BOARD OF COUNTY COMMISSIONERS LAND USE MEETING/PUBLIC HEARING

TUESDAY, AUGUST 12, 2025

AGENDA

Tuesday, August 12, 2025 **2:30 PM** **Hearing Room**

2:30 PM

1. Call to Order

a. Pledge of Allegiance

b. Attorney Certification of Agenda

c. Commissioners Disclosure for Items on This Agenda

2. Land Use Meeting Agenda Items

a. Resolutions concerning the Creation and Organization, and Election Question for the Douglas County Local Improvement District (LID) Country Club Drive (Group 10) LID, Douglas County Project Number CI 2025-015.
Amy Strouthopoulos, P.E. — *Department of Public Works Engineering*

Attachments: Resolution - Creation of LID
Resolution - Election Question

Rescheduled to August 26, 2025 at 2:30 p.m.

b. John Adams Academy Exemption - Project File: EX2025-005.
Eric Pavlinek, Principal Planner — *Department of Community Development*

Attachments: Staff Report - EX2025-005

c. Allen Exemption - Project File: EX2025-004.
Trevor Bedford, AICP, Senior Planner — *Department of Community Development*

Attachments: Staff Report - EX2025-004

d. Fields Filing 3 - Final Plat - Project File: SB2024-068.
Heather Scott, AICP, Principal Planner — *Department of Community Development*

Attachments: Staff Report - SB2025-068

3. Public Hearing Agenda Items

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

Attachments: Staff Report - ZR2023-007

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

Attachments: Staff Report - ZR2025-001

c. Resolution supplementing the 2025 Adopted Budget for the County of Douglas, Colorado to Recognize New Revenues received since Annual Budget Adoption, Appropriate Restricted, Committed, Assigned, and Unassigned Fund Balances in the Amount of $3,552,386.
Ryan Bolger, Budget Analyst — *Budget*

Attachments: 4th Supplemental Backup Docs

4. Adjournment

The Next Land Use Meeting / Public Hearing Will be Held on Tuesday, August 26, 2025 @ 2:30 p.m.

MEETING DATE: August 12, 2025

STAFF PERSON RESPONSIBLE: Amy Strouthopoulos, P.E.

DESCRIPTION: Resolutions concerning the Creation and Organization, and Election Question for the Douglas County Local Improvement District (LID) Country Club Drive (Group 10) LID, Douglas County Project Number CI 2025-015.

SUMMARY: Property owners within the proposed Country Club Drive (Group 10) LID have submitted petitions requesting that the Board of County Commissioners (BOCC) of the County of Douglas create a Local Improvement District to construct water, sanitary sewer, roadway, drainage, natural gas, and electric main improvements within Perry Park, Filing #4 subdivision. A Preliminary Order Resolution (R-025-053) was approved by the BOCC on June 24, 2025, setting the date for a public hearing to address concerns or objections to the proposed LID.

The Public Hearing date set forth within the Preliminary Order Resolution (R-025-053) is established as August 12, 2025. ***(Rescheduled to August 26, 2025 at 2:30 p.m. due to statutory deadline requirements.)***

Notice of the Public Hearing was given to all property owners within the proposed LID through publication in the News Press and by certified mail. The Notice requested that the property owners attend the Public Hearing or submit comments via letter.

The Creation Resolution authorizes and orders the acquisition, construction, and installation of the improvements, authorizes notice to contractors, provides for notice to the property owners of completion of the improvements, and determines the method of apportioning assessments to defray the costs of the improvements.

The Election Question Resolution calls for an election on contracting with a private lending institution for financing certain improvements within the Country Club Drive (Group 10) LID. The election will be held on November 4, 2025. Only property owners who are registered Colorado voters will be sent

ballots for the LID question.

RECOMMENDED ACTION: Approval of the attached Resolutions concerning the Creation and Organization, and Election Question for the Douglas County Local Improvement District (LID) Country Club Drive (Group 10) LID, Douglas County Project Number CI 2025-015.

REVIEW:

Kristina Mann	Approve	7/31/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/5/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025

ATTACHMENTS:

Resolution - Creation of LID
Resolution - Election Question

RESOLUTION NO. R-025-___

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

A RESOLUTION CONCERNING THE CREATION AND ORGANIZATION OF DOUGLAS COUNTY LOCAL IMPROVEMENT DISTRICT NO. 25-01, COUNTRY CLUB DRIVE LOCAL IMPROVEMENT DISTRICT (GROUP 10) AUTHORIZING AND ORDERING THE ACQUISITION, CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS THEREIN; AUTHORIZING NOTICE TO CONTRACTORS; PROVIDING FOR NOTICE TO PROPERTY OWNERS OF COMPLETION OF THE IMPROVEMENTS AND DETERMINING THE METHOD OF APPORTIONING ASSESSMENTS TO DEFRAY COSTS THEREOF

WHEREAS, the Board of County Commissioners (the "Board") of Douglas County, Colorado (the "County"), has heretofore by Resolution No. R – 025-053 resolved and passed at the Board's regular meeting held on June 24, 2025, a preliminary order (the "Preliminary Order") adopting preliminary cost estimates with respect to the proposed Douglas County Local Improvement District No. 25-01 Country Club Drive Local Improvement District (Group 10) (the "District") for the purpose of acquiring, constructing and installing certain water main and lot water improvements, sanitary sewer main and lot sewer improvements, roadway and drainage improvements and natural gas main and electric main improvements described therein (collectively, the "Improvements"), and to assess the cost thereof against the properties specially benefited thereby; and

WHEREAS, notice containing the information required by Section 30-20-601, *et seq*., Colorado Revised Statutes ("C.R.S."), as amended (the "Act"), pertaining to the District has been duly mailed by certified mail to each property owner within the District on July 3, 2025 and timely published in the News Press on July 17, 2025, and

WHEREAS, the Board has held a public hearing relating to the creation of the District affording all interested persons an opportunity to have complaints and objections heard and determined before final action thereon; and

WHEREAS, all other conditions precedent to the creation of the District and the authorization of the Improvements therein have been fully performed and satisfied.

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

1. The Board hereby finds that notice containing the information required by Section 30-20-603 of the Act has been duly and timely mailed and published in a newspaper of general circulation in the County.

2. Having held a public hearing and heard and considered all complaints and objections made in accordance with the Act, the Board has determined, and does hereby determine, that the Improvements should be constructed, as they are in the best interest of the inhabitants and owners of the property located within the boundaries of the proposed district; the benefits to the properties within the district outweigh the costs; the district will have the ability to provide them to all of the properties within the district in an economical and sufficient manner; and are necessary for the preservation of the public health, safety and welfare.

3. There is hereby created and established within the limits of the County, a local improvement district to be known and designated as "Douglas County Local Improvement District No. No. 25-01 Country Club Drive Local Improvement District." The real property to be included within the District shall be each and every buildable lot or parcel listed below:

Lot 5, Block 5, Perry Park, Filing 4,
Lot 6, Block 5, Perry Park Filing 4,
Lot 18, Block 6, Perry Park Filing 4,
Lot 19, Block 6, Perry Park Filing 4

The improvements to be made, as authorized pursuant to the Act, include the construction of water main and lot water improvements, sanitary sewer main and lot sewer improvements, roadway and drainage improvements and natural gas main and electric main improvements on the following roadway (collectively, the "Improvements"):

- Roadway improvements shall consist of subgrade preparation, drainage improvements, shouldering with aggregate base course, or placement of curb and gutter, placement and preparation of road base and the installation of asphalt pavement on From the existing asphalt roadway on Country Club Drive to the East of the LID property addresses ending on the West end of the proposed LID.

Each and every buildable lot or parcel listed below will receive one full assessment for the Improvements within the District:

Lot 5, Block 5, Perry Park, Filing 4,
Lot 6, Block 5, Perry Park Filing 4,
Lot 18, Block 6, Perry Park Filing 4,
Lot 19, Block 6, Perry Park Filing 4

4. The map of the District prepared and filed with the County Public Works – Engineering Department, Engineering Services Division, and previously approved by the Board is hereby approved for the District.

5. The estimates of cost and the schedule of approximate assessments prepared for the District and filed with the County Public Works – Engineering Department, Engineering

Services Division, are hereby approved for the District. The District shall be assessed as provided for in the preliminary order, unless otherwise provided by the Board.

6. The construction of the Improvements in and for the District is hereby authorized and ordered and shall proceed under the direction of the Board in accordance with the preliminary plans, specifications, maps and estimates of cost for the District prepared and filed with and approved by the Board.

7. The Board, or its authorized designee, will bid, contract and construct the required water main and lot water service improvements, the sanitary sewer main and lot sewer service improvements, roadway and drainage improvements, and enter into contracts with Black Hills Energy for the construction of the natural gas main improvements and CORE Electric for the construction of the electric main improvements, and such contracts shall be let and in all other respects comply with the applicable requirements of the Act.

8. The Board hereby finds that the Improvements have been duly ordered after notice duly given and hearing duly held and that such proposal was properly initiated.

9. The Board has determined, and does hereby determine, that the Improvements will confer general benefits upon the County and substantial special benefits upon each buildable lot or parcel of land within the District. The Board has determined, and does hereby determine, that assessments shall hereafter be levied against each buildable lot and parcel specially benefited by the Improvements shown on the schedule of approximate assessments prepared and filed with the County Public Works – Engineering Department, Engineering Services Division, and approved by the County for the District. It is hereby found and determined that the apportionment of the costs of the Improvements are fair and equitable and reflect a reasonable apportionment consistent with and in approximation to the substantial special benefits to be conferred.

10. Upon completion of the Improvements, or upon completion from time to time of any part thereof, and upon acceptance thereof by the Board, or whenever the total cost of the Improvements, or of any part thereof, can be reasonably ascertained, either prior to, during, or subsequent to the construction of the Improvements, the Board will cause to be prepared a statement showing the whole cost of the Improvements, including costs of inspection and collection, and all other incidental costs, the portion thereof to be paid by the County and the portion thereof to be assessed upon each buildable lot or parcel within the District, which statement shall be filed in the office of the County Clerk and Recorder.

11. Upon receipt of said statement, the County Clerk and Recorder shall duly and timely notify all known owners of the property to be assessed by publication once in a newspaper of general circulation in the County, that the Improvements have been, or are about to be, completed and accepted, therein specifying (a) the whole cost of the Improvements, (b) the portion, if any, to be paid by the County, (c) the share apportioned to each buildable lot or parcel within the District, (d) that any complaints or objections which may be made in writing by the property owners to the Board, and filed in the office of the County Clerk and Recorder within 30 days from the publication of such notice, will be heard and determined by the Board before the

passage of any resolution assessing the cost of the Improvements, and (e) the date when and place where such complaints or objections will be heard.

12. At the time specified in said notice, the Board shall hear and determine all such complaints and objections and may thereupon make such modifications and changes as may seem equitable and just or may confirm the first apportionment. The Board shall thereupon by resolution assess the cost of the Improvements against each buildable lot and parcel specially benefited by the Improvements.

13. The proper County officials and staff are hereby authorized and directed to take all action necessary or appropriate to effectuate the provisions of this Resolution and to comply with the requirements of the law.

14. All action heretofore taken by the Board or other County officials not inconsistent herewith directed toward the creation of the District and the construction of the Improvements is hereby ratified, approved and confirmed.

15. All acts, orders, resolutions, ordinances, or parts thereof, in conflict with this Resolution are hereby repealed, except that this repealer shall not be construed so as to revive any act, order, resolution, or ordinance, or part thereof, heretofore repealed.

16. Should any one or more sections or provisions of this Resolution be judicially determined invalid or unenforceable, such determination shall not affect, impair or invalidate the remaining sections or provisions hereof, the intention being that the various sections or provisions hereof are severable.

ADOPTED AND APPROVED this XX day of 2025

_____

Abe Laydon
Board of County Commissioners

(SEAL)

ATTEST:

_____

Clerk to the Board

RESOLUTION NO. R-025 - ___

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

A RESOLUTION CALLING FOR AN ELECTION ON THE ISSUANCE OF SPECIAL ASSESSMENT BONDS FOR THE PURPOSE OF FINANCING CERTAIN ROADWAY AND WATER AND SANITARY SEWER LINE IMPROVEMENTS WITHIN DOUGLAS COUNTY COUNTRY CLUB DRIVE LOCAL IMPROVEMENT DISTRICT (GROUP 10), DOUGLAS COUNTY PROJECT NUMBER CI 2025-015.

WHEREAS, the Board of County Commissioners (the "Board") of Douglas County, Colorado (the "County"), has heretofore by Resolution No. R-025-053 Order Resolution Number resolved and passed at the Board's regular meeting held on June 24, 2025, a preliminary order (the "Preliminary Order") adopting preliminary plans and specifications with respect to a proposed Douglas County Country Club Drive (Group 10) Local Improvement District, Douglas County, Colorado, for the purpose of acquiring, constructing and installing certain improvements described therein (the "Improvements"), and to assess the cost thereof against the properties specially benefited thereby, all pursuant to petitions received by the County for creation of such local improvement district; and

WHEREAS, the County has heretofore by Resolution No. R-025-053 resolved and passed at the Board's Public Hearing held on June 24, 2025, a resolution creating and establishing within the limits of the County the local improvement district to be known and designated as Douglas County Country Club Drive (Group 10) Local Improvement District, Douglas County, Colorado (the "District"); and

WHEREAS, the Board intends to submit the question of use of legally available moneys of the County, private placement construction loan or by issuance of special assessment bonds by the County to the Electors of the District, as "Electors of the District" is defined in Section 30-20-602(2.7)(a), Colorado Revised Statutes ("C.R.S."), at the coordinated election to be conducted on November 4, 2025 (the "Financing Election"), for the purpose of financing certain costs associated with the construction of the Improvements, and costs of issuance of the Bonds or County acquired financing; and

WHEREAS, Article X, Section 20 of the Colorado Constitution requires voter approval of any multiple fiscal year obligation of a local government, unless adequate funds for the payment thereof are irrevocably pledged for the purpose of paying such obligation; and

WHEREAS, voter approval for the contracting of debt by the County is also required by Section 30-20-618, C.R.S.; and

WHEREAS, Section 30-20-619, C.R.S., permits the Board to provide by resolution for the submission of the question of issuing the Bonds to only the Electors of the District eligible to vote on the question; and

WHEREAS, the County has been presented with the form of ballot question by which the Bonds would be authorized, and is responsible for certifying such ballot questions to the election official in the County; and

WHEREAS, the petitioners have requested the County to adopt a resolution authorizing an election to be held with respect to the issuance of the Bonds;

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

1. *Submission of Election Question.* The Board hereby authorizes the submission of the question of issuing the Bonds to the registered electors who are owners of property within, or residents of, the District, at the Bond Election to be conducted on November 4, 2025, by the Douglas County Clerk and Recorder.

2. *Certification of Election Question*. In accordance with Section 1-5-203(3), C.R.S., the Board hereby directs that the following ballot issue be certified herewith to the Douglas County Clerk and Recorder for inclusion in the ballot for said Financing Election:

> **SHALL DOUGLAS COUNTY, COLORADO, DEBT BE INCREASED $680,000 WITH A REPAYMENT COST OF $1,091,400 AND A MAXIMUM NET EFFECTIVE INTEREST RATE OF 10% BY CONTRACTING WITH A PRIVATE LENDING INSTITUTION FOR THE PURPOSE OF FINANCING CERTAIN ROADWAY, NATURAL GAS, ELECTIC, AND WATER AND SANITARY SEWER MAIN IMPROVEMENTS WITHIN DOUGLAS COUNTY LOCAL IMPROVEMENT DISTRICT NO. 25-01 (2025 COUNTRY CLUB DRIVE) AND TO BE PAYABLE SOLELY FROM SPECIAL ASSESSMENTS TO BE LEVIED AGAINST PROPERTY WITHIN SUCH DISTRICT RECEIVING THE SPECIAL BENEFIT OF SUCH IMPROVEMENTS?**

3. *Further Proceedings*. Nothing herein shall be construed as requiring the County to issue the Financing, and the Board expressly reserves the right to rescind the authorization contained herein in regard to calling the Financing Election if the Board determines that it is in the best interest of the County and/or the residents of the District to cancel the Bond Election.

4. *Designated Election Official.* The name of the designated election official who will be responsible for conducting the Financing Election pursuant to the Uniform Election Code of 1992, as amended ("the Code"), is Sheri Davis, Douglas County Clerk and Recorder.

5. *Conduct of Bond Election.* The Bond Election shall be held, conducted, and the results thereof shall be determined, so far as practicable, in conformity with the provisions of the Code.

ADOPTED AND APPROVED this XX day of August 2025.

_____
Abe Laydon
Board of County Commissioners

(SEAL)

ATTEST:

_____

Clerk to the Board

MEETING DATE: August 12, 2025

STAFF PERSON RESPONSIBLE: Eric Pavlinek, Principal Planner

DESCRIPTION: John Adams Academy Exemption - Project File: EX2025-005.

SUMMARY: The request is for approval of an exemption from the definition of Subdivision to establish a lot for development of a public charter school.

STAFF ASSESSMENT: The Board has broad authority to approve subdivision exemption requests. Should the Board approve the exemption request, the following proposed conditions should be considered for inclusion in the motion:

1. Prior to recordation of the exemption exhibit, technical corrections to the exhibit shall be made to the satisfaction of Douglas County.
2. All commitments and promises made by the applicants or the applicants' representative during the public meeting and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

REVIEW:

Terence T Quinn - FYI	Notified - FYI	7/29/2025
Steven E Koster	Approve	7/29/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/6/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025
Samantha Hutchison - FYI	Notified - FYI	8/8/2025

ATTACHMENTS:

Staff Report - EX2025-005

DOUGLAS COUNTY
COLORADO

Exemption Staff Report

Date:	July 31, 2025
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Terence T. Quinn, AICP, Director of Community Development
CC:	Eric Pavlinek, Principal Planner Jeanette Bare, AICP, Planning Manager Steven E. Koster, AICP, Assistant Director of Planning Services
Subject:	**John Adams Academy Exemption**
Project File:	**EX2025-005**

Board of County Commissioners Meeting: **August 12, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The request is for approval of an exemption from the Douglas County Subdivision Resolution (DCSR) to establish a 26-acre lot for development of a public charter school. The site is located in Sterling Ranch southeast of the intersection of Waterton Road and Snake River Street. The site is zoned Planned Development (PD) as part of the Sterling Ranch Planned Development. The Sterling Ranch PD is located in the Chatfield Urban Area as designated in the 2040 Douglas County Comprehensive Master Plan (CMP).

The subdivision exemption will establish a legal parcel to be transferred by Sterling Ranch to the John Adams Academy charter school. The Planning Commission approved the Location and Extent (L & E) application on June 2, 2025 for construction of the school. Through the L & E and Exemption processes, the applicant has verified that water, sewer, access, and other basic services will be available to serve the lot.

II. APPLICATION INFORMATION

A. Applicant

Sterling Ranch, LLC
8155 Piney River Avenue, Suite 200
Littleton, CO 80125

B. Applicant's Representative

Kevin Johnk
Sterling Ranch Development Company
8155 Piney River Avenue, Suite 200
Littleton, CO 80125

C. Request

The request is for approval of an exemption from the definition of Subdivision to establish a lot for development of a public charter school. The parcel has not been platted and has been identified and approved for a public charter school.

D. Process

The DCSR defines various divisions of land which are exempt from the subdivision review process. In accordance with Section 903 of the DCSR, the proposed division must comply with one of the five listed criteria to be exempted from the definition of the term subdivision. In this case, Section 903.04 authorizes the Board to approve subdivision exemptions when divisions of land create parcels for public or quasi-public use such as community facilities where no dwelling units are allowed, including but not limited to: utility facility, park, open space, fire station, sheriff substation, library, metro district office, water/sewage facility. The John Adams Academy exemption will establish a parcel for a public school. A note on the exemption exhibit limits the exempt lot to this specific purpose.

The exemption process requires the submittal of a surveyed exemption exhibit and project narrative. Legal and physical access must be demonstrated. The ability to obtain water, sanitation, and other basic services is verified. Referral response requests are sent to a limited number of agencies who will serve or otherwise approve development on the parcel. Referral comments are attached to the staff report.

E. Location

The site is located southwest of the intersection of Waterton Road and Snake River Street. Vicinity, zoning, and aerial maps are included as an attachment to the staff report to highlight site location and existing conditions.

F. Project Description

The exemption request includes an approximate 26-acre parcel for the development of a public charter school. An L & E application for siting the John Adams Academy at this location was approved by the Douglas County Planning Commission on June 2, 2025. Easements for private drives, utilities, and drainage will be conveyed as necessary by separate recorded instrument.

III. CONTEXT

A. Background

This parcel was initially evaluated as part of Preliminary Plan 6 and was identified as a future superblock lot. School use is allowed per the Sterling Ranch PD. This exemption plat will create the legal lot for charter school development.

B. Adjacent Land Uses and Zoning

The proposed exemption is located in the southeast portion of the Sterling Ranch PD. The site is bound by residential development in Sterling Ranch to the north and west

and undeveloped property to the south. Large residential lots within Plum Valley Heights are located east of the site. The following table reflects those zone districts and land uses surrounding the exemption plat.

Zoning and Land Use

Direction	Zoning	Land Use
North	Sterling Ranch PD	Sterling Ranch Filing 6A
South	Sterling Ranch PD	Unplatted Sterling Ranch
East	Sterling Ranch PD Rural Residential	Unplatted Sterling Ranch Plum Valley Heights – Large Lot Residential
West	Sterling Ranch PD	Sterling Ranch Filings 5A and 5B

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

There is no existing vegetation on the property and the site generally slopes south to north. The site is currently being used to stockpile dirt for construction within the Sterling Ranch development.

B. Access

Existing public roads in Sterling Ranch provide access to the parcel. Specifically, the parcel is bounded by Butte Creek Street, Snake River Street, and Waterton Road. Access will be via private drives extending from Butte Creek Street and Waterton Road. A traffic impact study and traffic management plan were submitted with the Location and Extent application.

Public Works Engineering provided comments related to the future extension of Middle Fork Street across Waterton Road. Engineering requested that the limits of the exempt parcel be amended to exclude the future right-of-way for Middle Fork Street on the east side of Waterton Road. With this change, Sterling Ranch would continue to have control over this right-of-way for future dedication to the County without the need to involve John Adams Academy. Middle Fork Street is designated as a collector-level (aka, “avenue”) roadway in the transportation plans for Sterling Ranch.

The applicant has responded that the limits of the right-of-way have not yet been defined. In its land transfer agreement with the school property owner, a requirement has been added that the right-of-way be promptly dedicated to the County when the Middle Fork Street extension is required.

C. Drainage and Erosion

Regional detention and water quality ponds constructed with previous filings are sized to accommodate the development of the public charter school. A drainage

conformance letter was submitted with the L & E application and accepted by Public Works Engineering.

D. Floodplain

No floodplain is present on the site.

V. PROVISION OF SERVICES

A. Fire Protection

South Metro Fire Rescue (SMFR) provides firefighting and emergency medical services to the project area. SMFR had no objection to the exemption request.

B. Sheriff Services

The Douglas County Sheriff's Office provides emergency services to Sterling Ranch and surrounding area.

C. Water

Water service in Sterling Ranch is provided by Dominion Water and Sanitation District through an intergovernmental agreement with the Sterling Ranch Community Authority Board.

D. Sanitation

Sanitation service in Sterling Ranch is provided by Dominion Water and Sanitation District through an intergovernmental agreement with the Sterling Ranch Community Authority Board.

E. Utilities

Area utility service providers are available to the parcel. No utility dedications are required as part of the exemption process. Any utility easements required for development of the charter school will need to be dedicated by separate document.

VI. STAFF ANALYSIS

Staff has evaluated the exemption request in accordance with Article 9 of the DCSR. Per Section 903.04, the Board may authorize subdivision exemption when the applicants are not circumventing subdivision. In this case, the parcel will be for the development of a public charter school.

VII. STAFF ASSESSMENT

The Board has broad authority to approve subdivision exemption requests. Should the Board approve the exemption request, the following proposed conditions should be considered for inclusion in the motion:

1. Prior to recordation of the exemption exhibit, technical corrections to the exhibit shall be made to the satisfaction of Douglas County.

2. All commitments and promises made by the applicants or the applicants' representative during the public meeting and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 6
Applicant's Narrative 7
Vicinity Map 9
Zoning Map 10
Aerial Map 11
Referral Agency Response Report 12
Referral Response Letter 13
Applicant Response to Referral Comments 14
Exemption Exhibit 15

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:	**John Adams Academy Exemption**
PROJECT NUMBER:	**EX2025-005**

PROJECT TYPE: Exemption Plat

MARKETING NAME: Filing 6A Charter School

PRESUBMITTAL REVIEW PROJECT NUMBER: PS2025-116

PROJECT SITE:

Address: 7979 Butte Creek Street, Sterling Ranch, CO 80125

State Parcel Number(s): 235306200002

Subdivision/Block#/Lot# *(if platted)*:

PROPERTY OWNER(S):

Name(s): Sterling Ranch, LLC

Address: 8155 Piney River Avenue, Suite 200, Sterling Ranch, CO 80125

Phone: 720-224-2423

Email: kevin.johnk@sterlingranchcolorado.com

AUTHORIZED REPRESENTATIVE: *(Notarized Letter of Authorization is required from the property owner, unless the owner is acting as the representative)*

Name:

Address:

Phone:

Email:

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 — Date: 7/1/2025

Project Narrative Site Improvement Plan Application for John Adams Academy Exemption Plat
July 9, 2025

Property Owner:
Sterling Ranch, LLC
8155 Piney River Avenue, Suite 200
Littleton, Colorado 80125
Brock Smethills
(303) 202-6800
brocks@sterlingranchcolorado.com

Applicant:
Sterling Ranch Development Company
8155 Piney River Avenue
Littleton, Colorado 80125
Kevin Johnk
(720)224-2423
kevin.johnk@sterlingranchcolorado.com

PROJECT OVERVIEW

Pursuant to Section 9 of the Douglas County Subdivision Resolution, this written narrative provides an outline of the submittal documentation in support of the John Adams Academy Exemption Plat Document.

A. Background.

The Applicant is seeking to obtain an Exemption Plat for a single lot for the development of a future charter school. The site was rezoned from Agricultural One (A-1) to Planned Development (PD) with approval of the Sterling Ranch PD by the Board in July of 2013. The parcel has not been platted and has been identified and approved for a public charter school part of a separate Location and Extent Process (LE2025-005) that was approved by the Douglas County Planning Commission on June 2, 2025.

This use is allowed in accordance with the PD and is eligible for a subdivision exemption per section 903.04 of the Subdivision Resolution that states, “Divisions of land which create parcels for public or quasi-public use such as community facilities where no dwelling units are allowed, including but not limited to: utility facility, park, open space, fire station, sheriff substation, library, metro district office, water/sewage facility. An exemption for such facility may be determined unnecessary by the Director if the applicant is a public or quasi-public entity with condemnation authority, and the proposed facility meets the intent of the Douglas County Comprehensive Master Plan and Zoning Resolution as a necessary service.”

B. Location.

The property is located to the northeast of the intersection of Waterton Road and Middle Fork Street within a portion of the Villages District (D2) planning area of the Sterling Ranch Planned

Development (Sterling Ranch PD). The Sterling Ranch PD is located in the Chatfield Urban Area as designated in the Douglas County Comprehensive Master Plan (CMP).

C. Project.
The Applicant is seeking to obtain approval for an Exemption Plat for a single lot of approximately 26.07 acres.

This parcel was initially evaluated as part of Preliminary Plan 6 and was identified as a superblock lot. This exemption plat will create the legal lot for school development. It is anticipated that additional public road conveyances will be accomplished through a separate process in the future when the school expands or other surrounding development occurs that warrants such roads.

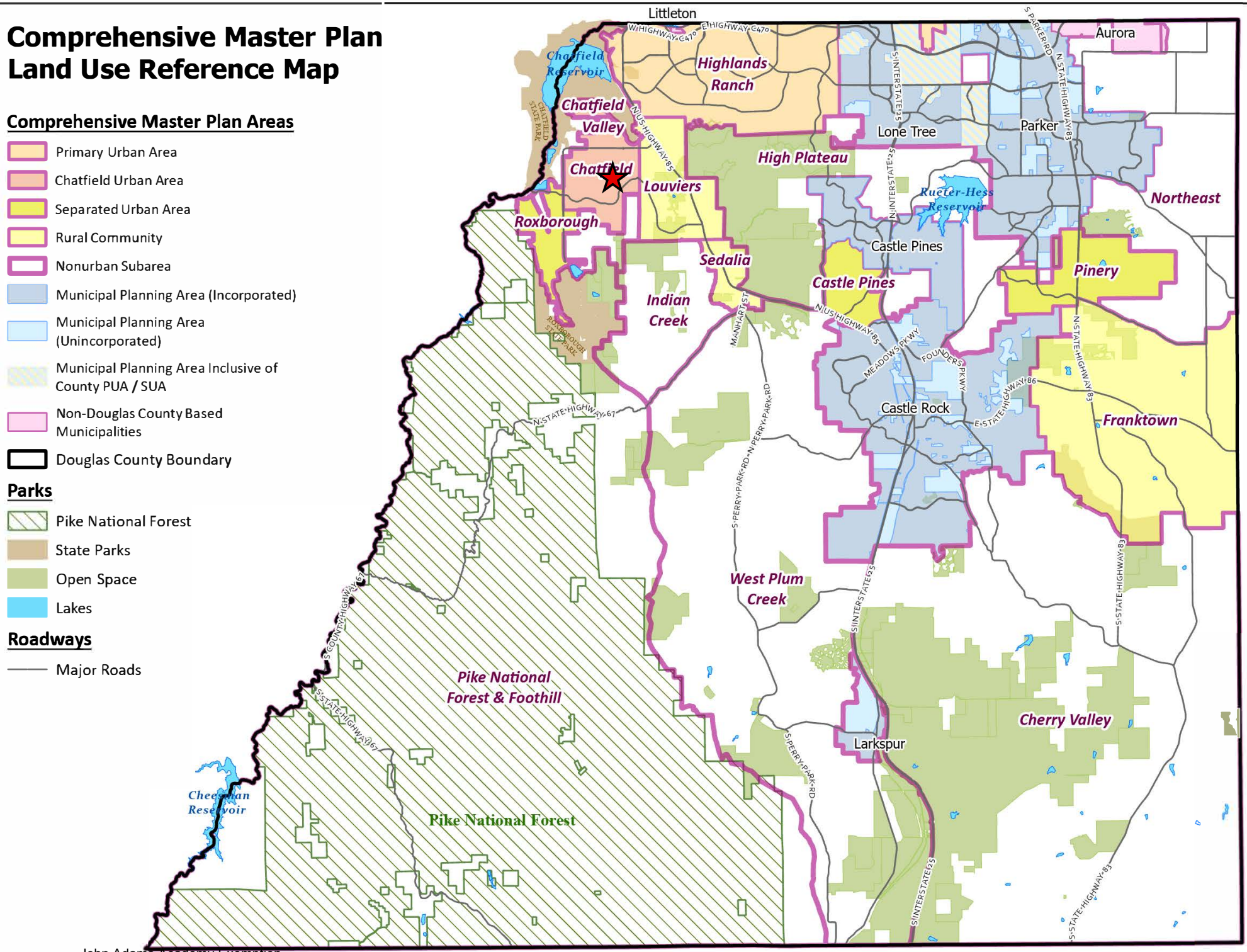
D. Infrastructure.
The John Adams Academy Exemption will be served by Dominion Water and Sanitation District for potable water and wastewater. Storm sewer infrastructure within public streets will be owned and maintained by Douglas County. Storm sewer and drainage infrastructure located in tracts will be owned and maintained by the Sterling Ranch Community Authority Board (CAB). Utility service providers include Xcel Energy for gas and electric services, and CenturyLink, Comcast, and Lumiere Fiber, LLC for phone and data services.

E. Impacts to Adjacent Land.
The project site is bounded by Waterton Road to the west, existing Filing 6A development to the north, a future CAB tract to the east, and future Sterling Ranch development to the South.

F. Development Schedule.
All proposed infrastructure is detailed as a part of a separate Location and Extent Process (LE2025-005) that was approved by the Douglas County Planning Commission on June 2, 2025. This includes plans for the access, grading, and utilities that will serve the site. Construction Documents for the proposed school are currently in the process of approval with Douglas County Engineering.

G. Compliance with the 2040 CMP.
The project site is located with the Chatfield Urban Area as identified in the 2040 CMP. Consistent with Urban Land Use Goal 2-1, the request proposes urban development in a designated urban area. Consistent with Goals 2-3 and 2-12, the adjacent Filing 5 and 6 neighborhoods contain neighborhood green and regional trails for pedestrians and cyclists.

Comprehensive Master Plan Land Use Reference Map



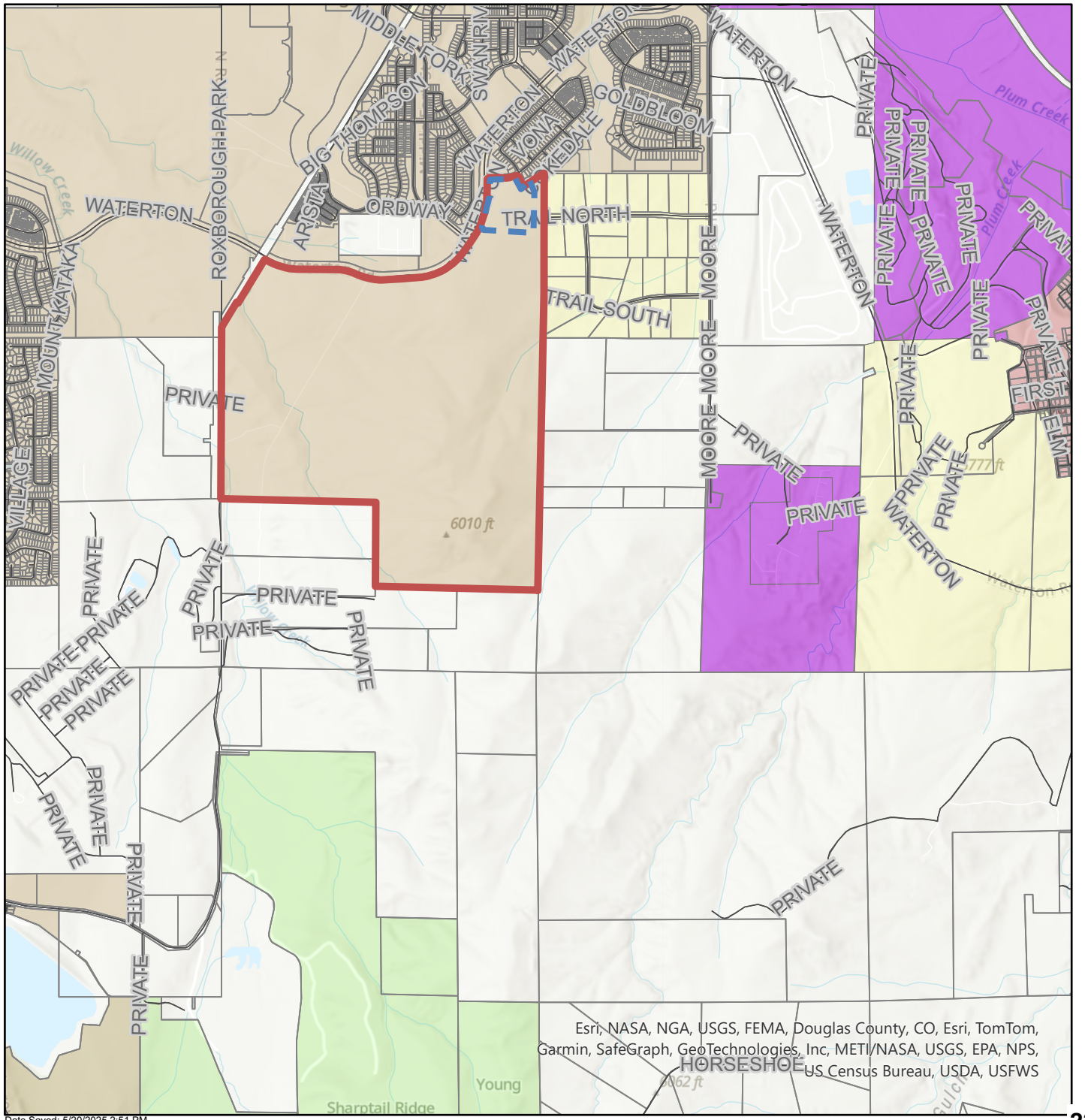
John Adams Academy Exemption

EX2025-005
Zoning Map

N

LEGEND

- Roads
- Major Roads
- Parcels - PARCELS
- A1 - AGRICULTURAL ONE
- RR - RURAL RESIDENTIAL
- SR - SUBURBAN RESIDENTIAL
- GI - GENERAL INDUSTRIAL
- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION
- Exemption Area



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John Adams Academy Exemption

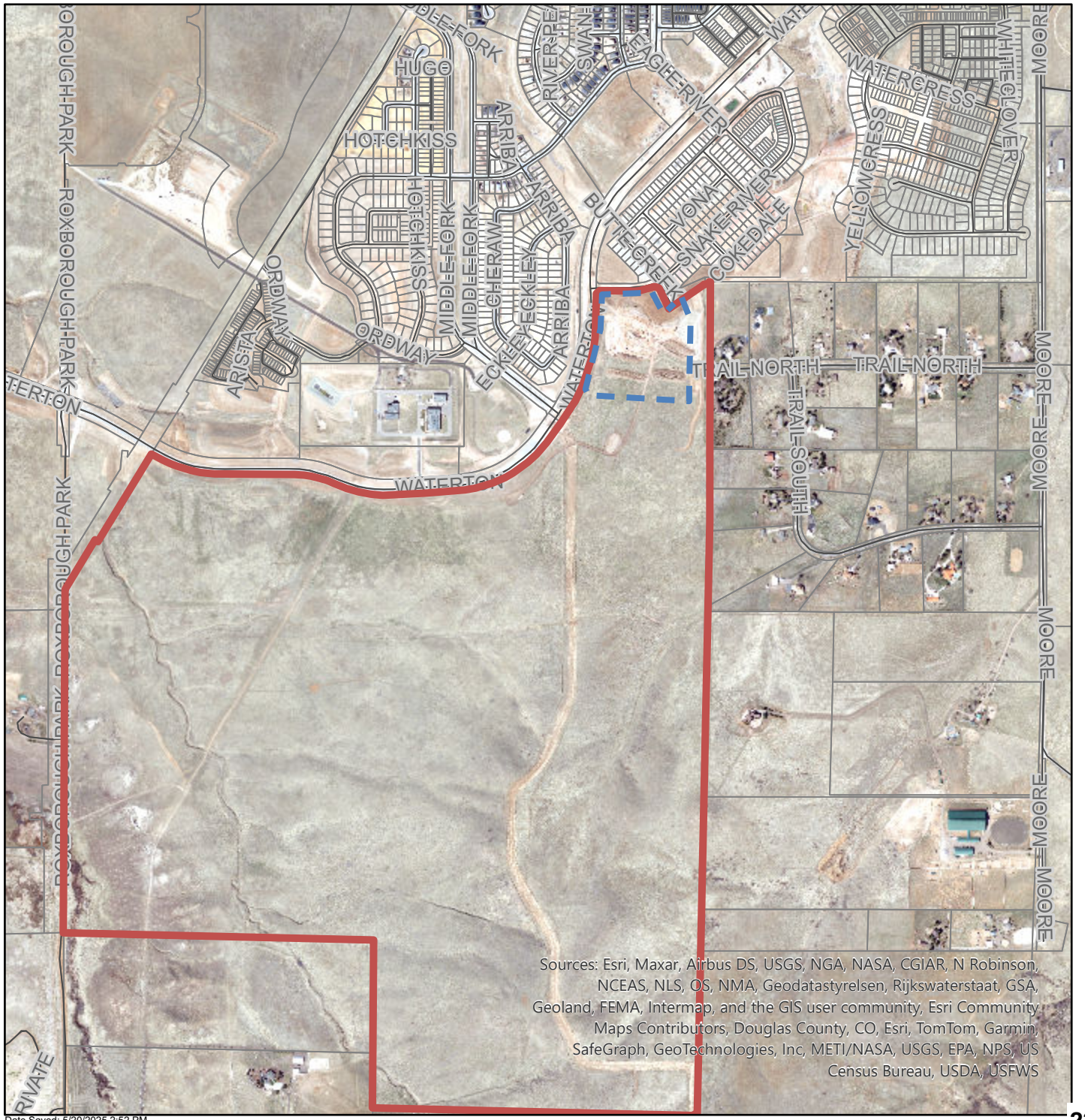
EX2025-005

Aerial Map

N

LEGEND

- Roads
- Major Roads
- Parcels - PARCELS
- Exemption Area



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Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0bd0

Project Name: John Adams Academy Exemption
Project File #: EX2025-005
Date Sent: 07/09/2025 **Date Due:** 07/21/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	07/10/2025	Verbatim Response No Comment.	No action required.
Assessor	07/16/2025	Verbatim Response No Comment.	No action required.
Building Services	07/11/2025	Verbatim Response No Comment.	No action required.
Engineering Services	07/21/2025	Verbatim Response: The South property line for the exemption should be located to line up with the current north ROW line for Middle Fork Street on the West side of Waterton Road. This will allow Douglas County to receive the entire future Avenue street ROW from Sterling Ranch and not need to involve John Adams Academy in a future ROW dedication process.	The applicant has responded that the limits of the right-of-way have not yet been defined. In its land transfer agreement with the school property owner, a requirement has been added that the right-of-way be promptly dedicated to the County when the Middle Fork Street extension is required. Plat note about future right-of-way dedication has been added to the exhibit.
South Metro Fire Rescue	07/10/2025	Verbatim Response South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed exemption plat.	No action required.
Sterling Ranch Community Authority Board		No Response Received.	

SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

Eric Pavlinek, Principal 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:	John Adams Academy Exemption
Project File #:	**EX2025-005**
S Metro Review #	REFRP25-00126
Review date:	July 10, 2025
Plan reviewer:	Aaron Miller 720.989.2246 aaron.miller@southmetro.org
Project Summary:	The applicant proposes an exemption plat for development of a public charter school. A Location and Extent application was approved for the John Adams Academy by the Douglas County Planning Commission on June 2, 2025. The subject property is approximately 26 acres within a larger un-platted parcel within the Sterling Ranch Planned Development.
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 exemption plat.

7/24/2025

Douglas County Planning
100 Third Street
Castle Rock, CO 80104

Subject: Exemption Plat, John Adams Academy, Response to Referral Comments

Dear Mr. Pavlinek:

Thank you for providing the post-referral comment letter dated July 22, 2025. We have reviewed the comments and offer the following response:

Engineering Services

1. *The South property line for the exemption should be located to line up with the current north ROW line for Middle Fork Street on the West side of Waterton Road. This will allow Douglas County to receive the entire future Avenue street ROW from Sterling Ranch and not need to involve John Adams Academy in a future ROW dedication process.*

Response: ***Since SR does not have this area land-planned yet, we would not know where to set the property line in the event we had to anticipate where the future ROW would go.***

In order to ensure that a future ROW dedication goes smoothly, SR and Performance Charter are incorporating language in their land transfer agreement that ROW will be needed in the future and that it shall be dedicated promptly to Douglas County once SR begins development that necessitates the extension of Middle Fork into the future subdivision.

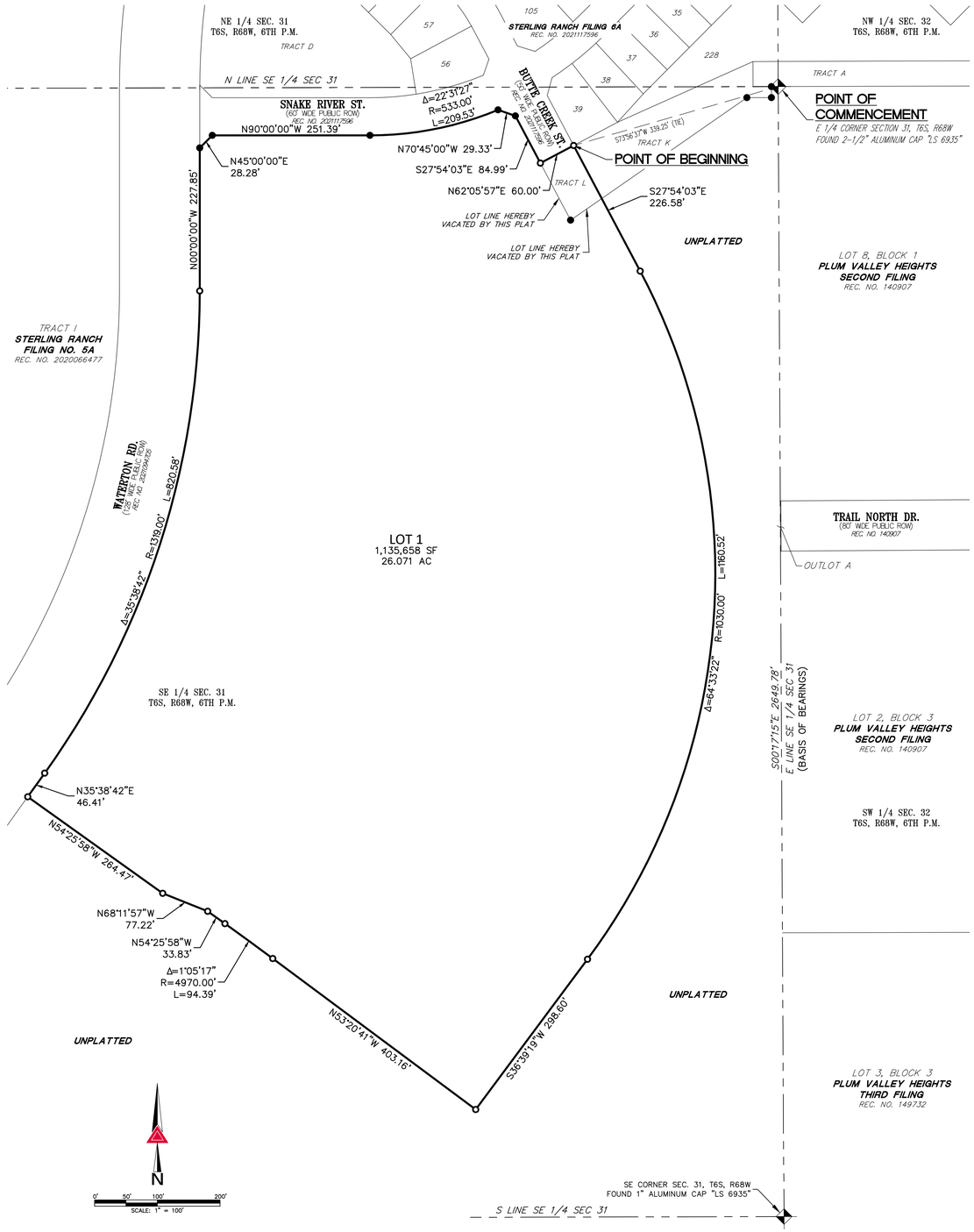
Please reach out to kevin.johnk@sterlingranchcolorado.com with any additional questions.

Sincerely,

Kevin Johnk, Director of Entitlements & Engineering

JOHN ADAMS ACADEMY EXEMPTION

A PART OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO



PROPERTY DESCRIPTION

THAT CERTAIN PORTION OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN, TOGETHER WITH TRACT L, STERLING RANCH FILING NO. 6A AS SHOWN ON THE RECORDED PLAT THEREOF IN THE RECORDS OF THE DOUGLAS COUNTY CLERK AND RECORDER'S OFFICE AT RECEPTION NUMBER 2021117596, IN THE COUNTY OF DOUGLAS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 31, WHENCE THE SOUTHEAST CORNER OF SECTION 31 BEARS SOUTH 00°17'15" EAST, A DISTANCE OF 2649.78, WITH ALL BEARINGS HEREON RELATIVE THERETO;

THENCE SOUTH 73°56'37" WEST, A DISTANCE OF 339.25 FEET TO THE MOST NORTHERLY CORNER OF SAID TRACT L, AND THE POINT OF BEGINNING;

THENCE ALONG THE NORTHEAST LINE OF SAID TRACT L AND THE NORTHEAST LINE EXTENDED, SOUTH 27°54'03" WEST, A DISTANCE OF 226.58 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE WESTERLY HAVING A RADIUS OF 1,030.00 FEET;

THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 64°33'22", AN ARC LENGTH OF 1,160.52 FEET;

THENCE TANGENT TO SAID CURVE, SOUTH 36°39'19" WEST, A DISTANCE OF 298.60 FEET;

THENCE NORTH 53°20'41" WEST, A DISTANCE OF 403.16 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 4,970.00 FEET;

THENCE NORTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 01°05'17", AN ARC LENGTH OF 94.39 FEET;

THENCE TANGENT TO SAID CURVE, NORTH 54°25'58" WEST, A DISTANCE OF 33.83 FEET;

THENCE NORTH 68°11'57" WEST, A DISTANCE OF 77.22 FEET;

THENCE NORTH 54°25'58" WEST, A DISTANCE OF 264.47 FEET TO THE SOUTHEASTERLY RIGHT-OF-WAY OF WATERTON ROAD AS DESCRIBED IN SAID RECORDS AT RECEPTION NUMBER 2021094705;

THENCE ALONG SAID SOUTHEASTERLY RIGHT-OF-WAY THE FOLLOWING 3 COURSES:

1) NORTH 35°38'42" EAST, A DISTANCE OF 46.41 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE WESTERLY HAVING A RADIUS OF 1,319.00 FEET;

2) NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 35°38'42", AN ARC LENGTH OF 820.58 FEET;

3) TANGENT TO SAID CURVE,, NORTH 00°00'00" WEST, A DISTANCE OF 227.85 FEET TO THE SOUTHERLY RIGHT-OF-WAY OF SNAKE RIVER STREET AS SHOWN ON SAID PLAT;

THENCE ALONG SAID SOUTHERLY RIGHT-OF-WAY THE FOLLOWING 4 COURSES:

1) NORTH 45°00'00" EAST, A DISTANCE OF 28.28 FEET;

2) NORTH 90°00'00" EAST, A DISTANCE OF 251.39 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE NORTHERLY HAVING A RADIUS OF 533.00 FEET;

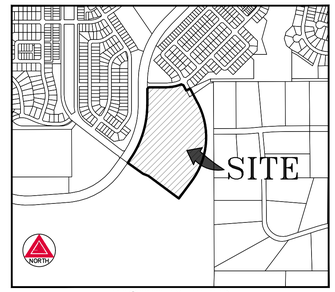
3) EASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 22°31'27", AN ARC LENGTH OF 209.53 FEET;

4) NON-TANGENT TO SAID CURVE, SOUTH 70°45'00" EAST, A DISTANCE OF 29.33 FEET TO THE SOUTHWESTERLY RIGHT-OF-WAY OF BUTTE CREEK STREET AS SHOWN ON SAID PLAT;

THENCE ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY, SOUTH 27°54'03" EAST, A DISTANCE OF 84.99 FEET TO THE MOST WESTERLY CORNER OF SAID TRACT L;

THENCE ALONG THE NORTHWESTERLY LINE OF SAID TRACT L, NORTH 62°05'57" EAST, A DISTANCE OF 60.00 FEET TO THE POINT OF BEGINNING.

CONTAINING AN AREA OF 1,135,658 SQUARE FEET OR 26.071 ACRES, MORE OR LESS.



VICINITY MAP
SCALE 1" = 1,000'

GENERAL NOTES

1. BASIS OF BEARINGS – BEARINGS SHOWN HEREON ARE GRID BEARINGS DERIVED FROM GPS OBSERVATION BASED UPON THE COLORADO COORDINATE SYSTEM OF 1983 CENTRAL ZONE (NAD 83, 2011) REFERENCED TO THE EAST LINE OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 68 WEST, SIXTH PRINCIPAL MERIDIAN BEING MONUMENTED AS SHOWN HEREON, WHICH BEARS SOUTH 00°17'15" EAST, A DISTANCE OF 2649.78 FEET.
2. DISTANCES ON THIS PLAT ARE GROUND DISTANCES EXPRESSED IN U.S. SURVEY FEET.
3. _____ TITLE COMMITMENT ORDER NO. _____ WITH AN EFFECTIVE DATE OF _____ AT 5:00 P.M. WAS RELIED UPON FOR RECORD INFORMATION REGARDING EASEMENTS AND ENCUMBRANCES. THIS EXEMPTION PLAT DOES NOT REPRESENT A TITLE SEARCH BY AZTEC CONSULTANTS, INC. TO DETERMINE OWNERSHIP, RIGHTS-OF-WAY, EASEMENTS, OR OTHER MATTERS OF PUBLIC RECORD.
4. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT(S) OR LAND BOUNDARY MONUMENT(S), OR ACCESSORY COMMITS A CLASS TWO MISDEMEANOR PURSUANT TO 18-4-508 CRS.
5. THE LOT IS FOR DEVELOPMENT OF A PUBLIC CHARTER SCHOOL.
6. FUTURE RIGHT-OF-WAY FOR MIDDLE FORK STREET SHALL BE DEDICATED TO DOUGLAS COUNTY UPON REQUEST.

SURVEYOR'S CERTIFICATE

I, ANTHONY K. PEALL, A DULY LICENSED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THE THIS EXEMPTION PLAT TRULY AND CORRECTLY REPRESENTS THE RESULTS OF A SURVEY MADE ON _____, _____, 2025, 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 (SECOND ORDER); 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 APPLICABLE PROVISIONS OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____, 2025.

FOR REVIEW
DO NOT RECORD

ANTHONY K. PEALL, PLS 38636
COLORADO LICENSED PROFESSIONAL LAND SURVEYOR
FOR AND ON BEHALF OF AZTEC CONSULTANTS, INC.

NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

DIRECTOR OF COMMUNITY DEVELOPMENT

THIS EXEMPTION PLAT WAS APPROVED BY THE DOUGLAS COUNTY BOARD OF COUNTY COMMISSIONERS ON _____, 2025, MOTION #_____.

ACCEPTED FOR RECORDATION BY: _____ _____
DIRECTOR OF COMMUNITY DEVELOPEMENT DATE

MONUMENT SYMBOL LEGEND

- ● FOUND NO. 5 REBAR WITH 1-1/4" PINK PLASTIC CAP STAMPED "AZTEC PLS 38636"
- ○ SET 18" NO. 5 REBAR WITH 1-1/4" PINK PLASTIC CAP STAMPED "AZTEC PLS 38636"

LAST REVISED: 7/28/2025

AZTEC CONSULTANTS, INC.
300 East Mineral Ave., Suite 1
Littleton, Colorado 80122
Phone: (303) 713-1898
Fax: (303) 713-1897
www.aztecconsultants.com

AzTec Proj. No.: 116017-02 Drawn By: RDS

DEVELOPER
STERLING RANCH, LLC
8155 PINEY RIVER AVENUE, SUITE 200
LITTLETON, CO 80125

DATE OF PREPARATION:	06/16/2025
SCALE:	1" = 100'
SHEET 1 OF 1	

MEETING DATE: August 12, 2025

STAFF PERSON RESPONSIBLE: Trevor Bedford, AICP, Senior Planner

DESCRIPTION: Allen Exemption - Project File: EX2025-004.

SUMMARY: The request is for a subdivision exemption to legalize a parcel on approximately 7.02 acres created by deed in 1999.

STAFF ASSESSMENT: Staff has evaluated the Exemption request in accordance with Article 9 of the Douglas County Subdivision Resolution. Section 903.05 allows for an exemption request based on a division of land effected by a recorded deed. The applicant has requested the exemption to construct a home on this parcel. Should the Board of County Commissioners find that the criteria for an Exemption are met, the following proposed condition should be considered for inclusion in the motion:

1. All commitments and promises made by the applicant or the applicant's representative during the public meeting and/pr agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

REVIEW:

Terence T Quinn - FYI	Notified - FYI	7/30/2025
Steven E Koster	Approve	7/30/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/6/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025
Samantha Hutchison - FYI	Notified - FYI	8/8/2025

ATTACHMENTS:

Staff Report - EX2025-004

DOUGLAS COUNTY
COLORADO

Preliminary Plan Staff Report

Date:	July 30, 2025
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Terence T. Quinn, AICP, Director of Community Development TQ
CC:	Trevor Bedford, AICP, Senior Planner Jeanette Bare, AICP, Planning Manager Steven E. Koster, AICP, Assistant Director of Planning Services
Subject:	**Allen Exemption**
Project File:	**EX2025-004**

Board of County Commissioners Hearing: **August 12, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The applicant requests approval of an Exemption from requirements of the Douglas County Subdivision Resolution (DCSR) to legalize a 7.13-acre parcel created by deed in 1999. The property is generally located on the east side of South County Highway 67 south of Pine Hills and is zoned Agricultural One (A-1). The property is located in the Pike National Forest and Foothills Subarea as designated in the 2040 Douglas County Comprehensive Master Plan (CMP).

II. APPLICATION INFORMATION

A. Applicant

Mark Allen
6737 W Lakeside Drive
Littleton, CO 80125

B. Applicant's Representative

Kevin Archer
David E Archer & Associates, Inc
105 Wilcox Street
Castle Rock, CO 80104

C. Request

The request is for a subdivision exemption to legalize a parcel on approximately 7.02 acres created by deed in 1999. The DCSR requires all divisions of land occurring after January 10, 1994, to have gone through the County's subdivision process.

D. Process

An Exemption application is processed pursuant to Article 9 of the DCSR. Article 9 states that the intent of the process is "to establish criteria and a review process whereby the Board of County Commissioners may grant Exemptions from the definition of the terms 'subdivision' and 'subdivided land' for any division of land if the Board determines that such a division is not within the purpose of Article 28, Title 30 of the Colorado Revised Statutes.

Section 904.04 of the DCSR states, "The Board shall evaluate the Exemption request, staff comments and public testimony and shall either approve, approve with conditions, table for further study or deny the request. The Board's action shall be based on the evidence presented, compliance with appropriate standards, regulations, policies and other guidelines."

E. Exemption Criteria

In accordance with Section 903 of the DCSR, the request must comply with one of five listed criteria to be exempted from the definition of the term subdivision. For this request, Section 903.05 allows for exemptions for "other divisions of land effected by a deed recorded in the Office of the Douglas County Clerk and Recorder that the Board determines is not within the purposes of this Resolution. If it is determined that the applicant is using the exemption process to circumvent the subdivision regulations, the applicant shall be required to comply with the applicable sections of this Resolution."

F. Location

The subject property is located on the east side of South County Highway 67, approximately one mile south of its intersection with Pine Creek Road.

III. CONTEXT

A. Background

The request is for an Exemption to create a legal parcel on 7.02 acres. The property is zoned A-1 and is located within the Pike National Forest and Foothills nonurban subarea of the CMP.

The applicant purchased the subject property in 2020 and transferred the property to a trust in 2024. According to the applicant's narrative, the applicant discovered the parcel may not have been subdivided in accordance with the DCSR after inquiring about a building permit for the property.

Based on deed research, it appears that the subject property was previously combined with the adjacent property to the north under common ownership. In 1999, the subject property was created and sold via deed at Reception #1999104594. The property to the north was subsequently sold in 2016. Neither property is currently owned by the previous, common owner.

A two-lot Exemption for the property directly to the east of this site was approved in 2012, resulting in an 8.64-acre and a 2-acre parcel. While A-1 zoning typically consists of parcels of at least 35 acres, the majority of parcels in the vicinity of the subject property are less than 35 acres. Several nearby properties are zoned A-1 and are between 5 acres and 10 acres in size.

The CMP states that "…the competing values of the plan must be balanced through the pubic review process to achieve the larger vision of the community." As such the CMP acknowledges its own competing values during the review process. Goal 3-2 and its objectives and policies discuss ensuring that land use and design is compatible with the natural and rural character of the nonurban area. The subject property is located near several similarly sized parcels. This area consists of concentrated development that minimizes impacts to the Pike National Forest area.

The request was reviewed by referral agencies. Referral comments were standard in nature and indicated various permits that would need to be obtained to build a residence in the future including building permits, Drainage Erosion and Sediment Control, Driveway Permit, well permit and septic permit. Wildfire Mitigation also indicated that additional mitigation would be reviewed with the building permit process.

B. Adjacent Land Uses and Zoning

All abutting properties are zoned A-1, ranging in size from 6 acres to 30 acres. Of the five abutting properties, three are developed with single-family residences, while two are vacant.

Zoning and Land Use

	Zoning	Land Use
North	Agricultural One	Single-family Residential
South	Agricultural One	Vacant
East	Agricultural One	Single-family Residential and Vacant
West	Agricultural One	Single-family Residential

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

The property is forested and slopes upwards to a ridge in the middle of the property.

B. Access

Access will be off of County Highway 67. A driveway permit will be required to determine the exact location of the access.

C. Floodplain and Drainage

There is no mapped floodplain on the property. Drainage will be evaluated with a Drainage Erosion and Sediment Control permit at the time of building permit.

V. PROVISION OF SERVICES

B. Fire Protection

The property is within the West Douglas County Fire District. The District did not provide any comments on the application.

C. Sheriff Services

The property is served by the Douglas County Sheriff's Office.

D. Water and Sanitation

The applicant will be required to obtain a well permit. The Colorado Division of Water Resources (CDWR) will require the applicant to submit a well permit application should the exemption be approved. At that time, CDWR will confirm the type of well permit that may be obtained.

Sanitation will be provided by an onsite wastewater treatment system, which will be reviewed by the Douglas County Health Department (DCHD) at the time of building permit. DCHD reviewed the application and provided no comments.

VI. PUBLIC NOTICE AND INPUT

Referral packets were provided to referral agencies for review on June 11, 2025. Any referral agency comments received are outlined in the Referral Agency Response Report, as well as the Referral Response Letters attached to this staff report. All referral comments have been addressed and future requirements acknowledged.

VII. STAFF ASSESSMENT

Staff has evaluated the Exemption request in accordance with Article 9 of the DCSR. Section 903.05 allows for an exemption request based on a division of land effected by a recorded deed. The applicant has requested the exemption to construct a home on this parcel.

Should the Board of County Commissioners find that the criteria for an Exemption are met, the following proposed condition should be considered for inclusion in the motion:

1. All commitments and promises made by the applicant or the applicant's representative during the public meeting and/pr agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 6
Applicant's Narrative 7
Vicinity Map 8
Zoning Map 9
Aerial Map 10
Referral Agency Response Report 11
Referral Response Letters and Applicant Responses 12
Exemption Exhibit 19

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: Exemption Plat

MARKETING NAME: Allen Exemption

PRESUBMITTAL REVIEW PROJECT NUMBER: PS2025-001

PROJECT SITE:

Address: No Address

State Parcel Number(s): 25012300005

Subdivision/Block#/Lot# *(if platted)*: None

PROPERTY OWNER(S):

Name(s): Mark W Allen Trust

Address: 6737 W Lakeside Drive, Littleton, CO 80125

Phone: 303-349-8738

Email: TITANCARCONDOS@OUTLOOK.COM

AUTHORIZED REPRESENTATIVE: *(Notarized Letter of Authorization is required from the property owner, unless the owner is acting as the representative)*

Name: David E Archer & Associates, Inc Kevin Archer

Address: 105 Wilcox Street, Castle Rock, CO 80104

Phone: 303-688-4642

Email: karcher@davidearcher.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 — June 6, 2025 (Date)

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

PROJECT NARRATIVE
For
ALLEN EXEMPTION

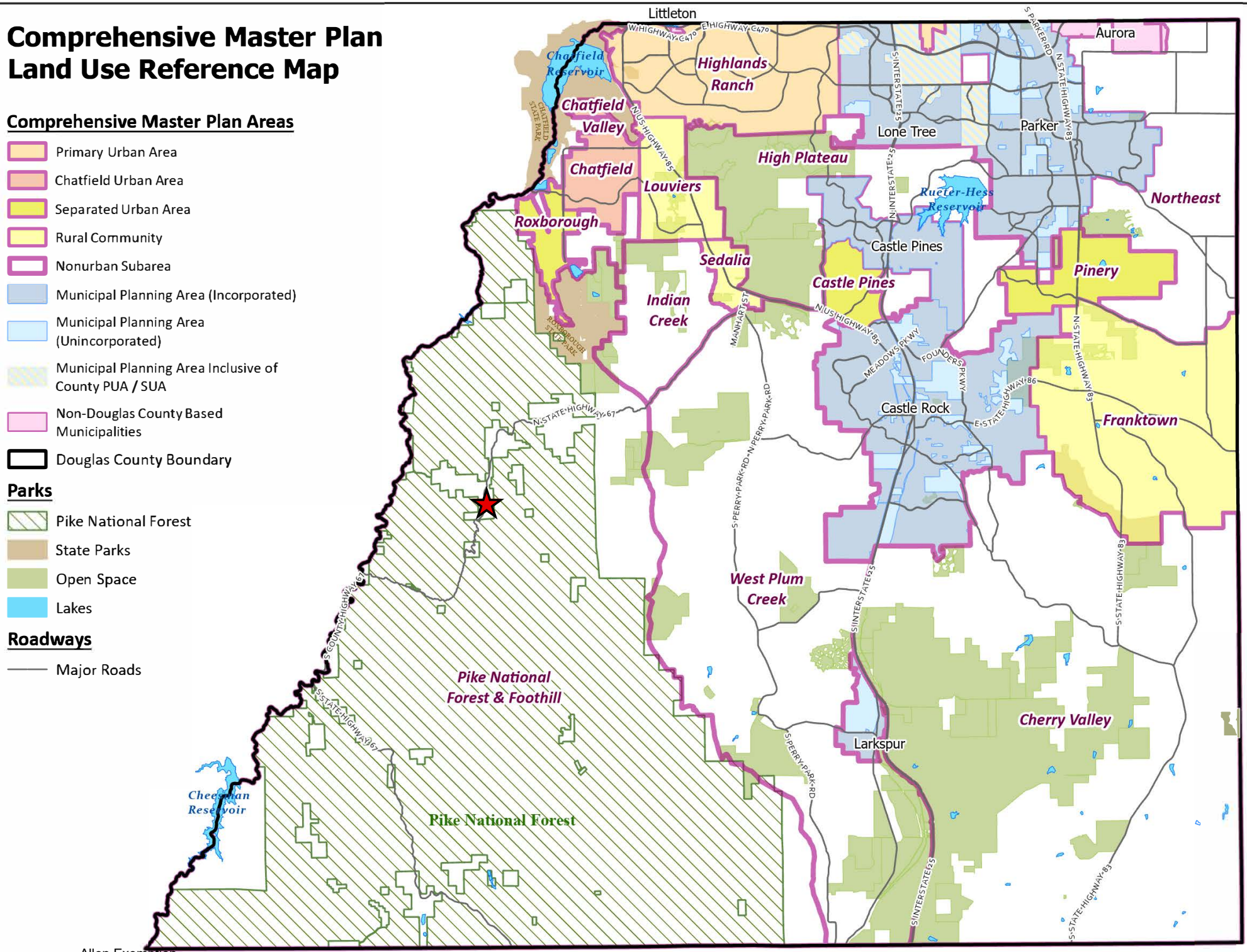
The proposed Allen Exemption will legalize a Parcel, that was originally created in 1999. It seems that the Gene and Lois Elliot owned about 16.69 acres along the east side of Highway 67 just south Pine Hills Subdivision. In December of 1999 there were several quitclaims recorded. The first one from Gene and Lois Elliot to the Shirley Cook Estate Trust which contains 9.64 acres was recorded at Book 1789 Page 977. The second one was from Harris and Izola Cook to the Shirley Cook Estate Trust and it contains about 3 acres and is recorded at Book 1789 Page 979. And the third quitclaim was from the Shirley Cook Estate Trust to Gene and Lois Elliot and contained 7.13 acres and was recorded at Book1789 Page 981.

Mark Allen purchased the 7.13 acres described by the quitclaim recorded in Book 1789 Page 981 Gene and Lois Elliot. A survey was completed on the property and the legal description was modified to match the conditions on the ground, and the acerage of the property in actually 7.02 acres. The sale was recorded at Reception Number 202013907 on December 30, 2020. The property was then transferred to the Mark W Allen Trust on September 9, 2024 under reception Number 2024038209.

It was then discovered after inquiring about a building permit that the parcel was not legal and that an Exemption Plat Would be required.

The property is zoned A-1

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

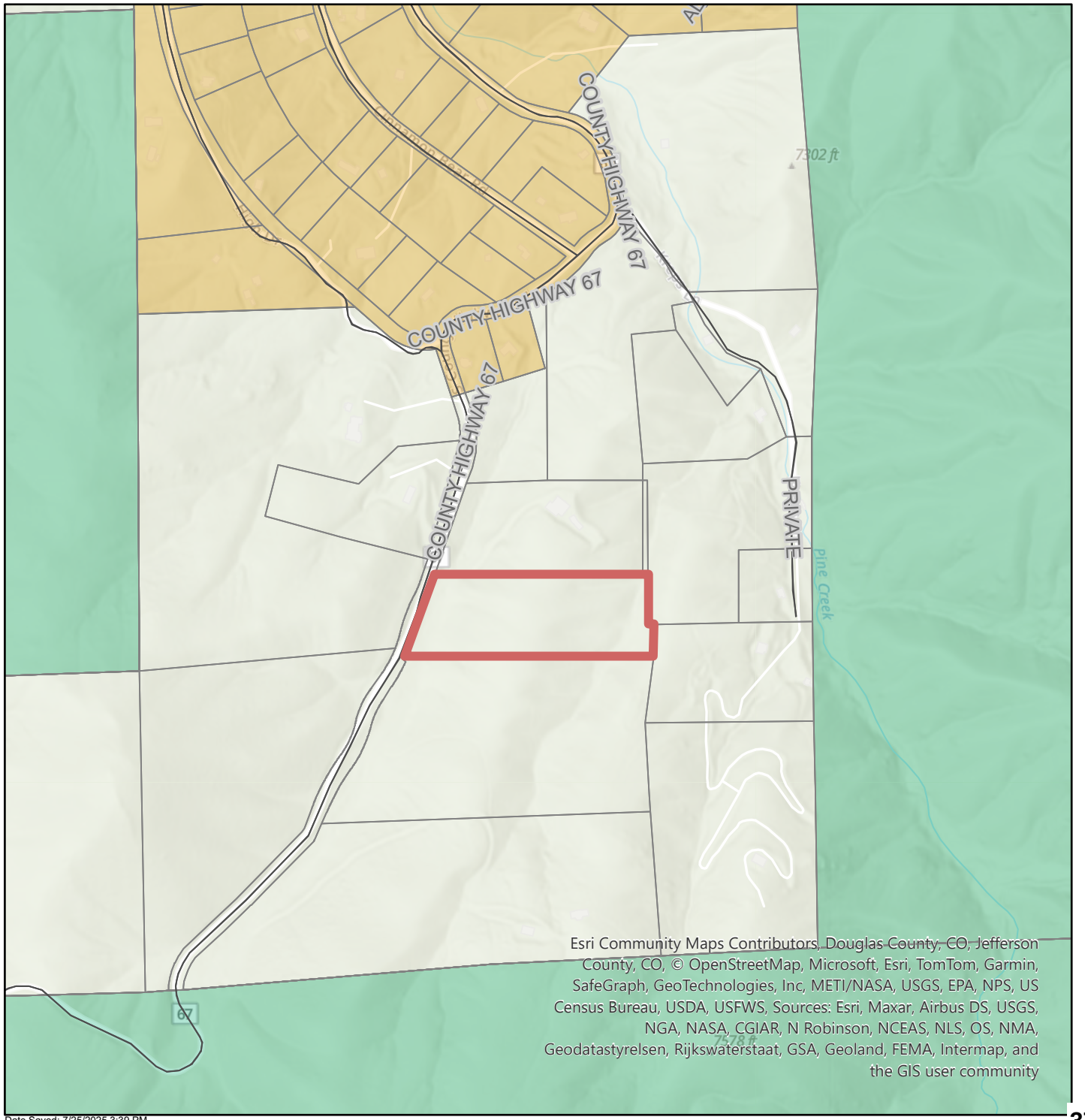
Allen Exemption

EX2025-004
Zoning Map

N

LEGEND

- Roads
- Major Roads
- Parcels - PARCELS
- A1 - AGRICULTURAL ONE
- ER - ESTATE RESIDENTIAL
- NF - NATIONAL FOREST



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Allen Exemption

EX2025-004
Aerial Map

N

LEGEND
- Roads
- Major Roads
- Parcels - PARCELS



Date Saved: 7/25/2025 3:42 PM

Source: https://apps.douglas.co.us/gisportal/apps/webappviewer/index.html?id=9cd173c692b7436891bd0bd0

Project Name: Allen Exemption
Project File #: EX2025-004
Date Sent: 06/11/2025 **Date Due:** 06/26/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	06/12/2025	No Comment:	No response necessary
Assessor	06/24/2025	Received: please be aware of the following comments: None	No response necessary
Building Services		No Response Received:	No response necessary
Colorado Division of Water Resources	06/30/2025	Received: See attached letter Summary: Approval of an exemption is required for the State to review a well permit for this property.	Applicant will apply for a well permit if exemption approval is granted.
Douglas County Health Department	06/11/2025	Received: Thank you for the opportunity to review and comment on the Allen exemption 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 no comments	No response necessary
Engineering Services	06/24/2025	Received: - Drainage, Erosion and Sediment Control (DESC) Permit required with Building permit to construct a building on the property. - Permanent Access Permit required with the driveway permit.	Information forwarded to applicant. These items will be addressed with a building permit if the exemption is approved.
West Douglas County FD		No Response Received:	No response necessary
Wildfire Mitigation	06/25/2025	Received: Parcel was treated as part of a previous larger effort through the Colorado State Forest Service (CSFS) funding and adjoining neighbors. Additional mitigation will be required with the building permit process.	Information forwarded to applicant. These items will be addressed with a building permit if the exemption is approved.

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

June 11th, 2025

Trevor Bedford
100 Third St.
Castle Rock, CO 80104

RE: EX2025-004

Dear Mr. Bedford

Thank you for the opportunity to review and comment on the Allen exemption 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 no comments

Sincerely,

Caden Thompson
Environmental Health Specialist I
Douglas County Health Department

COLORADO
Division of Water Resources
Department of Natural Resources

June 26, 2025

Trevor Bedford, AICP
Douglas County Planning Services
Transmitted via email: tbedford@douglas.co.us

Re: Case No. EX2025-004 Allen Exemption
Applicant: Mark W Allen Trust
Part of the SW ½ of Sec. 21, Twp. 8 South, Rng. 69 West, 6th PM
Water Division 1, Water District 8
CDWR Assigned Referral No. 34114

Dear Trevor Bedford:

We have received the referral concerning the proposal for a county exemption for the 7.13-acre Douglas County parcel no. 250121300005 to legalize a parcel originally created in 1999 and allow for building permits to be issued on the property.

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.

A letter dated June 6, 2025 from Hayes Poznanovic Korver LLC indicates that the proposed water source will be a well drilled pursuant to 37-92-602(3)(b)(I) and (II)(A) for indoor household use in the amount of 1 acre-foot per single family dwelling, as required by

Douglas County. The letter proposes drilling the well into the alluvium if nontributary Denver Basin water is unavailable.

The ability to obtain a new permit and the allowed uses will be determined at the time a complete permit application is submitted to and reviewed by this office.

Please contact Ariel.Hacker@state.co.us or 303-866-3581 x 8234 with any questions.

Sincerely,



Ioana Comaniciu, P.E.
Water Resources Engineer

Trevor Bedford

From: James Petrock <jjp@hpkwaterlaw.com>
Sent: Wednesday, July 9, 2025 1:57 PM
To: Trevor Bedford
Cc: mark allen
Subject: Case EX2025-004 Allen Exemption

Trevor- This firm represents Mr Allen in obtaining a well permit to serve the 7 acre lot which is the subject of this case. As you know, Colorado statute authorizes the Division of Water Resources to issue an in house use well permit to a lot which exists by reason of a county approved exemption from platting requirements. The Colorado Division of Water Resources was requested to comment on this exemption request. (DWR letter of 6/26/2025). DWR deferred from providing any response until an application for well permit was submitted. An application will be submitted by Mr Allen however the application cannot be submitted unless accompanied by proof of a county exemption. Assuming the exemption request meets all other county requirements, the solution would be approval of the exemption conditioned upon issuance of an in house well permit under CRS 37-92-602(3)(b)(I) and(II)A.

Trevor Bedford

From: James Petrock <jjp@hpkwaterlaw.com>
Sent: Tuesday, July 15, 2025 1:36 PM
To: Trevor Bedford
Cc: mark allen
Subject: FW: FW: Mark Allen / Douglas County exemption/well permit

Trevor- see correspondence below regarding DWR issuance of a well permit or confirming a permit will be issued without first having county approval of an exemption.

From: Comaniciu - DNR, Ioana <ioana.comaniciu@state.co.us>
Sent: Wednesday, July 9, 2025 2:59 PM
To: James Petrock <jjp@hpkwaterlaw.com>
Cc: mark allen <titancarcondos@outlook.com>
Subject: Re: FW: Mark Allen / Douglas County exemption/well permit

Good Afternoon,
You will not be able to issue the permit until the county has approved the exemption and a copy of the approval is provided to this office. However you can submit the application now and we will hold the application until we receive the county's exemption approval, OR submit the application later on when the exemption was approved by the county.

I hope this clarified your question.
Sincerely,

Ioana Comaniciu, P. E.

Water Resource Engineer

P 303-866-3581 x 8246

1313 Sherman St., Suite 821 Denver CO 80203

ioana.comaniciu@state.co.us | https://dwr.colorado.gov

On Wed, Jul 9, 2025 at 1:24 PM James Petrock <jjp@hpkwaterlaw.com> wrote:

I am assuming we cannot submit the application for permit now because the County has not approved the exemption request and will not approve it until the DWR confirms the permit will be issued. The permit application I submitted indicates that exemption approval is pending. Can the permit be issued on that condition?

From: Comaniciu - DNR, Ioana <ioana.comaniciu@state.co.us>
Sent: Wednesday, July 9, 2025 1:06 PM
To: mark allen <titancarcondos@outlook.com>
Cc: James Petrock <jjp@hpkwaterlaw.com>; Ariel.Hacker@state.co.us
Subject: Re: Mark Allen / Douglas County exemption/well permit

Good Afternoon,

Please submit the corrected application to: DWRpermitsonline@state.co.us and note that there will be a $100 fee required for this application.

Thank you,

Ioana Comaniciu, P. E.

Water Resource Engineer

P 303-866-3581 x 8246

1313 Sherman St., Suite 821 Denver CO 80203

ioana.comaniciu@state.co.us | https://dwr.colorado.gov

On Wed, Jul 9, 2025 at 12:44 PM mark allen <titancarcondos@outlook.com> wrote:

> Hello James

That is the incorrect information on owners of warranty deed. That is previous owners. I will send over correct title information soon.

Mark

Get Outlook for iOS

From: James Petrock <jjp@hpkwaterlaw.com>
Sent: Wednesday, July 9, 2025 12:01:29 PM
To: Ariel.Hacker@state.co.us <Ariel.Hacker@state.co.us>; Comaniciu - DNR, Ioana <ioana.comaniciu@state.co.us>
Cc: mark allen <titancarcondos@outlook.com>
Subject: Mark Allen / Douglas County exemption/well permit

Please see attached letter.

ALLEN EXEMPTION
In Section 21, Township 8 South, Range 69 West, of the 6th P.M., County of Douglas, State of Colorado
7.02 ACRES 1 RESIDENTIAL PARCEL EX2025-004



VICINITY MAP
SCALE: 1"=1000'

APPLICANT

Mark W Allen Trust
6737 West Lakeside
Littleton, CO 80125

PROPERTY DESCRIPTION

A tract of land located in Section 21, Township 8 South, Range 69 West of the 6th P.M., County of Douglas, State of Colorado, more particularly described as follows:

Commencing at the West . corner of said Section 21and considering the West line of the Southwest 1/4 of Section 21 to bear S 00°05'56"E with all bearings contained herein relative thereto;
Thence S 37°58'24"E, a distance of 1753.41 feet to a point 30.00 feet East of the centerline of an existing gravel road known as State Highway 67 and the true Point of Beginning;
Thence along the following Two Courses, said courses being 30.00 feet east of and parallel with said centerline:
1).Along the arc of curve to the left, an arc distance of 76.69 feet, said curve has a radius of 1563.80 feet and a chord that bears N 26°56'13"E, a distance of 76.68 feet;
2).N 18°56'19"E, a distance of 283.48 feet;
Thence N 89°42'28"E, a distance of 862.38 feet;
Thence S 01°08'21"E a distance of 199.45 feet to the South line of Parcel A of the Herrick-Rechignac Exemption;
Thence N 87°59'09"E along said South line a distance of 22.29 feet to the East line of that tract of land described in Book 1789 at Page 981;
Thence S 00°06'12"E a distance of 122.46 feet to the Southeast corner of said Tract;
Thence S 88°52'56"W along the North line of a Parcel Recorded in Book 200 at Page 270, a distance of 1015.77 feet to the Point of Beginning,
said Parcel contains 7.02 acres, more or less.

BASIS OF BEARINGS

Bearings are based on the consideration that the West line of Section 21, T8S, R69W, Sedalia Rec No 2024038209, County of Douglas, State of Colorado bears S00°05'56"E; West 1/4 corner of Section 21 is 3" Brass: Southwest corner of Section 21 is 3" Brass as shown hereon between the identified monuments.

SURVEYOR'S CERTIFICATE

I, Darrell E Roberts, a duly registered Professional Land Surveyor in the State of Colorado, do hereby certify that this exemption exhibit truly and correctly represents the results of a survey made on ***, 2025, 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 (second order); and that said exhibit 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 applicable provisions of the Douglas County Subdivision Resolution.

I attest the above on this _____day of _____, 20__.

_____
Darrell Eugene Roberts for and on behalf of David E. Archer & Assoc. Inc.,
Professional Land Surveyor # 36057

DIRECTOR OF COMMUNITY DEVELOPMENT

This exemption was approved by the Douglas County Board of County Commissioners

on _____, 20__, Motion #

Accepted for recordation by:_____ _____
Director of Community Development Date

SHEET INDEX

SH. 1 COVER SHEET
SH. 2 PARCEL EXHIBIT
SH. 3 PARCEL DETAILS

REVISIONS

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

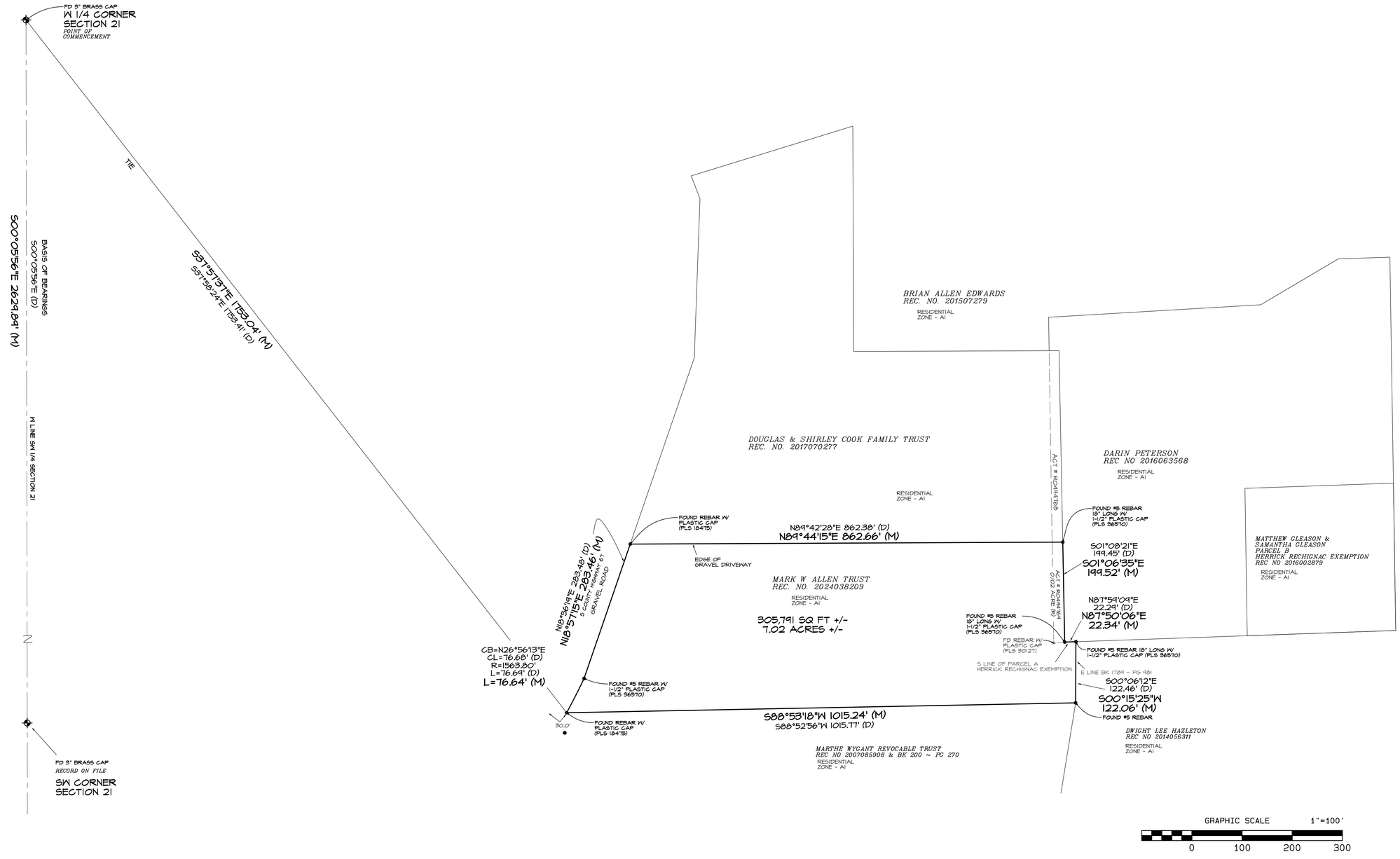
SCALE
DATE 5-6-25
DR'N. DJL CKD.
APV'D.

TITLE
ALLEN EXEMPTION
In Section 21, Township 8 South, Range 69 West, of the 6th P.M., Douglas County, Colorado
CLIENT
Mark Allen

Sheet 1 of 2 JOB NUMBER 20-1231

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Tue Jul 29 14:22:43 2025

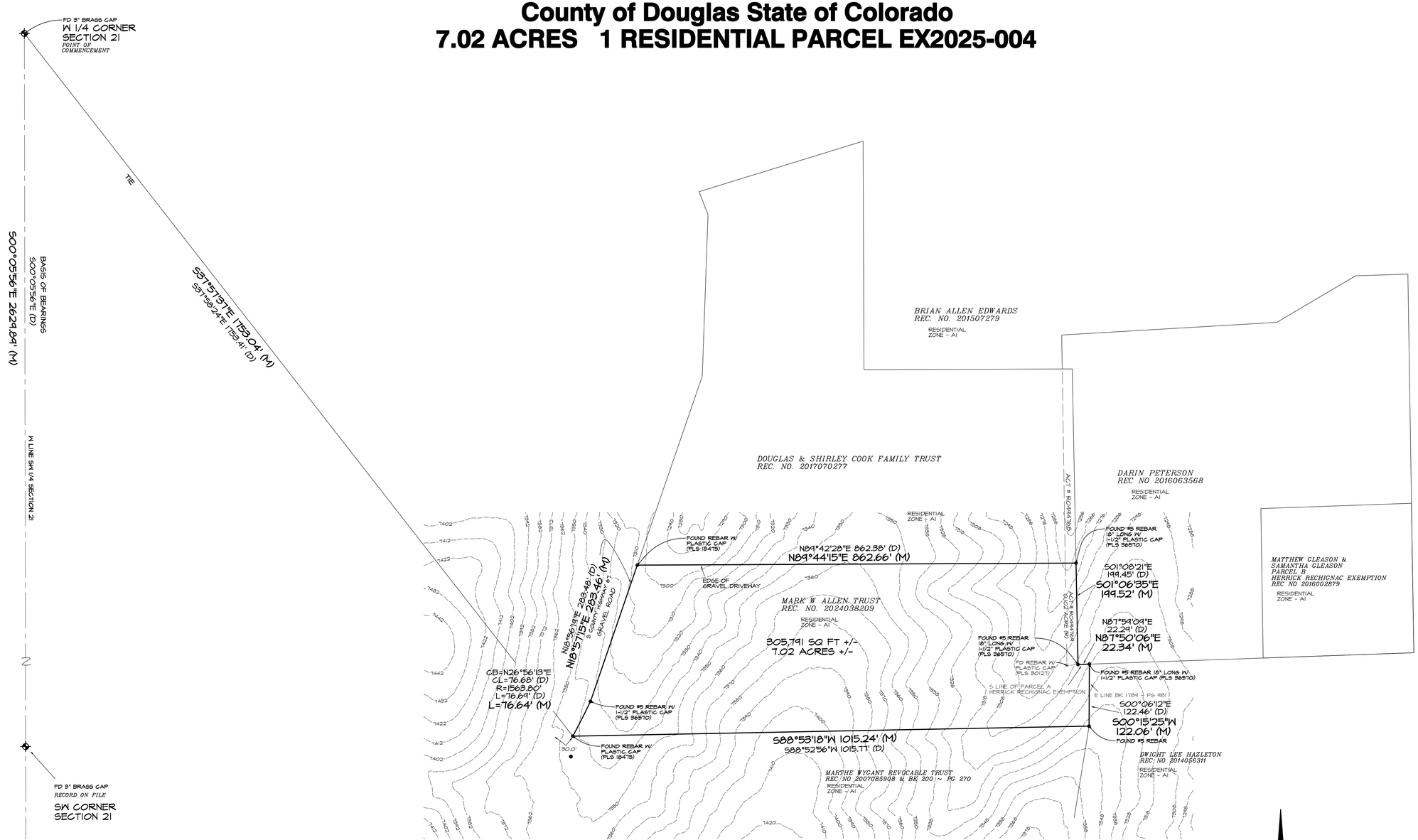
ALLEN EXEMPTION
In Section 21, Township 8 South, Range 69 West, of the 6th P.M., County of Douglas State of Colorado
7.02 ACRES 1 RESIDENTIAL PARCEL EX2025-004



REVISIONS	DAVID E. ARCHER & ASSOCIATES, INC.	TITLE: ALLEN EXEMPTION
	LAND DEVELOPMENT CONSULTING SURVEYING & ENGINEERING PHONE (303) 688-4642 105 WILCOX ST. CASTLE ROCK, COLORADO 80104	In Section 21, Township 8 South, Range 69 West, of the 6th P.M., Douglas County, Colorado
	SCALE 1" = 100'	CLIENT: Mark Allen
	DATE 5-6-25	
	DRN. DLL CKD.	
	APVD.	Sheet 2 of 3 — JOB NUMBER 20-1231

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Tue Jul 29 14:23:23 2025

ALLEN EXEMPTION
In Section 21, Township 8 South, Range 69 West, of the 6th P.M., County of Douglas State of Colorado
7.02 ACRES 1 RESIDENTIAL PARCEL EX2025-004



REVISIONS		
	DAVID E. ARCHER & ASSOCIATES, INC.	TITLE: ALLEN EXEMPTION
	LAND DEVELOPMENT CONSULTING	In Section 21, Township 8 South,
	SURVEYING & ENGINEERING	Range 69 West, of the 6th P.M.,
	PHONE (303) 688-4642	Douglas County, Colorado
	105 WILCOX ST. CASTLE ROCK, COLORADO 80104	SCALE 1" = 100'
		DATE 5-6-25
		DR'N. DLL CKD.
		AP'VD.
		CLIENT: Mark Allen
		Sheet 3 of 3 JOB NUMBER 20-1231

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Tue Jul 29 14:23:32 2025

MEETING DATE: August 12, 2025

STAFF PERSON RESPONSIBLE: Heather Scott, AICP, Principal Planner

DESCRIPTION: Fields Filing 3 - Final Plat - Project File: SB2024-068.

SUMMARY: The request is for approval of a final plat consisting of 7 single-family residential lots and public right-of-way on 297.45 acres.

STAFF ASSESSMENT: Staff has evaluated the final plat request in accordance with Article 5 of the Subdivision Resolution. Should the Board find that the approval standards for the final plat are met, the following proposed conditions should be considered for inclusion in the motion:

1. Prior to plat recordation, the applicants shall pay $4,416.08 to Douglas County for cash-in-lieu of park land dedication.
2. Prior to obtaining the first building permit, the applicants shall pay $2,467.00 to the Douglas County School District for cash-in-lieu of school land dedication.
3. Prior to a building permit being issued, existing well # 126985-A shall be capped and abandoned or a court-approved augmentation plan obtained per the requirements of the Colorado Division of Water Resources.
4. During construction activity within the development, the applicants, their successors, and assigns shall take all reasonable care to watch for historic resources, paleontological resources, and other cultural history resources and shall immediately notify Douglas County in the event of such discovery.
5. Prior to recordation of the final plat, technical corrections to the plat exhibit shall be made to the satisfaction of Douglas County.
6. All statements and commitments made by the applicant or the applicant's representative during the public meeting and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

REVIEW:

Terence T Quinn - FYI	Notified - FYI	7/30/2025
Steven E Koster	Approve	7/30/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/6/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025
Samantha Hutchison - FYI	Notified - FYI	8/8/2025

ATTACHMENTS:

Staff Report - SB2025-068

DOUGLAS COUNTY
COLORADO

Final Plat Staff Report

Date:	July 29, 2025
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Terence T. Quinn, AICP, Director of Community Development TQ
CC:	Heather Scott, AICP, Principal Planner Jeanette Bare, AICP, Planning Manager Steven E. Koster, AICP, Assistant Director of Planning Services
Subject:	**Fields Filing 3**
Project File:	**SB2024-068**

Board of County Commissioners Meeting: **August 12, 2025 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The request is for approval of a final plat for 7 single-family detached residential lots and public right-of-way on 297.45 acres. The property is zoned Estate Residential (ER) and is located southeast of the Town of Parker, north of the intersection of Hilltop Road and Singing Hills Road. Lots range in size from 35.05 acres to 48.97 acres. Lots will be served by individual well and septic systems. Access will occur via private shared driveways connecting to Flintwood Road.

Fields Filing 3 is one of three final plats proposed within the 638.71-acre Fields Preliminary Plan. The plat is located in the Northeast Subarea of the Douglas County 2040 Comprehensive Master Plan.

II. APPLICATION INFORMATION

A. Applicants

Wallden - Hilltop, LLC
7199 N. Flintwood Road
Parker, Colorado 80138

B. Applicant's Representative

Hilltop Brothers LLC
8678 Concord Center Drive, Unit 200
Englewood, Colorado 80112

C. Request

The applicant requests approval of a final plat consisting of 7 single-family residential lots and public right-of-way on 297.45 acres.

D. Process

A final plat application is processed pursuant to Article 5 of the Subdivision Resolution. Article 5 states the intent of the process is "To provide for the review of the final engineering plans, the subdivision improvement agreement, public dedications, and other legal agreements."

Per Section 504.06 of the DCSR, "The Board shall evaluate the final plat, staff report, referral agency comments, applicant responses, and public comment and testimony, and shall approve, approve with conditions, continue, table for further study, or deny the final plat. The Board's action shall be based on the evidence presented; compliance with adopted County standards, regulations, and policies; and other guidelines."

E. Location

The project area is located in the northeast portion of Douglas County. The site is northeast of Hilltop Road, and southeast of the Town of Parker, more specifically north of Singing Hills Road and west of Flintwood Drive. The zoning map, aerial map, and 2040 CMP vicinity map highlighting site location and existing conditions are in the attachments.

F. Project Description

This final plat application is for 7 detached single-family residential lots. Proposed lots range in size from 35.05 acres to 48.97 acres. Each lot will be served by on-lot wells and individual septic systems. ER zone district requirements, including setbacks and parking, can be met, and will be reviewed prior to building permit approval. The County will accept secondary drainage easements over the floodplain and erosional setback areas associated with the site's drainageways. The Fields Metropolitan District No. 3 (metro district) will be the entity responsible for ownership and maintenance of the drainageways. South Metro Fire Rescue requested a fire hydrant at the intersection of Singing Hills Road and Flintwood Road to serve the 7 lots and other homes on Flintwood Road.

The final plat proposes shared driveways to provide access to Flintwood Road. Lot 1 is the only lot with an individual driveway to Flintwood Road. The pairings of Lots 2 and 3, Lots 4 and 5, and Lots 6 and 7 will each share driveway access to Flintwood Road. Additional right-of-way for Flintwood Road will be dedicated via the plat for future improvements.

The final plat exhibit and proposal generally conform to the approved preliminary plan.

III. CONTEXT

A. Background

The site was rezoned from Agricultural One (A-1) to Estate Residential (ER) by the Board of County Commissioners (Board) on March 8, 2022. The Fields Preliminary Plan was approved on November 7, 2023, for 130 lots on 638.71 acres. The Board also approved a waiver of Section 611 of the DCZR to allow these lots to be served by individual groundwater wells rather than by a central water system.

B. Adjacent Land Uses and Zoning

The Fields Filing 3 final plat request is west of Flintwood Road and north of Singing Hills Road. The Bagnall Rural Residential subdivision is adjacent to the north with parcel sizes ranging from 5 acres to 37 acres. Fields Filing 1 is adjacent to the west with parcels generally ranging from 0.7 to 2.0 acres in size. Agricultural One-zoned property is located to the east with parcel sizes ranging from 9 acres to 35 acres, and Hidden Village is located south of the site with lot sizes ranging from 5 acres to 11 acres. The following table reflects those zone districts and land uses surrounding the site.

Zoning and Land Use

Direction	Zoning	Land Use
North	Rural Residential	Residential - Bagnall
South	Estate Residential	Residential - Hidden Village
East	Agricultural One	Residential and Agricultural
West	Estate Residential	Vacant Residential – Fields Filing 1

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

The site is bounded on the south by Singing Hills Road, west by Fields Filing 1 and by residential development to the north and east. The overall Fields site has been historically utilized for farming and ranching purposes. A single-family residence exists on Lot 6. Two major drainage channels diagonally traverse the site from east to northwest. These tributaries converge along the northwest side of Fields Filing 1 and ultimately drain to Cherry Creek. Vegetation in the site and along the intermittent drainage ways include Ponderosa pine, mountain mahogany, yucca, cacti, grasses, and forbs.

B. Access

The pairings of Lots 2 and 3, Lots 4 and 5, and Lots 6 and 7 will each share driveways to access Flintwood Road. Lot 1 will have a private driveway that directly accesses Flintwood Road. Public Works Engineering has reviewed and approved the traffic analysis for the Fields subdivision, including this final plat. 30 feet of right-of-way will be dedicated to the west side of Flintwood Road.

C. Soils and Geology

The *CMP* Class 3 Hazards and Environmental Constraints map within the Douglas County 2040 CMP indicates there are no known constraints on the site. The applicant submitted a geotechnical due diligence report with the preliminary plan application. Colorado Geological Survey (CGS) reviewed the final plat request and had no objections with Fields Filing 3. CGS requested erosional setbacks be established from the crest of the steeper slopes (30% or greater) associated with the secondary drainages to protect structures and improvements from channel erosion and scour, undercutting, and slope failure, as those lots are close to Tallman Gulch and its tributaries. The drainages are depicted on the final plat as "100-year floodplain and erosional setback areas." A drainage easement has been placed over these areas with ownership and maintenance responsibility assigned to the metro district. No structures are allowed in these areas and driveway crossings or other improvements would require County approval. Site-specific geotechnical studies will be required at the time of building permit for all lots within the subdivision.

D. Drainage and Erosion

A Phase III Drainage Report and Geomorphology report; a Grading, Erosion, Sediment Control (GESC) Plan; and construction plans were reviewed and accepted by Douglas County Engineering Services. The drainage easements will be owned and maintained by the metro district, with the County to accept secondary drainage easements via the final plat.

E. Floodplain

While there are no mapped FEMA 100-year floodplain within the project area, there are several unmapped 100-year floodplains which were defined on the preliminary plan exhibit, including portions of Tallman Gulch, Long Outfall, and Doud Outfall. These floodplains are contained within drainage easements on the final plat to be owned and maintained by the metro district. Secondary drainage easements will be provided to the County to allow for backup maintenance if necessary.

F. Wildlife

The CMP Wildlife Resources map identifies the project site as moderate habitat value. The site is not located within a wildlife habitat conservation area, overland connection, wildlife movement corridor, or wildlife crossing area. The preliminary plan preserved 117.91 acres of the overall site as contiguous open lands. Existing trees and shrubs along the drainageways will be preserved, with limited impacts to vegetation. Large lot design allows the continuation of wildlife movement through this site.

G. Historic Preservation

Douglas County Historic Preservation reviewed the proposal and indicated no archaeological or historical sites have been identified on the site. The applicants will take all reasonable care to watch for historic and paleontological resources while

excavating the land, and that if any artifacts are found, that these items be properly recorded, and that notification be provided to the proper authority.

V. PROVISION OF SERVICES

A. Schools

The Douglas County School District (DCSD) reviewed the final plat application during referral. The DCSD indicated that the 7 lots generated a school land dedication in the amount of 0.160 acres. Cash-in-lieu of $2,467.00 is required based on a land dedication appraisal of the property. DCSD fees are to be paid prior to obtaining first building permit.

B. Fire Protection

South Metro Fire Rescue (SMFR) provides fire and emergency medical services to the site. SMFRreviewed the request and had no objection to the final plat as plat note #11 provides for alternate methods for fire protection water supplies. In addition, a fire hydrant will be placed at the corner of Flintwood Road and Singing Hills Road to access Parker Water and Sanitation District water supplies for fire-fighting purposes.

C. Sheriff Services

The Douglas County Sheriff's Office (DCSO) will provide police protection to the site. Responses were not received from the DCSO or E911. The Office of Emergency Management reviewed the request and had no concerns with the project.

D. Water

Water will be provided via individual wells. Compliance with Section 18A, Water Supply Overlay District, was evaluated at the time of preliminary plan. Water supplies were deemed to be sufficient to serve the seven lots. A waiver from the requirement for central water was approved by the Board to allow for the use of individual groundwater wells.

