DOUGLAS COUNTY
COLORADO

Preliminary Plan Staff Report

Date:	April 15, 2026
To:	Douglas County Board of County Commissioners
Through:	Douglas J. DeBord, County Manager
From:	Kati Carter, AICP, Director of Community Development
CC:	Mike Pesicka, Principal Planner Jeanette Bare, AICP, Planning Manager Steven E. Koster, AICP, Deputy Director of Community Development
Subject:	**Bloom Preliminary Plan**
Project File:	**SB2025-017**

Planning Commission Hearing:	**April 6, 2026 @ 6:00 p.m.**
Board of County Commissioners Hearing:	**April 28, 2026 @ 2:30 p.m.**

I. EXECUTIVE SUMMARY

The request is for approval of a preliminary plan for 32 single-family detached residential lots, six tracts, and associated private roads on approximately 81 acres on property zoned Estate Residential (ER).

Access will occur via Bayou Gulch Road. Water and sewer service will be provided through inclusion into the Parker Water and Sanitation District (PWSD).

This property is within the Northeast Subarea as identified by the 2040 Comprehensive Master Plan.

The Planning Commission heard the request at its April 6, 2026 public hearing and recommended approval by a vote of 5 to 0, subject to six conditions.

II. APPLICATION INFORMATION

A. Applicant

Cayd Bader, CEO
Affinity Holdings, LLC

B. Applicant's Representative

Paul Shoukas, Vice President
PCS Group
200 Kalamath St.
Denver, CO 80223

C. Request

The request is for approval of a preliminary plan consisting of 32 single-family residential lots, six tracts, and associated roads on approximately 81 acres.

D. Process

A preliminary plan application is processed pursuant to Article 4 of the Douglas County Subdivision Resolution (DCSR). Article 4 states the intent of the process is "An in-depth analysis of the proposed subdivision, including a review of the design considering the ability to obtain water and sanitation, identified geologic hazards, environmentally sensitive areas, wildlife habitat areas, source of required services, vehicular and pedestrian circulation, storm drainage and water quality, relationship to surrounding land uses, and conformance with the Master Plan."

Per Section 405.08 of the DCSR, "The Board shall evaluate the preliminary plan, staff report, referral agency comments, applicant responses, Planning Commission recommendations, public comment and testimony, and shall either approve, approve with conditions, continue, table for further study, remand to the Planning Commission, or deny the preliminary plan. The Board's action shall be based on the evidence presented; compliance with adopted County standards, regulations, and policies; and other guidelines."

E. Location

Bloom is located at the northwest corner of the intersection of Bayou Gulch Road and Scott Avenue. The preliminary plan abuts single-family development in the Town of Parker to the north, Bayou Gulch Road to the east, the Pradera subdivision to the south, and agricultural land to the west. The attached CMP vicinity map, zoning map, and aerial map highlight site location and existing conditions

F. Project Description

This preliminary plan is for 32 detached single-family residential lots within the ER zone district. Lots are generally evenly distributed throughout the project site with open space tracts and buffer areas providing separation from adjacent residential development to the north and south and Bayou Gulch Road to the east.

Proposed lots range in size from 43,931 square feet (1.01 acres) to 72,202 square feet (1.66 acres) with an average lot size of 1.35 acres and a gross density of one lot per 2.53 acres which is allowed by the ER zone district. All lots are designed to accommodate detached single-family dwellings.

The Bloom Metropolitan District (the "Metro District") will own and maintain the six tracts proposed within the preliminary plan area for open space, drainage, utilities, access, and operations. Proposed Tracts A, B, and C provide for the majority of the open space, drainage, and buffer areas (26.97 acres). Tracts D and E will provide for a defined entryway including a faux guard house into the development. Tract F is to provide for private and emergency access to the project site from Bayou Gulch Road. All lots will be accessed via internal private roads. Right-of-way for Bayou Gulch Road will be dedicated to Douglas County at the time of final plat. Central water services are proposed to all 32 lots by PWSD. PWSD will enter into a separate intergovernmental agreement (IGA) with Pinery Water and Wastewater District (PWWD) to provide sewer service for the 32 single-family lots.

Section 406.07 of the DCSR requires submittal of evidence that the property has been included into the water district that has committed to serving the subdivision at the time of application for a preliminary plan. Section 406.07 also includes a provision for submittal of this documentation to be deferred by the Community Development Director for reason of good cause shown. In this case, the applicant requested to defer submitting documentation showing that the property has been included within the PWSD to avoid delays in the development process. The Director approved the applicant's request to defer the submittal requirement for evidence of inclusion of the property into the PWSD, on the condition that such evidence must be submitted prior to consideration of the first final plat associated with the Bloom Preliminary Plan by the Board of County Commissioners.

Project Details

Zoning	Estate Residential (ER)
Gross Site Acreage	81.07 acres
Residential Lots	32 Single-family
Tracts	6 tracts
Private Roadways	3
Gross Density	1 dwelling per 2.53 acres

III. CONTEXT

A. Background

The property has historically been zoned and used for agriculture. In 2016, the Board of County Commissioners approved a rezoning from Agricultural One to Estate Residential for the subject property via Resolution No. R-016-086.

B. Adjacent Land Uses and Zoning

The current preliminary plan request is adjacent to Bayou Gulch Road on the east, the Town of Parker to the north, agricultural zoning to the west and the Pinery Planned Development (PD) to the south.

Zoning and Land Use

Direction	Zoning	Land Use
North	Town of Parker	Single-family residential
South	Pinery Planned Development	Single-family residential
East	Planned Development, Rural Residential	Single-family residential, drainage facility.
West	Agricultural One	Agriculture, single-family residential

IV. PHYSICAL SITE CHARACTERISTICS

A. Site Characteristics and Constraints

The site generally consists of rolling terrain and drainages which slope from west to east towards Bayou Gulch Road. Areas of highest elevation are within the western area of the property. There are a few areas of slopes that exceed 20 percent on the site, most of them will be included in open space and drainage tracts. There are no existing structures on the site. Vegetation on the site consists mostly of grasses with shrubs and small trees scattered around the site. There is no 100-year floodplain on the property.

B. Access

One point of access is proposed from Bayou Gulch Road. A Traffic Impact Analysis (TIS) has been reviewed and accepted by Engineering Services. The applicant will be responsible for their fair share contributions to future traffic signals at Bayou Gulch Road and Scott Avenue and at Bayou Gulch Road and N. Pinery Parkway.

C. Soils and Geology

The CMP Class 3 Hazards and Environmental Constraints map indicates no constraints on the site. The Colorado Geological Survey (CGS) reviewed the request and noted that the geotechnical recommendations in the subsurface soil study provided by the applicant are valid. CGS has no objection to the preliminary plan, if the recommendations in the geotechnical report are rigorously adhered to.

D. Drainage and Erosion

Engineering has reviewed the Phase II Drainage Report and found it to be acceptable. The Metro District will own and maintain stormwater facilities with the County to accept backup drainage easements via the final plat.

E. Floodplain

There is no mapped 100-year floodplain on the project site.

F. Wildlife

The CMP Wildlife Resources map identifies the site as having low habitat value. There are no identified wildlife crossings or overland connections on the project site. Colorado Parks and Wildlife (CPW) reviewed the application and stated in a letter

dated July 30, 2025, that the main impacts to wildlife would be fragmentation and loss of habitat and although it is impossible to eliminate fragmentation and habitat loss with any development, impacts to wildlife can be minimized through the use of clustering configurations, reduction in density, and providing open space for wildlife. CPW also had recommendations regarding wildlife friendly fencing, and placement and design of trails, living with wildlife, protection of raptors and migratory birds if any active nest is discovered within the project area, and noxious weeds. CPW reviewed a wildlife analysis letter, attached to this staff report, submitted by the applicant and provided a follow-up email dated January 28, 2026, stating they appreciated the developer following through with some of the recommendations in the July 2025 letter. CPW also noted that there is an active bald eagle nest approximately 0.92 miles from the proposed development. Although this particular project is outside of recommended ¼ mile and ½ mile buffer zones, it is important that the developer recognize that there are bald eagles in the area and that there are guidelines if a nest were to be established closer to the project site.

G. Historic Preservation

The applicant previously submitted a Class II cultural resource report in 2022. The Douglas County Curator has reviewed the completed survey and stated that new sites were discovered, but none are eligible to be listed on the state register. Should buried artifacts and features be discovered in future phases, the Curator recommends completion of appropriate Colorado Office of Archaeology and Historic Preservation (OAHP) Data Management and Historic and/or Prehistoric Component forms and submitting them to OAHP to ensure Douglas County's historic or prehistoric data is included in the Colorado OAHP state-wide database.

H. Wildland Fire Mitigation

The Douglas County Wildland Fire Mitigation Specialist assessed the project and recommended incorporating perimeter mowing against private property boundaries on at least a bi-annual basis to address grass fuel concerns and incorporating these management actions into an open space management plan. Additional guidance can be provided at the time of final plat application or when the management plan is developed.

V. PROVISION OF SERVICES

A. Schools

The Douglas County School District (DCSD) stated in its referral letter dated July 11, 2025, that a total of 32 students are expected from this development which would equate to a total land dedication requirement of 0.753 acres. This land dedication requirement is less than DCSD's minimum site requirements and therefore, DCSD requests cash-in-lieu of land dedication. Land for a school site is not proposed to be dedicated by the Bloom Preliminary Plan. An appraisal will be provided at the time of

final plat for the purpose of determining the amount of required cash-in-lieu of school land dedication.

B. Fire Protection

Fire protection is provided by South Metro Fire Rescue (South Metro). South Metro reviewed the request and had no objections to the proposed preliminary plan. South Metro requested that the applicant coordinate with the future design of fire flow requirements and the placement of fire hydrants at the time of submittal of utility plans and construction documents which typically occurs at final plat.

C. Sheriff Services

The Douglas County Sheriff's Office (DCSO) provides protection to the site. DSCO did not comment on the proposal. The Office of Emergency Management (OEM) recommends that the applicant follow through with plans to provide a secondary/emergency access road. The applicant revised the plans to remove the proposed secondary access to the northwest corner of the site which would not connect to any existing road or access easement. In a follow-up email, OEM stated that they understand the requirements, codes, and challenges stated by the applicant and have no authority in the matter but wants it noted that "A best practice in emergency preparedness for any community is to have more than one access/egress point to facilitate rapid evacuation of the entire community. Engineering Services reviewed the revised access points and found the preliminary plan to be acceptable.

D. Water

All lots are proposed to be served by central water from PWSD. The applicant has provided a will-serve letter from PWSD indicating that the district is committed to serving the lots. Section 406.07 of the DCSR requires submittal of evidence that the property has been included into the water district that has committed to serving the subdivision at the time of application for a preliminary plan, but includes a provision for this to be deferred by the Community Development Director with good cause shown. In this case, the applicant requested and was granted a deferral of this until consideration of the final plat.

E. Sanitation

The applicant proposes to serve the 32 single-family lots with central sewer services through an IGA between PWSD and PWWD. The Douglas County Health Department (DCHD) responded to the referral request with a favorable recommendation for water service and sewage disposal.

F. Utilities

Utility service is provided by CORE Electric and Xcel Energy. CORE noted that additional easements may be required for private road crossings at the time of final electric design. CORE has no concerns with the proposed preliminary plan. Xcel responded to the referral request with information regarding easements and natural gas service.

G. Dedications

Proposed dedications of roads, tracts, and easements are shown in the following table:

Roads	Tract F will be for private internal roads that will be dedicated to the Bloom Metro District for ownership and maintenance.
Tracts	Open Space Tracts A through E will be dedicated to the Bloom Metro District for open space, drainage, and public utilities.
Drainage and Blanket Access Easements	Drainage and blanket access easements will be dedicated to Douglas County and the Bloom Metro District.
Utilities	General Purpose utility easements will be dedicated to Douglas County

H. Parks, Trails, and Open Space

The applicant proposes approximately 27.50 acres of open space (34%) that will provide for future trails for the development and buffers to adjacent properties. Additional contributions, including cash-in-lieu of land dedication, will be determined at final plat.

VI. PUBLIC NOTICE AND INPUT

In accordance with Section 408 of the DCSR, public notice is required to be published in the Douglas County News Press and posted on the site by the applicant. In addition to the notice requirements, adjacent landowners were mailed courtesy notices at the beginning of the referral period. Significant public comment was received with comments on topics such as wildlife habitat and migration routes, traffic, the proposed density, and the existing rural character of the area. The public comments are attached to this staff report. All referral agency comments are outlined in the Referral Agency Response Report, as well as the referral response letters, attached to this staff report.

VII. PLANNING COMMISSION HEARING

At the April 6, 2026, public hearing, Planning Commission recommended approval of the preliminary plan by a vote of 5 to 0, with five conditions proposed by staff and one additional condition proposed by the Planning Commission.

No one from the public commented at the hearing. The applicant provided its wildlife impact report which the Commissioners reviewed at the hearing. Commissioners noted that, while South Metro Fire had no objections to the access proposed for the preliminary plan, the Office of Emergency Management recommended that a second point of access

be provided. Engineering staff explained how the current access design for the preliminary plan met the County's roadway standards.

The Planning Commission added the following recommended condition of approval: "the applicant shall reconfirm with the fire department that access and safety is sufficient and work with the OEM to re-evaluate safety of a single point of access." The applicant commits to revisiting the access issue with both entities.

VIII. STAFF ANALYSIS

A preliminary plan may be approved upon the finding by the Board of County Commissioners that the preliminary plan:

403.01: Conforms with the goals, objectives, and polices of the Master Plan.
Staff Comment: *The property is located within the Northeast Subarea as identified in Section 3 of the 2040 CMP. The CMP states that while approval criteria for land use applications require a finding of compliance with the CMP, "…the competing values of the plan must be balanced through the public review process to achieve the larger vision of the community." As such, the CMP acknowledges its own competing values and that implementation can only be achieved through the balancing of community values during the review process. The Bloom Preliminary Plan attempts to balance the competing values of the CMP.*

Goals, objectives, and policies within Section 3 often discuss open space and wildlife (Policy 3-1E.1, Policy 3-2A.2, Policy 3-2D.1, Policy 3-3E.6), compatibility with the natural and rural characteristics of the area (Objective 3-2A, Objective 3-2B, Policy 3-2B.1, Policy 3-3E.1, Policy 3-3E.2, Policy 3-3E.3, Policy 3-3E.7) and availability of services including central water and sewer services (Policy 3-3E.2 and Policy 3-3E.3).

The applicant has identified open space buffers and will implement wildlife fencing where appropriate for the development. The single-family residential lots have been located to provide open space buffers adjacent to existing single-family developments. Additionally, the project will be served by central water and sewer for all 32 single-family lots.

Policy 3-3E.1 states that "A maximum gross density of one dwelling unit per 2.5 acres is supported in the Northeast Subarea where it is logical infill, where approximately 50 percent of the property boundary is adjacent to zoned lands or parcel sizes consistent with the proposed development, and where site characteristics generally support it." This project has a gross density of one dwelling unit per 2.53 acres. In their narrative, the applicant states that they believe the project's overall density and layout of lots and open space tracts are consistent with adjacent land use patterns.

403.02: Address the design elements established in Article 4, Section 404.
Staff Comment: The proposed subdivision is in conformance with the design elements. Proposed lot sizes allow for setbacks that conform to the requirements of the ER zone

district. The site has no Class 3 geologic hazards. Subdivision-wide drainage and grading concepts have been reviewed and accepted by Engineering Services on a preliminary basis. The applicant will take care to protect archaeological and historical resources if uncovered during construction. Vehicular, pedestrian, and bicycle access is provided through the inclusion of internal streets, sidewalks, and trails.

403.03: 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 CDWR has reviewed the preliminary plan request and has determined that the supply is adequate. The applicant will be required to provide evidence of inclusion into the PWSD prior to consideration of the first Bloom final plat.

> **1803A.01 The applicant has demonstrated that the water rights can be used for the proposed uses.**
> *Staff Comment: The will-serve letter and other documentation from PWSD demonstrates that the water rights owned by PWSD can be used for the proposed uses within the subdivision.*
>
> **1803A.02 The reliability of a renewable right has been analyzed and is deemed sufficient by the County based on its priority dates within the Colorado System of Water Rights Administration.**
> *Staff Comment: 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 shortage will not occur due to variations in the hydrologic cycle.**
> *Staff Comment: A Water Plan is not required for review of proposed water service 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.**
> *Staff Comment: A Water Plan is not required for review of proposed water service by a District.*

403.04 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: Sanitation Services will be provided by the Pinery Water and Wastewater District (PWWD) through an IGA with PWSD and the Bloom Metro District. The evidence of inclusion into PWSD will be provided prior to consideration of the first final plat within the project area. DCHD provided a favorable recommendation regarding the method of sewage disposal.

403.05 Identifies all areas of the proposed subdivision, which may involve soil or topographical conditions presenting hazards or requiring special precautions and the proposed uses of these areas are compatible with such conditions.
Staff Comment: A geotechnical study was provided by the applicant and reviewed by Colorado Geologic Survey (CGS). CGS responded to the referral request with no objection noting that there were no unusual geologic conditions or constraints within the proposed subdivision area that would preclude residential use and density.

403.06 Provides adequate drainage improvements.
Staff Comment: A Phase II Drainage Report has been reviewed by Engineering and found to be acceptable. A Phase III Drainage Report will be reviewed through the final plat process and formal easements established in conjunction with construction plans.

403.07 Provides adequate transportation improvements.
Staff Comment: Engineering has reviewed and accepted the traffic impact analysis provided with the preliminary plan.

403.08 Protects significant cultural, archaeological, natural, and historical resources and unique landforms.
Staff Comment: No unique landforms are located within the subject property. During construction activity within the development, 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 a discovery.

403.09 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: The proposed subdivision will be served by South Metro Fire, the Douglas County Sheriff's Office, the Douglas County School District, CORE Electric Cooperative, Xcel Energy, Comcast, and CenturyLink. Private streets are proposed within the project. Approximately 27.5 acres of open space and a trail system are proposed. Applicable cash-in-lieu fees for school and park land dedication will be identified with the final plat and provided prior to plat recordation.

403.10 Does not interfere with the extraction of any known commercial mining deposit.
Staff Comment: There are no known significant mineral deposits on site per the Douglas County Minerals Extraction Master Plan.

IX. STAFF ASSESSMENT

Staff has evaluated the preliminary plan request in accordance with Article 4 of the Subdivision Resolution. Should the Board find that the approval standards for the preliminary plan are met, the following proposed conditions, should be considered for inclusion in the motion:

1. Prior to the Board's consideration of the final plat, the applicant shall provide evidence of inclusion of the property in the Parker Water and Sanitation District.

2. Prior to recordation of the final plat, the applicant shall file a required Well Abandonment Report with the Colorado Division of Water Resources.

3. Prior to recordation of the final plat, cash-in-lieu of park land and school land dedication shall be paid in accordance with Article 10 of the DCSR.

4. Prior to final plat approval, the applicant shall reconfirm with the fire department that access and safety is sufficient and work with the Office of Emergency Management to re-evaluate safety of a single point of access.

5. During construction activity within the development, 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 and complete the appropriate Colorado Office of Archaeology and Historic Preservation data management forms in the event of such discovery.

6. Technical corrections to the record copy of the preliminary plan exhibit shall be made to the satisfaction of Douglas County.

7. 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**

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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: Preliminary Plan - Single Family Residential

MARKETING NAME: Bloom

PRESUBMITTAL REVIEW PROJECT NUMBER: PS2024-198

PROJECT SITE:

Address: The SW Intersection of Bayou Gulch Rd & Presidio Pakwy

State Parcel Number(s): 2349-090-00-002, 2349-093-00-001

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

PROPERTY OWNER(S):

Name(s): 6244 N Crowfoot Valley Road, LLC

Address: 110 Front Street, STE 400, Jupiter FL, 33477

Phone:

Email:

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

Name: Paul Shoukas

Address: 200 Kalamath Street. Denver, CO 80223

Phone: 720-259-8248

Email: paul@pcsgroupco.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

15 May 2025
Date

Narrative

Project Vision

As Colorado's front range continues to flourish with density and growth, Bloom is an opportunity in Douglas County to retreat to a more open landscape. Peaceful vistas, gently rolling terrain, an indigenous wildlife and vegetation, and seclusion from the pressures of urban life are often the images that come to mind when describing a classic Western landscape in the Colorado. At Bloom, just such a piece of historic Colorado ranchland has been masterfully designed to preserve and enhance those images well into the next century.

With a reverence for the native landscape as well as the land, the community takes inspiration from its name, "Bloom". Seasonal landscape is proposed within the community which takes the form of clusters of trees and shrubs organized in a meaningful fashion around the site which will be in seasonal bloom, creating botanical interest within the site. This proposed landscape is planted at key points of interest within the site to flower as early as April and as late as August. Once fall and winter are upon us, seasonal color and textures will consume the landscape with aesthetic interest.

Generous spaces between lots and carefully placed building envelopes ensure sensitive placement of homes to maximize open space and privacy for each residence. The scale and texture of this rolling ranchland has itself dictated an architectural style that minimizes intrusion onto this extraordinary landscape. Homes will nestle into the tapestry of sagebrush, juniper, drainages, and alpine wildflowers, and feature a distinctive architecture that draws upon the romance of a Modern Mountain house designs.

Low-profile, two-story designs that hug the land, combined with the use of natural materials, will blend residences at Bloom harmoniously and unobtrusively with their surroundings. Yet this style and theme has been modified with artistic refinement, energy efficiency, and technological advancements designed to fit the individual lifestyle needs of today's homeowner.

The community proposes large lots which will be a minimum of 1 acre in size and boasts 30% of the land to be dedicated open space. This custom home community will provide high-quality single-family homes along the Bayou Gulch Road corridor while preserving the natural landscape and providing passive recreational amenities for the community.

The project remains consistent with the surrounding residential land uses as it shares a southern property boundary with Pradera, while respecting the natural landscape. The plan utilizes and preserves the natural features through open space corridors, limiting over lot grading and highlighting features with a recreational trail network.

Existing Conditions Information

Location:

Bloom is +/-80 acres located along the west side of Bayou Gulch Road between Presidio Parkway and Scott Avenue in unincorporated Douglas County. The site is bounded by agricultural to the west, The Trails at Crowfoot neighborhood to the north, Allison Ranch the east, and the Pradera neighborhood to the south. More specifically, the parcel of ground is Part of the Southeast 1/4 Section 9 Township 7 South, Range 66 West of the 6th Principal Meridian, County of Douglas, State of Colorado. The parcel of ground is currently zoned Estate Residential. The community is essentially an infill site with the Pradera subdivision directly to the South (zoned PD with Single Family Detached Use), the Allison Ranch (Cielo subdivision) directly to the East (zoned PD with Single Family Detached Use), and Trails at Crowfoot subdivision (zoned PD with Single Family Detached Use) directly to the North in the Town of Parker.

Existing Conditions:

Topography

Topography of the site includes low hills with dry drainages toward Cherry Creek. The Federal Emergency Management Agency Flood Maps identify that no portion of the property is within the 100-year flood zone. The high point of the site is located just west of the property. The slope generally drops +/- 150 feet from this high point to the southern and eastern boundaries at an average slope of 5%.

Hazards

No natural or man-made hazards are known to exist on the site. The Environmental Study report did not indicate any severe slopes that could be hazardous as existing topography is rolling and gentle (5% average). Slope-failures can be caused by soil-eroded gullies, which undercut unstable slopes and cause failure.

Vegetation

The property mostly consists of open grassy areas with some lowland wooded drainages. Vegetation on the property could be classified into two main categories: open grasslands, and natural drainage ways. Landscape consists of non-irrigated native upland grasses, woody shrubs and trees including Juniper and Gambel Oak, Mullen, curly dock, Russian thistle, and yucca were also present. Most native trees and shrubs are on the western half of the site. Two drainage ways are in the northern and eastern parts of the site. No part of the site is in a floodplain.

Climate - The Palmer Divide is a high upland divide that extends eastward from the mountains and separates the Arkansas and South Platte River drainages. The topographic feature is approximately 2,000 ft higher than other areas of the Colorado Piedmont to the north and south. Due to its topographic location, the Palmer Divide has a climate that is like the mountains located to the west. The area is subject to delayed warming in the spring, lower summer temperatures, delayed cooling in the fall, and higher amounts of precipitation. The average high temperate in January between 6,000 and 8,000 ft is 45°F and the average low is 15° F; the average July high is 85° F, and the average low is 56° F.

History
No roads or trails were observed on the property. Development of the subdivision (Pradera) located south of the project was first observed on aerial photos dated May 2005, and construction of the subdivision located to the north (Trails at Crowfoot) began in September 2019.

Current Land Use
The current land use is agriculture and there are no existing structures on site. The underlying zoning for the property is Estate Residential, which allows a density of 1 single family home for every 2.5 acres. For a total of 32 home sites allowed on the property. The predominant surrounding land uses are single-family residential communities of varying densities.

Directly to the south is the Pradera neighborhood of custom-single family residential homes. This neighborhood is of a similar density to the proposed Preliminary Plan. The neighborhoods to the north and east are single-family communities, both of which are currently under construction. To the west of the property is agricultural land with one homesite and further west across Crowfoot Road are two single-family homes and 300 acres of undeveloped land in unincorporated Douglas County.

Comprehensive Plan Designation

Subareas:
The site is within the Northeast Subarea. This subarea is intended to serve as a guide for future development in Douglas County. The subareas differ significantly in their suggested densities. The Northeast subarea calls for a maximum of 2.5 dwellings per acre.

The density proposed within the Preliminary Plan is compatible with the Northeast Subarea Plan at one Dwelling Unit per 2.5 Acres. The property is an infill parcel surrounded by development on 3 of its 4 sides.

Detailed discussion clarifying the rational for this layout is supported in the body of this narrative, proving how the proposed development meets the intent of the Comprehensive Plan with “a density compatible with adjoining incorporated and unincorporated land uses” and clustering development adjacent to existing development (Policy 3-3 C.3).

Discussion Points:

Infill Site
Bloom is an infill site with existing single-family development along 75% of its boundary’s edge. The property is located in the middle of three different communities (Trails at Crowfoot, Cielo and Pradera). The proposed Preliminary Plan utilizes a more compact development pattern to preserve open space and encourages smart growth by taking advantage of existing surrounding infrastructure along Bayou Gulch Road and Scott Avenue. This includes vehicular access, existing water, sanitary sewer, storm sewer and electric utilities. Proposing this type of infill development in a location that has already established surrounding development helps preserve natural lands in rural Douglas County to be used for more open space and scenic uses for large lot, low- density development

Transition Of Density

Bloom creates a beneficial transition of density between three different communities with Pradera (to the South) having the comparable sized single family lots as Bloom and transitioning to smaller lots to the North (Trails at Crowfoot) and East (Cielo) of the property. More specifically, Cielo, the property East (across Bayou Gulch Road) is a community with average lot sizes of 8500 sf in size. Trails at Crowfoot shares Bloom's entire Northern property line with average lot sizes of 8500 sf in size. The Pradera subdivision abuts the entire South Side of the property line. While this golf course community has a range of home sites from 12,000 sf to 2 acres in size, the homesites abutting the property line are approximately 1.5 acres in size.

Adjacent Zoning

This site is classified as an infill development since there is existing development surrounding it on 3 of its 4 property boundary's with zoning predominately PD – Planned Development.

Southern Boundary – Pradera (PD in Douglas County)

Eastern Boundary – Cielo (PD in Douglas County)

Northern Boundary – Trails at Crowfoot (PD in Parker, CO)

Western Boundary – Miles Shasteen – (Agricultural-One, Douglas County)

Adjacent developments are compatible with the proposed project, so the proposed density would be complimentary with existing land uses.

Preliminary Plan Design

The proposed Preliminary Plan is designed to be a custom home community with a maximum of 32 single-family homes ranging in price from $2 million to $5 million and located on lots averaging over 1 acre in size.

Gates have been planned at Bayou Gulch Road. The streets are anticipated to be private and maintained by Metro District and constructed to Douglas County standards. Setbacks have been provided along the perimeter of the property that will include seasonal landscape. An understated curvilinear sign wall with built in planters is proposed within the setback giving the community identity for those arriving. Bosques of ornamental and canopy trees and shrubs are proposed within the setback, strengthening the seasonal "Bloom" experience.

After passing the sign wall, drivers will navigate a proposed one way split landscaped median street after entering from Bayou Gulch Road that meanders and varies in width. The split median also houses a faux guard shack and entry gates for those living in the community.

Approximately 30 acres are designed for open space, trails, water quality and community amenities. This includes an internal trail system that loops around the neighborhood. The trail system is anticipated to be a naturalistic dirt trail approximately 1.5 miles in length. Construction and phasing has not been determined yet, and is mainly dependent on market conditions.

Landscape

Seasonal landscape is proposed within the community which takes the form of clusters of trees and shrubs organized in a meaningful fashion around the site which will be in seasonal bloom, creating botanical interest within the site. This proposed landscape is proposed planted at key points of interest within the site and will be planned to flower as early as April and as late as August. Once fall and winter are upon us, seasonal color and textures will consume the landscape with aesthetic interest.

This design is intended to retain the natural features of the site, while also adding identifiable and manicured landscape at specific areas of interest. The open space area ensures that wildlife habitat and corridors remain intact, and that the community is in harmony with its rural location.

Access & Connectivity

Bayou Gulch Road will provide primary access to the community along its eastern property line, directly across from Presido Parkway and is anticipated to be an unsignalized full movement intersection. A right-of-way dedication along the western portion of Bayou Gulch Road will be granted to Douglas County via Subdivision Plat.

Corridors

The Preliminary Plan is designed as a larger-lot clustered community. The layout intentionally incorporates slightly smaller individual lots to allow for perimeter landscape buffers and open space tracts throughout the property. This design approach provides greater separation and privacy for existing residents to the north and south and creates opportunities for substantial landscape buffering. The layout also incorporates a system of pedestrian-friendly pathways that could link to individual lots in the form of open space tracts. Their varying widths, ranging from approximately 50 to 200 feet, create a sense of openness and preserve view corridors while offering opportunities for passive recreation and habitat continuity.

The internal open space corridors promote pedestrian connectivity while also serving as wildlife movement pathways that remain unimpeded by fencing. Where fencing is proposed, Colorado Parks and Wildlife suggests that open-rail fencing is safer for wildlife to navigate than many other barricade-style fence types. Unlike larger-lot or agricultural properties that typically use barbed-wire fencing along their boundaries, this community anticipates using open-rail fencing around individual lots. This approach provides a safer and more permeable route for wildlife while also maintaining an open and visually cohesive character throughout the community.

Proposed Utilities

Water and Sewer

While the site is located within the Pinery SUA, the site is not currently included within the Pinery Water and Wastewater District (Pinery WWD). During the site due diligence efforts communication with Pinery WWD and Parker Water and Sanitation District (Parker WSD) occurred to understand the ability to service the site and the locations and capacities of the existing utilities within and around the project area. Parker WSD has infrastructure in closer proximity to the site and can better accommodate the site's water and sanitary capacity needs. Numerous conversations have occurred with both entities yielding

recommendations for inclusion within the Parker WSD from a logistic and serviceability aspect. It is understood that the existing Inter-Governmental Agreement (IGA) between the two entities will need to be updated for Parker WSD to service the subdivision. Based upon these conversations and the existing IGA, we understand that the site's inclusion to Parker WSD will not negatively impact the Pinery WWD. An intent to serve letter from Parker WSD indicates Parker WSD's willingness to serve the development. We have confirmed with the District, that there is adequate capacity in the existing sanitary sewer system. The Bloom subdivision sanitary sewer system will connect to an existing sanitary sewer manhole within the Cielo subdivision just north of Scott Avenue within the cul de sac of Margarita Point. The proposed water system will connect at two locations, one at the northeast corner of the subdivision, on the west side of Bayou Gulch Road at Presido Parkway, and one at the southwest corner of the subdivision, within Scott Avenue just south of the Margarita Point cul de sac. . Based upon our conversations with PWWD and PWSD our understanding is that there are no adverse impacts on either District, rather development of the parcel should add to the fiscal health to both Districts from tap fees and monthly service fees. Additional benefits to the District include the looping of water mains, conveyance of easements at no cost to the District, and development of infrastructure by a private developer or metropolitan district without County funding.

Approval Criteria

Approval Criteria for a Preliminary Plan:

Per Section 403, Article 4 of Douglas County's Zoning Resolution the Preliminary Plan approval is based from the following criteria:

403.01 Conforms with the goals, objectives, and policies of the Master Plan.

Compliance With Section 3 Of the County's Nonurban Land Use

OBJECTIVE 3-3E
Ensure development in the Northeast Subarea is consistent with this plan.

POLICY 3-3E.1
The Preliminary Plan is in compliance with policy 3-3.E.1 as a maximum gross density of one dwelling unit per 2.5 acres is supported in the Northeast Subarea where it is logical infill, and over 50% of the property boundary is adjacent to zoned lands or parcel sizes consistent with the proposed development, and has site characteristics which can support the layout and use.

Over 75% of the property is surrounded by single family development as Trails at Crowfoot is to the North, Pradera is to the South and Cielo is to the East, qualifying Bloom as an Infill property. As

mentioned above, the proposed Preliminary Plan depicts a maximum density of 1 dwelling unit per 2.5 acres on the property which totals 32 homesites.

POLICY 3-3E.2, 3-3E.3
A maximum gross density of one dwelling unit per 2.5 acres is proposed within the Preliminary Plan which resides within the Northeast Subarea where there is adequate public infrastructure in the existing Bayou Gulch Road to support the proposed development.

POLICY 3-3E.4, POLICY 3-3E.5, POLICY 3-3E.6
The proposed Preliminary Plan is within the Northeast Subarea and takes measures to protect the existing alluvial wells used as water supply by proposing central water and sewer services with Parker Water and Sanitation District. The large lot layout minimizes the removal of vegetation and works with the existing terrain to minimize grading and earthwork where possible. Open space corridors and natural drainages which will also act as wildlife movement are proposed through the community and may provide open space linkages between adjacent communities. Additional trees and vegetation will be proposed along landscape buffer areas to screen development.

POLICY 3-3E.7
While the property does not have viewsheds of the front range, the proposed Preliminary Plan has been designed to with proposed development along existing roads. The plan allows for landscape buffers as the Northeast Subarea criteria suggests the plan should be sensitive to minimizing visual impacts from Bayou Gulch Road.

Compliance With Section 5 Of the County's Community Resources

Goal 5-1
Ensure the provision of adequate community resources in an efficient and cost-effective manner.
Objective 5-1A
Review existing and projected development to ensure that it does not overwhelm existing services.

POLICY 5-1A.1, 5-1A.2
The proposed development is located in an area of growth within Douglas County with new neighborhoods such as Pradera, Trails at Crowfoot, and Cielo, with commercial and residential development that are recently completed, underway or in the planning process. Utility services are in place or expanding due to these neighboring developments. The potential development of Bloom will provide a logical extension of these facilities and the development of new infrastructure where needed for the development. Discussions are underway with service providers to ensure capability of providing the services as well as the needs for accommodating new residents. Facilities will be provided if necessary and/or mitigation of the impacts provided, as negotiated with the service provider.

Objective 5-1B
Maintain a development pattern of contiguous and logical extensions of community resources and infrastructure.

POLICY 5-1B.1, 5-1B.2
Bloom is surrounded on three sides by existing or proposed neighborhoods and therefore development of the site is a logical extension of existing facilities and services.

Goal 5-2
Provide educational facilities that serve the County's population.
The applicant will continue to coordinate with Douglas County School District to ensure that public educational facilities are available to the students within Bloom. It is anticipated that cash-in-lieu of land dedication and capital mitigation of impacts may be provided to the School District in accordance with District rules and regulations.

Goal 5-3
Promote the sustainability of special districts.
It is anticipated that the development will seek a Special Metropolitan District to assist in the financing of public improvements. All development will be in accordance with the service plan. The district will need to be approved by the County who will ensure that district does not unnecessarily burden County residents.

Goal 5-4 Ensure library resources are available to all County residents.
The applicant will work with and with the Douglas County Libraries' Board of Trustees to mitigate growth-related impacts through planning, and the land development referral process.

Goal 5-6
Provide quality emergency services to County residents in the most efficient and cost-effective manner possible.
The Douglas County Sheriff's Department currently provides law enforcement to the developments surrounding Bloom. Adequate access will be provided for the law enforcement officers through the private streets. Response time should be no greater than that provided for the surrounding neighborhoods.

Provide opportunities for cultural experiences.
Currently, the existing arts and cultural facilities available for the residents of Bloom are primarily clustered in the Denver Central Business District, with the closest facility being in Parker on Mainstreet. However, with recent growth trends south of the downtown area, it is anticipated that the demographics of this may require that additional cultural services be established in this southeast metropolitan region.

