineering prior to public hearings.
   Response: Comments noted and responses are included with this resubmittal, along with a clean PD exhibit.

PARKS & PARKWAYS MANAGER (HIGHLANDS RANCH METRO DISTRICT)
1. No comment
   Response: Thank you for your review.

NATURAL RESOURCE MANAGER (HIGHLANDS RANCH METRO DISTRICT)
1. No comment
   Response: Thank you for your review.

DIRECTOR OF OPERATIONS & MAINTENANCE (HIGHLANDS RANCH METRO DISTRICT)
1. No comment
   Response: Thank you for your review.

DIRECTOR OF PARKS, RECREATION & OPEN SPACE (HIGHLANDS RANCH METRO DISTRICT)
1. No response received
   Response: Thank you for your review.

CONSTRUCTION AND FACILITIES MAINTENANCE – MANAGER (HIGHLANDS RANCH METRO DISTRICT)
1. No response received
   Response: Thank you for your review.

PUBLIC WORKS MANAGER OF DEVELOPMENT ENGINEERING (HIGHLANDS RANCH METRO DISTRICT)
1. No response received
   Response: Thank you for your review.

DIRECTOR OF ENGINEERING & PUBLIC WORKS (HIGHLANDS RANCH METRO DISTRICT)
1. No response received
   Response: Thank you for your review.

PUBLIC WORKS HR WATER – PROJECT ENGINEER (HIGHLANDS RANCH METRO DISTRICT)
1. No response received
   Response: Thank you for your review.

PUBLIC WORKS HR WATER – PROJECT ENGINEER MANAGER (HIGHLANDS RANCH METRO DISTRICT)
1. Site Civil and ARCH/MEP plans must be submitted to the District for review and approval.
   Response: When site plans are available, they will be submitted for review.

FINANCE DEPARTMENT (HIGHLANDS RANCH METRO DISTRICT)

1. There are generally three developments fees applicable to residential development in Highlands Ranch: Tap Fees, Meter Fees, System Development Fees (SDF). Information regarding Procedures, Definition of Service, Meter Sizing, Fees and Application for Service can be found in The Highlands Ranch Development Guidelines which can be found on our website
   Response: Comment noted; fees will be paid at the appropriate times.

REFERRAL COMMENTS:

ADDRESSING ANALYST

1. No comment
   Response: Thank you for your review.

ARAPAHOE COUNTY ENGINEERING

1. Engineering Services Division of Arapahoe County Public Works and Development (Staff) thanks you for the opportunity to review the outside referral for the proposed project. Staff has no comments regarding the referral at this time based on the information submitted.
   Response: Thank you for your review.

ARAPAHOE COUNTY PLANNING

1. Thank you for the opportunity to review and comment on this project. The Arapahoe County Planning Division has no comments; however, other departments and/or divisions may submit comments.
   Response: Thank you for your review.

AT&T

1. This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Plaza Dr Circle Highlands Ranch, Colorado. The Earth map shows the project area in red. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Lines, as we do not have facilities in that area.
   Response: Comment noted; thank you for your review.

BACKCOUNTRY ASSOCIATION, INC

1. No response received
   Response: Thank you for your review.

BUILDING SERVICES

1. No comment
   Response: Thank you for your review.

CENTURYLINK

1. No response received
   Response: Thank you for your review.

CITY OF CENTENNIAL

1. No comment
   Response: Thank you for your review.

CDOT

1. Due to the proximity of these developments to C470 we would like to review the drainage report when available in order to ensure there will be no negative impact.

Response: The drainage report will be provided for review as part of the Site Improvement Plan process.

2. Any signing for this development that advertises to C470 must comply with CDOT rules pertaining to outdoor advertising per 2 CCR 601-3.
Response: Comment noted.

COLORADO DIVISION OF WATER RESOURCES

1. Water Supply Demand: According to a letter from the Highlands Ranch Water and Sanitation District ("District") dated April 22, 2025, this amendment will include approximately 234 Single Family Equivalent (SFE) taps. Based on District's water demand requirements, the total demand for this project will be 117 acre-feet per year.
Response: Thank you for your review.

2. Source of Water Supply: The proposed water source is the District. A letter of commitment for service from the District was provided in the referral material. According to the Statement of Water Availability dated April 22, 2025 the District currently has 34,137 acre-feet of secure water supplies (approximately 16,420 acre-feet of surface water and 17,717 acre-feet of decreed Denver Basin groundwater). The District also has use of 3,885 acre-feet of storage in McLellan Reservoir, 6,400 acre-feet of storage in the South Platte Reservoir, 205 acre-feet of storage in James Tingle Reservoir, and 6,922 acre-feet storage in the Chatfield Reservoir Reallocation Project. In addition, the District operates an aquifer recharge program that contains approximately 15,300 acre-feet of stored water that is available when needed. According to the District, the projected demand to serve all existing and future customers in its service area is in the range of 19,600 to 22,600 acre-feet per year. The annual demand for the last few years has averaged around 17,000 acre-feet with the service area approximately 95% developed.

   The proposed source of water for this subdivision includes bedrock aquifer ground water in the Denver Basin. The State Engineer's Office does not have evidence regarding the length of time for which this source will be a physically and economically viable source of water. According to section 37-90-137(4)(b)(I), C.R.S., "Permits issued pursuant to this subsection (4) shall allow withdrawals on the basis of an aquifer life of one hundred years." Based on this **allocation** approach, the annual amounts of water decreed by Centennial in the Denver Basin are equal to one percent of the total amount, as determined by rules 8.A and 8.B of the Statewide Nontributary Ground Water Rules, 2 CCR 402-7. Therefore, the water may be withdrawn in those annual amounts for a maximum of 100 years.
Response: Thank you for your review.

3. State Engineer's Office Opinion: Based upon the above and pursuant to sections 30-28-136(1)(h)(II) and 30-28-136(1)(h)(II), C.R.S., the State Engineer's office offers the opinion that, with District as the water supplier for the proposed development, the proposed water supply is **adequate and can be provided without causing material injury to existing water rights, so long as Highlands Ranch Water and Sanitation District is committed to supplying all 400 residential units**.

   Our opinion that the water supply is **adequate** is based on our determination that the amount of water required annually to serve the subdivision is physically available, based on current conditions.

Our opinion that the water supply can be **provided without causing injury** is based on our determination that the amount of water that is legally available to the District on an annual basis, according to the statutory allocation approach, for the proposed uses is greater than the annual amount of water required to supply the District's water commitments at build-out and the demands of the proposed subdivision.

Our opinion is qualified by the following:

For the decreed Denver Basin water, the Division 1 Water Court has retained jurisdiction over the final amount of water available pursuant to the decrees referenced in District's court cases, pending actual geophysical data from the aquifer.

The amounts of water in the Denver Basin aquifers, and identified in this letter, are calculated based on estimated current aquifer conditions. The source of water is from a non-renewable aquifer, the allocations of which are based on a 100 year aquifer life. The county should be aware that the economic life of a water supply based on wells in a given Denver Basin aquifer may be less than the 100 years used for allocation due to anticipated water level declines. We recommend that the county determine whether it is appropriate to require development of renewable water resources for this subdivision to provide for a long-term water supply.
Response: Thank you for your review.

4. Additional Comments: The applicant should be aware that any storm water detention structure for this project must meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., otherwise the structure may be subject to administration by this office. The applicant should review DWR's *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*, attached, to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The applicant is encouraged to use *Colorado Stormwater Detention and Infiltration Facility Notification Portal*, located at to meet the notification requirements, located at:
https://maperture.digitaldataservices.com/gvh/?viewer=cswdif.
Response: Noted. A drainage report will be prepared as part of the Site Improvement Plan process.

COMCAST

1. No response received
Response: Thank you for your review.

DOUGLAS COUNTY HEALTH DEPARTMENT

1. Douglas County Health Department (DCHD) staff have reviewed the application for compliance with pertinent environmental and public health regulations. After reviewing the application, DCHD has the following comment(s).
    a. Fugitive Dust – Recommendations for temporary uses: Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, and heart disease. Development of the land may contribute to increased fugitive dust emissions. We recommend that the applicant utilize all available methods to minimize fugitive dust. Control measures or procedures that may be employed include, but are not limited to, watering, chemical stabilization, carpeting roads with aggregate, and speed restrictions.

Response: Comment noted; thank you for your review.

DOUGLAS COUNTY HOUSING PARTNERSHIP

1. No response received
   Response: Thank you for your review.

DOUGLAS COUNTY PARKS AND TRAILS

1. Applicant would be responsible for meeting park land dedication as outlined in Article 10 of the Douglas County Subdivision Resolution:

   103 Parks: Whenever land is proposed for residential or non-residential use, the owner of the land is to provide land or cash-in-lieu of land for active and specialized recreation generated by the proposed use. In general, these lands need to be suitable for the development of active play areas, trails, or in some instances serve to preserve unique landforms or natural areas. Where no suitable land is available in a residential or non-residential development, cash-in-lieu of land or of equivalent value in the donation of recreational facilities may be substituted at the County's discretion. Additional dedication for open land may be required by the Board if deemed necessary to preserve areas of special countywide significance (refer to Sections 1003.11.5 and 1003.12.5 of these regulations).

   1003.01 The following formula is used to calculate the minimum amount of land dedication required in residential developments which is deemed necessary to provide the needed parks. This formula is based on 15 acres/1000 population.
   Local Park = Dwelling units x 0.015 acres/unit
   Regional Park = Dwelling units x 0.030 acres/unit
   Total = Dwelling units x 0.045 acres/unit

   The Board reserves the right to adjust the acreage requirement between local and regional park categories as deemed necessary to meet specific needs and to determine the amount of developed park acreage required. The Board may also consider alternative park land dedication formulas for multi-family development proposals.

   Response: Comment noted. Park dedication or fee-in-lieu will be calculated and provided at the time of Site Plan.

DOUGLAS COUNTY SCHOOL DISTRICT

1. It is our understanding that the applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. It is also our understanding that the amendment, if approved, would increase the total allowed dwelling units in the PD from 36,068 to 36,468. The property is located on the north side of Plaza Drive at Plaza Circle, approximately ½ mile west of the intersection of Kendrick Castillo Way and Plaza Drive.

   DCSD has calculated the amount of school site land requirement for students generated by the proposed planned development. A total of 20 elementary school students, 3 middle school students, and 7 high school students are expected from the development (as proposed) generating a land dedication requirement of 0.660-acres.

   Since this is smaller than DCSD's minimum school site size, DCSD would request cash-in-lieu of land dedication.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: HIGHLANDS RANCH PLANNED DEVELOPMENT, 80TH AMENDMENT (ZR2025-001)					
DU/	**ACRES**		**DENSITY**		
400	**14.81**		**27.01**		
			Generation	**Number**	
STUDENT GENERATION RATES	**No. of DU's**		**Rate**	**of Students**	
ELEMENTARY	**400**	**X**	**0.05**	**20**	
MIDDLE SCHOOL	**400**	**X**	**0.008**	**3**	
HIGH SCHOOL	**400**	**X**	**0.017**	**7**	
			TOTAL	**30**	
				Required	
			School	**Land**	
	Number		**Acreage**	**Dedication**	
SCHOOL LAND DEDICATION	**of Students**		**Per Student**	**Acreage**	
ELEMENTARY	**20**	**X**	**0.018**	**0.360**	
MIDDLE SCHOOL	**3**	**X**	**0.030**	**0.096**	
HIGH SCHOOL	**7**	**X**	**0.030**	**0.204**	
			TOTAL	**0.660**	

As per Article 1004.05.3 of the Douglas County Subdivision Regulations, "The cash-in-lieu fee shall be equivalent to the full market value of the acreage required for school land dedication. Value shall be based on anticipated market value after completion of platting. The applicant shall submit a proposal for the cash-in-lieu fee and supply the information necessary for the Board to evaluate the adequacy of the proposal. This information shall include at least one appraisal of the property by a qualified appraiser." And as per Article 1004.06, "The conveyance of land or payment of fees obtained through the County's dedication requirement shall be required prior to the recordation of the first final plat for the subdivision. The conveyance of dedicated school land to Douglas County shall be by warranty deed and the title shall be free and clear of all liens and encumbrances, including real property taxes prorated to the time of conveyance. The applicant shall provide a title insurance policy in the County's name and a certified survey at the time of conveyance."

Response: Comment noted; fee-in-lieu will be paid at the time of final plat recordation. Value will be determined with the school district at the time of Site Plan and Subdivision.

DOUGLAS COUNTY WATER COMMISSION

1. No comment

   Response: Thank you for your review.

DOUGLAS COUNTY ENGINEERING SERVICES(Chris Martin / Al Peterson)

1. Section 3.4 Unspecified Development Traffic Growth
   a. In addition to establishing an annual growth rate, this section needs to include narrative related to the remaining undeveloped adjacent land that will assumably also take access to Plaza Cir in the future. Items to be discussed would include but not be limited to the type and intensity of the potential development of this land.

      Response: Understood. However, it is believed that a site-specific traffic study will

be completed with the future anticipated RTD station. The current traffic study for Lucent Station is not intended to include all potential future developments, as that would be the requirement of those future traffic studies to determine those project's impacts.

b. Its not clear if this property (currently owned by RTD) and its potential traffic impacts have been accounted for in this study
Response: Understood. However, it is believed that a site-specific traffic study will be completed with the future anticipated RTD station. The current traffic study for Lucent Station is not intended to include all potential future developments, as that would be the requirement of those future traffic studies to determine those project's impacts.

2. Section 5.2 Key Intersection Operational Analysis
   a. Plaza Cir & Plaza Drive: the delay shown for the southbound approach at this intersection in the 2045 horizon (>300 sec/veh) warrants discussion. Mitigation of this level of delay should be identified in this study. If there is not potential mitigation, then that should be stated in the study.
   Response: The Plaza Circle and Plaza Drive intersection now includes a recommendation to restrict southbound left turn lanes during the school arrival and dismissal times, same as the Ben Franklin Academy south leg today. Therefore, the southbound left turn volumes have been rerouted to the Plaza Circle and Greensborough Drive intersection during the morning and afternoon school peak hours. The Ben Franklin Academy increases the through traffic along Plaza Drive, especially during the coinciding morning peak hour for student drop-off and affects the peak hour factor at the Plaza Circle and Plaza Drive intersection in the traffic study. Of note, regardless of the project, the southbound left turn movement will experience high delays during the 30 minutes of school arrival and dismissal traffic.

   b. Project Accesses: Accesses to the western lot are located on curves and roadway ROW is limited. It should be noted that sight-light easement outside of ROW as appropriate will be needed to provide control of the sight distance.
   Response: The Plaza Circle and Plaza Drive intersection now includes a recommendation to restrict southbound left turn lanes during the school arrival and dismissal times, same as the Ben Franklin Academy south leg today. Therefore, the southbound left turn volumes have been rerouted to the Plaza Circle and Greensborough Drive intersection during the morning and afternoon school peak hours. The Ben Franklin Academy increases the through traffic along Plaza Drive, especially during the coinciding morning peak hour for student drop-off and affects the peak hour factor at the Plaza Circle and Plaza Drive intersection in the traffic study. Of note, regardless of the project, the southbound left turn movement will experience high delays during the 30 minutes of school arrival and dismissal traffic.

3. Section 5.3 Vehicle Queuing Analysis
   a. This section identifies an operational issue that has no mitigation other than limiting the level of development for this project. There is no way to provide the needed southbound left turn lane storage at the Plaza Cir & Plaza Dr intersection due to spacing to the Percy Ln intersection.
   Response: KimleyHorn are now recommending to restrict the southbound left turn

at the Plaza Drive and Plaza Circle intersection during the school peak hours to mitigate the southbound left turn queue coinciding with the arrival and dismissal hours for the Ben Franklin Academy. Instead, this traffic will use the signalized intersection at the Plaza Drive and Greensborough Drive intersection for left turns to eastbound Plaza Drive. Therefore, by restricting the southbound left turn movement at Plaza Drive and Plaza Circle, the reported queue length during the peak hours will not exist, at zero feet.

b. This issue will be magnified with development of the RTD site. Queues could potentially prevent vehicles from getting onto Plaza Cir from Percy Ln.
Response: Plaza Drive and Plaza Circle intersection during the school peak hours to mitigate the southbound left turn queue coinciding with the arrival and dismissal hours for the Ben Franklin Academy. Instead, this traffic will use the signalized intersection at the Plaza Drive and Greensborough Drive intersection for left turns to eastbound Plaza Drive. Therefore, by restricting the southbound left turn movement at Plaza Drive and Plaza Circle, the reported queue length during the peak hours will not exist, at zero feet.

HIGH LINE CANAL CONSERVANCY
1. No response received
Response: Thank you for your review.

HIGHLANDS RANCH COMMUNITY ASSOCIATION
1. I'm pleased to report that the DRC formally APPROVED the application as presented. The Committee looks forward to continued coordination as the project moves through the County's design and review process. We appreciate the opportunity to provide input on the application and remain available to support next steps as needed. Should you have any questions or wish to discuss any of the details further, please don't hesitate to reach out to me at (303) 471-8802 / commercialreview@hrcaonline.org, or to John Mezger at (303) 471-8823 / john.mezger@hrcaonline.org.
Response: Thank you for your review.

HIGHLANDS RANCH GOLF CLUB HOA
1. No response received
Response: Thank you for your review.

HIGHLANDS RANCH WATER AND SANITATION DISTRICT
1. Received: See Highlands Ranch Metro District comments
Response: Thank you for your review.

JEFFERSON COUNTY PLANNING AND ZONING
1. No response received
Response: Thank you for your review.

LITTLETON
1. No response received
Response: Thank you for your review.

MILE HIGH FLOOD DISTRICT
1. No response received
Response: Thank you for your review.

OFFICE OF EMERGENCY MANAGEMENT

1. No comment
   Response: Thank you for your review.

RTD – PLANNING & DEVELOPMENT DEPT

1. No comment
   Response: Thank you for your review.

SHERIFF'S OFFICE

1. Received: Deputy Jeff Pelle reviewed this regarding security, keeping Crime Prevention Through Environmental Design (CEPTD) concepts in mind. There are no comments or concerns at this time regarding this DCSO request.
   Response: Thank you for your review.

SHERIFF'S OFFICE E911

2. No response received
   Response: Thank you for your review.

SOUTH METRO FIRE RESCUE

1. South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed PD amendment. Applicants and designers are encouraged to contact SMFR to ensure the Site Improvement Plans will meet the applicable fire code requirements for the proposed project prior to submitting the SIP.
   Response: Comment noted; thank you for your review. Future site plans will undergo review with South Metro Fire Rescue.

RTD

1. No comment
   Response: Thank you for your review.

XCEL ENERGY

1. Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plan for Highlands Ranch Planned Development, 80th Amendment and currently has no apparent conflict.
   Response: Thank you for your review.

2. In the future and to ensure that adequate utility easements are available within this development and per state statutes §31-23-214 (3) and 30-28-133(e), PSCo requests that the following language or plat note be placed on the preliminary and final plats for the subdivision:

   Minimum 10-foot-wide dry utility easements are hereby dedicated on private property abutting all public streets, and around the perimeter of each lot in the subdivision or platted area including tracts, parcels and/or open space areas. These easements are dedicated to the County of Douglas for the benefit of the applicable utility providers for the installation, maintenance, and replacement of electric, gas, television, cable, and telecommunications facilities (Dry Utilities). Utility easements shall also be granted within any access easements and private streets in the subdivision. Permanent structures, improvements, objects, buildings, wells, water meters and other objects that may interfere with the utility facilities or use thereof (Interfering Objects) shall not be permitted

within said utility easements and the utility providers, as grantees, may remove any Interfering Objects at no cost to such grantees, including, without limitation, vegetation. Public Service Company of Colorado (PSCo) and its successors reserve the right to require additional easements and to require the property owner to grant PSCo an easement on its standard form.
Response: Notes will be added to future subdivisions.

3. The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details.
Response: Thank you for your review.

4. Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent.
Response: Comment noted.

5. As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.
Response: Comment noted.

End of comment response letter.

TRAFFIC IMPACT STUDY

Lucent Station

Douglas County, Colorado

Prepared for:

Pagewest Acquisitions, LLC

Kimley»Horn

T R A F F I C I M P A C T S T U D Y

Lucent Station

Douglas County, Colorado

Prepared for
Pagewest Acquisitions, LLC
2106 W 32nd Avenue
Denver, Colorado 80211

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June 2025

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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1.0 EXECUTIVE SUMMARY

Lucent Station is proposed to be located along the north side of Plaza Drive, between Plaza Circle and Kendrick Castillo Way, in Highlands Ranch within unincorporated Douglas County, Colorado. The project is proposed to include 400 multifamily homes. It is expected that the project will be completed in the next several years. Therefore, analysis was conducted for the 2028 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with Douglas County standards and requirements:

- Erickson Boulevard/Mill Vista Road and Plaza Drive
- Plaza Circle and Plaza Drive
- Plaza Circle and Percy Lane
- Plaza Circle/Greensborough Drive and Plaza Drive
- Kendrick Castillo Way and Plaza Drive
- Kendrick Castillo Way and C-470 Eastbound Ramps
- Kendrick Castillo Way and C-470 Westbound Ramps

In addition, the three (3) full movement and one (1) right-in/right/out (RI/RO) accesses along Plaza Circle were evaluated. Each development area is proposing two accesses, with one of the access points for the west and east aligning with each other. Therefore, this results in three access intersections evaluated.

Regional access to the project will be provided by C-470 and Santa Fe Drive (US-85). Primary access will be provided by Plaza Drive, Erickson Boulevard, and Kendrick Castillo Way. Direct access to the west lot will be provided by two (2) full movement accesses, one that aligns with Percy Drive at Plaza Circle and one proposed access that aligns with the proposed access to the east lot. In addition, one (1) right-in/right-out access is proposed near the southern edge of the east lot. The southern right-in/right-out access is proposed approximately 240 feet south of the proposed full movement access location for the west lot.

The project is expected to generate approximately 2,696 weekday daily trips, with 160 of these trips occurring during the morning peak hour and 204 of these trips occurring during the afternoon peak hour.

Based on the analysis presented in this report, Kimley-Horn believes Lucent Station will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

- It is recommended that the intersection of Plaza Circle/Greensborough Drive and Plaza Drive (#4) be signalized. This signalized intersection will likely also improve existing long southbound left turn delays at the Plaza Circle/Ben Franklin Academy and Plaza Drive intersection (#2). Additionally, the southbound left movement at the Plaza Circle/Ben Franklin Academy and Plaza Drive intersection (#2) is recommended to be restricted during the arrival and dismissal times at the Ben Franklin Academy. This restriction would match the current restriction on the northbound approach, exiting the academy with a sign restricting the left turn movement onto Plaza Circle between 7:45-8:15 AM and 3:30-4:00 PM.

- It is recommended that the existing 250-foot southbound dual left turn lanes at the Kendrick Castillo Way and Plaza Drive (#5) intersection be extended to 300 feet in the short-term horizon and may need to be extended to 425 feet in 2045. Of note, extension of these dual left turn lanes is independent and not caused by Lucent Station.

- With completion of the Lucent Station project, a full movement access that aligns with the Percy Lane full movement access at Plaza Circle, two (2) full movement accesses in alignment with each other, and a right-in/right-out access will be provided along Plaza Circle. Left turn lanes are recommended to be designated within the double-yellow full lane width median for the Plaza Circle full movement accesses. These left turn lanes are recommended to be striped with lengths of 50 feet as is available. “STOP” (R1-1) signs are recommended to be installed on the approaches of all four (4) accesses, exiting the development. In addition, a R3-2 No Left Turn sign should be placed underneath the R1-1 “STOP” sign for the Plaza Circle right-in/right-out access.

- Any on-site or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the Douglas County and the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

2.0 INTRODUCTION

Kimley-Horn has prepared this report to document the results of a Traffic Impact Study for Lucent Station proposed to be located on the north side of Plaza Drive, between Plaza Circle and Kendrick Castillo Way, within unincorporated Douglas County. A vicinity map illustrating the project development location is shown in **Figure 1**. The project is proposed to include multifamily housing with 400 units. A conceptual site plan is attached in **Appendix A**. It is expected that the project will be completed in the next several years; therefore, analysis was conducted for the 2028 short-term buildout horizon as well as the 2045 long-term twenty-year planning horizon.

The purpose of this traffic study is to identify project traffic generation characteristics to determine potential project traffic related impacts on the local street system and to develop the necessary mitigation measures required for the identified traffic impacts. The following intersections were incorporated into this traffic study in accordance with Douglas County, Colorado standards and requirements:

- Erickson Boulevard/Mill Vista Road and Plaza Drive
- Plaza Circle and Plaza Drive
- Plaza Circle and Percy Lane
- Plaza Circle/Greensborough Drive and Plaza Drive
- Kendrick Castillo Way and Plaza Drive
- Kendrick Castillo Way and C-470 Eastbound Ramps
- Kendrick Castillo Way and C-470 Westbound Ramps

In addition, the three (3) full movement and one (1) right-in/right/out (RI/RO) accesses along Plaza Circle were evaluated. Each development area is proposing two accesses, with one of the access points for the west and east aligning with each other. Therefore, this results in three access intersections evaluated.

NTS Project Number

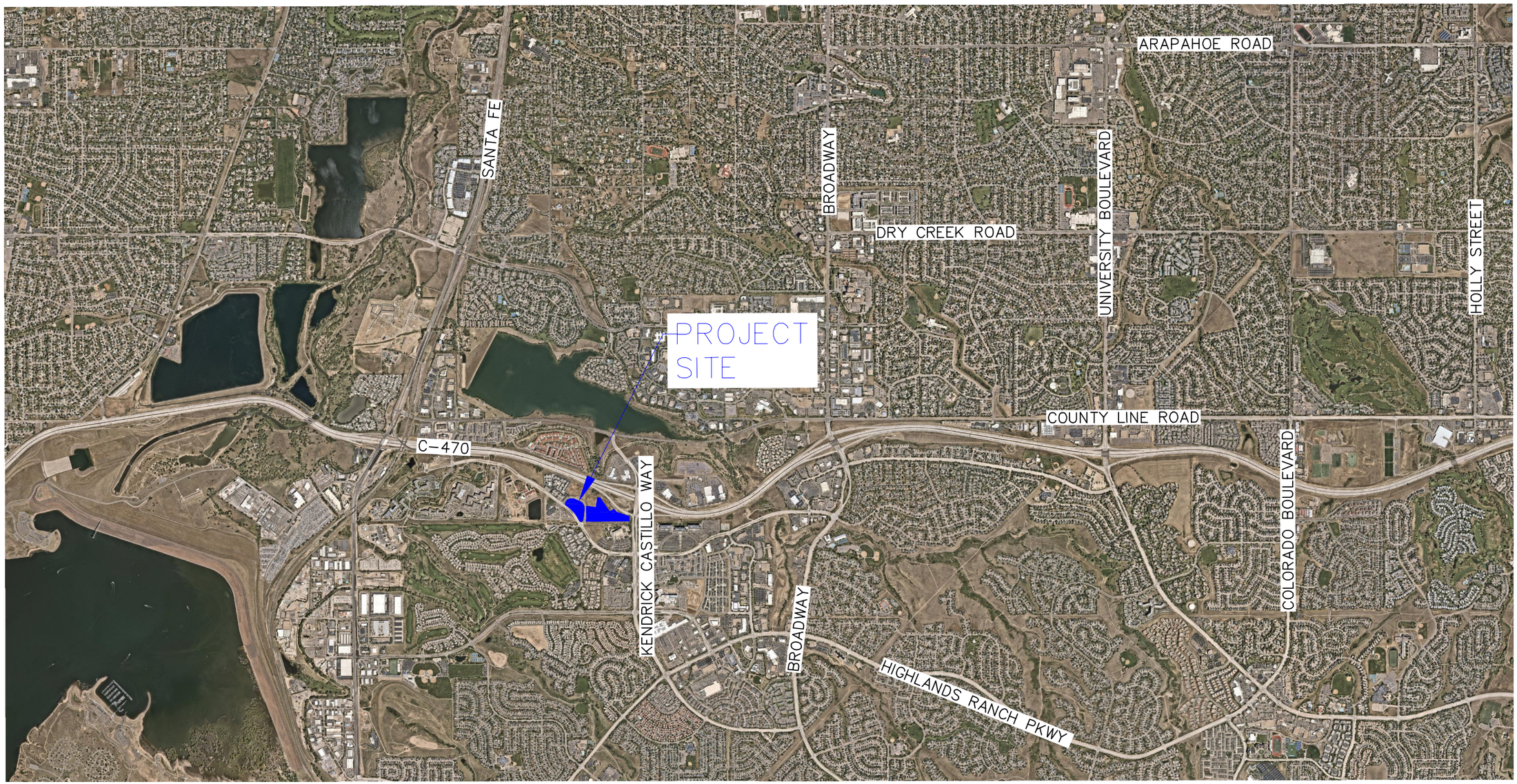


FIGURE 1
LUCENT STATION
HIGHLANDS RANCH, COLORADO
VICINITY MAP

Regional access to the project will be provided by C-470 and Santa Fe Drive (US-85). Primary access will be provided by Plaza Drive, Erickson Boulevard, and Kendrick Castillo Way. Direct access to the west lot will be provided by two (2) full movement accesses, one that aligns with Percy Drive at Plaza Circle and one proposed access that aligns with the proposed access to the east lot. In addition, one (1) right-in/right-out access is proposed near the southern edge of the east lot. The southern right-in/right-out access is proposed approximately 240 feet south of the proposed full movement access location for the west lot.

3.1 Existing Study Area

The existing site is vacant land. Directly to the south is Children's Hospital and directly to the north is C-470. Located to the southwest is Ben Franklin Academy. Solana Lucent Station multifamily apartments exist to the west of the site with Centennial Water located further to the west, along the south side of Plaza Drive. Surrounding the site are a mix of multifamily housing and other undeveloped parcels.

3.2 Existing Roadway Network

Erickson Boulevard extends north-south as a short section street providing two through lanes in each direction. It connects County Line Road along the north side of C-470 to Plaza Drive along the south side of C-470. The posted speed limit is 30 miles per hour.

Plaza Drive extends east-west with two through lanes in each direction and a raised median. The posted speed limit is 40 miles per hour.

Kendrick Castillo Way extends north-south with three through lanes in each direction with a raised median. The posted speed limit is 40 miles per hour in the study area. Kendrick Castillo Way provides a C-470 interchange and extends from County Line Road to the north to Broadway to the south.

The unsignalized intersection of Erickson Boulevard/Mill Vista Road and Plaza Drive operates with all-way stop control on all four approaches. The westbound Plaza Drive and southbound Erickson Boulevard approaches provide a left turn lane, a through lane, and a right turn lane. The eastbound Plaza Drive approach provides a left turn lane and a shared through/right turn lane. The northbound Mill Vista Road approach provide a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.

Erickson Boulevard/Mill Vista Road and Plaza Drive (#1)

The unsignalized intersection of Plaza Circle and Plaza Drive operates with two-way stop control on the northbound Ben Franklin Academy Access and southbound approaches. The eastbound and westbound Plaza Drive approaches provide a left turn lane, a through lane, and a shared through/right lane. The southbound Plaza Circle approach provides a left turn lane and a shared through/right turn lane. The northbound Ben Franklin Academy approach provide a left turn lane and right turn lane. An aerial photo of the existing intersection configuration is below.

Plaza Circle and Plaza Drive (#2)

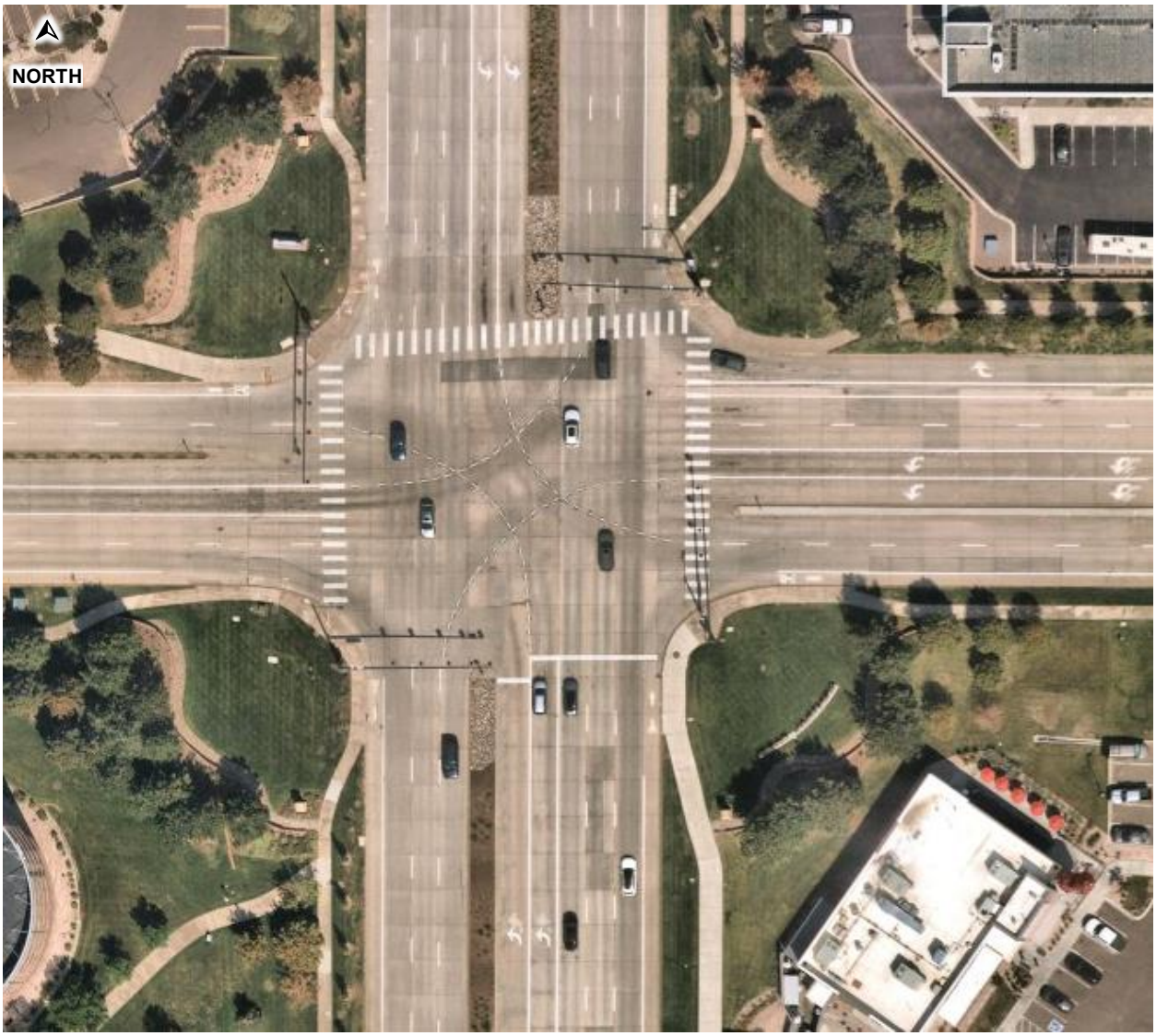
The unsignalized intersection of Plaza Circle and Percy Lane operates with two-way stop control on the eastbound access approach. The eastbound Percy Lane approach provides a single lane shared for all movements. The northbound Plaza Drive approach provides a left turn lane and a through lane. The southbound Plaza Drive approach provides a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.

Plaza Circle and Percy Lane (#3)

The unsignalized intersection of Plaza Circle/Greensborough Drive and Plaza Drive operates with two-way stop control on the northbound and southbound approaches. The eastbound and westbound Plaza Drive approaches provide a left turn lane, a through lane, and a shared through/right lane. The southbound Plaza Circle approach provides a left turn lane and a shared through/right turn lane. The northbound Greensborough Drive approach provides a single lane shared for all movements. An aerial photo of the existing intersection configuration is below.

Plaza Circle/Greensborough Drive and Plaza Drive (#4)

The signalized intersection of Kendrick Castillo Way and Plaza Drive operates with protected-only left turn phasing on all four approaches. The northbound and southbound approaches of Kendrick Castillo Way provide dual left turn lanes and three through lanes with the outside lane being a shared through/right turn. The eastbound approach on Plaza Drive provides dual left turn lanes and two through lanes with the outside lane being a shared through/right turn lane. The westbound approach of Plaza Drive provides dual left turn lanes, two through lanes, and a right turn lane. An aerial photo of the existing intersection configuration is below.



Kendrick Castillo Way and Plaza Drive (#5)

The signalized intersection of Kendrick Castillo Way and C-470 eastbound ramps operates with protected-permissive left turn phasing on the southbound approach. The northbound approach of Kendrick Castillo Way provides three through lanes (with the inside lane becoming a dual left turn lane at the C-470 westbound ramps intersection), and a continuous right turn lane. The southbound approach on Kendrick Castillo Way provides a single left turn lane and two through lanes. The eastbound approach of C-470 provides a dedicated left turn lane, a shared left turn/through/right turn lane, and a free right turn lane. An aerial photo of the existing intersection configuration is below.

Kendrick Castillo Way and C-470 Eastbound Ramps (#6)

The signalized intersection of Kendrick Castillo Way and C-470 westbound ramps operates with protected-only left turn phasing on the northbound approach. The northbound approach of Kendrick Castillo Way provides dual left turn lanes and two through lanes. The southbound approach on Kendrick Castillo Way provides two through lanes and a free right turn lane. The westbound approach of C-470 provides a dedicated left turn lane, a shared left turn/through/right turn lane, and a free right turn lane. An aerial photo of the existing intersection configuration is below.

Kendrick Castillo Way and C-470 Westbound Ramps (#7)

The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.

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NORTH
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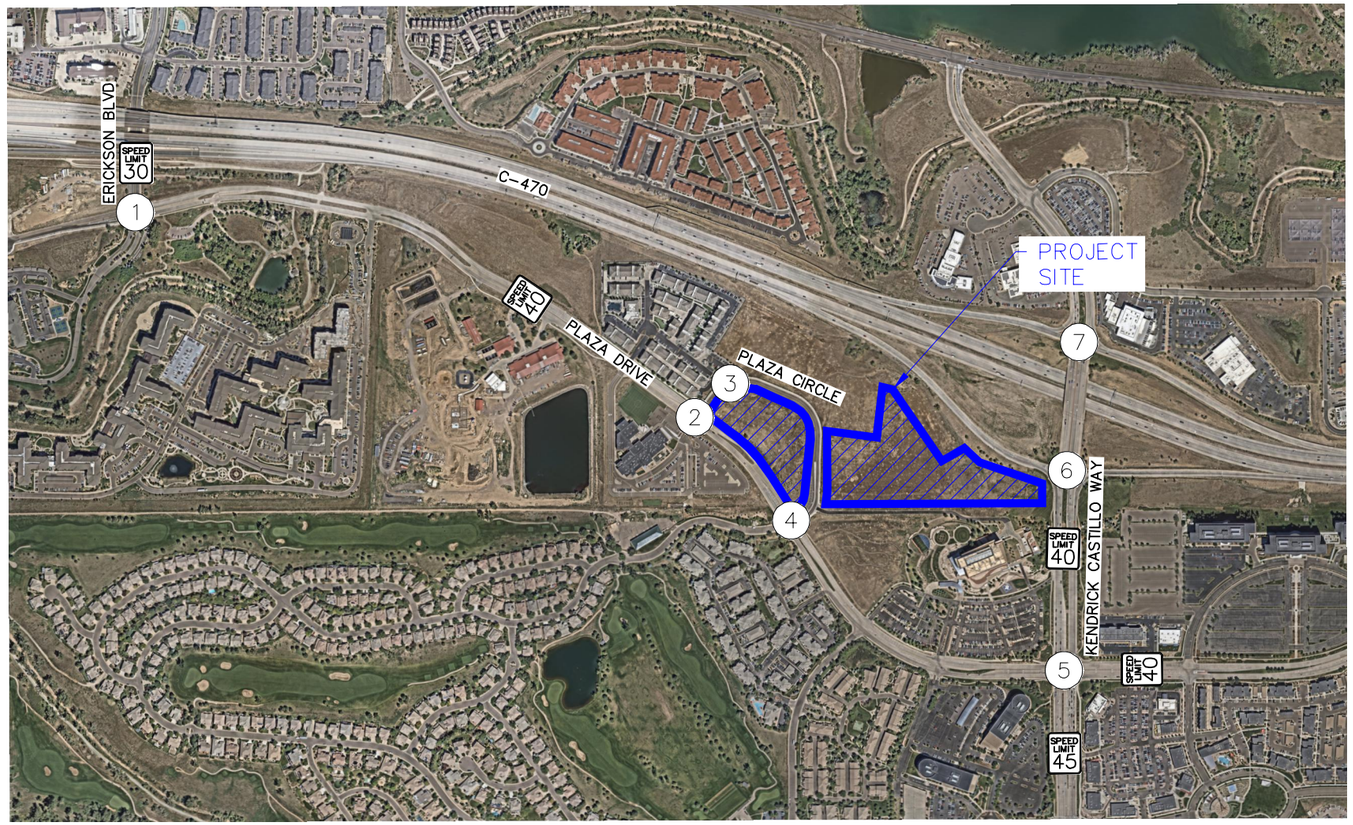

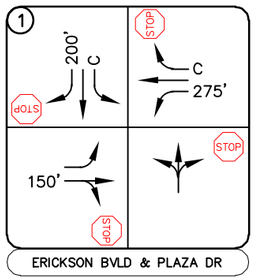

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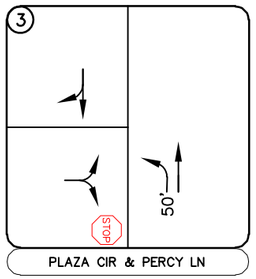
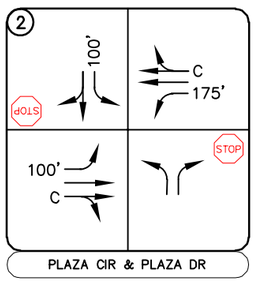
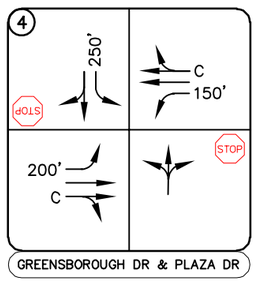


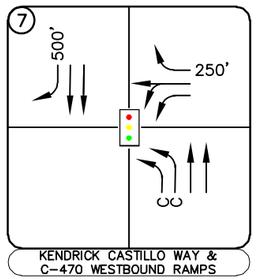
PLAZA CIR & PERCY LN



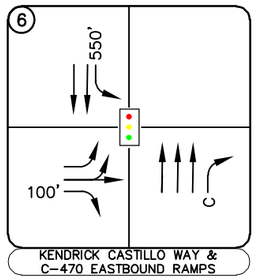
PLAZA CIR & PLAZA DR



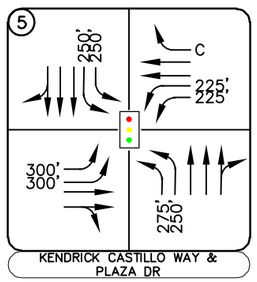
GREENSBOROUGH DR & PLAZA DR



KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS



KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS



KENDRICK CASTILLO WAY & PLAZA DR

LEGEND
- Study Area Key Intersection
- Signalized Intersection
- Stop-Controlled Approach
- Roadway Speed Limit
- 100' Turn Lane Length (feet)

FIGURE 2
LUCENT STATION
HIGHLANDS RANCH, COLORADO
EXISTING GEOMETRY AND CONTROL

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3.3 Existing Traffic Volumes

Existing turning movement counts were conducted at the study intersections on Wednesday, January 22, 2025, and Wednesday, January 29, 2025, during the weekday morning and afternoon peak hours. The counts were conducted during the morning and afternoon peak hours of adjacent street traffic in 15-minute intervals from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on these count dates. The existing intersection traffic volumes are shown in **Figure 3** with count sheets provided in **Appendix B.**

3.4 Unspecified Development Traffic Growth

The Douglas County Transportation Plan does not provide existing and future traffic volumes that can be used to calculate an annual growth rate. The surrounding area is mostly developed and according to traffic projections from the Denver Regional Council of Governments (DRCOG) traffic model, an annual growth rate of 0.36 percent was provided for this area. Future traffic volume projections and growth rate calculations are provided in **Appendix C**. To be conservative, a one (1) percent annual growth rate was used to calculate future traffic volumes at the study area intersections. It is understood there may be additional development near the project site; however, it is believed that site-specific traffic studies will be required and prepared for any future development projects. Therefore, the one (1) percent annual growth rate is applicable and sufficient to understand the future traffic conditions. This annual growth rate was used to estimate short-term 2028 and long-term 2045 traffic volume projections at the key intersections. The calculated background traffic volumes for 2028 and 2045 are shown in **Figure 4** and **Figure 5,** respectively.