Updated water documentation was provided by the applicant for this final plat. The Colorado Division of Water Resources reviewed the application and requested more information. A follow up letter stated the proposed water supply is adequate and can be provided without causing injury to decreed water rights. The County's water consultant reviewed the application and stated that there is sufficient water to serve the uses proposed in this application. The proposed source of water for the lots is individual on-lot wells producing from a nontributary Denver Basin aquifer that will operate pursuant to the 11CW99 decree. Existing well #126985-A will need to be capped and abandoned prior to the issuance of any building permits.

E. Sanitation

The seven lots will be served by onsite wastewater treatment systems (OWTS). Individual septic systems are allowed in compliance with health department regulations in Section 611 of the ER Zone District. The Douglas County Health

Department provided a referral comment on the preliminary plan and had no objection provided the systems are permitted, inspected, and operated in accordance with DCHD's current OWTS Regulations.

F. Utilities

Area utility service providers were provided a referral on this application. Xcel Energy asked for an additional plat note which was added to the final plat and they stated they operate existing natural gas distribution facilities along Chinook Trail, Flintwood Road, and Singing Hills Road and to call for utility locates prior to construction. CORE Electric Cooperative (CORE) reviewed the request and provided comments requesting prescriptive rights to a 30-foot utility easement and indicated a potential conflict with the fire truck staging area and existing CORE powerlines. The applicant provided detail information and CORE had no further comments. No other utility provider issued comments on the application.

G. Dedications

The following dedications are anticipated at the time of final plat.

Dedicated Element	Purpose, Ownership, and Maintenance
Roads	30 feet of right-of-way along Flintwood Road will be conveyed to Douglas County.
Drainage and Blanket Access Easements	Douglas County will require a secondary drainage easement for all drainage facilities at the time of final plat in the event that the system owner fails to maintain the improvements. Fields metro district #3 will be responsible for the ownership and maintenance of the drainageways and facilities.
Utilities	Douglas County will accept general purpose utility easements.

H. Parks, Trails, and Open Space

The applicant is responsible for park land dedication or an equivalent cash-in-lieu fee. The applicant prepared a land dedication appraisal in accordance with Article 10 of the DCSR. The total park land dedication required for the 7 lots is 0.315 acres. Cash-in-lieu fees of $4,416.08 will be paid prior to recordation of the final plat.

I. Subdivision Improvements

The intent of the County's final plat process is "to provide for the review of the final engineering plans, the subdivision improvements agreement, public dedications, and other legal agreements." Per the *DCSR*, specific engineering reports, studies, and construction plans are required to be submitted and finally accepted or approved by Public Works Engineering with a final plat application. There are no public improvements generated from the approved construction plans, so no subdivision improvements agreement (SIA) is needed for this plat.

Required improvements for the Fields Filing 3 Final Plat include dry and wet utilities and fire hydrant improvements. All required engineering reports, studies, and construction plans for the final plat have been reviewed by Public Works Engineering with only minor technical corrections remaining. It is anticipated that the construction plans will be finally approved prior to the Board meeting on the final plat.

VI. PUBLIC NOTICE AND INPUT

Courtesy notices were mailed to abutting property owners. All referral agency comments are outlined in the Referral Agency Response Report attached to the staff report, and the applicant has provided responses to referral comments within a separate letter included in the staff report attachments. One neighbor did comment on the physical location of Flintwood Road cutting off a corner of his property and wanted the potential owners of Lots 1, 2, and 3 to understand they will "be traversing our property to get to Flintwood Road." Public Works Engineering identifies the prescriptive right-of-way from the existing fence line on the east side of Flintwood Road, to the fence line on the west side of the road. This final plat will dedicate 30 additional feet to this right-of-way.

VII. STAFF ANALYSIS

Per Article 503 of the DCSR, a final plat may be approved upon the finding by the Board of County Commissioners that the following standards have been met:

503.01: Conforms with the goals, objectives, and policies of the Master Plan.
Staff Comment: The property is located within the Northeast Subarea as identified in Section 3 of the 2040 CMP. Goal 3-2 of the CMP states that the County should "Ensure that land use and design is compatible with the natural and rural character of the nonurban area." While approval criteria for most land use applications require a finding of compliance, consistency, or conformance with the 2040 CMP, "The competing values of the Plan must be balanced through the public review process to achieve the larger vision of the community." Objective 3-2A.1, encourages design to be of scale and character that complement the nonurban area and objective 3-2B encourages the development to conserve and showcase important natural and rural features. The 7 lots are in excess of 35 acres and maintain the natural drainage that flows through the site. Policy 3-2B encourages preservation and construction of drainageways that complement the natural and rural landscape. Policies also encourage the preservation of vegetation, soils, and landforms by minimizing site disturbance and designs which minimize the use of resources to provide energy efficiency in both construction and operation. The tributaries onsite have been set aside into drainage easements to minimize site disturbance and maintain the natural flow.

The Northeast subarea of the CMP supports logical infill, where approximately 50% of the property boundary is adjacent to parcels of sizes consistent with the proposed development. Policy 3-3E.2 states maximum gross density if one dwelling unit per 2.5

acres. The gross density for the preliminary plan is one dwelling unit per 4.9 acres. Policy 3-3E.5 encourages site design to minimize the removal of vegetation and to use trees to screen development. The design places larger lots on the perimeter of the project to buffer the larger lots to the east. Policy 3-3E.4 states that new development should take measures to protect the existing alluvial wells used in this area. Each of the 7 lots is in excess of 35 acres and CDWR states the water supply can be "provided without causing injury 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."

503.02: The final plat addresses the design elements established in Article 4, Section 404.

Staff Comment: The final plat is in conformance with the design elements. The seven single-family residential lots are accessible to Flintwood Road providing opportunities for vehicular and pedestrian access. The lots conform in size to those allowed within the ER zone district and are capable of meeting all other minimum zone district standards. The Board approved a waiver of Section 611 which required central water facilities based on the size of the lots. The use of onsite wastewater treatment systems is allowed in the ER zone district. Off-street parking requirements can be met. Geotechnical recommendations from the applicants' geotechnical report will be implemented, and individual building analysis will occur at building permit for proposed dwellings. Drainage plans have been reviewed and approved. The applicants will assure archaeological, paleontological, or historic resources are identified during construction.

503.03: The final plat conforms with Section 18A, Water Supply Overlay District, of the Zoning Resolution.

Staff Comment: DCZR Section 1803A establishes approval standards to be used in the evaluation of land use applications reviewed under Section 18A. The water supply for these lots were evaluated and found to be adequate at the time of preliminary plan approved. Updated water documentation was provided with the final plat indicated that no changes to the proposed water supply is proposed.

1803A.01: The applicant has demonstrated that the water rights can be used for the proposed use(s).

Staff Comment: The applicants have submitted water documentation that demonstrates the proposed water supply is individual on-lot wells operating pursuant to Division 1 Water Court case no. 11CW99. CDWR reviewed the final plat application and indicated that the amount of water is adequate to annually serve the subdivision without injuring to decreed water rights.

1803A.02: The reliability of a renewable right has been analyzed and is deemed sufficient by the County based on its priority date within the Colorado System of Water Rights Administration.

Staff Comment: No renewable water rights are proposed to serve the development.

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 hydrological cycle.
Staff comment: The CDWR reviewed the application and indicated that the amount of water being reserved is adequate to annually serve the seven lots, and that water is physically available based on current conditions. Individual wells will be drilled to serve each lot.

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 CDWR reviewed the application and indicated that the amount of water being reserved is adequate to annually serve the seven lots. The applicant has demonstrated that sufficient water exists to meet the minimum water demand standard of 1 acre-foot per year per lot set forth in Section 18A.

503.04: The final plat provides for a public wastewater collection and treatment system and, if other methods of wastewater collection and treatment are proposed, such systems comply with State and local laws and regulations.

Staff Comment: The lots will be served by well and septic. At the time of preliminary plan approval and reaffirmed with the final plat application, the Douglas County Health Department (DCHD) had no comment regarding the proposed method of sewage disposal for lots.

503.05: The final plat identifies all areas of the proposed subdivision which may involve soil or topographical conditions presenting hazards or requiring special precautions and that the proposed uses of these areas are compatible with such conditions.
Staff Comment: The applicants will implement the recommendations of the geotechnical analysis reviewed and approved during the preliminary plan application. In addition, standard geotechnical explorations of individual building sites will be required as part of the building permit process. CGS recommended specific erosional setbacks be added adjacent to drainage channels. Floodplains and erosional setbacks are depicted on the final plat and covered by a drainage easement. Plat note #13 requires further technical studies when traversing a drainage easement.

503.06: The final plat provides adequate drainage improvements.
Staff Comment: A Phase III Drainage Report with the required geomorphology subsection, and GESC plans, and report were submitted by the applicant and accepted by Douglas County Engineering Services. No improvements are required. Drainage easements, including erosional setbacks, have been placed over the 100-year floodplains.

503.07: The final plat provides adequate transportation improvements.
Staff Comment: The applicant's traffic analysis was reviewed and accepted by Douglas County Engineering at the time of preliminary plan approval. The applicant confirmed the findings of this analysis as part of the final plat request. Adequate road capacity for this and other Fields final plats will be available on both Hilltop Road and Singing Hills Road

once County improvements are complete. All necessary public right-of-way has been previously dedicated or dedicated with this final plat.

503.08: The final plat protects significant cultural, archaeological, natural, and historical resources and unique landforms.
Staff Comment: A Class II Survey of the proposed areas of development was accomplished at the time of preliminary plan approval, including the residential development areas. No significant cultural resources were found on the subject property. The applicant, its successors and assigns shall take all reasonable care to watch for historic resources, paleontological resources, and other cultural history resources and shall immediately notify Douglas County in the event of such discovery during construction activity.

503.09: The final plat has available all necessary services, including fire and police protection, recreation facilities, utility services, streets, and open space to serve the proposed subdivision.
Staff Comment: All such services are available to each parcel. Fire protection is provided by South Metro, and the Douglas County Sheriff's Office provides police protection. Utility service facilities are provided by CORE, Xcel, Comcast, and Century Link. A fire hydrant will be provided at the corner of Hilltop and Singing Hills Road to improve fire-fighting capabilities for the final plat and other large lot development in the area.

VIII. STAFF ASSESSMENT

Staff has evaluated the final plat request in accordance with Article 5 of the Subdivision Resolution. Should the Board find that the approval standards for the final plat are met, the following proposed conditions should be considered for inclusion in the motion:

1. Prior to plat recordation, the applicants shall pay $4,416.08 to Douglas County for cash-in-lieu of park land dedication.

2. Prior to obtaining the first building permit, the applicants shall pay $2,467.00 to the Douglas County School District for cash-in-lieu of school land dedication.

3. Prior to a building permit being issued, existing well # 126985-A shall be capped and abandoned or a court-approved augmentation plan obtained per the requirements of the Colorado Division of Water Resources.

4. During construction activity within the development, the applicants, their successors, and assigns shall take all reasonable care to watch for historic resources, paleontological resources, and other cultural history resources and shall immediately notify Douglas County in the event of such discovery.

5. Prior to recordation of the final plat, technical corrections to the plat exhibit shall be made to the satisfaction of Douglas County.

6. All statements and commitments made by the applicant or the applicant's representative during the public meeting and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 12
Applicant's Narrative 13
Vicinity Map 17
Zoning Map 18
Aerial Map 19
Referral Agency Response Report 20
Referral Response Letters 25
Public Comment Letters 65
Applicant Response to Referral Comments 66
Traffic Report 73
Grading, Roadway, Drainage Plans 83
Final Plat Exhibit 136

DOUGLAS COUNTY
COLORADO

Department of Community Development
Planning Services

www.douglas.co.us

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: Fields Filing 3

PROJECT FILE #: SB2024-068

PROJECT TYPE: Final Plat

MARKETING NAME: Fields Filing No. 3

SITE ADDRESS: Singing Hills Rd and Flintwood Rd

OWNER(S):

Name(s): Wallden - Hilltop, LLC

Address: 7199 Flintwood RD, Parker, CO 80138

Phone: 303-346-7006

Email: tclark@ventanacap.com

AUTHORIZED REPRESENTATIVE *(requires notarized letter of authorization if other than owner)*

Name: Hilltop Brothers LLC

Address: 8678 Concord Center DR, Unit 200, Englewood, CO 80112

Phone: 303-346-7006

Email: tclark@ventanacap.com

PLANNING FEES: $700.00

ENGINEERING FEES: $7,500.00

TOTAL FEES: $8,200.00

RELATED PROJECTS:
SB2022-036
SB2024-027
SB2024-041
ESB2024-078

LEGAL DESCRIPTION:

Subdivision Name: Fields Filling No. 3

Filing #: _____ Lot #: _____ Block #: _____ Section #: 5 Township: 7S Range: 65W

STATE PARCEL NUMBER(S): 2347-051-00-004 & 2347-053-00-004

ZONING:

Present Zoning: ER Proposed Zoning: ER Gross Acreage: 297.45

Gross Site Density (DU per AC): 42.49 # of Lots or Units Proposed: 7

SERVICE PROVIDERS:

Fire District: South Metro Fire Rescue Metro District: NA Gas: Xcel Energy

Water: Parker Water and Sanitation Sewer: Parker Water and Sanitation 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

10·31·24
Date

RICK

303-537-8020
rickengineering.com

8678 Concord Center Drive #200
Englewood, CO 80112

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

April 30, 2025

Douglas County, Department of Community Development
Planning Services
100 Third Street
Castle Rock, Colorado 80104

SUBJECT: PROJECT NARRATIVE IN SUPPORT OF DOUGLAS COUNTY FINAL PLAT PROCESS OF FIELDS FILING No. 3 IN DOUGLAS COUNTY, COLORADO

To Whom It May Concern,

This letter has been prepared in support of the Fields Filing No. 3 Development (herein referred to as the "project") Final Plat Application process in Douglas County, Colorado. The project is part of the November 7th, 2023, Douglas County Board of County Commissioners approved "Fields Preliminary Plan" (SB2022-036). The project narrative follows the criteria established Article 5, Section 505.2 of the Douglas County Subdivision Resolution (DCSR). Upon your review, if you have any questions or revisions to the project narrative, we welcome discussing those changes with County staff so that we can better outline the intent of the project.

APPLICANT INFORMATION

Owner:

Wallden – Hill Top, LLC
7199 N. Flintwood Rd
Parker, CO 80138

Applicant / Developer:

Tom Clark
Hilltop Brothers, LLC
8678 Concord Center Dr., Unit #200
Englewood, CO 80112

Engineer:

Troy Bales, PE
Rick Engineering Company
8678 Concord Center Dr., Unit #200
Englewood, CO 80112

Mineral Rights Owner:

Wallden – Hill Top, LLC
7199 N. Flintwood Rd
Parker, CO 80138

Water Rights Owner:

Big Hill West LLC
7199 N. Flintwood Rd
Parker, CO 80138

Surveyor:

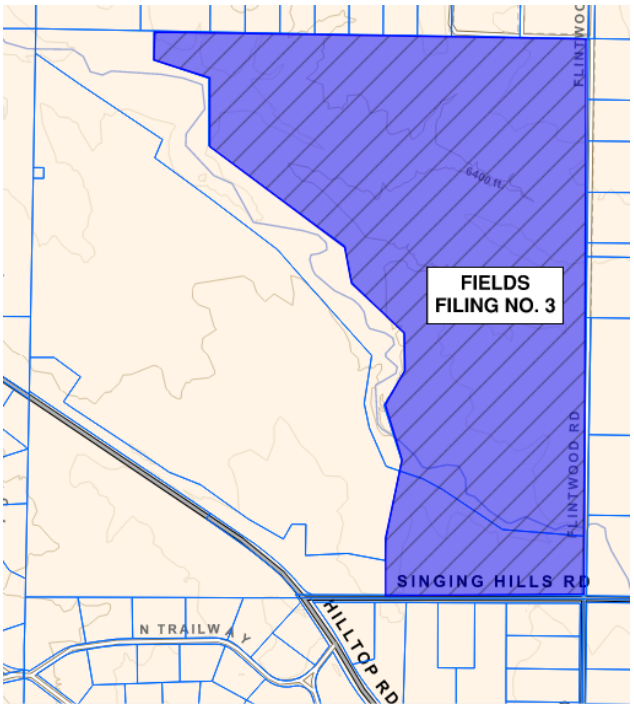
Robert Hennesey, PLS
Rick Engineering Company
5690 Webster
Arvada, CO 80002

RICK

PROJECT SUMMARY (DSCR Sec 505.02.1, 505.02.2, 505.02.3)

The Project is a subdivision of approximately 297.45-acres of land located within the Southwest Quarter of Section 5, Township 7 South, Range 65 West, of the 6th P.M. Douglas County, Colorado. The site is bounded by Singing Hills Rd to the South and Flintwood Road to the East, with the Lancelots subdivision to the furthest northeast corner of our property. The project proposes Seven (7) large single-family lots, providing a 50 private access easement centered along the proposed lot lines subdividing this property, along with additional proposed Right of Way & Utility easements along Flintwood drive for future development of these lots. The single-family lots are to remain undeveloped with this project and each lot will require a separate building permit process and supporting documentation at the time of development, as required per Douglas County.

The total property spans approximately 297 acres. Of this, 22.06 acres (7.4%) will be set aside for right-of-way conveyance, allowing future single-family homes to share drive access points on the west side of Flintwood Road. Out of the total acreage, 275.39 acres will be allocated for the subdivision of single-family lots. The single-family lots will vary in size, with the smallest being approximately 35.05 acres, resulting in an overall residential density of about 39.34 acres per dwelling unit. The South Metro Fire District has requested the installation of a fire hydrant connected to the 30-inch water main on the north side of Singing Hills Road, along with a turnaround pad for filling tanker trucks to provide fire suppression for the seven lots.



OPEN SPACE (DSCR Sec 505.02.4)

There is no open space dedication within Fields Filing No. 3. Please refer to the approved Fields Preliminary Plan for the open space to be dedicated as a part of the greater development in which Fields Filing No. 3 is a part of.

ROADS, TRACTS, AND EASEMENTS (DSCR Sec 505.02.5)

The project proposes the construction of one (1) turn around pad to allow for tanker filling. The project proposes multiple easements for the future development of the Seven (7) Lots, be it for access or installation of utilities.

LAND DEDICATION FOR PARKS AND SCHOOLS (DSCR Sec 505.02.6)

Parks

Land dedication for parks and trails shall be in compliance with Section 1003 of the Douglas County Subdivision Resolution (DSCR). Per Article 10, Section 1003 of the Douglas County Subdivision Resolution, parks and trail, the project is to provide land or cash-in-lieu equivalent. Per Section 1003.06 the fee will be determined based on the post plat value of the land and will be calculated by staff. Cash-in-lieu for parks and trails shall be paid at the time of recordation of the Final Plat.

Schools

Land dedication for schools shall be made in accordance with section 1004 of the Douglas County Subdivision Resolution. No land will be dedicated for school construction on the property. The owners and their assigns shall pay cash-in-lieu of land dedication for schools.

PROVISION OF WATER AND SEWER SERVICES (DSCR Sec 505.02.7)

Each single family lot will be served by individual wells for water services and will use septic systems for sewer services. A waiver from Section 611 Water and Sanitation policy requiring that "All uses shall be served by a central water facility. Individual septic systems shall be allowed in compliance with health department regulations" was granted with the approval of the "Fields Preliminary Plan" (Douglas County project # SB2022-036) on November 7th, 2023. A copy of the approved Waiver from Parker and Water Sanitation District (PWSD) Inclusion Letter has been provided with this application.

Existing well # 126985-A located on the property will be capped and abandoned per the condition of the Preliminary Plan. No building permits for Filing 3 will be issued prior to the abandonment of this well.

DEVELOPMENT TIME FRAME (Sec 505.02.08)

The applicant anticipates processing the project through the Douglas County Department of Community Planning to include the Final Plat processes. Plan processing and permitting is anticipated to take place from late 2024 and with construction commencing after County approval, anticipated in mid 2025. Each individual homeowner will be required to process a building permit at the time of development of the single-family lots.

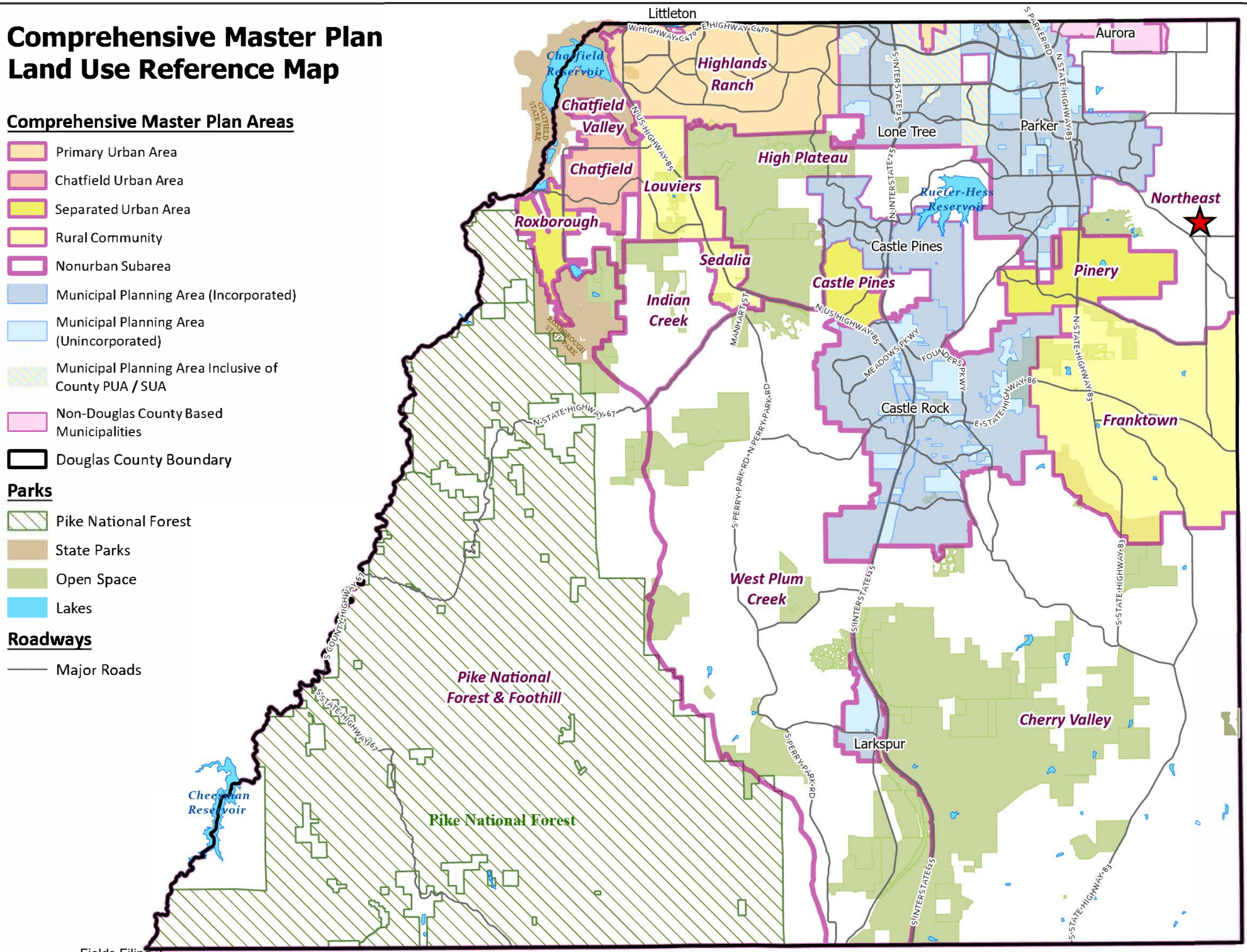
FINAL PLAT CONFORMANCE TO PRELIMINARY PLAN (Sec 505.02.09)

The plat dedicates the Preliminary Plan approved Right-of-Way for Singing Hills and Flintwood roads. The final plat establishes 7 - 35+ acres lots per the approved Preliminary Plan in a revised layout. We believe the proposed revisions are in general conformance with the approved Preliminary Plan.

ALIGNMENT WITH THE DOUGLAS COUNTY COMPREHENSIVE MASTER PLAN

The project aligns its design with the goals and policies set forth within section 3 - Nonurban Land Use of the Douglas County Comprehensive Master Plan (CMP). The project establishes low density (Objective 3-2A) 35-acre minimum Estate Residential single family lots which inherently create low levels of disturbance to the natural lands of the property. The low density of this development minimizes the impact on groundwater when compared to a development that aligns with the maximum density allowed by zoning (Policy 3-3E.4) The layout of the lot lines provide preferred buildable areas that are accessible and located where minimal to no disturbance of tree stands and drainage courses is required (Policy 3-3E.5). The layout provides the option for owners to share driveways further reducing site disturbance. The drainage courses are protected by easements dedicated to the County which disallow disturbance of the natural channels (Policy 3-3E.6) and provide the County an avenue to remediate disturbances if they occur. These protections of the natural landform minimize the impacts of residential development to existing wildlife and their movements (Policy 3-3E.6). These measures help maintain the scenic views of this nonurban areas for the owners and the public (Objective 3-2C).

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

FIELDS FILING 3

SB2024-068
ZONING MAP

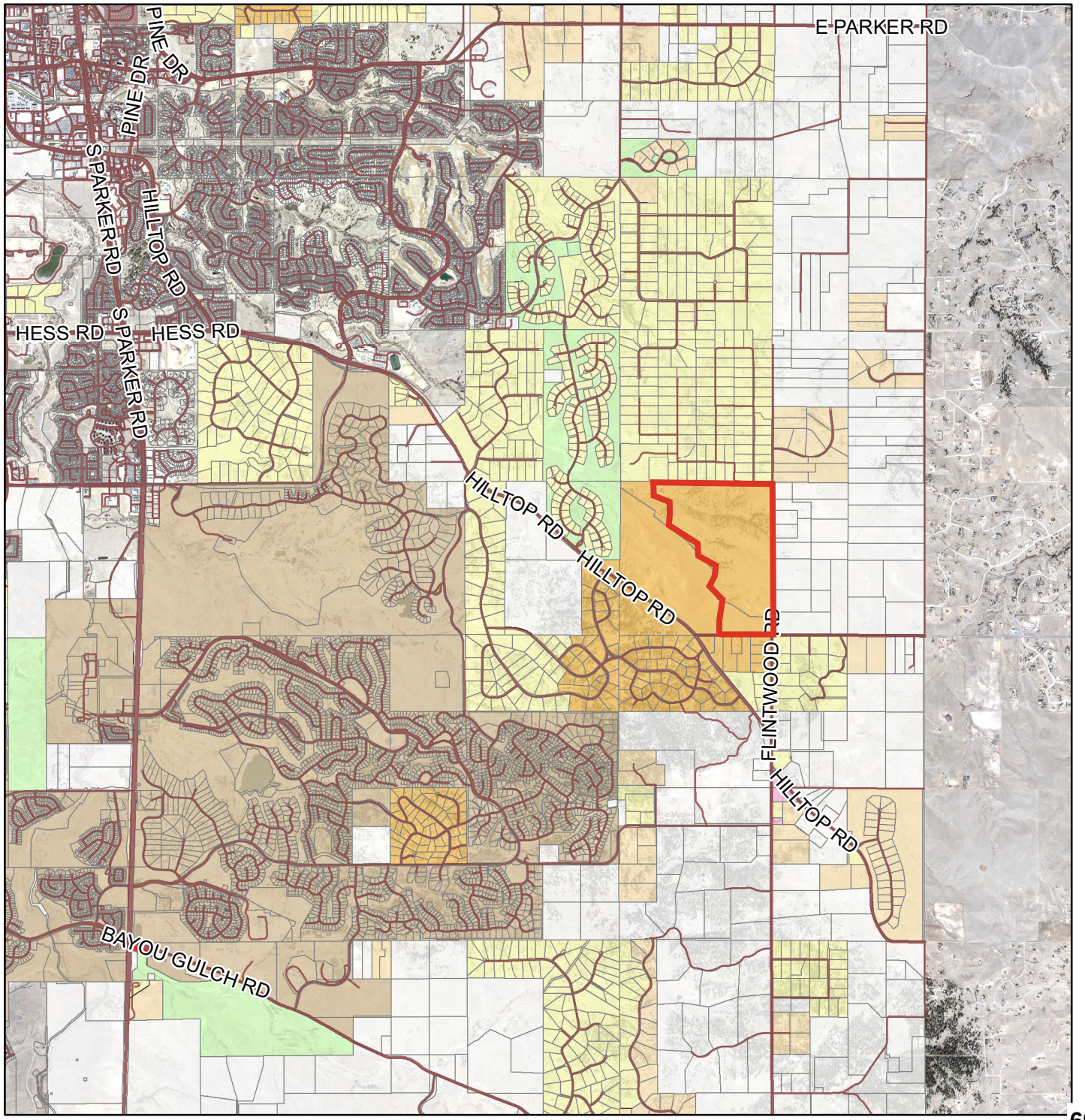


LEGEND

- PROJECT SITE
- MAJOR ROADS
- OTHER ROADS

ZONE DISTRICT

- A1 - AGRICULTURAL ONE
- LRR - LARGE RURAL RESIDENTIAL
- RR - RURAL RESIDENTIAL
- ER - ESTATE RESIDENTIAL
- SR - SUBURBAN RESIDENTIAL
- MF - MULTIFAMILY
- LSB - LIMITED SERVICE BUSINESS
- B - BUSINESS
- C - COMMERCIAL
- LI - LIGHT INDUSTRIAL
- GI - GENERAL INDUSTRIAL
- CMTY - SEDALIA COMMUNITY
- D - SEDALIA DOWNTOWN
- HC - SEDALIA HIGHWAY COMMERCIAL
- MI - SEDALIA MIXED INDUSTRIAL
- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION
- NF - NATIONAL FOREST



FIELDS FILING 3

SB2024-068
AERIAL MAP

N

LEGEND

- PROJECT SITE
- MAJOR ROADS
- OTHER ROADS



Project Name: Fields Filing 3
Project File #: SB2024-068
Date Sent: 01/15/2025 **Date Due:** 02/12/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	01/21/2025	No Comment	Addresses will be provided at the time of building permits.
Assessor	01/21/2025	No Comment	No response necessary
AT&T Long Distance - ROW		No Response Received	No response necessary
Building Services	01/17/2025	No Comment	No response necessary
CenturyLink		No Response Received	No response necessary
Cherry Creek Basin Water Quality Authority	01/21/2025	Summary of Response: The Cherry Creek Basin Water Quality Authority (Authority) acknowledges the proposed development plans for SB2024-068, Fields Filing 3. 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. Reference referral letter for more information.	No response necessary. Public Works Engineering reviews detention and water quality for compliance with all standards.
Colorado Division of Water Resources	01/21/2025	Summary of Response: 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. 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 decree, pending actual geophysical data from the aquifer. 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. Reference referral letter for more information.	CDWR has stated that it is their opinion that the proposed water supply is adequate and can be provided without causing injury to decreed water rights.

Project Name: Fields Filing 3
Project File #: SB2024-068
Date Sent: 01/15/2025 **Date Due:** 02/12/2025

Agency	Date Received	Agency Response	Response Resolution
Colorado Geological Survey	02/11/2025	Summary of Response: The Geologic Hazards in Douglas County map (Soule, 1978) identifies the subject site as a "Moderate to High Erosion-Susceptibility Area" and "Potentially Unstable Slope". These hazards are generally associated with the steep slopes along Tallman Gulch, Long Outfall, and the small secondary drainages within lots 1 through 7 of Filing No. 3. Tallman Gulch and Long Outfall are shown on the final plat within a drainage easement, but the small secondary drainages are not affiliated with a designated easement. The building footprints and individual septic systems were not shown on the plat. CGS recommends that an erosional setback is established from the crest of the steeper slopes (30% or greater) associated with the secondary drainages to protect channel erosion and scour, undercutting, and slope failure. Provided erosional setbacks are established from the drainages /channels and clearly shown on the plat, CGS has no objection to the approval of the final plat for Filing No. 3. Reference referral letter for more information.	The applicant updated the final plat to include erosional setbacks along the drainageways and identified the requirements in plat note #13. Site specific geotechnical investigations will be required at the time of building permit. Engineering has reviewed and approved a grading, drainage, and erosion control plans for the channels and all lots within the subdivision.
Comcast		No Response Received	No response necessary
CORE Electric Cooperative	02/12/2025	Verbatim Response: Attached are our comments on Filing 3. The proposed fire truck staging area may conflict with the existing CORE powerline. Please provide grading provide under the power line. CORE requires a minimum 18'-6" ground clearance to the conductor. Also change the CORE prescriptive right to a 30-foot and 15-foot utility easement; that will combine the proposed 15-foot utility easement into one easement.	The applicant worked with CORE Electric to resolve their issues including verifying ground clearance and providing 30 feet easements.

Project Name: Fields Filing 3
Project File #: SB2024-068
Date Sent: 01/15/2025 **Date Due:** 02/12/2025

Agency	Date Received	Agency Response	Response Resolution
Crest View Estates HOA		No Response Received	No response necessary
Douglas County Conservation District		No Response Received	No response necessary
Douglas County Health Department	01/31/2025	Summary of Response: Water Service - Water will be provided by individual wells. The Colorado Division of Water Resources (DWR) is the agency that regulates well permitting. On-Site Wastewater Treatment System - 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. A permit for the installation and final approval of the OWTS is required. Fugitive Dust - Exposure to air pollution is associated with a number of health problems, the applicant shall contact the APCD, for more information. Reference referral letter for more information.	The applicant will obtain the necessary permits for well water and septic systems for each lot. No infrastructure construction is required for this plat that could result in fugitive dust impacts.
Douglas County School District RE 1	01/22/2025	Summary of Response: DCSD has calculated the amount of school site land dedication required for students generated by the proposal. A total of 7 students are expected from the development requiring a total land dedication requirement of 0.160-acres. Pursuant to Section 1004.05.3 of the DCSR, "The cash-in-lieu fee shall be equivalent to the full market value after completion of platting." Assuming the applicant agrees with the payment of these fee requirements, DCSD has no objection to approval of this application. Reference referral letter for more information.	Proposed condition #2 requires payment of school fees prior to first building permit.
Elbert County Community & Development Services		No Response Received	No response necessary

Project Name: Fields Filing 3
Project File #: SB2024-068
Date Sent: 01/15/2025 **Date Due:** 02/12/2025

Agency	Date Received	Agency Response	Response Resolution
Engineering Services	01/28/2025	Summary of Response: Engineering has reviewed the above referenced submittal and have redlined comments on the Final Plat, GESC Plan, and Water Plan. We cannot recommend approval of this final plat and/or construction plans until these comments have been addressed. Reference referral letter for more information.	Engineering reports, studies, and plans has been reviewed with only minor technical corrections remaining.
Evans Ranch Association		No Response Received	No response necessary
Hidden Village POA		No Response Received	No response necessary
Mile High Flood District		No Response Received	No response necessary
Misty Pines HOA		No Response Received	No response necessary
Office of Emergency Management		No Response Received	No response necessary
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	01/24/2025	Summary of Response: South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed final plat. Note 11 on sheet 1 of the final plat documents the conditions on which the alternate method for fire protection water supplies as proposed on the preliminary plan is accepted by SMFR for this plat. Reference referral letter for more information.	The applicant worked with SMFR to resolve their issues. The fire hydrant location has been approved and plat notes have been added. Any necessary permits will be obtained at the time of building permit.
Spirit Ridge HOA		No Response Received	No response necessary
Sterling Tree Farm HOA		No Response Received	No response necessary
The Pinery HOA	02/12/2025	Verbatim Response: The Pinery HOA has no issue with this request. Overall, we do not see any impact on our community with this development.	No response necessary
Town of Parker Development Review		No Response Received	No response necessary

Project Name: Fields Filing 3
Project File #: SB2024-068
Date Sent: 01/15/2025 **Date Due:** 02/12/2025

Agency	Date Received	Agency Response	Response Resolution
Town of Parker Public Works	01/29/2025	No Comment	No response necessary
Wildfire Mitigation	02/12/2025	Verbatim Response: No additional comments, wildfire mitigation is current and applies to the entire subdivision.	The applicant understands that the wildfire mitigation plan will be implemented prior to building permits.
Xcel Energy-Right of Way & Permits	02/04/2025	Summary of Response: Please be aware PSCo owns and operates existing natural gas distribution facilities along Chinook Trail, Flintwood Road, and Singing Hills. PSCo requests that the following language or plat note is placed on the preliminary and final plats for the subdivision: The utility 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 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. Reference referral letter for more information.	A note has been added to the final plat which captures the dedication requirements and construction restrictions within the easements.

COLORADO GEOLOGICAL SURVEY

1801 Moly Road
Golden, Colorado 80401

Matthew L. Morgan
State Geologist

February 11, 2025

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

Location:
E½ Section 5;
T7S, R65W of the 6th P.M.
39.4709, -104.6935

Subject: **The Fields Filing No. 3 Final Plat**
Project Number: SB2024-068; Douglas County, CO; DU-23-0003

Dear Heather:

At your request (email, January 15, 2025), the Colorado Geological Survey has reviewed the Fields Filing No. 3 referral to subdivide 297.45 acres into 7 single-family lots and 21.7 acres of right-of-way. With this referral, we received the Narrative (Rick Engineering, January 9, 2025), Final Plat (Rick Engineering, November 6, 2024), Grading Plan (Rick Engineering, November 8, 2024), and Drainage Letter (Rick Engineering, November 5, 2024). CGS previously reviewed the Preliminary Subsurface Soil Investigation (Rocky Mountain Group (RMG), January 24, 2022) under the preliminary plan submittal.

The Geologic Hazards in Douglas County map (Soule, 1978) identifies the subject site as a "Moderate to High Erosion-Susceptibility Area" and "Potentially Unstable Slope". These hazards are generally associated with the steep slopes along Tallman Gulch, Long Outfall, and the small secondary drainages within lots 1 through 7 of Filing No. 3.

Tallman Gulch and Long Outfall are shown on the final plat within a drainage easement, but the small secondary drainages are not affiliated with a designated easement. The building footprints and individual septic systems were not shown on the plat. CGS recommends that an erosional setback is established from the crest of the steeper slopes (30% or greater) associated with the secondary drainages to protect structures and improvements from channel erosion and scour, undercutting, and slope failure. Setback lines (or drainage easements) should be clearly shown on the plat and development plans. The lots are large enough (35+ acres) that it should be feasible to avoid the steeper slopes and drainages. Additionally, drainage gullies should be properly filled and compacted in accordance with RMG's recommendations.

Provided erosional setbacks are established from the drainages/channels and clearly shown on the plat, CGS has no objection to the approval of the final plat for Filing No. 3.

Thank you for the opportunity to review and comment on this project. If you have questions or require further review, please call me at 303-384-2632 or email acrandall@mines.edu.

Sincerely,

Amy Crandall

Amy Crandall, P.E.
Engineering Geologist

From: Brooks Kaufman
To: Kristofer Carlstedt
Cc: Troy Bales; Heather Scott
Subject: RE: Fields Filing No. 3 -SB2024-068- 3rd Submittal
Date: Tuesday, May 6, 2025 8:22:37 AM
Attachments: image003.png
image004.png
image005.png
image006.png
image007.png
image008.png
image009.png
image010.png

Kristofer

CORE has no additional comments and approves the plat.

Thanks

Brooks Kaufman
Lands and Rights of Way Manager

800.332.9540 **MAIN**
720.733.5493 **DIRECT**
303.912.0765 **MOBILE**

www.core.coop.





Book time to meet with me

From: Kristofer Carlstedt <kcarlstedt@rickengineering.com>
Sent: Friday, May 2, 2025 2:35 PM
To: Brooks Kaufman <BKaufman@core.coop>
Cc: Troy Bales <tbales@rickengineering.com>; Heather Scott <hscott@douglas.co.us>
Subject: FW: Fields Filing No. 3 -SB2024-068- 3rd Submittal

[CAUTION:] This email is from an external source. Avoid clicking links or opening attachments unless you trust the sender and verify the content's safety.

Brooks,

With this email we are providing you the next submittal of the Fields Filing 3 project. At this link you will find our submittal. I know we have worked out the easement and review to approvals from you. This submittal shows the resulting plat with included CORE easement. Please review and let me know if you have any questions, thank you.

Kristofer Carlstedt PE
ASSOCIATE

RICK

5690 Webster St, Arvada, C0 80002
P 603-423-6036 | D 303-403-2427
rickengineering.com

From: Brooks Kaufman
To: Kristofer Carlstedt
Subject: RE: Fields Filing #3 Overhead Powerline
Date: Friday, March 28, 2025 11:40:55 AM
Attachments: image003.png
image004.png
image005.png
image006.png
image007.png
image008.png
image009.png
image010.png

Kristofer

CORE approves your calculations.

Brooks Kaufman
Lands and Rights of Way Manager

800.332.9540 **MAIN**
720.733.5493 **DIRECT**
303.912.0765 **MOBILE**

www.**core**.coop.





Book time to meet with me

From: Kristofer Carlstedt <kcarlstedt@rickengineering.com>
Sent: Thursday, March 27, 2025 4:44 PM
To: Brooks Kaufman <BKaufman@core.coop>
Subject: Fields Filing #3 Overhead Powerline

[CAUTION:] This email is from an external source. Avoid clicking links or opening attachments unless you trust the sender and verify the content's safety.

Brooks,

We surveyed the powerline that you had concerns about the runs over our fire truck turn around on our Fields Filing 3 project. See your comments and our exhibit showing results attached.

We show that at the edge of our gravel turn around the lowest line on the poles will be at about 20.5 ft above the proposed gravel pad. We have taken a look at the potential sag on a hot day (survey taken at 25F) and we think there is about 4in of sag potential which would still result in 18.5ft+ clearance. We wanted to check with you to see if you have a different opinion on potential sage for this line, in the past we have had other agencies that provided their determination on sag.

Here are submittal doc that you reviewed for reference:
20250110_Filing3_2ndSubmittal

Kristofer Carlstedt PE
ASSOCIATE

5690 Webster St, Arvada, C0 80002
P 603-423-6036 | D 303-403-2427
rickengineering.com

From:	Brooks Kaufman
To:	Kristofer Carlstedt
Cc:	Troy Bales; Heather Scott
Subject:	RE: Fields Development Filing 3 - Second submittal
Date:	Wednesday, February 12, 2025 7:13:46 AM
Attachments:	image002.png image003.png image004.png image005.png image006.png image007.png image010.png image011.png image012.png image013.png CORE COMMENTS SB2024-068 Grading, Roadway & Drainage Plan 2-12-25.pdf CORE COMMENTS SB2024-068 Final Plat 2-12-25.pdf

---

Kristofer

Attached are our comments on Filing 3. The proposed fire truck staging area may conflict with the existing CORE powerline. Please provide grading provide under the power line. CORE requires a minimum 18'-6" ground clearance to the conductor.

Also change the CORE prescriptive right to a 30-foot and 15-foot utility easement; that will combine the proposed 15-foot utility easement into one easement.

Respectfully

Brooks Kaufman
Lands and Rights of Way Manager

800.332.9540 **MAIN**
720.733.5493 **DIRECT**
303.912.0765 **MOBILE**

www.core.coop.

ELECTRIC COOPERATIVE

The Energy to Thrive™

Book time to meet with me

From: Kristofer Carlstedt <kcarlstedt@rickengineering.com>
Sent: Friday, February 7, 2025 7:13 AM
To: Brooks Kaufman <BKaufman@core.coop>
Cc: Troy Bales <tbales@rickengineering.com>; Heather Scott <hscott@douglas.co.us>

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 1 OF 6

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018.

–THE NORTHEAST CORNER OF SAID SECTION 5 BEING A #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5 BEING A #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,640.45 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 5 BEING A 3.5" ALUMINUM CAP ON PIPE PLS 35585 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019;

THENCE ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER SOUTH 89°34'33" WEST, A DISTANCE OF 1,889.93 FEET;

THENCE NORTH 00°33'09" EAST, A DISTANCE OF 551.58 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018;

THENCE ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,957,113 SQUARE FEET OR 297.454 ACRES, MORE OR LESS.

DEDICATION STATEMENT

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED AND PLATTED SAID LANDS INTO LOTS, TRACTS, STREETS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF FIELDS FILING 3. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND CABLE COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES 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. HILLTOP ROAD, SINGING HILLS ROAD AND FLINTWOOD ROAD RIGHTS–OF–WAY ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO, IN FEE SIMPLE ABSOLUTE, WITH MARKETABLE TITLE, FOR PUBLIC USES AND PURPOSES. UTILITY EASEMENTS, DRAINAGE AND BLANKET ACCESS EASEMENTS SHOWN HEREON ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO FOR PUBLIC USE AND PURPOSE.

OWNER: WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

BY:_____

_____ AS _____ OF WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

STATE OF _____)
) SS
COUNTY OF _____)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

TITLE VERIFICATION

WE _____, DO HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE OF ALL LAND PLATTED HEREON AND THAT TITLE TO SUCH LAND IS IN THE DEDICATOR(S) FREE AND CLEAR OF ALL LIENS, TAXES AND ENCUMBRANCES.

_____

BY: _____ _____

TITLE: _____

STATE OF _____)
) SS
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

GENERAL NOTES

1.) THE LINEAL UNITS USED ON THIS PLAT ARE U.S. SURVEY FEET. ALL BEARINGS SHOWN HEREON ARE IN DEGREES–MINUTES–SECONDS.

2.) ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT, LAND SURVEY BOUNDARY MONUMENT, OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18–4–508, C.R.S.

3.) NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

4.) COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NUMBER 450–HS0834885–412, AMENDMENT NO. 1, EFFECTIVE DATE OCTOBER 28, 2024 AT 12:00 A.M. WAS ENTIRELY RELIED UPON FOR RECORDED RIGHTS–OF–WAY, EASEMENTS AND ENCUMBRANCES IN THE PREPARATION OF THIS SURVEY.

5.) RICK ENGINEERING COMPANY HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS, RECORDED/UNRECORDED, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

6.) ALL LOT CORNER MONUMENTS SHALL BE SET PER COLORADO STATE STATUTE 38–51–105.

7.) BASIS OF BEARINGS: NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5, BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN MONUMENTS AS SHOWN ON THIS PLAT.

8.) ACCESS EASEMENTS AS SHOWN HEREON ARE FOR THE USE BY THE ADJOINING LOT OWNERS AND THEIR INVITEES. MAINTENANCE IS THE RESPONSIBILITY OF THE LOT OWERS ADJOINING THE ACCESS EASEMENT.

9.) 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, COUNTER–FORTS, 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. PROHIBITED IMPROVEMENTS MAY BE REMOVED BY THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES. THE OWNERS OF THE PROPERTY SUBJECT TO OR ADJACENT TO THE UTILITY EASEMENTS SHOWN HEREIN ARE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF SUCH AREAS, WHICH DOES NOT INCLUDE UTILITY LINES AND RELATED FACILITIES. WHEN THE OWNER(S) OR ADJACENT OWNERS FAIL TO ADEQUATELY MAINTAIN SUCH UTILITY EASEMENTS, INCLUDING THE REMOVAL OF PROHIBITED IMPROVEMENTS, THE MAINTENANCE, OPERATION, RECONSTRUCTION AND REMOVAL SHALL BE AT THE COST OF THE OWNER(S). THE UTILITY EASEMENTS AS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES, CABLE COMMUNICATION SYSTEMS FIBER AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES 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.

10.) DRAINAGE EASEMENTS ARE HEREBY GRANTED TO DOUGLAS COUNTY ACROSS FIELDS FILING NO. 3 FOR THE PURPOSE OF PROTECTING THE NATURAL DRAINAGE COURSES FROM ANY DISTURBANCE TO ALLOW THESE COURSES TO REMAIN IN AN EXISTING NATURAL STATE. WITH DOUGLAS COUNTY APPROVAL, THE DRAINAGE EASEMENTS ALLOW FOR ACCESS, MAINTANENCE, AND STORMWATER MANAGEMENT IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES.

11.) ALL DWELLING AND ACCESSORY DWELLING UNITS ON THIS PLAT SHALL HAVE APPROVED FIRE SPRINKLER SYSTEMS AND THAT APPROVED FIRE PROTECTION WATER SUPPLIES ARE TO BE INSTALLED PRIOR TO ISSUANCE OF PERMITS FOR VERTICAL CONSTRUCTION OF STRUCTURES.

12.) NO FURTHER SUBDIVISION TO ESTABLISH ADDITIONAL LOTS WITHOUT A PRELIMINARY PLAN OR MINOR DEVELOPMENT PLAT.

BOARD OF COUNTY COMMISSIONERS

THIS PLAT WAS APPROVED FOR FILING BY THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, COLORADO ON THE _____ DAY OF _____, 20____, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON. THE DEDICATIONS OF UTILITY EASEMENTS, PRIMARY AND SECONDARY DRAINAGE EASEMENTS, RIGHT–OF–WAY DEDICATIONS FOR SINGING HILLS ROAD, AND FLINTWOOD ROAD ARE HEREBY ACCEPTED.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR ALL UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTER, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES, AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT DOUGLAS COUNTY.

THIS ACCEPTANCE DOES NOT GUARANTEE THAT SOIL 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.

_____
CHAIR, BOARD OF COUNTY COMMISSIONERS

LAND USE TABLE

	AREA (SQ. FT.±)	AREA (ACREAGE±)	%OF TOTAL LAND USE±
LOTS	12,011,801	275.753	92.7%
R.O.W.	945,296	21.701	7.3%
TOTAL	12,957,097	297.454	100.0%

SHEET INDEX

SHEET 1 COVER SHEET

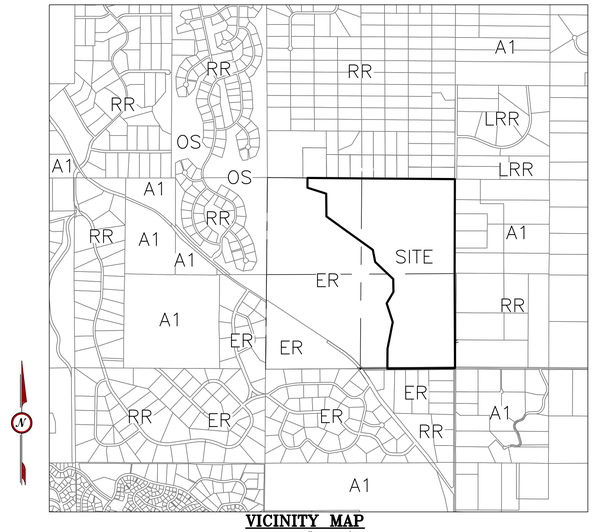
SHEET 2 CONTROL

SHEET 3 NORTHERLY LOT DETAILS, ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 4 SOUTHERLY LOT DETAILS ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 5 DRAINAGE & PRESCRIPTIVE UTILITY EASEMENTS, NORTHERLY LOTS

SHEET 6 DRAINAGE & PRESCRIPTIVE UTILITY EASEMENTS, NORTHERLY LOTS



VICINITY MAP
SCALE: 1"=2000'

PLANNING COMMISSION CERTIFICATE

THE PRELIMINARY PLAN SB2022–036 FOR THIS FINAL PLAT WAS REVIEWED BY THE PLANNING COMMISSION ON NOVEMBER 7, 2023.

_____ _____
PLANNING DIRECTOR, ON BEHALF OF THE PLANNING COMMISSION DATE

SURVEYOR'S CERTIFICATE

I ROBERT J. HENNESSY, 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 ON THE 30TH DAY OF MARCH, 2022, 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 (SECOND ORDER); 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 APPLICABLE PROVISIONS OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION. THIS CERTIFICATION IS BASED ON MY KNOWLEDGE, INFORMATION, AND BELIEF AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESS OR IMPLIED.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____, 20_____.

PRELIMINARY FOR REVIEW

_____
ROBERT J. HENNESSY, COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR #34580
FOR AND ON BEHALF OF RICK ENGINEERING COMPANY

DOUGLAS COUNTY CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO
COUNTY OF DOUGLAS

I HEREBY CERTIFY THAT THIS PLAT WAS FILED IN MY OFFICE ON THIS _____ DAY OF _____, 20_____ A.D., AT _____ AM / PM, AND WAS RECORDED AT RECEPTION NUMBER _____.

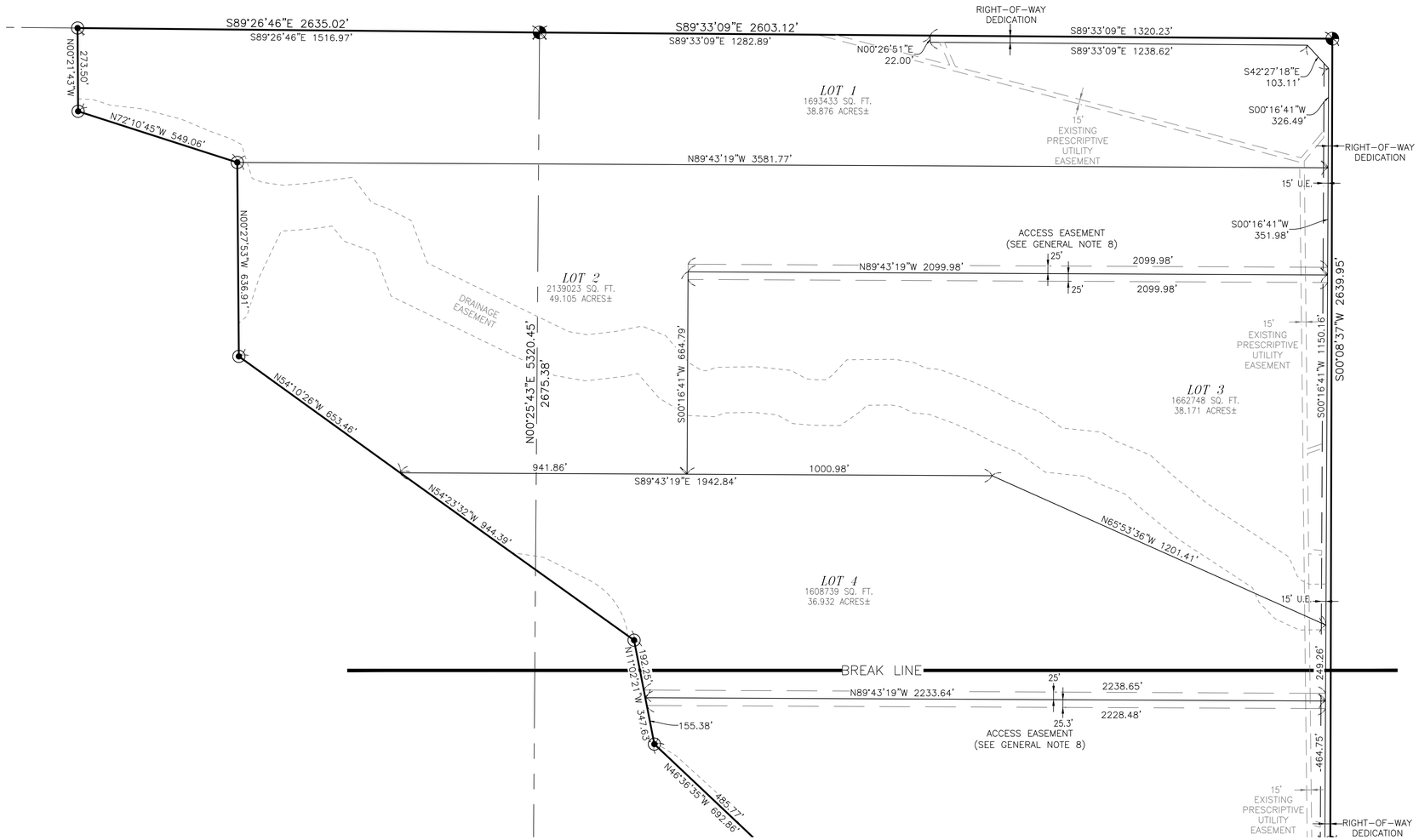
_____
DOUGLAS COUNTY CLERK AND RECORDER

RICK
303-423-6036
rickengineering.com
5690 WEBSTER STREET
ARVADA, CO 80002
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

C:\RICK\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1–8–25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 3 OF 6



LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- U.E.=UTILITY EASEMENT

303-423-6036
rickengineering.com
5690 WEBSTER STREET
ARVADA, CO 80002
RICK
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

FIELDS FILING 3

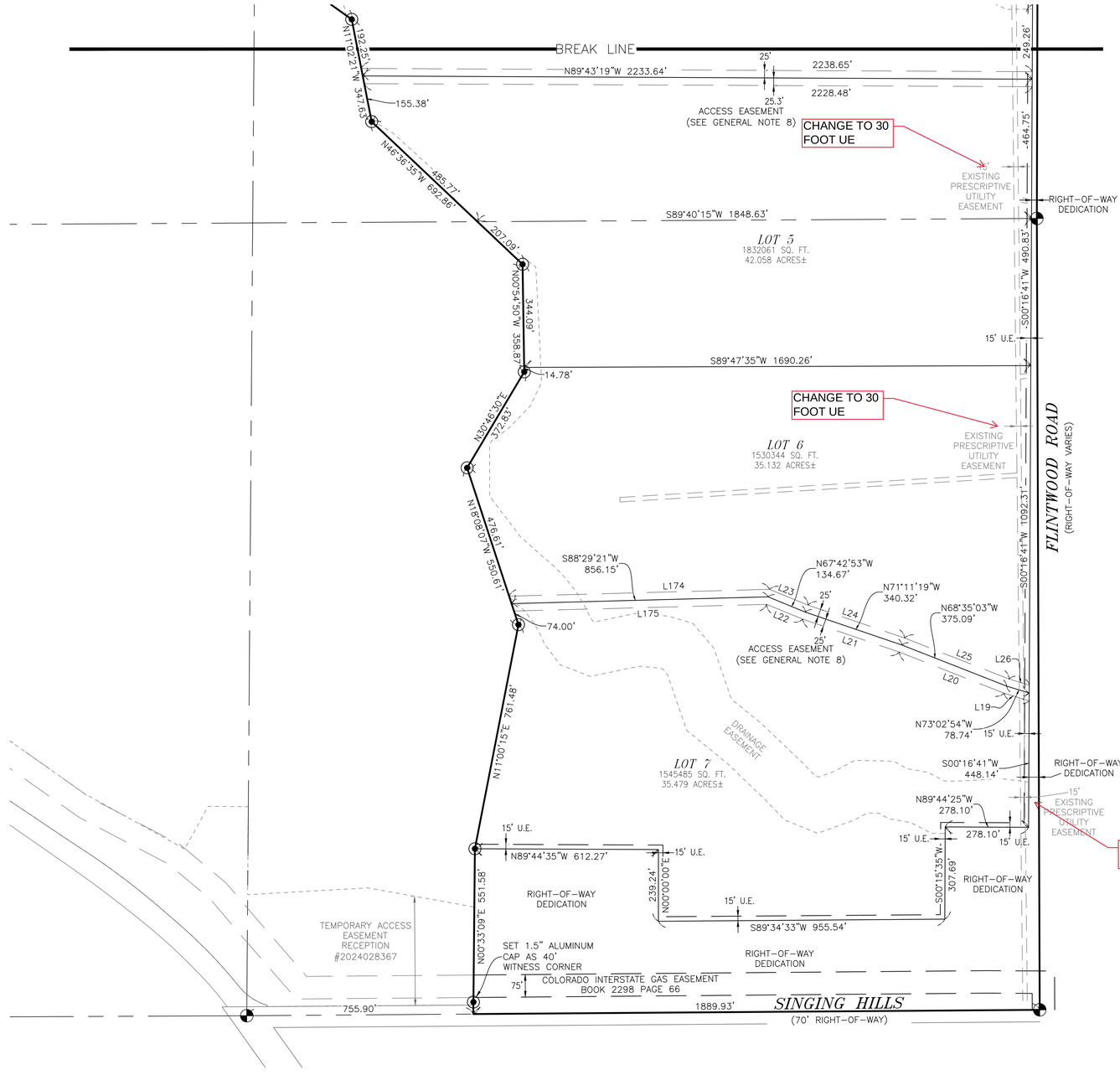
LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 4 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'



LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	868.88'	N88°29'21"W
L175	843.42'	S88°29'21"W

LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- U.E.=UTILITY EASEMENT

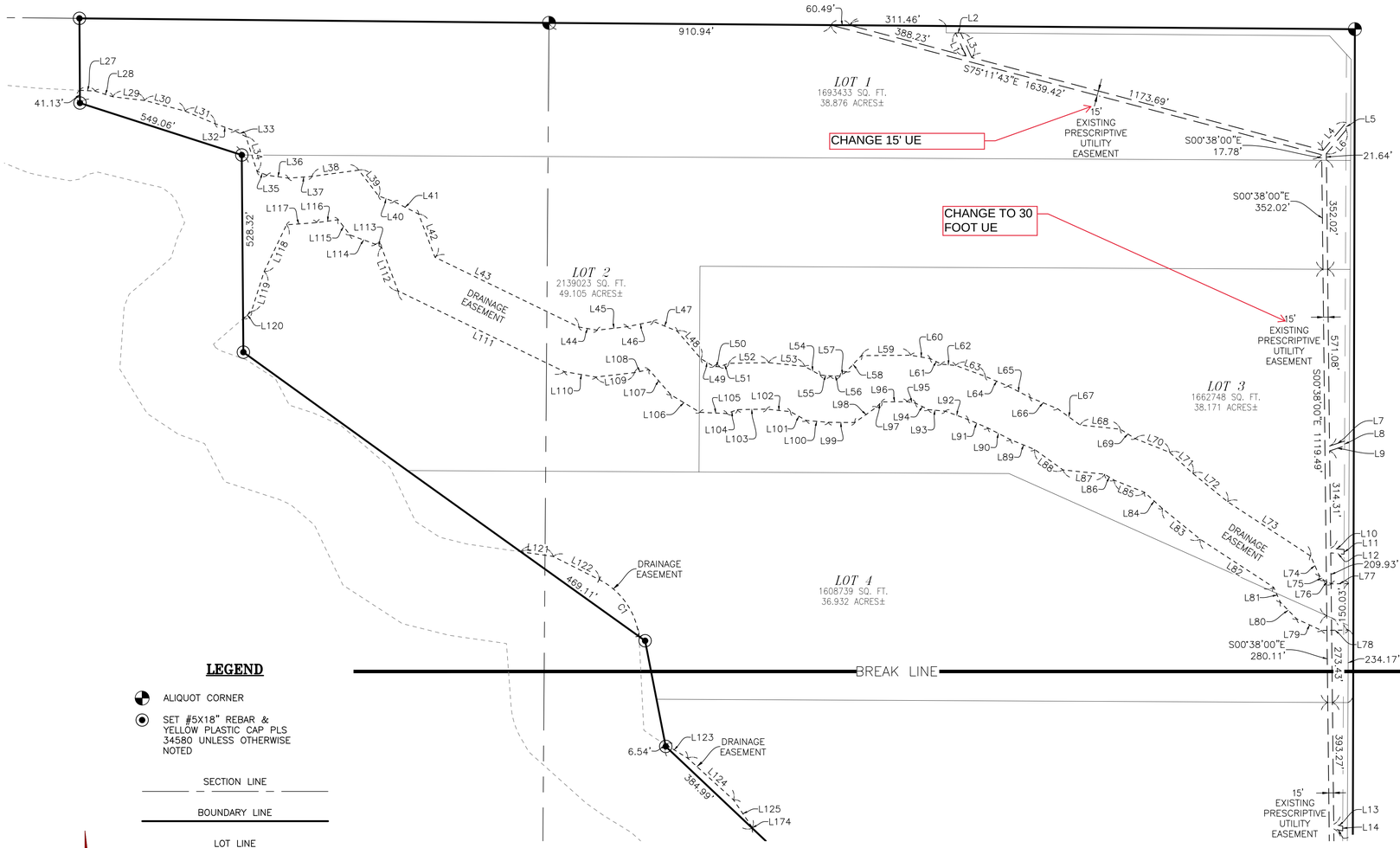
200 0 100 200 400
ORIGINAL SCALE: 1"= 200' HORIZ.

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SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 5 OF 6



LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- DRAINAGE EASEMENT
- U.E.=UTILITY EASEMENT

200 0 100 200 400
ORIGINAL SCALE: 1"= 200' HORIZ.

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	868.88'	N88°29'21"E
L175	843.42'	S88°29'21"W

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'

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FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 6 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

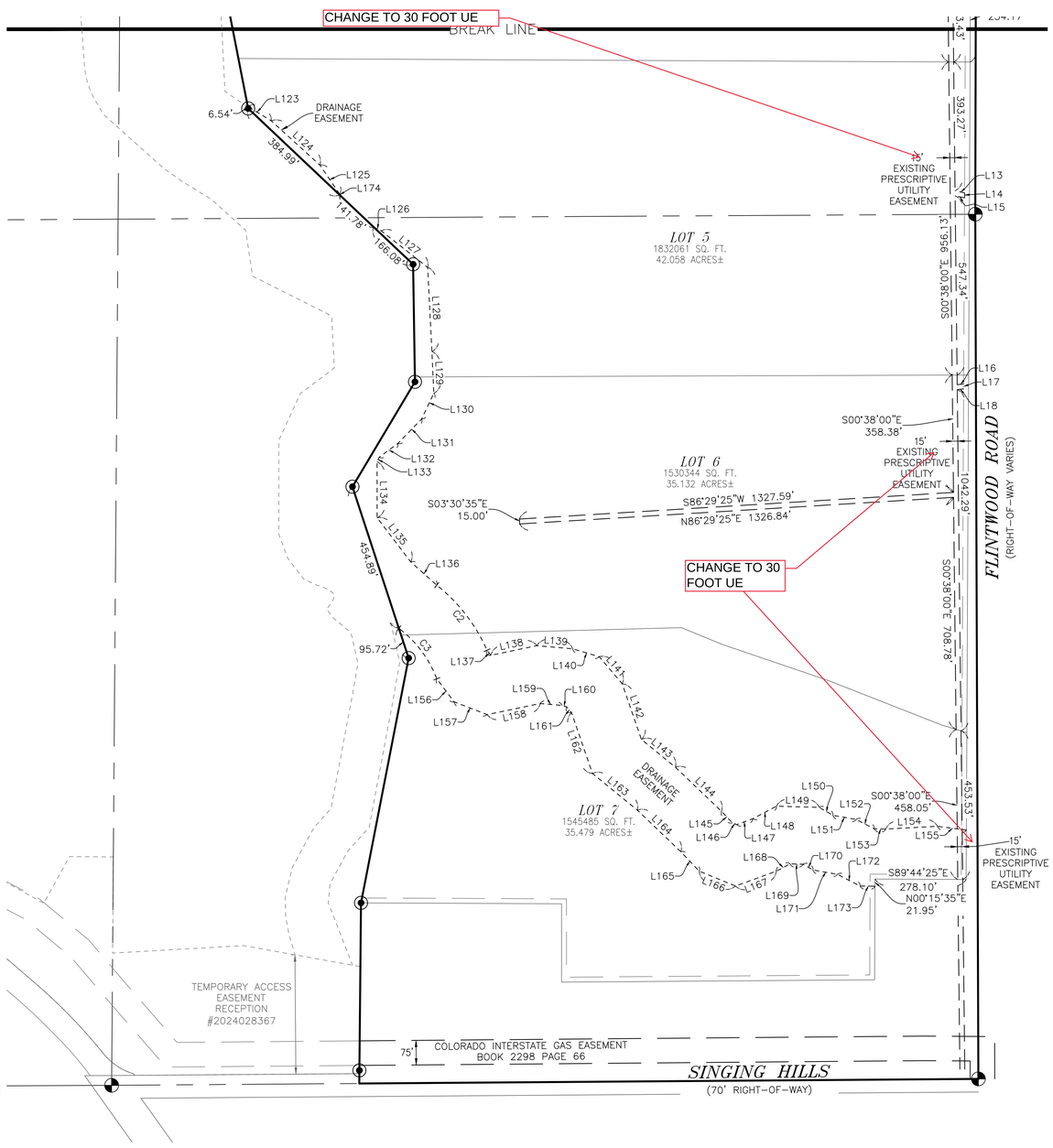
LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

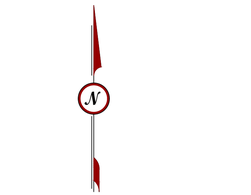
LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	868.88'	N88°29'21"E
L175	843.42'	S88°29'21"W

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'





200 0 100 200 400

ORIGINAL SCALE: 1"= 200' HORIZ.

LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- DRAINAGE EASEMENT
- U.E.=UTILITY EASEMENT

RICK

303-423-6036
rickengineering.com

5690 WEBSTER STREET
ARVADA, CO 80002

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

PROJECT TEAM

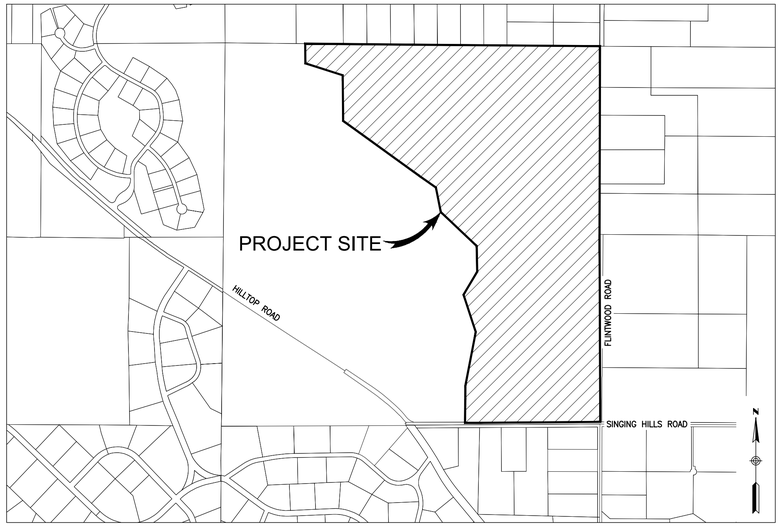
OWNER
WALDEN – HILL TOP, LLC
8678 CONCORD CENTER DR, UNIT 200
ENGLEWOOD, CO 80112
CONTACT: TOM CLARK
PH: 303-346-7006

APPICANT / DEVELOPER
HILLTOP BROTHERS, LLC
8678 CONCORD CENTER DR, UNIT 200
ENGLEWOOD, CO 80112
CONTACT: TOM CLARK
PH: 303-346-7006

ENGINEER
RICK
8678 CONCORD CENTER, UNIT 200
ENGLEWOOD, CO 80112
ATTN: TROY BALES
PH: 303.537.8020

SURVEYOR
RICK
5690 WEBSTER
ARVADA, CO 80002
ATTN: ROBERT HENNESSY
PH: 303.423.6036

AGENCIES
DOUGLAS COUNTY COMMUNITY DEVELOPMENT DEPT
PLANNING DEVELOPMENT DIVISION
100 THIRD ST
CASTLE ROCK, CO 80104
CONTACT:
PH: HEATHER SCOTT



VICINITY MAP
SCALE: 1"=1,000'

SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
01	CV-01	COVER SHEET
02	GN-01	GENERAL NOTES
03	OV-01	OVERALL SITE PLAN
04	SP-01	DETAILED SITE PLAN
05	GRD-01	GRADING PLAN

WORK TO BE DONE:

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF PAD GRADING, EROSION CONTROL, FIRE HYDRANT, & BOLLARD INSTALLATION. ACCORDING TO THE FOLLOWING PLANS, SPECIFICATIONS AND STANDARD DRAWINGS OF DOUGLAS COUNTY, COLORADO.

STANDARDS AND SPECIFICATIONS
- DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
- DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA MANUAL (2018)
- DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL (2019)
- MILE HIGH FLOOD DISTRICT CRITERIA MANUAL VOLUMES 1 (2024), 2 (2017), & 3 (2024)

LEGEND

OVERALL BOUNDARY		EXIST CONTOUR (MINOR)	5400
RIGHT OF WAY LINE		EXIST CONTOUR (MAJOR)	5400
LOT LINE		PROP CONTOUR (MINOR)	
SETBACK (HILLTOP RD)		PROP CONTOUR (MAJOR)	5400
SUBDIVISION FENCE		DAYLIGHT LINE	
EXIST BARBED WIRE FENCE	X	ULTIMATE HILLTOP RD	
EXIST FIBER OPTIC	FO	EXIST EASEMENT	
EXIST GAS LINE	G	PROPOSED FIRE HYDRANT	
EXIST HIGH PRESSURE GAS LINE	HPG	EXISTING ASPHALT	
EXIST TELEPHONE	T	PROPOSED GRAVEL PAVEMENT	
EXIST WATERLINE	W	EXISTING GRAVEL SHOULDER	

ABBREVIATIONS

BEGIN CURVE	BC
BEGIN VERTICAL CURVE STATION	BVCS
BEGINNING OF VERTICAL CURVE ELEVATION	BVCE
CENTERLINE	CL
END CURVE	EC
END VERTICAL CURVE STATION	EVCS
END VERTICAL CURVE ELEVATION	EVCE
EXISTING GRADE	EG
FINISHED GRADE	FG
FINISHED SURFACE	FS
FLOW LINE	FL
GRADE BREAK	GB
HIGH POINT	HP
INVERT	INV
LOW POINT	LP
POINT OF CURB RETURN	PCR
POINT OF VERTICAL CURVE INTERSECTION	PVI
PROPERTY LINE	PL
STORM STRUCTURE	SD

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 5 BEING ASSUMED TO BEAR SOUTH 89°43'54" WEST, A DISTANCE OF 2586.03 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE SOUTHWEST CORNER OF SECTION 5 BEING A FOUND #6 REBAR AND 3.25" ALUMINUM CAP PLS 16154 MATCHING MONUMENT RECORD FILED 2/8/2001.

–THE SOUTH QUARTER CORNER OF SECTION 5 BEING A FOUND 3.5" ALUMINUM CAP PLS 35585 IN RANGE BOX MATCHING MONUMENT RECORD FILED 8/25/2003.

BEGINNING AT SAID SOUTHWEST CORNER;

THENCE ALONG THE WEST LINE OF SAID SOUTHWEST QUARTER NORTH 00°35'02" EAST, A DISTANCE OF 1,887.71 FEET;

THENCE SOUTH 55°49'43" EAST, A DISTANCE OF 151.27 FEET;

THENCE SOUTH 56°50'01" EAST, A DISTANCE OF 249.55 FEET;

THENCE SOUTH 57°02'23" EAST, A DISTANCE OF 200.17 FEET;

THENCE SOUTH 56°38'56" EAST, A DISTANCE OF 240.99 FEET;

THENCE SOUTH 56°51'26" EAST, A DISTANCE OF 311.64 FEET;

THENCE SOUTH 57°16'15" EAST, A DISTANCE OF 292.22 FEET;

THENCE SOUTH 57°10'50" EAST, A DISTANCE OF 328.49 FEET;

THENCE SOUTH 57°12'15" EAST, A DISTANCE OF 229.95 FEET;

THENCE SOUTH 56°36'57" EAST, A DISTANCE OF 33.03 FEET TO THE EXISTING RIGHT-OF-WAY OF HILLTOP ROAD;

THENCE ALONG THE WESTERLY AND SOUTHERLY LINES OF SAID RIGHT-OF-WAY THE FOLLOWING NINE (9) COURSES AND DISTANCES;

1. THENCE SOUTH 34°18'52" WEST, A DISTANCE OF 29.45 FEET;
2. THENCE SOUTH 55°07'41" EAST, A DISTANCE OF 422.36 FEET;
3. THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 3,850.00 FEET, A CENTRAL ANGLE OF 04°04'27", WHOSE CHORD BEARS SOUTH 53°05'28" EAST A DISTANCE OF 273.71 FEET, FOR AN ARC DISTANCE OF 273.76 FEET;
4. THENCE SOUTH 51°03'14" EAST, A DISTANCE OF 42.96 FEET;
5. THENCE ALONG A NON-TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 1,792.11 FEET, A CENTRAL ANGLE OF 06°12'06", WHOSE CHORD BEARS SOUTH 47°57'12" EAST A DISTANCE OF 193.88 FEET, FOR AN ARC DISTANCE OF 193.98 FEET;
6. THENCE ALONG A LINE NON-TANGENT TO SAID CURVE, SOUTH 44°34'21" EAST, A DISTANCE OF 47.13 FEET;
7. THENCE ALONG A NON-TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 1,020.10 FEET, A CENTRAL ANGLE OF 08°21'25", WHOSE CHORD BEARS SOUTH 40°28'36" EAST A DISTANCE OF 148.66 FEET, FOR AN ARC DISTANCE OF 148.79 FEET;
8. THENCE ALONG A LINE NON-TANGENT TO SAID CURVE, SOUTH 89°34'25" WEST, A DISTANCE OF 17.15 FEET;
9. THENCE SOUTH 35°30'44" EAST, A DISTANCE OF 36.45 FEET TO THE SOUTH LINE OF SAID SOUTHWEST QUARTER;

THENCE ALONG SAID SOUTH LINE SOUTH 89°43'54" WEST, A DISTANCE OF 2,586.03 FEET TO THE POINT OF BEGINNING.

CONTAINING 2,633,290 SQUARE FEET OR 60.452 ACRES, MORE OR LESS.

SITE BENCHMARK AND BASIS OF BEARING

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS:
NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35'
TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

BASIS OF BEARING:
BEARINGS ARE BASED ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5, BEING ASSUMED TO BEAR SOUTH 00°08'37" WEST, A DISTANCE OF 2639.95 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTHEAST CORNER OF SECTION 5 BEING A FOUND #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

–THE EAST QUARTER CORNER OF SECTION 5 BEING A FOUND #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG SAID EAST LINE OF THE NORTHEAST QUARTER SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,031.53 FEET;

THENCE NORTH 89°44'25" WEST, A DISTANCE OF 313.20 FEET;

THENCE SOUTH 00°15'35" WEST, A DISTANCE OF 307.69 FEET;

THENCE SOUTH 89°34'33" WEST, A DISTANCE OF 955.54 FEET;

THENCE NORTH 00°00'00" EAST, A DISTANCE OF 239.24 FEET;

THENCE NORTH 89°44'35" WEST, A DISTANCE OF 612.27 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5;

THENCE ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,136,166 SQUARE FEET OR 278.608 ACRES, MORE OR LESS.

ENGINEER'S CERTIFICATION

THESE CONSTRUCTION PLANS FOR TRAILS WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE DOUGLAS COUNTY'S ROADWAY DESIGN AND CONSTRUCTION STANDARDS, STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA, AND THE GRADING, EROSION AND SEDIMENT CONTROL MANUAL.

TROY BALES, PE 50961
RICK ENGINEERING COMPANY

NOTES

1. DOUGLAS COUNTY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE STRUCTURES AND PIPES FOR THE PRIVATE ROAD

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 07/31/2024 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

COVER SHEET

Know what's below. Call before you dig.

DRAWING NO.
CV-01
SHEET NO. 01 OF 05

1ST SUBMITTAL

GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

DOUGLAS COUNTY STANDARD NOTES:

1. THE DOUGLAS COUNTY ENGINEERING DIRECTOR SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND THE DOUGLAS COUNTY SUBDIVISION RESOLUTION OR ACCEPTED VARIANCES TO THOSE REGULATIONS. THE DOUGLAS COUNTY ENGINEERING DIRECTOR, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.

2. ALL CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY STANDARDS. ANY CONSTRUCTION NOT SPECIFICALLY ADDRESSED BY THESE PLANS AND SPECIFICATIONS WILL BE BUILT IN COMPLIANCE WITH THE LATEST EDITION OF THE MOST STRINGENT OF THE FOLLOWING:
   - THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - THE COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   - THE COLORADO DEPARTMENT OF TRANSPORTATION M STANDARDS

3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION AS APPLICABLE. THE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.

4. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING INSPECTION DIVISION, 303-660-7487, A MINIMUM OF 24-HOURS AND A MAXIMUM OF 72-HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY ENGINEERING INSPECTION WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY THAT WILL BE CONVEYED TO THE COUNTY, URBAN DRAINAGE & FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATERS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY THE ENGINEERING INSPECTION DIVISION TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITY/INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE.

5. CONSTRUCTION WILL NOT BEGIN UNTIL ALL APPLICABLE PERMITS HAVE BEEN ISSUED. IF A DOUGLAS COUNTY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITTEE MAY COMMENCE WORK IN THE INSPECTOR'S ABSENCE. HOWEVER, DOUGLAS COUNTY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION.

6. THE LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION CONTACT: COLORADO 811, AT 1-800-922-1987 (WWW.COLORADO811.ORG).

7. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF THE PLANS SIGNED BY THE DOUGLAS COUNTY ENGINEERING DIRECTOR, ONE (1) COPY OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS, AS AMENDED, AND ALL APPLICABLE PERMITS AT THE JOB SITE AT ALL TIMES.

8. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO DOUGLAS COUNTY FOR ACCEPTANCE WITH THE RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT APPLICATION. A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN ACCEPTED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.

9. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF COUNTY ACCEPTANCE, AFTER WHICH TIME THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.

10. DOUGLAS COUNTY STANDARD DETAILS SHALL NOT BE MODIFIED. ANY NON-STANDARD DETAILS WILL BE CLEARLY IDENTIFIED AS SUCH.

11. PAVING, INCLUDING CONSTRUCTION OF CURB AND GUTTER (WHEN USED), SHALL NOT START UNTIL A PAVEMENT DESIGN REPORT AND SUBGRADE COMPACTION TESTS ARE ACCEPTED BY THE ENGINEERING INSPECTION DIVISION FOR ALL PUBLIC AND PRIVATE ROADS.

12. STANDARD DOUGLAS COUNTY HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT MID-BLOCK LOCATIONS OPPOSITE OF ONE OF THE CURB RETURNS OF ALL "T" INTERSECTIONS AS IDENTIFIED ON THESE PLANS.

13. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.

14. ALL ELEVATIONS ARE ON UNITED STATES COAST AND GEODETIC SURVEY (USC&GS) (NAVD-88) DATUM WITH DATE. THE RANGE POINT OR MONUMENTS SHALL BE SHOWN ON CONSTRUCTION DRAWINGS.

15. ALL STORM SEWER IMPROVEMENTS (PUBLIC AND PRIVATE) INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES REQUIRE PERMITTING AND INSPECTIONS. PLEASE CONTACT THE DOUGLAS COUNTY ENGINEERING INSPECTIONS DIVISION AT 303- 660-7487 FOR PERMITTING REQUIREMENTS AND INSPECTIONS SCHEDULING.

16. TWO (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE "R" CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH.

17. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.

18. DOUGLAS COUNTY REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.

19. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.

20. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.

21. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTION OF AN RCP OUTFALL.

22. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.

23. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS.

24. FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP PADS.

25. THE PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF COLORADO, SIGNING THESE PLANS IS RESPONSIBLE FOR ENSURING THAT THE DETAILS INCLUDED ARE COMPATIBLE WITH THE STANDARDDOUGLAS COUNTY DETAILS CONTAINED IN THE LATEST VERSIONS OF THE CRITERIA MANUALS. THIS INCLUDES, BUT IS NOT LIMITED TO:
   - DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA
   - DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA
   - CDOT M & S STANDARDS
   - MUTCD
   - URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1,2 & 3

27. A TEMPORARY CONSTRUCTION ACCESS PERMIT FROM DOUGLAS COUNTY MAY BE REQUIRED FOR ANY PROJECT.

RICK ENGINEERING COMPANY NOTES:

1. ANY QUESTION RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL UTILITIES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 303-537-8020. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (TEMPORARY EROSION CONTROL BMPS) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATIONS IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.

5. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE AND ELECTRIC CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER AND/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM SAME.

7. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.

8. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.

9. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.

10. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.

11. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ABOVE-NAMED SPECIFICATIONS.

12. ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION.

13. IN THE CASE OF A CONFLICT BETWEEN THESE NOTES AND THOSE OF DOUGLAS COUNTY, THE DOUGLAS COUNTY NOTES SHALL TAKE PRECEDENCE.

BENCHMARK NOTE:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS: NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35' TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP (LAT. N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

_____
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

_____
DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rick-engineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 11/08/2024 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

GENERAL NOTES

Know what's below. Call before you dig.

DRAWING NO.
GN-01
SHEET NO. 02 OF 05

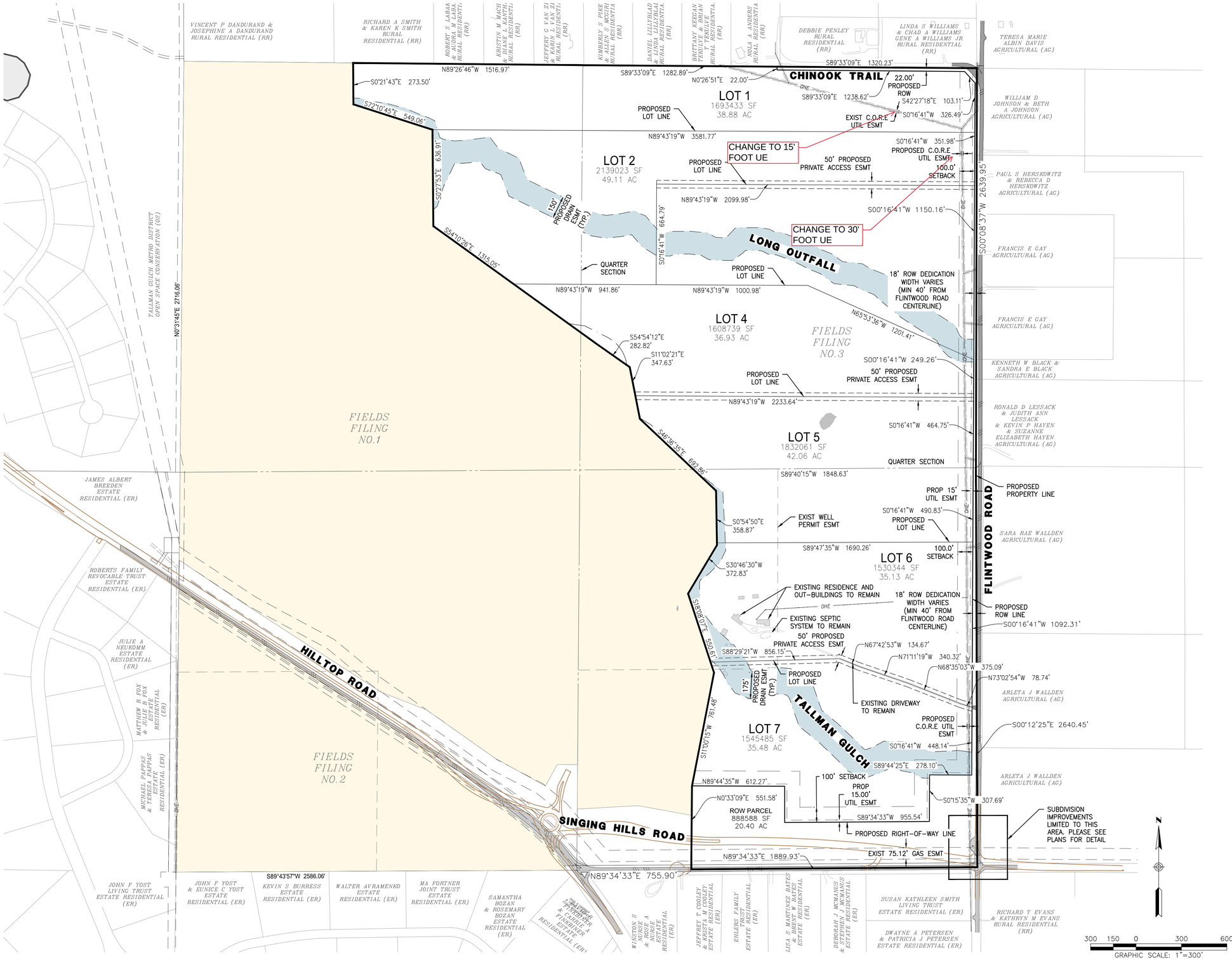
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GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- SETBACK (HILLTOP RD)
- SUBDIVISION FENCE
- ULTIMATE HILLTOP RD
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- FLOODWAY
- NOT PART OF THIS DEVELOPMENT

NOTES

1. TRACT A WILL BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
2. CENTRAL WATER AND SEWER WILL BE SERVED BY WELL AND SEPTIC SYSTEMS.
3. PINE HAVEN ROAD WILL BE PRIVATE.

SETBACKS

HILLTOP SETBACK	100'
FRONT SETBACK	25'
REAR SETBACK	
PRIMARY	25'
ACCESSORY	15'
SIDE SETBACK	
CORNER LOT	25'
INTERIOR LOT	15'

BENCHMARK NOTE:

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ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO: D2214 | DRAWN/DESIGNED BY: | DAL/KEC
DATE: 11/08/2024 | CHECKED BY: | TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:

FIELDS FILING NO. 3

GRADING, ROADWAY AND DRAINAGE PLANS

DOUGLAS COUNTY, CO

OVERALL SITE PLAN

811 Know what's below. Call before you dig.

DRAWING NO.
OV-01
SHEET NO. 03 OF 05

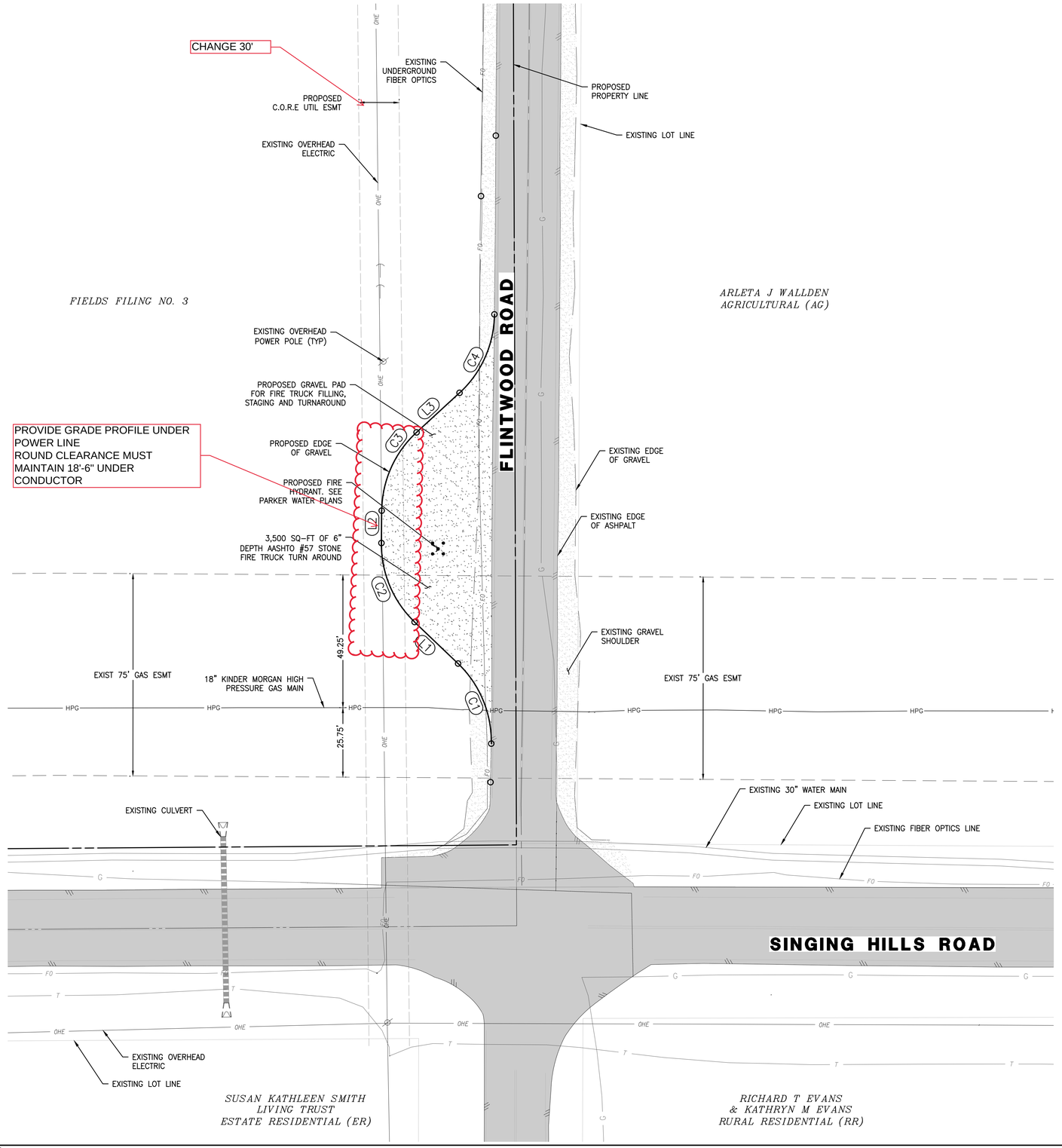
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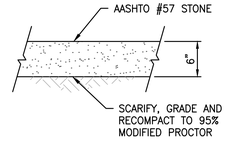
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GRADING, ROADWAY AND DRAINAGE PLANS

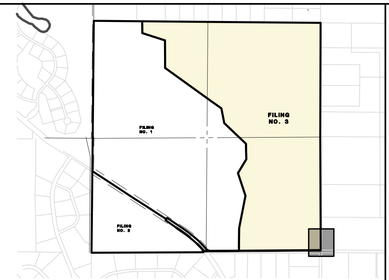
FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





TYPICAL GRAVEL SECTION
N.T.S.



KEY MAP
SCALE: N.T.S

LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- LINE AND CURVE REFRENCE
- SETBACK (HILLTOP RD)
- SUBDIVISION FENCE
- ULTIMATE HILLTOP RD
- POND 100-YR WSEL
- EXIST EASEMENT
- EXIST BARBED WIRE FENCE
- EXIST FIBER OPTIC
- EXIST GAS LINE
- EXIST HIGH PRESSURE GAS LINE
- EXIST TELEPHONE
- EXIST WATERLINE
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER

NOTES

1. TRACT A WILL BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
2. CENTRAL WATER AND SEWER WILL BE SERVED BY WELL AND SEPTIC SYSTEMS.
3. PINE HAVEN ROAD WILL BE PRIVATE.

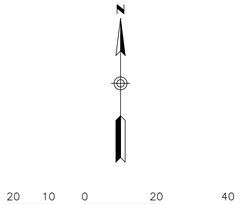
LINE AND CURVE TABLES

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	22.30'	N46°13'36.31"W
L2	12.00'	N00°35'35.76"E
L3	21.63'	N47°24'47.83"E

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	33.06'	40.00'	047°21'40""
C2	32.69'	40.00'	046°49'12""
C3	32.69'	40.00'	046°49'12""
C4	33.89'	40.09'	048°26'25""

BENCHMARK NOTE:

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TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP (LAT. N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'



ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 11/08/2024 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:

FIELDS FILING NO. 3

GRADING, ROADWAY AND DRAINAGE PLANS

DOUGLAS COUNTY, CO

DETAILED SITE PLAN

811 Know what's below. Call before you dig.

DRAWING NO.
SP-01
SHEET NO. 04 OF 05

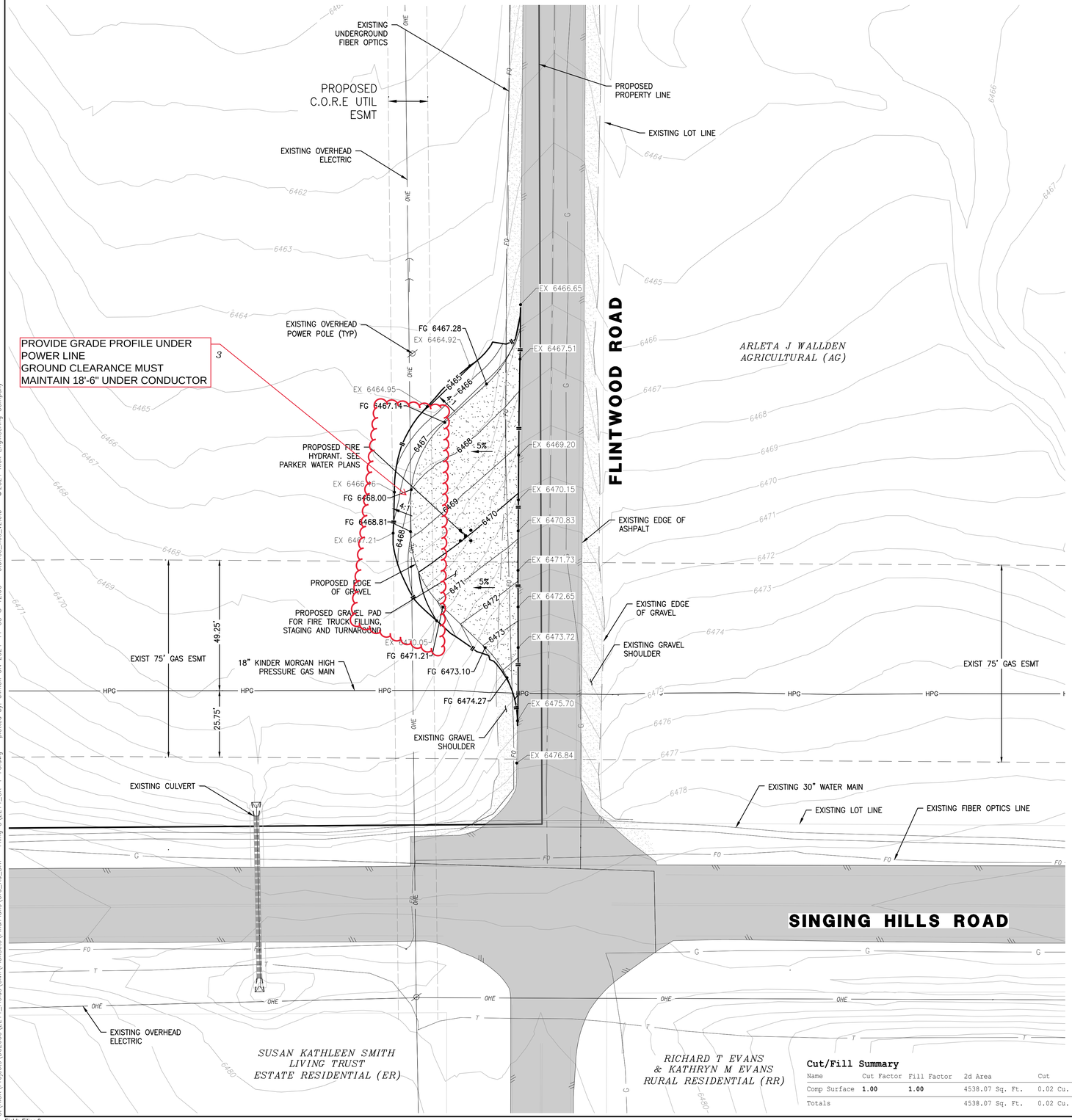
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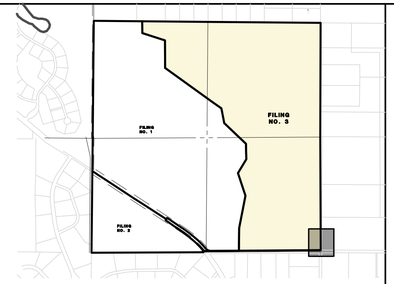
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GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





KEY MAP
SCALE: N.T.S

LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- SETBACK (HILLTOP RD)
- SUBDIVISION FENCE
- ULTIMATE HILLTOP RD
- EXIST EASEMENT
- EXIST BARBED WIRE FENCE
- EXIST FIBER OPTIC
- EXIST GAS LINE
- EXIST HIGH PRESSURE GAS LINE
- EXIST TELEPHONE
- EXIST WATERLINE
- EXIST CONTOUR (MINOR)
- EXIST CONTOUR (MAJOR) 5400
- PROP CONTOUR (MINOR)
- PROP CONTOUR (MAJOR) 5400
- DAYLIGHT LINE
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Comp Surface	1.00	1.00	4538.07 Sq. Ft.	0.02 Cu. Yd.	167.65 Cu. Yd.	167.63 Cu. Yd.<Fill>
Totals			4538.07 Sq. Ft.	0.02 Cu. Yd.	167.65 Cu. Yd.	167.63 Cu. Yd.<Fill>

BENCHMARK NOTE:

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ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 11/08/2024 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:

FIELDS FILING NO. 3

GRADING, ROADWAY AND DRAINAGE PLANS

DOUGLAS COUNTY, CO

GRADING PLAN

811 Know what's below. Call before you dig.

DRAWING NO.
GRD-01
SHEET NO. 05 OF 05

1ST SUBMITTAL

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DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

January 31, 2025

Heather Scott
100 Third St.
Castle Rock, CO 80104

RE: SB2024-068

Dear Ms. Scott,

Thank you for the opportunity to review and comment on the request to develop 7 residential lots. 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).

Water Service
Water will be provided by individual 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) – New
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. Based on the applicant's description, a permit for the installation and final approval of the OWTS is required. In order to start the process, the applicant may contact DCHD at 720-907-4886 or EH@douglas.co.us. More information is available at https://www.douglas.co.us/health-department/environmental-health/.

Fugitive Dust - Developments of 25 acres and more than 6 months in duration
Exposure to air pollution is associated with a number of 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 from developments of 25 acres or more that last at least 6 months. The applicant shall contact the APCD, at (303) 692-3100 for more information. Additional information is available at https://cdphe.colorado.gov/apens-and-air-permits.

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 II
Douglas County Health Department

Douglas County School District
Learn Today, Lead Tomorrow
620 Wilcox Street
Castle Rock, Colorado 80104

May 15th, 2025

Heather Scott
Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104
303-660-7460 (main)
303-919-4801 (cell)

RE: Fields Filing 3 - Final Plat -3rd Submittal and Referral (SB2024-068)

Dear Ms. Scott,

Thank you for the opportunity to respond to the above referenced application. It is our understanding that the applicant is requesting approval of a final plat for 7 single family residential lots on approximately 297 acres. The project site is located north of Singing Hills Road and west of Flintwood Road.

On behalf of Douglas County School District, we have a couple comments regarding this application. DCSD has calculated the amount of school site land dedication required for students generated by the proposal. A total of 7 students are expected from the development requiring a total land dedication requirement of 0.160-acres.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: THE FIELDS FILING 3-FINAL PLAT (SB2024-068)					
DU/	ACRES		DENSITY		
7	297.454		0.02		
			Generation	Number	
STUDENT GENERATION RATES	No. of DU's		Rate	of Students	
ELEMENTARY	7	X	0.54	4	
MIDDLE SCHOOL	7	X	0.15	1	
HIGH SCHOOL	7	X	0.29	2	
				7	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage	
ELEMENTARY	4	X	0.018	0.068	
MIDDLE SCHOOL	1	X	0.030	0.032	
HIGH SCHOOL	2	X	0.030	0.061	
			TOTAL	0.160	

Pursuant to Section 1004.05.3 of the Douglas County Subdivision Resolution, "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."