E. Compliance With Section 6 Of the County's Transportation Criteria

Goal 6-1
Develop an efficient, multifunctional transportation network designed to ensure safety, promote user access, and facilitate cost-effective operations and maintenance.
Objective 6-1A
Ensure consistency between the Transportation Master Plan and local and regional transportation plans.

POLICY 6-1A.1, 6-1A.2
A Traffic Impact Analysis has been conducted by LSC based on proposed density assumptions for development of Bloom. The analysis addresses volume and capacity of the roads, establishes a hierarchy for the roads and provides a classification of the streets. All roads internal to the site will be local streets.

Goal 6-2

Develop and maintain an efficient and safe road network in harmony with natural features and existing neighborhoods

Objective 6-2A
Plan and construct an efficient road network.

POLICY 6-2A.1, 6-2A.2, 6-2A.3
The low density proposed within Bloom limits the need for an extensive road network. It is anticipated that local roads, which are primarily loop streets and cul-de-sacs, will provide access to the homes, therefore limiting long stretches of roads and eliminating the opportunity for cut-through traffic.

Objective 6-2B
Ensure new development pays its fair share.

POLICY 6-2B.1, 6-2B.2, 6-2B.3
It is understood that the developer, builder, or metropolitan district will be responsible for completing the public improvements directly associated with the development of Bloom.

Objective 6-2C
Provide adequate primary, secondary, and emergency connections for subdivisions.

POLICY 6-2C.1, 6-2C.2, 6-2C.3, 6-2C.4\
The proposed road network will be designed to Douglas County standards. The network will ensure ease of access to the homes without impacting adjacent residents. The proposed layout eliminates opportunity for cut-through traffic to or through the site as the Preliminary Plan depicts a loop road internal to the property, entering and exiting on Bayou Gulch Road.

Objective 6-2D
Design local roads to serve the purpose and scale of the neighborhood or local environment.

POLICY 6-2D.1, 6-2D.2, 6-2D.3, 6-2D.4, 6-2D.5
The low density proposed within Bloom limits the need for an extensive road network. It's anticipated that local roads, which are primarily loop streets and cul-de-sacs, will provide access to the homes, therefore limiting long stretches of roads or the opportunity for cut-through traffic. A trail system through the neighborhood will encourage the residents to walk to community amenities.

Compliance With Section 7 Of the County's Water Supply Criteria

Goal 7-1
Prolong the life of water resources.
Objective 7-1A
Minimize water consumption.

POLICY 7-1A.1, 7-1A.2, 7-1A.3, 7-1A.4

The landscaping of community amenities by the developer/builder such as entry features, landscape buffers, open space, and trail corridors will primarily utilize native plant species that conserve on irrigation and utilize best management practices.

Objective 7-1B
Maximize the efficient use of water.

POLICY 7-1B.1, POLICY 7-1B.2, POLICY 7-1B.3, POLICY 7-1B.4
Homeowner's will be encouraged to utilize xeriscape techniques for all private area landscaping. Builder installed landscaping will also utilize these techniques. Builders will be encouraged to install low water usage fixtures and appliances.

Objective 7-1C
Support long-term water supply planning.

Cooperation between the developer and the Parker Water and Sanitation District will be ongoing to ensure that new residents comply with the District suggested water conservation techniques. A "will-serve" agreement is in place with the District for water and wastewater service. The letter states the District will provide service for up to 32 dwelling units for the Property. Additional infrastructure and wells will be required to meet the needs of the proposed development. Parker Water and Sanitation District has consistently provided reliable service to its residents even in the years with severe drought conditions.

Compliance with Section 8 Of The County's Environmental Quality Criteria

Goal 8-1
Recognize and respect natural geologic conditions.
Objective 8-1A
POLICY 8-1A.1, 8-1A.2, 8-1A.3, 8-1A.4, 8-1A.5, 8-1A.6, 8-1A.7, 8-1A.8
Ensure development is appropriate when weighed against hazards and constraints.

The Environmental Study report did not indicate any sever slopes that could be hazardous as existing topography is rolling and gentle (5% average). Slope-failures can be caused by soil-eroded gullies which undercut unstable slopes and cause failure. It should be noted that the maps within the CMP for Environmental Hazards and Constraints are general in nature and should be supplemented with site-specific studies during the development review process if warranted.

Goal 8-2
Limit land uses in floodplains.
Objective 8-2A
Preclude damage to life and property.
The property is not in a floodplain or floodway and does not have any notable streams or drainages that run through the site.

Goal 8-3
Reduce the risks of loss from wildfire hazard.
Objective 8-3A
POLICY 8-3A.1, 8-3A.2, 8-3A.3
The property does not have any significant natural vegetation within the landscape, and the risk of wildfire is low given the low-density nature of the residential application.

Goal 8-5
Maintain high water quality and protect water resources.
Objective 8-5A
Coordinate with regional agencies to protect water quality.

POLICY 8-5A.1, 8-5A.2
Cooperation between the proposed community and the Parker Water and Sanitation District will be ongoing to ensure that new residents comply with the District suggested water conservation techniques.

Objective 8-5B
Ensure new development maintains and improves water quality in accordance with all adopted clean water regulations.

POLICY 8-5B.1, 8-5B.2, 8-5B.3, 8-5B.4, 8-5B.5
Irrigation and planting designs should blend or complement the existing terrain and utilize indigenous, historically adaptable, low maintenance, turf, plants, and trees. Overtime the restoration and enhancement of all areas surrounding individual home sites will establish a common natural landscape feature that will visually link the Bloom community and the adjacent open space.
Proposed landscape will mitigate, surface erosion, and sedimentation sources through Best Management Practices will be filtered naturally as water permeates back to alluvial wells.

Objective 8-5C
Ensure that water treatment and septic systems will not harm either ground or surface water quality.

POLICY 8-5C.1, 8-5C.2, 8-5C.3
Central Sewer and Water systems are proposed and anticipated to be serviced by Parker Water and Sanitation District.

Goal 8-6
Maintain appropriate noise levels.
Objective 8-6A
Evaluate and mitigate noise impacts, where appropriate.

POLICY 8-6A.1, 8-6A.2, 8-6A.3
To meet the intent of the Comprehensive Plan, the following will occur with the planning and design of the neighborhood:
A Traffic Impact analysis has been conducted by LSC and will be provided with the application. Berming and landscaping will be provided to soften and enhance the frontage along Bayou Gulch Road. The

design of the homes will include methods to mitigate noise such as central forced air, additional insulation, double pane windows, etc. as recommend.

Compliance With Section 9 Of The County's Wildlife, Wildlife Habitat, And Movement Corridors Criteria

Goal 9-1
Protect and enhance wildlife habitat and movement corridors and foster wildlife conservation.
Objective 9-1A
Maintain healthy ecosystems within the County by establishing, maintaining, buffering, and improving a set of core habitat areas, such as habitat conservation areas (HCAs), connected by movement corridors and overland connections as shown in the Wildlife Resources Map.

Objective 9-1B
Minimize impacts to wildlife by ensuring that development and land use are compatible with wildlife, wildlife habitat, and movement corridors.

POLICY 9-1A.1, 9-1A.2, 9-1A.3, 9-1B.1, 9-1B.2, 9-1B.3, 9-1B.4, 9-1B.5, 9-1B.6, 9-1B.7, 9-1B.8, 9-1B.9
Most of the site has been disturbed by ranching operations over the years and is categorized as low habitat value with a small portion being moderate habitat value (per Map 9.1 in Douglas County's Comprehensive Plan). However, the proposed Preliminary Plan will have open space corridors going through the property that will assist with the migration of wildlife through the site. The proposed development shall maintain open space lands as corridors for wildlife.

Covenants conditions and restrictions established for the neighborhood and enforced by the homeowner's association will most likely prohibit domestic animals from free roaming. Pet containment fencing will be required for the homes along these corridors. Disturbed areas not intended for development will be revegetated to native grassland species and shrubs.

403.02 Addresses the design elements established in Article 4, Section 404

404.01 Lots are of an appropriate size and configuration for the site's characteristics and intended uses, and otherwise capable of meeting minimum

- All lots have been designed to be over one acre in size, which is compatible with the surrounding area as both Cielo and Trails at Crowfoot have been designed with 8500sf lot sizes, and Pradera is approximately 2 acres in lot size. Furthermore, the density of the project is 1 unit per 2.5 Acres.

404.02 Geologic hazards, floodplains, wildfire, or other hazardous conditions are mitigated or avoided.

- Hazards have been avoided as no significant hazardous conditions have presented themselves in the Environmental Assessment report.

404.03 Conflicts between proposed and surrounding land uses are minimized through lot and tract orientation, setbacks, landscaping, or other buffering techniques.

- There are no conflicts between land uses as the surrounding and proposed land uses are Single Family Detached homes. Furthermore, efforts have been made within the Preliminary Plan by proposing landscape buffers throughout the perimeter of the site.

404.04 Streets and stormwater facilities are laid out with the ability to meet the Douglas County Roadway Design and Construction Standards, Storm Drainage Design and Technical Criteria Manual, and other applicable County regulations.

- The proposed streets are intended to be private and associated grading have been designed to meet the Douglas County Roadway Design and Construction Standards. Utilities layout and design will comply with criteria set forth in the Storm Drainage Design and Technical Criteria Manual

404.05 Elements of the site's natural terrain, drainageways, riparian areas, and vegetation are preserved or integrated into the subdivision layout.

- While the site has few notable natural characteristics, the layout is designed to minimize road grading and walls and preserve drainage corridors which could also be used for pedestrian corridors and wildlife corridors.

404.06 Archeological and historical resources of special significance are protected.

- Per the Cultural Resource Survey, the site is not eligible for listing in the SRHP under any criteria. The site is not associated with any known events, or persons, significant to the history of the area, nor does it embody any distinctive characteristics of a type, period, or method of construction. The site is not geographically important and furthermore, soil probe results indicate that there is minimal deposition, and the site will not yield additional important information regarding Indigenous use of the area.

404.07 Opportunities for safe and convenient vehicular, pedestrian, and other connections within the subdivision and adjacent neighborhoods, shopping, employment, and recreational areas are provided.

- Recreational opportunities will be provided to adequately serve the residents of the proposed neighborhood including picnic shelters, wildlife viewing areas (bird watching, walking trail connections, and like amenities). The Cherry Creek Regional Trail is near the site which provides off-street bike and pedestrian trail system that will connect this neighborhood to nearby amenities such as schools, recreational facilities and to downtown Parker. These trails also continue for several miles into the Denver Metropolitan area offering alternatives for commuters. Furthermore, residents will support already established commercial areas as the parcel of ground is less than 3 miles from retail shopping such as grocery, restaurants, pet stores, banks, automotive care, and pharmacies (Intersection of Stroh Road and South Parker Road). This symbiosis of services supports healthy communities.

404.08 Specific recommendations of other required development reports or technical studies are implemented.

- Recommendations will be heeded from development reports or technical studies.

403.03 Conforms with Section 18A, Water Supply - Overlay District, of the Zoning Resolution.

Water and sanitary sewer service is available through a service agreement with the Parker Water and Sanitation District. While the site is located within the Pinery SUA, the site is not currently included within the Pinery Water and Wastewater District (PWWD). During the site due diligence efforts communication with PWWD and Parker Water and Sanitation District (PWSD) occurred to understand the ability to service the site and the locations and capacities of the existing utilities within and around the project area. PWWD infrastructure is limited, and significant off-site improvements would be required. PWSD has infrastructure in closer proximate to the site and better accommodates the site due to physical land constraints in the form of topography. Numerous conversations with both entities yielded recommendations for inclusion within the Parker Water and Sanitation District from a logistic and serviceability aspect. This coordination with the Pinery Water and Wastewater District concluded they were in support of including this property in Parker Water and Sanitation District and will implement the existing Inter-Governmental Agreement between the entities to service the greater area. Based upon these conversations and the existing IGA we understand that the site's inclusion to PWSD does not negatively impact the Pinery Water and Wastewater District. An intent to serve letter indicates PWSD's willingness to serve the site with up to 32 dwelling units with the required additional wells and infrastructure necessary to serve the residents and associated amenities. It is anticipated that there is adequate capacity in the sanitary sewer system, which will connect at a minimum two locations, one north to the Trails at Crowfoot subdivision and one east to the Cielo subdivision connection within Scott Road, as required due to the ridgeline with the site. Based upon our conversations with PWWD and PWSD our understanding is that there are no adverse impacts on either District, rather development of the parcel should add to the fiscal health to both Districts from tap fees and monthly service fees. Additional benefits to the District include the looping of water mains, conveyance of easements at no cost to the District, and development of infrastructure by a private developer or metropolitan district without County funding.

403.04 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.'

As stated above, The Property has a "will serve" letter from Parker Water and Sanitation District to provide water and sanitary sewer service. The letter states the Districts willingness to provide service for up to 32 dwelling units on the Property with the required dedication of well sites and improvements to infrastructure. Currently, there is adequate capacity to serve the property with sanitary sewer service.

403.05 Identifies all areas of the proposed subdivision, which may involve soil or topographical conditions

presenting hazards or requiring special precautions and the proposed uses of these areas are compatible with such conditions.

The Environmental Study report did not indicate any sever slopes that could be hazardous as existing topography is rolling and gentle (5% average). Slope-failures can be caused by soil-eroded gullies which undercut unstable slopes and cause failure. It should be noted that the maps within the CMP for Environmental Hazards and Constraints are general in nature and should be supplemented with site-specific studies during the development review process if warranted.

403.06 Provides adequate drainage improvements.

A central stormwater utility plan along with a Phase II Drainage Report has been submitted with the plan set identifying detention along with associated hydrology calculations justifying the proposed design.

403.07 Provides adequate transportation improvements.

Bayou Gulch Road will provide primary access along the eastern property line which is anticipated to be an unsignalized full movement turn. A 60' Right of Way dedication for the western portion of Bayou Gulch Road is anticipated. All internal local streets are anticipated to be private and maintained by the Metro District. These streets will be designed to meet the Douglas County Roadway Design and Construction Standards.

403.09 Has available all necessary services, including fire and police protection, recreation facilities, utility services, streets, and open space to serve the proposed subdivision.

Bloom is located within the South Metro Fire Protection District and the intended development will meet the safety standards and design requirements of the District. The site is equidistant from South Metro Fire Station 46 on Stroh Road, and Franktown Fire Protection on Bayou Gulch Road. This station has been constructed within the Pradera Subdivision at the corner of Bayou Gulch Road and Bridle Path. Both stations have an adequate emergency response time to the site. South Metro Fire District currently serves the surrounding neighborhoods and therefore they should be capable of serving this proposed development without overextending available resources. Taxes paid to the District will aid in off-setting increased costs of services.

Law Enforcement Services / Police Protection - Law enforcement for Bloom will be provided by the Douglas County Sheriff's Department. Given the proposed low-density nature of the community and its proximity to existing developments in the County currently receiving these same services, the property should have limited impacts on police protection services.

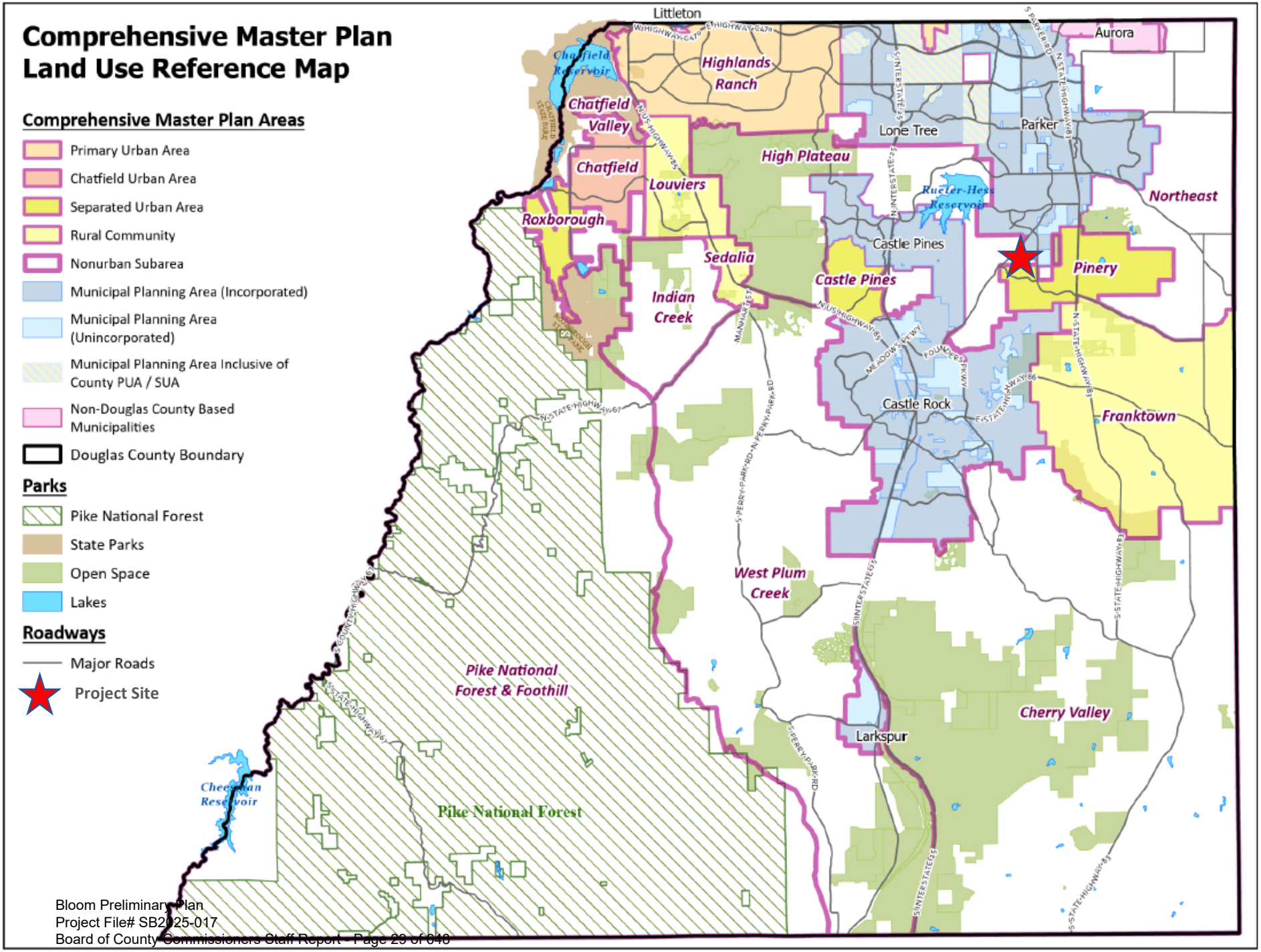
As stated above, The Property has a “will serve” letter from Parker Water and Sanitation District to provide water and sanitary sewer service. IREA is anticipated to provide Gas and Electric services.

Lastly, this custom home community will provide high-quality single-family homes along the Bayou Gulch Road corridor while preserving the natural landscape and providing passive recreational amenities for the community. The project remains consistent with the surrounding residential land uses as it shares a southern property boundary with Pradera, while respecting the natural landscape. The plan utilizes and preserves the natural features through open space corridors, limiting over lot grading and highlighting features with a recreational trail network.

403.10 Does not interfere with the extraction of any known commercial mining deposit.

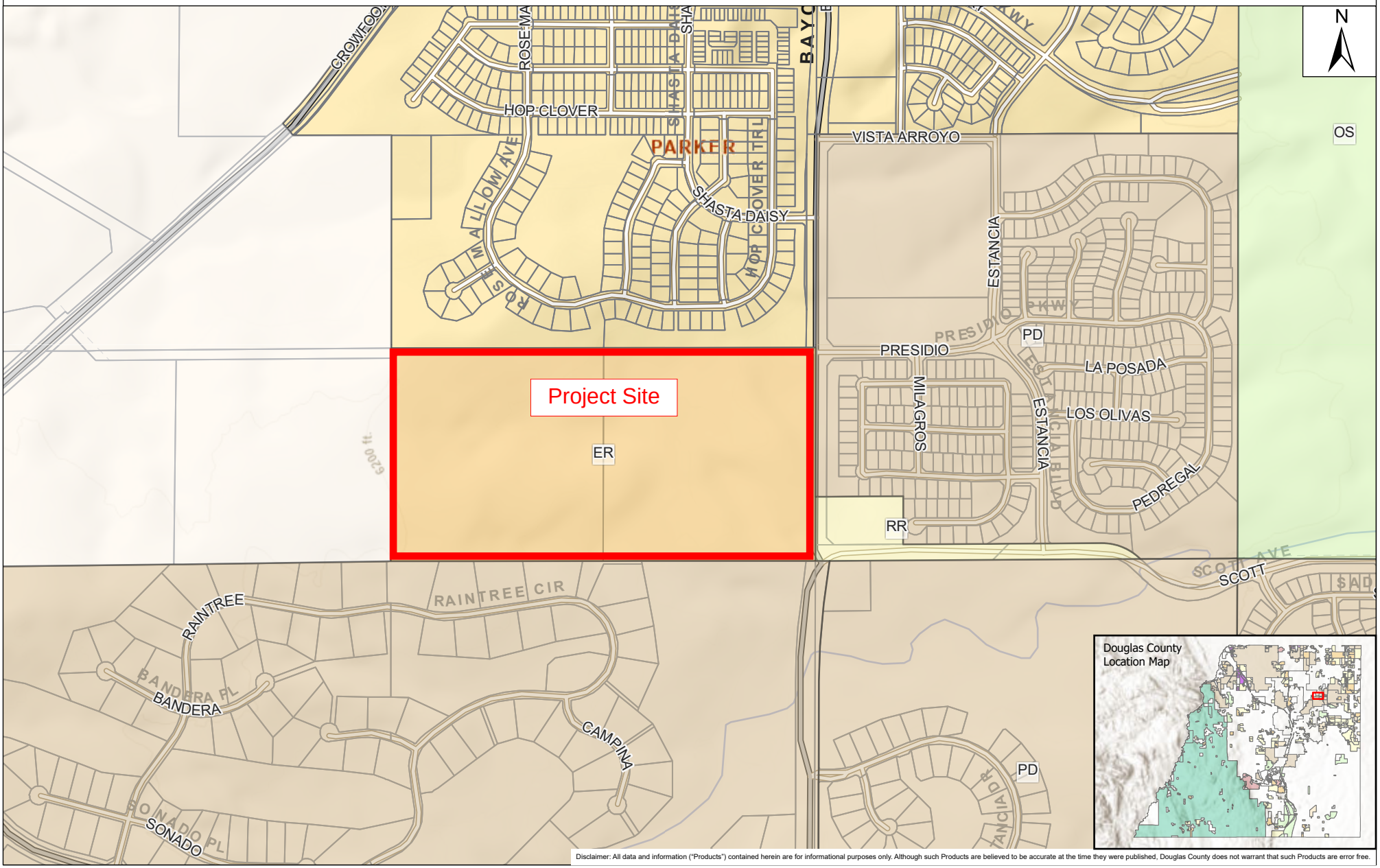
There is not a commercial mining operation on the site and is not applicable.

Comprehensive Master Plan Land Use Reference Map



Zoning Map Bloom Preliminary Plan - SB2025-017

DOUGLAS COUNTY COLORADO



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Date Saved: 3/23/2026 12:03 PM

- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION
- A1 - AGRICULTURAL ONE
- RR - RURAL RESIDENTIAL
- ER - ESTATE RESIDENTIAL

Aerial Map Bloom Preliminary Plan - SB2025-017

DOUGLAS COUNTY
COLORADO



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ER - ESTATE RESIDENTIAL
A1 - AGRICULTURAL ONE
PD - PLANNED DEVELOPMENT
RR - RURAL RESIDENTIAL

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Addressing Analyst	07/08/2025	Received: Douglas County Addressing has completed review of the Bloom Preliminary Plan and has the following comments: • Four streets must be named. • One street name may be used twice with different suffixes.	The applicant will coordinate with Douglas County Addressing to address street names at time of final plat application.
AT&T Long Distance - ROW	07/09/2025	Received: This is in response to your eReferral with a utility map showing any buried AT&T Long Line Fiber Optics near Bayou Gulch Rd Parker, Colorado. The Earth map shows the project area in red and the buried AT&T Long Line Fiber Optics in yellow. Based on the address and/or map you provided, there should be NO conflicts with the AT&T Long Line facilities.	No Response Required.
Black Hills Energy		No Response Received:	No Response Required.
Building Services	07/08/2025	No Comment:	No Response Required.
Castle Park Ranch Property Owners Association		No Response Received:	No Response Required.
CenturyLink		No Response Received:	No Response Required.
Cherry Creek Basin Water Quality Authority	07/25/2025	Received: The Cherry Creek Basin Water Quality Authority (Authority) acknowledges notification from Douglas County that the proposed development plans for SB2025-017, Bloom Preliminary Plan have been or will be reviewed by Douglas County for compliance with the applicable Regulation 72 construction and post-construction requirements. Based on the Authority's current policy, the Authority will no longer routinely conduct a technical review and instead the Authority will defer to Douglas County's review and ultimate determination that the proposed development plans comply with Regulation 72.	The applicant has acknowledged the response from the Authority.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
City of Castle Pines		No Response Received:	No Response Necessary.
Colorado Division of Water Resources	07/30/2025	Received: Following is a summary of comments received from the Division of Water Resources (DWR). For details please reference their letter dated August 7, 2025. -Well Permit No. 138031 was issued for the not nontributary Upper Dawson aquifer. This well must be plugged and abandoned prior to the subdivision approval. The applicant has noted that they will plug and abandon this well. The applicant must submit a Well Abandonment Report. -DWR's opinion is that the water supply is adequate and can be provided without causing injury.	A condition of approval will be included with the preliminary plan requiring the applicant to file a Well Abandonment Report with DWR prior to approval of the final plat.
Colorado Geological Survey	07/28/2025	Received: Following is a summary of comments received from the Colorado Geological Survey. For details, please reference their review letter dated July 28, 2025.The proposed Bloom Preliminary Plan site (39.4511, -104.7889) contains only isolated areas of slopes steeper than 20%, and no geologic hazards or unusual geotechnical constraints are known or suspected to be present that would preclude the proposed residential use and density. If the applicant follows the recommendations included in the submitted geological study, then CGS has no objection to the proposal.	No response required.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Colorado Parks and Wildlife (East DC - Dist 549)	07/30/2025	Received: Following is a summary of comments received from Colorado Parks and Wildlife (CPW). For details please reference their review letter dated July 30, 2025. -CPW raised concerns with fragmentation and loss of wildlife habitat, fencing and consideration of placement and designs for wildlife friendly fencing, placement and design of trails to limit impacts to wildlife, the spread and control of noxious and invasive weeds. -CPW also recommends limiting disruption to raptors if any active next is discovered on the site. -If burrowing owls are discovered on the site and any earth-moving that will begin between March 15th and August 31st, a burrowing owl survey should be performed.	A condition of approval will be included with the preliminary plan regarding burrowing owls and limiting disruption during certain times of the year. Placement of wildlife friendly fencing will be further evaluated during the final plat process.
Comcast		No Response Received:	No Response Required.
CORE Electric Cooperative	07/28/2025	Received: CORE Electric Cooperative may require additional easements for private road crossing at electric design. CORE approves the preliminary plan.	At the time of final plat application, the applicant will coordinate with CORE Electric on final easement locations and requirements.
Douglas County Conservation District	07/29/2025	Received: Following is a summary of comments received from the Douglas County Conservation District. For details please reference their review letter dated July 29, 2025. -The District appreciates the compact development pattern described in the project narrative that leaves more open space for wildlife corridors, and the plan to minimize the removal of vegetation and to work with the natural landscape.	No Response Required.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Douglas County Health Department	07/09/2025	Received: The Douglas County Health Department (DCHD) responded and made recommendations for controlling fugitive dust for developments of 25 acres and more than 6 months in duration. DCHD is providing a favorable recommendation regarding the proposed method of sewage disposal.	The applicant has acknowledged comments from the DCHD regarding methods for controlling fugitive dust during construction.
Douglas County Historic Preservation	07/28/2025	Received: Following is a summary of comments received from Douglas County Historic Preservation. For details please review their letter dated July 28, 2025. -The Curator has reviewed the completed Class II survey on the project site. New sites were discovered but none are eligible to be listed on the state register.	No Response Required.
Douglas County Parks and Trails	07/22/2025	Received: Applicant will be responsible for meeting the park land dedication standards outlined in Article 10 of the Douglas County Subdivision Resolution.	The applicant will be required to comply with Article 10 of the Douglas County Subdivision Resolution at the time of final plat application.
Douglas County School District RE 1	07/11/2025	Received: Following is a summary of comments received from the Douglas County School District (DCSD). For details please review their letter dated July 11, 2025. -A total of 32 students are expected from the development requiring a total land dedication of 0.753 acres. Since this amount of land dedication is less than DCSD's minimum site requirements, DSCD requests cash-in-lieu of land based on the anticipated full market value after platting occurs. Assuming the applicant agrees with the payment of fees, DCSD has no objections to this application.	Payment of cash-in-lieu fees will be required prior to recordation of the final plat.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Engineering Services	07/29/2025	Received: Following is a summary of comments received from Engineering Services, for details please reference their review letter dated July 29, 2025. -Engineering had minor comments on verifying roadway centerlines, bearings and distances, minimum and maximum grades, and requesting minimum drainage easement widths of 25 feet. Traffic Engineering had comments on proposed access points, turning lanes on Bayou Gulch Road, and minor corrections to the submitted traffic study. The applicant will be required to pay their fair contributions for future traffic signals at Bayou Gulch Road and Scott Avenue and Bayou Gulch Road and N. Pinery Parkway.	Revised documents, including a traffic impact study, have been submitted and comments from Engineering have been addressed. The fair share traffic signal contributions will be included in the Site Improvement Agreement for the final plat.
Mile High Flood District		No Response Received:	No Response Required.
Office of Emergency Management	07/11/2025	Received: It is imperative the applicant follow through with plans to construct a secondary access / emergency access easement road. This will help facilitate rapid evacuation of the entire community in an emergency. The Office of Emergency Management (OEM) also noted that they understand the requirements, codes, and challenges stated by the applicant and have no authority to require the secondary/emergency access. It should be noted that "a best practice in emergency preparedness for any community is to have more than one access/egress point to facilitate rapid evacuation of the entire community."	Comments from OEM have been noted by the applicant. The applicant is proposing one access point on Bayou Gulch Road. Engineering services is not requiring a secondary/emergency access point and to theirknowledge a roadway network is not planned for the adjacent property.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Parker Water & Sanitation District	07/08/2025	Received: Please note this project has not currently been included into the Parker Water & Sanitation District (PWSD) service area. We will not provide Water or Sanitary service to a property that is not in our service area.	PWSD has provided a will-serve letter contingent upon the property being included in the district's service area. The applicant is working towards including the property in the PWSD service area which must occur prior to a final plat being heard by the Board of County Commissioners.
Pradera Homeowners' Association		No Response Received:	No Response Required.
RTD - Planning & Development Dept		No Response Received:	No Response Required.
Sheriff's Office		No Response Received:	No Response Required.
Sheriff's Office E911		No Response Received:	No Response Required.
South Metro Fire Rescue	07/14/2025	Received: South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed preliminary plan. Note that the preliminary utility plan provided does not show fire hydrants in acceptable locations. Designers shall coordinate fire flow requirements and hydrant placement with SMFR prior to developing utility plans for construction and plan approval.	The applicant has coordinated with South Metro Fire to answer their questions regarding fire flow which will be further addressed at the time if final plat.
The Pinery HOA		No Response Received:	No Response Necessary.
Town of Castle Rock	07/15/2025	No Comment:	No Response Necessary.
Town of Parker Development Review		No Response Received:	No Response Necessary.
Town of Parker Public Works		No Response Received:	No Response Necessary.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Wildfire Mitigation	07/30/2025	Received: The project area was assessed for wildfire, the project proposal appears to be over lot graded, fuels are light, native grasses will remain in the open space tracts. Wildfire mitigation recommends incorporating perimeter mowing (strip) and mowing (strip) against the private property boundaries on a minimum bi-annual basis to address wildfire in grass fuels concerns. Staff recommends these management actions be incorporated into an open space management plan. Additional guidance on strip size can be provided at the time of Final Plat or when the management plan is developed.	The applicant will continue to coordinate with County Wildfire implement their recommendations to form an open space management plan at the time of final plat.

Project Name: Bloom Preliminary Plan
Project File #: SB2025-017
Date Sent: 07/08/2025 **Date Due:** 07/29/2025

Agency	Date Received	Agency Response	Response Resolution
Xcel Energy-Right of Way & Permits	07/22/2025	Received: For these single-family residential lots, 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. -Additional easements may need to be acquired by separate document.	The requested plat note has been added to the preliminary plan and will be included on any future final plats. Xcel Energy will receive future final plat applications for review to determine if additional easements are necessary.

From: annb cwc64.com
To: Michael Pesicka
Cc: CHOY, PAM; duanew cwc64.com; jt cwc64.com
Subject: Bayou Gulch Rd Parker, Colorado Douglas County eReferral #SB2025-017
Date: Wednesday, July 9, 2025 10:29:59 AM

Hi Mike,

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

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

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

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

-----Original Message-----
From: mpesicka@douglas.co.us <mpesicka@douglas.co.us>
Sent: Tuesday, July 8, 2025 10:18 AM
To: annb cwc64.com <annb@cwc64.com>
Subject: Douglas County eReferral (Project Number SB2025-017) 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

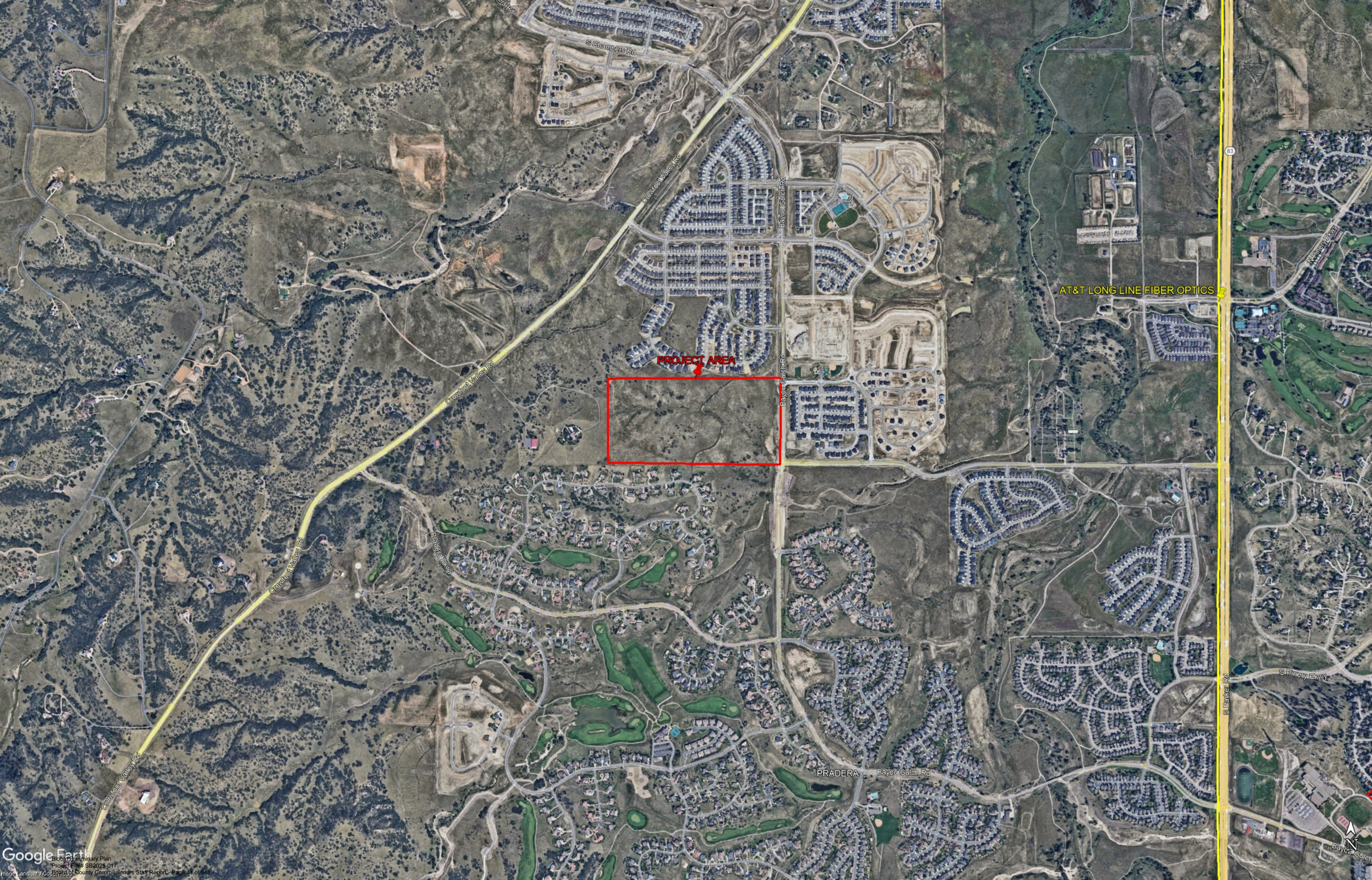
Project number SB2025-017, Bloom Preliminary Plan. The applicant requests a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development

This referral will close on Tuesday, July 29th, 2025.