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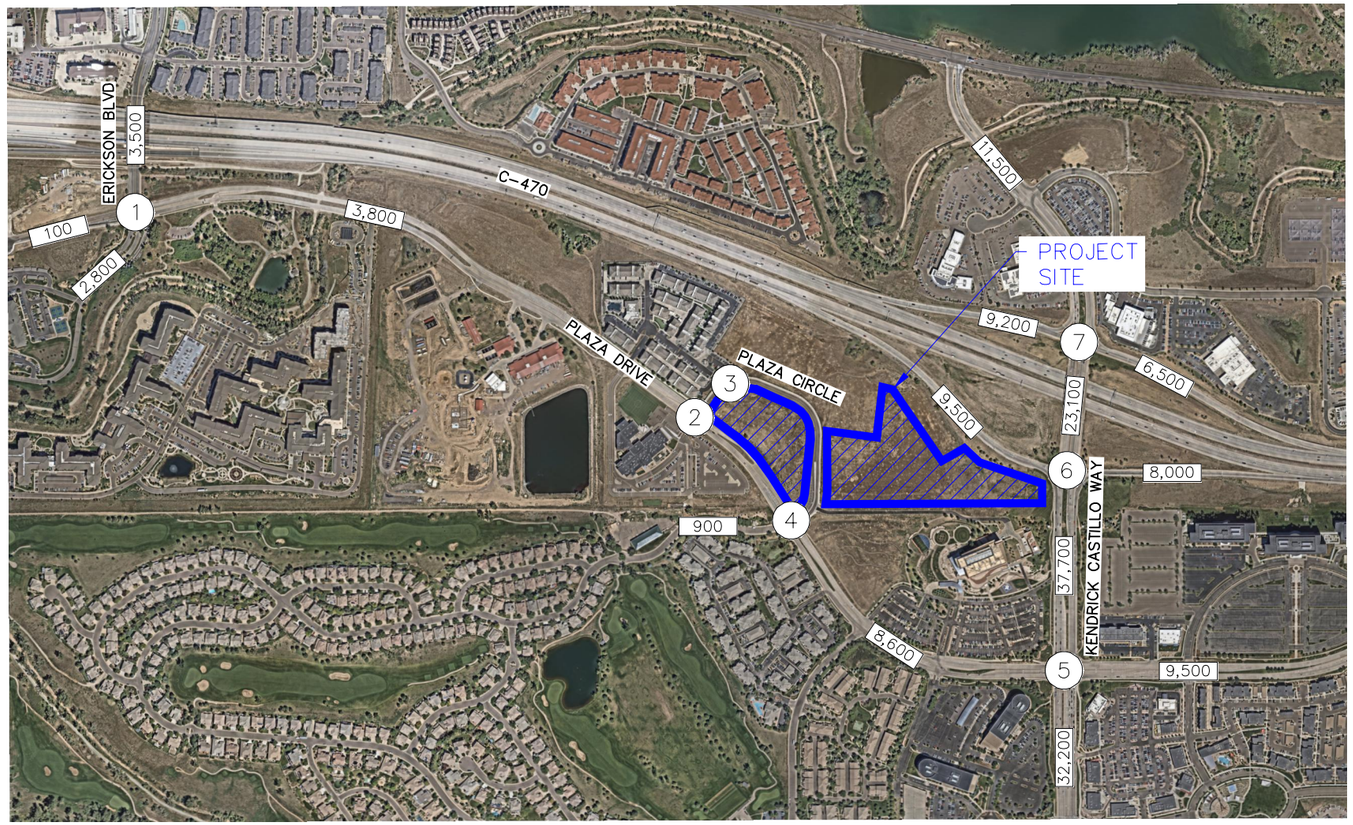

Wednesday, January 22, 2025
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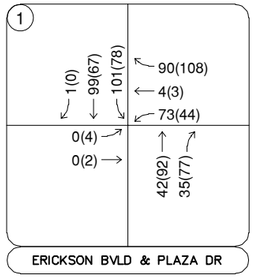

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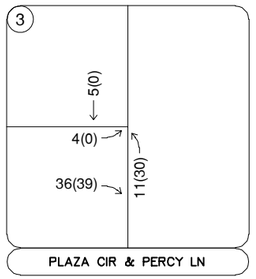

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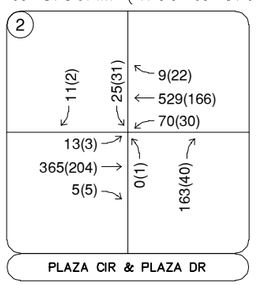

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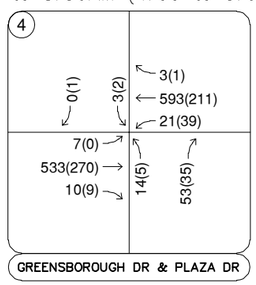

Wednesday, January 29, 2025
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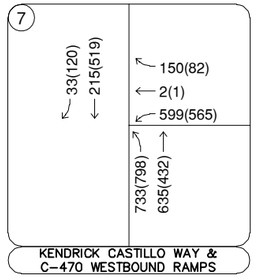
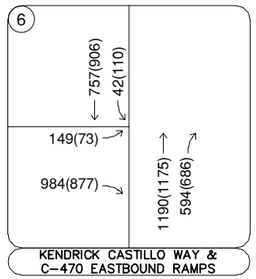
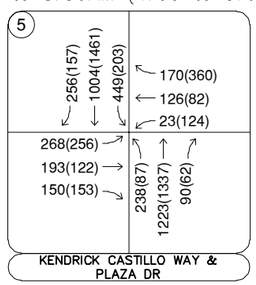


Wednesday, January 22, 2025
7:15 to 8:15AM (4:30 to 5:30PM)



Wednesday, January 29, 2025
7:30 to 8:30AM (4:00 to 5:00PM)



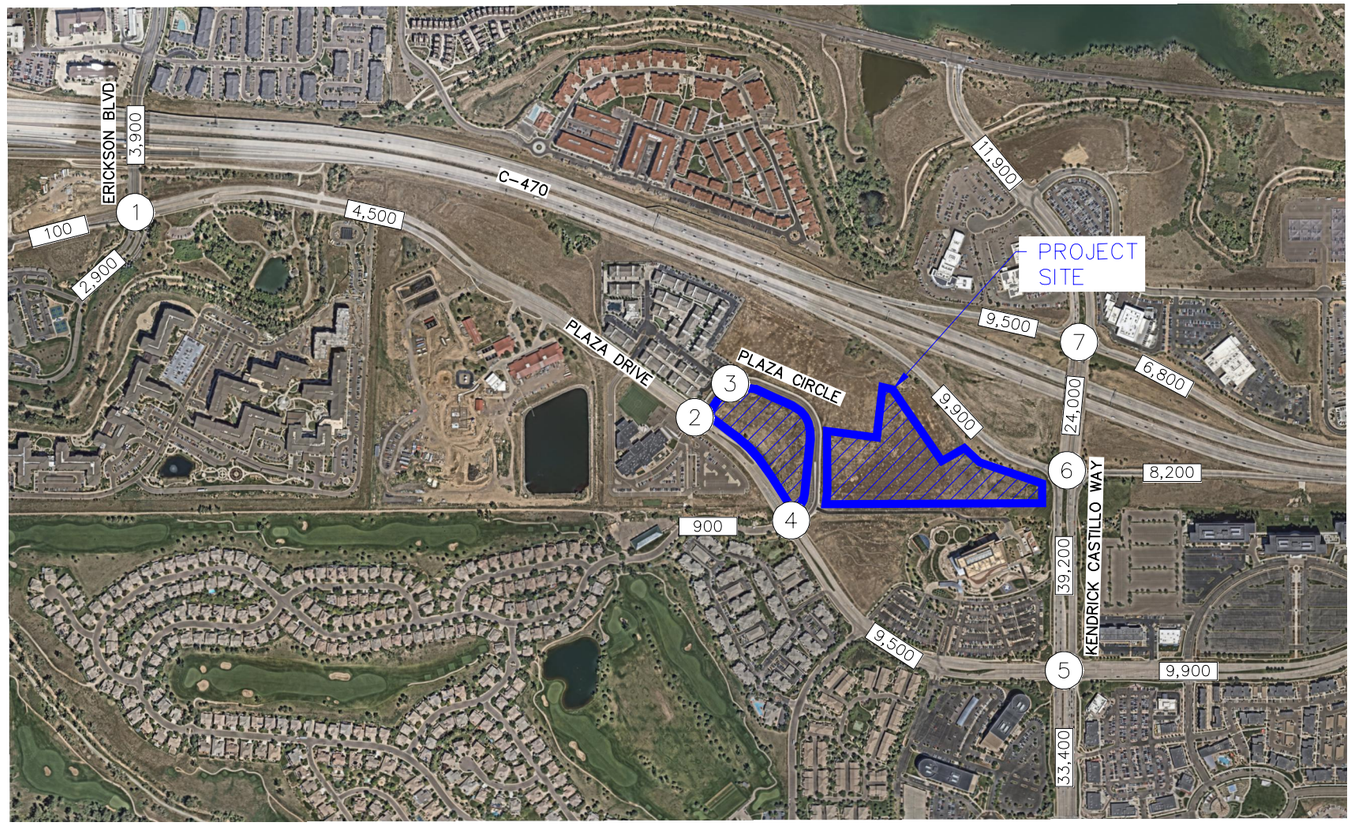
LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 3
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2025 EXISTING TRAFFIC VOLUMES

Kimley»Horn

NTS Project Number



1
- 1(0), 102(69), 112(100) → 118(124)
- ← 4(3)
- ← 75(45)
- 0(4) →
- 0(2) →
- 43(95) ↑
- 36(79) ↑

ERICKSON BVLD & PLAZA DR

3
- 5(0) ↓
- 4(0) →
- 37(40) →
- 11(31) ↑

PLAZA CIR & PERCY LN

2
- 11(2) ↓
- 26(32) ↓
- ↑ 9(23)
- ← 559(208)
- ← 72(31)
- 13(3) →
- 423(234) →
- 5(5) →
- 0(1) ↑
- 168(41) ↑

PLAZA CIR & PLAZA DR

4
- 0(1) ↓
- 3(2) ↓
- ↑ 3(1)
- ← 625(254)
- ← 22(40)
- 7(0) →
- 596(302) →
- 10(9) →
- 14(5) ↑
- 55(36) ↑

GREENSBOROUGH DR & PLAZA DR

7
- 34(124) ↓
- 224(539) ↓
- ↑ 155(84)
- ← 2(1)
- ← 620(590)
- 755(822) ↑
- 654(445) ↑

KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS

6
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- 43(113) ↓
- 154(75) →
- 1017(912) →
- 1226(1211) →
- 612(707) ↑

KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS

5
- 272(182) ↓
- 1034(1505) ↓
- 463(209) ↓
- ↑ 175(371)
- ← 132(90)
- ← 24(128)
- 301(277) →
- 207(130) →
- 169(165) →
- 249(101) ↑
- 1260(1378) ↑
- 93(64) ↑

KENDRICK CASTILLO WAY & PLAZA DR

LEGEND

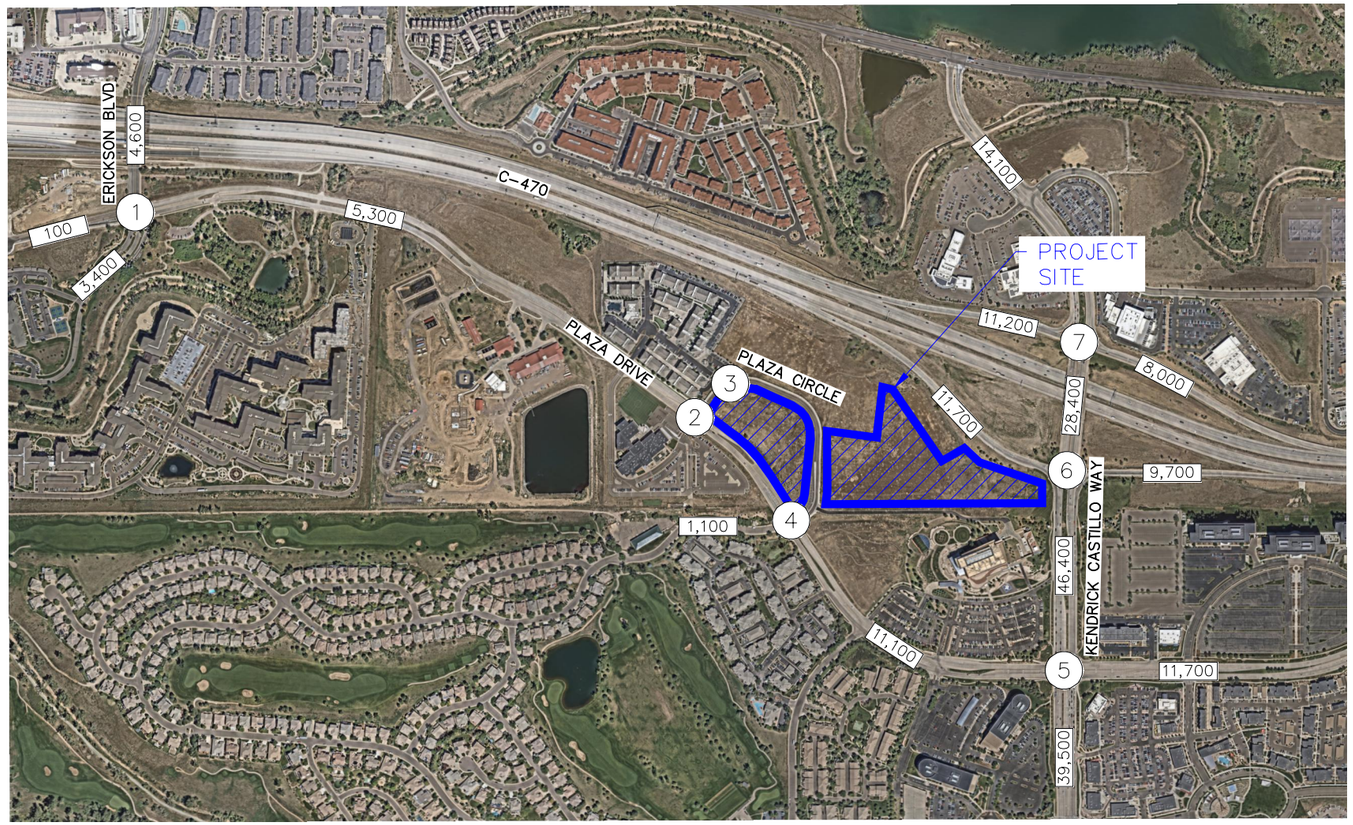
(X) Study Area Key Intersection

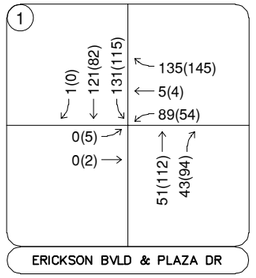
XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

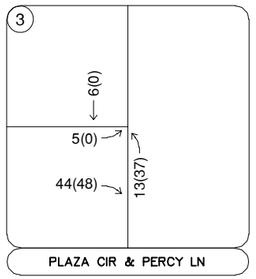
XX,X00 Estimated Daily Traffic Volume

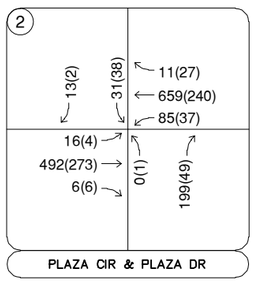
FIGURE 4
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2028 BACKGROUND TRAFFIC VOLUMES

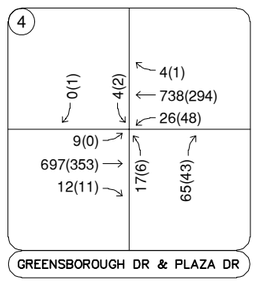
NTS Project Number

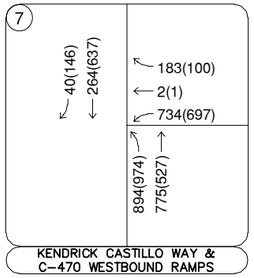


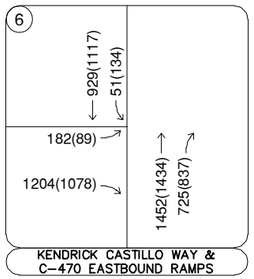


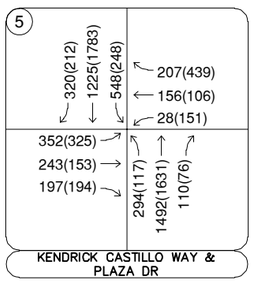












LEGEND

(X) Study Area Key Intersection

XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes

[XX,X00] Estimated Daily Traffic Volume

FIGURE 5
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2045 BACKGROUND TRAFFIC VOLUMES

4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the Trip Generation Manual published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report fitted curve equations that applies to Multifamily Low-Rise Housing (ITE Land Use Code 220), for traffic associated with the development.

Lucent Station is expected to generate approximately 2,696 weekday daily trips, with 160 of these trips occurring during the morning peak-hour and 204 occurring during the afternoon peak hour. Calculations were based on the procedure and information provided in the ITE Trip Generation Manual, 11th Edition – Volume 1: User's Guide and Handbook, 2021. Table 1 summarizes the estimated trip generation for the Lucent Station development. The trip generation worksheets are included in **Appendix D**.

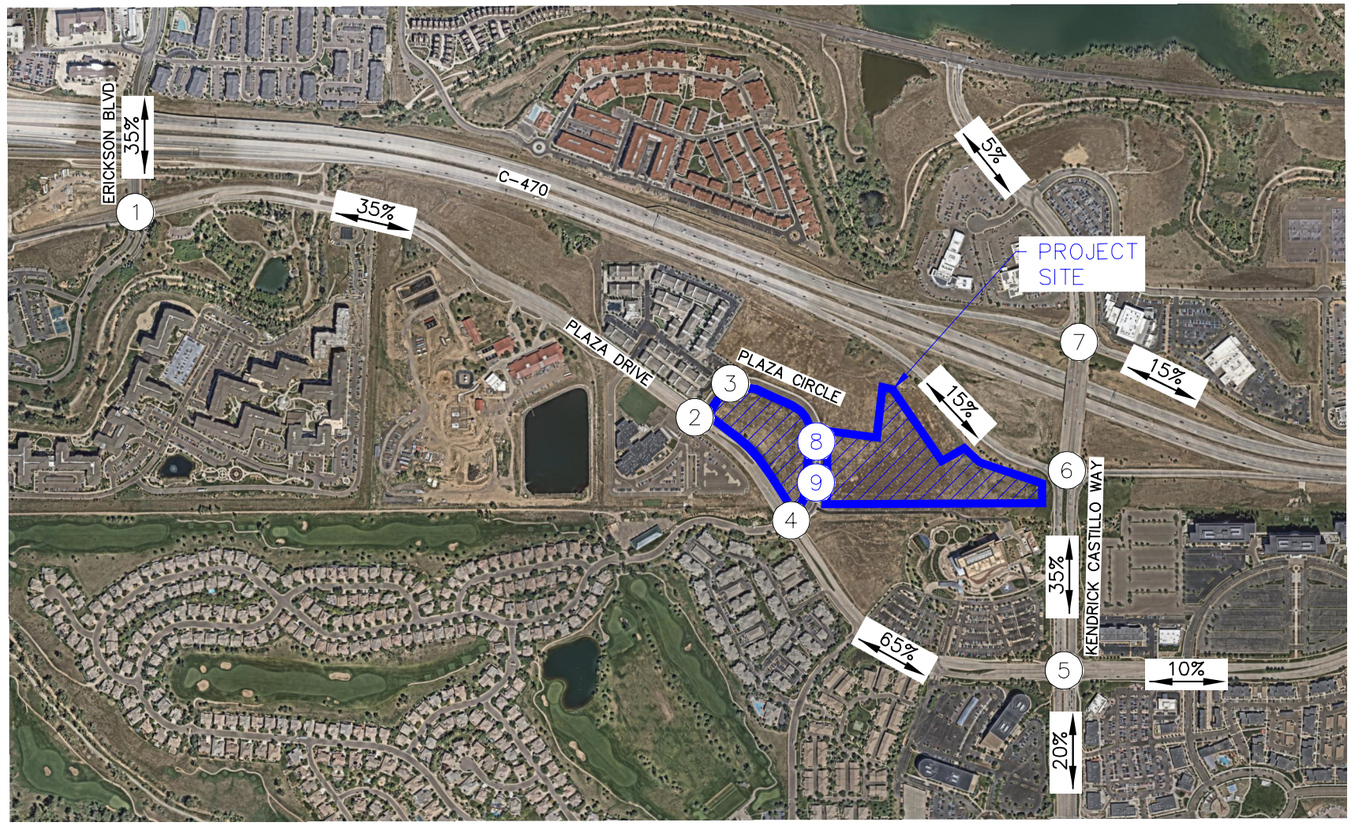
Table 1 – Lucent Station Traffic Generation

Land Use and Size	Weekday Vehicle Trips						
	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Multifamily Low-Rise Housing (ITE 220) – 400 Dwelling Units	2,696	38	122	160	129	75	204

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution for the proposed development is illustrated in **Figure 6**.

Kimley»Horn
NORTH
NTS Project Number



1
35% [35%]
ERICKSON BVLD & PLAZA DR

3
[10%] [25%]
25%
PLAZA CIR & PERCY LN

2
[35%]
25%
10%
PLAZA CIR & PLAZA DR

4
[65%] 65%
10%
GREENSBOROUGH DR & PLAZA DR

8
[60%]
[5%]
5% [10%] 10%
PLAZA CIR & SITE ACCESS (N)

9
[65%] [10%]
15% 60%
PLAZA CIR & SITE ACCESS (RI/RO)

7
5% 15%
[15%] [5%]
KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS

6
20% 15%
[20%] [15%]
KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS

5
35% 10%
[35%]
[10%]
[20%] 20%
KENDRICK CASTILLO WAY & PLAZA DR

LEGEND
X — Study Area Key Intersection
X — Project Access Intersection
XX% — External Trip Distribution Percentage
XX%[XX%] — Entering[Exiting] Trip Distribution Percentage

FIGURE 6
LUCENT STATION
HIGHLANDS RANCH, COLORADO
PROJECT TRIP DISTRIBUTION

Kimley»Horn

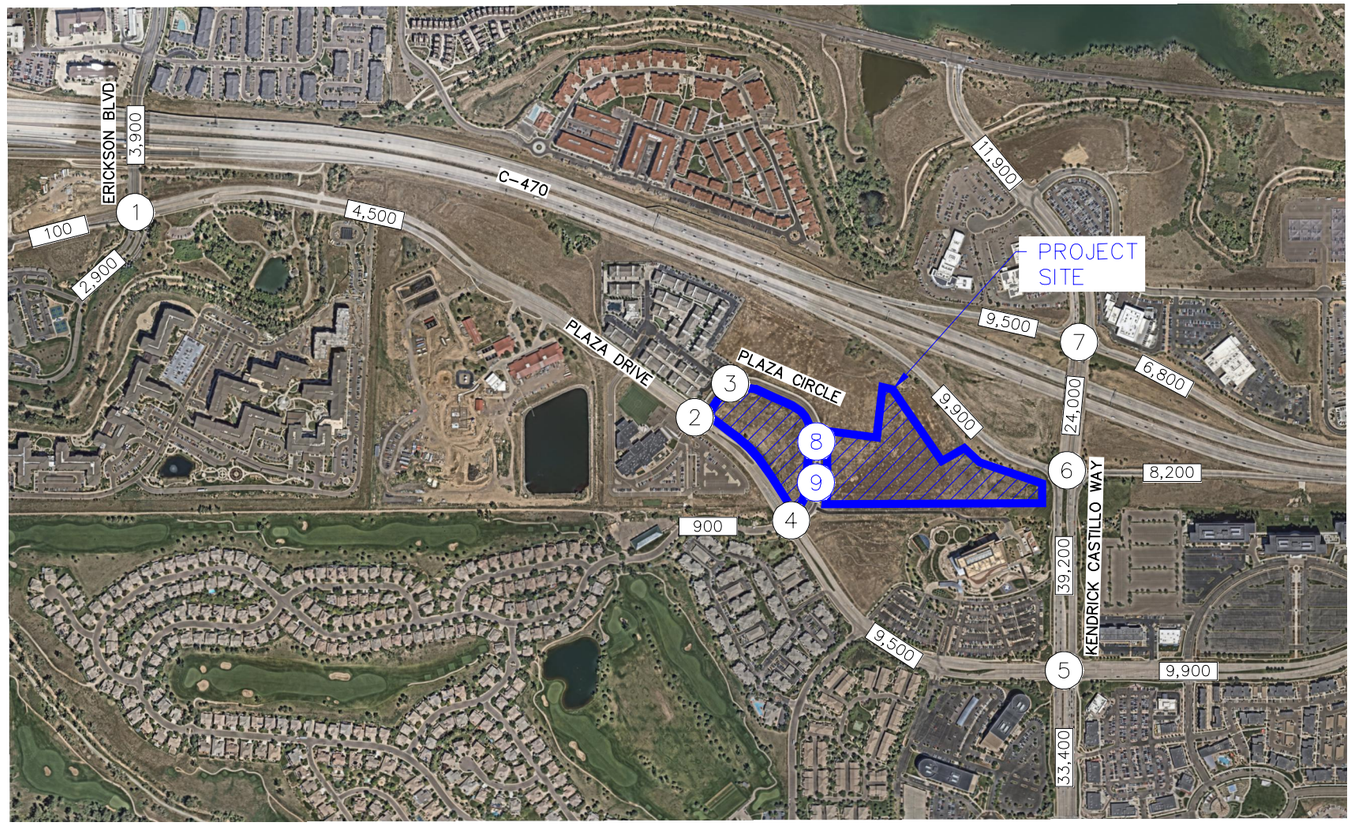
4.3 Traffic Assignment

Lucent Station traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Traffic assignment is shown in **Figure 7.**

4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the short-term 2028 buildout horizon and long-term 2045 twenty-year planning horizon. These total traffic volumes for the study area are illustrated for the 2028 and 2045 horizon years in **Figure 8** and **Figure 9**, respectively.

Kimley»Horn
NORTH
NTS Project Number



1
13(45)
43(26)
ERICKSON BVLD & PLAZA DR

3
12(8)
31(19)
10(32)
PLAZA CIR & PERCY LN

2
43(26)
10(32)
4(13)
PLAZA CIR & PLAZA DR

4
79(49)
25(84)
4(13)
GREENSBOROUGH DR & PLAZA DR

8
73(45)
6(4)
2(6)
12(8)
4(13)
PLAZA CIR & SITE ACCESS (N)

9
79(49)
12(8)
6(19)
23(77)
PLAZA CIR & SITE ACCESS (RI/RO)

7
2(6)
6(19)
18(11)
6(4)
KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS

6
8(26)
6(19)
24(15)
18(11)
KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS

5
13(45)
4(13)
43(26)
12(8)
24(15)
8(26)
KENDRICK CASTILLO WAY & PLAZA DR

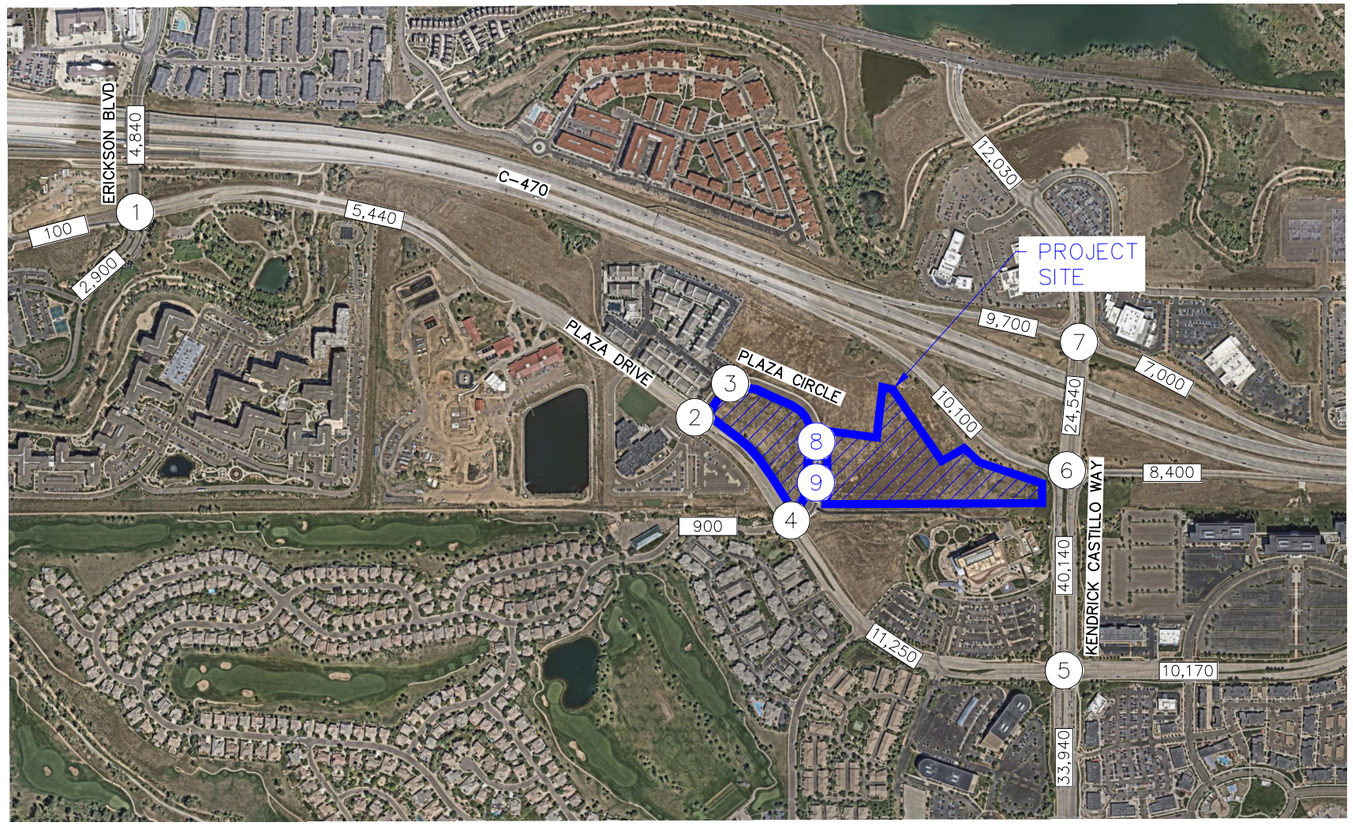
LEGEND

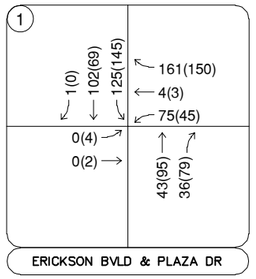
X	Study Area Key Intersection
X	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

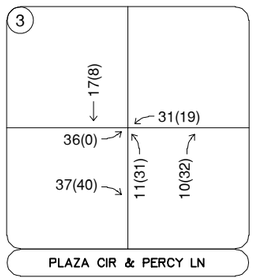
FIGURE 7
LUCENT STATION
HIGHLANDS RANCH, COLORADO
PROJECT TRAFFIC ASSIGNMENT

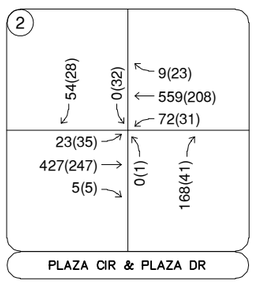
Kimley»Horn

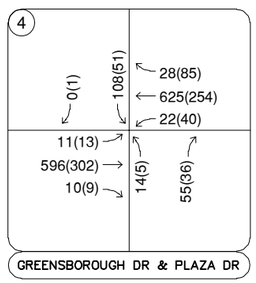
Kimley»Horn
NORTH
NTS Project Number

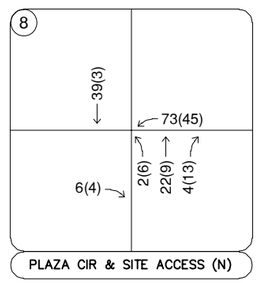


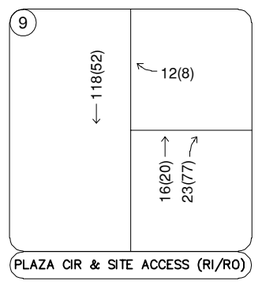


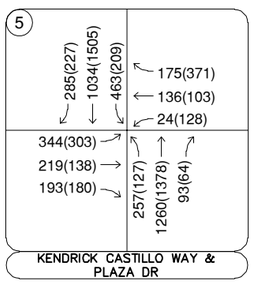


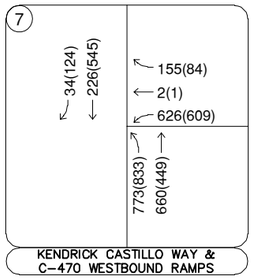


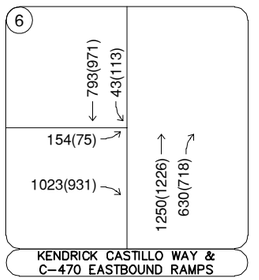












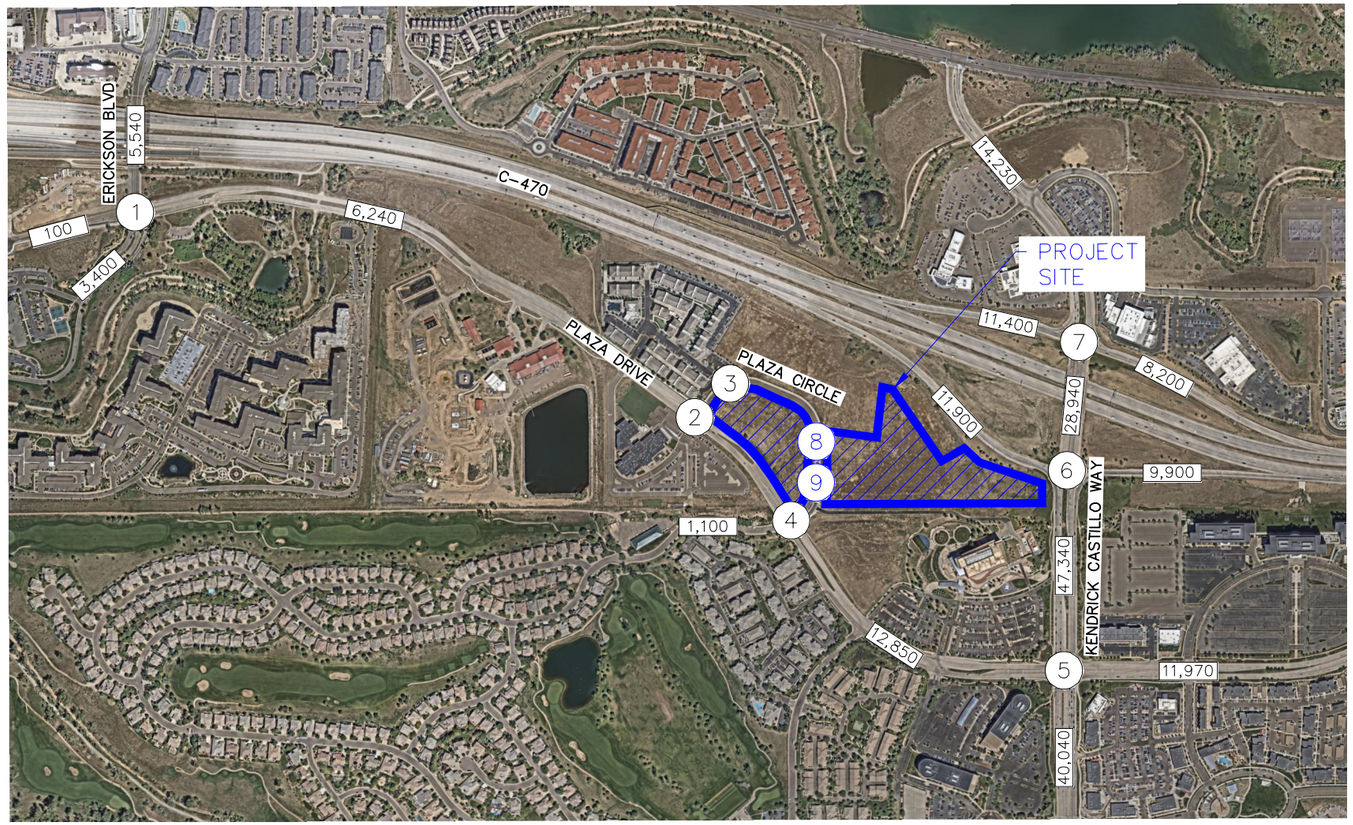
LEGEND

(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

FIGURE 8
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2028 TOTAL TRAFFIC VOLUMES

Kimley»Horn

Kimley»Horn
NORTH
NTS Project Number



1
1(0) 121(82) 144(160) ← 178(171)
← 5(4)
← 89(54)
0(5) →
0(2) →
51(112) → 43(94) →
ERICKSON BVLD & PLAZA DR

3
18(8) ↓ ← 31(19)
43(0) →
44(48) →
13(37) → 10(32) →
PLAZA CIR & PERCY LN

2
56(28) 0(38) ↓ ← 11(27)
← 659(240)
← 85(37)
26(36) →
496(286) →
6(6) →
0(1) → 199(49) →
PLAZA CIR & PLAZA DR

4
0(1) ↓ 114(51) ↓ ← 29(85)
← 738(294)
← 26(48)
13(13) →
697(353) →
12(11) →
17(6) → 65(43) →
GREENSBOROUGH DR & PLAZA DR

8
47(4) ↓ ← 73(45)
6(4) →
2(6) → 24(9) → 4(13) →
PLAZA CIR & SITE ACCESS (N)

9
126(53) ↓ ← 12(8)
18(20) → 23(77) →
PLAZA CIR & SITE ACCESS (RI/RO)

7
40(146) ↓ 266(643) ↓ ← 183(100)
← 2(1)
← 740(716)
912(985) → 781(531) →
KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS

6
937(1143) ↓ 51(134) ↓
182(89) →
1210(1097) →
1476(1449) → 743(848) →
KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS

5
333(257) ↓ 1225(1783) ↓ 548(248) ↓ ← 207(439)
← 160(119)
← 28(151)
395(351) →
255(161) →
221(209) →
302(143) → 1492(1631) → 110(76) →
KENDRICK CASTILLO WAY & PLAZA DR

LEGEND
X — Study Area Key Intersection
X — Project Access Intersection
XXX(XXX) — Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00 — Estimated Daily Traffic Volume

FIGURE 9
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2045 TOTAL TRAFFIC VOLUMES

Kimley»Horn

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2028 and 2045 development horizons at the identified key intersections. The acknowledged source for determining overall capacity is the *Highway Capacity Manual (HCM)*[1].

5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). For intersections and roadways in this study area, standard traffic engineering practice recommends overall intersection LOS D and movement/approach LOS E as the minimum desirable thresholds for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

Table 2 – Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Seventh Edition, Transportation Research Board, 2022.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the whole intersection. LOS for signalized, roundabout, and all-way stop controlled intersections are defined for each approach and for the overall intersection.

[1] Transportation Research Board, *Highway Capacity Manual*, Seventh Edition, Washington DC, 2022.

5.2 Key Intersection Operational Analysis

Calculations for the operational level of service at the key intersections for the study area are provided in **Appendix E**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2.** Existing peak hour factors were utilized in the analysis. The existing heavy vehicle percentages obtained from the turning movement counts were also used in each horizon year. The signalized intersection analysis utilizes the observed cycle lengths with optimized phasing and timing. Based on increased national attention given to establishing appropriate yellow and all-red clearance intervals to improve intersection safety, these have been calculated and are applied for approaches at the signalized intersections. The increase in yellow and all red time sacrifices intersection capacity for improved safety. Synchro traffic analysis software was used to analyze the signalized and unsignalized key intersections for HCM level of service.

Erickson Boulevard/Mill Vista Road and Plaza Drive (#1)

The unsignalized intersection of Erickson Boulevard/Mill Vista Road and Plaza Drive operates with all-way stop control on all four approaches. The intersection operates acceptably at LOS A during both peak hours under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable LOS A in 2028 and LOS B in 2045 during both studied weekday peak hours. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational analysis. **Table 3** provides the results of the LOS analysis conducted at this intersection.

Table 3 – Erickson Boulevard/Mill Vista Road & Plaza Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	**9.1**	**A**	**8.9**	**A**
Eastbound Approach	0.0	-	8.9	A
Westbound Approach	9.0	A	8.6	A
Northbound Approach	9.0	A	9.4	A
Southbound Approach	9.3	A	8.8	A
2028 Background	**9.4**	**A**	**9.2**	**A**
Eastbound Approach	0.0	-	9.1	A
Westbound Approach	9.2	A	8.9	A
Northbound Approach	9.2	A	9.7	A
Southbound Approach	9.6	A	9.1	A
2028 Background Plus Project	**9.7**	**A**	**9.7**	**A**
Eastbound Approach	0.0	-	9.3	A
Westbound Approach	9.6	A	9.3	A
Northbound Approach	9.4	A	10.0	A
Southbound Approach	10.0	A	9.8	A
2045 Background	**10.0**	**A**	**9.8**	**A**
Eastbound Approach	0.0	-	9.4	A
Westbound Approach	9.8	A	9.3	A
Northbound Approach	9.8	A	10.5	A
Southbound Approach	10.2	A	9.5	A
2045 Background Plus Project	**10.4**	**B**	**10.4**	**B**
Eastbound Approach	0.0	-	9.7	A
Westbound Approach	10.2	B	10.0	A
Northbound Approach	10.1	B	11.1	B
Southbound Approach	10.6	B	10.3	B

Plaza Circle and Plaza Drive (#2)

The unsignalized intersection of Plaza Circle and Plaza Drive operates with two-way stop control on the northbound and southbound approaches. All movements currently operate with acceptable level of service with exception of the southbound left turn movement during the morning peak hour. Of note, this poor level of service and need is based on existing traffic, mostly caused by the peaking traffic during the highest 15-minute interval due to Ben Franklin Academy. Although, this southbound left turn movement operates with long delays, the volume isn't high enough to warrant signalization. Therefore, to mitigate the long delay for the southbound left turn movement, a no left turn sign during the arrival and dismissal hours of the Ben Franklin Academy could be placed below the existing R1-1 STOP sign. This restriction would match the current restriction on the northbound approach, exiting the academy with a sign restricting the left turn movement onto Plaza Circle between 7:45-8:15 AM and 3:30-4:00 PM. Additionally, the Plaza Circle/Greensborough Drive (#4) and Plaza Drive intersection is recommended to be signalized. As such, this proposed traffic signal approximately 775 feet to the east of this intersection will provide more gaps in traffic by platooning westbound vehicles along Plaza Drive and can accommodate the rerouted left turning vehicles from Plaza Circle. (#3). Of note, the proposed left turn restriction is only applicable to the morning peak hour since the afternoon peak hour occurs outside of the school's dismissal period. With project traffic, the intersection is anticipated to have all movements operating at an acceptable during the studied weekday morning and afternoon peak hours throughout the 2045 horizon. **Table 4** provides the results of the LOS analysis conducted at this intersection.

Table 4 – Plaza Circle & Plaza Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing				
Northbound Left	0.0	A	11.0	B
Northbound Right	13.5	B	9.1	A
Eastbound Left	9.9	A	7.6	A
Westbound Left	9.2	A	7.7	A
Southbound Left	48.2	E	11.5	B
Southbound Through/Right	11.6	B	8.8	A
2028 Background				
Northbound Left	0.0	A	11.4	B
Northbound Right	13.5	B	9.2	A
Eastbound Left	9.9	A	7.7	A
Westbound Left	9.2	A	7.8	A
Southbound Left	48.2	E	12.1	B
Southbound Through/Right	11.6	B	9.0	A
2028 Background Plus Project				
Northbound Left	0.0	A	12.3	B
Northbound Right	14.9	B	9.2	A
Eastbound Left	10.2	B	7.8	A
Westbound Left	9.7	A	7.8	A
Southbound Left	0.0	A	12.8	B
Southbound Through/Right	12.9	B	9.1	A
2045 Background				
Northbound Left	0.0	A	11.0	B
Northbound Right	18.5	C	9.1	A
Eastbound Left	11.0	B	7.6	A
Westbound Left	10.4	B	7.7	A
Southbound Left	220.5	F	11.5	B
Southbound Through/Right	12.9	B	8.8	A
2045 Background Plus Project				
Northbound Left	0.0	A	12.3	B
Northbound Right	18.7	C	9.4	A
Eastbound Left	10.3	B	7.7	A
Westbound Left	10.5	B	8.0	A
Southbound Left	0.0	A	12.8	B
Southbound Through/Right	10.0	B	8.6	A

#Restrict SB Left Turn Movement During AM

Plaza Circle and Percy Lane (#3)

The unsignalized T-intersection of Plaza Circle and Percy Lane operates with stop control on the eastbound Percy Lane approach. The intersection movements operate acceptably at LOS A during both peak hours under existing conditions. With project traffic the east leg of the intersection will be constructed and provide access to the site. As such, the intersection is anticipated to continue operating with all movements at an acceptable LOS A during both studied weekday peak hours throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational analysis other than building the access and installing a R1-1 STOP sign for the new driveway approach. **Table 5** provides the results of the LOS analysis conducted at this intersection.

Table 5 – Plaza Circle & Percy Lane LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.6	A	8.5	A
2028 Background				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.6	A	8.5	A
2028 Background Plus Project				
Northbound Left	7.4	A	7.3	A
Eastbound Approach	9.2	A	8.5	A
2045 Background				
Northbound Left	7.3	A	7.3	A
Eastbound Approach	8.7	A	8.5	A
2045 Background Plus Project				
Northbound Left	7.4	A	7.3	A
Eastbound Approach	9.4	A	8.5	A

Plaza Circle/Greensborough Drive and Plaza Drive (#4)

The unsignalized intersection of Greensborough Drive and Plaza Drive operates with two-way stop control on the northbound and southbound approaches. The intersection has all movements operating acceptably during both peak hours under existing conditions. With project traffic and the recommendation to restrict the southbound left turn movement during the arrival and dismissal time period at Plaza Drive and Plaza Circle (#3), the southbound left turn may operate with long delays during the peak hours. The restriction of the southbound left turn at Plaza Drive and Plaza Circle (#3) intersection will reroute traffic to this intersection. With the project traffic and reroute volumes, the intersection is anticipated to continue operating at an acceptable level of service during both studied weekday peak hours throughout the 2045 horizon with exception of the southbound left turn movement. An MUTCD Four Hour Signal Warrant was completed, and it was determined two out of the four hours meet warrant volumes. However, this intersection should be considered for signalization in the future. The signal warrant analysis worksheet is included in **Appendix G.** With signalization, this intersection is expected to operate at an acceptable LOS B or better during the morning and afternoon peak hours throughout 2045. **Table 6** provides the results of the LOS analysis conducted at this intersection.

Table 6 – Greensborough Drive & Plaza Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing				
Northbound Approach	17.7	C	9.8	A
Eastbound Left	10.3	B	0.0	A
Westbound Left	10.1	B	8.0	A
Southbound Left	28.5	D	12.2	B
Southbound Through/Right	0.0	A	9.0	A
2028 Background				
Northbound Approach	19.7	C	10.0	B
Eastbound Left	10.6	B	0.0	A
Westbound Left	10.6	B	8.1	A
Southbound Left	31.5	D	12.8	B
Southbound Through/Right	0.0	A	9.1	A
2028 Background Plus Project				
Northbound Approach	20.0	C	10.1	B
Eastbound Left	10.9	B	8.1	A
Westbound Left	10.6	B	8.1	A
Southbound Left	258.0	F	14.9	B
Southbound Through/Right	0.0	A	9.4	A
2028 Background Plus Project #	15.7	B	9.9	A
2045 Background				
Northbound Approach	27.8	D	9.8	A
Eastbound Left	11.7	B	0.0	A
Westbound Left	11.7	B	8.0	A
Southbound Left	43.4	E	12.2	B
Southbound Through/Right	0.0	A	9.0	A
2045 Background Plus Project #	17.6	B	9.8	A

Signalized

Kendrick Castillo Way & Plaza Drive (#5)

The signalized intersection of Kendrick Castillo Way and Plaza Drive operates with protected-only left turn phasing on all four approaches. The intersection operates acceptably at LOS D during both the morning and afternoon peak hours under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable level of service of D during the two studied peak hours throughout the 2045 horizon. Of note, the future traffic conditions can sometimes report less delays than the existing condition when background and project traffic assignment volumes are added to movements that have less delay than the average intersection delay. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 7** provides the results of the LOS analysis conducted at this intersection.

Table 7 – Kendrick Castillo Way & Plaza Drive LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	46.1	D	39.2	D
2028 Background	48.7	D	41.1	D
2028 Background Plus Project	46.6	D	42.9	D
2045 Background	53.5	D	49.7	D
2045 Background Plus Project	53.5	D	51.9	D

Kendrick Castillo Way & C-470 Eastbound Ramps (#6)

The signalized intersection of Kendrick Castillo Way and C-470 eastbound ramps operates with protected-permissive left turn phasing on the southbound approach. The intersection operates acceptably at LOS B during the morning peak hour and LOS A during the afternoon peak hour under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable level of service of B during the morning peak hour and LOS A throughout the 2045 horizon. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 8** provides the results of the LOS analysis conducted at this intersection.

Table 8 – Kendrick Castillo Way & C-470 Eastbound Ramps LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	10.6	B	4.2	A
2028 Background	10.7	B	4.2	A
2028 Background Plus Project	10.7	B	4.2	A
2045 Background	17.1	B	4.4	A
2045 Background Plus Project	17.2	B	4.4	A

Kendrick Castillo Way & C-470 Westbound Ramps (#7)

The signalized intersection of Kendrick Castillo Way and C-470 westbound ramps operates with protected-only left turn phasing on the northbound approach. The intersection operates acceptably at LOS C during both peak hours under existing conditions. With project traffic, the intersection is anticipated to continue operating at an acceptable level of service C during both studied weekday peak hours throughout 2028. In the 2045 horizon, the intersection is anticipated to continue operating at an acceptable level of service of C during the morning peak hour and LOS D. Therefore, no improvements or modifications are anticipated to be needed at this intersection based on the addition of project traffic and this operational level of service analysis. **Table 9** provides the results of the LOS analysis conducted at this intersection.

Table 9 – Kendrick Castillo Way & C-470 Westbound Ramps LOS Results

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2025 Existing	30.0	C	31.8	C
2028 Background	30.0	C	32.0	C
2028 Background Plus Project	30.0	C	32.4	C
2045 Background	30.2	C	33.8	C
2045 Background Plus Project	30.3	C	34.3	C

Project Accesses

With completion of the Lucent Station project, a full movement access that aligns with the Percy Lane at Plaza Circle, two (2) full movement accesses and a right-in/right-out access will be provided along Plaza Circle. “STOP” (R1-1) signs are recommended to be installed on the exiting approaches of all four (4) accesses, out of the development. In addition, a R3-2 No Left Turn sign should be placed underneath the R1-1 “STOP” sign at the right-in/right-out (RIRO) access to the south of the east lot. A northbound left turn lane is recommended to be designated within the currently striped median of Plaza Circle for the full movement access to the west lot. **Table 10** provides the results of the level of service analysis for these project accesses. As shown in the table, the project access intersections along Plaza Circle are anticipated to have all movements operating with acceptable LOS B or better during the peak hours in both the buildout year 2028 and the 2045 long term horizons.

Table 10 – Project Access Level of Service Results

Intersection	2028 Total				2045 Total			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS	Delay (sec/ veh)	LOS
Site Access (#8)								
Northbound Left	7.3	A	7.2	A	7.3	A	7.2	A
Eastbound Approach	8.5	A	8.3	A	8.6	A	8.3	A
Westbound Approach	9.3	A	8.9	A	9.4	A	8.9	A
Southbound Left	0.0	A	0.0	A	0.0	A	0.0	A
Site Access RI/RO (#9)								
Westbound Right	8.5	A	8.6	A	8.5	A	8.6	A

5.3 Vehicle Queuing Analysis

A vehicle queuing analysis was conducted for the study area intersections. The queuing analysis was performed using Synchro presenting the results of the 95th percentile queue lengths. Results are shown in the following **Table 11** with calculations provided within the level of service operational sheets of **Appendix D** for unsignalized intersections and **Appendix E** for signalized intersections.

Table 11 – Turn Lane Queuing Analysis Results

Intersection Turn Lane	Existing Turn Lane Length (feet)	2028 Calculated Queue (feet)	2028 Recommended Length (feet)	2045 Calculated Queue (feet)	2045 Recommended Length (feet)
Erickson Blvd & Plaza Dr (#1)					
Eastbound Through/Right	150’	25’	150’	25’	150’
Westbound Left	275’	25’	275’	25’	275’
Westbound Right	C	50’	C	50’	C
Southbound Left	C	25’	C	50’	C
Southbound Right	200’	25’	200’	25’	200’
Plaza Circle & Plaza Dr (#2)					
Eastbound Left	100’	25’	100’	25’	100’
Westbound Left	175’	25’	175’	25’	175’
Northbound Left	C/75’	75’	C/75’	100’	C/75’
Southbound Left	100’	25’	100’	25’	100’
Plaza Circle & Percy Ln (#3)					
Northbound Left	50’	25’	50’	25’	50’
Southbound Left	DNE	25’	**50’**	25’	**50’**
Greensborough Dr & Plaza Dr (#4)					
Eastbound Left	200’	25’	200’	25’	200’
Westbound Left	150’	25’	150’	25’	150’
Southbound Left	250’	81’	250’	126’	250’
Kendrick Castillo Way & Plaza Dr (#5)					
Eastbound Left	300’ DL	265’	300’ DL	256’	300’ DL
Westbound Left	225’ DL	101’	225’ DL	116’	225’ DL
Westbound Right	C	335’	C	440’	C
Northbound Left	250’/275’	152’	250’/275’	212’	250’/275’
Southbound Left	250’ DL	279’ DL	**300’ DL**	414’ DL	**425’ DL**
Kendrick Castillo Way & C-470 EB Ramp (#6)					
Eastbound Right	100’	Free	100’	Free	100’
Northbound Right	C/975’	480’	C	319’	C
Southbound Left	550’	111’	550’	129’	550’
Kendrick Castillo Way & C-470 EB Ramp (#7)					
Westbound Right	250’	Free	250’	Free	250’
Northbound Left	C/625’	455’	C/625’	528’	C/625’
Southbound Right	500’	Free	500’	Free	500’
Plaza Circle Full Access (#8)					
Northbound Left	DNE	25’	**50’**	25’	**50’**
Southbound Left	DNE	25’	**50’**	25’	**50’**

DNE = Does Not Exist; C = Continuous; DL = Dual Lefts: **Red** Text = Storage Deficiency; **Blue** Text = Recommendation

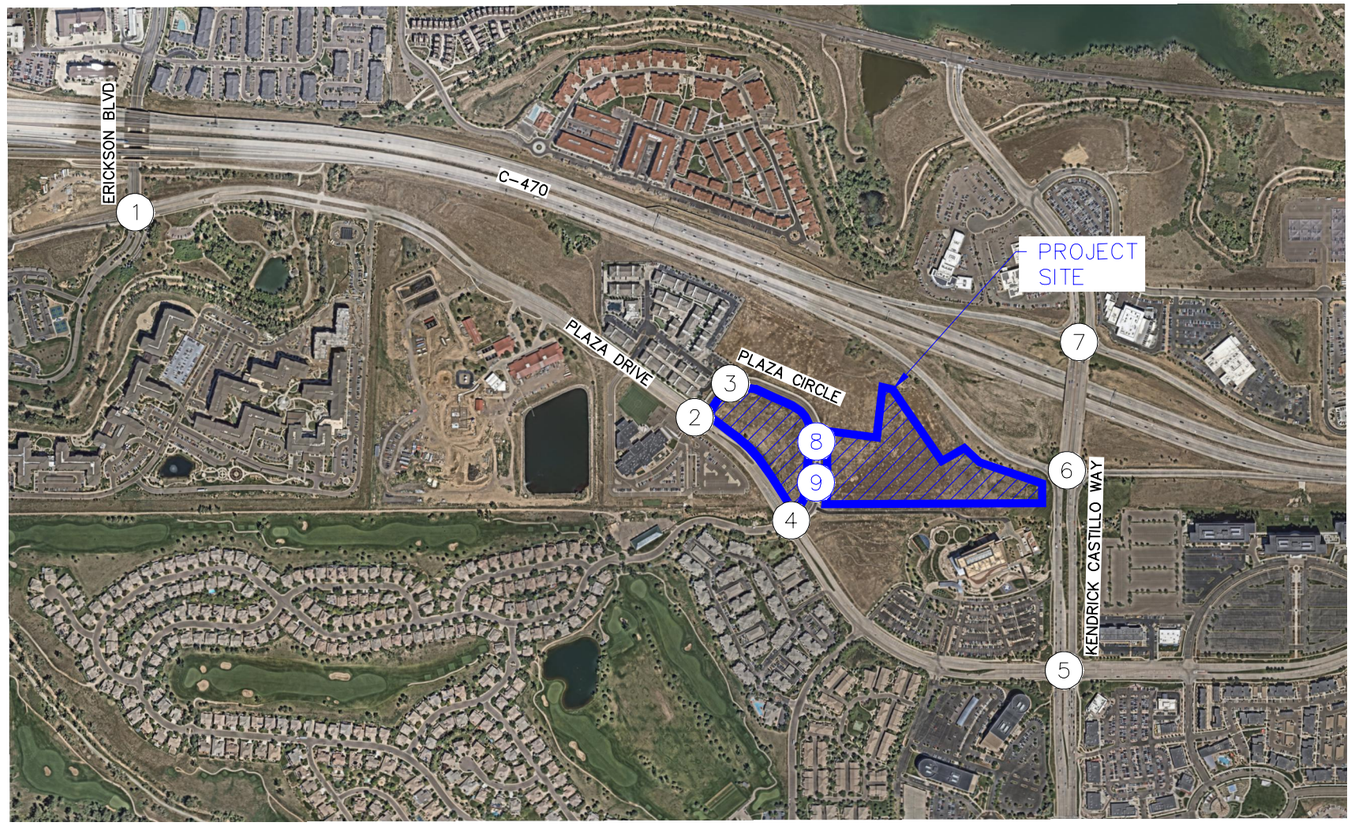
All queues are anticipated to remain within the existing or recommended turn lane lengths with exception of the southbound left turns at the Kendrick Castillo Way & Plaza Drive (#5) intersection. The dual southbound left turn lanes are recommended to be extended from 250 feet to 300 feet.