The applicant has submitted an appraisal conducted by East West Econometrics dated July 4th, 2024. The appraisal values the 297.454-acre property at $4,100,000 if lots are sold in bulk or $5,075,000 if lots are sold individually. This equates to $13,783 per acre if lots were sold in bulk or $17,061 per acre if lots were to be sold individually. Based on this appraisal, DCSD proposes a total cash-in-lieu fee of **$2,467**. This fee calculation is shown below.

($13,783 + $17,061)/2=$15,422
$15,422 x 0.160 = **$2,467**

Pending Douglas County's acceptance of the proposed appraisal and assuming the applicant agrees with the payment of these fee requirements, DCSD has no objection to approval of this application. Thank you for your support of our mutual constituents

Sincerely,

Shavon Caldwell
Planning Manager, DCSD Planning & Construction
scaldwell2@dcsdk12.org
office: 303.387.0417
mobile: 720.428.1170

Douglas County School District
Learn Today, Lead Tomorrow
620 Wilcox Street
Castle Rock, Colorado 80104

January 22nd, 2025

Heather Scott
Douglas County Planning Services
100 Third Street
Castle Rock, CO 80104
303-660-7460 (main)
303-919-4801 (cell)

RE: Fields Filing 3 - Final Plat (SB2024-068)

Dear Ms. Scott,

Thank you for the opportunity to respond to the above referenced application. It is our understanding that the applicant is requesting approval of a final plat for 7 single family residential lots on approximately 297 acres. The project site is located north of Singing Hills Road and west of Flintwood Road.

On behalf of Douglas County School District, we have a couple comments regarding this application. DCSD has calculated the amount of school site land dedication required for students generated by the proposal. A total of 7 students are expected from the development requiring a total land dedication requirement of 0.160-acres.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: THE FIELDS FILING 3-FINAL PLAT (SB2024-068)					
DU/	ACRES		DENSITY		
7	297.454		0.02		
			Generation	Number	
STUDENT GENERATION RATES	**No. of DU's**		**Rate**	**of Students**	
ELEMENTARY	7	X	0.54	4	
MIDDLE SCHOOL	7	X	0.15	1	
HIGH SCHOOL	7	X	0.29	2	
				7	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	**of Students**		**Per Student**	**Acreage**	
ELEMENTARY	4	X	0.018	0.068	
MIDDLE SCHOOL	1	X	0.030	0.032	
HIGH SCHOOL	2	X	0.030	0.061	
			TOTAL	0.160	

Pursuant to Section 1004.05.3 of the Douglas County Subdivision Resolution, "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."

Assuming the applicant agrees with the payment of these fee requirements, DCSD has no objection to approval of this application. Thank you for your support of our mutual constituents

Sincerely,

Shavon Caldwell
Planning Manager, DCSD Planning & Construction
scaldwell2@dcsdk12.org
office: 303.387.0417
mobile: 720.428.1170

DCSD Student Generation and Land Dedication Calculations

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: THE FIELDS FILING 2-PRELIMINARY PLAN					
DU/	ACRES		DENSITY		
130	450.9		0.29		
			Generation	Number	
STUDENT GENERATION RATES	No. of DU's		Rate	of Students	
ELEMENTARY	130	X	0.54	70	
MIDDLE SCHOOL	130	X	0.15	20	
HIGH SCHOOL	130	X	0.31	40	
				130	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage	
ELEMENTARY	70	X	0.018	1.264	
MIDDLE SCHOOL	20	X	0.030	0.585	
HIGH SCHOOL	40	X	0.030	1.209	
			TOTAL	3.058	

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: THE FIELDS FILING 2-FINAL PLAT					
DU/	ACRES		DENSITY		
5	57.63		0.09		
			Generation	Number	
STUDENT GENERATION RATES	No. of DU's		Rate	of Students	
ELEMENTARY	5	X	0.5	3	
MIDDLE SCHOOL	5	X	0.2	1	
HIGH SCHOOL	5	X	0.4	2	
				6	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage	
ELEMENTARY	3	X	0.018	0.045	
MIDDLE SCHOOL	1	X	0.030	0.030	
HIGH SCHOOL	2	X	0.030	0.060	
			TOTAL	0.135	

January 21, 2025

Heather Scott, AICP
Douglas County Department of Community Development
Transmitted via email: hscott@douglas.co.us

Re: Fields Filing 3

Project No. SB2024-068

Part of the N ½ and part of the SE ¼ of Sec. 5, Twp. 7 South, Rng. 65 West, 6th P.M.

Water Division 1, Water District 8

CDWR Assigned Referral No. 32639

Dear Heather Scott:

We have reviewed the referral to subdivide approximately 297.45 acres into 7 lots and a right-of-way. The proposed water supply is individual on-lot wells operating pursuant to the decree granted by the Division 1 Water Court in case no. 11CW99 and the wastewater disposal system is individual septic systems.

This filing is part of The Fields Subdivision composed of 118 clustered single-family lots, 32 larger single-family lots, rights-of-way, and open space on 638.7 acres (referral no. 28850). The Fields Filing 1 subdivides 259.8 acres into 118 single-family lots, 9 tracts, and a right-of-way (referral no. 32423). The Fields Filing 2 subdivides 60.5 acres into 5 10-acre single-family lots. Therefore, it appears that 27 larger single-family lots have not yet been platted. If 7 larger single-family lots are platted as part of Filing 3, then 20 larger single-family lots remain to be platted.

Water Supply Demand

According to the memo from Gina Burke dated August 15, 2024 ("Memo"), the estimated water demand for each lot is 2 acre-feet/year, assuming in-house use and irrigation of up to

30,000 square-feet of lawn and gardens. The total water demand for all 7 lots is 14 acre-feet/year. The amount to be conveyed to the lot owners is 18 acre-feet/year/lot, or 126 acre-feet/year total.

Source of Water Supply

The proposed source of water for the lots is individual on-lot wells producing from a nontributary Denver Basin aquifer that will operate pursuant to the 11CW99 decree. The groundwater underlying the property was adjudicated in case no. 11CW99 for domestic, commercial, irrigation, livestock watering, recreational, fish and wildlife, fire protection and augmentation purposes, including storage; and municipal use if such groundwater is conveyed to a municipal water supplier.

According to the Memo and as shown in Table 1, the allowed average annual amount of withdrawal decreed in case no. 11CW99 which will be reserved for the lots in Filings 2 and 3 is 171 acre-feet/year. After conveying 453.85 acre-feet/year to Parker Water & Sanitation District, the amount remaining reserved by Wallden-Hilltop LLC and Big West Hill LLC is 470.05 acre-feet/year.

Table 1: Quantities of water from 11CW99 (acre-feet/year based on 100 years)

Aquifer	Annual amount allocated in 11CW99	Amount to be conveyed to Parker Water & Sanitation District	Amount to be conveyed to Fields Filing 2 Lots	Amount to be conveyed to Fields Filing 3 Lots	Amount available to be reserved by Wallden-Hilltop LLC & Big West Hill LLC
Upper Dawson (NNT)	195.2	83.19	7.50	21.00	83.51
Lower Dawson (NT)	113.6	46.80	5.00	14.00	47.8
Denver (NT)	348.7	143.66	15.00	42.00	148.04
Arapahoe (NT)	257.5	106.08	10.00	28.00	113.42
Laramie-Fox Hills (NNT)	179.9	74.12	7.50	21.00	77.28
Total	*1,094.9*	*453.85*	*45.00*	*126.00*	*470.05*

NNT = not-nontributary; NT = nontributary

Of the 126 acre-feet/year reserved for these 7 lots, 21 acre-feet/year is from the not-nontributary Upper Dawson and cannot be withdrawn without a court-approved augmentation plan. The smallest amount available to be conveyed to the 7 lots in a single aquifer is in the nontributary Lower Dawson aquifer, and is equal to the annual water demand of 14 acre-feet/year for the 7 lots in Filing 3.

The proposed source of water for this subdivision is bedrock aquifers 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 in case no. 11CW99 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.

Applications for on lot well permits, submitted by an entity other than the current water right 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), 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.

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 decree, 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.

Please contact Wenli.Dickinson@state.co.us or 303-866-3581 x8206 with any questions.

Sincerely,

Ioana Comaniciu, P.E.
Water Resource Engineer

January 28, 2025

Tom Clark
Authorized Representative
Hilltop Brothers, LLC
8678 Concord Center Drive, Unit #200
Englewood, CO 80112

File No. DV 24-543

Subj: Fields Filing No. 3

Dear Tom,

Plan Review Summary:

Submitted to Engineering	-	1/15/25
Comments Sent Out	-	1/28/25

Engineering has reviewed the above referenced submittal and have the following comments:

Final Plat Comment

Comment #1-Please refer to the final plat redlines.

GESC Plan Comments

Comment #1-A Low Impact GESC plan was submitted for the pull-off area for the fire department to access their fire hydrant, however, this improvement will require a Standard GESC permit.

Comment #2-Our Capital Improvements group will be reviewing the plan and if they have any comments, I will forward them.

Water Plan Comment

Comment #1-Pleaes include the Douglas County Acceptance Block on the cover sheet of the utility plan.

We cannot recommend approval of this final plat and/or construction plans until these comments have been addressed. If you have any questions, please give me a call.

Sincerely,



Chuck Smith
Development Review Engineer

cc: Heather Scott, AICP; Project Planner

DV24543

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 1 OF 6

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018.

–THE NORTHEAST CORNER OF SAID SECTION 5 BEING A #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5 BEING A #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,640.45 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 5 BEING A 3.5" ALUMINUM CAP ON PIPE PLS 35585 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019;

THENCE ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER SOUTH 89°34'33" WEST, A DISTANCE OF 1,889.93 FEET;

THENCE NORTH 00°33'09" EAST, A DISTANCE OF 551.58 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018;

THENCE ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,957,113 SQUARE FEET OR 297.454 ACRES, MORE OR LESS.

DEDICATION STATEMENT

doesn't appear that right-of-way is dedicated for Hilltop Road?

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED AND PLATTED SAID LANDS INTO LOTS, TRACTS, STREETS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF FIELDS FILING 3. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND CABLE COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES 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. HILLTOP ROAD, SINGING HILLS ROAD AND FLINTWOOD ROAD RIGHTS–OF–WAY ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO, IN FEE SIMPLE ABSOLUTE, WITH MARKETABLE TITLE, FOR PUBLIC USES AND PURPOSES. UTILITY EASEMENTS, DRAINAGE AND BLANKET ACCESS EASEMENTS SHOWN HEREON ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO FOR PUBLIC USE AND PURPOSE.

OWNER: WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

BY:_____

_____ AS _____ OF WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

STATE OF _____)
) SS
COUNTY OF _____)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

TITLE VERIFICATION

WE _____, DO HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE OF ALL LAND PLATTED HEREON AND THAT TITLE TO SUCH LAND IS IN THE DEDICATOR(S) FREE AND CLEAR OF ALL LIENS, TAXES AND ENCUMBRANCES.

_____

BY: _____ _____

TITLE: _____

STATE OF _____)
) SS
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

GENERAL NOTES

1.) THE LINEAL UNITS USED ON THIS PLAT ARE U.S. SURVEY FEET. ALL BEARINGS SHOWN HEREON ARE IN DEGREES–MINUTES–SECONDS.

2.) ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT, LAND SURVEY BOUNDARY MONUMENT, OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18–4–508, C.R.S.

3.) NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

4.) COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NUMBER 450–HS0834885–412, AMENDMENT NO. 1, EFFECTIVE DATE OCTOBER 28, 2024 AT 12:00 A.M. WAS ENTIRELY RELIED UPON FOR RECORDED RIGHTS–OF–WAY, EASEMENTS AND ENCUMBRANCES IN THE PREPARATION OF THIS SURVEY.

5.) RICK ENGINEERING COMPANY HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS, RECORDED/UNRECORDED, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

6.) ALL LOT CORNER MONUMENTS SHALL BE SET PER COLORADO STATE STATUTE 38–51–105.

7.) BASIS OF BEARINGS: NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5, BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN MONUMENTS AS SHOWN ON THIS PLAT.

8.) ACCESS EASEMENTS AS SHOWN HEREON ARE FOR THE USE BY THE ADJOINING LOT OWNERS AND THEIR INVITEES. MAINTENANCE IS THE RESPONSIBILITY OF THE LOT OWERS ADJOINING THE ACCESS EASEMENT.

Include this note:
Lot 1 will be the only lot that can have direct access to Flintwood Road. Lots 2 - 7 will have access through the shared access easements

9.) 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, COUNTER–FORTS, 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. PROHIBITED IMPROVEMENTS MAY BE REMOVED BY THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES. THE OWNERS OF THE PROPERTY SUBJECT TO OR ADJACENT TO THE UTILITY EASEMENTS SHOWN HEREIN ARE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF SUCH AREAS, WHICH DOES NOT INCLUDE UTILITY LINES AND RELATED FACILITIES. WHEN THE OWNER(S) OR ADJACENT OWNERS FAIL TO ADEQUATELY MAINTAIN SUCH UTILITY EASEMENTS, INCLUDING THE REMOVAL OF PROHIBITED IMPROVEMENTS, THE MAINTENANCE, OPERATION, RECONSTRUCTION AND REMOVAL SHALL BE AT THE COST OF THE OWNER(S). THE UTILITY EASEMENTS AS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES, CABLE COMMUNICATION SYSTEMS FIBER AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES 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.

10.) DRAINAGE EASEMENTS ARE HEREBY GRANTED TO DOUGLAS COUNTY ACROSS FIELDS FILING NO. 3 FOR THE PURPOSE OF PROTECTING THE NATURAL DRAINAGE COURSES FROM ANY DISTURBANCE TO ALLOW THESE COURSES TO REMAIN IN AN EXISTING NATURAL STATE. WITH DOUGLAS COUNTY APPROVAL, THE DRAINAGE EASEMENTS ALLOW FOR ACCESS, MAINTENANCE, AND STORMWATER MANAGEMENT IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES.

Drainage easements are hereby granted to Douglas County. The Homeowners Association or Metro District (not sure of which entity) will be responsible for the maintenance of the drainageways and facilities

11.) ALL DWELLING AND ACCESSORY DWELLING UNITS ON THIS PLAT SHALL HAVE APPROVED FIRE SPRINKLER SYSTEMS AND THAT APPROVED FIRE PROTECTION WATER SUPPLIES ARE TO BE INSTALLED PRIOR TO ISSUANCE OF PERMITS FOR VERTICAL CONSTRUCTION OF STRUCTURES.

12.) NO FURTHER SUBDIVISION TO ESTABLISH ADDITIONAL LOTS WITHOUT A PRELIMINARY PLAN OR MINOR DEVELOPMENT PLAT.

BOARD OF COUNTY COMMISSIONERS

THIS PLAT WAS APPROVED FOR FILING BY THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, COLORADO ON THE _____ DAY OF _____, 20____, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON. THE DEDICATIONS OF UTILITY EASEMENTS, ~~PRIMARY AND SECONDARY~~ DRAINAGE EASEMENTS, RIGHT–OF–WAY DEDICATIONS FOR SINGING HILLS ROAD, AND FLINTWOOD ROAD ARE HEREBY ACCEPTED.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR ALL UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTER, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES, AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT DOUGLAS COUNTY.

THIS ACCEPTANCE DOES NOT GUARANTEE THAT SOIL 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.

_____
CHAIR, BOARD OF COUNTY COMMISSIONERS

LAND USE TABLE

	AREA (SQ. FT.±)	AREA (ACREAGE±)	%OF TOTAL LAND USE±
LOTS	12,011,801	275.753	92.7%
R.O.W.	945,296	21.701	7.3%
TOTAL	12,957,097	297.454	100.0%

SHEET INDEX

SHEET 1 COVER SHEET

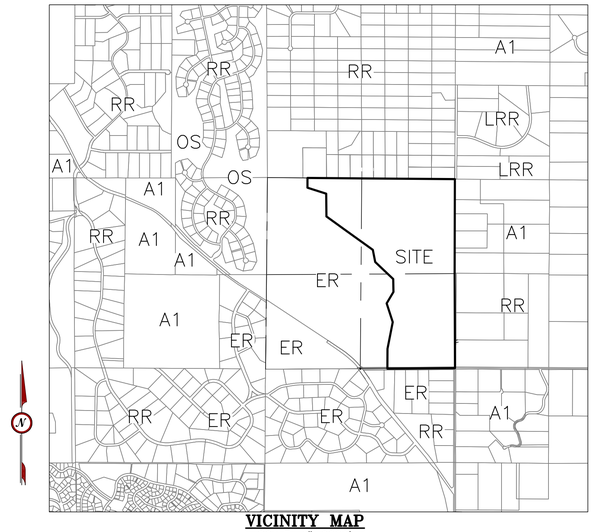
SHEET 2 CONTROL

SHEET 3 NORTHERLY LOT DETAILS, ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 4 SOUTHERLY LOT DETAILS ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 5 DRAINAGE & PRESCRIPTIVE UTILITY EASEMENTS, NORTHERLY LOTS

SHEET 6 DRAINAGE & PRESCRIPTIVE UTILITY EASEMENTS, NORTHERLY LOTS



VICINITY MAP
SCALE: 1"=2000'

PLANNING COMMISSION CERTIFICATE

THE PRELIMINARY PLAN SB2022–036 FOR THIS FINAL PLAT WAS REVIEWED BY THE PLANNING COMMISSION ON NOVEMBER 7, 2023.

_____ _____
PLANNING DIRECTOR, ON BEHALF OF THE PLANNING COMMISSION DATE

SURVEYOR'S CERTIFICATE

I ROBERT J. HENNESSY, 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 ON THE 30TH DAY OF MARCH, 2022, 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 (SECOND ORDER); 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 APPLICABLE PROVISIONS OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION. THIS CERTIFICATION IS BASED ON MY KNOWLEDGE, INFORMATION, AND BELIEF AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESS OR IMPLIED.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____, 20_____.

PRELIMINARY FOR REVIEW

_____
ROBERT J. HENNESSY, COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR #34580
FOR AND ON BEHALF OF RICK ENGINEERING COMPANY

DOUGLAS COUNTY CLERK AND RECORDER'S CERTIFICATE

STATE OF COLORADO
COUNTY OF DOUGLAS

I HEREBY CERTIFY THAT THIS PLAT WAS FILED IN MY OFFICE ON THIS _____ DAY OF _____, 20_____ A.D., AT _____ AM / PM, AND WAS RECORDED AT RECEPTION NUMBER _____.

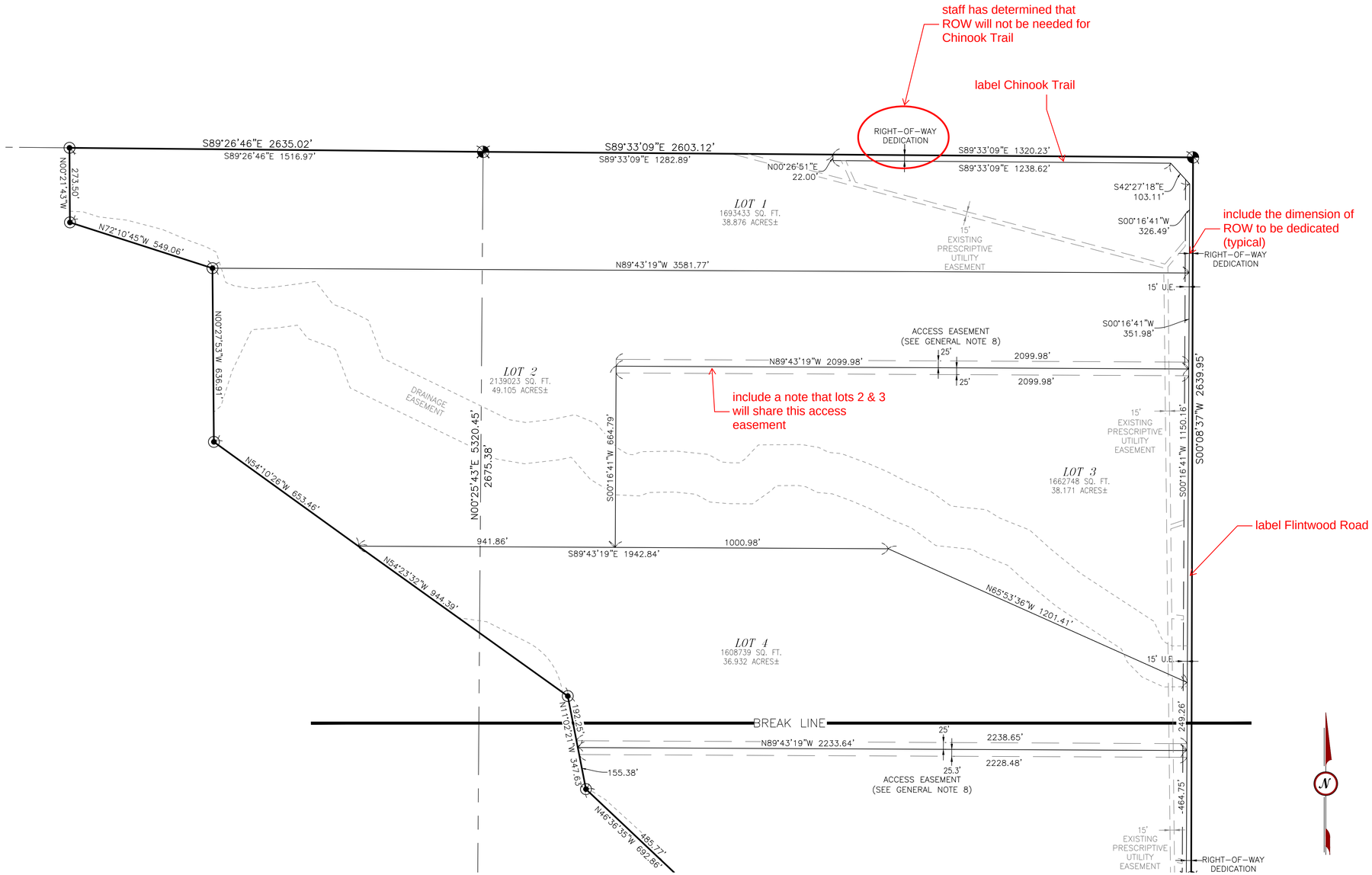
_____
DOUGLAS COUNTY CLERK AND RECORDER

RICK
303-423-6036
rickengineering.com
5690 WEBSTER STREET
ARVADA, CO 80002
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

C:\RICK\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1–8–25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 3 OF 6



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5690 WEBSTER STREET
ARVADA, CO 80002
RICK
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

FIELDS FILING 3

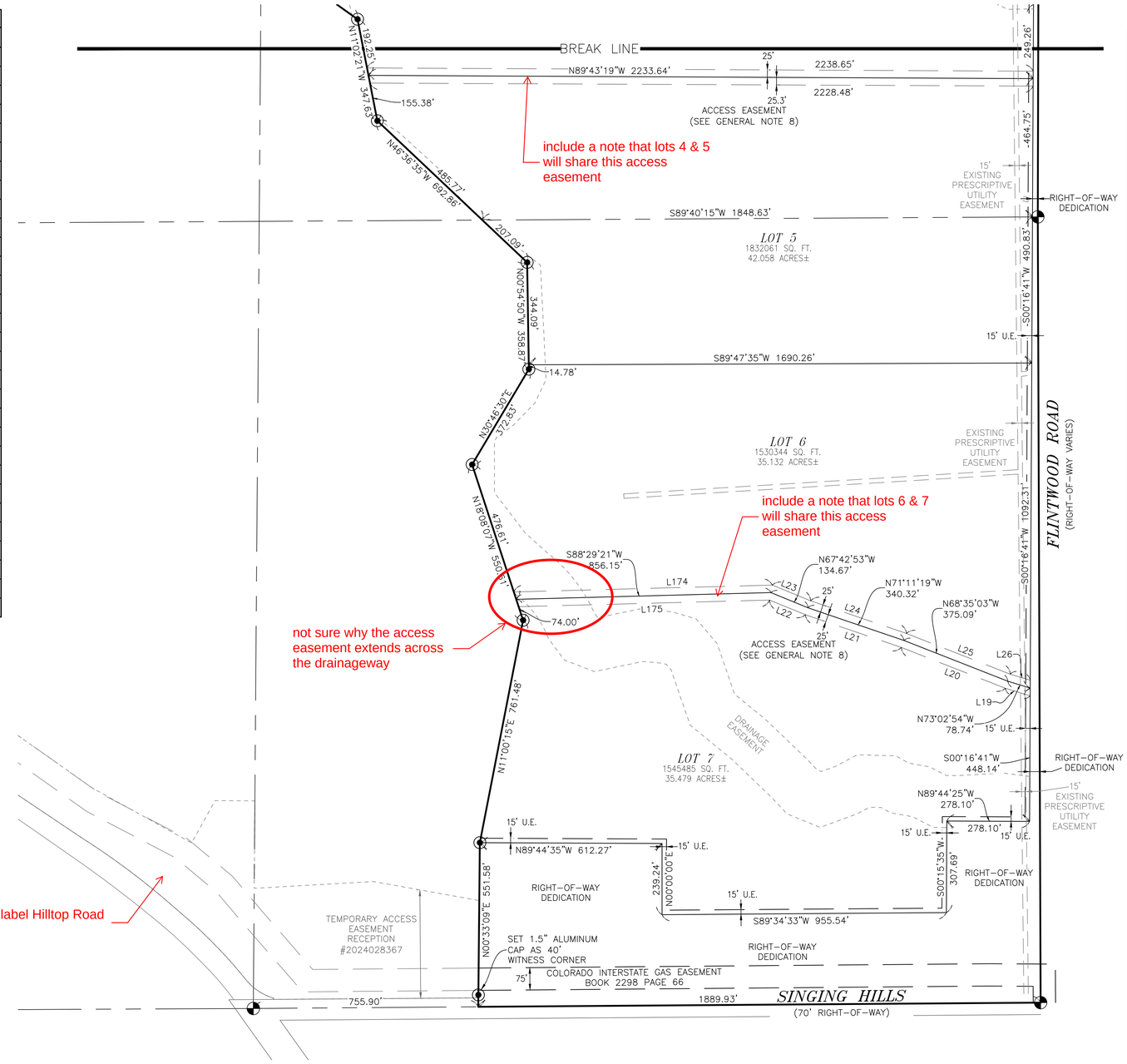
LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 4 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'



LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	868.88'	N88°29'21"W
L175	843.42'	S88°29'21"W

LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- U.E.=UTILITY EASEMENT

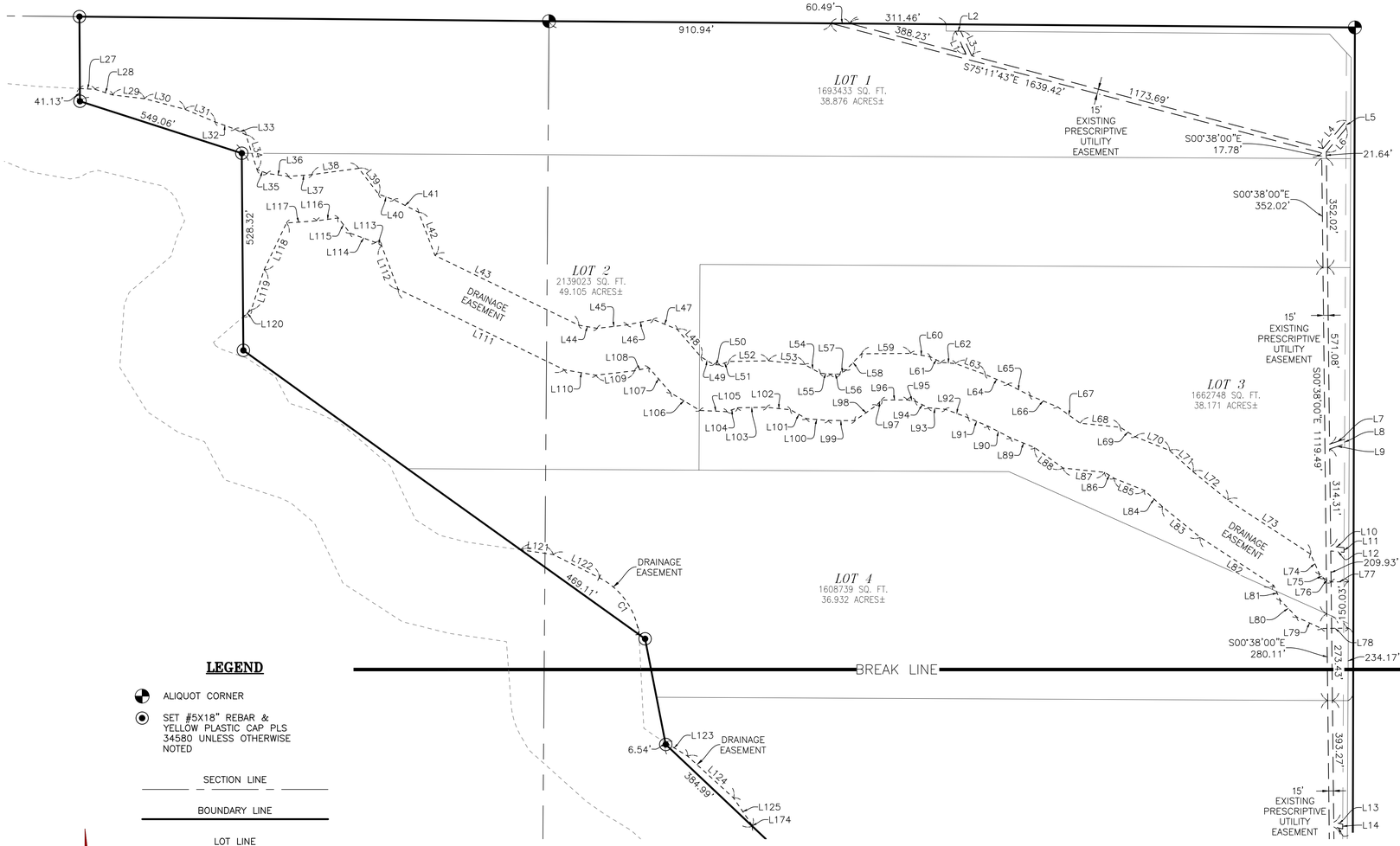
200 0 100 200 400
ORIGINAL SCALE: 1"= 200' HORIZ.

RICK
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\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 5 OF 6



LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- DRAINAGE EASEMENT
- U.E.=UTILITY EASEMENT

200 0 100 200 400
ORIGINAL SCALE: 1"= 200' HORIZ.

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
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L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

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LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
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L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
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L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
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L145	48.37'	N43°24'00"W
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C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

RICK
303-423-6036
rickengineering.com
5690 WEBSTER STREET
ARVADA, CO 80002
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 6 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	81.81'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	87.09'	N24°20'31"W
L4	116.59'	S39°50'38"W
L5	23.55'	N00°16'41"E
L6	99.72'	N39°50'38"E
L7	51.16'	S71°40'04"W
L8	15.83'	N00°16'41"E
L9	50.90'	N71°40'04"E
L10	43.43'	N84°13'09"W
L11	15.07'	N00°16'41"E
L12	43.19'	S84°13'09"E
L13	29.70'	N77°42'29"W
L14	15.34'	N00°16'41"E
L15	29.45'	S77°42'29"E
L16	19.76'	S83°31'24"W
L17	15.10'	N00°16'41"E
L18	19.52'	N83°31'24"E
L19	87.20'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	70.28'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

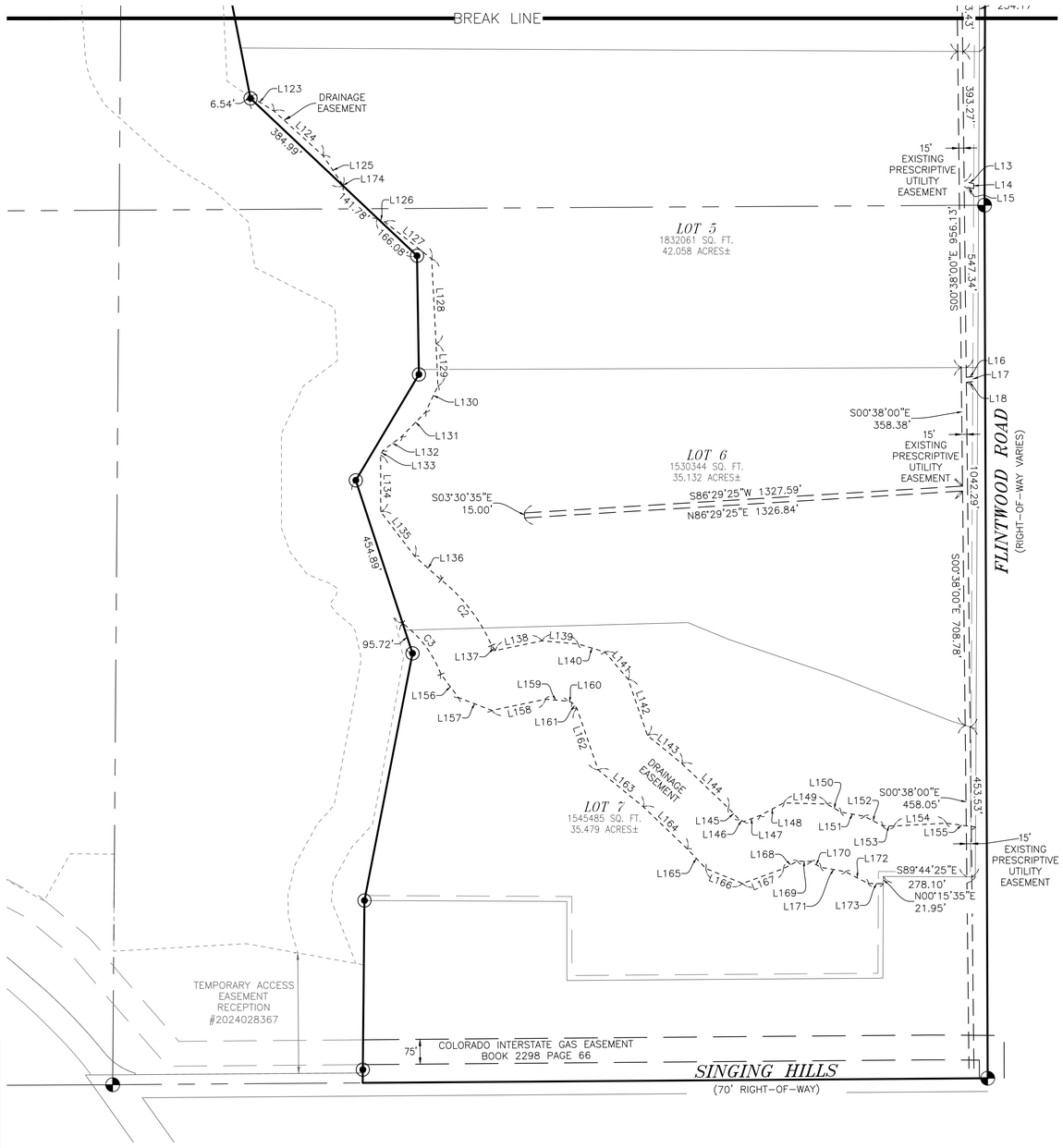
LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	55.35'	S89°12'56"W
L78	86.65'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

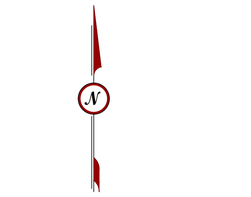
LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	868.88'	N88°29'21"E
L175	843.42'	S88°29'21"W

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'





LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- DRAINAGE EASEMENT
- U.E.=UTILITY EASEMENT

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\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 1-8-25.DWG

From:	Jim Watt
To:	Heather Scott
Cc:	Laura Hinds; Bradley Jackson; Brad Robenstein
Subject:	Final Plat for Fields Filing No. 3 Major Drainageways
Date:	Monday, February 24, 2025 2:30:36 PM
Attachments:	SocialLink_Facebook_32x32_dddf4d22-a17b-4b5e-a60e-a0d1c141aee6.png SocialLink_Instagram_32x32_a5cf709f-423e-42d0-9b21-63116bf8f89c.png SocialLink_Linkedin_32x32_b7a2051d-355d-4a7b-b923-ebe2177ea89b.png SocialLink_Twitter_32x32_a6576c8a-bc49-4df2-8e65-1ec629178a82.png 20230209 MHFD Comments - Fields Preliminary Plan (SB2022-36).pdf

Hi Heather,

Just following up on my voicemail to you. Please let me now how we can best support the County on this development.

I wanted to reach out to you on the Field Filing No 3 review efforts to make sure that we are all on the same page for who and how comments are being provided for the major drainageways within the Field Filing No. 3 area. With the recent changes in MHFD MEP process, as of January 1st MHFD is thinking that we are taking a role of supporting Douglas County on major drainageway development review efforts, but that any comments would typically be worked through the County instead of through MHFD.

We are a bit late in getting through the MEP review files that were submitted to us in the referral process, but I did want to comment that some of our previous concerns about the major drainageways within the Fields development still stand. While previous stream assessment efforts did indicate that the streams within the development are geomorphically stable, we do believe that this stability is fragile and the potential to destabilize the creeks remains a significant concern. If requiring stream improvements is off the table, then some of the initial development review efforts we floated should likely be considered. Below are some comments that were previously provided (also attached). With the reconfiguration of the development, I think that these comments would now apply to both Long Outfall as well as Tallman Gulch.

1. *Under existing conditions, Long Outfall appears to be a relatively steep, entrenched major drainageway with steep banks. The proposed lot configuration appears to orient the majority of the outfall onto one or few owners. We have concerns that the existing conditions of the drainageway may be easily destabilized in the future due to land uses (livestock, over grazing, ATV, etc.) that some may consider typical for larger proposed lot size. In addition to land use concerns there are some concerns regarding placing concentrated financial risk on relatively few property owners. The property owners may not be aware of the magnitude of the erosive potential in Long Outfall. Please help us to understand what options are available to protect the Long Outfall channel corridor in the proposed development. Is it possible to consider designating do not disturb zones, providing a tract for the drainageway, or easements to gain access to the outfall?*

Looking forward to chatting about this one.

Thanks,
Jim

Jim Watt, P.E., CFM
Watershed Manager
MILE HIGH FLOOD DISTRICT
12575 W. Bayaud Ave. | **Lakewood, CO 80228**
Office: 303-455-6277 | **Direct:** 303-749-5455 | www.mhfd.org

Protecting People, Property, and our Environment

MILE HIGH FLOOD DISTRICT



SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

Heather Scott, 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:	Fields Filing 3
Project File #:	**SB2024-068**
S Metro Review #	REFFR25-00011
Review date:	January 24, 2025
Plan reviewer:	Aaron Miller 720.989.2246 aaron.miller@southmetro.org
Project Summary:	This Final Plat request is to subdivide 297.45 acres into 7 lots and 21.7 acres of ROW. The site is located west of Flintwood Road and north of Singing Hills Road.
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 final plat. Note 11 on sheet 1 of 6 of the final plat documents the conditions on which the alternate method for fire protection water supplies as proposed on the preliminary plan is accepted by SMFR for this plat.

Applicants and Contractors are encouraged to contact SMFR regarding the applicable permit requirements for the proposed project.

Right of Way & Permits

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

May 7, 2025

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

Attn: Heather Scott

Re: Fields Filing 3, Case # SB2024-068 – 2nd Submittal

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plat for **Fields Filing 3**. As always, thank you for the opportunity to take part in the review process. Please be aware PSCo owns and operates existing natural gas distribution facilities along Chinook Trail, Flintwood Road, and Singing Hills.

The property owner/developer/contractor must complete the application process for any new natural gas 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

Right of Way & Permits

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

February 4, 2025

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

Attn: Heather Scott

Re: Fields Filing 3, Case # SB2024-068

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plat for **Fields Filing 3**. As always, thank you for the opportunity to take part in the review process. Please be aware PSCo owns and operates existing natural gas distribution facilities along Chinook Trail, Flintwood Road, and Singing Hills.

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:

> *The utility 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 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

From: Paul Herskowitz
To: Heather Scott
Cc: Bill and Beth Johnson
Subject: Re: SB2024-068 Fields Filing 3
Date: Tuesday, January 21, 2025 3:29:26 PM

I did err...Toll Brothers bought the smaller lot subdivision.

On Tuesday, January 21, 2025 at 03:25:10 PM MST, Paul Herskowitz <paul_herskowitz@yahoo.com> wrote:

Hi Heather

Received the Courtesy Notification of the Fields Large Lot Plat off of Flintwood Road. Pretty much understand everything with two exceptions -

1. The Grading, Roadway and Drainage plans show some right of way dedication for Flintwood Road, but don't show our property corners in any great detail. Was wondering if you have an enlarged plan of the right of way dedication in relation to the existing paving and our property corners with dimensions. I have added Bill and Beth Johnson, who live to our north, to this email as I am sure that they would like to see the same detail as their property goes even further on the west side of Flintwood Road than our property. The future owners of Lots 1, 2 and 3 will be traversing our property to get to Flintwood Road and am sure that the civil engineers have this detail, and think that this is important for us to know along with the buyers of those lots.

2. In some of the earlier zoning and site plan iterations, a value was placed upon the property in order to determine the school mitigation fees. I could not find the old appraisal, but as you probably know, Lennar purchased the large subdivision for the 150+ or - homes for $14.5 million and the five lots on Hilltop and the 7 lots on Flintwood, probably make the value of this property well more than $25 million. Is that was their school mitigation fee was based upon? Again, could not find that correspondence. These will be very large homes and expect more than 500 children to be at school age, which will be a load on Douglas County Schools.

We appreciate any information that you can shed on these two items.

Paul and Rebecca Herskowitz
7860 Flintwood Road
Parker, CO 80138

RICK

303-537-8020
rickengineering.com

8678 Concord Center Drive #200
Englewood, CO 80112

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

February 25, 2025

Heather Scott, AICP
Principal Planner
Douglas County Department of Community Development
100 Third Street
Castle Rock, Colorado 80104

RE: Fields Filing 3
SB2024-068; Douglas County: DU-23-0003

Department of Community Development,
Heather Scott, AICP
Principal Planner

The 28-day referral period for Fields Filing 3 has concluded. Please review my comments below as well as red-marked documents attached with this letter along with the referral agency summary report. Please address the red marked comments and then provide the revised final plat drawings and associated documents.

FINAL PLAT:

1. There are several red marks to clean up on the final plat. Be sure to remove Hilltop Road in the dedication statement in the BCC statement.

   Rick response comment: Comments have been addressed and replied to on the plat comments pdf.

2. Page 2 of the packet is missing.
   Rick response comment: The plat has been corrected.

3. CORE is asking for details on the proposed fire truck staging area, and they are asking for wider easements under their overhead power lines. Please coordinate directly with CORE and provide revised drawings and an approval letter from CORE indicating they are satisfied with the proposed changes.

   Rick response comment: We worked with Brooks Kaufman to achieve CORE approval of the turnaround vertical clearance, and we have resolved the easement requirements for the existing powerlines that cross the property. Easements have been dedicated for the existing powerlines and reception numbers for the easements are now shown on the plat.

SUPPLEMENTAL REPORTS:

1. There are several questions on the Narrative to either cross reference on the Plat drawing or adjust accordingly.

   Rick response comment: The Narrative has been revised to align better with the plat and to provide corrections. Please review the submittal Project Summary.

2. Per Section 1003.06.4, an appraisal providing the full market value based on anticipated market value after completion of platting shall be provided.

   Rick response comment: An updated appraisal is included with this submittal.

3. CBRE reviewed the appraisal and requested more information. Please review their comments and provide CBRE with the necessary information. Be sure to include me on all correspondence.

   Rick response comment: An updated appraisal is included with this submittal.

As part of your resubmittal, please also submit a response letter to my attention indicating how each referral comment has been addressed. The revised exhibits and other documents should be submitted to my attention.

Because design review is a cumulative process, Douglas County Planning Services reserves the right to provide further comments based upon your resubmittal and the agency comments received through the official referral process. Feel free to contact me with any questions or concerns as they arise. I look forward to working with you on this application.

RICK

303-537-8020
rickengineering.com

8678 Concord Center Drive #200
Englewood, CO 80112

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

April 25, 2025

Douglas County Department of Public Works Engineering
Chuck Smith
100 Third Street
Castle Rock, CO 80104

RE: Fields Filing 3, File number DV24-543

Engineering has reviewed the above referenced submittal and have the following comments:

Final Plat Comment

Comment #1-Please refer to the final plat redlines.
Rick response comment: Plat comments adjusted as requested.

GESC Plan Comments

Comment #1-A Low Impact GESC plan was submitted for the pull-off area for the fire department to access their fire hydrant, however, this improvement will require a Standard GESC permit.

Rick response comment: Typical GESC Plans and Report provided with this submittal.

Comment #2-Our Capital Improvements group will be reviewing the plan and if they have any comments, I will forward them.

Rick response comment: Noted, we have yet to receive any comments from Capital Improvements.

Water Plan Comment

Comment #1-Pleaes include the Douglas County Acceptance Block on the cover sheet of the utility plan.
Rick response comment: Douglas County Acceptance Block Provided on cover sheet as requested.

We cannot recommend approval of this final plat and/or construction plans until these comments have been addressed. If you have any questions, please give me a call.

RICK

303-537-8020
rickengineering.com

8678 Concord Center Drive #200
Englewood, CO 80112

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

April 25, 2025

Heather Scott, AICP
Principal Planner
Douglas County Department of Community Development
100 Third Street
Castle Rock, Colorado 80104

RE: Fields Filing 3
SB2024-068; Douglas County: DU-23-0003

Colorado Geological Survey,
Amy Crandall, P.E.,
Engineering Geologist

At your request (email, January 15, 2025), the Colorado Geological Survey has reviewed the Fields Filing No. 3 referral to subdivide 297.45 acres into 7 single-family lots and 21.7 acres of right-of-way. With this referral, we received the Narrative (Rick Engineering, January 9, 2025), Final Plat (Rick Engineering, November 6, 2024), Grading Plan (Rick Engineering, November 8, 2024), and Drainage Letter (Rick Engineering, November 5, 2024). CGS previously reviewed the Preliminary Subsurface Soil Investigation (Rocky Mountain Group (RMG), January 24, 2022) under the preliminary plan submittal.

The Geologic Hazards in Douglas County map (Soule, 1978) identifies the subject site as a “Moderate to High Erosion-Susceptibility Area” and “Potentially Unstable Slope”. These hazards are generally associated with the steep slopes along Tallman Gulch, Long Outfall, and the small secondary drainages within lots 1 through 7 of Filing No. 3.

Tallman Gulch and Long Outfall are shown on the final plat within a drainage easement, but the small secondary drainages are not affiliated with a designated easement. The building footprints and individual septic systems were not shown on the plat. CGS recommends that an erosional setback is established from the crest of the steeper slopes (30% or greater) associated with the secondary drainages to protect structures and improvements from channel erosion and scour, undercutting, and slope failure. Setback lines (or drainage easements) should be clearly shown on the plat and development plans. The lots are large enough (35+ acres) that it should be feasible to avoid the steeper slopes and drainages. Additionally, drainage gullies should be properly filled and compacted in accordance with RMG’s recommendations.

Provided erosional setbacks are established from the drainages/channels and clearly shown on the plat, CGS has no objection to the approval of the final plat for Filing No. 3.

Thank you for the opportunity to review and comment on this project. If you have questions or require further review, please call me at 303-384-2632 or email acrandall@mines.edu.

Rick response comment: the following note was added to the Plat for additional detail: THERE SHALL BE A 50FT EROSIONAL SETBACK FROM THE TOP OF SLOPES STEEPER THAN 30%. NO PERMANENT ABOVE GROUND STRUCTURES SHALL BE CONSTRUCTED WITHIN THE EROSIONAL SETBACK. ALLOWED TEMPORARY OR PERMANENT DISTURBANCES INCLUDE INSTALLATION, MAINTENANCE AND REPLACEMENT OF UNDERGROUND UTILITIES, ABOVE GROUND UTILITIES, DRIVEWAYS, STORM DRAINAGE STRUCTURES INCLUDING BUT NOT LIMITED TO INLETS, PIPES, CULVERTS, CHANNELS, AND DITCHES. ANY AND ALL DISTURBANCES WITHIN THE EROSIONAL SETBACK SHALL BE DESIGNED AND CONSTRUCTED BASED ON RECOMMENDATIONS PROVIDED BY RMG ENGINEERS/ARCHITECTS PREPARED PRELIMINARY SUBSURFACE INVESTIGATION FOR FIELDS DATED JANUARY 24, 2022

RICK

303-537-8020
rickengineering.com

8678 Concord Center Drive #200
Englewood, CO 80112

SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

April 25, 2025

Heather Scott, AICP
Principal Planner
Douglas County Department of Community Development
100 Third Street
Castle Rock, Colorado 80104

RE: Fields Filing 3
SB2024-068

Paul Herskowitz

1. The Grading, Roadway and Drainage plans show some right of way dedication for Flintwood Road, but don't show our property corners in any great detail. Was wondering if you have an enlarged plan of the right of way dedication in relation to the existing paving and our property corners with dimensions. I have added Bill and Beth Johnson, who live to our north, to this email as I am sure that they would like to see the same detail as their property goes even further on the west side of Flintwood Road than our property. The future owners of Lots 1, 2 and 3 will be traversing our property to get to Flintwood Road and am sure that the civil engineers have this detail, and think that this is important for us to know along with the buyers of those lots.

Rick response comment: The Fields Filing 3 project property line is wholly west of the asphalt of Flintwood Road. Meaning the entirety of Flintwood Roadway is on your property. Typically, county roads like Flintwood are centered on the property line which is typically the survey section line. At your property, the road happened to be built further east than typical. This happens from time to time due to reasons lost in time. As such, they county recognizes the location of the roadway and recognizes that even though there may not be a mapped Right-of-Way for the roadway the County recognizes a prescriptive right-of-way or prescriptive access. The prescriptive access allows for the County and the public to use that roadway and access that roadway even though it is on your land without right-of-way. Through this process the lands to the west of Flintwood are granted the right to access the roadway. It is up to the County to decide if they want to establish an official Right-of-Way on your lands. This typically does not occur until redevelopment of your land is being requested. All that being said, the Lands of Fields Filing 3 have prescriptive access to Flintwood roadway which happens to be wholly on your land. Nonetheless, the County is requiring Fields Filing 2 to dedicate 30ft of Right-of-Way west of our property line to plan of the possible realignment of flintwood to a correct location center on the Fields filing 3 and your shared property line.

2. In some of the earlier zoning and site plan iterations, a value was placed upon the property in order to determine the school mitigation fees. I could not find the old appraisal, but as you probably know, Lennar purchased the large subdivision for the 150+ or - homes for $14.5 million and the five lots on Hilltop and the 7 lots on Flintwood, probably make the value of this property well more than $25 million. Is that was their school mitigation fee was based upon? Again, could not find that correspondence. These will be very large homes and expect more than 500 children to be at school age, which will be a load on Douglas County Schools.

Rick response comment: For this Douglas County Final Plat process an appraisal of the property is performed for the post platted condition of the project according to Douglas County criteria. Douglas County has provided a review of the filing 3 appraisal by CBRE and revisions to the project appraisal are forthcoming and can be provided to you. School fees are established based on this project's (7 students from the 7 lots) potential for generating students. We are working with Douglas County, Douglas County School District and the Appraisal company to align the student counts and land dedication fee-in-lieu. This fee will ultimately approved by the County and accepted as a condition of approval of the Final Plat for Filing 3.

FELSBURG HOLT & ULLEVIG
connecting & enhancing communities

June 21, 2023

Mr. Thomas Clark
Ventana Capital, Inc.
9801 East Easter Avenue
Centennial, CO 80112

RE: **Fields Development – Lot Reduction Analysis**
FHU Reference Number 120458-01

Dear Mr. Clark:

I've completed an evaluation of traffic impact revisions based on the proposed reduction of dwelling units for Fields from 255 lots to 130 lots. This letter provides information on several issues:

- Site plan changes
- Trip generation revisions
- Operational changes

The information contained in this letter is primarily focused on comparisons to the original Traffic Impact Analysis (TIA). Recent consideration of a temporary access is also addressed. Following is more information on each of these project elements.

I. SITE PLAN CHANGES

It is understood that the Fields project has made changes to the proposed site plan that includes a reduction in the number of lots from 255 to 130. Access for the project is still planned as previously understood:

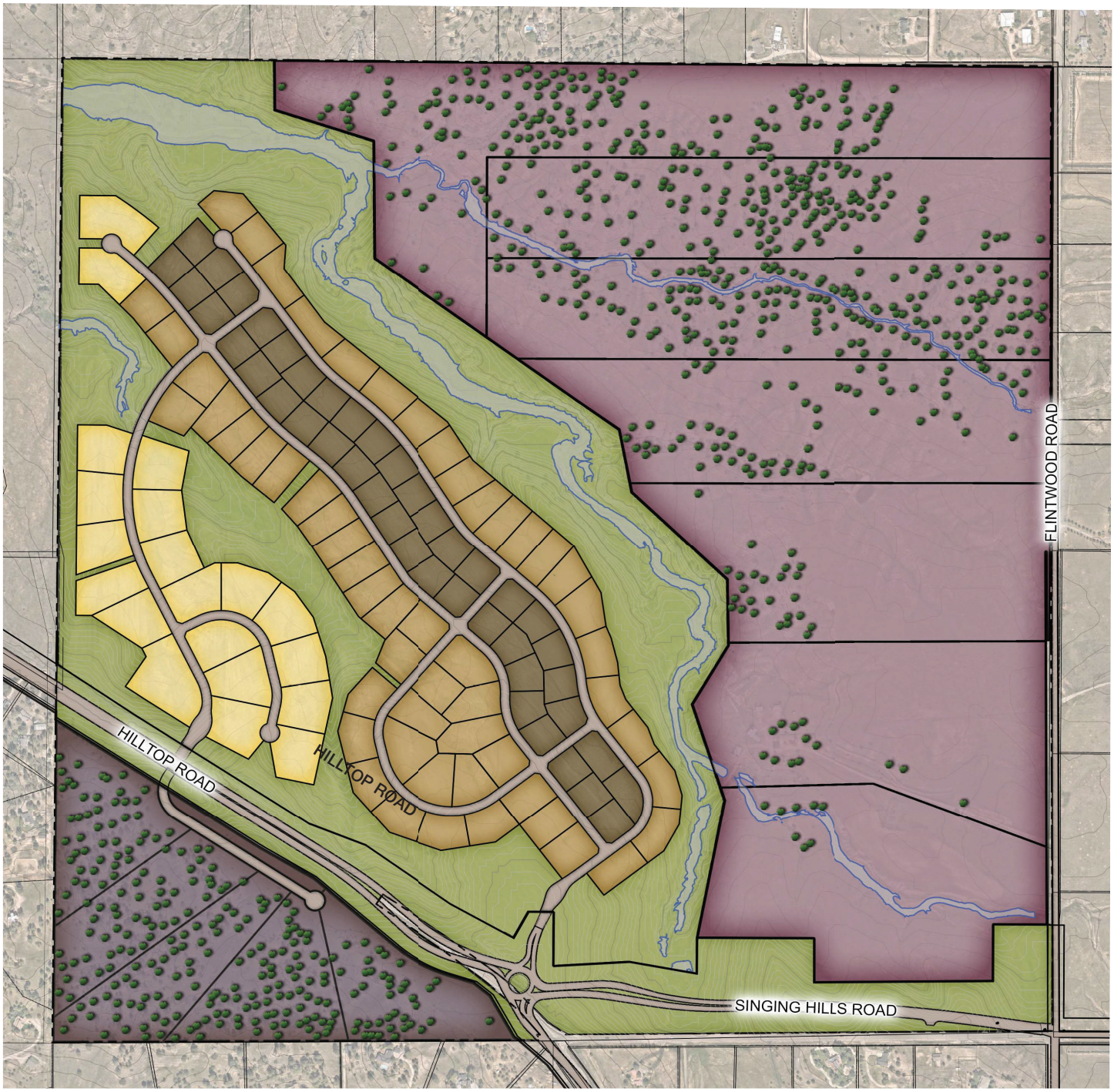
- **Western Access** – This access point is near the western edge of the property boundary along Hilltop Road and it will serve as one of the two access points for the majority of the residential lots. It will also provide access to five Rural Lots along the southwest side of Hilltop Road (previously only one lot).
- **Singing Hills Road Access** – This access will be the 4th leg of the Hilltop Road/Singing Hills Road roundabout that is being constructed by Douglas County. It is one of the two access points that will service the majority of the residential lots.
- **Flintwood Road Access** – This access point is the same as previously understood; it will serve seven (7) Rural Estate lots.

Figure 1 provides a representation of the Fields site plan.

II. TRIP GENERATION REVISIONS

As can be understood, with a reduction in the number of lots by almost 50%, the amount of trip generation for the project will be reduced. **Table 1** on Page 3 summarizes the trip generation comparison between the previously understood number of lots and their specific types and quantities, and the currently proposed revisions.

When considering the entire site, daily and peak hour trips are reduced for each time period. Only the number of trips for the Rural Lots increase since five dwelling units are now in this category versus only one in previous estimates.



NORTH

FIGURE 1
Site Plan

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

Fields Filing 3
Project File: SB2024-068
Board of County Commissioner's Staff Report Page 74 of 141

Table 1. Fields Trip Generation Comparison

Land Use[1]	Unit	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Previously Understood Dwelling Unit Types and Quantities									
Single Family Residential	DU	247	2,318	44	126	170	147	86	233
Rural Lot		1	15	0	1	1	2	0	2
Rural Estate Lots		7	88	2	5	7	5	3	8
TOTALS		**255**	**2,421**	**46**	**132**	**178**	**154**	**89**	**243**
Current Dwelling Unit Types and Quantities									
Single Family Residential	DU	118	1,175	22	65	87	73	43	116
Rural Lots		5	64	1	4	5	4	2	6
Rural Estate Lots		7	88	2	5	7	5	3	8
TOTALS		**130**	**1,327**	**25**	**74**	**99**	**82**	**48**	**130**
Numerical Difference		***-125***	***-1,094***	***-21***	***-58***	***-79***	***-72***	***-41***	***-113***

[1] Land Use Code 210.

II.1 Trip Assignment

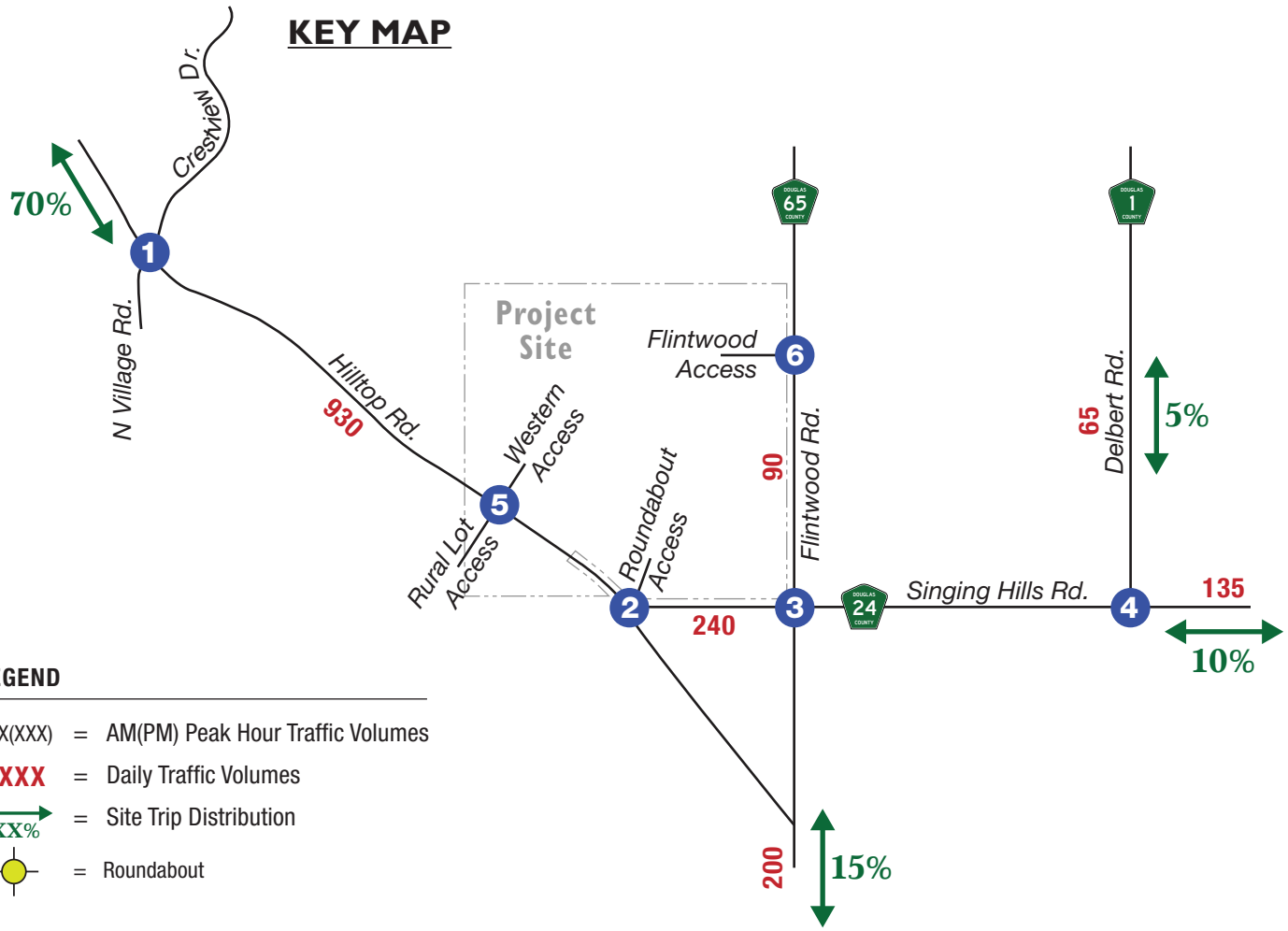
The revised vehicle-trips have been assigned to the adjacent street network using the same distribution percentages as the previous analyses for this project. When considering the current layout of the lots within the Fields property, it is projected that the assignment of vehicle-trips within the main development area to the northeast of Hilltop Road will be evenly distributed between the Western Access and the Roundabout Access. The site generated traffic volumes can be found on **Figure 2**.

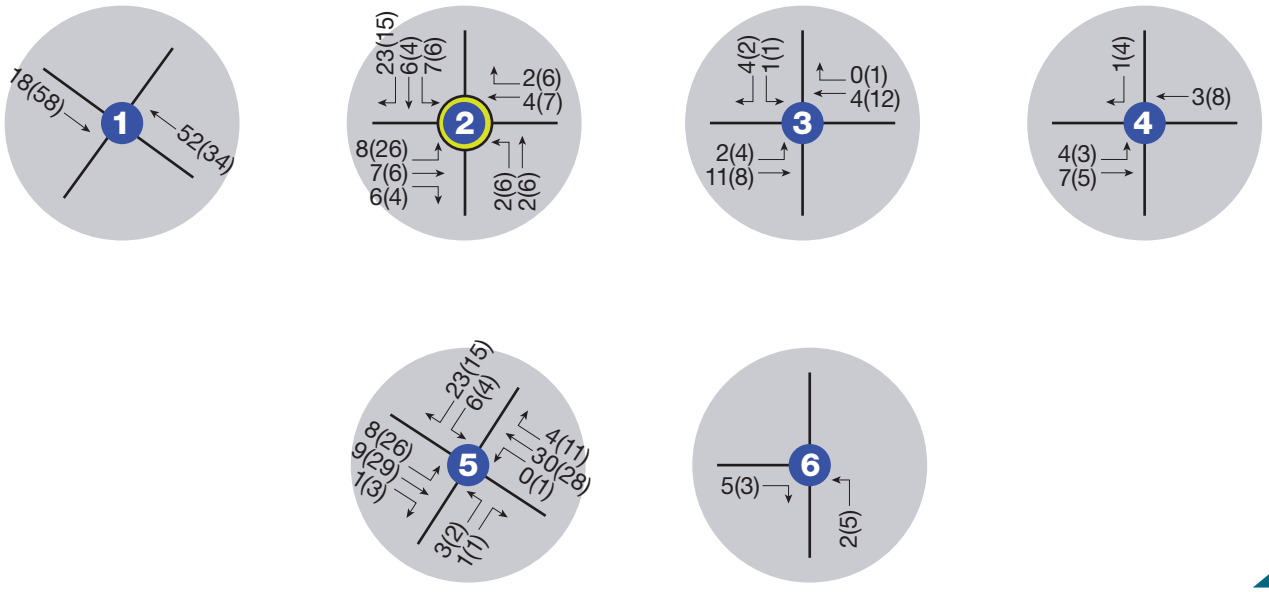
Almost all of the individual movements at the site access points have less vehicle-trips than previous studies given the reduction in the total number of dwelling units. Only movements to/from the Rural Lots along Hilltop Road are higher given the increase from one to five lots (still a small number of trips).

III. OPERATIONAL CHARACTERISTICS

Revised operational analyses were conducted using the methodologies of the *Highway Capacity Manual* by FHWA. From these analyses, a key measure or "level of service" rating of the traffic operational conditions can be obtained. Level of service (LOS) is a qualitative assessment of traffic operational conditions within a travel stream in terms of the average stopped delay per vehicle at a controlled intersection.

Levels of service are described by a letter designation ranging from LOS A to F, with LOS A representing essentially uninterrupted flow, while LOS F represents a breakdown of traffic flow with noticeable congestion and delay. Stop sign-controlled and roundabout capacity analyses produce LOS results for each movement that must yield to conflicting traffic at the intersection, while signalized intersections can provide LOS results for the entire intersection and also for each individual movement.





NORTH

FIGURE 2
Site Generated Traffic Volumes

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

The analyses were conducted for the Build-Out (2028) and Year 2040 time periods and the results of these analyses are included on **Figures 3** and **4**. It was found that some individual intersection movements improved in LOS designation, while many remained the same during both the AM and PM peak hours.

In 2028, most vehicle movements will operate at LOS D or better with many being LOS C or better. Only the Singing Hills Road/Delbert Road intersection will operate poorly with its continued All-Way stop control (westbound LOS F in the AM peak hour and eastbound LOS F during the PM peak hour). But if signalized, it will operate at LOS A and B during the AM and PM peak hours, respectively, the same as identified in the previous traffic study.

For the future planning horizon of 2040, there will again be improvements in some of the individual LOS designations, with many remaining the same. Outbound movements from the five Rural Lots and the left turn from the Western Access will operate at LOS F simply due to the large number of vehicles along Hilltop Road (same as previous analyses). Northbound and southbound movements on Flintwood Road will continue to be LOS E during the PM peak hour. The Delbert Road intersection will continue to operate poorly, with LOS F as noted in the previous paragraph with All-Way stop control. If signalized, it will operate at LOS C or better during the two peak hours.

III.1 Temporary Access Consideration

Analyses completed earlier this year provided information related to the construction of a temporary access near the Hilltop Road/Singing Hills Road roundabout in case the widening of Hilltop Road and the Singing Hills Road roundabout has not been constructed by Douglas County by the completion of Fields. The temporary access would only permit right-in/right-out (RIRO) vehicle movements. As such, all inbound and outbound left turns would occur at the Western Access until the roundabout is constructed.

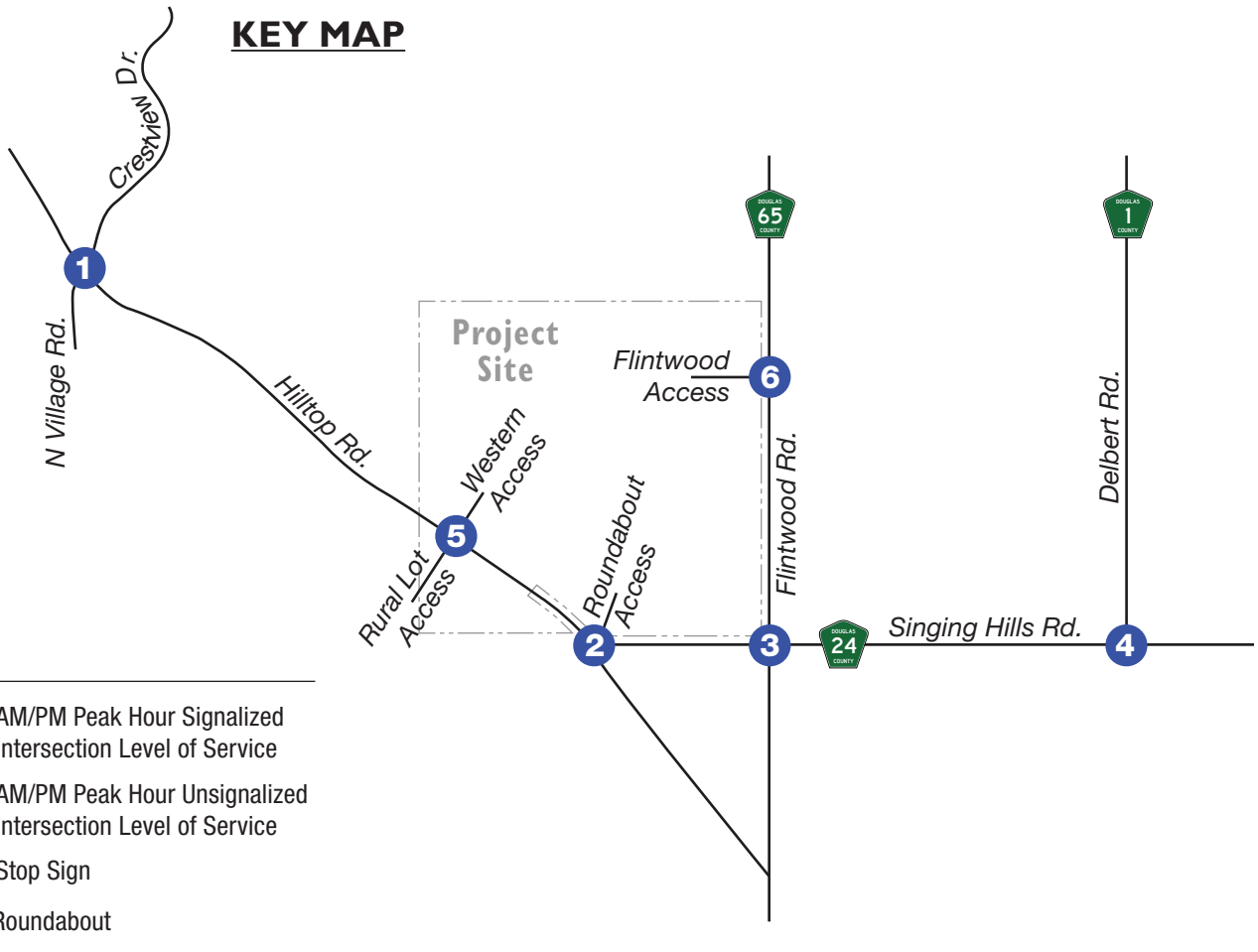
That analysis found that the temporary access would operate acceptably given its limited amount of vehicle movements. The Western Access intersection is expected to operate poorly during peak hours with LOS F resulting for left turn movements from the Western Access and for the Rural Lot access approach. LOS F is a result of the level of traffic on Hilltop Road which would be concentrated in only two travel lanes for the temporary condition.

When considering the reductions in vehicle volume for the main development area of Fields, movements into the project at the Western or Rural Lot access points will still function well. However, outbound movements will reach LOS E for the Rural Lot Access and for the Western Access left turn in the AM peak hour. Similar LOS for the Rural Lot access will occur during the PM peak hour, while the Western Access left turn will reach LOS F.

III.2 Auxiliary Lane Assessment

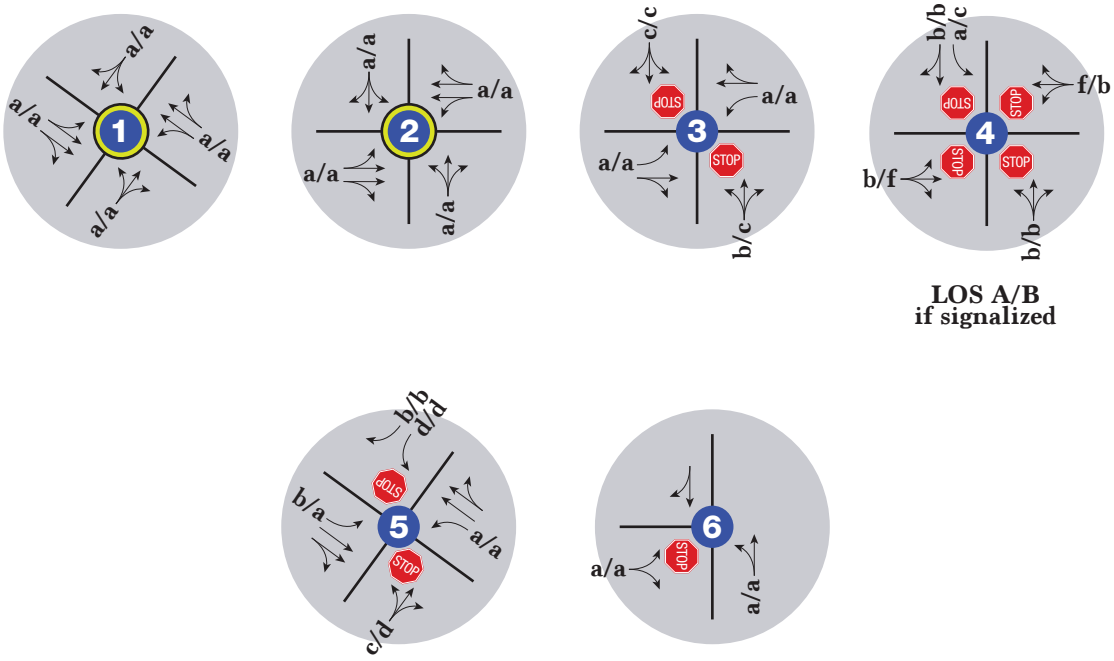
Upon review of the auxiliary lane dimensions in both the original TIA and the temporary access report, it was found that the vehicle storage requirement for the southeastbound left turn lane at the Western Access could be 75' (TIA) or 100' (temporary access). With a reduction in projected traffic volumes, the projected left turns suggest that the vehicle storage space could be 75' for either condition.

Vehicle storage space for the northwestbound left turn lane onto the Rural Lot access can remain the same as previously recommended at 25'.



LEGEND

- X/X = AM/PM Peak Hour Signalized Intersection Level of Service
- x/x = AM/PM Peak Hour Unsignalized Intersection Level of Service
- STOP = Stop Sign
- = Roundabout



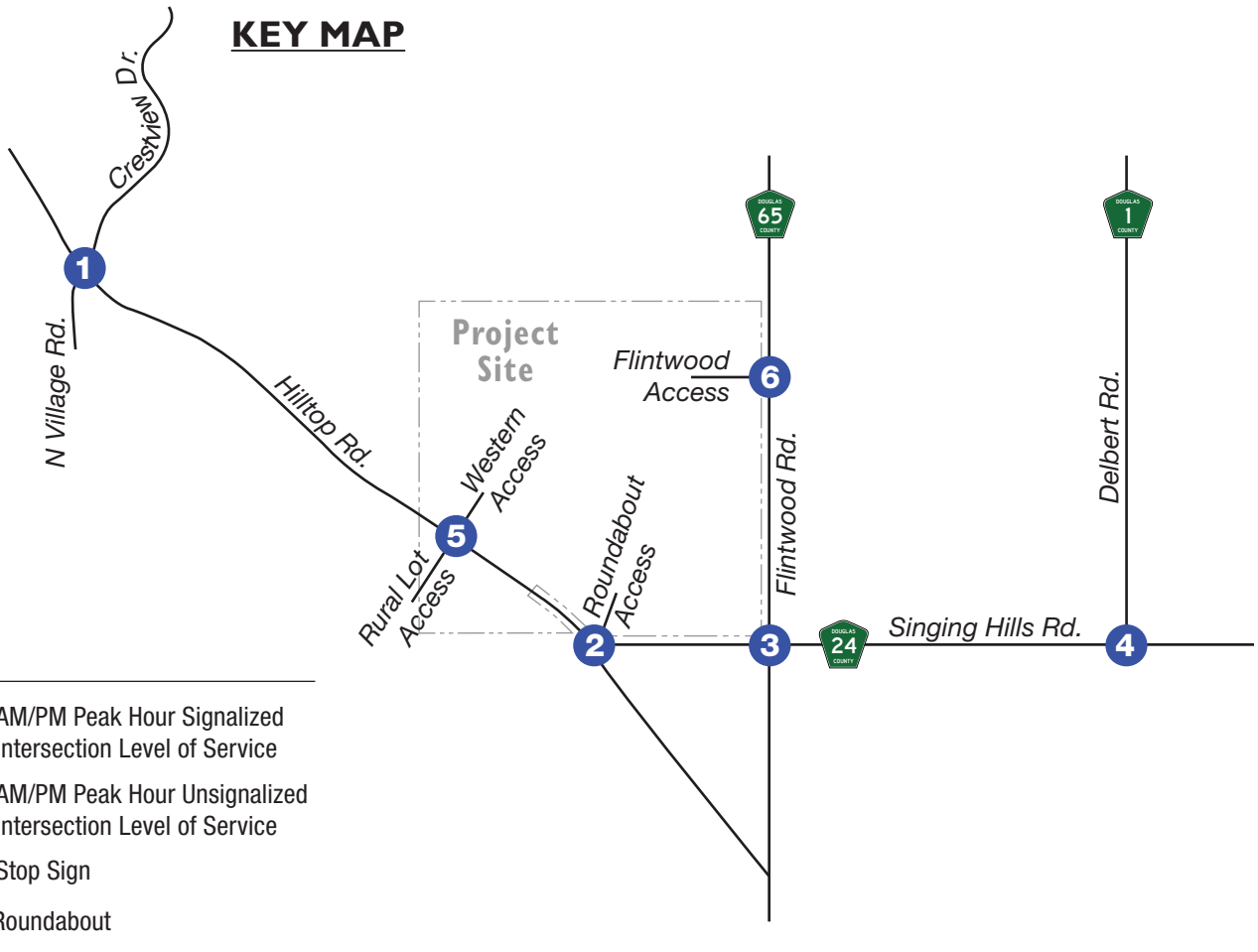
LOS A/B if signalized

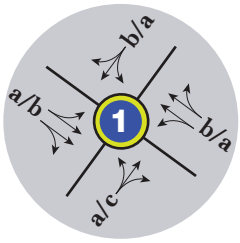
NORTH

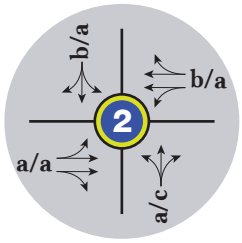
FIGURE 3
Build-Out (2028) Operational Conditions

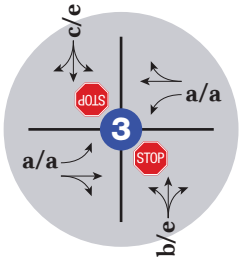
FELSBURG HOLT & ULLEVIG

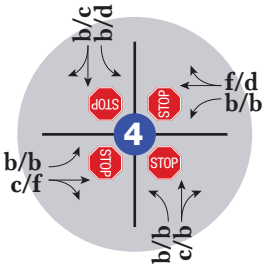
NOTE: Drawing Not to Scale



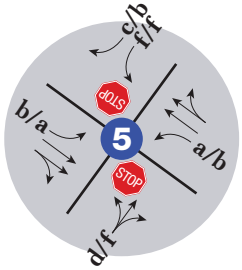


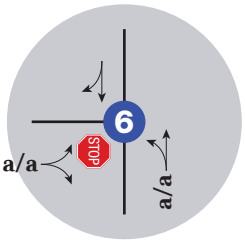






LOS C/B
if signalized





NORTH

FIGURE 4
Future (2040) Operational Conditions

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

IV. SUMMARY

An evaluation has been conducted to compare trip generation and impacts related to the reduction in dwelling units for Fields from 255 to 130. The results of these analyses find:

- Daily and peak hour vehicle trips are reduced for each time period. Over 1,000 trips are reduced on a daily basis, with 21 to 72 trips reduced in either peak hour, depending upon direction.
- Only the number of trips for the Rural Lots increased since five dwelling units are now in this category versus only one in previous analyses.
- It was found that some individual intersection movements improved in LOS designation, while many remained the same during both the AM and PM peak hours.
- In 2028, most vehicle movements will operate at LOS D or better with many being LOS C or better. Only the Singing Hills Road/Delbert Road intersection will operate poorly with its continued All-Way stop control (westbound LOS F in the AM peak hour and eastbound LOS F during the PM peak hour). If signalized, it will operate at LOS A and B during the AM and PM peak hours, respectively.
- For the future planning horizon of 2040, there will again be improvements in some of the individual LOS designations, with many remaining the same. Outbound movements from the five Rural Lots and the left turn from the Western Access will operate at LOS F simply due to the large number of vehicles along Hilltop Road. Northbound and southbound movements on Flintwood Road will continue to be LOS E during the PM peak hour. The Delbert Road intersection will continue to operate poorly, at LOS F with All-Way stop control. If signalized, it will operate at LOS C or better during the two peak hours.
- If Hilltop Road is not widened and the Singing Hills Road roundabout is not constructed, resulting in the need for a temporary RIRO access, the Western Access will have poor operational conditions, particularly for the outbound left turn movements.
- The southeastbound left turn lane at the Western Access can include 75' of vehicle storage space. The northwestbound left turn lane for movements into the Rural Lots can be 25'.

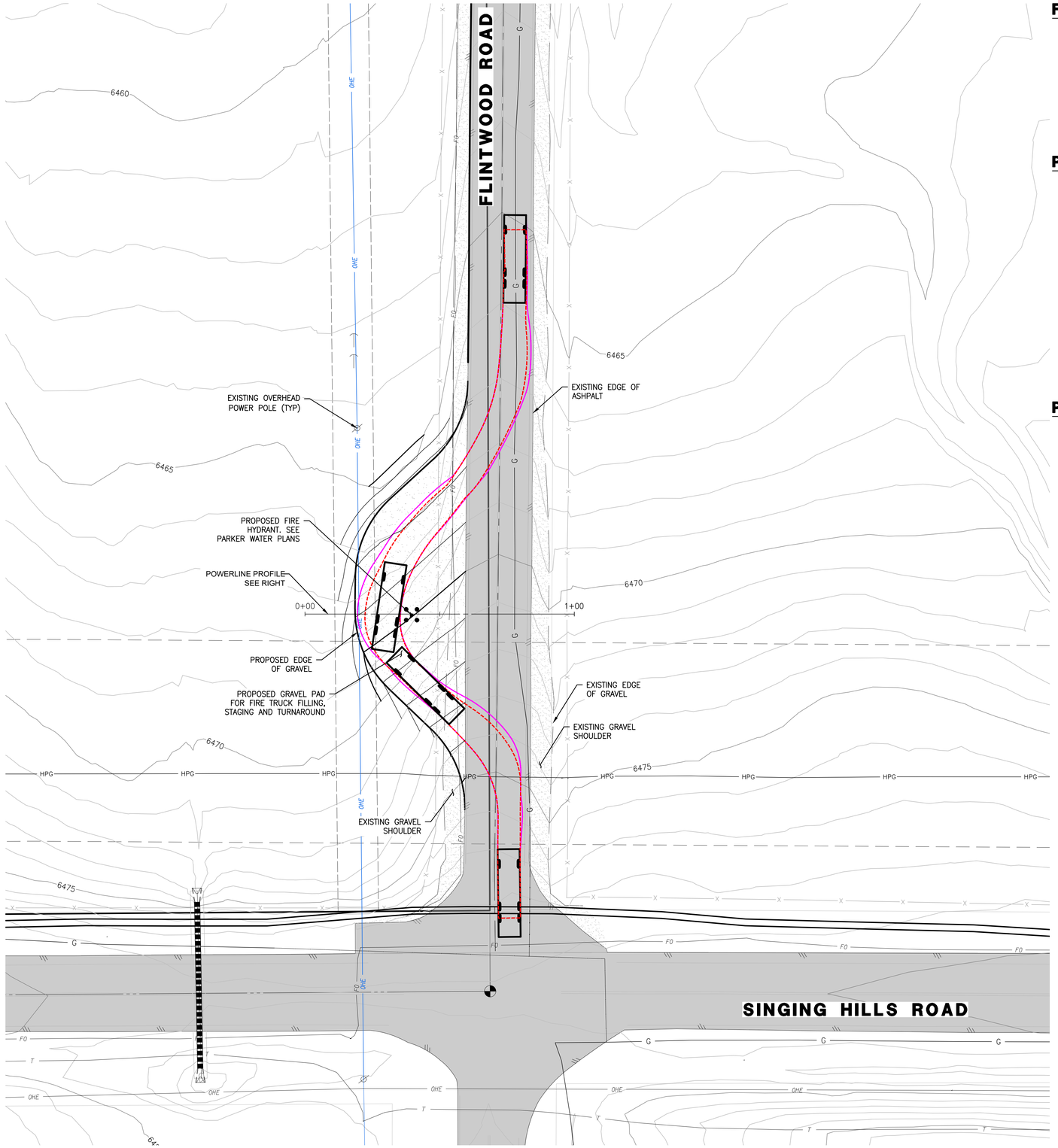
I hope the information contained in this letter meets the expectations of Douglas County. Please let me know if you have any questions or if you need further assistance.

Respectfully,

FELSBURG HOLT & ULLEVIG



Richard R. Follmer, PE, PTOE
Associate



FIRE TRUCK TEMPLATE

Kenworth Tender	
Overall Length	32.604ft
Overall Width	8.160ft
Overall Body Height	8.724ft
Min Body Ground Clearance	1.395ft
Track Width	8.160ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	33.500ft

POWERLINE SAG ASSUMPTIONS

CONDUCTOR:	ACSR DRAKE (795 KCMIL, 26/7 STRANDING).
WEIGHT (W):	1.094 LB/FT (1.63 KG/M).
SPAN (L):	244 FT (74.37 M).
TENSION (T):	TYPICAL DESIGN TENSION OF 5000 LB (22,241 N) AT 60°F (15.6°C),

ADJUSTED FOR TEMPERATURE:
LOW TEMPERATURE: 0°F (−17.8°C).
HIGH TEMPERATURE: 100°F (37.8°C).

THERMAL EXPANSION COEFFICIENT: 19.2 X 10^{-6} PER °C FOR ACSR (ALUMINUM−DOMINATED).

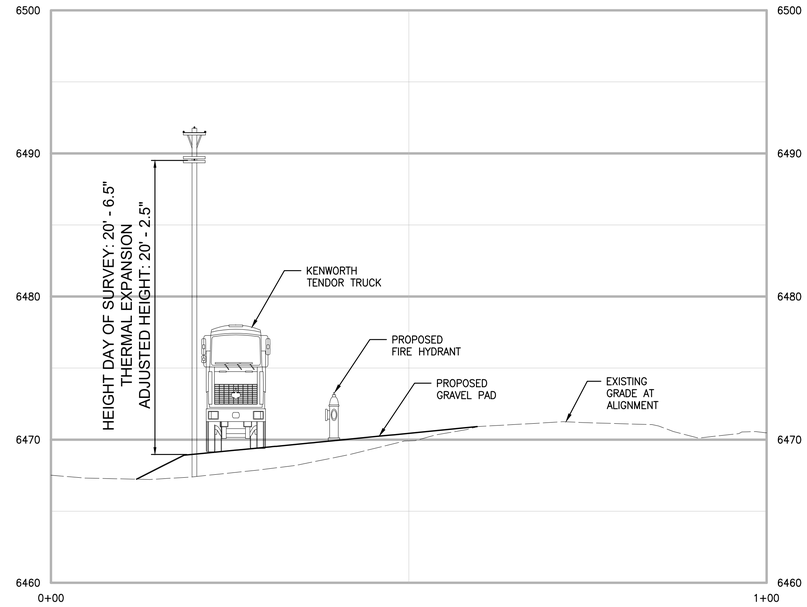
NO ICE OR WIND LOAD FOR SIMPLICITY.

POWERLINE SAG RESULTS

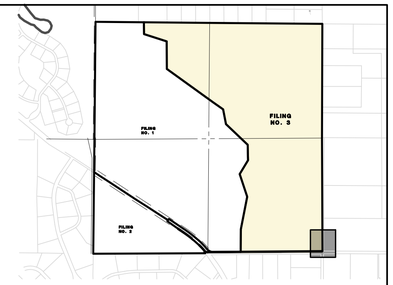
TEMPERATURE DAY OF SURVEY (03−19−2025): 25°F

LOW TEMP (0°F) TO HIGH TEMPERATURE (100°F) THERMAL EXPANSION SAG APPROXIMATELY 4IN.

CLEARANCE TO PROPOSED GRADE DAY OF SURVEY: 20' − 6.5"
CLEARANCE TO PROPOSED GRADE ON HIGH TEMP DAY: 20' − 2.5"



POWERLINE PROFILE
HORZ: 1"=10'
VERT: 1"=5'



KEY MAP
SCALE: N.T.S

LEGEND

- OVERALL BOUNDARY
- EXISTING OVERHEAD ELEC. (OHE)
- PROPOSED WATER (W)
- EX MAJOR CONTOUR (6480')
- EX MINOR CONTOUR (6473')
- FIRE TRUCK FRONT BUMPER
- FIRE TRUCK PATH
- EXISTING GAS EASEMENT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER

N

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

SHEET 01 OF 02

RICK
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com

FIELDS FILING NO. 3
FIRE TRUCK TURNING TEMPLATE
POWERLINE DETAIL

PROJECT NO:	2214	SCALE:	1"=20'
DRAWN BY:	KEC/DAL	DATE:	3/27/2025

C:\RICK\Projects\002000\2214_Fields\Civil\Exhibits\2214_F3-Powerline-Profile.dwg — plotted by: dimon ON 2025-03-27 @ 16:27 — ctb:rec_ncs_v2.ctb — © 2025 Rick Engineering Company

C:\RICK\Projects\002000\2214_Fields\Civil\Exhibits\2025-0226_ClientExhibits\2025-0227-SectionLine-EXH.dwg - plotted by: dimon ON 2025-03-03 @ 13:01 - ctbres_ncs_v2.ctb - © 2025 Rick Engineering Company

SINGING HILLS
0.5 MILES SOUTH

FLINTWOOD ROAD

CHINOOK TRAIL

LONG OUTFALL
(DRAINAGE CHANNEL)

FIELDS
FILING
NO. 3

40.07' EDGE OF ROADWAY TO SECTION LINE
15.97' EDGE OF ROADWAY TO SECTION LINE
28.22' SECTION LINE TO ROADWAY CENTERLINE
SECTION LINE
39.98' EDGE OF ROADWAY TO SECTION LINE
15.48' EDGE OF ROADWAY TO SECTION LINE
26.34' SECTION LINE TO ROADWAY CENTERLINE
37.89' EDGE OF ROADWAY TO SECTION LINE
14.37' EDGE OF ROADWAY TO SECTION LINE
26.81' SECTION LINE TO ROADWAY CENTERLINE
39.11' EDGE OF ROADWAY TO SECTION LINE
14.33' EDGE OF ROADWAY TO SECTION LINE
28.07' SECTION LINE TO ROADWAY CENTERLINE
SECTION LINE
44.84' EDGE OF ROADWAY TO SECTION LINE
21.17' EDGE OF ROADWAY TO SECTION LINE
32.64' SECTION LINE TO ROADWAY CENTERLINE

WIDTH VARIES
RIGHT-OF-WAY
REC. NO #10004124

WIDTH VARIES
PRESCRIPTIVE
RIGHT-OF-WAY

ASSUMED
RIGHT-OF-WAY

EXISTING FENCE

WIDTH VARIES
PRESCRIPTIVE
RIGHT-OF-WAY

ASSUMED
RIGHT-OF-WAY

EXISTING FENCE

ASSUMED
RIGHT-OF-WAY

EXISTING FENCE

WIDTH VARIES
PRESCRIPTIVE
RIGHT-OF-WAY

WIDTH VARIES
PRESCRIPTIVE
RIGHT-OF-WAY

60'
RIGHT-OF-WAY
REC. NO #2015037206

PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE

SARA RAE WALLDEN
AGRICULTURAL (AG)

RONALD D LESSACK
& JUDITH ANN LESSACK
& KEVIN P HAYEN
& SUZANNE ELIZABETH
HAYEN
AGRICULTURAL (AG)

KENNETH W BLACK &
SANDRA E BLACK
AGRICULTURAL (AG)

FRANCIS E CAY
AGRICULTURAL
(AG)

FRANCIS E CAY
AGRICULTURAL
(AG)

PAUL S HERSKOWITZ
& REBECCA D
HERSKOWITZ
AGRICULTURAL (AG)

WILLIAM D JOHNSON
& BETH A JOHNSON
AGRICULTURAL (AG)

TERESA MARIE ALBIN DAVIS
AGRICULTURAL (AG)

DEBBIE PENLEY
RURAL RESIDENTIAL
(RR)

LINDA S WILLIAMS
& CHAD A WILLIAMS
GENE A WILLIAMS JR
RURAL RESIDENTIAL
(RR)

N

100 50 0 100 200
GRAPHIC SCALE: 1"=100'

RICK ENGINEERING COMPANY
8678 CONCORD CENTER DR
UNIT 200
ENGLEWOOD, CO 80112
303.537.8020
rickengineering.com

FIELDS FILING NO. 3

ROADWAY EXHIBIT
SECTION LINE COMPAIRISON

PROJECT NO:	2214	SCALE:	1"=XX'
DRAWN BY:	KEC/DAL	DATE:	3/3/2025

GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

PROJECT TEAM

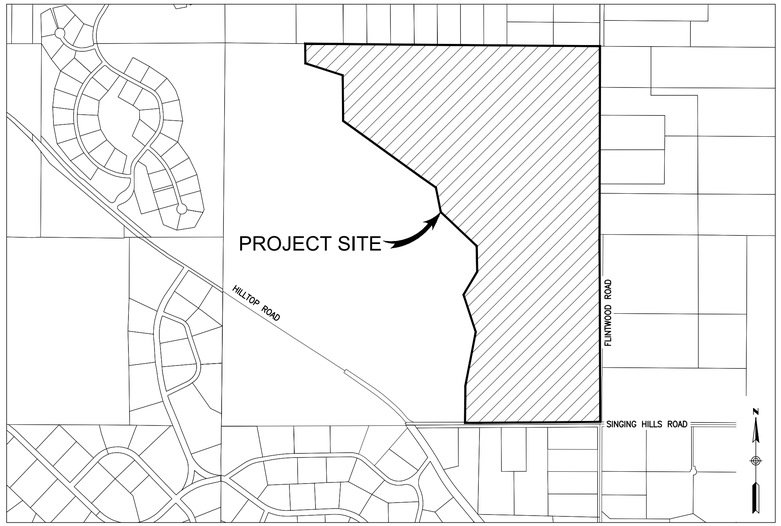
OWNER
WALDEN – HILL TOP, LLC
8678 CONCORD CENTER DR, UNIT 200
ENGLEWOOD, CO 80112
CONTACT: TOM CLARK
PH: 303-346-7006

APPICANT / DEVELOPER
HILLTOP BROTHERS, LLC
8678 CONCORD CENTER DR, UNIT 200
ENGLEWOOD, CO 80112
CONTACT: TOM CLARK
PH: 303-346-7006

ENGINEER
RICK
8678 CONCORD CENTER, UNIT 200
ENGLEWOOD, CO 80112
ATTN: TROY BALES
PH: 303.537.8020

SURVEYOR
RICK
5690 WEBSTER
ARVADA, CO 80002
ATTN: ROBERT HENNESSY
PH: 303.423.6036

AGENCIES
DOUGLAS COUNTY COMMUNITY DEVELOPMENT DEPT
PLANNING DEVELOPMENT DIVISION
100 THIRD ST
CASTLE ROCK, CO 80104
CONTACT:
PH: HEATHER SCOTT



VICINITY MAP

SCALE: 1"=1,000'

SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
01	CV-01	COVER SHEET
02	GN-01	GENERAL NOTES
03	OV-01	OVERALL SITE PLAN
04	OV-02	OVERALL SITE PLAN WITH TOPO
05	SP-01	DETAILED SITE PLAN
06	GRD-01	GRADING PLAN

WORK TO BE DONE:

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF PAD GRADING, EROSION CONTROL, FIRE HYDRANT, & BOLLARD INSTALLATION. ACCORDING TO THE FOLLOWING PLANS, SPECIFICATIONS AND STANDARD DRAWINGS OF DOUGLAS COUNTY, COLORADO.

STANDARDS AND SPECIFICATIONS
- DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
- DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA MANUAL (2018)
- DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL (2019)
- MILE HIGH FLOOD DISTRICT CRITERIA MANUAL VOLUMES 1 (2024), 2 (2017), & 3 (2024)

LEGEND

OVERALL BOUNDARY		EXIST CONTOUR (MINOR)	5400
RIGHT OF WAY LINE		EXIST CONTOUR (MAJOR)	5400
LOT LINE		PROP CONTOUR (MINOR)	
SETBACK (FLINTWOOD RD)		PROP CONTOUR (MAJOR)	5400
SUBDIVISION FENCE		DAYLIGHT LINE	
EXIST BARBED WIRE FENCE	X	ULTIMATE HILLTOP RD	
EXIST FIBER OPTIC	FO	EXIST EASEMENT	
EXIST GAS LINE	G	PROPOSED FIRE HYDRANT	
EXIST HIGH PRESSURE GAS LINE	HPG	EXISTING ASPHALT	
EXIST OVERHEAD ELECTRIC	OHE	PROPOSED GRAVEL PAVEMENT	
EXIST WATERLINE		EXISTING GRAVEL SHOULDER	

ABBREVIATIONS

BEGIN CURVE	BC
BEGIN VERTICAL CURVE STATION	BVCS
BEGINNING OF VERTICAL CURVE ELEVATION	BVCE
CENTERLINE	CL
END CURVE	EC
END VERTICAL CURVE STATION	EVCS
END VERTICAL CURVE ELEVATION	EVCE
EXISTING GRADE	EG
FINISHED GRADE	FG
FINISHED SURFACE	FS
FLOW LINE	FL
GRADE BREAK	GB
HIGH POINT	HP
INVERT	INV
LOW POINT	LP
POINT OF CURB RETURN	PCR
POINT OF VERTICAL CURVE INTERSECTION	PVI
PROPERTY LINE	PL
STORM STRUCTURE	SD

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018.

–THE NORTHEAST CORNER OF SAID SECTION 5 BEING A #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5 BEING A #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,640.45 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 5 BEING A 3.5" ALUMINUM CAP ON PIPE PLS 35585 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019;

THENCE ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER SOUTH 89°34'33" WEST, A DISTANCE OF 1,889.93 FEET;

THENCE NORTH 00°33'09" EAST, A DISTANCE OF 551.58 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018;

THENCE ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,957,113 SQUARE FEET OR 297.454 ACRES, MORE OR LESS.

SITE BENCHMARK AND BASIS OF BEARING

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS:
NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35'
TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

BASIS OF BEARING:
BEARINGS ARE BASED ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5, BEING ASSUMED TO BEAR SOUTH 00°08'37" WEST, A DISTANCE OF 2639.95 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTHEAST CORNER OF SECTION 5 BEING A FOUND #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

–THE EAST QUARTER CORNER OF SECTION 5 BEING A FOUND #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG SAID EAST LINE OF THE NORTHEAST QUARTER SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,031.53 FEET;

THENCE NORTH 89°44'25" WEST, A DISTANCE OF 313.20 FEET;

THENCE SOUTH 00°15'35" WEST, A DISTANCE OF 307.69 FEET;

THENCE SOUTH 89°34'33" WEST, A DISTANCE OF 955.54 FEET;

THENCE NORTH 00°00'00" EAST, A DISTANCE OF 239.24 FEET;

THENCE NORTH 89°44'35" WEST, A DISTANCE OF 612.27 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5;

THENCE ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,136,166 SQUARE FEET OR 278.608 ACRES, MORE OR LESS.

ENGINEER'S CERTIFICATION

THESE CONSTRUCTION PLANS FOR TRAILS WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF THE DOUGLAS COUNTY'S ROADWAY DESIGN AND CONSTRUCTION STANDARDS, STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA, AND THE GRADING, EROSION AND SEDIMENT CONTROL MANUAL.

TROY BALES, PE 50961
RICK ENGINEERING COMPANY

NOTES

1. DOUGLAS COUNTY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE STRUCTURES AND PIPES FOR THE PRIVATE ROAD

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 05/02/2025 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

COVER SHEET

811 Know what's below. Call before you dig.

DRAWING NO.
CV-01
SHEET NO. 01 OF 06

SECOND SUBMITTAL

GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

DOUGLAS COUNTY STANDARD NOTES:

1. THE DOUGLAS COUNTY ENGINEERING DIRECTOR SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND THE DOUGLAS COUNTY SUBDIVISION RESOLUTION OR ACCEPTED VARIANCES TO THOSE REGULATIONS. THE DOUGLAS COUNTY ENGINEERING DIRECTOR, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.

2. ALL CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY STANDARDS. ANY CONSTRUCTION NOT SPECIFICALLY ADDRESSED BY THESE PLANS AND SPECIFICATIONS WILL BE BUILT IN COMPLIANCE WITH THE LATEST EDITION OF THE MOST STRINGENT OF THE FOLLOWING:
   - THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - THE COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   - THE COLORADO DEPARTMENT OF TRANSPORTATION M STANDARDS

3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION AS APPLICABLE. THE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.

4. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING INSPECTION DIVISION, 303-660-7487, A MINIMUM OF 24-HOURS AND A MAXIMUM OF 72-HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY ENGINEERING INSPECTION WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY THAT WILL BE CONVEYED TO THE COUNTY, URBAN DRAINAGE & FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATERS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY THE ENGINEERING INSPECTION DIVISION TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITY/INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE.