If you have any questions, please contact me.

Sincerely,

Mike Pesicka, Principal Planner
Planning Services
100 Third Street
Castle Rock, CO 80104
303-660-7460 (main)



Bloom Preliminary Plan
Project #: SBS2025-017
Board of County Commissioners Staff Report - Page 44 of 648

10/3/25

Mike Pesicka, Principal Planner
Planning Services
Douglas County
100 Third Street
Castle Rock, CO 80104
SUBJECT: APPROVAL TO PROCEED WITH ENCROACHMENT – P866786

Project Name & Location: SB2025-017 – Bloom Preliminary Plan

To Whom It May Concern:

Qwest Corporation, Inc. d/b/a CENTURYLINK ("CenturyLink") has reviewed the request for the subject encroachment and has determined that it has no objections with respect to the areas proposed for encroachment as shown and/or described on Exhibit "A", said Exhibit "A" attached hereto and incorporated by this reference. It is the intent and understanding of CenturyLink that this Encroachment shall not reduce our rights to any other existing easement or rights we have on this site or in the area.
This encroachment response is submitted WITH THE STIPULATION that if CenturyLink facilities are found and/or damaged within the areas as described, the Applicant will bear the cost of relocation and repair of said facilities.

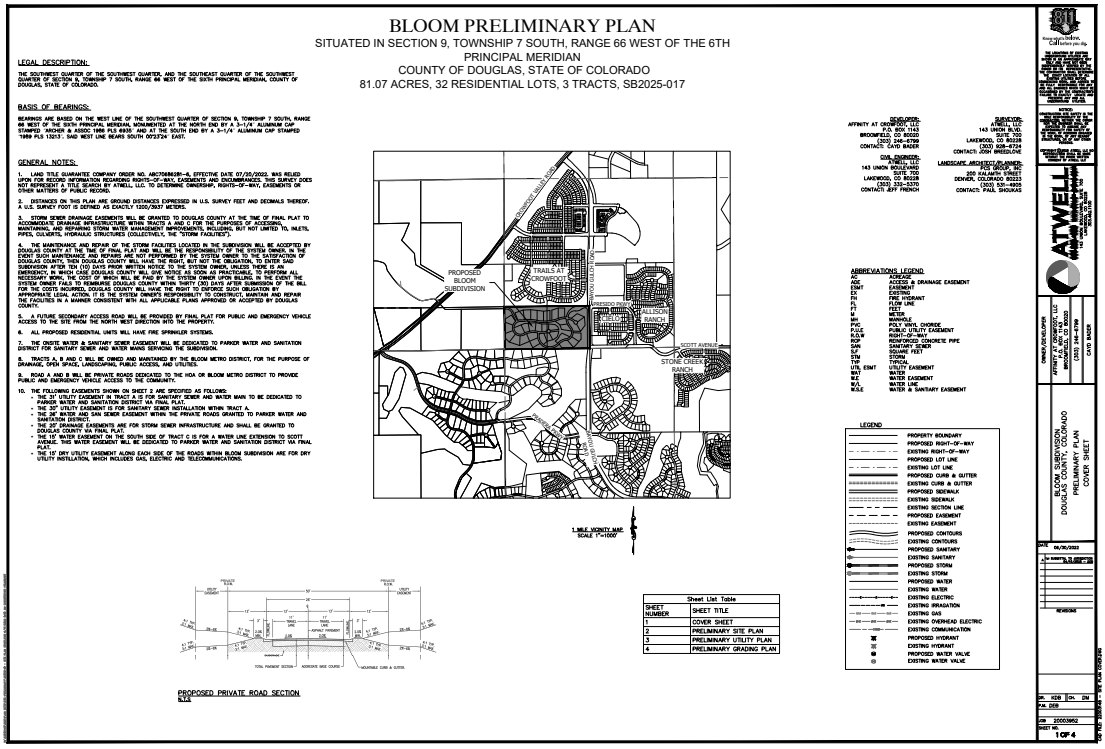
If you have any questions or would like to discuss this action further, please contact Tom Hoopes at Tom.Hoopes@lumen.com.

Sincerely yours,

/s/

CenturyLink Right of Way Team

EXHIBIT A



BLOOM PRELIMINARY PLAN
SITUATED IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 3 TRACTS, SB2025-017

LEGAL DESCRIPTION:

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO.

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE NORTH END BY A 3-1/4" ALUMINUM CAP STAMPED "ARCHER & ASSOC 1998 PLS 6935" AND AT THE SOUTH END BY A 3-1/4" ALUMINUM CAP STAMPED "1999 PLS 13213", SAID WEST LINE BEARS SOUTH 00°37'24" EAST.

GENERAL NOTES:

1. LAND TITLE GUARANTEE COMPANY ORDER NO. ABC70486281-4, EFFECTIVE DATE 07/20/2023, WAS RELIED UPON FOR RECORD INFORMATION REGARDING RIGHTS-OF-WAY, EASEMENTS AND ENCUMBRANCES. THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY ATWELL, LLC. TO DETERMINE OWNERSHIP, RIGHTS-OF-WAY, EASEMENTS OR OTHER MATTERS OF PUBLIC RECORD.

2. DISTANCES ON THIS PLAN ARE GROUND DISTANCES EXPRESSED IN U.S. SURVEY FEET AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS.

3. STORM SEWER DRAINAGE EASEMENTS WILL BE GRANTED TO DOUGLAS COUNTY AT THE TIME OF FINAL PLAT TO ACCOMODATE DRAINAGE INFRASTRUCTURE WITHIN TRACTS A AND C FOR THE PURPOSES OF ACCESSING, MAINTAINING, AND REPAIRING STORM WATER MANAGEMENT IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, HYDRAULIC STRUCTURES (COLLECTIVELY, THE "STORM FACILITIES").

4. THE MAINTENANCE AND REPAIR OF THE STORM FACILITIES LOCATED IN THE SUBDIVISION WILL BE ACCEPTED BY DOUGLAS COUNTY AT THE TIME OF FINAL PLAT AND WILL BE THE RESPONSIBILITY OF THE SYSTEM OWNER, IN THE EVENT SUCH MAINTENANCE AND REPAIRS ARE NOT PERFORMED BY THE SYSTEM OWNER TO THE SATISFACTION OF DOUGLAS COUNTY, DOUGLAS COUNTY MAY GIVE NOTICE TO THE SYSTEM OWNER OF THE DEFICIENCIES AND SUBDIVISION AFTER TEN (10) DAYS PRIOR WRITTEN NOTICE TO THE SYSTEM OWNER, UNLESS THERE IS AN EMERGENCY, IN WHICH CASE DOUGLAS COUNTY WILL GIVE NOTICE AS SOON AS PRACTICABLE, TO PERFORM ALL NECESSARY WORK, THE COST OF WHICH WILL BE PAID BY THE SYSTEM OWNER UPON BILLING, IN THE EVENT THE SYSTEM OWNER FAILS TO REIMBURSE DOUGLAS COUNTY WITHIN THIRTY (30) DAYS AFTER BILLING, DOUGLAS COUNTY MAY CERTIFY THE UNPAID COSTS TO THE COUNTY TREASURER WHO SHALL ADD THE AMOUNT TO THE TAX BILL OF THE APPROPRIATE LEGAL ACTION. IT IS THE SYSTEM OWNER'S RESPONSIBILITY TO CONSTRUCT, MAINTAIN AND REPAIR THE FACILITIES IN A MANNER CONSISTENT WITH ALL APPLICABLE PLANS APPROVED OR ACCEPTED BY DOUGLAS COUNTY.

5. A FUTURE SECONDARY ACCESS ROAD WILL BE PROVIDED BY FINAL PLAT FOR PUBLIC AND EMERGENCY VEHICLE ACCESS TO THE SITE FROM THE NORTH WEST DIRECTION INTO THE PROPERTY.

6. ALL PROPOSED RESIDENTIAL UNITS WILL HAVE FIRE SPRINKLER SYSTEMS.

7. THE ONSITE WATER & SANITARY SEWER EASEMENT WILL BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT FOR SANITARY SEWER AND WATER MAINS SERVICING THE SUBDIVISION.

8. TRACTS A, B AND C WILL BE OWNED AND MAINTAINED BY THE BLOOM METRO DISTRICT, FOR THE PURPOSE OF DRAINAGE, OPEN SPACE, LANDSCAPING, PUBLIC ACCESS, AND UTILITIES.

9. ROAD A AND B WILL BE PRIVATE ROADS DEDICATED TO THE HOA OR BLOOM METRO DISTRICT TO PROVIDE PUBLIC AND EMERGENCY VEHICLE ACCESS TO THE COMMUNITY.

10. THE FOLLOWING EASEMENTS SHOWN ON SHEET 2 ARE SPECIFIED AS FOLLOWS:
- THE 25' UTILITY EASEMENT IN TRACT A IS FOR SANITARY SEWER AND WATER MAIN TO BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT VIA FINAL PLAT.
- THE 20' UTILITY EASEMENT IS FOR SANITARY SEWER INSTALLATION WITHIN TRACT A.
- THE 24' WATER AND SAN SEWER EASEMENT WITHIN THE PRIVATE ROADS GRANTED TO PARKER WATER AND SANITATION DISTRICT.
- 50ft 24' DRAINAGE EASEMENTS ARE FOR STORM SEWER INFRASTRUCTURE AND SHALL BE GRANTED TO DOUGLAS COUNTY VIA FINAL PLAT.
- 30ft WATER EASEMENT ALONG THE SOUTH SIDE OF TRACT C IS FOR A WATER LINE EXTENSION TO SCOTT AVENUE. THIS WATER EASEMENT WILL BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT VIA FINAL PLAT.
- THE 10' DRY UTILITY EASEMENT ALONG EACH SIDE OF THE ROADS WITHIN BLOOM SUBDIVISION ARE FOR DRY UTILITY INSTALLATION, WHICH INCLUDES GAS, ELECTRIC AND TELECOMMUNICATIONS.

PROPOSED PRIVATE ROAD SECTION
N.T.S

1 MILE VICINITY MAP
SCALE 1"=1000'

Sheet List Table	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	PRELIMINARY SITE PLAN
3	PRELIMINARY UTILITY PLAN
4	PRELIMINARY GRADING PLAN

OWNER/DEVELOPER:
AFFINITY AT CROWFOOT, LLC
8400 E. PRENTICE AVE.
SUITE 1000
GREENWOOD VILLAGE, CO 80111
CONTACT: DAVID BAZER

CIVIL ENGINEER:
ATWELL, LLC
143 UNION BOULEVARD
SUITE 700
LAKEWOOD, CO 80228
(303) 232-5200
CONTACT: JEFF FRENCH

SURVEYOR:
ATWELL, LLC
143 UNION BLVD.
SUITE 700
LAKEWOOD, CO 80228
(303) 808-6704
CONTACT: JOSH BRIDELOVE

LANDSCAPE ARCHITECT/PLANNER:
P2N GROUP, INC.
250 KALAMATH STREET
DENVER, COLORADO 80223
(303) 893-1560
CONTACT: PAUL GRUSKAS

ABBREVIATIONS LEGEND:

ACC	ACCESS
ADE	ACCESS & DRAINAGE EASEMENT
EASMT	EASEMENT
EX	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
FT	FEET
M	METER
MH	MANHOLE
PVC	POLY VINYL CHORIDE
P.U.E.	PUBLIC UTILITY EASEMENT
R.O.W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
SAN	SANITARY SEWER
S.F.	SQUARE FEET
STM	STORM
TYP	TYPICAL
UTIL EMT	UTILITY EASEMENT
V	VALVE
W.E.	WATER EASEMENT
W/L	WATER LINE
W.S.E.	WATER & SANITARY EASEMENT

LEGEND

	PROPERTY BOUNDARY
	PROPOSED RIGHT-OF-WAY
	EXISTING RIGHT-OF-WAY
	PROPOSED LOT LINE
	EXISTING LOT LINE
	PROPOSED CURB & GUTTER
	EXISTING CURB & GUTTER
	PROPOSED SIDEWALK
	EXISTING SIDEWALK
	EXISTING SECTION LINE
	PROPOSED EASEMENT
	EXISTING EASEMENT
	PROPOSED CONTOURS
	EXISTING CONTOURS
	PROPOSED SANITARY
	EXISTING SANITARY
	PROPOSED STORM
	EXISTING STORM
	PROPOSED WATER
	EXISTING WATER
	EXISTING ELECTRIC
	EXISTING IRRIGATION
	EXISTING GAS
	EXISTING OVERHEAD ELECTRIC
	EXISTING COMMUNICATION
	PROPOSED HYDRANT
	EXISTING HYDRANT
	PROPOSED WATER VALVE
	EXISTING WATER VALVE

ATWELL
ATWELL, LLC
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
(303) 232-5200

OWNER/DEVELOPER
AFFINITY AT CROWFOOT, LLC
8400 E. PRENTICE AVE.
GREENWOOD VILLAGE, CO 80111
(303) 314-5799
CAN BAZER

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO
PRELIMINARY PLAN
COVER SHEET

DATE 04/30/2025

REVISIONS

DR. KDB CH. DM
PM DEB
JOB 20003952
SHEET NO. 1 OF 4

COLORADO
Parks and Wildlife
Department of Natural Resources

Northeast Regional Office
6060 Broadway
Denver, CO 80216
P 303.291.7227

July 30, 2025

Mike Pesicka, Principal Planner
Planning Services
100 Third Street
Castle Rock, CO 80104

RE: Bloom Preliminary Plan, Project # SB2025-017

Dear Mr. Pesicka,

Thank you for the opportunity to comment on the development proposal for Bloom Preliminary Plan. The mission of Colorado Parks and Wildlife (CPW) is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources. Our goal in responding to land use proposals such as this is to provide complete, consistent, and timely information to all entities who request comment on matters within our statutory authority.

District Wildlife Manager Katie Doyle recently analyzed the site. The 81-acre Castle Rock site is located along Bayou Gulch Road between N. Pinery Parkway and Pradera Parkway in unincorporated Douglas County. This site development plan includes 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, along with access roads along Bayou Gulch Road and on the northwest corner of the development.

Habitat

The main impacts to wildlife from this development would be fragmentation and loss of habitat. Although it is impossible to eliminate fragmentation and habitat loss with any development, impacts to wildlife can be minimized through the use of clustering configurations, density reduction, and providing open space for wildlife.

Fragmentation of wildlife habitat has been shown to impede the movement of wildlife across the landscape. Open space areas are more beneficial to wildlife if they connect to other nearby natural areas. The areas of wildlife habitat that most closely border human development show heavier impacts than do areas on the interior of the open space. However, when open space areas are smaller in size, the overall impacts of the fragmentation is greater (Odell and Knight, 2001). Thus, CPW recommends that the developer and Douglas County employ a collaborative approach with neighboring cities and towns and with other

Jeff Davis, Director, Colorado Parks and Wildlife
Parks and Wildlife Commission: Richard Reading, Chair · James 'Jay' Tutchton, Vice-Chair · Eden Vardy, Secretary · Jessica Beaulieu · Frances Silva Blaney · John Emerick · Tai Jacober · Dallas May · Jack Murphy · Gabriel Otero · Murphy Robinson

developments within the county to maintain wildlife habitat in as whole a state as possible. By keeping open space areas contiguous and of larger size, the overall benefit to wildlife increases dramatically.

Fencing

Fencing inhibits wildlife movement and can contribute to habitat fragmentation. If it is necessary for the development and alternate options are not sufficient, consider fence placement and designs that provide safe crossing options for wildlife. CPW has created a "Fencing with Wildlife in Mind" booklet which provides recommendations for wildlife-friendly fencing and specifications for many common fences. This can be downloaded from our website at http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInMind.pdf.

Trails

When planning trails in the development area, special consideration should be given to the impact trails have on wildlife within the area. Trails should not cut through riparian areas and should remain at least 50 feet from them. They should also be placed at the edges of open space areas and should be no wider than 8 feet throughout their entire length. Trails have the ability to contribute to fragmentation of habitat, disrupting the natural movement of wildlife through an area, and the spreading of noxious weeds.

Noxious Weeds

Noxious weeds should be monitored very closely. The spread and control of noxious weeds on and around this site is a concern for wildlife. Invasive plants endanger the ecosystem by disturbing natural processes and jeopardizing the survival of native plants and the wildlife that depend on them. CPW would recommend the implementation of a weed management plan that may already exist within Douglas County.

Wildlife

CPW would expect a variety of wildlife species to utilize this site regularly, most notably small to mid-sized mammals, song birds, and raptors, but also with the possibility for big game species (elk, deer, bear, and mountain lion), reptiles, and amphibians to be present.

Raptors

Raptors and migratory birds are protected from take, harassment, and nest disruption at both the state and federal levels. If any active nest is discovered within the development area, CPW recommends that buffer zones around the nest site be implemented during any period of activity that may interfere with the nesting season. This will prevent the intentional or unintentional destruction of an active nest.

For further information on this topic, a copy of the document "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors," is available from your local District Wildlife

Manager. Following the recommendations outlined in this document will decrease the likelihood of unintentional take through disturbance.

Prairie Dogs and Burrowing Owls

If a prairie dog colony is discovered within the project area, the potential may also exist for the presence of burrowing owls. Burrowing owls live on flat, treeless land with short vegetation, and nest underground in burrows dug by prairie dogs, badgers, and foxes. Burrowing owls are classified as a state-threatened species and are protected by both state and federal laws, including the Migratory Bird Treaty Act. These laws prohibit the killing of burrowing owls or the disturbance of their nests. Therefore, if any earth-moving will begin between March 15th and August 31st, a burrowing owl survey should be performed. Guidelines for performing a burrowing owl survey can be obtained from your local District Wildlife Manager.

If prairie dog colonies are active, CPW recommends humane euthanasia of live animals before any earth-moving occurs. The possibility of donating carcasses to a raptor rehabilitation facility or the black-footed ferret recovery program may also exist. If interested, please contact the local District Wildlife Manager for more information and any required permits or forms. Please note that a permit from CPW and approval from the Douglas County Board of Commissioners will likely be required for any live relocation of prairie dogs to another site.

Living with Wildlife

Future residents should be informed that wildlife, such as foxes, coyotes, deer, elk, and even bears or mountain lions, frequently visit the development area in search of food and cover. Coyotes, foxes, cottontail rabbits, and raccoons are several species that have adapted well to living in urban environments. This proposed site within Douglas County will also have the presence of bears that have been accustomed to living in close proximity to humans. This should be considered when deciding distances to residential areas. Bears, as well as other wildlife, should not be a concern for residents if the following CPW recommendations are met: People moving into and residing in this area take the proper precautions to prevent unnecessary conflicts with wildlife through the use of pet leash laws, protection of their pets and hobby livestock when not under direct supervision, and reducing attractants on their property.

Homeowners can do their part by **not** inviting wildlife into their yards. Due to the potential for human-wildlife conflicts associated with this project, please consider the following recommendations when educating future homeowners about the existence of wildlife in the area:

- Pet foods and bowls should be kept indoors.
- Garbage should be kept in secure containers to minimize its attractiveness to wildlife. Trash should be placed in containers with tight seals and remain indoors until shortly before pickup.
- Feeding of wildlife, with the exception of birds, **is illegal.**

- “Living with Wildlife” pamphlets are available through CPW offices.

For further information, Colorado Parks and Wildlife can provide copies of the following brochures: “Your Guide to Avoiding Human-Coyote Conflicts,” “Don’t Feed the Wildlife,” “Living with Bears,” and “Too Close for Comfort: Avoid Conflicts with Wildlife in the City” to residents of the surrounding open space. These brochures can also be downloaded from our website at http://cpw.state.co.us/learn/Pages/LivingwithWildlife.aspx.

Thank you again for the opportunity to comment on the proposed Bloom Preliminary Plan. Please do not hesitate to contact us about ways to continue managing the property in order to maximize wildlife value while minimizing potential conflicts. If you have any further questions, please contact District Wildlife Manager Katie Doyle at (720) 930-8039.

Sincerely,



Matt Martinez
Area Wildlife Manager

Cc: M. Leslie, S. Schaller, K. Doyle

From:	Doyle - DNR, Katie
To:	Michael Pesicka
Cc:	matt.martinez@state.co.us; Casey Westbrook - DNR
Subject:	Re: FW: Re-Submittal of SB2025-017 / Bloom Preliminary Plan
Date:	Wednesday, January 28, 2026 2:53:38 PM
Attachments:	image001.png Raptor-Buffer-Guidelines.pdf

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hi Mike,
We appreciate the developer following through with some of the recommendations from the comment letter that was submitted for the Bloom Preliminary Plan under Project #SB2025-017 on July 30th, 2025.

The only additional comment to mention would be that there is an active bald eagle nest approximately .93 miles from the proposed development. Colorado Parks and Wildlife (CPW) has established recommended buffer zones and seasonal restrictions for raptors in Colorado, including bald eagles. CPW developed these raptor guidelines to assist with compliance with the Federal Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. To avoid impacts to nesting bald eagles, CPW recommends no surface occupancy within ¼ mile of an active eagle nest, and no human activities within ½ mile of the nest from December 1st to July 31st. Although this project is outside of these buffers, it is important that the developer recognizes that there are bald eagles in the area and that there are guidelines set if a nest were to be established closer to the development. I am attaching the document "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors" for reference.

Thank you for reaching out regarding the Bloom Preliminary Plan. Let me know if you have any questions or concerns.

Take care,

Katie Doyle
District Wildlife Manager
Parker/Castle Rock East- Area 5
P 303.291.7139 | C 720.930.8039
6060 Broadway, Denver, CO 80216
katie.doyle@state.co.us | cpw.state.co.us

On Wed, Jan 28, 2026 at 8:39 AM Michael Pesicka <mpesicka@douglas.co.us> wrote:

> Katie and Matt,
>
> Will you have any additional comments on the resubmittal of the Bloom Preliminary Plan, Project No. SB2025-017?

Thank you,

Mike Pesicka | Principal Planner

Douglas County Department of Community Development

Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4367 **Main** | 303-660-7460

Email | mpesicka@douglas.co.us

NOTICE: Douglas County Planning does not charge "Approval" fees. Douglas County communicates through our official email accounts ending in @douglas.co.us; beware of phishing scams using similar addesses. If you have questions or concerns about the validity of an email or invoice, please call our Public Outreach and Assistance team at 303-660-7460 or email planning@douglas.co.us

---

From: Paul Shoukas <paul@pcsgroupco.com>
Sent: Friday, December 12, 2025 4:23 PM
To: katie.doyle@state.co.us; Matt.Martinez@state.co.us
Cc: Cayd Bader <caydb@affinholdings.com>; Kurt Moje <kurt@pcsgroupco.com>; Noah Carl <noah@pcsgroupco.com>; Ben Satterwhite <bsatterwhite@atwell.com>; Michael Pesicka <mpesicka@douglas.co.us>
Subject: Re-Submittal of SB2025-017 / Bloom Preliminary Plan

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hi Katie and Matt,

Hope all is well and Happy Holidays.

Please find attached collateral you had requested from our initial submittal to Douglas County. We have included a weed management plan and wildlife analysis letter at your request. Please let us know if you have any questions or need any other information.

Thanks and have a good one,

pcs group

paul shoukas, pla

vice president

200 kalamath street denver, co 80223

office. (720) 259-8248 **cell.** (303) 956-6259

www.pcsgroupco.com

PCS Group will be closed from December 25th through January 1st

DOUGLAS COUNTY
HEALTH DEPARTMENT COLORADO

July 9th, 2025

Mike Pesicka
100 Third St.
Castle Rock, CO 80104

RE: SB2025-017

Dear Mr. Pesicka

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

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.

Water and Sewer Service
A will-serve letter has been provided by Parker Water and Sanitation. Based on this letter, DCHD is providing a favorable recommendation regarding the proposed method of sewage disposal.

Sincerely,

Caden Thompson
Environmental Health Specialist I
Douglas County Health Department

Date: July 8, 2025

To: Paul Shoukas | PCS Group
paul@pcsgroupco.com

From: Caitlin Zeiler, Planning & Addressing Specialist

CC: Mike Pesicka, Planner III

Subject: **Bloom Preliminary Plan**

Project File: **SB2025-017**

Douglas County Addressing has completed review of the Bloom Preliminary Plan and has the following comments:

- Four streets must be named.
- One street name may be used twice with different suffixes.

See the map on the following page for details.

Please propose street names to use on the final plat. Submit proposed street names to Douglas County for evaluation. Pre-check street names online before submitting to Douglas County using the Street Names dataset available on the DougCo Hub. Please review all guidelines in the Douglas County Addressing and Street Naming Manual.

Street alignments as shown on the Bloom Preliminary Plan have been evaluated. Per the Addressing and Street Naming Manual, street alignments determine the suffix. The same street name may be used up to three times, with a unique suffix, where the streets are connected.

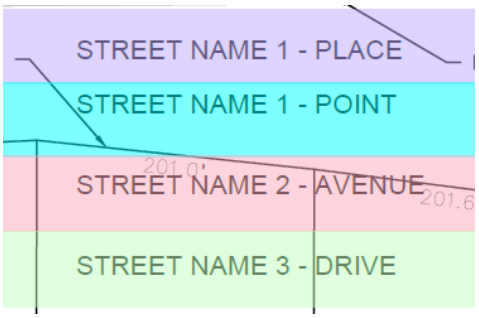
Please submit a revised preliminary plan exhibit to this office for review. Let me know if you have any questions.

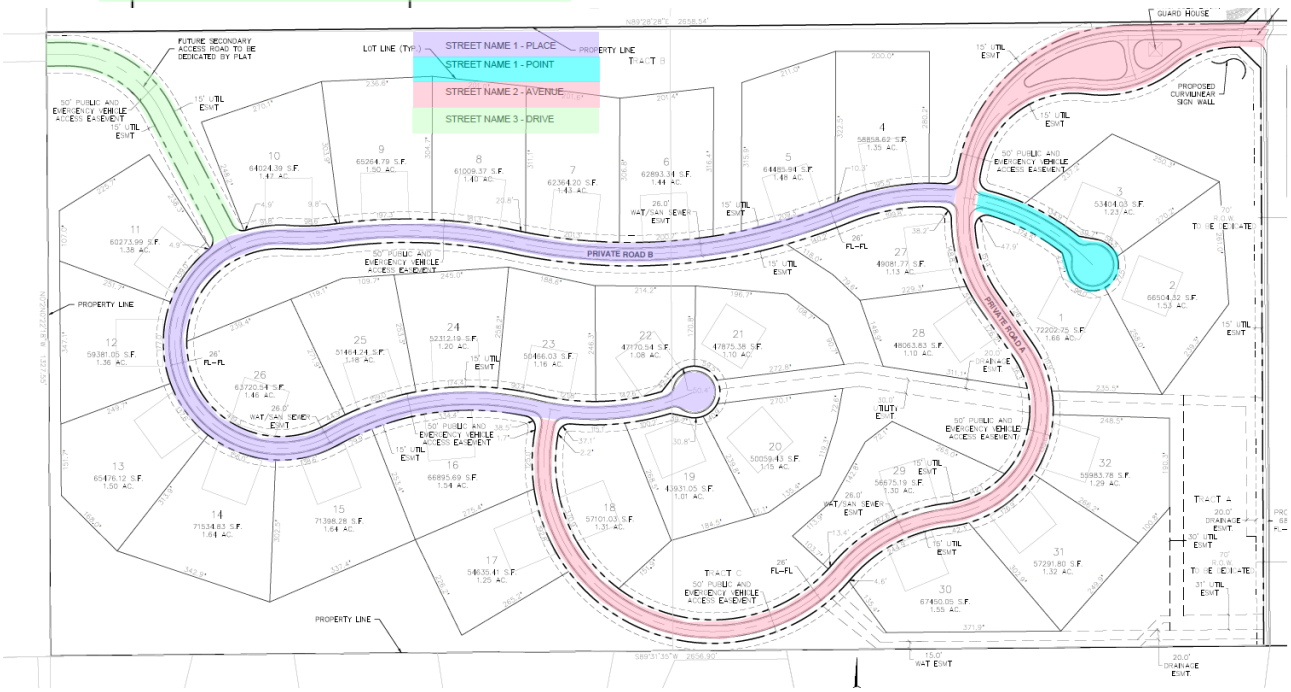
Sincerely,

Caitlin Zeiler
Planning & Addressing Specialist
DCAddressing@douglas.co.us
303.660.7449

Douglas County Addressing has completed review of the Bloom Preliminary Plan and has the following comments:

- Four streets must be named.
- One street name may be used twice with different suffixes.





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

July 11th, 2025

Mike Pesicka
Douglas County Department of Community Development
Planning Services Division
100 Third St.
Castle Rock, CO 80104
mpesicka@douglas.co.us

RE: Bloom Preliminary Plan (SB2025-017)

Dear Mr. Pesicka,

Thank you for the opportunity to respond to the above referenced application. It is our understanding that the applicant is requesting to subdivide 81.07 acres into 32 residential lots and three tracts for drainage, open space, landscaping, public access, and utilities. The property is generally located west of the intersection of Bayou Gulch Rd and Scott Avenue, directly south of the Trails at Crowfoot development.

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 32 students are expected from the development requiring a total land dedication requirement of 0.753-acres. Since this amount of land dedication is smaller than DCSD's minimum site requirements and the applicant has stated in their submitted project narrative that no land will be dedicated, DCSD would request cash-in-lieu of land.

CASH-IN-LIEU CALCULATION
STUDENT GENERATION

PROJECT NAME: BLOOM PRELIMINARY PLAN (SB2025-017)					
DU/	ACRES		DENSITY		
32	81.07		0.39		
			Generation	Number	
STUDENT GENERATION RATES	No. of DU's		Rate	of Students	
ELEMENTARY	32	X	0.54	17	
MIDDLE SCHOOL	32	X	0.15	5	
HIGH SCHOOL	32	X	0.31	10	
				32	
				Required	
			School	Land	
	Number		Acreage	Dedication	
SCHOOL LAND DEDICATION	of Students		Per Student	Acreage	
ELEMENTARY	17	X	0.018	0.311	
MIDDLE SCHOOL	5	X	0.030	0.144	
HIGH SCHOOL	10	X	0.030	0.298	
			TOTAL	0.753	

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

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

August 7, 2025

Eric Pavlinek
Douglas County Planning Services
Transmission via email: epavlinek@douglas.co.us

Re: Bloom Subdivision - Preliminary Plan (2nd Letter)
Case No. SB2025-017
Part of the SW ¼ of Sec. 9, Twp. 7S, Rng. 66W, 6th P.M., Douglas County
Water Division 1, Water District 8
CDWR Assigned Referral No. 34251

Dear Eric Pavlinek,

We received the additional information provided on August 7, 2025 regarding the plan to subdivide two parcels on approximately 81 acres to create 32 new residential lots, along with 3 tracts for drainage, open space, landscaping, public access, and utilities.

Our office previously provided comments on the proposed preliminary plan for the subdivision in a letter dated July 30, 2025. The comments outlined in this letter supersede those from the previous letter.

Water Supply Demand

No water supply demands were included with the application documents. However, a will-serve letter dated February 5, 2025 indicates that the Parker Water & Sanitation District ("District") will provide water to the subdivision at a standard amount of 0.7 acre-feet per year per single-family equivalent ("SFE") tap. For planning purposes,

the District estimates 32 SFEs will be required to serve the 32 residential lots, and approximately 10 SFEs will be required for landscape irrigation inside the subdivision. The total demands for the 42 total SFEs within the subdivision are estimated to be 29.4 acre-feet per year.

Source of Water Supply

The proposed source of water supply is the Parker Water & Sanitation District ("District"). According to the will-serve letter included with the application documents, the District ***"acknowledges its willingness and ability to serve the "Bloom Development" upon successful completion of inclusion."***

The will-serve letter indicates that the District will provide sanitary sewer service for all water taps requested for the Bloom development through an Intergovernmental Agreement with the Pinery Water & Wastewater District.

In a previous comment letter responding to the subdivision rezoning plan (ZR2016-013) dated July 21, 2016, our office noted that ***"a condition of inclusion into the District is that the developer deeds all water rights available to the property to the District. According to our records the ground water underlying the 81.07 acre parcel in the Laramie-Fox Hills, Arapahoe, Denver, Lower Dawson and Upper Dawson aquifers was adjudicated in Division 1 Water Court case no. 2007CW56".*** Based on the additional information provided on August 7, 2025, the Applicant has clarified that the groundwater underlying the 81 +/- acres subject to this referral located in the SW ¼ of Sec. 9, Twp. 7S, Rng. 66W will be deeded to the District and not the groundwater underlying 8996 Motsenbocker Road, Parker Colorado, 80134 (located in Sections 27 and 28 of Twp. 6S, Rng. 66W). According to the Applicant, the mention of the parcel at 8996 Motsenbocker Road in the previous referral documents was made in error.

According to the February 5, 2025 will-serve letter, the District has 25,223.50 acre-feet per year of adjudicated nontributary water rights and 5,487.1 acre-feet per year of not nontributary water rights, of which only a portion is currently covered under court approved augmentation plans. The District also has storage and reuse rights, which can provide additional water supplies. As the date of the letter, the District's current demand is approximately 7,700 acre-feet per year, while at buildout, it is estimated that the total water demand will be 23,500 acre-feet per year. Based on this information, the District has sufficient water available to serve this development.

The majority of the District's water supply is water from 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 undecreed water is 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.

A review of our records indicates that well permit no. 138031 is located on the subject property. Well permit no. 138031 was issued on November 23, 1984 pursuant to CRS 37-92-602(3)(b)(II) as the only well on a tract of land of 40 acres, described as the SW ¼ of the SW ¼ of Sec. 9, Twp. 7S, Rng 66W, 6th P.M. for ordinary household purposes inside one single family dwelling, fire protection, the watering of poultry, domestic animals, and livestock on farms and ranches, and the irrigation of not over one acre of home gardens and lawns. Well permit no. 138031 was issued for the not nontributary Upper Dawson aquifer.

Section 37-92-602(3)(b)(III) C.R.S., requires that the cumulative effect of all wells in a subdivision be considered when evaluating material injury to decreed water rights. **Therefore, well no. 138031 must be included in an augmentation plan, or must be plugged and abandoned prior to the subdivision approval since the provisions of section 37-92-602 which allowed for issuance of the well permits will no longer apply.** According to the additional information provided on August 7, 2025, the Applicant has indicated that well permit no. 138031 will be plugged and abandoned.

Additional Comments

The application materials indicate that a stormwater detention structure will be constructed as a part of this project. The applicant should be aware that unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The Applicant is encouraged to use the Colorado Stormwater Detention and Infiltration Facility Notification Portal to meet the notification requirements.

State Engineer's Office Opinion

Based upon the above and pursuant to section 30-28-136(1)(h)(I) and section 30-28-136(1)(h)(II), C.R.S., it is our opinion that the proposed water supply is adequate and can be provided without causing injury to decreed water rights, **on the condition that well no. 138031 is plugged and abandoned. The Applicant is required to submit a**

Well Abandonment Report (eform) for well no. 138031 to affirm the well was plugged and abandoned.

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 Mike Matz at 303-866-3581 x8241 or at michael.matz@state.co.us with any questions.

Sincerely,

Ioana Comaniciu, P.E.
Water Resources Engineer

Ec: File for Permit no. 138031

REFERRAL RESPONSE REQUEST

Date sent: July 8, 2025

Comments due by: **July 29, 2025**

Project Name:	Bloom Preliminary Plan
Project File #:	SB2025-017
Project Summary:	The applicant requests a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development.

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		**Your Signature:** Al Pet
(please print)		**Date:** 7/29/2025

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,

Mike Pesicka

Mike Pesicka, Principal Planner

DOUGLAS COUNTY
COLORADO

July 29, 2025 DV 25-223

Mike Pesicka – Principal Planner
Douglas County Planning
100 Third Street
Castle Rock, CO. 80104

RE: Bloom Preliminary Plan

Dear Mike,

Engineering has reviewed the Preliminary Plan and the following comments have been generated:

1. Thank you for denoting the 70' ROW dedication for Bayou Gulch Road to come with the Final Plat.

2. Per the roadway cross section depicted on the cover sheet, a set of private alternate road standards will be required at the time of Final Plat.