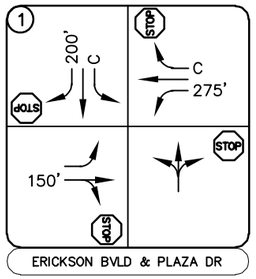
This extension will require a median modification and may require additional length in 2045. Of note, extension of these dual left turn lanes is independent and not caused by Lucent Station. The new left turn lanes along Plaza Circle for the full movement accesses are recommended to provide a length of 50 feet by restriping the existing double-yellow median.

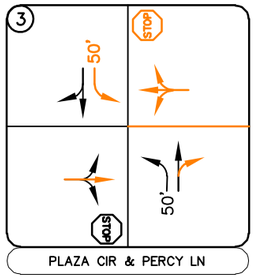
5.4 Improvement Summary

Based on the results of the intersection operational and vehicle queuing analysis, the key intersection recommended improvements and control are shown in **Figure 10** with the conclusion recommendations provided in the next section.

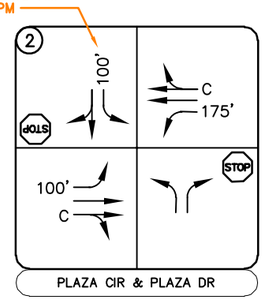
NTS Project Number

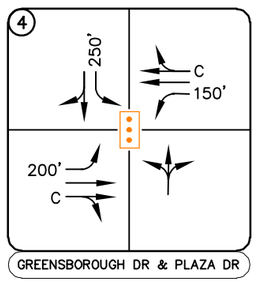


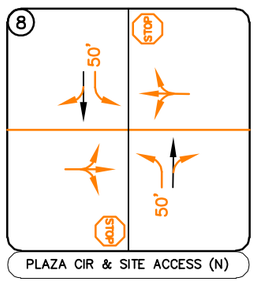


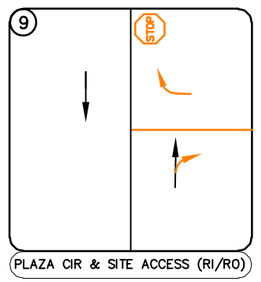


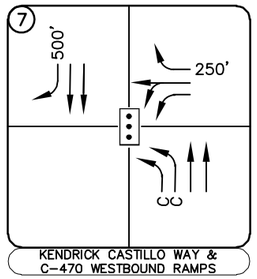
Restrict Left Turn
Movement 7:45–8:15 AM
and 3:30–4:00 PM

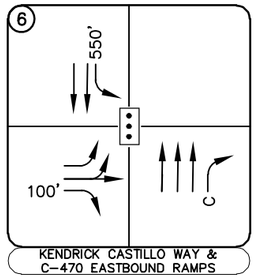




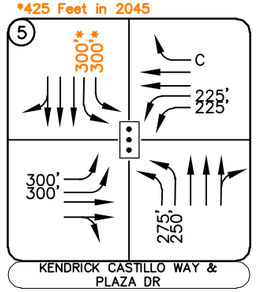








*425 Feet in 2045



LEGEND

- Study Area Key Intersection
- Project Access Intersection
- Signalized Intersection
- Stop-Controlled Approach
- Improvement
- 100' Turn Lane Length (feet)

FIGURE 10
LUCENT STATION
HIGHLANDS RANCH, COLORADO
RECOMMENDED GEOMETRY AND CONTROL

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, Kimley-Horn believes Lucent Station will be successfully incorporated into the existing and future roadway network. Analysis of the existing street network, the proposed project development, and expected traffic volumes resulted in the following recommendations:

- It is recommended that the intersection of Plaza Circle/Greensborough Drive and Plaza Drive (#4) be signalized. This signalized intersection will likely also improve existing long southbound left turn delays at the Plaza Circle/Ben Franklin Academy and Plaza Drive intersection (#2). With signalization of the Plaza Circle/Greensborough Drive and Plaza Drive (#4) intersection, the southbound left movement at the Plaza Circle/Ben Franklin Academy and Plaza Drive intersection (#2) is recommended to be restricted during the arrival and dismissal times at the Ben Franklin Academy. This restriction would match the current restriction on the northbound approach, exiting the academy with a sign restricting the left turn movement onto Plaza Circle between 7:45-8:15 AM and 3:30-4:00 PM.

- It is recommended that the existing 250-foot southbound dual left turn lanes at the Kendrick Castillo Way and Plaza Drive (#5) intersection be extended to 300 feet in the short-term horizon and may need to be extended to 425 feet in 2045. Of note, extension of these dual left turn lanes is independent and not caused by Lucent Station.

- With completion of the Lucent Station project, a full movement access that aligns with the Percy Lane full movement access at Plaza Circle, two (2) full movement accesses in alignment with each other, and a right-in/right-out access will be provided along Plaza Circle. Left turn lanes are recommended to be designated within the double-yellow full lane width median for the Plaza Circle full movement accesses. These left turn lanes are recommended to be striped with lengths of 50 feet as is available. “STOP” (R1-1) signs are recommended to be installed on the approaches of all four (4) accesses, exiting the development. In addition, a R3-2 No Left Turn sign should be placed underneath the R1-1 “STOP” sign for the Plaza Circle right-in/right-out access.

- Any on-site or offsite improvements should be incorporated into the Civil Drawings and conform to standards of the Douglas County and the current edition of the Manual on Uniform Traffic Control Devices (MUTCD).

Appendix A: Conceptual Site Plan

12.10.2024

SITE PLAN - HIGHLANDS RANCH APARTMENTS

HIGHLANDS RANCH, CO - MORGAN GROUP

MEEKS PARTNERS
16000 Memorial Drive
Suite 100
Houston, Texas 77079
2815583787

A-01

JOB NO. 23095

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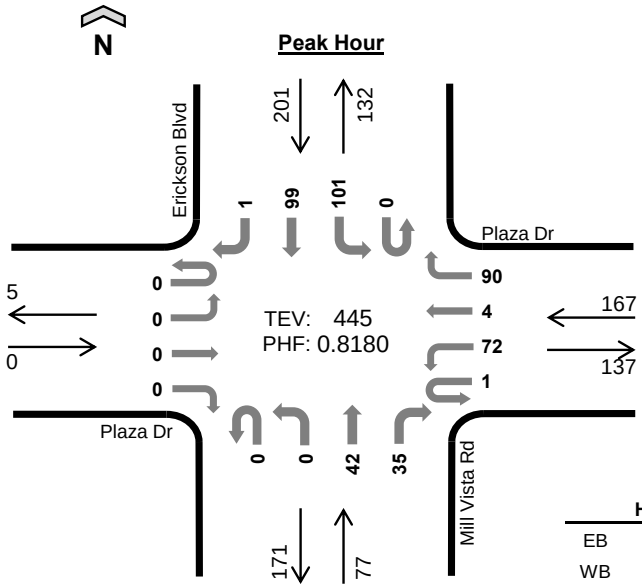
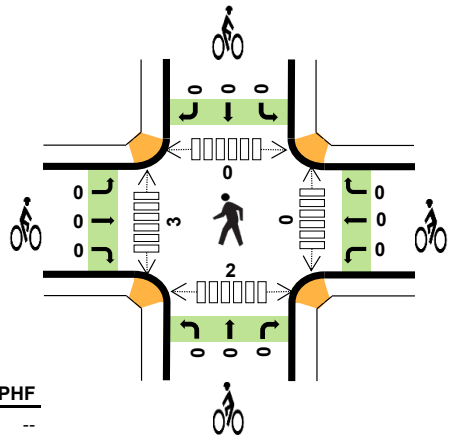
Appendix B: Intersection Count Sheets

Erickson Blvd
Plaza Dr

Date: 1/22/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM





	HV%	PHF
EB	--	--
WB	2%	0.85
NB	4%	0.69
SB	2%	0.68
TOTAL	2%	0.82

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Mill Vista Rd Northbound				Erickson Blvd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:45 AM		0	0	0	0	0	27	1	21	0	0	2	6	0	38	26	0	121	0
8:00 AM		0	0	0	0	1	17	1	25	0	0	10	8	0	37	37	0	136	0
8:15 AM		0	0	0	0	0	15	2	24	0	0	19	9	0	13	21	0	103	0
8:30 AM		0	0	0	0	0	13	0	20	0	0	11	12	0	13	15	1	85	445
Pk Hr	All	0	0	0	0	1	72	4	90	0	0	42	35	0	101	99	1	445	
	HV	0	0	0	0	0	1	0	3	0	0	2	1	0	1	3	0	11	
	HV%	-	-	-	-	0%	1%	0%	3%	-	-	5%	3%	-	1%	3%	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:45 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	2	0	1	*3*
8:00 AM	0	0	2	1	*3*	0	0	0	0	*0*	0	1	0	1	*2*
8:15 AM	0	2	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	4	3	4	*11*	0	0	0	0	*0*	0	3	0	2	*5*

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	12	0	20	0	0	5	8	0	12	24	0	81	0
7:15 AM	0	0	0	0	0	14	1	27	0	0	4	8	0	14	12	0	80	0
7:30 AM	0	0	1	0	0	12	1	17	0	0	6	8	0	16	19	1	81	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**27**	**1**	**21**	**0**	**0**	**2**	**6**	**0**	**38**	**26**	**0**	**121**	**363**
8:00 AM	**0**	**0**	**0**	**0**	**1**	**17**	**1**	**25**	**0**	**0**	**10**	**8**	**0**	**37**	**37**	**0**	**136**	**418**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**15**	**2**	**24**	**0**	**0**	**19**	**9**	**0**	**13**	**21**	**0**	**103**	**441**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**20**	**0**	**0**	**11**	**12**	**0**	**13**	**15**	**1**	**85**	**445**
8:45 AM	0	0	0	0	0	17	0	17	0	0	15	10	0	24	31	0	114	438
Count Total	0	0	1	0	1	127	6	171	0	0	72	69	0	167	185	2	801	
Pk Hr All	**0**	**0**	**0**	**0**	**1**	**72**	**4**	**90**	**0**	**0**	**42**	**35**	**0**	**101**	**99**	**1**	**445**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**1**	**3**	**0**	**11**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**0%**	**1%**	**0%**	**3%**	**-**	**-**	**5%**	**3%**	**-**	**1%**	**3%**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	1	2	*4*	0	0	0	0	*0*	0	0	0	1	*1*
7:15 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	1	*1*
7:30 AM	0	1	1	2	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**3**
8:00 AM	**0**	**0**	**2**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**2**
8:15 AM	**0**	**2**	**1**	**2**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	2	*2*
Count Total	0	10	5	9	*24*	0	0	0	0	*0*	0	3	0	6	*9*
Peak Hour	**0**	**4**	**3**	**4**	***11***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**0**	**2**	**5**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	0	2	0	4	0
7:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	1	0	1	1	0	4	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**11**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**0**	**3**	**10**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**5**	**13**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**11**
8:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	3	13
Count Total	0	0	0	0	0	5	0	5	0	0	2	3	0	2	7	0	24	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**2**	**1**	**0**	**1**	**3**	**0**	**11**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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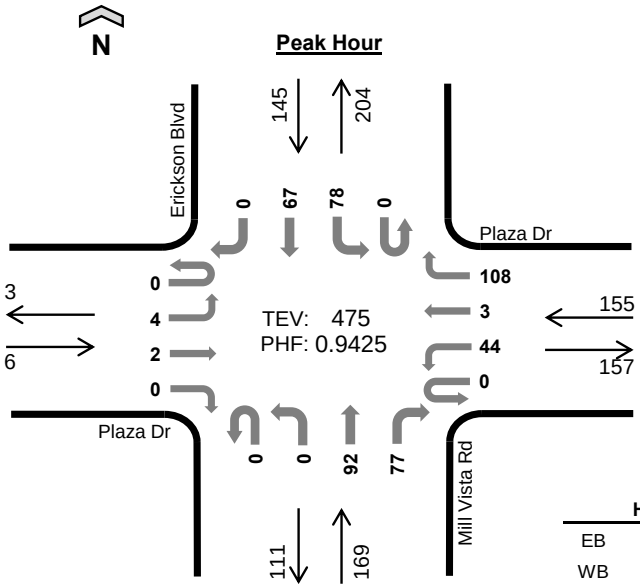
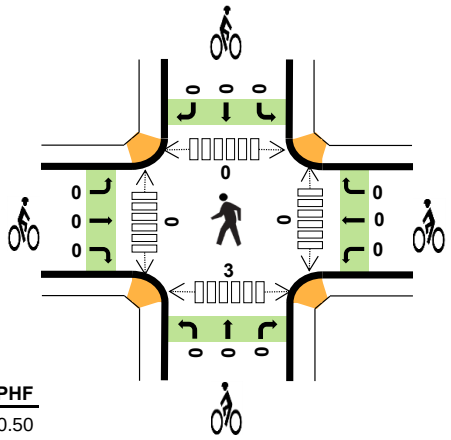
Erickson Blvd
Plaza Dr

Date: 1/22/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	0%	0.50
WB	1%	0.86
NB	1%	0.77
SB	1%	0.81
TOTAL	1%	0.94

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Mill Vista Rd Northbound				Erickson Blvd Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**0**	**0**	**0**	**0**	**13**	**0**	**28**	**0**	**0**	**32**	**23**	**0**	**12**	**18**	**0**	**126**	**0**
4:15 PM		**0**	**3**	**0**	**0**	**0**	**16**	**1**	**28**	**0**	**0**	**12**	**16**	**0**	**21**	**17**	**0**	**114**	**0**
4:30 PM		**0**	**1**	**0**	**0**	**0**	**5**	**1**	**27**	**0**	**0**	**23**	**22**	**0**	**20**	**12**	**0**	**111**	**0**
4:45 PM		**0**	**0**	**2**	**0**	**0**	**10**	**1**	**25**	**0**	**0**	**25**	**16**	**0**	**25**	**20**	**0**	**124**	**475**
Pk Hr	All	**0**	**4**	**2**	**0**	**0**	**44**	**3**	**108**	**0**	**0**	**92**	**77**	**0**	**78**	**67**	**0**	**475**	
	HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**5**	
	HV%	**-**	**0%**	**0%**	**-**	**-**	**0%**	**0%**	**2%**	**-**	**-**	**0%**	**3%**	**-**	**0%**	**1%**	**-**	**1%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**0**	**1**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:15 PM	**0**	**1**	**0**	**1**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:30 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***
4:45 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	***1***
Peak Hour	**0**	**2**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**3**	***3***

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**28**	**0**	**0**	**32**	**23**	**0**	**12**	**18**	**0**	**126**	0
4:15 PM	**0**	**3**	**0**	**0**	**0**	**16**	**1**	**28**	**0**	**0**	**12**	**16**	**0**	**21**	**17**	**0**	**114**	**0**
4:30 PM	**0**	**1**	**0**	**0**	**0**	**5**	**1**	**27**	**0**	**0**	**23**	**22**	**0**	**20**	**12**	**0**	**111**	**0**
4:45 PM	**0**	**0**	**2**	**0**	**0**	**10**	**1**	**25**	**0**	**0**	**25**	**16**	**0**	**25**	**20**	**0**	**124**	**475**
5:00 PM	0	0	1	0	0	9	0	29	0	0	24	18	0	12	16	0	109	458
5:15 PM	0	0	0	0	0	10	1	24	0	0	19	20	0	15	8	0	97	441
5:30 PM	0	0	1	0	0	5	0	31	0	0	15	11	0	12	16	0	91	421
5:45 PM	0	0	0	0	0	6	0	18	0	0	14	15	0	15	11	0	79	376
Count Total	0	4	4	0	0	74	4	210	0	0	164	141	0	132	118	0	851	
Pk Hr All	**0**	**4**	**2**	**0**	**0**	**44**	**3**	**108**	**0**	**0**	**92**	**77**	**0**	**78**	**67**	**0**	**475**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**5**	
Pk Hr HV%	**-**	**0%**	**0%**	**-**	**-**	**0%**	**0%**	**2%**	**-**	**-**	**0%**	**3%**	**-**	**0%**	**1%**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**0**	**1**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
4:45 PM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	3	0	3	*6*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	3	0	3	*6*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	2	2	1	*5*	0	0	0	0	*0*	0	6	0	9	*15*
Peak Hour	**0**	**2**	**2**	**1**	***5***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**3**	**3**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**2**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**5**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	2	0	0	0	2	0	0	1	0	5	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**5**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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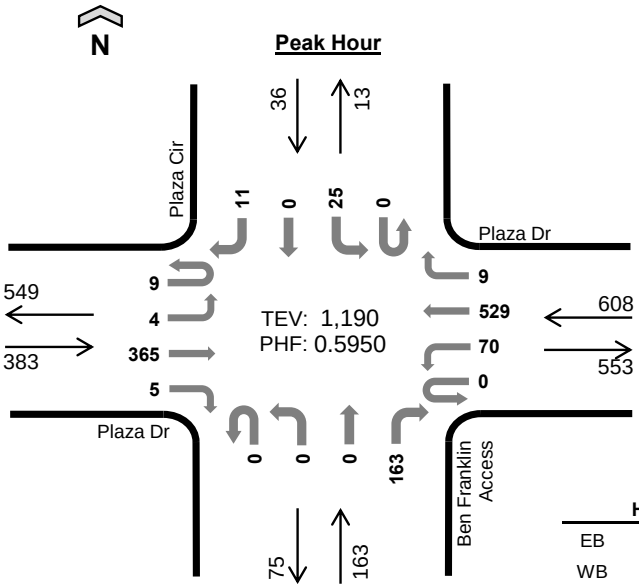
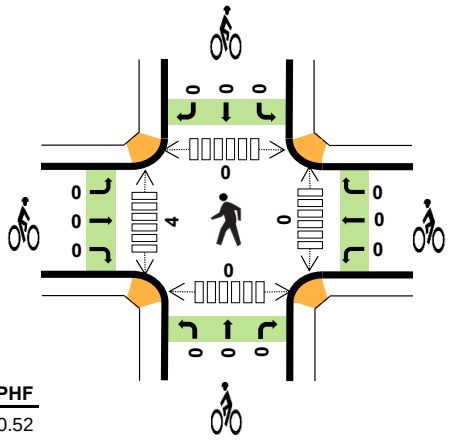
Plaza Cir
Plaza Dr

Date: 1/22/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV%	PHF
EB	1%	0.52
WB	1%	0.63
NB	0%	0.45
SB	0%	0.69
TOTAL	1%	0.60

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Ben Franklin Access Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	0	30	2	0	26	69	1	0	0	0	5	0	6	0	0	139	0
7:45 AM		2	2	116	0	0	6	230	7	0	0	0	49	0	9	0	4	425	0
8:00 AM		4	2	174	3	0	18	197	1	0	0	0	91	0	3	0	7	500	0
8:15 AM		3	0	45	0	0	20	33	0	0	0	0	18	0	7	0	0	126	1,190
Pk Hr	All	9	4	365	5	0	70	529	9	0	0	0	163	0	25	0	11	1,190	
	HV	0	0	4	0	0	0	5	1	0	0	0	0	0	0	0	0	10	
	HV%	0%	0%	1%	0%	-	0%	1%	11%	-	-	-	0%	-	0%	-	0%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:30 AM	2	2	0	0	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	4	0	0	*4*
8:15 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	4	6	0	0	*10*	0	0	0	0	*0*	0	4	0	0	*4*

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	24	2	0	13	33	0	0	1	0	4	0	7	0	1	85	0
7:15 AM	0	0	20	1	0	19	40	0	0	0	0	1	0	15	0	0	96	0
7:30 AM	**0**	**0**	**30**	**2**	**0**	**26**	**69**	**1**	**0**	**0**	**0**	**5**	**0**	**6**	**0**	**0**	**139**	**0**
7:45 AM	**2**	**2**	**116**	**0**	**0**	**6**	**230**	**7**	**0**	**0**	**0**	**49**	**0**	**9**	**0**	**4**	**425**	**745**
8:00 AM	**4**	**2**	**174**	**3**	**0**	**18**	**197**	**1**	**0**	**0**	**0**	**91**	**0**	**3**	**0**	**7**	**500**	**1,160**
8:15 AM	**3**	**0**	**45**	**0**	**0**	**20**	**33**	**0**	**0**	**0**	**0**	**18**	**0**	**7**	**0**	**0**	**126**	**1,190**
8:30 AM	0	0	21	2	0	7	41	2	0	0	0	1	0	7	0	0	81	1,132
8:45 AM	0	0	26	0	0	10	30	1	0	1	0	2	0	11	0	1	82	789
Count Total	9	4	456	10	0	119	673	12	0	2	0	171	0	65	0	13	1,534	
Pk Hr All	**9**	**4**	**365**	**5**	**0**	**70**	**529**	**9**	**0**	**0**	**0**	**163**	**0**	**25**	**0**	**11**	**1,190**	
Pk Hr HV	**0**	**0**	**4**	**0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	
Pk Hr HV%	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**1%**	**11%**	**-**	**-**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**2**	**2**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**4**
8:15 AM	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	1	0	0	*1*	0	0	0	0	*0*	2	0	1	0	*3*
8:45 AM	0	4	0	0	*4*	0	0	0	0	*0*	0	0	1	0	*1*
Count Total	4	13	0	0	*17*	0	0	0	0	*0*	2	4	2	0	*8*
Peak Hour	**4**	**6**	**0**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	**4**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**
7:45 AM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**9**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**10**
8:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	7
8:45 AM	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	4	9
Count Total	0	0	4	0	0	2	9	2	0	0	0	0	0	0	0	0	17	
Pk Hr Heavy	**0**	**0**	**4**	**0**	**0**	**0**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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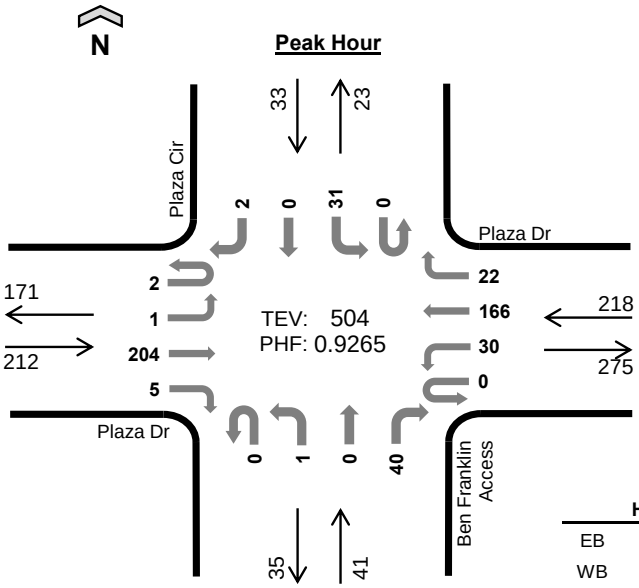
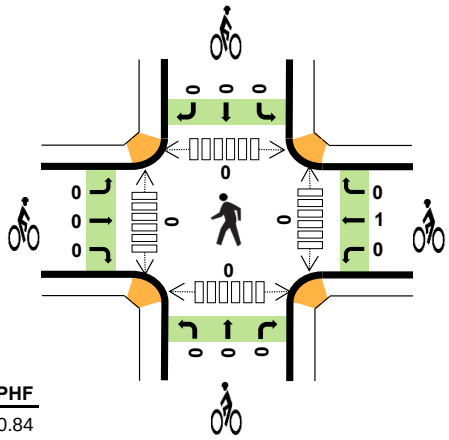
Plaza Cir
Plaza Dr

Date: 1/22/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	0%	0.84
WB	2%	0.87
NB	0%	0.54
SB	12%	0.63
TOTAL	2%	0.93

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Ben Franklin Access Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		1	1	58	1	0	4	39	4	0	0	0	19	0	5	0	0	132	0
4:15 PM		0	0	37	2	0	10	48	5	0	0	0	6	0	6	0	1	115	0
4:30 PM		1	0	61	1	0	7	36	7	0	1	0	9	0	12	0	1	136	0
4:45 PM		0	0	48	1	0	9	43	6	0	0	0	6	0	8	0	0	121	504
Pk Hr	All	2	1	204	5	0	30	166	22	0	1	0	40	0	31	0	2	504	
	HV	0	0	0	1	0	0	3	1	0	0	0	0	0	4	0	0	9	
	HV%	0%	0%	0%	20%	-	0%	2%	5%	-	0%	-	0%	-	13%	-	0%	2%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	1	0	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	1	0	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	2	0	1	*3*	0	1	0	0	*1*	0	0	0	0	*0*
Peak Hour	1	4	0	4	*9*	0	1	0	0	*1*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**1**	**1**	**58**	**1**	**0**	**4**	**39**	**4**	**0**	**0**	**0**	**19**	**0**	**5**	**0**	**0**	**132**	0
4:15 PM	**0**	**0**	**37**	**2**	**0**	**10**	**48**	**5**	**0**	**0**	**0**	**6**	**0**	**6**	**0**	**1**	**115**	**0**
4:30 PM	**1**	**0**	**61**	**1**	**0**	**7**	**36**	**7**	**0**	**1**	**0**	**9**	**0**	**12**	**0**	**1**	**136**	**0**
4:45 PM	**0**	**0**	**48**	**1**	**0**	**9**	**43**	**6**	**0**	**0**	**0**	**6**	**0**	**8**	**0**	**0**	**121**	**504**
5:00 PM	0	0	42	0	0	2	39	8	0	1	0	7	0	11	0	0	110	482
5:15 PM	0	0	33	2	0	6	45	7	0	2	0	3	0	8	1	0	107	474
5:30 PM	0	0	25	0	0	9	37	9	0	3	0	12	0	2	0	0	97	435
5:45 PM	0	1	32	2	0	2	28	6	0	0	0	1	0	6	0	1	79	393
Count Total	2	2	336	9	0	49	315	52	0	7	0	63	0	58	1	3	897	
Pk Hr All	**2**	**1**	**204**	**5**	**0**	**30**	**166**	**22**	**0**	**1**	**0**	**40**	**0**	**31**	**0**	**2**	**504**	
Pk Hr HV	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**9**	
Pk Hr HV%	**0%**	**0%**	**0%**	**20%**	**-**	**0%**	**2%**	**5%**	**-**	**0%**	**-**	**0%**	**-**	**13%**	**-**	**0%**	**2%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**1**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**2**	**0**	**1**	**3**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	1	*2*
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	2	4	0	4	*10*	0	1	0	0	*1*	0	1	0	1	*2*
Peak Hour	**1**	**4**	**0**	**4**	***9***	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**2**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**9**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Count Total	0	0	1	1	0	0	3	1	0	0	0	0	0	4	0	0	10	
Pk Hr Heavy	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**9**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	

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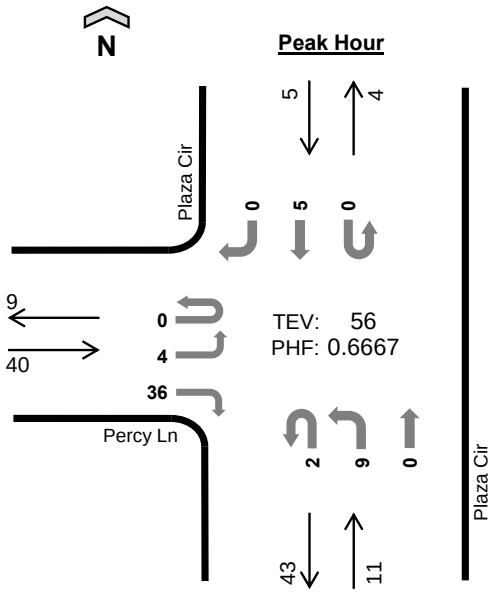
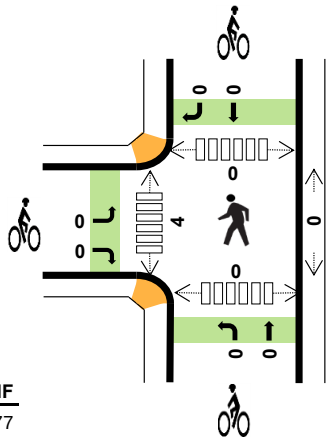
Plaza Cir
Percy Ln

Date: 1/22/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM





	HV%	PHF
EB	3%	0.77
WB	--	--
NB	9%	0.34
SB	0%	0.31
TOTAL	4%	0.67

Peak Hour Count Summaries

Peak Hour Interval Start		Percy Ln Eastbound				n/a Westbound				Plaza Cir Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	13	0
7:30 AM		0	0	0	8	0	0	0	0	0	1	0	0	0	0	0	0	9	0
7:45 AM		0	2	0	10	0	0	0	0	2	6	0	0	0	0	1	0	21	0
8:00 AM		0	2	0	5	0	0	0	0	0	2	0	0	0	0	4	0	13	56
Pk Hr	All	0	4	0	36	0	0	0	0	2	9	0	0	0	0	5	0	56	
	HV	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	
	HV%	-	25%	-	0%	-	-	-	-	0%	11%	-	-	-	-	0%	-	4%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
7:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	0	0	*2*
7:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	2	0	0	*2*
7:45 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	1	0	1	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	1	0	1	0	*2*	0	0	0	0	*0*	0	4	0	0	*4*

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Count Summaries - All Vehicles

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	1	0	9	0	0	0	0	0	0	0	0	0	0	1	0	11	0
7:15 AM	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**
7:30 AM	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**0**
7:45 AM	**0**	**2**	**0**	**10**	**0**	**0**	**0**	**0**	**2**	**6**	**0**	**0**	**0**	**0**	**1**	**0**	**21**	**54**
8:00 AM	**0**	**2**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**4**	**0**	**13**	**56**
8:15 AM	0	0	0	6	0	0	0	0	1	0	0	0	0	0	0	0	7	50
8:30 AM	0	0	0	7	0	0	0	0	0	2	0	0	0	0	0	0	9	50
8:45 AM	0	0	0	10	0	0	0	0	0	1	0	0	0	0	1	0	12	41
Count Total	0	5	0	68	0	0	0	0	3	12	0	0	0	0	7	0	95	
Pk Hr All	**0**	**4**	**0**	**36**	**0**	**0**	**0**	**0**	**2**	**9**	**0**	**0**	**0**	**0**	**5**	**0**	**56**	
Pk Hr HV	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	
Pk Hr HV%	**-**	**25%**	**-**	**0%**	**-**	**-**	**-**	**-**	**0%**	**11%**	**-**	**-**	**-**	**-**	**0%**	**-**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**1**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
8:45 AM	0	0	1	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	1	0	2	0	*3*	0	0	0	0	*0*	0	5	0	0	*5*
Peak Hour	**1**	**0**	**1**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**4**	**0**	**0**	**4**

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Count Summaries - Heavy Vehicles

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	3
Count Total	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3	
Pk Hr Heavy	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	

Count Summaries - Bikes

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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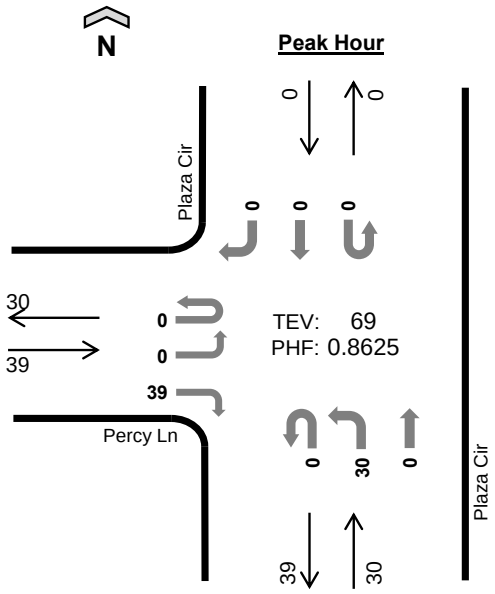
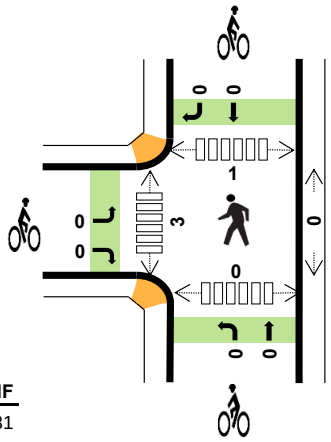
Plaza Cir
Percy Ln

Date: 1/22/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	5%	0.81
WB	--	--
NB	3%	0.83
SB	--	--
TOTAL	4%	0.86

Peak Hour Count Summaries

Peak Hour Interval Start		Percy Ln Eastbound				n/a Westbound				Plaza Cir Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		**0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**
4:45 PM		**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**
5:00 PM		**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**0**
5:15 PM		**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**69**
Pk Hr	All	**0**	**0**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**69**	
	HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	
	HV%	-	-	-	**5%**	-	-	-	-	-	**3%**	-	-	-	-	-	-	**4%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals EB	WB	NB	SB	Total	Bicycles EB	WB	NB	SB	Total	Pedestrians (Crossing Leg) E	W	N	S	Total
4:30 PM	**0**	**0**	**1**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**1**	**0**	***1***
4:45 PM	**2**	**0**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
5:00 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**0**	**0**	***1***
5:15 PM	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***	**0**	**2**	**0**	**0**	***2***
Peak Hour	**2**	**0**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**1**	**0**	***4***

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Count Summaries - All Vehicles

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	5	0	0	0	0	0	5	0	0	0	0	2	0	12	0
4:15 PM	0	0	0	5	0	0	0	0	0	4	0	0	0	0	1	0	10	0
4:30 PM	**0**	**0**	**0**	**12**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**20**	**0**
4:45 PM	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**56**
5:00 PM	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**60**
5:15 PM	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**69**
5:30 PM	0	0	0	3	0	0	0	0	0	9	0	0	0	0	0	0	12	61
5:45 PM	0	0	0	6	0	0	0	0	0	6	0	0	0	0	0	0	12	59
Count Total	0	0	0	58	0	0	0	0	0	54	0	0	0	0	3	0	115	
Pk Hr All	**0**	**0**	**0**	**39**	**0**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**69**	
Pk Hr HV	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	
Pk Hr HV%	**-**	**-**	**-**	**5%**	**-**	**-**	**-**	**-**	**-**	**3%**	**-**	**-**	**-**	**-**	**-**	**-**	**4%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
4:45 PM	**2**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	4	0	0	*4*
5:45 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	1	0	0	*1*
Count Total	2	0	1	2	*5*	0	0	0	0	*0*	0	8	1	0	*9*
Peak Hour	**2**	**0**	**1**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**3**	**1**	**0**	**4**

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Count Summaries - Heavy Vehicles

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**5**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	2	0	0	0	0	0	1	0	0	0	0	2	0	5	
Pk Hr Heavy	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	

Count Summaries - Bikes

Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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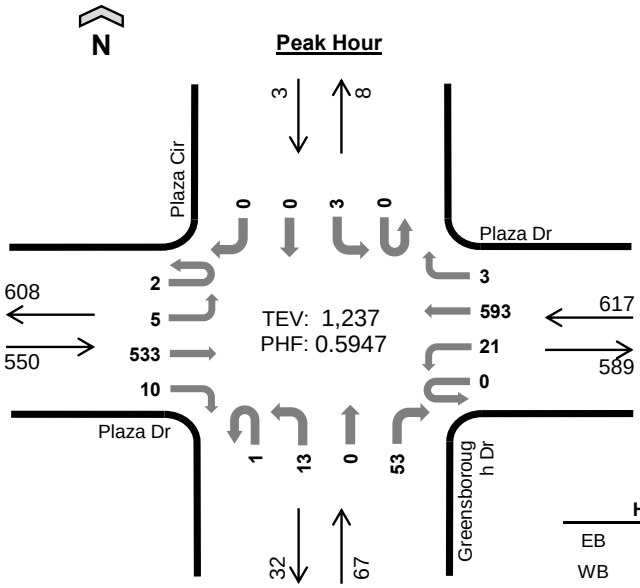
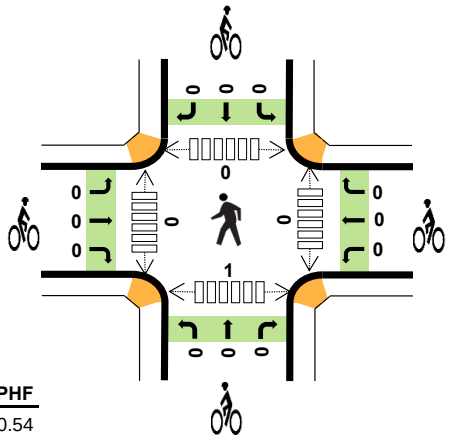
Greensborough Dr
Plaza Dr

Date: 1/22/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV%	PHF
EB	1%	0.54
WB	1%	0.65
NB	0%	0.58
SB	0%	0.38
TOTAL	1%	0.59

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Greensborough Dr Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	0	33	2	0	2	85	0	1	0	0	9	0	0	0	0	132	0
7:45 AM		0	1	154	3	0	8	229	1	0	4	0	14	0	2	0	0	416	0
8:00 AM		2	4	245	4	0	7	227	1	0	8	0	21	0	1	0	0	520	0
8:15 AM		0	0	101	1	0	4	52	1	0	1	0	9	0	0	0	0	169	1,237
Pk Hr	All	2	5	533	10	0	21	593	3	1	13	0	53	0	3	0	0	1,237	
	HV	0	0	3	0	0	0	6	1	0	0	0	0	0	0	0	0	10	
	HV%	0%	0%	1%	0%	-	0%	1%	33%	0%	0%	-	0%	-	0%	-	-	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:30 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	1	1	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	1	2	0	0	*3*	0	0	0	0	*0*	0	0	0	1	*1*
Peak Hour	3	7	0	0	*10*	0	0	0	0	*0*	0	0	0	1	*1*

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	36	0	0	6	46	0	0	3	0	16	0	1	0	0	108	0
7:15 AM	0	0	37	0	0	0	55	0	0	4	0	16	0	0	0	0	112	0
7:30 AM	**0**	**0**	**33**	**2**	**0**	**2**	**85**	**0**	**1**	**0**	**0**	**9**	**0**	**0**	**0**	**0**	**132**	**0**
7:45 AM	**0**	**1**	**154**	**3**	**0**	**8**	**229**	**1**	**0**	**4**	**0**	**14**	**0**	**2**	**0**	**0**	**416**	**768**
8:00 AM	**2**	**4**	**245**	**4**	**0**	**7**	**227**	**1**	**0**	**8**	**0**	**21**	**0**	**1**	**0**	**0**	**520**	**1,180**
8:15 AM	**0**	**0**	**101**	**1**	**0**	**4**	**52**	**1**	**0**	**1**	**0**	**9**	**0**	**0**	**0**	**0**	**169**	**1,237**
8:30 AM	0	0	33	0	1	3	46	2	0	2	1	7	0	0	1	0	96	1,201
8:45 AM	0	1	33	1	0	8	39	2	0	2	0	18	0	0	0	0	104	889
Count Total	2	6	672	11	1	38	779	7	1	24	1	110	0	4	1	0	1,657	
Pk Hr All	**2**	**5**	**533**	**10**	**0**	**21**	**593**	**3**	**1**	**13**	**0**	**53**	**0**	**3**	**0**	**0**	**1,237**	
Pk Hr HV	**0**	**0**	**3**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	
Pk Hr HV%	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**1%**	**33%**	**0%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	1	*1*
7:30 AM	**0**	**2**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**1**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**1**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
8:30 AM	0	2	0	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	1	6	0	0	*7*	0	0	0	0	*0*	0	0	0	1	*1*
Count Total	4	16	0	0	*20*	0	0	0	0	*0*	0	0	0	3	*3*
Peak Hour	**3**	**7**	**0**	**0**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**1**	**1**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
7:45 AM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**6**
8:00 AM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**8**
8:15 AM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**10**
8:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	10
8:45 AM	0	0	1	0	0	0	5	1	0	0	0	0	0	0	0	0	7	14
Count Total	0	0	4	0	0	0	13	3	0	0	0	0	0	0	0	0	20	
Pk Hr Heavy	**0**	**0**	**3**	**0**	**0**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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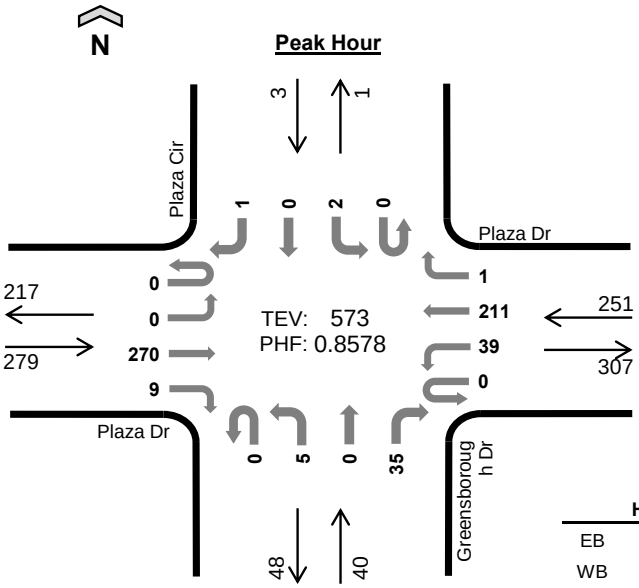
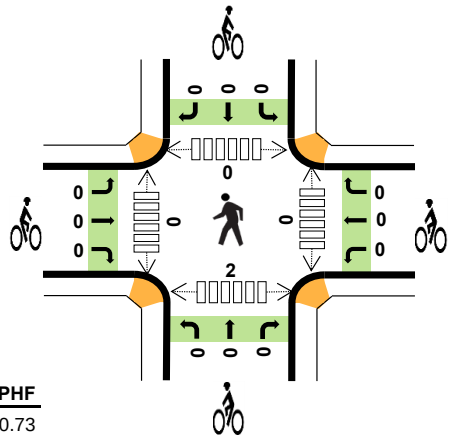
Greensborough Dr
Plaza Dr

Date: 1/22/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	1%	0.73
WB	2%	0.92
NB	0%	0.67
SB	0%	0.38
TOTAL	1%	0.86

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Greensborough Dr Northbound				Plaza Cir Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**0**	**93**	**2**	**0**	**13**	**47**	**1**	**0**	**2**	**0**	**9**	**0**	**0**	**0**	**0**	**167**	**0**
4:15 PM		**0**	**0**	**45**	**3**	**0**	**8**	**60**	**0**	**0**	**1**	**0**	**7**	**0**	**1**	**0**	**0**	**125**	**0**
4:30 PM		**0**	**0**	**76**	**1**	**0**	**11**	**48**	**0**	**0**	**2**	**0**	**13**	**0**	**0**	**0**	**0**	**151**	**0**
4:45 PM		**0**	**0**	**56**	**3**	**0**	**7**	**56**	**0**	**0**	**0**	**0**	**6**	**0**	**1**	**0**	**1**	**130**	**573**
Pk Hr	All	**0**	**0**	**270**	**9**	**0**	**39**	**211**	**1**	**0**	**5**	**0**	**35**	**0**	**2**	**0**	**1**	**573**	
	HV	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	
	HV%	-	-	**1%**	**0%**	-	**0%**	**2%**	**0%**	-	**0%**	-	**0%**	-	**0%**	-	**0%**	**1%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**0**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:15 PM	**1**	**1**	**0**	**0**	***2***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:30 PM	**0**	**1**	**0**	**0**	***1***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	**1**	**2**	**0**	**0**	***3***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***
Peak Hour	**3**	**4**	**0**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	***2***

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**93**	**2**	**0**	**13**	**47**	**1**	**0**	**2**	**0**	**9**	**0**	**0**	**0**	**0**	**167**	0
4:15 PM	**0**	**0**	**45**	**3**	**0**	**8**	**60**	**0**	**0**	**1**	**0**	**7**	**0**	**1**	**0**	**0**	**125**	**0**
4:30 PM	**0**	**0**	**76**	**1**	**0**	**11**	**48**	**0**	**0**	**2**	**0**	**13**	**0**	**0**	**0**	**0**	**151**	**0**
4:45 PM	**0**	**0**	**56**	**3**	**0**	**7**	**56**	**0**	**0**	**0**	**0**	**6**	**0**	**1**	**0**	**1**	**130**	**573**
5:00 PM	0	0	57	4	0	11	47	0	1	2	0	3	0	0	0	0	125	531
5:15 PM	0	0	46	2	0	12	57	1	0	3	0	9	0	0	0	0	130	536
5:30 PM	0	0	36	2	0	8	54	1	0	1	0	8	0	0	0	0	110	495
5:45 PM	0	0	35	1	0	7	35	0	0	1	0	8	0	0	0	0	87	452
Count Total	0	0	444	18	0	77	404	3	1	12	0	63	0	2	0	1	1,025	
Pk Hr All	**0**	**0**	**270**	**9**	**0**	**39**	**211**	**1**	**0**	**5**	**0**	**35**	**0**	**2**	**0**	**1**	**573**	
Pk Hr HV	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	
Pk Hr HV%	**-**	**-**	**1%**	**0%**	**-**	**0%**	**2%**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**-**	**0%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:15 PM	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**1**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**2**
5:00 PM	0	0	0	0	*0*	0	0	0	0	*0*	1	0	0	0	*1*
5:15 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	1	*1*
5:30 PM	0	1	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	1	0	0	0	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	4	5	0	0	*9*	0	0	0	0	*0*	1	0	0	3	*4*
Peak Hour	**3**	**4**	**0**	**0**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**2**	**2**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	0
4:15 PM	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
4:45 PM	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**7**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Count Total	0	0	4	0	0	1	4	0	0	0	0	0	0	0	0	0	9	
Pk Hr Heavy	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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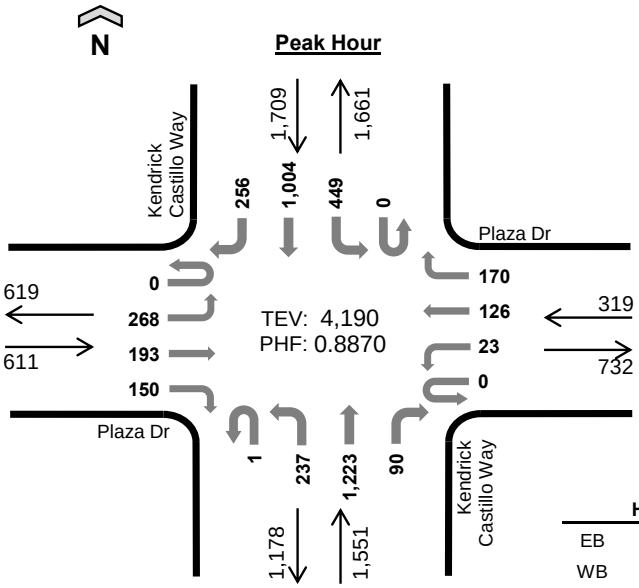
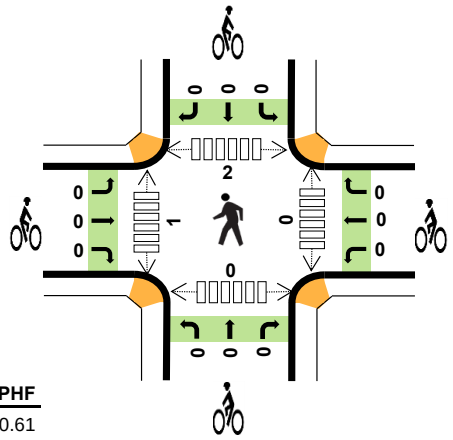
Kendrick Castillo Way
Plaza Dr

Date: 1/29/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV%	PHF
EB	0%	0.61
WB	2%	0.77
NB	1%	0.87
SB	2%	0.93
TOTAL	1%	0.89

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	38	21	7	0	3	13	49	1	25	395	26	0	133	242	40	993	0
7:45 AM		0	81	44	43	0	3	44	41	0	101	268	21	0	109	254	68	1,077	0
8:00 AM		0	98	82	71	0	9	53	41	0	85	265	20	0	121	227	109	1,181	0
8:15 AM		0	51	46	29	0	8	16	39	0	26	295	23	0	86	281	39	939	4,190
Pk Hr	All	0	268	193	150	0	23	126	170	1	237	1,223	90	0	449	1,004	256	4,190	
	HV	0	2	0	1	0	0	3	2	0	0	13	0	0	1	20	5	47	
	HV%	-	1%	0%	1%	-	0%	2%	1%	0%	0%	1%	0%	-	0%	2%	2%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:30 AM	1	0	4	5	*10*	0	0	0	0	*0*	0	1	2	0	*3*
7:45 AM	1	2	2	6	*11*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	1	2	3	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	1	4	11	*16*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	3	5	13	26	*47*	0	0	0	0	*0*	0	1	2	0	*3*

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	40	8	12	0	3	10	24	0	16	324	11	0	73	184	24	729	0
7:15 AM	0	65	21	18	0	3	8	45	0	21	335	20	0	125	214	37	912	0
7:30 AM	**0**	**38**	**21**	**7**	**0**	**3**	**13**	**49**	**1**	**25**	**395**	**26**	**0**	**133**	**242**	**40**	**993**	**0**
7:45 AM	**0**	**81**	**44**	**43**	**0**	**3**	**44**	**41**	**0**	**101**	**268**	**21**	**0**	**109**	**254**	**68**	**1,077**	**3,711**
8:00 AM	**0**	**98**	**82**	**71**	**0**	**9**	**53**	**41**	**0**	**85**	**265**	**20**	**0**	**121**	**227**	**109**	**1,181**	**4,163**
8:15 AM	**0**	**51**	**46**	**29**	**0**	**8**	**16**	**39**	**0**	**26**	**295**	**23**	**0**	**86**	**281**	**39**	**939**	**4,190**
8:30 AM	0	38	26	14	0	10	14	27	0	31	334	17	0	78	238	45	872	4,069
8:45 AM	0	32	28	22	0	10	10	24	0	15	305	30	0	103	244	31	854	3,846
Count Total	0	443	276	216	0	49	168	290	1	320	2,521	168	0	828	1,884	393	7,557	
Pk Hr All	**0**	**268**	**193**	**150**	**0**	**23**	**126**	**170**	**1**	**237**	**1,223**	**90**	**0**	**449**	**1,004**	**256**	**4,190**	
Pk Hr HV	**0**	**2**	**0**	**1**	**0**	**0**	**3**	**2**	**0**	**0**	**13**	**0**	**0**	**1**	**20**	**5**	**47**	
Pk Hr HV%	**-**	**1%**	**0%**	**1%**	**-**	**0%**	**2%**	**1%**	**0%**	**0%**	**1%**	**0%**	**-**	**0%**	**2%**	**2%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	0	3	3	*6*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	1	6	5	*12*	0	0	0	0	*0*	0	2	1	0	*3*
7:30 AM	**1**	**0**	**4**	**5**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**3**
7:45 AM	**1**	**2**	**2**	**6**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**1**	**2**	**3**	**4**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**1**	**4**	**11**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	1	0	4	11	*16*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	1	0	8	11	*20*	0	0	0	0	*0*	1	0	0	0	*1*
Count Total	5	6	34	56	*101*	0	0	0	0	*0*	1	3	3	0	*7*
Peak Hour	**3**	**5**	**13**	**26**	***47***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**2**	**0**	**3**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	1	1	1	6	0
7:15 AM	0	0	0	0	0	0	0	1	0	1	4	1	0	1	3	1	12	0
7:30 AM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**5**	**0**	**10**	**0**
7:45 AM	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**0**	**1**	**4**	**1**	**11**	**39**
8:00 AM	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**3**	**1**	**10**	**43**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**8**	**3**	**16**	**47**
8:30 AM	0	1	0	0	0	0	0	0	0	0	4	0	0	0	8	3	16	53
8:45 AM	0	0	0	1	0	0	0	0	0	0	7	1	0	0	7	4	20	62
Count Total	0	3	0	2	0	0	3	3	0	1	31	2	0	3	39	14	101	
Pk Hr Heavy	**0**	**2**	**0**	**1**	**0**	**0**	**3**	**2**	**0**	**0**	**13**	**0**	**0**	**1**	**20**	**5**	**47**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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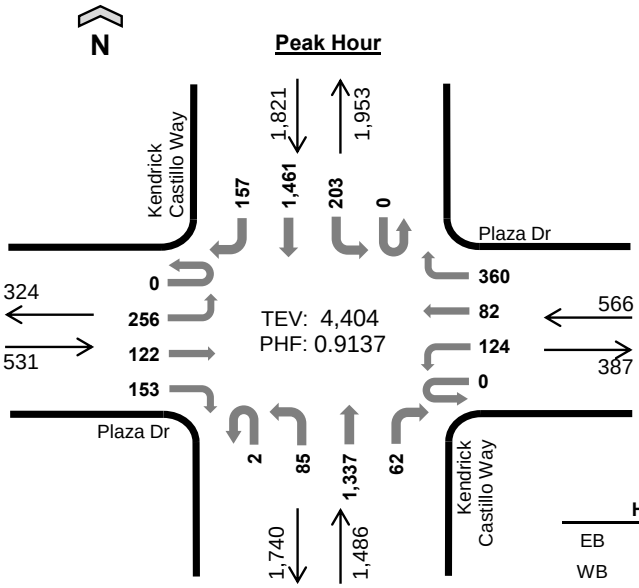
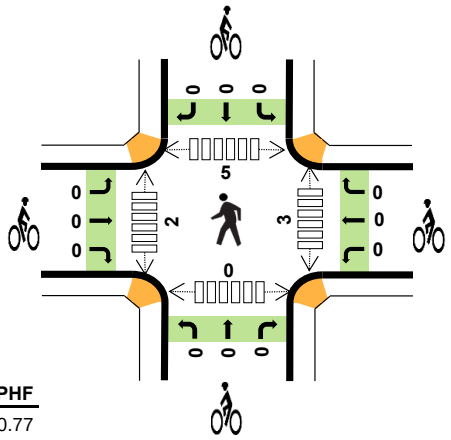
Kendrick Castillo Way
Plaza Dr