5. CONSTRUCTION WILL NOT BEGIN UNTIL ALL APPLICABLE PERMITS HAVE BEEN ISSUED. IF A DOUGLAS COUNTY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITTEE MAY COMMENCE WORK IN THE INSPECTOR'S ABSENCE. HOWEVER, DOUGLAS COUNTY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION.

6. THE LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION CONTACT: COLORADO 811, AT 1-800-922-1987 (WWW.COLORADO811.ORG).

7. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF THE PLANS SIGNED BY THE DOUGLAS COUNTY ENGINEERING DIRECTOR, ONE (1) COPY OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS, AS AMENDED, AND ALL APPLICABLE PERMITS AT THE JOB SITE AT ALL TIMES.

8. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO DOUGLAS COUNTY FOR ACCEPTANCE WITH THE RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT APPLICATION. A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN ACCEPTED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.

9. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF COUNTY ACCEPTANCE, AFTER WHICH TIME THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.

10. DOUGLAS COUNTY STANDARD DETAILS SHALL NOT BE MODIFIED. ANY NON-STANDARD DETAILS WILL BE CLEARLY IDENTIFIED AS SUCH.

11. PAVING, INCLUDING CONSTRUCTION OF CURB AND GUTTER (WHEN USED), SHALL NOT START UNTIL A PAVEMENT DESIGN REPORT AND SUBGRADE COMPACTION TESTS ARE ACCEPTED BY THE ENGINEERING INSPECTION DIVISION FOR ALL PUBLIC AND PRIVATE ROADS.

12. STANDARD DOUGLAS COUNTY HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT MID-BLOCK LOCATIONS OPPOSITE OF ONE OF THE CURB RETURNS OF ALL "T" INTERSECTIONS AS IDENTIFIED ON THESE PLANS.

13. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.

14. ALL ELEVATIONS ARE ON UNITED STATES COAST AND GEODETIC SURVEY (USC&GS) (NAVD-88) DATUM WITH DATE. THE RANGE POINT OR MONUMENTS SHALL BE SHOWN ON CONSTRUCTION DRAWINGS.

15. ALL STORM SEWER IMPROVEMENTS (PUBLIC AND PRIVATE) INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES REQUIRE PERMITTING AND INSPECTIONS. PLEASE CONTACT THE DOUGLAS COUNTY ENGINEERING INSPECTIONS DIVISION AT 303- 660-7487 FOR PERMITTING REQUIREMENTS AND INSPECTIONS SCHEDULING.

16. TWO (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE "R" CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH.

17. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.

18. DOUGLAS COUNTY REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.

19. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.

20. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.

21. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTION OF AN RCP OUTFALL.

22. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.

23. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS.

24. FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP PADS.

25. THE PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF COLORADO, SIGNING THESE PLANS IS RESPONSIBLE FOR ENSURING THAT THE DETAILS INCLUDED ARE COMPATIBLE WITH THE STANDARDDOUGLAS COUNTY DETAILS CONTAINED IN THE LATEST VERSIONS OF THE CRITERIA MANUALS. THIS INCLUDES, BUT IS NOT LIMITED TO:
   - DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA
   - DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA
   - CDOT M & S STANDARDS
   - MUTCD
   - URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1,2 & 3

27. A TEMPORARY CONSTRUCTION ACCESS PERMIT FROM DOUGLAS COUNTY MAY BE REQUIRED FOR ANY PROJECT.

RICK ENGINEERING COMPANY NOTES:

1. ANY QUESTION RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL UTILITIES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 303-537-8020. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (TEMPORARY EROSION CONTROL BMPS) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATIONS IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.

5. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE AND ELECTRIC CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER AND/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM SAME.

7. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.

8. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.

9. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.

10. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.

11. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ABOVE-NAMED SPECIFICATIONS.

12. ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION.

13. IN THE CASE OF A CONFLICT BETWEEN THESE NOTES AND THOSE OF DOUGLAS COUNTY, THE DOUGLAS COUNTY NOTES SHALL TAKE PRECEDENCE.

BENCHMARK NOTE:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS: NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35'
TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP (LAT. N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO:	D2214
DATE:	05/02/2025
DRAWN/DESIGNED BY:	DAL/KEC
CHECKED BY:	TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

GENERAL NOTES

Know what's below. Call before you dig.

DRAWING NO.
GN-01
SHEET NO. 02 OF 06

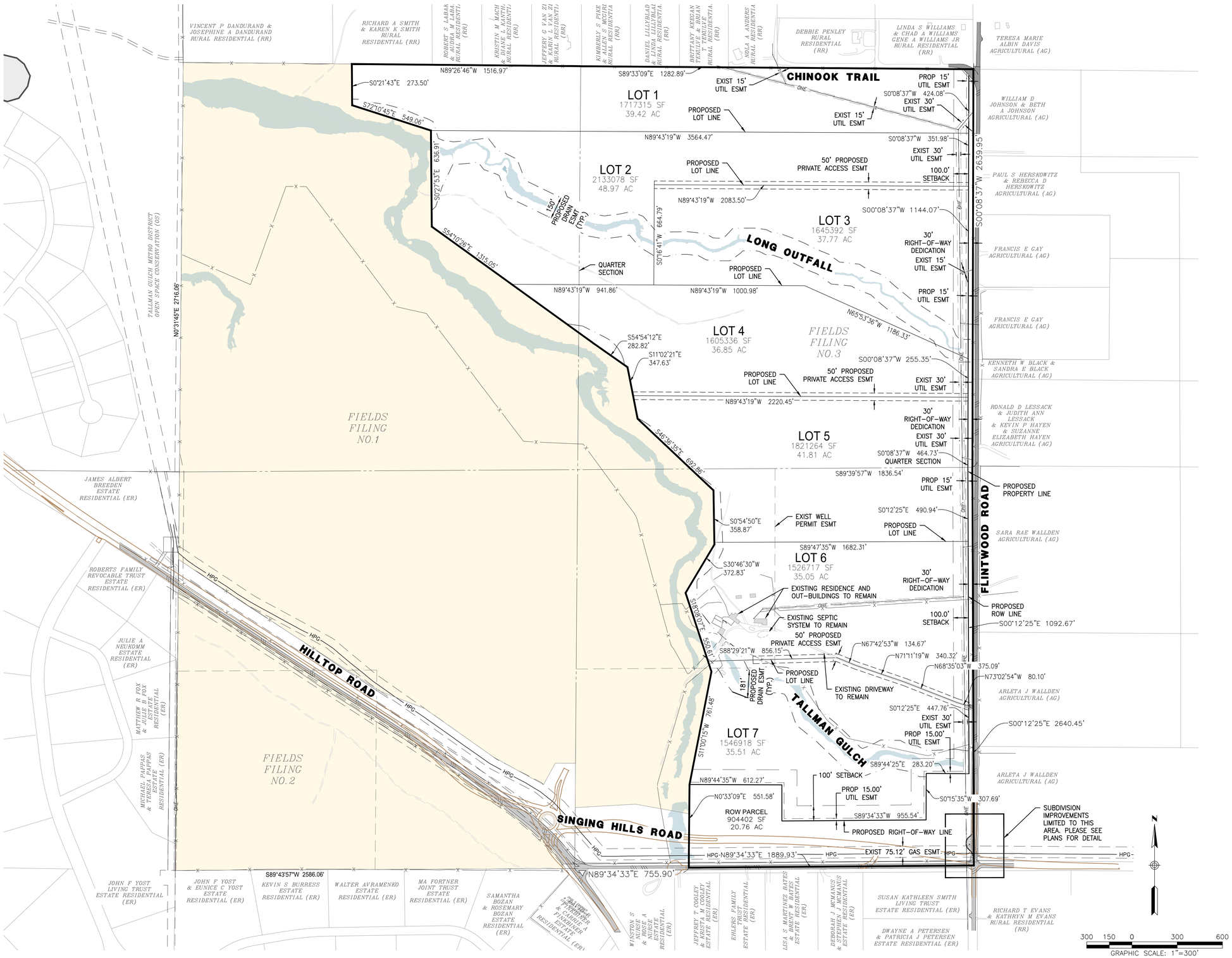
SECOND SUBMITTAL

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GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO



LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- SETBACK (FLINTWOOD RD)
- EXISTING FENCE
- SUBDIVISION FENCE
- EXISTING TRAIL
- ULTIMATE HILLTOP/SINGING HILLS
- EXIST FIBER OPTIC — FO
- EXIST GAS LINE — G
- EXIST HIGH PRESSURE GAS LINE — HPG
- EXIST OVERHEAD ELECTRIC — OHE
- EXIST WATERLINE
- EXISTING TREES
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- 100 YEAR WATER SURFACE ELEV (WSE) FOR MAJOR DRAINAGEWAYS
- NOT PART OF THIS DEVELOPMENT

NOTES

1. CENTRAL WATER AND SEWER WILL BE SERVED BY WELL AND SEPTIC SYSTEMS.

SETBACKS

SINGING HILLS SETBACK	100'
FRONT SETBACK	25'
REAR SETBACK	
PRIMARY	25'
ACCESSORY	15'
SIDE SETBACK	
CORNER LOT	25'
INTERIOR LOT	15'

BENCHMARK NOTE:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS: NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35'
TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP (LAT. N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

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DATE: 05/02/2025 CHECKED BY: TWD

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GRADING, ROADWAY AND DRAINAGE PLANS

DOUGLAS COUNTY, CO

OVERALL SITE PLAN

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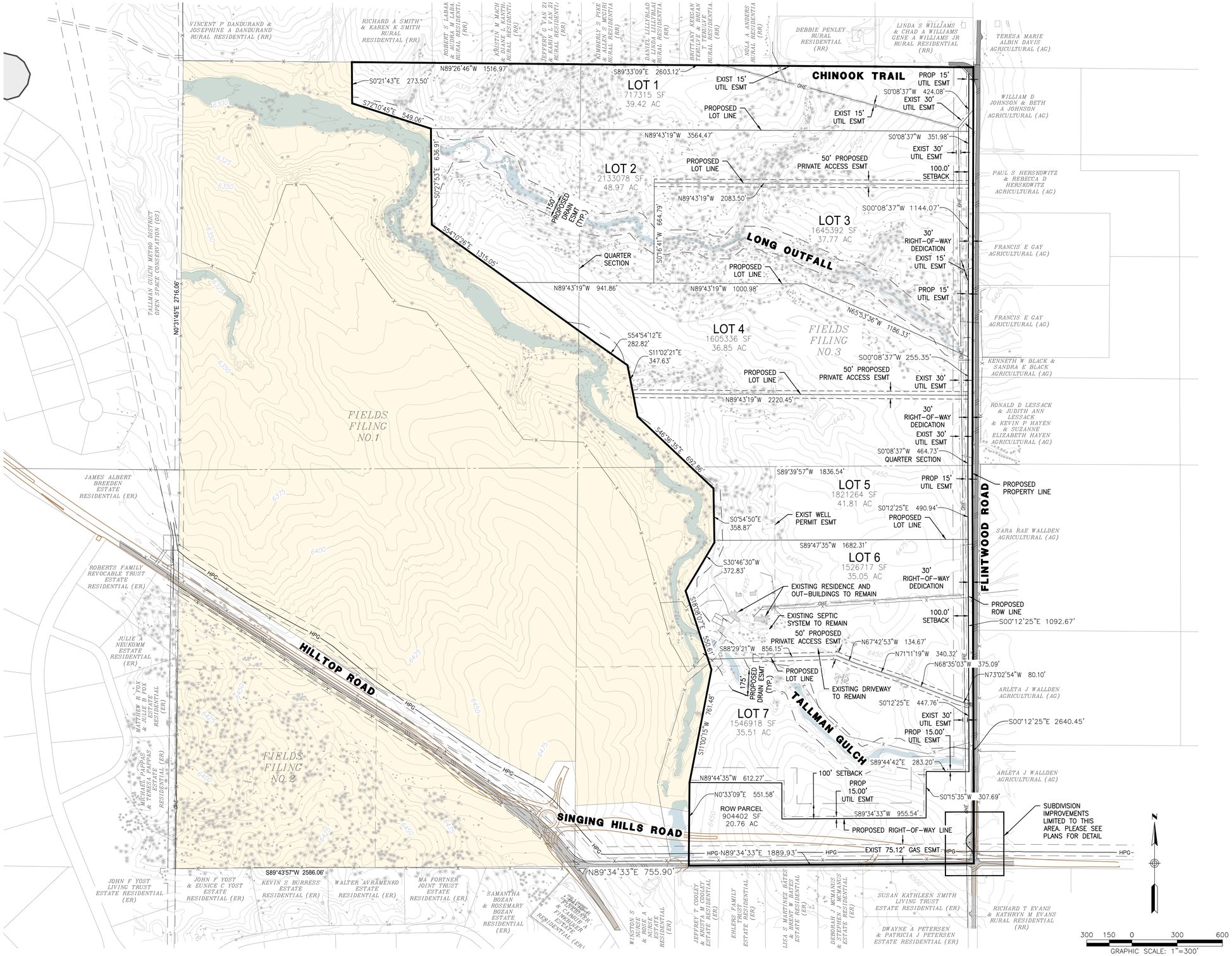
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GRADING, ROADWAY AND DRAINAGE PLANS

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO



300 150 0 300 600

GRAPHIC SCALE: 1"=300'

LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- SETBACK (FLINTWOOD RD)
- SUBDIVISION FENCE
- EXISTING FENCE
- EXISTING TRAIL
- EXISTING CONTOURS
- ULTIMATE HILLTOP/SINGING HILLS
- EXIST FIBER OPTIC (FO)
- EXIST GAS LINE (G)
- EXIST HIGH PRESSURE GAS LINE (HPG)
- EXIST OVERHEAD ELECTRIC (OHE)
- EXIST WATERLINE
- EXISTING TREES
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- 100 YEAR WATER SURFACE ELEV (WSE) FOR MAJOR DRAINAGEWAYS
- NOT PART OF THIS DEVELOPMENT

NOTES

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SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

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GRADING, ROADWAY AND DRAINAGE PLANS

DOUGLAS COUNTY, CO

OVERALL SITE PLAN WITH TOPO

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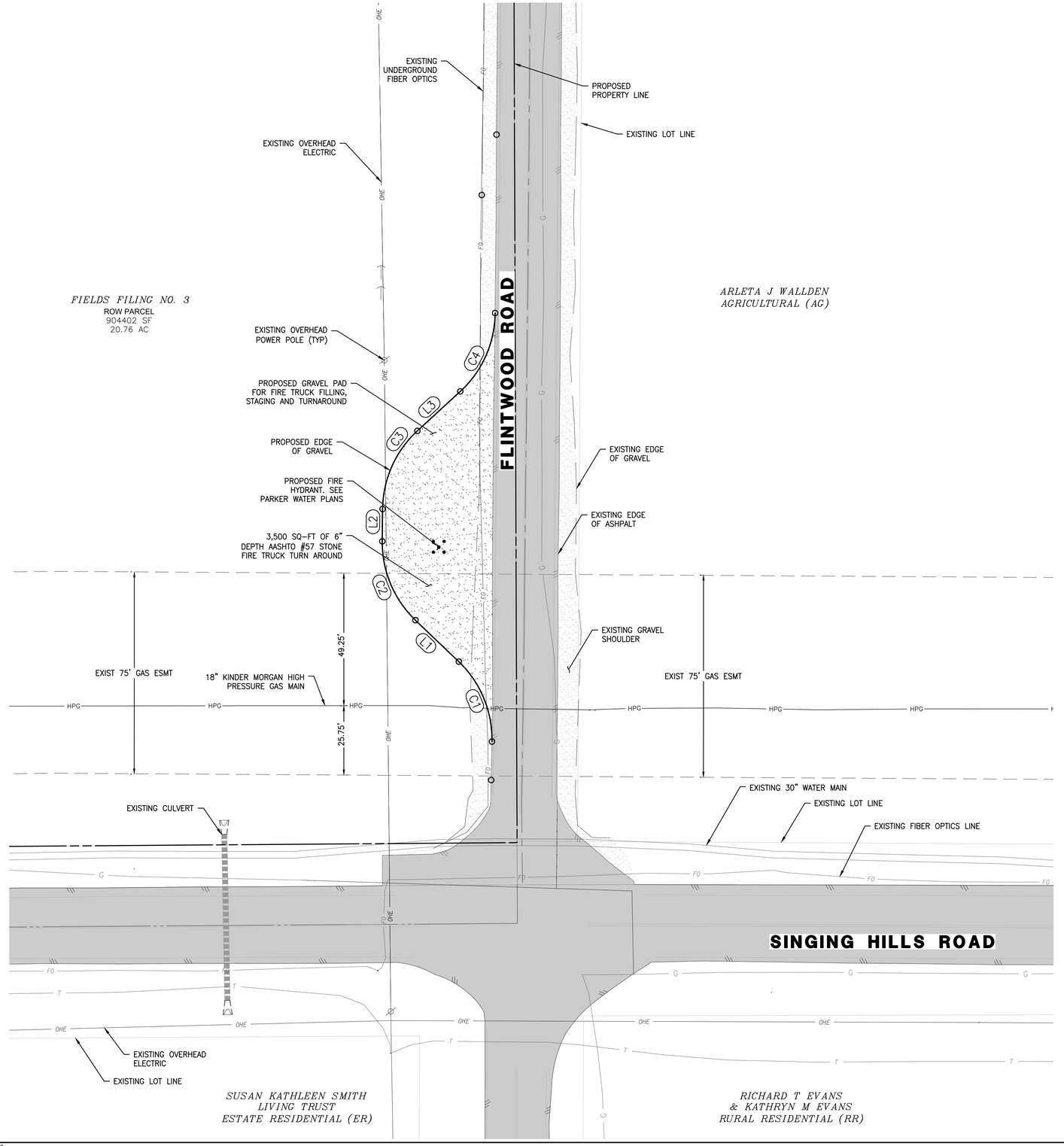
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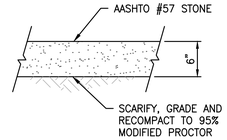
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GRADING, ROADWAY AND DRAINAGE PLANS

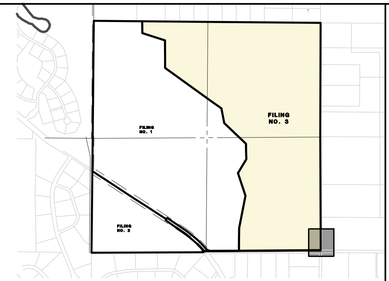
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A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





TYPICAL GRAVEL SECTION
N.T.S.



KEY MAP
SCALE: N.T.S

LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- LINE AND CURVE REFRENCE
- SETBACK (HILLTOP RD)
- SUBDIVISION FENCE
- ULTIMATE HILLTOP RD
- POND 100-YR WSEL
- EXIST EASEMENT
- EXIST BARBED WIRE FENCE
- EXIST FIBER OPTIC
- EXIST GAS LINE
- EXIST HIGH PRESSURE GAS LINE
- EXIST TELEPHONE
- EXIST WATERLINE
- EXISTING ASPHALT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER

NOTES

1. TRACT A WILL BE DEDICATED TO THE HOME OWNERS ASSOCIATION.
2. CENTRAL WATER AND SEWER WILL BE SERVED BY WELL AND SEPTIC SYSTEMS.
3. PINE HAVEN ROAD WILL BE PRIVATE.

LINE AND CURVE TABLES

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	22.30'	N46°13'36.31"W
L2	12.00'	N00°35'35.76"E
L3	21.63'	N47°24'47.83"E

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	33.06'	40.00'	047°21'40""
C2	32.69'	40.00'	046°49'12""
C3	32.69'	40.00'	046°49'12""
C4	33.89'	40.09'	048°26'25""

BENCHMARK NOTE:

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N

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

DRAWN/DESIGNED BY: DAL/KEC
CHECKED BY: TWD
D2214
PROJECT NO:
05/02/2025
DATE:

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

DETAILED SITE PLAN

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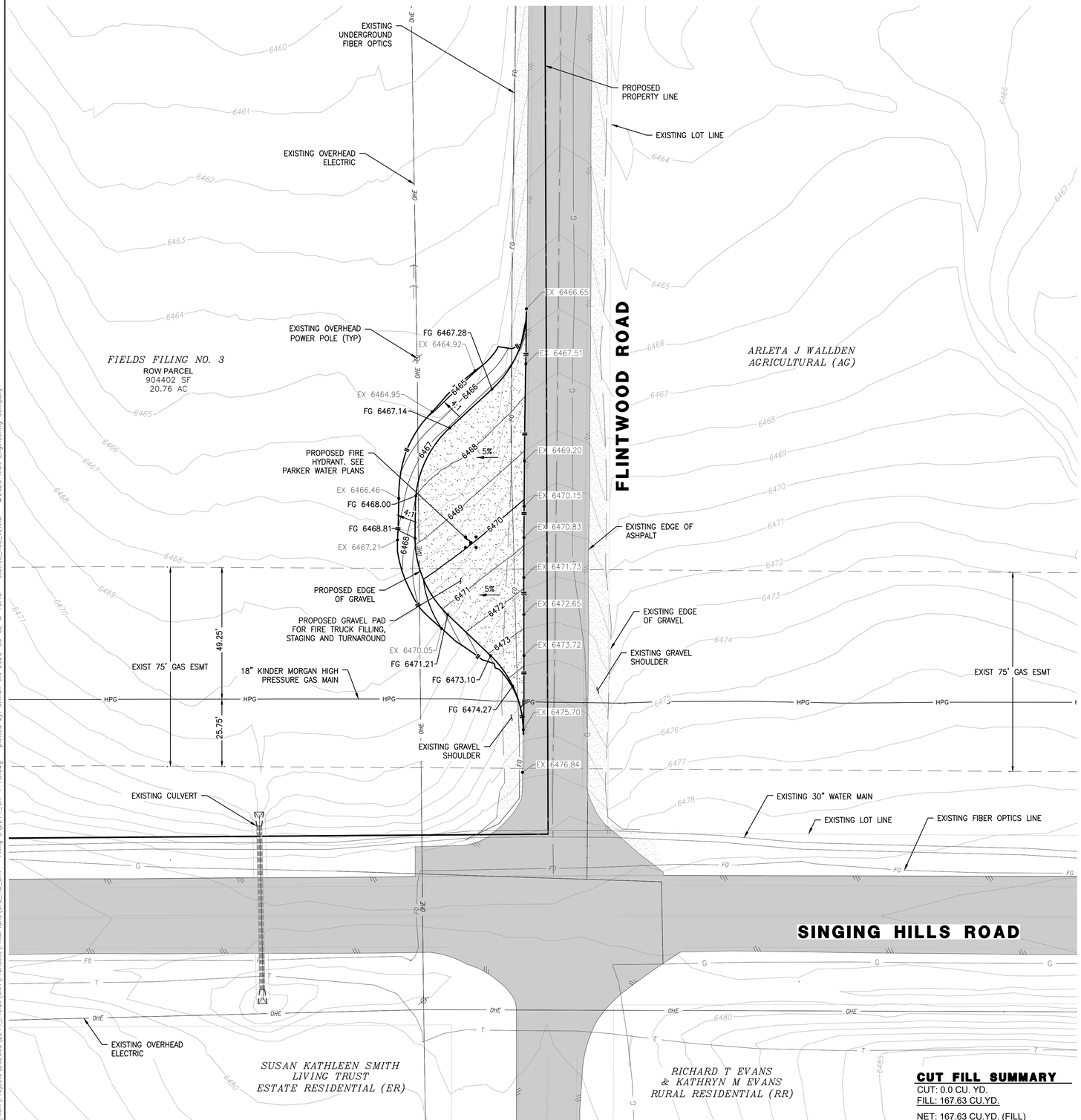
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GRADING, ROADWAY AND DRAINAGE PLANS

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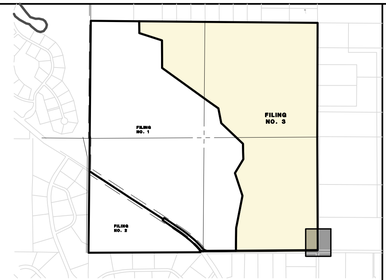
A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO



CUT FILL SUMMARY

CUT: 0.0 CU. YD.
FILL: 167.63 CU.YD.

NET: 167.63 CU.YD. (FILL)



KEY MAP
SCALE: N.T.S

LEGEND

- OVERALL BOUNDARY
- RIGHT OF WAY LINE
- LOT LINE
- SETBACK (HILLTOP RD)
- SUBDIVISION FENCE
- ULTIMATE HILLTOP RD
- EXIST EASEMENT
- EXIST BARBED WIRE FENCE — X
- EXIST FIBER OPTIC — FO
- EXIST GAS LINE — G
- EXIST HIGH PRESSURE GAS LINE — HPG
- EXIST TELEPHONE — T
- EXIST WATERLINE — 30" W
- EXIST CONTOUR (MINOR)
- EXIST CONTOUR (MAJOR) — 5400
- PROP CONTOUR (MINOR)
- PROP CONTOUR (MAJOR) — 5400
- DAYLIGHT LINE
- EXISTING ASPHALT
- PROP ASPHALT
- PROP GRAVEL SHOULDER

BENCHMARK NOTE:

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20 10 0 20 40
GRAPHIC SCALE: 1"=20'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

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SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO: D2214 | DRAWN/DESIGNED BY: DAL/KEC
DATE: 05/02/2025 | CHECKED BY: TWD

CONSTRUCTION DOCUMENTS PREPARED FOR:
FIELDS FILING NO. 3
GRADING, ROADWAY AND DRAINAGE PLANS
DOUGLAS COUNTY, CO

GRADING PLAN

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SHEET NO. 06 OF 06

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GESC REPORT

Grading, Erosion, and Sediment Control Report

Fields Filling No. 3

Prepared under the supervision of:
Troy Bales, PE #50961
Rick Engineering
8678 Concord Center Drive, Suite #200
Englewood, CO 80112

RICK Job No. 2214
April 2025

RICK

Grading, Erosion, and Sediment Control Report
Fields Filing No. 3

for

Hilltop Brothers, LLC
8678 Concord Center Drive, Suite #200
Englewood, CO 80112
303-346-7006

by

Rick Engineering Company
8678 Concord Center Drive, Suite #200
Englewood, CO 80112
303-537-8020

April 4, 2025

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APPENDIX B – GESC DRAWING AND REPORT CHECKLIST

APPENDIX C – OPINION OF PROBABLE COST FOR INSTALLATION OF BMPs

APPENDIX D – GESC PLAN

"THIS GRADING, EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PLACED IN THE DOUGLAS COUNTY FILE FOR THIS PROJECT AND APPEARS TO FULFILL THE APPLICABLE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER OR HIS/HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LAND OWNER, OR HIS/HER DESIGNATED REPRESENTATIVE(S) UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED."

Certification

Professional Engineer:

"This report and plan for the Grading, erosion and sediment control design of the Fields Filing No. 3 development was prepared by me (or under my direct supervision) in accordance with the provisions of Douglas County Grading, Erosion, and Sediment Control (GESC) manual for the owners thereof. I understand that Douglas County does not and will not assume liability for drainage facilities designed by others."

_____

(Troy Bales)
Registered Professional Engineer
Date:

State of Colorado No.: _____

Company: Rick Engineering Company

Developer:

"Hilltop Brothers, LLC hereby certifies that the grading, erosion, and sediment control for the Fields Filing No. 3 Development shall be constructed according to the design presented in this report. I understand that Douglas County does not and will not assume liability for the grading, erosion and sediment control facilities designed and/or certified by my engineer that Douglas County cannot, on behalf of Fields Filing No. 3, guarantee that the final drainage design review will absolve Hilltop Brothers, LLC and/or their successors and/or assigns of future liability for improper design. I further understand that approval of the final plat does not imply approval of my engineer's drainage design."

_____
Name of Developer

_____
Authorized Signature

I. Introduction

A. Grading, Erosion, and Sediment Control Objective:

The objective of this Grading, Erosion, and Sediment Control report for Fields Filing No. 3, is to meet the Douglas County GESC permit requirements and to identify the Best Management Practices (BMPs) which, when implemented, will meet the requirements of the Colorado Department of Public Health & Environment, Water Quality Control Division. According to *Colorado Department of Public Health and Environment Stormwater Management Plan Preparation Guidance* (4/2011), the GESC shall "identify all potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the facility; describe the practices to be used to reduce the pollutants in stormwater discharges associated with construction activity at the facility; and ensure the practices are selected and described in accordance with good engineering practices, including the installation, implementation and maintenance requirements; and be properly prepared, and updated in accordance with Part I.E.5.c, to ensure compliance with the terms and conditions of this permit." The GESC must be completed and implemented at the time the project breaks ground, and revised if necessary, as construction proceeds to accurately reflect the conditions and practices at the site.

The GESC report is a "living" document which should be modified and updated through the course of site construction. Pollutant sources should be continuously evaluated, BMPs selected, documented, implemented, and pollutant sources re-evaluated (and the process continued). A current copy of the GESC report shall be kept onsite at all times. A person familiar with the GESC report and on-site construction activities and clean-up procedures should be designated as the GESC Administrator for the site. The GESC Administrator will be responsible for (but not limited to) inspections and inspection reports, personnel training, regulatory agency contact, GESC plan implementation and revisions, field notebooks, and record keeping of employee activities, contacts, notifications.

B. Location

Fields Filing No. 3 is located within the Southwest Quarter of Section 5, Township 7 South, Range 65 West of the 6th Principal Meridian, County of Douglas, State of Colorado. The site is bounded by Singing Hills Road to the south, and Flintwood Road to the east. The site encompasses approximately 298 acres; see GESC Plans in Appendix D.

C. Project Description

This GESC report and associated plans cover the creation of a gravel pad to allow for Fire service, providing a fire hydrant for responders to fill and return to the 7 lots being proposed. Individual end users will develop Site Improvements Plans (SIPs) associated with the development of their individual lots, and the lot owners will prepare and submit separate GESC plans and reports at the time of their development. The overall development will include all necessary infrastructure, inclusive of the access road and traffic control, dry utilities, drainage swales and a drainage control facility. Wet utilities for the site will not be necessary.

D. Existing Site Conditions and Surrounding Areas

The property is generally undeveloped consisting of natural terrain. The property is vegetated with grasses, weeds, and yucca, with many deciduous and coniferous trees present. The topography of the site generally slopes towards the north with portions of the property sloping to the west and southwest of the property. A dirt road crosses through the center of the property from northwest to southeast. No site conditions or features typically associated with "recognized environmental conditions" were identified during the site reconnaissance by the environmental consultant on the project.

II. Site Description

A. Construction Activity Description

Construction activity includes installation of BMPs, overall grading of access to the site including drainage conveyance, installation of utilities (Water service and Fire Hydrant), and gravel pavement.

B. Proposed Sequence for Major Activities

The sequence for major construction activities includes the installation of BMPs, followed by site grading, construction of infrastructure and establishment of permanent BMPs.

C. Area Estimates

The total area of the site is approximately 298 acres. The approximate area of disturbance for the project is about 0.15 acres, which includes the gravel pad, and installation of utilities. The site is bounded by Singing Hills Road to the south, and Flintwood Road to the east.

Grading the site will require an estimated 167 cubic yards (CY) of fill material. No cut materials will be removed from the site. The fill material needed for the proposed gravel pad on the Filing No. 3 development site is anticipated to be imported.

This GESC report does not include additional offsite area (for staging, material storage, overburden stockpiles of dirt, borrow areas, etc) other than that mentioned above.

D. Runoff Coefficient and Soil Description

According to *Mile High Flood District Urban Storm Drainage Criteria Manual Volume 3* (04/2024), the "C" values for this site include Low traffic Areas of gravel with an impervious value of 0.60 and 100-year runoff coefficient value of 0.71, areas of undeveloped land with a C value of 0.45. Within the limits of construction, the weighted 100-Year C value of the site prior to improvements is 0.45 and after the proposed improvements is 0.48.

According to the Natural Resources Conservation Services (NRCS) Maps, the site consists of Hydrologic Soil Group A (32%), B (53%), and C (15%)

E. Existing Vegetation

A visual assessment of habitat conditions noted that the site is characterized by sparsely vegetated fields containing native grasses typical to undeveloped Front Range areas. Based on the visual assessment performed, the site has 87% ground cover.

F. Pollutants Associated With Construction Activities (Other Than Sediment)

Potential pollutants other than sediment associated with construction activity may include solvents, metals, pesticides, (insecticides, fungicides, herbicides, rodenticides, etc.), petrochemicals (oils, gasoline, asphalt degreasers, etc.), plated products, asphalt, paints, wood, garbage, sanitary wastes, fertilizers, and wash waters associated with many of these products.

Practices must be used to prevent these potential pollutants from leaving the construction site. Pollutants such as oils, waxes, and water-insoluble pesticides form surface films on water and solid particles. Also, oil films serve as a medium for concentrating water-soluble insecticides. Other than by use of very costly water-treatment facilities or extended runoff water detention periods, these pollutants become nearly impossible to control once present in the runoff.

Procedures must be established to protect watercourses from damage by sediment and other pollutants generated during construction activities. The variety of pollutants and the severity of the damage caused depend upon a number of factors, including:

- The nature of the construction activity – some sites may store hazardous liquids and solid non-wastes on site.
- The physical characteristics of the construction site, including weather, time of year for construction (dry or rainy season),

topography, soil conditions, drainage systems, etc.

- The proximity, volume, and quality of the receiving waters (i.e. the amount and purity of the water receiving the contaminated runoff).

The physical characteristics of the construction site have a significant impact on the potential discharge of pollutants from construction activities. As with sediment, the vast majority of all pollutants are carried into the receiving waters via storm runoff. The amount of runoff discharging from a construction site depends upon the several hydrologic factors. These factors include the rainfall intensity and frequency, the infiltration rate of the soil; the surface roughness; and the length and steepness of the longest watercourse. Large areas that have been denuded (stripped of vegetation), have long slopes, steep slopes, compacted soils, and high intensity rainfall are conducive to increased runoff.

The most economical and effective controls for these potential pollutants (other than sediment) generated on the construction site are the exercise of good “housekeeping" practices and an awareness by construction workers, planners, engineers, and developers of the need and purpose of compliance with federal, state, and local regulations. The following general procedures shall be implemented:

- Containers with potential pollutants shall be located in a designated area, as far as possible from any receiving waters
- During the rainy season, the storage areas with potential pollutants shall have a permanent cover and side wind protection, or be covered during non-working days and prior to rain events
- Dumpsters used to store items awaiting transfer to an off-site recycling or disposal facility must have a cover. Dumpsters shall be in good condition without corrosion or leaking seams, and be located as far as possible from any receiving waters
- Garbage dumpsters shall be replaced if they are deteriorating to the point where leakage is occurring and shall be covered to prevent storm water from entering.
- Port-a-lets shall be provided and maintained for use by on-site construction personnel.
- Where material is temporarily stored in drums, a containment system shall be used. The volume of the secondary containment provided shall be at least 110% of the largest stored container.
- Drums stored in an area where unauthorized persons may gain access must be secured in a manner that prevents accidental spillage, pilferage or any unauthorized use.
- Lids shall be tightly closed

- Use plastic sheeting to line the area.
- Keep a list of products in storage.
- Check containers periodically for leaks or deterioration.
- In case of a leak, put original container into a larger container and label it properly.
- Post information for procedures in case of spills. Persons trained in handling spills shall be on-site or on-call at all times. Materials for cleaning up spills shall be kept on-site and easily available. Spills shall be cleaned up immediately and the contaminated material properly disposed of.
- An employee trained in emergency spill cleanup procedures shall be present when dangerous wastes, liquid chemicals or other wastes are loaded or unloaded.
- Construction activity accumulating dangerous wastes that do not contain "free liquids" shall be protected from storm water run on.

G. Non-Stormwater Components of Discharge

The Manager shall reduce or eliminate discharges of non-stormwater from construction sites to the extent practicable. The following are the only non-stormwater discharges allowed under this permit, provided appropriate control measures are in place to assure.

- Discharges from emergency fire-fighting activities.
- Water used to control dust, provided reclaimed water or other wastewaters are not used.
- Routine external building wash down where detergents are not used.
- Water used to rinse vehicles and equipment, provided that reclaimed water or other wastewater is not used and no soaps, solvents, detergents, oils, grease or fuels are present in the rinse.
- Pavement washing is not allowed unless a vacuum is utilized.
- Uncontaminated air conditioning or compressor condensate.
- Water from fire-fighting system testing and maintenance, including hydrant flushing.
- Water used for compacting soil, provided reclaimed water or other wastewaters are not used.

The anticipated non-storm water discharge expected on this site are dust control, vehicle & equipment wash water, pavement rinse water, air conditioning or compressor condensate & soil compaction.

It is noted that groundwater and/or mixed groundwater and stormwater may only be an allowable discharge if the Contractor follows the CDPHE low risk discharge policy. Non-stormwater discharges shall comply with the allowable uses under the CDPS COR400000 permit.

H. Receiving Waters

The project site is part of the Cherry Creek watershed which will ultimately drain to the South Plat River.

After the improvements, site runoff will flow north and northwest into the Cherry Creek watershed. The runoff from the site will generally follow historic drainage patterns/directions.

III. BMPs for Stormwater Pollution Prevention

A. Erosion and Sediment Controls

Once construction activity begins, Best Management Practices (BMPs) intended to contain sediment onsite must be constructed, inspected, and repaired as necessary. Such controls must be functional before upslope land disturbance takes place. The BMPs will be installed as shown on the Grading and Erosion Control Plans in Appendix B. They must be supplemented as on-site experience proves necessary in order to control sediment, pollutant discharge, and ensure public safety. The following temporary BMPs (some of which act as permanent BMPs) will be installed and maintained to control on-site erosion and prevent sediment from traveling off-site during construction:

- **Silt Fence** is a woven synthetic fabric that filters runoff. Silt fence is a temporary barrier that is installed prior to earthmoving activities and is placed downstream of areas where runoff from construction activities is expected to occur, especially along the site perimeter. Silt fences will be installed according to the manufacturer's recommendations. Silt fence is not intended to be used in areas of concentrated flow. If concentrated flow is encountered during the placement of the fence, an alternative BMP shall be used and the GESC should be updated to reflect this change.

- **Preservation of Existing Vegetation** should occur where no construction activity is expected to occur.

B. Erosion Control Sequencing

Before construction commencement, silt fence will be placed downstream of areas where runoff from construction activities is expected to occur.

Vehicle tracking control will also be placed at the stockpile area exit(s). If the soil stockpile area is moved from the location shown on the site plan, the GESC should be updated.

All perimeter erosion control devices (silt fence) shall be in place, functional, and maintained during and following the grading and construction operations. Wind borne sediment and dust control measures should be established for all phases of construction.

Wattles will be placed at proposed area inlets and within proposed swales. Gravel filters will be placed at curb inlets.

All erosion control devices will remain in place until final stabilization of soil. Permanent erosion control devices shall be installed at the end of construction. These measures include riprap (installed during construction).

C. Materials Handling and Spill Prevention

Hazardous waste disposal (that is not typical to roadway widening operations) is not included within this GESC. Concrete and asphalt batch plants are not anticipated on this site and thus are not included in this GESC.

SPILL CONTROL PROCEDURES:

Even with careful handling and management of materials, spills still may occur. Spill control procedures shall be implemented in order to minimize or prevent the discharge of spilled material to the drainage system or watercourses.

Control BMPs: The major control mechanism for spills is to properly educate employees and subcontractors on what to do in the case of a spill for each material they use. All containers susceptible to spillage or leakage must be clearly identifiable and labeled to encourage proper handling and facilitate rapid response in the event of a spill or leak. Keep proper storage, clean-up and spill reporting instructions posted on site at all times and verify weekly that spill control clean up materials are located near material storage areas, unloading, and use areas. Preventative measures shall be in place to isolate containers from high traffic areas and contain spills at the site of contamination via secondary containment. Spills need to be immediately and properly contained to prevent

contaminating runoff. The magnitude of a spill will determine the level of response required to mitigate it:

- Secondary containment is required for bulk storage (55 gallons or greater) of hazardous materials.
- Minor spills typically involve small quantities of oil, gasoline, paint, etc., which can be controlled by the first responder at the discovery of the spill.
- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.
- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, notify the local emergency response by dialing 911, in addition to notifying the proper city/county officials.

The responsible party for detecting and responding to spills and leaks is:
Contact Name: _____
Company Name:_____
Company Title: _____
Address: _____
Phone Number: _____

IV. Other Controls

Waste Disposal
Except as authorized by a Section 404 Permit, no solid materials of any kind, including building material, are to be discharged offsite. Waste receptacles are to be provided at convenient locations, with regular collection schedules. All debris and waste shall be properly disposed of according to applicable federal, state and local laws. Receptacles are to be covered and not subjected to storm water run-on or runoff. No material, liquid or otherwise, is to be discharged through the storm drain system.

Dust Control
Dust control measures are to conform to the Air Pollution Control Permit and any measures that may be specified by the Geotechnical Engineer. The geotechnical engineering evaluation shall be reviewed by the contractor and subcontractors as it relates to this GESC. The nature of fill material shall be as described within the above-referenced evaluation.

The tracking of sediment onto public streets is normally attributed to vehicles driving through unpaved areas and onto said streets. For the time-period just prior to the start of earth disturbing activity, to prior to site paving, the construction site entrance shall be protected by a Vehicle Tracking Control. The gravel apron is to be inspected regularly and maintained as necessary. Any public street shall be inspected and cleaned as necessary by means of sweeping by the contractor, shall tracking occur. Street cleaning debris shall be disposed of in the same manner as all other construction waste as herein described.

The gravel apron may be salvaged for use elsewhere or thoroughly mixed into the subgrade immediately prior to paving activities. The contractor shall consult with the Geotechnical Engineer for this project for further recommendations should this option is used.

Vehicle and Equipment Maintenance and Fueling

Vehicle maintenance and refueling operations should take place in designated areas when possible. Designated areas shall protect potential contaminants from being mobilized by stormwater and should follow the BMP guidelines for petroleum products as stated in this document. Any soils contaminated from spills or leakage during these operations shall be separated and treated as material waste.

Vehicle Tracking of Sediments

Vehicle tracking of sediments shall be minimized by maintaining controlled access points for vehicles that access actively earth-worked areas of the site or would otherwise come in contact with significant amounts of sediment, and providing vehicle tracking pads at these locations. General locations for these have been shown indicatively on the Erosion and Sediment Control plans but may be updated to reflect specific contractor staging of works.

Disturbed and Stored Soils

Active stockpiles shall be managed by means of dust control during loading and unloading procedures. All active stockpiles that are to be left for greater than a 24-hour period shall have structural BMPs implemented to prevent the mobilization of sediment from the stockpile. Stockpiles to be left for longer than 14 days shall have interim stabilization as noted in the Erosion and Sediment Control portion of this document.

Management of Contaminated Soils

Contaminated soils shall be separated from uncontaminated soils to the extent possible, stockpiled separately and treated as material waste. Contaminated soils shall be protected from being mobilized by stormwater runoff; this may be achieved utilizing structural BMPs noted in this document, and by covering small stockpiles.

Asbestos and heavy metal contamination, such as arsenic and lead, shall be managed in accordance with the Colorado Department of Public Health and Environment (CDPHE) guidelines.

Loading and Unloading Operations
Loading of disturbed soil into trucks for transport offsite shall take place in designated areas, utilizing the controls described for Disturbed and Stored Soils as well as the Vehicle Tracking of Sediments. Where possible, road vehicles transporting material to or from the site shall remain on stone paved areas, and at a minimum have vehicle tracking pads at access points leaving the site.

V. Final Stabilization and Long-term Stormwater Quality

Final stabilization is reached when all soil disturbing activities at the site have been completed and vegetative cover has been established with a density of at least 70 percent of pre-disturbance levels or when equivalent permanent erosion reduction methods have been utilized. Upon final stabilization, all temporary BMPs may be removed.

VI. Inspection and Maintenance Procedures

During construction, appropriate measures shall be taken to inspect and maintain existing erosion control features and install new erosion control elements as needed.

The temporary BMPs will be inspected and documented at a minimum of once every 14 days and after each precipitation or snowmelt event. The GESC will be kept up-to-date with inspection records, maintenance procedures, and changes. Records should include complete inspection reports for each inspection, maintenance and repair reports as a result of the inspections, and records of maintenance as indicated in the manufacturer's specifications, or other acceptable sources. A record-keeping system is recommended in managing inspection and maintenance reports and should include all maintenance records, spill response, weather conditions, training, correspondence, etc.

Preventative maintenance also involves the regular inspection and testing of equipment, timely maintenance of the equipment, and complete records of the maintenance and

inspections of the equipment. The maintenance and inspection records should be kept on site and made available upon request.

Inspections must include the observation of the construction site perimeter, runoff discharge points, disturbed areas, erosion and sediment control measures identified in this GESC, and any other structural BMPs that may require maintenance. The inspection must determine if there is evidence of or potential for pollutants to enter the drainage system and if they should be modified, replaced, or added to.

The following includes some maintenance procedures:

- Erosion and sediment control measures determined, upon inspection, to be in need of repair shall be maintained before the next anticipated storm event or as necessary to maintain continued effectiveness of erosion and sediment control measures. If it is impractical to maintain erosion and sediment control measures before the next storm event, maintenance should be accomplished as soon as practical.

- Locations where vehicles enter or exit the site shall be inspected for evidence of sediment being tracked off-site by construction traffic. Such sediment shall be removed before it can be conveyed to the receiving storm drains or creeks.

- Rock at inlet protection will be checked regularly for sediment buildup which will prevent drainage. If the rock is clogged with silt, it will be removed and cleaned or replaced.

- Seeded areas will be checked to see that grass coverage is maintained. Areas will be watered, fertilized, and reseeded as needed.

- It is the responsibility of the Operator to maintain effective pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more control than is shown on the Erosion Control Plan. For example, localized concentrations of surface runoff or unusually steep areas could require additional erosion control devices. Assessing the need for and implementing additional controls will be a continuing aspect of the GESC until final stabilization. This plan intends to control water-borne and liquid pollutant discharges by some combination of interception, filtration, and containment. Parties implementing this plan must remain alert to the need to periodically refine and update the plan in order to accomplish the intended goals.

- Sediment that has escaped the construction site must be removed at a frequency sufficient to minimize off-site impacts.

VII. References

1. Grading, Erosion, and Sediment Control (GESC) Manual, Douglas County, July 2019.

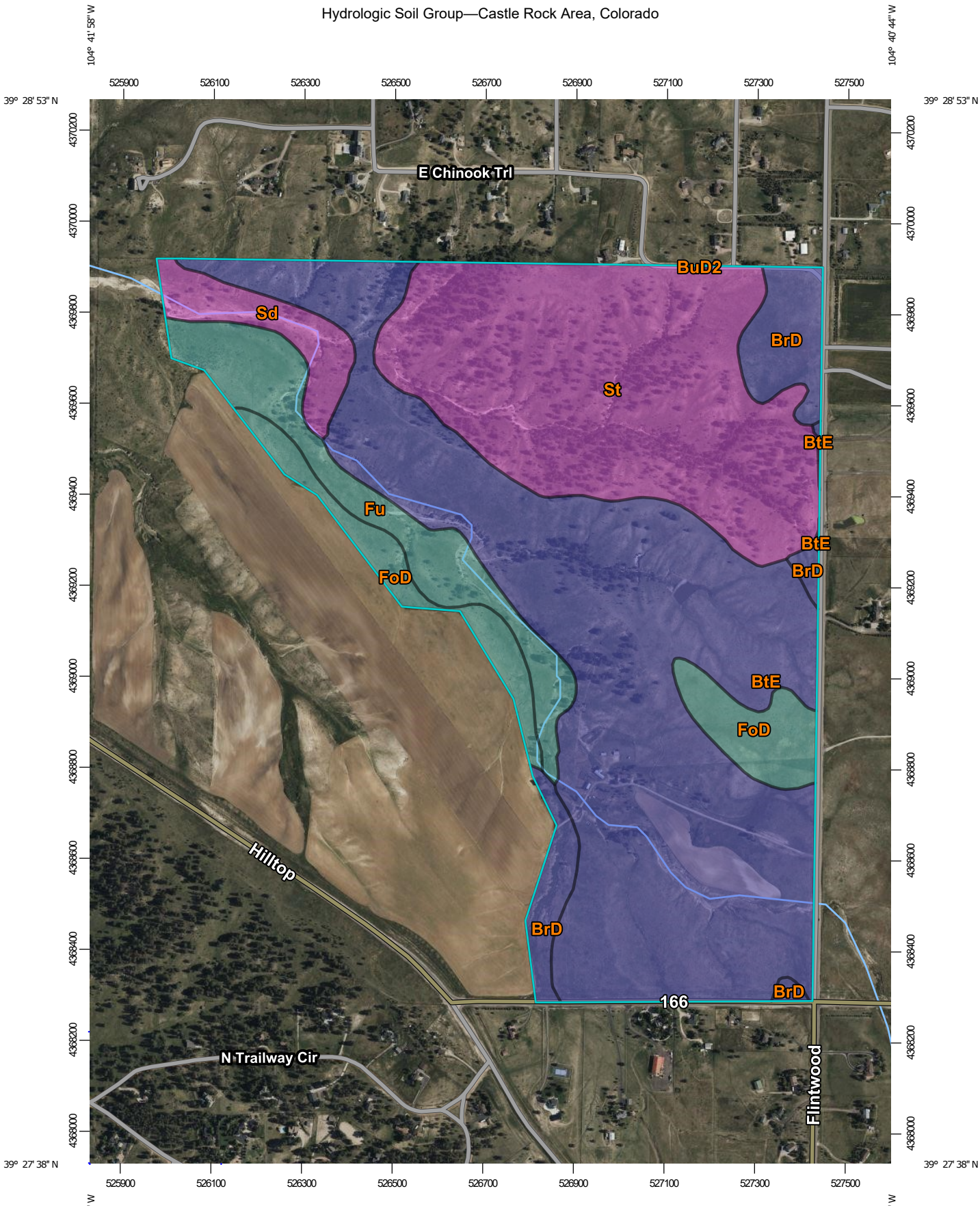
2. Stormwater Management Plan Preparation Guidance, State of Colorado, Colorado Department of Public Health and Environment, April 2011.

3. Soil Survey of Castle Rock Area, Colorado, United States Department of Agriculture, Soil Conservation Service, in cooperation with the Colorado Agricultural Experiment Station and Forest Service, 1975.

4. Urban Storm Drainage Criteria Manual, Volumes 1, 2, and 3, Mile High Flood District, March 2024.

APPENDIX A

USDA NRCS Web Soil Survey


104° 41' 58" W
104° 40' 44" W
525900
526100
526300
526500
526700
526900
527100
527300
527500
39° 28' 53" N
39° 27' 38" N
4370200
4370000
4369800
4369600
4369400
4369200
4369000
4368800
4368600
4368400
4368200
4368000
E Chinook Trl
BuD2
Sd
BrD
St
BtE
Fu
FoD
BtE
BrD
BtE
FoD
Hilltop
BrD
BrD
166
N Trailway Cir
Flintwood
Map Scale: 1:11,400 if printed on A portrait (8.5" x 11") sheet.
N
Meters
0 150 300 600 900
Feet
0 500 1000 2000 3000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

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.

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 17, Aug 29, 2024

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.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BrD	Bresser sandy loam, cool, 5 to 9 percent slopes	B	20.8	5.6%
BtE	Bresser-Truckton sandy loams, 5 to 25 percent slopes	B	176.8	47.7%
BuD2	Bresser and Truckton soils, 3 to 12 percent slopes, eroded	B	0.1	0.0%
FoD	Fondis clay loam, 3 to 9 percent slopes	C	24.4	6.6%
Fu	Fondis-Kutch association	C	29.4	7.9%
Sd	Sandy alluvial land	A	12.8	3.5%
St	Stapleton-Bresser association	A	106.5	28.7%
Totals for Area of Interest			**370.6**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B

GESC Drawing and Report Checklist

DOUGLAS COUNTY
COLORADO
Department of Public Works Engineering

Project Name: _____
DV#: _____
Date Submitted: _____

CHECKLIST FOR DEVELOPING A GESC PLAN – SELECTING BMPs ON 10 ELEMENTS OF AN EFFECTIVE GESC PLAN

ELEMENT #1: PRESERVE AND STABILIZE DRAINAGEWAYS

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			

A. Drainageways shall not be Filled, Regraded, or Realigned.

1. Delineate 100 yr floodplain limits for all existing drainageways (based on future development peak discharges).
2. Show limits of fill adjacent to drainageways and channel area to be preserved (shade undisturbed areas on drawings).
3. Show Construction Fence (CF) or, if approved, Construction Markers (CM) around all stream preservation areas.

B. Ample Freeboard Above the 100 Year Floodplain Shall be Provided.

1. Provide ample freeboard above the 100 year future development floodplain to lot grades and lowest floor elevations (including basements in fill). Refer to Douglas County *Storm Drainage Design and Technical Criteria Manual,* as amended.

C. Existing Drainageways Shall be Stabilized.

1. Design grade control structures in all drainage channels as necessary. Refer to the Douglas County *Storm Drainage Design and Technical Criteria Manual*, as amended.
2. Design bank stabilization improvements as necessary.
3. Emulate natural systems in the design of C1 and C2 above.

D. Disturbance to Existing Drainageways Shall be Minimized and Quickly Restored.

1. Identify features whose construction within drainageways is unavoidable, such as the following:

1A. Grade control structures.
1B. Bank stabilization.
1C. Road crossings (bridges or culverts).
1D. Storm sewer outfalls.
1E. Utility crossings.
1F. Temporary stream crossings for construction access.

Design Engineer			County Engineer			
Yes	No	N/A	Yes	No	N/A	
		X				2. Determine limits of construction around the features identified in Item D.1 above that are just large enough to allow construction, but not larger than necessary, to minimize disturbance.
		X				3. Show Construction Fence (CF) or, if approved, Construction Markers (CM) to delineate the limits of construction determined in Item D.2 above.
		X				4. Identify coordinates or other means of locating Construction Fence (CF) or Construction Markers (CM) for contractor.
		X				5. Show Check Dam (CD) or Reinforced Check Dam (RCD) immediately downstream of each disturbed area in the stream. Check sizing criteria in Section 3.17 of the GESC Manual.
		X				6. Show Temporary Stream Crossings (TSC), as necessary. Stream crossings shall be limited to the minimum number necessary.
		X				7. Show Erosion Control Blanket (ECB) in all disturbed areas of streams (within construction fence defining limits of construction) up to the top of the bank, to be installed immediately after construction in the stream is complete.
						E. Any New Drainageways Shall be Designed and Stabilized.
		X				1. Identify any additional small drainageways that are necessary to manage stormwater runoff on the site.
		X				2 Determine design discharges and size the drainageways.
		X				3. Design stabilization improvements as necessary for drainageways, including any drop structures or lining. For 2 year flows less than 10 cfs, criteria for Diversion Ditches (DD) may be used.
						F. Identify features whose construction within drainageways is unavoidable, such as the following.
						1. Determine if the following permits (and any others) are necessary. If so, complete the required documentation and submit applications.
		X				1A. Douglas County Floodplain Development Permit.
		X				1B. US Army Corps of Engineers Section 404

Project Name: _____
DV#: _____
Date Submitted: _____

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			

Permit.
1C. US Fish and Wildlife Service Threatened and Endangered Species approvals.
1D. Conditional Letter of Map Revision.

ELEMENT #2: AVOID THE CLEARING AND GRADING OF SENSITIVE AREAS

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				
	X				
		X			
		X			

1. Conduct a resource inventory on the site and identify on the GESC Plan the type and aerial extent of features such as the following:
1A. Protected habitat for endangered species.
1B. Wetlands.
1C. Nesting bird habitat.
1D. Riparian corridors.
1E. Forested areas.
1F. Mature cottonwood stands.
1G. Bedrock outcroppings.
1H. Steep slopes.
1I. Potential stormwater infiltration areas.
1J. Historic, cultural, or archeological resources.
1K. Areas of unique or pristine vegetation, habitat, or landform.
2 Endeavor to avoid, or minimize, disturbance to the sensitive areas identified in 1a-k above.
3. Show Construction Fence (CF) or, if approved, Construction Markers (CM) to delineate the limits of construction adjacent to areas to be preserved.

ELEMENT #3: BALANCE EARTHWORK ONSITE

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
X					
X					
X					
X					

1. Endeavor to balance earthwork quantities on site through the following tasks.
1A. Develop initial grading plan.
1B. Check earthwork quantities for balance (consider shrink/swell).
1C. Raise or lower portions of the site as necessary to try to balance earthwork.
1D. Repeat steps b and c until balance is

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			
		X			
		X			
		X			
		X			

achieved.

2. If it is impossible to balance earthwork quantities on site, prepare letter requesting a site variance including the following:

2A. Reason for variance

2B. Amount of material to be imported or exported.

2C. Location of disposal site if export or source site if import.

2D. GESC Permit numbers for disposal or source sites.

2E. Detailed haul route plan and traffic control plan for haul route.

2F. Type and number of trucks required to complete the import or export.

ELEMENT #4: LIMIT THE SIZE OF GRADING PHASES TO REDUCE SOIL EXPOSURE.

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			

1. For large projects, determine separate grading phases, each disturbing less than 40 acres (70 acres for soil mitigation projects).
2. Balance earthwork for each phase following the guidance from Element 3, above.

ELEMENT #5: STABILIZE SOILS IN A TIMELY MANNER.

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
X					
X					
X					

1. Indicate Seeding and Mulching (SM) or permanent landscaping in all areas to be graded.
2. Show Surface Roughening (SR) in all areas that are disturbed.
3. Indicate Erosion Control Blanket (ECB) or Compost Blanket (CB) on slopes steeper than 4:1 and in all areas where an extra measure of stabilization is appropriate.

Project Name: _____
DV#: _____
Date Submitted: _____

ELEMENT #6: IMPLEMENT PERIMETER CONTROLS.

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			
		X			
		X			
		X			
		X			
		X			
		X			

A. Upslope perimeters

1. Show Construction Fence (CF) or Construction Markers (CM) to delineate the limits of construction along the sensitive areas and next to schools, trails and parks, unless an existing fence is located there.
2. Use Diversion Ditch (DD) to capture runoff entering the site via sheet flow. Follow design guidance in Section 3.17 of the GESC Manual.
3. For steep reaches, such as where the ditch conveys runoff down a channel bank to the bottom of a stream, the diversion ditch is to be lined based on the criteria shown in Section 3.17 of the GESC Manual.
4. For an alternative to a lined ditch in steep sections, consider a Temporary Slope Drain.

B. Downslope Perimeters.

1. Show Construction Fence (CF) or Construction Markers (CM) to delineate the limits of construction along the sensitive areas and next to schools, trails and parks, unless an existing fence is located there.
2. If the upslope disturbed drainage area exceeds 1 acre, use a Diversion Ditch (DD) or permanent drainageway to convey runoff to a Sediment Basin (SB).
3. If the upslope disturbed drainage area is less than 1 acre, use a Diversion Ditch (DD), Reinforced Rock Berm (RRB), Sediment Control Log (SCL), or Silt Fence (SF). In general, the latter three BMPs are to be used on the contour. Check Section 3.17 of the GESC Manual for specific guidance pertaining to the use of these downslope perimeter controls.
4. Use a Check Dam (CD) or Reinforced Check Dam (RCD) across a stream or drainage channel at the downslope perimeter of the site.

Project Name: _____
DV#: _____
Date Submitted: _____

ELEMENT #7: USE SEDIMENT BAINS FOR UPSTREAM AREAS EXCEEDING 1.0 ACRE

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			
		X			

1. Runoff from all disturbed areas greater than 1 acre shall be treated in a Sediment Basin (SB). Use the standard design for drainage areas less than 15 acres. For areas less than 1 acre, a Sediment Trap (ST) may be used.
2. If a non-standard design is used, construction drawings detailing the storage volume, embankment, spillway, and outlet are required. Refer to the Douglas County *Storm Drainage Design and Technical Criteria Manual*, as amended.
3. Wherever possible, sediment basins are to be located within any permanent water quality or quantity detention facilities. Permanent water quality or quantity detention facilities shall have a sediment basin incorporated within them. With at least half of the sediment basin storage volume required provided below the lowest outlet of a permanent detention facility.

ELEMENT #8: PROTECT STEEP SLOPES.

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
X					
X					
		X			
		X			

A. Proposed Slopes Shall be no Steeper than 3 to 1.

1. Ensure that no slopes are proposed that are steeper than 3H to 1V, except small areas of rip rap outlet protection near outfalls and culverts.
2. Show Erosion Control Blanket (ECB) on slopes steeper than 4:1.

B. Runoff Shall be Diverted Away from Steep Slopes.

1. Use Diversion Ditch (DD) to capture runoff before it flows down the steep slope.

C. Terracing Shall be Incorporated into the Grading of Steep Slopes.

1. Use Terracing (TER) in steep slopes to break up the flow of incidental water and reduce the development of rill and gully erosion.

Project Name: _____
DV#: _____
Date Submitted: _____

ELEMENT #9: PROTECT INLETS, STORM SEWER OUTFALLS, AND CULVERTS.

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
		X			
		X			
		X			
		X			

1. Show Inlet Protection (IP) at all street and area inlets.
2. Show Reinforced Rock Berm for Culvert Protection (RRB) at all culvert inlets.
3. Design outlet protection for all storm sewer outfalls and culvert outlets per the Douglas County *Storm Drainage Design and Technical Criteria Manual*, as amended.
4. Show Erosion Control Blanket (ECB) in stream areas disturbed by the construction of the outfall or culvert.

ELEMENT #10: PROVIDE ACCESS AND GENERAL CONSTRUCTION CONTROLS

Design Engineer			County Engineer		
Yes	No	N/A	Yes	No	N/A
X					
X					
		X			
		X			
		X			
		X			
X					

1. Identify all limits of construction. Use Construction Fence (CF) or Construction Markers (CM) to delineate the limits of construction.
2. Provide one or more Vehicle Tracking Controls (VTC) at all entrance/exit points from a public street to a site. Including stop signs for all exiting traffic.
3. Show a Stabilized Staging Area (SSA) near the main access point.
4. Show adequate footprints for topsoil stockpiles. These stockpiles must have slopes no greater than 3 to 1.
5. Show a Concrete Washout Area (CWA) near all concrete work areas.
6. Show temporary access roads and stockpile areas.
7. Select areas for the vehicle tracking control, stabilized staging area, access roads, and stockpile areas that avoid disturbance to trees, desirable vegetation, steep areas and low, wet areas.

APPENDIX C

Opinion of Probable Cost

Douglas County GESC Permit

Fields Filing No. 3 - Cost Opinion Spreadsheet

4/3/2025

BMP No.	BMP	ID	Unit	Installation Unit Cost	Quantity	Cost
1	Check Dam	CD	LF	$ 24.00	-	-
2	Compost Blanket	CB	SF	$0.36	-	-
3	Compost Filter Berm	CFB	LF	$ 2.00	-	-
4	Concrete Washout Area	CWA	EA	$ 100.00	-	-
5	Construction Fence	CF	LF	$ 3.00	-	-
6	Construction Markers	CM	LF	$ 0.20	-	-
7	Dewatering	DW	EA	$ 600.00	-	-
8	Diversion Ditch	DD	LF	$ 18.75	-	-
9	Erosion Control Blanket	ECB	SY	$ 4.00	1,100	$ 4,400.00
10	Inlet Protection	IP	EA	$ 375.00	-	-
11	Reinforced Check Dam	RCD	LF	$ 36.00	-	-
12	Reinforced Rock Berm	RRB	LF	$ 9.00	-	-
13	RRB for Culvert Protection	RRC	LF	$ 9.00	-	-
14	Sediment Basin	SB	AC	$ 23,125.00	-	-
15	Sediment Control Log	SCL	LF	$ 2.00	-	-
16	Sediment Trap	ST	EA	$ 600.00	-	-
17	Seeding and Mulching	SM	AC	$ 3,500.00	-	-
18	Silt Fence	SF	LF	$ 3.00	205	$ 615.00
19	Stabilized Staging Area	SSA	SY	$ 2.00	-	-
20	Surface Roughening	SR	AC	$ 600.00	-	-
21	Temporary Slope Drain	TSD	LF	$ 30.00	-	-
22	Temporary Stream Crossing	TSC	EA	$1,000.00	-	-
23	Terracing	TER		$ -	-	-
24	Vehicle Tracking Control	VTC	EA	$2,850.00	-	-
25	VTC with Wheel Wash	WW		$ -	-	-
26	Temporary Batch Plant Restoration		AC	$5,000.00	-	-
					TOTAL:	**$ 5,015.00**

APPENDIX D

GESC Plan

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

WORK TO BE DONE:

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF ROADWAY IMPROVEMENTS, GRADING AND EROSION CONTROL MEASURES, AND STORM DRAINAGE IMPROVEMENTS ACCORDING TO THE FOLLOWING PLANS, SPECIFICATIONS AND STANDARD DRAWINGS OF DOUGLAS COUNTY, COLORADO.

STANDARDS AND SPECIFICATIONS

- DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS (2020)
- DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA (2020)
- DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL (2020)
- COLORADO DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN GUIDE (2017)
- COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN (2017)
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009)
- URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1, 2, & 3 (2016)

NOTE: THE CONTRACTOR SHALL ALERT THE OWNER AND ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS AND THE STANDARDS AND SPECIFICATION USED ABOVE.

SITE BENCHMARK & BASIS OF BEARING:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS: NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35' TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

OWNER:

WALLDEN – HILL TOP, LLC.
7199 FLINTWOOD RD.
PARKER, CO 80138

APPLICANT/DEVELOPER:

HILLTOP BROTHERS, LLC.
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112

ENGINEER:

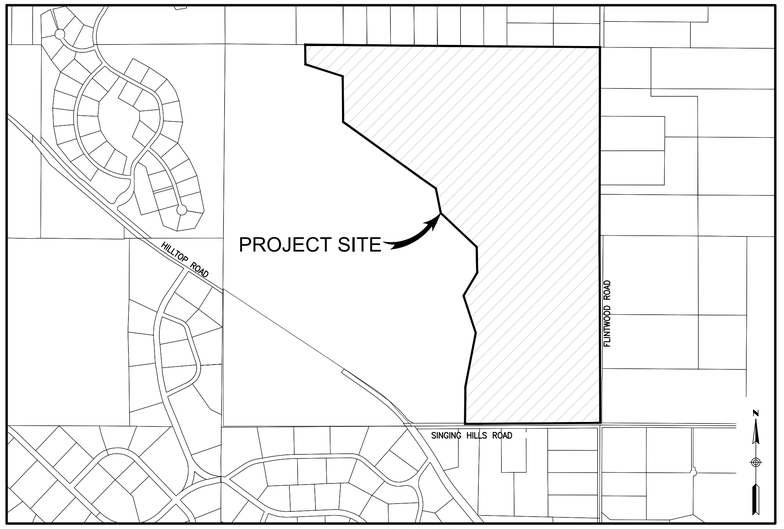
RICK ENGINEERING COMPANY
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112
PHONE: 303.537.8020
CONTACT: TROY BALES

SURVEYOR:

RICK ENGINEERING COMPANY
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112
PHONE: 303.537.8020
CONTACT: ROBERT HENNESSY

AGENCIES:

DOUGLAS COUNTY COMMUNITY
DEVELOPMENT DEPARTMENT
PLANNING DEVELOPMENT DIVISION
100 THIRD ST
CASTLE ROCK, CO 80104
CONTACT: DEBORAH KULA



VICINITY MAP
SCALE: 1"=1,000'

LEGEND

OVERALL BOUNDARY	
RIGHT OF WAY LINE	
LOT LINE	
SETBACK (HILLTOP RD)	
SUBDIVISION FENCE	
ULTIMATE HILLTOP RD	
EXIST CONTOUR (MINOR)	
EXIST CONTOUR (MAJOR)	5400
PROP CONTOUR (MINOR)	
PROP CONTOUR (MAJOR)	5400
DAYLIGHT LINE	
PROP STORM SEWER	
EXISTING ASPHALT	
PROPOSED ASPHALT	
PROPOSED SHOULDER	
PROP STORM INLET (TYPE C)	
PROP NYLOPLAST DRAIN BASIN	
PROP STORM FLARED END SECTION	

ABBREVIATION

BEGIN CURVE	BC
BLOW OFF VALVE	BOV
BEGIN VERTICAL CURVE STATION	BVCS
BEGINNING OF VERTICAL CURVE ELEVATION	BVCE
BOTTOM OF WALL	BW
CENTERLINE	CL
DRAINAGE EASEMENT	DE
END CURVE	EC
END VERTICAL CURVE STATION	EVCS
END VERTICAL CURVE ELEVATION	EVCE
EXISTING GRADE	EG
FINISHED GRADE	FG
FINISHED SURFACE	FS
FINISH FLOOR	FF
FLOW LINE	FL
GARAGE FLOOR FRONT	GFF
GARAGE FLOOR BACK	GFB
GRADE BREAK	GB
HIGH POINT	HP
INVERT	INV
LOW POINT	LP
POINT OF CURB RETURN	PCR
POINT OF VERTICAL CURVE INTERSECTION	PVI
PROPERTY LINE	PL
SANITARY SEWER MANHOLE	SSMH
STORM DRAIN MANHOLE	SDMH
STORM DRAIN INLET	SDI
SEWER	SWR
THRUST BLOCK	TB
TOP OF CURB	TC
TOP OF GRATE	TG
TOP OF WALL	TW
WATER	WTR
UTILITY EASEMENT	UE

SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
01	CV-01	COVER SHEET
02	NT-01	NOTES
03	EC-01	INITIAL GESC PLAN
04	EC-02	INTERIM/FINAL GESC PLAN
05	DTL-01	DETAILS
06	DTL-02	DETAILS
07	DTL-03	DETAILS

NOTES:

1. THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE DOUGLAS COUNTY FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEE(S) DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED GESC PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS GESC PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PREMITTEE(S), UNTIL SUCH TIME AS THE GESC PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF DOUGLAS COUNTY, AS AMENDED.

GESC PLANS PREPARED BY:

_____ _____ _____ _____
RICK ENGINEERING COMPANY DATE PE NUMBER

_____
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

_____
DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
303-537-8020
rickengineering.com
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB
DATE:	04/01/2024

PRELIMINARY PLAN PREPARED FOR:
FIELDS FILING NO. 3
GRADING, EROSION, AND SEDIMENT CONTROL
DOUGLAS COUNTY, CO

COVER SHEET

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DRAWING NO.
CV-01
SHEET NO. 01 OF 07

SECOND SUBMITTAL

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GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

RICK ENGINEERING COMPANY SPECIAL NOTES:

1. ANY QUESTION RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL UTILITIES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 303-537-8020. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (TEMPORARY EROSION CONTROL BMPS) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATIONS IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.

5. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE AND ELECTRIC CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER AND/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM SAME.

7. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.

8. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.

9. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.

10. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.

11. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ABOVE-NAMED SPECIFICATIONS.

12. ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION.

_____
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

_____
DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
303-537-8020
rickengineering.com
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DATE:	04/01/2024
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

NOTES

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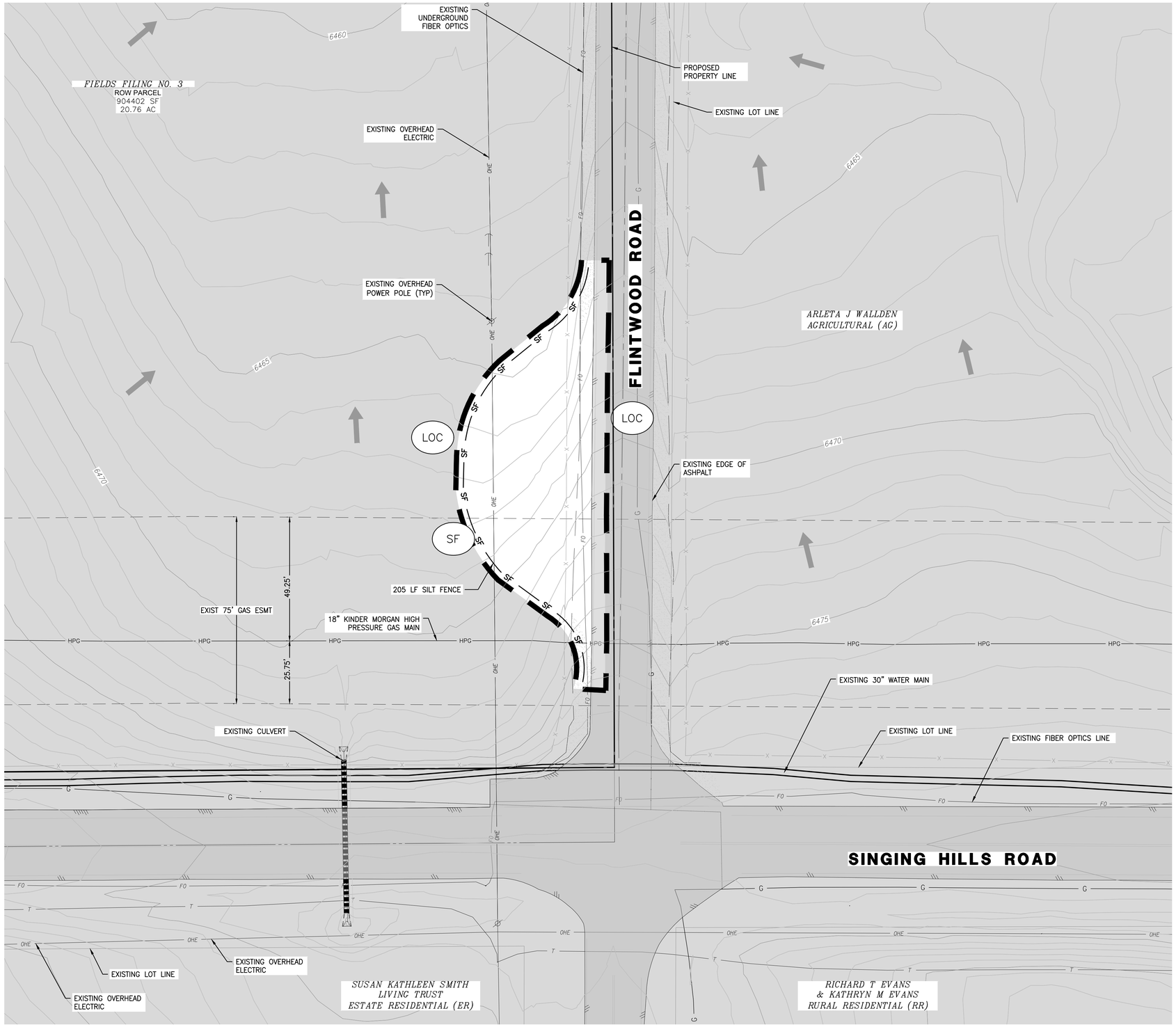
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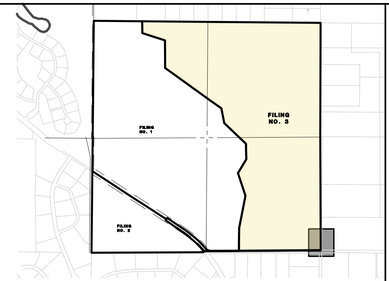
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GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





KEY MAP
SCALE: N.T.S

LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- PROPERTY LINE
- EXIST CONTOURS (6450)
- PROPOSED CONTOURS (6450)
- PROPERTY LINE
- PROPOSED SLOPE ARROW
- EXISTING SLOPE AREA
- AREA OUTSIDE OF LIMITS OF CONSTRUCTION
- EXISTING ASPHALT PAVEMENT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER
- EROSION CONTROL BLANKET — ECB
- SILT FENCE — SF — SF — SF
- LIMITS OF CONSTRUCTION — LOC

NOTES:

1. SB'S ARE TO BE IMPLEMENTED AFTER THE PERIMETER CONTROLS ARE INTALLED ONCE THE GESC PERMIT IS ISSUED. NO GRADING/TOPSOIL STRIPPING CAN OCCUR PRIOR TO THE ISSUANCE OF THE PERMIT
2. NO FLOODPLAIN WITHIN THE VIEW OF THIS PLAN. NEAREST STUDIED FLOODPLAIN APPROXIMATELY 1.51 MILES NORTHWEST OF THIS PLAN VIEW.

N

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DATE:	04/01/2024
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

INITIAL GESC PLAN

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DRAWING NO.
EC-01
SHEET NO. 03 OF 07

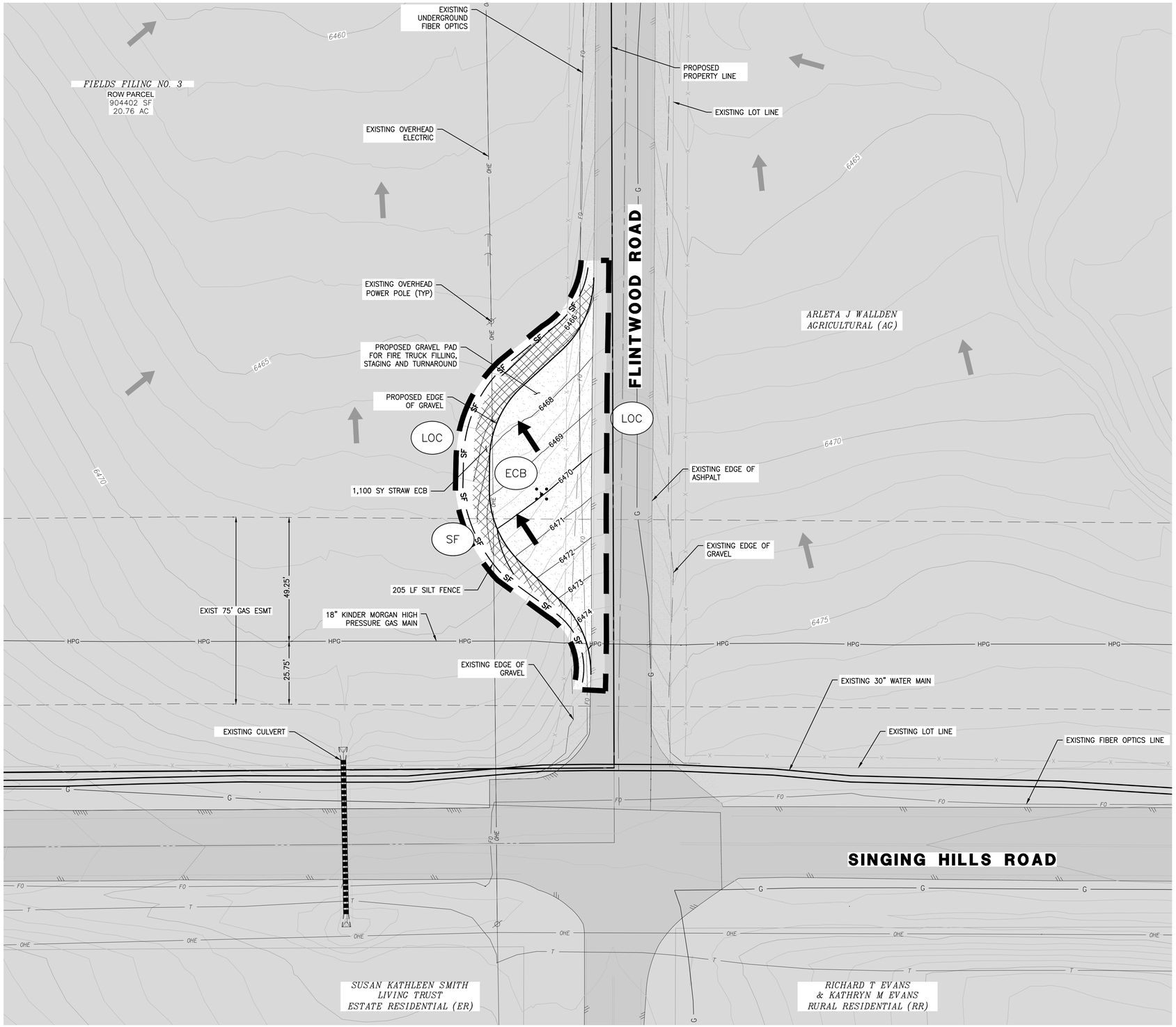
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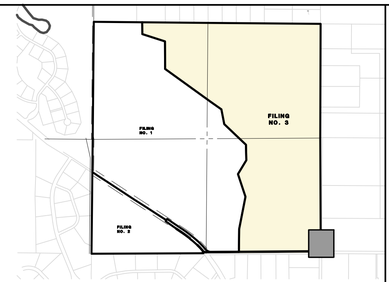
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GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





KEY MAP
SCALE: N.T.S

LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- PROPERTY LINE
- EXIST CONTOURS 6450
- PROPOSED CONTOURS 6450
- PROPERTY LINE
- PROPOSED SLOPE ARROW
- EXISTING SLOPE AREA
- AREA OUTSIDE OF LIMITS OF CONSTRUCTION
- EXISTING ASPHALT PAVEMENT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER
- EROSION CONTROL BLANKET
- SILT FENCE — SF — SF —
- LIMITS OF CONSTRUCTION

ECB
SF
LOC

NOTES:

1. SB'S ARE TO BE IMPLEMENTED AFTER THE PERIMETER CONTROLS ARE INTALLED ONCE THE GESC PERMIT IS ISSUED. NO GRADING/TOPSOIL STRIPPING CAN OCCUR PRIOR TO THE ISSUANCE OF THE PERMIT
2. NO FLOODPLAIN WITHIN THE VIEW OF THIS PLAN. NEAREST STUDIED FLOODPLAIN APPROXIMATELY 1.51 MILES NORTHWEST OF THIS PLAN VIEW.

N

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB
DATE:	04/01/2024

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

INTERIM/FINAL GESC PLAN

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DRAWING NO.
EC-02
SHEET NO. 04 OF 07

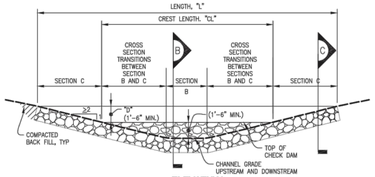
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GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES

1. THE DOUGLAS COUNTY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE DOUGLAS COUNTY DIRECTOR OF ENGINEERING SERVICES, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
2. THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
3. THE GESC PLAN SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF ACCEPTANCE BY DOUGLAS COUNTY, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING. DOUGLAS COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
5. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE DOUGLAS COUNTY ACCEPTED GESC PLAN AND THE DOUGLAS COUNTY GESC MANUAL, AS AMENDED.
6. ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE DOUGLAS COUNTY ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
7. AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE COUNTY, AND THE GESC FIELD MANUAL OBTAINED AND REVIEWED, THE CONTRACTOR MAY INSTALL THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs INDICATED ON THE ACCEPTED GESC PLAN.
8. THE FIRST BMP TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM CORRIDORS AND OTHER AREAS TO BE PRESERVED.
9. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs, THE PERMITTEE SHALL CALL THE DOUGLAS COUNTY ENGINEERING PERMITS STAFF AT 303-660-7487 TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING.
10. THE OWNER OR OWNER'S REPRESENTATIVE, THE GESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING. IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE GESC FIELD MANUAL IS NOT ON SITE, OR IF THE INSTALLATION OF THE INITIAL BMPs ARE NOT APPROVED BY THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. DOUGLAS COUNTY STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING.
11. CONSTRUCTION SHALL NOT BEGIN UNTIL THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPs AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE COUNTY AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT MUST BE INSTALLED WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPs ARE APPROVED.
12. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE DOUGLAS COUNTY-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE ENGINEERING DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF DISTURBANCE.
13. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. BMP INSTALLATION AND APPROVAL BY DOUGLAS COUNTY AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL AND/OR GESC FIELD MANUAL.
14. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 811, 1-800-922-1987, OR WWW.COLORADO811.ORG.
15. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
16. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ISSUANCE.
17. A COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL TIMES.
18. THE GESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH THE COUNTY FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, A STOP WORK ORDER MAY BE ISSUED.
19. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH THE DOUGLAS COUNTY-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
20. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR. STREET WASHING IS NOT ALLOWED. DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
21. APPROVED EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL BMPs IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. LEVEL III VIOLATIONS SHALL BE CORRECTED IMMEDIATELY AFTER THE PERMITTEE(S) NOTICE THE VIOLATION(S) OR ARE NOTIFIED OF THE VIOLATION(S). GENERALLY DOUGLAS COUNTY WILL REINSPECT FOR COMPLIANCE WITHIN 48 HOURS OF NOTIFICATION OF LEVEL III VIOLATIONS. LEVEL II VIOLATIONS SHALL BE CORRECTED IMMEDIATELY, OR AS DIRECTED BY A DOUGLAS COUNTY EROSION CONTROL INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
22. STRAW BALES ARE NOT A DOUGLAS COUNTY ACCEPTED SEDIMENT CONTROL BMP.
23. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR AS SOON AS TOPSOIL STRIPPING IS COMPLETED. FAILURE TO SCHEDULE SUCH INSPECTION OR FAILURE TO STOCKPILE TOPSOIL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. THE STOP WORK ORDER SHALL REMAIN IN PLACE UNTIL TOPSOIL IS STOCKPILED ON SITE OR APPROPRIATE SOIL AMENDMENTS ARE STOCKPILED ON SITE.
24. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER AND DOUGLAS COUNTY PUBLIC WORKS ENGINEERING FOR ANY PROPOSED CHANGES.
25. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
26. NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED.
27. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER. THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
28. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
29. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
30. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE COPHE PER CRS 25-8-601, AND DOUGLAS COUNTY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE COPHE. CONTACT INFORMATION FOR COPHE, DOUGLAS COUNTY AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A OF THE GESC MANUAL, AS AMENDED. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL MAY RESULT IN ISSUANCE OF A STOP WORK ORDER.
31. ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGEWAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED DOUGLAS COUNTY GESC PLAN.
32. ALL PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE COUNTY DIRECTOR OF ENGINEERING SERVICES TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITTEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTHEN MATERIAL. THE GESC MANAGER SHALL NOTIFY THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR OF THE LOCATION AND PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/ EXPORT OPERATIONS.
33. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL BMP IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION FENCE).
34. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN APPROPRIATE LOCATION.
35. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A DOUGLAS COUNTY EROSION CONTROL INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC MANUAL.
36. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY DOUGLAS COUNTY PUBLIC WORKS ENGINEERING (SEPARATE FROM GESC INSPECTIONS).
37. ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED IN ACCORDANCE WITH THE GESC CRITERIA MANUAL WITHIN THIRTY (30) DAYS OF INITIAL EXPOSURE OR WITHIN FOURTEEN (14) DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY DOUGLAS COUNTY) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
38. ALL SLOPES STEEPER THEN 4:1 REQUIRE EROSION CONTROL BLANKETING.
39. HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN DOUGLAS COUNTY.
40. NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRIMP MULCHED.
41. NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE EROSION CONTROL INSPECTOR.
42. A GESC INSPECTION SHALL BE CONDUCTED FOR CERTIFICATE OR TEMPORARY CERTIFICATE OF OCCUPANCY OR INITIAL ACCEPTANCE.
43. GESC MANAGER SHALL PROVIDE AND MAINTAIN PORTABLE TOILETS AND TRASH DUMPSTERS FOR THE PROJECT.

DETAIL NO.	SHEET NO.	BMP LEGEND		
1	1		CD	CHECK DAM
2	1		CB	COMPOST BLANKET
3	1		CFB	COMPOST FILTER BERM
4	1		CWA	CONCRETE WASHOUT AREA
5	1		CF	CONSTRUCTION FENCE
6	1		CM	CONSTRUCTION MARKER
7	1		CS	CURB SOCK
8	1		DW	DEWATERING
9	1		DD	DIVERSION DITCH
10	2		ECB	EROSION CONTROL BLANKET
11	2		IP	INLET PROTECTION
12	2		RCD	REINFORCED CHECK DAM
13	2		RRB	REINFORCED ROCK BERM
14	2		RRC	RRB FOR CULVERT PROTECTION
15	2		SB	SEDIMENT BASIN
16	3		SCL	SEDIMENT CONTROL LOG
17	3		ST	SEDIMENT TRAP
18	3		SM	SEEDING AND MULCHING
19	3		SF	SILT FENCE
20	3		SSA	STABILIZED STAGING AREA
21	3		SR	SURFACE ROUGHENING
22	3		TSD	TEMPORARY SLOPE DRAIN
23	3		TSC	TEMPORARY STREAM CROSSING
24	3		TER	TERRACING
25	3		VTC	VEHICLE TRACKING CONTROL
26	3		WW	VTC WITH WHEEL WASH
1				ROCK AND RIPRAP GRADATIONS
			LOC	LIMITS OF CONSTRUCTION



ELEVATION
SCALE: 1" = 5'-0"

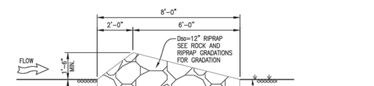
CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CHECK DAMS.
   - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   - LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
2. CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D_{50} MEDIAN STONE SIZE OF 12".
4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-8".
5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1'-6" HIGHER THAN THE CENTER OF THE CHECK DAM.

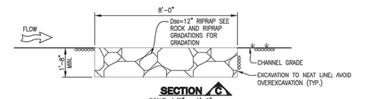
CHECK DAM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR CHECK DAMS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND VEGETATED COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. ANY DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

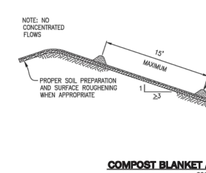
CD CHECK DAM 1



SECTION B
SCALE: 1/2" = 1'-0"



SECTION C
SCALE: 1/2" = 1'-0"



COMPOST BLANKET AND COMPOST FILTER BERM
SCALE: 1" = 5'-0"

COMPOST BLANKET NOTES:

1. SEE PLAN VIEW FOR AREA OF COMPOST BLANKET.
2. MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
3. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
4. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
5. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
6. SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
7. MAYBE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
8. SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
9. COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
10. THE RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST BLANKET
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30–60 %
ORGANIC MATTER CONTENT	25–45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 1/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

NOTE: CLOPYRALID IS THE COMMON NAME OF A HERBICIDE THAT KILLS BROAD-LEAVED WEEDS SUCH AS DANDELIONS, CLOVER AND THISTLE.

CB COMPOST BLANKET 2

COMPOST FILTER BERM NOTES:

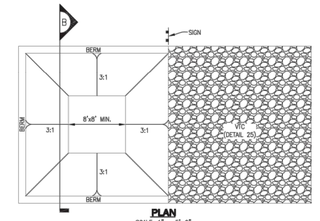
1. SEE PLAN VIEW FOR LENGTH OF COMPOST FILTER BERM.
2. SHALL BE APPLIED TO ALL SLOPES RECEIVING A COMPOST BLANKET AT 15' INCREMENTS.
3. FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
4. FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W.
5. FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
6. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
7. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
8. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
9. SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
10. THE RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	80+/80+
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	< 4
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30–60 %
ORGANIC MATTER CONTENT	25–45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

NOTE: IF A BIOSOLID COMPOST IS TO BE UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN POSSESSION OF A VALID NOTICE OF AUTHORIZATION (NOA) FOR THE UNRESTRICTED USE AND DISTRIBUTION BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. THE NOA SHALL BE PROVIDED UPON REQUEST TO DOUGLAS COUNTY.

NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY DOUGLAS COUNTY.

CFB COMPOST FILTER BERM 3



PLAN
SCALE: 1" = 5'-0"

SECTION B
SCALE: 1" = 5'-0"

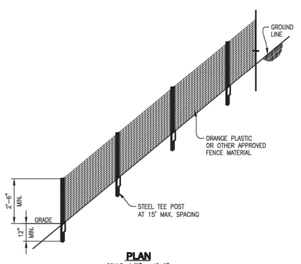
CONCRETE WASHOUT AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL (DETAIL 25) IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.
6. DURABLE PORTABLE CONCRETE WASHOUT BASINS OR TUBS MAY BE USED WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR.

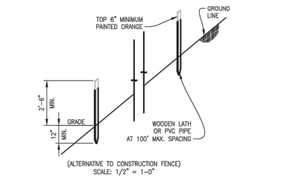
CONCRETE WASHOUT AREA MAINTENANCE NOTES

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.
4. RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.

CWA CONCRETE WASHOUT AREA 4



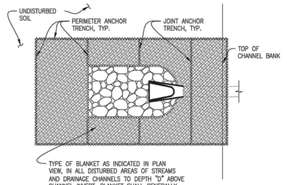
PLAN
SCALE: 1/2" = 1'-0"



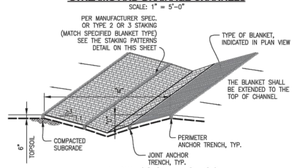
(ALTERNATIVE TO CONSTRUCTION FENCE)
SCALE: 1/2" = 1'-0"

CF CONSTRUCTION FENCE 5

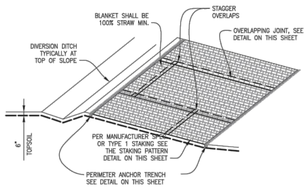
**CM CONSTRUCTION



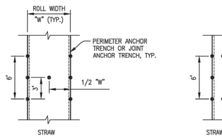
IN DISTURBED AREAS OF STREAMS AND DRAINAGE CHANNELS
SCALE: 1" = 5'-0"



IN DIVERSION DITCH OR SMALL DITCH DRAINAGEWAY
SCALE: 1" = 5'-0"

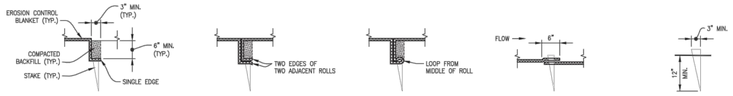


OUTSIDE OF STREAMS AND DRAINAGE CHANNELS
SCALE: 1" = 5'-0"



STAKING PATTERNS
SCALE: 1" = 5'-0"

SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. IF NO MANUFACTURER'S SPECIFICATION IS AVAILABLE USE THE ACCEPTABLE STAKING PATTERN (AS SHOWN ABOVE).



PERIMETER ANCHOR TRENCH
SCALE: 1" = 1'-0"

JOINT ANCHOR TRENCH
SCALE: 1" = 1'-0"

INTERMEDIATE ANCHOR TRENCH
SCALE: 1" = 5'-0"

OVERLAPPING JOINT
SCALE: 1" = 1'-0"

WOOD STAKE DETAIL
SCALE: 1" = 1'-0"
MINIMUM THICKNESS 1/2"

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF PERIMETER OF EROSION CONTROL BLANKET.
   - TYPE OF BLANKET (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
   - AREA "A" IN SQUARE YARDS OF EACH TYPE OF BLANKET.
2. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTO DEGRADABLE, SHALL BE ALLOWED.
3. IN AREAS WHERE EROSION CONTROL BLANKET IS SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING BELOW THE BLANKET IN ACCORDANCE WITH THE REQUIREMENTS OF DETAIL 12, SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO BLANKET INSTALLATION AND THE BLANKET SHALL BE IN FULL CONTACT WITH SUBGRADE, NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
4. PERIMETER ANCHOR TRENCH SHALL BE USED AT OUTSIDE PERIMETER OF ALL BLANKET AREAS.
5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL BLANKET INSTALLATIONS IN A DRAINAGEWAY EXCEPT STRAW, WHICH MAY USE AN OVERLAPPING JOINT.
6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF THE ROLL LENGTH FOR COCONUT AND EXCELSIOR BLANKETS.
7. THE OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER FOR BLANKETS ON SLOPES.
8. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKET SHALL CONFORM TO TABLE 7.1.

EROSION CONTROL BLANKET INSTALLATION NOTES – CONTINUED

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKET SHALL BE RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 18.
10. SEE DRAINAGE DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION MEASURES THAT MAY EXCEED THE DESIGN CONDITIONS ASSOCIATED WITH THE DETAILS ABOVE.
11. METAL STAKES OR STAPLES MAY BE USED FOR EROSION CONTROL BLANKET INSTALLATIONS OUTSIDE OF DRAINAGE CHANNELS.

TABLE 7.1 – EROSION CONTROL BLANKET TYPE

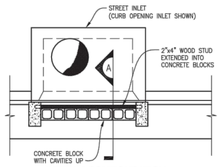
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	NETTING MIN.
STRAW*	–	100%	–	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	–	DOUBLE/NATURAL
COCONUT	100%	–	–	DOUBLE/NATURAL
EXCELSIOR	–	–	100%	DOUBLE/NATURAL

* FOR OUTSIDE OF STREAMS AND DRAINAGE CHANNELS

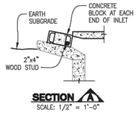
EROSION CONTROL BLANKET MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR EROSION CONTROL BLANKETS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. EROSION CONTROL BLANKET IS TO BE LEFT IN PLACE UNLESS REQUESTED TO BE REMOVED BY THE COUNTY.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE RE-INSTALLED. ANY SUBGRADE AREAS BELOW THE BLANKET THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

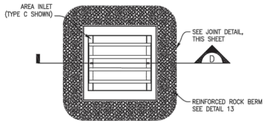
ECB EROSION CONTROL BLANKET 10



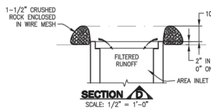
INTERIM CONFIGURATION (BEFORE PAVING) STREET INLET - PLAN
SCALE: 1/2" = 1'-0"



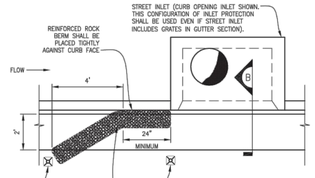
SECTION A
SCALE: 1/2" = 1'-0"



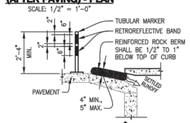
AREA INLET - PLAN
SCALE: 1" = 1'-0"



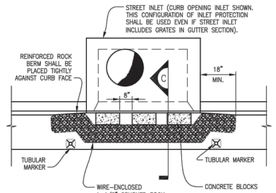
SECTION D
SCALE: 1/2" = 1'-0"



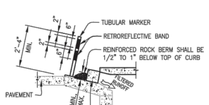
STREET INLET ON CONTINUOUS GRADE (AFTER PAVING) - PLAN
SCALE: 1/2" = 1'-0"



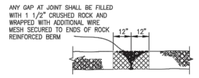
SECTION B
SCALE: 1/2" = 1'-0"



STREET INLET IN SUMP (AFTER PAVING) - PLAN
SCALE: 1/2" = 1'-0"



SECTION C
SCALE: 1/2" = 1'-0"



JOINT DETAIL
SCALE: 1/2" = 1'-0"

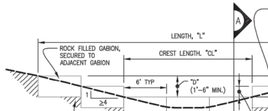
INLET PROTECTION INSTALLATION NOTES

1. INTERIM CONFIGURATION OF INLET PROTECTION IN STREETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET. INLET PROTECTION (AFTER PAVEMENT) SHALL BE INSTALLED WITHIN 48 HOURS AFTER PAVING IS PLACED.
2. INLET PROTECTION AT AREA INLETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON ROCK AND RIPRAP GRADATIONS (1-1/2").
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"), ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. REINFORCED ROCK BERM SHALL BE CONSTRUCTED IN ONE PIECE OR SHALL BE CONSTRUCTED USING JOINT DETAIL.
7. TUBULAR MARKERS SHALL MEET REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED.
8. THE TOP OF REINFORCED ROCK BERM SHALL BE 1/2"-1" BELOW TOP OF CURB.

INLET PROTECTION MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR INLET PROTECTION IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. MORE FREQUENT INSPECTIONS AND REPAIRS MAY BE REQUIRED DURING WINTER CONDITIONS DUE TO FREEZE/THAW PROBLEMS.
2. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF ROCK BERM IS WITHIN 2-1/2 INCHES OF THE CREST.
3. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED, UNLESS THE COUNTY APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
4. WHEN INLET PROTECTION AT AREA INLETS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

IP INLET PROTECTION 11



REINFORCED - SECTION A
SCALE: 1/2" = 1'-0"

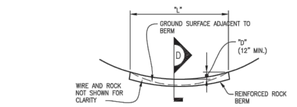
REINFORCED CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CHECK DAMS.
   - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   - LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
2. CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4-1/2" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT GABION.
4. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-6".
5. EROSION BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1'-6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

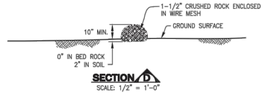
REINFORCED CHECK DAM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR CHECK DAMS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

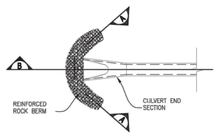
RCD REINFORCED CHECK DAM 12



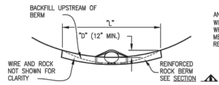
ELEVATION
SCALE: 1" = 5'-0"



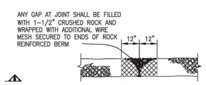
SECTION D
SCALE: 1/2" = 1'-0"



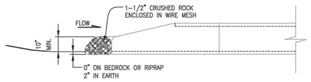
PLAN
SCALE: 1" = 5'-0"



SECTION A
SCALE: 1" = 5'-0"



JOINT DETAIL
SCALE: 1/2" = 1'-0"



SECTION B
SCALE: 1/2" = 1'-0"

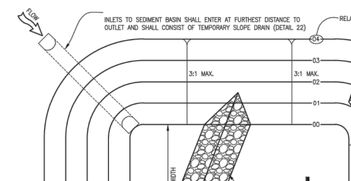
REINFORCED ROCK BERM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF REINFORCED ROCK BERMS.
   - LENGTH, "L", AND DEPTH, "D" DIMENSIONS.
2. REINFORCED ROCK BERM SECTION APPLIES TO CULVERT INLET FILTER AND INLET PROTECTION.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON ROCK AND RIPRAP GRADATIONS (1-1/2").
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"), ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

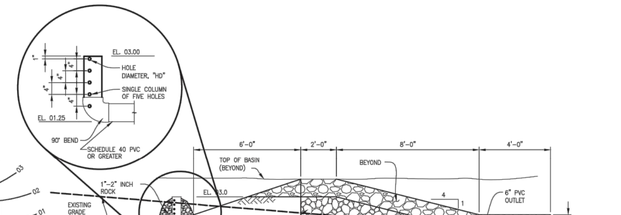
REINFORCED ROCK BERM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR REINFORCED ROCK BERM IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED ROCK BERM SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
3. REINFORCED ROCK BERMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
4. WHEN REINFORCED ROCK BERMS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

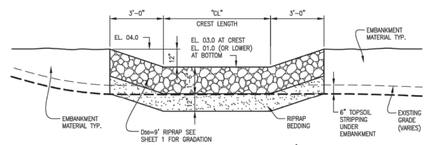
RRB REINFORCED ROCK BERM 13



STANDARD BASIN - PLAN
SCALE: 1" = 5'-0"



STANDARD BASIN - SECTION A
SCALE: 1/2" = 1'-0"



STANDARD BASIN - SECTION B
SCALE: 1/2" = 1'-0"

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF SEDIMENT BASIN.
   - TYPE OF BASIN (STANDARD BASIN OR NON-STANDARD BASIN),
   - FOR STANDARD BASIN, CREST LENGTH, "CL", BOTTOM WIDTH, "W", AND HOLE DIAMETER, "HD".
   - FOR NON-STANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT, "H", NUMBER OF COLUMNS, "N", HOLE DIAMETER, "HD", AND PIPE DIAMETER "D".
2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
3. SEDIMENT BASINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. THE DETAILS SHOWN ON THIS SHEET PERTAIN TO STANDARD SEDIMENT BASIN(S) IDENTIFIED ON THE GESC PLAN VIEW DRAWINGS USED FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT BASIN IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED IN SEDIMENT BASIN SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1.0 FOOT.
3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. IF SEDIMENT BASINS ARE REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	16	2.0	7/16
2	22	4.0	5/8
3	27	6.0	3/4
4	31	8.0	7/8
5	35	10.0	1.0
6	38	12.0	1 1/8
7	41	14.0	1 1/4
8	44	16.0	1 1/4
9	47	18.0	1 3/8
10	49	20.0	1 3/8
11	52	22.0	1 1/2
12	54	24.0	1 1/2
13	56	26.0	1 5/8
14	59	28.0	1 5/8
15	61	30.0	1 5/8

SB SEDIMENT BASIN 15

Sheet Revisions		
1	DOUGLAS COUNTY REISSUE	1/17

NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

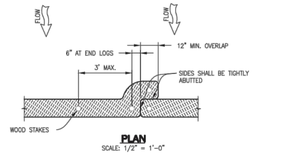
DOUGLAS COUNTY COLORADO

GESC GRADING, EROSION, AND SEDIMENT CONTROL

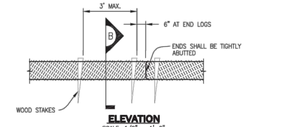
GESC PLAN STANDARD NOTES AND DETAILS

SHEET 2 OF 3

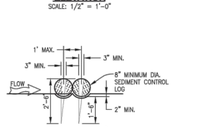
Fwide Filing 3
Project File: SB2024-068
Board of County Commissioner's Staff Report Page 127 of 141



PLAN
SCALE: 1/2" = 1'-0"



ELEVATION
SCALE: 1/2" = 1'-0"



SECTION A
SCALE: 1/2" = 1'-0"

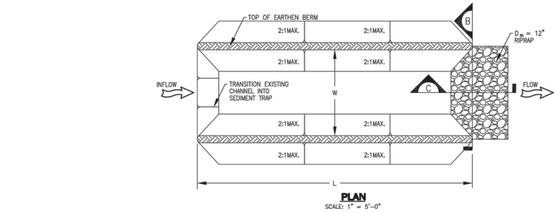
SEDIMENT CONTROL LOG INSTALLATION:

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SEDIMENT CONTROL LOG.
2. SEDIMENT CONTROL LOGS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".