3. Please delineate the roadway centerline with all distances, bearings, radii and cul-de-sac radii to verify the minimum road standards have been met.

4. Please note the relative road grades to verify the minimum and maximum grades have not been exceeded.

5. Please revise all drainage easements to a minimum width of 25'

Should you have any questions in regard to these comments, I can be reached at 303-660-7490 or apeterso@douglas.co.us.

Respectfully,

Al Peterson
Sr. Development Review Engineer

c: Brad Jackson, P.E., Development Review Supervisor
DV File

From: Al Peterson
To: Michael Pesicka
Subject: FW: Bloom TIA DV25-223
Date: Monday, August 11, 2025 7:40:12 AM

Mike,

Here are Chris' TIA comments for Bloom. Can you please forward these to the applicant.

Thanks AP

From: Chris Martin <CMartin@douglas.co.us>
Sent: Friday, August 8, 2025 11:24 AM
To: Al Peterson <APeterso@douglas.co.us>
Subject: RE: Bloom TIA DV25-223

Al,

I have reviewed the preliminary plan TIA for the Bloom project. The site access and Land-Use (number of residential units) have changed since the study provided for the map change process.

Review comments:

Access

> The project now has a single point of access onto Bayou Gulch Rd forming the west leg of the Bayou Gulch Rd/Presidio Pkwy in the short term. Per the site plan shown in Figure 2, a future secondary public access is proposed to connect to the property to the west. Note, to my knowledge, there has not been a roadway network planned for this adjacent property that would justify the construction of this road connection. Is there a known plan for the property to the west?
>
> The cross-section of the access at Bayou Gulch Rd is shown to be 26 ft FL to FL. It is likely that this cross-section will need to be wider to accommodate turning movements into the site and to operate properly with the laneage existing on the east leg of the Presidio Pkwy / Bayou Gulch Rd intersection.

Land-Use

The site is currently proposed to included 32 SF DU's (compared to the 130 SF DU's contemplated in the 2021 study done for the map change process). This results in a significantly lower trip generation.

Traffic Growth

The long term traffic growth projections for future traffic scenarios shown in Figures 5 & 9 and used in the 2045 background and total condition capacity analysis (Synchro Reports) are inconsistent with the projections found for Bayou Gulch Rd in other traffic studies in the area. For example; In Figure 9 - Total Traffic, the volume shown on Bayou Gulch Rd south of Presidio Pkwy is below 5,500 ADT. The 2023 Leman Academy TIS (LSC #221210) shows 21,700 ADT for the same location in the 2043 horizon (Figure 9a – 2043 Total Traffic). The future scenarios need to be reanalyzed to provide a realistic representation of traffic along Bayou Gulch Rd.

On page 2, for the 2045 Background Traffic the study indicates that half buildout of the of the Leman Academy is assumed. This is likely a typo, since full-buildout of Leman Academy should be assumed for this horizon.

Per Figure 9 (2045), there is no change in the volume on the site's connection to Bayou Gulch Rd compared to the volume shown in Figure 8 (2028) . The study should indicate what is expected to change, volume wise, with the future roadway connection to the property to the west.

This traffic study needs to be revised to address the above comments. Let me know if you have any questions regarding the above information.

Thank you
Chris

From: Chris Martin
To: Al Peterson
Subject: RE: Bloom Preliminary Plan Resubmittal-SB2025-017
Date: Monday, December 15, 2025 4:46:00 PM

Al,

My previous comments have been addressed.

Identified Mitigations

- Per page 3 – Projected Levels of Service, this updated study, the intersection of Bayou Gulch Rd / Scott Ave is expected to be signalized in the 2045 horizon.
- Per the note on Table 1, Bayou Gulch Rd and N Pinery Pkwy will also be signalized in the future.

This project should be responsible for fair share contributions to the future signals at Bayou Gulch Rd / Scott Ave and at Bayou Gulch Rd / N Pinery Pkwy.

Let me know if you have any questions on the above information.

Thanks
Chris

From: Al Peterson <APeterso@douglas.co.us>
Sent: Monday, December 15, 2025 1:13 PM
To: Chris Martin <CMartin@douglas.co.us>
Subject: FW: Bloom Preliminary Plan Resubmittal-SB2025-017

Chris,

Looks like they responded to your traffic comments.

AP

From: Michael Pesicka <mpesicka@douglas.co.us>
Sent: Monday, December 15, 2025 12:25 PM
To: Al Peterson <APeterso@douglas.co.us>
Cc: Carol LeMaire <CLemaire@douglas.co.us>
Subject: Bloom Preliminary Plan Resubmittal-SB2025-017

Al,

Attached are the documents for the resubmittal of the Bloom Preliminary Plan, Project No.

SB2025-017.

Thank you,

Mike Pesicka | Principal Planner
Douglas County Department of Community Development
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4367 **Main** | 303-660-7460
Email | mpesicka@douglas.co.us

NOTICE: Douglas County Planning does not charge “Approval” fees. Douglas County communicates through our official email accounts ending in @douglas.co.us; beware of phishing scams using similar addesses. If you have questions or concerns about the validity of an email or invoice, please call our Public Outreach and Assistance team at 303-660-7460 or email planning@douglas.co.us

July 28, 2025

Mike Pesicka, Principal Planner
100 Third Street
Castle Rock, CO 80104

Re: SB2025-017, Bloom Preliminary Plan

Dear Mr. Pesicka:

The letter provides comments regarding the request for approval of a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development. The applicant previously submitted a cultural resource survey report completed in 2022. A Class II survey was completed by ERO Resources Corporation.

The Curator has reviewed the completed Class II survey on the project site. New sites were discovered but none are eligible to be listed on the state register.

Should buried artifacts and features be discovered in future phases, we recommend completion of the appropriate Colorado Office of Archaeology and Historic Preservation (OAHP) Data Management and Historic and/or Prehistoric Component forms, following OAHP guidelines, with accompanying sketch maps and photographs. Completed forms are submitted to OAHP to ensure that Douglas County's historic or prehistoric data is included in the Colorado OAHP state-wide database of cultural resources.

Thank you in advance for your attention to the preservation and protection of Douglas County's cultural resources for future generations.

Sincerely,

Brittany Cassell

Brittany Cassell, Curator

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

DOUGLAS COUNTY COLORADO

Department of Community Development

www.douglas.co.us

Planning Services

REFERRAL RESPONSE REQUEST

Date sent: July 8, 2025 Comments due by: **July 29, 2025**

Project Name:	Bloom Preliminary Plan
Project File #:	SB2025-017
Project Summary:	The applicant requests a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development.

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

☐	No Comment	
☐	Please be advised of the following concerns:	
☒	See letter attached for detail.	
Agency:	Douglas County Conservation District	**Phone #:** 303 218 2622
Your Name:	David Shohet, President	**Your Signature:** Signed by: David.Shohet 6E6057CEE3D2404...
	(please print)	**Date:** 7/29/2025

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,

Mike Pesicka

Mike Pesicka, Principal Planner

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

DOUGLAS CONSERVES

DOUGLAS COUNTY CONSERVATION DISTRICT

PO Box 688 / 7519A E. Hwy 86 Franktown, CO 80116 / Phone 303-218-2622

DATE: July 29, 2025

RE: SB2025-017

The Douglas County Conservation District provides development responses for Douglas County in accordance with Senate Bill 35. District comments are made on the suitability of soils for the proposed land uses, floodwater management, and watershed protection. In addition, the District submits advisory comments regarding rural water supply issues, agricultural land use conversion, and endangered species protection if the development plan affects those issues.

The District appreciates the compact development pattern noted in the Narrative that leaves more open space for wildlife corridors to preserve the moderate wildlife value in place for generations (Douglas County Map 9-1). In addition, the plan to minimize the removal of native vegetation and to work with the natural landscape is appreciated for this same reason.

It is important to note that 12 neighbors from the surrounding neighborhood attended the Regular Monthly Meeting of the Board of Supervisors on July 28. The neighbors voiced their concern about the following:

1. Ephemeral drainage from SB2025-017 into downstream properties
2. Alteration of historical stormwater flows towards bordering properties.
2. Wildlife impacts and loss of wildlife corridors

According to U.S.D.A. Natural Resources Conservation Service (NRCS) soils survey (enclosed Pages 19-21), the Fondis-Kutch association and Newlin gravelly sandy loam located at the development site are somewhat to very limited for dwellings with and without basements, and small commercial buildings due to flooding, and roads due to shrink-swell soil properties, slope, and depth to hard bedrock. Due to the limitations of the above soils on the site, alternatives to mitigate the limitations of the soil will be required in your engineering design or construction techniques.

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

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

Topsoil should be stripped to a depth of 6 inches, and all stockpiles should have side slopes no steeper than 3:1 and seeded. All disturbed areas should be seeded and mulched with weed free hay mulch at 4,000 lbs. /acre. Recommended seeding dates for Colorado are November 1 to May 1, when the soil is not frozen. Grasses should be seeded when soil moisture and temperature are optimum for germination, unless a dormant planting is desired. Grass seed should be drilled at a depth of ¼ to ½ inch deep and if broadcasted, double the seeding rate. For more information on grass seed selections and seeding rates, please contact the Douglas County Conservation District.

The District recommends that disturbed land be mulched or revegetated within 45 days of disturbance.

The District recommends using a phased grading approach. By limiting the area being graded to 15 acres or less and seeding with native grasses, the land area disturbed is minimized. The development site is 80 acres.

There is no Integrated Noxious Weed Control plan. An integrated weed management program needs to be proposed by the Applicant, and reviewed and approved by the Douglas County Weed Inspector and/or Weed Advisory board, the County Extension Agent, NRCS, or a qualified weed management professional prior to the land use authority approval.

Vehicle tracking control stations need to be installed and maintained at all entrance and exit points on the site. The station should consist of a pad of 3 to 6-inch rock or a vehicle control pad/mat to strip mud from tires prior to vehicles leaving the construction site to prevent the spreading of noxious weeds.

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

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

Silt fences or other forms of erosion barriers need to be planned, installed, and maintained as a temporary sediment control device used on construction sites to protect water quality.

The District strongly recommends that Low Impact Development (LID) techniques be implemented for economic and conservation benefits.

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

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WILDLIFE

SECTION 9



INTRODUCTION

Wildlife is one of the most valuable community assets. Preservation of wildlife habitat enriches the human experience by providing beautiful vistas and vital links to natural systems such as watersheds for Douglas County residents. The existence of wildlife is entirely dependent upon the existence of sufficient wildlife habitat.

Douglas County accommodates the long-term needs of wildlife by creating a habitat plan based on an ecosystem model. The County model relies on a system of large, core-habitat areas connected by movement corridors to various habitat types dispersed throughout the county. The CMP also acknowledges the importance of smaller habitat areas and corridors, including the open areas within residential lots. This model uses a three-tiered approach to prioritize habitat needs for wildlife:

- ### Tier 1: County/Regional
  Countywide or regional (extending beyond the County) habitat areas. These areas and connections are prioritized at the highest level of importance. Countywide habitat includes large blocks of land connected by wide, multi-directional connections. Examples include the Pike National Forest; Daniels Park; Highlands Ranch Backcountry Wilderness; and the series of corridors that connect these areas such as Plum Creek and the 2,000-foot wide DuPont corridor which crosses US Highway 85.

- ### Tier 2: Local
  Local- or community-level areas are moderately-sized wildlife habitat areas contained within, or shaped by, development. These habitat areas and connections are prioritized at a moderate level of importance. The wildlife habitat and corridor plan within Castle Pines Village is an example. Integral wildlife movement corridors are generally 300 feet wide.

- ### Tier 3: Parcel
  Parcel-level habitat or connections are found within individual residential lots, small commercial sites, or small neighborhoods. These habitat areas are given the lowest priority. Land fragmentation, impacts to natural systems, changes in vegetation, and disturbance reduce the value of such habitat. However, wildlife uses these areas, so the cumulative value of parcel-level habitat must not be discounted totally.

The land use review process in Douglas County seeks to identify, minimize, and mitigate impacts to wildlife and the various tiers of wildlife habitat. Stricter review and mitigation of development and other land uses is required of applications in, or adjacent to, important wildlife resources, including moderate or high-value wildlife habitat areas, wildlife habitat conservation areas, movement corridors and overland connections as designated on the Wildlife Resources Map. Efforts to educate and assist residents about proper land management and living alongside wildlife are beneficial to sustaining healthy populations of wildlife.

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FUNDING OPEN SPACE AND HABITAT

Douglas County has thousands of acres of protected land. Much of that land was purchased or protected through open space funding that was secured through the passage of a sales tax in 1994. Douglas County Open Space acquisition dollars used in habitat protection have been leveraged almost 3 to 1 through partnerships and grants.

In 1998, Douglas County bonded its open space sales tax money primarily to facilitate acquisitions. Between 1995 and 2018, over 63,000 acres of open lands were permanently protected. Of this total, Douglas County owns approximately 17,000 acres in fee title. Over 44,000 acres are protected through conservation easements. The County contributed to the acquisition and preservation of almost 2,000 acres owned by other agencies. As acquisition money dwindles, the pace of protection also slows. Douglas County relies more on partnerships with other agencies, citizen groups, landowners, and developers to conserve additional open lands and wildlife habitat.

The County also works to conserve additional wildlife habitat through alternative means, including mitigation of land use impacts and the restoration and improvement of existing habitat. For more information on the protected lands within Douglas County, please visit www.douglas.co.us/openspace.



WILDLIFE RESOURCES

GOAL 9-1

PROTECT AND ENHANCE WILDLIFE HABITAT AND MOVEMENT CORRIDORS AND FOSTER WILDLIFE CONSERVATION.

OBJECTIVE 9-1A

MAINTAIN HEALTHY ECOSYSTEMS WITHIN THE COUNTY BY ESTABLISHING, MAINTAINING, BUFFERING, AND IMPROVING A SET OF CORE HABITAT AREAS, SUCH AS HABITAT CONSERVATION AREAS (HCAS), CONNECTED BY MOVEMENT CORRIDORS AND OVERLAND CONNECTIONS AS SHOWN IN THE WILDLIFE RESOURCES MAP.

POLICY 9-1A.1

Identify important habitat and movement corridors on the Wildlife Resources Map; revise the map to reflect changes over time.

POLICY 9-1A.2

Develop partnerships to conserve additional habitat and manage and improve existing habitat.

POLICY 9-1A.3

Protect important wildlife habitat, habitat conservation areas (HCAs), movement corridors and overland connections.

OBJECTIVE 9-1B

MINIMIZE IMPACTS TO WILDLIFE BY ENSURING THAT DEVELOPMENT AND LAND USE ARE COMPATIBLE WITH WILDLIFE, WILDLIFE HABITAT, AND MOVEMENT CORRIDORS.

POLICY 9-1B.1

Identify important wildlife habitat, habitat conservation areas (HCAs), movement corridors, and overland connections, as designated on the Wildlife Resources Map in applicable land use applications. Evaluate the potential impact of the proposed change in land use on wildlife and habitat. The identified design solutions should be appropriate to the scale and intensity of the proposed land use.

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POLICY 9-1B.2
Consider wildlife opportunities on neighboring lands, as well as a countywide scale, when evaluating land use applications.

POLICY 9-1B.3
Link wildlife habitat and movement corridors, wherever possible.

POLICY 9-1B.4
Locate development outside of important wildlife habitat and movement corridors.

POLICY 9-1B.5
Balance the location and design of transportation infrastructure with accommodation of wildlife habitat and movement values.

POLICY 9-1B.6
Minimize fencing that is exclusionary or dangerous to wildlife, except when necessary for human safety, commercial and industrial uses, protection of at-risk crops, and domestic animal containment. All other fencing should be wildlife friendly.

POLICY 9-1B.7
Require development to appropriately revegetate degraded and disturbed lands with native or beneficial vegetation and wildlife-friendly species in important wildlife habitat and movement corridors.

POLICY 9-1B.8
Require noxious weed management plans and encourage Integrated Pest Management (IPM) for new development.

POLICY 9-1B.9
Require habitat restoration, improvement, and management practices such as restoration of native or beneficial flora; stream stabilization; erosion control; maintenance of residual cover during the winter; and proper pasture management on new development and special uses, as appropriate.

Objective 9-1C
Support public and private programs that foster wildlife conservation.

POLICY 9-1C.1
Support incentives and programs to foster conservation.

POLICY 9-1C.2
Support measures to educate landowners and homeowners about the impacts of domestic animals on wildlife, impacts of feeding wildlife, as well as measures that improve wildlife habitat and species success.

Objective 9-1D
Support the management of wildlife populations to maintain viable populations, species health, and to minimize conflicts between people and wildlife.

POLICY 9-1D.1
Support efforts by Colorado Parks and Wildlife and the US Fish and Wildlife Service to manage wildlife populations.

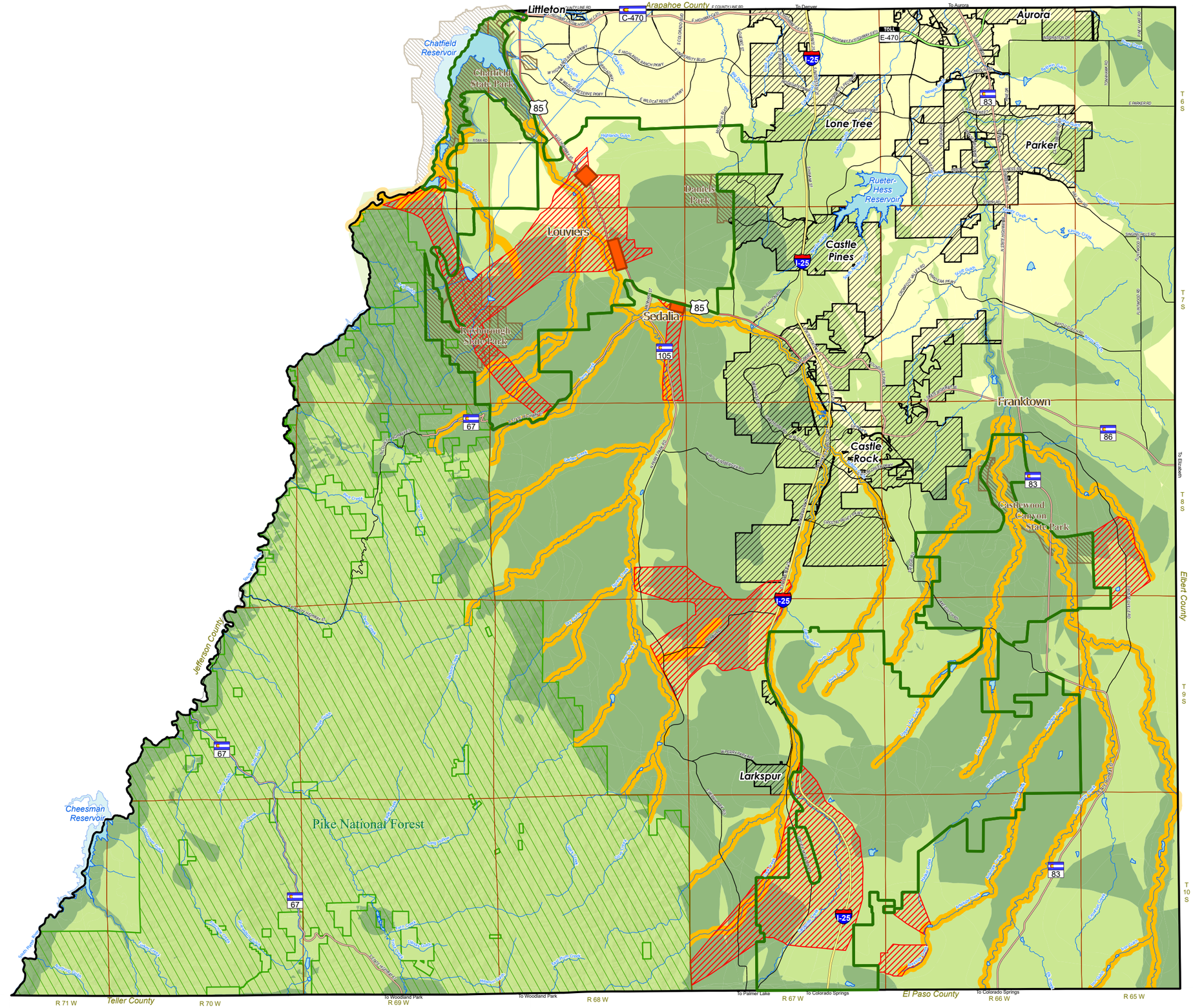
POLICY 9-1D.2
In designated high value wildlife habitat areas, require wildlife management and habitat conservation plans for new development, in consultation with professional agencies, as appropriate.



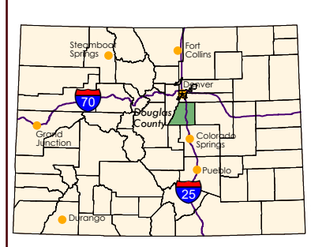
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Map 9.1 Wildlife Resources
Comprehensive Master Plan 2040

- Wildlife Habitat Conservation Area
- Overland Connection
- Wildlife Movement Corridor
- Low Habitat Value
- Moderate Habitat Value
- High habitat Value
- Wildlife Crossing Area
- Parks
- Pike National Forest
- Municipalities
- Townships
- Douglas County Boundary
- Streams
- Interstate
- US Highway
- State Highway
- Toll Highway
- Major Road



Vicinity Map
State of Colorado



0 0.25 0.5
Miles

Note:
For information pertaining to our Douglas County GIS data use disclaimer, see Land Use map 1.1, for more information.

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United States Department of Agriculture

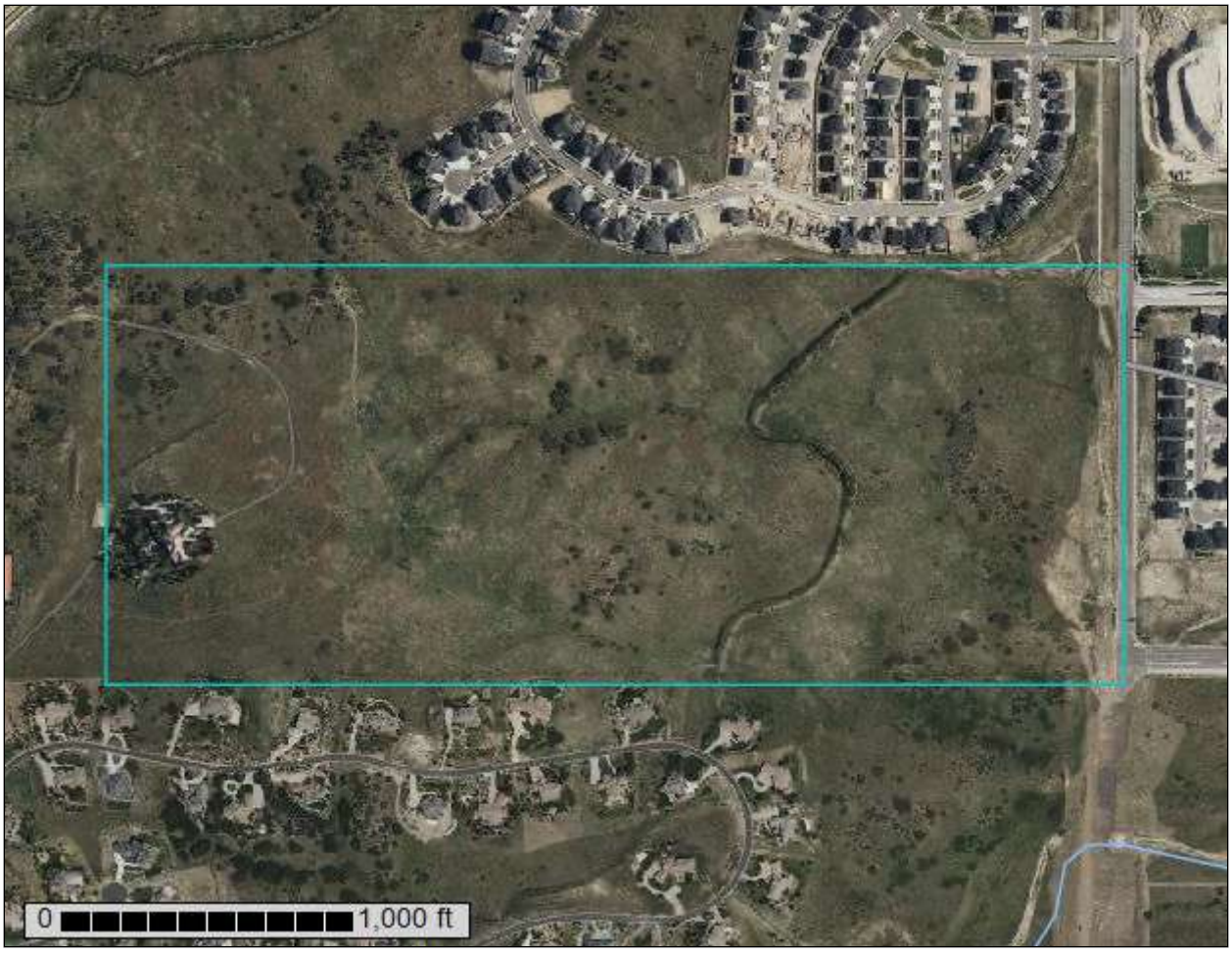
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Castle Rock Area, Colorado

SB2025-017



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Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



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MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 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.

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Fu	Fondis-Kutch association	53.3	46.1%
NeE	Newlin gravelly sandy loam, 8 to 30 percent slopes	62.2	53.9%
Totals for Area of Interest		**115.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

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onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Castle Rock Area, Colorado

Fu—Fondis-Kutch association

Map Unit Setting

National map unit symbol: jqyq
Elevation: 5,500 to 6,800 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Fondis and similar soils: 50 percent
Kutch and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fondis

Setting

Landform: Draws, valley sides
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over coarse-silty outwash derived from arkose

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 24 inches: clay
H3 - 24 to 60 inches: sandy clay loam

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R049XB208CO - Clayey Foothill
Hydric soil rating: No

Description of Kutch

Setting

Down-slope shape: Linear

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Across-slope shape: Linear
Parent material: Fine-textured residuum weathered from calcareous shale

Typical profile
H1 - 0 to 6 inches: sandy loam
H2 - 6 to 32 inches: clay
H3 - 32 to 36 inches: weathered bedrock

Properties and qualities
Slope: 5 to 40 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R049XB208CO - Clayey Foothill
Hydric soil rating: No

Minor Components

Bresser
Percent of map unit: 5 percent
Hydric soil rating: No

Newlin
Percent of map unit: 5 percent
Hydric soil rating: No

Hilly gravelly land
Percent of map unit: 4 percent
Hydric soil rating: No

Aquic haplustolls
Percent of map unit: 1 percent
Landform: Swales
Hydric soil rating: Yes

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

NeE—Newlin gravelly sandy loam, 8 to 30 percent slopes

Map Unit Setting

National map unit symbol: jqzg
Elevation: 5,500 to 6,600 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 49 to 51 degrees F
Frost-free period: 120 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Newlin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Newlin

Setting

Landform: Plateaus, mesas, terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Unconformable sandy and gravelly and/or mixed source alluvium

Typical profile

H1 - 0 to 8 inches: gravelly sandy loam
H2 - 8 to 17 inches: gravelly sandy clay loam
H3 - 17 to 22 inches: gravelly sandy loam
H4 - 22 to 60 inches: very gravelly sand

Properties and qualities

Slope: 8 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R049XY214CO - Gravelly Foothill
Hydric soil rating: No

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

Minor Components

Bresser

Percent of map unit: 5 percent
Hydric soil rating: No

Stapleton

Percent of map unit: 4 percent
Hydric soil rating: No

Satanta

Percent of map unit: 4 percent
Hydric soil rating: No

Aquic haplustolls

Percent of map unit: 2 percent
Landform: Swales
Hydric soil rating: Yes

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Building Site Development

Building site development interpretations are designed to be used as tools for evaluating soil suitability and identifying soil limitations for various construction purposes. As part of the interpretation process, the rating applies to each soil in its described condition and does not consider present land use. Example interpretations can include corrosion of concrete and steel, shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping.

Dwellings With Basements (SB2025-017)

ENG - Engineering

Dwellings are single-family houses of three stories or less. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet.

The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification of the soil. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. "Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. "Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. "Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

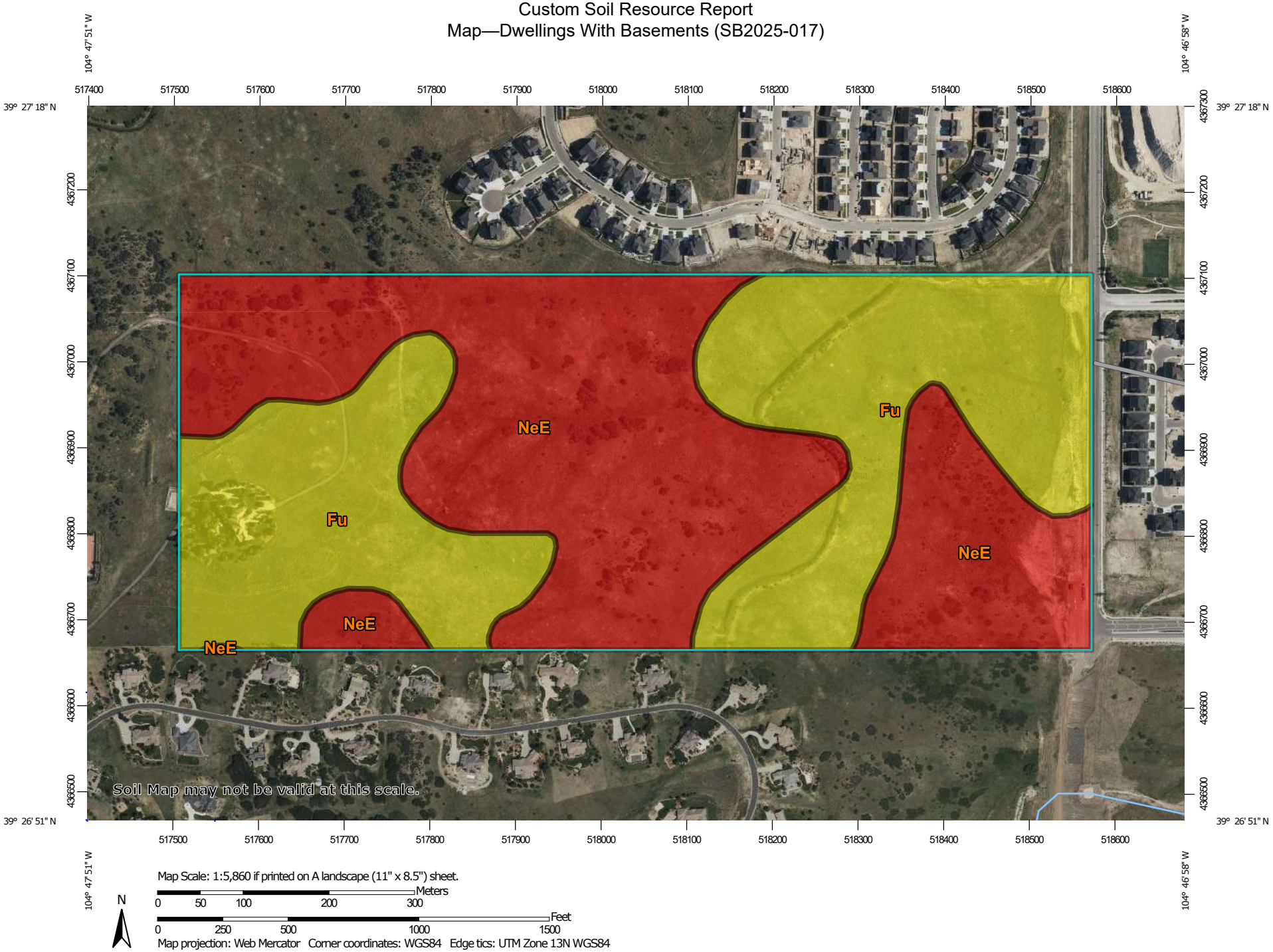
Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

Custom Soil Resource Report
Map—Dwellings With Basements (SB2025-017)



Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Lines
- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Points
- Very limited
- Somewhat limited
- Not limited
- 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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 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.

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

Tables—Dwellings With Basements (SB2025-017)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
Fu	Fondis-Kutch association	Somewhat limited	Fondis (50%)	Slope (0.16)	53.3	46.1%
				Shrink-swell (0.01)		
NeE	Newlin gravelly sandy loam, 8 to 30 percent slopes	Very limited	Newlin (85%)	Slope (1.00)	62.2	53.9%
Totals for Area of Interest					**115.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Very limited	62.2	53.9%
Somewhat limited	53.3	46.1%
Totals for Area of Interest	**115.5**	**100.0%**

Rating Options—Dwellings With Basements (SB2025-017)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

Docusign Envelope ID: C33ACCE1-F57A-4B3C-9E3E-EC793E8BF37B

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf



PIN
Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
Selected FloodMap Boundary
Digital Data Available
No Digital Data Available
Unmapped
NO SCREEN Area of Minimal Flood Hazard Zone X
Effective LOMRs

OTHER AREAS

SPECIAL FLOOD HAZARD AREAS
Without Base Flood Elevation (BFE) Zone A, V, A99
With BFE or Depth
Regulatory Floodway Zone AE, AO, AH, VE, AR

OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee. See Notes. Zone X
Area with Flood Risk due to Levee Zone D

OTHER FEATURES
20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
Coastal Transect
Base Flood Elevation Line (BFE)
Limit of Study
Jurisdiction Boundary
Coastal Transect Baseline
Profile Baseline
Hydrographic Feature

GENERAL STRUCTURES
Channel, Culvert, or Storm Sewer
Levee, Dike, or Floodwall

From: Heather Kelly
To: Michael Pesicka
Subject: Re: FW: Re-Submittal of SB2025-017 / Bloom Preliminary Plan
Date: Wednesday, January 28, 2026 9:10:52 AM
Attachments: image001.png

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hello Mike,
The Douglas County Conservation District does not have any further comment at this time.
Thank you,
Heather Kelly

On Wed, Jan 28, 2026 at 8:39 AM Michael Pesicka <mpesicka@douglas.co.us> wrote:

> Hi Heather,
>
> Will the Conservation District have any additional comments on the Bloom Preliminary Plan application, Project No. SB2025-017?
>
> Thank you,
>
> **Mike Pesicka** | Principal Planner
>
> **Douglas County Department of Community Development**
>
> **Address** | 100 Third St., Castle Rock, CO 80104
> **Direct** | 303-814-4367 **Main** | 303-660-7460
>
> **Email** | mpesicka@douglas.co.us
>
> NOTICE: Douglas County Planning does not charge “Approval” fees. Douglas County communicates through our official email accounts ending in @douglas.co.us; beware of phishing scams using similar addesses. If you have questions or concerns about the validity of an email or invoice, please call our Public Outreach and Assistance team at 303-660-7460 or email planning@douglas.co.us
>
> ---
>
> **From:** Paul Shoukas <paul@pcsgroupco.com>
> **Sent:** Friday, December 12, 2025 4:24 PM

From: Michael Pesicka
To: Michael Pesicka
Subject: FW: Bloom Preliminary Plan Resubmittal
Date: Friday, January 23, 2026 3:08:23 PM
Attachments: image001.png

Thanks Michael, I do understand the requirements, codes, and challenges mentioned by the applicant. I have no authority in the matter; I would just recommend we have it recorded that:

"A best practice in emergency preparedness for any community is to have more than one access/egress point to facilitate rapid evacuation of the entire community."

Mike Alexander, CO-CEM, MS
Director, Office of Emergency Management
Douglas County Sheriff's Office
O: 303-660-7589 / C: 720-474-6310



SOUTH METRO FIRE RESCUE
FIRE MARSHAL'S OFFICE

Mike Pesicka, 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:	Bloom Preliminary Plan
Project File #:	**SB2025-017**
S Metro Review #	REFSP25-00122
Review date:	July 14, 2025
Plan reviewer:	Aaron Miller 720.989.2246 aaron.miller@southmetro.org
Project Summary:	The applicant requests a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the 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 preliminary plan.

Note that the preliminary utility plan provided does not show fire hydrants in acceptable locations. Designers shall coordinate fire flow requirements and hydrant placement with SMFR prior to developing utility plans for construction and plan approval. Applicants and Contractors are encouraged to contact SMFR regarding the applicable fire code and permit requirements for the proposed project.