Date: 1/29/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:00 PM to 5:00 PM





	HV%	PHF
EB	1%	0.77
WB	1%	0.88
NB	1%	0.88
SB	0%	0.91
TOTAL	1%	0.91

Peak Hour Count Summaries

Peak Hour Interval Start		Plaza Dr Eastbound				Plaza Dr Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM		**0**	**71**	**47**	**54**	**0**	**32**	**23**	**105**	**0**	**23**	**383**	**14**	**0**	**56**	**363**	**34**	**1,205**	**0**
4:15 PM		**0**	**66**	**27**	**30**	**0**	**32**	**24**	**102**	**0**	**18**	**359**	**13**	**0**	**38**	**332**	**40**	**1,081**	**0**
4:30 PM		**0**	**60**	**25**	**38**	**0**	**28**	**18**	**82**	**1**	**30**	**312**	**15**	**0**	**58**	**391**	**49**	**1,107**	**0**
4:45 PM		**0**	**59**	**23**	**31**	**0**	**32**	**17**	**71**	**1**	**14**	**283**	**20**	**0**	**51**	**375**	**34**	**1,011**	**4,404**
Pk Hr	All	**0**	**256**	**122**	**153**	**0**	**124**	**82**	**360**	**2**	**85**	**1,337**	**62**	**0**	**203**	**1,461**	**157**	**4,404**	
	HV	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**15**	**2**	**0**	**1**	**6**	**1**	**34**	
	HV%	-	**1%**	**1%**	**0%**	-	**0%**	**0%**	**1%**	**0%**	**2%**	**1%**	**3%**	-	**0%**	**0%**	**1%**	**1%**	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**2**	**7**	**1**	***11***	**0**	**0**	**0**	**0**	***0***	**2**	**1**	**3**	**0**	***6***
4:15 PM	**2**	**1**	**4**	**3**	***10***	**0**	**0**	**0**	**0**	***0***	**0**	**1**	**1**	**0**	***2***
4:30 PM	**0**	**0**	**5**	**2**	***7***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	***0***
4:45 PM	**1**	**0**	**3**	**2**	***6***	**0**	**0**	**0**	**0**	***0***	**1**	**0**	**1**	**0**	***2***
Peak Hour	**4**	**3**	**19**	**8**	***34***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**5**	**0**	***10***

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Count Summaries - All Vehicles

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**71**	**47**	**54**	**0**	**32**	**23**	**105**	**0**	**23**	**383**	**14**	**0**	**56**	**363**	**34**	**1,205**	0
4:15 PM	**0**	**66**	**27**	**30**	**0**	**32**	**24**	**102**	**0**	**18**	**359**	**13**	**0**	**38**	**332**	**40**	**1,081**	**0**
4:30 PM	**0**	**60**	**25**	**38**	**0**	**28**	**18**	**82**	**1**	**30**	**312**	**15**	**0**	**58**	**391**	**49**	**1,107**	**0**
4:45 PM	**0**	**59**	**23**	**31**	**0**	**32**	**17**	**71**	**1**	**14**	**283**	**20**	**0**	**51**	**375**	**34**	**1,011**	**4,404**
5:00 PM	1	60	32	23	0	21	18	102	1	22	289	13	0	58	399	49	1,088	4,287
5:15 PM	0	47	17	26	0	37	35	65	1	17	231	22	0	46	373	45	962	4,168
5:30 PM	0	40	22	25	0	39	17	69	2	27	174	19	0	43	376	38	891	3,952
5:45 PM	0	39	15	11	0	25	10	70	0	18	189	16	0	41	295	29	758	3,699
Count Total	1	442	208	238	0	246	162	666	6	169	2,220	132	0	391	2,904	318	8,103	
Pk Hr All	**0**	**256**	**122**	**153**	**0**	**124**	**82**	**360**	**2**	**85**	**1,337**	**62**	**0**	**203**	**1,461**	**157**	**4,404**	
Pk Hr HV	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**15**	**2**	**0**	**1**	**6**	**1**	**34**	
Pk Hr HV%	**-**	**1%**	**1%**	**0%**	**-**	**0%**	**0%**	**1%**	**0%**	**2%**	**1%**	**3%**	**-**	**0%**	**0%**	**1%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	**1**	**2**	**7**	**1**	**11**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**3**	**0**	**6**
4:15 PM	**2**	**1**	**4**	**3**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**2**
4:30 PM	**0**	**0**	**5**	**2**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**1**	**0**	**3**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**
5:00 PM	1	1	4	2	*8*	0	0	0	0	*0*	0	0	1	0	*1*
5:15 PM	3	0	1	4	*8*	0	0	0	0	*0*	0	1	0	0	*1*
5:30 PM	1	1	2	3	*7*	0	0	0	0	*0*	1	1	0	0	*2*
5:45 PM	0	0	0	1	*1*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	9	5	26	18	*58*	0	0	0	0	*0*	4	4	6	0	*14*
Peak Hour	**4**	**3**	**19**	**8**	***34***	**0**	**0**	**0**	**0**	***0***	**3**	**2**	**5**	**0**	**10**

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Count Summaries - Heavy Vehicles

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**4**	**2**	**0**	**1**	**0**	**0**	**11**	0
4:15 PM	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**3**	**0**	**0**	**0**	**2**	**1**	**10**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**2**	**0**	**7**	**0**
4:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**6**	**34**
5:00 PM	0	0	1	0	0	0	1	0	0	0	4	0	0	0	2	0	8	31
5:15 PM	0	2	1	0	0	0	0	0	0	0	1	0	0	0	4	0	8	29
5:30 PM	0	0	1	0	0	1	0	0	0	0	2	0	0	0	3	0	7	29
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	24
Count Total	0	5	4	0	0	1	1	3	0	2	22	2	0	1	16	1	58	
Pk Hr Heavy	**0**	**3**	**1**	**0**	**0**	**0**	**0**	**3**	**0**	**2**	**15**	**2**	**0**	**1**	**6**	**1**	**34**	

Count Summaries - Bikes

Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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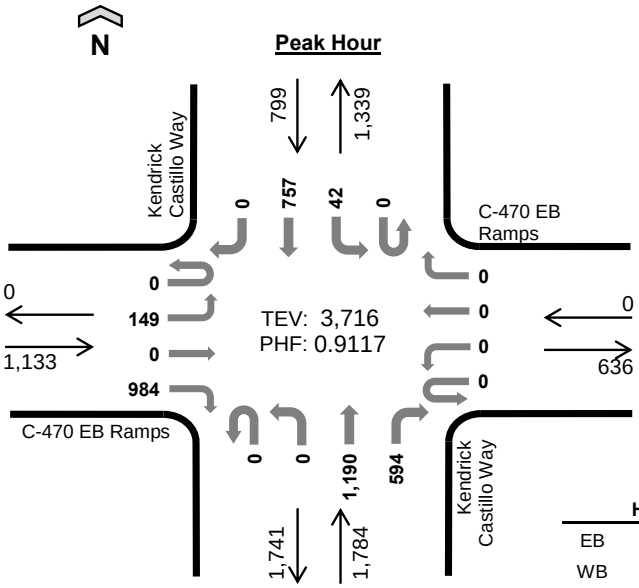
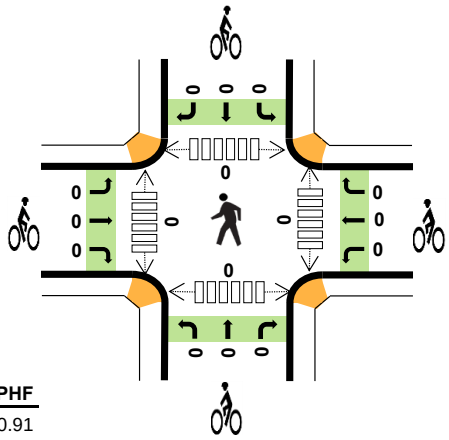
Kendrick Castillo Way
C-470 EB Ramps

Date: 1/22/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:15 AM to 8:15 AM





	HV%	PHF
EB	1%	0.91
WB	--	--
NB	1%	0.92
SB	2%	0.87
TOTAL	1%	0.91

Peak Hour Count Summaries

Peak Hour Interval Start		C-470 EB Ramps Eastbound				C-470 EB Ramps Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:15 AM		0	36	0	209	0	0	0	0	0	0	286	160	0	7	145	0	843	0
7:30 AM		0	37	0	236	0	0	0	0	0	0	303	150	0	20	182	0	928	0
7:45 AM		0	44	0	261	0	0	0	0	0	0	335	150	0	9	220	0	1,019	0
8:00 AM		0	32	0	278	0	0	0	0	0	0	266	134	0	6	210	0	926	3,716
Pk Hr	All	0	149	0	984	0	0	0	0	0	0	1,190	594	0	42	757	0	3,716	
	HV	0	2	0	10	0	0	0	0	0	0	7	3	0	7	12	0	41	
	HV%	-	1%	-	1%	-	-	-	-	-	-	1%	1%	-	17%	2%	-	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:15 AM	4	0	1	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	1	0	0	7	*8*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	4	0	6	5	*15*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	3	0	3	4	*10*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	12	0	10	19	*41*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	19	0	155	0	0	0	0	0	0	239	151	0	12	149	0	725	0
7:15 AM	**0**	**36**	**0**	**209**	**0**	**0**	**0**	**0**	**0**	**0**	**286**	**160**	**0**	**7**	**145**	**0**	**843**	**0**
7:30 AM	**0**	**37**	**0**	**236**	**0**	**0**	**0**	**0**	**0**	**0**	**303**	**150**	**0**	**20**	**182**	**0**	**928**	**0**
7:45 AM	**0**	**44**	**0**	**261**	**0**	**0**	**0**	**0**	**0**	**0**	**335**	**150**	**0**	**9**	**220**	**0**	**1,019**	**3,515**
8:00 AM	**0**	**32**	**0**	**278**	**0**	**0**	**0**	**0**	**0**	**0**	**266**	**134**	**0**	**6**	**210**	**0**	**926**	**3,716**
8:15 AM	0	30	0	202	0	0	0	0	0	0	219	143	0	13	174	0	781	3,654
8:30 AM	0	21	0	187	0	0	0	0	0	0	211	151	0	16	176	0	762	3,488
8:45 AM	0	28	0	218	0	0	0	0	0	0	214	143	0	16	159	0	778	3,247
Count Total	0	247	0	1,746	0	0	0	0	0	0	2,073	1,182	0	99	1,415	0	6,762	
Pk Hr All	**0**	**149**	**0**	**984**	**0**	**0**	**0**	**0**	**0**	**0**	**1,190**	**594**	**0**	**42**	**757**	**0**	**3,716**	
Pk Hr HV	**0**	**2**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**3**	**0**	**7**	**12**	**0**	**41**	
Pk Hr HV%	**-**	**1%**	**-**	**1%**	**-**	**-**	**-**	**-**	**-**	**-**	**1%**	**1%**	**-**	**17%**	**2%**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	1	0	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	**4**	**0**	**1**	**3**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:30 AM	**1**	**0**	**0**	**7**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**4**	**0**	**6**	**5**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**3**	**0**	**3**	**4**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	4	0	5	4	*13*	0	0	0	0	*0*	0	0	0	0	*0*
8:30 AM	5	0	7	3	*15*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	6	0	8	9	*23*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	28	0	30	38	*96*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**12**	**0**	**10**	**19**	***41***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	4	0
7:15 AM	**0**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**2**	**0**	**8**	**0**
7:30 AM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**8**	**0**
7:45 AM	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**4**	**2**	**0**	**1**	**4**	**0**	**15**	**35**
8:00 AM	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**1**	**3**	**0**	**10**	**41**
8:15 AM	0	0	0	4	0	0	0	0	0	0	3	2	0	1	3	0	13	46
8:30 AM	0	0	0	5	0	0	0	0	0	0	3	4	0	0	3	0	15	53
8:45 AM	0	0	0	6	0	0	0	0	0	0	5	3	0	0	9	0	23	61
Count Total	0	2	0	26	0	0	0	0	0	0	18	12	0	8	30	0	96	
Pk Hr Heavy	**0**	**2**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**3**	**0**	**7**	**12**	**0**	**41**	

Count Summaries - Bikes

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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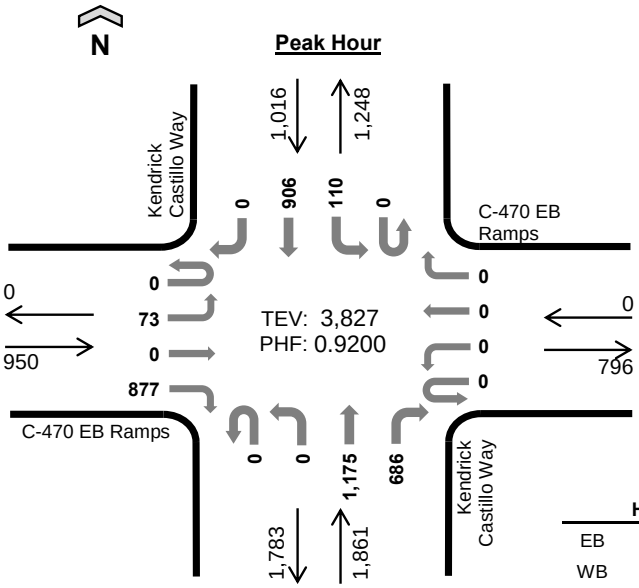
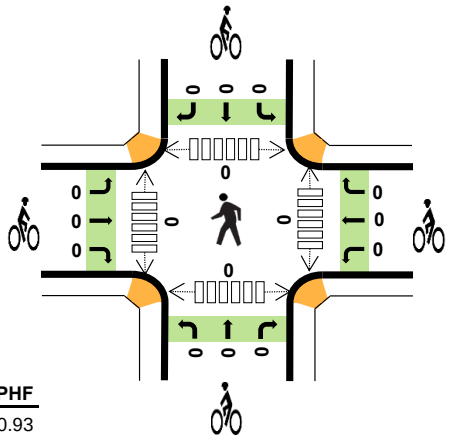
Kendrick Castillo Way
C-470 EB Ramps

Date: 1/22/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM





	HV%	PHF
EB	1%	0.93
WB	--	--
NB	0%	0.88
SB	1%	0.90
TOTAL	1%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start		C-470 EB Ramps Eastbound				C-470 EB Ramps Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:30 PM		0	20	0	236	0	0	0	0	0	0	287	172	0	19	198	0	932	0
4:45 PM		0	13	0	212	0	0	0	0	0	0	256	156	0	25	220	0	882	0
5:00 PM		0	19	0	210	0	0	0	0	0	0	324	206	0	44	237	0	1,040	0
5:15 PM		0	21	0	219	0	0	0	0	0	0	308	152	0	22	251	0	973	3,827
Pk Hr	All	0	73	0	877	0	0	0	0	0	0	1,175	686	0	110	906	0	3,827	
	HV	0	4	0	3	0	0	0	0	0	0	5	3	0	1	9	0	25	
	HV%	-	5%	-	0%	-	-	-	-	-	-	0%	0%	-	1%	1%	-	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:30 PM	2	0	1	2	*5*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	1	0	3	4	*8*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	2	0	2	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
5:15 PM	2	0	2	2	*6*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	7	0	8	10	*25*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	13	0	178	0	0	0	0	0	0	274	174	0	41	194	0	874	0
4:15 PM	0	21	0	223	0	0	0	0	0	0	282	195	0	27	204	0	952	0
4:30 PM	**0**	**20**	**0**	**236**	**0**	**0**	**0**	**0**	**0**	**0**	**287**	**172**	**0**	**19**	**198**	**0**	**932**	**0**
4:45 PM	**0**	**13**	**0**	**212**	**0**	**0**	**0**	**0**	**0**	**0**	**256**	**156**	**0**	**25**	**220**	**0**	**882**	**3,640**
5:00 PM	**0**	**19**	**0**	**210**	**0**	**0**	**0**	**0**	**0**	**0**	**324**	**206**	**0**	**44**	**237**	**0**	**1,040**	**3,806**
5:15 PM	**0**	**21**	**0**	**219**	**0**	**0**	**0**	**0**	**0**	**0**	**308**	**152**	**0**	**22**	**251**	**0**	**973**	**3,827**
5:30 PM	0	6	0	205	0	0	0	0	0	0	219	144	0	15	249	0	838	3,733
5:45 PM	0	7	0	199	0	0	0	0	0	0	204	135	0	18	224	0	787	3,638
Count Total	0	120	0	1,682	0	0	0	0	0	0	2,154	1,334	0	211	1,777	0	7,278	
Pk Hr All	**0**	**73**	**0**	**877**	**0**	**0**	**0**	**0**	**0**	**0**	**1,175**	**686**	**0**	**110**	**906**	**0**	**3,827**	
Pk Hr HV	**0**	**4**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**3**	**0**	**1**	**9**	**0**	**25**	
Pk Hr HV%	**-**	**5%**	**-**	**0%**	**-**	**-**	**-**	**-**	**-**	**-**	**0%**	**0%**	**-**	**1%**	**1%**	**-**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	2	0	3	4	*9*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	4	0	7	2	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	**2**	**0**	**1**	**2**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**1**	**0**	**3**	**4**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**2**	**0**	**2**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**2**	**0**	**2**	**2**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	*0*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	0	1	1	*2*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	13	0	19	17	*49*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**7**	**0**	**8**	**10**	***25***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	3	0	0	4	0	9	0
4:15 PM	0	4	0	0	0	0	0	0	0	0	4	3	0	1	1	0	13	0
4:30 PM	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**5**	**0**
4:45 PM	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**0**	**4**	**0**	**8**	**35**
5:00 PM	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**6**	**32**
5:15 PM	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**2**	**0**	**6**	**25**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	14
Count Total	0	10	0	3	0	0	0	0	0	0	10	9	0	2	15	0	49	
Pk Hr Heavy	**0**	**4**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**3**	**0**	**1**	**9**	**0**	**25**	

Count Summaries - Bikes

Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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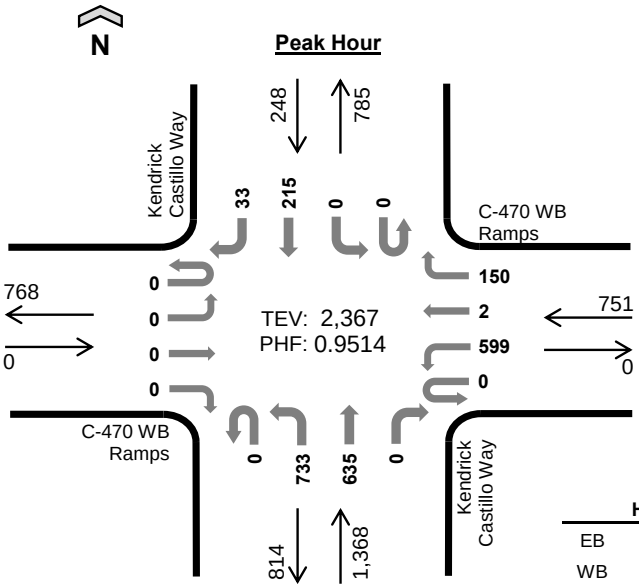
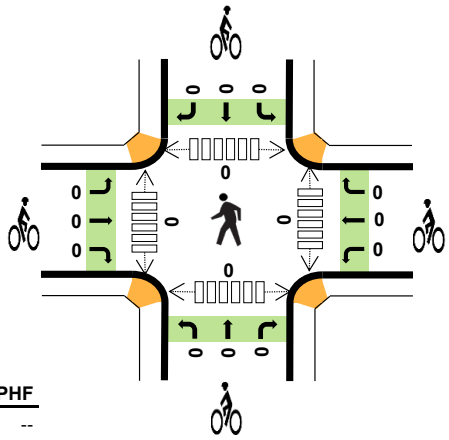
Kendrick Castillo Way
C-470 WB Ramps

Date: 1/29/2025
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM





	HV%	PHF
EB	--	--
WB	2%	0.82
NB	1%	0.93
SB	2%	0.79
TOTAL	1%	0.95

Peak Hour Count Summaries

Peak Hour Interval Start		C-470 WB Ramps Eastbound				C-470 WB Ramps Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
		UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:30 AM		0	0	0	0	0	130	0	29	0	221	148	0	0	0	41	7	576	0
7:45 AM		0	0	0	0	0	182	0	46	0	167	171	0	0	0	50	6	622	0
8:00 AM		0	0	0	0	0	141	2	37	0	186	164	0	0	0	65	13	608	0
8:15 AM		0	0	0	0	0	146	0	38	0	159	152	0	0	0	59	7	561	2,367
Pk Hr	All	0	0	0	0	0	599	2	150	0	733	635	0	0	0	215	33	2,367	
	HV	0	0	0	0	0	15	0	1	0	3	5	0	0	0	4	2	30	
	HV%	-	-	-	-	-	3%	0%	1%	-	0%	1%	-	-	-	2%	6%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:30 AM	0	3	1	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:45 AM	0	4	2	0	*6*	0	0	0	0	*0*	0	0	0	0	*0*
8:00 AM	0	3	2	3	*8*	0	0	0	0	*0*	0	0	0	0	*0*
8:15 AM	0	6	3	2	*11*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	16	8	6	*30*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	106	0	17	0	180	71	0	0	0	37	13	424	0
7:15 AM	0	0	0	0	0	155	0	25	0	194	97	0	0	0	47	9	527	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**130**	**0**	**29**	**0**	**221**	**148**	**0**	**0**	**0**	**41**	**7**	**576**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**182**	**0**	**46**	**0**	**167**	**171**	**0**	**0**	**0**	**50**	**6**	**622**	**2,149**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**141**	**2**	**37**	**0**	**186**	**164**	**0**	**0**	**0**	**65**	**13**	**608**	**2,333**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**146**	**0**	**38**	**0**	**159**	**152**	**0**	**0**	**0**	**59**	**7**	**561**	**2,367**
8:30 AM	0	0	0	0	0	127	1	41	0	180	155	0	0	0	58	13	575	2,366
8:45 AM	0	0	0	0	0	119	0	44	2	127	151	0	1	0	47	27	518	2,262
Count Total	0	0	0	0	0	1,106	3	277	2	1,414	1,109	0	1	0	404	95	4,411	
Pk Hr All	**0**	**0**	**0**	**0**	**0**	**599**	**2**	**150**	**0**	**733**	**635**	**0**	**0**	**0**	**215**	**33**	**2,367**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**1**	**0**	**3**	**5**	**0**	**0**	**0**	**4**	**2**	**30**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**-**	**3%**	**0%**	**1%**	**-**	**0%**	**1%**	**-**	**-**	**-**	**2%**	**6%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
7:00 AM	0	1	0	3	*4*	0	0	0	0	*0*	0	0	0	0	*0*
7:15 AM	0	3	1	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
7:30 AM	**0**	**3**	**1**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**4**	**2**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**3**	**2**	**3**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**6**	**3**	**2**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	8	2	3	*13*	0	0	0	0	*0*	0	0	0	0	*0*
8:45 AM	0	7	4	1	*12*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	35	15	14	*64*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	**0**	**16**	**8**	**6**	***30***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	4	0
7:15 AM	0	0	0	0	0	1	0	2	0	1	0	0	0	0	1	0	5	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**5**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**20**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**1**	**0**	**0**	**2**	**0**	**0**	**0**	**1**	**2**	**8**	**24**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**11**	**30**
8:30 AM	0	0	0	0	0	8	0	0	0	1	1	0	0	0	2	1	13	38
8:45 AM	0	0	0	0	0	7	0	0	0	4	0	0	0	0	1	0	12	44
Count Total	0	0	0	0	0	32	0	3	0	9	6	0	0	0	9	5	64	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**1**	**0**	**3**	**5**	**0**	**0**	**0**	**4**	**2**	**30**	

Count Summaries - Bikes

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:00 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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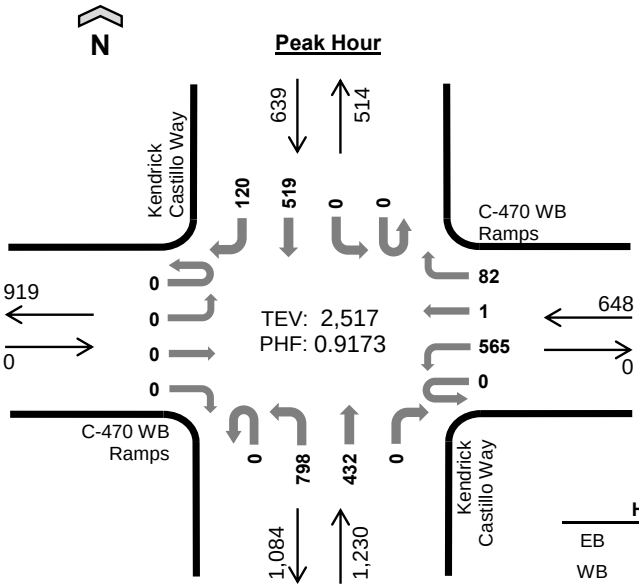
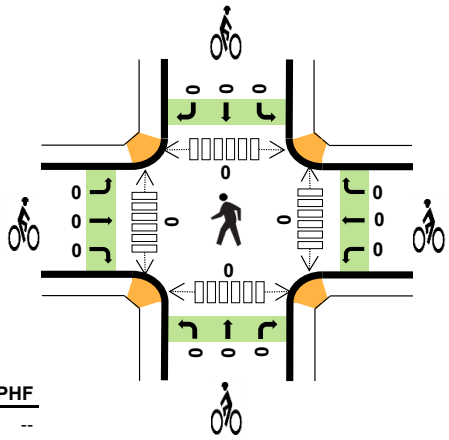
Kendrick Castillo Way
C-470 WB Ramps

Date: 1/29/2025
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:15 PM to 5:15 PM





	HV%	PHF
EB	--	--
WB	2%	0.89
NB	1%	0.89
SB	1%	0.88
TOTAL	1%	0.92

Peak Hour Count Summaries

Peak Hour Interval Start	C-470 WB Ramps Eastbound				C-470 WB Ramps Westbound				Kendrick Castillo Way Northbound				Kendrick Castillo Way Southbound				15-min Total	Rolling Hour Total
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:15 PM	0	0	0	0	0	131	0	25	0	187	116	0	0	0	137	20	616	0
4:30 PM	0	0	0	0	0	130	0	19	0	207	105	0	0	0	124	28	613	0
4:45 PM	0	0	0	0	0	163	1	19	0	161	109	0	0	0	124	25	602	0
5:00 PM	0	0	0	0	0	141	0	19	0	243	102	0	0	0	134	47	686	2,517
Pk Hr All	0	0	0	0	0	565	1	82	0	798	432	0	0	0	519	120	2,517	
Pk Hr HV	0	0	0	0	0	9	0	2	0	3	7	0	0	0	2	4	27	
Pk Hr HV%	-	-	-	-	-	2%	0%	2%	-	0%	2%	-	-	-	0%	3%	1%	

Note: For complete count summary (all intervals), see following pages.
*** Heavy Vehicle Classifications include FHWA Classes 4-13.*
*** Count Summaries include heavy vehicles, but exclude bicycles in overall count.*

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:15 PM	0	2	3	1	*6*	0	0	0	0	*0*	0	0	0	0	*0*
4:30 PM	0	7	4	2	*13*	0	0	0	0	*0*	0	0	0	0	*0*
4:45 PM	0	1	0	2	*3*	0	0	0	0	*0*	0	0	0	0	*0*
5:00 PM	0	1	3	1	*5*	0	0	0	0	*0*	0	0	0	0	*0*
Peak Hour	0	11	10	6	*27*	0	0	0	0	*0*	0	0	0	0	*0*

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Count Summaries - All Vehicles

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	132	0	16	0	230	82	0	0	0	126	29	615	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**131**	**0**	**25**	**0**	**187**	**116**	**0**	**0**	**0**	**137**	**20**	**616**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**130**	**0**	**19**	**0**	**207**	**105**	**0**	**0**	**0**	**124**	**28**	**613**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**163**	**1**	**19**	**0**	**161**	**109**	**0**	**0**	**0**	**124**	**25**	**602**	**2,446**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**141**	**0**	**19**	**0**	**243**	**102**	**0**	**0**	**0**	**134**	**47**	**686**	**2,517**
5:15 PM	0	0	0	0	0	165	0	22	0	170	92	0	0	0	136	24	609	2,510
5:30 PM	0	0	0	0	0	113	2	13	0	169	104	0	0	0	107	42	550	2,447
5:45 PM	0	0	0	0	0	131	0	25	0	110	74	0	0	0	115	16	471	2,316
Count Total	0	0	0	0	0	1,106	3	158	0	1,477	784	0	0	0	1,003	231	4,762	
Pk Hr All	**0**	**0**	**0**	**0**	**0**	**565**	**1**	**82**	**0**	**798**	**432**	**0**	**0**	**0**	**519**	**120**	**2,517**	
Pk Hr HV	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**2**	**0**	**3**	**7**	**0**	**0**	**0**	**2**	**4**	**27**	
Pk Hr HV%	**-**	**-**	**-**	**-**	**-**	**2%**	**0%**	**2%**	**-**	**0%**	**2%**	**-**	**-**	**-**	**0%**	**3%**	**1%**	

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	E	W	N	S	Total
4:00 PM	0	0	2	0	*2*	0	0	0	0	*0*	0	0	0	0	*0*
4:15 PM	**0**	**2**	**3**	**1**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**7**	**4**	**2**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**1**	**0**	**2**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**1**	**3**	**1**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	0	5	1	0	*6*	0	0	0	0	*0*	0	1	0	0	*1*
5:30 PM	0	1	2	1	*4*	0	0	0	0	*0*	0	0	0	0	*0*
5:45 PM	0	2	0	1	*3*	0	0	0	0	*0*	0	0	0	0	*0*
Count Total	0	19	15	8	*42*	0	0	0	0	*0*	0	1	0	0	*1*
Peak Hour	**0**	**11**	**10**	**6**	***27***	**0**	**0**	**0**	**0**	***0***	**0**	**0**	**0**	**0**	**0**

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Count Summaries - Heavy Vehicles

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**6**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**2**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**2**	**13**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**3**	**24**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**1**	**5**	**27**
5:15 PM	0	0	0	0	0	4	0	1	0	1	0	0	0	0	0	0	6	27
5:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	4	18
5:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	3	18
Count Total	0	0	0	0	0	16	0	3	0	7	8	0	0	0	4	4	42	
Pk Hr Heavy	**0**	**0**	**0**	**0**	**0**	**9**	**0**	**2**	**0**	**3**	**7**	**0**	**0**	**0**	**2**	**4**	**27**	

Count Summaries - Bikes

Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:30 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
4:45 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pk Hr Bike	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	

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Appendix C: Future Traffic Projections

DRCOG Traffic Projections: Lucent Station

Location	2020	2050	Growth Factor	Annual Growth
County Line E/O Erickson Dr	11,000	12,000	1.09	0.29%
Kendrick Castillo Way N/O Plaza Dr	41,000	43,000	1.05	0.16%
Total	52,000	55,000	1.06	**0.19%**

Appendix D: Trip Generation Worksheets

Kimley»Horn

Project	Lucent Station				
Subject	Trip Generation for Multifamily Housing (Low-Rise)				
Designed by	JMM (EVT)	*Date*	March 10, 2025	*Job No.*	296078001
Checked by		*Date*		*Sheet No.*	1 *of* 1

TRIP GENERATION MANUAL TECHNIQUES

ITE Trip Generation Manual 11th Edition, Average Rate Equations

Land Use Code - Multifamily Housing (Low-Rise) (220)

Independent Variable - Dwelling Units (X)

X = 400
T = Average Vehicle Trip Ends

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (200 Series Page 255)

Average Weekday
(T) = 0.40 (X)
(T) = 0.40 * (400.0)

Directional Distribution: 24% ent. 76% exit.
T = 160 Average Vehicle Trip Ends
38 entering 122 exiting

38 + 122 = 160

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (200 Series Page 256)

Average Weekday
(T) = 0.51(X)
(T) = 0.51 * (400.0)

Directional Distribution: 63% ent. 37% exit.
T = 204 Average Vehicle Trip Ends
129 entering 75 exiting

129 + 75 = 204

Weekday (200 Series Page 254)

Average Weekday
(T) = 6.74 (X)
(T) = 6.74 * (400.0)

Directional Distribution: 50% entering, 50% exiting
T = 2696 Average Vehicle Trip Ends
1348 entering 1348 exiting

1348 + 1348 = 2696

Appendix E: Intersection Analysis Worksheets

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	73	4	90	0	42	35	101	99	1
Future Vol, veh/h	0	0	0	73	4	90	0	42	35	101	99	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	2	2	2
Mvmt Flow	0	0	0	89	5	110	0	51	43	123	121	1
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	0	9	9	9.3
HCM LOS	-	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	55%	100%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	45%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	77	0	0	73	4	90	101	99	1
LT Vol	0	0	0	73	0	0	101	0	0
Through Vol	42	0	0	0	4	0	0	99	0
RT Vol	35	0	0	0	0	90	0	0	1
Lane Flow Rate	94	0	0	89	5	110	123	121	1
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.139	0	0	0.148	0.007	0.145	0.193	0.172	0.002
Departure Headway (Hd)	5.327	5.87	5.87	5.972	5.471	4.769	5.641	5.139	4.437
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	670	0	0	599	653	750	636	697	804
Service Time	3.085	3.645	3.645	3.718	3.217	2.515	3.383	2.881	2.179
HCM Lane V/C Ratio	0.14	0	0	0.149	0.008	0.147	0.193	0.174	0.001
HCM Control Delay, s/veh	9	8.6	8.6	9.8	8.3	8.3	9.7	9	7.2
HCM Lane LOS	A	N	N	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0	0	0.5	0	0.5	0.7	0.6	0

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	2	0	44	3	108	0	92	77	78	67	0
Future Vol, veh/h	4	2	0	44	3	108	0	92	77	78	67	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	2	0	47	3	115	0	98	82	83	71	0
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	8.9	8.6	9.4	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	0%	100%	0%	100%	0%	0%	100%	100%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	169	4	2	44	3	108	78	67	0
LT Vol	0	4	0	44	0	0	78	0	0
Through Vol	92	0	2	0	3	0	0	67	0
RT Vol	77	0	0	0	0	108	0	0	0
Lane Flow Rate	180	4	2	47	3	115	83	71	0
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.249	0.007	0.003	0.078	0.005	0.152	0.129	0.101	0
Departure Headway (Hd)	4.986	6.289	5.784	5.975	5.472	4.767	5.598	5.096	5.096
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	719	566	615	599	653	750	640	702	0
Service Time	2.728	4.058	3.553	3.721	3.217	2.512	3.336	2.835	2.835
HCM Lane V/C Ratio	0.25	0.007	0.003	0.078	0.005	0.153	0.13	0.101	0
HCM Control Delay, s/veh	9.4	9.1	8.6	9.2	8.2	8.4	9.2	8.4	7.8
HCM Lane LOS	A	A	A	A	A	A	A	A	N
HCM 95th-tile Q	1	0	0	0.3	0	0.5	0.4	0.3	0

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	75	4	118	0	43	36	112	102	1
Future Vol, veh/h	0	0	0	75	4	118	0	43	36	112	102	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	2	2	2
Mvmt Flow	0	0	0	91	5	144	0	52	44	137	124	1
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	0	9.2	9.2	9.6
HCM LOS	-	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	100%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	0	0	75	4	118	112	102	1
LT Vol	0	0	0	75	0	0	112	0	0
Through Vol	43	0	0	0	4	0	0	102	0
RT Vol	36	0	0	0	0	118	0	0	1
Lane Flow Rate	96	0	0	91	5	144	137	124	1
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.146	0	0	0.153	0.007	0.193	0.218	0.181	0.002
Departure Headway (Hd)	5.461	6.005	6.005	6.035	5.534	4.832	5.735	5.233	4.53
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	652	0	0	593	644	738	624	683	786
Service Time	3.232	3.795	3.795	3.792	3.29	2.588	3.485	2.983	2.28
HCM Lane V/C Ratio	0.147	0	0	0.153	0.008	0.195	0.22	0.182	0.001
HCM Control Delay, s/veh	9.2	8.8	8.8	9.9	8.3	8.8	10.1	9.1	7.3
HCM Lane LOS	A	N	N	A	A	A	B	A	A
HCM 95th-tile Q	0.5	0	0	0.5	0	0.7	0.8	0.7	0

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	2	0	45	3	124	0	95	79	100	69	0
Future Vol, veh/h	4	2	0	45	3	124	0	95	79	100	69	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	2	0	48	3	132	0	101	84	106	73	0
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	9.1	8.9	9.7	9.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	55%	0%	100%	0%	100%	0%	0%	100%	100%
Vol Right, %	45%	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	4	2	45	3	124	100	69	0
LT Vol	0	4	0	45	0	0	100	0	0
Through Vol	95	0	2	0	3	0	0	69	0
RT Vol	79	0	0	0	0	124	0	0	0
Lane Flow Rate	185	4	2	48	3	132	106	73	0
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.262	0.008	0.004	0.081	0.005	0.178	0.167	0.105	0
Departure Headway (Hd)	5.097	6.431	5.925	6.076	5.572	4.866	5.655	5.154	5.154
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	702	553	600	588	640	733	633	693	0
Service Time	2.85	4.211	3.704	3.83	3.325	2.619	3.405	2.904	2.904
HCM Lane V/C Ratio	0.264	0.007	0.003	0.082	0.005	0.18	0.167	0.105	0
HCM Control Delay, s/veh	9.7	9.3	8.7	9.4	8.4	8.7	9.5	8.5	7.9
HCM Lane LOS	A	A	A	A	A	A	A	A	N
HCM 95th-tile Q	1	0	0	0.3	0	0.6	0.6	0.4	0

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	75	4	161	0	43	36	125	102	1
Future Vol, veh/h	0	0	0	75	4	161	0	43	36	125	102	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	2	2	2
Mvmt Flow	0	0	0	91	5	196	0	52	44	152	124	1
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	0	9.6	9.4	10
HCM LOS	-	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	100%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	79	0	0	75	4	161	125	102	1
LT Vol	0	0	0	75	0	0	125	0	0
Through Vol	43	0	0	0	4	0	0	102	0
RT Vol	36	0	0	0	0	161	0	0	1
Lane Flow Rate	96	0	0	91	5	196	152	124	1
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.151	0	0	0.155	0.008	0.267	0.248	0.185	0.002
Departure Headway (Hd)	5.634	6.276	6.276	6.096	5.595	4.893	5.859	5.357	4.653
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	630	0	0	585	636	728	610	665	762
Service Time	3.427	3.976	3.976	3.861	3.36	2.657	3.628	3.125	2.422
HCM Lane V/C Ratio	0.152	0	0	0.156	0.008	0.269	0.249	0.186	0.001
HCM Control Delay, s/veh	9.4	9	9	10	8.4	9.5	10.6	9.4	7.4
HCM Lane LOS	A	N	N	A	A	A	B	A	A
HCM 95th-tile Q	0.5	0	0	0.5	0	1.1	1	0.7	0

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	2	0	45	3	150	0	95	79	145	69	0
Future Vol, veh/h	4	2	0	45	3	150	0	95	79	145	69	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	4	2	0	48	3	160	0	101	84	154	73	0
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	9.3	9.3	10	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	55%	0%	100%	0%	100%	0%	0%	100%	100%
Vol Right, %	45%	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	174	4	2	45	3	150	145	69	0
LT Vol	0	4	0	45	0	0	145	0	0
Through Vol	95	0	2	0	3	0	0	69	0
RT Vol	79	0	0	0	0	150	0	0	0
Lane Flow Rate	185	4	2	48	3	160	154	73	0
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.272	0.008	0.004	0.083	0.005	0.222	0.246	0.107	0
Departure Headway (Hd)	5.282	6.758	6.25	6.229	5.725	5.018	5.735	5.234	5.234
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	676	533	576	572	621	710	623	680	0
Service Time	3.057	4.458	3.95	4.002	3.497	2.79	3.502	3	3
HCM Lane V/C Ratio	0.274	0.008	0.003	0.084	0.005	0.225	0.247	0.107	0
HCM Control Delay, s/veh	10	9.5	9	9.6	8.5	9.2	10.4	8.6	8
HCM Lane LOS	A	A	A	A	A	A	B	A	N
HCM 95th-tile Q	1.1	0	0	0.3	0	0.8	1	0.4	0

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	89	5	135	0	51	43	131	121	1
Future Vol, veh/h	0	0	0	89	5	135	0	51	43	131	121	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	2	2	2
Mvmt Flow	0	0	0	109	6	165	0	62	52	160	148	1
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	0	9.8	9.8	10.2
HCM LOS	-	A	A	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	100%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	0	0	89	5	135	131	121	1
LT Vol	0	0	0	89	0	0	131	0	0
Through Vol	51	0	0	0	5	0	0	121	0
RT Vol	43	0	0	0	0	135	0	0	1
Lane Flow Rate	115	0	0	109	6	165	160	148	1
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.184	0	0	0.188	0.01	0.229	0.26	0.22	0.002
Departure Headway (Hd)	5.777	6.412	6.412	6.22	5.718	5.016	5.868	5.366	4.662
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	625	0	0	573	621	708	607	664	760
Service Time	3.477	4.118	4.118	4.004	3.502	2.799	3.646	3.143	2.44
HCM Lane V/C Ratio	0.184	0	0	0.19	0.01	0.233	0.264	0.223	0.001
HCM Control Delay, s/veh	9.8	9.1	9.1	10.5	8.6	9.3	10.7	9.7	7.4
HCM Lane LOS	A	N	N	B	A	A	B	A	A
HCM 95th-tile Q	0.7	0	0	0.7	0	0.9	1	0.8	0

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	0	54	4	145	0	112	94	115	82	0
Future Vol, veh/h	5	2	0	54	4	145	0	112	94	115	82	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	5	2	0	57	4	154	0	119	100	122	87	0
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	9.4	9.3	10.5	9.5
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	0%	100%	0%	100%	0%	0%	100%	100%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	206	5	2	54	4	145	115	82	0
LT Vol	0	5	0	54	0	0	115	0	0
Through Vol	112	0	2	0	4	0	0	82	0
RT Vol	94	0	0	0	0	145	0	0	0
Lane Flow Rate	219	5	2	57	4	154	122	87	0
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.32	0.01	0.004	0.1	0.007	0.217	0.197	0.128	0
Departure Headway (Hd)	5.262	6.82	6.312	6.266	5.761	5.054	5.794	5.292	5.292
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	677	528	570	568	616	703	615	673	0
Service Time	3.041	4.52	4.012	4.046	3.541	2.833	3.567	3.064	3.064
HCM Lane V/C Ratio	0.323	0.009	0.004	0.1	0.006	0.219	0.198	0.129	0
HCM Control Delay, s/veh	10.5	9.6	9	9.7	8.6	9.2	10	8.8	8.1
HCM Lane LOS	B	A	A	A	A	A	A	A	N
HCM 95th-tile Q	1.4	0	0	0.3	0	0.8	0.7	0.4	0

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	89	5	178	0	51	43	144	121	1
Future Vol, veh/h	0	0	0	89	5	178	0	51	43	144	121	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	0	0	2	2	2	4	4	4	2	2	2
Mvmt Flow	0	0	0	109	6	217	0	62	52	176	148	1
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	0	10.2	10.1	10.6
HCM LOS	-	B	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	0%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	100%	100%	0%	100%	0%	0%	100%	0%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	0	0	89	5	178	144	121	1
LT Vol	0	0	0	89	0	0	144	0	0
Through Vol	51	0	0	0	5	0	0	121	0
RT Vol	43	0	0	0	0	178	0	0	1
Lane Flow Rate	115	0	0	109	6	217	176	148	1
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.19	0	0	0.19	0.01	0.306	0.292	0.225	0.002
Departure Headway (Hd)	5.974	6.598	6.598	6.286	5.784	5.081	5.995	5.492	4.788
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	604	0	0	567	613	699	594	646	737
Service Time	3.674	4.306	4.306	4.078	3.576	2.873	3.792	3.289	2.585
HCM Lane V/C Ratio	0.19	0	0	0.192	0.01	0.31	0.296	0.229	0.001
HCM Control Delay, s/veh	10.1	9.3	9.3	10.6	8.6	10.1	11.3	9.9	7.6
HCM Lane LOS	B	N	N	B	A	B	B	A	A
HCM 95th-tile Q	0.7	0	0	0.7	0	1.3	1.2	0.9	0

Intersection	
Intersection Delay, s/veh	10.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	0	54	4	171	0	112	94	160	82	0
Future Vol, veh/h	5	2	0	54	4	171	0	112	94	160	82	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	1	1	1	1	1	1	1	1	1
Mvmt Flow	5	2	0	57	4	182	0	119	100	170	87	0
Number of Lanes	1	1	0	1	1	1	0	1	0	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	3	2	3	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	1	2	3
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	3	3	2
HCM Control Delay, s/veh	9.7	10	11.1	10.3
HCM LOS	A	A	B	B

Lane	NBLn1	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	0%	100%	0%	100%	0%	0%	100%	0%	0%
Vol Thru, %	54%	0%	100%	0%	100%	0%	0%	100%	100%
Vol Right, %	46%	0%	0%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	206	5	2	54	4	171	160	82	0
LT Vol	0	5	0	54	0	0	160	0	0
Through Vol	112	0	2	0	4	0	0	82	0
RT Vol	94	0	0	0	0	171	0	0	0
Lane Flow Rate	219	5	2	57	4	182	170	87	0
Geometry Grp	6	6	6	6	6	6	5	5	5
Degree of Util (X)	0.338	0.01	0.004	0.104	0.007	0.269	0.278	0.13	0
Departure Headway (Hd)	5.552	7.075	6.565	6.532	6.026	5.318	5.99	5.487	5.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	651	507	546	552	597	680	604	658	0
Service Time	3.267	4.799	4.29	4.232	3.726	3.018	3.69	3.187	3.187
HCM Lane V/C Ratio	0.336	0.01	0.004	0.103	0.007	0.268	0.281	0.132	0
HCM Control Delay, s/veh	11.1	9.9	9.3	10	8.8	10	11	9	8.2
HCM Lane LOS	B	A	A	A	A	A	B	A	N
HCM 95th-tile Q	1.5	0	0	0.3	0	1.1	1.1	0.4	0

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	365	5	70	529	9	0	0	163	25	0	11
Future Vol, veh/h	13	365	5	70	529	9	0	0	163	25	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	22	608	8	117	882	15	0	0	272	42	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	897	0	0	617	0	0	1330	-	308	1470	1783	448
Stage 1	-	-	-	-	-	-	656	-	-	1123	1123	-
Stage 2	-	-	-	-	-	-	674	-	-	348	660	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	759	-	-	966	-	-	115	0	694	90	83	563
Stage 1	-	-	-	-	-	-	426	0	-	223	283	-
Stage 2	-	-	-	-	-	-	415	0	-	647	463	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	759	-	-	966	-	-	95	-	694	47	71	563
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	-	-	124	162	-
Stage 1	-	-	-	-	-	-	414	-	-	196	249	-
Stage 2	-	-	-	-	-	-	353	-	-	382	450	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.34	1.06	13.49	37.02
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	694	759	-	-	966	-	-	124	563
HCM Lane V/C Ratio	-	0.392	0.029	-	-	0.121	-	-	0.337	0.033
HCM Ctrl Dly (s/v)	0	13.5	9.9	-	-	9.2	-	-	48.2	11.6
HCM Lane LOS	A	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	-	1.9	0.1	-	-	0.4	-	-	1.3	0.1

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	204	5	30	166	22	1	0	40	31	0	2
Future Vol, veh/h	3	204	5	30	166	22	1	0	40	31	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	219	5	32	178	24	1	0	43	33	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	225	0	0	382	-	112	371	486	101
Stage 1	-	-	-	-	-	-	228	-	-	255	255	-
Stage 2	-	-	-	-	-	-	154	-	-	116	231	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1382	-	-	1356	-	-	555	0	926	566	484	941
Stage 1	-	-	-	-	-	-	759	0	-	733	700	-
Stage 2	-	-	-	-	-	-	839	0	-	882	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1382	-	-	1356	-	-	540	-	926	525	472	941
Mov Cap-2 Maneuver	-	-	-	-	-	-	603	-	-	583	527	-
Stage 1	-	-	-	-	-	-	758	-	-	716	683	-
Stage 2	-	-	-	-	-	-	817	-	-	839	715	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.11	1.06	9.13	11.38
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	603	926	1382	-	-	1356	-	-	583	941
HCM Lane V/C Ratio	0.002	0.046	0.002	-	-	0.024	-	-	0.057	0.002
HCM Ctrl Dly (s/v)	11	9.1	7.6	-	-	7.7	-	-	11.5	8.8
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0.1	-	-	0.2	0

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	423	5	72	559	9	0	0	168	26	0	11
Future Vol, veh/h	13	423	5	72	559	9	0	0	168	26	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	22	705	8	120	932	15	0	0	280	43	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	947	0	0	713	0	0	1458	-	357	1575	1936	473
Stage 1	-	-	-	-	-	-	753	-	-	1179	1179	-
Stage 2	-	-	-	-	-	-	706	-	-	396	757	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	727	-	-	889	-	-	92	0	646	76	66	543
Stage 1	-	-	-	-	-	-	373	0	-	206	267	-
Stage 2	-	-	-	-	-	-	397	0	-	606	419	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	727	-	-	889	-	-	75	-	646	~ 36	56	543
Mov Cap-2 Maneuver	-	-	-	-	-	-	186	-	-	105	142	-
Stage 1	-	-	-	-	-	-	362	-	-	178	231	-
Stage 2	-	-	-	-	-	-	332	-	-	333	406	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.3	1.09	14.78	46.92
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	646	727	-	-	889	-	-	105	543
HCM Lane V/C Ratio	-	0.434	0.03	-	-	0.135	-	-	0.414	0.034
HCM Ctrl Dly (s/v)	0	14.8	10.1	-	-	9.7	-	-	61.8	11.9
HCM Lane LOS	A	B	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	-	2.2	0.1	-	-	0.5	-	-	1.7	0.1