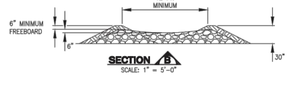
SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT CONTROL LOGS IS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST OF LOG.
3. SEDIMENT CONTROL LOG SHALL REMAIN IN PLACE UNTIL THE VEGETATIVE COVER IS APPROVED BY THE EROSION CONTROL INSPECTOR. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

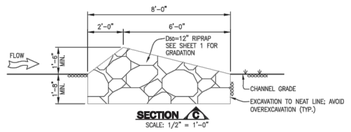
SCL **SEDIMENT CONTROL LOG** 16



PLAN
SCALE: 1" = 5'-0"



SECTION B
SCALE: 1" = 5'-0"



SECTION C
SCALE: 1/2" = 1'-0"

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
2. SEDIMENT TRAPS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
4. RIPRAP OUTLET SHALL BE CONSTRUCTED WITH D_{50} =12" RIPRAP WITH A MINIMUM OVERFLOW OF 6".
5. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
6. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.

SEDIMENT TRAP MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT TRAPS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF RIPRAP SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE RIPRAP OUTLET STRUCTURE.
3. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVERAGE IS APPROVED BY THE COUNTY.
4. WHEN SEDIMENT TRAPS ARE REMOVED THE DISTURBED AREA SHALL BE DRILLED SEEDED AND CRIMP MULCHED OR STABILIZED IN A MANNER APPROVED BY THE COUNTY.

ST **SEDIMENT TRAP** 17

SEEDING AND MULCHING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - AREA OF SEEDING AND MULCHING.
   - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).
2. ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAP WEED AND LEAFY SPURGE.
3. THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO DOUGLAS COUNTY UPON REQUEST.
4. DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT:
5. IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO THE CONTRACTOR AND FORWARDED TO THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR.
6. THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).
7. PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE COUNTY.
8. ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
9. SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED.
10. SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH NOT LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH. ROW SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.
11. IF THE PERMITTEE DEMONSTRATES TO THE COUNTY THAT IT IS NOT POSSIBLE TO DRILL SEED, SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.
12. SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 14 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE IN A GIVEN AREA (AS DEFINED BY THE COUNTY), THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
13. MULCH SHALL BE APPLIED WITHIN 24-HOURS OF SEEDING.
14. TACKIFIER SHOULD BE UTILIZED TO HELP PREVENT STRAW DISPLACEMENT.

DOUGLAS COUNTY PERMANENT DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BIG BLUESTEM	KAW	PNWS	10	1.1
YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
SWITCHGRASS	BLACKWELL	PNWS	10	0.4
SIDEOATS GRAMA	VAUGHN	PNWB	10	0.9
WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
BLUE GRAMA	HACHITA	PNWB	10	0.3
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
GREEN NEEDLEGRASS	LODORM	PNCB	10	1
SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
			TOTAL	9.2

DOUGLAS COUNTY TEMPORARY DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5
PUBESCENT WHEATGRASS	LUNA	PICS	30	4.2
ANNUAL RYEGRASS	N/A	AICB	10	0.8
			TOTAL	13.4

DOUGLAS COUNTY LOW-GROWTH DRILL SEEDING MIX

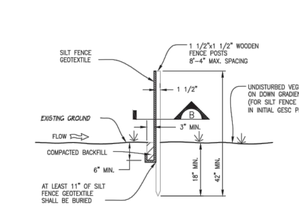
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TEXOKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOATS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
			TOTAL	11.0

NOTES:
P=PERENNIAL
A=ANNUAL
N=NATIVE
I=INTRODUCED
W=WARM SEASON
C=COOL SEASON
S=SOD FORMER
B=BUNCHGRASS

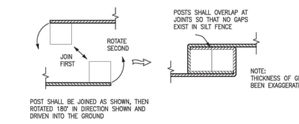
SEEDING AND MULCHING MAINTENANCE NOTES

1. SEEDED AND MULCHED AREAS SHALL BE INSPECTED FOR REQUIRED COVERAGE MONTHLY FOR A PERIOD OF TWO YEARS FOLLOWING INITIAL SEEDING. REPAIRS AND RE-SEEDING AND MULCHING SHALL BE UNDERTAKEN AFTER THE FIRST GROWING SEASON FOR ANY AREAS FAILING TO MEET THE REQUIRED COVERAGE.
2. REQUIRED COVERAGE FOR STANDARD, OPEN SPACE AND LOW GROWTH SEED MIXES SHALL BE DEFINED AS FOLLOWS:
   1. THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF 3 INCHES. THE 3 PLANTS PER SQUARE FOOT SHALL BE OF THE VARIETY AND SPECIES FOUND IN THE DOUGLAS COUNTY-APPROVED MIX.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
3. REQUIRED COVERAGE FOR TURF GRASS AREAS SHALL BE DEFINED AS FOLLOWS:
   1. AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
4. RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING. THE RESEEDING METHOD SHALL BE APPROVED BY THE COUNTY.

SM **SEEDING AND MULCHING** 18



ELEVATION
SCALE: 1" = 1'-0"



JOINTS - SECTION B
SCALE: N.T.S.

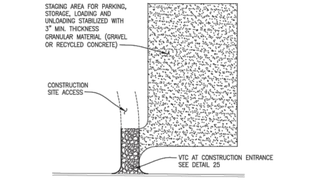
SILT FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF FENCE.
2. ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
3. SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:
   - 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
   - 90 LB. TENSILE STRENGTH PER ASTM D4632.
   - UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D4355.
4. SILT FENCE INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SILT FENCE IS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6-INCHES.
3. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

SF **SILT FENCE** 19



PLAN
SCALE: 1" = 40'-0"

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH COUNTY APPROVAL.
2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
3. IF REQUIRED BY THE COUNTY, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE).

STABILIZED STAGING AREA MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR THE STABILIZED STAGING AREA IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. GESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

SSA **STABILIZED STAGING AREA** 20

ELEVATION
SCALE: 1/2" = 1'-0"

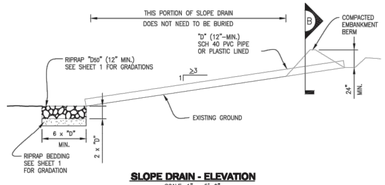
SURFACE ROUGHENING INSTALLATION NOTES

1. SURFACE ROUGHENING SHALL BE PROVIDED ON ALL FINISHED GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING TOPSOIL) OR WITHIN 2 DAYS OF TOPSOIL PLACEMENT.
2. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD IS TO BE PLACED WITHIN 7-DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED.
3. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

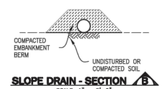
SURFACE ROUGHENING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SURFACE ROUGHENING IS WEEKLY, DURING AND AFTER ANY STORM EVENT, AND MAKE REPAIRS.
2. VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
3. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
4. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL EROSION.

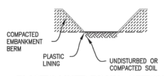
SR **SURFACE ROUGHENING** 21



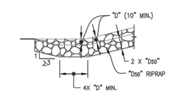
SLOPE DRAIN - ELEVATION
SCALE: 1" = 5'-0"



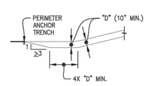
SLOPE DRAIN - SECTION B
SCALE: 1" = 5'-0"



PLASTIC LINED DRAIN - OPTION
SCALE: 1" = 5'-0"



TERMINATION OF RIPRAP LINED SLOPE DRAIN
SCALE: 1" = 5'-0"



TERMINATION OF PLASTIC LINED SLOPE DRAIN
SCALE: 1" = 5'-0"

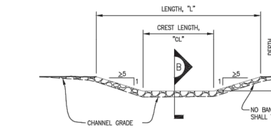
SLOPE DRAIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SLOPE DRAIN.
   - PIPE DIAMETER, "D", AND RIPRAP SIZE, "Dso".
2. SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO SLOPE OR SLOPE DRAIN DURING RUNOFF EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SLOPE DRAINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
4. FOR TEMPORARY SLOPE DRAINS, PIPE MAY BE INSTALLED ON TOP OF SLOPE; HOWEVER, 12" MIN. COVER AT TOP OF SLOPE SHALL BE PROVIDED.
5. A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.

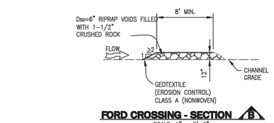
SLOPE DRAIN MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SLOPE DRAINS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

TSD **TEMPORARY SLOPE DRAIN** 22



FORD CROSSING - ELEVATION
SCALE: 1" = 5'-0"



FORD CROSSING - SECTION B
SCALE: 1" = 5'-0"

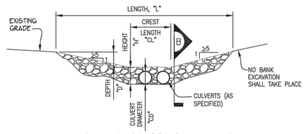
TEMPORARY STREAM CROSSING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF TEMPORARY STREAM CROSSING.
   - STREAM CROSSING TYPE (FORD OR CULVERT).
   - FOR FORD CROSSING: LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
   - FOR CULVERT CROSSING : LENGTH, "L", CREST LENGTH, "CL", CROSSING HEIGHT, "H", DEPTH, "D", CULVERT DIAMETER, "CD", AND NUMBER, TYPE AND CLASS OR GAUGE OF CULVERTS.
2. TEMPORARY STREAM CROSSING DIMENSIONS, DSO, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SEE ROCK AND RIPRAP GRADATIONS FOR RIPRAP AND 1-1/2" CRUSHED ROCK GRADATIONS.
4. FOR A TEMPORARY STREAM CROSSING THAT WILL CARRY LOADS, THE TEMPORARY STREAM CROSSING MUST BE DESIGNED BY THE DESIGN ENGINEER.

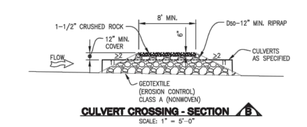
TEMPORARY STREAM CROSSING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR TEMPORARY STREAM CROSSINGS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF TEMPORARY STREAM CROSSINGS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CROSSING IS WITHIN 6-INCHES OF THE CREST (FORD CROSSING) OR GREATER THAN AN AVERAGE DEPTH OF 12-INCHES (CULVERT CROSSING).
3. TEMPORARY STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.
4. WHEN TEMPORARY STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

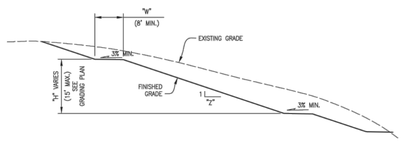
TSC **TEMPORARY STREAM CROSSING** 23



CULVERT CROSSING - ELEVATION
SCALE: 1" = 5'-0"



CULVERT CROSSING - SECTION B
SCALE: 1" = 5'-0"



ELEVATION
SCALE: 1/2" = 1'-0"

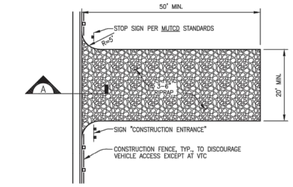
TERRACING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - WIDTH, "W", AND SLOPE, "Z".
2. TERRACING IS NOT REQUIRED FOR SLOPES OF 4 TO 1 OR FLATTER.
3. EARTH (VEGETATED) SLOPES STEEPER THAN 3 TO 1 ARE NOT ALLOWED ON THE SITE.

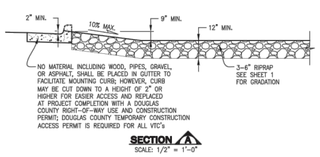
TERRACING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR TERRACING IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. ANY RILL EROSION OCCURRING ON SLOPES SHALL BE REPAIRED AND RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 18.

TER **TERRACING** 24



PLAN
SCALE: 1" = 10'-0"



SECTION A
SCALE: 1/2" = 1'-0"

VEHICLE TRACKING CONTROL INSTALLATION NOTES

1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.
2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 4". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
3. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.
4. A DOUGLAS COUNTY TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH POINT ONTO DOUGLAS COUNTY R.O.W.
5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

VEHICLE TRACKING CONTROL MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR VEHICLE TRACKING CONTROL IS DAILY. GRAVEL SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS AND CAUSE LOOSE GRAVEL TO DISLODGE MUD FROM TIRES. WHEN GRAVEL BECOMES COMPACTED OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN GRAVEL, PLACE ADDITIONAL NEW GRAVEL, OR REPLACE WITH NEW GRAVEL AS NECESSARY TO RESTORE EFFECTIVENESS.
2. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRAVEL MATERIAL REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIM

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

WORK TO BE DONE:

THE SCOPE OF WORK FOR THIS PROJECT CONSISTS OF ROADWAY IMPROVEMENTS, GRADING AND EROSION CONTROL MEASURES, AND STORM DRAINAGE IMPROVEMENTS ACCORDING TO THE FOLLOWING PLANS, SPECIFICATIONS AND STANDARD DRAWINGS OF DOUGLAS COUNTY, COLORADO.

STANDARDS AND SPECIFICATIONS

- DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS (2020)
- DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA (2020)
- DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) MANUAL (2020)
- COLORADO DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN GUIDE (2017)
- COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLAN (2017)
- MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009)
- URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1, 2, & 3 (2016)

NOTE: THE CONTRACTOR SHALL ALERT THE OWNER AND ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS AND THE STANDARDS AND SPECIFICATION USED ABOVE.

SITE BENCHMARK & BASIS OF BEARING:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THIS PLAN IS: NGS CONTROL POINT Z 336, NAVD 88, ELEVATION = 6,612.35' TRANSFERRED TO LOCAL ONSITE BENCHMARK USING GPS AND GEOID MODEL 18, SET #5 REBAR WITH 1.25" ORANGE PLASTIC CAP N39°27'53.4048" & LONG W104°41'29.7588") ON THE NORTHEASTERLY SIDE OF HILLTOP ROAD APPROXIMATELY 510' NORTHWEST OF THE INTERSECTION WITH SIGNING HILL ROAD NAVD 88 ELEVATION = 6478.67'

OWNER:

WALLDEN – HILL TOP, LLC.
7199 FLINTWOOD RD.
PARKER, CO 80138

APPLICANT/DEVELOPER:

HILLTOP BROTHERS, LLC.
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112

ENGINEER:

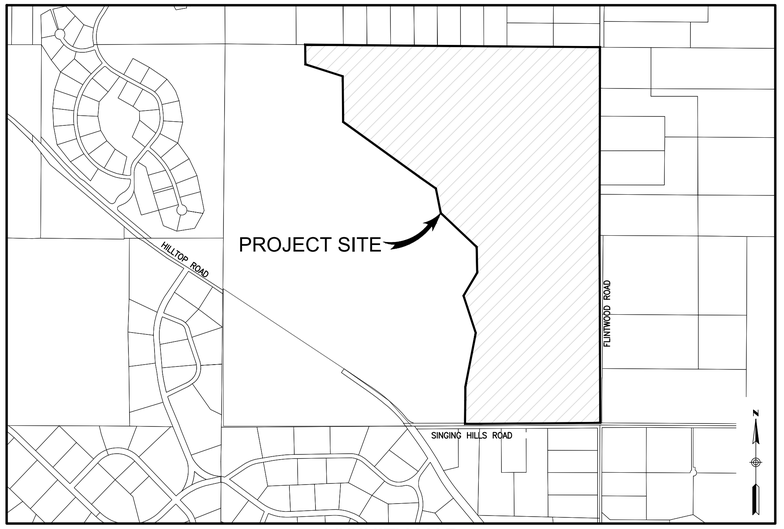
RICK ENGINEERING COMPANY
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112
PHONE: 303.537.8020
CONTACT: TROY BALES

SURVEYOR:

RICK ENGINEERING COMPANY
8678 CONCORD CENTER DRIVE, SUITE 200
ENGLEWOOD, CO 80112
PHONE: 303.537.8020
CONTACT: ROBERT HENNESSY

AGENCIES:

DOUGLAS COUNTY COMMUNITY
DEVELOPMENT DEPARTMENT
PLANNING DEVELOPMENT DIVISION
100 THIRD ST
CASTLE ROCK, CO 80104
CONTACT: DEBORAH KULA



VICINITY MAP
SCALE: 1"=1,000'

LEGEND

OVERALL BOUNDARY	
RIGHT OF WAY LINE	
LOT LINE	
SETBACK (HILLTOP RD)	
SUBDIVISION FENCE	
ULTIMATE HILLTOP RD	
EXIST CONTOUR (MINOR)	
EXIST CONTOUR (MAJOR)	5400
PROP CONTOUR (MINOR)	
PROP CONTOUR (MAJOR)	5400
DAYLIGHT LINE	
PROP STORM SEWER	
EXISTING ASPHALT	
PROPOSED ASPHALT	
PROPOSED SHOULDER	
PROP STORM INLET (TYPE C)	
PROP NYLOPLAST DRAIN BASIN	
PROP STORM FLARED END SECTION	

ABBREVIATION

BEGIN CURVE	BC
BLOW OFF VALVE	BOV
BEGIN VERTICAL CURVE STATION	BVCS
BEGINNING OF VERTICAL CURVE ELEVATION	BVCE
BOTTOM OF WALL	BW
CENTERLINE	CL
DRAINAGE EASEMENT	DE
END CURVE	EC
END VERTICAL CURVE STATION	EVCS
END VERTICAL CURVE ELEVATION	EVCE
EXISTING GRADE	EG
FINISHED GRADE	FG
FINISHED SURFACE	FS
FINISH FLOOR	FF
FLOW LINE	FL
GARAGE FLOOR FRONT	GFF
GARAGE FLOOR BACK	GFB
GRADE BREAK	GB
HIGH POINT	HP
INVERT	INV
LOW POINT	LP
POINT OF CURB RETURN	PCR
POINT OF VERTICAL CURVE INTERSECTION	PVI
PROPERTY LINE	PL
SANITARY SEWER MANHOLE	SSMH
STORM DRAIN MANHOLE	SDMH
STORM DRAIN INLET	SDI
SEWER	SWR
THRUST BLOCK	TB
TOP OF CURB	TC
TOP OF GRATE	TG
TOP OF WALL	TW
WATER	WTR
UTILITY EASEMENT	UE

SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
01	CV-01	COVER SHEET
02	NT-01	NOTES
03	EC-01	INITIAL GESC PLAN
04	EC-02	INTERIM/FINAL GESC PLAN
05	DTL-01	DETAILS
06	DTL-02	DETAILS
07	DTL-03	DETAILS

NOTES:

1. THE GRADING, EROSION, AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE DOUGLAS COUNTY FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEE(S) DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED GESC PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS GESC PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE PREMITTEE(S), UNTIL SUCH TIME AS THE GESC PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF DOUGLAS COUNTY, AS AMENDED.

GESC PLANS PREPARED BY:

_____ _____ _____ _____
RICK ENGINEERING COMPANY DATE PE NUMBER

_____
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

_____
DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER
RICK

PROJECT NO:	D02214	DRAWN/DESIGNED BY:	MCG/DAL
DATE:	04/01/2024	CHECKED BY:	KEC/TB

PRELIMINARY PLAN PREPARED FOR:
FIELDS FILING NO. 3
GRADING, EROSION, AND SEDIMENT CONTROL
DOUGLAS COUNTY, CO

COVER SHEET

Know what's below. Call before you dig.

DRAWING NO.
CV-01
SHEET NO. 01 OF 07

SECOND SUBMITTAL

C:\RICK\Projects\D02000\2214_Fields\Civil\PlanSets\FinalPlans\GESC – Filing 3\2214-GESC-CVR-F3.dwg – plotted by: dlimon ON 2025-04-03 @ 09:27 – ctb:rec_ncs_v2.ctb – © 2025 Rick Engineering Company

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO

RICK ENGINEERING COMPANY SPECIAL NOTES:

1. ANY QUESTION RAISED RELATIVE TO THE ACCURACY OF IMPROVEMENT INSTALLATION SHALL NOT BE RAISED SUBSEQUENT TO COMPLETION OF THE WORK UNLESS ALL SURVEY STAKES ARE MAINTAINED INTACT. SHOULD SUCH STAKES NOT BE PRESENT AND VERIFIED AS TO THEIR ORIGIN, NO CLAIM FOR ADDITIONAL COMPENSATION FOR CORRECTION SHALL BE PRESENTED TO ANY PARTY AND SUCH WORK SHALL BE CORRECTED BY THE CONTRACTOR AT HIS EXPENSE.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. NEITHER THE OWNER, NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL UTILITIES ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT 303-537-8020. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (TEMPORARY EROSION CONTROL BMPS) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY OR ASSOCIATIONS IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.

5. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.

6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UNDERGROUND PIPELINES, TELEPHONE AND ELECTRIC CONDUITS AND STRUCTURES IN ADVANCE OF ANY CONSTRUCTION AND TO OBSERVE ALL POSSIBLE PRECAUTIONS TO AVOID ANY DAMAGE TO SUCH. THE ENGINEER AND/OR OWNER WILL NOT GUARANTEE ANY LOCATIONS AS SHOWN ON THESE PLANS OR THOSE OMITTED FROM SAME.

7. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATIONS OF EXISTING FACILITIES.

8. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES WITH THE APPROPRIATE UTILITY COMPANY.

9. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.

10. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.

11. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A SOILS REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ABOVE-NAMED SPECIFICATIONS.

12. ALL FRAMES, COVERS, VALVE BOXES AND MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE UPON COMPLETION OF PAVING OR RELATED CONSTRUCTION.

_____
ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

_____
DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
303-537-8020
rickengineering.com
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DATE:	04/01/2024
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

NOTES

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DRAWING NO.
NT-01
SHEET NO. 02 OF 07

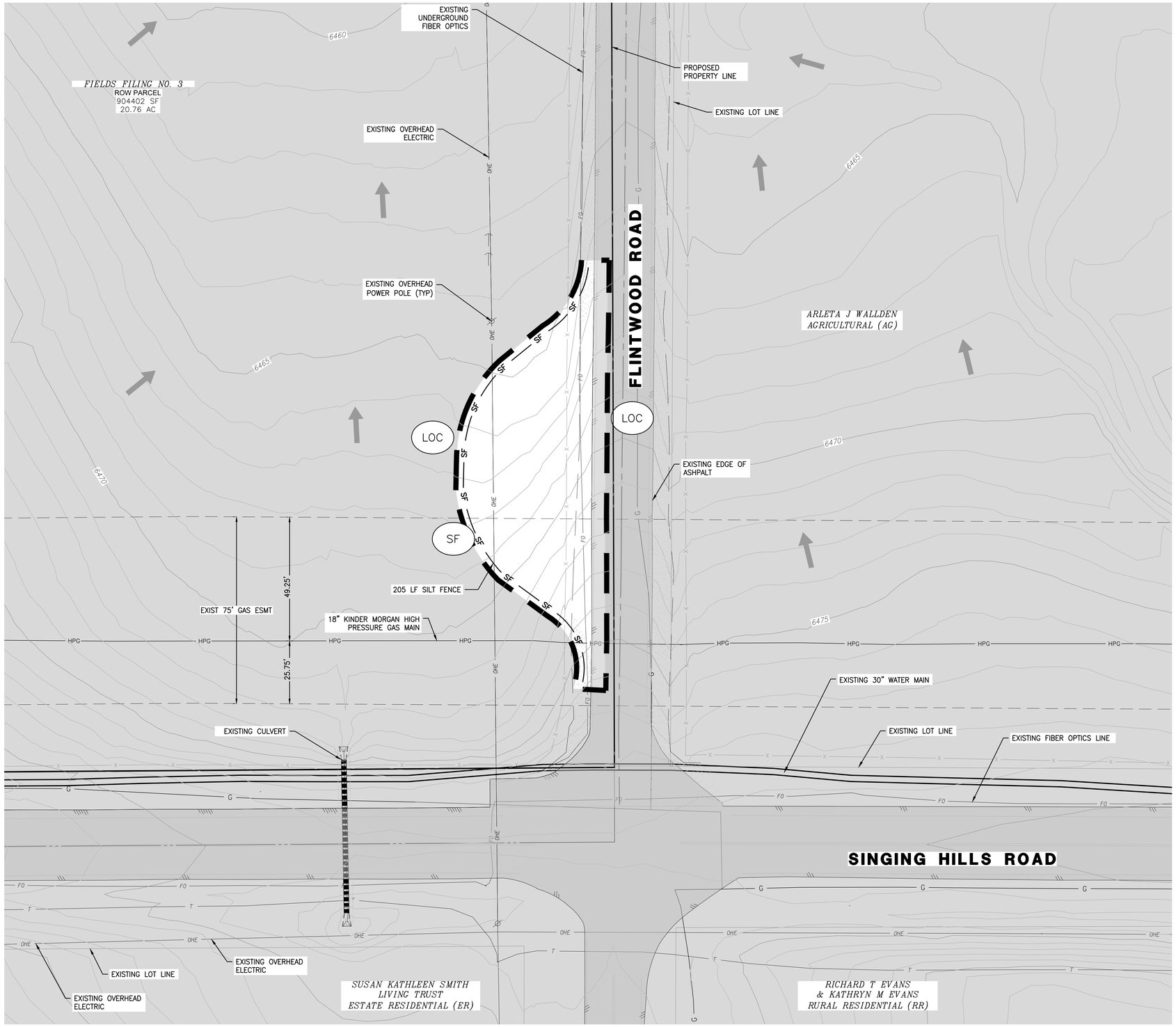
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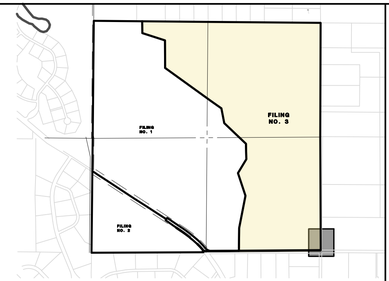
C:\RICK\Projects\D02000\2214_Fields\Civil\PlanSets\FinalPlans\GESC - Filing 3\2214-GESC-CVR-F3.dwg - plotted by: dlimon ON 2025-04-03 @ 09:27 - ctb:rec_ncs_v2.ctb - © 2025 Rick Engineering Company

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST
OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





KEY MAP
SCALE: N.T.S

LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- PROPERTY LINE
- EXIST CONTOURS (6450)
- PROPOSED CONTOURS (6450)
- PROPERTY LINE
- PROPOSED SLOPE ARROW
- EXISTING SLOPE AREA
- AREA OUTSIDE OF LIMITS OF CONSTRUCTION
- EXISTING ASPHALT PAVEMENT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER
- EROSION CONTROL BLANKET — ECB
- SILT FENCE — SF — SF — SF
- LIMITS OF CONSTRUCTION — LOC

NOTES:

1. SB'S ARE TO BE IMPLEMENTED AFTER THE PERIMETER CONTROLS ARE INTALLED ONCE THE GESC PERMIT IS ISSUED. NO GRADING/TOPSOIL STRIPPING CAN OCCUR PRIOR TO THE ISSUANCE OF THE PERMIT
2. NO FLOODPLAIN WITHIN THE VIEW OF THIS PLAN. NEAREST STUDIED FLOODPLAIN APPROXIMATELY 1.51 MILES NORTHWEST OF THIS PLAN VIEW.

N

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

RICK
8678 CONCORD CENTER DR #200
ENGLEWOOD, CO 80112
303-537-8020
rickengineering.com
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

PROJECT NO:	D02214
DATE:	04/01/2024
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

INITIAL GESC PLAN

811 Know what's below. Call before you dig.

DRAWING NO.
EC-01
SHEET NO. 03 OF 07

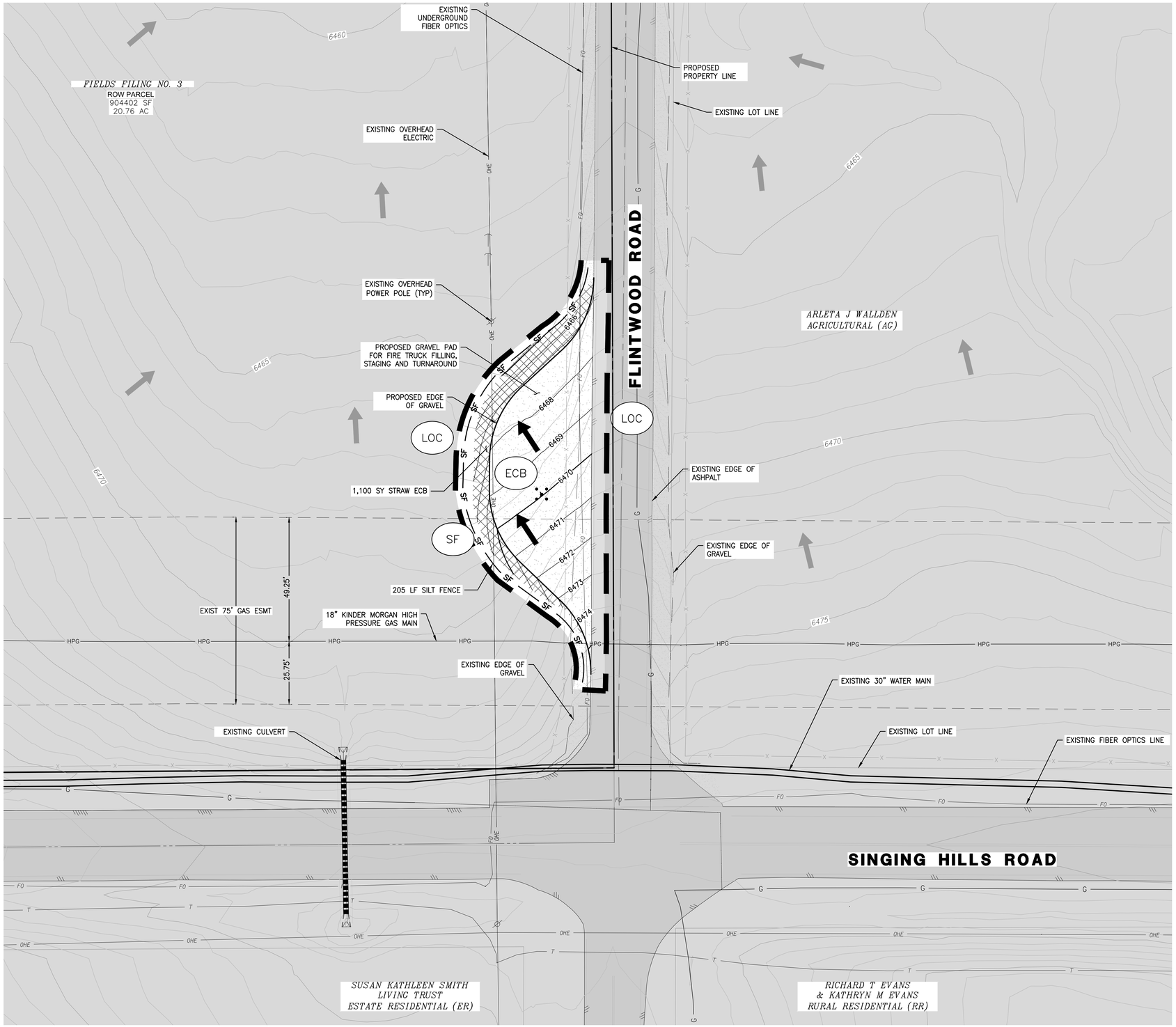
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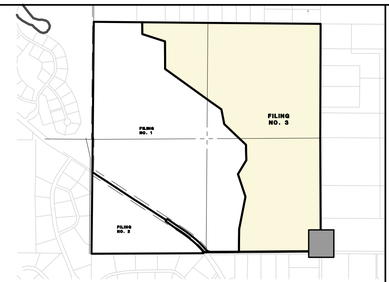
C:\RICK\Projects\D02000\2214_Fields\Civil\PlanSets\FinalPlans\GESC – Filing 3\2214-GESC-INIT-F3.dwg – plotted by: dimon ON 2025-04-03 @ 09:27 – ctb:rec_ncs_v2.ctb – © 2025 Rick Engineering Company

GRADING, EROSION, AND SEDIMENT CONTROL PLAN

FIELDS FILING NO. 3

A PORTION OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO





KEY MAP
SCALE: N.T.S

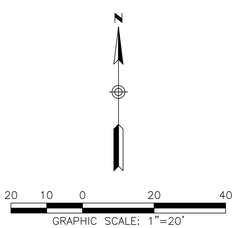
LEGEND

- RIGHT OF WAY
- PROPERTY LINE
- PROPERTY LINE
- EXIST CONTOURS 6450
- PROPOSED CONTOURS 6450
- PROPERTY LINE
- PROPOSED SLOPE ARROW
- EXISTING SLOPE AREA
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- EXISTING ASPHALT PAVEMENT
- PROPOSED GRAVEL PAVEMENT
- EXISTING GRAVEL SHOULDER
- EROSION CONTROL BLANKET
- SILT FENCE — SF — SF —
- LIMITS OF CONSTRUCTION

ECB
SF
LOC

NOTES:

1. SB'S ARE TO BE IMPLEMENTED AFTER THE PERIMETER CONTROLS ARE INTALLED ONCE THE GESC PERMIT IS ISSUED. NO GRADING/TOPSOIL STRIPPING CAN OCCUR PRIOR TO THE ISSUANCE OF THE PERMIT
2. NO FLOODPLAIN WITHIN THE VIEW OF THIS PLAN. NEAREST STUDIED FLOODPLAIN APPROXIMATELY 1.51 MILES NORTHWEST OF THIS PLAN VIEW.



ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THIS CONSTRUCTION DRAWINGS HAVE HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION, AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

NO.	BY	DATE	REVISION

SEAL:

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PROJECT NO:	D02214
DRAWN/DESIGNED BY:	MCG/DAL
CHECKED BY:	KEC/TB
DATE:	04/01/2024

PRELIMINARY PLAN PREPARED FOR:

FIELDS FILING NO. 3

GRADING, EROSION, AND SEDIMENT CONTROL

DOUGLAS COUNTY, CO

INTERIM/FINAL GESC PLAN

Know what's below. Call before you dig.

DRAWING NO.
EC-02
SHEET NO. 04 OF 07

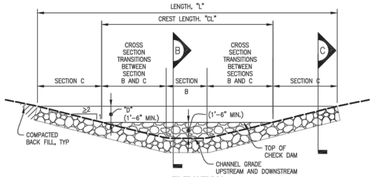
SECOND SUBMITTAL

C:\RICK\Projects\D02000\2214_Fields\Civil\PlanSets\FinalPlans\GESC - Filing 3\2214-GESC-INTR-F3.dwg - plotted by: dlmon ON 2025-04-03 @ 09:28 - ctb:rec_ncs_v2.ctb - © 2025 Rick Engineering Company

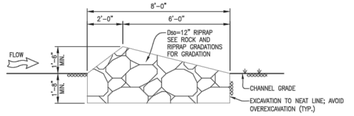
GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES

1. THE DOUGLAS COUNTY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE DOUGLAS COUNTY DIRECTOR OF ENGINEERING SERVICES, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
2. THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
3. THE GESC PLAN SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF ACCEPTANCE BY DOUGLAS COUNTY, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING. DOUGLAS COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
5. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE DOUGLAS COUNTY ACCEPTED GESC PLAN AND THE DOUGLAS COUNTY GESC MANUAL, AS AMENDED.
6. ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE DOUGLAS COUNTY ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
7. AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE COUNTY, AND THE GESC FIELD MANUAL OBTAINED AND REVIEWED, THE CONTRACTOR MAY INSTALL THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs INDICATED ON THE ACCEPTED GESC PLAN.
8. THE FIRST BMP TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM CORRIDORS AND OTHER AREAS TO BE PRESERVED.
9. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs, THE PERMITTEE SHALL CALL THE DOUGLAS COUNTY ENGINEERING PERMITS STAFF AT 303-660-7487 TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING.
10. THE OWNER OR OWNER'S REPRESENTATIVE, THE GESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING. IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE GESC FIELD MANUAL IS NOT ON SITE, OR IF THE INSTALLATION OF THE INITIAL BMPs ARE NOT APPROVED BY THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. DOUGLAS COUNTY STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING.
11. CONSTRUCTION SHALL NOT BEGIN UNTIL THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPs AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE COUNTY AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT MUST BE AVAILABLE WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPs ARE APPROVED.
12. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE DOUGLAS COUNTY-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE ENGINEERING DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF DISTURBANCE.
13. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. BMP INSTALLATION AND APPROVAL BY DOUGLAS COUNTY AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL AND/OR GESC FIELD MANUAL.
14. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 811, 1-800-922-1987, OR WWW.COLORADO811.ORG.
15. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
16. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ISSUANCE.
17. A COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL TIMES.
18. THE GESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH THE COUNTY FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, A STOP WORK ORDER MAY BE ISSUED.
19. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH THE DOUGLAS COUNTY-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
20. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR. STREET WASHING IS NOT ALLOWED. DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
21. APPROVED EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL BMPs IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. LEVEL III VIOLATIONS SHALL BE CORRECTED IMMEDIATELY AFTER THE PERMITTEE(S) NOTICE THE VIOLATION(S) OR ARE NOTIFIED OF THE VIOLATION(S). GENERALLY DOUGLAS COUNTY WILL REINSPECT FOR COMPLIANCE WITHIN 48 HOURS OF NOTIFICATION OF LEVEL III VIOLATIONS. LEVEL II VIOLATIONS SHALL BE CORRECTED IMMEDIATELY, OR AS DIRECTED BY A DOUGLAS COUNTY EROSION CONTROL INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
22. STRAW BALES ARE NOT A DOUGLAS COUNTY ACCEPTED SEDIMENT CONTROL BMP.
23. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR AS SOON AS TOPSOIL STRIPPING IS COMPLETED. FAILURE TO SCHEDULE SUCH INSPECTION OR FAILURE TO STOCKPILE TOPSOIL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. THE STOP WORK ORDER SHALL REMAIN IN PLACE UNTIL TOPSOIL IS STOCKPILED ON SITE OR APPROPRIATE SOIL AMENDMENTS ARE STOCKPILED ON SITE.
24. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER AND DOUGLAS COUNTY PUBLIC WORKS ENGINEERING FOR ANY PROPOSED CHANGES.
25. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
26. NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED.
27. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER. THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
28. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
29. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
30. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND DOUGLAS COUNTY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. CONTACT INFORMATION FOR CDPHE, DOUGLAS COUNTY AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A OF THE GESC MANUAL, AS AMENDED. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL MAY RESULT IN ISSUANCE OF A STOP WORK ORDER.
31. ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGEWAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED DOUGLAS COUNTY GESC PLAN.
32. ALL PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE COUNTY DIRECTOR OF ENGINEERING SERVICES TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITTEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTHEN MATERIAL. THE GESC MANAGER SHALL NOTIFY THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR OF THE LOCATION AND PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/ EXPORT OPERATIONS.
33. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL BMP IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION FENCE).
34. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN APPROPRIATE LOCATION.
35. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A DOUGLAS COUNTY EROSION CONTROL INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC MANUAL.
36. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY DOUGLAS COUNTY PUBLIC WORKS ENGINEERING (SEPARATE FROM GESC INSPECTIONS).
37. ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED IN ACCORDANCE WITH THE GESC CRITERIA MANUAL WITHIN THIRTY (30) DAYS OF INITIAL EXPOSURE OR WITHIN FOURTEEN (14) DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY DOUGLAS COUNTY) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
38. ALL SLOPES STEEPER THEN 4:1 REQUIRE EROSION CONTROL BLANKETING.
39. HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN DOUGLAS COUNTY.
40. NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRIMP MULCHED.
41. NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE EROSION CONTROL INSPECTOR.
42. A GESC INSPECTION SHALL BE CONDUCTED FOR CERTIFICATE OR TEMPORARY CERTIFICATE OF OCCUPANCY OR INITIAL ACCEPTANCE.
43. GESC MANAGER SHALL PROVIDE AND MAINTAIN PORTABLE TOILETS AND TRASH DUMPSTERS FOR THE PROJECT.

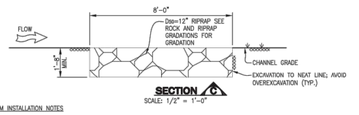
DETAIL NO.	SHEET NO.			
1	1		CD	CHECK DAM
2	1		CB	COMPOST BLANKET
3	1		CFB	COMPOST FILTER BERM
4	1		CWA	CONCRETE WASHOUT AREA
5	1		CF	CONSTRUCTION FENCE
6	1		CM	CONSTRUCTION MARKER
7	1		CS	CURB SOCK
8	1		DW	DEWATERING
9	1		DD	DIVERSION DITCH
10	2		ECB	EROSION CONTROL BLANKET
11	2		IP	INLET PROTECTION
12	2		RCD	REINFORCED CHECK DAM
13	2		RRB	REINFORCED ROCK BERM
14	2		RRC	RRB FOR CULVERT PROTECTION
15	2		SB	SEDIMENT BASIN
16	3		SCL	SEDIMENT CONTROL LOG
17	3		ST	SEDIMENT TRAP
18	3		SM	SEEDING AND MULCHING
19	3		SF	SILT FENCE
20	3		SSA	STABILIZED STAGING AREA
21	3		SR	SURFACE ROUGHENING
22	3		TSD	TEMPORARY SLOPE DRAIN
23	3		TSC	TEMPORARY STREAM CROSSING
24	3		TER	TERRACING
25	3		VTC	VEHICLE TRACKING CONTROL
26	3		WW	VTC WITH WHEEL WASH
1				ROCK AND RIPRAP GRADATIONS
			LOC	LIMITS OF CONSTRUCTION



ELEVATION
SCALE: 1" = 5'-0"



SECTION B
SCALE: 1/2" = 1'-0"



SECTION C
SCALE: 1/2" = 1'-0"

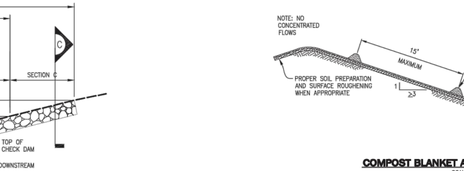
CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CHECK DAMS.
   - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   - LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
2. CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D_{50} MEDIAN STONE SIZE OF 12".
4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-8".
5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1'-6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR CHECK DAMS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND VEGETATED COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. ANY DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

CD CHECK DAM 1





COMPOST BLANKET AND COMPOST FILTER BERM
SCALE: 1" = 5'-0"

COMPOST BLANKET NOTES:

1. SEE PLAN VIEW FOR AREA OF COMPOST BLANKET.
2. MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
3. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
4. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
5. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
6. SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
7. MAYBE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
8. SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
9. COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
10. THE RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST BLANKET
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30–60 %
ORGANIC MATTER CONTENT	25–45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 1/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1-3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

NOTE: CLOPYRALID IS THE COMMON NAME OF A HERBICIDE THAT KILLS BROAD-LEAVED WEEDS SUCH AS DANDELIONS, CLOVER AND THISTLE.

CB COMPOST BLANKET 2

COMPOST FILTER BERM NOTES:

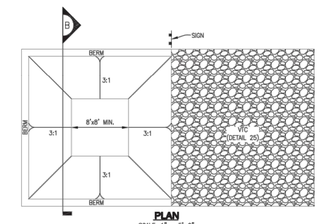
1. SEE PLAN VIEW FOR LENGTH OF COMPOST FILTER BERM.
2. SHALL BE APPLIED TO ALL SLOPES RECEIVING A COMPOST BLANKET AT 15' INCREMENTS.
3. FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
4. FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W.
5. FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
6. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
7. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
8. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
9. SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
10. THE RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	80+/80+
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	< 4
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PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1-3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

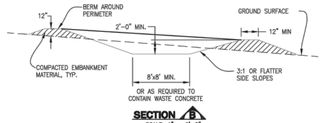
NOTE: IF A BIOSOLID COMPOST IS TO BE UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN POSSESSION OF A VALID NOTICE OF AUTHORIZATION (NOA) FOR THE UNRESTRICTED USE AND DISTRIBUTION BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. THE NOA SHALL BE PROVIDED UPON REQUEST TO DOUGLAS COUNTY.

NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY DOUGLAS COUNTY.

CFB COMPOST FILTER BERM 3



PLAN
SCALE: 1" = 5'-0"



SECTION B
SCALE: 1" = 5'-0"

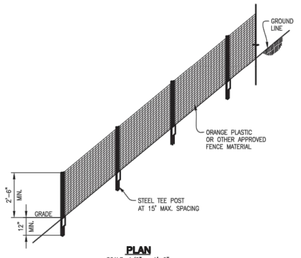
CONCRETE WASHOUT AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL (DETAIL 25) IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.
6. DURABLE PORTABLE CONCRETE WASHOUT BASINS OR TUBS MAY BE USED WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR.

CONCRETE WASHOUT AREA MAINTENANCE NOTES

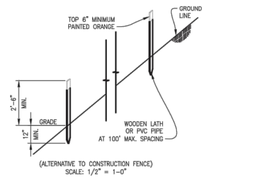
1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.
4. RECOMMENDED INSPECTION FREQUENCY IS WEEKLY, DURING AND AFTER ANY STORM EVENT.

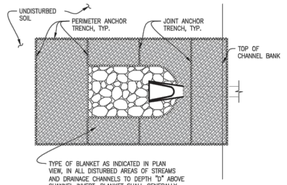
CWA CONCRETE WASHOUT AREA 4



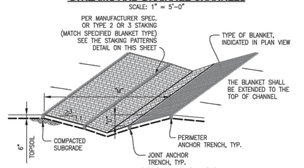
PLAN
SCALE: 1/2" = 1'-0"

CF CONSTRUCTION FENCE 5

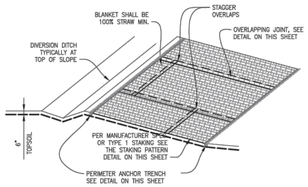

TOP 6" MINIMUM PAINTED ORANGE
GROUND LINE
2'-6" MIN.
GRADE
12" MIN.
WO



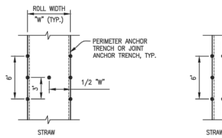
IN DISTURBED AREAS OF STREAMS AND DRAINAGE CHANNELS
SCALE: 1" = 5'-0"



IN DIVERSION DITCH OR SMALL DITCH DRAINAGEWAY
SCALE: 1" = 5'-0"

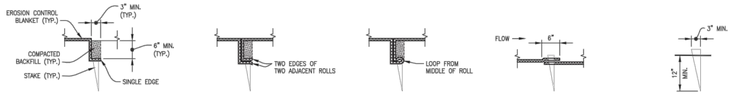


OUTSIDE OF STREAMS AND DRAINAGE CHANNELS
SCALE: 1" = 5'-0"



STAKING PATTERNS
SCALE: 1" = 5'-0"

SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. IF NO MANUFACTURER'S SPECIFICATION IS AVAILABLE USE THE ACCEPTABLE STAKING PATTERN (AS SHOWN ABOVE).



PERIMETER ANCHOR TRENCH
SCALE: 1" = 1'-0"

JOINT ANCHOR TRENCH
SCALE: 1" = 1'-0"

INTERMEDIATE ANCHOR TRENCH
SCALE: 1" = 5'-0"

OVERLAPPING JOINT
SCALE: 1" = 1'-0"

WOOD STAKE DETAIL
SCALE: 1" = 1'-0"
MINIMUM THICKNESS 1/2"

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF PERIMETER OF EROSION CONTROL BLANKET.
   - TYPE OF BLANKET (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
   - AREA "A" IN SQUARE YARDS OF EACH TYPE OF BLANKET.
2. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTO DEGRADABLE, SHALL BE ALLOWED.
3. IN AREAS WHERE EROSION CONTROL BLANKET IS SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING BELOW THE BLANKET IN ACCORDANCE WITH THE REQUIREMENTS OF DETAIL 12, SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO BLANKET INSTALLATION AND THE BLANKET SHALL BE IN FULL CONTACT WITH SUBGRADE, NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
4. PERIMETER ANCHOR TRENCH SHALL BE USED AT OUTSIDE PERIMETER OF ALL BLANKET AREAS.
5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL BLANKET INSTALLATIONS IN A DRAINAGEWAY EXCEPT STRAW, WHICH MAY USE AN OVERLAPPING JOINT.
6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF THE ROLL LENGTH FOR COCONUT AND EXCELSIOR BLANKETS.
7. THE OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER FOR BLANKETS ON SLOPES.
8. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKET SHALL CONFORM TO TABLE 7.1.

EROSION CONTROL BLANKET INSTALLATION NOTES – CONTINUED

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKET SHALL BE RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 18.
10. SEE DRAINAGE DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION MEASURES THAT MAY EXCEED THE DESIGN CONDITIONS ASSOCIATED WITH THE DETAILS ABOVE.
11. METAL STAKES OR STAPLES MAY BE USED FOR EROSION CONTROL BLANKET INSTALLATIONS OUTSIDE OF DRAINAGE CHANNELS.

TABLE 7.1 – EROSION CONTROL BLANKET TYPE

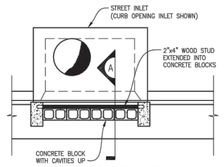
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	NETTING MIN.
STRAW*	–	100%	–	DOUBLE/NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	–	DOUBLE/NATURAL
COCONUT	100%	–	–	DOUBLE/NATURAL
EXCELSIOR	–	–	100%	DOUBLE/NATURAL

* FOR OUTSIDE OF STREAMS AND DRAINAGE CHANNELS

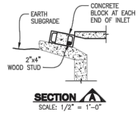
EROSION CONTROL BLANKET MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR EROSION CONTROL BLANKETS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. EROSION CONTROL BLANKET IS TO BE LEFT IN PLACE UNLESS REQUESTED TO BE REMOVED BY THE COUNTY.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE RE-INSTALLED. ANY SUBGRADE AREAS BELOW THE BLANKET THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

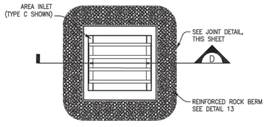
ECB EROSION CONTROL BLANKET 10



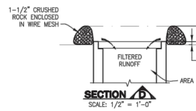
INTERIM CONFIGURATION (BEFORE PAVING) STREET INLET - PLAN
SCALE: 1/2" = 1'-0"



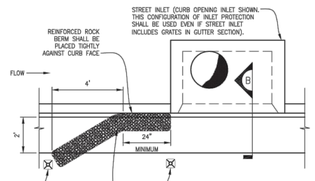
SECTION A
SCALE: 1/2" = 1'-0"



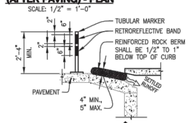
AREA INLET - PLAN
SCALE: 1/2" = 1'-0"



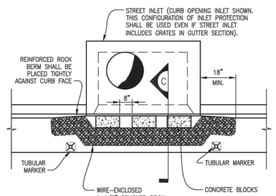
SECTION D
SCALE: 1/2" = 1'-0"



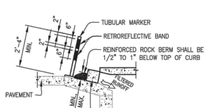
STREET INLET ON CONTINUOUS GRADE (AFTER PAVING) - PLAN
SCALE: 1/2" = 1'-0"



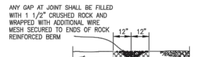
SECTION B
SCALE: 1/2" = 1'-0"



STREET INLET IN SUMP (AFTER PAVING) - PLAN
SCALE: 1/2" = 1'-0"



SECTION C
SCALE: 1/2" = 1'-0"



JOINT DETAIL
SCALE: 1/2" = 1'-0"

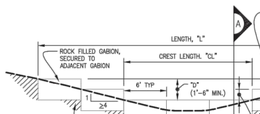
INLET PROTECTION INSTALLATION NOTES

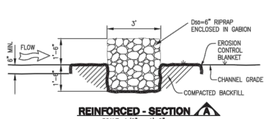
1. INTERIM CONFIGURATION OF INLET PROTECTION IN STREETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET. INLET PROTECTION (AFTER PAVEMENT) SHALL BE INSTALLED WITHIN 48 HOURS AFTER PAVING IS PLACED.
2. INLET PROTECTION AT AREA INLETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON ROCK AND RIPRAP GRADATIONS (1-1/2").
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"), ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. REINFORCED ROCK BERM SHALL BE CONSTRUCTED IN ONE PIECE OR SHALL BE CONSTRUCTED USING JOINT DETAIL.
7. TUBULAR MARKERS SHALL MEET REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED.
8. THE TOP OF REINFORCED ROCK BERM SHALL BE 1/2"-1" BELOW TOP OF CURB.

INLET PROTECTION MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR INLET PROTECTION IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. MORE FREQUENT INSPECTIONS AND REPAIRS MAY BE REQUIRED DURING WINTER CONDITIONS DUE TO FREEZE/THAW PROBLEMS.
2. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF ROCK BERM IS WITHIN 2-1/2 INCHES OF THE CREST.
3. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED, UNLESS THE COUNTY APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
4. WHEN INLET PROTECTION AT AREA INLETS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

IP INLET PROTECTION 11





REINFORCED - SECTION A
SCALE: 1/2" = 1'-0"

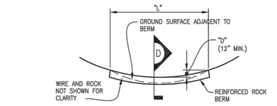
REINFORCED CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CHECK DAMS.
   - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   - LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
2. CHECK DAMS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4-1/2" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT GABION.
4. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-6".
5. EROSION BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1'-6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

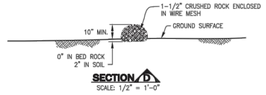
REINFORCED CHECK DAM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR CHECK DAMS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

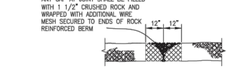
RCD REINFORCED CHECK DAM 12



ELEVATION
SCALE: 1" = 5'-0"



SECTION D
SCALE: 1/2" = 1'-0"



JOINT DETAIL
SCALE: 1/2" = 1'-0"

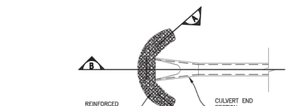
REINFORCED ROCK BERM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF REINFORCED ROCK BERMS.
   - LENGTH, "L", AND DEPTH, "D" DIMENSIONS.
2. REINFORCED ROCK BERM SECTION APPLIES TO CULVERT INLET FILTER AND INLET PROTECTION.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON ROCK AND RIPRAP GRADATIONS (1-1/2").
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"), ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

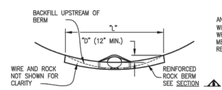
REINFORCED ROCK BERM MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR REINFORCED ROCK BERM IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED ROCK BERM SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
3. REINFORCED ROCK BERMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
4. WHEN REINFORCED ROCK BERMS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

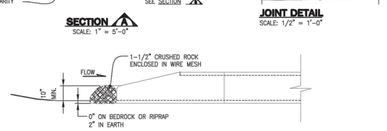
RRB REINFORCED ROCK BERM 13



PLAN
SCALE: 1" = 5'-0"



SECTION A
SCALE: 1" = 5'-0"



SECTION B
SCALE: 1/2" = 1'-0"

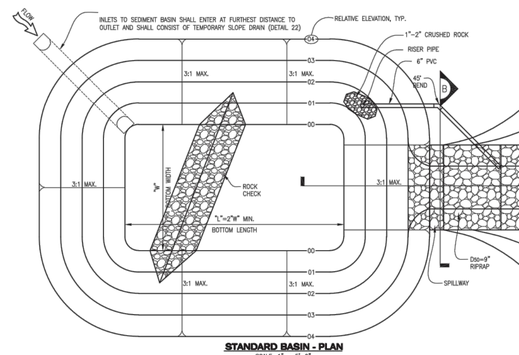
INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CULVERT INLET FILTERS.
   - LENGTH, "L", AND DEPTH, "D".
2. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON ROCK AND RIPRAP GRADATIONS (1-1/2").
3. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"), ROLL WIDTH SHALL BE 48-INCHES.
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
5. THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

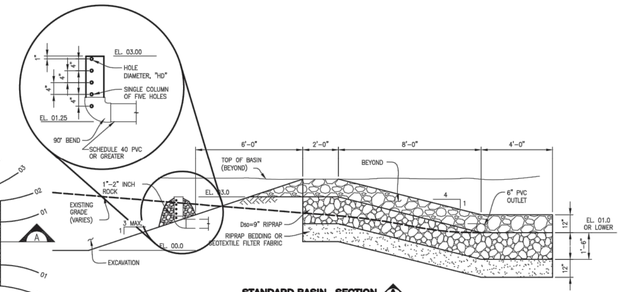
MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR RRB FOR CULVERT PROTECTION IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF RRB FOR CULVERT PROTECTION SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS 1/2 THE HEIGHT OF THE REINFORCED ROCK BERM.
3. RRB FOR CULVERT PROTECTION ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN RRB FOR CULVERT PROTECTION ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

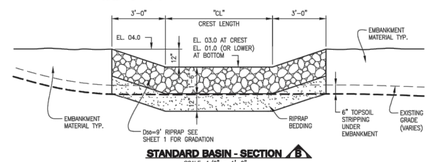
RRC RRB FOR CULVERT PROTECTION 14



STANDARD BASIN - PLAN
SCALE: 1" = 5'-0"



STANDARD BASIN - SECTION A
SCALE: 1/2" = 1'-0"



STANDARD BASIN - SECTION B
SCALE: 1/2" = 1'-0"

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF SEDIMENT BASIN.
   - TYPE OF BASIN (STANDARD BASIN OR NON-STANDARD BASIN),
   - FOR STANDARD BASIN, CREST LENGTH, "CL", BOTTOM WIDTH, "W", AND HOLE DIAMETER, "HD".
   - FOR NON-STANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT, "H", NUMBER OF COLUMNS, "N", HOLE DIAMETER, "HD", AND PIPE DIAMETER "D".
2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
3. SEDIMENT BASINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. THE DETAILS SHOWN ON THIS SHEET PERTAIN TO STANDARD SEDIMENT BASIN(S) IDENTIFIED ON THE GESC PLAN VIEW DRAWINGS USED FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT BASIN IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED IN SEDIMENT BASIN SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1.0 FOOT.
3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. IF SEDIMENT BASINS ARE REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	16	2.0	7/16
2	22	4.0	5/8
3	27	6.0	3/4
4	31	8.0	7/8
5	35	10.0	1.0
6	38	12.0	1 1/8
7	41	14.0	1 1/4
8	44	16.0	1 1/4
9	47	18.0	1 3/8
10	49	20.0	1 3/8
11	52	22.0	1 1/2
12	54	24.0	1 1/2
13	56	26.0	1 5/8
14	59	28.0	1 5/8
15	61	30.0	1 5/8

SB SEDIMENT BASIN 15

Sheet Revisions		
1	DOUGLAS COUNTY REISSUE	1/17

NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

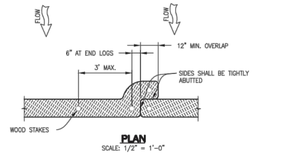
DOUGLAS COUNTY COLORADO

GESC GRADING, EROSION, AND SEDIMENT CONTROL

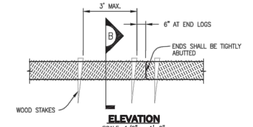
GESC PLAN STANDARD NOTES AND DETAILS

SHEET 2 OF 3

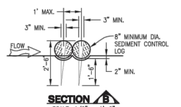
Fwde Filing 3
Project File: SB2024-068
Board of County Commissioner's Staff Report Page 134 of 141



PLAN
SCALE: 1/2" = 1'-0"



ELEVATION
SCALE: 1/2" = 1'-0"



SECTION A
SCALE: 1/2" = 1'-0"

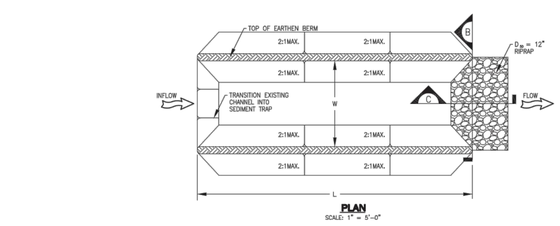
SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SEDIMENT CONTROL LOG.
2. SEDIMENT CONTROL LOGS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".

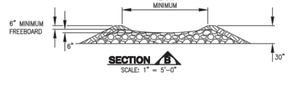
SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT CONTROL LOGS IS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST OF LOG.
3. SEDIMENT CONTROL LOG SHALL REMAIN IN PLACE UNTIL THE VEGETATIVE COVER IS APPROVED BY THE EROSION CONTROL INSPECTOR. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

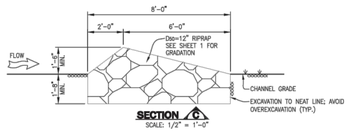
SCL SEDIMENT CONTROL LOG 16



PLAN
SCALE: 1" = 5'-0"



SECTION B
SCALE: 1" = 5'-0"



SECTION C
SCALE: 1/2" = 1'-0"

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
2. SEDIMENT TRAPS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
4. RIPRAP OUTLET SHALL BE CONSTRUCTED WITH D_{50} =12" RIPRAP WITH A MINIMUM OVERFLOW OF 6".
5. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
6. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.

SEDIMENT TRAP MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SEDIMENT TRAPS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF RIPRAP SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE RIPRAP OUTLET STRUCTURE.
3. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVERAGE IS APPROVED BY THE COUNTY.
4. WHEN SEDIMENT TRAPS ARE REMOVED THE DISTURBED AREA SHALL BE DRILLED SEEDED AND CRIMP MULCHED OR STABILIZED IN A MANNER APPROVED BY THE COUNTY.

ST SEDIMENT TRAP 17

SEEDING AND MULCHING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - AREA OF SEEDING AND MULCHING.
   - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).
2. ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAP WEED AND LEAFY SPURGE.
3. THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO DOUGLAS COUNTY UPON REQUEST.
4. DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT:
5. IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO THE CONTRACTOR AND FORWARDED TO THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR.
6. THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).
7. PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE COUNTY.
8. ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
9. SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED.
10. SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH NOT LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH. ROW SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.
11. IF THE PERMITTEE DEMONSTRATES TO THE COUNTY THAT IT IS NOT POSSIBLE TO DRILL SEED, SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.
12. SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 14 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE IN A GIVEN AREA (AS DEFINED BY THE COUNTY), THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
13. MULCH SHALL BE APPLIED WITHIN 24-HOURS OF SEEDING.
14. TACKIFIER SHOULD BE UTILIZED TO HELP PREVENT STRAW DISPLACEMENT.

SEEDING AND MULCHING MAINTENANCE NOTES

1. SEEDED AND MULCHED AREAS SHALL BE INSPECTED FOR REQUIRED COVERAGE MONTHLY FOR A PERIOD OF TWO YEARS FOLLOWING INITIAL SEEDING. REPAIRS AND RE-SEEDING AND MULCHING SHALL BE UNDERTAKEN AFTER THE FIRST GROWING SEASON FOR ANY AREAS FAILING TO MEET THE REQUIRED COVERAGE.
2. REQUIRED COVERAGE FOR STANDARD, OPEN SPACE AND LOW GROWTH SEED MIXES SHALL BE DEFINED AS FOLLOWS:
   1. THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF 3 INCHES. THE 3 PLANTS PER SQUARE FOOT SHALL BE OF THE VARIETY AND SPECIES FOUND IN THE DOUGLAS COUNTY-APPROVED MIX.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
3. REQUIRED COVERAGE FOR TURF GRASS AREAS SHALL BE DEFINED AS FOLLOWS:
   1. AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
4. RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING. THE RESEEDING METHOD SHALL BE APPROVED BY THE COUNTY.

SM SEEDING AND MULCHING 18

DOUGLAS COUNTY PERMANENT DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BIG BLUESTEM	KAW	PNWS	10	1.1
YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
SWITCHGRASS	BLACKWELL	PNWS	10	0.4
SIDEOATS GRAMA	VAUGHN	PNWB	10	0.9
WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
BLUE GRAMA	HACHITA	PNWB	10	0.3
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
GREEN NEEDLEGRASS	LODORM	PNCB	10	1
SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
			TOTAL	9.2

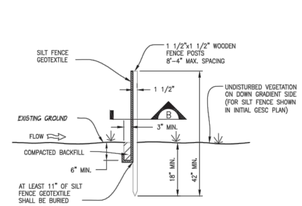
DOUGLAS COUNTY TEMPORARY DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5
PUBESCENT WHEATGRASS	LUNA	PICS	30	4.2
ANNUAL RYEGRASS	N/A	AICB	10	0.8
			TOTAL	13.4

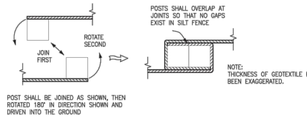
DOUGLAS COUNTY LOW-GROWTH DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TEXOKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOATS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
			TOTAL	11.0

NOTES:
P=PERENNIAL
A=ANNUAL
N=NATIVE
I=INTRODUCED
W=WARM SEASON
C=COOL SEASON
S=SOD FORMER
B=BUNCHGRASS



ELEVATION
SCALE: 1" = 1'-0"



JOINTS - SECTION B
SCALE: N.T.S.

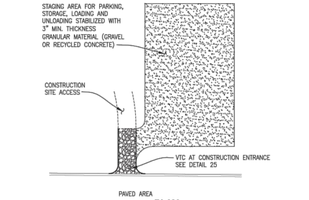
SILT FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF FENCE.
2. ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
3. SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:
   - 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
   - 90 LB. TENSILE STRENGTH PER ASTM D4632.
   - UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D4355.
4. SILT FENCE INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SILT FENCE IS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6-INCHES.
3. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

SF SILT FENCE 19



PLAN
SCALE: 1" = 40'-0"

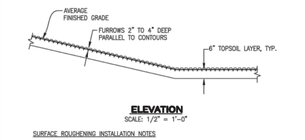
STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH COUNTY APPROVAL.
2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
3. IF REQUIRED BY THE COUNTY, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE).

STABILIZED STAGING AREA MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR THE STABILIZED STAGING AREA IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. GESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

SSA STABILIZED STAGING AREA 20



ELEVATION
SCALE: 1/2" = 1'-0"

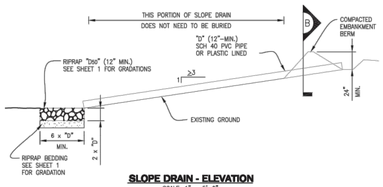
SURFACE ROUGHENING INSTALLATION NOTES

1. SURFACE ROUGHENING SHALL BE PROVIDED ON ALL FINISHED GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING TOPSOIL) OR WITHIN 2 DAYS OF TOPSOIL PLACEMENT.
2. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD IS TO BE PLACED WITHIN 7-DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED.
3. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

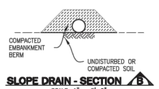
SURFACE ROUGHENING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SURFACE ROUGHENING IS WEEKLY, DURING AND AFTER ANY STORM EVENT, AND MAKE REPAIRS.
2. VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
3. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
4. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL EROSION.

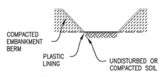
SR SURFACE ROUGHENING 21



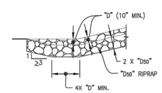
SLOPE DRAIN - ELEVATION
SCALE: 1" = 5'-0"



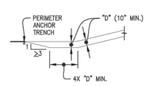
SLOPE DRAIN - SECTION B
SCALE: 1" = 5'-0"



PLASTIC LINED DRAIN - OPTION
SCALE: 1" = 5'-0"



TERMINATION OF RIPRAP LINED SLOPE DRAIN
SCALE: 1" = 5'-0"



TERMINATION OF PLASTIC LINED SLOPE DRAIN
SCALE: 1" = 5'-0"

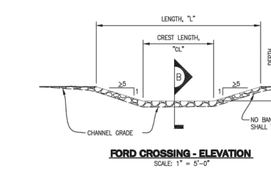
SLOPE DRAIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SLOPE DRAIN.
   - PIPE DIAMETER, "D", AND RIPRAP SIZE, "Dso".
2. SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO SLOPE OR SLOPE DRAIN DURING RUNOFF EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SLOPE DRAINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
4. FOR TEMPORARY SLOPE DRAINS, PIPE MAY BE INSTALLED ON TOP OF SLOPE; HOWEVER, 12" MIN. COVER AT TOP OF SLOPE SHALL BE PROVIDED.
5. A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.

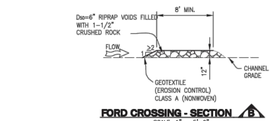
SLOPE DRAIN MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR SLOPE DRAINS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

TSD TEMPORARY SLOPE DRAIN 22



FORD CROSSING - ELEVATION
SCALE: 1" = 5'-0"



FORD CROSSING - SECTION B
SCALE: 1" = 5'-0"

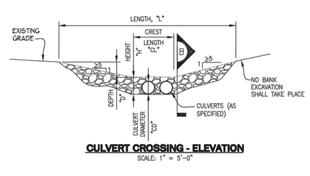
TEMPORARY STREAM CROSSING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF TEMPORARY STREAM CROSSING.
   - STREAM CROSSING TYPE (FORD OR CULVERT).
   - FOR FORD CROSSING: LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
   - FOR CULVERT CROSSING : LENGTH, "L", CREST LENGTH, "CL", CROSSING HEIGHT, "H", DEPTH, "D", CULVERT DIAMETER, "CD", AND NUMBER, TYPE AND CLASS OR GAUGE OF CULVERTS.
2. TEMPORARY STREAM CROSSING DIMENSIONS, DSO, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SEE ROCK AND RIPRAP GRADATIONS FOR RIPRAP AND 1-1/2" CRUSHED ROCK GRADATIONS.
4. FOR A TEMPORARY STREAM CROSSING THAT WILL CARRY LOADS, THE TEMPORARY STREAM CROSSING MUST BE DESIGNED BY THE DESIGN ENGINEER.

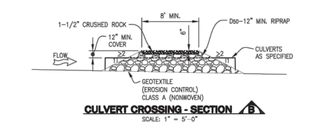
TEMPORARY STREAM CROSSING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR TEMPORARY STREAM CROSSINGS IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF TEMPORARY STREAM CROSSINGS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CROSSING IS WITHIN 6-INCHES OF THE CREST (FORD CROSSING) OR GREATER THAN AN AVERAGE DEPTH OF 12-INCHES (CULVERT CROSSING).
3. TEMPORARY STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.
4. WHEN TEMPORARY STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

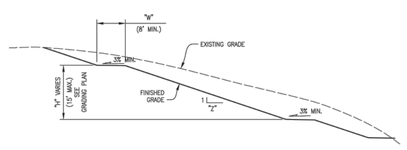
TSC TEMPORARY STREAM CROSSING 23



CULVERT CROSSING - ELEVATION
SCALE: 1" = 5'-0"



CULVERT CROSSING - SECTION B
SCALE: 1" = 5'-0"



ELEVATION
SCALE: 1/2" = 1'-0"

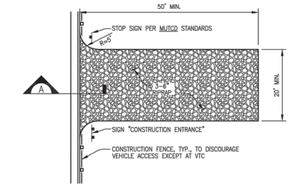
TERRACING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - WIDTH, "W", AND SLOPE, "Z".
2. TERRACING IS NOT REQUIRED FOR SLOPES OF 4 TO 1 OR FLATTER.
3. EARTH (VEGETATED) SLOPES STEEPER THAN 3 TO 1 ARE NOT ALLOWED ON THE SITE.

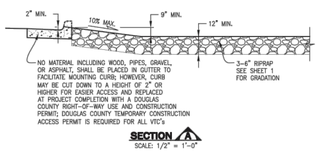
TERRACING MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR TERRACING IS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. ANY RILL EROSION OCCURRING ON SLOPES SHALL BE REPAIRED AND RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 18.

TER TERRACING 24



PLAN
SCALE: 1" = 10'-0"



SECTION A
SCALE: 1/2" = 1'-0"

VEHICLE TRACKING CONTROL INSTALLATION NOTES

1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.
2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
3. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.
4. A DOUGLAS COUNTY TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH POINT ONTO DOUGLAS COUNTY R.O.W.
5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

VEHICLE TRACKING CONTROL MAINTENANCE NOTES

1. THE RECOMMENDED INSPECTION FREQUENCY FOR VEHICLE TRACKING CONTROL IS DAILY. GRAVEL SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS AND CAUSE LOOSE GRAVEL TO DISLODGE MUD FROM TIRES. WHEN GRAVEL BECOMES COMPACTED OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN GRAVEL, PLACE ADDITIONAL NEW GRAVEL, OR REPLACE WITH NEW GRAVEL AS NECESSARY TO RESTORE EFFECTIVENESS.
2. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRAVEL MATERIAL REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 1 OF 6

LEGAL DESCRIPTION

A PARCEL OF LAND LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN THE FOLLOWING DESCRIBED MONUMENTS:

–THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018.

–THE NORTHEAST CORNER OF SAID SECTION 5 BEING A #6 REBAR AND 3.25" ALUMINUM CAP PLS 38151 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019.

BEGINNING AT SAID NORTHEAST CORNER OF SECTION 5;

THENCE ALONG THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°08'37" WEST, A DISTANCE OF 2,639.95 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 5 BEING A #5 REBAR AND 2" ALUMINUM CAP PLS 8141 MATCHING MONUMENT RECORD FILED 8/25/03;

THENCE ALONG THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 5 SOUTH 00°12'25" EAST, A DISTANCE OF 2,640.45 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 5 BEING A 3.5" ALUMINUM CAP ON PIPE PLS 35585 IN RANGE BOX MATCHING MONUMENT RECORD FILED 10/31/2019;

THENCE ALONG THE SOUTH LINE OF SAID SOUTHEAST QUARTER SOUTH 89°34'33" WEST, A DISTANCE OF 1,889.93 FEET;

THENCE NORTH 00°33'09" EAST, A DISTANCE OF 551.58 FEET;

THENCE NORTH 11°00'15" EAST, A DISTANCE OF 761.48 FEET;

THENCE NORTH 18°08'07" WEST, A DISTANCE OF 550.61 FEET;

THENCE NORTH 30°46'30" EAST, A DISTANCE OF 372.83 FEET;

THENCE NORTH 00°54'50" WEST, A DISTANCE OF 358.87 FEET;

THENCE NORTH 46°36'35" WEST, A DISTANCE OF 692.86 FEET;

THENCE NORTH 11°02'21" WEST, A DISTANCE OF 347.63 FEET;

THENCE NORTH 54°23'32" WEST, A DISTANCE OF 944.39 FEET;

THENCE NORTH 54°10'26" WEST, A DISTANCE OF 653.46 FEET;

THENCE NORTH 00°27'53" WEST, A DISTANCE OF 636.91 FEET;

THENCE NORTH 72°10'45" WEST, A DISTANCE OF 549.06 FEET;

THENCE NORTH 00°21'43" WEST, A DISTANCE OF 273.50 FEET TO THE NORTH LINE OF THE NORTHWEST QUARTER OF SAID SECTION 5;

THENCE ALONG SAID NORTH LINE SOUTH 89°26'46" EAST, A DISTANCE OF 1,516.97 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 5 BEING A 2.5" ALUMINUM CAP ON PIPE PLS 6935 MATCHING MONUMENT RECORD FILED 12/31/2018;

THENCE ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5 SOUTH 89°33'09" EAST, A DISTANCE OF 2,603.12 FEET TO THE POINT OF BEGINNING.

CONTAINING 12,957,113 SQUARE FEET OR 297.454 ACRES, MORE OR LESS.

DEDICATION STATEMENT

THE UNDERSIGNED, BEING ALL THE OWNERS, MORTGAGEES, BENEFICIARIES OF DEEDS OF TRUST AND HOLDERS OF OTHER INTERESTS IN THE LAND DESCRIBED HEREIN, HAVE LAID OUT, SUBDIVIDED AND PLATTED SAID LANDS INTO LOTS, TRACTS, STREETS AND EASEMENTS AS SHOWN HEREON UNDER THE NAME AND SUBDIVISION OF FIELDS FILING 3. THE UTILITY EASEMENTS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES AND CABLE COMMUNICATION SYSTEMS AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE SERVICES 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. SINGING HILLS ROAD AND FLINTWOOD ROAD RIGHTS–OF–WAY ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO, IN FEE SIMPLE ABSOLUTE, WITH MARKETABLE TITLE, FOR PUBLIC USES AND PURPOSES. UTILITY EASEMENTS, DRAINAGE AND BLANKET ACCESS EASEMENTS SHOWN HEREON ARE DEDICATED AND CONVEYED TO DOUGLAS COUNTY, COLORADO FOR PUBLIC USE AND PURPOSE.

OWNER: WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

BY:_____

_____ AS _____ OF WALLDEN–HILL TOP, LLC, A COLORADO LIMITED LIABILITY COMPANY.

STATE OF _____)
) SS
COUNTY OF _____)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

TITLE VERIFICATION

WE _____, DO HEREBY CERTIFY THAT WE HAVE EXAMINED THE TITLE OF ALL LAND PLATTED HEREON AND THAT TITLE TO SUCH LAND IS IN THE DEDICATOR(S) FREE AND CLEAR OF ALL LIENS, TAXES AND ENCUMBRANCES.

_____

BY: _____ _____

TITLE: _____

STATE OF _____)
) SS
COUNTY OF _____)

ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

GENERAL NOTES

1.) THE LINEAL UNITS USED ON THIS PLAT ARE U.S. SURVEY FEET. ALL BEARINGS SHOWN HEREON ARE IN DEGREES–MINUTES–SECONDS.

2.) ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT, LAND SURVEY BOUNDARY MONUMENT, OR ACCESSORY COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18–4–508, C.R.S.

3.) NOTICE: ACCORDING TO COLORADO LAW YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF CERTIFICATION SHOWN HEREON.

4.) COMMONWEALTH LAND TITLE INSURANCE COMPANY ORDER NUMBER 450–HS0834885–412, AMENDMENT NO. 1, EFFECTIVE DATE OCTOBER 28, 2024 AT 12:00 A.M. WAS ENTIRELY RELIED UPON FOR RECORDED RIGHTS–OF–WAY, EASEMENTS AND ENCUMBRANCES IN THE PREPARATION OF THIS SURVEY.

5.) RICK ENGINEERING COMPANY HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS, RECORDED/UNRECORDED, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE.

6.) ALL LOT CORNER MONUMENTS SHALL BE SET PER COLORADO STATE STATUTE 38–51–105.

7.) BASIS OF BEARINGS: NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 5, BEING ASSUMED TO BEAR SOUTH 89°33'09" EAST, A DISTANCE OF 2603.12 FEET BETWEEN MONUMENTS AS SHOWN ON THIS PLAT.

8.) ACCESS EASEMENTS AS SHOWN HEREON ARE FOR THE USE BY THE ADJOINING LOT OWNERS AND THEIR INVITEES. MAINTENANCE IS THE RESPONSIBILITY OF THE LOT OWERS ADJOINING THE ACCESS EASEMENT. LOT 1 WILL BE THE ONLY LOT THAT CAN HAVE DIRECT ACCESS TO FLINTWOOD ROAD. LOTS 2 – 7 WILL HAVE ACCESS THROUGH THE SHARED ACCESS EASEMENTS

9.) 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, COUNTER–FORTS, 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. PROHIBITED IMPROVEMENTS MAY BE REMOVED BY THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES. THE OWNERS OF THE PROPERTY SUBJECT TO OR ADJACENT TO THE UTILITY EASEMENTS SHOWN HEREIN ARE RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF SUCH AREAS, WHICH DOES NOT INCLUDE UTILITY LINES AND RELATED FACILITIES. WHEN THE OWNER(S) OR ADJACENT OWNERS FAIL TO ADEQUATELY MAINTAIN SUCH UTILITY EASEMENTS, INCLUDING THE REMOVAL OF PROHIBITED IMPROVEMENTS, THE MAINTENANCE, OPERATION, RECONSTRUCTION AND REMOVAL SHALL BE AT THE COST OF THE OWNER(S). THE UTILITY EASEMENTS AS SHOWN HEREON ARE HEREBY DEDICATED FOR PUBLIC UTILITIES, CABLE COMMUNICATION SYSTEMS FIBER AND OTHER PURPOSES AS SHOWN HEREON. THE ENTITIES RESPONSIBLE FOR PROVIDING THE UTILITY SERVICES 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.

10.) DRAINAGE EASEMENTS ARE HEREBY GRANTED TO DOUGLAS COUNTY ACROSS LOTS 1–7 OF FIELDS FILING NO. 3 SUBDIVISION FOR THE PURPOSE OF ACCESSING, MAINTAINING AND REPAIRING STORM SEWER MANAGEMENT IMPROVEMENTS INCLUDING BUT NOT LMITED TO INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIRPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES (COLLECTIVELY THE FACILITIES) IN THE EVENT THE FIELDS METROPOLITAN DISTRICT NO. 3, ITS SUCCESSORS, AND ASSIGNS (SYSTEM OWNER) FAILS TO SATISFACTORILY MAINTAIN OR REPAIR SAID FACILITIES, A BLANKET ACCESS EASEMENT OVER THE SUBDIVISION IS ALSO GRANTED TO DOUGLAS COUNTY TO DOUGLAS COUNTY, BUT ONLY FOR THE PURPOSE OF ACCESSING THE FACILITIES IN THE EVENT THAT THE DRAINAGE EASEMENTS DO NOT PROVIDE ADEQUATE ACCESS. THE MAINTENANCE AND REPAIR OF THE FACILITIES LOCATED IN THE SUBDIVISION, AS SHOWN ON THE CONSTRUCTION PLANS ACCEPTED BY DOUGLAS COUNTY OR ON THE PLAT FOR THE SUBDIVISIONS SHALL BE THE RESPONSIBILITY OF THE SYSTEM OWNER. IN THE EVENT SUCH MAINTENANCE AND REPAIR ARE NOT PERFORMED BY THE SYSTEM OWNER, TO THE SATISFACTION OF DOUGLAS COUNTY, THEN DOUGLAS COUNTY SHALL HAVE THE RIGHT, BUT NOT THE OBLIGATION, TO ENTER SAID SUBDIVISION, AFTER TEN(10) DAYS PRIOR WRITTEN NOTICE TO THE SYSTEM OWNER, UNLESS THERE IS AN EMERGENCY, IN WHICH CASE DOUGLAS COUNTY SHALL GIVE NOTICE AS SOON AS PRACTICABLE, TO PERFORM ALL NECESSARY WORK, THE COST OF WHICH SHALL BE PAID BY THE SYSTEM OWNER UPON BILLING IN THE EVENT THE SYSTEM OWNER FAILS TO REIMBURSE DOUGLAS COUNTY WITHIN THIRTY (30) DAYS AFTER SUBMISSION OF THE BILL FOR THE COSTS INCURRED. DOUGLAS COUNTY SHALL HAVE THE RIGHT TO ENFORCE SUCH OBLIGATION BY APPROPRIATE LEVEL ACTION. IT IS THE SYSTEM OWNER'S RESPONSIBILITY TO CONSTRUCT, MAINTAIN, AND REPAIR THE FACILITIES IN A MANNER CONSISTENT WITH APPLICABLE PLANS APPROVED OR ACCEPTED BY DOUGLAS COUNTY.

11.) ALL DWELLING AND ACCESSORY DWELLING UNITS ON THIS PLAT SHALL HAVE APPROVED FIRE SPRINKLER SYSTEMS AND THAT APPROVED FIRE PROTECTION WATER SUPPLIES ARE TO BE INSTALLED PRIOR TO ISSUANCE OF PERMITS FOR VERTICAL CONSTRUCTION OF STRUCTURES.

12.) NO FURTHER SUBDIVISION TO ESTABLISH ADDITIONAL LOTS WITHOUT A PRELIMINARY PLAN OR MINOR DEVELOPMENT PLAT.

13.) THERE SHALL BE A 50FT EROSIONAL SETBACK FROM THE LIMITS OF THE 100 YEAR FLOOD PLAIN. FURTHER TECHNICAL STUDIES WILL BE REQUIRED WHEN TRAVERSING A DRAINAGE EASEMENT.

14.) THE UTILITY 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.

15.) EXISTING WELL #126985–A LOCATED ON THE PROPERTY WILL BE CAPPED AND ABANDONED PER THE CONDITION OF THE PRELIMINARY PLAN. NO BUILDINGS PERMITS FOR FILING 3 WILL BE ISSUED PRIOR TO THE ABANDONMENT OF THIS WELL.

16.) WHEN DEVELOPING ADJACENT TO MAJOR DRAINAGEWAY FLOODPLAINS, A MINIMUM OF 2– FEET OF FREEBOARD SHALL BE PROVIDED BETWEEN THE 100–YEAR BASE FLOOD ELEVATION AND THE LOWEST FINISHED FLOOR ELEVATION OF ALL STRUCTURES.

BOARD OF COUNTY COMMISSIONERS

THIS PLAT WAS APPROVED FOR FILING BY THE BOARD OF COUNTY COMMISSIONERS OF DOUGLAS COUNTY, COLORADO ON THE _____ DAY OF _____, 20____, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON. THE DEDICATIONS OF UTILITY EASEMENTS, DRAINAGE EASEMENTS, RIGHT–OF–WAY DEDICATIONS FOR SINGING HILLS ROAD, AND FLINTWOOD ROAD ARE HEREBY ACCEPTED.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR ALL UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTER, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES, AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT DOUGLAS COUNTY.

THIS ACCEPTANCE DOES NOT GUARANTEE THAT SOIL 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.

_____
CHAIR, BOARD OF COUNTY COMMISSIONERS

PLANNING COMMISSION CERTIFICATE

THE PRELIMINARY PLAN SB2022–036 FOR THIS FINAL PLAT WAS REVIEWED BY THE PLANNING COMMISSION ON NOVEMBER 7, 2023.

_____ _____
PLANNING DIRECTOR, ON BEHALF OF THE PLANNING COMMISSION DATE

SHEET INDEX

SHEET 1 COVER SHEET

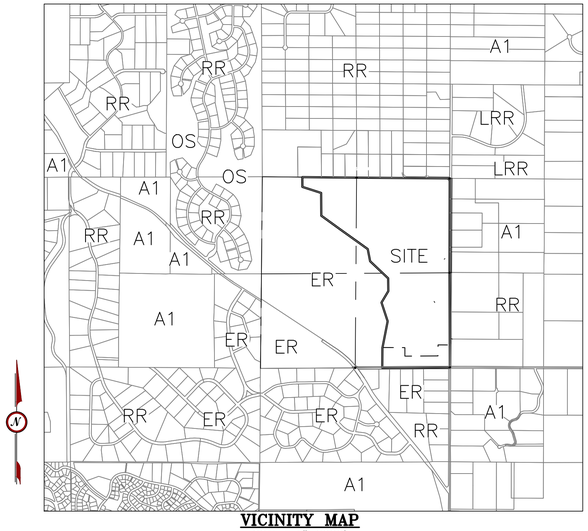
SHEET 2 CONTROL

SHEET 3 NORTHERLY LOT DETAILS, ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 4 SOUTHERLY LOT DETAILS ACCESS AND UTILITY EASEMENTS DEDICATION, RIGHT–OF–WAY DEDICATION

SHEET 5 DRAINAGE & CORE UTILITY EASEMENT, NORTHERLY LOTS

SHEET 6 DRAINAGE & CORE UTILITY EASEMENT, SOUTHERLY LOTS



VICINITY MAP
SCALE: 1"=2000'

LAND USE TABLE

	AREA (SQ. FT.±)	AREA (ACREAGE±)	%OF TOTAL LAND USE±
LOTS	11,996,021	275.390	92.6%
R.O.W.	961,092	22.064	7.4%
TOTAL	12,957,113	297.454	100.0%

ACCEPTANCE CERTIFICATE

THE DEDICATION OF DRAINAGE EASEMENT ARE HEREBY ACCEPTED FOR OWNERSHIP AND MAINTENANCE BY FIELDS METRO DISTRICT NO. 3.

(FIELDS METRO DISTRICT NO. 3)

BY:_____

TITLE:_____

STATE OF _____)
) SS
COUNTY OF _____)

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME THIS _____DAY OF _____, 20__, BY _____ AS_____.
WITNESS MY HAND AND OFFICIAL SEAL.

_____
NOTARY PUBLIC

MY COMMISSION EXPIRES_____

SURVEYOR'S CERTIFICATE

I ROBERT J. HENNESSY, 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 ON THE 30TH DAY OF MARCH, 2022, 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 (SECOND ORDER); 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 APPLICABLE PROVISIONS OF THE DOUGLAS COUNTY SUBDIVISION RESOLUTION. THIS CERTIFICATION IS BASED ON MY KNOWLEDGE, INFORMATION, AND BELIEF AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESS OR IMPLIED.

I ATTEST THE ABOVE ON THIS _____ DAY OF _____, 20_____.

PRELIMINARY FOR REVIEW

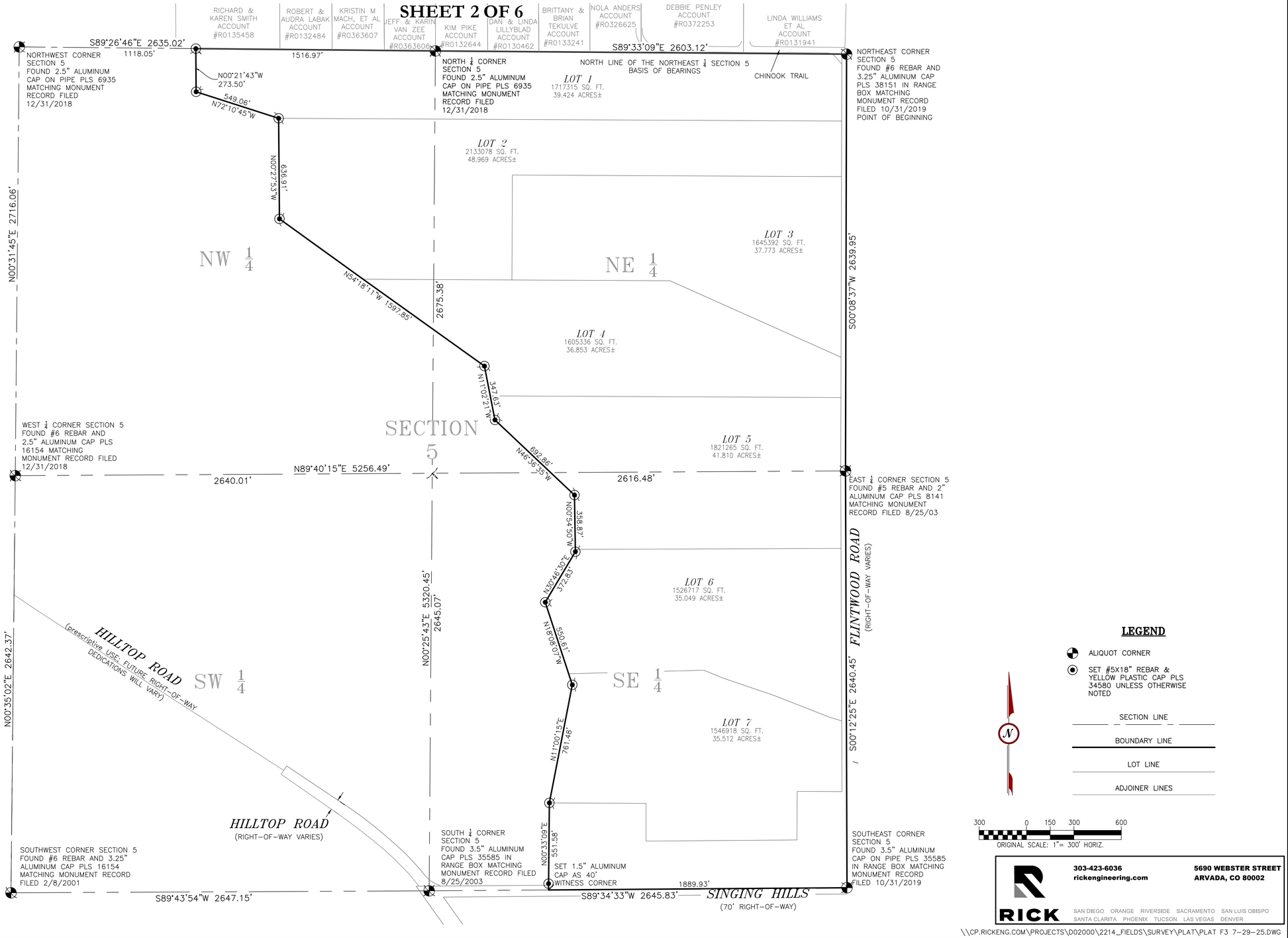
_____
ROBERT J. HENNESSY, COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR #34580
FOR AND ON BEHALF OF RICK ENGINEERING COMPANY

303-423-6036
rickengineering.com
5690 WEBSTER STREET
ARVADA, CO 80002
RICK
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 7–29–25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 2 OF 6



LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES

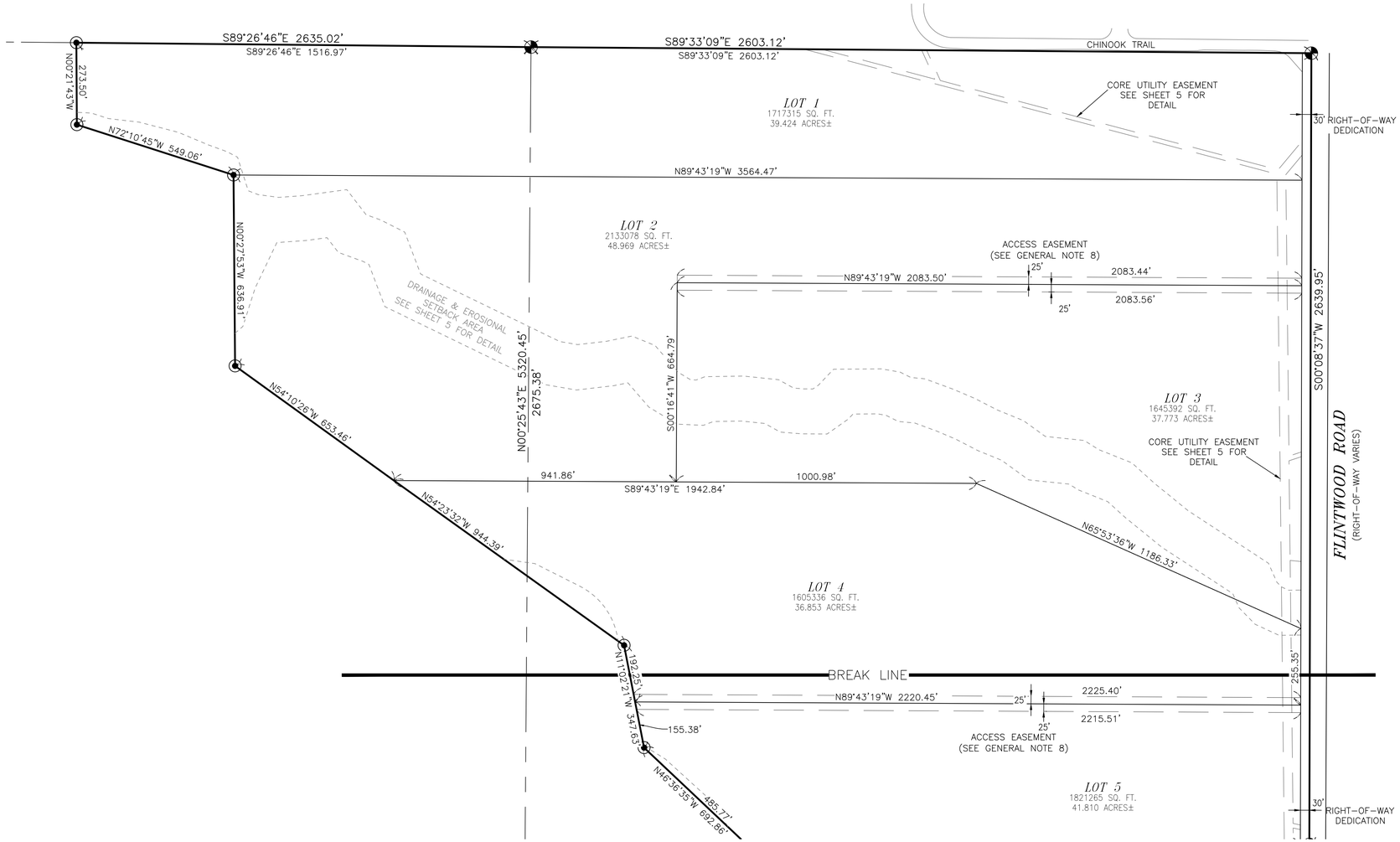
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ORIGINAL SCALE: 1"= 300' HORIZ.

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COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
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SHEET 3 OF 6



LEGEND

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200 0 100 200 400
ORIGINAL SCALE: 1"= 200' HORIZ.