DOUGLAS COUNTY
COLORADO

Memorandum

Date: July 30, 2025

To: Michael Pesicka, Principal Planner

From: DJ Beckwith, Principal Planner
Lauren Pulver, Planning Supervisor
Kati Carter, AICP, Assistant Director of Planning Resources
Chris Pratt, Managing County Attorney

CC: Terence T. Quinn, AICP, Director of Community Development

Subject: **Water Commission Member Referral Comments**
SB2025-017 Bloom Preliminary Plan

The Douglas County Water Commission (Commission) met on July 28, 2025 and provided comment on SB2025-017 – Bloom Preliminary Plan (Project). There was no consensus comment from the Commission, only individual comments were provided. All other members had no comment. The following is a summary of comments from each Commission member that provided comments on the Project. This Project was pulled from the agenda for discussion by Commission Member Don Langley.

Don Langley: Member Langley commented on an error in the "Will Serve Letter" from Parker Water, which showed a presumptive demand of 0.7-acre feet per single family equivalent taps (SFE) instead of the current 1.1-acre feet per SFE. A corrected letter has been sent to the developer.

Clark Hammelman: Member Hammelman commented that the Project is a good example of a mid-size development working with existing water providers for service, allowing the development to be wrapped into long term planning of the water provider.

Right of Way & Permits

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

July 22, 2025

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

Attn: Mike Pesicka

Re: Bloom Preliminary Plan, Case # SB2025-017

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plan for the above-mentioned project. For these *single-family residential* lots, 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 via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Xcel 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

December 2025

Mike Pesicka
Douglas County
100 Third Street
Castle Rock, CO 80104

Re: Bloom Preliminary Plan
Project File: SB2025-017

Dear Mr. Pesicka

Below are the responses to the comments received from the completeness review.

DOUGLAS COUNTY - PLANNING SERVICES
Mike Pesicka, Principal Planner

General Comments:

1. Although not required, you may wish to meet with neighbors or provide a written response to the public comment received to date.
   RESPONSE: *The Developer has retained a consultant to assist with coordinating with the adjacent neighbors given the interest this site has generated. Furthermore, an informative website has been created to assist with clearer lines of communication. A neighborhood meeting was held on December 15th with adjacent neighbors from Pradera. Another one is being planned for neighbors within the Trails at Crowfoot in that reside in the Town Parker, CO.*
2. A Preliminary Plan requires a demonstration of compliance with Section 18A of the Douglas County Zoning Resolution (DCZR). A conditional will serve letter from Parker Water and Sanitation District (PWSD) was submitted, however, there is additional information required to be submitted per Section 1806A.02.2 of the DCZR as listed below. Please note that Section 18A requires that the property be formally included in the water district, or that an executed IGA between the new metro district and a water district be in place, before the preliminary plan goes to public hearing:
   - That the property that is the subject of the application has been included in the District or is served by contract. The property will need to be included in the PWSD prior to the Planning Commission hearing for the preliminary plan.

   RESPONSE: *Parker Water and Sanitation District has confirmed its ability to serve the property at this time via a commitment to provide service to the property and revised the letter to accommodate the County's RESPEC referral agency. Formal inclusion into the District will occur at the time of Final Plat approval, as the inclusion fee is non-refundable if the project is not approved through the public process and would not be practical for the District to include the property prior to plat approval.*
   - The amount of water that can be supplied to the subdivision pursuant to deeded water, contracts, and/or IGAs. The final executed and recorded IGA between PWSD and Pinery Water and Wastewater (PWWD) needs to be provided prior to the Board of County Commissioners hearing.

   RESPONSE: *IGA will be drafted after approval by Board of County Commissioners and can be a condition of approval if necessary.*

- The PWSD needs to include the proposed uses, the uses allowed by PWSD's water rights, and that the proposed uses correspond to the allowed uses of PWSD's water rights.

RESPONSE: *The will server letter has been updated from PWSD to include proposed uses for the property.*

- A Declaration of Restrictive Covenants in a form prescribed by the County shall be executed and recorded prior to the Board of County Commissioners hearing on the preliminary plan.

RESPONSE: *Restrictive Covenants should be executed (per the template provided by the County) and recorded at Final Plat should the project not be approved by Board of County Commissioners. The covenants are being reviewed currently by the owner.*

- Once staff has received this information it will be provided to the County water consultant for review and comment.

RESPONSE: *Understood.*

3. Review and respond to the letter dated August 12, 2025, from the County's water consultant.
   RESPONSE: *Received and reviewed – we have met with Alan Leak with RESPEC to review the requests.*
4. The Douglas County Water Commission reviewed the application referral at their regularly scheduled meeting on July 28, 2025. Advisory comments or questions they provided are included with this letter.
   RESPONSE: *Noted.*
5. A specialized appraisal is required to be submitted to establish post-platted (with improvement in place) land values within the subdivision. You may submit that during the preliminary plan process or with the final plat application. The County has retained an appraisal consultant that can assist your appraiser to scope the cash-in-lieu appraisal.
   RESPONSE: *Noted. The preference is to wait until the Final Plat application before executing an appraisal.*
6. Update the project narrative to address potential wildlife conflicts. The 2040 Comprehensive Master Plan (CMP) identifies this area as being of low to moderate habitat value. Discuss how wildlife movement will be accommodated through the proposed layout of lots and open space tracts. Has wildlife friendly fencing been considered if fences are proposed? Colorado Parks and Wildlife has additional information on wildlife friendly fencing options.
   RESPONSE: *A section under Conceptual Design under the Preliminary Plat narrative with a subheading called "Corridors" speak to the layout and buffers provided facilitating movement throughout the site. Also, the developer has commissioned a report from an Environmental Consultant to better understand the amount of wildlife activity this site is hosting given its proximity to busy roads and urban development on the east and north side. The Wildlife Analysis Letter is included in the submittal*
7. Review and respond to comments received from the Douglas County Health Department in their letter dated July 9, 2025.
   RESPONSE: *Responses have been provided to the Douglas County Health Department and are included in this response letter.*
8. Review and respond to comments received from the Division of Water Resources in their letter dated August 7, 2025.
   RESPONSE: *Responses have been provided to the Division of Water Resources and are included in this response letter.*
9. Review and respond to comments from Engineering Services in their review letter dated July 29, 2025, and the email response from Traffic Engineering dated August 11, 2025.
   RESPONSE: *Responses have been provided to Engineering Services and are included in this response letter.*
10. Douglas County will continue to evaluate the preliminary plan for consistency with required Design Elements outlined in Article 4 of the Douglas County Subdivision Resolution (DCSR).
    RESPONSE: *Noted.*

Revise the preliminary plan exhibit in accordance with Article 4, Preliminary Plan of the DCSR as indicated below:

Plan Exhibit (DCSR 407)

11. Verify that all proposed and existing easements are clearly labeled on the plans and include the use, dimensions, owners, entity responsible for construction or maintenance, and reception or recorded book and page number (407.07).
    RESPONSE: *All easements have been labeled with width and use. These easements are planned to be recorded via a future plat so there are no reception numbers. General notes have been added to denote the ownership and maintenance of utilities within easements.*
12. Provide the land use and ownership of the adjacent lands (407.14).
    RESPONSE: *Land ownership of adjacent tracts has been labeled.*
13. Consideration should be given to locating proposed roads away from exterior property boundaries. Locating roads and utility infrastructure next to the adjacent lot lines may result in the need to obtain construction easements from the adjacent property owners. The redlines identifies those road segments that are very close to the property boundary.
    RESPONSE: *The proposed roadway and utilities will be designed in a manner that will not require construction easements from adjacent property owners.*
14. Did South Metro Fire ask for Note 6 to be included on the plans? Douglas County Building would need to review any proposal which mandates home sprinklering. As this property is served by central water, sprinklering does not seem warranted.
    RESPONSE: *Sprinkler systems will not be required and the note has been removed from the Preliminary Plan.*
15. In the Tract Area table on sheet 2, the HOA is listed for ownership and maintenance of the proposed tracts but Note 8 on the cover sheet states that it will be the Bloom Metro District, please clarify.
    RESPONSE: *The Bloom Home Owners Association or Metropolitan District will own and maintain the tracts within the development.*
16. Will the HOA or Bloom Metro District own and maintain the proposed entry guard house? Is the guard house within a tract?
    RESPONSE: *This will be maintained by the HOA*
17. Building envelopes should only be considered if there are significant areas of steep slopes or other constraints within a lot. Consideration should be given to using no- build areas in lieu of building envelopes if the desire is to limit site disturbance within the overall subdivision. Alternatively, the open space tracts could be increased in size to provide more visual buffering to neighbors.
    RESPONSE: *Building envelopes have been replaced with setback lines (no-build areas).*
18. When envelopes or no-build zones are established, all accessory buildings and structures (such as pools and pergolas) are required to be located within the envelope. If the developable areas of the lot are made too restrictive, the County will likely receive several requests for envelope or no-build adjustments from individual property owners. What uses (dog runs, fencing, play structures) will be allowed outside the envelope?
    RESPONSE: *Noted.*
19. Proposed fencing restrictions, particularly from a wildlife perspective, should be addressed at this time.
    RESPONSE: *A note has been added to the plans which dictates that open rail fencing is permitted along lot lines outside of the building envelope and within designated tracts to define or delineate boundaries, enhance community aesthetics, or provide separation as needed. Privacy fencing may be installed within the building envelope to screen elements such as pools, patios, decks, and other similar features located on individual lots.*
20. Easements should not be proposed within building envelopes. Given the number of lots, it is preferable to establish a separate tract for the proposed private roads.
    RESPONSE: *Tract F is proposed for the private roads and utility easements.*
21. On sheet 2 in the Land Use Table, please provide the square footage and percentage of open space area provided.
    RESPONSE: *Percentages have been added to the Land Use Table as requested.*

DOUGLAS COUNTY - HISTORIC PRESERVATION

Brittany Cassell

The letter provides comments regarding the request for approval of a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development. The applicant previously submitted a cultural resource survey report completed in 2022. A Class II survey was completed by ERO Resources Corporation.

The Curator has reviewed the completed Class II survey on the project site. New sites were discovered but none are eligible to be listed on the state register.
Should buried artifacts and features be discovered in future phases, we recommend completion of the appropriate Colorado Office of Archaeology and Historic Preservation (OAHP) Data Management and Historic and/or Prehistoric Component forms, following OAHP guidelines, with accompanying sketch maps and photographs. Completed forms are submitted to OAHP to ensure that Douglas County's historic or prehistoric data is included in the Colorado OAHP state-wide database of cultural resources.
Thank you in advance for your attention to the preservation and protection of Douglas County's cultural resources for future generations.
RESPONSE: *Noted.*

DOUGLAS COUNTY - ENGINEERING

Al Peterson-Sr. Development Review Engineer

1. Thank you for denoting the 70' ROW dedication for Bayou Gulch Road to come with the Final Plat.
   RESPONSE: *Noted.*
2. Per the roadway cross section depicted on the cover sheet, a set of private alternate road standards will be required at the time of Final Plat.
   RESPONSE: *Noted.*
3. Please delineate the roadway centerline with all distances, bearings, radii and cul-de-sac radii to verify the minimum road standards have been met.
   RESPONSE: *Centerlines have been labeled with all distances, bearings, radii. Cul-de-sac radii have also been labeled. Please note that this site plan proposes an Entry Street connection to the Arterial (Bayou Gulch Rd). Per the code, access to an arterial is only allowed via a collector or arterial street. The Entry Street configuration is proposed to allow for a private gated access with required turn-around.*
4. Please note the relative road grades to verify the minimum and maximum grades have not been exceeded.
   RESPONSE: *Road grades added to the Grading Plan.*
5. Please revise all drainage easements to a minimum width of 25'
   RESPONSE: *Drainage easements are now 25' wide.*

DOUGLAS COUNTY - TRAFFIC ENGINEERING

Chris Martin

Review comments:

Access

The project now has a single point of access onto Bayou Gulch Rd forming the west leg of the Bayou Gulch Rd/Presidio Pkwy in the short term. Per the site plan shown in Figure 2, a future secondary public access is proposed to connect to the property to the west. Note, to my knowledge, there has not been a roadway network planned for this adjacent property that would justify the construction of this road connection. Is there a known plan for the property to the west?
RESPONSE: *The secondary access for the property to the west has been removed.*

The cross-section of the access at Bayou Gulch Rd is shown to be 26 ft FL to FL. It is likely that this cross-section will need to be wider to accommodate turning movements into the site and to operate properly with the laneage existing on the east leg of the Presidio Pkwy / Bayou Gulch Rd intersection.
RESPONSE: *Comment noted - the site plan will be updated as appropriate..*

Land-Use
The site is currently proposed to included 32 SF DU's (compared to the 130 SF DU's contemplated in the 2021 study done for the map change process). This results in a significantly lower trip generation.
RESPONSE: *Noted.*

Traffic Growth
The long term traffic growth projections for future traffic scenarios shown in Figures 5 & 9 and used in the 2045 background and total condition capacity analysis (Synchro Reports) are inconsistent with the projections found for Bayou Gulch Rd in other traffic studies in the area. For example; In Figure 9 - Total Traffic, the volume shown on Bayou Gulch Rd south of Presidio Pkwy is below 5,500 ADT. The 2023 Leman Academy TIS (LSC #221210) shows 21,700 ADT for the same location in the 2043 horizon (Figure 9a – 2043 Total Traffic). The future scenarios need to be reanalyzed to provide a realistic representation of traffic along Bayou Gulch Rd.
RESPONSE: *The 2045 projections were updated to be consistent with the 2023 Leman Academy TIA by LSC..*
On page 2, for the 2045 Background Traffic the study indicates that half buildout of the of the Leman Academy is assumed. This is likely a typo, since full-buildout of Leman Academy should be assumed for this horizon.
RESPONSE: *Leman Academy is assumed to be fully built out by 2045 – the report narrative has been updated.*
Per Figure 9 (2045), there is no change in the volume on the site's connection to Bayou Gulch Rd compared to the volume shown in Figure 8 (2028). The study should indicate what is expected to change, volume wise, with the future roadway connection to the property to the west.
RESPONSE: *The secondary access for the property to the west has been removed.*

DOUGLAS COUNTY - HEALTH DEPARTMENT
Caden Thompson-Environmental Health Specialist

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.
RESPONSE: *The applicant acknowledges that exposure to air pollution can result in adverse health effects and that the Colorado Department of Public Health and Environment's Air Pollution Control Division (APCD) regulates air emissions, including fugitive dust, for developments exceeding 25 acres or lasting more than six months. The contractor will implement standard best management practices (BMPs) during construction to minimize dust generation and air quality impacts. Should the project scope change or exceed the APCD threshold, the applicant will contact the APCD at (303) 692-3100 for further guidance and permitting requirements.*

Noise – Loud Use
Regular exposure to elevated sound levels can have a negative impact on both physical and mental health by increasing the risk of stress, hearing impairment, hypertension, ischemic heart disease, and sleep disturbance. Colorado's noise abatement statute (CRS 25-12-103) sets maximum permissible noise levels for various land uses at different time periods. Noises that exceed these levels are considered to be a public nuisance. Noise levels from commercial uses are considered a public nuisance if they exceed 60 db(A) beyond 25 feet of the property boundary during the day (7 a.m.-7 p.m.). At night (7 p.m.-7 a.m.), the nuisance level is 55 db(A).
RESPONSE: *Understood.*

DOUGLAS COUNTY - ADDRESSING

Caitlin Zeiler-Planning & Addressing Specialist

Douglas County Addressing has completed review of the Bloom Preliminary Plan and has the following comments:

- Four streets must be named.
  RESPONSE: *Three streets have been given names that are Revival Place, Revival Avenue, and Renewal Point. The access easement at the northwest corner of the site has been removed.*
- One street name may be used twice with different suffixes.
  RESPONSE: *Noted. We have used Revival and Renewal throughout the plans with different suffixes.*

Please propose street names to use on the final plat. Submit proposed street names to Douglas County for evaluation. Pre-check street names online before submitting to Douglas County using the Street Names dataset available on the DougCo Hub. Please review all guidelines in the Douglas County Addressing and Street Naming Manual.
RESPONSE: *Noted. We have used the name "Revival" for two separate streets with different suffixes.*

Street alignments as shown on the Bloom Preliminary Plan have been evaluated. Per the Addressing and Street Naming Manual, street alignments determine the suffix. The same street name may be used up to three times, with a unique suffix, where the streets are connected.
RESPONSE: *Noted.*

DOUGLAS COUNTY - WATER COMMISSION MEMBER REFERRAL COMMENTS

DJ Beckwith, Lauren Pulver, Kati Carter, Chris Pratt

The Douglas County Water Commission (Commission) met on July 28, 2025 and provided comment on SB2025-017 – Bloom Preliminary Plan (Project). There was no consensus comment from the Commission, only individual comments were provided. All other members had no comment. The following is a summary of comments from each Commission member that provided comments on the Project. This Project was pulled from the agenda for discussion by Commission Member Don Langley.

Don Langley: Member Langley commented on an error in the "Will Serve Letter" from Parker Water, which showed a presumptive demand of 0.7-acre feet per single family equivalent taps (SFE) instead of the current 1.1-acre feet per SFE. A corrected letter has been sent to the developer.
RESPONSE: *Thank you.*

Clark Hammelman: Member Hammelman commented that the Project is a good example of a mid-size development working with existing water providers for service, allowing the development to be wrapped into long term planning of the water provider.

RESPONSE: *Thank you.*

DOUGLAS COUNTY SCHOOL DISTRICT

Shavon Caldwell-Planning Manager

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 32 students are expected from the development requiring a total land dedication requirement of 0.753-acres. Since this amount of land dedication is smaller than DCSD's minimum site requirements and the applicant has stated in their submitted project narrative that no land will be dedicated, DCSD would request cash-in-lieu of land.

RESPONSE: *Noted. Cash in Lieu will be provided at Time of Final Plat.*

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."

RESPONSE: *Noted. Cash in Lieu will be provided at Time of Final Plat once the property has been appraised.*

DOUGLAS COUNTY - CONSERVATION DISTRICT

Heather Kelly, District Manager

The Douglas County Conservation District provides development responses for Douglas County in accordance with Senate Bill 35. District comments are made on the suitability of soils for the proposed land uses, floodwater management, and watershed protection. In addition, the District submits advisory comments regarding rural water supply issues, agricultural land use conversion, and endangered species protection if the development plan affects those issues.

The District appreciates the compact development pattern noted in the Narrative that leaves more open space for wildlife corridors to preserve the moderate wildlife value in place for generations (Douglas County Map 9-1). In addition, the plan to minimize the removal of native vegetation and to work with the natural landscape is appreciated for this same reason.

RESPONSE: *Noted.*

It is important to note that 12 neighbors from the surrounding neighborhood attended the Regular Monthly Meeting of the Board of Supervisors on July 28. The neighbors voiced their concern about the following:

1. Ephemeral drainage from SB2025-017 into downstream properties
2. Alteration of historical stormwater flows towards bordering properties.
3. Wildlife impacts and loss of wildlife corridors

RESPONSE: *Noted.*

According to U.S.D.A. Natural Resources Conservation Service (NRCS) soils survey (enclosed Pages 19-21), the Fondis-Kutch association and Newlin gravelly sandy loam located at the development site are somewhat to very limited for dwellings with and without basements, and small commercial buildings due to flooding, and roads due to shrink-swell soil properties, slope, and depth to hard bedrock. Due to the limitations of the above soils on the site, alternatives to mitigate the limitations of the soil will be required in your engineering design or construction techniques.

RESPONSE: *Noted.*

Topsoil should be stripped to a depth of 6 inches, and all stockpiles should have side slopes no steeper than 3:1 and seeded. All disturbed areas should be seeded and mulched with weed free hay mulch at 4,000 lbs. /acre. Recommended seeding dates for Colorado are November 1 to May 1, when the soil is not frozen. Grasses should be seeded when soil moisture and temperature are optimum for germination, unless a dormant planting is desired. Grass seed should be drilled at a depth of ¼ to ½ inch deep and if broadcasted, double the seeding rate.
For more information on grass seed selections and seeding rates, please contact the Douglas County Conservation District.
RESPONSE: *Noted.*
The District recommends that disturbed land be mulched or revegetated within 45 days of disturbance.
RESPONSE: *Noted.*
The District recommends using a phased grading approach. By limiting the area being graded to 15 acres or less and seeding with native grasses, the land area disturbed is minimized. The development site is 80 acres.
RESPONSE: *Noted. A phased grading approach will be evaluated as design progresses. Because this is planned to be a custom home community with larger lots, over lot grading is not anticipated and will aid in minimizing disturbance to the natural landscape.*
There is no Integrated Noxious Weed Control plan. An integrated weed management program needs to be proposed by the Applicant, and reviewed and approved by the Douglas County Weed Inspector and/or Weed Advisory board, the County Extension Agent, NRCS, or a qualified weed management professional prior to the land use authority approval.
RESPONSE: *A Weed Management Plan has been included in the submittal.*
Vehicle tracking control stations need to be installed and maintained at all entrance and exit points on the site. The station should consist of a pad of 3 to 6-inch rock or a vehicle control pad/mat to strip mud from tires prior to vehicles leaving the construction site to prevent the spreading of noxious weeds.
RESPONSE: *Noted.*
The channels of many of the major streams are not stable and undergo substantial shifts in alignment during flood events. Upstream development increases the magnitude and frequency of local flooding. Floods that exceed the computed 100-year storm do regularly occur. The District does not support development proposals that are located in or near drainages or development that disturbs wetlands.
RESPONSE: *Noted.*
Silt fences or other forms of erosion barriers need to be planned, installed, and maintained as a temporary sediment control device used on construction sites to protect water quality.
RESPONSE: *Noted.*
The District strongly recommends that Low Impact Development (LID) techniques be implemented for economic and conservation benefits.
RESPONSE: *Noted.*

DOUGLAS COUNTY PARKS AND TRAILS

Applicant will be responsible for meeting the park land dedication standards outline in Article 10 of the Douglas County Subdivision Resolution.
RESPONSE: *Noted.*

CORE ELECTRIC COOPERATIVE

CORE Electric Cooperative may require additional easements for private road crossing at electric design. CORE approves the preliminary plan.
RESPONSE: *Noted.*

COLORADO PARKS AND WILDLIFE

Matt Martinez-Area Wildlife Manager
Katie Doyle-District Wildlife Manager

Habitat

The main impacts to wildlife from this development would be fragmentation and loss of habitat. Although it is impossible to eliminate fragmentation and habitat loss with any development, impacts to wildlife can be minimized through the use of clustering configurations, density reduction, and providing open space for wildlife.

Fragmentation of wildlife habitat has been shown to impede the movement of wildlife across the landscape. Open space areas are more beneficial to wildlife if they connect to other nearby natural areas. The areas of wildlife habitat that most closely border human development show heavier impacts than do areas on the interior of the open space. However, when open space areas are smaller in size, the overall impacts of the fragmentation is greater (Odell and Knight, 2001). Thus, CPW recommends that the developer and Douglas County employ a collaborative approach with neighboring cities and towns and with other developments within the county to maintain wildlife habitat in as whole a state as possible. By keeping open space areas contiguous and of larger size, the overall benefit to wildlife increases dramatically.

RESPONSE: *Noted.*

Fencing

Fencing inhibits wildlife movement and can contribute to habitat fragmentation. If it is necessary for the development and alternate options are not sufficient, consider fence placement and designs that provide safe crossing options for wildlife. CPW has created a "Fencing with Wildlife in Mind" booklet which provides recommendations for wildlife-friendly fencing and specifications for many common fences. This can be downloaded from our website at http://cpw.state.co.us/Documents/LandWater/PrivateLandPrograms/FencingWithWildlifeInM ind.pdf.

RESPONSE: *Noted, thank you for the "Fencing with Wildlife in Mind" booklet.*

Trails

When planning trails in the development area, special consideration should be given to the impact trails have on wildlife within the area. Trails should not cut through riparian areas and should remain at least 50 feet from them. They should also be placed at the edges of open space areas and should be no wider than 8 feet throughout their entire length. Trails have the ability to contribute to fragmentation of habitat, disrupting the natural movement of wildlife through an area, and the spreading of noxious weeds.

RESPONSE: *Noted, the trails will be further refined through the entitlement process.*

Noxious Weeds

Noxious weeds should be monitored very closely. The spread and control of noxious weeds on and around this site is a concern for wildlife. Invasive plants endanger the ecosystem by disturbing natural processes and jeopardizing the survival of native plants and the wildlife that depend on them. CPW would recommend the implementation of a weed management plan that may already exist within Douglas County.

RESPONSE: *Noted, a weed management plan has been included.*

Wildlife

CPW would expect a variety of wildlife species to utilize this site regularly, most notably small to mid-sized mammals, song birds, and raptors, but also with the possibility for big game species (elk, deer, bear, and mountain lion), reptiles, and amphibians to be present.

RESPONSE: *Noted, a wildlife analysis letter has been included.*

Raptors

Raptors and migratory birds are protected from take, harassment, and nest disruption at both the state and federal levels. If any active nest is discovered within the development area, CPW recommends that buffer zones around the nest site be implemented during any period of activity that may interfere with the nesting season. This will prevent the intentional or unintentional destruction of an active nest.

For further information on this topic, a copy of the document "Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors," is available from your local District Wildlife Manager. Following the recommendations outlined in this document will decrease the likelihood of unintentional take through disturbance.
RESPONSE: *Noted.*

Prairie Dogs and Burrowing Owls

If a prairie dog colony is discovered within the project area, the potential may also exist for the presence of burrowing owls. Burrowing owls live on flat, treeless land with short vegetation, and nest underground in burrows dug by prairie dogs, badgers, and foxes. Burrowing owls are classified as a state-threatened species and are protected by both state and federal laws, including the Migratory Bird Treaty Act. These laws prohibit the killing of burrowing owls or the disturbance of their nests. Therefore, if any earth-moving will begin between March 15th and August 31st, a burrowing owl survey should be performed. Guidelines for performing a burrowing owl survey can be obtained from your local District Wildlife Manager.

If prairie dog colonies are active, CPW recommends humane euthanasia of live animals before any earth-moving occurs. The possibility of donating carcasses to a raptor rehabilitation facility or the black-footed ferret recovery program may also exist. If interested, please contact the local District Wildlife Manager for more information and any required permits or forms. Please note that a permit from CPW and approval from the Douglas County Board of Commissioners will likely be required for any live relocation of prairie dogs to another site.
RESPONSE: *Noted.*

Living with Wildlife

Future residents should be informed that wildlife, such as foxes, coyotes, deer, elk, and even bears or mountain lions, frequently visit the development area in search of food and cover. Coyotes, foxes, cottontail rabbits, and raccoons are several species that have adapted well to living in urban environments. This proposed site within Douglas County will also have the presence of bears that have been accustomed to living in close proximity to humans. This should be considered when deciding distances to residential areas. Bears, as well as other wildlife, should not be a concern for residents if the following CPW recommendations are met: People moving into and residing in this area take the proper precautions to prevent unnecessary conflicts with wildlife through the use of pet leash laws, protection of their pets and hobby livestock when not under direct supervision, and reducing attractants on their property.

Homeowners can do their part by not inviting wildlife into their yards. Due to the potential for human-wildlife conflicts associated with this project, please consider the following recommendations when educating future homeowners about the existence of wildlife in the area:

- Pet foods and bowls should be kept indoors.
- Garbage should be kept in secure containers to minimize its attractiveness to wildlife. Trash should be placed in containers with tight seals and remain indoors until shortly before pickup.
- Feeding of wildlife, with the exception of birds, is illegal.
- "Living with Wildlife" pamphlets are available through CPW offices.

For further information, Colorado Parks and Wildlife can provide copies of the following brochures: "Your Guide to Avoiding Human-Coyote Conflicts," "Don't Feed the Wildlife," "Living with Bears," and "Too Close for Comfort: Avoid Conflicts with Wildlife in the City" to residents of the surrounding open space. These brochures can also be downloaded from our website at http://cpw.state.co.us/learn/Pages/LivingwithWildlife.aspx.
RESPONSE: *Noted.*

COLORADO DIVISION OF WATER RESOURCES
Ioana Comaniciu-Water Resources Engineer
Mike Matz - Engineer

Water Supply Demand
No water supply demands were included with the application documents. However, a will-serve letter dated February 5, 2025 indicates that the Parker Water & Sanitation District ("District") will provide water to the subdivision at a standard amount of 0.7 acre-feet per year per single-family equivalent ("SFE") tap. For planning purposes, the District estimates 32 SFEs will be required to serve the 32 residential lots, and approximately 10 SFEs will be required for landscape irrigation inside the subdivision. The total demands for the 42 total SFEs within the subdivision are estimated to be 29.4 acre-feet per year.
RESPONSE: *Noted. See attached updated Will Serve letter.*

Source of Water Supply
The proposed source of water supply is the Parker Water & Sanitation District ("District"). According to the will-serve letter included with the application documents, the District **"acknowledges its willingness and ability to serve the "Bloom Development" upon successful completion of inclusion."**

The will-serve letter indicates that the District will provide sanitary sewer service for all water taps requested for the Bloom development through an Intergovernmental Agreement with the Pinery Water & Wastewater District.

In a previous comment letter responding to the subdivision rezoning plan (ZR2016- 013) dated July 21, 2016, our office noted that ***"a condition of inclusion into the District is that the developer deeds all water rights available to the property to the District. According to our records the ground water underlying the 81.07 acre parcel in the Laramie-Fox Hills, Arapahoe, Denver, Lower Dawson and Upper Dawson aquifers was adjudicated in Division 1 Water Court case no. 2007CW56"***. Based on the additional information provided on August 7, 2025, the Applicant has clarified that the groundwater underlying the 81 +/- acres subject to this referral located in the SW ¼ of Sec. 9, Twp. 7S, Rng. 66W will be deeded to the District and not the groundwater underlying 8996 Motsenbocker Road, Parker Colorado, 80134 (located in Sections 27 and 28 of Twp. 6S, Rng. 66W). According to the Applicant, the mention of the parcel at 8996 Motsenbocker Road in the previous referral documents was made in error.

According to the February 5, 2025 will-serve letter, the District has 25,223.50 acre- feet per year of adjudicated nontributary water rights and 5,487.1 acre-feet per year of not nontributary water rights, of which only a portion is currently covered under court approved augmentation plans. The District also has storage and reuse rights, which can provide additional water supplies. As the date of the letter, the District's current demand is approximately 7,700 acre-feet per year, while at buildout, it is estimated that the total water demand will be 23,500 acre-feet per year. Based on this information, the District has sufficient water available to serve this development.

The majority of the District's water supply is water from 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 undecreed water is 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.

A review of our records indicates that well permit no. 138031 is located on the subject property. Well permit no. 138031 was issued on November 23, 1984 pursuant to CRS 37-92-602(3)(b)(II) as the only well on a tract of land of 40 acres, described as the SW ¼ of the SW ¼ of Sec. 9, Twp. 7S, Rng 66W, 6th P.M. for ordinary household purposes inside one single family dwelling, fire protection, the watering of poultry, domestic animals, and livestock on farms and ranches, and the irrigation of not over one acre of home gardens and lawns. Well permit no. 138031 was issued for the not nontributary Upper Dawson aquifer.

Section 37-92-602(3)(b)(III) C.R.S., requires that the cumulative effect of all wells in a subdivision be considered when evaluating material injury to decreed water rights.
Therefore, well no. 138031 must be included in an augmentation plan, or must be plugged and abandoned prior to the subdivision approval since the provisions of section 37-92-602 which allowed for issuance of the well permits will no longer apply. According to the additional information provided on August 7, 2025, the Applicant has indicated that well permit no. 138031 will be plugged and abandoned.
***RESPONSE**: The Owner and Owner's consultants are working with the Parker Water and Sanitation District and the County to satisfy this comment, and anticipate plugging and abandoning the well once included in the District.*

Additional Comments
The application materials indicate that a stormwater detention structure will be constructed as a part of this project. The applicant should be aware that unless the structure can meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., the structure may be subject to administration by this office. The applicant should review DWR's Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post- Wildland Fire Facilities in Colorado to ensure that the notification, construction and operation of the proposed structure meets statutory and administrative requirements. The Applicant is encouraged to use the Colorado Stormwater Detention and Infiltration Facility Notification Portal to meet the notification requirements.

State Engineer's Office Opinion
Based upon the above and pursuant to section 30-28-136(1)(h)(I) and section 30-28- 136(1)(h)(II), C.R.S., it is our opinion that the proposed water supply is adequate and can be provided without causing injury to decreed water rights, **on the condition that well no. 138031 is plugged and abandoned. The Applicant is required to submit a Well Abandonment Report (eform) for well no. 138031 to affirm the well was plugged and abandoned.**

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.
RESPONSE: *Noted.*

SOUTH METRO FIRE RESCUE
Aaron Miller

South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed preliminary plan.
RESPONSE: *Noted.*
Note that the preliminary utility plan provided does not show fire hydrants in acceptable locations. Designers shall coordinate fire flow requirements and hydrant placement with SMFR prior to developing utility plans for construction and plan approval. Applicants and Contractors are encouraged to contact SMFR regarding the applicable fire code and permit requirements for the proposed project.
RESPONSE: *Noted - Final hydrant locations will be coordinated with development of the utility plans, however, have been adjusted with this most recent submittal to better reflect more appropriate locations.*

AT&T REFERRAL - CLEARWATER CONSULTING GROUP, INC.
Ann Branowski

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

XCEL ENERGY
Violeta Ciocanu (Chokanu)

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has reviewed the plan for the above-mentioned project. For these single-family residential lots, 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.*

RESPONSE: *Noted.*

The property owner/developer/contractor must complete the application process for any new natural gas service via xcelenergy.com/InstallAndConnect. It is then the responsibility of the developer to contact the Xcel Designer assigned to the project for approval of design details.
RESPONSE: *Understood.*
Additional easements may need to be acquired by separate document. The Designer must contact the appropriate Right-of-Way Agent.
RESPONSE: *Understood.*
As a safety precaution, PSCo would like to remind the developer to contact Colorado 811 for utility locates prior to construction.
RESPONSE: *Understood.*

RESPEC

Alan J. Leak, P.E.