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	234	5	31	208	23	1	0	41	32	0	2
Future Vol, veh/h	3	234	5	31	208	23	1	0	41	32	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	252	5	33	224	25	1	0	44	34	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	257	0	0	439	-	128	435	566	124
Stage 1	-	-	-	-	-	-	261	-	-	303	303	-
Stage 2	-	-	-	-	-	-	178	-	-	132	263	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1329	-	-	1320	-	-	506	0	904	510	436	910
Stage 1	-	-	-	-	-	-	727	0	-	687	667	-
Stage 2	-	-	-	-	-	-	812	0	-	863	694	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1320	-	-	491	-	904	471	424	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	-	-	541	492	-
Stage 1	-	-	-	-	-	-	725	-	-	670	651	-
Stage 2	-	-	-	-	-	-	789	-	-	819	692	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.1	0.92	9.24	11.92
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	567	904	1329	-	-	1320	-	-	541	910
HCM Lane V/C Ratio	0.002	0.049	0.002	-	-	0.025	-	-	0.064	0.002
HCM Ctrl Dly (s/v)	11.4	9.2	7.7	-	-	7.8	-	-	12.1	9
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.2	0	-	-	0.1	-	-	0.2	0

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	427	5	72	559	9	0	0	168	0	0	54
Future Vol, veh/h	23	427	5	72	559	9	0	0	168	0	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	38	712	8	120	932	15	0	0	280	0	0	90

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	947	0	0	720	0	0	1498	-	360	1612	1976	473
Stage 1	-	-	-	-	-	-	793	-	-	1179	1179	-
Stage 2	-	-	-	-	-	-	706	-	-	433	797	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	727	-	-	884	-	-	86	0	642	71	63	543
Stage 1	-	-	-	-	-	-	353	0	-	206	267	-
Stage 2	-	-	-	-	-	-	397	0	-	577	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	727	-	-	884	-	-	59	-	642	33	51	543
Mov Cap-2 Maneuver	-	-	-	-	-	-	156	-	-	98	135	-
Stage 1	-	-	-	-	-	-	334	-	-	178	230	-
Stage 2	-	-	-	-	-	-	287	-	-	308	380	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.52	1.09	14.86	12.95
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	642	727	-	-	884	-	-	-	543
HCM Lane V/C Ratio	-	0.436	0.053	-	-	0.136	-	-	-	0.166
HCM Ctrl Dly (s/v)	0	14.9	10.2	-	-	9.7	-	-	0	12.9
HCM Lane LOS	A	B	B	-	-	A	-	-	A	B
HCM 95th %tile Q(veh)	-	2.2	0.2	-	-	0.5	-	-	-	0.6

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	247	5	31	208	23	1	0	41	32	0	28
Future Vol, veh/h	35	247	5	31	208	23	1	0	41	32	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	38	266	5	33	224	25	1	0	44	34	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	248	0	0	271	0	0	522	-	135	511	649	124
Stage 1	-	-	-	-	-	-	344	-	-	303	303	-
Stage 2	-	-	-	-	-	-	178	-	-	208	346	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1329	-	-	1304	-	-	442	0	895	450	391	910
Stage 1	-	-	-	-	-	-	651	0	-	687	667	-
Stage 2	-	-	-	-	-	-	812	0	-	780	639	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1304	-	-	405	-	895	405	371	910
Mov Cap-2 Maneuver	-	-	-	-	-	-	491	-	-	495	450	-
Stage 1	-	-	-	-	-	-	632	-	-	670	650	-
Stage 2	-	-	-	-	-	-	765	-	-	721	621	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.95	0.93	9.31	11.08
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	491	895	1329	-	-	1304	-	-	495	910
HCM Lane V/C Ratio	0.002	0.049	0.028	-	-	0.026	-	-	0.07	0.033
HCM Ctrl Dly (s/v)	12.3	9.2	7.8	-	-	7.8	-	-	12.8	9.1
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.2	0.1	-	-	0.1	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	492	6	85	659	11	0	0	199	31	0	13
Future Vol, veh/h	16	492	6	85	659	11	0	0	199	31	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	27	820	10	142	1098	18	0	0	332	52	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1117	0	0	830	0	0	1711	-	415	1854	2274	558
Stage 1	-	-	-	-	-	-	878	-	-	1391	1391	-
Stage 2	-	-	-	-	-	-	833	-	-	463	883	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	627	-	-	804	-	-	60	0	592	~ 47	41	478
Stage 1	-	-	-	-	-	-	313	0	-	152	211	-
Stage 2	-	-	-	-	-	-	334	0	-	553	366	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	627	-	-	804	-	-	45	-	592	~ 16	32	478
Mov Cap-2 Maneuver	-	-	-	-	-	-	141	-	-	55	101	-
Stage 1	-	-	-	-	-	-	300	-	-	125	174	-
Stage 2	-	-	-	-	-	-	262	-	-	233	351	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.34	1.17	18.55	159.14
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	592	627	-	-	804	-	-	55	478
HCM Lane V/C Ratio	-	0.56	0.043	-	-	0.176	-	-	0.932	0.045
HCM Ctrl Dly (s/v)	0	18.5	11	-	-	10.4	-	-	220.5	12.9
HCM Lane LOS	A	C	B	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	-	3.5	0.1	-	-	0.6	-	-	4.2	0.1

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	204	5	30	166	22	1	0	40	31	0	2
Future Vol, veh/h	3	204	5	30	166	22	1	0	40	31	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	219	5	32	178	24	1	0	43	33	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	202	0	0	225	0	0	382	-	112	371	486	101
Stage 1	-	-	-	-	-	-	228	-	-	255	255	-
Stage 2	-	-	-	-	-	-	154	-	-	116	231	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1382	-	-	1356	-	-	555	0	926	566	484	941
Stage 1	-	-	-	-	-	-	759	0	-	733	700	-
Stage 2	-	-	-	-	-	-	839	0	-	882	717	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1382	-	-	1356	-	-	540	-	926	525	472	941
Mov Cap-2 Maneuver	-	-	-	-	-	-	603	-	-	583	527	-
Stage 1	-	-	-	-	-	-	758	-	-	716	683	-
Stage 2	-	-	-	-	-	-	817	-	-	839	715	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.11	1.06	9.13	11.38
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	603	926	1382	-	-	1356	-	-	583	941
HCM Lane V/C Ratio	0.002	0.046	0.002	-	-	0.024	-	-	0.057	0.002
HCM Ctrl Dly (s/v)	11	9.1	7.6	-	-	7.7	-	-	11.5	8.8
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.1	0	-	-	0.1	-	-	0.2	0

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	26	496	6	85	659	11	0	0	199	0	0	56
Future Vol, veh/h	26	496	6	85	659	11	0	0	199	0	0	56
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	60	60	60	60	60	60	60	60	60
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	43	827	10	142	1098	18	0	0	332	0	0	93

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1117	0	0	837	0	0	1751	-	418	1891	2314	558
Stage 1	-	-	-	-	-	-	918	-	-	1391	1391	-
Stage 2	-	-	-	-	-	-	833	-	-	500	923	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	722	-	-	800	-	-	71	0	589	53	39	812
Stage 1	-	-	-	-	-	-	296	0	-	199	249	-
Stage 2	-	-	-	-	-	-	499	0	-	527	351	-
Platoon blocked, %	0	-	-		-	-	0			0	0	0
Mov Cap-1 Maneuver	722	-	-	800	-	-	49	-	589	18	30	812
Mov Cap-2 Maneuver	-	-	-	-	-	-	158	-	-	54	103	-
Stage 1	-	-	-	-	-	-	278	-	-	164	205	-
Stage 2	-	-	-	-	-	-	364	-	-	216	330	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.51	1.18	18.69	10.01
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	589	722	-	-	800	-	-	-	812
HCM Lane V/C Ratio	-	0.563	0.06	-	-	0.177	-	-	-	0.115
HCM Ctrl Dly (s/v)	0	18.7	10.3	-	-	10.5	-	-	0	10
HCM Lane LOS	A	C	B	-	-	B	-	-	A	B
HCM 95th %tile Q(veh)	-	3.5	0.2	-	-	0.6	-	-	-	0.4

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	286	6	37	240	27	1	0	49	38	0	28
Future Vol, veh/h	36	286	6	37	240	27	1	0	49	38	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	175	-	-	0	-	0	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	39	308	6	40	258	29	1	0	53	41	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	314	0	0	597	-	157	583	744	144
Stage 1	-	-	-	-	-	-	388	-	-	352	352	-
Stage 2	-	-	-	-	-	-	209	-	-	231	391	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	-	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	-	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	-	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1381	-	-	1258	-	-	460	0	867	470	385	*1035
Stage 1	-	-	-	-	-	-	613	0	-	740	696	-
Stage 2	-	-	-	-	-	-	905	0	-	757	610	-
Platoon blocked, %	0	-	-		-	-	0			0	0	0
Mov Cap-1 Maneuver	1381	-	-	1258	-	-	420	-	867	416	363	*1035
Mov Cap-2 Maneuver	-	-	-	-	-	-	494	-	-	500	439	-
Stage 1	-	-	-	-	-	-	596	-	-	717	674	-
Stage 2	-	-	-	-	-	-	851	-	-	691	593	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.84	0.97	9.48	11.03
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	494	867	1381	-	-	1258	-	-	500	1035
HCM Lane V/C Ratio	0.002	0.061	0.028	-	-	0.032	-	-	0.082	0.029
HCM Ctrl Dly (s/v)	12.3	9.4	7.7	-	-	8	-	-	12.8	8.6
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0.2	0.1	-	-	0.1	-	-	0.3	0.1

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	36	11	0	5	0
Future Vol, veh/h	4	36	11	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	9	9	0	0
Mvmt Flow	6	54	16	0	7	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	40	7	7	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.19	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.281	-	-	-
Pot Cap-1 Maneuver	969	1072	1568	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	959	1072	1568	-	-	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.63	7.32	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1568	-	1050	-	-
HCM Lane V/C Ratio	0.01	-	0.057	-	-
HCM Control Delay (s/veh)	7.3	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	39	30	0	0	0
Future Vol, veh/h	0	39	30	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	5	5	3	3	0	0
Mvmt Flow	0	45	35	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	71	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	70	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.13	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.227	-	-	-
Pot Cap-1 Maneuver	926	1075	1615	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	906	1075	1615	-	-	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.5	7.28	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	1075	-	-
HCM Lane V/C Ratio	0.022	-	0.042	-	-
HCM Control Delay (s/veh)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	37	11	0	5	0
Future Vol, veh/h	4	37	11	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	9	9	0	0
Mvmt Flow	6	55	16	0	7	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	40	7	7	0	-	0
Stage 1	7	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.19	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.281	-	-	-
Pot Cap-1 Maneuver	969	1072	1568	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	959	1072	1568	-	-	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	1002	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.64	7.32	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1568	-	1051	-	-
HCM Lane V/C Ratio	0.01	-	0.058	-	-
HCM Control Delay (s/veh)	7.3	-	8.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	31	0	0	0
Future Vol, veh/h	0	40	31	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	47	36	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	73	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	72	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	936	1089	1635	-	-	-
Stage 1	1027	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	915	1089	1635	-	-	-
Mov Cap-2 Maneuver	861	-	-	-	-	-
Stage 1	1005	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.45	7.25	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	1089	-	-
HCM Lane V/C Ratio	0.022	-	0.043	-	-
HCM Ctrl Dly (s/v)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	37	11	0	17	0
Future Vol, veh/h	36	37	11	0	17	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	9	9	0	0
Mvmt Flow	54	55	16	0	25	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	58	25	25	0	-	0
Stage 1	25	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.19	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.281	-	-	-
Pot Cap-1 Maneuver	946	1048	1545	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	936	1048	1545	-	-	-
Mov Cap-2 Maneuver	877	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.25	7.36	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1545	-	956	-	-
HCM Lane V/C Ratio	0.011	-	0.114	-	-
HCM Ctrl Dly (s/v)	7.4	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	31	0	8	0
Future Vol, veh/h	0	40	31	0	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	47	36	0	9	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	81	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	72	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	926	1078	1624	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	905	1078	1624	-	-	-
Mov Cap-2 Maneuver	856	-	-	-	-	-
Stage 1	996	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.49	7.27	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1624	-	1078	-	-
HCM Lane V/C Ratio	0.022	-	0.043	-	-
HCM Ctrl Dly (s/v)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	44	13	0	6	0
Future Vol, veh/h	5	44	13	0	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	9	9	0	0
Mvmt Flow	7	66	19	0	9	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	48	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.19	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.281	-	-	-
Pot Cap-1 Maneuver	959	1070	1566	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	947	1070	1566	-	-	-
Mov Cap-2 Maneuver	883	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.7	7.33	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1566	-	1047	-	-
HCM Lane V/C Ratio	0.012	-	0.07	-	-
HCM Control Delay (s/veh)	7.3	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	48	37	0	0	0
Future Vol, veh/h	0	48	37	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	5	5	3	3	0	0
Mvmt Flow	0	56	43	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	87	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.45	6.25	4.13	-	-	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	2.227	-	-	-
Pot Cap-1 Maneuver	906	1075	1615	-	-	-
Stage 1	1014	-	-	-	-	-
Stage 2	930	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	882	1075	1615	-	-	-
Mov Cap-2 Maneuver	835	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	8.53	7.29	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1615	-	1075	-	-
HCM Lane V/C Ratio	0.027	-	0.052	-	-
HCM Control Delay (s/veh)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	44	13	0	18	0
Future Vol, veh/h	43	44	13	0	18	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	3	3	9	9	0	0
Mvmt Flow	64	66	19	0	27	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	66	27	27	0	-	0
Stage 1	27	-	-	-	-	-
Stage 2	39	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.19	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.281	-	-	-
Pot Cap-1 Maneuver	937	1046	1543	-	-	-
Stage 1	993	-	-	-	-	-
Stage 2	981	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	925	1046	1543	-	-	-
Mov Cap-2 Maneuver	870	-	-	-	-	-
Stage 1	981	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	9.38	7.36	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1543	-	951	-	-
HCM Lane V/C Ratio	0.013	-	0.137	-	-
HCM Ctrl Dly (s/v)	7.4	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	48	37	0	8	0
Future Vol, veh/h	0	48	37	0	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	56	43	0	9	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	95	9	9	0	-	0
Stage 1	9	-	-	-	-	-
Stage 2	86	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	909	1078	1624	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	885	1078	1624	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	992	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.52	7.28	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1624	-	1078	-	-
HCM Lane V/C Ratio	0.026	-	0.052	-	-
HCM Ctrl Dly (s/v)	7.3	-	8.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	533	10	21	593	3	14	0	53	3	0	0
Future Vol, veh/h	7	533	10	21	593	3	14	0	53	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	12	903	17	36	1005	5	24	0	90	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1010	0	0	920	0	0	1509	2017	460	1554	2023	505
Stage 1	-	-	-	-	-	-	936	936	-	1079	1079	-
Stage 2	-	-	-	-	-	-	574	1081	-	475	944	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	688	-	-	744	-	-	85	59	554	78	59	518
Stage 1	-	-	-	-	-	-	289	347	-	237	297	-
Stage 2	-	-	-	-	-	-	476	296	-	544	343	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	688	-	-	744	-	-	79	55	554	61	55	518
Mov Cap-2 Maneuver	-	-	-	-	-	-	192	162	-	158	158	-
Stage 1	-	-	-	-	-	-	284	341	-	225	283	-
Stage 2	-	-	-	-	-	-	453	282	-	448	338	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.13	0.34	17.66	28.53
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	397	688	-	-	744	-	-	158	-
HCM Lane V/C Ratio	0.286	0.017	-	-	0.048	-	-	0.032	-
HCM Ctrl Dly (s/v)	17.7	10.3	-	-	10.1	-	-	28.5	0
HCM Lane LOS	C	B	-	-	B	-	-	D	A
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	270	9	39	211	1	5	0	35	2	0	1
Future Vol, veh/h	0	270	9	39	211	1	5	0	35	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	314	10	45	245	1	6	0	41	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	324	0	0	533	656	162	494	661	123
Stage 1	-	-	-	-	-	-	319	319	-	337	337	-
Stage 2	-	-	-	-	-	-	213	337	-	157	324	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1331	-	-	1247	-	-	434	388	860	463	385	911
Stage 1	-	-	-	-	-	-	672	656	-	657	645	-
Stage 2	-	-	-	-	-	-	775	645	-	835	653	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1331	-	-	1247	-	-	418	373	860	425	371	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	461	-	504	450	-
Stage 1	-	-	-	-	-	-	672	656	-	633	622	-
Stage 2	-	-	-	-	-	-	746	621	-	796	653	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.24	9.82	11.11
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	793	1331	-	-	1247	-	-	504	911
HCM Lane V/C Ratio	0.059	-	-	-	0.036	-	-	0.005	0.001
HCM Ctrl Dly (s/v)	9.8	0	-	-	8	-	-	12.2	9
HCM Lane LOS	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0	0

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	596	10	22	625	3	14	0	55	3	0	0
Future Vol, veh/h	7	596	10	22	625	3	14	0	55	3	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	12	1010	17	37	1059	5	24	0	93	5	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1064	0	0	1027	0	0	1647	2181	514	1665	2187	532
Stage 1	-	-	-	-	-	-	1042	1042	-	1136	1136	-
Stage 2	-	-	-	-	-	-	604	1139	-	529	1051	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	656	-	-	678	-	-	67	47	511	65	46	497
Stage 1	-	-	-	-	-	-	249	309	-	218	279	-
Stage 2	-	-	-	-	-	-	457	278	-	506	306	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	656	-	-	678	-	-	62	43	511	49	43	497
Mov Cap-2 Maneuver	-	-	-	-	-	-	167	145	-	141	140	-
Stage 1	-	-	-	-	-	-	245	304	-	206	264	-
Stage 2	-	-	-	-	-	-	432	263	-	407	301	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.12	0.36	19.71	31.48
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	360	656	-	-	678	-	-	141	-
HCM Lane V/C Ratio	0.325	0.018	-	-	0.055	-	-	0.036	-
HCM Ctrl Dly (s/v)	19.7	10.6	-	-	10.6	-	-	31.5	0
HCM Lane LOS	C	B	-	-	B	-	-	D	A
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	302	9	40	254	1	5	0	36	2	0	1
Future Vol, veh/h	0	302	9	40	254	1	5	0	36	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	351	10	47	295	1	6	0	42	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	297	0	0	362	0	0	597	746	181	565	751	148
Stage 1	-	-	-	-	-	-	356	356	-	389	389	-
Stage 2	-	-	-	-	-	-	241	390	-	176	362	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1276	-	-	1208	-	-	391	344	837	412	342	878
Stage 1	-	-	-	-	-	-	639	632	-	612	612	-
Stage 2	-	-	-	-	-	-	747	611	-	815	629	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1208	-	-	375	331	837	377	329	878
Mov Cap-2 Maneuver	-	-	-	-	-	-	479	429	-	464	417	-
Stage 1	-	-	-	-	-	-	639	632	-	588	588	-
Stage 2	-	-	-	-	-	-	717	588	-	774	629	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.1	10	11.56
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	767	1276	-	-	1208	-	-	464	878
HCM Lane V/C Ratio	0.062	-	-	-	0.038	-	-	0.005	0.001
HCM Ctrl Dly (s/v)	10	0	-	-	8.1	-	-	12.8	9.1
HCM Lane LOS	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0	0

Intersection	
Int Delay, s/veh	20.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	596	10	22	625	28	14	0	55	108	0	0
Future Vol, veh/h	11	596	10	22	625	28	14	0	55	108	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	19	1010	17	37	1059	47	24	0	93	183	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1107	0	0	1027	0	0	1660	2237	514	1700	2222	553
Stage 1	-	-	-	-	-	-	1056	1056	-	1158	1158	-
Stage 2	-	-	-	-	-	-	604	1181	-	542	1064	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	632	-	-	678	-	-	65	43	511	~ 61	44	482
Stage 1	-	-	-	-	-	-	244	305	-	212	273	-
Stage 2	-	-	-	-	-	-	457	266	-	497	302	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	632	-	-	678	-	-	60	39	511	~ 46	40	482
Mov Cap-2 Maneuver	-	-	-	-	-	-	162	137	-	~ 136	136	-
Stage 1	-	-	-	-	-	-	237	296	-	200	258	-
Stage 2	-	-	-	-	-	-	432	251	-	394	293	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.19	0.35	19.98	257.96
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	356	632	-	-	678	-	-	136	-
HCM Lane V/C Ratio	0.328	0.029	-	-	0.055	-	-	1.346	-
HCM Ctrl Dly (s/v)	20	10.9	-	-	10.6	-	-	258	0
HCM Lane LOS	C	B	-	-	B	-	-	F	A
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.2	-	-	11.7	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	302	9	40	254	85	5	0	36	51	0	1
Future Vol, veh/h	13	302	9	40	254	85	5	0	36	51	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	351	10	47	295	99	6	0	42	59	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	394	0	0	362	0	0	627	874	181	644	830	197
Stage 1	-	-	-	-	-	-	387	387	-	438	438	-
Stage 2	-	-	-	-	-	-	241	487	-	206	392	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1175	-	-	1208	-	-	372	290	837	362	308	817
Stage 1	-	-	-	-	-	-	614	613	-	573	582	-
Stage 2	-	-	-	-	-	-	747	554	-	783	610	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1175	-	-	1208	-	-	352	276	837	326	292	817
Mov Cap-2 Maneuver	-	-	-	-	-	-	456	379	-	424	388	-
Stage 1	-	-	-	-	-	-	606	605	-	551	560	-
Stage 2	-	-	-	-	-	-	717	532	-	734	602	-

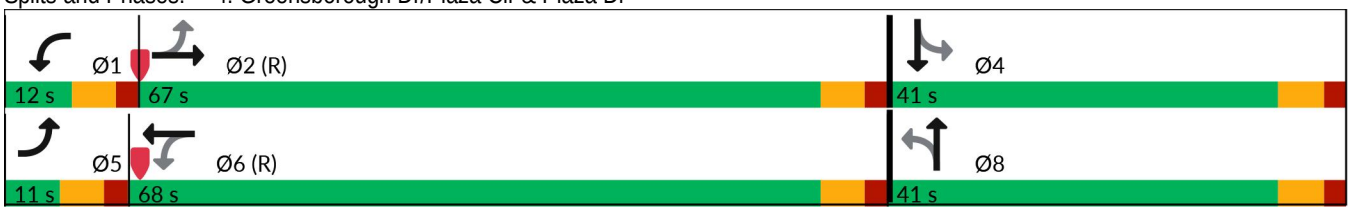
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.33	0.85	10.06	14.75
HCM LOS			B	B

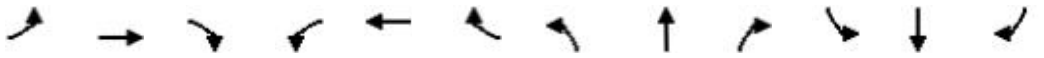
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	760	1175	-	-	1208	-	-	424	817
HCM Lane V/C Ratio	0.063	0.013	-	-	0.038	-	-	0.14	0.001
HCM Ctrl Dly (s/v)	10.1	8.1	-	-	8.1	-	-	14.9	9.4
HCM Lane LOS	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL
Lane Configurations							
Traffic Volume (vph)	11	596	22	625	14	0	108
Future Volume (vph)	11	596	22	625	14	0	108
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	5	2	1	6		8	
Permitted Phases	2		6		8		4
Detector Phase	5	2	1	6	8	8	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	11.0	24.0	24.0	24.0	24.0
Total Split (s)	11.0	67.0	12.0	68.0	41.0	41.0	41.0
Total Split (%)	9.2%	55.8%	10.0%	56.7%	34.2%	34.2%	34.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	81.6	77.9	83.4	80.6		22.5	22.5
Actuated g/C Ratio	0.68	0.65	0.70	0.67		0.19	0.19
v/c Ratio	0.06	0.44	0.10	0.46		0.31	0.82
Control Delay (s/veh)	7.2	13.1	9.9	15.7		13.4	72.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	7.2	13.1	9.9	15.7		13.4	72.9
LOS	A	B	A	B		B	E
Approach Delay (s/veh)		13.0		15.6		13.4	
Approach LOS		B		B		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 18.6	Intersection LOS: B
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Greensborough Dr/Plaza Cir & Plaza Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	596	10	22	625	28	14	0	55	108	0	0
Future Volume (veh/h)	11	596	10	22	625	28	14	0	55	108	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	1010	17	37	1059	47	24	0	93	183	0	0
Peak Hour Factor	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	358	2343	39	397	2305	102	72	20	217	266	324	0
Arrive On Green	0.02	0.65	0.65	0.03	0.66	0.66	0.17	0.00	0.17	0.17	0.00	0.00
Sat Flow, veh/h	1795	3605	61	1795	3493	155	212	117	1274	1324	1900	0
Grp Volume(v), veh/h	19	502	525	37	543	563	117	0	0	183	0	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1874	1795	1791	1857	1603	0	0	1324	1900	0
Q Serve(g_s), s	0.4	16.3	16.3	0.8	17.7	17.8	0.6	0.0	0.0	10.4	0.0	0.0
Cycle Q Clear(g_c), s	0.4	16.3	16.3	0.8	17.7	17.8	7.6	0.0	0.0	18.0	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.08	0.21		0.79	1.00		0.00
Lane Grp Cap(c), veh/h	358	1164	1218	397	1182	1226	309	0	0	266	324	0
V/C Ratio(X)	0.05	0.43	0.43	0.09	0.46	0.46	0.38	0.00	0.00	0.69	0.00	0.00
Avail Cap(c_a), veh/h	398	1164	1218	434	1182	1226	500	0	0	427	554	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.77	0.77	0.77	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.8	10.2	10.2	7.5	10.0	10.0	44.4	0.0	0.0	49.3	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.2	1.1	0.1	1.0	1.0	0.8	0.0	0.0	3.1	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	10.3	10.6	0.5	10.2	10.5	5.8	0.0	0.0	9.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.9	11.4	11.3	7.6	10.9	10.9	45.2	0.0	0.0	52.4	0.0	0.0
LnGrp LOS	A	B	B	A	B	B	D			D		
Approach Vol, veh/h		1046			1143			117			183	
Approach Delay, s/veh		11.3			10.8			45.2			52.4	
Approach LOS		B			B			D			D	

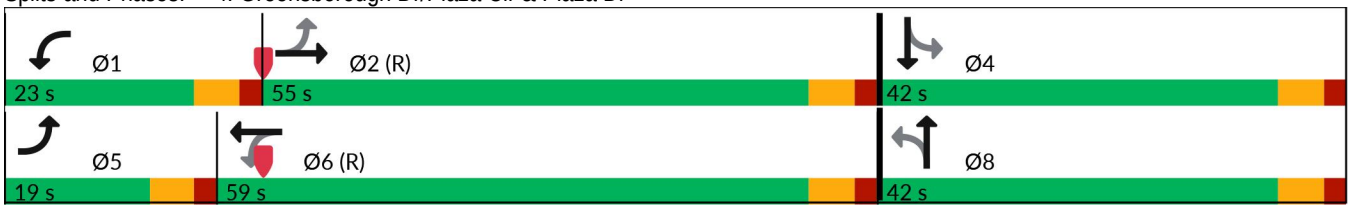
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	84.0		26.5	8.3	85.2		26.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		35.0	5.0	62.0		35.0				
Max Q Clear Time (g_c+I1), s	2.8	18.3		20.0	2.4	19.8		9.6				
Green Ext Time (p_c), s	0.0	7.5		0.5	0.0	8.5		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh		15.7
HCM 7th LOS		B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	13	302	40	254	5	0	51	0
Future Volume (vph)	13	302	40	254	5	0	51	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	19.0	55.0	23.0	59.0	42.0	42.0	42.0	42.0
Total Split (%)	15.8%	45.8%	19.2%	49.2%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	94.6	91.2	97.8	96.3		10.4	10.5	10.5
Actuated g/C Ratio	0.79	0.76	0.82	0.80		0.09	0.09	0.09
v/c Ratio	0.02	0.13	0.06	0.14		0.22	0.40	0.00
Control Delay (s/veh)	2.9	5.6	2.9	3.9		5.3	58.4	0.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	2.9	5.6	2.9	3.9		5.3	58.4	0.0
LOS	A	A	A	A		A	E	A
Approach Delay (s/veh)		5.5		3.8		5.3		57.4
Approach LOS		A		A		A		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay (s/veh): 8.0	Intersection LOS: A
Intersection Capacity Utilization 38.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Greensborough Dr/Plaza Cir & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	302	9	40	254	85	5	0	36	51	0	1
Future Volume (veh/h)	13	302	9	40	254	85	5	0	36	51	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	351	10	47	295	99	6	0	42	59	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	851	2752	78	889	2093	688	40	4	70	141	0	80
Arrive On Green	0.02	0.77	0.77	0.03	0.78	0.78	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1810	3585	102	1810	2669	878	120	81	1407	1386	0	1610
Grp Volume(v), veh/h	15	176	185	47	198	196	48	0	0	59	0	1
Grp Sat Flow(s),veh/h/ln	1810	1805	1882	1810	1805	1742	1608	0	0	1386	0	1610
Q Serve(g_s), s	0.2	3.0	3.0	0.6	3.2	3.3	1.1	0.0	0.0	0.5	0.0	0.1
Cycle Q Clear(g_c), s	0.2	3.0	3.0	0.6	3.2	3.3	3.5	0.0	0.0	4.0	0.0	0.1
Prop In Lane	1.00		0.05	1.00		0.50	0.12		0.87	1.00		1.00
Lane Grp Cap(c), veh/h	851	1385	1444	889	1415	1366	113	0	0	141	0	80
V/C Ratio(X)	0.02	0.13	0.13	0.05	0.14	0.14	0.42	0.00	0.00	0.42	0.00	0.01
Avail Cap(c_a), veh/h	1017	1385	1444	1086	1415	1366	511	0	0	488	0	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.87	0.87	0.87	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.8	3.6	3.6	2.5	3.1	3.2	55.9	0.0	0.0	56.0	0.0	54.2
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.0	0.2	0.2	2.5	0.0	0.0	2.0	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	1.7	1.8	0.3	1.7	1.7	2.7	0.0	0.0	3.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	2.8	3.8	3.8	2.5	3.3	3.3	58.3	0.0	0.0	58.0	0.0	54.3
LnGrp LOS	A	A	A	A	A	A	E			E		D
Approach Vol, veh/h		376			441			48			60	
Approach Delay, s/veh		3.7			3.2			58.3			58.0	
Approach LOS		A			A			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	98.1		11.9	8.0	100.1		11.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	17.0	49.0		36.0	13.0	53.0		36.0				
Max Q Clear Time (g_c+I1), s	2.6	5.0		6.0	2.2	5.3		5.5				
Green Ext Time (p_c), s	0.1	2.1		0.1	0.0	2.4		0.2				

Intersection Summary			
HCM 7th Control Delay, s/veh		9.9	
HCM 7th LOS		A	

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	697	12	26	738	4	17	0	65	4	0	0
Future Vol, veh/h	9	697	12	26	738	4	17	0	65	4	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	59	59	59	59	59	59	59	59	59	59	59	59
Heavy Vehicles, %	1	1	1	1	1	1	0	0	0	0	0	0
Mvmt Flow	15	1181	20	44	1251	7	29	0	110	7	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1258	0	0	1202	0	0	1936	2568	601	1964	2575	629
Stage 1	-	-	-	-	-	-	1222	1222	-	1342	1342	-
Stage 2	-	-	-	-	-	-	714	1346	-	621	1232	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.21	-	-	2.21	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	554	-	-	582	-	-	40	26	449	39	26	430
Stage 1	-	-	-	-	-	-	194	254	-	163	223	-
Stage 2	-	-	-	-	-	-	393	222	-	446	252	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	554	-	-	582	-	-	36	24	449	26	24	430
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	109	-	101	103	-
Stage 1	-	-	-	-	-	-	188	247	-	151	206	-
Stage 2	-	-	-	-	-	-	363	205	-	327	245	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.15	0.4	27.83	43.39
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	293	554	-	-	582	-	-	101	-
HCM Lane V/C Ratio	0.474	0.028	-	-	0.076	-	-	0.067	-
HCM Ctrl Dly (s/v)	27.8	11.7	-	-	11.7	-	-	43.4	0
HCM Lane LOS	D	B	-	-	B	-	-	E	A
HCM 95th %tile Q(veh)	2.4	0.1	-	-	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	270	9	39	211	1	5	0	35	2	0	1
Future Vol, veh/h	0	270	9	39	211	1	5	0	35	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	-	150	-	-	-	-	-	250	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	314	10	45	245	1	6	0	41	2	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	247	0	0	324	0	0	533	656	162	494	661	123
Stage 1	-	-	-	-	-	-	319	319	-	337	337	-
Stage 2	-	-	-	-	-	-	213	337	-	157	324	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1331	-	-	1247	-	-	434	388	860	463	385	911
Stage 1	-	-	-	-	-	-	672	656	-	657	645	-
Stage 2	-	-	-	-	-	-	775	645	-	835	653	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1331	-	-	1247	-	-	418	373	860	425	371	911
Mov Cap-2 Maneuver	-	-	-	-	-	-	512	461	-	504	450	-
Stage 1	-	-	-	-	-	-	672	656	-	633	622	-
Stage 2	-	-	-	-	-	-	746	621	-	796	653	-

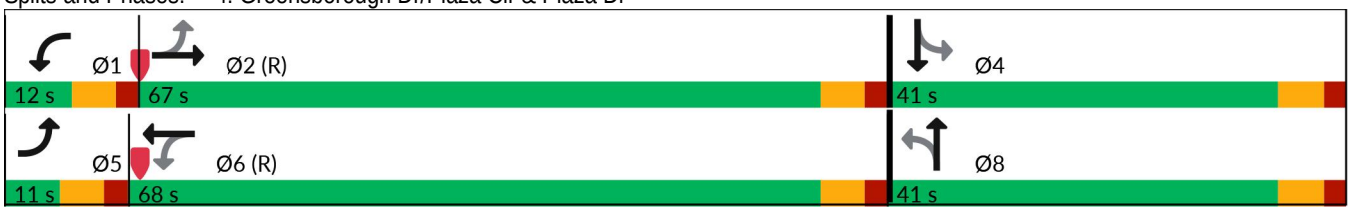
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.24	9.82	11.11
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	793	1331	-	-	1247	-	-	504	911
HCM Lane V/C Ratio	0.059	-	-	-	0.036	-	-	0.005	0.001
HCM Ctrl Dly (s/v)	9.8	0	-	-	8	-	-	12.2	9
HCM Lane LOS	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL
Lane Configurations							
Traffic Volume (vph)	13	697	26	738	17	0	114
Future Volume (vph)	13	697	26	738	17	0	114
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm
Protected Phases	5	2	1	6		8	
Permitted Phases	2		6		8		4
Detector Phase	5	2	1	6	8	8	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	11.0	24.0	24.0	24.0	24.0
Total Split (s)	11.0	67.0	12.0	68.0	41.0	41.0	41.0
Total Split (%)	9.2%	55.8%	10.0%	56.7%	34.2%	34.2%	34.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			
Recall Mode	None	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	78.4	73.6	80.5	76.4		24.3	24.3
Actuated g/C Ratio	0.65	0.61	0.67	0.64		0.20	0.20
v/c Ratio	0.08	0.55	0.15	0.57		0.34	0.85
Control Delay (s/veh)	8.2	16.6	12.5	21.8		12.6	75.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	8.2	16.6	12.5	21.8		12.6	75.1
LOS	A	B	B	C		B	E
Approach Delay (s/veh)		16.5		21.5		12.6	
Approach LOS		B		C		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 22.5	Intersection LOS: C
Intersection Capacity Utilization 44.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Greensborough Dr/Plaza Cir & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	697	12	26	738	29	17	0	65	114	0	0
Future Volume (veh/h)	13	697	12	26	738	29	17	0	65	114	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	1181	20	44	1251	49	29	0	110	193	0	0
Peak Hour Factor	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	0	0	0
Cap, veh/h	287	2267	38	328	2247	88	79	20	239	276	359	0
Arrive On Green	0.02	0.63	0.63	0.03	0.64	0.64	0.19	0.00	0.19	0.19	0.00	0.00
Sat Flow, veh/h	1795	3604	61	1795	3514	138	226	108	1266	1304	1900	0
Grp Volume(v), veh/h	22	587	614	44	637	663	139	0	0	193	0	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1874	1795	1791	1860	1600	0	0	1304	1900	0
Q Serve(g_s), s	0.5	21.7	21.7	1.0	23.9	24.0	1.9	0.0	0.0	11.2	0.0	0.0
Cycle Q Clear(g_c), s	0.5	21.7	21.7	1.0	23.9	24.0	9.0	0.0	0.0	20.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.07	0.21		0.79	1.00		0.00
Lane Grp Cap(c), veh/h	287	1126	1179	328	1145	1189	339	0	0	276	359	0
V/C Ratio(X)	0.08	0.52	0.52	0.13	0.56	0.56	0.41	0.00	0.00	0.70	0.00	0.00
Avail Cap(c_a), veh/h	323	1126	1179	360	1145	1189	500	0	0	410	554	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.71	0.71	0.71	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.7	12.3	12.3	9.2	12.1	12.1	43.1	0.0	0.0	48.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.7	1.6	0.1	1.4	1.3	0.8	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.3	13.2	13.7	0.7	13.2	13.6	6.8	0.0	0.0	9.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.8	14.0	13.9	9.4	13.5	13.5	43.9	0.0	0.0	51.8	0.0	0.0
LnGrp LOS	A	B	B	A	B	B	D			D		
Approach Vol, veh/h		1223			1344			139			193	
Approach Delay, s/veh		13.9			13.4			43.9			51.8	
Approach LOS		B			B			D			D	

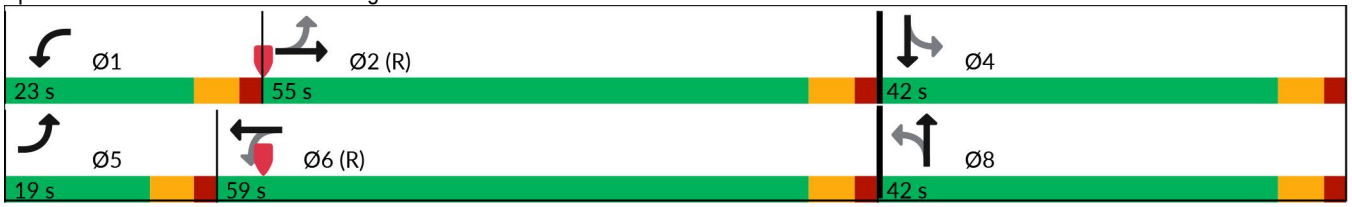
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	81.5		28.7	8.6	82.7		28.7				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		35.0	5.0	62.0		35.0				
Max Q Clear Time (g_c+I1), s	3.0	23.7		22.2	2.5	26.0		11.0				
Green Ext Time (p_c), s	0.0	9.4		0.5	0.0	10.6		0.8				

Intersection Summary												
HCM 7th Control Delay, s/veh			17.6									
HCM 7th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	13	353	48	294	6	0	51	0
Future Volume (vph)	13	353	48	294	6	0	51	0
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases	5	2	1	6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	5	2	1	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	11.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	19.0	55.0	23.0	59.0	42.0	42.0	42.0	42.0
Total Split (%)	15.8%	45.8%	19.2%	49.2%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0		6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	94.4	91.0	97.8	96.2		10.5	10.6	10.6
Actuated g/C Ratio	0.79	0.76	0.82	0.80		0.09	0.09	0.09
v/c Ratio	0.02	0.16	0.07	0.16		0.27	0.43	0.00
Control Delay (s/veh)	3.0	5.7	2.9	4.1		7.6	60.3	0.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	3.0	5.7	2.9	4.1		7.6	60.3	0.0
LOS	A	A	A	A		A	E	A
Approach Delay (s/veh)		5.6		4.0		7.6		59.3
Approach LOS		A		A		A		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay (s/veh): 8.0	Intersection LOS: A
Intersection Capacity Utilization 39.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Greensborough Dr/Plaza Cir & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	353	11	48	294	85	6	0	43	51	0	1
Future Volume (veh/h)	13	353	11	48	294	85	6	0	43	51	0	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	410	13	56	342	99	7	0	50	59	0	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	812	2722	86	840	2165	618	40	4	74	142	0	85
Arrive On Green	0.02	0.76	0.76	0.04	0.78	0.78	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	1810	3572	113	1810	2772	791	119	79	1411	1376	0	1610
Grp Volume(v), veh/h	15	207	216	56	221	220	57	0	0	59	0	1
Grp Sat Flow(s),veh/h/ln	1810	1805	1880	1810	1805	1758	1608	0	0	1376	0	1610
Q Serve(g_s), s	0.2	3.7	3.7	0.8	3.7	3.8	1.7	0.0	0.0	0.0	0.0	0.1
Cycle Q Clear(g_c), s	0.2	3.7	3.7	0.8	3.7	3.8	4.1	0.0	0.0	4.2	0.0	0.1
Prop In Lane	1.00		0.06	1.00		0.45	0.12		0.88	1.00		1.00
Lane Grp Cap(c), veh/h	812	1376	1433	840	1410	1373	118	0	0	142	0	85
V/C Ratio(X)	0.02	0.15	0.15	0.07	0.16	0.16	0.48	0.00	0.00	0.41	0.00	0.01
Avail Cap(c_a), veh/h	978	1376	1433	1033	1410	1373	511	0	0	483	0	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	3.0	3.8	3.8	2.6	3.3	3.3	55.8	0.0	0.0	55.8	0.0	53.9
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.0	0.2	0.2	3.0	0.0	0.0	1.9	0.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	2.1	2.2	0.4	1.9	1.9	3.3	0.0	0.0	3.3	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	3.0	4.1	4.1	2.6	3.5	3.5	58.8	0.0	0.0	57.8	0.0	53.9
LnGrp LOS	A	A	A	A	A	A	E			E		D
Approach Vol, veh/h		438			497			57			60	
Approach Delay, s/veh		4.0			3.4			58.8			57.7	
Approach LOS		A			A			E			E	

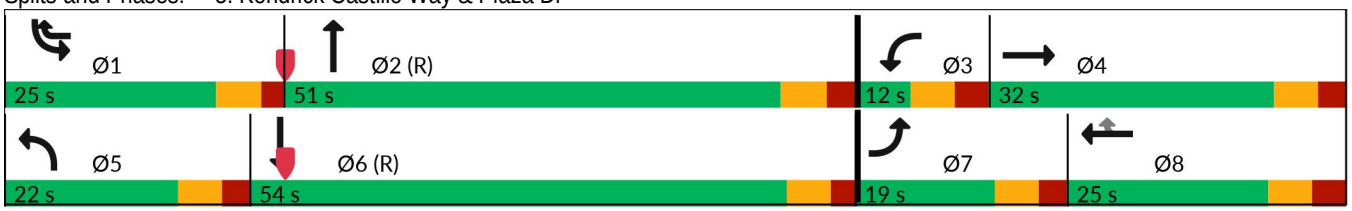
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	97.5		12.3	8.0	99.7		12.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	17.0	49.0		36.0	13.0	53.0		36.0				
Max Q Clear Time (g_c+I1), s	2.8	5.7		6.2	2.2	5.8		6.1				
Green Ext Time (p_c), s	0.1	2.5		0.1	0.0	2.7		0.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			9.8									
HCM 7th LOS			A									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	268	193	23	126	170	238	1223	449	1004
Future Volume (vph)	268	193	23	126	170	238	1223	449	1004
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	19.0	32.0	12.0	25.0	25.0	22.0	51.0	25.0	54.0
Total Split (%)	15.8%	26.7%	10.0%	20.8%	20.8%	18.3%	42.5%	20.8%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.4	22.4	5.0	10.2	40.2	14.5	48.4	23.1	57.0
Actuated g/C Ratio	0.10	0.19	0.04	0.09	0.34	0.12	0.40	0.19	0.48
v/c Ratio	0.83	0.51	0.18	0.47	0.30	0.64	0.72	0.76	0.60
Control Delay (s/veh)	72.8	29.8	58.6	57.3	7.9	57.2	32.9	47.0	33.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	29.8	58.6	57.3	7.9	57.2	32.9	47.0	33.5
LOS	E	C	E	E	A	E	C	D	C
Approach Delay (s/veh)		48.6		31.1			36.6		37.1
Approach LOS		D		C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54.5 (45%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 38.1	Intersection LOS: D
Intersection Capacity Utilization 74.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	193	150	23	126	170	238	1223	90	449	1004	256
Future Volume (veh/h)	268	193	150	23	126	170	238	1223	90	449	1004	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	301	217	169	26	142	191	267	1374	101	504	1128	288
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	356	381	283	83	427	441	330	1974	145	547	1877	479
Arrive On Green	0.10	0.19	0.19	0.02	0.12	0.12	0.09	0.40	0.40	0.05	0.15	0.15
Sat Flow, veh/h	3510	1974	1467	3456	3554	1585	3483	4892	360	3456	4053	1035
Grp Volume(v), veh/h	301	197	189	26	142	191	267	964	511	504	947	469
Grp Sat Flow(s),veh/h/ln	1755	1805	1636	1728	1777	1585	1742	1716	1820	1728	1702	1684
Q Serve(g_s), s	10.1	11.9	12.6	0.9	4.4	11.9	9.0	28.0	28.0	17.4	31.2	31.2
Cycle Q Clear(g_c), s	10.1	11.9	12.6	0.9	4.4	11.9	9.0	28.0	28.0	17.4	31.2	31.2
Prop In Lane	1.00		0.90	1.00		1.00	1.00		0.20	1.00		0.61
Lane Grp Cap(c), veh/h	356	349	316	83	427	441	330	1385	735	547	1576	780
V/C Ratio(X)	0.85	0.57	0.60	0.31	0.33	0.43	0.81	0.70	0.70	0.92	0.60	0.60
Avail Cap(c_a), veh/h	366	384	348	144	533	489	450	1385	735	547	1576	780
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	53.0	43.9	44.2	57.6	48.4	35.5	53.2	29.7	29.7	56.1	40.5	40.5
Incr Delay (d2), s/veh	16.3	1.6	2.3	2.1	0.5	0.7	7.7	2.9	5.4	18.4	1.4	2.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	9.2	9.0	0.7	3.5	8.1	7.6	17.1	18.5	14.1	20.2	20.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.3	45.5	46.5	59.7	48.8	36.2	60.9	32.6	35.1	74.5	41.9	43.3
LnGrp LOS	E	D	D	E	D	D	E	C	D	E	D	D
Approach Vol, veh/h		687			359			1742			1920	
Approach Delay, s/veh		56.2			42.9			37.7			50.8	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	54.9	9.9	30.2	17.9	62.1	18.7	21.4
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	19.0	44.5	5.0	* 26	15.5	* 48	12.5	18.0
Max Q Clear Time (g_c+I1), s	19.4	30.0	2.9	14.6	11.0	33.2	12.1	13.9
Green Ext Time (p_c), s	0.0	7.9	0.0	1.6	0.4	8.0	0.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	46.1
HCM 7th LOS	D

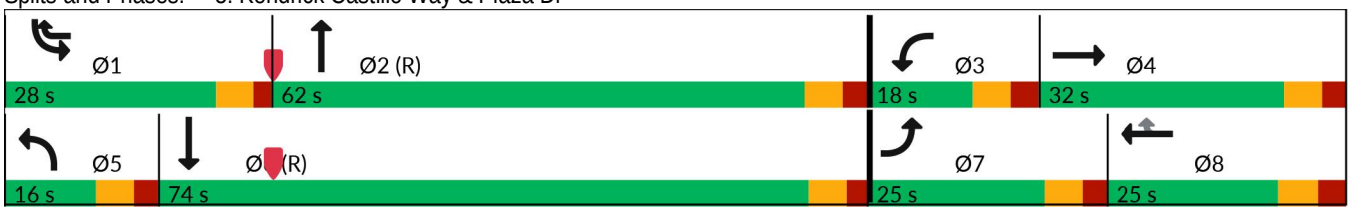
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	256	122	124	82	360	87	1337	203	1461
Future Volume (vph)	256	122	124	82	360	87	1337	203	1461
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	25.0	32.0	18.0	25.0	28.0	16.0	62.0	28.0	74.0
Total Split (%)	17.9%	22.9%	12.9%	17.9%	20.0%	11.4%	44.3%	20.0%	52.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.0	14.8	10.0	8.9	36.4	9.2	68.6	20.5	79.9
Actuated g/C Ratio	0.11	0.11	0.07	0.06	0.26	0.07	0.49	0.15	0.57
v/c Ratio	0.70	0.62	0.54	0.39	0.77	0.42	0.61	0.44	0.61
Control Delay (s/veh)	69.3	35.2	70.9	67.7	40.7	67.9	28.8	55.8	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	35.2	70.9	67.7	40.7	67.9	28.8	55.8	21.4
LOS	E	D	E	E	D	E	C	E	C
Approach Delay (s/veh)		51.7		51.2			31.1		25.2
Approach LOS		D		D			C		C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 33.7	Intersection LOS: C
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	122	153	124	82	360	87	1337	62	203	1461	157
Future Volume (veh/h)	256	122	153	124	82	360	87	1337	62	203	1461	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	281	134	168	136	90	330	96	1469	68	223	1605	173
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	303	271	186	464	336	143	2587	120	282	2592	279
Arrive On Green	0.10	0.17	0.17	0.05	0.13	0.13	0.04	0.51	0.51	0.08	0.55	0.55
Sat Flow, veh/h	3510	1805	1610	3510	3610	1610	3510	5081	235	3510	4754	512
Grp Volume(v), veh/h	281	134	168	136	90	330	96	1000	537	223	1167	611
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1729	1858	1755	1729	1808
Q Serve(g_s), s	11.0	9.3	13.6	5.3	3.1	18.0	3.8	27.9	28.0	8.7	32.4	32.5
Cycle Q Clear(g_c), s	11.0	9.3	13.6	5.3	3.1	18.0	3.8	27.9	28.0	8.7	32.4	32.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.28
Lane Grp Cap(c), veh/h	337	303	271	186	464	336	143	1761	946	282	1885	986
V/C Ratio(X)	0.83	0.44	0.62	0.73	0.19	0.98	0.67	0.57	0.57	0.79	0.62	0.62
Avail Cap(c_a), veh/h	464	329	293	276	464	336	238	1761	946	552	1885	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	62.2	52.3	54.1	65.3	54.5	55.1	66.2	23.7	23.7	63.2	21.8	21.9
Incr Delay (d2), s/veh	9.0	1.0	3.5	5.4	0.2	43.7	5.4	1.3	2.5	4.4	1.4	2.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.1	7.7	9.6	4.5	2.6	21.9	3.2	16.8	18.2	7.1	18.5	19.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	71.2	53.3	57.6	70.7	54.7	98.8	71.6	25.1	26.2	67.6	23.2	24.5
LnGrp LOS	E	D	E	E	D	F	E	C	C	E	C	C
Approach Vol, veh/h		583			556			1633			2001	
Approach Delay, s/veh		63.2			84.8			28.2			28.5	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.3	77.8	14.4	30.5	12.2	82.8	20.0	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	22.0	55.5	11.0	* 26	9.5	* 68	18.5	18.0
Max Q Clear Time (g_c+I1), s	10.7	30.0	7.3	15.6	5.8	34.5	13.0	20.0
Green Ext Time (p_c), s	0.5	11.2	0.1	1.1	0.1	16.2	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	39.2
HCM 7th LOS	D