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FIELDS FILING 3

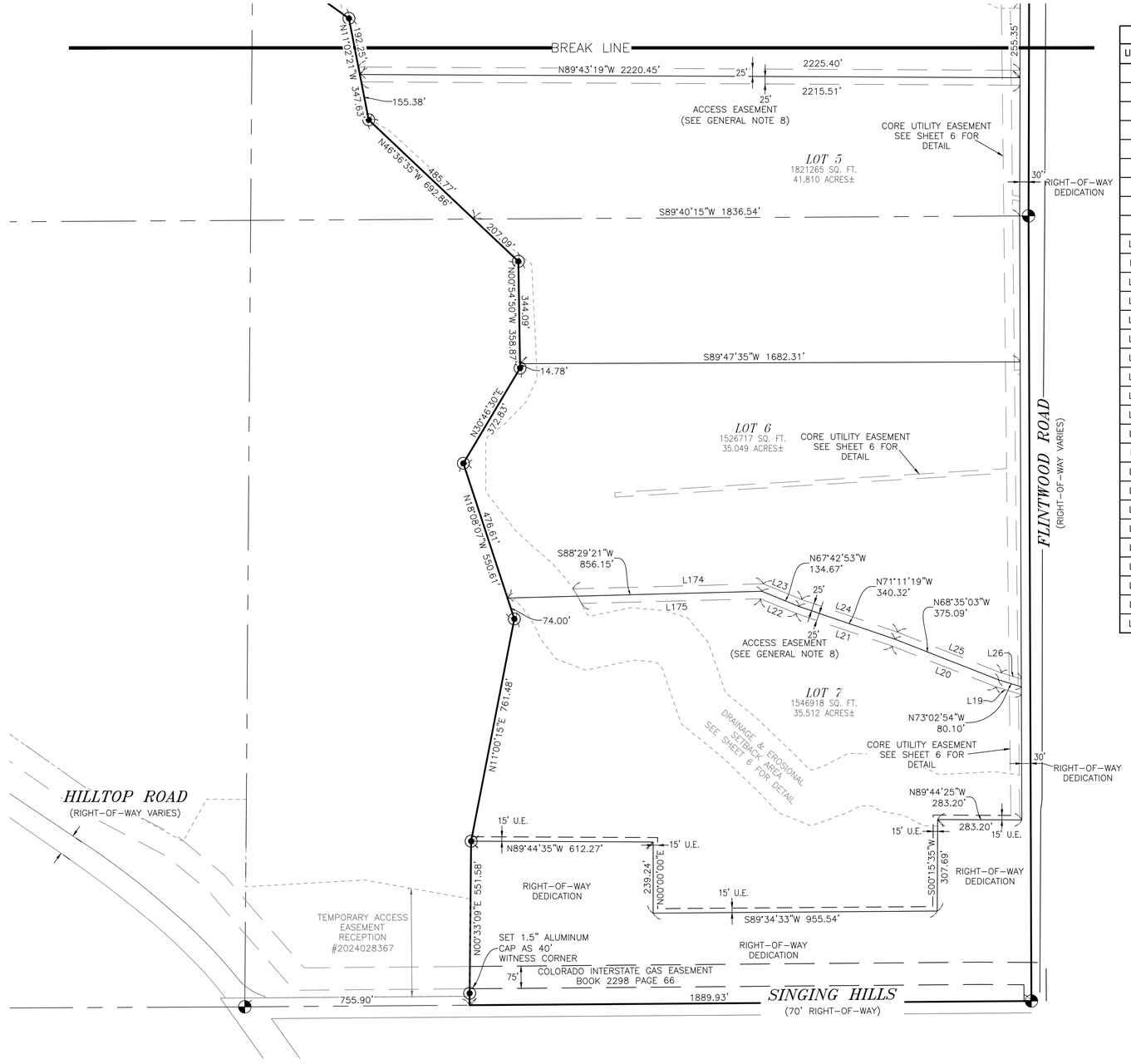
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COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 4 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	106.04'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	111.32'	N24°20'31"W
L4	125.09'	S39°50'38"W
L5	46.97'	N00°08'37"E
L6	84.69'	N39°50'38"E
L7	43.48'	S71°40'04"W
L8	15.82'	N00°08'37"E
L9	43.25'	N71°40'04"E
L10	36.85'	N84°13'09"W
L11	15.07'	N00°08'37"E
L12	36.64'	S84°13'09"E
L13	25.01'	N77°42'29"W
L14	15.34'	N00°08'37"E
L15	24.79'	S77°42'29"E
L16	19.67'	S83°31'24"W
L17	15.09'	N00°12'25"W
L18	19.55'	N83°31'24"E
L19	88.80'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	71.41'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	41.26'	S89°12'56"W
L78	72.90'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'



LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
L150	48.74'	N59°56'50"W

LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	640.26'	N88°29'21"E
L175	602.29'	S88°29'21"W

LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- U.E.=UTILITY EASEMENT

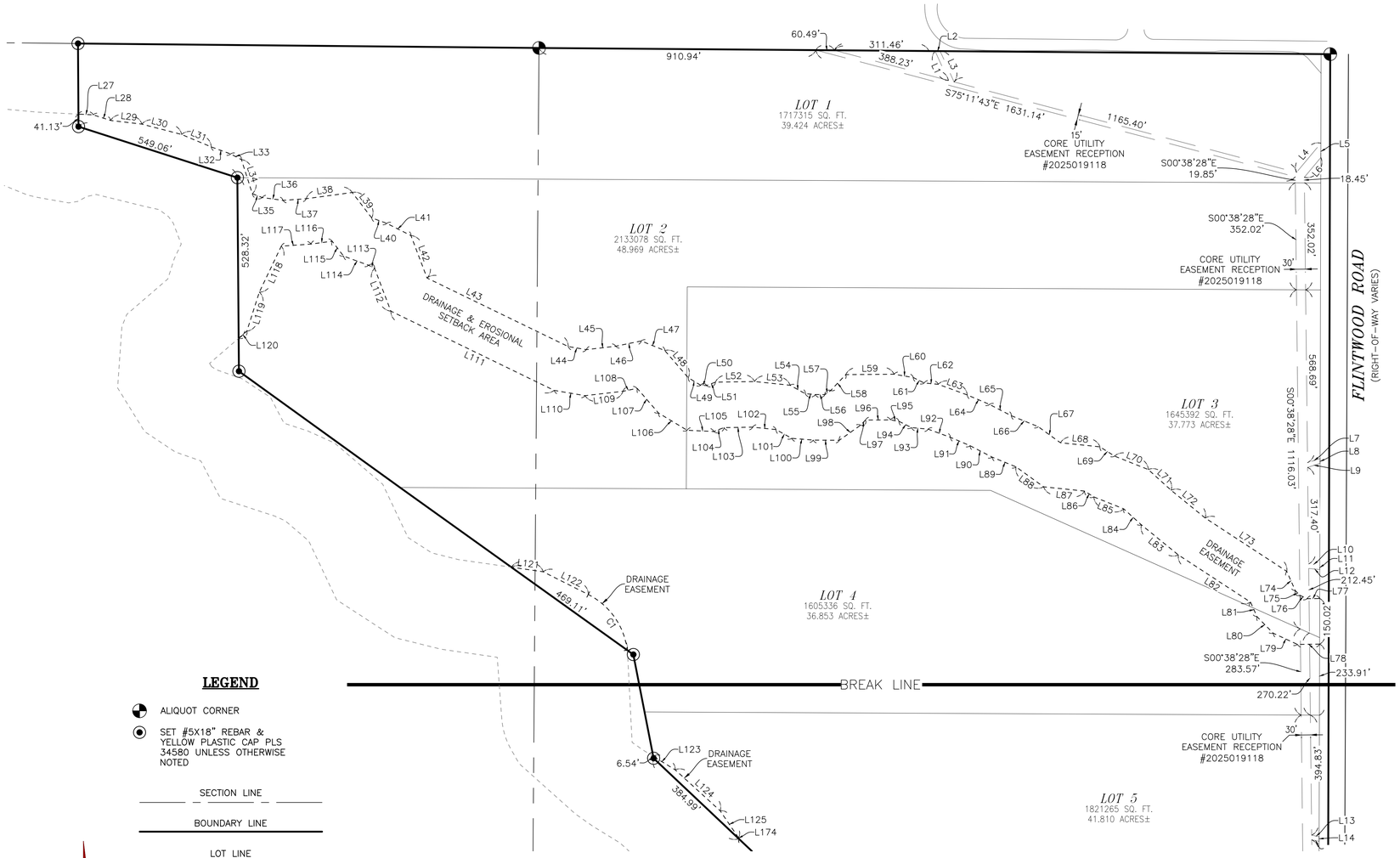
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ORIGINAL SCALE: 1"= 200' HORIZ.

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\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 7-29-25.DWG

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 5 OF 6



LEGEND

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L19	88.80'	N73°02'54"W
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L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
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L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
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L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	41.26'	S89°12'56"W
L78	72.90'	N89°12'56"E
L79	88.01'	S65°11'05"E
L80	76.02'	S44°22'28"E
L81	52.38'	S23°58'33"E
L82	283.82'	S56°48'58"E
L83	156.75'	S50°51'10"E
L84	78.43'	S47°48'39"E
L85	105.99'	S68°12'40"E
L86	35.88'	S57°47'33"E
L87	135.58'	S84°05'42"E
L88	112.11'	S54°05'02"E
L89	84.71'	S67°50'47"E
L90	81.92'	S62°38'28"E

LINE TABLE		
LINE #	LENGTH	BEARING
L91	70.25'	S66°53'32"E
L92	78.23'	S69°51'36"E
L93	54.88'	S84°43'46"E
L94	46.35'	S63°26'57"E
L95	28.40'	S80°12'44"E
L96	81.90'	N89°31'37"E
L97	23.42'	N43°28'22"E
L98	85.93'	N54°46'39"E
L99	85.74'	S89°36'08"E
L100	70.86'	S85°16'52"E
L101	59.08'	S60°54'10"E
L102	77.58'	S84°04'45"E
L103	93.96'	N89°04'18"E
L104	36.27'	N69°27'22"E
L105	87.50'	S87°22'09"E
L106	109.99'	S58°54'03"E
L107	105.97'	S40°48'32"E
L108	46.80'	N78°20'09"E
L109	125.57'	N83°24'23"E
L110	103.28'	S80°17'48"E
L111	597.19'	S64°06'20"E
L112	150.71'	S20°44'23"E
L113	22.11'	S63°10'02"E
L114	87.50'	S69°59'00"E
L115	62.02'	S37°31'25"E
L116	70.56'	N82°17'46"E
L117	97.61'	N85°57'10"E
L118	167.71'	N25°32'23"E
L119	134.90'	N17°43'44"E
L120	35.42'	N49°11'38"E

LINE TABLE		
LINE #	LENGTH	BEARING
L121	105.75'	S81°49'20"E
L122	166.17'	S63°16'07"E
L123	84.59'	S58°25'11"E
L124	200.45'	S47°40'32"E
L125	107.18'	S34°14'35"E
L126	26.29'	N63°16'58"W
L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
L135	169.10'	N37°17'45"W
L136	106.73'	N48°10'31"W
L137	19.39'	N36°58'54"W
L138	143.44'	S78°12'14"W
L139	109.61'	N85°02'52"W
L140	84.83'	N73°25'21"W
L141	108.48'	N40°16'51"W
L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
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LINE TABLE		
LINE #	LENGTH	BEARING
L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
L154	158.01'	S86°58'21"W
L155	89.14'	N82°41'08"W
L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
L162	196.51'	S19°00'48"E
L163	176.89'	S50°45'09"E
L164	183.56'	S46°14'27"E
L165	81.75'	S43°24'00"E
L166	119.77'	S67°43'38"E
L167	131.95'	N69°58'28"E
L168	47.94'	N62°02'54"E
L169	39.69'	S88°29'57"E
L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	640.26'	N88°29'21"E
L175	602.29'	S88°29'21"W

\\CP.RICKENG.COM\PROJECTS\D02000\2214_FIELDS\SURVEY\PLAT\PLAT F3 7-29-25.DWG

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ARVADA, CO 80002
SAN DIEGO ORANGE RIVERSIDE SACRAMENTO SAN LUIS OBISPO
SANTA CLARITA PHOENIX TUCSON LAS VEGAS DENVER

FIELDS FILING 3

LOCATED IN SECTION 5, TOWNSHIP 7 SOUTH, RANGE 65 WEST 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
7 LOTS, 297.454 ACRES±
SB2024-068
SHEET 6 OF 6

LINE TABLE		
LINE #	LENGTH	BEARING
L1	106.04'	S24°20'31"E
L2	16.52'	N89°33'09"W
L3	111.32'	N24°20'31"W
L4	125.09'	S39°50'38"W
L5	46.97'	N00°08'37"E
L6	84.69'	N39°50'38"E
L7	43.48'	S71°40'04"W
L8	15.82'	N00°08'37"E
L9	43.25'	N71°40'04"E
L10	36.85'	N84°13'09"W
L11	15.07'	N00°08'37"E
L12	36.64'	S84°13'09"E
L13	25.01'	N77°42'29"W
L14	15.34'	N00°08'37"E
L15	24.79'	S77°42'29"E
L16	19.67'	S83°31'24"W
L17	15.09'	N00°12'25"W
L18	19.55'	N83°31'24"E
L19	88.80'	N73°02'54"W
L20	375.50'	N68°35'03"W
L21	340.51'	N71°11'19"W
L22	130.16'	N67°42'53"W
L23	139.18'	S67°42'53"E
L24	340.13'	S71°11'19"E
L25	374.69'	S68°35'03"E
L26	71.41'	S73°02'54"E
L27	48.35'	N87°10'30"W
L28	60.30'	N72°10'51"W
L29	103.86'	N83°22'21"W
L30	135.09'	N75°19'44"W

LINE TABLE		
LINE #	LENGTH	BEARING
L31	105.59'	N67°15'28"W
L32	67.72'	N70°01'43"W
L33	40.38'	N62°21'16"W
L34	117.52'	N17°42'47"W
L35	35.02'	N68°39'27"W
L36	68.84'	N82°13'18"W
L37	76.71'	S85°57'10"W
L38	152.69'	S82°17'46"W
L39	105.27'	N37°31'25"W
L40	52.77'	N69°59'00"W
L41	89.26'	N63°10'02"W
L42	149.29'	N20°44'23"W
L43	516.21'	N64°06'20"W
L44	60.46'	N80°17'48"W
L45	97.46'	S83°24'23"W
L46	85.78'	S78°20'09"W
L47	83.62'	N67°49'57"W
L48	118.13'	N40°48'32"W
L49	48.06'	N58°54'03"W
L50	18.69'	N87°22'09"W
L51	31.44'	S69°27'22"W
L52	128.86'	S89°04'18"W
L53	117.31'	N84°04'45"W
L54	57.43'	N60°54'10"W
L55	32.80'	N85°16'52"W
L56	31.90'	N89°36'08"W
L57	22.90'	S54°46'39"W
L58	72.33'	S43°28'22"W
L59	159.13'	S89°31'37"W
L60	63.97'	N80°12'44"W

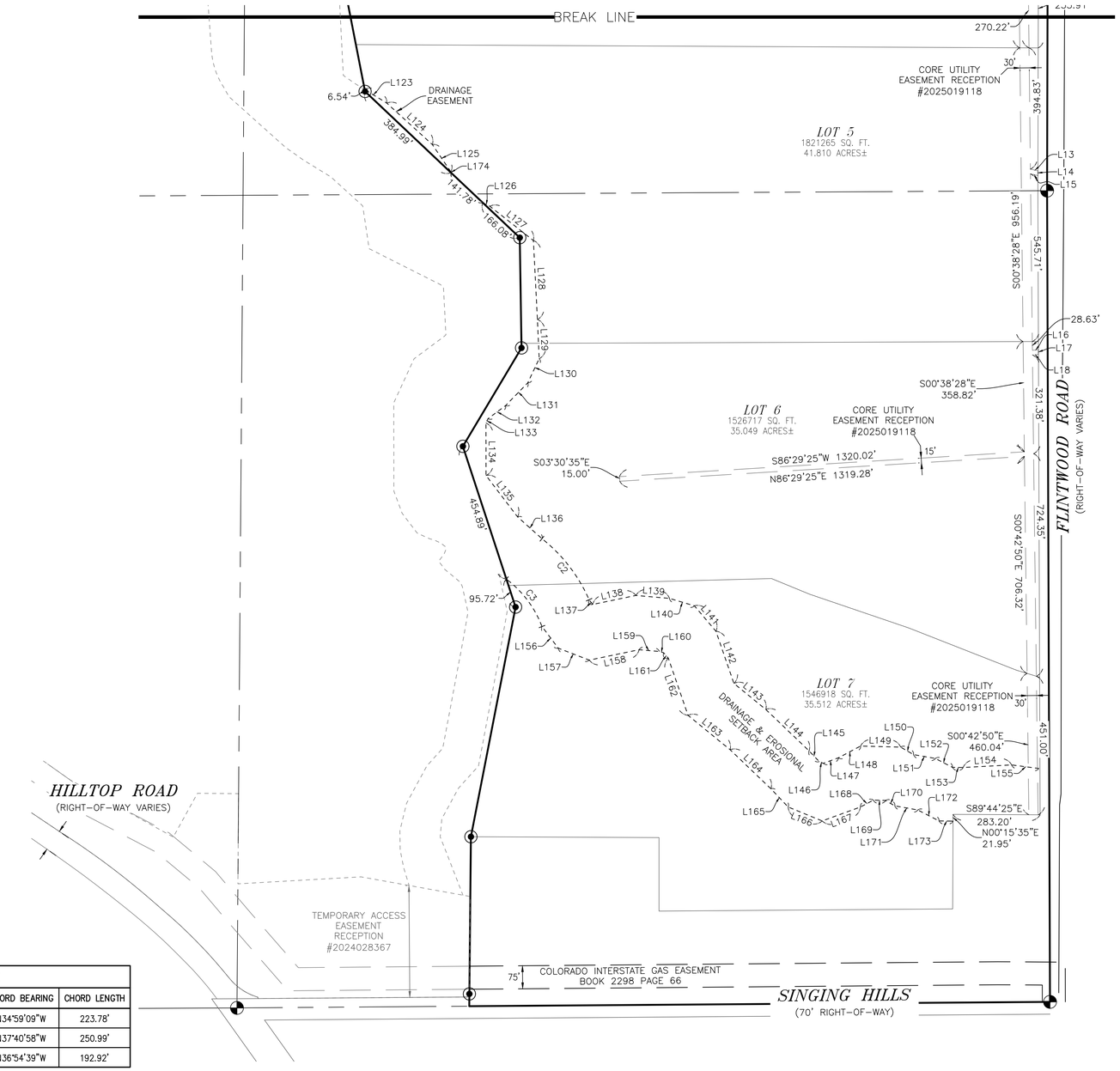
LINE TABLE		
LINE #	LENGTH	BEARING
L61	40.27'	N63°26'57"W
L62	46.28'	N84°43'46"W
L63	101.69'	N69°51'36"W
L64	79.70'	N66°53'32"W
L65	80.67'	N62°38'28"W
L66	95.99'	N67°50'47"W
L67	90.01'	N54°05'02"W
L68	130.41'	N84°05'42"W
L69	57.25'	N57°47'33"W
L70	119.31'	N68°12'40"W
L71	101.44'	N47°48'39"W
L72	144.95'	N50°51'10"W
L73	320.21'	N56°48'58"W
L74	69.59'	N23°58'33"W
L75	21.48'	N44°22'28"W
L76	26.38'	N65°11'05"W
L77	41.26'	S89°12'56"W
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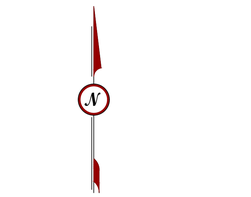
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L127	180.30'	N51°47'36"W
L128	257.42'	N02°54'00"W
L129	127.58'	N02°35'22"W
L130	87.00'	N25°17'34"E
L131	103.76'	N44°15'51"E
L132	71.18'	N53°23'58"E
L133	15.40'	N24°43'52"E
L134	170.84'	N00°03'52"W
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L142	179.62'	N19°00'48"W
L143	134.04'	N50°45'09"W
L144	194.80'	N46°14'27"W
L145	48.37'	N43°24'00"W
L146	14.35'	N67°43'38"W
L147	52.13'	S69°58'28"W
L148	81.81'	S62°02'54"W
L149	130.22'	N88°29'57"W
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L151	72.03'	N79°55'29"W
L152	62.79'	N62°33'51"W
L153	34.60'	N89°12'17"W
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L156	88.09'	S36°58'54"E
L157	107.94'	S68°52'22"E
L158	165.76'	N78°12'14"E
L159	66.03'	S85°02'52"E
L160	14.94'	S73°25'21"E
L161	23.55'	S40°16'51"E
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L170	35.04'	S59°56'50"E
L171	76.13'	S79°55'29"E
L172	77.51'	S62°33'51"E
L173	45.73'	S89°12'17"E
L174	640.26'	N88°29'21"E
L175	602.29'	S88°29'21"W

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
C1	233.14'	236.15'	056°33'54"	N34°59'09"W	223.78'
C2	253.48'	520.54'	027°54'04"	N37°40'58"W	250.99'
C3	195.52'	345.54'	032°25'12"	N36°54'39"W	192.92'





LEGEND

- ALIQUOT CORNER
- SET #5X18" REBAR & YELLOW PLASTIC CAP PLS 34580 UNLESS OTHERWISE NOTED
- SECTION LINE
- BOUNDARY LINE
- LOT LINE
- ADJOINER LINES
- UTILITY EASEMENT
- ACCESS EASEMENT
- DRAINAGE EASEMENT
- U.E.=UTILITY EASEMENT

RICK
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ARVADA, CO 80002
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MEETING DATE: August 12, 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 approval of a Major Amendment of the Keene Ranch Planned Development to remove a restriction in the Planning Area-1 and Planning Area-2 Development Standards prohibiting fencing within 50 feet of right-of-way.

STAFF ASSESSMENT: Staff has evaluated the Major Planned Development Amendment request in accordance with Section 15 of the Dougals County Zoning Resolution. Should the Board find that the approval standards for the Major Planned Development Amendment are met; the following conditions 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.
2. All commitments and promises made by the applicant or the applicant's representative during the public hearing and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

REVIEW:

Terence T Quinn - FYI	Notified - FYI	7/30/2025
Steven E Koster	Approve	7/30/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/6/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025
Samantha Hutchison - FYI	Notified - FYI	8/8/2025

ATTACHMENTS:

Staff Report - ZR2023-007

DOUGLAS COUNTY
COLORADO

Planned Development Major Amendment Staff Report

Date:	July 30, 2025
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Terence T. Quinn, AICP, Director of Community Development
CC:	Matt Jakubowski, AICP, Chief Planner Curt Weitkunat, AICP, Long Range Planning Manager Steven E. Koster, AICP, Assistant Director of Planning Services
Subject:	**Keene Ranch Planned Development, 3rd Amendment**
Project File:	**ZR2023-007**

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 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 are 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.

The Planning Commission is scheduled to hear this request on August 4, 2025. Staff will provide an update on the Planning Commission hearing on the record at the Board of County Commissioners public hearing.

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 1522.08 of the DCZR, "The Board shall evaluate the major amendment, referral agency comments, staff report, the Planning Commission recommendation and public testimony, and shall approve, conditionally approve, table for further study, remand to the Planning Commission or deny the amendment. The Board's

comments shall be based on the evidence presented, compliance with the adopted 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. PLANNING COMMISSION HEARING

The Planning Commission is scheduled to hear the application on August 4, 2025. Staff will provide an update on the Planning Commission hearing at the Board of County Commissioners public hearing.

VIII. 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 that is 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 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.

IX. 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 Board find that the

approval standards for the Major PD Amendment are met; the following conditions 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.

2. All commitments and promises made by the applicant or the applicant's representative during the public hearing and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

ATTACHMENTS **PAGE**

Douglas County Land Use Application 8
Applicant's Narrative 9
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Zoning Map 11
Aerial Map 12
Referral Agency Response Report 13
Referral Response Letters 15
Public Correspondence 22
Applicant Response to Referral Comments 31
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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 FILE #:

PROJECT NAME:

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.

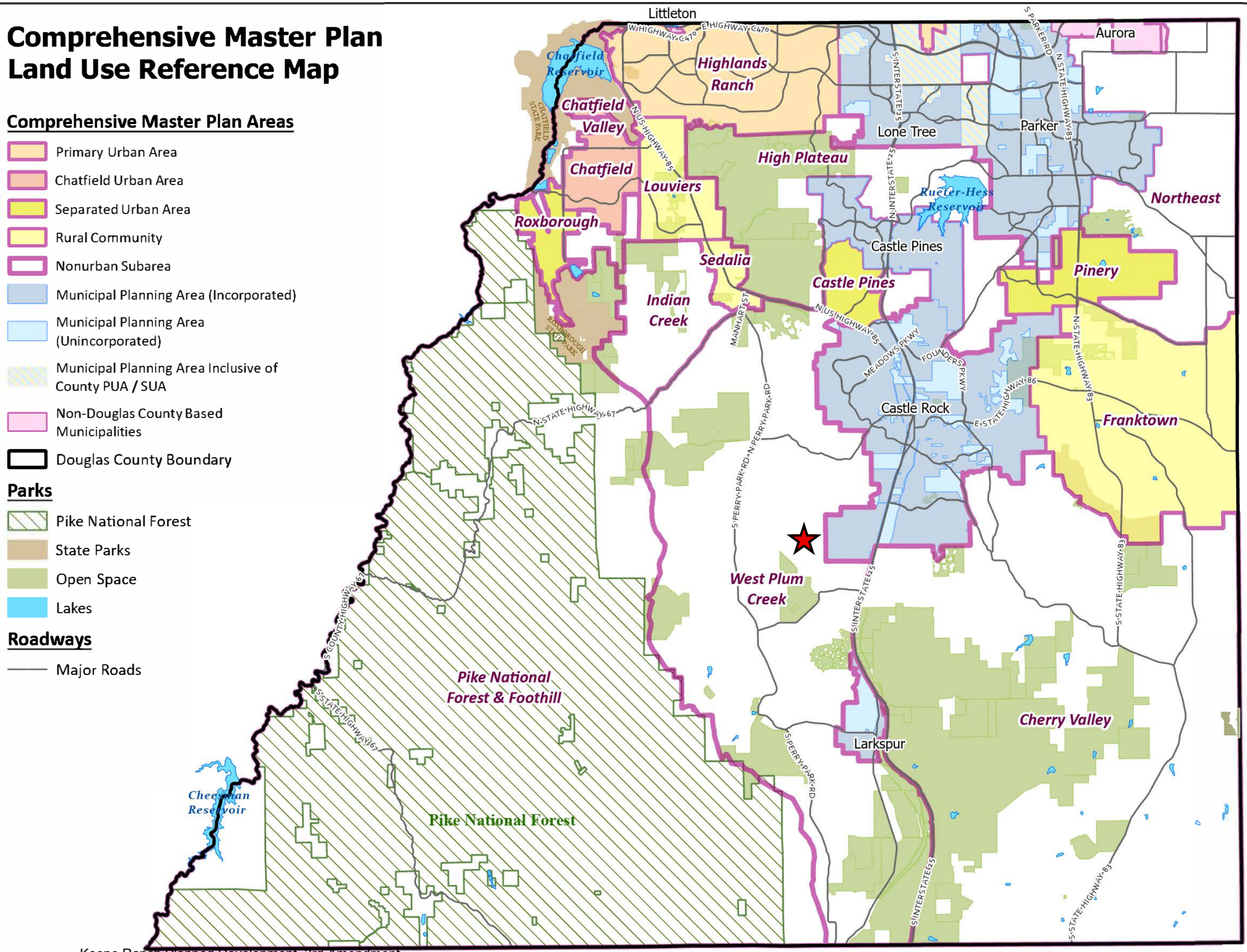
Current language in both, PA-1 Development Standards f) Fencing Standards and PA-2 Development Standards f) Fencing Standards, is "Fencing shall be prohibited within 50 feet of any Road Right of Way". We ask that this restriction be removed in this amendment to PA-1 and PA-2 Sections of the Keene Ranch 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

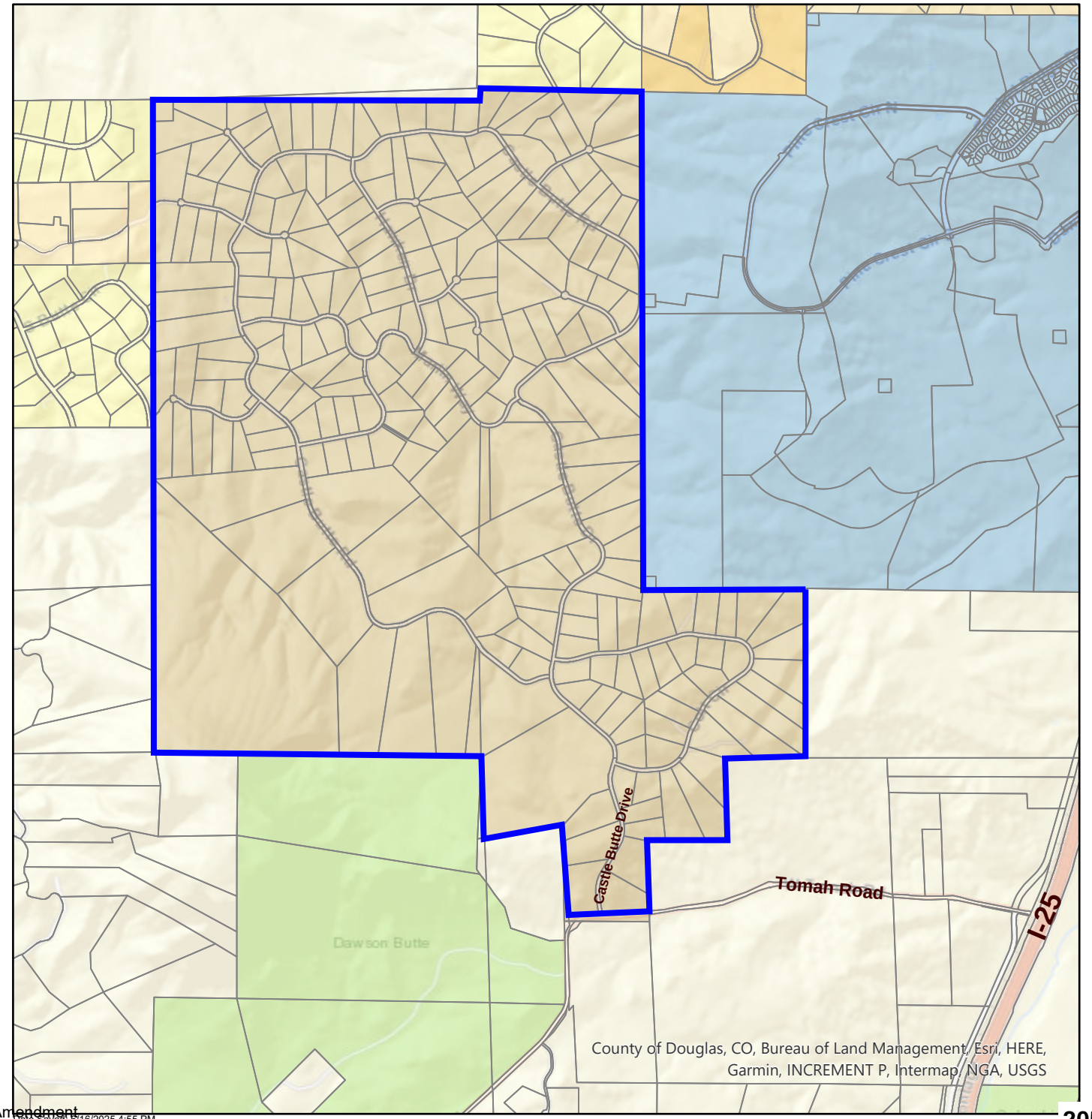
ZR2023-007

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

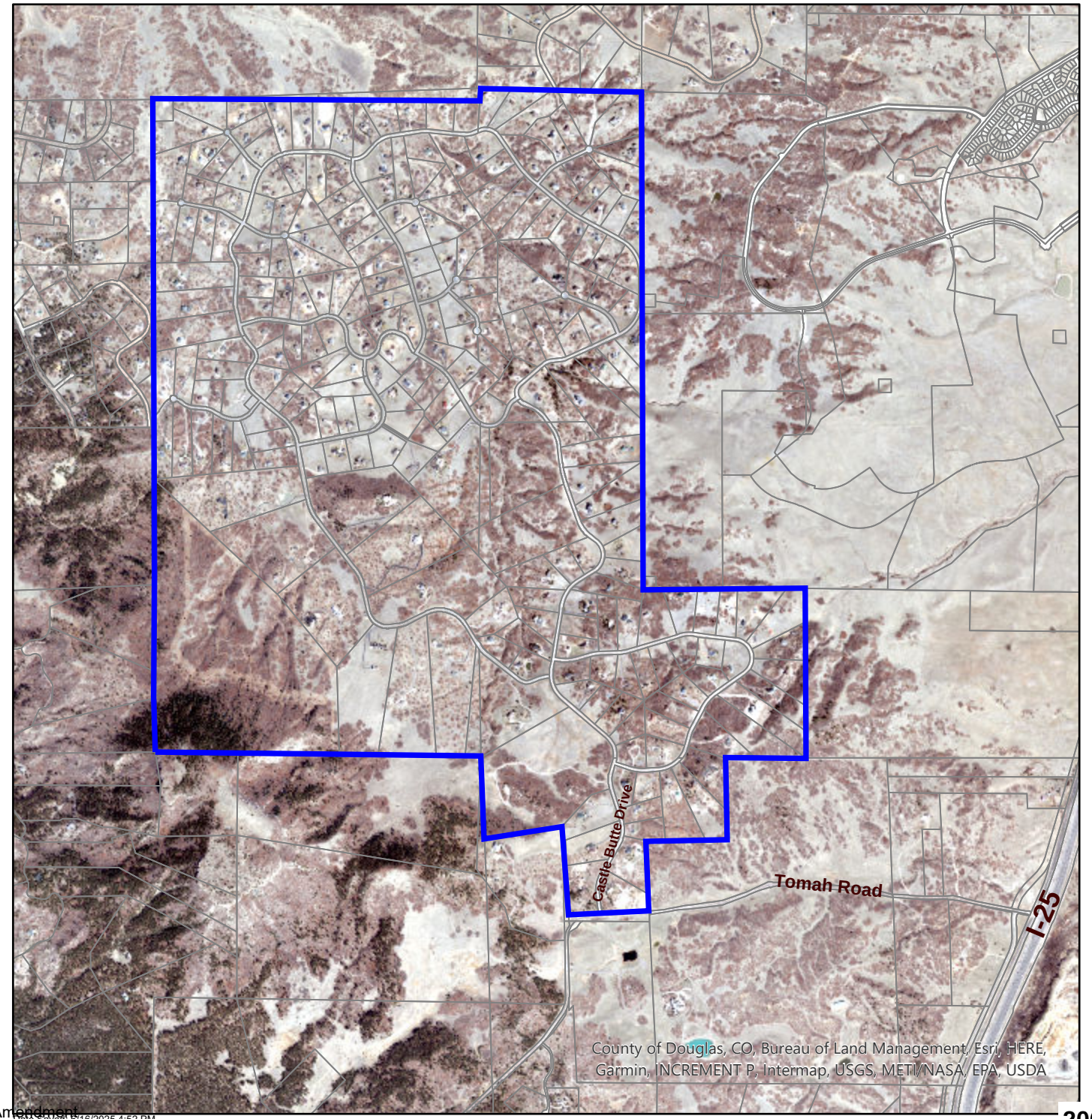
ZR2023-007

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.

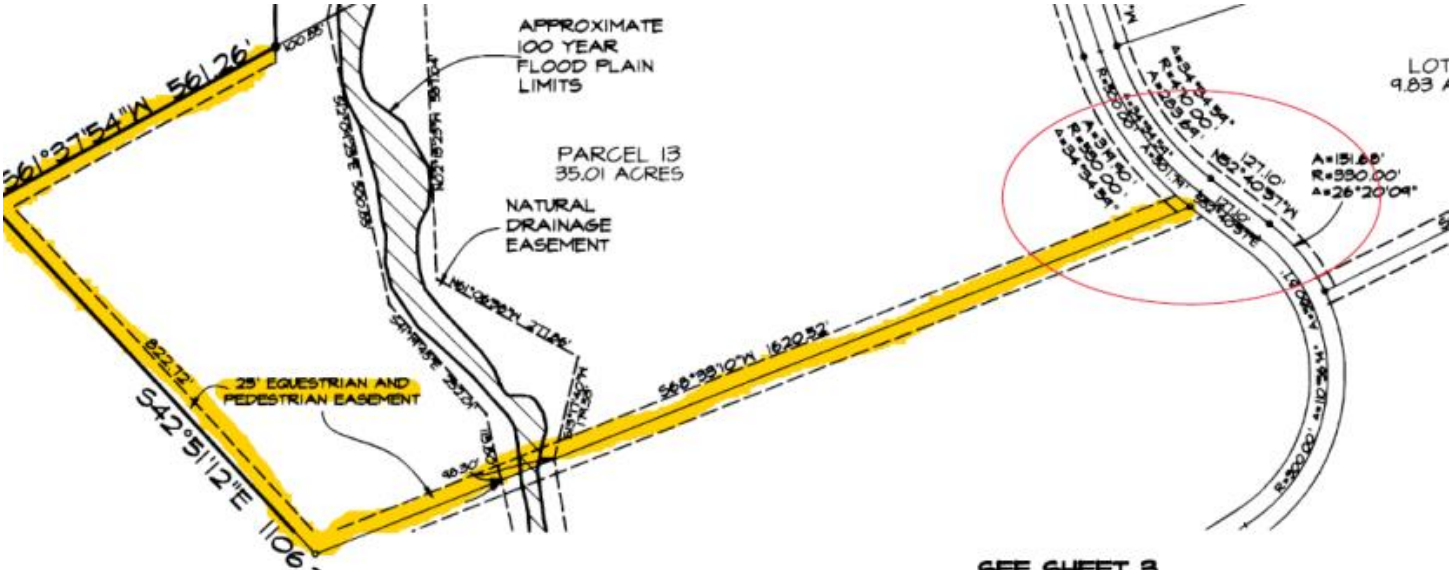
Regards Jon and Patricia Memsic
2964 Castle Butte Drive.
970-389-6599

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)

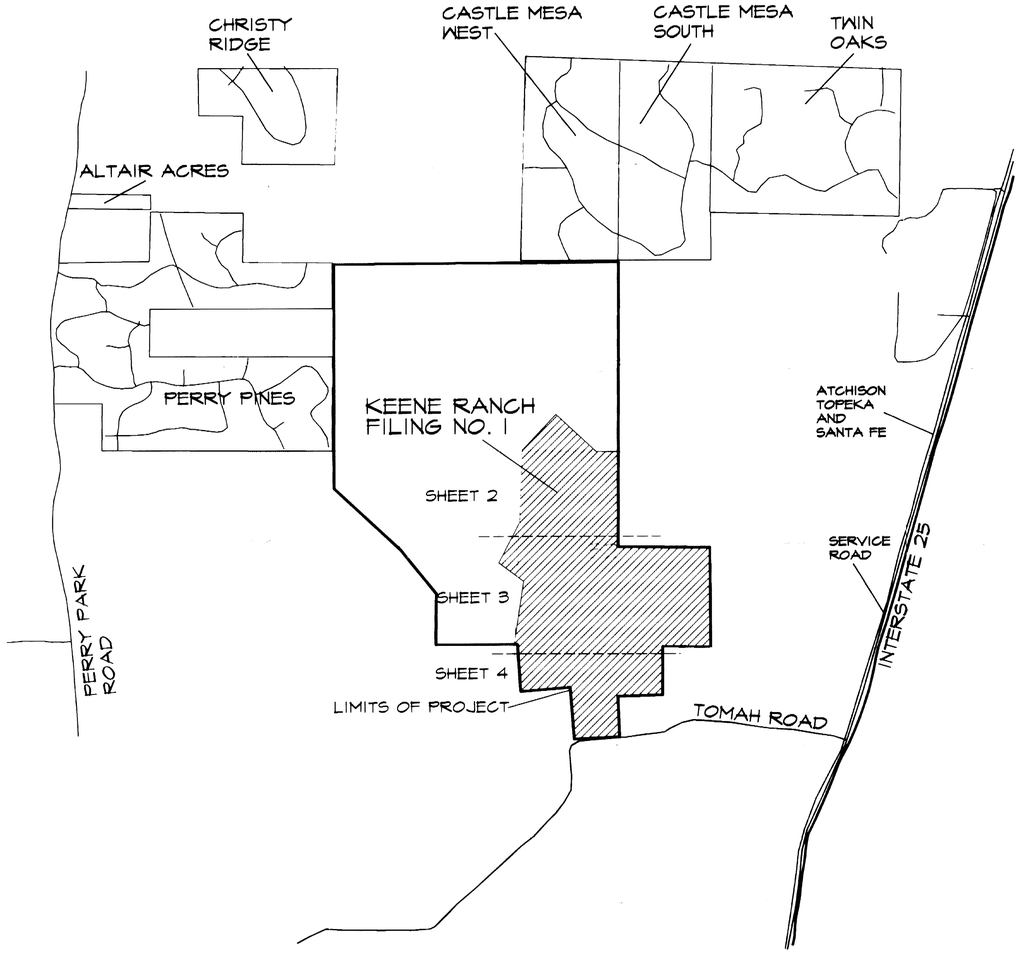
LEGAL: 29, 31, 32 - 8 - 67
5 - 9 - 67
(SECTION-TOWNSHIP-RANGE)

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: Dan D. 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 Sellam
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 Christine B Brown as Vice President
Date 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
APVD DEA

TITLE: KEENE RANCH FILING 1
CLIENT: 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

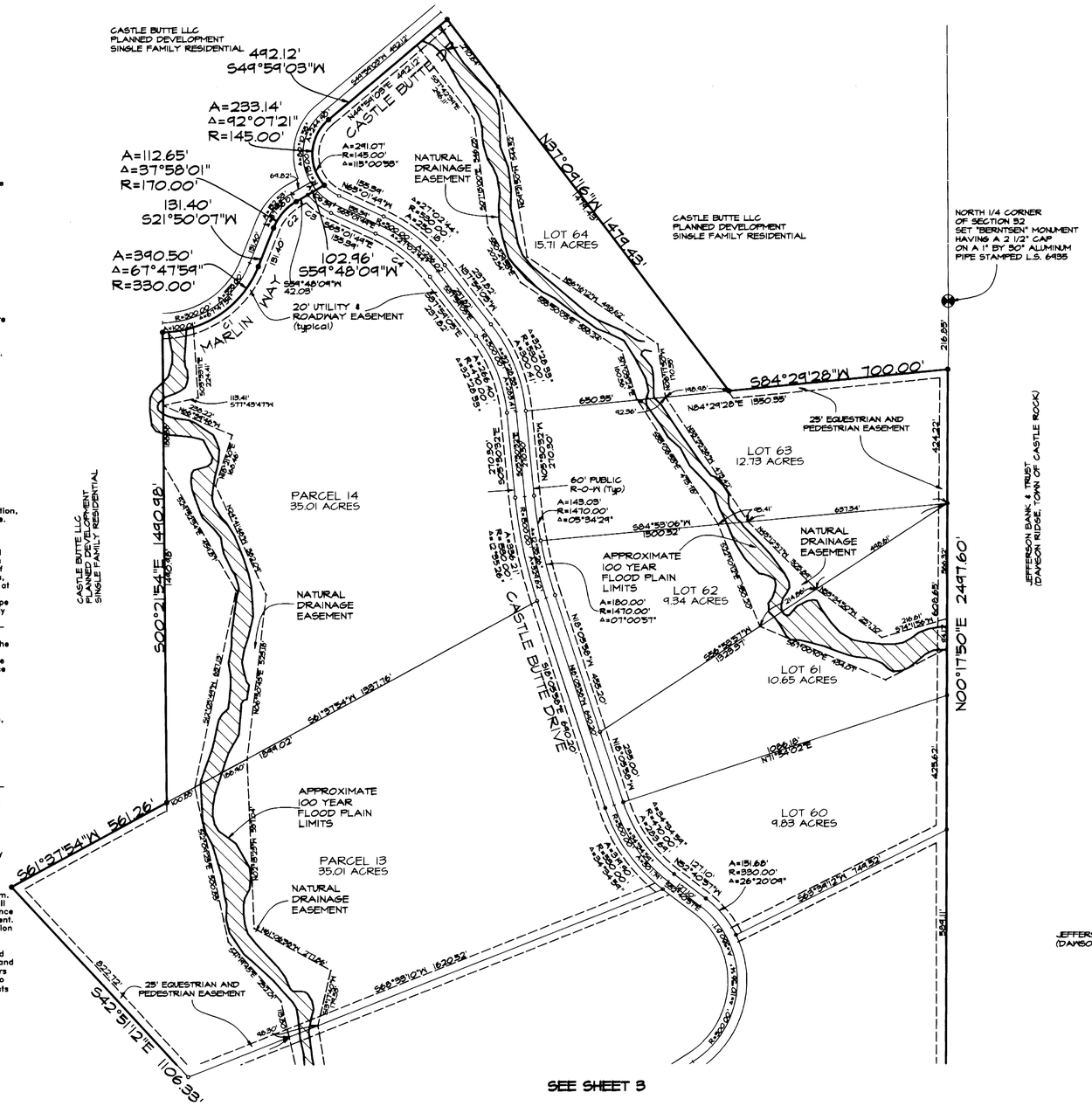
6. **Utility, drainage and Roadway Easements:** The 20 foot utility, drainage and roadway easements as shown hereon are reserved for utility installation and maintenance, drainage, and roadway, construction, slopes and snow removal storage.

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'

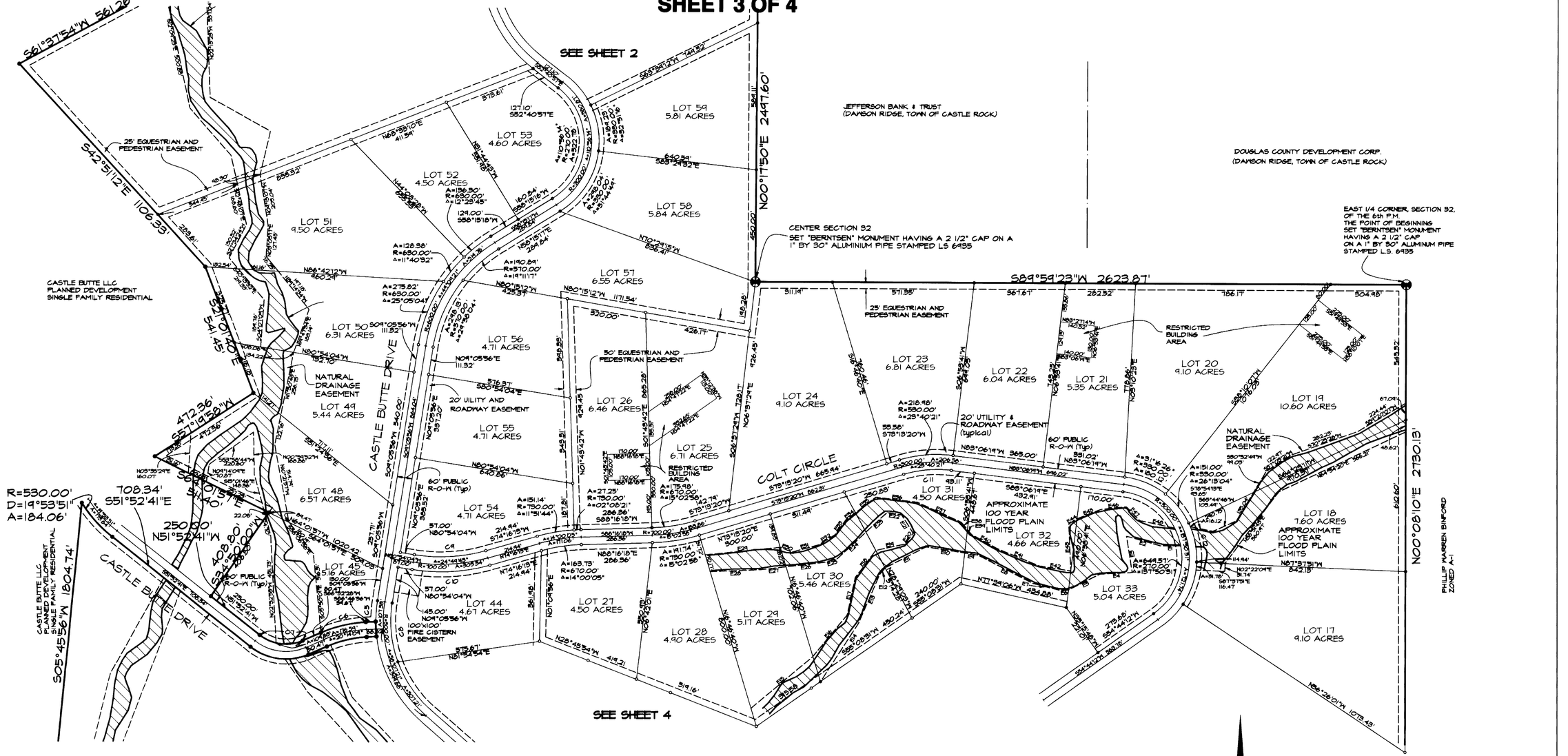
0 200 400 600

• = 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 4/27/95	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	S54°38'29"W	34.08'
E13	S28°55'16"W	212.47'
E14	S83°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	55.37'
E21	N82°06'14"W	81.27'
E22	N81°15'20"W	54.45'
E23	S47°06'51"W	116.56'
E24	S47°06'51"W	155.70'

EASEMENT TABLE CONT.

LINE #	BEARING	DISTANCE
E25	S78°28'55"W	58.45'
E26	S83°14'09"W	157.46'
E27	S83°14'09"W	104.81'
E28	S67°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	76.92'
E33	N85°48'51"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'

• = SET 18" LONG NO. 5 REBAR W/ 1 1/4" PLASTIC CAP STAMPED L.S. 6935

REVISIONS
CHANGED BOUNDARY 4/21/95

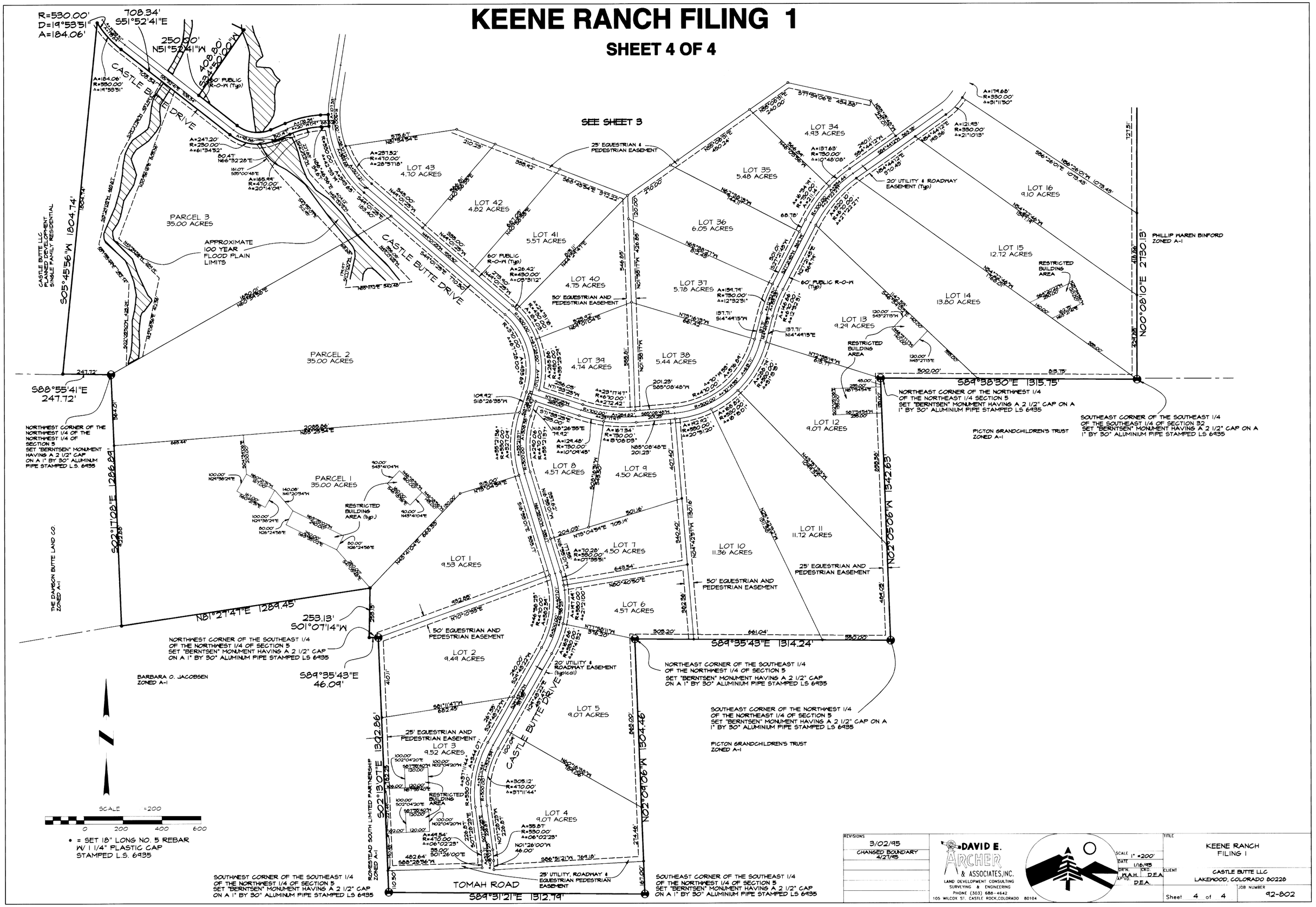
DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTING
SURVEYING & ENGINEERING
PHONE (303) 688-4642
105 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE 1" =200'
DATE 1/16/95
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



REVISIONS
3/02/95
CHANGED BOUNDARY 4/27/95

DAVID E. ARCHER & ASSOCIATES, INC.
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APP'D DEA

TITLE: KEENE RANCH FILING 1
CLIENT: CASTLE BUTTE LLC LAKEWOOD, COLORADO 80228
JOB NUMBER 92-802
Sheet 4 of 4

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.

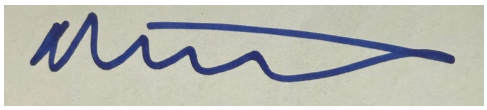
2. 2. Public Comment:

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/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

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'N. CKD.
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

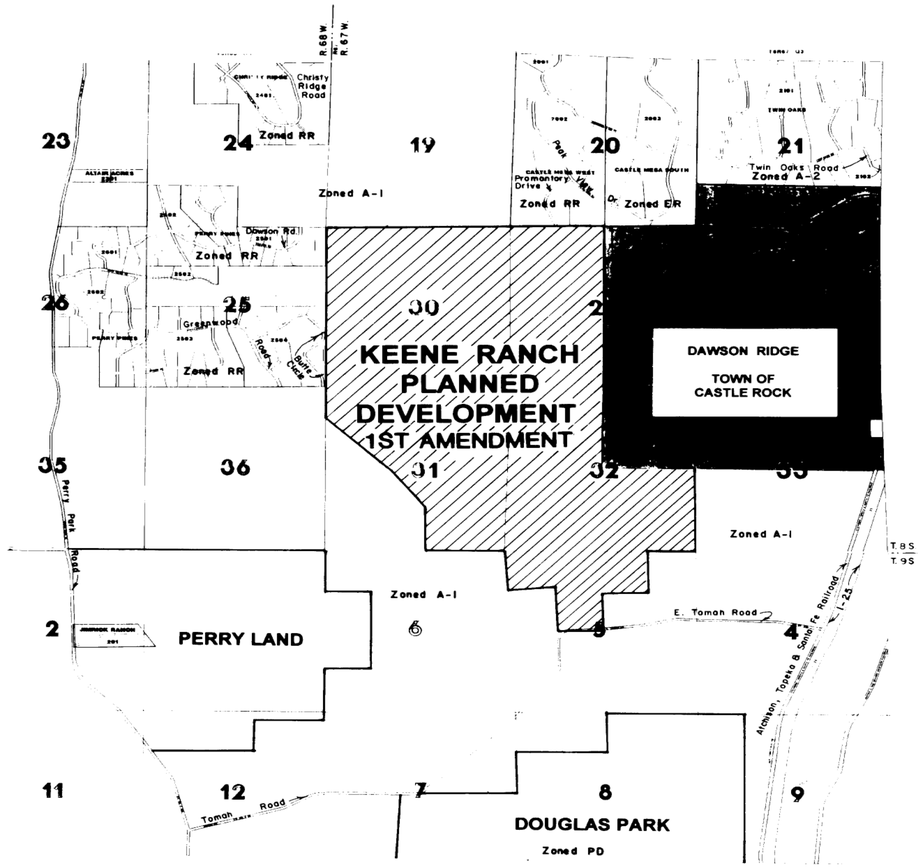
PROPERTY DESCRIPTION: PLANNING AREA PA-1

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.
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 2 of 3 JOB NUMBER 92-802

https://apps.douglas.co.us//LandMarkWeb//Document/GetDocumentForPrintPNG/?request=AQAAANCMnd8BFdERjHoAwE/Cl+sBAAAAQo4Mkj2nbkWXxfZ3BEA8ZgAAAAACAAAAAADZgAAwAAAABAAAAAAqK1SWBDHPWap4/rsb1jMAAAAASAAACgAAAEAAAAA/bi0D3ADDXoiN80qCC

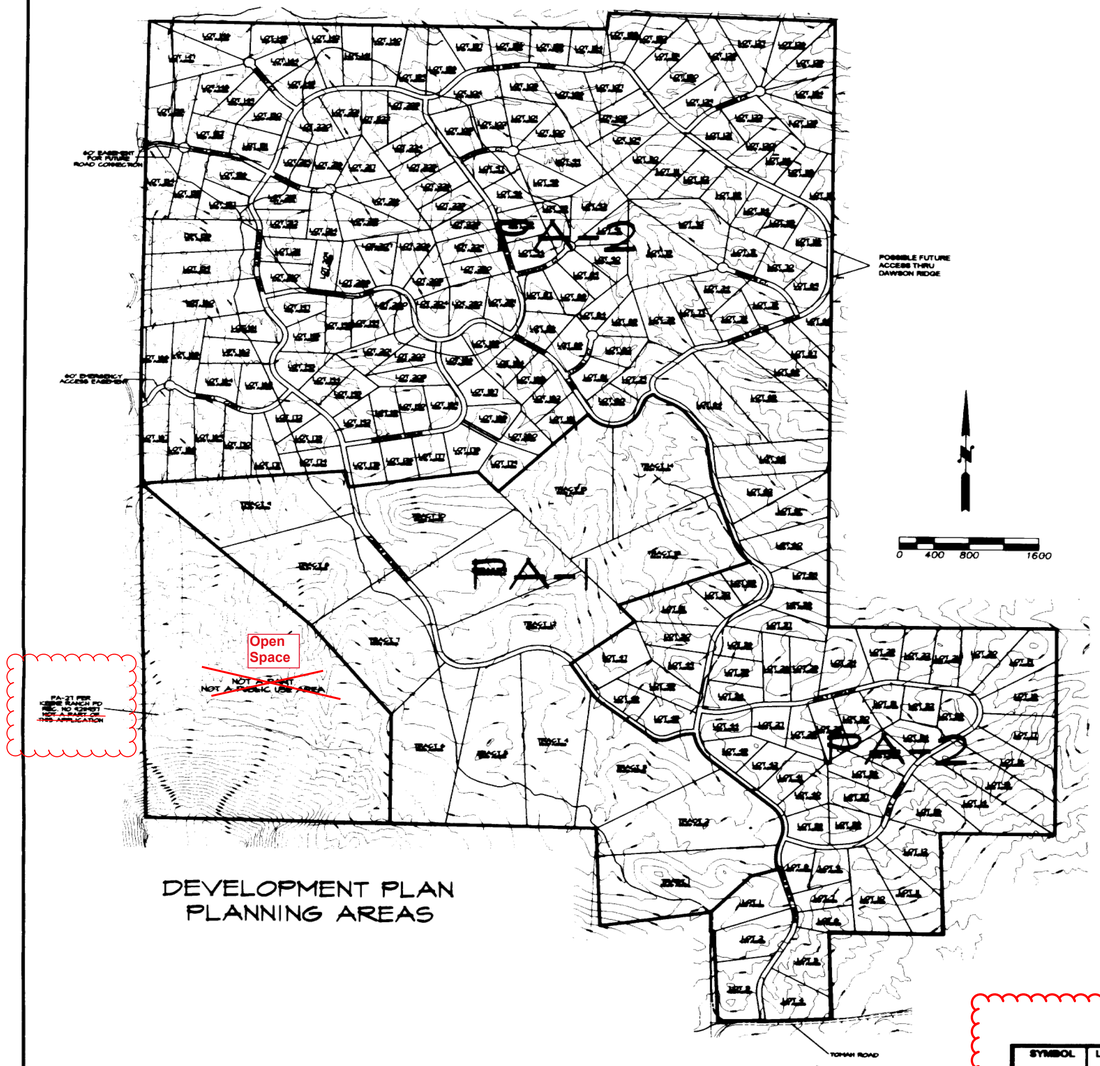
KEENE RANCH PLANNED DEVELOPMENT Third AMENDMENT

A Major Amendment to PA-1 and PA-2 Development Standards, F. Fencing Standards

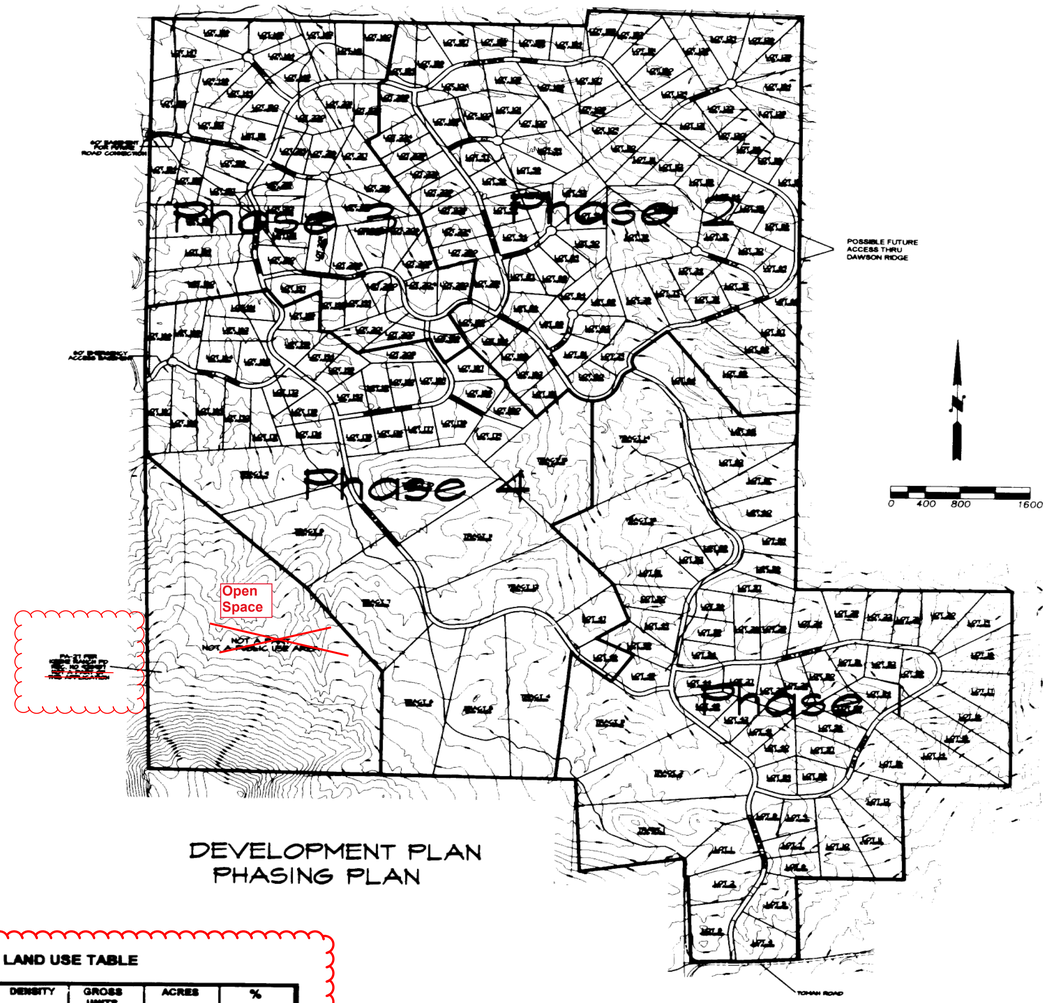
SECTIONS 29,30,31 & 32 TOWNSHIP 8 SOUTH, RANGE 67 WEST and SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST

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) 688-4648
108 WILCOX ST. CASTLE ROCK, COLORADO 80104

SCALE	
DATE	SEPT. 1994
DES.	DRN.
APVD.	

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

Sheet 1 of 3 JOB NUMBER 92-802

Text

KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT

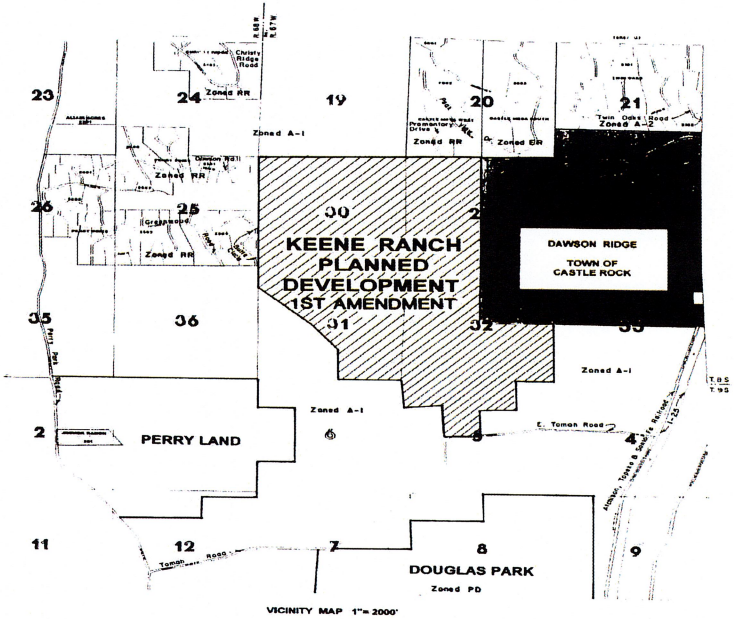
A MAJOR AMENDMENT TO PA-1 AND PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS SECTIONS 29, 30, 31 & 32, TOWNSHIP 8 SOUTH, RANGE 67 WEST & SECTION 5, TOWNSHIP 9 SOUTH, RANGE 67 WEST OF THE 6TH P.M., DOUGLAS COUNTY, COLORADO 2057.87 ACRES 247 DU'S ZR2023-007

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 1498.90 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 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°14'06" 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 1498.90 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 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°14'06" 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 00°35'54"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.



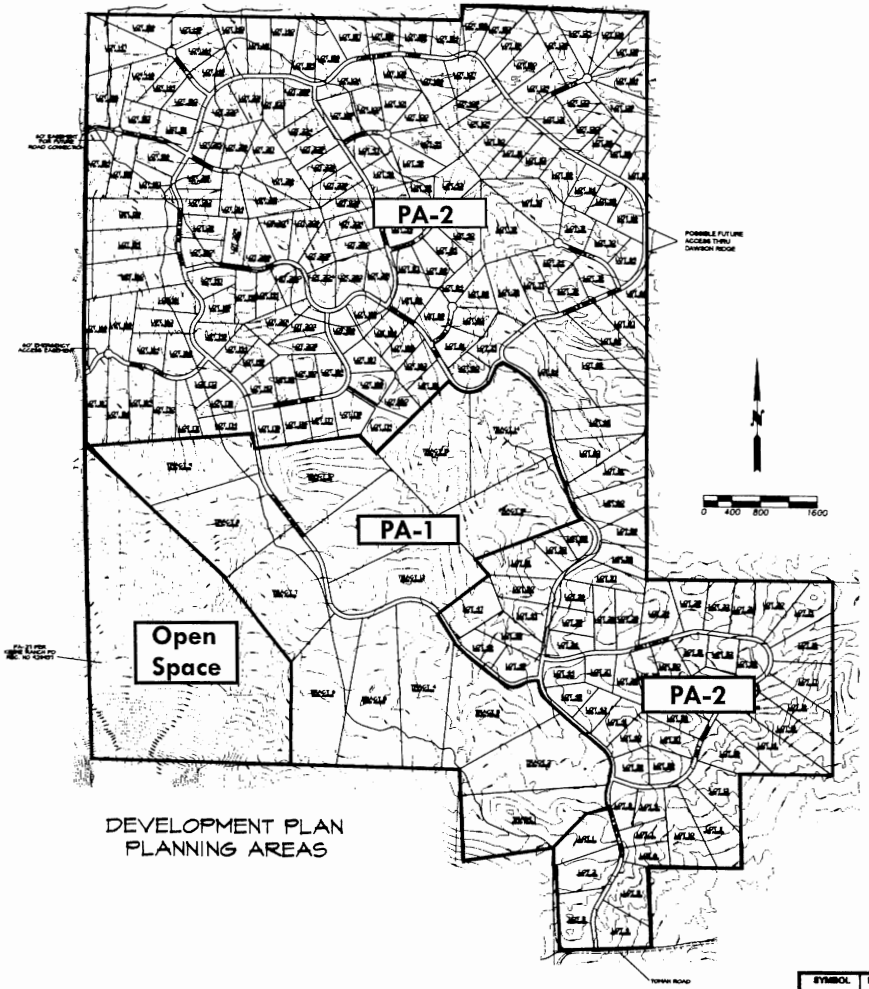
VICINITY MAP 1"= 2000'

REVISIONS	DAVID E. ARCHER & ASSOCIATES, INC.	TITLE
Misc. 11-7-94	LAND DEVELOPMENT CONSULTING SURVEYING & ENGINEERING	KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT A MAJOR AMENDMENT TO THE PA-1 and PA-2 DEVELOPMENT STANDARDS, F. FENCING STANDARDS
Rev. 1-25-95	PHONE (303) 688-4848	SCALE
3rd Amend. 7-10-24	105 WILCOX ST. CASTLE ROCK, COLORADO 80104	DATE Sept. 1994
		DRW. KML
		APPVD.
		CLIENT KEENE RANCH HOMEOWNERS ASSOCIATION
		JOB NUMBER 92-802
		Sheet 2 of 3

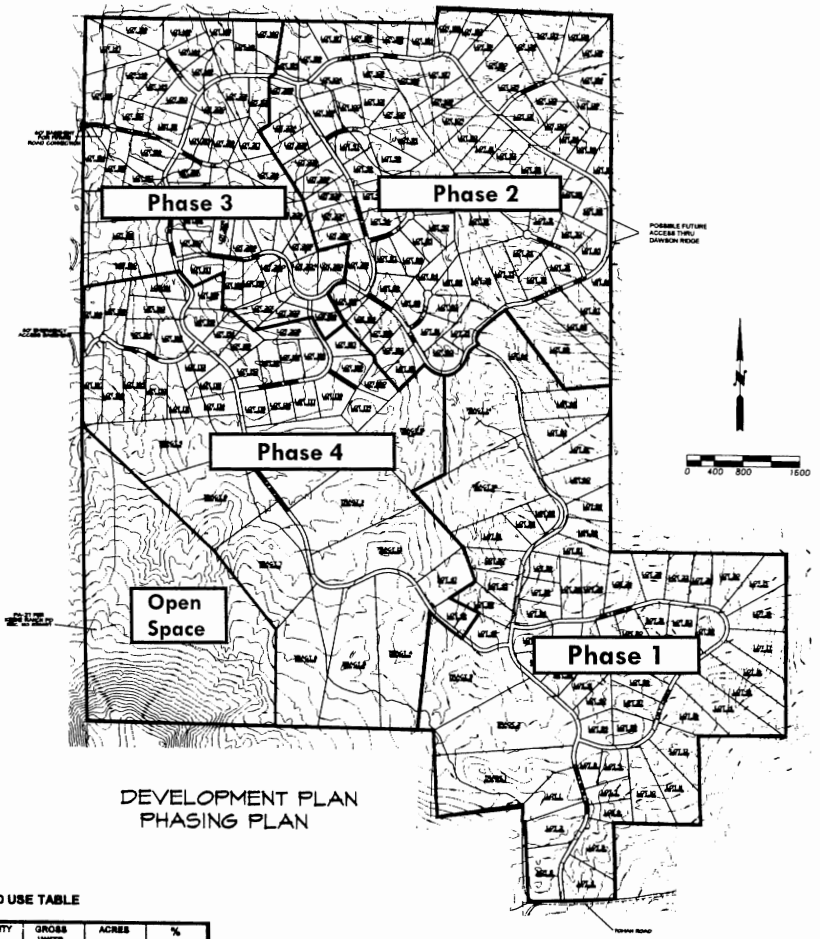
Plot Date: 08-Oct-2024 Plotted By: Kevin Lee File Name: C:\Projects\92-802\Dwg\Keene Ranch 3rd Amendment\3RD AMENDMENT.dwg

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	0.036	16	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. 1-25-45
3rd Amend. 7-10-24

DAVID E. ARCHER & ASSOCIATES, INC.
LAND DEVELOPMENT CONSULTANTS
DIRECTION & ENGINEERING
PHONE (303) 933-6642
165 VILLAGE ST. CASTLE ROCK, COLORADO 80104

TITLE: KEENE RANCH PLANNED DEVELOPMENT THIRD AMENDMENT
A MAJOR AMENDMENT TO THE PA-1 AND PA-2 DEVELOPMENT STANDARDS, F FENCING STANDARDS
SURVEY: KEENE RANCH HOMEOWNERS ASSOCIATION
DATE: SEPT. 1994
JOB NUMBER: 92-802
Sheet 3 of 3

MEETING DATE: August 12, 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 Amendment to the Highlands Ranch Planned Development to add 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 Board find that the approval standards for a Major Planned Development Amendment are met, the following conditions should be considered for inclusion in the motion:

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.
2. All commitments and promises made by the applicant or the applicant's representative during the public hearing and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

REVIEW:

Terence T Quinn - FYI	Notified - FYI	7/30/2025
Steven E Koster	Approve	7/30/2025
Jeff Garcia	Approve	8/5/2025
Andrew Copland	Approve	8/6/2025
Christie Guthrie	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025
Samantha Hutchison - FYI	Notified - FYI	8/8/2025

ATTACHMENTS:

Staff Report - ZR2025-001

DOUGLAS COUNTY
COLORADO

Planned Development Major Amendment Staff Report

Date:	July 30, 2025
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Terence T. Quinn, AICP, Director of Community Development
CC:	Matt Jakubowski, AICP, Chief Planner Curt Weitkunat, AICP, Long Range Planning Manager Steven E. Koster, AICP, Assistant Director of Planning Services
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 Planning Commission is scheduled to hear this request at its August 4, 2025. Staff will provide an update on the Planning Commission hearing on the record at the Board of County Commissioners public hearing.

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 1522.08 of the DCZR, "The Board shall evaluate the major amendment, referral agency comments, staff report, the Planning Commission recommendation and public testimony, and shall approve, conditionally approve, table for further study, remand to the Planning Commission or deny the amendment. The Board's comments shall be based on the evidence presented, compliance with the adopted 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 the 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. PLANNING COMMISSION HEARING

The Planning Commission is scheduled to hear the application on August 4, 2025. Staff will provide an update on the Planning Commission hearing at the Board of County Commissioners public hearing.

VIII. 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.

IX. STAFF ASSESSMENT

Staff has evaluated the request in accordance with Section 15 of the DCZR. Should the Board find that the approval standards for a Major PD Amendment are met, the following conditions should be considered for inclusion in the motion:

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.

2. All commitments and promises made by the applicant or the applicant's representative during the public hearing and/or agreed to in writing and included in the public record have been relied upon by the Board of County Commissioners in approving the application; therefore, such approval is conditioned upon the applicant's full satisfaction of all such commitments and promises.

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

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 — Date: 2/27/25

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.

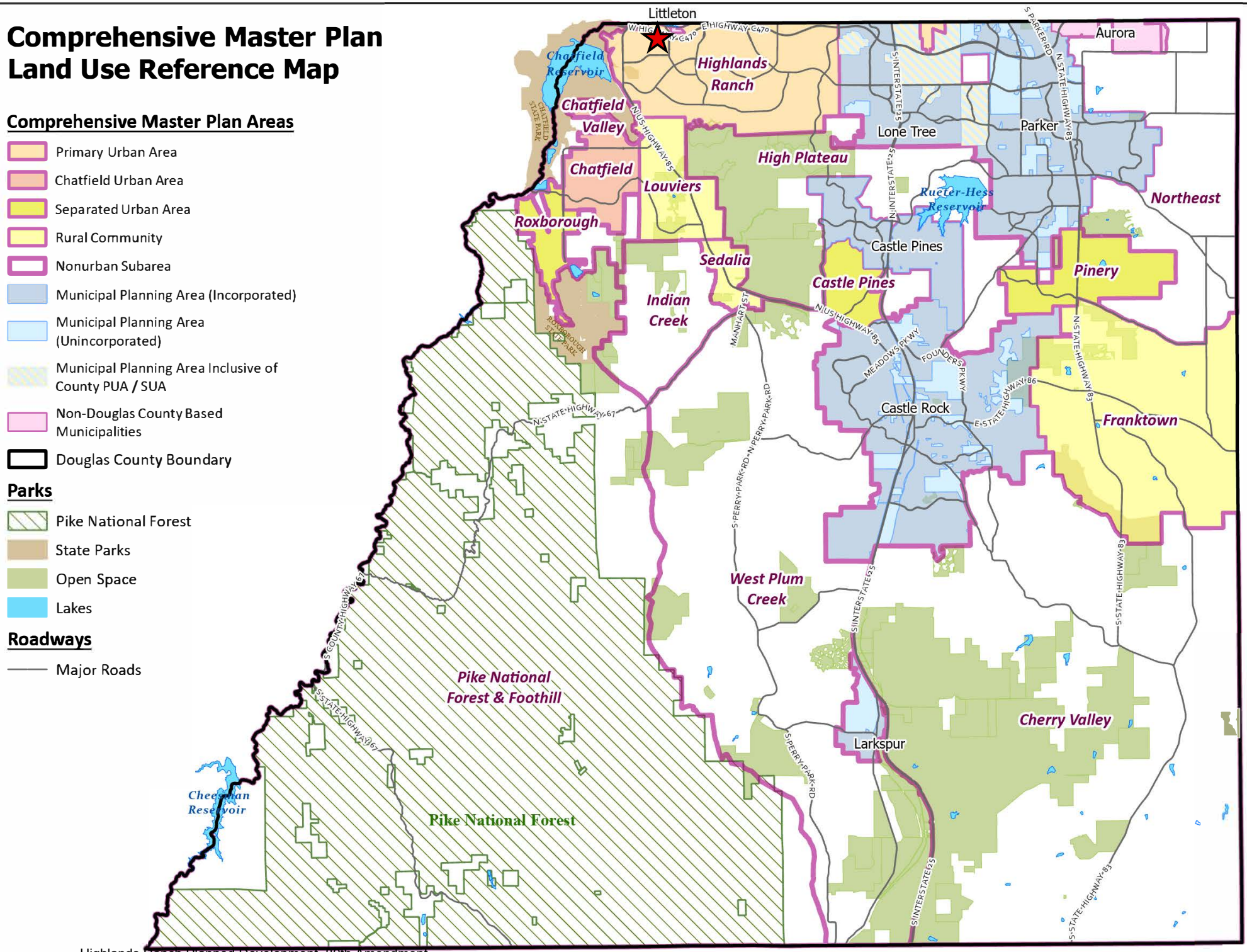
We are excited to work with Douglas County again to make this project a success, and we look forward to meeting with you.

Sincerely,
Norris Design

Mallory Mooney

Mallory Mooney
Project Manager

Comprehensive Master Plan Land Use Reference Map



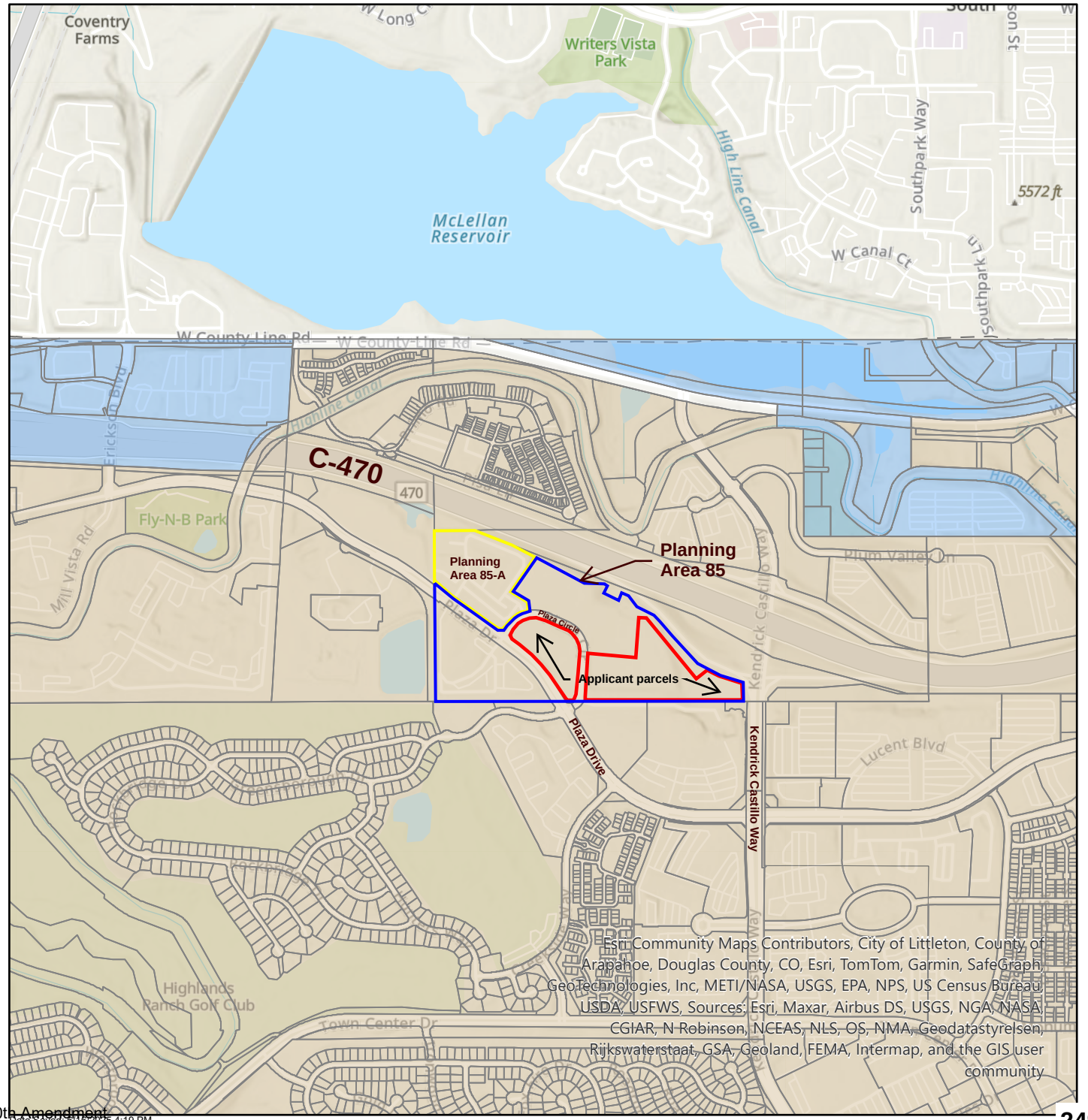
Highlands Ranch Planned Development, 80th Amendment

ZR2025-001
Zoning Map

N

LEGEND

- A1 - AGRICULTURAL ONE
- CTY
- PD - PLANNED DEVELOPMENT
- PLANNING AREA 85
- APPLICANT PARCELS
- PLANNING AREA 85-A



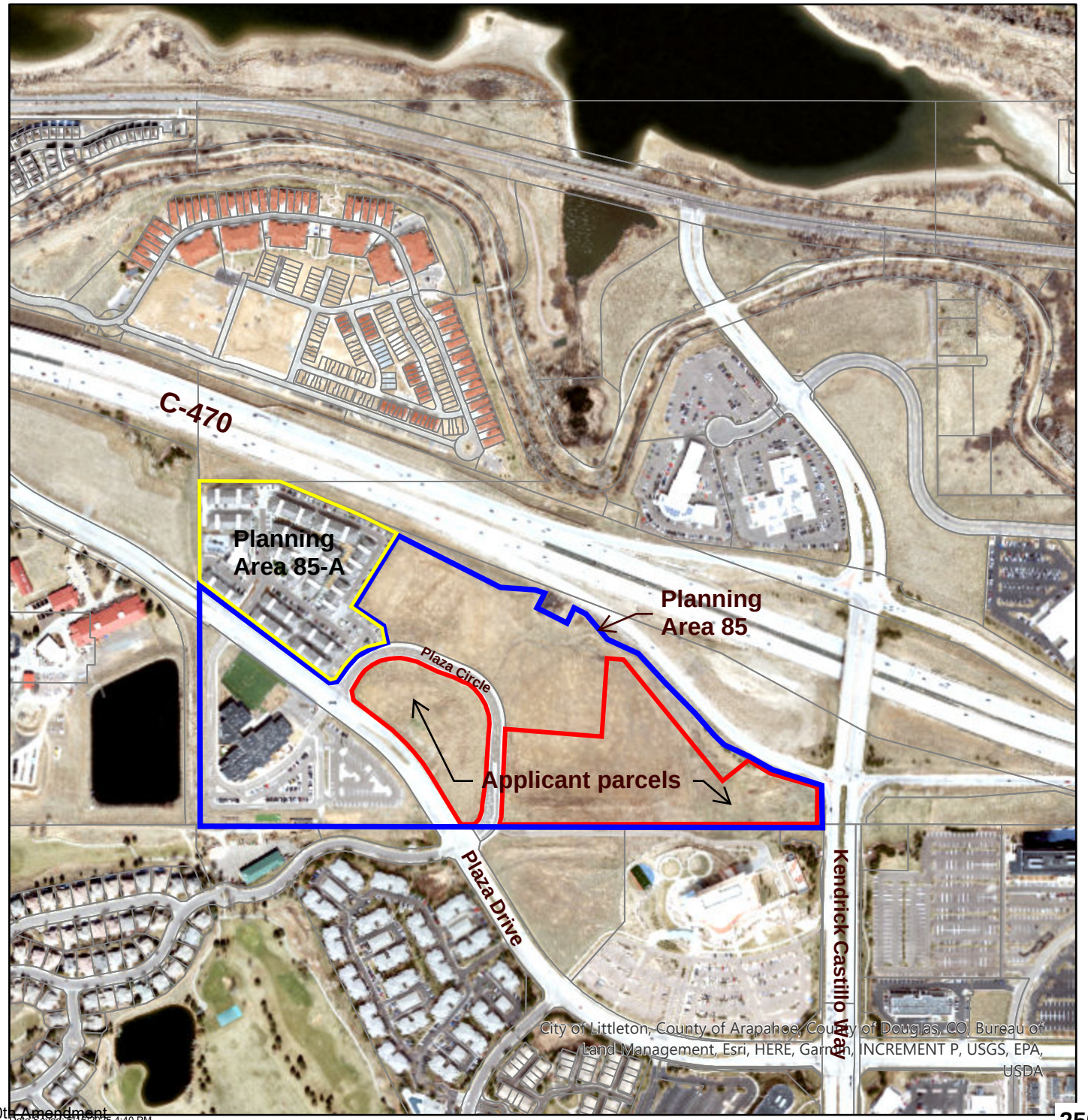
Highlands Ranch Planned Development, 80th Amendment

ZR2025-001
Aerial Map

N

LEGEND

- PLANNING AREA 85
- APPLICANT PARCELS
- PLANNING AREA 85-A



Highlands Ranch Planned Development, 80th Amendment
Date Saved: 6/16/2025 4:40 PM

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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.

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Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

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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.

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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.

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Project File #: ZR2025-001
Date Sent: 04/24/2025 **Date Due:** 05/15/2025

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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
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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

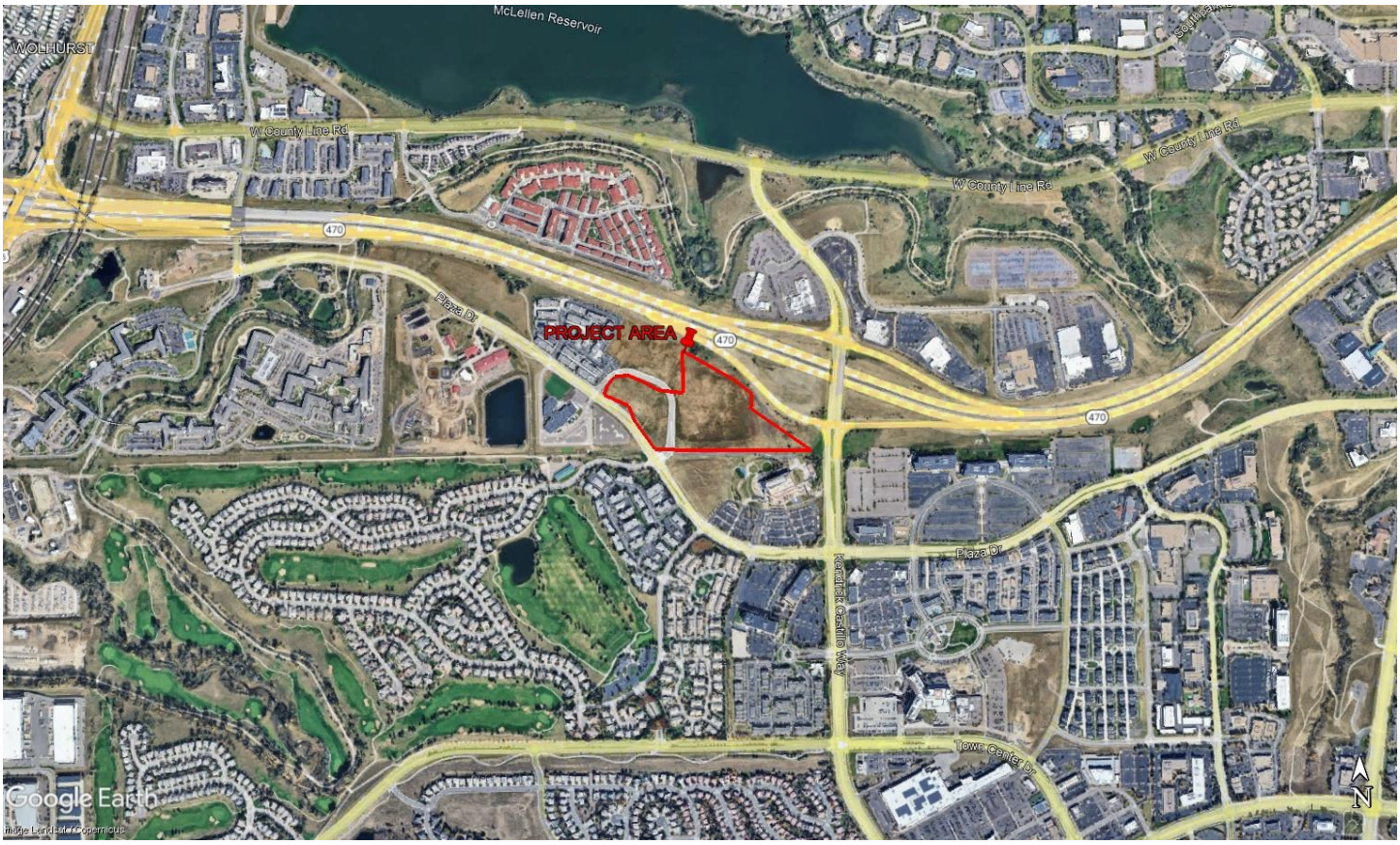
Project Name: Highlands Ranch Planned Development, 80th Amendment
Project File #: ZR2025-001
Project Summary: Applicant, Pagewest Acquisitions, is requesting a Major Planned Development (PD) amendment to the Highlands Ranch PD to add 400 residential units to PA 85. Although one-family attached, two-family, 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
470
470
Plaza Dr
PROJECT AREA
Plaza Dr
Kendrick Castillo Way
Town Center Dr
N
Google Earth
Image Landsat / Copernicus

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.

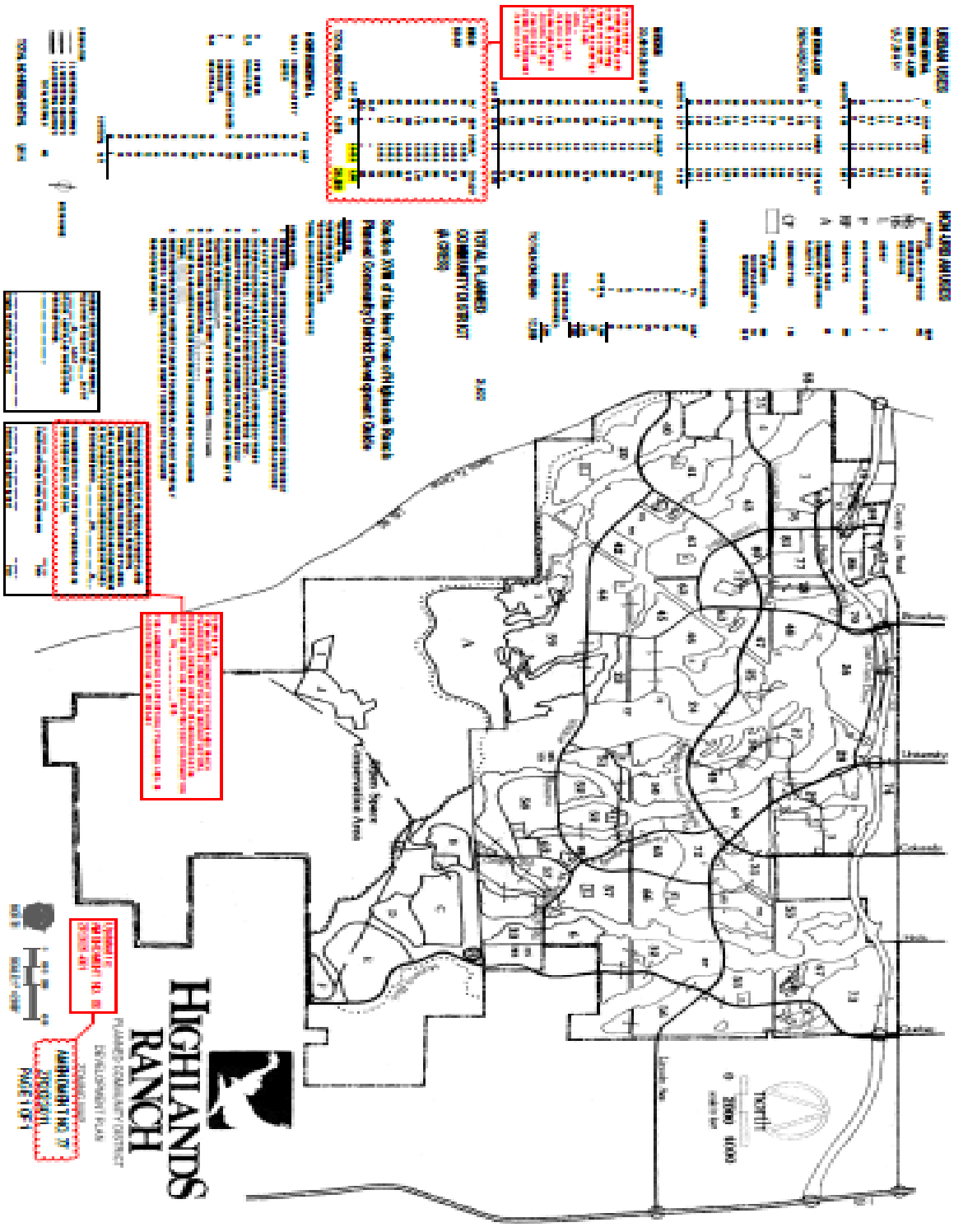
If you have any questions please contact Stephanie Canary at (352) 425-8763 or stephanie.canary@lumen.com.

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 W Ilex 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:

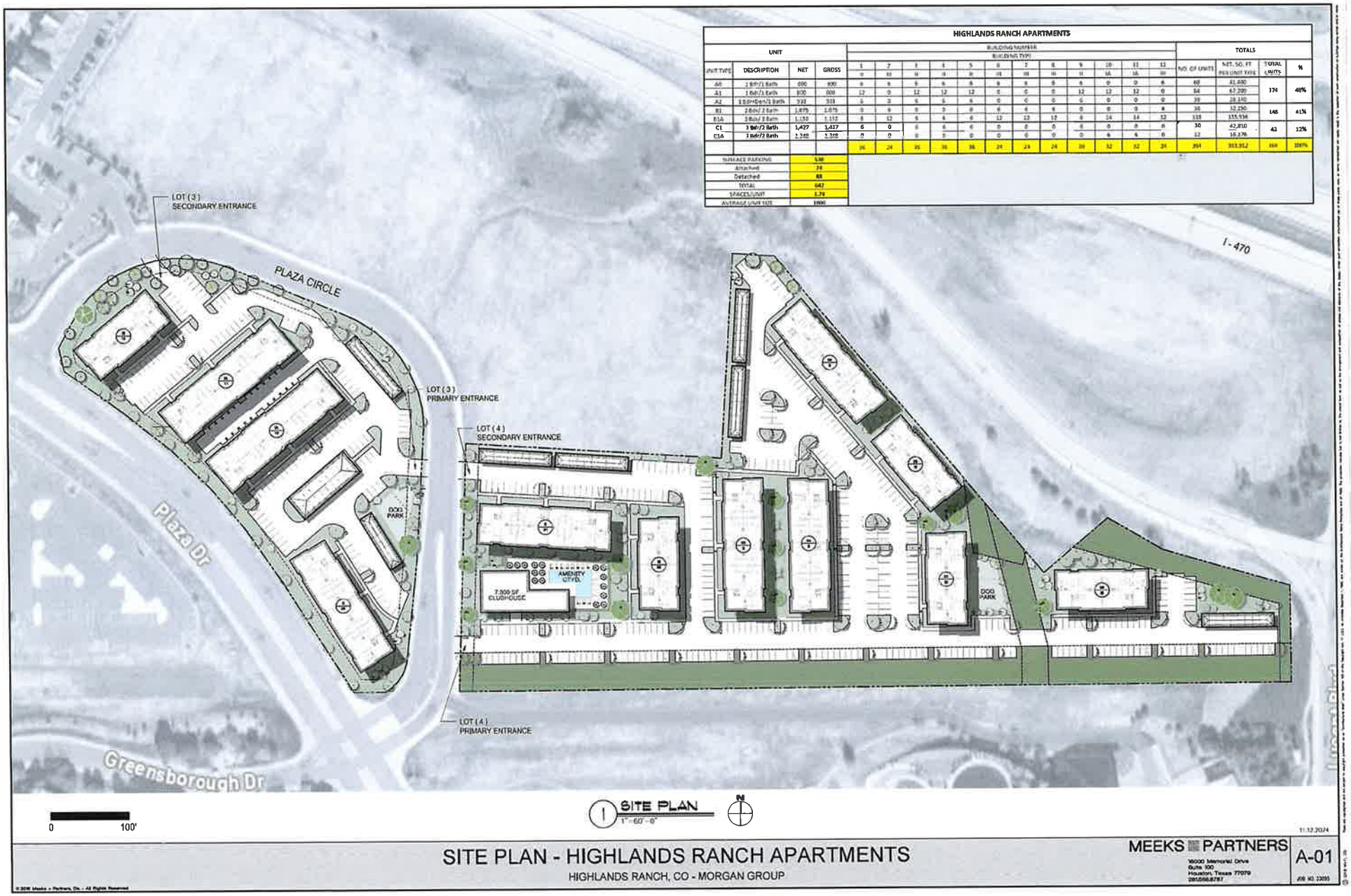
The inclusion of multi-family residential in this Planning Area is consistent with what was created in 2013 with Planning Area 85-A. However, it comes at a greater net loss of non-residential land area (15-acres), which could nominally impact development of commercial and/or industrial tax generating 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
UNIT TYPE
DESCRIPTION
NET
GROSS
BUILDING NUMBER
BUILDING TYPE
TOTALS
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 0 0 6 60 41,400
A1 1 Bath/1 Bath 800 800 12 0 12 12 12 0 0 0 12 12 12 0 94 67,200 174 48%
A2 1 BdrmDen/1 Bath 938 938 6 6 6 6 0 0 0 6 0 0 0 0 36 28,140
B2 2 Bdr/2 Bath 1,075 1,075 0 6 0 0 0 6 6 6 0 0 0 6 36 32,250 148 41%
B1A 2 Bdr/2 Bath 1,152 1,152 6 6 6 6 12 12 12 6 12 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 6 0 6 30 42,810 42 12%
C1A 3 Bdr/2 Bath 1,568 1,568 0 0 0 0 0 0 0 0 0 0 6 6 6 12 18,816
16 24 30 30 36 24 24 24 30 32 32 24 354 353,952 354 100%
SURFACE PARKING 530
Attached 24
Detached 88
TOTAL 642
SPACES/UNIT 1.74
AVERAGE UNIT SIZE 1000
LOT (3)
SECONDARY ENTRANCE
PLAZA CIRCLE
LOT (3)
PRIMARY ENTRANCE
LOT (4)
SECONDARY ENTRANCE
I-470
Plaza Dr
DOG PARK
AMENITY CTYD.
7,000 SF CLUBHOUSE
DOG PARK
LOT (4)
PRIMARY ENTRANCE
Greensborough Dr
Lincoln Blvd
0
100'
1 SITE PLAN
1" = 60' - 0"
N
11.12.2024
SITE PLAN - HIGHLANDS RANCH APARTMENTS
HIGHLANDS RANCH, CO - MORGAN GROUP
MEEKS PARTNERS
A-01

Urban Uses

Residential

Density-Low	PA¹	GRA²	DU/GRA³	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	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	1,495
	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

		PA¹	GNA²
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

		GNA²
E / MS / HS	Schools: Elementary School / Middle School / High School	472
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

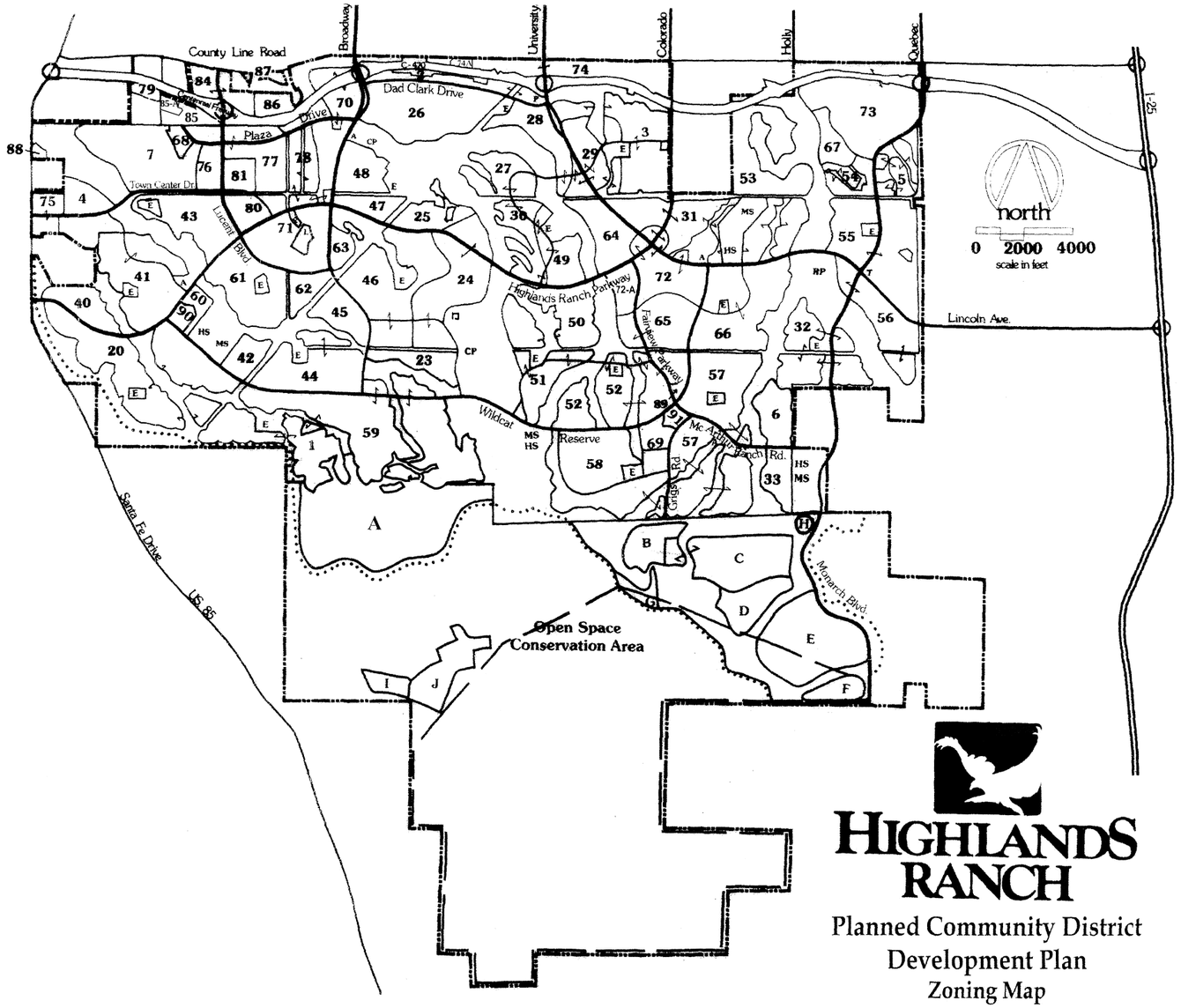
PA	GNA
A	467
B	87
C	191
D	87
E	272
F	34
G	19
H	10
I	33
Subtotal	1,200
J	125
	5,875
Total Open Space	7,000
Conservation Area	8,200

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
¹Planning Area
²Gross Residential Acres
³Gross Nonresidential Acres
⁴Dwelling 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: — • — • —
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

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

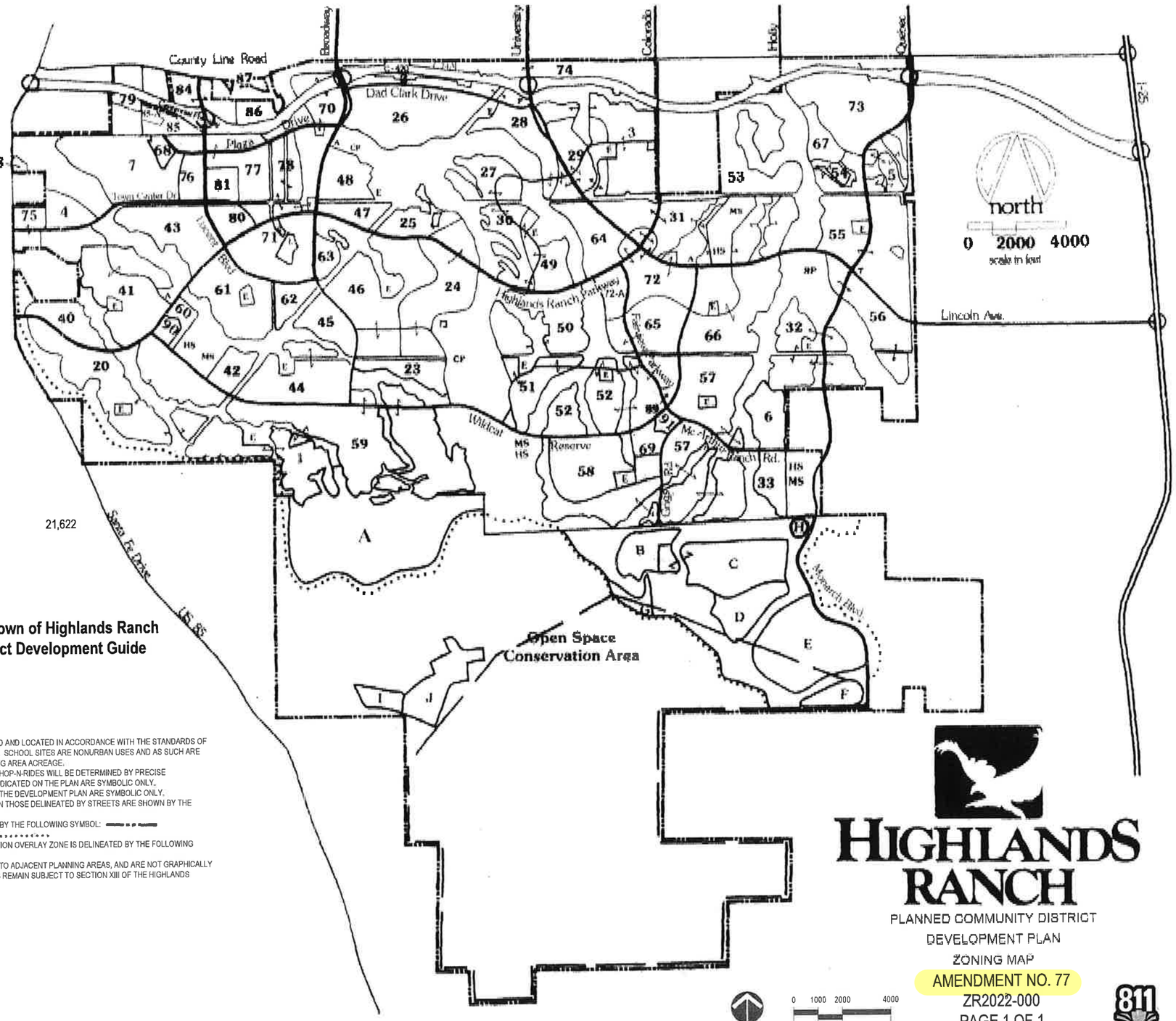
TOTAL NONURBAN 12,890

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.
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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.