FINDINGS AND CONCLUSIONS

Douglas County Zoning Resolution Section 1803A provides the required approval standards to be used to determine if the application meets the provisions of Section 18A. The summary of our review and findings are as follows:

1803A.01 - THE APPLICANT HAS DEMONSTRATED THAT THE WATER RIGHTS CAN BE USED FOR THE PROPOSED USE(S).
The will-serve letter from PWSD demonstrates that the water rights owned by PWSD can be used for the proposed use since the PWSD service area already includes significant residential development and it is feasible to include the Bloom development into the PWSD service area.
RESPONSE: *Noted.*

1803A.02 - THE RELIABILITY OF A RENEWABLE WATER RIGHT HAS BEEN ANALYZED AND IS DEEMED SUFFICIENT BY THE COUNTY BASED ON ITS PRIORITY DATE WITH THE COLORADO SYSTEM OF WATER RIGHTS ADMINISTRATION.
The PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard.
RESPONSE: *Noted.*

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.
The PWSD has been determined to be an Established District pursuant to Section 1811A.10 and thus the water supply meets the requirements of this standard.
RESPONSE: *Noted.*

1803A.04 - THE WATER PLAN IS SUFFICIENT TO MEET THE DEMAND APPLICABLE TO THE PROJECTBASED ON THEMINIMUMWATERDEMAND STANDARDS IN SECTION 1805AHEREIN.
The will-serve letter provided the total demand for the Bloom development based on the PWSD Rules and Regulations. The water supply table attached to the will-serve letter provides sufficient information to conclude that the PWSD can meet the water demand for the Bloom development.
RESPONSE: *Noted.*

Douglas County Zoning Resolution Section 1806A provides the required documentation standards to be used to determine if the application meets the provisions of Section 18A. Section 1806A.02.2 is the required standard since this application is for a District entity and is a preliminary plan. The summary of our review and findings are as follows:
RESPONSE: *Noted.*

1806A.02.2(1) A LETTER FROM THE DISTRICT REFERENCING THE SUBDIVISION NAME (AS SUBMITTED TO THE COUNTY)
The application included a will-serve letter from PWSD which in included (a) the District's commitment to serve the subdivision, (b) that the commitment is irrevocable or the conditions under which the commitment may be revoked, (c) that the property that is the subject of the application has been included in the District or is served by contract, (d) the estimated demand of the subdivision based on the water demand standards as established in Section 1805A, and (e) the amount of water that can be supplied to the subdivision pursuant to deeded water, contracts, and/or IGAs, and (g) the feasibility of extending service to the development. However, the will-serve letter did not include (f) the proposed uses, the allowed uses of the District's water rights, and that the proposed uses correspond to the allowed uses of the District's water rights.
RESPONSE: *Noted.*

1806A.02.2(2) A WATER SUPPLY REPORT FROM THE DISTRICT
The application in this case did not include a separate water supply report from the District. However, the will-serve letter from PWSD included a section discussing the District's water demand and supply. It also contained a summary table of the District's water rights. These sections of the will-serve letter, along with the summary table, provided the required information typically found in a water supply report and demonstrated that the District's water supply portfolio is sufficient to serve the Bloom development.
RESPONSE: *Noted.*

1806A.02.2(3) EVIDENCE CONCERNING THE POTABILITY OF THE PROPOSED WATER SUPPLY FOR THE SUBDIVISION
Attached to the will-serve letter was evidence about the potability of the water provided by the PWSD.
RESPONSE: *Noted.*

1806A.02.2(4) PROOF THAT THE WATER RIGHTS IN ALL DENVER BASIN AQUIFERS HAVE BEEN RESERVED IN PERPETUITY, FOR THE BENEFIT OF FUTURE LANDOWNERS WITHIN THE PROPOSED DEVELOPMENT, PURSUANT TO A DECLARATION OF RESTRICTIVE COVENANTS IN A FORM PRESCRIBED BY THE COUNTY
The application did not include proof that the water rights in Denver Basin aquifers from PWSD have been reserved in perpetuity, for the benefit of future landowners within the proposed development, pursuant to a declaration of restrictive covenants in a form prescribed by the County.
RESPONSE: *Once Bloom is included in the District, it will have a dedicated water bank in perpetuity. Until the project is approved and the water rights are formally dedicated, the rights will remain in a reservation status. Alan from Respect will coordinate with Mike Pesika to confirm the appropriate form of restrictive covenants acceptable to the County, separate from this letter, consistent with our November 19, 2025 meeting with Respect and Parker Water and Sanitation District. Currently, the landowner is reviewing the covenants and may revise or sign them; however, they will not be executed unless the property is approved, in order to preserve the associated water rights*

1806A.02.2(5) WHEN SERVICE IS PROPOSED THROUGH AN INTERGOVERNMENTAL AGREEMENT (IGA), THE APPLICANT SHALL PROVIDE EVIDENCE THAT THE IGA HAS BEEN EXECUTED BY BOTH PARTIES.
Service for this application needs an updated IGA between the Pinery Water and Wastewater District and the Parker Water Sanitation District. However, there was no evidence that the updated IGA has been executed by both parties.
RESPONSE: *The Intergovernmental Agreement will not be executed until the property is formally included in the District. Parker Water and Sanitation District will revise the letter to decouple the Will-Serve commitments from the Pinery, as service will not be directly provided by the Pinery. PWSD will provide sanitary service directly and will bill the Pinery for any associated charges as needed.*

1806A.02.2(1) A LETTER FROM THE DISTRICT REFERENCING THE SUBDIVISION NAME (AS SUBMITTED TO THE COUNTY)
However, the will-serve letter did not include (f) the proposed uses, the allowed uses of the District's water rights, and that the proposed uses correspond to the allowed uses of the District's water rights.
RESPONSE: *The District's water rights are part of the decreed water use outlined in the Parker Water and Sanitation letter, and Parker Water and Sanitation District will revise the letter accordingly to the best of their ability.*

WILDFIRE MITIGATION

The project area was assessed for wildfire, the project proposal appears to be over lot graded, fuels are light, native grasses will remain in the open space tracts. Wildfire mitigation recommends incorporating perimeter mowing (strip) and mowing (strip) against the private property boundaries on a minimum bi-annual basis to address wildfire in grass fuels concerns. Staff recommends these management actions be incorporated into an open space management plan. Additional guidance on strip size can be provided at the time of Final Plat or when the management plan is developed.
RESPONSE: *Noted.*

PARKER WATER & SANITATION DISTRICT

Please note this project has not currently been included into the Parker Water & Sanitation service area.
We will not provide Water or Sanitary service to a property that is not in our service area.
RESPONSE: *Noted.*

CENTURY LINK – QWEST CORPORATION

Qwest Corporation, Inc. d/b/a CENTURYLINK ("CenturyLink") has reviewed the request for the subject encroachment and has determined that it has no objections with respect to the areas proposed for encroachment as shown and/or described on Exhibit "A", said Exhibit "A" attached hereto and incorporated by this reference. It is the intent and understanding of CenturyLink that this Encroachment shall not reduce our rights to any other existing easement or rights we have on this site or in the area.
This encroachment response is submitted WITH THE STIPULATION that if CenturyLink facilities are found and/or damaged within the areas as described, the Applicant will bear the cost of relocation and repair of said facilities.
RESPONSE: *Noted.*

CHERRY CREEK BASIN WATER QUALITY AUTHORITY

The Cherry Creek Basin Water Quality Authority (Authority) acknowledges notification from Douglas County that the proposed development plans for SB2025-017, Bloom Preliminary Plan have been or will be reviewed by Douglas County for compliance with the applicable Regulation 72 construction and post-construction requirements. Based on the authority's current policy, the Authority will no longer routinely conduct a technical review and instead the Authority will defer to Douglas County's review and ultimate determination that the proposed development plans comply with Regulation 72. If a technical review of the proposed development is needed, please contact LandUseReferral@ccbwqa.org . The review may include consultation with the Authority's Technical Manager to address specific questions or to conduct a more detailed Land Use Review, if warranted.
RESPONSE: *Noted.*

COLORADO GEOLOGICAL SURVEY

The proposed Bloom Preliminary Plan site (39.4511, -104.7889) contains only isolated areas of slopes steeper than 20%, and no geologic hazards or unusual geotechnical constraints are known or suspected to be present that would preclude the proposed residential use and density. CTL|Thompson's Due Diligence Preliminary Geotechnical Investigation, Bayou Gulch Road & Presidio Parkway Parcel (May 20, 2022) contains a valid characterization of subsurface conditions based on the results of six borings, and makes appropriate preliminary geotechnical recommendations. Provided CTL's recommendations are rigorously adhered to, the Colorado Geological Survey has no objection to approval of the preliminary plan as proposed.
RESPONSE: *Noted.*

OFFICE OF EMERGENCY MANAGEMENT

It is imperative that the applicant follow through with plans to construct a secondary access / emergency access easement road. This will help facilitate rapid evacuation of the entire community in an emergency.
RESPONSE: *It is our understanding that DC Planning will route the updated submittal materials and responses to comments to the Office of Emergency Management for review. In addition, our team will coordinate with Public Works for further clarification. Due to the minimum access spacing requirement of one-quarter mile along Bayou Gulch, providing a secondary access point along this roadway is extremely challenging.*

Per Douglas County Standards and Specifications, Chapter 4.3.1, a cul-de-sac may serve up to 40 dwelling units for safter emergency circulation. The proposed site plan does not provide a secondary access given the plan is under the required amount of units. The proposed layout provides a loop road that includes 32 dwelling units and utilizes a looping roadway, which provides better circulation and more reliable fire/emergency access than a traditional cul-de-sac. To address this concern, a split median has been incorporated into the design to improve circulation during emergency conditions. We will continue to evaluate this option so emergency responder safety is not compromised.

Thank you for your comments.

Sincerely,

Paul Shoukas
Vice President

From: Kaushik Kannan
To: Michael Pesicka
Subject: Proposed build (SB2025-017): Public comment
Date: Friday, July 25, 2025 4:41:06 PM

Hello,

My wife and I live in Allison Ranch nearby. We just moved yesterday. One of our favorite aspects of living here is the walk we took down Bayou Gulch to look at the cows and the hills.

We are devastated to hear about this proposal for a new luxury housing community. If we fill every plot of a available land with houses then the community loses it's charm. Please reconsider this proposal.

There's so much open land in Douglas county that we shouldn't need to fill every single open plot with housing communities.

I hope that the public opinion and community is valued over making as much money as possible. One of the things that makes Parker so great is their commitment to open spaces and was one of the reasons we even moved here.

Vote NO on this proposed development

Thank you

Best,
Kaushik Kannan and Abiraami Sivaramakrishnan
from 6345 Las Conchas Pt Parker, CO 80134

From: Abigail Peabody
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:08:05 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

There is enough development in the area. Please let these people go find somewhere else to build that doesn't further impact this beautiful herd!

Sincerely,

Abby Peabody

From: Alejandra Cano
To: Michael Pesicka
Subject: Formal and Unwavering opposition to Bloom preliminary plan
Date: Tuesday, July 29, 2025 9:47:19 AM

Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thanks in advance for your help!

Alex Cano
Parker resident
720-560-2187

From:	X O
To:	Michael Pesicka
Subject:	Concern Regarding Proposed Development on Green Space with 32 new luxury homes (Bloom) Near Our Homes- near to trails at crowfoot and Pradera.
Date:	Sunday, July 27, 2025 11:28:22 AM

Dear Douglas County Planning Department,

I hope this message finds you well. I'm writing on behalf of our family and neighbors regarding the proposed development of luxury homes on the green patch of land located directly in front of our homes, near to Pradera , Allison Ranch and trails at crowfoot (80134).

This small stretch of open space means a great deal to us. It's not just a piece of land — it's a peaceful haven that offers relief from the increasingly crowded and fast-paced environment we experience elsewhere. It's a space where wildlife such as deer and even cows occasionally graze, and we genuinely enjoy and value this rare connection to nature right outside our front doors.

Developing this area would not only take away a much-loved and appreciated piece of greenery, but it would also negatively impact the local environment. The presence of wildlife would likely diminish, and the ecological balance of the area could be disrupted. The added traffic and density would change the peaceful, semi-rural atmosphere we've grown to cherish.

We kindly ask that you take these concerns into consideration and explore alternatives that would preserve this green space for both current residents and local wildlife.

We deeply appreciate your attention to this matter and hope that community voices will play a role in shaping the future of our neighborhood.

Thank you for your time and understanding.

Sincerely,

Alina Husain

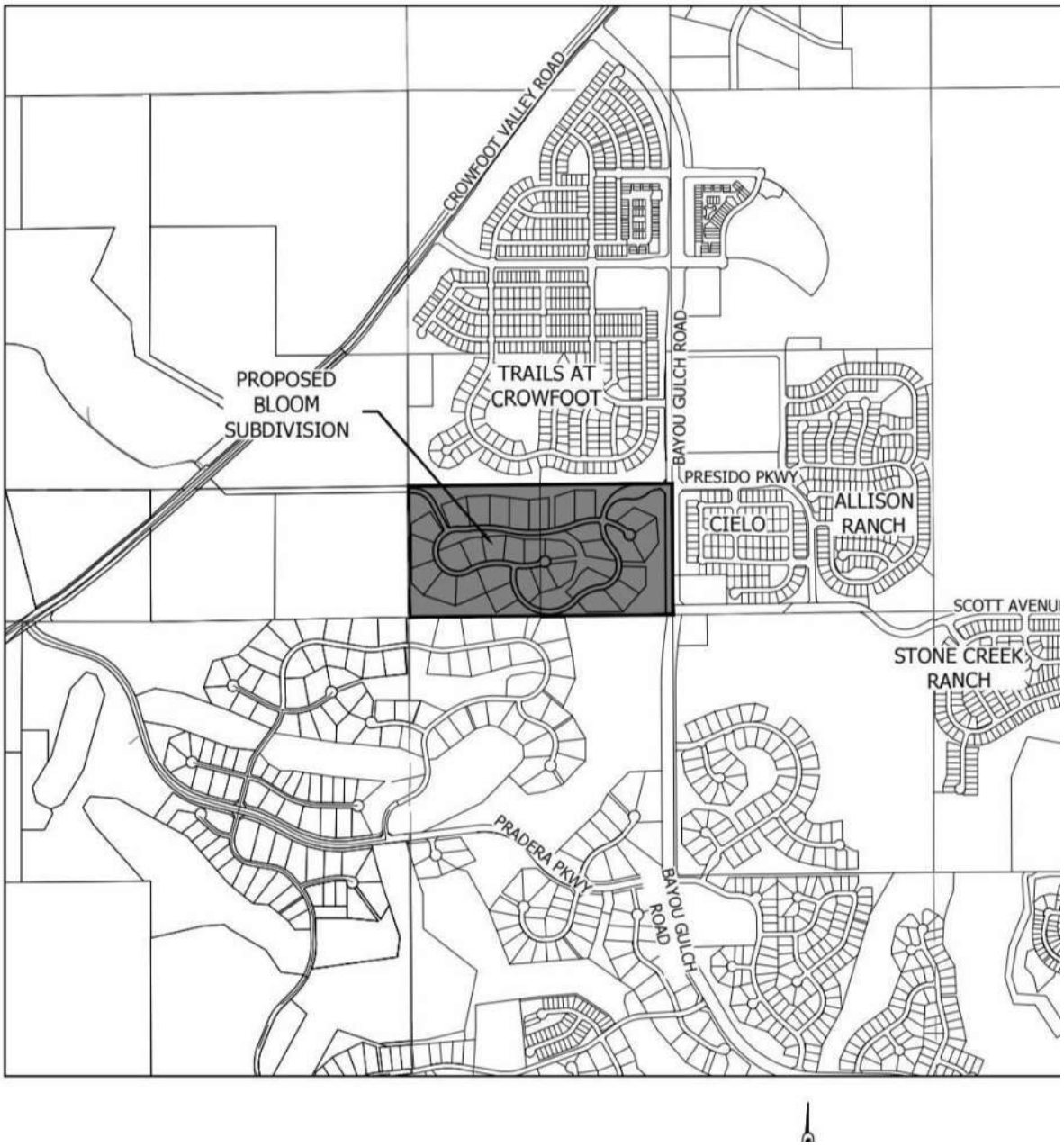
5531, loma vista drive, 80134, Parker, Colorado

Contact no:- 7202923365

Email address:- alinahusain87@gmail.com

BLOOM PRELIMINARY PLAN

:D IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6
PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 3 TRACTS, SB2025-017



July 24, 2025

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to **deny approval** of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

From: Kate Varozza
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:19:58 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you for your time and all that you do for our county,
Ally Varozza

From: Alyson Lorenzo
To: Michael Pesicka
Subject: Bloom Plan Objection - please enter into public record
Date: Tuesday, July 29, 2025 5:17:59 PM

Dear Douglas County Planning Commission,

I am writing to formally **object** to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.

For many reasons, which will be discussed at all future commission meetings, I urge the Planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents that you serve.

Sincerely,
Alyson Lorenzo German

From: Amanda Mervine Edwards
To: Michael Pesicka
Subject: Opposition to SB2025-017
Date: Tuesday, July 29, 2025 12:10:20 PM

Dear Mr. Pesicka,
I hope this email finds you well.

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017. I am a resident of Parker and have seen firsthand the devastation caused by development on land necessary for the local flora and fauna most recently adjacent to my home just behind the PACE center.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. With subdivisions approved and in builds across the town already, SOME regard MUST be made for this specific area and its protection.

Please and thank you for your consideration,
Amanda

Sent from my iPhone. Please excuse any spelling or grammatical errors.

7/27/25

Mark and Amelia Buckley
5023 Raintree Dr.
Parker, CO 80134
Buckley.amy1@gmail.com
858-449-2942

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

Subject: Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

It has come to our attention that open space just north of the community of Pradera is being considered again for residential development. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017. Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/ L.

We vehemently oppose the proposed subdivision because of the following reasons:

1. Preservation of Agricultural Land: As adjacent landowners whose property shares a boundary with the proposed subdivision, we are deeply concerned about the proposed zoning of the land for Estate Residential (ER) use. It is imperative to maintain the agricultural zoning to preserve local farming practices and the ecological balance of the area. Any deviation from this designation is not only detrimental but also potentially illegal under current zoning laws.

2. Environmental Concerns: The conversion of agricultural land to residential use poses significant and potentially irreversible environmental risks, including disruption to local ecosystems, increased strain on local resources, and a host of other ecological consequences.

3. Community Impact: The proposed development will have a profoundly adverse effect on the character and quality of life in the surrounding community. It will likely lead to increased traffic, loss of green space, and other community-related issues that are unacceptable and against the public interest.
We hereby formally request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 be denied in its current form. We urge the Planning Services to take immediate action to prevent this unlawful and environmentally harmful development. Should this proposal

be approved, we reserve the right to pursue all legal recourses available to us to protect our community and the environment but we hope that it will not come down to that option.

Thank you for your consideration regarding this matter. We look forward to your prompt action and understanding of our serious concerns.

Sincerely,

Mark and Amelia Buckley

Andrea Lassen

10359 Bristleridge Court, Parker, CO 80134

andrea.m.lassen@gmail.com
(720) 234-6835

7/27/2025

Mike Pesicka

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

Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.

The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

We strongly oppose the proposed subdivision for the following reasons:

- **Preservation of Agricultural Land**: The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.

- **Environmental Concerns**: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.

- **Community Impact**: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues.

We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits of keeping the land as Agricultural, in line with its current zoning and the best interests of the community.

Thank you for your attention to this matter. We look forward to your understanding and consideration of our concerns.

Sincerely,

Andrea Lassen

From: walterannette@comcast.net
To: Michael Pesicka
Subject: Please Deny Approval of Bloom - Project Number SB2025-017
Date: Tuesday, July 29, 2025 3:29:59 AM

July 29, 2025

Dear Douglas County Planning Commission – Mike Pesicka,

As residents of the Trails at Crowfoot community and direct neighbors to the proposed Bloom Preliminary Plan (Project File SB2025-017), my husband Don Walter and I formally object to its approval.

We purchased our home approximately four years ago, specifically valuing its location adjacent to this property. The absence of information regarding a potential change in use for this site significantly affects the understanding of the area's planned development. This large-scale proposal raises serious concerns regarding its long-term impact on the environment, the strain it will place on local infrastructure, and the irreversible alteration of the community's quality of life and character.

For this and many other reasons which will be discussed at all future commission meetings, **we urge the planning commission to please deny approval of this current proposal**.

We respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Thank you,
Annette M. Walter
14413 Shasta Daisy Lane
Parker, CO 80134
Email: walterannette@comcast.net
Cell: 408-431-6545

From: Beatriz Sutton
To: Michael Pesicka
Subject: Strong Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 12:36:36 PM

Dear Mr. Pesicka,

I hope you're doing well. I'm writing to formally express my firm opposition to the Bloom Subdivision Preliminary Plan (SB2025-017).

This proposal raises serious concerns for me—most importantly, the impact it would have on the local elk population. This area represents the final remaining migration corridor for a resident herd of over 100 elk in Parker. Any development here would significantly disrupt their ability to reach essential winter feeding grounds.

Respectfully,
Beatriz Sutton

10907 Clifford Ct, Parker, CO 80134

From: bill hogan
To: Michael Pesicka; Emily Kropf
Subject: Project number SB2025-017
Date: Monday, July 28, 2025 6:48:49 PM

Hello, my name is William Hogan and I respectfully ask that you deny this development project.

Thank you

Bill Hogan

From: blizzard06 (null)
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 10:56:08 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Sincerely,

Brendan Plourde

From:	Brenden Pyke
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 12:13:43 PM

Dear Mr. Pesicka,
I hope this letter finds you well.
I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
I am 100% against and oppose the proposed subdivision for the following reasons:
This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker.
Any development will hinder the herds ability to migrate to their winter feeding grounds, and would become more vulnerable to predation.
Please reconsider the development in this subdivision as it can and ultimately will cause great harm to our elk and other wildlife.
Thank you.

From:	Yvette Portz
To:	Michael Pesicka
Cc:	Brian Portz
Subject:	Objection to Bloom Preliminary Plan - project file SB2025-017
Date:	Monday, July 28, 2025 8:31:26 PM

Hello Mr. Pesicka,

I am emailing our strong opposition to the plan housing development in the Trails at Crowfoot neighborhood, specifically project SB2025-.017 proposed by Bloom. Our opposition is due to the concern for overpopulation of an area which is expanding too quickly with limited infrastructure and resources. Water and soil erosion are already a major concern for those who have lived in this neighborhood for over 2 years. Roads and streets are already congested during the workweek and would only be increasingly so at this time but also would increase the congestion during the weekend with so many additional homes.

The area already has home builders increasing the number of homes in Looking Glass, Macanta,Allison Ranch, and Tantara. New home developments are not needed nor are they desired in an area with so many other still building.

We would appreciate your consideration of this official objection to the Bloom Plan, Project file SB2025-017. Let this stand and be recorded in the official public record in opposition to Bloom Preliminary Plan, Project SB2025-017.

Thank you for your continued public service,

Sincerely,

Brian and Yvette Portz, residents of 17070 Hop Clover Ave, Parker CO 80134

From: Brian Matsumoto
To: Michael Pesicka
Subject: Objection to Bloom Preliminary Plan - project file SB2025-017
Date: Sunday, July 27, 2025 10:39:42 PM

To the Douglas County Planning Commissioners: July 27, 2025
Attention: Mr. Mike Pesicka
I am writing to express my strong opposition to the proposed housing development near our Trails at Crowfoot neighborhood. While I understand the need for additional housing in our city, I believe that this project would have a detrimental impact on our community.

First and foremost, the proposed development is simply too large for our area. The increase in population density is already putting a strain on our already overburdened infrastructure, leading to increased traffic congestion, noise pollution, and strain on our public services. Additionally, the construction of this project would result in significant environmental damage, destroying our natural habitats and the reputation of the Crowfoot Valley Road as the quiet “hidden gem” (neighborhood) of Parker.

Finally, I am deeply concerned about the impact this development would have on the diminishing open space and quality of life we experience. I just cannot imagine how crowded it will be like once all the additional housing along Hess Road up to the Canyon’s development in Castle Pines and along Chambers Road at Mainstreet nears completion!
While I recognize the need for additional housing, I believe that this particular project and builder is simply not the right fit for our neighborhood. The original plan included more than 120 homes in the same area. What is to say that this proposed current plan for 32 homes doesn’t grow to be much larger in scope ! Let this letter stand and be recorded in official public record in opposition to the Bloom Preliminary Plan project File SB2025-017, which is now under review.

Sincerely,
Brian Matsumoto, resident, 17004 Hop Clover Avenue, Parker, Colorado 80134

From:	Brianne Lammers
To:	Michael Pesicka
Subject:	Formal Opposition to Bloom Preliminary Plan SB2025-017
Date:	Sunday, July 27, 2025 11:29:34 AM

Dear Mr. Pesicka-

I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.

The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

I strongly oppose the proposed subdivision for the following reason:
1. Preservation of Agricultural Land: the land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.
2. Environmental Concerns: the conversion of the agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
3. Community Impact: the proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic and pedestrian safety concerns, loss of green space, and other community quality of life-related issues.

I respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved. I urge the planning services to consider the long-term benefits of keeping the land zoned as agricultural, in line with the best interest of the community.

Thank you for your attention to this matter. I look forward to your understanding and consideration of Douglas County residents and active voter concerns.

Sincerely,

Brianne Valverde

From:	millettbrittany@icloud.com
To:	Michael Pesicka
Subject:	Elk migration
Date:	Tuesday, July 29, 2025 11:37:58 AM

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
We vehemently oppose the proposed
subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. I live in Pradera and every year my kids love to watch the elk come through, I would hate to have that not happen. These animals need a place to live too!

From: Rocio Lores
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Saturday, July 26, 2025 1:07:10 PM

Bruno Meli Jr.
17406 Rose Mallow Av.
Parker CO. 80134
bm2907@columbia.edu
(858)344-0815
July 26, 2025

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

Dear Mr. Pesicka,
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.
1. The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.
We strongly oppose the proposed subdivision for the following reasons:
1. Preservation of Agricultural Land: The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.
2. Environmental Concerns: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
3. Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues.
We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits of
keeping the land as Agricultural, in line with its current zoning and the best interests of the community.
Thank you for your attention to this matter. We look forward to your understanding and consideration of our concerns.

Sincerely,

Bruno Meli Jr.

17406 Rose Mallow Av
Parker, CO 80134
bm2907@columbia.edu

From: Carrie Classick
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 3:56:11 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision as this land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you,
Carrie
--
Carrie Classick Johnson
carrie.classick@gmail.com
303.475.5508

From: Carrie Glassburn
To: Michael Pesicka
Subject: Formal opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:53:48 PM

Mr. Pesicka,

I am writing to formally request that you reconsider the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

This land is the last remaining migration route for the elk herd that lives in the area. The property all around this area has already been taken away from them, and just yesterday I witnessed several scared and confused elk running around in a panic, crossing back and forth across Hess road, trying to get around the bulldozers that were working on the latest development. Any additional development will destroy their ability to migrate to their winter feeding grounds.

I implore you to consider the dwindling number of native animals that are running out of space to live before you approve this project.

Thank you,
Carrie Glassburn

From:	Chandler Gibbons
To:	Michael Pesicka
Cc:	Shuhei Sugiura
Subject:	Objection to Bloom Preliminary Plan - Project File SB2025-017
Date:	Monday, July 28, 2025 5:42:30 PM

To the Douglas County Planning Commissioners
Attention: Mr. Mike Pesicka

We are writing to express our strong opposition to the proposed Bloom housing development in Parker near the Trails at Crowfoot neighborhood. We understand the need for additional housing in the Town of Parker, but we believe this project would have a detrimental effect on our community.

First of all, the proposed development is too large for our area. Adding another development in the proposed area will put a strain on our public infrastructure (including road access) and result in significant environmental damage.

Second, we have concerns about this specific project and builder. The original plan included more than 120 homes, which was scaled down to 32. We and many of our neighbors are concerned that, if approved, the project could grow to be significantly larger in scope and have an even more destructive effect on the community, our open space, and the wildlife in the area.

Please let this letter stand and be recorded in official public record in opposition to the Bloom Preliminary Plan project file SB2025-017, which is now under review.

Sincerely,
Chandler Gibbons and Shuhei Sugiura
16977 Birds Foot Trail
Parker, CO 80134

Andrew and Susan Davis
14460 Hop Clover Trail
Parker, CO 80134
chaos.suz@gmail.com
720-877-1135

26 July 2025

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

Dear Mr. Pesicka,

Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017

First off, I wanted to to personally thank you for the work you do for Douglas County. Douglas County has become a place near and dear to our hearts.

I would like to formally express my strong opposition and safety concern for the Bloom Subdivision SB2025-017.

We strongly oppose the proposed subdivision for the following reasons:

1. **SAFETY of our children:** We have lived in the Trails at Crowfoot Subdivision since 2021, well before the Allison Ranch neighborhood was completed and Bayou Gulch was opened to connect down through Pradera. Our home backs to the South and we have an unobstructed view of the new Bayou Gulch Road as well as the proposed location of the Bloom Subdivision. In the short time since Bayou Gulch has been connected through to Pradera my wife and I have witnessed 3 car crashes in the vicinity of the Scott Rd and Bayou Gulch intersection, all requiring an ambulance on site. Many children in the Trails at Crowfoot neighborhood attend the Leman Academy Bayou Gulch campus on the East side of bayou Gulch. When the weather is nice, many parents walk their children to school at Leman, requiring them to cross Bayou Gulch. My family, for one, has been nearly hit several time by vehicles traveling well above the speed limit on Bayou Gulch. The Bloom neighborhood will exacerbate the current safety problem by adding more vehicle volume serviced by Bayou Gulch. Douglas County is a place where the safety of our children should be the #1 priority. Please do not sacrifice the safety of our children by approving the Bloom subdivision.
2. **Community Impact:** The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues. Additionally, the dust, dirt and construction trash from the development will severely detract from what residents of Douglas County live here for….clean air and open spaces.

It is mainly in the interest of **SAFETY** that We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits ofnkeeping the land as Agricultural, in line with its current zoning and the best interests of then. community.
Thank you for your attention to this matter ad thank you for what you do for our community. We look forward to your understanding and consideration of our concerns.

Respectfully,

Andy and Susan Davis

From: Charli W
To: Michael Pesicka
Subject: Bloom Preliminary Plan (Project File SB2025-017)
Date: Tuesday, July 29, 2025 1:52:04 PM

July 29th, 2025

To the Douglas County Planning Commission,

I write to oppose the Bloom Preliminary Plan (Project File SB2025-17). This development poses serious risk to our environment, our already strained infrastructure, and the peaceful character of our neighborhoods. We must prioritize the long-term health and sustainability of our community.

I respectfully request that this objection be officially recorded and that you deny approval of the proposal as it currently stands. I hope the Commision will stand with the residents who love and care for this place.

Thank you for listening to our voices.

Sincerely,
Charli Wolenetz

From: Chris Gates
To: Michael Pesicka
Subject: Bloom: Proposed Development
Date: Friday, July 25, 2025 5:01:57 PM

Good evening, my name is Chris Gates, and I live on Loma Vista Dr in Parker. I strongly oppose the proposed development at [location]. This project threatens the character of our community, strains local infrastructure, and will negatively impact traffic, safety, and the natural environment. It would also obstruct the open views that make our neighborhood unique and livable. I urge you to prioritize responsible growth that respects the existing community.

Please reject this proposal.

From:	Chrisstie Beumel
To:	Michael Pesicka
Subject:	Concerned Douglas County Citizen
Date:	Tuesday, July 29, 2025 2:02:38 PM

Dear Mr. Pesicka, 7.29.2025

As a longtime concerned Douglas county citizen, I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017. We, vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. These herds have been traveling these routes since time immemorial.

Douglas County has monies in place for conservation and planned open space for exactly this reason! To disregard the last migration route through Douglas County into Parker for this Elk herd would be a travesty.

Sincerely,
Chrisstie Beumel

Chrisstie Beumel BSN RN OCN, ELNEC, BMT

c) 720.206.9186
e) chrisstiebeumel@yahoo.com

From: christy.ayres
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:00:22 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please stop destroying the beauty of Douglas County!

Christy Ayres
10080 Boca Circle
Parker, CO

From: Cullen White
To: Michael Pesicka
Subject: Re: Bloom Preliminary Plan
Date: Sunday, July 27, 2025 4:59:08 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.

For many reasons, which will be discussed at all future commission meetings, I urge the planning commission to deny the approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Kind regards,

Cullen White

From: CINDI WATSON
To: Michael Pesicka
Subject: Bloom proposed new housing development
Date: Monday, July 28, 2025 11:12:21 AM

Dear Douglas County Planning Commission,
I am writing o formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.
For many reason, which will be discussed at all future commission meetings, I urge the planning Commission to deny approval of the current proposal.
I respectfully request that this objection be entered in the public record.
Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.
Sincerely,
Cynthia Watson

From: Danielle Ross
To: Michael Pesicka
Subject: Formal Opposition to Bloom Subdivision Preliminary Plan (SB2025-017)
Date: Monday, July 28, 2025 11:21:30 AM

Dear Mr. Pesicka,

I am writing to formally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan (SB2025-017). I urge you not to approve this development for the following reasons:

1. **Preservation of Agricultural Land**: The land in question is currently zoned for agricultural use. Preserving this zoning is essential to support local ranching practices and to maintain the ecological integrity of the area.

2. **Environmental Concerns**: Converting agricultural land to residential development carries significant environmental risks, including the disruption of local ecosystems and added strain on water and other natural resources.

3. **Impact on the Community**: The proposed subdivision threatens to alter the character of the surrounding community. It could lead to increased traffic, heightened pedestrian safety concerns, the loss of open green space, and an overall decline in residents' quality of life.

Given these concerns, I respectfully request that the Bloom Subdivision Preliminary Plan not be approved.

Thank you for your time and consideration.

Sincerely,

Danielle Ross
(303)229-7092

From: Darin Weiland
To: Michael Pesicka
Subject: SB2025-017
Date: Monday, July 28, 2025 5:35:19 PM

Dear Mr. Pesicka,
I am writing to urge you NOT to approve this development project. We purchased our lot at significant premium to enjoy this open space. It has been disappointing, to say the least, that developers will seemingly operate with impunity from the appeal of rural Douglas County with little to no regard for its current citizens. Please do not allow this to happen again in our neighborhood!
Sincerely,
Darin Weiland
14454 Hop Clover Trail
Sent from my iPhone

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

David Sloan

David Sloan
17251 Birds Foot Trail
Parker, CO 80134

RECEIVED
JUL 29 2025
Douglas County Planning

RECEIVED
JUL 29 2025
Douglas County Planning

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Dawei Wei
Jiezhuang Zhou
17437 Birds foot Ave
Parker CO 80134

Doug Redman
5043 Raintree Circle
Parker CO 80134
Redmandoug1@gmail.com
3083809575

RECEIVED
JUL 29 2025
Douglas County Planning

July 24, 2025

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

Re: Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

We are writing to formally express our opposition to the proposed Bloom Subdivision (**Preliminary Plan SB2025-017**), which includes the development of 32 residential lots and 3 tracts designated for drainage, open space, landscaping, and public access on approximately 81 acres of land currently zoned as Agricultural, as per Douglas County account records R0135626 and R0480779. The property is legally described as SW1/4SW1/4 9-7-66 40.00 AM/ L 189-445 and SE1/4SW1/4 9-7-66 40 AM/L.

We are directly adjacent landowners whose property shares a boundary with the subject parcels. Even though, we will be immediately and materially affected by the proposed development. We are concerned that the proposed subdivision will significantly alter the rural and agricultural character of the area. The current zoning reflects appropriate land use for this region, and we believe it should be maintained in order to preserve the environmental, aesthetic, and community values associated with agricultural land.

We respectfully request that the Bloom Preliminary Plan not be approved as submitted and that the land remain zoned and used for agricultural purposes.

Thank you for your time and consideration of our concerns.

Sincerely,
Doug Redman
Adjacent landowners Letter of Opposition



From: Douglas Bessette
To: Michael Pesicka
Subject: Bloom Preliminary Plan
Date: Friday, July 25, 2025 8:08:53 PM

Dear Douglas County Planning Commission,
I am writing to formally object to the proposed Bloom Preliminary Plan (Project SB2025-017), currently under review by Douglas County. As a resident of this community (Trails at Crowfoot), I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life. Open space is one of our most coveted wants and this project will take more of it.
Fo many reasons, which will be discussed at all future commission meetings, I urge the planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.
Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.
Sincerely,
Douglas Bessette

From:	Drew Jordan
To:	Michael Pesicka; governorpolis@state.co.us
Subject:	Formal Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 2:25:42 PM

Dear Mr. Pesicka & Governor Polis,

I hope this letter finds you well.

I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please do not encroach on the wildlife. Instead, protect their natural movement/existence here in Colorful Colorado.

Drew Jordan
Castle Rock, CO

Drew Jordan
drewjordan@ymail.com

From:	Edward Nichols
To:	Michael Pesicka
Cc:	Claudia Martinez-Nichols
Subject:	Formal Opposition to Bloom Preliminary Plan SB2025-017
Date:	Monday, July 28, 2025 8:06:16 AM

Dear Mr Pesicka,

I am writing to formally express my (and my wife's) opposition to the proposed Bloom subdivision preliminary plan SB2025-017.

The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/9-7-40 AM/L.

I strongly oppose the proposed subdivision for the following reasons:

1) Preservation of Agriculture Land: The land in question is currently zoned for agriculture use, and maintaining its agriculture zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.

2) Environmental Concerns: The conversation of agriculture land to residential use poses significant risks, including potential risks, including potential disruption to the local ecosystems and increase strain on local the resources.

3) Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic and pedestrian concerns, loss of green space and other community quality of life-related issues.

We respectfully request that the proposed Bloom Subdivision Preliminary Plan (SB2025-017) not be approved. We urge the Planning Services to consider the long-term benefits of keeping the land zoned as Agricultural, in line with the best interests of the community.

Thank you for your attention to this matter. We look forward to your understanding and consideration of Douglas County residents and active voter concerns.

Sincerely,
Edward Tharpe Nichols, Jr.
17525 Hop Clover Ave.
Parker, CO 80134

RECEIVED
JUL 30 2025
Douglas County Community Development

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Elias and Helen Mercado

From: Emily Kropf
To: Michael Pesicka
Subject: Fwd: Project number SB2025-017
Date: Monday, July 28, 2025 7:11:45 PM

Hello, my name is Emily Hogan and I respectfully ask you to deny this development project, as well.

Thank you,
Emily Hogan

---------- Forwarded message ---------
From: **bill hogan** <hoganbill6@gmail.com>
Date: Mon, Jul 28, 2025 at 6:48 PM
Subject: Project number SB2025-017
To: <mpesicka@douglas.co.us>, Emily Kropf <emily.kropf@gmail.com>

Hello, my name is William Hogan and I respectfully ask that you deny this development project.

Thank you

Bill Hogan

From: Eric
To: Michael Pesicka
Subject: Bloom development adjacent to Trails at Crowfoot
Date: Wednesday, July 30, 2025 5:48:57 PM

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

Dear Mr. Pesicka,

I hope this finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017. Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

We are opposed to the proposed subdivision for the following reasons:

1. Preservation of Agricultural Land: There should be a balance of nature or agricultural and open space around neighborhoods. There is already plenty of development between Pradera and Trails at Crowfoot. Additionally there is the Tantera development going on currently. One of the great things about Parker is the amount of surrounding open land. Parker should not become another Thorton, full of suburban congestion and no character.