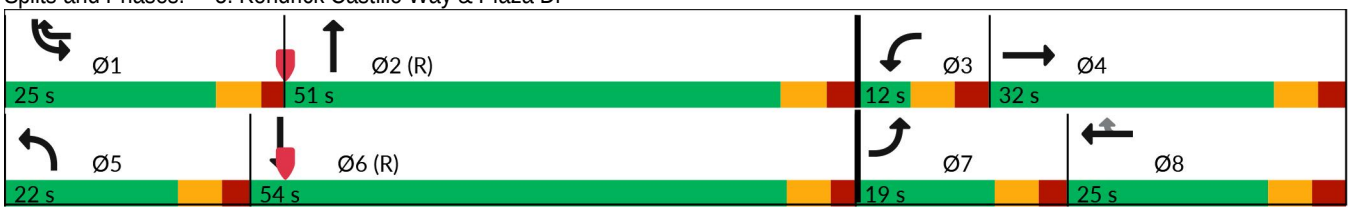
Notes

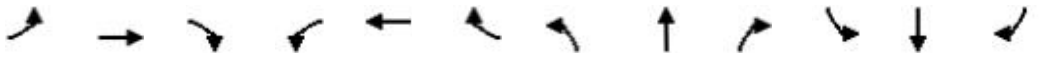
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	301	207	24	132	175	249	1260	463	1034
Future Volume (vph)	301	207	24	132	175	249	1260	463	1034
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	19.0	32.0	12.0	25.0	25.0	22.0	51.0	25.0	54.0
Total Split (%)	15.8%	26.7%	10.0%	20.8%	20.8%	18.3%	42.5%	20.8%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.5	22.8	5.0	10.5	41.1	14.9	47.4	23.6	56.1
Actuated g/C Ratio	0.10	0.19	0.04	0.09	0.34	0.12	0.40	0.20	0.47
v/c Ratio	0.93	0.55	0.19	0.48	0.31	0.65	0.75	0.77	0.63
Control Delay (s/veh)	85.7	30.9	58.8	56.9	8.3	57.1	34.5	47.1	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.7	30.9	58.8	56.9	8.3	57.1	34.5	47.1	34.6
LOS	F	C	E	E	A	E	C	D	C
Approach Delay (s/veh)		55.2		31.3			38.0		37.9
Approach LOS		E		C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54.5 (45%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 40.1	Intersection LOS: D
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	207	169	24	132	175	249	1260	93	463	1034	272
Future Volume (veh/h)	301	207	169	24	132	175	249	1260	93	463	1034	272
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	338	233	190	27	148	197	280	1416	104	520	1162	306
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	366	383	299	85	437	446	343	1946	143	547	1825	481
Arrive On Green	0.10	0.20	0.20	0.02	0.12	0.12	0.10	0.40	0.40	0.05	0.15	0.15
Sat Flow, veh/h	3510	1928	1506	3456	3554	1585	3483	4892	359	3456	4024	1060
Grp Volume(v), veh/h	338	217	206	27	148	197	280	993	527	520	983	485
Grp Sat Flow(s),veh/h/ln	1755	1805	1629	1728	1777	1585	1742	1716	1821	1728	1702	1680
Q Serve(g_s), s	11.5	13.2	13.9	0.9	4.6	12.2	9.5	29.4	29.4	18.0	32.6	32.6
Cycle Q Clear(g_c), s	11.5	13.2	13.9	0.9	4.6	12.2	9.5	29.4	29.4	18.0	32.6	32.6
Prop In Lane	1.00		0.92	1.00		1.00	1.00		0.20	1.00		0.63
Lane Grp Cap(c), veh/h	366	358	323	85	437	446	343	1365	724	547	1544	762
V/C Ratio(X)	0.92	0.61	0.64	0.32	0.34	0.44	0.82	0.73	0.73	0.95	0.64	0.64
Avail Cap(c_a), veh/h	366	384	346	144	533	489	450	1365	724	547	1544	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	53.3	43.8	44.1	57.5	48.1	35.4	53.0	30.6	30.6	56.4	41.7	41.7
Incr Delay (d2), s/veh	28.7	2.5	3.5	2.1	0.5	0.7	8.7	3.4	6.3	23.1	1.6	3.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.6	10.0	9.8	0.8	3.6	8.3	7.9	17.9	19.5	14.8	20.9	21.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.0	46.3	47.6	59.6	48.6	36.1	61.7	34.1	36.9	79.5	43.4	45.0
LnGrp LOS	F	D	D	E	D	D	E	C	D	E	D	D
Approach Vol, veh/h		761			372			1800			1988	
Approach Delay, s/veh		62.5			42.8			39.2			53.2	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	54.2	10.0	30.8	18.3	60.9	19.0	21.8
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	19.0	44.5	5.0	* 26	15.5	* 48	12.5	18.0
Max Q Clear Time (g_c+I1), s	20.0	31.4	2.9	15.9	11.5	34.6	13.5	14.2
Green Ext Time (p_c), s	0.0	7.6	0.0	1.6	0.3	7.8	0.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	48.7
HCM 7th LOS	D

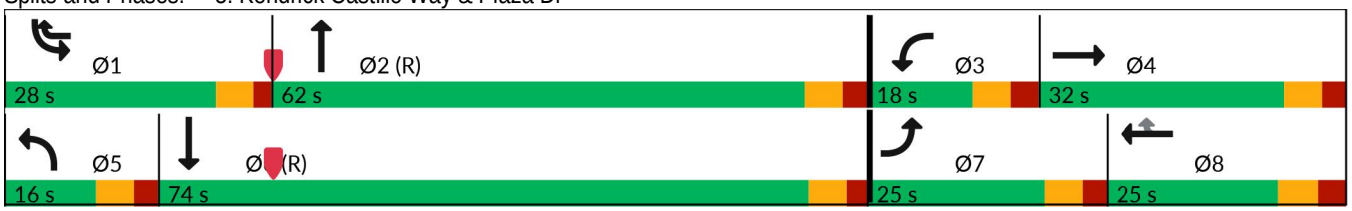
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	277	130	128	90	371	101	1378	209	1505
Future Volume (vph)	277	130	128	90	371	101	1378	209	1505
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	25.0	32.0	18.0	25.0	28.0	16.0	62.0	28.0	74.0
Total Split (%)	17.9%	22.9%	12.9%	17.9%	20.0%	11.4%	44.3%	20.0%	52.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	16.6	15.6	10.1	9.2	37.4	9.8	67.1	21.2	78.4
Actuated g/C Ratio	0.12	0.11	0.07	0.07	0.27	0.07	0.48	0.15	0.56
v/c Ratio	0.73	0.65	0.56	0.42	0.77	0.45	0.64	0.43	0.65
Control Delay (s/veh)	70.4	37.9	71.3	67.8	41.1	68.1	30.5	55.3	23.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.4	37.9	71.3	67.8	41.1	68.1	30.5	55.3	23.0
LOS	E	D	E	E	D	E	C	E	C
Approach Delay (s/veh)		53.6		51.7			32.9		26.6
Approach LOS		D		D			C		C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 35.3	Intersection LOS: D
Intersection Capacity Utilization 74.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	277	130	165	128	90	371	101	1378	64	209	1505	182
Future Volume (veh/h)	277	130	165	128	90	371	101	1378	64	209	1505	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	304	143	181	141	99	342	111	1514	70	230	1654	200
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	360	312	279	191	464	340	159	2544	118	289	2506	302
Arrive On Green	0.10	0.17	0.17	0.05	0.13	0.13	0.05	0.50	0.50	0.08	0.53	0.53
Sat Flow, veh/h	3510	1805	1610	3510	3610	1610	3510	5081	235	3510	4691	566
Grp Volume(v), veh/h	304	143	181	141	99	342	111	1030	554	230	1218	636
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1729	1858	1755	1729	1798
Q Serve(g_s), s	11.9	10.0	14.7	5.5	3.4	18.0	4.4	29.7	29.7	9.0	35.5	35.7
Cycle Q Clear(g_c), s	11.9	10.0	14.7	5.5	3.4	18.0	4.4	29.7	29.7	9.0	35.5	35.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	360	312	279	191	464	340	159	1732	930	289	1848	961
V/C Ratio(X)	0.84	0.46	0.65	0.74	0.21	1.01	0.70	0.60	0.60	0.79	0.66	0.66
Avail Cap(c_a), veh/h	464	329	293	276	464	340	238	1732	930	552	1848	961
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	61.7	52.0	53.9	65.2	54.7	55.2	65.9	24.9	24.9	63.1	23.4	23.5
Incr Delay (d2), s/veh	10.8	1.0	4.7	5.9	0.2	50.5	5.4	1.5	2.8	4.2	1.6	3.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.7	8.1	10.3	4.7	2.8	23.3	3.7	17.7	19.2	7.2	20.0	21.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	72.6	53.0	58.6	71.1	54.9	105.7	71.3	26.4	27.7	67.2	25.0	26.5
LnGrp LOS	E	D	E	E	D	F	E	C	C	E	C	C
Approach Vol, veh/h		628			582			1695			2084	
Approach Delay, s/veh		64.1			88.7			29.7			30.1	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	76.6	14.6	31.2	12.9	81.3	20.8	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	22.0	55.5	11.0	* 26	9.5	* 68	18.5	18.0
Max Q Clear Time (g_c+I1), s	11.0	31.7	7.5	16.7	6.4	37.7	13.9	20.0
Green Ext Time (p_c), s	0.5	11.3	0.1	1.2	0.1	16.3	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	41.1
HCM 7th LOS	D

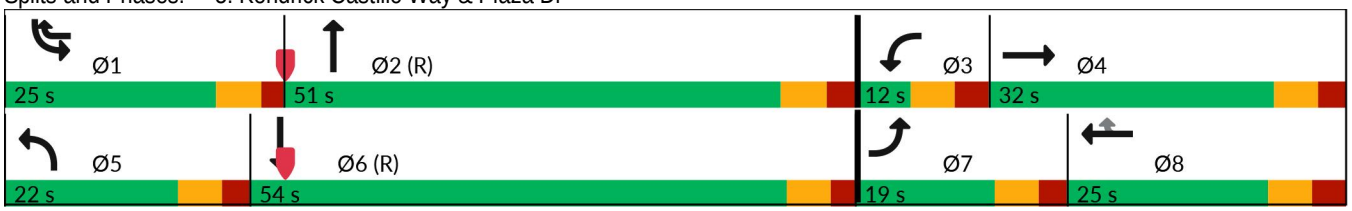
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	344	219	24	136	175	257	1260	463	1034
Future Volume (vph)	344	219	24	136	175	257	1260	463	1034
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	19.0	32.0	12.0	25.0	25.0	22.0	51.0	25.0	54.0
Total Split (%)	15.8%	26.7%	10.0%	20.8%	20.8%	18.3%	42.5%	20.8%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.5	23.2	5.0	10.9	41.1	15.0	47.4	23.3	55.6
Actuated g/C Ratio	0.10	0.19	0.04	0.09	0.34	0.13	0.40	0.19	0.46
v/c Ratio	1.06	0.59	0.19	0.48	0.31	0.67	0.75	0.78	0.64
Control Delay (s/veh)	115.9	31.5	58.8	56.3	8.3	57.7	34.5	47.9	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	115.9	31.5	58.8	56.3	8.3	57.7	34.5	47.9	35.1
LOS	F	C	E	E	A	E	C	D	D
Approach Delay (s/veh)		69.9		31.4			38.2		38.4
Approach LOS		E		C			D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 54.5 (45%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 43.1	Intersection LOS: D
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	344	219	193	24	136	175	257	1260	93	463	1034	285
Future Volume (veh/h)	344	219	193	24	136	175	257	1260	93	463	1034	285
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	387	246	217	27	153	197	289	1416	104	520	1162	320
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	366	368	311	85	438	446	351	1945	143	547	1795	494
Arrive On Green	0.10	0.20	0.20	0.02	0.12	0.12	0.10	0.40	0.40	0.16	0.45	0.45
Sat Flow, veh/h	3510	1853	1570	3456	3554	1585	3483	4892	359	3456	3981	1096
Grp Volume(v), veh/h	387	239	224	27	153	197	289	993	527	520	994	488
Grp Sat Flow(s),veh/h/ln	1755	1805	1617	1728	1777	1585	1742	1716	1821	1728	1702	1673
Q Serve(g_s), s	12.5	14.7	15.4	0.9	4.7	12.2	9.8	29.4	29.4	17.9	27.2	27.2
Cycle Q Clear(g_c), s	12.5	14.7	15.4	0.9	4.7	12.2	9.8	29.4	29.4	17.9	27.2	27.2
Prop In Lane	1.00		0.97	1.00		1.00	1.00		0.20	1.00		0.66
Lane Grp Cap(c), veh/h	366	358	321	85	438	446	351	1364	724	547	1535	754
V/C Ratio(X)	1.06	0.67	0.70	0.32	0.35	0.44	0.82	0.73	0.73	0.95	0.65	0.65
Avail Cap(c_a), veh/h	366	384	344	144	533	489	450	1364	724	547	1535	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	53.8	44.4	44.7	57.5	48.2	35.4	52.9	30.6	30.6	50.0	25.5	25.5
Incr Delay (d2), s/veh	63.3	4.0	5.6	2.1	0.5	0.7	9.3	3.4	6.3	23.1	1.7	3.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.7	11.1	10.8	0.8	3.8	8.3	8.1	17.9	19.5	13.8	15.7	16.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	117.0	48.5	50.3	59.6	48.7	36.1	62.2	34.1	37.0	73.2	27.3	29.0
LnGrp LOS	F	D	D	E	D	D	E	C	D	E	C	C
Approach Vol, veh/h		850			377			1809			2002	
Approach Delay, s/veh		80.2			42.9			39.4			39.6	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	54.2	10.0	30.8	18.6	60.6	19.0	21.8
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	19.0	44.5	5.0	* 26	15.5	* 48	12.5	18.0
Max Q Clear Time (g_c+I1), s	19.9	31.4	2.9	17.4	11.8	29.2	14.5	14.2
Green Ext Time (p_c), s	0.0	7.6	0.0	1.6	0.3	9.7	0.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	46.6
HCM 7th LOS	D

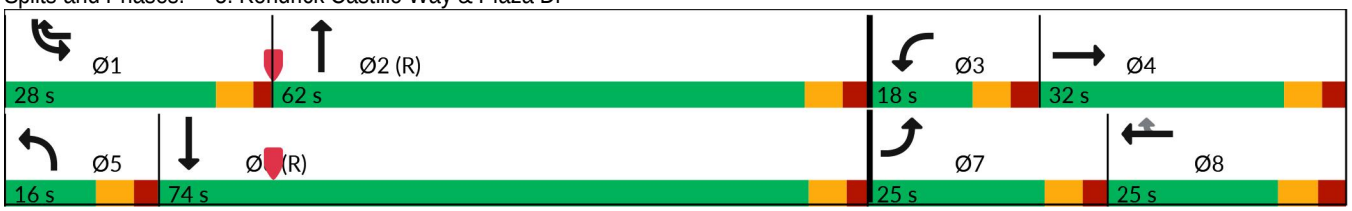
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	303	138	128	103	371	127	1378	209	1505
Future Volume (vph)	303	138	128	103	371	127	1378	209	1505
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	25.0	32.0	18.0	25.0	28.0	16.0	62.0	28.0	74.0
Total Split (%)	17.9%	22.9%	12.9%	17.9%	20.0%	11.4%	44.3%	20.0%	52.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.2	16.8	10.1	9.7	37.4	10.9	66.5	20.6	76.2
Actuated g/C Ratio	0.12	0.12	0.07	0.07	0.27	0.08	0.48	0.15	0.54
v/c Ratio	0.78	0.67	0.56	0.45	0.77	0.51	0.65	0.45	0.69
Control Delay (s/veh)	72.4	40.1	71.3	67.9	41.1	68.4	30.9	56.0	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.4	40.1	71.3	67.9	41.1	68.4	30.9	56.0	25.2
LOS	E	D	E	E	D	E	C	E	C
Approach Delay (s/veh)		55.8		52.1			34.0		28.5
Approach LOS		E		D			C		C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 36.9	Intersection LOS: D
Intersection Capacity Utilization 75.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	303	138	180	128	103	371	127	1378	64	209	1505	227
Future Volume (veh/h)	303	138	180	128	103	371	127	1378	64	209	1505	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	152	198	141	113	342	140	1514	70	230	1654	249
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	387	326	291	191	464	340	189	2504	116	289	2358	353
Arrive On Green	0.11	0.18	0.18	0.05	0.13	0.13	0.05	0.49	0.49	0.08	0.52	0.52
Sat Flow, veh/h	3510	1805	1610	3510	3610	1610	3510	5081	235	3510	4553	682
Grp Volume(v), veh/h	333	152	198	141	113	342	140	1030	554	230	1254	649
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1729	1858	1755	1729	1777
Q Serve(g_s), s	13.1	10.5	16.1	5.5	3.9	18.0	5.5	30.1	30.1	9.0	38.4	38.8
Cycle Q Clear(g_c), s	13.1	10.5	16.1	5.5	3.9	18.0	5.5	30.1	30.1	9.0	38.4	38.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.38
Lane Grp Cap(c), veh/h	387	326	291	191	464	340	189	1705	916	289	1791	921
V/C Ratio(X)	0.86	0.47	0.68	0.74	0.24	1.01	0.74	0.60	0.60	0.79	0.70	0.70
Avail Cap(c_a), veh/h	464	329	293	276	464	340	238	1705	916	552	1791	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	61.2	51.3	53.6	65.2	54.9	55.2	65.3	25.6	25.6	63.1	25.5	25.6
Incr Delay (d2), s/veh	13.1	1.0	6.2	5.9	0.3	50.5	8.9	1.6	3.0	4.1	1.9	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.6	8.4	11.2	4.7	3.2	23.3	4.8	18.0	19.5	7.2	21.5	22.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	74.4	52.3	59.7	71.1	55.1	105.7	74.2	27.2	28.6	67.2	27.4	29.4
LnGrp LOS	E	D	E	E	E	F	E	C	C	E	C	C
Approach Vol, veh/h		683			596			1724			2133	
Approach Delay, s/veh		65.2			87.9			31.5			32.3	
Approach LOS		E			F			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	75.5	14.6	32.3	14.0	79.0	21.9	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	22.0	55.5	11.0	* 26	9.5	* 68	18.5	18.0
Max Q Clear Time (g_c+I1), s	11.0	32.1	7.5	18.1	7.5	40.8	15.1	20.0
Green Ext Time (p_c), s	0.5	11.2	0.1	1.1	0.1	15.9	0.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	42.9
HCM 7th LOS	D

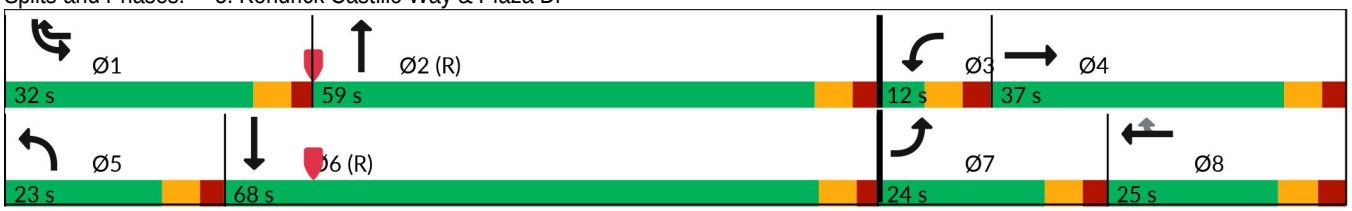
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	352	243	28	156	207	294	1492	548	1225
Future Volume (vph)	352	243	28	156	207	294	1492	548	1225
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	24.0	37.0	12.0	25.0	32.0	23.0	59.0	32.0	68.0
Total Split (%)	17.1%	26.4%	8.6%	17.9%	22.9%	16.4%	42.1%	22.9%	48.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.4	29.5	5.0	12.2	48.9	17.9	54.7	29.6	66.4
Actuated g/C Ratio	0.12	0.21	0.04	0.09	0.35	0.13	0.39	0.21	0.47
v/c Ratio	0.91	0.61	0.25	0.57	0.37	0.74	0.90	0.85	0.73
Control Delay (s/veh)	85.8	39.9	71.0	68.3	15.4	69.5	47.8	64.9	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.8	39.9	71.0	68.3	15.4	69.5	47.8	64.9	31.5
LOS	F	D	E	E	B	E	D	E	C
Approach Delay (s/veh)		60.3		40.4			51.1		40.2
Approach LOS		E		D			D		D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay (s/veh): 47.3	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	243	197	28	156	207	294	1492	110	548	1225	320
Future Volume (veh/h)	352	243	197	28	156	207	294	1492	110	548	1225	320
Initial Q (Qb), veh	1	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	396	273	221	31	175	233	330	1676	102	616	1376	248
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	439	433	339	86	457	498	379	1860	113	642	1950	351
Arrive On Green	0.13	0.22	0.22	0.03	0.13	0.13	0.11	0.38	0.38	0.19	0.45	0.45
Sat Flow, veh/h	3510	1925	1508	3456	3554	1585	3483	4960	302	3456	4350	783
Grp Volume(v), veh/h	396	255	239	31	175	233	330	1159	619	616	1077	547
Grp Sat Flow(s),veh/h/ln	1755	1805	1629	1728	1777	1585	1742	1716	1831	1728	1702	1729
Q Serve(g_s), s	15.6	17.9	18.6	1.2	6.3	16.5	13.1	44.6	44.7	24.7	35.7	35.8
Cycle Q Clear(g_c), s	15.6	17.9	18.6	1.2	6.3	16.5	13.1	44.6	44.7	24.7	35.7	35.8
Prop In Lane	1.00		0.93	1.00		1.00	1.00		0.16	1.00		0.45
Lane Grp Cap(c), veh/h	439	406	366	86	457	498	379	1287	687	642	1526	775
V/C Ratio(X)	0.90	0.63	0.65	0.36	0.38	0.47	0.87	0.90	0.90	0.96	0.71	0.71
Avail Cap(c_a), veh/h	439	406	366	123	457	498	411	1287	687	642	1526	775
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	60.5	49.0	49.3	67.1	55.9	38.6	61.4	41.3	41.3	56.5	31.2	31.2
Incr Delay (d2), s/veh	21.6	3.1	4.1	2.5	0.5	0.7	17.1	10.3	17.3	20.0	1.9	3.6
Initial Q Delay(d3), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	13.0	13.1	12.5	1.0	5.1	10.6	10.8	27.3	30.5	17.1	19.8	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.4	52.1	53.3	69.6	56.4	39.3	78.5	51.6	58.6	76.5	33.0	34.8
LnGrp LOS	F	D	D	E	E	D	E	D	E	E	C	C
Approach Vol, veh/h		890			439			2108			2240	
Approach Delay, s/veh		65.9			48.3			57.9			45.4	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	59.0	10.5	38.5	21.7	69.3	24.0	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	26.0	52.5	5.0	* 31	16.5	* 62	17.5	18.0
Max Q Clear Time (g_c+I1), s	26.7	46.7	3.2	20.6	15.1	37.8	17.6	18.5
Green Ext Time (p_c), s	0.0	4.5	0.0	2.0	0.2	12.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	53.5
HCM 7th LOS	D

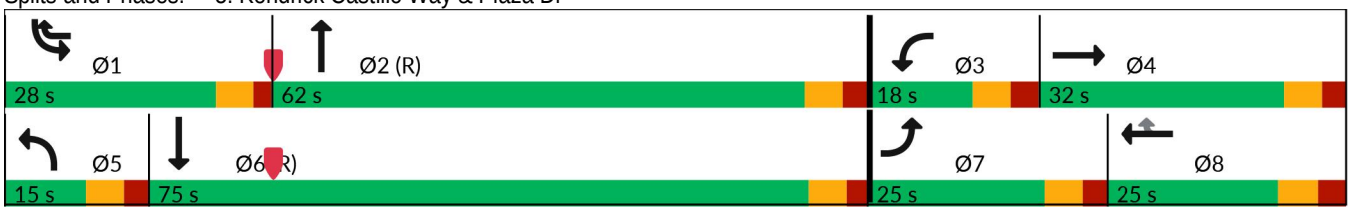
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	325	153	151	106	439	117	1631	248	1783
Future Volume (vph)	325	153	151	106	439	117	1631	248	1783
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	25.0	32.0	18.0	25.0	28.0	15.0	62.0	28.0	75.0
Total Split (%)	17.9%	22.9%	12.9%	17.9%	20.0%	10.7%	44.3%	20.0%	53.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	17.6	17.5	10.5	10.3	42.3	10.2	61.2	24.9	75.9
Actuated g/C Ratio	0.13	0.13	0.08	0.07	0.30	0.07	0.44	0.18	0.54
v/c Ratio	0.81	0.73	0.64	0.44	0.83	0.51	0.83	0.44	0.79
Control Delay (s/veh)	74.7	47.7	74.3	66.5	45.4	69.2	39.9	53.1	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	74.7	47.7	74.3	66.5	45.4	69.2	39.9	53.1	28.9
LOS	E	D	E	E	D	E	D	D	C
Approach Delay (s/veh)		60.7		54.9			41.8		31.6
Approach LOS		E		D			D		C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 41.6	Intersection LOS: D
Intersection Capacity Utilization 85.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	153	194	151	106	439	117	1631	76	248	1783	212
Future Volume (veh/h)	325	153	194	151	106	439	117	1631	76	248	1783	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	357	168	213	166	116	416	129	1792	84	273	1959	233
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	409	325	290	216	464	360	177	2407	113	333	2423	285
Arrive On Green	0.12	0.18	0.18	0.06	0.13	0.13	0.05	0.47	0.47	0.09	0.52	0.52
Sat Flow, veh/h	3510	1805	1610	3510	3610	1610	3510	5078	238	3510	4704	554
Grp Volume(v), veh/h	357	168	213	166	116	416	129	1220	656	273	1435	757
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1729	1857	1755	1729	1800
Q Serve(g_s), s	14.0	11.8	17.5	6.5	4.1	18.0	5.1	40.1	40.2	10.7	48.2	49.3
Cycle Q Clear(g_c), s	14.0	11.8	17.5	6.5	4.1	18.0	5.1	40.1	40.2	10.7	48.2	49.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.31
Lane Grp Cap(c), veh/h	409	325	290	216	464	360	177	1639	881	333	1781	927
V/C Ratio(X)	0.87	0.52	0.73	0.77	0.25	1.16	0.73	0.74	0.75	0.82	0.81	0.82
Avail Cap(c_a), veh/h	464	329	293	276	464	360	213	1639	881	552	1781	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	60.8	51.9	54.2	64.7	54.9	54.4	65.5	29.9	29.9	62.2	28.1	28.4
Incr Delay (d2), s/veh	15.1	1.4	9.1	9.5	0.3	96.9	9.6	3.1	5.7	3.8	3.0	6.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.4	9.2	12.3	5.7	3.3	31.9	4.4	23.3	25.6	8.0	26.1	28.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.9	53.3	63.3	74.2	55.2	151.3	75.1	33.0	35.6	65.9	31.2	34.5
LnGrp LOS	E	D	E	E	E	F	E	C	D	E	C	C
Approach Vol, veh/h		738			698			2005			2465	
Approach Delay, s/veh		67.1			117.0			36.6			36.0	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	72.9	15.6	32.2	13.6	78.6	22.8	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	22.0	55.5	11.0	* 26	8.5	* 69	18.5	18.0
Max Q Clear Time (g_c+I1), s	12.7	42.2	8.5	19.5	7.1	51.3	16.0	20.0
Green Ext Time (p_c), s	0.6	9.3	0.1	1.1	0.0	13.5	0.3	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	49.7
HCM 7th LOS	D

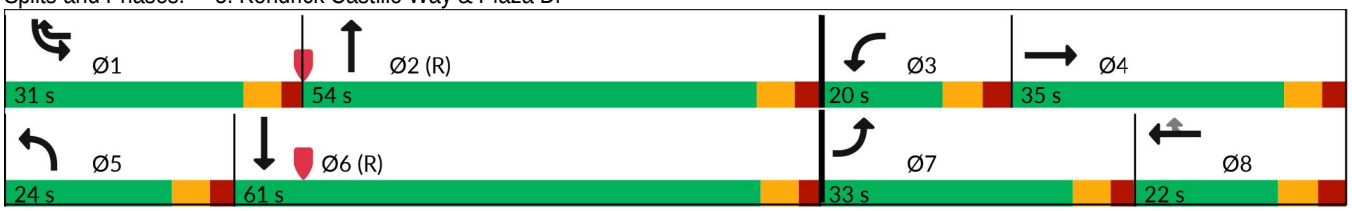
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	395	255	28	160	207	302	1492	548	1225
Future Volume (vph)	395	255	28	160	207	302	1492	548	1225
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	33.0	35.0	20.0	22.0	31.0	24.0	54.0	31.0	61.0
Total Split (%)	23.6%	25.0%	14.3%	15.7%	22.1%	17.1%	38.6%	22.1%	43.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.5	33.2	6.7	12.3	48.5	17.7	49.9	29.3	61.5
Actuated g/C Ratio	0.16	0.24	0.05	0.09	0.35	0.13	0.36	0.21	0.44
v/c Ratio	0.79	0.59	0.19	0.58	0.37	0.78	0.99	0.86	0.80
Control Delay (s/veh)	66.9	37.7	66.2	68.9	16.1	71.9	63.2	66.3	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	37.7	66.2	68.9	16.1	71.9	63.2	66.3	37.1
LOS	E	D	E	E	B	E	E	E	D
Approach Delay (s/veh)		50.9		41.0			64.6		44.7
Approach LOS		D		D			E		D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 52.6	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	395	255	221	28	160	207	302	1492	110	548	1225	333
Future Volume (veh/h)	395	255	221	28	160	207	302	1492	110	548	1225	333
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	444	287	248	31	180	233	339	1676	124	616	1376	262
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	2	2	2	1	1	1	2	2	2
Cap, veh/h	509	416	349	86	381	453	390	1876	139	617	1924	366
Arrive On Green	0.14	0.22	0.22	0.03	0.11	0.11	0.11	0.38	0.38	0.18	0.45	0.45
Sat Flow, veh/h	3510	1862	1562	3456	3554	1585	3483	4890	361	3456	4308	819
Grp Volume(v), veh/h	444	278	257	31	180	233	339	1175	625	616	1087	551
Grp Sat Flow(s),veh/h/ln	1755	1805	1619	1728	1777	1585	1742	1716	1820	1728	1702	1723
Q Serve(g_s), s	17.3	19.8	20.5	1.2	6.7	15.0	13.4	45.0	45.1	24.9	36.3	36.4
Cycle Q Clear(g_c), s	17.3	19.8	20.5	1.2	6.7	15.0	13.4	45.0	45.1	24.9	36.3	36.4
Prop In Lane	1.00		0.96	1.00		1.00	1.00		0.20	1.00		0.48
Lane Grp Cap(c), veh/h	509	403	362	86	381	453	390	1316	698	617	1521	770
V/C Ratio(X)	0.87	0.69	0.71	0.36	0.47	0.51	0.87	0.89	0.89	1.00	0.71	0.72
Avail Cap(c_a), veh/h	664	403	362	321	381	453	435	1316	698	617	1521	770
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Uniform Delay (d), s/veh	58.6	49.9	50.2	67.1	58.8	41.9	61.2	40.5	40.5	57.5	31.5	31.5
Incr Delay (d2), s/veh	8.0	3.8	5.0	2.5	0.9	1.0	15.8	9.5	16.3	29.2	2.0	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.3	13.7	13.0	1.0	5.4	11.1	10.9	27.3	30.3	18.1	20.1	20.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.5	53.7	55.2	69.6	59.7	42.9	77.0	50.0	56.8	86.7	33.4	35.3
LnGrp LOS	E	D	E	E	E	D	E	D	E	F	C	D
Approach Vol, veh/h		979			444			2139			2254	
Approach Delay, s/veh		59.9			51.6			56.3			48.5	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.0	60.2	10.5	38.3	22.2	69.0	26.8	22.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	25.0	47.5	13.0	* 29	17.5	* 55	26.5	15.0
Max Q Clear Time (g_c+I1), s	26.9	47.1	3.2	22.5	15.4	38.4	19.3	17.0
Green Ext Time (p_c), s	0.0	0.4	0.0	1.6	0.3	9.9	1.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	53.5
HCM 7th LOS	D

Notes

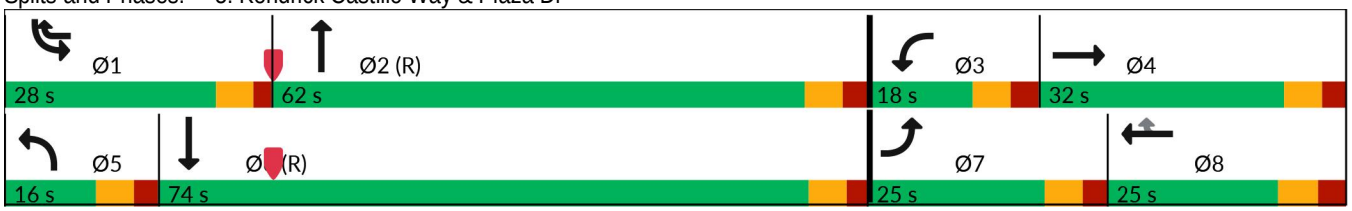
User approved pedestrian interval to be less than phase max green.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	351	161	151	119	439	143	1631	248	1783
Future Volume (vph)	351	161	151	119	439	143	1631	248	1783
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases					8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.5	25.0	12.0	25.0	11.0	11.5	24.5	11.0	24.0
Total Split (s)	25.0	32.0	18.0	25.0	28.0	16.0	62.0	28.0	74.0
Total Split (%)	17.9%	22.9%	12.9%	17.9%	20.0%	11.4%	44.3%	20.0%	52.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.5	6.5	7.0	7.0	6.0	6.5	6.5	6.0	6.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.0	18.7	10.5	11.1	42.4	10.9	60.6	24.3	74.0
Actuated g/C Ratio	0.13	0.13	0.08	0.08	0.30	0.08	0.43	0.17	0.53
v/c Ratio	0.86	0.73	0.64	0.46	0.83	0.58	0.84	0.45	0.83
Control Delay (s/veh)	78.3	45.8	74.3	66.1	45.2	70.9	40.6	54.0	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.3	45.8	74.3	66.1	45.2	70.9	40.6	54.0	31.5
LOS	E	D	E	E	D	E	D	D	C
Approach Delay (s/veh)		61.7		54.9			42.9		34.0
Approach LOS		E		D			D		C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 43.2	Intersection LOS: D
Intersection Capacity Utilization 86.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Kendrick Castillo Way & Plaza Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	351	161	209	151	119	439	143	1631	76	248	1783	257
Future Volume (veh/h)	351	161	209	151	119	439	143	1631	76	248	1783	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	386	177	230	166	131	416	157	1792	84	273	1959	282
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	435	338	302	216	464	360	206	2370	111	333	2292	326
Arrive On Green	0.12	0.19	0.19	0.06	0.13	0.13	0.06	0.47	0.47	0.09	0.50	0.50
Sat Flow, veh/h	3510	1805	1610	3510	3610	1610	3510	5078	238	3510	4589	652
Grp Volume(v), veh/h	386	177	230	166	131	416	157	1220	656	273	1470	771
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1729	1857	1755	1729	1783
Q Serve(g_s), s	15.2	12.4	19.0	6.5	4.6	18.0	6.2	40.7	40.8	10.7	51.8	53.4
Cycle Q Clear(g_c), s	15.2	12.4	19.0	6.5	4.6	18.0	6.2	40.7	40.8	10.7	51.8	53.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		0.37
Lane Grp Cap(c), veh/h	435	338	302	216	464	360	206	1614	867	333	1727	890
V/C Ratio(X)	0.89	0.52	0.76	0.77	0.28	1.16	0.76	0.76	0.76	0.82	0.85	0.87
Avail Cap(c_a), veh/h	464	338	302	276	464	360	238	1614	867	552	1727	890
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	60.4	51.2	53.9	64.7	55.2	54.4	64.9	30.8	30.8	62.2	30.5	30.9
Incr Delay (d2), s/veh	17.6	1.4	10.8	9.5	0.3	96.9	11.8	3.3	6.1	3.7	4.1	8.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	12.3	9.6	13.2	5.7	3.8	31.9	5.5	23.7	26.1	8.0	28.2	30.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.9	52.7	64.7	74.2	55.5	151.3	76.7	34.1	36.9	65.9	34.6	39.4
LnGrp LOS	E	D	E	E	E	F	E	C	D	E	C	D
Approach Vol, veh/h		793			713			2033			2514	
Approach Delay, s/veh		68.4			115.7			38.3			39.5	
Approach LOS		E			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.3	71.8	15.6	33.2	14.7	76.4	23.9	25.0
Change Period (Y+Rc), s	6.0	6.5	7.0	* 7	6.5	* 6.5	6.5	7.0
Max Green Setting (Gmax), s	22.0	55.5	11.0	* 26	9.5	* 68	18.5	18.0
Max Q Clear Time (g_c+I1), s	12.7	42.8	8.5	21.0	8.2	55.4	17.2	20.0
Green Ext Time (p_c), s	0.6	8.9	0.1	0.9	0.1	10.3	0.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	51.9
HCM 7th LOS	D

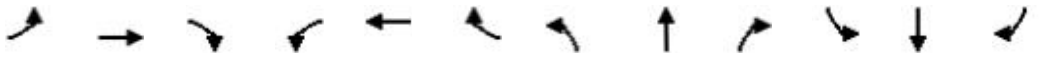
Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	149	0	984	1190	594	42	757
Future Volume (vph)	149	0	984	1190	594	42	757
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.3	32.0	120.0	69.1	69.1	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.58	0.58	0.65	0.66
v/c Ratio	0.17	0.18	0.68	0.44	0.55	0.18	0.35
Control Delay (s/veh)	30.4	29.4	2.3	17.1	11.8	23.8	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.4	29.4	2.3	17.1	11.8	23.8	25.8
LOS	C	C	A	B	B	C	C
Approach Delay (s/veh)		5.9		15.3			25.7
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay (s/veh): 14.7	Intersection LOS: B
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	0	984	0	0	0	0	1190	594	42	757	0
Future Volume (veh/h)	149	0	984	0	0	0	0	1190	594	42	757	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1870	1870	0
Adj Flow Rate, veh/h	164	0	0				0	1308	0	46	832	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1				0	1	1	2	2	0
Cap, veh/h	236	0					0	3933		377	3010	0
Arrive On Green	0.07	0.00	0.00				0.00	0.51	0.00	0.07	1.00	0.00
Sat Flow, veh/h	3591	0	1598				0	5316	1598	1781	3647	0
Grp Volume(v), veh/h	164	0	0				0	1308	0	46	832	0
Grp Sat Flow(s),veh/h/ln	1795	0	1598				0	1716	1598	1781	1777	0
Q Serve(g_s), s	5.4	0.0	0.0				0.0	17.9	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	5.4	0.0	0.0				0.0	17.9	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	236	0					0	3933		377	3010	0
V/C Ratio(X)	0.70	0.00					0.00	0.33		0.12	0.28	0.00
Avail Cap(c_a), veh/h	1197	0					0	3933		697	3010	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.67	0.67	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.66	0.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	54.9	0.0	0.0				0.0	11.3	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.2	0.0	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	0.0	0.0				0.0	11.1	0.0	0.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.6	0.0	0.0				0.0	11.4	0.0	4.0	0.2	0.0
LnGrp LOS	E							B		A	A	
Approach Vol, veh/h		164						1308			878	
Approach Delay, s/veh		58.6						11.4			0.4	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.9	97.7		12.4		107.6
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	2.6	19.9		7.4		2.0
Green Ext Time (p_c), s	0.1	8.5		0.5		6.6

Intersection Summary	
HCM 7th Control Delay, s/veh	10.6
HCM 7th LOS	B

Notes

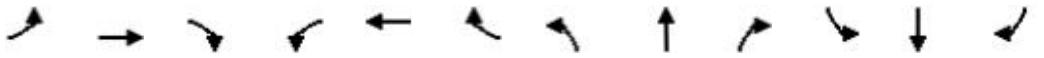
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	73	0	877	1175	686	110	906
Future Volume (vph)	73	0	877	1175	686	110	906
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	26.5	24.0	120.0	72.7	72.7	87.3	89.7
Actuated g/C Ratio	0.22	0.20	1.00	0.61	0.61	0.73	0.75
v/c Ratio	0.10	0.12	0.59	0.41	0.59	0.37	0.37
Control Delay (s/veh)	31.0	28.4	1.6	17.9	3.7	19.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	31.0	28.4	1.6	17.9	3.7	19.8	14.3
LOS	C	C	A	B	A	B	B
Approach Delay (s/veh)		3.7		12.7			14.9
Approach LOS		A		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay (s/veh): 11.0	Intersection LOS: B
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	0	877	0	0	0	0	1175	686	110	906	0
Future Volume (veh/h)	73	0	877	0	0	0	0	1175	686	110	906	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	79	0	0				0	1277	0	120	985	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	140	0					0	4061		447	3155	0
Arrive On Green	0.04	0.00	0.00				0.00	0.78	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	5358	1610	1810	3705	0
Grp Volume(v), veh/h	79	0	0				0	1277	0	120	985	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1610	1810	1805	0
Q Serve(g_s), s	2.6	0.0	0.0				0.0	8.5	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	2.6	0.0	0.0				0.0	8.5	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	140	0					0	4061		447	3155	0
V/C Ratio(X)	0.56	0.00					0.00	0.31		0.27	0.31	0.00
Avail Cap(c_a), veh/h	1206	0					0	4061		758	3155	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.72	0.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	56.7	0.0	0.0				0.0	3.8	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	3.5	0.0	0.0				0.0	0.1	0.0	0.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.2	0.0	0.0				0.0	4.1	0.0	0.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.2	0.0	0.0				0.0	3.9	0.0	2.4	0.2	0.0
LnGrp LOS	E							A		A	A	
Approach Vol, veh/h		79						1277			1105	
Approach Delay, s/veh		60.2						3.9			0.4	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4	6							
Phs Duration (G+Y+Rc), s	10.9	100.0		9.1	110.9							
Change Period (Y+Rc), s	6.0	6.0		4.5	6.0							
Max Green Setting (Gmax), s	25.5	38.0		40.0	69.5							
Max Q Clear Time (g_c+I1), s	3.4	10.5		4.6	2.0							
Green Ext Time (p_c), s	0.3	10.1		0.2	8.4							

Intersection Summary												
HCM 7th Control Delay, s/veh			4.2									
HCM 7th LOS			A									

Notes

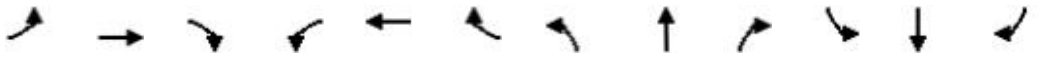
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	154	0	1017	1226	612	43	785
Future Volume (vph)	154	0	1017	1226	612	43	785
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.4	32.0	120.0	69.1	69.1	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.58	0.58	0.65	0.66
v/c Ratio	0.18	0.19	0.70	0.46	0.56	0.19	0.37
Control Delay (s/veh)	30.6	29.5	2.6	16.4	11.7	23.7	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.6	29.5	2.6	16.4	11.7	23.7	25.7
LOS	C	C	A	B	B	C	C
Approach Delay (s/veh)		6.2		14.9			25.6
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 14.5	Intersection LOS: B
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	0	1017	0	0	0	0	1226	612	43	785	0
Future Volume (veh/h)	154	0	1017	0	0	0	0	1226	612	43	785	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1870	1870	0
Adj Flow Rate, veh/h	169	0	0				0	1347	0	47	863	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1				0	1	1	2	2	0
Cap, veh/h	241	0					0	3924		365	3004	0
Arrive On Green	0.07	0.00	0.00				0.00	0.51	0.00	0.07	1.00	0.00
Sat Flow, veh/h	3591	0	1598				0	5316	1598	1781	3647	0
Grp Volume(v), veh/h	169	0	0				0	1347	0	47	863	0
Grp Sat Flow(s),veh/h/ln	1795	0	1598				0	1716	1598	1781	1777	0
Q Serve(g_s), s	5.5	0.0	0.0				0.0	18.6	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0				0.0	18.6	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	241	0					0	3924		365	3004	0
V/C Ratio(X)	0.70	0.00					0.00	0.34		0.13	0.29	0.00
Avail Cap(c_a), veh/h	1197	0					0	3924		685	3004	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.67	0.67	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.59	0.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	54.8	0.0	0.0				0.0	11.5	0.0	4.0	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.1	0.0	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	0.0	0.0				0.0	11.2	0.0	0.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.5	0.0	0.0				0.0	11.7	0.0	4.2	0.2	0.0
LnGrp LOS	E							B		A	A	
Approach Vol, veh/h		169						1347			910	
Approach Delay, s/veh		58.5						11.7			0.4	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	97.5		12.6		107.4
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	2.6	20.6		7.5		2.0
Green Ext Time (p_c), s	0.1	8.6		0.6		6.9

Intersection Summary	
HCM 7th Control Delay, s/veh	10.7
HCM 7th LOS	B

Notes

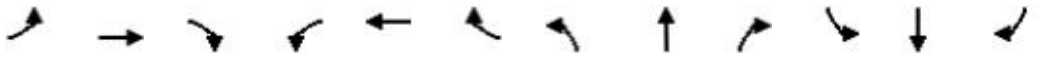
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	75	0	912	1211	707	113	945
Future Volume (vph)	75	0	912	1211	707	113	945
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.1	32.0	120.0	63.2	63.2	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.53	0.53	0.65	0.66
v/c Ratio	0.09	0.09	0.61	0.48	0.63	0.43	0.43
Control Delay (s/veh)	28.0	28.1	1.8	22.2	4.3	25.9	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	28.1	1.8	22.2	4.3	25.9	18.4
LOS	C	C	A	C	A	C	B
Approach Delay (s/veh)		3.8		15.6			19.2
Approach LOS		A		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay (s/veh): 13.6	Intersection LOS: B
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	0	912	0	0	0	0	1211	707	113	945	0
Future Volume (veh/h)	75	0	912	0	0	0	0	1211	707	113	945	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	82	0	0				0	1316	0	123	1027	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	141	0					0	4059		435	3153	0
Arrive On Green	0.04	0.00	0.00				0.00	0.78	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	5358	1610	1810	3705	0
Grp Volume(v), veh/h	82	0	0				0	1316	0	123	1027	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1610	1810	1805	0
Q Serve(g_s), s	2.7	0.0	0.0				0.0	8.9	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0				0.0	8.9	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	141	0					0	4059		435	3153	0
V/C Ratio(X)	0.58	0.00					0.00	0.32		0.28	0.33	0.00
Avail Cap(c_a), veh/h	1206	0					0	4059		745	3153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.68	0.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	56.7	0.0	0.0				0.0	3.8	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.0				0.0	0.1	0.0	0.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	0.0				0.0	4.2	0.0	0.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.5	0.0	0.0				0.0	3.9	0.0	2.5	0.2	0.0
LnGrp LOS	E							A		A	A	
Approach Vol, veh/h		82						1316			1150	
Approach Delay, s/veh		60.5						3.9			0.5	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.9	99.9		9.2		110.8						
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0						
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5						
Max Q Clear Time (g_c+I1), s	3.4	10.9		4.7		2.0						
Green Ext Time (p_c), s	0.3	10.4		0.2		8.9						

Intersection Summary	
HCM 7th Control Delay, s/veh	4.2
HCM 7th LOS	A

Notes

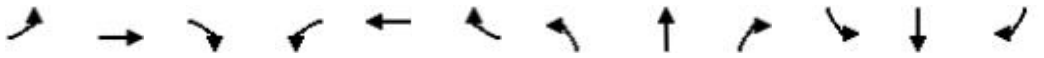
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	154	0	1023	1250	630	43	793
Future Volume (vph)	154	0	1023	1250	630	43	793
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.4	32.0	120.0	69.1	69.1	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.58	0.58	0.65	0.66
v/c Ratio	0.18	0.19	0.70	0.46	0.58	0.19	0.37
Control Delay (s/veh)	30.6	29.5	2.6	16.0	11.7	23.7	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.6	29.5	2.6	16.0	11.7	23.7	25.7
LOS	C	C	A	B	B	C	C
Approach Delay (s/veh)		6.2		14.6			25.6
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay (s/veh): 14.4	Intersection LOS: B
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	0	1023	0	0	0	0	1250	630	43	793	0
Future Volume (veh/h)	154	0	1023	0	0	0	0	1250	630	43	793	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1870	1870	0
Adj Flow Rate, veh/h	169	0	0				0	1374	0	47	871	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1				0	1	1	2	2	0
Cap, veh/h	241	0					0	3924		357	3004	0
Arrive On Green	0.07	0.00	0.00				0.00	0.51	0.00	0.07	1.00	0.00
Sat Flow, veh/h	3591	0	1598				0	5316	1598	1781	3647	0
Grp Volume(v), veh/h	169	0	0				0	1374	0	47	871	0
Grp Sat Flow(s),veh/h/ln	1795	0	1598				0	1716	1598	1781	1777	0
Q Serve(g_s), s	5.5	0.0	0.0				0.0	19.1	0.0	0.6	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0				0.0	19.1	0.0	0.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	241	0					0	3924		357	3004	0
V/C Ratio(X)	0.70	0.00					0.00	0.35		0.13	0.29	0.00
Avail Cap(c_a), veh/h	1197	0					0	3924		677	3004	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.67	0.67	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.55	0.00	0.86	0.86	0.00
Uniform Delay (d), s/veh	54.8	0.0	0.0				0.0	11.6	0.0	4.1	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.1	0.0	0.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	0.0	0.0				0.0	11.3	0.0	0.3	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.5	0.0	0.0				0.0	11.8	0.0	4.3	0.2	0.0
LnGrp LOS	E							B		A	A	
Approach Vol, veh/h		169						1374			918	
Approach Delay, s/veh		58.5						11.8			0.4	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.0	97.5		12.6		107.4
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	2.6	21.1		7.5		2.0
Green Ext Time (p_c), s	0.1	8.7		0.6		7.0

Intersection Summary	
HCM 7th Control Delay, s/veh	10.7
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	75	0	931	1226	718	113	971
Future Volume (vph)	75	0	931	1226	718	113	971
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.1	32.0	120.0	63.2	63.2	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.53	0.53	0.65	0.66
v/c Ratio	0.09	0.09	0.63	0.49	0.64	0.43	0.44
Control Delay (s/veh)	28.0	28.1	1.8	22.3	4.5	26.1	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	28.1	1.8	22.3	4.5	26.1	18.6
LOS	C	C	A	C	A	C	B
Approach Delay (s/veh)		3.8		15.7			19.4
Approach LOS		A		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay (s/veh): 13.7	Intersection LOS: B
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	0	931	0	0	0	0	1226	718	113	971	0
Future Volume (veh/h)	75	0	931	0	0	0	0	1226	718	113	971	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	82	0	0				0	1333	0	123	1055	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	141	0					0	4059		429	3153	0
Arrive On Green	0.04	0.00	0.00				0.00	0.78	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	5358	1610	1810	3705	0
Grp Volume(v), veh/h	82	0	0				0	1333	0	123	1055	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1610	1810	1805	0
Q Serve(g_s), s	2.7	0.0	0.0				0.0	9.0	0.0	1.4	0.0	0.0
Cycle Q Clear(g_c), s	2.7	0.0	0.0				0.0	9.0	0.0	1.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	141	0					0	4059		429	3153	0
V/C Ratio(X)	0.58	0.00					0.00	0.33		0.29	0.33	0.00
Avail Cap(c_a), veh/h	1206	0					0	4059		740	3153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.67	0.00	0.77	0.77	0.00
Uniform Delay (d), s/veh	56.7	0.0	0.0				0.0	3.8	0.0	2.3	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.0				0.0	0.1	0.0	0.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	0.0	0.0				0.0	4.3	0.0	0.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.5	0.0	0.0				0.0	4.0	0.0	2.5	0.2	0.0
LnGrp LOS	E							A		A	A	
Approach Vol, veh/h		82						1333			1178	
Approach Delay, s/veh		60.5						4.0			0.5	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.9	99.9		9.2		110.8
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	3.4	11.0		4.7		2.0
Green Ext Time (p_c), s	0.3	10.6		0.2		9.3

Intersection Summary	
HCM 7th Control Delay, s/veh	4.2
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	182	0	1204	1452	725	51	929
Future Volume (vph)	182	0	1204	1452	725	51	929
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	40.0	40.0	120.0	58.7	58.7	69.5	69.5
Actuated g/C Ratio	0.33	0.33	1.00	0.49	0.49	0.58	0.58
v/c Ratio	0.18	0.18	0.83	0.64	0.71	0.31	0.50
Control Delay (s/veh)	29.4	29.4	5.1	18.2	15.1	25.6	31.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	29.4	5.1	18.2	15.1	25.6	31.1
LOS	C	C	A	B	B	C	C
Approach Delay (s/veh)		8.3		17.2			30.9
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 17.4	Intersection LOS: B
Intersection Capacity Utilization 67.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	0	1204	0	0	0	0	1452	725	51	929	0
Future Volume (veh/h)	182	0	1204	0	0	0	0	1452	725	51	929	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1870	1870	0
Adj Flow Rate, veh/h	200	0	0				0	1596	0	56	1021	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1				0	1	1	2	2	0
Cap, veh/h	275	0					0	3863		279	2970	0
Arrive On Green	0.08	0.00	0.00				0.00	0.25	0.00	0.07	1.00	0.00
Sat Flow, veh/h	3591	0	1598				0	5316	1598	1781	3647	0
Grp Volume(v), veh/h	200	0	0				0	1596	0	56	1021	0
Grp Sat Flow(s),veh/h/ln	1795	0	1598				0	1716	1598	1781	1777	0
Q Serve(g_s), s	6.5	0.0	0.0				0.0	31.2	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0				0.0	31.2	0.0	0.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	275	0					0	3863		279	2970	0
V/C Ratio(X)	0.73	0.00					0.00	0.41		0.20	0.34	0.00
Avail Cap(c_a), veh/h	1197	0					0	3863		595	2970	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.28	0.00	0.77	0.77	0.00
Uniform Delay (d), s/veh	54.2	0.0	0.0				0.0	23.0	0.0	7.6	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.1	0.0	0.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	0.0				0.0	17.6	0.0	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.8	0.0	0.0				0.0	23.1	0.0	7.9	0.2	0.0
LnGrp LOS	E							C		A	A	
Approach Vol, veh/h		200						1596			1077	
Approach Delay, s/veh		57.8						23.1			0.6	
Approach LOS		E						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.2	96.1		13.7		106.3
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	2.8	33.2		8.5		2.0
Green Ext Time (p_c), s	0.1	3.7		0.7		8.9

Intersection Summary	
HCM 7th Control Delay, s/veh	17.1
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	89	0	1078	1434	837	134	1117
Future Volume (vph)	89	0	1078	1434	837	134	1117
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.1	32.0	120.0	62.2	62.2	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.52	0.52	0.65	0.66
v/c Ratio	0.10	0.11	0.73	0.58	0.75	0.58	0.51
Control Delay (s/veh)	28.3	28.3	2.9	24.9	9.4	37.1	19.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	28.3	2.9	24.9	9.4	37.1	19.3
LOS	C	C	A	C	A	D	B
Approach Delay (s/veh)		4.8		19.2			21.2
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 16.1	Intersection LOS: B
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	0	1078	0	0	0	0	1434	837	134	1117	0
Future Volume (veh/h)	89	0	1078	0	0	0	0	1434	837	134	1117	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	97	0	0				0	1559	0	146	1214	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	158	0					0	4033		364	3136	0
Arrive On Green	0.04	0.00	0.00				0.00	0.78	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	5358	1610	1810	3705	0
Grp Volume(v), veh/h	97	0	0				0	1559	0	146	1214	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1610	1810	1805	0
Q Serve(g_s), s	3.2	0.0	0.0				0.0	11.5	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0				0.0	11.5	0.0	1.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	158	0					0	4033		364	3136	0
V/C Ratio(X)	0.61	0.00					0.00	0.39		0.40	0.39	0.00
Avail Cap(c_a), veh/h	1206	0					0	4033		673	3136	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.45	0.00	0.59	0.59	0.00
Uniform Delay (d), s/veh	56.4	0.0	0.0				0.0	4.2	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.0				0.0	0.1	0.0	0.4	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.0	0.0				0.0	5.0	0.0	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.2	0.0	0.0				0.0	4.4	0.0	3.4	0.2	0.0
LnGrp LOS	E							A		A	A	
Approach Vol, veh/h		97						1559			1360	
Approach Delay, s/veh		60.2						4.4			0.6	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	99.3		9.7		110.3
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	3.8	13.5		5.2		2.0
Green Ext Time (p_c), s	0.3	12.3		0.3		11.7

Intersection Summary	
HCM 7th Control Delay, s/veh	4.4
HCM 7th LOS	A

Notes

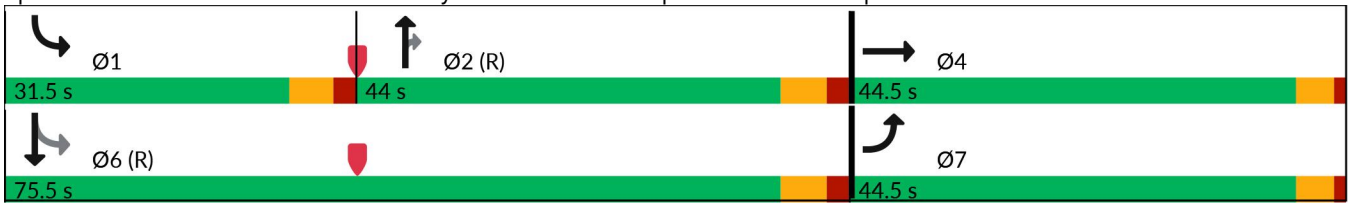
User approved volume balancing among the lanes for turning movement.