NORTH SCALE: 1" = 2000'

0 1000 2000 4000

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
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
5	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

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
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	EASEMENTS	600
	FLOODPLAINS (100 YR.)	741
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OPEN SPACE CONSERVATION AREA

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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
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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

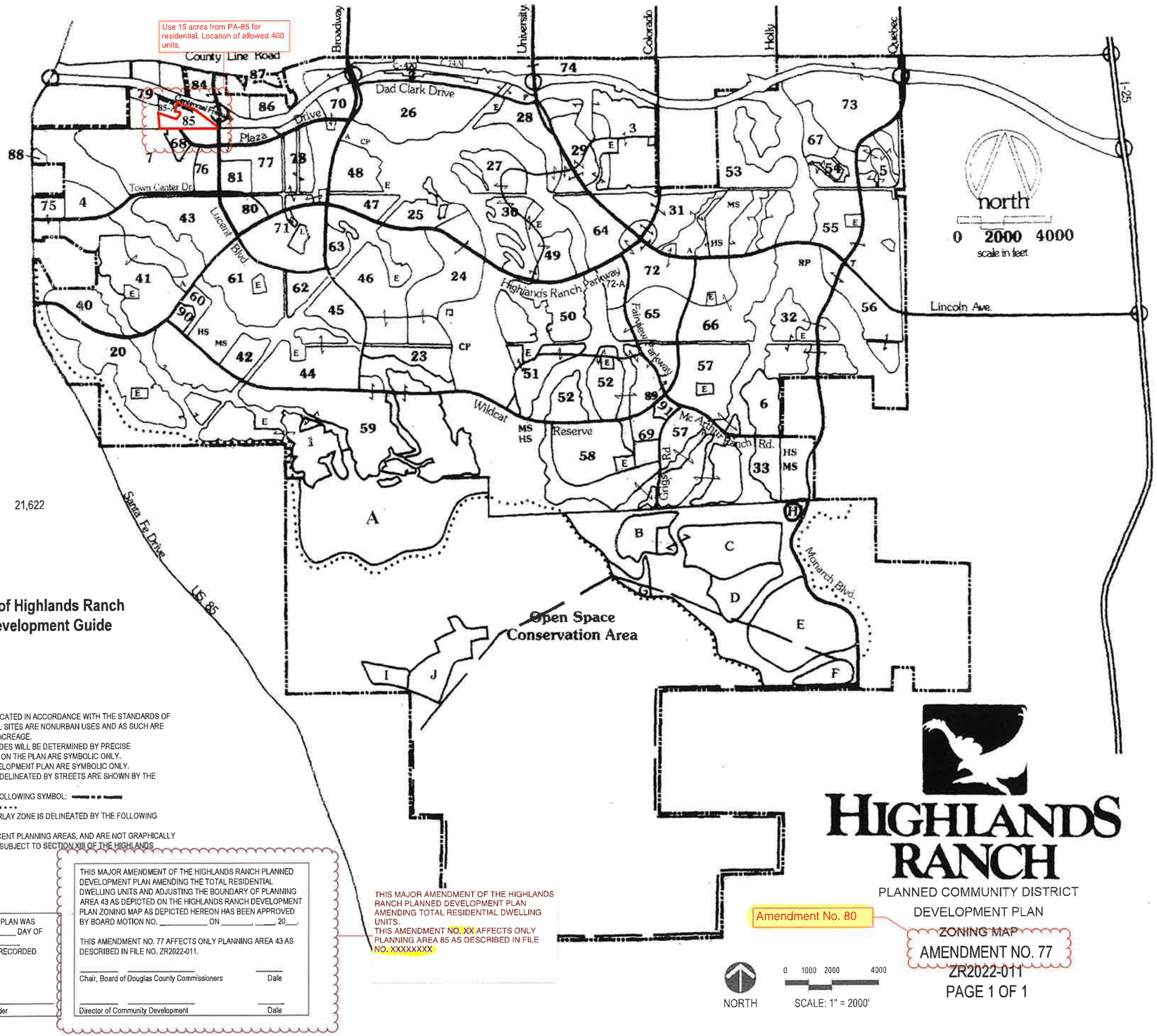
THIS MAJOR AMENDMENT OF THE HIGHLANDS RANCH PLANNED DEVELOPMENT PLAN AMENDING THE TOTAL RESIDENTIAL DWELLING UNITS AND ADJUSTING THE BOUNDARY OF PLANNING AREA 43 AS DEPICTED ON THE HIGHLANDS RANCH DEVELOPMENT PLAN ZONING MAP AS DEPICTED HEREON HAS BEEN APPROVED BY BOARD MOTION NO. _____ ON _____, ____, 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



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
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: 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

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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

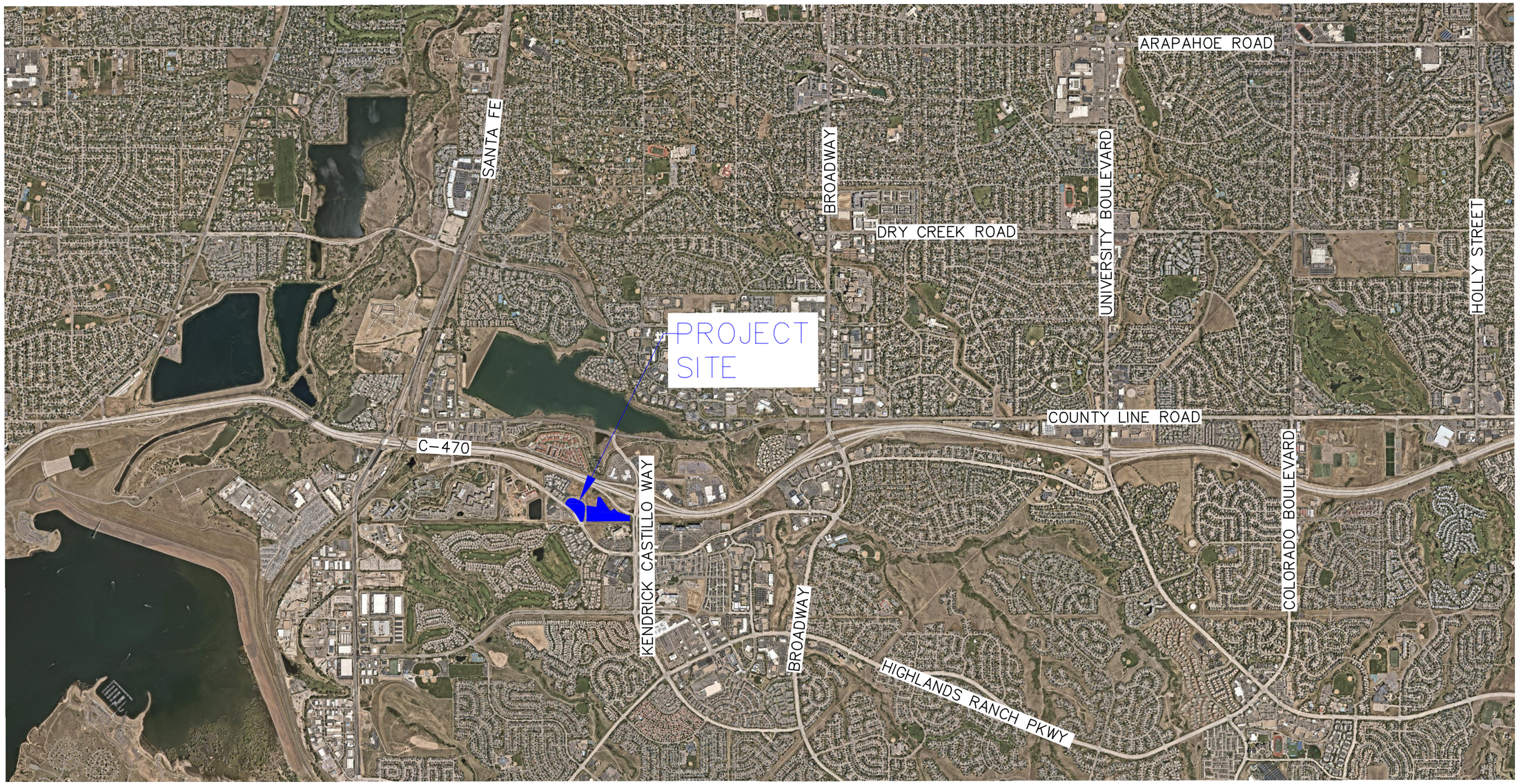


FIGURE 1
LUCENT STATION
HIGHLANDS RANCH, COLORADO
VICINITY MAP

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.



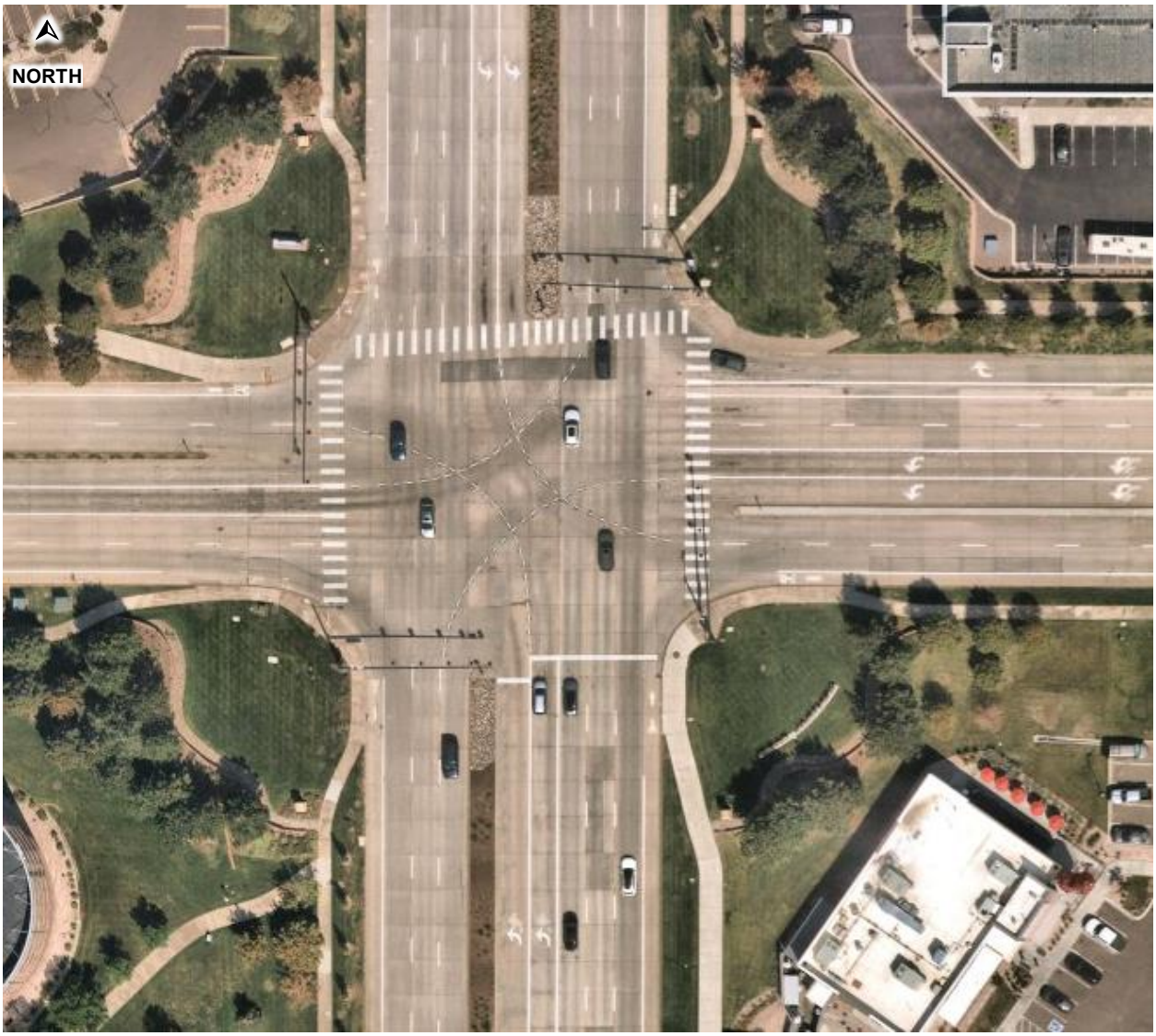
Plaza Circle and Percy Lane (#3)

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)

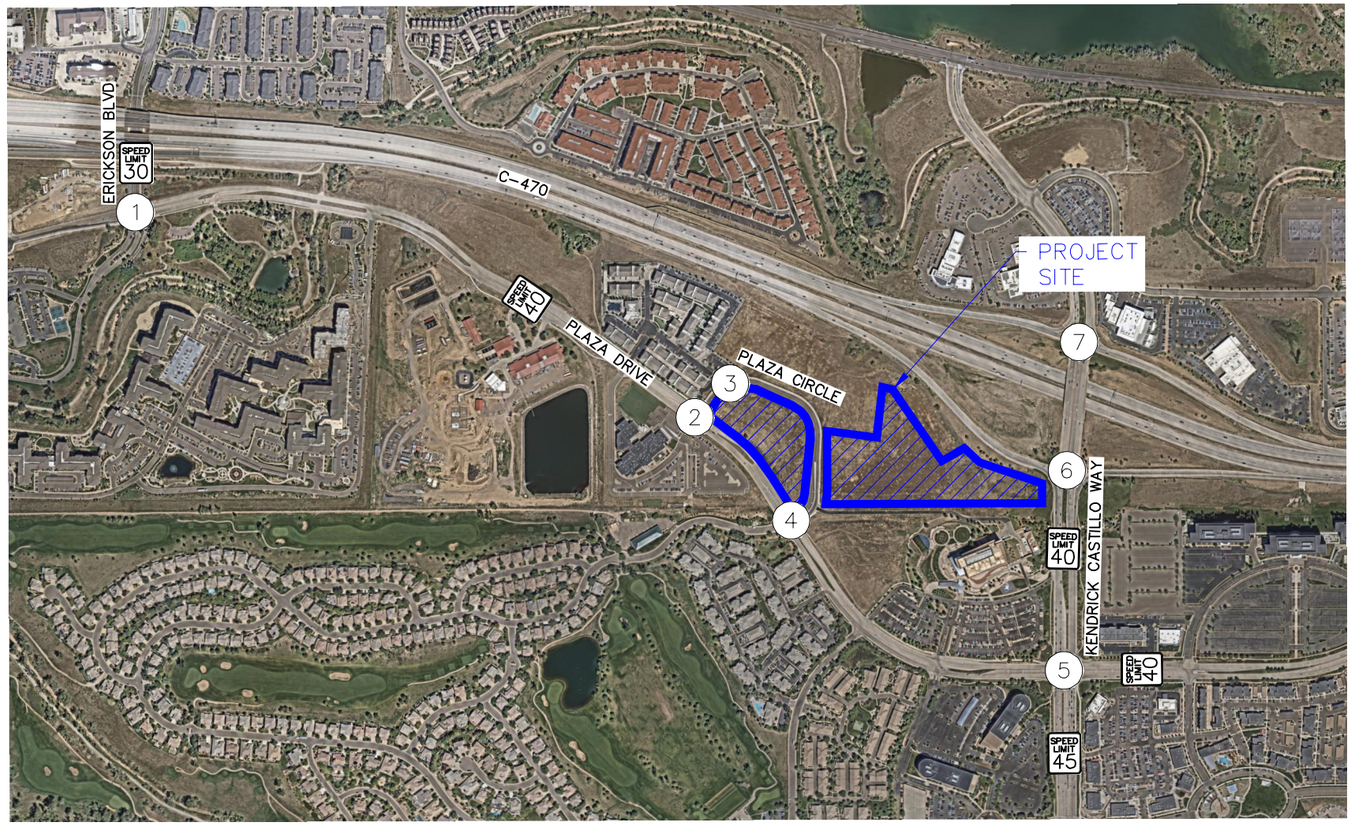
The signalized intersection of Kendrick Castillo Way and C-470 westbound ramps operates with protected-only left turn phasing on the northbound approach. The northbound approach of Kendrick Castillo Way provides dual left turn lanes and two through lanes. The southbound approach on Kendrick Castillo 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.

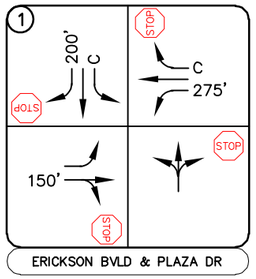


Kendrick Castillo Way and C-470 Westbound Ramps (#7)

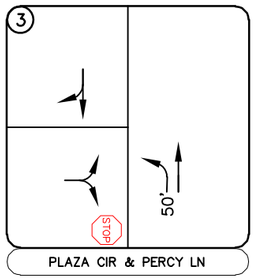
The intersection lane configuration and control for the study area intersections are shown in **Figure 2**.

Kimley»Horn
NORTH
NTS Project Number

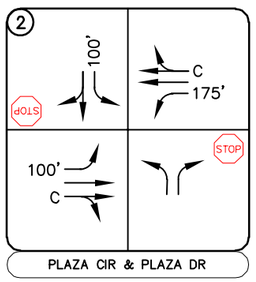




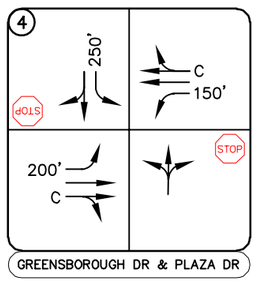
ERICKSON BVLD & PLAZA DR



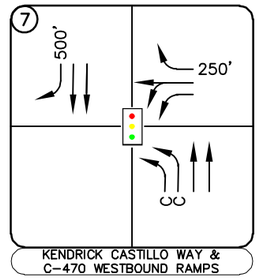
PLAZA CIR & PERCY LN



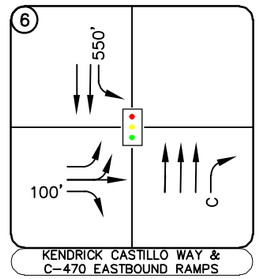
PLAZA CIR & PLAZA DR



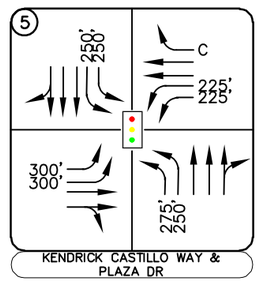
GREENSBOROUGH DR & PLAZA DR



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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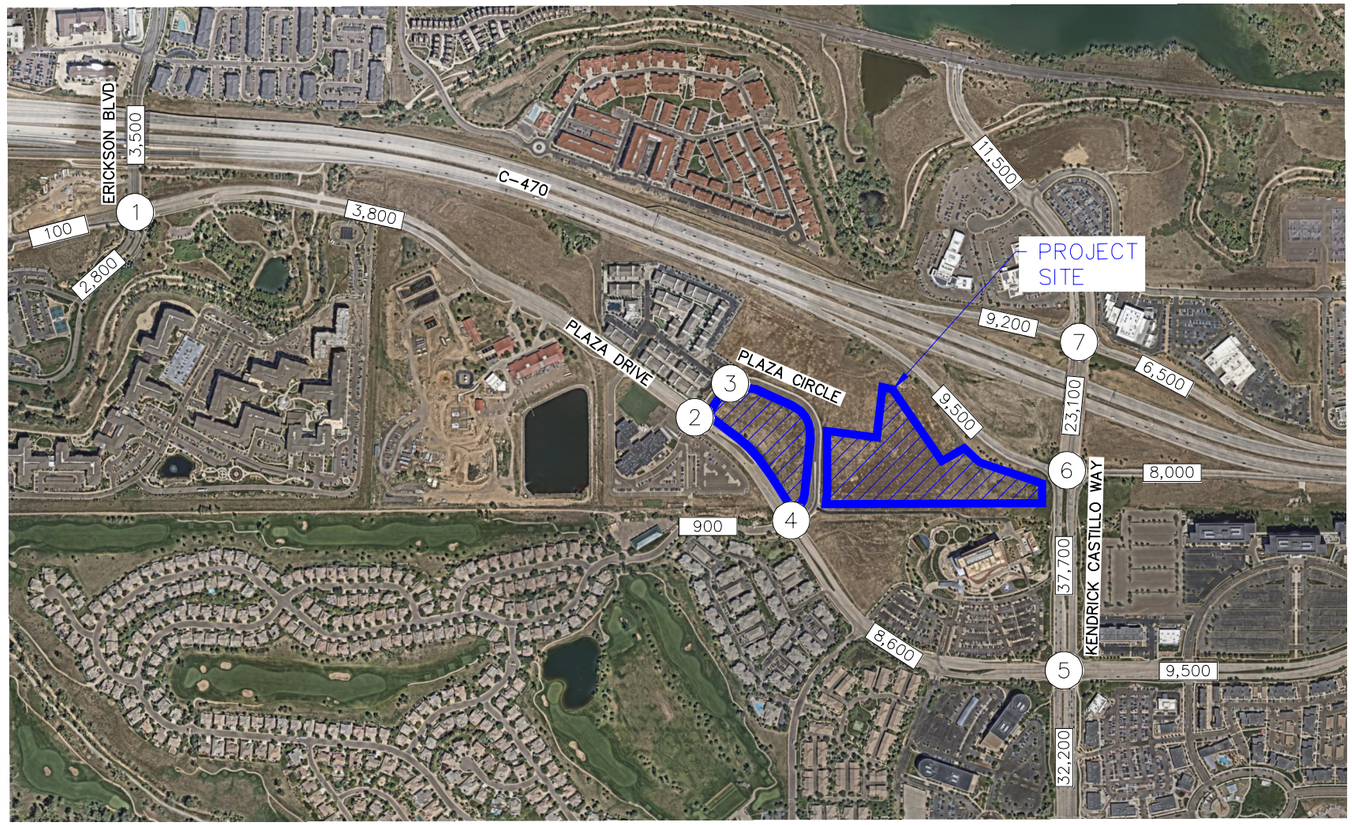
3.3 Existing Traffic Volumes

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.**

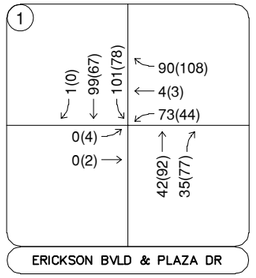
3.4 Unspecified Development Traffic Growth

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.

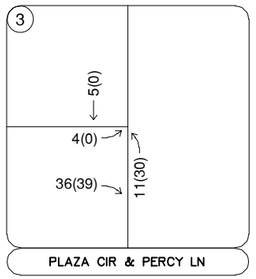
NTS Project Number



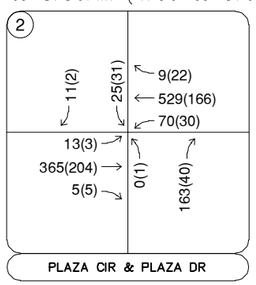
Wednesday, January 22, 2025
7:45 to 8:45AM (4:00 to 5:00PM)



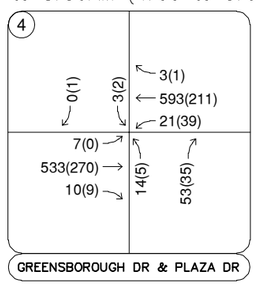
Wednesday, January 22, 2025
7:15 to 8:15AM (4:30 to 5:30PM)



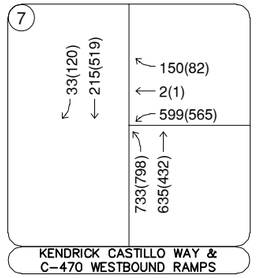
Wednesday, January 22, 2025
7:30 to 8:30AM (4:00 to 5:00PM)



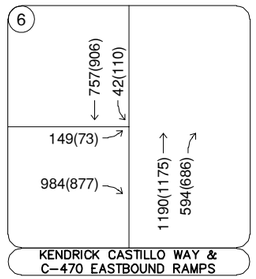
Wednesday, January 22, 2025
7:30 to 8:30AM (4:00 to 5:00PM)



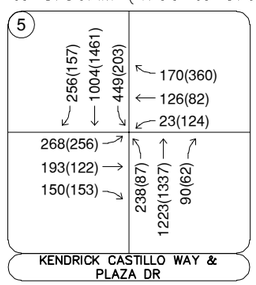
Wednesday, January 29, 2025
7:30 to 8:30AM (4:15 to 5:15PM)



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)

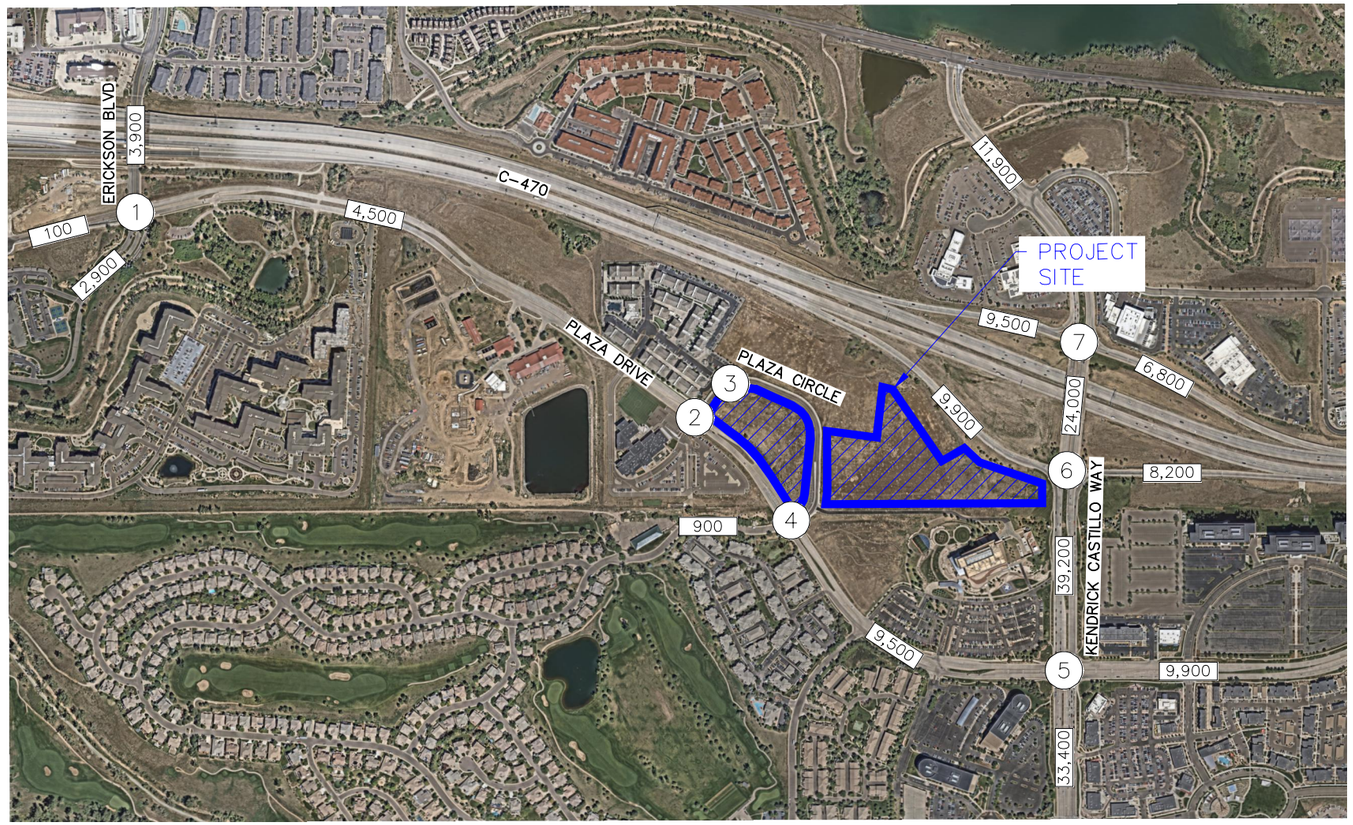


LEGEND

(X)	Study Area Key Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,XOO	Estimated Daily Traffic Volume

FIGURE 3
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2025 EXISTING TRAFFIC VOLUMES

Kimley»Horn
NORTH
NTS Project Number



1
ERICKSON BVLD & PLAZA DR
1(0) 102(69) 112(100) → 118(124)
← 4(3)
→ 75(45)
0(4) →
0(2) →
43(95) ↑
36(79) ↑

3
PLAZA CIR & PERCY LN
5(0) ↓
4(0) →
37(40) →
11(31) ↑

2
PLAZA CIR & PLAZA DR
11(2) ↓
26(32) ↓
→ 9(23)
← 559(208)
→ 72(31)
13(3) →
423(234) →
5(5) →
0(1) ↑
168(41) ↑

4
GREENSBOROUGH DR & PLAZA DR
0(1) ↓
3(2) ↓
→ 3(1)
← 625(254)
→ 22(40)
7(0) →
596(302) →
10(9) →
14(5) ↑
55(36) ↑

7
KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS
34(124) ↓
224(539) ↓
→ 155(84)
← 2(1)
→ 620(590)
755(822) ↑
654(445) ↑

6
KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS
785(945) ↓
43(113) ↓
154(75) →
1017(912) →
1226(1211) →
612(707) →

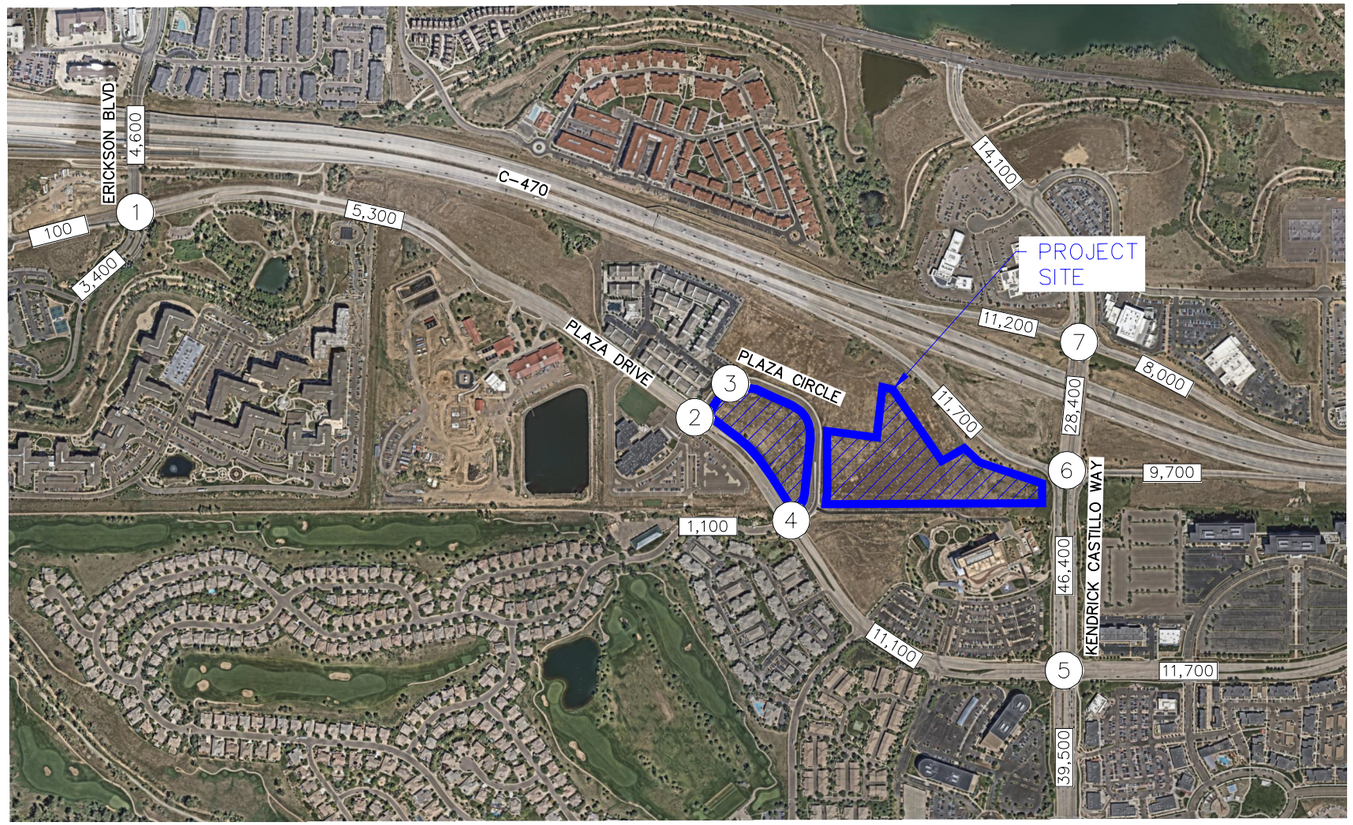
5
KENDRICK CASTILLO WAY & PLAZA DR
272(182) ↓
1034(1505) ↓
463(209) ↓
→ 175(371)
← 132(90)
→ 24(128)
301(277) →
207(130) →
169(165) →
249(101) ↑
1260(1378) ↑
93(64) ↑

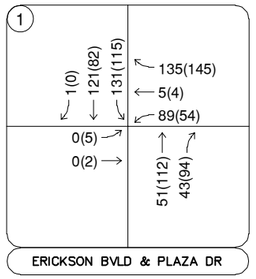
LEGEND
(X) Study Area Key Intersection
XXX(XXX) Weekday AM(PM) Peak Hour Traffic Volumes
XX,XOO Estimated Daily Traffic Volume

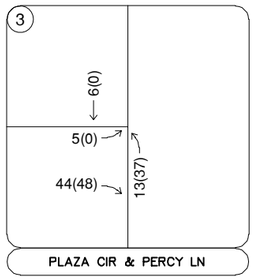
FIGURE 4
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2028 BACKGROUND TRAFFIC VOLUMES

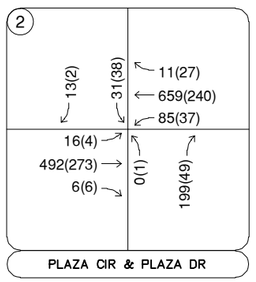
Kimley»Horn

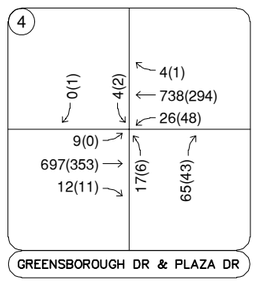
NTS Project Number

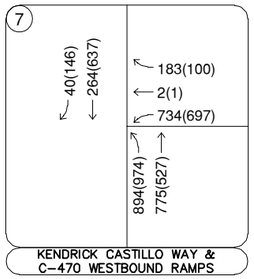


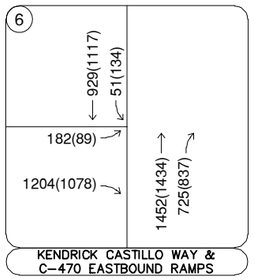


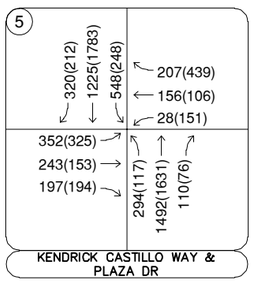












LEGEND

(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**.

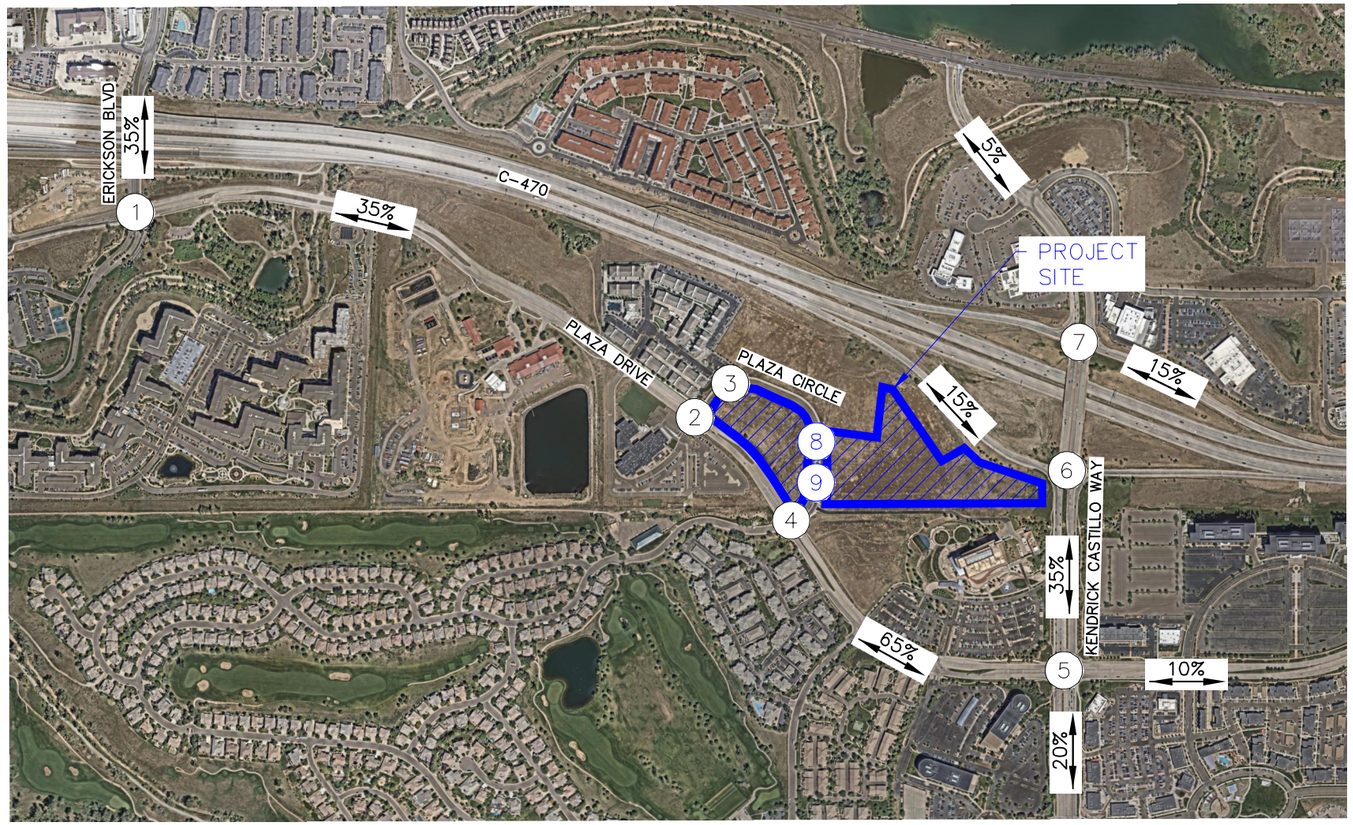
Table 1 – Lucent Station Traffic Generation

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

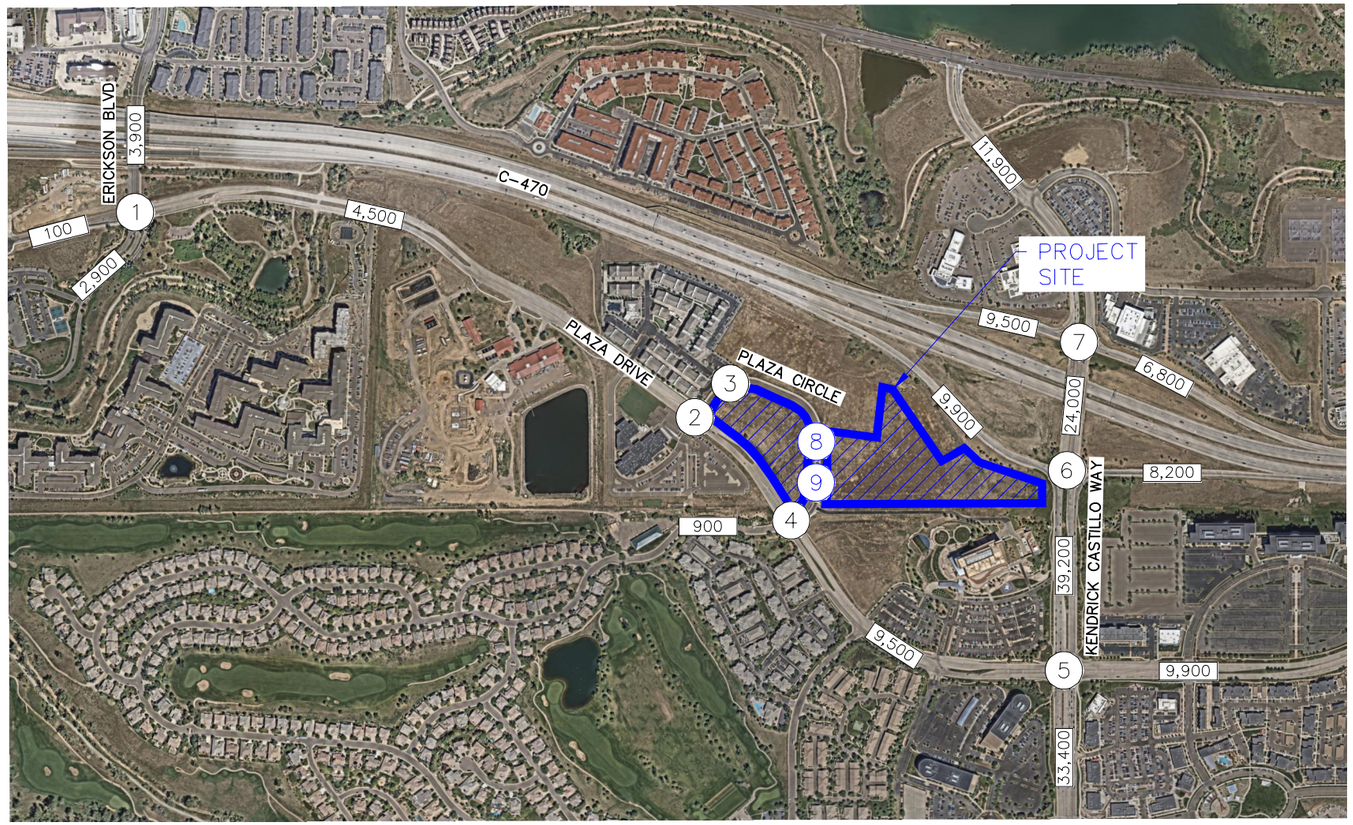
4.3 Traffic Assignment

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

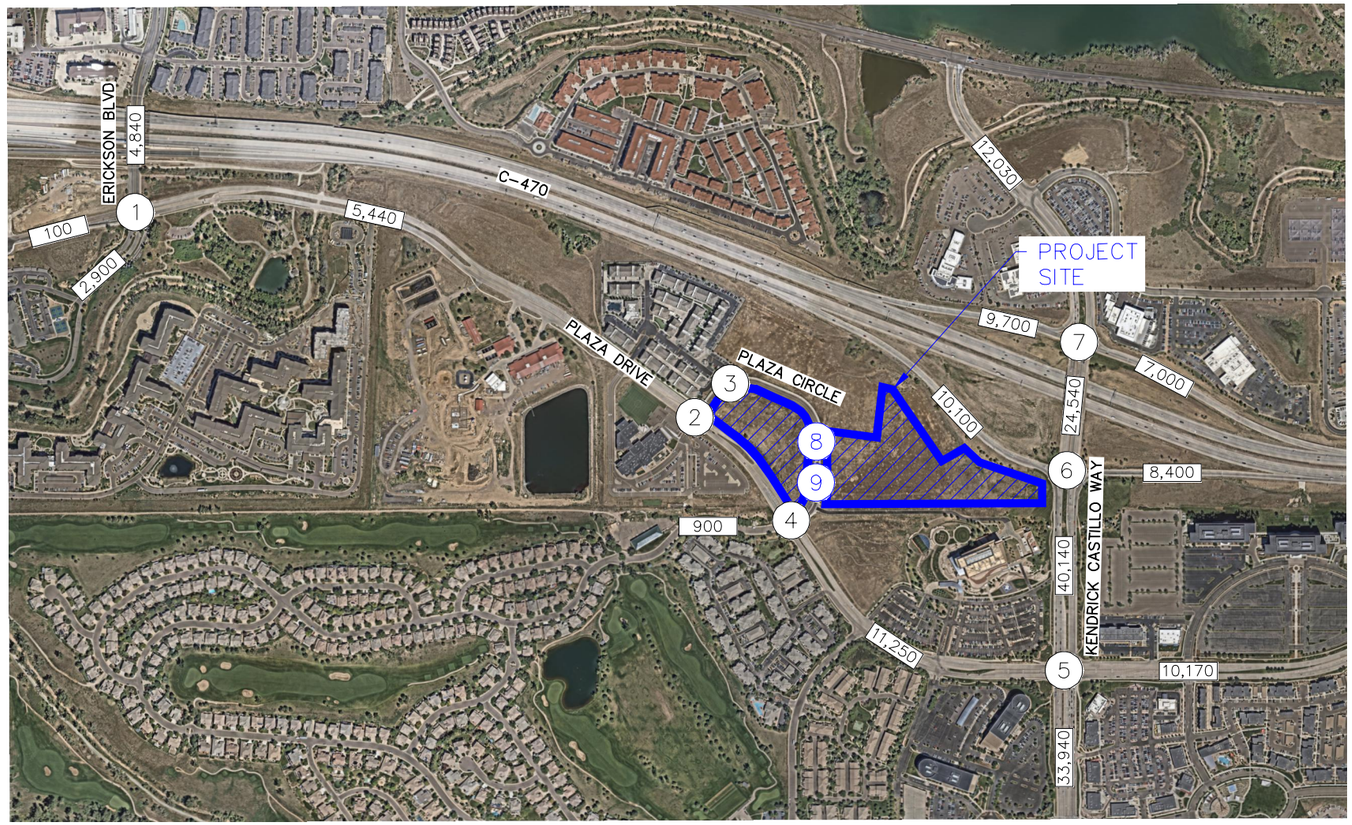
LEGEND

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



1
1(0) 102(69) 125(145) ← 161(150)
← 4(3)
← 75(45)
0(4) →
0(2) →
43(95) ↑
36(79) ↑
ERICKSON BVLD & PLAZA DR

3
17(8) ↓
31(19) ←
36(0) →
37(40) ↓
11(31) ↑
10(32) ↑
PLAZA CIR & PERCY LN

7
34(124) ↓
226(545) ↓
← 155(84)
← 2(1)
← 626(609)
773(833) ↑
660(449) ↑
KENDRICK CASTILLO WAY & C-470 WESTBOUND RAMPS

6
793(971) ↓
43(113) ↓
154(75) →
1023(931) ↓
1250(1226) →
630(718) ↑
KENDRICK CASTILLO WAY & C-470 EASTBOUND RAMPS

2
54(28) ↓
0(32) ↓
← 9(23)
← 559(208)
← 72(31)
23(35) →
427(247) →
5(5) ↓
0(1) ↑
168(41) ↑
PLAZA CIR & PLAZA DR

4
0(1) ↓
108(51) ↓
← 28(85)
← 625(254)
← 22(40)
11(13) →
596(302) →
10(9) ↓
14(5) ↑
55(36) ↑
GREENSBOROUGH DR & PLAZA DR

8
39(3) ↓
← 73(45)
6(4) ↓
2(6) ↑
22(9) ↑
4(13) ↑
PLAZA CIR & SITE ACCESS (N)

9
118(52) ↓
← 12(8)
16(20) →
23(77) →
PLAZA CIR & SITE ACCESS (RI/RO)

5
285(227) ↓
1034(1505) ↓
463(209) ↓
← 175(371)
← 136(103)
← 24(128)
344(303) →
219(138) →
193(180) ↓
257(127) ↑
1260(1378) ↑
93(64) ↑
KENDRICK CASTILLO WAY & PLAZA DR

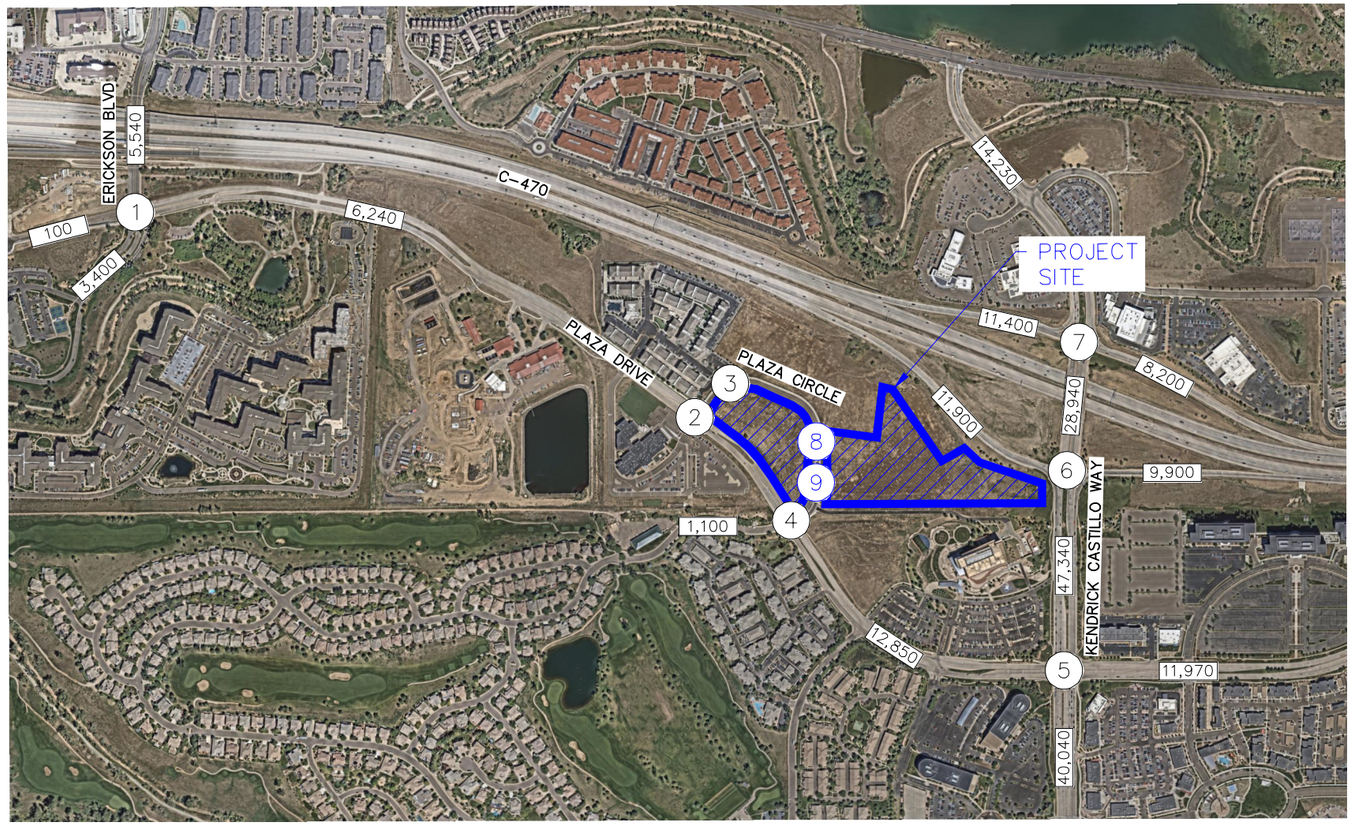
LEGEND

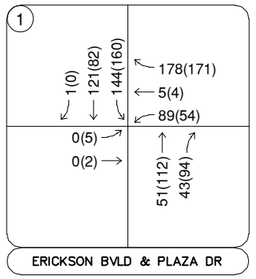
(X)	Study Area Key Intersection
(X)	Project Access Intersection
XXX(XXX)	Weekday AM(PM) Peak Hour Traffic Volumes
XX,X00	Estimated Daily Traffic Volume

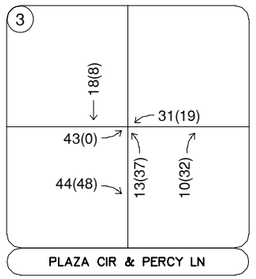
FIGURE 8
LUCENT STATION
HIGHLANDS RANCH, COLORADO
2028 TOTAL TRAFFIC VOLUMES

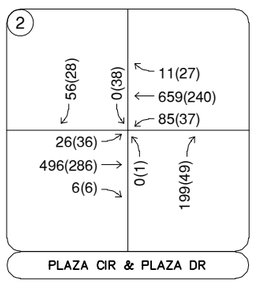
Kimley»Horn

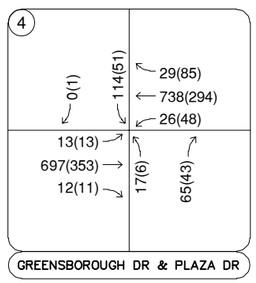
Kimley»Horn
NORTH
NTS Project Number

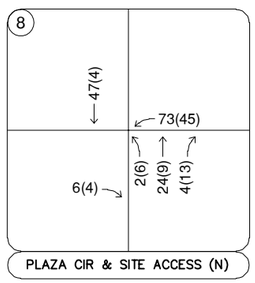


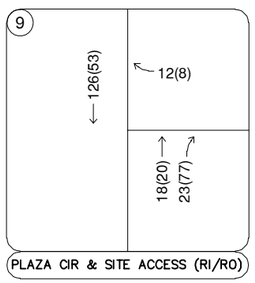


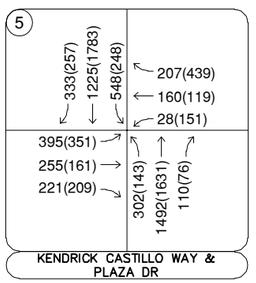


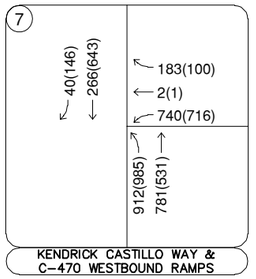


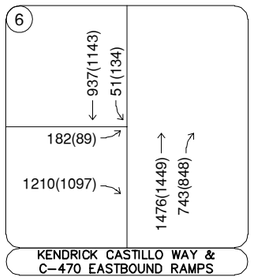












LEGEND

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 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

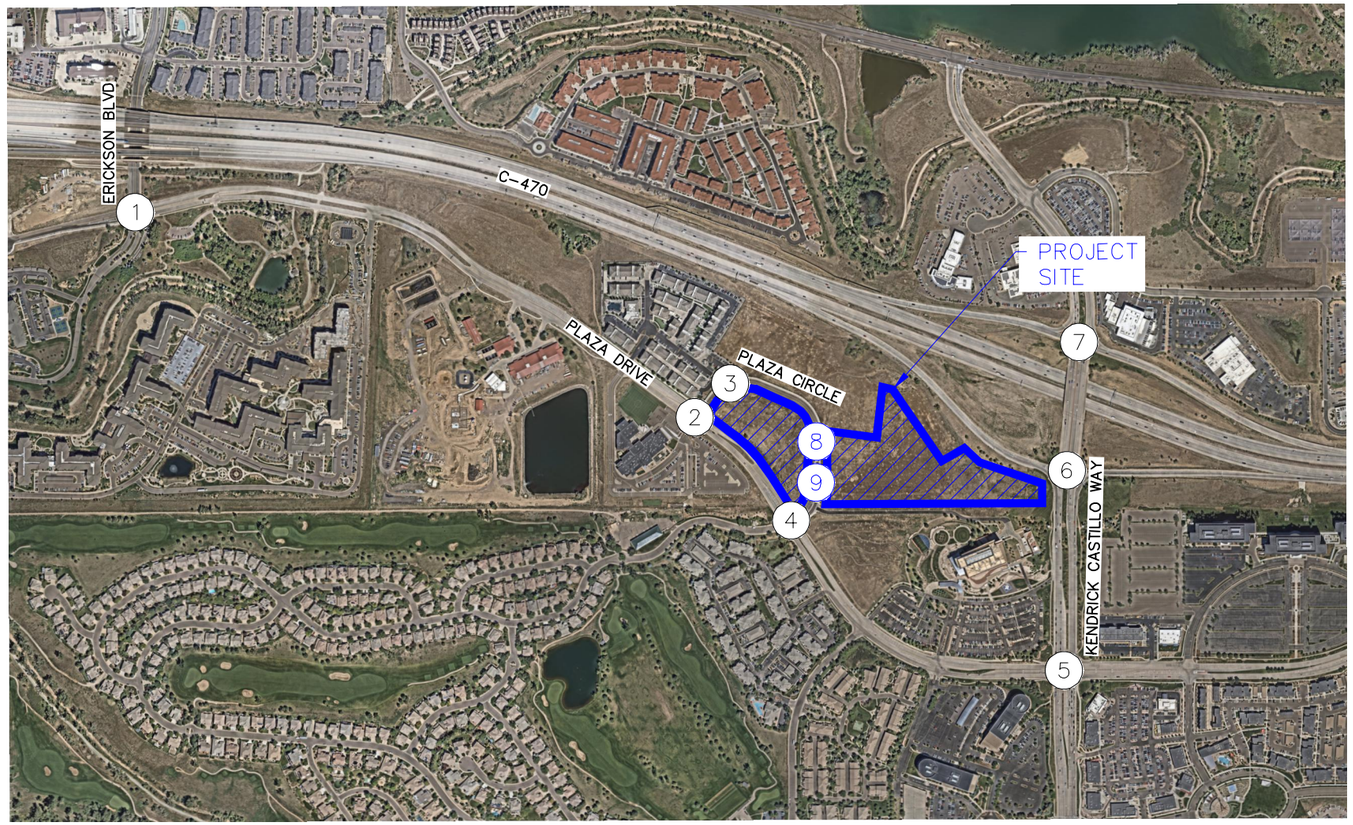
All queues are anticipated to remain within the existing or recommended turn lane lengths with exception of the southbound left turns at the Kendrick Castillo Way & Plaza Drive (#5) intersection. The dual southbound left turn lanes are recommended to be extended from 250 feet to 300 feet.

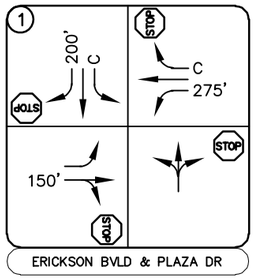
This extension will require a median modification and may require additional length in 2045. Of note, extension of these dual left turn lanes is independent and not caused by Lucent Station. The new left turn lanes along Plaza Circle for the full movement accesses are recommended to provide a length of 50 feet by restriping the existing double-yellow median.

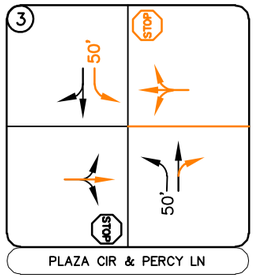
5.4 Improvement Summary

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.

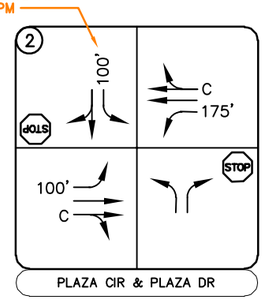
Kimley»Horn
NORTH
NTS Project Number

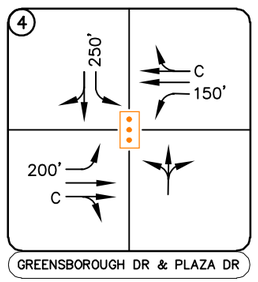


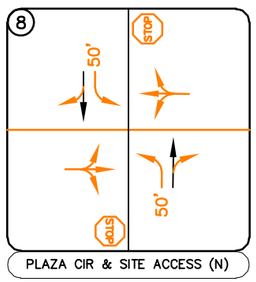


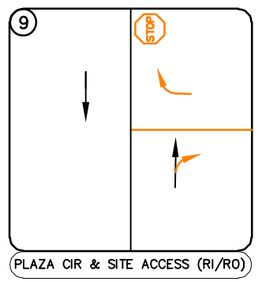


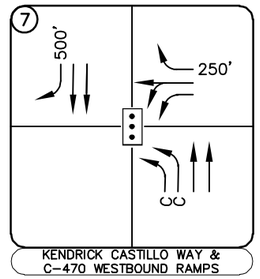
Restrict Left Turn
Movement 7:45–8:15 AM
and 3:30–4:00 PM

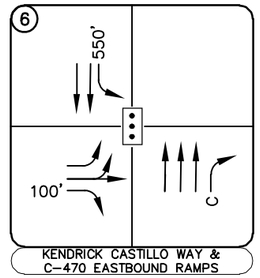




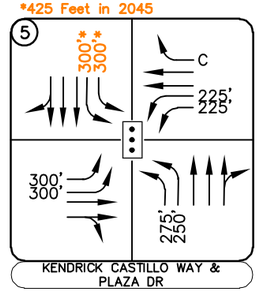








*425 Feet in 2045



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

Kimley»Horn

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
19000 Memorial Drive
Suite 100
Houston, Texas 77079
2815583787

A-01

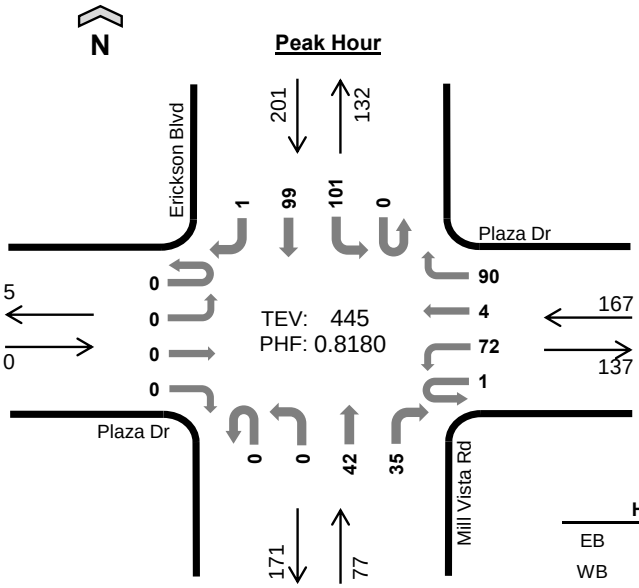
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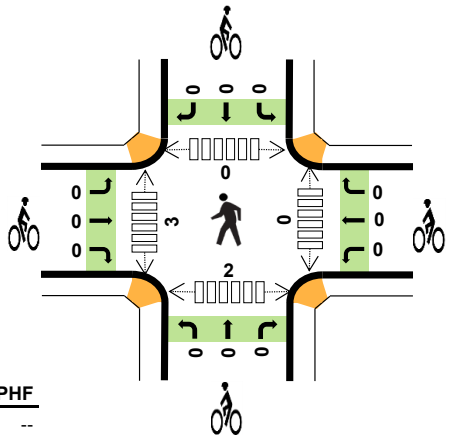
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Appendix B: Intersection Count Sheets

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**	

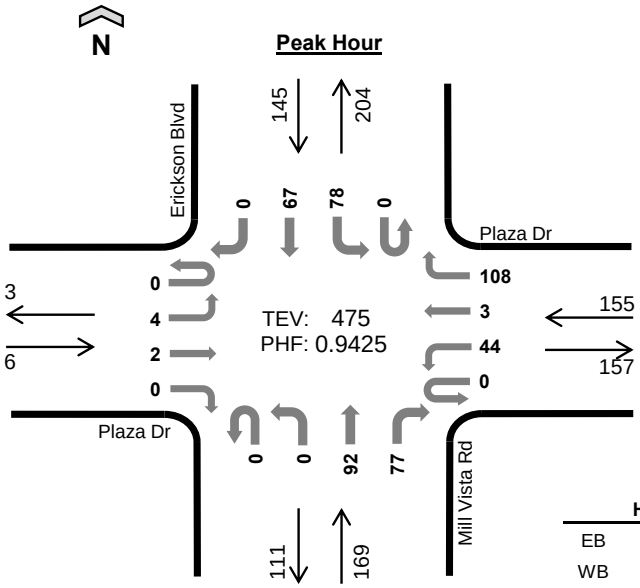
Count Summaries - Bikes

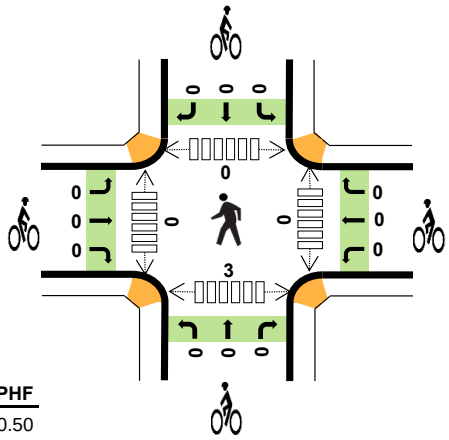
Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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**	

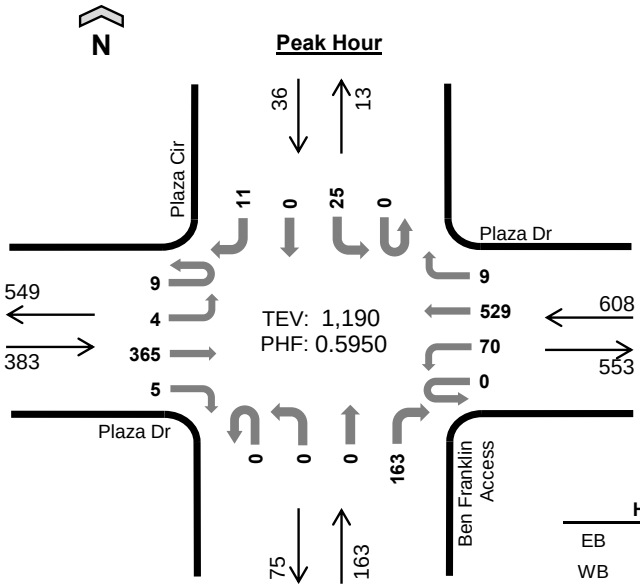
Count Summaries - Bikes

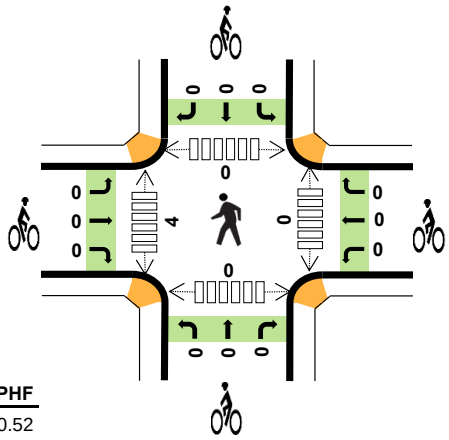
Interval Start	Plaza Dr				Plaza Dr				Mill Vista Rd				Erickson Blvd				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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**	

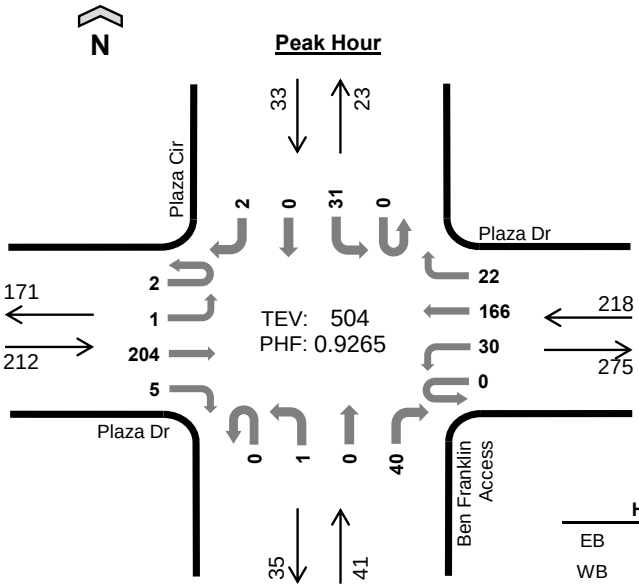
Count Summaries - Bikes

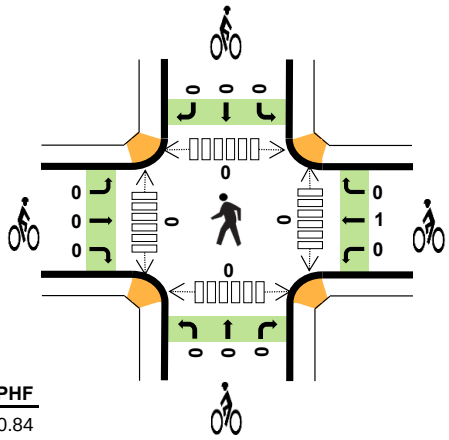
Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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

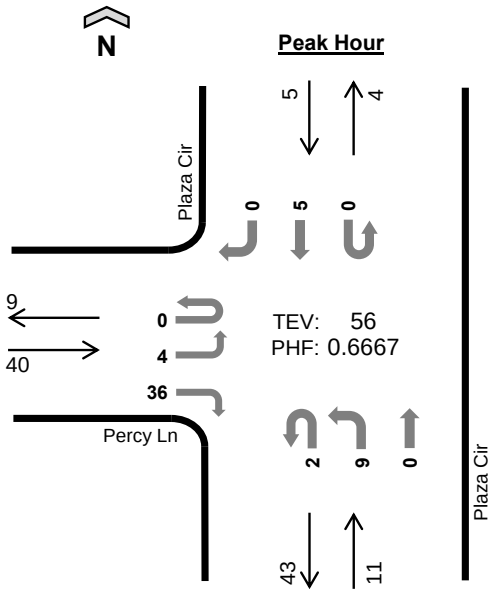
Interval Start	Plaza Dr				Plaza Dr				Ben Franklin Access				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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**	

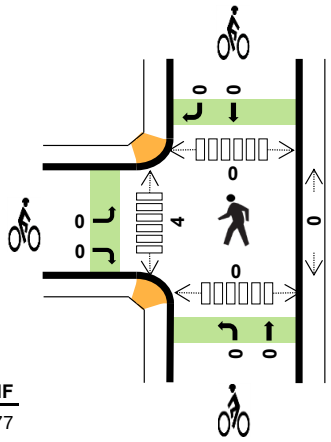
Count Summaries - Bikes

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**	

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**	

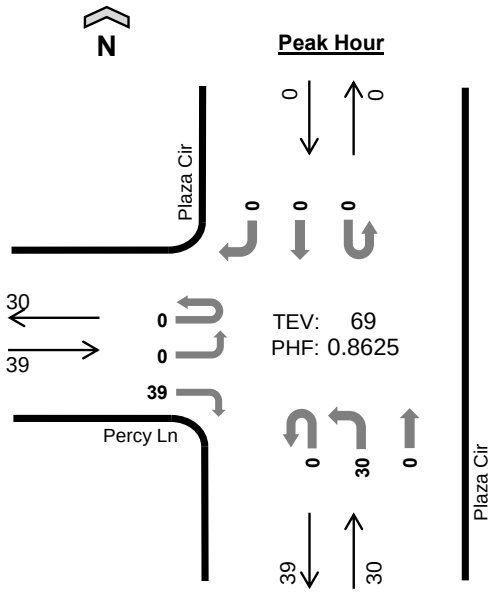
Count Summaries - Bikes

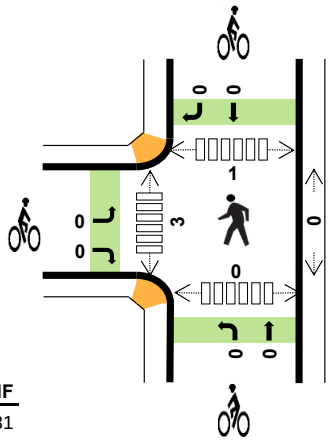
Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	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**	

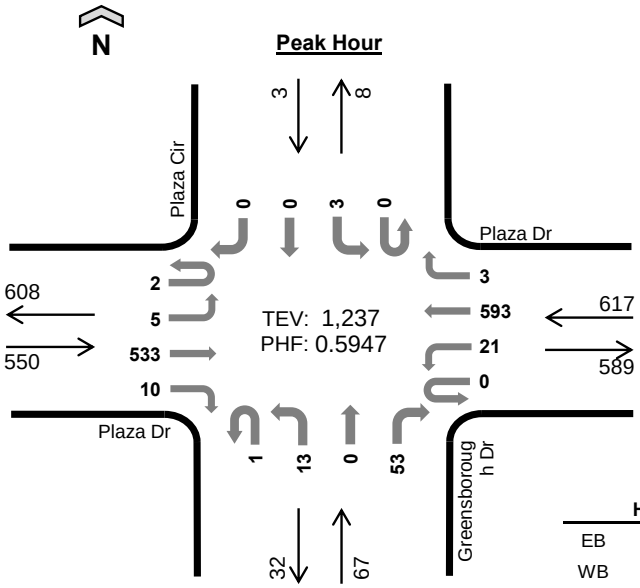
Count Summaries - Bikes

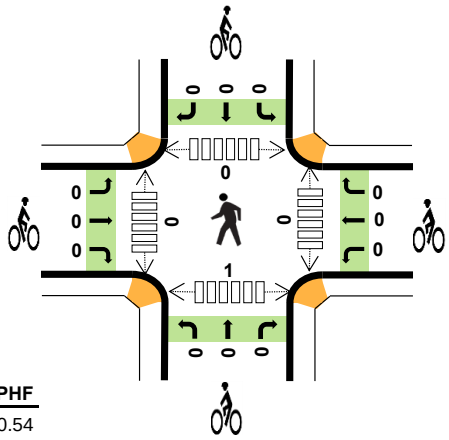
Interval Start	Percy Ln				n/a				Plaza Cir				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	**0**	**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**	

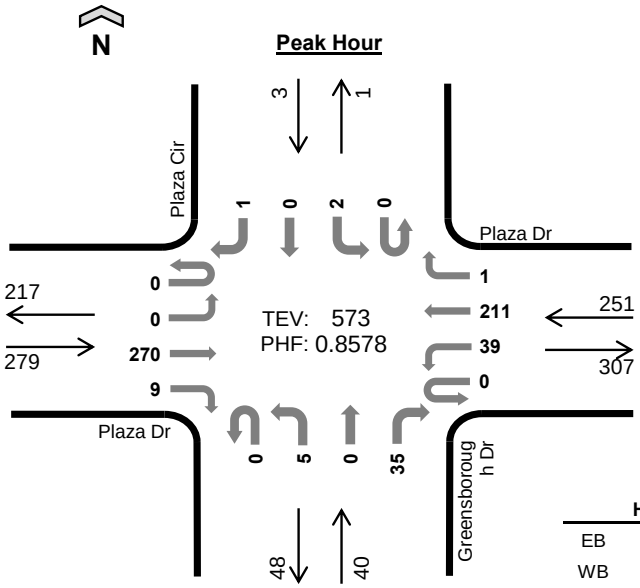
Count Summaries - Bikes

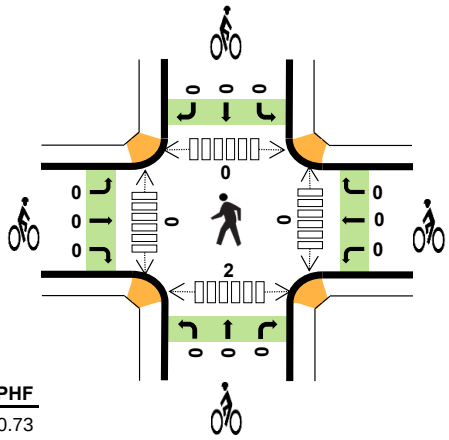
Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 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**	

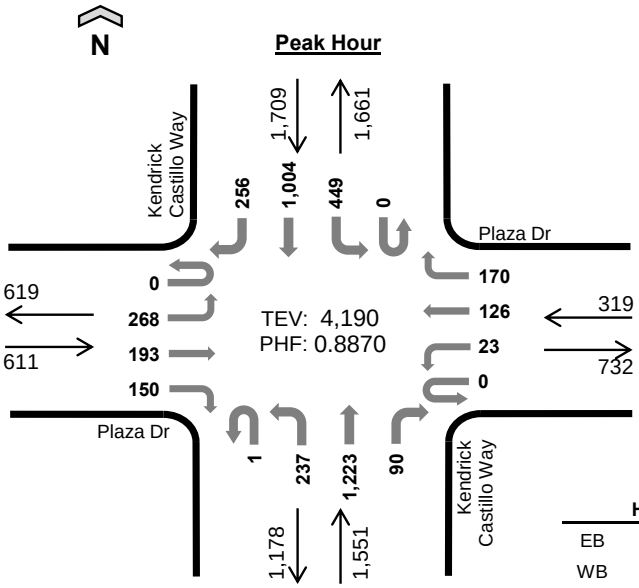
Count Summaries - Bikes

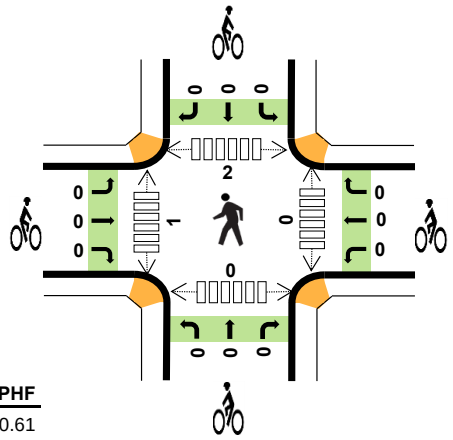
Interval Start	Plaza Dr				Plaza Dr				Greensborough Dr				Plaza Cir				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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**	

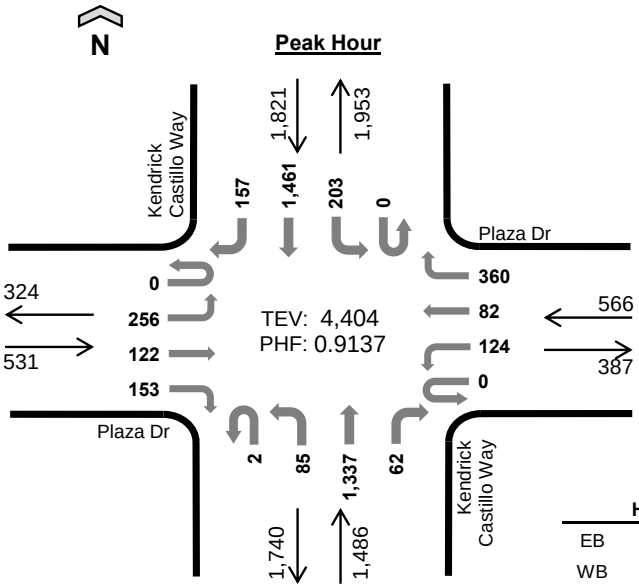
Count Summaries - Bikes

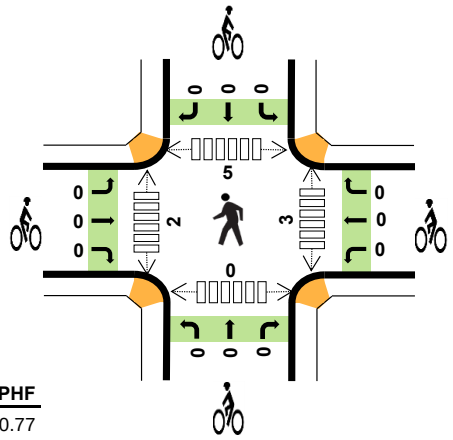
Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	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**	

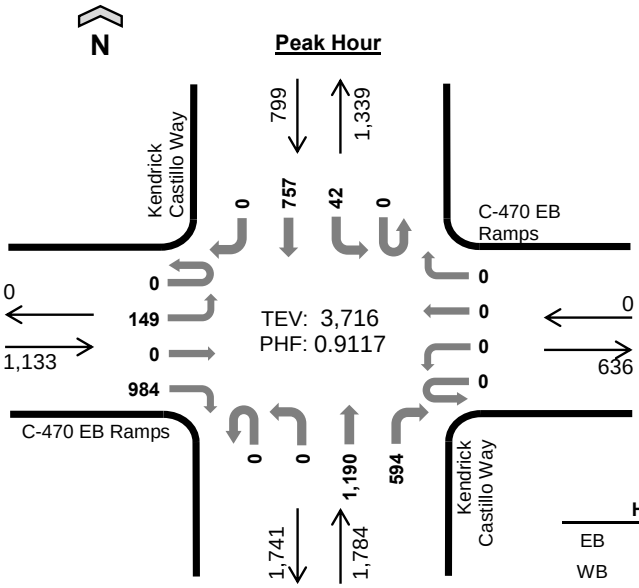
Count Summaries - Bikes

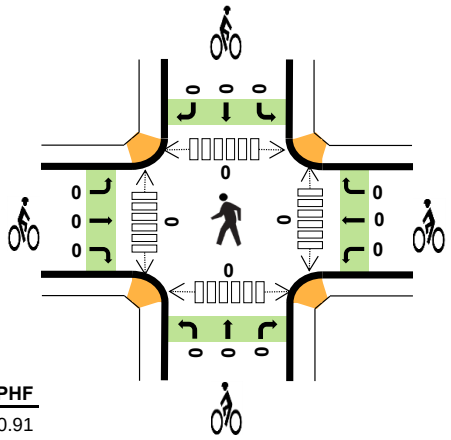
Interval Start	Plaza Dr				Plaza Dr				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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**	

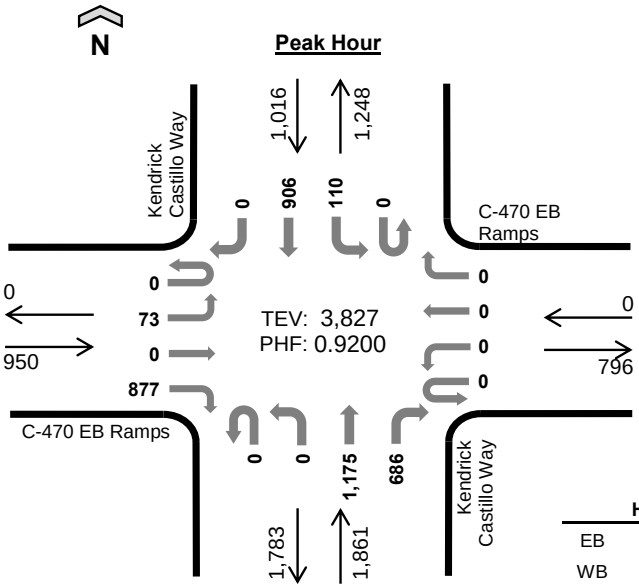
Count Summaries - Bikes

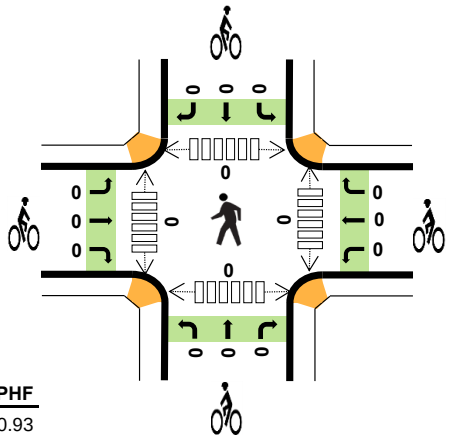
Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	**0**	**0**	**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**	

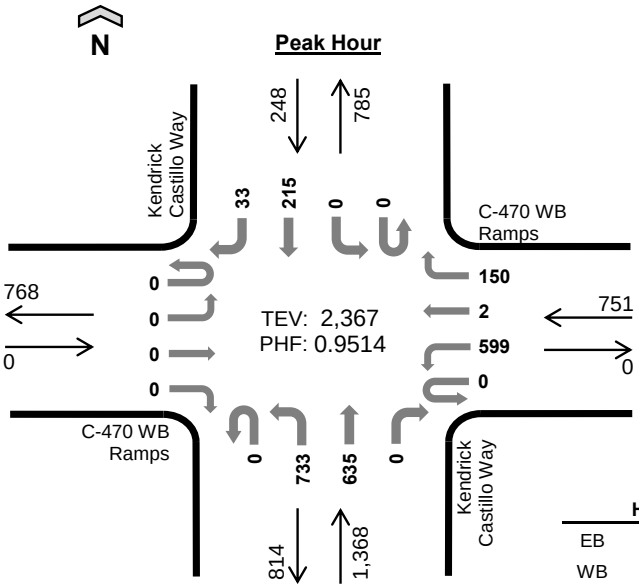
Count Summaries - Bikes

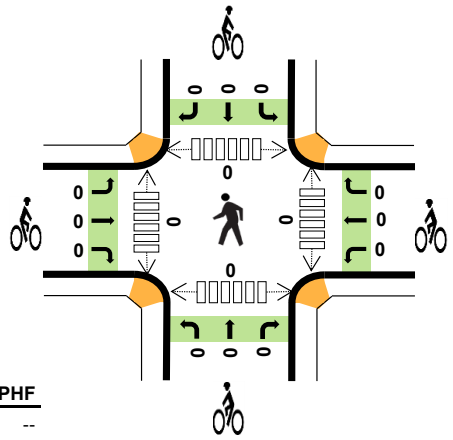
Interval Start	C-470 EB Ramps				C-470 EB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	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**	

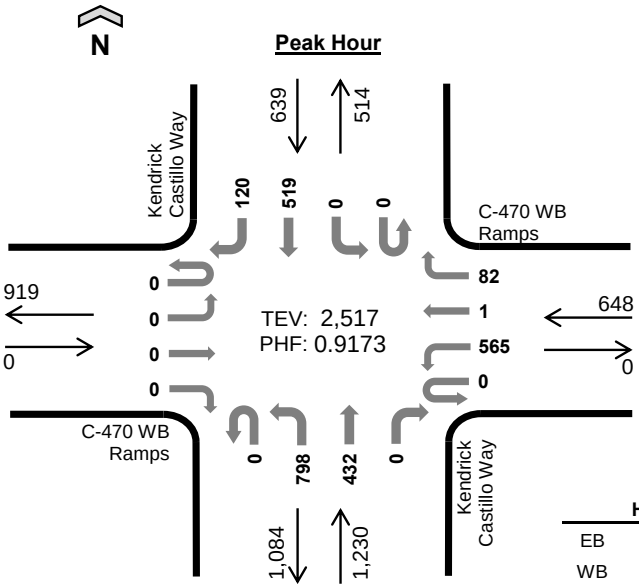
Count Summaries - Bikes

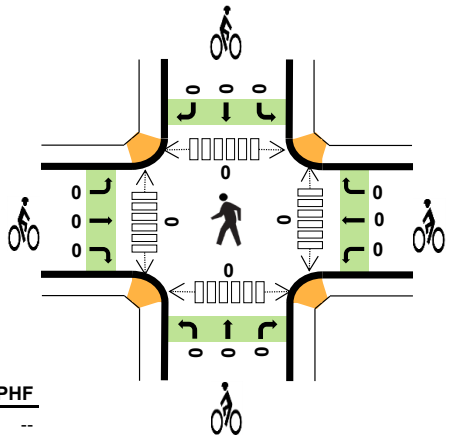
Interval Start	C-470 WB Ramps				C-470 WB Ramps				Kendrick Castillo Way				Kendrick Castillo Way				15-min Total	Rolling Hour Total
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	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	
	HV	0	0	0	0	0	9	0	2	0	3	7	0	0	0	2	4	27	
	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	-

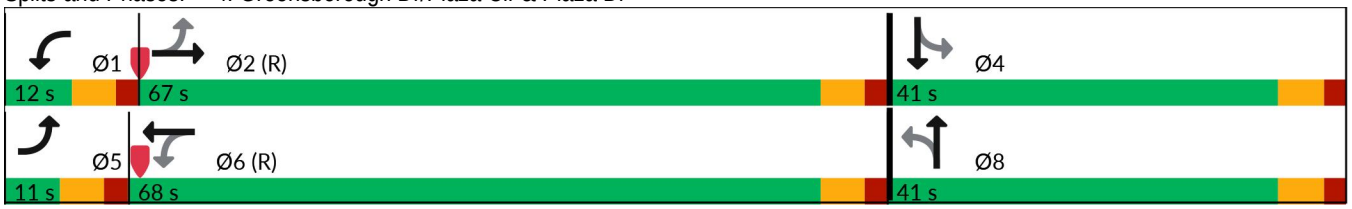
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.33	0.85	10.06	14.75
HCM LOS			B	B

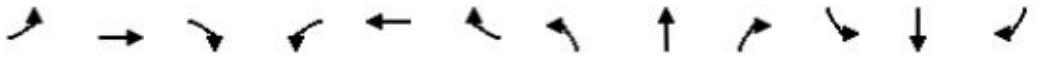
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	760	1175	-	-	1208	-	-	424	817
HCM Lane V/C Ratio	0.063	0.013	-	-	0.038	-	-	0.14	0.001
HCM Ctrl Dly (s/v)	10.1	8.1	-	-	8.1	-	-	14.9	9.4
HCM Lane LOS	B	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.5	0

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	

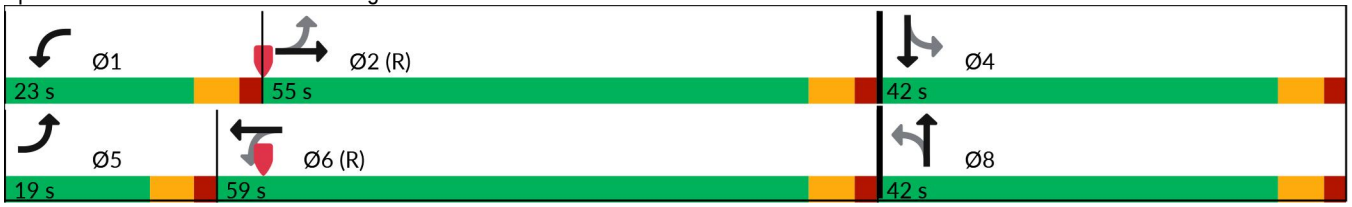
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.5	84.0		26.5	8.3	85.2		26.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		35.0	5.0	62.0		35.0				
Max Q Clear Time (g_c+I1), s	2.8	18.3		20.0	2.4	19.8		9.6				
Green Ext Time (p_c), s	0.0	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	-

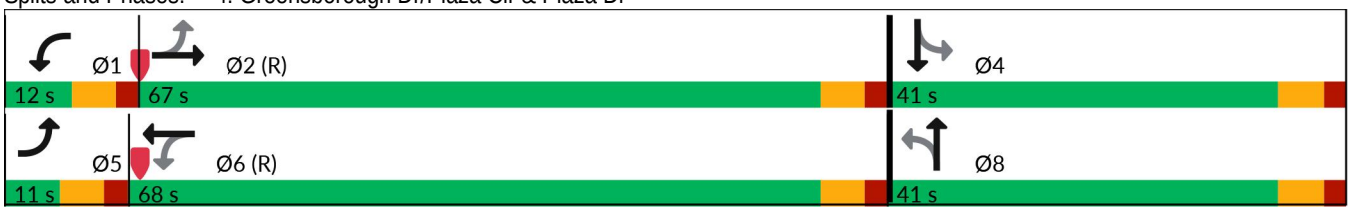
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.24	9.82	11.11
HCM LOS			A	B

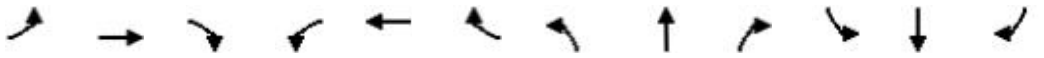
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	793	1331	-	-	1247	-	-	504	911
HCM Lane V/C Ratio	0.059	-	-	-	0.036	-	-	0.005	0.001
HCM Ctrl Dly (s/v)	9.8	0	-	-	8	-	-	12.2	9
HCM Lane LOS	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0	0

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	

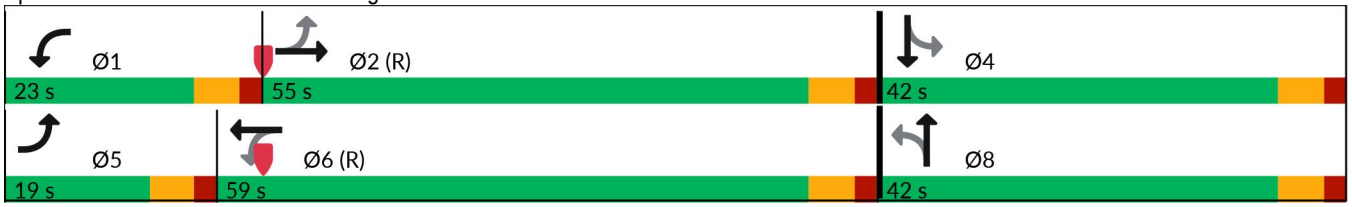
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	81.5		28.7	8.6	82.7		28.7				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	6.0	61.0		35.0	5.0	62.0		35.0				
Max Q Clear Time (g_c+I1), s	3.0	23.7		22.2	2.5	26.0		11.0				
Green Ext Time (p_c), s	0.0	9.4		0.5	0.0	10.6		0.8				

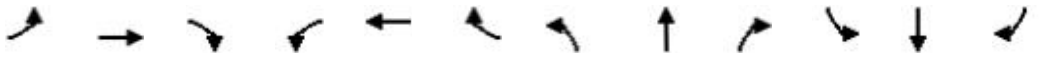
Intersection Summary												
HCM 7th Control Delay, s/veh			17.6									
HCM 7th LOS			B									

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	

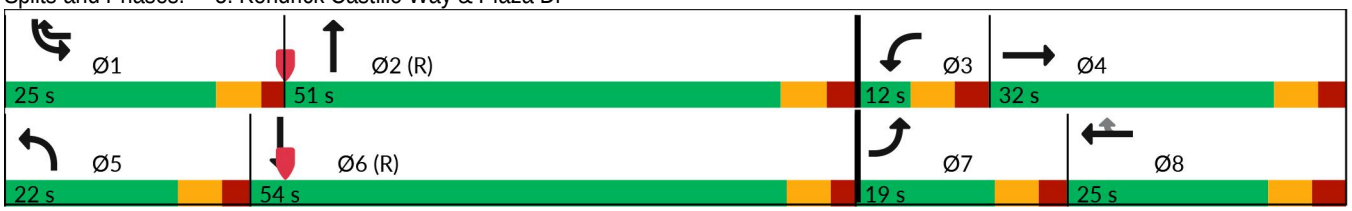
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	97.5		12.3	8.0	99.7		12.3				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	17.0	49.0		36.0	13.0	53.0		36.0				
Max Q Clear Time (g_c+I1), s	2.8	5.7		6.2	2.2	5.8		6.1				
Green Ext Time (p_c), s	0.1	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

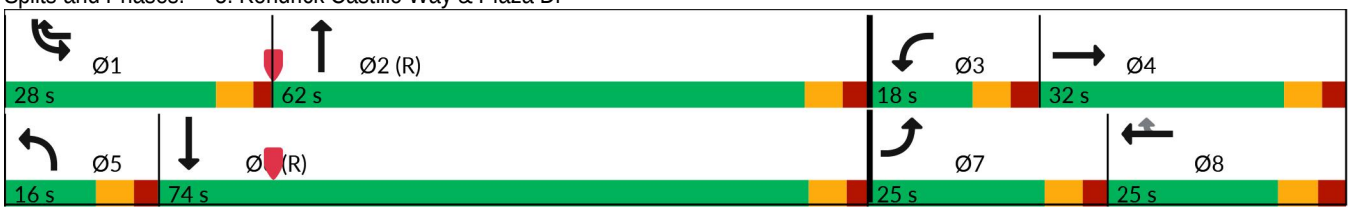
Notes

* 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

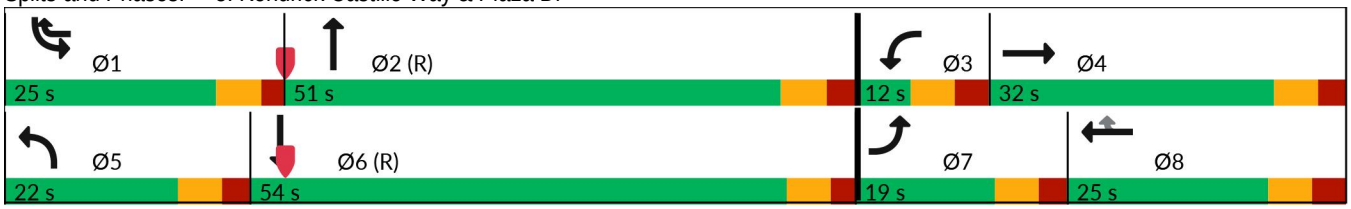
Notes

* 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

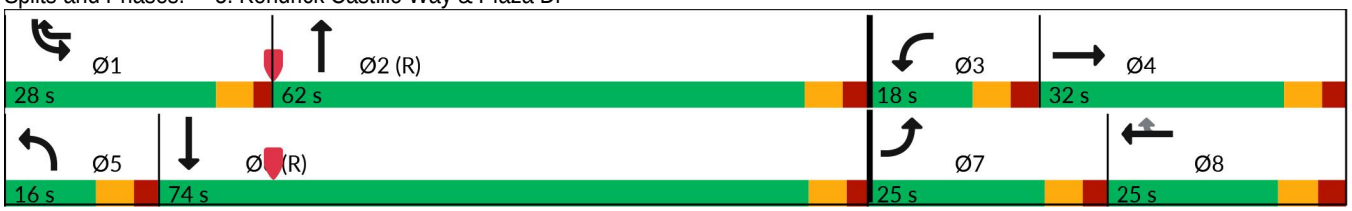
Notes

* 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

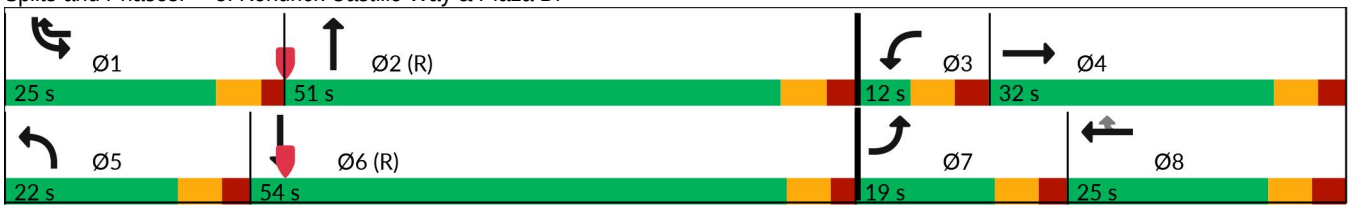
Notes

* 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

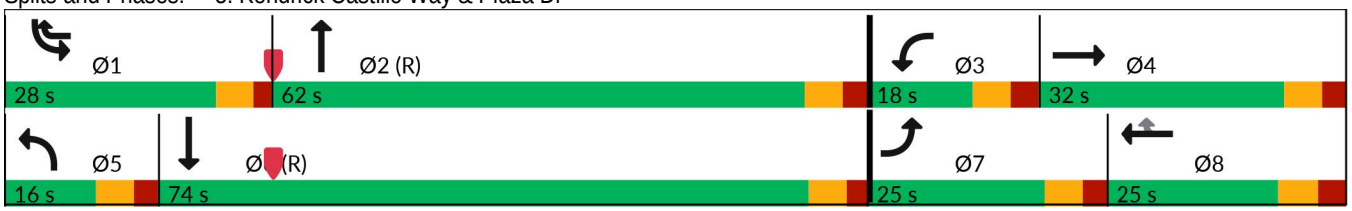
Notes

* 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

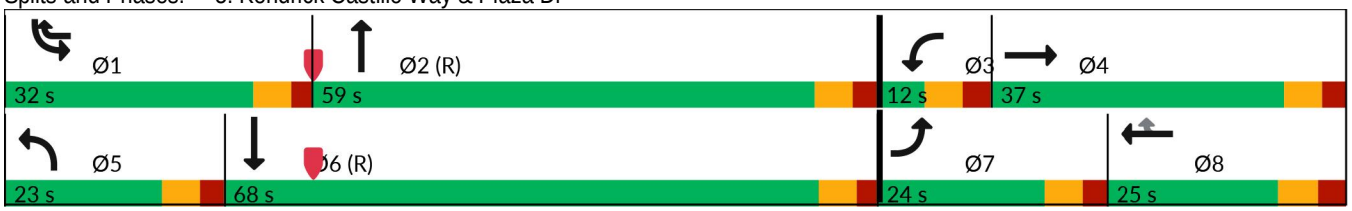
Notes

* 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

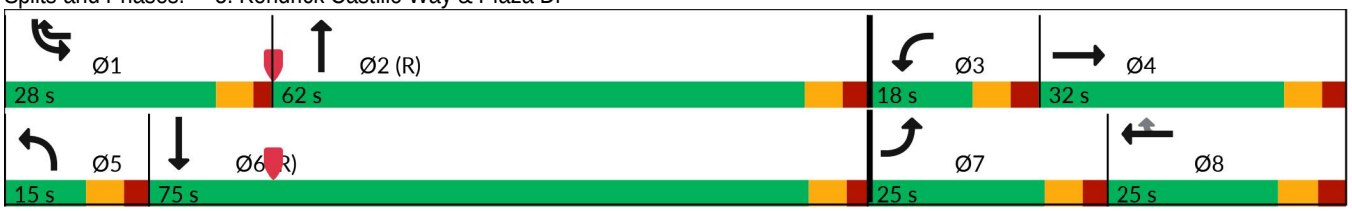
Notes

* 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

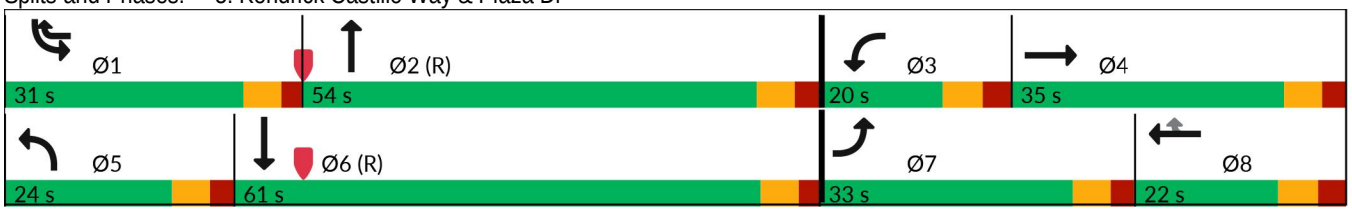
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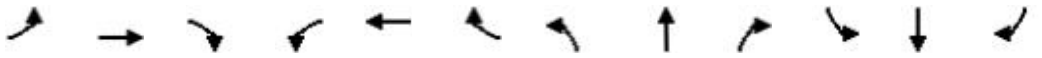
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

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

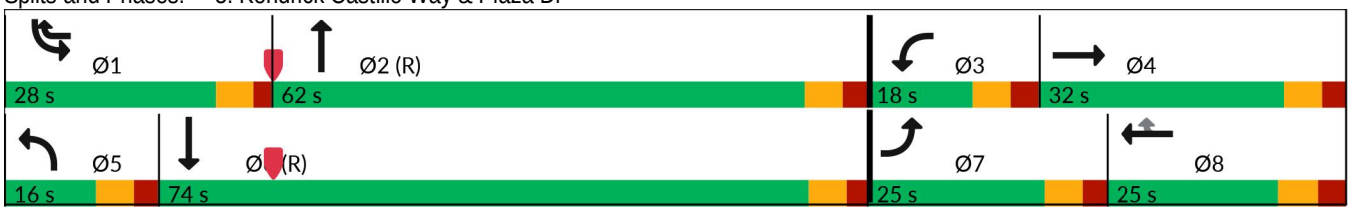
User approved pedestrian interval to be less than phase max green.