2. Environmental Concerns: The conversion of agricultural land to residential use poses significant and potentially irreversible environmental risks, including disruption to local ecosystems, increased strain on local resources, and a host of other ecological consequences.

3. Community Impact: The proposed development will have a profoundly adverse effect on the character and quality of life in the surrounding community. It will likely lead to increased traffic, loss of green space, and other community-related issues that are unacceptable and against the public interest. There are already new apartments going on
.
We hereby formally request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 be denied in its current form. We urge the Planning Services to take immediate action to prevent this development as it will move Parker in the wrong direction.

Thank you for your immediate attention to this matter. We look forward to your prompt action and understanding of our serious concerns.

Regards,
Eric Schraeder
14431 Shasta Daisy Lane

From: Erica Brennan
To: Michael Pesicka
Subject: Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 12:54:39 PM

Dear Mr. Pesicka,

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

This land is the last remaining migration route for a resident herd of over 100 elk in Parker. Any development on this property would permanently block this corridor, preventing the herd from reaching its essential winter feeding grounds. Disrupting this natural pathway threatens the survival of this herd and irreversibly damages the ecological balance of the area.

In addition to the devastating impact on wildlife, this subdivision would:

- Destroy open space and natural habitats that cannot be restored once developed.
- Increase traffic congestion and heighten the risk of vehicle-wildlife collisions.
- Strain already burdened local infrastructure, schools, and emergency services.
- Erase the unique character and natural beauty that define Parker.

Once this land is developed, there is no turning back. Protecting the elk migration route is not just about wildlife—it is about preserving the character, beauty, and legacy of Parker for generations to come. We strongly urge you to deny this proposal.

Thank you for your time and thoughtful consideration of our concerns.

Sincerely,

Erica Brennan

From:	Garrett Barton
To:	Michael Pesicka
Subject:	Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 2:27:57 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker.
Any development will hinder the herds ability to migrate to their winter feeding grounds.

Finest Regards,

Garrett V Barton

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Greg V. Wanke

17315 Birds Foot Trl

Parker, Co.

80134

RECEIVED

JUL 29 2025

Douglas County Planning

From: Gina Kazakova
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:42:24 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds, which is a loss to beautiful nature of Parker and a reason why people want to move here. Please help preserve our natural resources in our community.

Thank you,
Gina Helms

Sent from Proton Mail for iOS

From: Pamela Seki
To: Michael Pesicka
Subject: Opposition to Bloom Re-Zoning
Date: Friday, July 25, 2025 11:17:48 AM

Mr. Pesicka:

We appreciate your attention to our letter expressing our adamant objection to the proposed Bloom Subdivision Preliminary Plan SB2025-017. The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L. We are homeowners in the subdivision of Trails at Crowfoot and are extremely concerned that the above proposed change in zoning will adversely affect our and the surrounding communities. We chose our home's location in large part to the current zoning that we trusted would be intact in future years. There currently are multiple large subdivisions under construction in the surrounding areas (i..e. Looking Glass, Tanterra, southeast Hess & Motsenbocker Rds., Macanta) that have already negatively impacted the agricultural environment (loss of green space) ,significantly increased traffic and housing density.

Please consider the current developments and **continue to honor the zoning** that protects the significantly diminished remaining agricultural/green space and local ecosystem. We strongly oppose the proposed subdivision for the following reasons:

- Preservation of remaining agricultural/open green space
- Environmental concerns, disruption of current ecosystems
- Community impact, increased traffic, local resources

We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits of keeping the land as Agricultural, in line with its current zoning and the best interests of the Community.

Sincerely,
Glenn & Pamela Seki
17172 Hop Clover Avenue
Parker, CO 80134

From: A N
To: Michael Pesicka
Subject: Deny: SB2025-017
Date: Monday, July 28, 2025 4:43:20 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,
Hoang Nguyen Vo
17376 Rose Mallow St, Parker, CO 80134

From: Hollyanne Hilzendeger
To: Michael Pesicka
Subject: Bloom Preliminary Plan
Date: Friday, July 25, 2025 5:32:55 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,
Hollyanne Hilzendeger

From:	indraja reddy
To:	Michael Pesicka
Cc:	Vamsi Reddy
Subject:	Objection to the Proposed Bloom Subdivision (SB2025-017)
Date:	Sunday, July 27, 2025 6:36:27 PM

Dear Douglas County Planning Officials,

I am writing as a concerned resident of the Cielo Metro District in Parker, Colorado, regarding the proposed Bloom Subdivision (SB2025-017) located in Section 9, Township 7 South, Range 66 West, as outlined in the preliminary planning map.

This proposed development would significantly alter the natural and rural character of the area. The land currently serves as open space where cattle peacefully graze, providing not only ecological balance but also a serene, pastoral buffer between the dense housing of Trails at Crowfoot, Cielo, and Pradera.

I urge the County to consider the following concerns before approving any new development in this area:

1. Loss of Agricultural Land and Open Space:

   This land has long supported livestock and contributes to the peaceful rural aesthetic of our region. Introducing 32 residential lots and related infrastructure would permanently eliminate this valuable open space and disrupt the existing balance between developed and agricultural land.

2. Traffic and Infrastructure Impact:

   Bayou Gulch Road and Presidio Parkway already experience increased traffic from recent developments. The proposed subdivision would only add further strain without meaningful road upgrades or transit alternatives. It feels like never ending construction since the past 3years and with the approval of this it would only add to it. We are afraid this is taking away from charm of living in Parker.

3. Wildlife and Environmental Concerns:

   The area serves as a habitat for local wildlife and is a critical part of our shared ecosystem. New construction threatens to displace wildlife and increase runoff into neighboring communities.

4. Community Identity and Quality of Life:

   Residents of Cielo and neighboring subdivisions chose to live here for the natural surroundings and relative seclusion. Large new developments will irreparably change

the community character we value so deeply.

I respectfully ask the Planning Commission to deny approval for the Bloom Subdivision in its current form. Please consider preserving the natural character of this land for the enjoyment and ecological benefit of current and future residents.

We love Parker and have been residents here since the past 3 years, but all this new construction is going to severally throw the balance off.

I humbly request to reconsider your position on this.

Thanks,

Indraja Reddy

From: Irene Haskell
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:01:06 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

From:	James Buff
To:	Michael Pesicka
Subject:	Support: Project # SB2025-017
Date:	Sunday, July 27, 2025 6:34:22 PM
Attachments:	CCE07272025.pdf

Hi! I'm e-mailing to support Project # SB2025-017, the Bloom proposal on Crowfoot Valley Rd, in whatever form the county deems to be in alignment with county development goals and standards.

I got a flyer (attached) from a neighbor in Trails at Crowfoot raising a bunch of concerns about an impact to "the open, spacious lifestyle we all value, but also traffic, wildlife, water resources and more".

Unmentioned are the identical impacts that our own houses (mine included) had on Pradera and Vistancia when our neighborhood was built.

The organizing / complaining party undoubtedly paid a 5-figure lot premium to their builder for a yard with open-space behind it, with no guarantee that the space would remain open. The fault here is not with the land owner or developer behind them, but their builder for selling them a view they could not guarantee.

James Buff
14334 Beebalm Loop, Parker
james.buff@gmail.com
972-824-4728

From: Jayachandra Badiginchala
To: Michael Pesicka
Subject: Project Number SB2025-017
Date: Sunday, July 27, 2025 3:05:53 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to **deny approval** of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,
Jay
17300 Rose Mallow Ave
Parker

From: Jeannine Crooks
To: Michael Pesicka
Subject: Unwavering Opposition to Bloom Preliminary Plan
Date: Tuesday, July 29, 2025 8:05:05 PM

Hello Mr. Pesicka,

Hope you are well. In case you didn't see my message via LinkedIn, I wanted to send this email to ensure you are aware of my preferences.

I wanted to express my opposition to the proposed Bloom Subdivision Preliminary Plan. I know that the land is zoned for what they want to do, but must we always only do that?

Douglas County is steadily losing the natural beauty to a myriad of subdivisions. Surely there must be a way to redesign this one to allow for our elk population to co-exist. If not, what do we need to do to reclaim this property for the County?

You have the chance here to be the hero or the villain. Douglas County will survive without yet another subdivision, but the elk won't survive with this one.

Please do the right thing.

Thank you for your consideration,

Jeannine Crooks

Douglas County Resident

From: Jeff Kloenne
To: Michael Pesicka
Subject: Bloom Development (Bayou Gulch Road area)
Date: Monday, July 28, 2025 4:35:21 PM

Hi Mike - I am a long time Realtor at Pradera and a resident of the Trails at Crowfoot Valley, and the overwhelming neighbor opinion is to stop this development. There have been multiple attempts, which have been previously denied, and I believe it should be denied again. It is important to maintain the current neighborhood feel, and there are also water, traffic, and wildlife reasons to stop it as well.

From: Jen Smardo
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:18:41 PM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please support stopping the development of this area and support saving the elk. Their lives depend on this.

Thank you,
Jennifer Smardo

From: Jenny Morales
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 8:21:22 PM

Dear Mr. Pesicka,
I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017. We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Colorado and Parker prides themselves on our wildlife and sharing the community with them. Please please lets do our part to keep Colorado wildlife friendly with a balance of caring for our animals and helping our city developing in areas that keep a balance with our wildlife. We have such beautiful parks and open space, I know we can find another solution and keep the beautiful Elk their migration patterns that is so important to our state, history, and community.

Warm Regards,
Jenny Morales
303.906.3451
jen_kingsley@hotmail.com

Sent from Outlook

From: Jessica Bates
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 9:45:49 PM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. This will also undoubtedly lead to more animal-vehicle collisions. The area doesn't need another subdivision. Part of what makes Parker great, are its natural areas, wildlife, and lands it's comprised of. Please keep it that way.

Thank you for your consideration,
Jessica B

From: Joanna Cummings
To: Michael Pesicka
Subject: Opposition to Bloom development
Date: Tuesday, July 29, 2025 11:51:48 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

As an 8th generation Parker resident, I understand the reasons why Parker has developed but this last bit of land for our animals to migrate in is worth saving! We did it at Sandstone and I encourage you to stand up and find a solution that does not involve developing this land.

Thank you,
Joanna Cummings
303-204-6444

From:	Anne Sieve
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 11:11:16 PM

Dear Mr. Pesicka

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you,

JoAnnette Sieve

From: Jocelynn Barrientos
To: Michael Pesicka
Subject: Urgent
Date: Tuesday, July 29, 2025 12:30:00 PM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

From: Joe Lugo
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 3:35:45 PM

Dear Mr. Pesicka,

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. Additionally it will cause property damage as the elk navigate through communities of this route is eliminated.

Thank you for your attention to this matter!

Joe Lugo, Trails at Crowfoot Resident
Sent from my iPhone

From: John German
To: Michael Pesicka
Subject: Bloom Plan Objection
Date: Tuesday, July 29, 2025 6:10:02 PM

Dear Douglas County Planning Commission,

I am writing to formally **object** to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.

For many reasons, which will be discussed at all future commission meetings, I urge the Planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents that you serve.

Sincerely,
John German

From: John Kane
To: Michael Pesicka
Subject: Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 9:10:51 PM

Mr. Pesicka,
I am writing to express my opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017. This is the second time in the past ten years that a developer has attempted to convince the county to allow the development of housing in this narrow wedge between two existing developments.

The reasons are the same now on why this is a terrible plan and destructive to our county's best interests. Losing any open space between these developments will lead to drainage and flooding issues along with impacts to wildlife including an elk herd and bald eagles nesting nearby.

Please stop allowing developers to build on every square inch along Crowfoot where adequate planning and infrastructure to support more development no longer exists.

Thank you,
John Kane
Nearby Resident

From: Jon Engelson
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Monday, July 28, 2025 3:57:02 PM

Dear Mr. Pesicka:

I am writing to formally express my (and my wife's) opposition to the proposed Bloom subdivision preliminary plan SB2025-017.

The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/9-7-40 AM/L.

We strongly oppose the proposed subdivision for the following reasons:

1) Preservation of Agriculture Land: The land in question is currently zoned for agriculture use, and maintaining its agriculture zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.

2) Environmental Concerns: The conversation of agriculture land to residential use poses significant risks, including potential risks, including potential disruption to the local ecosystems and increase strain on local the resources.

3) Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic and pedestrian concerns, loss of green space and other community quality of life-related issues.

We respectfully request that the proposed Bloom Subdivision Preliminary Plan (SB2025-017) not be approved. We urge the Planning Services to consider the long-term benefits of keeping the land zoned

as Agricultural, in line with the best interests of the community.

Thank you for your attention to this matter. We look forward to your understanding and consideration of Douglas County residents and active voter concerns.

Sincerely,
Jon Engelson
14289 Hop Clover Street
Parker, CO 80134

From: Julie Clark
To: Michael Pesicka
Subject: Formal opposition to Bloom prelim plan SB2025-017
Date: Tuesday, July 29, 2025 11:28:34 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons:
This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

We must protect our wildlife in Colorado!

Thank you,
Julie Clark

From: Kaci Paetz
To: Michael Pesicka
Subject: Stop Bloom Preliminary Plan
Date: Monday, July 28, 2025 8:17:11 PM

July 23, 2025

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Best,

Kaci Paetz
505-280-5264
kcpaetz@gmail.com

From: Kaitlyn Hering
To: Michael Pesicka
Subject: URGENT Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:38:51 AM

Dear Mr. Pesicka,

I am writing to express my firm and unequivocal opposition to the proposed Bloom Subdivision Preliminary Plan (SB2025-017).

This development threatens one of Parker's most critical and irreplaceable natural resources: the last remaining migration corridor for a resident herd of over 100 elk. Any construction on this land will severely disrupt the herd's ability to reach their winter feeding grounds, potentially leading to long-term harm or displacement of the population.

This herd is not just a part of our ecosystem—they are a vital symbol of Parker's natural heritage. Once this land is developed, it cannot be undone. I urge you to prioritize wildlife preservation and community values over unsustainable expansion.

Please do not approve SB2025-017.

From: Kamilah Beasley
To: Michael Pesicka
Subject: PROJECT NUMBER: SB2025-017
Date: Saturday, July 26, 2025 6:03:25 PM

Dear Douglas County Planning Commission,
I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.
For many reasons, which will be discussed at all future commission meetings, I urge the Planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.
Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

From: kthivierge4@aol.com
To: Michael Pesicka
Subject: Bloom Subdivison.
Date: Tuesday, July 29, 2025 10:51:19 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

I think we ruined enough of Parker as is. Please save this migration route for the elk. For the community.

Kathy Thivierge

From:	Keith Hugenberg
To:	Michael Pesicka
Cc:	Keith Hugenberg
Subject:	Objection to New Proposed Housing Development - SB2025-017
Date:	Sunday, July 27, 2025 10:35:16 PM

To the Planning Commission and Mike Pesicka,

I am writing to express my unequivocal opposition to the proposed residential development planned near my home – **Project Number: SB2025-017**. Our area has already reached a saturation point with housing density, and the addition of even more units will only deepen the problems we currently face. The infrastructure was never designed to support this level of population, and it's evident in the worsening traffic congestion, increasingly dangerous intersections, and daily commuter delays. Cramming more homes into an already overburdened area is reckless and shortsighted.

Equally concerning is the strain this project would place on our public schools, which are already operating at or above capacity. Classroom sizes are growing, resources are being stretched thin, and adding more families to the district would further compromise educational quality for every child already enrolled. These are not abstract risks—they are real, immediate consequences for existing residents who made home-buying decisions based on promises of a balanced, sustainable community.

Additionally, the land in question is one of the few remaining open spaces in the area—a habitat for bald eagles, deer, elk, and even buffalo. This development would decimate a fragile and irreplaceable ecosystem, displacing wildlife and eroding the natural character that makes our community so unique. Once the land is paved and the noise, light, and human activity increase, there is no bringing it back.

Finally, water is already under restriction in this region, with homeowners required to limit usage during peak months. Adding dozens or hundreds of new homes with additional landscaping, bathrooms, and irrigation will worsen this imbalance. Our community should be working to conserve, not expand beyond our natural and infrastructural means.

In summary:
Approving this development would irreparably harm our environment, our infrastructure, and our quality of life. It ignores the best interests of current residents in favor of unchecked growth. I strongly urge you to reject this proposal in defense of our community's long-term health, safety, and sustainability.

Sincerely,

Keith Hugenberg
17544 Rose Mallow Ave
Parker, CO 80134

From: K Bsly
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 5:04:31 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Kelly Beasley
Parker Resident

Sent from my iPhone

From: Kelly Colleran
To: Michael Pesicka
Subject: Formal and unwavering opposition to Bloom preliminary plan SB2025–017
Date: Tuesday, July 29, 2025 11:55:13 PM

I hope this letter finds you well. I am writing formally and unequivocally express our strong opposition to the preliminary plans of Bloom SB2025-017.

We absolutely oppose this subdivision as it would completely interfere with one of the last elk migration spots in Douglas county and interfere with the bald eagles the have seem to have nested in the area as well.

Thank you for you time.

Kelly Colleran

From: Kelly Habel
To: Michael Pesicka
Subject: Elk herd migration land
Date: Tuesday, July 29, 2025 10:49:27 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you for your time

Sincerely
Kelly Habel

Yahoo Mail: Search, Organize, Conquer

From: Kerry Grammerstorf
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:30:12 PM

Mr. Pesicka,

I hope this letter finds you well. I am writing to officially express our complete opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We strongly object to the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you,
Kerry Grammerstorf
Bret Grammerstorf

Sent from my iPhone

To: Douglas County Planning Commission,

Dear Mr. Pesicka, + FRIENDS

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

→ THE PRAIRIE DOGS + COWS

↓ THERE'S AN APARTMENT DOWN THE STREET :(

→ ALREADY TOO MUCH TRAFFIC AS IS :(

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record. PLEASE AND THANK YOU

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve. (A PARK WOULD BE MORE BENEFICIAL)

Sincerely, & CONCERNED RESIDENTS

KEVIN + LISA

RECEIVED
JUL 29 2025
Douglas County Planning

From: Kirbi Rogers
To: Michael Pesicka
Subject: Opposition to Bloom Subdivision Preliminary Plan (SB2025-017)
Date: Tuesday, July 29, 2025 4:44:01 PM

Dear Mr. Pesicka,

I am writing to formally and firmly express our opposition to the proposed Bloom Subdivision Preliminary Plan (SB2025-017).

This development would destroy the last remaining migration corridor for Parker's resident elk herd, a herd of more than 100 animals that rely on this route to reach their winter feeding grounds. Disrupting this critical pathway would not only threaten the health and survival of these animals, but also undermine the integrity of Douglas County's commitment to responsible land stewardship. Allowing this to proceed would be a short-sighted and irreversible loss.

One of the reasons people are drawn to Parker is its deep connection to open space and native wildlife, including elk. While responsible growth is important, this proposal compromises the very natural assets that make our community special.

I urge you to pursue alternative solutions that preserve this essential habitat. As stewards of this land, we have a responsibility to balance development with conservation. We can, and should, do better.

Sincerely,
Kirbi Rogers
Parker, Colorado

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Kathleen Ludman

RECEIVED
JUL 29 2025
Douglas County Planning

From: Kris Bess
To: Michael Pesicka
Subject: Deny Project Bloom
Date: Friday, July 25, 2025 8:22:37 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), Currently under review by Douglas County. As a resident of this community, I am concerned about the long-term impact this large scale development will have on the environment and quality of life.

I moved to Colorado for the land, the animals, fresh air, the beauty of it all and year after year, the land disappears, the animals are forced to retreat to the mountains, all I can is smell is the exhaust and fumes from all the trucks in the developments, so the fresh clean air is slowly depleting. I can only imagine what all the pollution from the trucks, excavators, etc. are doing to my health.

For these reasons, I'm requesting the planning commission to deny approval of the current proposal. I am requesting that this objection be entered into public records.

Thank you for your attention and your commitment to protecting the interests of the residents and community you serve.

Sincerely,
Kristen Bessette

From: Kristen Weiland
To: Michael Pesicka
Subject: Project Number SB2025-017 ("Bloom")
Date: Monday, July 28, 2025 5:55:25 PM

Mr. Pesicka-
I am writing to let you know I am in opposition to Project SB2025-017 ("Bloom"),for the following reasons.

We purchased our home because it backed up to open space. It was an intentional decision, and the idea that between 32-120 homes may be sandwiched into an 80-acre parcel between two developed neighborhoods, and without appropriate or adequate infrastructure here in the Parker area, is, quite frankly, ludicrous. Schools in this area are already impacted, especially middle schools. While Parker has charter schools, they do not cater to every type of student. Not to mention that Bayou Gulch is only a two-lane road right now. The development of this open space, which, is, frankly, becoming scarce in this area, would directly and negatively affect the following:
-traffic
-wildlife
-water resources (a huge issue right now in this county)
-school enrollment (more impacted public schools)
-keeping open spaces so as to preserve the allure of this beautiful area

Douglas County, under the helm of these Commissioners, is going way too far with development on this side of the county. We desperately need more public schools as well as better, safer roads, to support the amount of homes being built. Why are we constantly putting the cart before the horse? By developing this 80 acres that is, quite frankly, wedged between Pradera and Trails at Crowfoot, we are only adding to the congestion here while lessening the quality of life everyone here initially sought by purchasing homes in this area. The Commissioners have put themselves under the microscope lately, especially after the Home Rule fiasco that cost taxpayers upwards of $700,000. In addition, it sounds like Zebulon is more of the same taxpayer-funded Ponzi scheme for big developers compliments of the Douglas County Commissioners. Sterling Ranch is a prime example of what happens when developers come in and build homes, yet, have no obligation to also provide infrastructure to support the sprawl of tract homes. Sterling Ranch needs a public school, and it got a charter school with a dubious reputation for educational standards. This is not the way to responsibly develop land. We need to support the homes that are built, something that has not been happening.

As I mentioned, it is time to slow the development in Parker, as it is clearly outpacing the support and infrastructure required to adequately meet the demands of the increasing population. We purchased our home in 2022 in order to be away from loud, traffic-riddled roads, in addition to having a beautiful backdrop to look out upon from our backyard. Since Bayou Gulch was paved to connect it to Pradera, we have seen several head on car accidents, and I cannot imagine how a two-lane street would look should another 32-120 homes be added to this congested area between Pradera and Trails. Enough is enough. If you want to maintain Parker's (Douglas County's) desirability as a community and keep home values higher, at some point you need to quit digging up every single area of open space just to pack more people into them. Help us maintain our property values, our views, our peace and quiet, as well as slowing the over-enrollment and impacted status of local public schools. We don't

have to develop every single inch of open space here.

We oppose the development of the 80 acres behind our home (Project SB2025-017 ("Bloom"). If 32 homes is not feasible, and it is assuredly not, certainly anything more than that is completely unacceptable and lacks foresight.

Thank you for your attention to this matter,

Kristen Weiland
14454 Hop Clover Trail
Parker, CO 80134

From:	SCrawford
To:	Michael Pesicka
Cc:	Kurt Crawford
Subject:	Subject: Opposition to the Bloom Preliminary Plan (Project File SB2025-017)
Date:	Monday, July 28, 2025 4:36:45 PM

Subject: Opposition to the Bloom Preliminary Plan (Project File SB2025-017)

Dear Douglas County Planning Commission,

I am writing to express my strong opposition to the proposed Bloom Preliminary Plan (Project File SB2025-017) currently under review by Douglas County. As a concerned resident of this community, I believe that the rapid growth associated with this development poses significant risks to our environment, infrastructure, and overall quality of life, both now and for generations to come.

There are numerous critical issues that warrant discussion in future Planning Commission meetings, and I strongly urge the Commission to reconsider and ultimately deny approval of this proposal.

Please ensure that this email of objection is recorded in the public record regarding this development, as it reflects the deep concerns of many residents.

Thank you for your attention to this important matter and for your dedication to safeguarding the interests of our community.

Sincerely,

Kurt Crawford

From:	Ky P
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 12:08:32 PM

Dear Mr. Pesicka,

I hope this letter finds you well.

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I am against and oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker.

Any development will hinder the herds ability to migrate to their winter feeding grounds, and would become more vulnerable to predation.

Please take a minute and think about how this development / subdivision will effect wildlife

Thank you.

From: Kyle Bates
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 9:50:18 PM

Dear Mr Pesicka,

I hope this email finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. This will also undoubtedly lead to more animal-vehicle collisions. The area doesn't need another subdivision. Part of what makes Parker great, are its natural areas, wildlife, and lands it's comprised of. Please keep it that way.

Thank you for your consideration,
Kyle Bates

From: Lani Phillips
To: Michael Pesicka
Subject: Re: Object to Bloom Preliminary Plan (Project file SB2025-017)
Date: Tuesday, July 29, 2025 11:02:54 AM

Attn: Mike Pesicka

Dear Douglas County Planning Commission,

I am writing to formally **object** to the proposed Bloom Preliminary Plan (Project File SB2025-017), Currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and Intrastructure, and quality of life.

For many reasons, which will be discussed at all future commission meetings, I urge the planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,
Lani and Chris Phillips
Trails at Crowfoot Resident
14093 Scarlet Sage St

Sent from my iPhone

From: Lauren Kennedy
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 12:52:14 PM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please listen to us!

Lauren Anest

From: Lauren Pennetti
To: Michael Pesicka
Subject: Bloom preliminary plan
Date: Tuesday, July 29, 2025 1:09:39 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,
Lauren Pennetti

Dr. Lauren Pennetti
Prenatal and Postpartum Chiropractor
Prime Chiropractic
5956 S. Holly St.
Greenwood Village, CO 80111
www.primechiropracticdenver.com

From: Leah Ryan
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 10:23:53 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please do not allow this to happen.

--
Regards,

Leah Ryan

From: Lisa Gialamas
To: Michael Pesicka
Subject: Project #SB2025-017
Date: Sunday, July 27, 2025 8:59:49 AM

To the Douglas County Planning Commission,

With great concern, I write to oppose the Bloom Preliminary Plan as this development poses serious risks to out infrastructure and peascuel character of our neighborhoods.

I respectfully reuse that this objection be officially recorded and they you deny approval of the proposals as it currently stands.

Thank you for listening,
Lisa Gialamas

From: Rocio Lores
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Saturday, July 26, 2025 1:11:37 PM

Lorenza Meli
17406 Rose Mallow Av.
Parker CO. 80134
lore.fabrev@gmail.com
281-6420017
July 26, 2025

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

Dear Mr. Pesicka,
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.
1. The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.
We strongly oppose the proposed subdivision for the following reasons:
1. Preservation of Agricultural Land: The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.
2. Environmental Concerns: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
3. Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues.
We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits of keeping the land as Agricultural, in line with its current zoning and the best interests of the community.
Thank you for your attention to this matter. We look forward to your understanding and consideration of our concerns.
Sincerely,

Lorenza Meli

17406 Rose Mallow Av
Parker, CO 80134
lore.fabrev@gmail.com

From: Lucas Moss
To: Michael Pesicka
Subject: Bloom Proposal Concerns
Date: Tuesday, July 29, 2025 9:42:01 AM

Mike,

I am writing to express my concern over the potential Bloom Development currently under review by Douglas County. This development will destroy a significant portion of what little nature still exists in Parker. There are numerous native species that call the area home including fox, coyote, prairie dog, rabbit, hawk, and many other birds. Additionally, I am concerned about the reputation of the builder. It is hard to separate fact from fiction on these things, but reports of what can only be described as shady business practices warrants investigation. I am hopeful that the committee with complete thorough vetting of the builder and their previous projects. Thank you for your consideration.

From: Lydia Daugherty
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025=017
Date: Monday, July 28, 2025 7:33:24 AM

Dear Mr. Pesicka,

I hope this email finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.

The location description is as follows: SW1/4SW1/4 9-7-66 40.0AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L

We strongly oppose the proposed subdivision for the following reasons:
1. Preservation of Agricultural Land; The land in question currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and ecological balance of the area.

2. Environmental Concerns: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.

3. Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic and pedestrian safety concerns, loss of green space, and other community quality of life-related issues.

We respectfully request that the proposedBloom Subdivision PreliminaryPlan SB2025-017 not be approved. We urge the Planning Services to consider the long-term benefits of keeping the land zoned as Agricultural, in line with the best interests of the community.

Thank you for your attention to this matter. We look forward to your understanding and consideration of Douglas County residents and active voter concerns.

Lydia Daugherty
5856 Tesoro Pt.
Parker, CO 80134

From:	Maddie D
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 1:00:56 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Madeline Dickman

RECEIVED
JUL 30 2025
Douglas County Community Development

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Madison Claire Paige

From: Mallory DeVol
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 9:52:58 AM

Dear Mr. Pesicka,

I hope this email finds you well.

I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I strongly oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please consider the ramifications prior to this development.

Thank you,

Mallory DeVol
Parker resident

From: Martha Crawford
To: Michael Pesicka
Subject: Opposition to Bloom Subdivision Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 12:28:50 PM

Hi Mr Pesicka,
I'm skipping the form letter sent out so that I can use my own words. I just want to ask you "When does it end?" When do we stop allowing developers eat up all the land needed by wildlife to survive? When do we stop allowing developers to use money and influence just so they can make more money?
When do we start to care about our effect on the water we need to survive?
Douglas County is getting to the point where soon we will no longer have views of the front range. The more we build, kill off wildlife habitat and wildlife itself because so many get hit by cars, lose beautiful land and views, there will be absolutely nothing that makes Douglas County special.
Our country is jacked up right now, largely due to politics. People are angry and mean. Nature has an amazing calming effect on most people. It's necessary for our survival and the survival of wildlife. More roads, concrete, houses, businesses doesn't make anyone happy.
Anyway, please consider standing up for something that matters instead of being like every other disengaged, heartless and selfish politician and/or official out there.
Thanks for listening and have a blessed day.
Martha Crawford
26 year resident of Douglas County

Sent from my iPhone

From: megantoad@gmail.com
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 3:15:13 PM

Dear Mr. Pesicka,

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

This land serves as the last remaining migration route for a resident herd of over 100 elk that reside in Parker. Any development on this land would significantly hinder the herd's ability to migrate to their winter feeding grounds. Please reconsider destroying their native habitat.

Megan Christian

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Mercedes Anderson

RECEIVED
JUL 29 2025
Douglas County Planning

From: Michael Goebel
To: Michael Pesicka
Subject: Bloom Development- Objection to entrance location
Date: Tuesday, July 29, 2025 8:00:54 AM

Mr. Pesicka:

I am the new owner of the property at 14440 Hop Clover Trail in the Trails at Crowfoot Subdivision. I have been made aware of the Bloom Development adjacent to our subdivision. I have lived in Parker for the last seven years.

I would hope that the County considers:

1. Assuring that the Bloom development is only for 32 home sights.
2. Having the developer move the main entrance closer to the middle of the property to be less obtrusive to either The Trails or Pradera subdivisions. If it remains where it is then it is more disruptive to The Trails development and if upsetting the fewest adjacent homeowners is important to the county, then moving to the middle of the property, off Bayou Gulch would be prudent. I believe the entrance and exit should be most disruptive to the homeowners of this development and not to the adjacent owners. The Project Narrative states "With a reverence for the native landscape as well as the land, the community takes inspiration from its name, “Bloom”." If "reverence" means something to the developer then they will move the entrance.

Michael Goebel
14440 Hop Clover Trail, Parker
303-815-7201

From:	Michelle Jordan
To:	Michael Pesicka; Governorpolis@state.co.us
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 1:27:36 PM

Dear Mr. Pesicka & Governor Polis,

I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Please do not encroach on the wildlife. Instead, protect their natural movement/existence here in Colorful Colorado.

Michelle Jordan

From: Mindy Kaemingk
To: Michael Pesicka
Subject: PROJECT NUMBER: SB2025-017
Date: Tuesday, July 29, 2025 9:54:09 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, wildlife and quality of life.

This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

For many reasons, which will be discussed at all future commission meetings, I urge the Planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.
Sincerely,
Mindy Kaemingk

From: Nancy Baltimore
To: Michael Pesicka
Subject: Project #SB2025-017 - Bloom
Date: Saturday, July 26, 2025 5:36:46 PM

I would appreciate your consideration re the project listed above (Bloom) and deny this development! Enough building that impacts traffic, wildlife, water resources and beautiful open spaces that are appreciated by all Coloradans. This developer has a reputation of proposing one plan and then increasing the density later.

Please deny this builder's request.

Many thanks,

Nancy Baltimore
Resident of Parker, CO

From:	Nanette Redman
To:	Michael Pesicka
Subject:	Objection to Bloom Project in Parker
Date:	Monday, July 28, 2025 4:40:03 PM

Mike Pesicka

Douglas County Planning Services

100 Third Street

Castle Rock, CO 80104

Re: Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

I am writing to formally express my opposition to the proposed Bloom Subdivision (**Preliminary Plan SB2025-017**), which includes the development of 32 residential lots and 3 tracts designated for drainage, open space, landscaping, and public access on approximately 81 acres of land currently zoned as Agricultural, as per Douglas County account records

R0135626 and R0480779. The property is legally described as SW1/4SW1/4 9-7-66 40.00 AM/ L 189-445 and SE1/4SW1/4 9-7-66 40 AM/L.

Our home is directly adjacent landowners whose property shares a boundary with the subject parcels. Even though, our family will be immediately and materially affected by the proposed development. We are concerned that the proposed subdivision will significantly alter the rural and agricultural character of the area. The current zoning reflects appropriate land use for this region, and we believe it should be maintained in order to preserve the environmental, aesthetic, and community values associated with agricultural land.

I respectfully request that the Bloom Preliminary Plan not be approved as submitted and that the land remain zoned and used for agricultural purposes. Please, I ask you to carefully look at this development and its impact on the communities it will touch. I think you will see that the problems it will cause far out weigh any profit that will be recognized by the community. Please be a good steward of our town and our land.

Thank you for your time and consideration of our concerns.

Sincerely,

Nanette Redman

5043 Raintree Circle

Parker, CO 80134

From: Narsing Rao
To: Michael Pesicka
Subject: Project number: SB2025-017 -- Denied
Date: Monday, July 28, 2025 8:28:31 AM

Hello Mike,
Sending this email to provide our denial for this development in our neighborhood

Thanks,
Narsing

From: Natalie Foster
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 7:45:29 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you for your consideration to oppose this plan.

Natalie and Michael Ryan
14407 Shasta Daisy Ln
Parker, 80134

From: Nathan Sturgis
To: Michael Pesicka
Subject: PROJECT NUMBER: SB2025-017
Date: Saturday, July 26, 2025 12:48:20 PM

Dear Douglas County Planning Commission,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment and infrastructure, and quality of life.
For many reasons, which will be discussed at all future commission meetings, I urge the Planning Commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.
Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Nathan Sturgis

From: Wendy Miller
To: Michael Pesicka
Subject: Re: Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 8:44:36 AM

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

Re: Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

As residents of The Trails at Crowfoot, we're writing to express our opposition to the proposed Bloom Subdivision (Preliminary Plan SB2025-017). Our understanding is that this plan has been opposed in the past and the reasons that applied then appear to be even more dire now.

The plan includes the development of 32 residential lots and 3 tracts designated for drainage, open space, landscaping, and public access on approximately 81 acres of land currently zoned as Agricultural, as per Douglas County account records R0135626 and R0480779. The property is legally described as SW1/4SW1/4 9-7-66 40.00 AM/ L 189-445 and SE1/4SW1/4 9-7-66 40 AM/L.

Although we're not directly adjacent landowners, we *will* be affected by the proposed development as the proposed subdivision will significantly alter the rural and agricultural character of the area, something that's very important to us as longtime Colorado residents and environmentally concerned citizens. The current zoning reflects appropriate land use for this region and we believe it should be maintained in order to preserve the environmental values associated with agricultural land.

We respectfully request that the Bloom Preliminary Plan not be approved as submitted and that the land remain zoned and used for agricultural purposes.

Thank you for your time and consideration of our concerns.

Sincerely,

Neal & Wendy Miller
14327 Shasta Daisy Pt.
The Trails At Crowfoot

From:	Nicole Von Zup
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 2:30:56 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker.
Any development will hinder the herds ability to migrate to their winter feeding grounds.

Best Regards,

Nicole

From: Niki Macklin
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:11:14 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Sincerely,
Niki

From: noreen ajmal
To: Michael Pesicka
Subject: Alison Ranch-Bloom Opposition to Proposed Housing
Date: Sunday, July 27, 2025 3:12:59 PM

I am writing to express my strong opposition to the proposed construction of new homes behind the open space near our community and behind the home we live on at 5554 Loma Vista Dr.

The proposed development would not only disrupt the cherished landscape but also increase traffic, strain public infrastructure, and negatively impact the quality of life for current residents.

Our community was built with an appreciation for open space and thoughtful development. Replacing this area with housing would fundamentally alter the character of our neighborhood and undermine the sense of peace and balance that drew so many of us here. Some much of Parker has lost its open spaces due to development and very little thought has been towards what residents of Parker like maintaining open space.