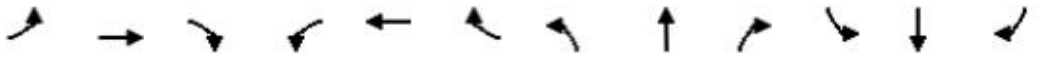
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	182	0	1210	1476	743	51	937
Future Volume (vph)	182	0	1210	1476	743	51	937
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	40.0	40.0	120.0	58.7	58.7	69.5	69.5
Actuated g/C Ratio	0.33	0.33	1.00	0.49	0.49	0.58	0.58
v/c Ratio	0.18	0.18	0.83	0.65	0.73	0.32	0.50
Control Delay (s/veh)	29.4	29.4	5.2	17.8	15.2	25.8	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	29.4	5.2	17.8	15.2	25.8	31.2
LOS	C	C	A	B	B	C	C
Approach Delay (s/veh)		8.4		17.0			30.9
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 17.4	Intersection LOS: B
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	0	1210	0	0	0	0	1476	743	51	937	0
Future Volume (veh/h)	182	0	1210	0	0	0	0	1476	743	51	937	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885				0	1885	1885	1870	1870	0
Adj Flow Rate, veh/h	200	0	0				0	1622	0	56	1030	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	1				0	1	1	2	2	0
Cap, veh/h	275	0					0	3863		274	2970	0
Arrive On Green	0.08	0.00	0.00				0.00	0.25	0.00	0.07	1.00	0.00
Sat Flow, veh/h	3591	0	1598				0	5316	1598	1781	3647	0
Grp Volume(v), veh/h	200	0	0				0	1622	0	56	1030	0
Grp Sat Flow(s),veh/h/ln	1795	0	1598				0	1716	1598	1781	1777	0
Q Serve(g_s), s	6.5	0.0	0.0				0.0	31.8	0.0	0.8	0.0	0.0
Cycle Q Clear(g_c), s	6.5	0.0	0.0				0.0	31.8	0.0	0.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	275	0					0	3863		274	2970	0
V/C Ratio(X)	0.73	0.00					0.00	0.42		0.20	0.35	0.00
Avail Cap(c_a), veh/h	1197	0					0	3863		590	2970	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.22	0.00	0.76	0.76	0.00
Uniform Delay (d), s/veh	54.2	0.0	0.0				0.0	23.2	0.0	7.9	0.0	0.0
Incr Delay (d2), s/veh	3.7	0.0	0.0				0.0	0.1	0.0	0.3	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.5	0.0	0.0				0.0	17.5	0.0	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.8	0.0	0.0				0.0	23.3	0.0	8.1	0.2	0.0
LnGrp LOS	E							C		A	A	
Approach Vol, veh/h		200						1622			1086	
Approach Delay, s/veh		57.8						23.3			0.7	
Approach LOS		E						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.2	96.1		13.7		106.3
Change Period (Y+Rc), s	6.0	6.0		4.5		6.0
Max Green Setting (Gmax), s	25.5	38.0		40.0		69.5
Max Q Clear Time (g_c+I1), s	2.8	33.8		8.5		2.0
Green Ext Time (p_c), s	0.1	3.3		0.7		9.0

Intersection Summary	
HCM 7th Control Delay, s/veh	17.2
HCM 7th LOS	B

Notes

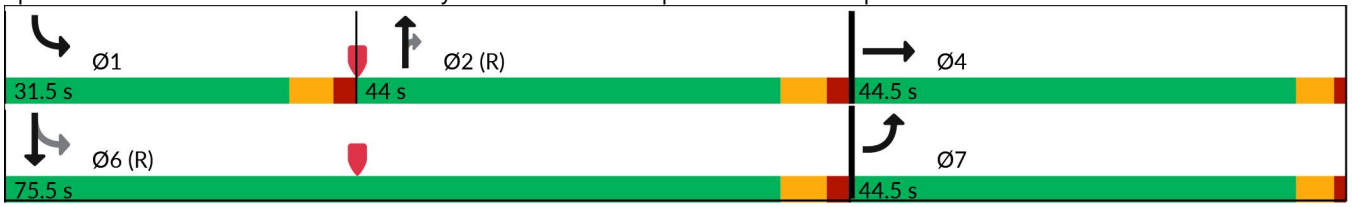
User approved volume balancing among the lanes for turning movement.

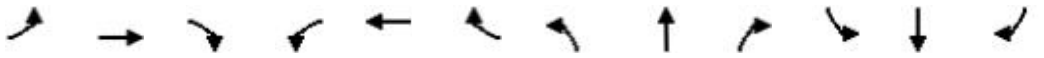
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	89	0	1097	1449	848	134	1143
Future Volume (vph)	89	0	1097	1449	848	134	1143
Turn Type	Prot	NA	Free	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			Free		2	6	
Detector Phase	7	4		2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		24.0	24.0	11.0	24.0
Total Split (s)	44.5	44.5		44.0	44.0	31.5	75.5
Total Split (%)	37.1%	37.1%		36.7%	36.7%	26.3%	62.9%
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		6.0	6.0	6.0	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None		C-Max	C-Max	None	C-Max
Act Effct Green (s)	33.1	32.0	120.0	62.2	62.2	78.4	79.6
Actuated g/C Ratio	0.28	0.27	1.00	0.52	0.52	0.65	0.66
v/c Ratio	0.10	0.11	0.74	0.59	0.76	0.59	0.52
Control Delay (s/veh)	28.3	28.3	3.1	25.0	9.9	37.5	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	28.3	3.1	25.0	9.9	37.5	19.5
LOS	C	C	A	C	A	D	B
Approach Delay (s/veh)		5.0		19.4			21.4
Approach LOS		A		B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 16.4	Intersection LOS: B
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 6: Kendrick Castillo Way & C-470 EB Off-Ramp/C-470 EB On-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	0	1097	0	0	0	0	1449	848	134	1143	0
Future Volume (veh/h)	89	0	1097	0	0	0	0	1449	848	134	1143	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	97	0	0				0	1575	0	146	1242	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	158	0					0	4033		360	3136	0
Arrive On Green	0.04	0.00	0.00				0.00	0.78	0.00	0.08	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	5358	1610	1810	3705	0
Grp Volume(v), veh/h	97	0	0				0	1575	0	146	1242	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1610	1810	1805	0
Q Serve(g_s), s	3.2	0.0	0.0				0.0	11.6	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0				0.0	11.6	0.0	1.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	158	0					0	4033		360	3136	0
V/C Ratio(X)	0.61	0.00					0.00	0.39		0.41	0.40	0.00
Avail Cap(c_a), veh/h	1206	0					0	4033		670	3136	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.43	0.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	56.4	0.0	0.0				0.0	4.3	0.0	3.0	0.0	0.0
Incr Delay (d2), s/veh	3.8	0.0	0.0				0.0	0.1	0.0	0.4	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	0.0	0.0				0.0	5.0	0.0	0.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.2	0.0	0.0				0.0	4.4	0.0	3.4	0.2	0.0
LnGrp LOS	E							A		A	A	
Approach Vol, veh/h		97						1575			1388	
Approach Delay, s/veh		60.2						4.4			0.5	
Approach LOS		E						A			A	

Timer - Assigned Phs	1	2		4	6							
Phs Duration (G+Y+Rc), s	11.0	99.3		9.7	110.3							
Change Period (Y+Rc), s	6.0	6.0		4.5	6.0							
Max Green Setting (Gmax), s	25.5	38.0		40.0	69.5							
Max Q Clear Time (g_c+I1), s	3.8	13.6		5.2	2.0							
Green Ext Time (p_c), s	0.3	12.4		0.3	12.1							

Intersection Summary												
HCM 7th Control Delay, s/veh			4.4									
HCM 7th LOS			A									

Notes

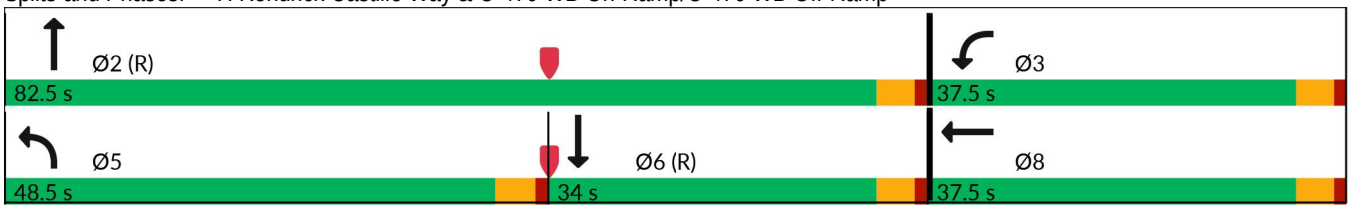
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	599	2	150	733	635	215	33
Future Volume (vph)	599	2	150	733	635	215	33
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	32.9	78.0	40.6	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.27	0.65	0.34	1.00
v/c Ratio	0.68	0.69	0.10	0.81	0.29	0.19	0.02
Control Delay (s/veh)	47.5	47.7	0.1	70.3	2.8	29.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.5	47.7	0.1	70.3	2.8	29.8	0.0
LOS	D	D	A	E	A	C	A
Approach Delay (s/veh)		38.1			39.0	25.8	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 37.3	Intersection LOS: D
Intersection Capacity Utilization 58.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	599	2	150	733	635	0	0	215	33
Future Volume (veh/h)	0	0	0	599	2	150	733	635	0	0	215	33
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1885	1885	0	0	1870	1870
Adj Flow Rate, veh/h				632	0	0	772	668	0	0	226	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	1	1	0	0	2	2
Cap, veh/h				725	0		858	2584	0	0	1554	
Arrive On Green				0.20	0.00	0.00	0.41	1.00	0.00	0.00	0.44	0.00
Sat Flow, veh/h				3563	0	1585	3483	3676	0	0	3647	1585
Grp Volume(v), veh/h				632	0	0	772	668	0	0	226	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1742	1791	0	0	1777	1585
Q Serve(g_s), s				20.6	0.0	0.0	24.8	0.0	0.0	0.0	4.6	0.0
Cycle Q Clear(g_c), s				20.6	0.0	0.0	24.8	0.0	0.0	0.0	4.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				725	0		858	2584	0	0	1554	
V/C Ratio(X)				0.87	0.00		0.90	0.26	0.00	0.00	0.15	
Avail Cap(c_a), veh/h				980	0		1277	2584	0	0	1554	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.91	0.91	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				46.3	0.0	0.0	33.9	0.0	0.0	0.0	20.3	0.0
Incr Delay (d2), s/veh				6.7	0.0	0.0	5.7	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				14.8	0.0	0.0	14.1	0.1	0.0	0.0	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				52.9	0.0	0.0	39.7	0.2	0.0	0.0	20.5	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					632			1440			226	
Approach Delay, s/veh					52.9			21.4			20.5	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	91.1		34.1	57.0		28.9						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		26.8	6.6		22.6						
Green Ext Time (p_c), s	4.9		2.7	1.3		1.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	30.0
HCM 7th LOS	C

Notes

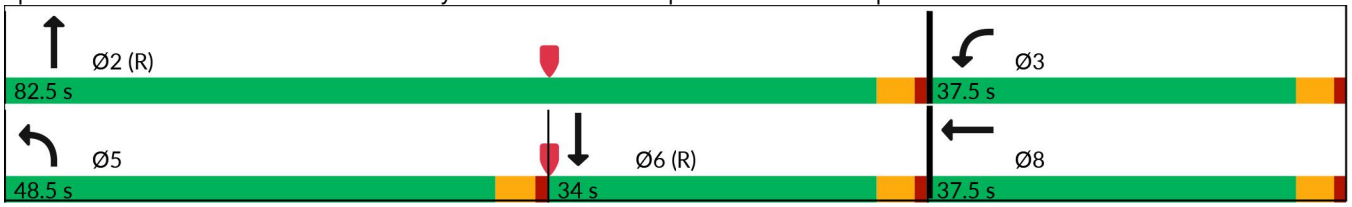
User approved volume balancing among the lanes for turning movement.

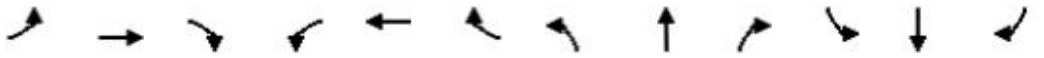
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	565	1	82	798	432	519	120
Future Volume (vph)	565	1	82	798	432	519	120
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	35.9	78.0	37.6	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.30	0.65	0.31	1.00
v/c Ratio	0.65	0.65	0.06	0.83	0.20	0.50	0.08
Control Delay (s/veh)	46.0	46.0	0.1	66.5	6.5	36.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.0	46.0	0.1	66.5	6.5	36.5	0.1
LOS	D	D	A	E	A	D	A
Approach Delay (s/veh)		40.2			45.4	29.7	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 40.1	Intersection LOS: D
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	565	1	82	798	432	0	0	519	120
Future Volume (veh/h)	0	0	0	565	1	82	798	432	0	0	519	120
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				615	0	0	867	470	0	0	564	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				711	0		952	2630	0	0	1516	
Arrive On Green				0.20	0.00	0.00	0.45	1.00	0.00	0.00	0.42	0.00
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	3705	1610
Grp Volume(v), veh/h				615	0	0	867	470	0	0	564	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1610
Q Serve(g_s), s				19.7	0.0	0.0	27.6	0.0	0.0	0.0	12.9	0.0
Cycle Q Clear(g_c), s				19.7	0.0	0.0	27.6	0.0	0.0	0.0	12.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				711	0		952	2630	0	0	1516	
V/C Ratio(X)				0.87	0.00		0.91	0.18	0.00	0.00	0.37	
Avail Cap(c_a), veh/h				995	0		1287	2630	0	0	1516	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.92	0.92	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				46.7	0.0	0.0	31.5	0.0	0.0	0.0	23.9	0.0
Incr Delay (d2), s/veh				5.9	0.0	0.0	7.3	0.1	0.0	0.0	0.7	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				14.4	0.0	0.0	15.3	0.1	0.0	0.0	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				52.6	0.0	0.0	38.8	0.1	0.0	0.0	24.6	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					615			1337			564	
Approach Delay, s/veh					52.6			25.2			24.6	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	91.9		37.1	54.9		28.1						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		29.6	14.9		21.7						
Green Ext Time (p_c), s	3.2		3.0	3.0		1.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	31.8
HCM 7th LOS	C

Notes

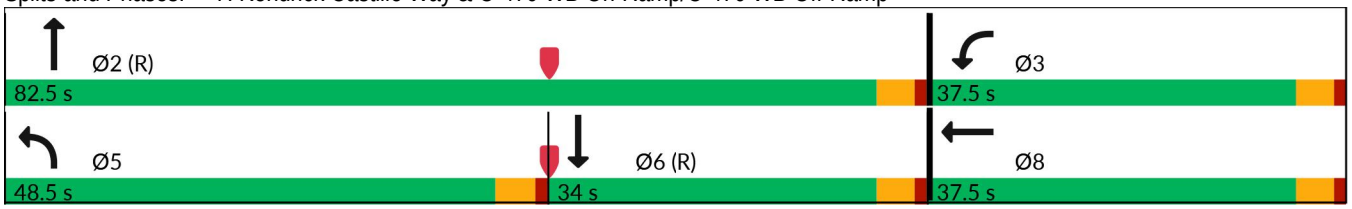
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	620	2	155	755	654	224	34
Future Volume (vph)	620	2	155	755	654	224	34
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	33.6	78.0	39.9	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.28	0.65	0.33	1.00
v/c Ratio	0.71	0.71	0.10	0.82	0.30	0.20	0.02
Control Delay (s/veh)	48.7	48.9	0.1	70.5	3.0	30.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.7	48.9	0.1	70.5	3.0	30.5	0.0
LOS	D	D	A	E	A	C	A
Approach Delay (s/veh)		39.1			39.2	26.5	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 37.8	Intersection LOS: D
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	620	2	155	755	654	0	0	224	34
Future Volume (veh/h)	0	0	0	620	2	155	755	654	0	0	224	34
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1885	1885	0	0	1870	1870
Adj Flow Rate, veh/h				654	0	0	795	688	0	0	236	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	1	1	0	0	2	2
Cap, veh/h				747	0		881	2562	0	0	1510	
Arrive On Green				0.21	0.00	0.00	0.42	1.00	0.00	0.00	0.42	0.00
Sat Flow, veh/h				3563	0	1585	3483	3676	0	0	3647	1585
Grp Volume(v), veh/h				654	0	0	795	688	0	0	236	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1742	1791	0	0	1777	1585
Q Serve(g_s), s				21.3	0.0	0.0	25.6	0.0	0.0	0.0	4.9	0.0
Cycle Q Clear(g_c), s				21.3	0.0	0.0	25.6	0.0	0.0	0.0	4.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				747	0		881	2562	0	0	1510	
V/C Ratio(X)				0.88	0.00		0.90	0.27	0.00	0.00	0.16	
Avail Cap(c_a), veh/h				980	0		1277	2562	0	0	1510	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.90	0.90	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				45.9	0.0	0.0	33.3	0.0	0.0	0.0	21.3	0.0
Incr Delay (d2), s/veh				7.2	0.0	0.0	6.1	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.3	0.0	0.0	14.3	0.1	0.0	0.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				53.1	0.0	0.0	39.4	0.2	0.0	0.0	21.5	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					654			1483			236	
Approach Delay, s/veh					53.1			21.2			21.5	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	90.3		34.9	55.5		29.7						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		27.6	6.9		23.3						
Green Ext Time (p_c), s	5.1		2.8	1.3		1.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	30.0
HCM 7th LOS	C

Notes

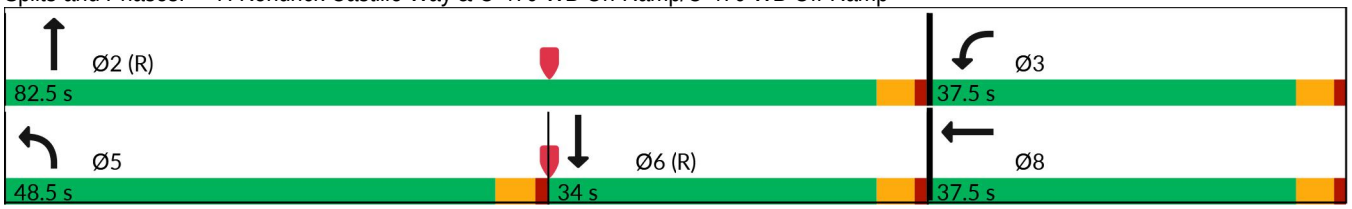
User approved volume balancing among the lanes for turning movement.

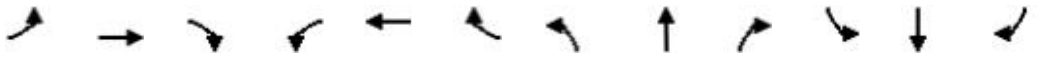
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	590	1	84	822	445	539	124
Future Volume (vph)	590	1	84	822	445	539	124
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	36.8	78.0	36.7	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.31	0.65	0.31	1.00
v/c Ratio	0.68	0.68	0.06	0.83	0.21	0.53	0.08
Control Delay (s/veh)	47.2	47.3	0.1	71.9	6.5	37.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.2	47.3	0.1	71.9	6.5	37.7	0.1
LOS	D	D	A	E	A	D	A
Approach Delay (s/veh)		41.4			48.9	30.7	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 42.3	Intersection LOS: D
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	590	1	84	822	445	0	0	539	124
Future Volume (veh/h)	0	0	0	590	1	84	822	445	0	0	539	124
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				642	0	0	893	484	0	0	586	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				738	0		977	2603	0	0	1463	
Arrive On Green				0.20	0.00	0.00	0.46	1.00	0.00	0.00	0.41	0.00
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	3705	1610
Grp Volume(v), veh/h				642	0	0	893	484	0	0	586	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1610
Q Serve(g_s), s				20.6	0.0	0.0	28.4	0.0	0.0	0.0	13.8	0.0
Cycle Q Clear(g_c), s				20.6	0.0	0.0	28.4	0.0	0.0	0.0	13.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				738	0		977	2603	0	0	1463	
V/C Ratio(X)				0.87	0.00		0.91	0.19	0.00	0.00	0.40	
Avail Cap(c_a), veh/h				995	0		1287	2603	0	0	1463	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.88	0.88	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				46.2	0.0	0.0	30.8	0.0	0.0	0.0	25.3	0.0
Incr Delay (d2), s/veh				6.5	0.0	0.0	7.5	0.1	0.0	0.0	0.8	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.0	0.0	0.0	15.5	0.1	0.0	0.0	9.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				52.8	0.0	0.0	38.3	0.1	0.0	0.0	26.1	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					642			1377			586	
Approach Delay, s/veh					52.8			24.9			26.1	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	91.0		37.9	53.1		29.0						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		30.4	15.8		22.6						
Green Ext Time (p_c), s	3.4		3.0	3.1		1.9						

Intersection Summary	
HCM 7th Control Delay, s/veh	32.0
HCM 7th LOS	C

Notes

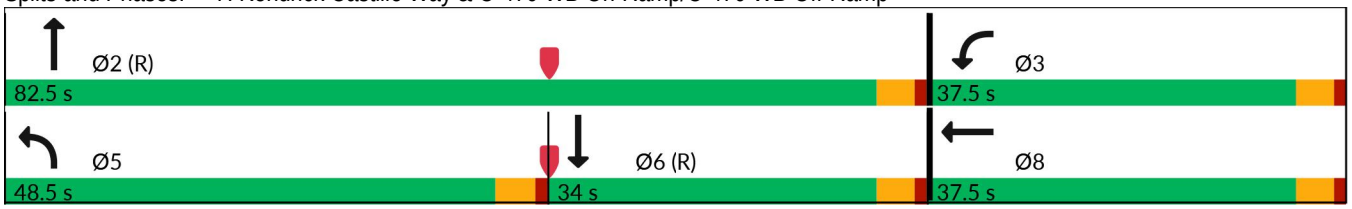
User approved volume balancing among the lanes for turning movement.

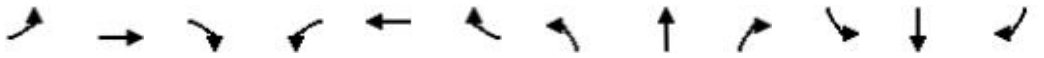
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	626	2	155	773	660	226	34
Future Volume (vph)	626	2	155	773	660	226	34
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	34.2	78.0	39.3	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.29	0.65	0.33	1.00
v/c Ratio	0.71	0.72	0.10	0.82	0.30	0.21	0.02
Control Delay (s/veh)	49.0	49.3	0.1	70.6	3.2	31.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.0	49.3	0.1	70.6	3.2	31.0	0.0
LOS	D	D	A	E	A	C	A
Approach Delay (s/veh)		39.5			39.5	26.9	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 38.2	Intersection LOS: D
Intersection Capacity Utilization 61.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	626	2	155	773	660	0	0	226	34
Future Volume (veh/h)	0	0	0	626	2	155	773	660	0	0	226	34
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1885	1885	0	0	1870	1870
Adj Flow Rate, veh/h				660	0	0	814	695	0	0	238	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	1	1	0	0	2	2
Cap, veh/h				753	0		900	2556	0	0	1485	
Arrive On Green				0.21	0.00	0.00	0.43	1.00	0.00	0.00	0.42	0.00
Sat Flow, veh/h				3563	0	1585	3483	3676	0	0	3647	1585
Grp Volume(v), veh/h				660	0	0	814	695	0	0	238	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1742	1791	0	0	1777	1585
Q Serve(g_s), s				21.5	0.0	0.0	26.2	0.0	0.0	0.0	5.0	0.0
Cycle Q Clear(g_c), s				21.5	0.0	0.0	26.2	0.0	0.0	0.0	5.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				753	0		900	2556	0	0	1485	
V/C Ratio(X)				0.88	0.00		0.90	0.27	0.00	0.00	0.16	
Avail Cap(c_a), veh/h				980	0		1277	2556	0	0	1485	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				45.8	0.0	0.0	32.7	0.0	0.0	0.0	21.8	0.0
Incr Delay (d2), s/veh				7.3	0.0	0.0	6.4	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.4	0.0	0.0	14.6	0.1	0.0	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				53.1	0.0	0.0	39.1	0.2	0.0	0.0	22.0	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					660			1509			238	
Approach Delay, s/veh					53.1			21.2			22.0	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	90.1		35.5	54.6		29.9						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		28.2	7.0		23.5						
Green Ext Time (p_c), s	5.2		2.8	1.3		1.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	30.0
HCM 7th LOS	C

Notes

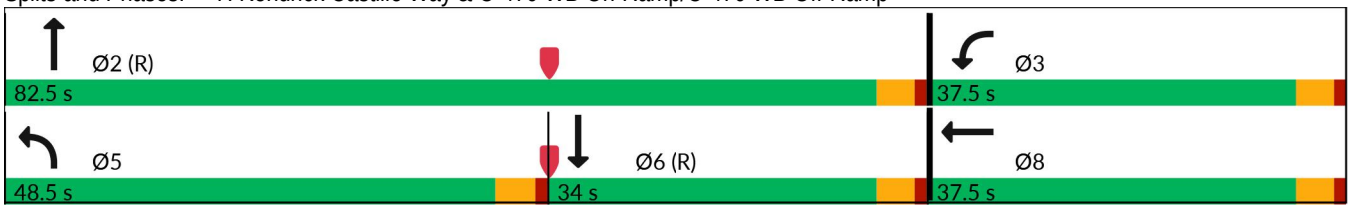
User approved volume balancing among the lanes for turning movement.

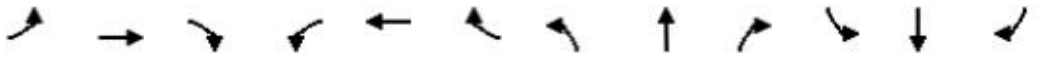
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	609	1	84	833	449	545	124
Future Volume (vph)	609	1	84	833	449	545	124
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	37.1	78.0	36.4	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.31	0.65	0.30	1.00
v/c Ratio	0.70	0.70	0.06	0.84	0.21	0.54	0.08
Control Delay (s/veh)	48.4	48.3	0.1	72.0	6.6	38.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.4	48.3	0.1	72.0	6.6	38.1	0.1
LOS	D	D	A	E	A	D	A
Approach Delay (s/veh)		42.5			49.1	31.1	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 42.8	Intersection LOS: D
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	609	1	84	833	449	0	0	545	124
Future Volume (veh/h)	0	0	0	609	1	84	833	449	0	0	545	124
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				663	0	0	905	488	0	0	592	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				758	0		989	2583	0	0	1431	
Arrive On Green				0.21	0.00	0.00	0.47	1.00	0.00	0.00	0.40	0.00
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	3705	1610
Grp Volume(v), veh/h				663	0	0	905	488	0	0	592	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1610
Q Serve(g_s), s				21.3	0.0	0.0	28.8	0.0	0.0	0.0	14.2	0.0
Cycle Q Clear(g_c), s				21.3	0.0	0.0	28.8	0.0	0.0	0.0	14.2	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				758	0		989	2583	0	0	1431	
V/C Ratio(X)				0.87	0.00		0.92	0.19	0.00	0.00	0.41	
Avail Cap(c_a), veh/h				995	0		1287	2583	0	0	1431	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.88	0.88	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				45.9	0.0	0.0	30.5	0.0	0.0	0.0	26.1	0.0
Incr Delay (d2), s/veh				7.0	0.0	0.0	7.7	0.1	0.0	0.0	0.9	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				15.4	0.0	0.0	15.7	0.1	0.0	0.0	10.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				52.9	0.0	0.0	38.2	0.1	0.0	0.0	27.0	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					663			1393			592	
Approach Delay, s/veh					52.9			24.8			27.0	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	90.4		38.3	52.1		29.6						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		30.8	16.2		23.3						
Green Ext Time (p_c), s	3.4		3.0	3.1		1.9						

Intersection Summary	
HCM 7th Control Delay, s/veh	32.4
HCM 7th LOS	C

Notes

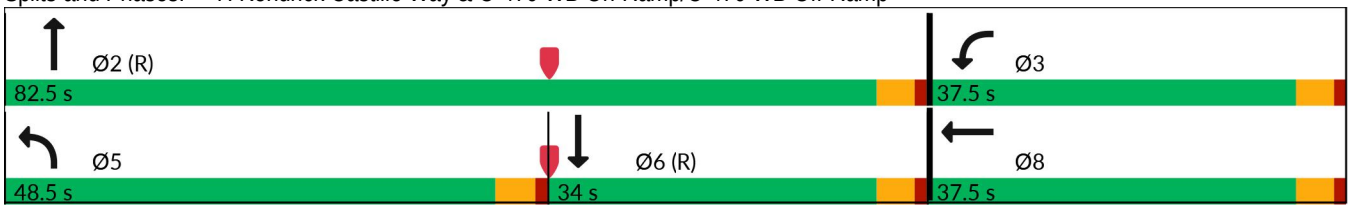
User approved volume balancing among the lanes for turning movement.

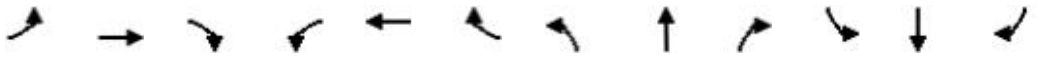
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	734	2	183	894	775	264	40
Future Volume (vph)	734	2	183	894	775	264	40
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	38.2	78.0	35.3	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.32	0.65	0.29	1.00
v/c Ratio	0.84	0.84	0.12	0.85	0.35	0.27	0.03
Control Delay (s/veh)	58.0	58.4	0.2	76.2	5.3	34.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.0	58.4	0.2	76.2	5.3	34.5	0.0
LOS	E	E	A	E	A	C	A
Approach Delay (s/veh)		46.6			43.3	29.9	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 43.0	Intersection LOS: D
Intersection Capacity Utilization 67.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	734	2	183	894	775	0	0	264	40
Future Volume (veh/h)	0	0	0	734	2	183	894	775	0	0	264	40
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1885	1885	0	0	1870	1870
Adj Flow Rate, veh/h				774	0	0	941	816	0	0	278	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	1	1	0	0	2	2
Cap, veh/h				858	0		1021	2450	0	0	1256	
Arrive On Green				0.24	0.00	0.00	0.49	1.00	0.00	0.00	0.35	0.00
Sat Flow, veh/h				3563	0	1585	3483	3676	0	0	3647	1585
Grp Volume(v), veh/h				774	0	0	941	816	0	0	278	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1742	1791	0	0	1777	1585
Q Serve(g_s), s				25.3	0.0	0.0	30.2	0.0	0.0	0.0	6.6	0.0
Cycle Q Clear(g_c), s				25.3	0.0	0.0	30.2	0.0	0.0	0.0	6.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				858	0		1021	2450	0	0	1256	
V/C Ratio(X)				0.90	0.00		0.92	0.33	0.00	0.00	0.22	
Avail Cap(c_a), veh/h				980	0		1277	2450	0	0	1256	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.76	0.76	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.2	0.0	0.0	29.3	0.0	0.0	0.0	27.2	0.0
Incr Delay (d2), s/veh				10.4	0.0	0.0	7.6	0.3	0.0	0.0	0.4	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.9	0.0	0.0	15.6	0.2	0.0	0.0	5.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.6	0.0	0.0	37.0	0.3	0.0	0.0	27.6	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					774			1757			278	
Approach Delay, s/veh					54.6			19.9			27.6	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	86.6		39.7	46.9		33.4						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		32.2	8.6		27.3						
Green Ext Time (p_c), s	6.4		3.0	1.6		1.6						

Intersection Summary	
HCM 7th Control Delay, s/veh	30.2
HCM 7th LOS	C

Notes

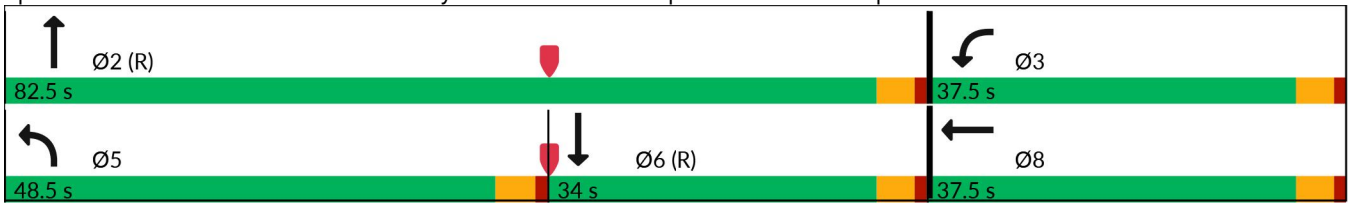
User approved volume balancing among the lanes for turning movement.

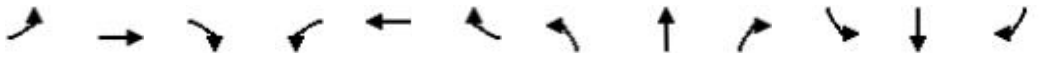
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	697	1	100	974	527	637	146
Future Volume (vph)	697	1	100	974	527	637	146
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	40.9	78.0	32.6	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.34	0.65	0.27	1.00
v/c Ratio	0.80	0.80	0.07	0.89	0.24	0.71	0.10
Control Delay (s/veh)	54.9	54.8	0.1	73.0	8.5	44.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.9	54.8	0.1	73.0	8.5	44.8	0.1
LOS	D	D	A	E	A	D	A
Approach Delay (s/veh)		48.0			50.4	36.4	
Approach LOS		D			D	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 46.2	Intersection LOS: D
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	697	1	100	974	527	0	0	637	146
Future Volume (veh/h)	0	0	0	697	1	100	974	527	0	0	637	146
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				759	0	0	1059	573	0	0	692	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				848	0		1130	2493	0	0	1196	
Arrive On Green				0.23	0.00	0.00	0.54	1.00	0.00	0.00	0.33	0.00
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	3705	1610
Grp Volume(v), veh/h				759	0	0	1059	573	0	0	692	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1610
Q Serve(g_s), s				24.4	0.0	0.0	33.7	0.0	0.0	0.0	19.0	0.0
Cycle Q Clear(g_c), s				24.4	0.0	0.0	33.7	0.0	0.0	0.0	19.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				848	0		1130	2493	0	0	1196	
V/C Ratio(X)				0.89	0.00		0.94	0.23	0.00	0.00	0.58	
Avail Cap(c_a), veh/h				995	0		1287	2493	0	0	1196	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.80	0.80	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.5	0.0	0.0	26.6	0.0	0.0	0.0	33.2	0.0
Incr Delay (d2), s/veh				9.4	0.0	0.0	10.1	0.2	0.0	0.0	2.0	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				17.5	0.0	0.0	17.2	0.1	0.0	0.0	13.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				53.9	0.0	0.0	36.8	0.2	0.0	0.0	35.2	0.0
LnGrp LOS				D			D	A			D	
Approach Vol, veh/h					759			1632			692	
Approach Delay, s/veh					53.9			23.9			35.2	
Approach LOS					D			C			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	87.4		43.1	44.3		32.6						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		35.7	21.0		26.4						
Green Ext Time (p_c), s	4.1		2.9	2.8		1.8						

Intersection Summary	
HCM 7th Control Delay, s/veh	33.8
HCM 7th LOS	C

Notes

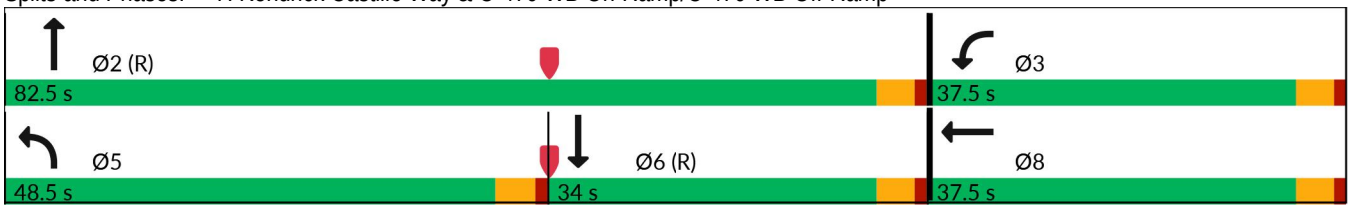
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	740	2	183	912	781	266	40
Future Volume (vph)	740	2	183	912	781	266	40
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	38.8	78.0	34.7	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.32	0.65	0.29	1.00
v/c Ratio	0.84	0.85	0.12	0.86	0.35	0.27	0.03
Control Delay (s/veh)	58.7	59.1	0.2	76.2	5.7	35.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	59.1	0.2	76.2	5.7	35.0	0.0
LOS	E	E	A	E	A	C	A
Approach Delay (s/veh)		47.2			43.6	30.4	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 43.4	Intersection LOS: D
Intersection Capacity Utilization 69.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	740	2	183	912	781	0	0	266	40
Future Volume (veh/h)	0	0	0	740	2	183	912	781	0	0	266	40
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1885	1885	0	0	1870	1870
Adj Flow Rate, veh/h				780	0	0	960	822	0	0	280	0
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	1	1	0	0	2	2
Cap, veh/h				864	0		1039	2445	0	0	1233	
Arrive On Green				0.24	0.00	0.00	0.50	1.00	0.00	0.00	0.35	0.00
Sat Flow, veh/h				3563	0	1585	3483	3676	0	0	3647	1585
Grp Volume(v), veh/h				780	0	0	960	822	0	0	280	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1742	1791	0	0	1777	1585
Q Serve(g_s), s				25.5	0.0	0.0	30.8	0.0	0.0	0.0	6.7	0.0
Cycle Q Clear(g_c), s				25.5	0.0	0.0	30.8	0.0	0.0	0.0	6.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				864	0		1039	2445	0	0	1233	
V/C Ratio(X)				0.90	0.00		0.92	0.34	0.00	0.00	0.23	
Avail Cap(c_a), veh/h				980	0		1277	2445	0	0	1233	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.75	0.75	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.1	0.0	0.0	28.9	0.0	0.0	0.0	27.8	0.0
Incr Delay (d2), s/veh				10.6	0.0	0.0	7.9	0.3	0.0	0.0	0.4	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.1	0.0	0.0	15.8	0.2	0.0	0.0	5.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.7	0.0	0.0	36.7	0.3	0.0	0.0	28.2	0.0
LnGrp LOS				D			D	A			C	
Approach Vol, veh/h					780			1782			280	
Approach Delay, s/veh					54.7			19.9			28.2	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	86.4		40.3	46.1		33.6						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		32.8	8.7		27.5						
Green Ext Time (p_c), s	6.5		3.0	1.6		1.6						

Intersection Summary	
HCM 7th Control Delay, s/veh	30.3
HCM 7th LOS	C

Notes

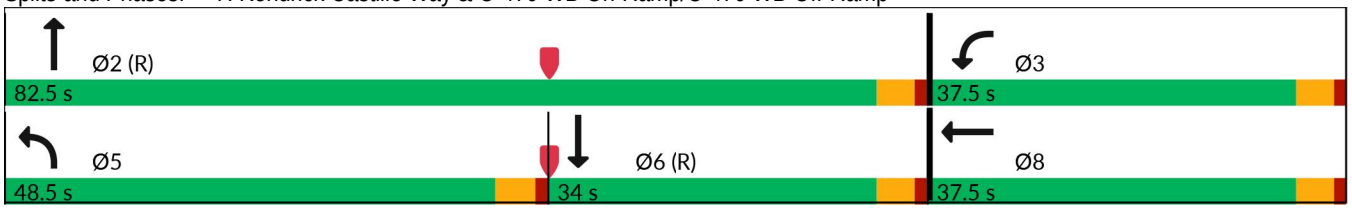
User approved volume balancing among the lanes for turning movement.