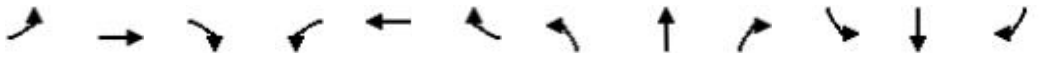
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

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

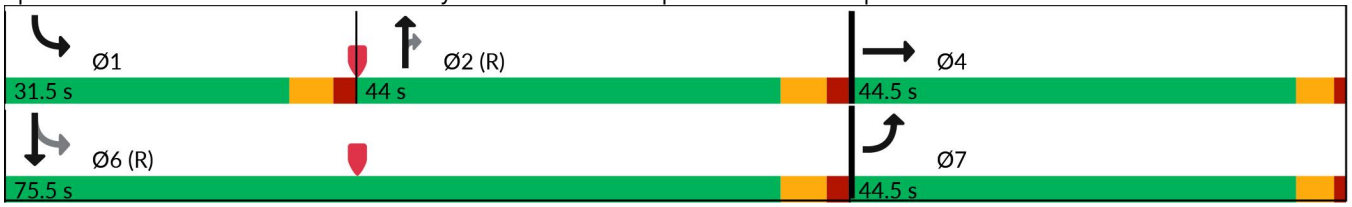
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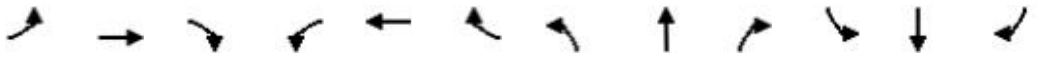
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

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

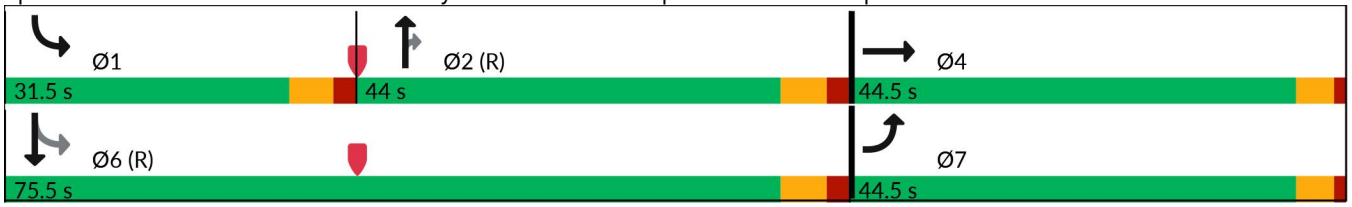
User approved volume balancing among the lanes for turning movement.

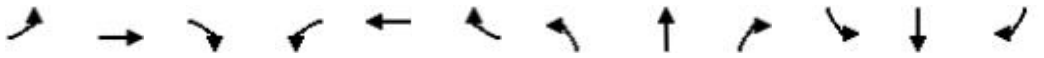
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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

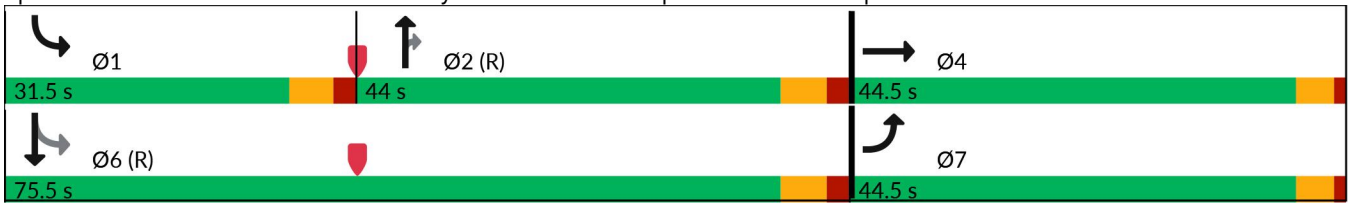
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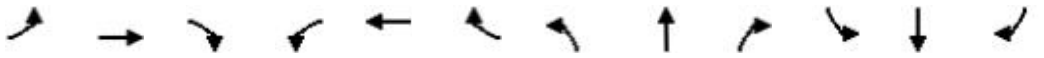
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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

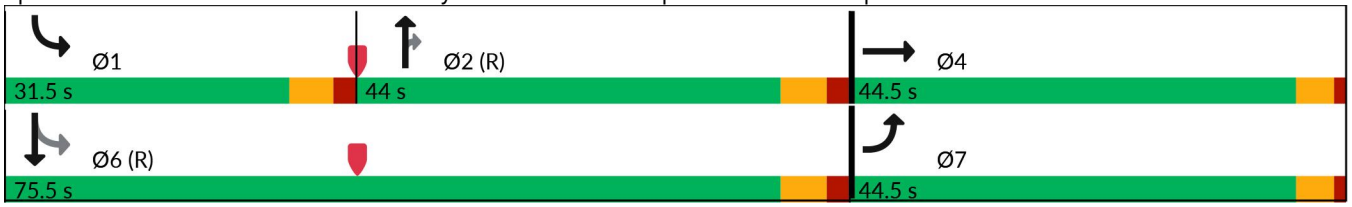
User approved volume balancing among the lanes for turning movement.

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

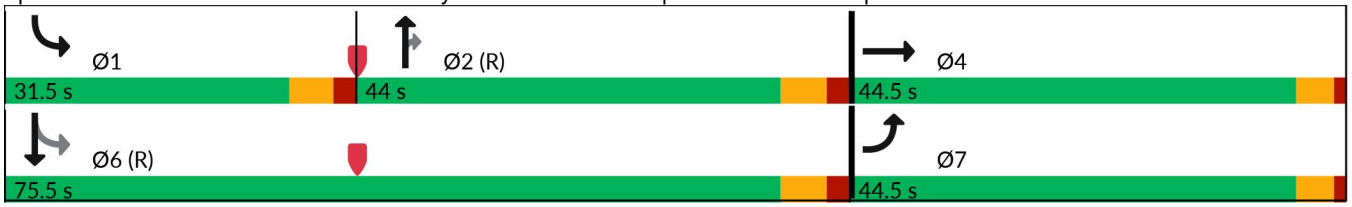
User approved volume balancing among the lanes for turning movement.

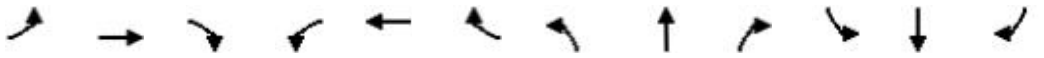
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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.

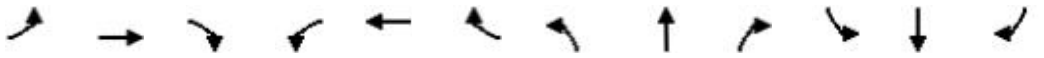
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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

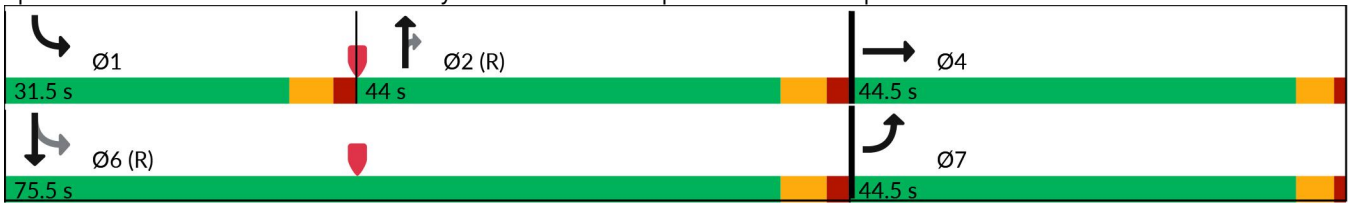
User approved volume balancing among the lanes for turning movement.

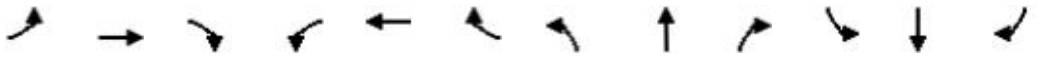
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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.

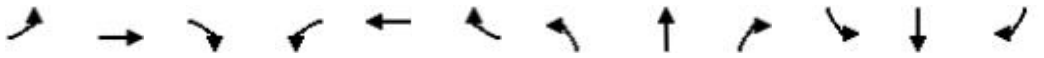
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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.

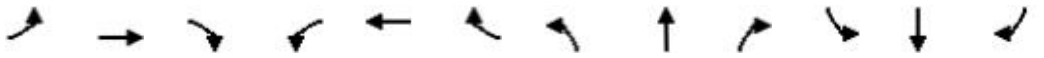
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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

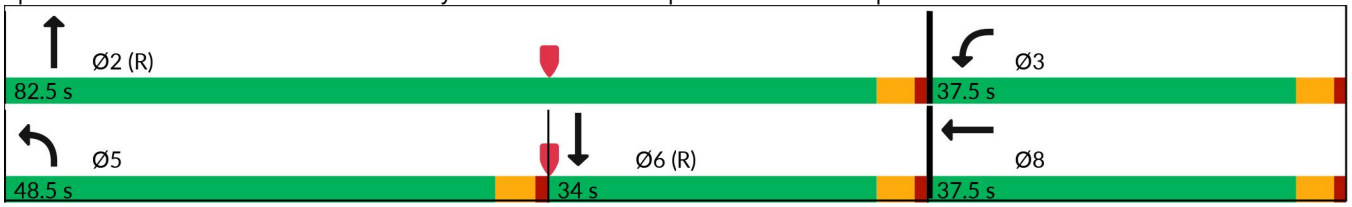
User approved volume balancing among the lanes for turning movement.

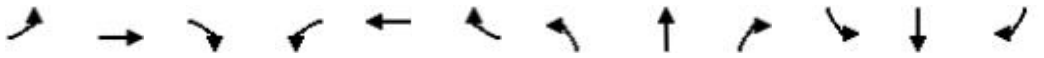
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

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

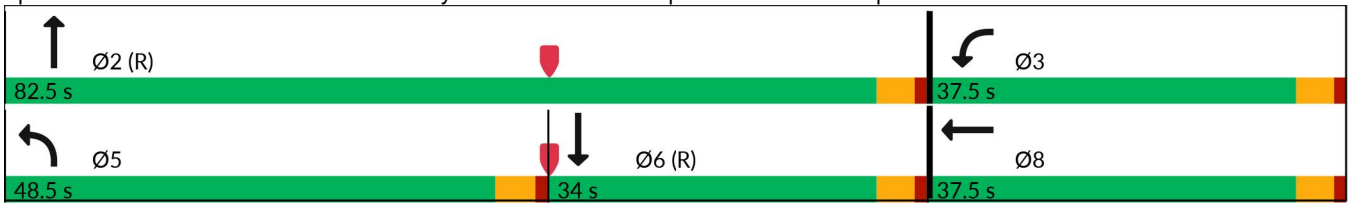
User approved volume balancing among the lanes for turning movement.

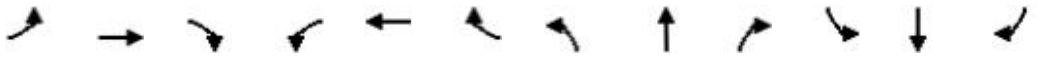
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

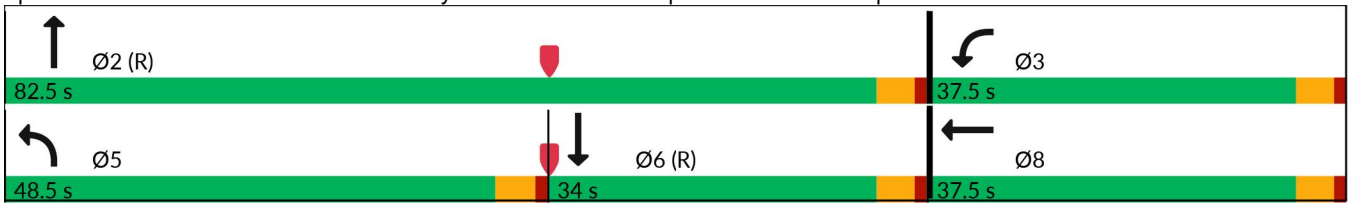
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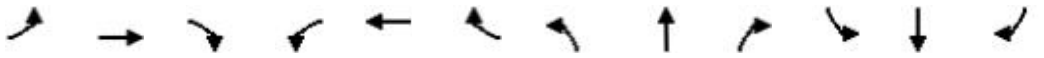
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

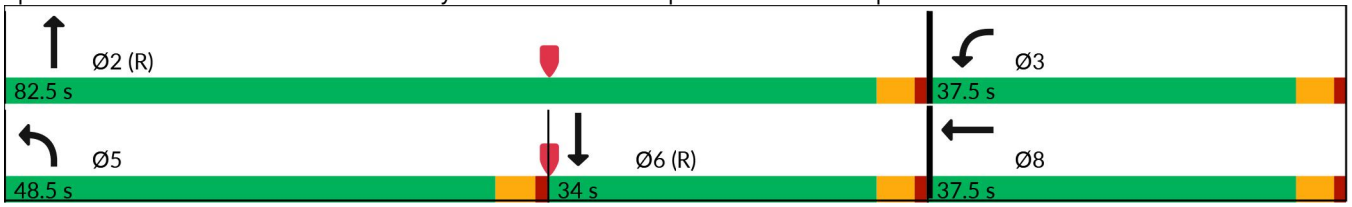
User approved volume balancing among the lanes for turning movement.

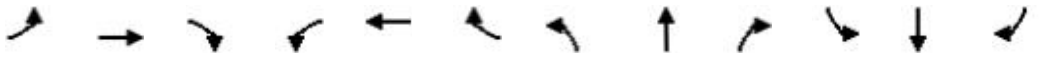
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

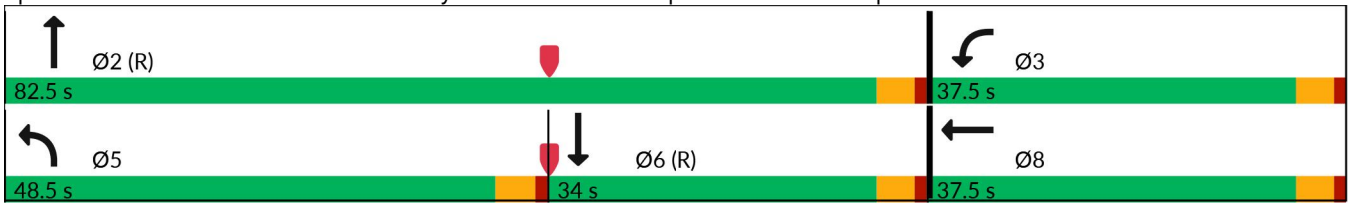
User approved volume balancing among the lanes for turning movement.

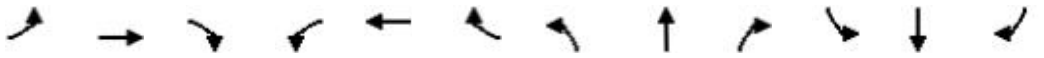
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

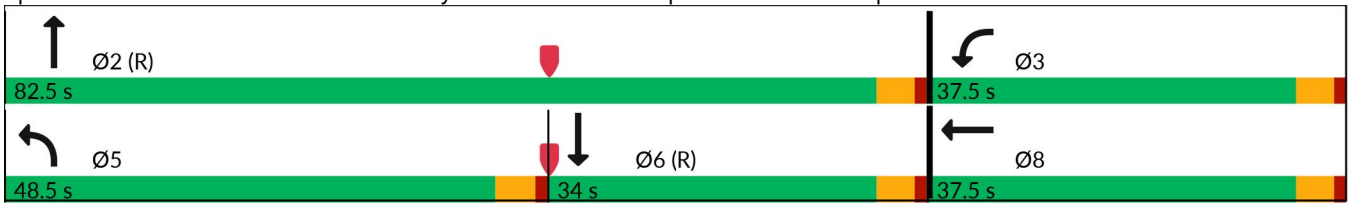
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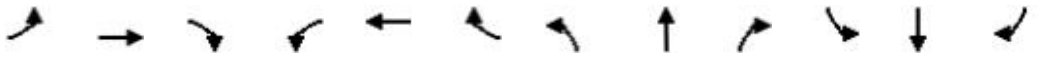
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

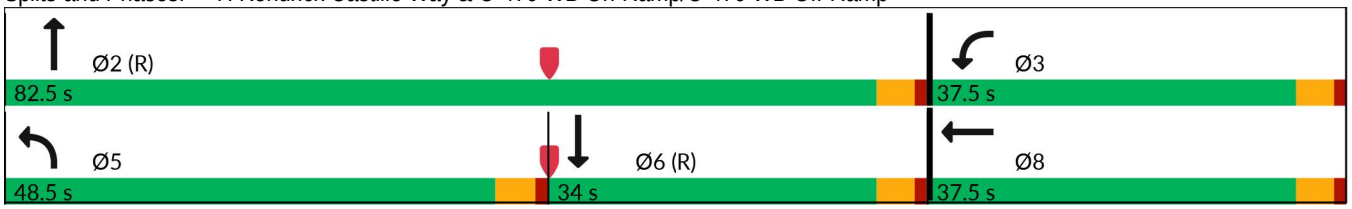
User approved volume balancing among the lanes for turning movement.

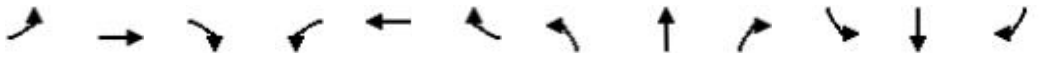
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

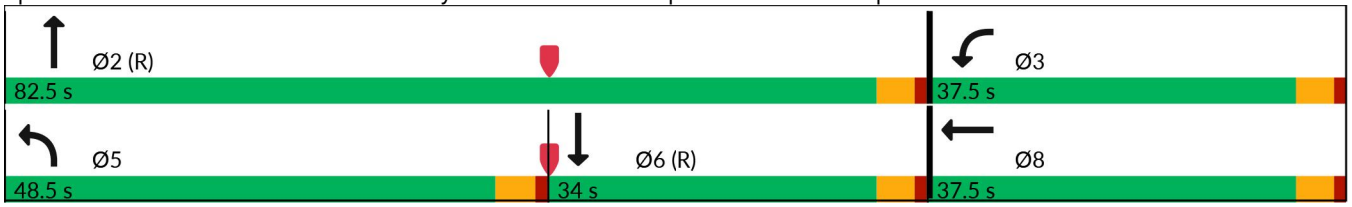
User approved volume balancing among the lanes for turning movement.

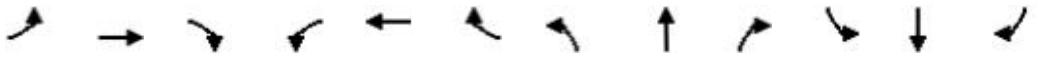
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

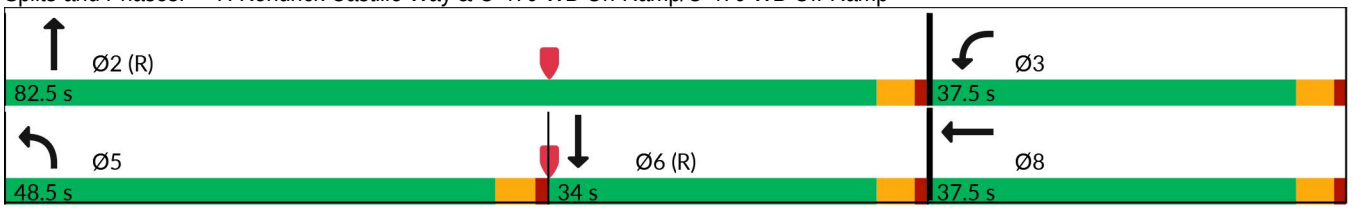
User approved volume balancing among the lanes for turning movement.

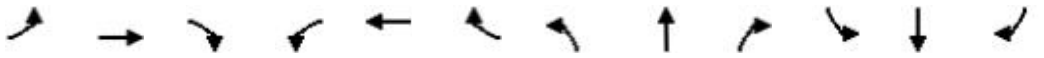
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

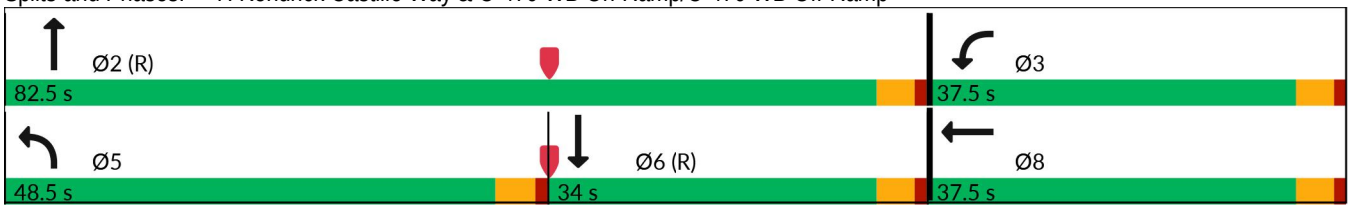
User approved volume balancing among the lanes for turning movement.

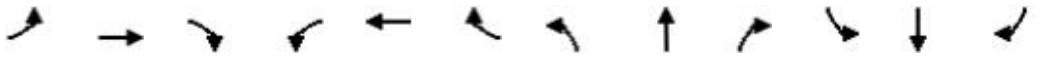
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

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

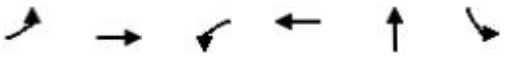
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	8	20	77	0	53
Future Vol, veh/h	0	8	20	77	0	53
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	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



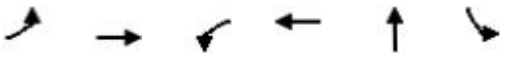
Lane Group	EBL	EBT	WBL	WBT	NBT	SBL
Lane Group Flow (vph)	19	1027	37	1106	117	183
v/c Ratio	0.06	0.44	0.10	0.46	0.31	0.82
Control Delay (s/veh)	7.2	13.1	9.9	15.7	13.4	72.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.2	13.1	9.9	15.7	13.4	72.9
Queue Length 50th (ft)	4	214	8	221	16	137
Queue 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.

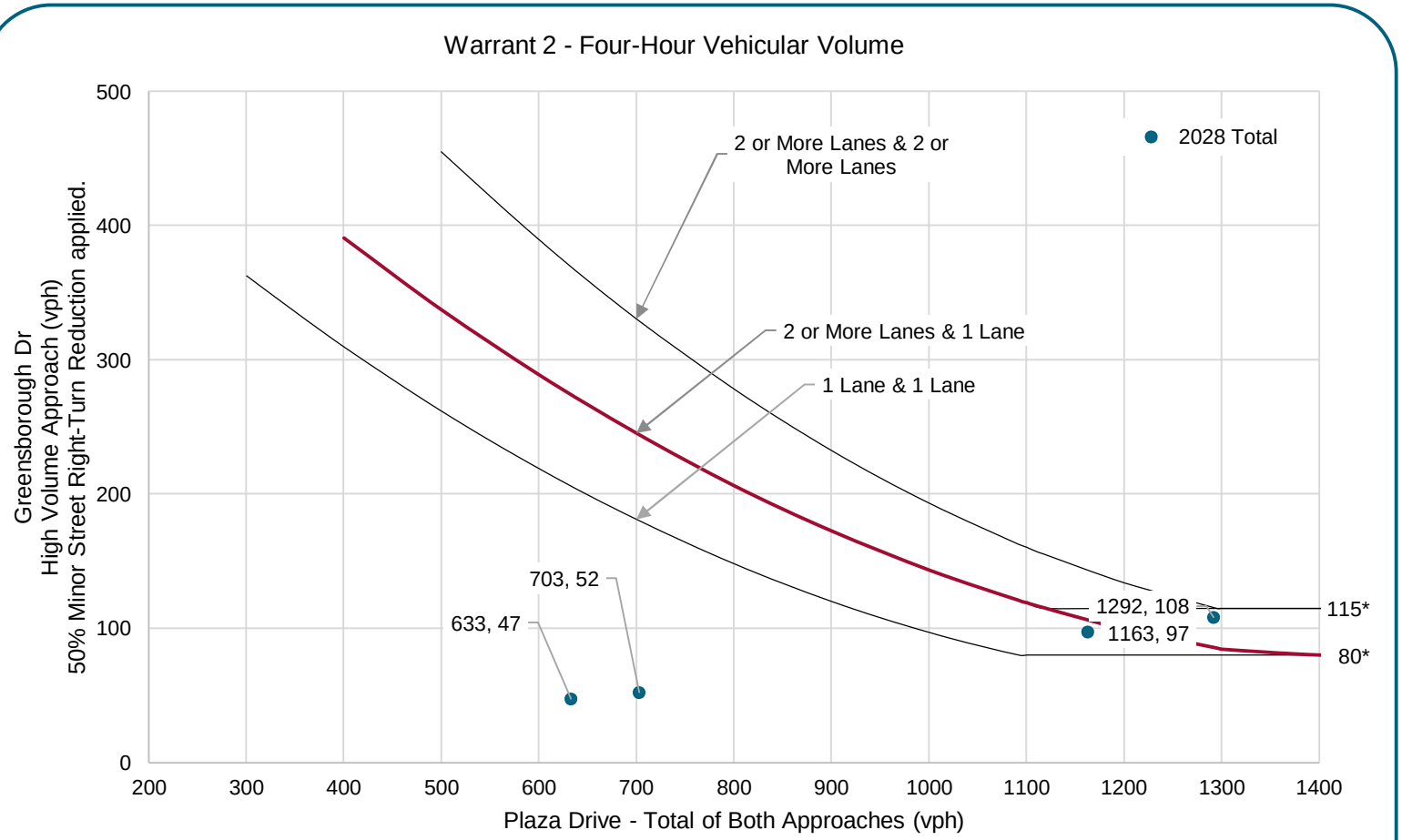


Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	389	390	109	1071	577	699	159
v/c Ratio	0.83	0.83	0.07	0.89	0.25	0.72	0.10
Control Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	56.8	56.8	0.1	73.1	8.7	45.4	0.1
Queue Length 50th (ft)	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

Highlands Ranch WATER

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.

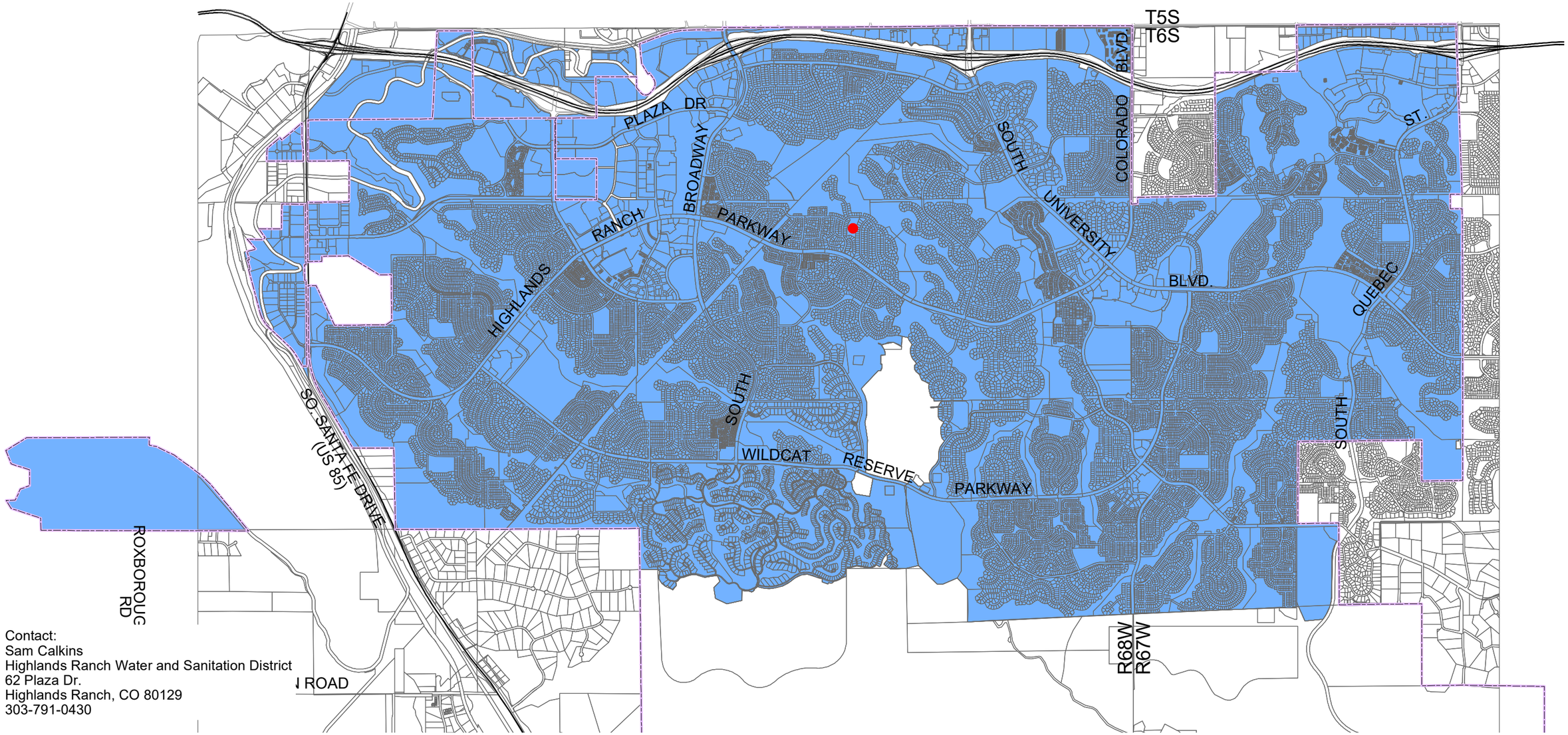
Sincerely,

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	Original	Change Case	Diligence/ Absolute Decrees					When next
Description	Decree	Decree	First	Second	Third	Fourth	Fifth/Sixth	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___.

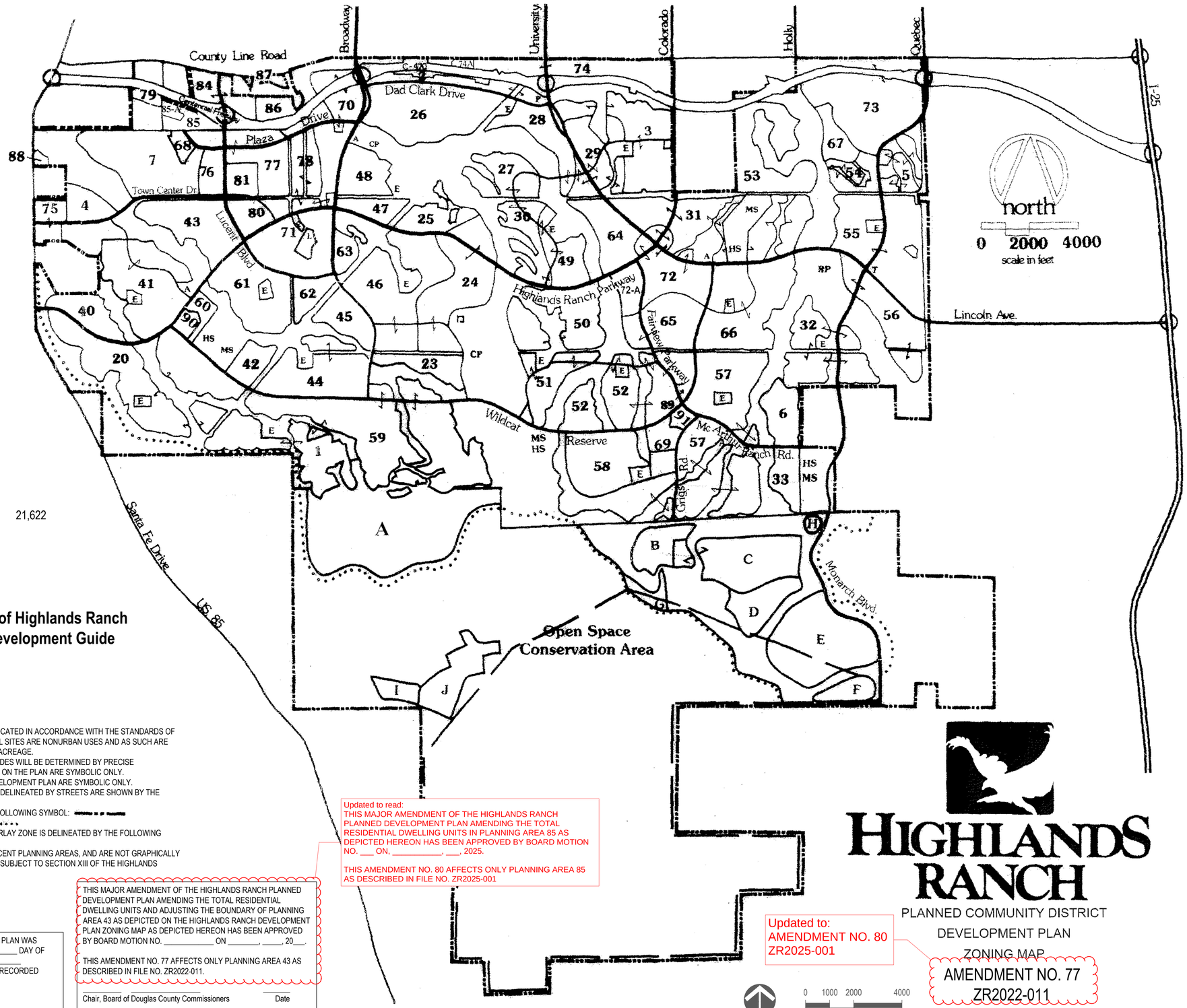
THIS AMENDMENT NO. 77 AFFECTS ONLY PLANNING AREA 43 AS DESCRIBED IN FILE NO. ZR2022-011.

_____ _____ _____
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



Updated to:
AMENDMENT NO. 80
ZR2025-001

HIGHLANDS RANCH

PLANNED COMMUNITY DISTRICT
DEVELOPMENT PLAN
ZONING MAP

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. _____.

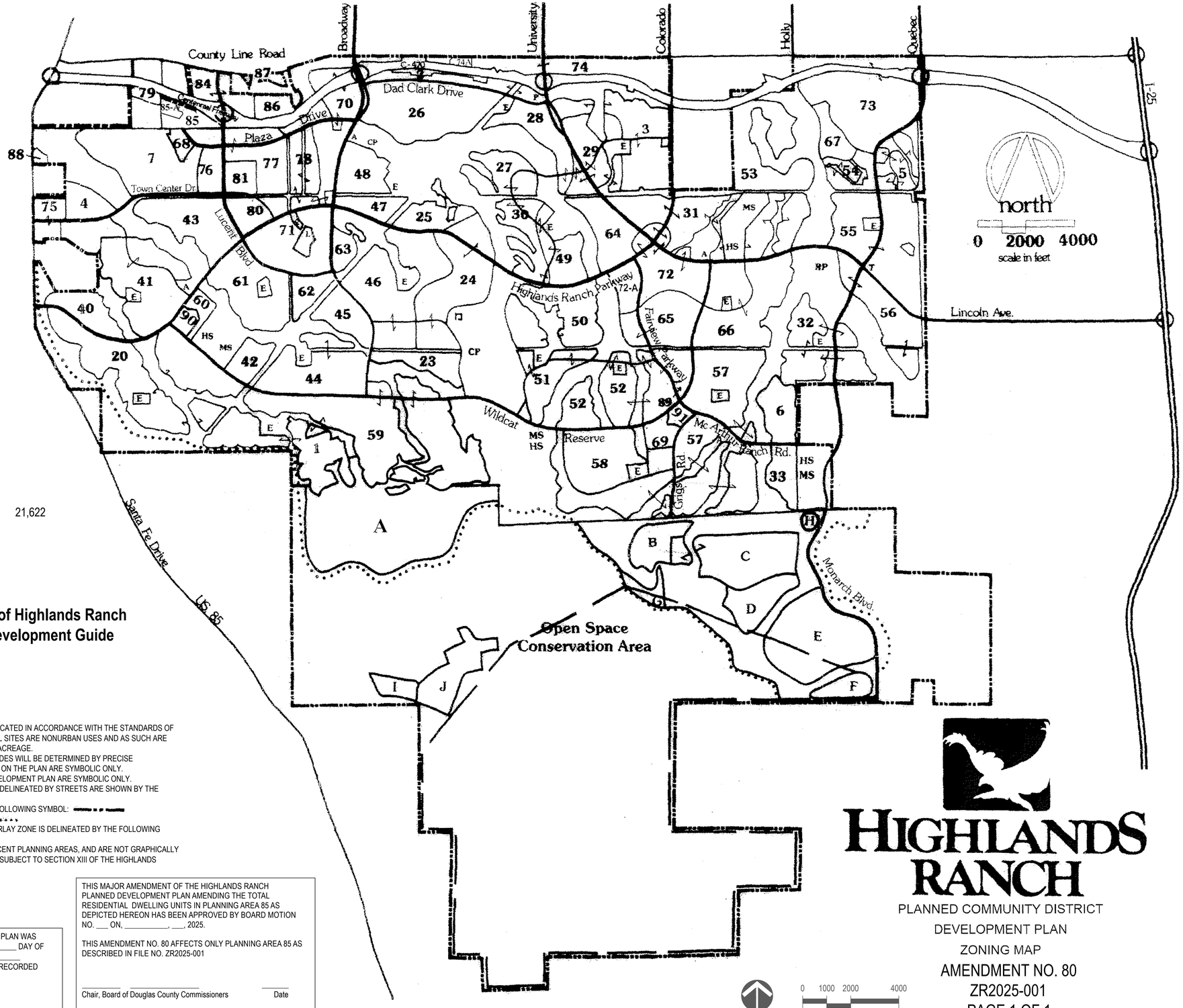
_____
Douglas County Clerk and Recorder

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

PLANNED COMMUNITY DISTRICT
DEVELOPMENT PLAN
ZONING MAP
AMENDMENT NO. 80
ZR2025-001
PAGE 1 OF 1

NORTH SCALE: 1" = 2000' (0 1000 2000 4000)

MEETING DATE: August 12, 2025

STAFF PERSON RESPONSIBLE: Ryan Bolger, Budget Analyst

DESCRIPTION: Resolution supplementing the 2025 Adopted Budget for the County of Douglas, Colorado to Recognize New Revenues received since Annual Budget Adoption, Appropriate Restricted, Committed, Assigned, and Unassigned Fund Balances in the Amount of $3,552,386.

SUMMARY: This resolution, through this 4th supplemental budget, amends fiscal year 2025 Adopted Budget by increasing appropriations for new revenues via grants and reimbursements not anticipated in the 2025 Adopted Budget, and appropriated restricted, committed, assigned and unassigned fund balance for new 2025 initiatives. The breakdown by fund is as follows:

$1,471,084	General Fund
$313,127	Road & Bridge Fund
$847,047	Health Department Fund
($829,600)	Transportation Infrastructure Sales & Use Tax Fund
$846,148	Justice Center Sales & Use Tax Fund
$150,000	Rueter-Hess Recreation Fund
$300,000	Parks and Open Space Sales & Use Tax Fund
$124,580	Waste Disposal Fund
$330,000	American Rescue Plan Act (ARPA) Fund
$3,552,386	Total

The total request for the fourth supplemental is $3,552,386. The new amended budget for Douglas County will be $729,057,613 or a 19.8% increase to the 2025 adopted budget.

The total supplemental requests to date are $120,432,478 / Adopted Budget $608,625,135 = 19.8%

Within the BOCC packet, all funding requests have been identified, along with funding sources and description / nature of expenditure. Additionally, fund summaries documenting the ability to absorb individual appropriations have been provided as well.

RECOMMENDED ACTION: Approve Attached Resolution

REVIEW:

Martha Marshall	Approve	7/29/2025
Jeff Garcia	Escalated	8/4/2025
Amy Williams	Approve	8/5/2025
Andrew Copland	Approve	8/7/2025
Doug DeBord	Approve	8/8/2025

ATTACHMENTS:

4th Supplemental Backup Docs

(ID # 3781)

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

Resolution supplementing the 2025 Adopted Budget for the County of Douglas, Colorado to Recognize New Revenues received since Annual Budget Adoption, Appropriate Restricted, Committed, Assigned, and Unassigned Fund Balances in the Amount of $3,552,386.

WHEREAS, the Board of County Commissioners adopted the 2025 annual County budget in accordance with Colorado law; and

WHEREAS, pursuant to section 29-1-109(1)(b), C.R.S., the Board of County Commissioners may authorize the expenditure of unanticipated revenues or revenues not assured at the time of the adoption of the budget by enacting a supplementary budget and appropriation; and

WHEREAS, notice of this supplemental appropriation has been published as provided by law and considered at a public meeting of the Board of County Commissioners held on Tuesday, August 12, 2025 at 100 Third Street, Castle Rock, Colorado, beginning at 2:30 PM or as soon thereafter as possible.

NOW, THEREFORE BE IT RESOLVED by the Board of County Commissioners of the County of Douglas, Colorado that the 2025 appropriations and budgets be supplemented as follows:

$1,471,084	General Fund
$313,127	Road & Bridge Fund
$847,047	Health Department Fund
($829,600)	Transportation Infrastructure Sales & Use Tax Fund
$846,148	Justice Center Sales & Use Tax Fund
$150,000	Rueter-Hess Recreation Fund
$300,000	Parks and Open Space Sales & Use Tax Fund
$124,580	Waste Disposal Fund
$330,000	American Rescue Plan Act (ARPA) Fund
$3,552,386	Total

PASSED AND ADOPTED this 12 day of August 2025, in Castle Rock, Douglas County, Colorado.

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

BY:

_____

ABE LAYDON, Chair

ATTEST:

_____

HAYLEY HALL, Clerk to the Board

Supplemental Appropriation - 2025 Budget Amendment

Resolution No. #04-25

For Adoption on August 12, 2025

Department (Division)	Source of Funding	Briefing Date to BOCC	Requested Expenditure Amount	New Revenue Received	Use of Fund Balance		Description / Nature of Expenditure
GENERAL FUND - 100							
Community Development - (Historic Preservation - 55400)	New Revenues		$2,915	$2,915	$0	A	**$2,915 -** New revenues received from Cherokee Ranch and Castle in accordance with the curation agreement. These funds are for the Douglas County History Repository for preservation and accessibility of the archaeological collection.
Community Services - (DRCOG Faster Grant - 802029)	New Revenues	07/09/24	$30,249	$31,267	($1,018)	A	**$31,267** - New revenues via grant funding for the grant period 7/1/24 through 6/30/25. The DRCOG Faster Grant is a program that provides mobility management and transportation service for older adults and people with disabilities in Douglas County. Due to the time of invoicing and reimbursements, Douglas County fronted $1,018 in 2024 expenditures, therefore, fund balance will be replenished at this time.
Community Services - (Community Services Block Grant Option #9 - 861549)	New Revenues	03/26/24	$60,863	$60,863	$0	A	**$60,863** - New revenues via grant funding for the grant period 1/1/25 through 9/30/27 for Option #9. The Community Service Block grant is a program administered by the Department of Labor and Affairs. The aim of the grant is to alleviate the causes and conditions of poverty locally. The funding can be used for rental assistance, case management, support for the street outreach team, minor car repair, employment supplies, and emergency shelter.
Community Services - (Homeless Initiative - 16600)	New Revenues		$2,500	$2,500	$0	A	**$2,500 -** New revenues have been received from the Douglas County Community Foundation via donations from various residents through the Handouts Don't Help campaign. These funds will continue to support the ongoing efforts of the HEART team as they work with those individuals who are unhoused in Douglas County.
Sheriff - (Crime Lab / Evidence - 23200)	New Revenues		$12,910	$12,910	$0	A	**$12,910 -** New revenues to be received from the from the sale of seized property. These funds will be used for the purchase of a new laptop for the Cellbrite application. The laptop and software are for downloading electronic data for case investigations that have cellphone, tablets, computer, etc. as a component of the case.
Sheriff - (Jail Basaed Behavior Incentives - 861051)	Restricted Fund Balance		$31,647	$0	$31,647	B	**$31,647 -** Restricted fund balance is being requested to be carried forward into fiscal year 2025. All funding will be from the Department of Human Services, Office of Behavioral Health for Jail Based Behavioral Health Services (JBBS), for the expenditures related to the inmate re-entry services to include: mental health counseling, substance abuse counseling, and competency enhancement. All funds must be used for Jail Based Behavior Incentives program expenditures
Building - (Colorado Strategic Wildfire Program - 890105)	New Revenues	10/22/24	$1,330,000	$1,330,000	$0	A	**$1,330,0000 -** $1,000,0000 New revenues to be received from the Colorado Strategic Wildfire Program (COSWAP) for the grant period September 16, 2024 through August 31, 2027 with a County match of $330,000 (transferred from the ARPA Fund). An additional $150,000 will be contributed through the Douglas County Open Space fund and will be managed through fund 250. The program aims to perform wildfire mitigation. The program scope of work includes DC Open Space - Schmidt Forest Restoration covering an estimated 120 acers and Jackson Creek Road Landowner collaboration covering an estimated 150 acres.
TOTAL GENERAL FUND			***$1,471,084***	***$1,440,455***	***$30,629***		
					$1,440,455	***A***	***New Revenues***
					$30,629	***B***	***Prior Year Fund Balance***

**** The new amended budget for the General Fund is $242,555,318.***

ROAD AND BRIDGE FUND - 200

Maintenance of Condition - 31400	New Revenues		$92,277	$92,277	$0	A	**$92,277** - New revenues received from the Chatfield Reservoir Mitigation Company for dust control/soil stabilization and culvert cleaning performed by Douglas County in 2025. The reimbursement funds will be used to offset materials and labor used to perform work.
Maintenance of Condition - 31400	New Revenues		$18,572	$18,572	$0	A	**$18,572** - New revenues received for Roxborough road base reimbursement for work provided by Douglas County in 2025. The reimbursement funds will used to offset materials and labor used to perform work.
Maintenance of Condition - 31400	New Revenues		$2,278	$2,278	$0	A	**$2,278** - New revenues from the Larkspur Fire Protection District for culvert maintenance work performed by Douglas County in 2025. The reimbursement funds will used to offset materials and labor used to perform work.
CIP - (Crowfoot Valley Rd Improvement - 801012)	New Revenues		$200,000	$200,000	$0	A	**$200,000** - New revenues received from Canyons South Filing 1 developer's contributions. The contribution funds will be used for traffic signal improvements at the intersection of Macanta Ave and Crowfoot Valley Road.
TOTAL ROAD & BRIDGE FUND			***$313,127***	***$313,127***	***$0***		

**** The new amended budget for the Road & Bridge Fund is $87,810,315.***

Supplemental Appropriation - 2025 Budget Amendment

Resolution No. #04-25

For Adoption on August 12, 2025

Department (Division)	Source of Funding	Briefing Date to BOCC	Requested Expenditure Amount	New Revenue Received	Use of Fund Balance	Description / Nature of Expenditure
DC HEALTH DEPARTMENT FUND - 217						
Douglas County Health Department - (Maternal & Child Health - 861456)	New Revenues	BOH 10/3/24	$162,240	$162,240	$0	**$162,240** - New revenues for the unspent grant funding from 2024 needs to be appropriated for additional spending authority. The Maternal and Child Health grant is federally funded and address priorities such as prenatal care, infant mortality reduction, child development, and access to healthcare services. The reporting grant cycle is 10/1/24 through 9/30/25.
Douglas County Health Department - (OPHP - CRI Cities Readiness Init - 861454)	New Revenues	BOH 7/13/23	$63,173	$63,173	$0	**$63,173** - New revenues from the Centers for Disease Control and Prevention for grant period July 1, 2024 thru June 30, 2025. The purpose of the grant is to support public health departments with upgrading their ability to effectively respond to a range of public health threats, including infectious diseases, natural disasters, and biological, chemical, nuclear and radiological events.
Douglas County Health Department - (E & E Child Care Grant Program - 861616)	New Revenues	BOH 07/18/24	$27,269	$27,269	$0	**$27,269 -** New revenues to be received for the Expansion and Enhancement of Child Care grant period June 1, 2023 through December 30, 2026. The program is designed to increase the availability, affordability, and qualify of childcare services, particularly in underserved areas.
Douglas County Health Department - (Early Childhood Council CCD - 861626)	New Revenues	BOH 12/19/24	$29,446	$29,446	$0	**$29,446** - New revenues to be received from the Colorado Department of Early Childhood in amendment #9 for grant period July 1, 2024 through June 30, 2025. The System Builder grant aims to help organizations or communities develop and strengthen systems that support long-term sustainable improvements in services and outcomes. The program focuses on enhancing infrastructure, capacity, and processes that improve service delivery in areas such as public health, education, social services, or early childhood development.
Douglas County Health Department - (Early Childhood Council CRRSA - 861627)	New Revenues	BOH 10/3/24	$71,339	$71,339	$0	**$71,339 -** New revenues received from the Colorado Department of Early Childhood in amendment #9 for grant period July 1, 2024 through June 30, 2025. The Early Childhood Council CSQI (Colorado Shines Quality Improvement) grant supports initiatives aimed at improving the quality of early childhood education and care through community-based efforts. The CSQI grant focuses on strengthening programs, improving service delivery, and promoting equitable access to high-quality early childhood education.
Douglas County Health Department - (Early Childhood Council PDG - 861624)	New Revenues	BOH 10/3/24	$50,435	$50,435	$0	**$50,435 -** New revenues received from the Colorado Department of Early Childhood in amendment #9 for grant period July 1, 2024 through June 30, 2025. The EQIT GAE (Equity in Quality Improvement and Grants for Access and Equity) grant is designed to support initiatives aimed at improving the quality of services while promoting equity and access, particularly in underrepresented or underserved communities. It supports projects that address disparities in service delivery, whether in education, health, childcare, or community services
Douglas County Health Department - (WIC - 861451)	New Revenues	BOH 10/3/24	$407,726	$407,726	$0	**$407,726** - New revenues from the Colorado Department of Public Health for the unspent grant funding from 2024 and 2025 need to be appropriated for additional spending authority. The Women, Infants, and Child (WIC) program provides nutrition assistance, healthy food, breastfeeding support, and referrals to healthcare and social services for low-income pregnant, postpartum, and breastfeeding women, as well as infants and children up to age five. The reporting grant cycle is 7/1/24 through 6/30/25.
Douglas County Health Department - (E&E GAE - 861618)	New Revenues	BOH 10/3/24	$35,419	$36,703	($1,284)	**$36,703** - New revenues received from the Colorado Department of Early Childhood for unspent grant funding from 2024 needs to be appropriated for additional spending authority. The Emerging and Expanding Child Care Grant Program (EECCG) focus on expanding access and availability of licensed childcare throughout the state. The funding maybe used for cost associated with expanding an open and operating childcare center for family childcare home. Grant period January 1, 2024 through December 31, 2026. Due to the time of invoicing and reimbursements, Douglas County fronted $1,284 in 2024 expenditures, therefore, fund balance will be replenished by that amount at this time.
TOTAL DC HEALTH DEPARTMENT FUND			***$847,047***	***$848,331***	***($1,284)***	

**** The new amended budget for the DC Health Department Fund is $4,857,715.***

TRANSPORTATION INFRASTRUCTURE SALES & USE TAX FUND - 235						
CIP - (C470 Trail over University) - 801507	Reduce Revenues	09/20/22	($829,600)	($829,600)	$0 A	($829,600) - A reduction of revenues with a like amount of expenditures is being requested at this time in the C470 Trail over University capital improvement project. The construction bid came in lower than expected, therefore the Colorado Department of Transportation revenues will be reduced. The proposed C-470 trail bicyclist/pedestrian bridge would replace the existing at grade configuration, which currently requires bicyclists/pedestrians to make four separate roadway crossings totaling eight lanes of traffic.
TOTAL TRANSPORTATION INFRASTRUCTURE SALES & USE TAX FUND FUND			***($829,600)***	***($829,600)***	***$0***	

**** The new amended budget for the Transportation Infrastructure Sales and Use Tax Fund is $55,209,817.***

Supplemental Appropriation - 2025 Budget Amendment

Resolution No. #04-25

For Adoption on August 12, 2025

Department (Division)	Source of Funding	Briefing Date to BOCC	Requested Expenditure Amount	New Revenue Received	Use of Fund Balance		Description / Nature of Expenditure
JUSTICE CENTER SALES & USE TAX FUND - 240							
EOC Improvements - 870070	Restricted Fund Balance		$250,000	$0	$250,000	B	**$250,000** - Restricted fund balance is being requested for critical upgrades to the Emergency Operations Center (EOC) at the Justice Center. Upgrades include a full refresh of the A/V infrastructure that will enable the EOC to efficiently support critical emergency response coordination.
Simulcast Project - 870053	New Revenues	06/10/25	$596,148	$596,148	$0	A	**$596,148** - New revenues to be received from the Douglas County 911 Authority Board (DCECA) for additional work needed to complete the Decker's tower project. The USFS & National Fish & Wildlife has required the completion of a full NEPA environmental study and additional civil construction services.
TOTAL JUSTICE CENTER SALES & USE TAX FUND			***$846,148***	***$596,148***	***$250,000***		
**** The new amended budget for the Justice Center Sales & Use Tax Fund is $35,252,324.***							
RUETER-HESS RECREATION AREA FUND - 245							
Safety Boat - 47100	Restricted Fund Balance	07/23/24	$150,000	$0	$150,000	B	**$150,000** - Restricted fund balance is being requested for a safety boat to enable staff to assist visitors in stressful or dangerous situations, as well as maintain docks and buoy lines.
TOTAL RUETER-HESS RECREATION AREA FUND			***$150,000***	***$0***	***$150,000***		
**** The amended budget for the Rueter-Hess Recreation Area Fund is $1,693,935 .***							
PARKS & OPEN SPACE SALES & USE TAX FUND - 250							
Parks - High Note Regional Park - 850832	Restricted Fund Balance	04/23/24	$300,000	$0	$300,000		**$300,000 -** Restricted fund balance is being requested for the County's contribution to the design and development of High Note Regional Park in Lone Tree. The large scale and complexity of this project required significant time for planning, design and coordination; therefore Douglas County's planned 2024 contribution to the project was delayed until 2025.
TOTAL OPEN SPACE SALES & USE TAX FUND			***$300,000***	***$0***	***$300,000***		
**** The new amended budget for the Parks and Open Space Sales & Use Tax Fund is $13,515,254.***							
SOLID WASTE DISPOSAL FUND - 275							
Solid Waste Disposal Fund - 32500	New Revenues		$124,580	$124,580	$0		**$124,580** - New revenues have been received from various entities for the Household Hazardous Waste program. These funds will be used to offset the continued cost of the Household Hazardous Waste Program; which continues to provide curbside pickup throughout Douglas County.
TOTAL SOLID WASTE DISPOSAL FUND			***$124,580***	***$124,580***	***$0***		
**** The new amended budget for the Solid Waste Fund is $234,580.***							
AMERICAN RESCUE PLAN ACT FUND - 296							
American Rescue Plan Act	Committed Fund Balance		$330,000	$330,000	$0		**$330,000 -** New revenues derived from accrued interest is being transferred to the General Fund as the cash match portion of the Colorado Strategic Wildfire Program - 890105. This grant will provide assistance to Douglas County to perform wildfire mitigation, advance the clean water initiative, and restore forest conditions to more historic standards.
TOTAL AMERICAN RESCUE PLAN ACT FUND			***$330,000***	***$330,000***	***$0***		
**** The new amended budget for the American Rescue Plan Act Fund is $50,356,715.***							
TOTAL ALL FUNDS - 2025 SUPPLEMENTAL			***$3,552,386***	***$2,823,041***	***$729,345***		

Funds	2025 Adopted Budget	#25-01 Amended (3/25/25)	#25-02 Amended (4-22-25)	#25-03 Amended (6-24-25)	#25-04 Amended (8-12-25)	#25-05 Amended	Total Amended Budget	% Change Adopted Budget
Revenues								
100 General	185,131,875		8,455,835	1,120,596	1,440,455		196,148,761	6.0%
200 Road & Bridge	67,268,000			363,367	313,127		67,944,494	1.0%
210 Human Services	58,420,423						58,420,423	0.0%
215 Developmental Disabilities	9,103,800						9,103,800	0.0%
217 DC Health Department	1,201,239			79,612	848,331		2,129,182	100.0%
220 Law Enforcement Authority	31,559,800		7,301				31,567,101	0.0%
221 Safety and Mental Health	7,823,600						7,823,600	100.0%
223 District Attorney JD23	1,719,211		269,204	500,000			2,488,415	44.7%
225 Infrastructure Fund	0						0	0.0%
230 Road Sales & Use Tax	46,245,200		532,414				46,777,614	1.2%
235 Transportation Infrastructure Sales & Use Tax	20,420,400			5,120,000	(829,600)		24,710,800	21.0%
240 Justice Center Sales & Use Tax	27,828,250				596,148		28,424,398	2.1%
245 Rueter-Hess Recreation	702,000						702,000	100.0%
250 Parks and Open Space Sales & Use Tax	19,229,209			728,627			19,957,836	3.8%
260 Conservation Trust	1,700,000						1,700,000	0.0%
265 Lincoln Station Sales Tax Improvement	50,000						50,000	0.0%
275 Waste Disposal	85,000				124,580		209,580	146.6%
280 Woodmoor Mountain	39,820						39,820	0.0%
295 Rocky Mountain HIDTA	1,104,204			2,510,868			3,615,072	227.4%
296 American Rescue Plan Act (ARPA)	0			41,963,026	330,000		42,293,026	100.0%
297 Property Tax Relief	0						0	0.0%
330 Capital Expenditures	0		3,300,000	135,000			3,435,000	0.0%
350 LID Capital Construction	85,200			1,461,565			1,546,765	1715.5%
390 Capital Replacement	0						0	0.0%
410 Debt Service	0						0	0.0%
620 Employee Benefits Self-Insurance	2,569,900						2,569,900	0.0%
630 Liability and Property Self-Insurance	4,057,690						4,057,690	0.0%
640 Medical Insurance Self-Insurance	32,594,940						32,594,940	0.0%
Total All Funds	**518,939,761**	**0**	**12,564,754**	**53,982,661**	**2,823,041**	**0**	**588,310,217**	**13.4%**

	2025 Adopted Budget	#25-01 Amended (3/25/25)	#25-02 Amended (4-22-25)	#25-03 Amended (6-24-25)	#25-04 Amended (8-12-25)	#25-05 Amended	Adjustments	Total Amended Budget	% Change
Expenditures									
100 General	190,516,889	3,297,839	19,325,150	1,087,815	1,471,084			215,698,777	13.2%
200 Road & Bridge	79,987,699	4,689,973		2,378,695	313,127			87,369,494	9.2%
210 Human Services	62,713,834	11,233						62,725,067	0.0%
215 Developmental Disabilities	9,103,800			581,088				9,684,888	6.4%
217 DC Health Department	3,872,956	58,100		79,612	847,047			4,857,715	100.0%
220 Law Enforcement Authority	39,489,850	507,604	7,301					40,004,755	1.3%
221 Safety and Mental Health	7,930,644	39,067		507,454				8,477,165	6.9%
223 District Attorney JD23	14,299,382		269,204	500,000				15,068,586	5.4%
225 Infrastructure Fund	416,637		3,346,322					3,762,959	803.2%
230 Road Sales & Use Tax	98,426,935		532,414	3,769,359				102,728,708	4.4%
235 Transportation Infrastructure Sales & Use Tax	45,028,159		4,256,425	6,254,833	(829,600)			54,709,817	21.5%
240 Justice Center Sales & Use Tax	3,424,547	2,633,472	619,007		846,148			7,523,174	119.7%
245 Rueter-Hess Recreation	1,183,935		360,000		150,000			1,693,935	100.0%
250 Parks and Open Space Sales & Use Tax	7,854,494	2,416,228	1,976,523	718,009	300,000			13,265,254	68.9%
260 Conservation Trust	2,750,000	401,304						3,151,304	0.0%
265 Lincoln Station Sales Tax Improvement	50,000							50,000	0.0%
275 Waste Disposal	110,000				124,580			234,580	113.3%
280 Woodmoor Mountain	127,590							127,590	0.0%
295 Rocky Mountain HIDTA	1,079,304			2,510,868				3,590,172	232.6%
296 American Rescue Plan Act (ARPA)	0	2,401,507		47,625,208	330,000			50,356,715	100.0%
297 Property Tax Relief	0							0	0.0%
330 Capital Expenditures	1,033,450	98,307	2,000,000	135,000				3,266,757	216.1%
350 LID Capital Construction	2,500			1,461,565				1,464,065	58462.6%
390 Capital Replacement								0	0.0%
410 Debt Service								0	0.0%
620 Employee Benefits Self-Insurance	2,569,900							2,569,900	0.0%
630 Liability and Property Self-Insurance	4,057,690	23,606						4,081,296	0.6%
640 Medical Insurance Self-Insurance	32,594,940							32,594,940	0.0%
Total All Funds	**608,625,135**	**16,578,240**	**32,692,346**	**67,609,506**	**3,552,386**	**0**		**729,057,613**	**19.8%**

Detailed explanations for each supplemental budget can be found at http://www.douglas.co.us/finance/ under the section titled "Budget Division".

General Fund (Fund 100)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	**_Beginning Fund Balance_**	**$ 56,512,945**	**$ 35,180,366**	**$ 51,413,343**	**$ 51,413,343**	**$ 33,288,064**	**$ 59,743,136**
	Revenues						
2	*Taxes*	$ 98,407,099	$ 113,918,975	$ 113,918,975	$ 152,473,030	$ 139,056,500	$ 139,056,500
3	*Licenses and Permits*	9,679,154	7,775,825	7,775,825	8,972,885	8,481,700	8,481,700
4	*Intergovernmental*	5,862,577	510,750	14,727,983	7,429,909	1,986,750	1,986,750
5	*Charges for Services*	24,626,121	25,579,950	26,065,950	29,242,934	26,294,425	26,294,425
6	*Fines and Forfeits*	122,994	125,400	125,400	181,520	156,200	156,200
7	*Earnings on Investments*	11,076,365	7,250,000	7,250,000	16,464,980	6,500,000	6,500,000
8	*Donations and Contributions*	222,720	260,000	260,075	506,245	260,000	260,000
9	*Other Revenues*	8,288,447	579,400	1,976,940	7,759,701	2,396,300	2,396,300
	Transfers In:						
10	*Capital Replacement Fund*	372,000	990,000	990,000	990,000	603,000	603,000
11	*Road & Bridge Fund*	1,532,000	107,000	107,000	107,000	440,821	440,821
12	*Transportation Fund*	0	500,000	500,000	500,000	500,000	500,000
13	*Justice Center Sales Tax Fund*	28,050,540	27,452,725	27,452,725	26,663,462	27,729,150	27,729,150
14	*Road Sales Tax Fund-Engineering Svc*	500,000	750,000	750,000	750,000	750,000	750,000
15	*RMHIDTA*	24,900	24,900	24,900	24,900	24,900	24,900
16	*Liability and Property Insurance Fund*	858,537	0	0	0	0	0
17	*LID Capital Construction Fund*	0	744,000	894,000	894,000	85,000	85,000
18	*Medical Self-Insurance Fund*	0	0	0	0	2,000,000	2,000,000
19	*Total Transfers In*	*31,337,977*	*30,568,625*	*30,718,625*	*29,929,362*	*32,132,871*	*32,132,871*
20	*Supplemental #2 (04-22-25)*						*8,455,835*
21	*Supplemental #3 (06-24-25)*						*1,120,596*
22	*Supplemental #4 (08-12-25)*						*1,440,455*
23	**_Total Revenues and Transfers In_**	**$ 189,623,453**	**$ 186,568,925**	**$ 202,819,773**	**$ 252,960,567**	**$ 217,264,746**	**$ 228,281,632**
	Expenditures by Function						
24	*Personnel*	$ 118,555,703	$ 122,109,050	$ 127,573,763	$ 125,326,367	$ 133,829,689	$ 133,829,689
25	*Supplies*	7,616,538	7,578,947	7,714,278	7,887,968	7,638,134	7,638,134
26	*Controllable Assets*	425,284	742,378	762,877	407,675	1,180,378	1,180,378
27	*Purchased Services*	43,865,270	49,192,374	65,197,268	45,546,785	34,880,662	34,880,662
28	*Building Materials*	13,870	0	500	346	0	0
29	*Fixed Charges*	8,105,281	9,661,624	10,558,129	48,760,565	12,186,225	12,186,225
30	*Debt Service*	4,650,882	0	0	5,725,972	0	0
31	*Grants and Contributions*	3,404,403	801,470	2,723,578	2,355,684	986,470	986,470
32	*Intergovernmental Support*	541,108	601,338	614,238	592,929	603,548	603,548
33	*Interdepartmental Charges*	(9,600,975)	(9,281,849)	(9,281,849)	(11,547,502)	(11,494,167)	(11,494,167)
34	*Capital Outlay*	4,742,079	42,650	1,105,115	4,646,776	5,134,950	5,134,950
35	*Computer Equipment*	1,307,136	1,500,000	2,316,642	1,136,629	2,086,000	2,086,000
36	*Vehicle Replacements*	1,691,248	990,000	1,630,466	1,396,843	1,485,000	1,485,000
37	*Contingency*	0	1,000,000	812,412	0	2,000,000	2,000,000
	Transfers Out						
38	*To Law Enforcement Authority Fund*	4,077,865	4,385,100	3,136,400	2,923,400	7,774,019	7,774,019
39	*To Security and Mental Health Fund*	0	625,000	625,000	625,000	200,000	200,000
40	*To District Attorney Fund*	0	0	0	0	12,580,171	12,580,171
41	*To Capital Expenditures Fund*	552,162	0	88,000	88,000	0	0
42	*To Solid Waste Disposal Fund*	0	0	275,950	275,950	0	0
43	*To Human Services Fund*	2,741,013	3,460,366	3,490,366	3,858,140	4,195,916	4,195,916
44	*To Medical Self-Insurance Fund*	0	0	2,500,000	2,500,000	0	0
45	*To Health Fund*	2,034,188	2,123,247	2,123,247	2,123,247	2,106,435	2,106,435
46	*Total Transfers Out*	*9,405,228*	*10,593,713*	*12,238,963*	*12,393,737*	*26,856,541*	*26,856,541*
47	*Encumbrances Re-appropriated (Supplemental #01-25)*						*3,297,839*
48	*Supplemental #2 (04-22-25)*						*19,325,150*
49	*Supplemental #3 (06-24-25)*						*1,087,815*
50	*Supplemental #4 (08-12-25)*						*1,471,084*
51	**_Total Expenditures and Transfers Out_**	**$ 194,723,055**	**$ 195,531,695**	**$ 223,966,380**	**$ 244,630,774**	**$ 217,373,430**	**$ 242,555,318**
52	*Change In Fund Balance*	(5,099,602)	(8,962,770)	(21,146,607)	8,329,793	(108,684)	(14,273,686)
53	**_Ending Fund Balance_**	**$ 51,413,343**	**$ 26,217,596**	**$ 30,266,736**	**$ 59,743,136**	**$ 33,179,380**	**$ 45,469,450**
	Fund Balance Detail						
54	*Non-spendable Fund Balance*	*$ 4,281,147*	*$ 5,644,849*	*$ 4,281,147*	*$ 3,108,325*	*$ 4,281,147*	*$ 3,108,325*
55	*Restricted Fund Balance*	*12,133,311*	*10,288,983*	*11,509,233*	*19,686,825*	*11,379,319*	*13,387,222*
56	*Committed Fund Balance*	*4,583,029*	*425,778*	*0*	*3,724,698*	*5,000,000*	*5,516,004*
57	*Assigned Fund Balance - Required Per Policy*	*8,425,722*	*18,280,111*	*18,276,000*	*7,696,963*	*8,425,722*	*6,797,738*
58	*Assigned Fund Balance - Carry Forward*	*6,591,767*	*0*	*0*	*4,723,045*	*0*	*2,004,212*
59	*Assigned Fund Balance - Initiatives*	*7,649,000*	*1,650,000*	*6,900,000*	*20,625,000*	*6,500,000*	*16,225,000*
60	*Unassigned Fund Balance Available*	*18,671,882*	*9,834*	*222,870*	*2,114,497*	*15,706*	*367,165*
61	*Unrealized Gains & Losses Adjustment*	*(10,922,514)*	*(10,081,959)*	*(10,922,514)*	*(1,936,216)*	*(2,422,514)*	*(1,936,216)*
62	**_Ending Fund Balance_**	**$ 51,413,343**	**$ 26,217,596**	**$ 30,266,736**	**$ 59,743,136**	**$ 33,179,380**	**$ 45,469,450**

Douglas County Government
Road and Bridge Fund (Fund 200)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 30,547,580**	**$ 23,154,865**	**$ 36,970,336**	**$ 36,970,336**	**$ 26,188,606**	**$ 35,278,429**
	Revenues						
2	*Taxes*	$ 49,881,825	$ 53,516,600	$ 53,516,600	$ 54,040,895	$ 53,977,000	$ 53,977,000
3	*Licenses and Permits*	877,989	891,500	891,500	1,165,802	899,500	899,500
4	*Intergovernmental*	12,260,444	10,230,000	11,265,663	13,342,578	12,260,000	12,260,000
5	*Charges for Services*	3,000	3,000	3,000	3,500	1,500	1,500
6	*Fines and Forfeits*	0	0	0	0	0	0
7	*Earnings on Investments*	0	0	0	0	0	0
8	*Donations and Contributions*	0	0	0	0	0	0
9	*Other Revenues*	1,631,522	50,000	173,191	288,110	130,000	130,000
10	*Supplemental Appropriation - #3 (6-24-25)*						*363,367*
11	*Supplemental Appropriation - #4 (8-12-25)*						*313,127*
12	***Total Revenues and Transfers In***	**$ 64,654,780**	**$ 64,691,100**	**$ 65,849,954**	**$ 68,840,885**	**$ 67,268,000**	**$ 67,944,494**
	Expenditures by Function						
13	*Personnel*	$ 13,537,535	$ 14,582,772	$ 14,294,848	$ 14,115,966	$ 15,090,384	$ 15,090,384
14	*Supplies*	1,179,333	2,385,686	1,831,833	944,899	2,405,686	2,405,686
15	*Controllable Assets*	11,345	27,600	87,439	66,014	77,600	77,600
16	*Purchased Services*	3,203,152	1,433,105	4,279,033	3,128,939	1,608,180	1,608,180
17	*Building Materials*	6,523,417	6,207,331	6,375,760	6,101,677	6,207,331	6,207,331
18	*Fixed Charges*	4,963,905	4,301,428	4,799,638	4,395,974	7,236,707	7,236,707
19	*Grants and Contributions*	(61,046)	100,000	114,600	682,265	100,000	100,000
20	*Intergovernmental Support*	9,029,347	9,802,245	9,789,171	8,812,046	9,429,516	9,429,516
21	*Equipment Replacements/New*	848,844	4,260,000	7,904,704	3,969,260	1,275,000	1,275,000
22	*Pavement Management*	11,528,018	17,885,942	22,990,772	22,246,636	22,140,730	22,140,730
23	*Traffic Signal Management*	0	0	0	0	0	0
24	*Engineering Storm Drainage*	0	6,186,264	6,055,065	4,283,109	6,508,973	6,508,973
25	*Capital Projects*	5,936,172	7,038,709	8,507,196	1,679,007	7,407,592	7,407,592
26	*Contingency*	0	1,000,000	600,000	0	500,000	500,000
27	*Transfers Out:*						
28	*To General Fund*	1,532,000	107,000	107,000	107,000	440,821	440,821
29	*Total Transfers Out*	*1,532,000*	*107,000*	*107,000*	*107,000*	*440,821*	*440,821*
30	*Encumbrances Re-appropriated (Supplemental #01-25)*						*4,689,973*
31	*Supplemental Appropriation - #3 (6-24-25)*						*2,378,695*
32	*Supplemental Appropriation - #4 (8-12-25)*						*313,127*
33	***Total Expenditures and Transfers Out***	**$ 58,232,024**	**$ 75,318,082**	**$ 87,737,059**	**$ 70,532,792**	**$ 80,428,520**	**$ 87,810,315**
34	*Change In Fund Balance*	*6,422,756*	*(10,626,982)*	*(21,887,105)*	*(1,691,907)*	*(13,160,520)*	*(19,865,821)*
35	***Ending Fund Balance***	**$ 36,970,336**	**$ 12,527,883**	**$ 15,083,231**	**$ 35,278,429**	**$ 13,028,086**	**$ 15,412,608**
	Fund Balance Detail						
36	*Non-spendable Fund Balance*	*$ 3,172,732*	*$ 3,040,030*	*$ 3,172,732*	*$ 2,738,970*	*$ 3,172,732*	*$ 2,738,970*
37	*Restricted Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
38	*Committed Fund Balance*	*4,050,997*	*0*	*0*	*8,955,981*	*0*	*0*
39	*Commited - Required per policy*	*0*	*0*	*8,661,629*	*9,127,776*	*8,661,629*	*9,127,776*
40	*Committed Fund Balance - Initiatives*	*0*	*0*	*1,000,000*	*1,000,000*	*1,000,000*	*1,000,000*
41	*Committed Fund Balance - Available*	*0*	*0*	*2,248,870*	*13,455,702*	*193,725*	*2,545,862*
42	*Assigned Fund Balance - Required per policy*	*19,288,611*	*8,228,834*	*0*	*0*	*0*	*0*
43	*Assigned Fund Balance - Initiatives*	*1,000,000*	*1,000,000*	*0*	*0*	*0*	*0*
44	*Assigned Fund Balance - Available*	*9,457,996*	*259,019*	*0*	*0*	*0*	*0*
45	***Ending Fund Balance***	**$ 36,970,336**	**$ 12,527,883**	**$ 15,083,231**	**$ 35,278,429**	**$ 13,028,086**	**$ 15,412,608**

Douglas County Government
Public Health Fund (Fund 217)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 844,517**	**$ 1,057,127**	**$ 1,548,598**	**$ 1,548,598**	**$ 1,688,365**	**$ 2,557,191**
	Revenues						
2	*Taxes*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
3	*Intergovernmental*	2,862,942	3,194,681	7,007,842	4,099,648	241,943	241,943
4	*Charges for Services*	854,171	737,700	818,947	936,465	959,296	959,296
5	*Earnings on Investments*	0	0	0	0	0	0
6	*Miscellaneous Revenues*	24,292	0	138,357	114,870	0	0
	Transfers In						
7	From General Fund	2,034,188	2,123,247	2,123,247	2,123,247	2,106,435	2,106,435
8	*Total Transfers In*	2,034,188	2,123,247	2,123,247	2,123,247	2,106,435	2,106,435
9	*Supplemental Appropriation - #3 (6-24-25)*						*79,612*
10	*Supplemental Appropriation - #4 (8-12-25)*						*848,331*
11	***Total Revenues and Transfers In***	**$ 5,775,593**	**$ 6,055,628**	**$ 10,088,393**	**$ 7,274,230**	**$ 3,307,674**	**$ 4,235,617**
	Expenditures by Function						
12	*Personnel Services*	$ 3,892,210	$ 4,677,200	$ 7,706,062	$ 4,424,672	$ 2,835,054	$ 2,835,054
13	*Supplies*	34,552	111,444	67,461	45,686	44,500	44,500
14	*Controllable Assets*	13,921	35,000	35,000	0	0	0
15	*Purchased Services*	694,950	496,541	1,511,993	1,014,618	336,758	336,758
16	*Fixed Charges*	265,444	29,506	49,506	38,175	23,644	23,644
17	*Grants, Contibutions, Indemnities*	0	0	125,000	132,190	0	0
18	*Interdepartment Charges*	132,915	0	156,954	166,660	0	0
19	*Interdepartment Support*	0	0	0	0	0	0
20	*Capital Outlay - Vehicles*	37,520	0	0	443,636	333,000	333,000
21	*Contingency*	0	300,000	300,000	0	300,000	300,000
22	*Encumbrances Re-appropriated (Supplemental #01-25)*						*58,100*
23	*Supplemental Appropriation - #3 (6-24-25)*						*79,612*
24	*Supplemental Appropriation - #4 (8-12-25)*						*847,047*
25	***Total Expenditures and Transfers Out***	**$ 5,071,512**	**$ 5,649,691**	**$ 9,951,976**	**$ 6,265,637**	**$ 3,872,956**	**$ 4,857,715**
26	*Change in Fund Balance*	704,081	405,937	136,417	1,008,593	(565,282)	(622,098)
27	**Ending Fund Balance**	**$ 1,548,598**	**$ 1,463,064**	**$ 1,685,015**	**$ 2,557,191**	**$ 1,123,083**	**$ 1,935,093**
	Fund Balance Detail						
28	*Non-spendable Fund Balance*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
29	*Restricted Fund Balance*	0	0	0	0	0	0
30	*Committed Fund Balance*	0	0	0	0	0	0
31	*Assigned Fund Balance*	1,548,598	1,463,064	1,685,015	2,557,191	1,123,083	1,935,093
32	***Ending Fund Balance***	**$ 1,548,598**	**$ 1,463,064**	**$ 1,685,015**	**$ 2,557,191**	**$ 1,123,083**	**$ 1,935,093**

Douglas County Government
Transportation Infrastructure Sales and Use Tax Fund (Fund 235)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 37,889,406**	**$ 70,746,660**	**$ 37,294,937**	**$ 37,294,937**	**$ 34,561,751**	**$ 40,055,910**
	Revenues						
2	*Taxes*	$ 19,210,418	$ 19,445,600	$ 19,445,600	$ 19,206,494	$ 19,820,400	$ 19,820,400
3	*Intergovernmental*	3,303,906	0	0	4,256,425	0	0
4	*Earnings on Investments*	1,211,929	600,000	600,000	1,621,882	600,000	600,000
5	*Other Revenues*	0	0	0	0	0	0
6	*Transfers In*	0	0	24,095,367	22,212,669	0	0
7	*Supplemental Appropriation - #3 (6-24-25)*						*5,120,000*
8	*Supplemental Appropriation - #4 (8-12-25)*						*(829,600)*
9	***Total Revenues and Transfers In***	**$ 23,726,252**	**$ 20,045,600**	**$ 44,140,967**	**$ 47,297,470**	**$ 20,420,400**	**$ 24,710,800**
	Expenditures by Function						
10	*Personnel*	$0	$0	$0	$0	$0	$0
11	*Supplies*	0	0	0	0	0	0
12	*Controllable Assets*	0	0	0	0	0	0
13	*Purchased Services*	6,198	0	138,113	443,353	1,000,000	1,000,000
14	*Building Materials*	0	0	0	0	0	0
15	*Fixed Charges*	0	0	0	0	0	0
16	*Debt Issuance*	0	0	0	0	0	0
17	*Grants, Contributions, Indemnities*	0	0	0	0	0	0
18	*Intergovernmental Support*	24,314,523	8,600,000	46,451,327	43,593,144	3,200,000	3,200,000
19	*Interdepartmental Charges*	0	0	0	0	0	0
20	*Capital Projects / Re-Appropriation*	0	76,147,429	23,610,382	0	40,828,159	40,828,159
21	*Contingency*	0	0	0	0	0	0
22	*Transfer Out - General Fund*	0	500,000	500,000	500,000	500,000	500,000
23	*Supplemental Appropriation - #2 (4-22-25)*						*4,256,425*
24	*Supplemental Appropriation - #3 (6-24-25)*						*6,254,833*
25	*Supplemental Appropriation - #4 (8-12-25)*						*(829,600)*
26	***Total Expenditures and Transfers Out***	**$ 24,320,721**	**$ 85,247,429**	**$ 70,699,822**	**$ 44,536,497**	**$ 45,528,159**	**$ 55,209,817**
27	*Change In Fund Balance*	(594,469)	(65,201,829)	(26,558,855)	2,760,973	(25,107,759)	(30,499,017)
28	***Ending Fund Balance***	**$ 37,294,937**	**$ 5,544,831**	**$ 10,736,082**	**$ 40,055,910**	**$ 9,453,992**	**$ 9,556,893**
	Fund Balance Detail						
29	*Non-spendable Fund Balance*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
30	*Restricted Fund Balance - Required Per Policy*	*200,000*	*200,000*	*200,000*	*279,600*	*200,000*	*279,600*
31	*Restricted Fund Balance - Available*	*37,094,937*	*5,344,831*	*10,536,082*	*39,776,310*	*9,253,992*	*9,277,293*
32	*Committed Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
33	*Assigned Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
34	***Ending Fund Balance***	**$ 37,294,937**	**$ 5,544,831**	**$ 10,736,082**	**$ 40,055,910**	**$ 9,453,992**	**$ 9,556,893**

Douglas County Government
Justice Center Sales and Use Tax Fund (Fund 240)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 29,355,836**	**$ 14,262,107**	**$ 21,602,586**	**$ 21,602,586**	**$ 7,856,607**	**$ 16,514,219**
	Revenues						
2	*Taxes*	$26,681,135	$27,007,725	$27,007,725	$26,675,687	$27,528,250	$27,528,250
3	*Intergovernmental*	0	0	0	0	0	0
4	*Charges for Services*	70,005	0	0	66,325	0	0
5	*Earnings on Investments*	601,329	400,000	400,000	561,262	300,000	300,000
6	*Other Revenues*	40,000	0	0	0	0	0
7	*Supplemental Appropriation - #4 (8-12-25)*						*596,148*
8	***Total Revenues and Transfers In***	**$ 27,392,469**	**$ 27,407,725**	**$ 27,407,725**	**$ 27,303,274**	**$ 27,828,250**	**$ 28,424,398**
	Expenditures by Function						
9	*Supplies*	$88,396	$0	$58,500	$47,787	$0	$0
10	*Controllable Assets*	24,755	261,000	39,500	39,393	1,071,200	1,071,200
11	*Purchased Services*	201,572	0	74,608	59,816	0	0
12	*Building Materials*	0	0	0	0	0	0
13	*Fixed Charges*	393,084	471,891	500,391	493,176	547,747	547,747
14	*Debt Service (Lease Payment)*	0	0	0	0	0	0
15	*Grants, Contributions, Indemnities*	0	0	0	0	0	0
16	*Intergovernmental Support*	5,492	12,000	12,000	5,788	12,000	12,000
17	*Interdepartmental Charges*	0	0	0	0	0	0
18	*Capital Outlay*	6,381,880	6,821,537	12,945,125	5,082,220	1,693,600	1,693,600
19	*Contingency*	0	250,000	216,630	0	100,000	100,000
20	*Transfers Out:*						
21	To General Fund	28,050,540	27,452,725	27,452,725	26,663,462	27,729,150	27,729,150
22	*Total Transfers Out*	*28,050,540*	*27,452,725*	*27,452,725*	*26,663,462*	*27,729,150*	*27,729,150*
23	*Encumbrances Re-appropriated (Supplemental #01-25)*						*2,633,472*
24	*Supplemental Appropriation - #2 (4-22-25)*						*619,007*
25	*Supplemental Appropriation - #4 (8-12-25)*						*846,148*
26	***Total Expenditures and Transfers Out***	**$ 35,145,719**	**$ 35,269,153**	**$ 41,299,479**	**$ 32,391,641**	**$ 31,153,697**	**$ 35,252,324**
27	*Change In Fund Balance*	(7,753,250)	(7,861,428)	(13,891,754)	(5,088,367)	(3,325,447)	(6,827,926)
28	***Ending Fund Balance***	**$ 21,602,586**	**$ 6,400,679**	**$ 7,710,832**	**$ 16,514,219**	**$ 4,531,160**	**$ 9,686,293**
	Fund Balance Detail						
29	*Non-spendable Fund Balance*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*
30	*Restricted Fund Balance - Required Per Policy*	*6,064,694*	*3,498,403*	*3,498,403*	*4,690,611*	*3,277,312*	*3,498,403*
31	*Restricted Fund Balance - Available*	*15,537,892*	*2,902,276*	*4,212,429*	*11,823,608*	*1,253,848*	*6,187,890*
32	*Committed Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
33	*Assigned Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
34	***Ending Fund Balance***	***$ 21,602,586***	***$ 6,400,679***	***$ 7,710,832***	***$ 16,514,219***	***$ 4,531,160***	***$ 9,686,293***

Douglas County Government
Rueter-Hess Recreation Area Fund (Fund 245)
Fund Summary

		2023 Audited Budget	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	$ 0	**$ 2,257,234**	**$ 2,313,518**	**$ 2,313,518**	**$ 1,932,545**	**$ 2,567,163**
	Revenues						
2	*Intergovernmental*	$ 2,413,628	$ 620,000	$ 620,000	$ 620,000	$ 620,000	$ 620,000
3	*Charges for Services*	33,076	30,000	30,000	52,687	32,000	32,000
4	*Earnings on Investments*	33,049	15,000	15,000	96,843	50,000	50,000
5	*Other Revenues*	0	0	0	0	0	0
6	Transfer-In Parks & Open Space Fund	250,000	250,000	250,000	250,000	250,000	250,000
7	***Total Revenues and Transfers In***	**$ 2,729,753**	**$ 915,000**	**$ 915,000**	**$ 1,019,530**	**$ 952,000**	**$ 952,000**
	Expenditures by Function						
8	*Personnel*	$ 356,015	$ 721,476	$ 667,585	$ 623,985	$ 656,315	$ 656,315
9	*Supplies*	7,879	5,000	41,600	35,575	5,600	5,600
10	*Controllable Assets*	0	0	0	3,762	0	0
11	*Purchased Services*	40,383	53,000	44,310	46,546	60,000	60,000
12	*Building Materials*	0	0	0	0	0	0
13	*Fixed Charges*	11,958	16,500	38,500	37,217	44,020	44,020
14	*Intergovernmental Support*	0	0	0	0	0	0
15	*Capital*	0	0	550,581	18,800	368,000	368,000
16	*Contingency*	0	50,000	50,000	0	50,000	50,000
17	*Supplemental Appropriation - #2 (4-22-25)*						*360,000*
18	*Supplemental Appropriation - #4 (8-12-25)*						*150,000*
19	***Total Expenditures and Transfers Out***	**$ 416,235**	**$ 845,976**	**$ 1,392,576**	**$ 765,885**	**$ 1,183,935**	**$ 1,693,935**
20	*Change In Fund Balance*	2,313,518	69,024	(477,576)	253,645	(231,935)	(741,935)
21	***Ending Fund Balance***	**$ 2,313,518**	**$ 2,326,258**	**$ 1,835,942**	**$ 2,567,163**	**$ 1,700,610**	**$ 1,825,228**
	Fund Balance Detail						
22	*Non-spendable Fund Balance*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
23	*Restricted Fund Balance - Required Per Policy*	*170,681*	*81,000*	*81,000*	*81,000*	*81,000*	*81,000*
24	*Restricted Fund Balance - Available*	*2,142,837*	*2,245,258*	*1,754,942*	*2,486,163*	*1,619,610*	*1,744,228*
25	*Committed Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
26	***Ending Fund Balance***	**$ 2,313,518**	**$ 2,326,258**	**$ 1,835,942**	**$ 2,567,163**	**$ 1,700,610**	**$ 1,825,228**

Douglas County Government
Parks and Open Space Sales and Use Tax Fund (Fund 250)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 33,822,255**	**$ 42,712,949**	**$ 49,512,339**	**$ 49,512,339**	**$ 45,258,195**	**$ 55,751,331**
	Revenues						
2	*Taxes*	$ 18,143,174	$ 18,365,254	$ 18,365,254	$ 18,139,467	$ 18,719,209	$ 18,719,209
3	*Intergovernmental*	0	0	381,060	6,434	0	0
4	*Charges for Services*	61,026	25,000	25,000	0	25,000	25,000
5	*Earnings on Investments*	1,985,141	400,000	400,000	3,003,252	400,000	400,000
6	*Other Revenues*	294,919	85,000	85,000	618,909	85,000	85,000
7	*Transfer In*						
8	*Parks Sales and Use Tax Fund*	5,886,615	0	0	0	0	0
9	*Debt Service*	91,815	0	0	0	0	0
10	*Total Transfers In*	*5,978,430*	*0*	*0*	*0*	*0*	*0*
11	*Supplemental Appropriation - #3 (6-24-25)*						*728,627*
12	***Total Revenues and Transfers In***	**$ 26,462,690**	**$ 18,875,254**	**$ 19,256,314**	**$ 21,768,061**	**$ 19,229,209**	**$ 19,957,836**
	Expenditures by Function						
13	*Personnel*	$ 982,320	$ 2,545,768	$ 2,545,768	$ 1,942,357	$ 2,380,738	$ 2,380,738
14	*Supplies*	153,828	595,330	595,330	164,221	423,330	423,330
15	*Controllable Assets*	1,166	12,000	12,000	36,168	0	0
16	*Purchased Services*	1,316,542	6,331,394	6,135,977	1,359,883	934,500	934,500
17	*Fixed Charges*	218,797	180,405	180,405	286,385	267,084	267,084
18	*Grants, Contributions, Indemnities*	0	2,810,000	8,310,000	5,500,000	0	0
19	*Intergovernmental Support*	4,105,176	3,678,050	3,678,050	4,332,072	3,748,842	3,748,842
20	*Capital Outlay*	3,707,901	365,000	3,019,225	1,483,297	0	0
21	*Vehicle Replacements*	36,875	210,000	297,681	174,687	0	0
22	*Contingency*	0	100,000	100,000	0	100,000	100,000
23	*Transfers Out:*						
24	*Rueter Hess Recreation Area*	250,000	250,000	250,000	250,000	250,000	250,000
25	*Total Transfers Out*	*250,000*	*250,000*	*250,000*	*250,000*	*250,000*	*250,000*
26	*Encumbrances Re-appropriated (Supplemental #01-25)*						*2,416,228*
27	*Supplemental Appropriation #2 (4-22-25)*						*1,976,523*
28	*Supplemental Appropriation - #3 (6-24-25)*						*718,009*
29	*Supplemental Appropriation - #4 (8-12-25)*						*300,000*
30	***Total Expenditures and Transfers Out***	**$ 10,772,606**	**$ 17,077,947**	**$ 25,124,436**	**$ 15,529,069**	**$ 8,104,494**	**$ 13,515,254**
31	*Change In Fund Balance*	15,690,084	1,797,307	(5,868,122)	6,238,992	11,124,715	6,442,582
32	***Ending Fund Balance***	**$ 49,512,339**	**$ 44,510,256**	**$ 43,644,217**	**$ 55,751,331**	**$ 56,382,910**	**$ 62,193,913**
	Fund Balance Detail						
33	*Non-spendable Fund Balance*	$ 90	$ 0	$ 0	$ 0	$ 0	$ 0
34	*Restricted Fund Balance - Required Per Policy*	*777,783*	*12,061,186*	*2,245,753*	*1,462,109*	*875,449*	*1,049,676*
35	*Restricted Fund Balance - Available*	*48,734,466*	*32,449,070*	*41,398,464*	*54,289,222*	*55,507,461*	*61,144,237*
36	*Committed Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
37	*Assigned Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
38	***Ending Fund Balance***	**$ 49,512,339**	**$ 44,510,256**	**$ 43,644,217**	**$ 55,751,331**	**$ 56,382,910**	**$ 62,193,913**

Douglas County Government
Solid Waste Disposal Fund (Fund 275)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 94,490**	**$30,670**	**$ 6,417**	**$ 6,417**	**$ 157,095**	**$ 430,842**
	Revenues						
2	*Taxes*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
3	*Charges for Services*	47,146	60,000	60,000	76,932	65,000	65,000
4	*Intergovernmental*	0	0	0	0	0	0
5	*Earnings on Investments*	0	0	0	0	0	0
6	*Other Revenues*	0	0	0	203,466	20,000	20,000
7	*Transfers In*	0	0	275,950	275,950	0	0
8	*Supplemental Appropriation - #4 (8-12-25)*						*124,580*
9	***Total Revenues and Transfers In***	**$ 47,146**	**$60,000**	**$335,950**	**$ 556,348**	**$ 85,000**	**$ 209,580**
	Expenditures by Function						
10	*Personnel*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
11	*Supplies*	0	0	0	0	0	0
12	*Purchased Services*	7,200	0	175,000	21,375	0	0
13	*Fixed Charges*	128,020	90,000	165,000	110,548	110,000	110,000
14	*Intergovernmental Support*	0	0	0	0	0	0
15	*Interdepartmental Charges*	0	0	0	0	0	0
16	*Capital Outlay*	0	0	0	0	0	0
17	*Contingency*	0	0	0	0	0	0
18	*Transfers Out - General Fund*	*0*	*0*	*0*	*0*	*0*	*0*
19	*Supplemental Appropriation - #4 (8-12-25)*						*124,580*
20	***Total Expenditures and Transfers Out***	**$ 135,220**	**$90,000**	**$340,000**	**$ 131,923**	**$ 110,000**	**$ 234,580**
21	*Change In Fund Balance*	(88,073)	(30,000)	(4,050)	424,425	(25,000)	(25,000)
22	***Ending Fund Balance***	**$ 6,417**	**$ 670**	**$ 2,367**	**$ 430,842**	**$ 132,095**	**$ 405,842**
	Fund Balance Detail						
23	*Non-spendable Fund Balance*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
24	*Restricted Fund Balance*	0	0	0	0	0	0
25	*Committed Fund Balance*	0	0	0	0	0	0
26	*Assigned Fund Balance*	*6,417*	*670*	*2,367*	*430,842*	*132,095*	*405,842*
27	***Ending Fund Balance***	***$ 6,417***	***$ 670***	***$ 2,367***	***$ 430,842***	***$ 132,095***	***$ 405,842***

Douglas County Government
American Recovery Plan Act Fund (Fund 296)
Fund Summary

		2023 Audited Actuals	2024 Adopted Budget	2024 Amended Budget	2024 Audited Actuals	2025 Adopted Budget	2025 Amended Budget
1	***Beginning Fund Balance***	**$ 1,067,968**	**$ 0**	**$ 3,726,030**	**$ 3,726,030**	**$ 4,322,680**	**$ 8,063,689**
	Revenues						
2	*Taxes*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
3	*Intergovernmental*	8,808,052	0	45,302,400	8,049,420	0	0
4	*Earnings on Investments*	2,979,501	0	1,810,045	2,638,693	0	0
5	*Miscellaneous Revenues*	0	0	0	0	0	0
6	*Other Financing Sources*	0	0	0	3,882,726	0	0
7	*Supplemental Appropriation - #3 (6-24-25)*						*41,963,026*
8	*Supplemental Appropriation - #4 (8-12-25)*						*330,000*
9	***Total Revenues and Transfers In***	**$ 11,787,553**	**$ 0**	**$ 47,112,445**	**$ 14,570,839**	**$ 0**	**$ 42,293,026**
	Expenditures by Function						
10	*Personnel*	$ 1,178,297	$ 0	$ 1,082,742	$ 1,459,064	$ 0	$ 0
11	*Supplies*	2,451	0	150	5,488	0	0
12	*Controllable Assets*	1,599	0	0	0	0	0
13	*Purchased Services*	1,998,009	0	7,738,401	1,091,468	0	0
14	*Fixed Charges*	0	0	0	0	0	0
15	*Grants and Contributions*	1,536,788	0	41,453,576	5,926,662	0	0
16	*Intergovernmental Support Svcs.*	0	0	326,963	0	0	0
17	*Capital Outlay*	4,412,346	0	236,644	1,750,498	0	0
18	*Contingency*	0	0	0	0	0	0
19	*Transfers Out*	*0*	*0*	*0*	*0*	0	0
20	*Encumbrances Re-appropriated (Supplemental #01-25)*						*2,401,507*
21	*Supplemental Appropriation - #3 (6-24-25)*						*47,625,208*
22	*Supplemental Appropriation - #4 (8-12-25)*						*330,000*
23	***Total Expenditures and Transfers Out***	**$ 9,129,491**	**$ 0**	**$ 50,838,476**	**$ 10,233,180**	**$ 0**	**$ 50,356,715**
24	*Change In Fund Balance*	*2,658,062*	*0*	*(3,726,031)*	*4,337,659*	*0*	*(8,063,689)*
25	***Ending Fund Balance***	**$ 3,726,030**	**$ 0**	**$ 0**	**$ 8,063,689**	**$ 4,322,680**	**$0**
	Fund Balance Detail						
26	*Nonspendable Fund Balance*	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
27	*Restricted Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
28	*Committed Fund Balance*	*3,726,030*	*0*	*0*	*8,063,689*	*4,322,680*	*0*
29	*Assigned Fund Balance*	*0*	*0*	*0*	*0*	*0*	*0*
30	***Ending Fund Balance***	***$ 3,726,030***	**$ 0**	**$ 0**	**$ 8,063,689**	**$ 4,322,680**	**$0**