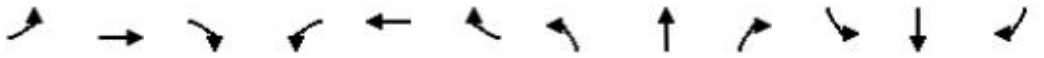
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	716	1	100	985	531	643	146
Future Volume (vph)	716	1	100	985	531	643	146
Turn Type	Prot	NA	Free	Prot	NA	NA	Free
Protected Phases	3	8		5	2	6	
Permitted Phases			Free				Free
Detector Phase	3	8		5	2	6	
Switch Phase							
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5	22.5	
Total Split (s)	37.5	37.5		48.5	82.5	34.0	
Total Split (%)	31.3%	31.3%		40.4%	68.8%	28.3%	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	
Lead/Lag				Lead		Lag	
Lead-Lag Optimize?				Yes		Yes	
Recall Mode	None	None		None	C-Max	C-Max	
Act Effct Green (s)	33.0	33.0	120.0	41.2	78.0	32.3	120.0
Actuated g/C Ratio	0.28	0.28	1.00	0.34	0.65	0.27	1.00
v/c Ratio	0.83	0.83	0.07	0.89	0.25	0.72	0.10
Control Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
LOS	E	E	A	E	A	D	A
Approach Delay (s/veh)		49.8			50.5	37.0	
Approach LOS		D			D	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 46.9	Intersection LOS: D
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Kendrick Castillo Way & C-470 WB On-Ramp/C-470 WB Off-Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	716	1	100	985	531	0	0	643	146
Future Volume (veh/h)	0	0	0	716	1	100	985	531	0	0	643	146
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				779	0	0	1071	577	0	0	699	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				866	0		1140	2475	0	0	1167	
Arrive On Green				0.24	0.00	0.00	0.54	1.00	0.00	0.00	0.32	0.00
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	3705	1610
Grp Volume(v), veh/h				779	0	0	1071	577	0	0	699	0
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1805	1610
Q Serve(g_s), s				25.0	0.0	0.0	34.2	0.0	0.0	0.0	19.5	0.0
Cycle Q Clear(g_c), s				25.0	0.0	0.0	34.2	0.0	0.0	0.0	19.5	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				866	0		1140	2475	0	0	1167	
V/C Ratio(X)				0.90	0.00		0.94	0.23	0.00	0.00	0.60	
Avail Cap(c_a), veh/h				995	0		1287	2475	0	0	1167	
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.80	0.80	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.2	0.0	0.0	26.4	0.0	0.0	0.0	34.1	0.0
Incr Delay (d2), s/veh				10.0	0.0	0.0	10.4	0.2	0.0	0.0	2.3	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln				18.0	0.0	0.0	17.4	0.1	0.0	0.0	13.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				54.3	0.0	0.0	36.8	0.2	0.0	0.0	36.3	0.0
LnGrp LOS				D			D	A			D	
Approach Vol, veh/h					779			1648			699	
Approach Delay, s/veh					54.3			24.0			36.3	
Approach LOS					D			C			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	86.8		43.5	43.3		33.2						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	78.0		44.0	29.5		33.0						
Max Q Clear Time (g_c+I1), s	2.0		36.2	21.5		27.0						
Green Ext Time (p_c), s	4.1		2.8	2.7		1.7						

Intersection Summary	
HCM 7th Control Delay, s/veh	34.3
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	6	73	0	0	2	22	4	0	39	0
Future Vol, veh/h	0	0	6	73	0	0	2	22	4	0	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	79	0	0	2	24	4	0	42	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	71	75	42	73	73	26	42	0	0	28	0	0
Stage 1	42	42	-	30	30	-	-	-	-	-	-	-
Stage 2	28	33	-	42	42	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	921	815	1028	918	818	1050	1567	-	-	1585	-	-
Stage 1	972	860	-	986	870	-	-	-	-	-	-	-
Stage 2	989	868	-	972	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	920	814	1028	911	816	1050	1567	-	-	1585	-	-
Mov Cap-2 Maneuver	920	814	-	911	816	-	-	-	-	-	-	-
Stage 1	972	860	-	985	869	-	-	-	-	-	-	-
Stage 2	987	867	-	966	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.52	9.33	0.52	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	1028	911	1585	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.087	-	-	-
HCM Ctrl Dly (s/v)	7.3	-	-	8.5	9.3	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	4	45	0	0	6	9	13	0	3	0
Future Vol, veh/h	0	0	4	45	0	0	6	9	13	0	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	49	0	0	7	10	14	0	3	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	26	40	3	33	33	17	3	0	0	24	0	0
Stage 1	3	3	-	30	30	-	-	-	-	-	-	-
Stage 2	23	37	-	3	3	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	984	852	1081	974	859	1062	1619	-	-	1591	-	-
Stage 1	1019	893	-	987	870	-	-	-	-	-	-	-
Stage 2	995	864	-	1019	893	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	980	848	1081	966	856	1062	1619	-	-	1591	-	-
Mov Cap-2 Maneuver	980	848	-	966	856	-	-	-	-	-	-	-
Stage 1	1019	893	-	983	867	-	-	-	-	-	-	-
Stage 2	991	861	-	1015	893	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.35	8.92	1.55	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1619	-	-	1081	966	1591	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004	0.051	-	-	-
HCM Ctrl Dly (s/v)	7.2	-	-	8.3	8.9	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	6	73	0	0	2	24	4	0	47	0
Future Vol, veh/h	0	0	6	73	0	0	2	24	4	0	47	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	7	79	0	0	2	26	4	0	51	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	82	86	51	84	84	28	51	0	0	30	0	0
Stage 1	51	51	-	33	33	-	-	-	-	-	-	-
Stage 2	30	35	-	51	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	906	804	1017	903	806	1047	1555	-	-	1582	-	-
Stage 1	962	852	-	984	868	-	-	-	-	-	-	-
Stage 2	986	866	-	962	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	905	803	1017	896	805	1047	1555	-	-	1582	-	-
Mov Cap-2 Maneuver	905	803	-	896	805	-	-	-	-	-	-	-
Stage 1	962	852	-	982	867	-	-	-	-	-	-	-
Stage 2	985	865	-	956	852	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.56	9.41	0.49	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1555	-	-	1017	896	1582	-	-
HCM Lane V/C Ratio	0.001	-	-	0.006	0.089	-	-	-
HCM Ctrl Dly (s/v)	7.3	-	-	8.6	9.4	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	4	45	0	0	6	9	13	0	4	0
Future Vol, veh/h	0	0	4	45	0	0	6	9	13	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	4	49	0	0	7	10	14	0	4	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	27	41	4	34	34	17	4	0	0	24	0	0
Stage 1	4	4	-	30	30	-	-	-	-	-	-	-
Stage 2	23	37	-	4	4	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	983	851	1079	972	858	1062	1617	-	-	1591	-	-
Stage 1	1018	892	-	987	870	-	-	-	-	-	-	-
Stage 2	995	864	-	1018	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	979	847	1079	965	855	1062	1617	-	-	1591	-	-
Mov Cap-2 Maneuver	979	847	-	965	855	-	-	-	-	-	-	-
Stage 1	1018	892	-	983	867	-	-	-	-	-	-	-
Stage 2	991	861	-	1014	892	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.35	8.93	1.55	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1617	-	-	1079	965	1591	-	-
HCM Lane V/C Ratio	0.004	-	-	0.004	0.051	-	-	-
HCM Ctrl Dly (s/v)	7.2	-	-	8.3	8.9	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	16	23	0	118
Future Vol, veh/h	0	12	16	23	0	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	17	25	0	128

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	30	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1045	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1045	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.49	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	1045	-
HCM Lane V/C Ratio	-	-	0.012	-
HCM Ctrl Dly (s/v)	-	-	8.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	20	77	0	52
Future Vol, veh/h	0	8	20	77	0	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	22	84	0	57

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	64	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1001	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1001	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.63	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	1001	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Ctrl Dly (s/v)	-	-	8.6	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	12	18	23	0	126
Future Vol, veh/h	0	12	18	23	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	13	20	25	0	137

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	32	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1042	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1042	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	1042	-
HCM Lane V/C Ratio	-	-	0.013	-
HCM Ctrl Dly (s/v)	-	-	8.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

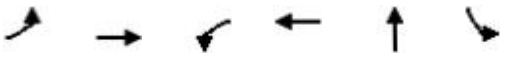
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	20	77	0	53
Future Vol, veh/h	0	8	20	77	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	22	84	0	58

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	64	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1001	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	1001	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.63	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	1001	-
HCM Lane V/C Ratio	-	-	0.009	-
HCM Ctrl Dly (s/v)	-	-	8.6	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Appendix F: Queue Analysis Worksheets

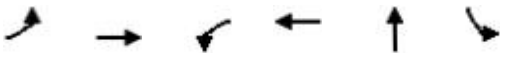


Lane Group	EBL	EBT	WBL	WBT	NBT	SBL
Lane Group Flow (vph)	19	1027	37	1106	117	183
v/c Ratio	0.06	0.44	0.10	0.46	0.31	0.82
Control Delay (s/veh)	7.2	13.1	9.9	15.7	13.4	72.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.2	13.1	9.9	15.7	13.4	72.9
Queue Length 50th (ft)	4	214	8	221	16	137
Queue Length 95th (ft)	9	183	20	247	19	122
Internal Link Dist (ft)		726		1812	1011	
Turn Bay Length (ft)	200		150			250
Base Capacity (vph)	341	2315	368	2386	532	349
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.44	0.10	0.46	0.22	0.52

Intersection Summary

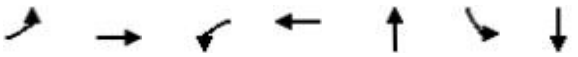
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	15	361	47	394	48	59	1
v/c Ratio	0.02	0.13	0.06	0.14	0.22	0.40	0.00
Control Delay (s/veh)	2.9	5.6	2.9	3.9	5.3	58.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	2.9	5.6	2.9	3.9	5.3	58.4	0.0
Queue Length 50th (ft)	2	41	6	23	0	44	0
Queue Length 95th (ft)	7	65	15	62	9	81	0
Internal Link Dist (ft)		726		1812	1011		244
Turn Bay Length (ft)	200		150			250	
Base Capacity (vph)	909	2733	937	2796	539	508	900
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.13	0.05	0.14	0.09	0.12	0.00

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL
Lane Group Flow (vph)	22	1201	44	1300	139	193
v/c Ratio	0.08	0.55	0.15	0.57	0.34	0.85
Control Delay (s/veh)	8.2	16.6	8.6	16.0	12.6	75.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	8.2	16.6	8.6	16.0	12.6	75.1
Queue Length 50th (ft)	5	283	10	315	18	145
Queue Length 95th (ft)	11	230	17	248	20	126
Internal Link Dist (ft)		726		1812	1011	
Turn Bay Length (ft)	200		150			250
Base Capacity (vph)	261	2187	290	2263	543	329
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.55	0.15	0.57	0.26	0.59

Intersection Summary



Lane Group	EBL	EBT	WBL	WBT	NBT	SBL	SBT
Lane Group Flow (vph)	15	423	56	441	57	59	1
v/c Ratio	0.02	0.16	0.07	0.16	0.27	0.43	0.00
Control Delay (s/veh)	3.0	5.7	2.9	4.1	7.6	60.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.0	5.7	2.9	4.1	7.6	60.3	0.0
Queue Length 50th (ft)	2	50	7	27	0	44	0
Queue Length 95th (ft)	7	76	17	71	18	81	0
Internal Link Dist (ft)		726		1812	1011		244
Turn Bay Length (ft)	200		150			250	
Base Capacity (vph)	876	2725	896	2804	539	468	866
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.16	0.06	0.16	0.11	0.13	0.00

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	387	463	27	153	197	289	1520	520	1482
v/c Ratio	1.06	0.59	0.19	0.48	0.31	0.67	0.75	0.78	0.64
Control Delay (s/veh)	115.9	31.5	58.8	56.3	8.3	57.7	34.5	47.9	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	115.9	31.5	58.8	56.3	8.3	57.7	34.5	47.9	35.1
Queue Length 50th (ft)	~170	115	10	60	21	111	372	205	373
Queue Length 95th (ft)	#265	163	26	91	71	152	434	#279	440
Internal Link Dist (ft)		1812		1854			1575		1061
Turn Bay Length (ft)	300		225		300	275		250	
Base Capacity (vph)	364	872	143	530	644	471	2014	665	2318
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	0.53	0.19	0.29	0.31	0.61	0.75	0.78	0.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	333	350	141	113	408	140	1584	230	1903
v/c Ratio	0.78	0.67	0.56	0.45	0.77	0.51	0.65	0.45	0.69
Control Delay (s/veh)	72.4	40.1	71.3	67.9	41.1	68.4	30.9	56.0	25.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.4	40.1	71.3	67.9	41.1	68.4	30.9	56.0	25.2
Queue Length 50th (ft)	152	93	64	53	238	64	405	98	450
Queue Length 95th (ft)	206	145	101	85	335	98	515	134	553
Internal Link Dist (ft)		1812		1854			1575		1061
Turn Bay Length (ft)	300		225		300	275		250	
Base Capacity (vph)	462	721	275	464	562	280	2448	598	2778
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.49	0.51	0.24	0.73	0.50	0.65	0.38	0.69

Intersection Summary

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	444	535	31	180	233	339	1800	616	1750
v/c Ratio	0.79	0.59	0.19	0.58	0.37	0.78	0.99	0.86	0.80
Control Delay (s/veh)	66.9	37.7	66.2	68.9	16.1	71.9	63.2	66.3	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	37.7	66.2	68.9	16.1	71.9	63.2	66.3	37.1
Queue Length 50th (ft)	202	177	14	84	62	154	~645	276	495
Queue Length 95th (ft)	252	227	31	122	136	#212	#727	#414	584
Internal Link Dist (ft)		1812		1854			1575		1061
Turn Bay Length (ft)	300		225		300	275		250	
Base Capacity (vph)	662	902	318	379	634	454	1819	717	2196
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.59	0.10	0.47	0.37	0.75	0.99	0.86	0.80

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	386	407	166	131	482	157	1876	273	2241
v/c Ratio	0.86	0.73	0.64	0.46	0.83	0.58	0.84	0.45	0.83
Control Delay (s/veh)	78.3	45.8	74.3	66.1	45.2	70.9	40.6	54.0	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.3	45.8	74.3	66.1	45.2	70.9	40.6	54.0	31.5
Queue Length 50th (ft)	179	126	76	61	296	72	583	111	608
Queue Length 95th (ft)	#256	177	116	92	440	111	657	163	736
Internal Link Dist (ft)		1812		1854			1575		1061
Turn Bay Length (ft)	300		225		300	275		250	
Base Capacity (vph)	462	714	275	464	591	278	2232	633	2700
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.57	0.60	0.28	0.82	0.56	0.84	0.43	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	84	85	1124	1374	692	47	871
v/c Ratio	0.18	0.19	0.70	0.46	0.58	0.19	0.37
Control Delay (s/veh)	30.6	29.5	2.6	16.0	11.7	23.7	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.6	29.5	2.6	16.0	11.7	23.7	25.7
Queue Length 50th (ft)	47	48	0	319	286	29	282
Queue Length 95th (ft)	89	89	0	m343	m480	m46	332
Internal Link Dist (ft)		1200		1061			645
Turn Bay Length (ft)			100			550	
Base Capacity (vph)	566	453	1599	2955	1202	483	2347
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.19	0.70	0.46	0.58	0.10	0.37

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	41	41	1012	1333	780	123	1055
v/c Ratio	0.09	0.09	0.63	0.49	0.64	0.43	0.44
Control Delay (s/veh)	28.0	28.1	1.8	22.3	4.5	26.1	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.0	28.1	1.8	22.3	4.5	26.1	18.6
Queue Length 50th (ft)	23	23	0	272	3	56	252
Queue Length 95th (ft)	50	50	0	338	88	m111	288
Internal Link Dist (ft)		1200		1061			645
Turn Bay Length (ft)			100			550	
Base Capacity (vph)	571	457	1615	2733	1216	495	2394
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.09	0.63	0.49	0.64	0.25	0.44

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	100	100	1330	1622	816	56	1030
v/c Ratio	0.18	0.18	0.83	0.65	0.73	0.32	0.50
Control Delay (s/veh)	29.4	29.4	5.2	25.1	9.0	25.8	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	29.4	29.4	5.2	25.1	9.0	25.8	31.2
Queue Length 50th (ft)	57	57	0	347	69	34	335
Queue Length 95th (ft)	103	103	0	413	246	m49	386
Internal Link Dist (ft)		1200		1061			645
Turn Bay Length (ft)			100			550	
Base Capacity (vph)	566	566	1599	2511	1120	425	2049
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.18	0.83	0.65	0.73	0.13	0.50

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	48	49	1192	1575	922	146	1242
v/c Ratio	0.10	0.11	0.74	0.59	0.76	0.59	0.52
Control Delay (s/veh)	28.3	28.3	3.1	25.0	9.9	37.5	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.3	28.3	3.1	25.0	9.9	37.5	19.5
Queue Length 50th (ft)	26	27	0	347	73	91	295
Queue Length 95th (ft)	56	57	0	436	319	m129	362
Internal Link Dist (ft)		1200		1061			645
Turn Bay Length (ft)			100			550	
Base Capacity (vph)	571	457	1615	2690	1209	456	2394
Starvation Cap Reductn	0	0	0	0	0	0	102
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.11	0.74	0.59	0.76	0.32	0.54

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	329	332	163	814	695	238	36
v/c Ratio	0.71	0.72	0.10	0.82	0.30	0.21	0.02
Control Delay (s/veh)	49.0	49.3	0.1	70.6	3.2	31.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.0	49.3	0.1	70.6	3.2	31.0	0.0
Queue Length 50th (ft)	242	245	0	348	36	70	0
Queue Length 95th (ft)	356	358	0	413	64	111	0
Internal Link Dist (ft)		1177			645	1677	
Turn Bay Length (ft)			250				500
Base Capacity (vph)	462	463	1583	1271	2323	1157	1583
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.72	0.10	0.64	0.30	0.21	0.02

Intersection Summary

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	331	332	91	905	488	592	135
v/c Ratio	0.70	0.70	0.06	0.84	0.21	0.54	0.08
Control Delay (s/veh)	48.4	48.3	0.1	72.0	6.6	38.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.4	48.3	0.1	72.0	6.6	38.1	0.1
Queue Length 50th (ft)	243	244	0	388	44	201	0
Queue Length 95th (ft)	356	356	0	455	60	282	0
Internal Link Dist (ft)		1177			645	1677	
Turn Bay Length (ft)			250				500
Base Capacity (vph)	471	473	1615	1284	2346	1095	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.70	0.06	0.70	0.21	0.54	0.08

Intersection Summary

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	389	392	193	960	822	280	42
v/c Ratio	0.84	0.85	0.12	0.86	0.35	0.27	0.03
Control Delay (s/veh)	58.7	59.1	0.2	74.5	7.8	35.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	59.1	0.2	74.5	7.8	35.0	0.0
Queue Length 50th (ft)	300	302	0	412	87	88	0
Queue Length 95th (ft)	#472	#476	0	479	130	134	0
Internal Link Dist (ft)		1177			645	1677	
Turn Bay Length (ft)			250				500
Base Capacity (vph)	462	463	1583	1271	2323	1023	1583
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.85	0.12	0.76	0.35	0.27	0.03

Intersection Summary

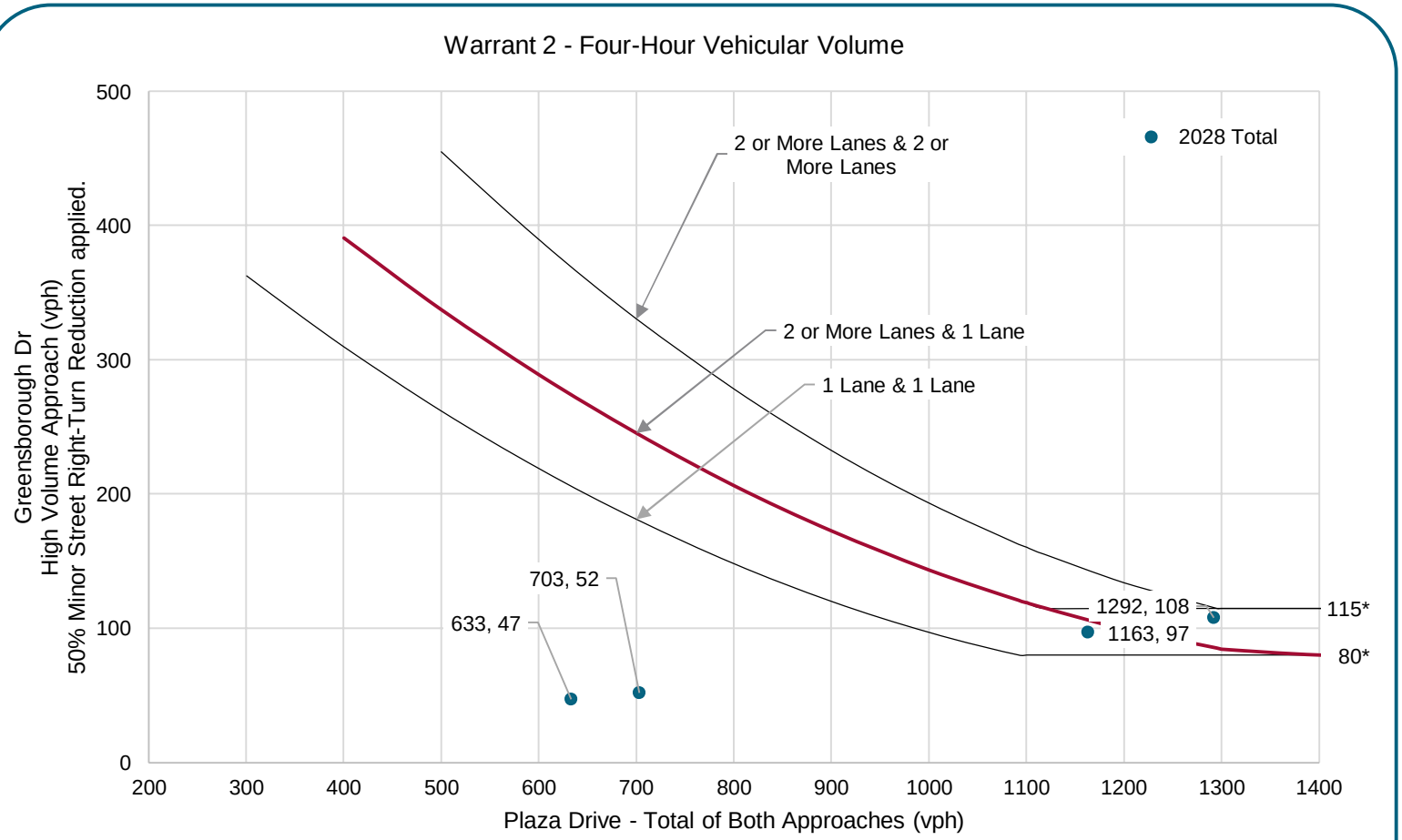
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	389	390	109	1071	577	699	159
v/c Ratio	0.83	0.83	0.07	0.89	0.25	0.72	0.10
Control Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
Queue Length 50th (ft)	297	298	0	460	53	264	0
Queue Length 95th (ft)	#465	#466	0	528	120	339	0
Internal Link Dist (ft)		1177			645	1677	
Turn Bay Length (ft)			250				500
Base Capacity (vph)	471	472	1615	1284	2346	971	1615
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.83	0.07	0.83	0.25	0.72	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Appendix G: Signal Warrant Analysis Worksheet



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

Plaza Drive & Greensborough Dr
Signal Warrant Analysis
Four-Hour Volume Warrant

Source: Manual on Uniform Traffic Control Devices 2023

Intersection #4

Kimley»Horn

April 22, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Re: Water and Sewer for Project ZR2025-001, Highlands Ranch Planned Development, 80th Amendment

To Whom It May Concern:

Pursuant to Section 1805A.01 of the Douglas County Zoning Resolution, Highlands Ranch Water and Sanitation District (the "District") acknowledges its willingness and ability to serve all future proposed developments in its Highlands Ranch service area, including parcels in Filing 157, Lot 3 and 4.

Verification of District Status:

The District hereby verifies that the statements made in the letters and reports submitted by the District for the State Engineer and the County, and in the current materials are true and accurate, with the exception of any updates to the District's available water supply in accordance with the attached information.

Commitment to Serve:

The District is committed to providing service for all future developments within its service area based upon the water supply sources so identified. The connection to and use of such lines, mains and facilities is conditioned upon compliance with all the Rules and Regulations of the Districts, including the payment of the appropriate fees. Any applicant, owner or customer desiring water and/or sewer service from the District shall pay a Tap Fee prior to the installation of a water meter. Such fee shall be paid in addition to all other charges relating to water and/or sewer service as established from time to time by the Board of Directors.

Water Demand:

Based on the demands at buildout of Highlands Ranch, all existing and future developments within our service area will require 19,600 to 22,600 AF/year. At this time, with the existing development at approximately 95% of buildout, demand has not exceeded 17,000 AF/year.

The representative for the developer has stated that the development will include a mix of commercial uses and associated landscaping totaling 234 Single Family Equivalent (SFE) taps for domestic use. Based on Highlands Ranch's standard water demand requirements, this project will therefore require 117 acre-feet (AF) of water per year.

Water Supply:

The District's existing water supply (in accordance with the attached report on sources, storage and decrees) of over 30,000 AF/year is adequate to deliver water to all future development within its service area. Highlands Ranch's water supply includes an amount sufficient to meet the water demands for this property.

Water Quality:

The District is in compliance with the Colorado Department of Public Health and Environment testing and quality requirements and provides a high-quality water supply to all of its customers.

Sanitary Sewer Service:

The District shall provide sanitary sewer service for all water taps requested for this development. Treatment is provided by Highlands Ranch's Marcy Gulch Wastewater Treatment Plant.

Feasibility of Service:

Since its inception, Highlands Ranch has developed and funded an infrastructure plan to provide service to all properties within its service area. It is physically and economically feasible for the District to extend service to the proposed development.

Documentation:

Information describing Highlands Ranch's water supply including decrees is contained in the attached letter from Samuel L. Calkins, General Manager of Highlands Ranch Water and Sanitation District.

Sincerely,

Ryan Edwards
Director of Engineering
Highlands Ranch Water and Sanitation District

Enclosures

April 22, 2025

Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104

Re: Statement of Water Availability

This letter serves as a general summary addressing the water supply for customers seeking water service within the Highlands Ranch Water and Sanitation District's (HRWSD) service area through the Northern Douglas County Water and Sanitation District (NDCWSD), the Highlands Ranch Metropolitan District and Mirabelle Metropolitan District.

For planning purposes, the water demand projected for all existing and future customers in the HRWSD service area is estimated to be from 19,600 to 22,600 acre-feet per year (AF/yr.). The actual annual demand for the last few years has averaged about 17,000 AF/yr. and the HRWSD's service area is approximately 95% developed. Approximately 90% of HRWSD's reusable water is recycled for municipal purposes in the HRWSD water service area.

Water demands in the HRWSD service area are met through a robust conjunctive use system that includes both renewable surface water and reusable Denver Basin ground water. Captured surface-water supplies are stored in four reservoirs and in three of the four Denver Basin aquifers through an aquifer storage and recovery (ASR) program. HRWSD's surface-water supplies are from several sources on the South Platte River and its tributaries, which are summarized in Table 1.

Table 1

Surface-Water Sources	Average Year Yield (AF/yr.)
Augmentation / Exchange Plan	3,000
Plum Creek	550
Cline Ranch	400
South Platte River / Reservoir	700
Hock Hocking Mine	100
Tingle Reservoir	100
Englewood Agreements	6,120
Denver Water ("Patti water")	1,000
Bargas Ranch	900
Castle Pines North	50
WISE	1,000
Chatfield Reservoir	2,500
Total Surface Water Supply (current)	**16,420**

HRWSD's decreed annual yield of Denver Basin ground-water rights total 17,717 AF/yr., which are defined in Table 2. Ground water can be pumped from the Denver Basin aquifers through a well field array comprised of more than 50 wells.

Table 2

Bedrock Aquifer	Decree Yield (af/yr.)
Arapahoe	4,915
Denver	5,111
Laramie-Fox Hills	4,500
Laramie-Fox Hills West	340
Dawson	390
Not-Nontributary Denver	1,876
Phipps Arapahoe	585
TOTAL	**17,717**

In an average year, the total volume of water currently available for use by CWSD customers is more than 30,000 AF. In addition to these water rights, HRWSD has the use of 3,885 AF of storage space in McLellan Reservoir, 6,400 AF of storage space in South Platte Reservoir, 205 AF of storage space in James Tingle Reservoir, and 6,922 AF of storage space in the Chatfield Reservoir Reallocation Project. The total storage space is 17,412 AF.

HRWSD operates a successful ASR program that stores treated surface water in three of the four Denver Basin aquifers, and makes that water available for use at any time. The ASR program has been operated for over 20 years. To date, nearly 15,300 AF of treated potable water has been stored in the Denver Basin aquifers beneath Highlands Ranch and is available when needed to supplement the annual decreed quantities defined above.

The attached sheet lists the water right decrees for the various water sources available for service to HRWSD customers.

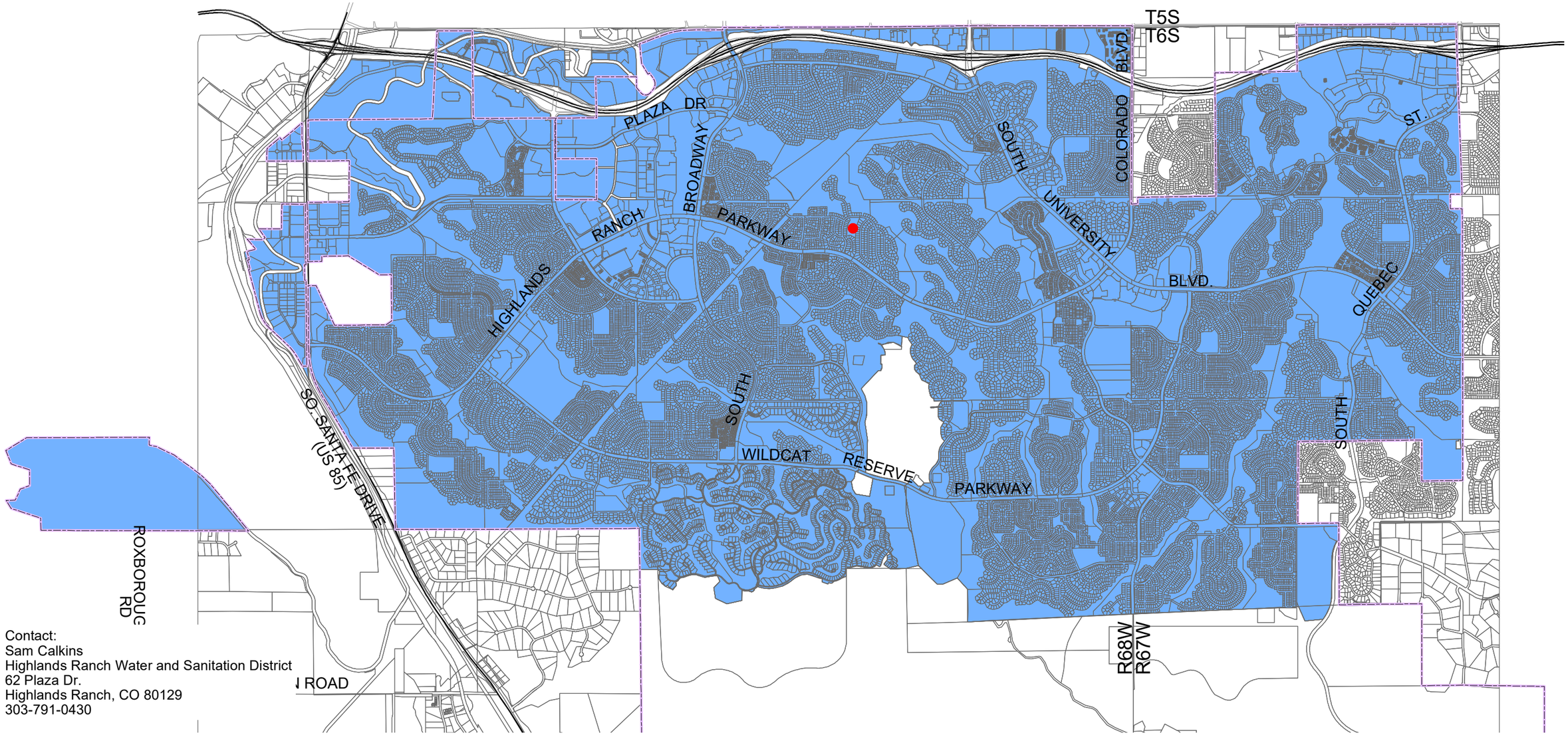
Sincerely,

Samuel L. Calkins
General Manager

Cc: Ryan Edwards

Attachment: Water Right Decree List

Highlands Ranch WSD's Water Court Case Numbers								12/9/24
Water Right Description	Original Decree	Change Case Decree	Diligence/ Absolute Decrees First	Second	Third	Fourth	Fifth/Sixth	When next diligence due
Surface Water Rights								
Plum Creek	W - 6072	85CW415	NA					
		93CW177						
Augmentation Plan/	85CW415	93CW178	94CW286	02CW037	11CW244	19CW3140		1/31/2027
Exchange	19CW3257							
So. Platte Direct	88CW222	93CW179	96CW219	04CW033	12CW184	19CW3222		11/30/2026
Chatfield Storage	84CW411	93CW082	93CW081	01CW101	14CW3155	21CW3183		6/30/2028
		83CW184*	95CW111	02CW041	09CW076	17CW3176	24CW3140	TBD
So. Platte Reservoir	95CW239	93CW082	03CW295	12CW199	20CW3078			2/28/2028
Highlands Ranch	79CW316		85CW288	89CW168	96CW124	03CW266	12CW291	
Reservoirs	to 330		to 294				19CW3139	2/28/2026
Highlands Ranch	86CW332	95CW160	95CW159	02CW311	BD-11CW171			Dropped
Gulches	to 336	(Big Dry)	to 164	to 315	DC-11CW024			Dropped
					SPG-11CW129			Dropped
					MG-11CW130			Dropped
Cline	99CW199(A)		08CW20	15CW3133	22CW3180			6/30/2029
Fairview								
Senior	84CW058							
Junior	85CW314		01CW276	12CW119	18CW3222			8/31/2026
Hock Hocking	W-1318		83CW214	87CW161	97CW222	04CW271		Completed
Randall Ditch/ Tingle Res	05CW111		13CW3029	19CW3223				10/31/2026
Junior Application	09CW180		17CW3207	24CW3092				11/30/2030
CD Catholic Schools	07CW62							
United Development		18CW3188						
Groundwater Rights								
Dawson	82CW480							
Denver Trib	85CW415							
Denver Non-Trib	80CW445	97CW145			88CV335			
		(locations)			D-3 Settlemt			
Arapahoe	W-9192-78	84CW483	84CW482	06CW202				
		(locations)	(diligence)	(A-1 reloca.)				
Laramie-Foxhills	W-9192-78	83CW237	83CW237					
		(locations)						
Chatfield LFH	82CW479							
Willows Arap.(PA -5,7)	W-9310-78	90CW109	also	85CW163, 85CW170, 88CW079,				10CW171
				and 99CW163				PA-7
Plum Creek Non-Trib	W-6072							



Contact:
Sam Calkins
Highlands Ranch Water and Sanitation District
62 Plaza Dr.
Highlands Ranch, CO 80129
303-791-0430

Boundary Map
Highlands Ranch Water and Sanitation District
Tax Authority # 4058

LGID 18025 - 39°32'53.23" N, 104°58'26.21" W

Highlands Ranch Water and Sanitation District

N
W E
S

0 1,625 3,250
Feet

January 1, 2025

URBAN USES

RESIDENTIAL DENSITY-LOW
1,5,7,23 & 51

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	1	165	2.6	433
	2	66	3.2	212
	3	165	3.6	594
	4	51	2.0	102
	5	53	3.8	198
	7	194	2.9	562
	23	64	1.6	104
	51	77	3.2	246
SUB TOTAL		835	2.9	2,451

MEDIUM-LOW
20,24-32,52,57 & 58

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	6	87	4.9	429
	20	353	4.3	1,518
	24	185	4.0	740
	25	77	4.0	308
	26	234	4.0	936
	27	95	4.0	380
	28	94	4.0	376
	29	108	4.0	432
	30	91	4.0	364
	31	253	4.1	1,032
	32	187	4.0	748
	52	226	4.4	1,004
	57	391	4.4	1,737
	58	336	4.2	1,400
SUB TOTAL		2,717	4.2	11,404

MEDIUM
33,40-50,53-56 & 59

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	33	65	6.4	419
	40	87	5.3	465
	41	216	5.3	1,134
	42	43	5.9	275
	43	179	5.0	893
	44	186	5.0	957
	45	86	5.0	430
	46	224	5.9	1,330
	47	46	5.0	230
	48	72	5.0	360
	49	98	5.0	490
	50	181	5.0	905
	53	154	5.0	770
	54	47	5.6	265
	55	258	5.8	1,493
	56	101	5.0	505
	59	362	4.8	1,749
SUB TOTAL		2,405	5.3	12,670

For the addition of residential dwelling units to the PD: the following changes are proposed.
-Add new line under High for PA 85 with:
-GRA: --
-DU/GRA: 8.0-25.0
-Total DU: 400
-Update High Sub Total:
- DU/GRA: 8.0 - 25.0
- Total DU: 9,943
-Update Total Residential:
-Total DU: 36,468

HIGH
60-69

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	60	32	8.0-15.0	284
	61	168	8.0-15.0	1,794
	62	51	8.0-15.0	447
	63	35	8.0-15.0	280
	64	98	8.0-15.0	863
	65	151	8.0-15.0	2,187
	66	229	8.0-15.0	1,832
	67	44	8.0-15.0	456
	68	17	8.0-15.0	255
	69	36	8.0-15.0	725
	84,87	--	--	135
	85-A	--	--	285
SUB TOTAL		861	8.0-15.0	9,543

TOTAL RESIDENTIAL	6,818	36,068

NONRESIDENTIAL

		PA[2]	GNA[3]
70, 89-91	COMMUNITY ACTIVITY CENTER	70	85
		89	11
		90	13
		91	14
71	CIVIC CENTER	71	151
72,73	TOWN CENTER	72	173
		73	286
74	CORRIDOR ACTIVITY CENTER	74	132
T	SHOP-N-RIDE		13
75-88	INDUSTRIAL PARK	75	45
		76	57
		77	107
		78	80
		79	12
		80	61
		81	40
		84	72
		85	69
		86	27
		87	15
		88	8
SUB TOTAL			1,471

CIRCULATION
- 2 LANE ARTERIAL HIGHWAYS
- 4 LANE ARTERIAL HIGHWAYS
- 6 LANE ARTERIAL HIGHWAYS
- INTERCHANGE

TOTAL ARTERIALS	443
TOTAL NONRESIDENTIAL	1,914

NON-URBAN USES

		GNA[3]
SCHOOLS		
E	ELEMENTARY SCHOOLS	462
MS	MIDDLE SCHOOL	
HS	HIGH SCHOOL	
L	LIBRARY	3
P	MASS TRANSIT PARKING SITE	7
RP	REGIONAL PARK	300
A	HIGHLANDS RANCH COMMUNITY ASSOCIATION FACILITY SITE	35
CP	COMMUNITY PARK	160
	NONURBAN	
	EASEMENTS	600
	FLOODPLAINS (100 YR.)	741
	REMAINING AREA	2,382

OPEN SPACE CONSERVATION AREA

PA	GNA[3]
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
SUBTOTAL	1,200
J	125
	6,875
	7,000
TOTAL OPEN SPACE CONSERVATION AREA	8,200
TOTAL NONURBAN	12,890

TOTAL PLANNED COMMUNITY DISTRICT (ACRES)

21,622

Section XVIII of the New Town of Highlands Ranch Planned Community District Development Guide

FOOTNOTES:
[1]PLANNING AREA
[2]GROSS RESIDENTIAL ACRES
[3]GROSS NONRESIDENTIAL ACRES
[4]DWELLING UNITS/GROSS RESIDENTIAL ACRE

GENERAL NOTES:
1: SCHOOL SITES WILL BE PRECISELY SCALED AND LOCATED IN ACCORDANCE WITH THE STANDARDS OF THE DOUGLAS COUNTY SCHOOL DISTRICT. SCHOOL SITES ARE NONURBAN USES AND AS SUCH ARE NOT A PART OF THE RESIDENTIAL PLANNING AREA ACREAGE.
2: THE SPECIFIC LOCATIONS AND SIZES OF SHOP-N-RIDES WILL BE DETERMINED BY PRECISE ENGINEERING STUDIES. THE FACILITIES INDICATED ON THE PLAN ARE SYMBOLIC ONLY.
3: COMMUNITY PARK SITES DESIGNATED ON THE DEVELOPMENT PLAN ARE SYMBOLIC ONLY.
4: PLANNING AREA BOUNDARIES OTHER THAN THOSE DELINEATED BY STREETS ARE SHOWN BY THE FOLLOWING SYMBOL: ———
5: HIGHLANDS RANCH BOUNDARY IS SHOWN BY THE FOLLOWING SYMBOL: ———
6: OFF-STREET HIKING AND BIKING TRAIL - - - - - -
7: THE CULTURAL AND HISTORICAL PROTECTION OVERLAY ZONE IS DELINEATED BY THE FOLLOWING SYMBOL: ——— ———
8: SOME NONURBAN AREAS EXIST INTERIOR TO ADJACENT PLANNING AREAS, AND ARE NOT GRAPHICALLY REPRESENTED. THESE NONURBAN AREAS REMAIN SUBJECT TO SECTION XIII OF THE HIGHLANDS RANCH DEVELOPMENT GUIDE.

I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS _____ DAY OF _____, 20___, A.D. AT _____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

_____
Douglas County Clerk and Recorder

THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING THE TOTAL RESIDENTIAL DWELLING UNITS AND ADJUSTING THE BOUNDARY OF PLANNING AREA 43 AS DEPICTED ON THE HIGHLANDS RANCH DEVELOPMENT PLAN ZONING MAP AS DEPICTED HEREON HAS BEEN APPROVED BY BOARD MOTION NO. _____ ON _____, _____, 20___.

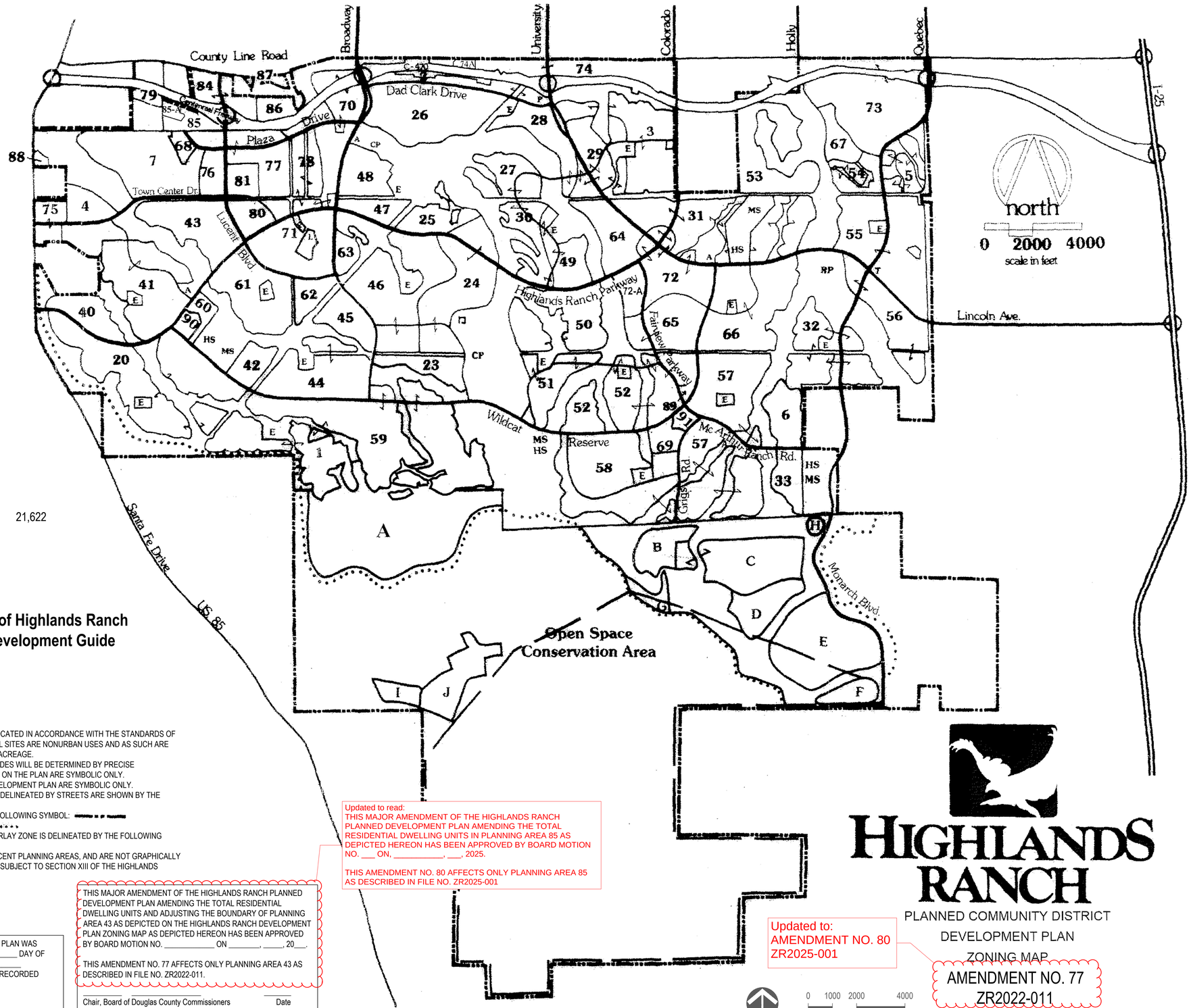
THIS AMENDMENT NO. 77 AFFECTS ONLY PLANNING AREA 43 AS DESCRIBED IN FILE NO. ZR2022-011.

_____ _____ _____
Chair, Board of Douglas County Commissioners Date

_____ _____ _____
Director of Community Development Date

Updated to read:
THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING THE TOTAL RESIDENTIAL DWELLING UNITS IN PLANNING AREA 85 AS DEPICTED HEREON HAS BEEN APPROVED BY BOARD MOTION NO. ___ ON, _____, ___, 2025.

THIS AMENDMENT NO. 80 AFFECTS ONLY PLANNING AREA 85 AS DESCRIBED IN FILE NO. ZR2025-001



HIGHLANDS RANCH

PLANNED COMMUNITY DISTRICT
DEVELOPMENT PLAN
ZONING MAP

Updated to:
AMENDMENT NO. 80
ZR2025-001

AMENDMENT NO. 77
ZR2022-011
PAGE 1 OF 1

NORTH 0 1000 2000 4000 SCALE: 1" = 2000'

URBAN USES

RESIDENTIAL DENSITY-LOW
1,5,7,23 & 51

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	1	165	2.6	433
	2	66	3.2	212
	3	165	3.6	594
	4	51	2.0	102
	5	53	3.8	198
	7	194	2.9	562
	23	64	1.6	104
	51	77	3.2	246
SUB TOTAL		835	2.9	2,451

MEDIUM-LOW
20,24-32,52,57 & 58

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	6	87	4.9	429
	20	353	4.3	1,518
	24	185	4.0	740
	25	77	4.0	308
	26	234	4.0	936
	27	95	4.0	380
	28	94	4.0	376
	29	108	4.0	432
	30	91	4.0	364
	31	253	4.1	1,032
	32	187	4.0	748
	52	226	4.4	1,004
	57	391	4.4	1,737
	58	336	4.2	1,400
SUB TOTAL		2,717	4.2	11,404

MEDIUM
33,40-50,53-56 & 59

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	33	65	6.4	419
	40	87	5.3	465
	41	216	5.3	1,134
	42	43	5.9	275
	43	179	5.0	893
	44	186	5.0	957
	45	86	5.0	430
	46	224	5.9	1,330
	47	46	5.0	230
	48	72	5.0	360
	49	98	5.0	490
	50	181	5.0	905
	53	154	5.0	770
	54	47	5.6	265
	55	258	5.8	1,493
	56	101	5.0	505
	59	362	4.8	1,749
SUB TOTAL		2,405	5.3	12,670

HIGH
60-69

	PA[1]	GRA[2]	DU/GRA[4]	TOTAL DU
	60	32	8.0-15.0	284
	61	168	8.0-15.0	1,794
	62	51	8.0-15.0	447
	63	35	8.0-15.0	280
	64	98	8.0-15.0	863
	65	151	8.0-15.0	2,187
	66	229	8.0-15.0	1,832
	67	44	8.0-15.0	456
	68	17	8.0-15.0	255
	69	36	8.0-15.0	725
	84,87	--	--	135
	85	--	8.0-25.0	400
	85-A	--	--	285
SUB TOTAL		861	8.0-25.0	9,943

TOTAL RESIDENTIAL 6,818 36,468

NONRESIDENTIAL

		PA[2]	GNA[3]
70, 89-91	COMMUNITY ACTIVITY CENTER	70	85
		89	11
		90	13
		91	14
71	CIVIC CENTER	71	151
72,73	TOWN CENTER	72	173
		73	286
74	CORRIDOR ACTIVITY CENTER	74	132
T	SHOP-N-RIDE		13
75-88	INDUSTRIAL PARK	75	45
		76	57
		77	107
		78	80
		79	12
		80	61
		81	40
		84	72
		85	69
		86	27
		87	15
		88	8
	SUB TOTAL		1,471

CIRCULATION
- 2 LANE ARTERIAL HIGHWAYS
- 4 LANE ARTERIAL HIGHWAYS
- 6 LANE ARTERIAL HIGHWAYS

TOTAL ARTERIALS 443

INTERCHANGE

TOTAL NONRESIDENTIAL 1,914

NON-URBAN USES

		GNA[3]
	SCHOOLS	
E	ELEMENTARY SCHOOLS	462
MS	MIDDLE SCHOOL	
HS	HIGH SCHOOL	
L	LIBRARY	3
P	MASS TRANSIT PARKING SITE	7
RP	REGIONAL PARK	300
A	HIGHLANDS RANCH COMMUNITY ASSOCIATION FACILITY SITE	35
CP	COMMUNITY PARK	160
	NONURBAN	
	EASEMENTS	600
	FLOODPLAINS (100 YR.)	741
	REMAINING AREA	2,382

OPEN SPACE CONSERVATION AREA

	GNA[3]
PA	
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
SUBTOTAL	1,200
J	125
	6,875
	7,000
TOTAL OPEN SPACE CONSERVATION AREA	8,200

TOTAL NONURBAN 12,890

TOTAL PLANNED COMMUNITY DISTRICT (ACRES)

21,622

Section XVIII of the New Town of Highlands Ranch Planned Community District Development Guide

FOOTNOTES:
[1]PLANNING AREA
[2]GROSS RESIDENTIAL ACRES
[3]GROSS NONRESIDENTIAL ACRES
[4]DWELLING UNITS/GROSS RESIDENTIAL ACRE

GENERAL NOTES:
1: SCHOOL SITES WILL BE PRECISELY SCALED AND LOCATED IN ACCORDANCE WITH THE STANDARDS OF THE DOUGLAS COUNTY SCHOOL DISTRICT. SCHOOL SITES ARE NONURBAN USES AND AS SUCH ARE NOT A PART OF THE RESIDENTIAL PLANNING AREA ACREAGE.
2: THE SPECIFIC LOCATIONS AND SIZES OF SHOP-N-RIDES WILL BE DETERMINED BY PRECISE ENGINEERING STUDIES. THE FACILITIES INDICATED ON THE PLAN ARE SYMBOLIC ONLY.
3: COMMUNITY PARK SITES DESIGNATED ON THE DEVELOPMENT PLAN ARE SYMBOLIC ONLY.
4: PLANNING AREA BOUNDARIES OTHER THAN THOSE DELINEATED BY STREETS ARE SHOWN BY THE FOLLOWING SYMBOL: ———
5: HIGHLANDS RANCH BOUNDARY IS SHOWN BY THE FOLLOWING SYMBOL: ——— • ———
6: OFF-STREET HIKING AND BIKING TRAIL
7: THE CULTURAL AND HISTORICAL PROTECTION OVERLAY ZONE IS DELINEATED BY THE FOLLOWING SYMBOL: ——— ———
8: SOME NONURBAN AREAS EXIST INTERIOR TO ADJACENT PLANNING AREAS, AND ARE NOT GRAPHICALLY REPRESENTED. THESE NONURBAN AREAS REMAIN SUBJECT TO SECTION XIII OF THE HIGHLANDS RANCH DEVELOPMENT GUIDE.

I HEREBY CERTIFY THAT THIS PLAN WAS FILED IN MY OFFICE ON THIS _____ DAY OF _____, 20____, A.D. AT _____ O'CLOCK A.M./P.M., AND WAS RECORDED PER RECEPTION NO. _____.

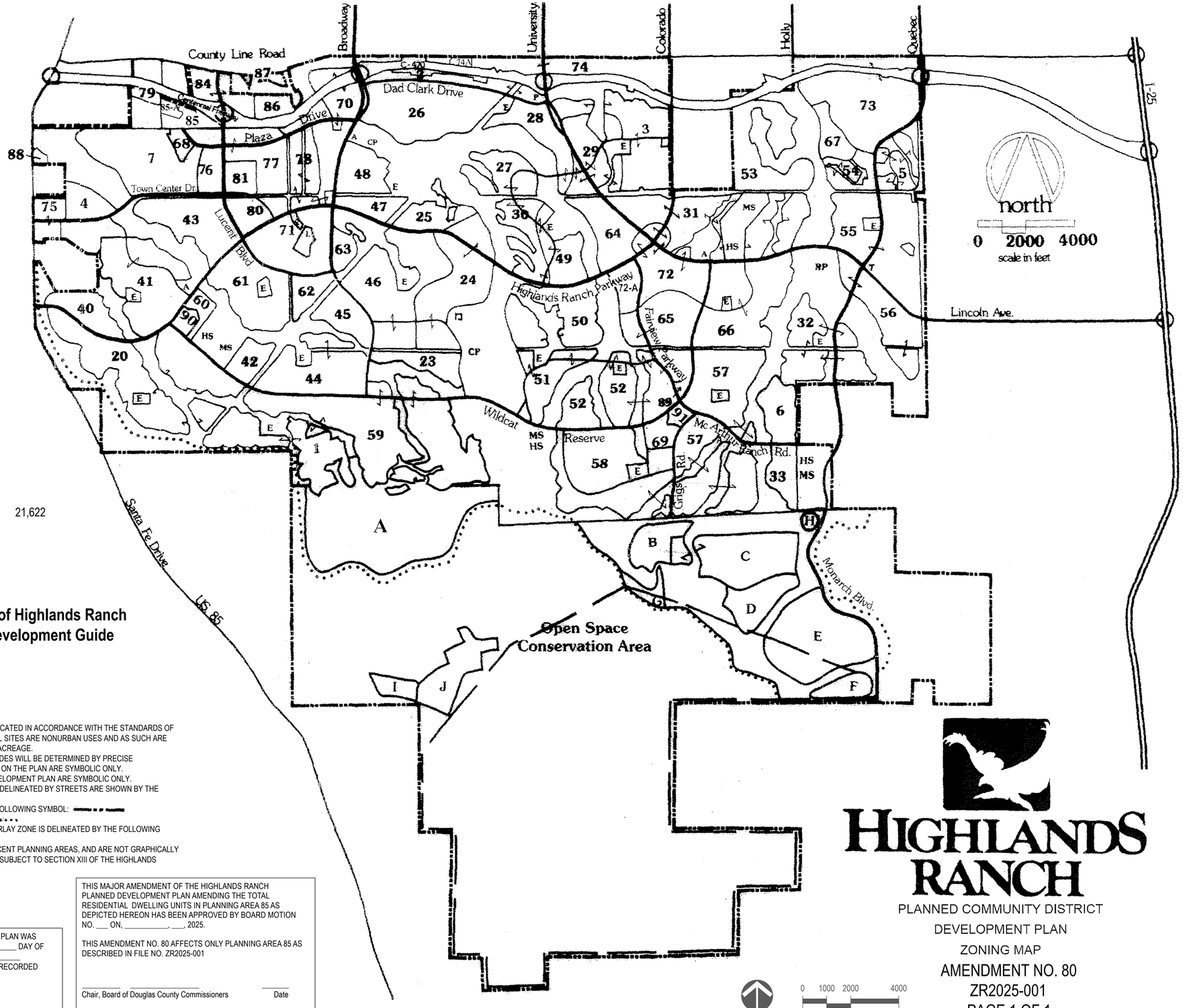
_____
Douglas County Clerk and Recorder

THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING THE TOTAL RESIDENTIAL DWELLING UNITS IN PLANNING AREA 85 AS DEPICTED HEREON HAS BEEN APPROVED BY BOARD MOTION NO. ___ ON, _____, ___, 2025.

THIS AMENDMENT NO. 80 AFFECTS ONLY PLANNING AREA 85 AS DESCRIBED IN FILE NO. ZR2025-001

_____ _____ _____
Chair, Board of Douglas County Commissioners Date

_____ _____ _____
Director of Community Development Date



HIGHLANDS RANCH

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