I respectfully urge you to reconsider or reject this development plan and explore alternatives that prioritize preservation and responsible growth.

Thank you for your time.

Noreen Healy

Sent from Yahoo Mail for iPhone

July 27, 2025

Objection Letter for Bloom Preliminary Plan SB2025-017

Mr. Michael Pesicka
Principal Planner
Douglas County
100 Third Street
Castle Rock, CO 80104

Dear Mr. Pesicka,

As property owners on Raintree Circle, we are writing to urge you to reject the subdivision plan submitted by Affinity Holdings, LLC. We have concerns about the proposed Bloom Development for several reasons:

1. POOR ROADWAY PLAN:

The Bloom subdivision request should be denied due to its unacceptable roadway and lot plan. At the southernmost part of the proposed Bloom Development, Bloom's main community roadway is placed right up to the lot lines of Pradera homeowners with inadequate setbacks and no buffers between neighborhoods. Pradera homes are valued up to $5mm in large part due to the private, peaceful, and wide-open nature of our neighborhood. Pradera emphasizes a natural habitat and acts as a fire buffer in unincorporated Douglas County to counteract already planned and built dense subdivisions that are surrounding our neighborhood. Bloom's proposed main roadway would put traffic within 50 FEET of the back doors of several of Pradera's luxury residences, seriously diminishing the enjoyment and use of these properties. This poorly designed plan would have cars driving upwards of 40+ MPH in the proposed Bloom subdivision that would produce excessive noise, polluting car exhaust, and unsavory views of close-in traffic right at our back doors. Moreover, if Bloom's proposed subdivision plan is approved, significant property loss would occur to Pradera's homeowners on Raintree Circle due to this roadway encroachment. At the very least, Bloom should redesign its subdivision plan to have its backyards adjacent to the Pradera and Trails at Crowfoot backyards while putting arterial streets at its interior. This plan shows how inconsiderate and inexperienced Affinity Holdings, LLC is as a developer.

2. POOR SOIL AND DRAINAGE PLAN:

The Bloom subdivision plan should be rejected because its drainage plan flows directly into Pradera's lots and existing residences. This drainage will further erode our soil and may risk significant damage to Pradera homes’ foundations and infrastructure. This subdivision request should be denied until a soil study with impact to current structures is conducted to ensure that existing property owners are not negatively affected by this subdivision.

3. REMOVAL OF NECESSARY FIRE BUFFER:

The Bloom subdivision should be rejected due to its close proximity to Pradera that eliminates our much needed fire buffer between neighborhoods, something that the Douglas County Planners should reject due to the current and future planned density of neighboring developments. Our state has significant drought conditions that require much better planning in terms of population density, water management, and adequate buffers to safeguard against loss of life and property destruction from wildfires. As the property values of Pradera are significant, any wildfire that spreads from neighborhood to neighborhood would make this area uninsurable and lead to declining property values similar to the situation in Florida and California.

4. DESTROYS EXISTING WILDLIFE CORRIDOR:

The Bloom subdivision request should be rejected because it threatens a well established elk corridor as well as displaces many species that live here including burrowing owls, bald eagles, great horned owls, coyotes, deer, foxes among others. Very little attention has been paid to our natural environment in the development of 20,000 homes along Crowfoot Valley Road, and this development serves no purpose other than to enrich a few at the expense of many species as well as neighbors who moved here for our natural habitat. The Bloom subdivision plan should be denied until a wildlife study is conducted per guidance to conserve elk populations and wildlife corridors as mandated by state law.

5. HISTORY OF BANKRUPTCIES AND LACK OF DEVELOPMENT EXPERTISE:

The Douglas County Planning Office should reject Affinity Holdings, LLC subdivision request because Affinity Holdings, LLC and its agents are a going concern with almost no track record of development, a history of bankruptcies, and tax liens at the federal, state, and local level. Agents of Affinity Holdings, LLC are not the property owners of the two parcels in this subdivision request so we do not understand how Douglas County Planning would allow these agents to use 100% leverage to enrich themselves at the expense of Pradera property owners. These agents are not Douglas County residents (they are Denver area and Boulder area based) and should not be given the benefit of the doubt as developers when they have not developed any estate residential communities in Douglas County or elsewhere.

6. UNHEALTHY FOR RESIDENTS OF PRADERA AND TRAILS AT CROWFOOT

A development of this sort will need to consider the health, particularly of children, that neighbor this particular area of land. Any construction project of this length where soil dust and pollutants are created / emitted into the air by large machinery over numerous months / years clearly will be unhealthy for those of us that have to breath it in. This particular piece of land is surrounded by homes in close proximity to an area that will require substantial preparation before any building can be done.

Thank you for your consideration.

Eoin & Emily Theobald
4851 Raintree Circle
Parker, CO 80134

From: Paul Kropinak
To: Michael Pesicka
Subject: Bloom project
Date: Tuesday, July 29, 2025 8:57:45 PM

Good day,

I am a resident in the "Trails at Crowfoot" community and I am requesting that the Bloom housing development be denied. This builder has a history of proposing one plan and then increasing the density later.
This land is home to diverse wildlife including bald eagles. It also provides crucial open space for the citizens of the area.

Thank you for your time and consideration,
Sincerely,
Paul Kropinak
17017 Birds Foot Trail
Parker CO. 80134

From: Jennifer Rice
To: Michael Pesicka
Subject: Bloom project feedback
Date: Sunday, July 27, 2025 7:11:12 AM

Mr. Pesicka-

My husband and I are residents of Pradera and wish to provide feedback on the Bloom project. Without an initial exit from the property to Crowfoot, it will significantly increase traffic on Bayou Gulch, which adversely affects safety in an area where there's already been a LOT of serious accidents (Pradera Pkwy and Bayou Gulch). We are also opposed to the project given the number of homes already in the area up and down Crowfoot. The area is too congested. The Bloom project property also negatively impacts the views from many Pradera lots, and we've paid a lot of money to live in a community without congestion, with larger lots and better views.

Thanks,
Scott and Jennifer Rice
Sent from my iPhone

From: Robert Wolfe
To: Michael Pesicka
Subject: Bloom Preliminary Plan (Project File SB2025-017)
Date: Monday, July 28, 2025 6:12:16 PM

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As residents of this community, we are very concerned about the long-term impact this large scale development will have on our environment, infrastructure and quality of life.

For many reasons which will be discussed at all future commission meetings, I urge the planning commission to **deny approval** of the current proposal. I respectfully request that our objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interest of the current residents you serve.

Sincerely,
Robert R. and Diane C. Wolfe
17500 Rose Mallow Ave., Parker, CO 80134

From: Robyn Cooper
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:28:30 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We strongly oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you for your consideration.

Robyn Cooper

From: Rocio Lores
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Saturday, July 26, 2025 1:00:21 PM

Rocio Meli
17406 Rose Mallow Av.
Parker CO. 80134
rociolores@gmail.com
720-9880952
July 26, 2025

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

Dear Mr. Pesicka,
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.
1. The location description is as follows: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.
We strongly oppose the proposed subdivision for the following reasons:
1. Preservation of Agricultural Land: The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.
2. Environmental Concerns: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
3. Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues.
We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. We urge the Planning Services to consider the long-term benefits of keeping the land as Agricultural, in line with its current zoning and the best interests of the community.
Thank you for your attention to this matter. We're looking forward to your understanding and consideration of our concerns.
Sincerely,
Rocio Meli

Opposed not adjacent
Rocio Meli
17406 Rose Mallow Av
Parker, CO 80134
rociolores@gmail.com
(720) 988-0952

From: Roseanne Tracy
To: Michael Pesicka
Subject: Bloom preliminary plan
Date: Sunday, July 27, 2025 10:28:24 PM

Please oppose this. Parker is already seeing monumental growth. We need our land to to remain free for the elk. We need to stop the over building and keep what we are know for. Land.

Thank you.

Roseanne Tracy
Parker

Sent from Yahoo Mail for iPhone

From: sam fischer
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 1:16:05 PM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

We need to stop building in Parker!!!

From: Samantha OBrien
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:14:12 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you,

From:	sammantha thunberg
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 9:18:52 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to express formally and unequivocally our strong

opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.

Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter-feeding grounds. When I first moved to Parker 2 years ago before the construction on ridge gate parkway my husband and I saw a herd of 50-70 pronghorns and it was truly magical and what Colorado is about. Ever since the construction started, we have not seen a single pronghorn unless your headed to Colorado Springs and that's starting to be rare. Please hear us. Please hear the people, keep Colorado wild at heart. Please Don't drive our wildlife away for greed.

Get Outlook for iOS

From: Ann Sanmartin
To: Michael Pesicka
Subject: Deny Bloom Development
Date: Tuesday, July 29, 2025 5:36:39 PM

Hi Mike -
I am a resident of Trails at Crowfoot Tri Pointe homes community. I am writing to ask you to deny the proposed Bloom development (project # SB2025-017) adjacent to our community. It will not only impact the open, spacious lifestyle we all value, but it will impact traffic, wildlife, environment, water resources and more.

Please consider the voice of the community and consider denying the development proposal.

Thank you,
Ann Sanmartin
(720) 232-8088
14401 Hop Clover St.
Parker, CO 80134

DOUGLAS COUNTY
COLORADO

Department of Community Development

Planning Services

www.douglas.co.us

REFERRAL RESPONSE REQUEST

Date sent: July 8, 2025

Comments due by: **July 29, 2025**

Project Name:	Bloom Preliminary Plan
Project File #:	SB2025-017
Project Summary:	The applicant requests a preliminary plan for 32 residential lots, and 3 tracts for drainage, open space, landscaping, public access, and utilities, on approximately 81 acres of land zoned Estate Residential (ER). One point of access is proposed from Bayou Gulch Road with a future secondary access road proposed in the northwest corner of the development.

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:	**Phone #:** (303) 547-6521
Your Name: Sandra Cintron *(please print)*	**Your Signature:**
	Date: 7/29/2025

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,

Mike Pesicka

Mike Pesicka, Principal Planner

July 29,2025

To whom it may concern:

I declined to allow this project to proceed. This project is expected to increase traffic in the neighborhood, particularly around the newly constructed school, where numerous children are already playing. It is essential to preserve the green spaces, as the proliferation of housing developments has already encroached upon the habitats of local wildlife.

Sincerely,

Sandra Cintron- Board Director

Trails at Crowfoot Metropolitan District No.1

From: Sarah Speight
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 4:39:35 PM

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons:

This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

The project plan does not adequately address Goal 9-1 to account for the impact on the Elk herd with vague responses around open space and requiring fencing for pets.

I am also concerned about the long-term impact this development will have on our environment, infrastructure and public resources.

I strongly encourage the Commission to deny approval of this project.

Regards,

Sarah Speight

From: Sarah Sperlbaum
To: Michael Pesicka
Subject: Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 9:54:07 PM

Mr. Pesicka,
I hope this letter finds you well. I am writing to formally and unequivocally express my strong opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.
Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

I vehemently oppose the proposed subdivision for the following reasons:
1) This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker.
2) Any development will hinder the herds ability to migrate to their winter feeding grounds.
3) There has been so much development in the surrounding area recently and taking a break will be welcomed.

Please do not proceed with additional development, it has ruined our community!

Sarah Sperlbaum
5571 Rim View PI, Parker, CO 80134
303-807-8885

From: Sarah Tagliavia
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 7:35:42 PM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Sincerely,
Sarah Tagliavia, Parker Resident

From: Shamien Perkins
To: Michael Pesicka
Subject: No More Development!
Date: Tuesday, July 29, 2025 10:43:29 AM

Dear Mr. Pesicka,

Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

From: Shannon Payne Hoggatt
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Monday, July 28, 2025 10:09:22 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-017.

Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

I vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you for your time,
Shannon Hoggatt

From:	Shawn Peel
To:	Michael Pesicka
Subject:	Bloom Development
Date:	Saturday, July 26, 2025 6:23:31 PM
Attachments:	Outlook-2obzae4h.png Outlook-5dted1ah.png

Mike,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project Fil SB2025-017) currently under review by Douglas County. As a resident of this community (14096 Black Sedge Circle Parker, CO), I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons, which will be discussed at all future commission meetings, I urge the planning commission to deny approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Thank you,

SHAWN PEEL
Broker
O: 303-577-9967 (ext.315) **C:** 713-517-4941
shawn.peel@dhlb.com
David, Hicks & Lampert Brokerage, LLC
5750 DTC Parkway, Suite 200
Greenwood Village, CO 80111
www.dhlb.com

From: Shelie Gustafson
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 12:21:32 PM

Dear Mr. Pesicka,
I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

And, there needs to be a better plan for managing sprawl and growth in Parker to help protect the beauty of our surroundings.

Thank you
Shelie Gustafson

Get Outlook for iOS

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

7/24/2025

Nhi Y Nguyen

RECEIVED
JUL 29 2025
Douglas County Planning

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

Sonny Nguyen
07/24/25

RECEIVED
JUL 29 2025
Douglas County Planning

July 29, 2025

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

Re: Bloom Preliminary Plan SB2025-017

Dear Mr. Pesicka,

I am writing to formally express concerns to the proposed Bloom Subdivision Preliminary Plan SB2025-017. Location Description: SW1/4SW1/4 9-7-66 40.00 AM/L 189-445 & SE1/4SW1/4 9-7-66 40 AM/L.

We are adjacent homeowners to the 81 acres where the Bloom Development is proposing to develop. My concern with the current plan is as follows.

1. The Traffic Impact Analysis that was submitted is dated February 2025 before Bayou Gulch connection was complete. Since the road opened and more houses have been occupied, there have been multiple head-on collisions, and the traffic counts are higher. I would like to see a new traffic study done on Bayou Gulch as well as on Crowfoot where they are proposing to add another road in the future. What is their plan with the lot adjacent to them, are they proposing to "infill" here to? The Preliminary Plan states "Future Secondary Access Road to be Dedicated by Plat" on the NW corner.
2. The Bloom Preliminary plan shows a guard house, and a gate at Bayou Gulch (in "Narrative") and the roads are marked as private, with a future road through an adjacent lot to Crowfoot. Are they proposing a gated community? This would not benefit our wildlife.
3. The Bloom "Narrative" that was submitted states large lots with a minimum of 1 acre in size and 30% of the land to be dedicated to open space, trails, water quality and community amenities. The Preliminary Plan shows all the lots between 1.01 and 1.66 acres. With the roadways and homesites, where is the open space, trails, water quality and community amenities? Can they show this on the preliminary plan?
4. We that are on the southern border and fear that these lots sizes and home values will negatively affect the value of our homes. We are all on 1.5 – 2 acre lots and have semi-custom homes. Increasing the lot sizes and reducing the number of homes in Bloom would benefit those of us in Pradera and provide more open land for our wildlife.
5. What will happen to the Preble's Meadow Jumping mice on site?
6. What will happen to the Burrowing Owls on site?
7. What will happen to the bald eagle and two fledglings living nearby that feast on the food from the land and may live on or near it?
8. Will this be a low light community? The Trails at Crowfoot look like Christmas year-round, every night, especially with all the whole house lighting everyone is installing.

9. When looking at the Drainage study it looks like the southern edge slopes down toward the Pradera neighborhood which will potentially cause problems especially if we continue to have rains as we have this past month.
10. Fugitive Dust – my husband has suffered from asthma for his entire life. With the high winds that occur in our area we are very concerned about the air quality during the development of the land.
11. When looking at the Preliminary Plan the road on the southern edge of the development is right against our property lines (that we paid a premium for), is it possible to request a larger buffer that includes large trees, shrubs, etc. between the community and our homes for noise, vehicle exhaust, lighting, and to provide a passage for the wildlife to continue to pass through this corridor? We have hundreds of heads of elk that are now using our golf course rather than the land to migrate.
12. When we bought our home, we came here for peace and quiet, we aren't' thrilled that there may be construction occurring in our backyard over the next five + years. We spent $250,000 building a koi pond with falls, landscaping and making It our sanctuary and to think that this will all be disturbed soon is very disheartening.
13. Real estate markets across Colorado are experiencing a continuation of the growing inventory seen last month, June 2025. While housing prices have remained stagnant for some, other markets are seeing significant price drops. Why continue to approve new developments?
14. Preservation of Agricultural Land: The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area. Environmental Concerns: The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
15. Community Impact: The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, loss of green space, and other community-related issues.

We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved as submitted. Thank you for your attention to this matter. We look forward to your understanding and consideration of our concerns.

Sincerely,

Stephanie Robertson

Stephanie Robertson
720-220-4501
4951 Raintree Circle (adjacent homeowner)
Parker, CO 80134
srobertson@icscolorado.com

From: Sumer Sandel
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 11:36:02 AM

Dear Mr. Pesicka,

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.

We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds.

Thank you,
Parker resident,
Sumer Daley
Sent from my iPhone

From:	Taylor McCardle
To:	Michael Pesicka
Subject:	Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date:	Tuesday, July 29, 2025 12:50:32 PM

I hope this letter finds you well. I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
We vehemently oppose the proposed subdivision for the following reasons: This land is the last remaining migration route for a resident herd of 100+ elk that live in Parker. Any development will hinder the herds ability to migrate to their winter feeding grounds. You people only care about the final line. We don't need anymore apartment complexes in Parker. We need to protect the wildlife that makes Colorado what Colorado is all about: outdoors and wildlife. I highly doubt this email will change minds about anything but here ya go.

Taylor McCardle

From: Teresa Greenhalgh
To: Michael Pesicka
Subject: Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017
Date: Tuesday, July 29, 2025 10:31:47 AM

Mr. Pesicka,

Formal and Unwavering Opposition to Bloom Preliminary Plan SB2025-017

I am writing to formally and unequivocally express our strong opposition to the proposed Bloom Subdivision Preliminary Plan, SB2025-017.
We vehemently oppose the proposed subdivision for the following reasons: This land is the **last remaining migration route for a resident herd of 100+ elk that live in Parker**.
Any development will hinder the herds ability to migrate to their winter feeding grounds.

Have an ounce of compassion. Parker has developed every bit of the land which has been detrimental enough to the animals that used to live here.

Teresa Greenhalgh
Parker, CO

From: Thomas Kaufman
To: Michael Pesicka
Subject: Project number SB2025-017
Date: Monday, July 28, 2025 6:38:05 AM

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (project file SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large scale development will have on our environment, infrastructure and quality of life.

I urge the planning commission to deny approval of the current proposal and/or any future community developments in the area. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Respectfully,

Tom Kaufman
18032 Sky Pilot Ave.
Parker, CO 80134

Sent from Yahoo Mail for iPhone

Todd and Angela Carnes
4923 Raintree Cir.
Parker, CO. 80134

7/23/25

RECEIVED
JUL 28 2025
Douglas County Planning

Principal Planner Planning Services
Attention: Mr. Mike Pesicka
100 Third Street
Castle Rock, CO 80104

Dear Mr. Pesicka,

We live on Raintree Circle in Pradera and even though we did not receive a letter, we are aware of the Bloom Project #SB2025-017 and we are fully opposed to it. We intend to object, debate, support neighbors and do whatever it takes to prevent this unwanted development from ever breaking ground. Please note our concern for this unwelcome development and the massive amount of opposition it will be receiving from us and numerous others who are against it.

Sincerely,

Todd B. Carnes - Angela Carnes

Todd & Angela Carnes

From: Todd Stockford
To: Michael Pesicka
Subject: Bloom proposal
Date: Sunday, July 27, 2025 10:25:46 AM

Hello Mike,

I'm writing to voice my concern about the proposed Bloom neighborhood near Pradera and Trails at Crowfoot. While I understand Parker is experiencing tremendous growth, that doesn't mean it makes sense to essentially shoehorn a neighborhood tightly between two existing ones.

This open space is home to grazing cattle and is an active thoroughfare for elk and deer. Open space has become a dwindling commodity in this area with new neighborhoods sprouting thousands of homes that are already tightly packed together. Soon, Parker will just be a sea of houses, a la Highlands Ranch. And every additional house adds a burden to limited resources, especially water, and will increase traffic, noise, and light pollution.

Thank you for your time.

Sincerely,
Todd Stockford
17026 Rose Mallow Way

Get Outlook for iOS

From: Venkat Rao
To: Michael Pesicka
Subject: Project number: SB2025-01
Date: Monday, July 28, 2025 8:30:52 AM

Hello Mike,

As a parker resident for more than a decade and resident of trail at crowfoot resident we are against this development of Project SB2025-017

Thanks,
Venkat

From: Wendy Krutka
To: Michael Pesicka
Subject: Project No: SB2025-017
Date: Monday, July 28, 2025 3:54:32 PM

Dear Douglas County Planning Commission:

I am emailing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017) currently under review by Douglas County. As a resident of this community, I am concerned about the long-term impact this large scale development will have on our environment, infrastructure, and quality of life.

I urge the planning commission to deny approval of the current proposal. I respectfully request this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of residents you serve.

Kind regards,
Wendy Krutka

To the Douglas County Planning Commission:

On September 1, 2022 my wife Gayle and I moved to a home we had built in the Trails at Crowfoot development after spending 20 years in a home we had built in the City of Aurora. It was our desire to downsize from our two story home into a single story ranch style home. We were attracted to the development because of the lovely views and close by open spaces. One of those spaces is between the Trails at Crowfoot and Pradera.

With great concern, we write to oppose the Bloom Preliminary Plan (Project File SB2025-017). This development poses serious risks to our already stressed infrastructure and the peaceful character of our neighborhoods. We understand that progress is part of life but please do not turn the Town of Parker into the City of Parker!

Thank you for your consideration.

Wesley and Gayle Rock

14387 Hop Clover Street, Parker, CO 80134

From: Y Ellerbroek
To: Michael Pesicka
Subject: Formal Opposition to Bloom Preliminary Plan SB2025-017
Date: Saturday, July 26, 2025 3:13:37 PM

Dear Mr, Pesicka,

I hope this email fins you well. I am writing to formally express our opposition to the proposed Bloom Subdivision Preliminary Plan SB2025-17.

The location description is as follows: SW1/4ST1/4 9-7-66 40.00 AM/L 189-445 & SE 1/45W1/4 9-7-66 40 AM/L.

We strongly oppose the proposed subdivision for the following reasons:

1. Preservation of Agricultural Land:
   The land in question is currently zoned for agricultural use, and maintaining its agricultural zoning is crucial for the preservation of local ranching practices and the ecological balance of the area.
2. Environmental Concerns:
   The conversion of agricultural land to residential use poses significant environmental risks, including potential disruption to local ecosystems and increased strain on local resources.
3. Community Impact:
   The proposed development could adversely affect the character and quality of life in the surrounding community, potentially leading to increased traffic, and pedestrian safety concerns, loss of green space, and other community quality of life-related issues.

We respectfully request that the proposed Bloom Subdivision Preliminary Plan SB2025-017 not be approved. We urge the Planning Services to consider the long-term benefits of keeping the land zoned as Agricultural, in line with the best interests of the community.

Thank you for your attention to this matter. We look forward to your understanding and consideration of Douglas County residents and active voter concerns.

Sincerely,
YEllerbroek@gmail.com

--
YEllerbroek@gmail.com

From:	Yasir Zaidi
To:	Michael Pesicka
Subject:	Concern Regarding Proposed Development on Green Space with 32 new luxury homes (Bloom) Near Our Homes-near to trails at crowfoot and Pradera.
Date:	Sunday, July 27, 2025 2:54:38 PM

Dear Douglas County Planning Department,

I hope this message finds you well. I'm writing on behalf of our family and neighbors regarding the proposed development of luxury homes on the green patch of land located directly in front of our homes, near to Pradera , Allison Ranch and trails at crowfoot (80134).

This small stretch of open space means a great deal to us. It's not just a piece of land — it's a peaceful haven that offers relief from the increasingly crowded and fast-paced environment we experience elsewhere. It's a space where wildlife such as deer and even cows occasionally graze, and we genuinely enjoy and value this rare connection to nature right outside our front doors.

Developing this area would not only take away a much-loved and appreciated piece of greenery, but it would also negatively impact the local environment. The presence of wildlife would likely diminish, and the ecological balance of the area could be disrupted. The added traffic and density would change the peaceful, semi-rural atmosphere we've grown to cherish.

We kindly ask that you take these concerns into consideration and explore alternatives that would preserve this green space for both current residents and local wildlife.

We deeply appreciate your attention to this matter and hope that community voices will play a role in shaping the future of our neighborhood.

Thank you for your time and understanding.

Sincerely,

Yasir Zaidi

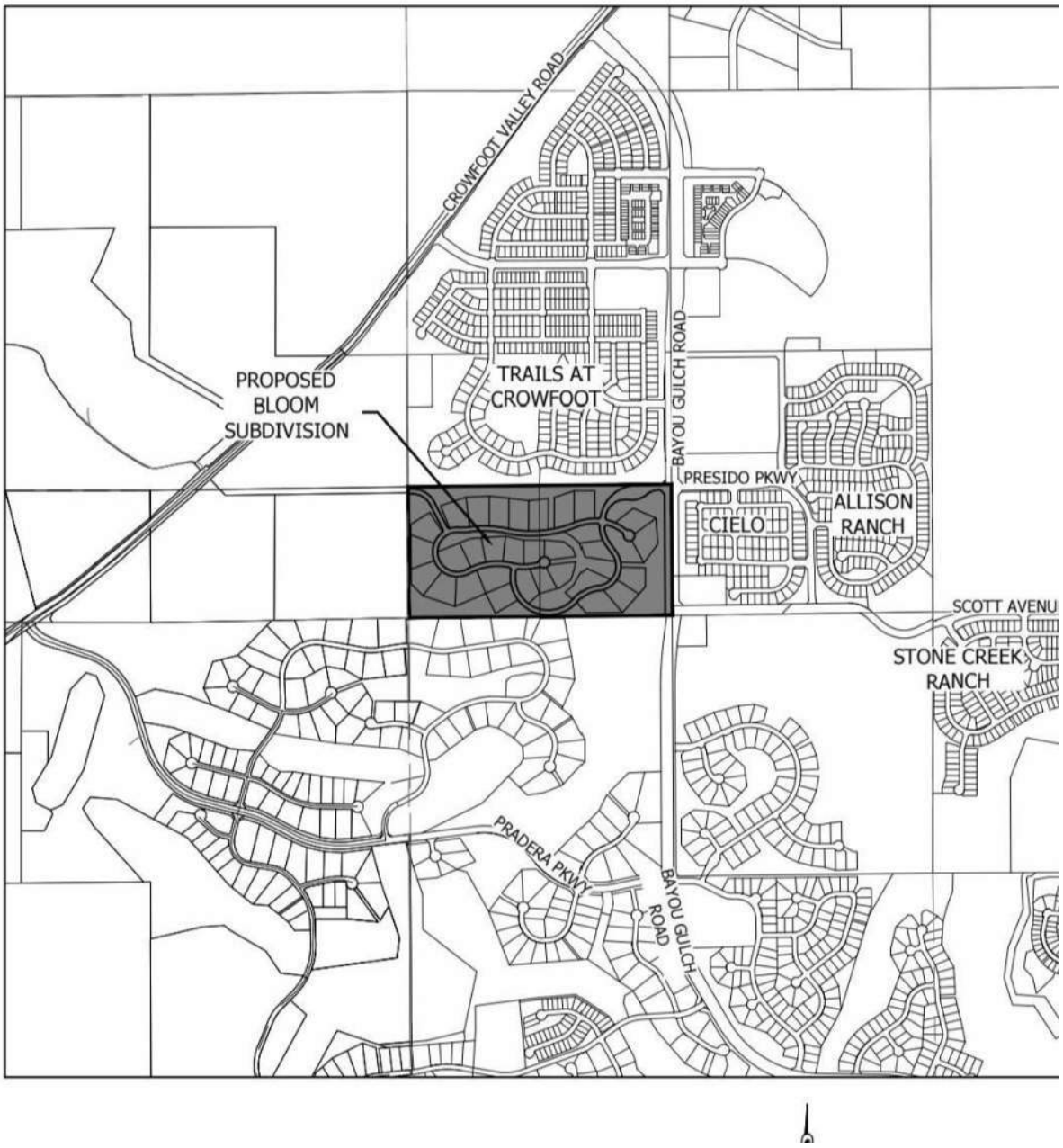
5538 loma vista drive, 80134, Parker, Colorado

Contact no:- 5122015501

Email address:- yzaidi@outlook.com

BLOOM PRELIMINARY PLAN

:D IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6
PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 3 TRACTS, SB2025-017



From: Zachary Burgeson
To: Michael Pesicka
Subject: Please deny project SB2025-017
Date: Saturday, July 26, 2025 9:54:33 AM

Hello, I am a resident in the trails at crowfoot subdivision and kindly request you deny the new development under project SB2025-017 aka the 'Bloom' division.

We are already seeing high amounts of automotive accidents and congestion in this area as well as wish to preserve the views and resale value of our homes with the open space between pradera, Allison ranch, and trails at crowfoot. Additional homes will harm the aesthetic we all bought into.

Please do not let this project move forward. Thank you.

Please include my objection into public record. Thank you

Zachary Burgeson

RECEIVED
JUL 31 2025
Douglas County Community Development

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,



To: Douglas County Planning Commission,

RECEIVED
JUL 31 2025
Douglas County Community Development

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

RECEIVED
JUL 31 2025
Douglas County Community Development

To: Douglas County Planning Commission,

Dear Mr. Pesicka,

I am writing to formally object to the proposed Bloom Preliminary Plan (Project File SB2025-017), currently under review by Douglas County. As a resident of this community, I am deeply concerned about the long-term impact this large-scale development will have on our environment, infrastructure, and quality of life.

For many reasons that will be addressed in the future commission meetings, I respectfully request that the planning commission decline approval of the current proposal. I respectfully request that this objection be entered into the public record.

Thank you for your attention to this matter and your commitment to protecting the interests of the residents you serve.

Sincerely,

AC.

TRAILS AT CROWFOOT
RESIDENT

WE DONT NEED
ANYMORE HOMES HERE!!!

KEEP THE WILDLIFE!

ABSOLUTELY UNNECESSARY
TO BUILD!!

From:	Planning
To:	Michael Pesicka
Subject:	FW: Proposed Bloom Project
Date:	Wednesday, January 21, 2026 11:06:06 AM

From: Doug Redman <redmandoug1@gmail.com>
Sent: Wednesday, January 21, 2026 11:05 AM
To: Planning <Planning@douglas.co.us>
Subject: Proposed Bloom Project

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Doug Redman
5043 Raintree Circle
Parker, CO 80134

Doug Redman
Red Mountain Breakfast Company
Colorado Dunkin Franchisee
Cell: 308-380-9575

From:	Julie Moss
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us; Lucas Moss; Michael Pesicka
Subject:	Bloom Development Concern
Date:	Wednesday, January 21, 2026 10:31:23 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

To Whom it May Concern:

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Julie Roach Moss
17428 Rose Mallow Avenue
julroach@gmail.com
(936) 718-2228

From: Planning
To: Michael Pesicka
Subject: FW: Elk Migration
Date: Wednesday, January 21, 2026 11:24:00 AM

-----Original Message-----
From: Abigail Smith <abbismith1@me.com>
Sent: Wednesday, January 21, 2026 11:10 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; planningcommission@doulgas.co.us; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Elk Migration

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Abbi Johnson
abbismith1@me.com

From: Planning
To: Michael Pesicka
Subject: FW: Bloom development vs elk migration
Date: Wednesday, January 21, 2026 11:24:06 AM

-----Original Message-----
From: Roseanne Tracy <roseannetracy@yahoo.com>
Sent: Wednesday, January 21, 2026 11:18 AM
To: ak@wkccolarado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; Matt.Martinez@state.co.us; Kara.VanHoose@stste.co.us
Subject: Bloom development vs elk migration

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Roseanne Tracy
11119 Shining Star Cir
Parker, CO 80134
[

Sent from Yahoo Mail for iPhone <https://mail.onelink.me/107872968?pid=nativeplacement&c=Global_Acquisition_YMktg_315_Internal_EmailSignature&af_sub1=Acquisition&af_sub2=Global_YMktg&af_sub3=&af_sub4=100000604&af_sub5=EmailSignature__Static_&af_ios_store_cpp=9d3a686e-218d-4849-8298-b480188dc8ac&af_android_url=https%3A%2F%2Fplay.google.com%2Fstore%2Fapps%2Fdetails%3Fid%3Dcom.yahoo.mobile.client.android.mail%26listing%3Demail_signature>

From: Kiera Casey
To: Planning
Subject: Proposed Bloom Estates Development
Date: Wednesday, January 21, 2026 10:44:44 AM

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Hello,

I am writing as a resident of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While I, and other citizens, understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Kiera Casey
720-765-3444
kieracasey01@gmail.com

From: Jennifer Kelsey
To: Planning
Subject: No Bloom Estates
Date: Wednesday, January 21, 2026 10:43:55 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Jennifer Kelsey
10746 Foxwood Court, Parker CO 80138

Sent from my iPhone

From:	Emily Erlewine
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Protect the Last Remaining Elk Corridor in Parker
Date:	Wednesday, January 21, 2026 10:43:44 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hello,

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Emily Renova
20705 Omaha Ave
Parker, CO 80138

From:	Kamilah Beasley
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom Estates Development
Date:	Wednesday, January 21, 2026 10:28:10 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Kamilah Beasley
14311 Shasta Daisy Pt, Parker CO 80134

From:	Nanette Redman
To:	Planning
Subject:	proposed Bloom Project
Date:	Wednesday, January 21, 2026 10:20:42 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Nanette Redman
5043 Raintree Circle

Nanette Redman nanrdm@aol.com

From:	Vandana Murria
To:	ak@wkccolorado.com; Planning Commission; Planning; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Regarding proposed bloom estates development
Date:	Wednesday, January 21, 2026 9:28:14 AM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Vandana Murria
17377 Gandy Dancer Ln
Parker CO 80134

From:	Brendan Plourde
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom Development
Date:	Wednesday, January 21, 2026 1:07:58 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Brendan Plourde
11392 Canterberry Ln, Parker CO 80138

From:	lisa friley
To:	ak@wkccolorado.com
Cc:	Planning
Subject:	Proposed Bloom Estates
Date:	Wednesday, January 21, 2026 12:46:06 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Lisa Cypher
6850 N Windpoint Cir
Parker

Sent from my iPad

From:	Peggy Miniter
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom Estates Proposed Development
Date:	Wednesday, January 21, 2026 12:30:27 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

To whom it may concern,
We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Peggy Miniter
22046 E Tallkid Ave, Parker, CO 80148

From:	jlwa1951@aol.com
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom project
Date:	Wednesday, January 21, 2026 12:21:50 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.
In addition, when we purchased our lot on Rose Mallow Ave with a $100,000 premium we were told there would never be any building to the west of us. We feel we were misled and continue to be lied to about further development in this area. We have been through this process once before, and it was denied. How many times do we need to jump through hoops to get the finalized once and for all? Parker is getting over developed as it is.
Sincerely,
Judy & Mark Anderson
Trails at Crowfoot

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to

the highest environmental standards.
Sincerely,

From:	Kaylee Cahill
To:	ak@wkccolorado.com; Planning; Planning Commission; matt.martinez@state.co.us; Kara.VanHoose@state.co.us; BOCC
Subject:	Bloom Estates development
Date:	Wednesday, January 21, 2026 12:21:16 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

To whom it may concern,

We are writing as residents of the Parker community regarding the proposed (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Kaylee Cahill
17153 Desert Wine Trl

From:	Marti Longo
To:	Planning
Subject:	Bloom project concerns
Date:	Wednesday, January 21, 2026 2:59:28 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

- **A comprehensive Wildlife Impact Study conducted during peak migration months.**
- **A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).**
- **A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.**
- **Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.**

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Marti Longo
4854 Sonado Place

Parker
Sent from my iPhone

From:	Katey Gibson
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Bloom Estates
Date:	Wednesday, January 21, 2026 2:53:37 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

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2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Katey Gibson
16906 Black Rose Place

From:	Megan Rudden
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	RE: Bloom Estates Development
Date:	Wednesday, January 21, 2026 2:52:40 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

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3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Megan Rudden
16041 Relic Rock Terrace, Parker, CO 80134
...

Megan Rudden

From:	Kerry Grammerstorf
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Proposed Bloom Estates Development
Date:	Wednesday, January 21, 2026 2:23:54 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Kerry Grammerstorf
17225 Rose Mallow St
Parker, CO 80134

From:	Samantha Rawlings
To:	Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Looking Glass resident opposed to Bloom development
Date:	Wednesday, January 21, 2026 1:37:29 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

I am writing as a resident of the Parker, specifically a resident in the Looking Glass community, regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While I can understand the pressures of growth in Parker, I have significant concerns regarding the impact this specific project will have on a documented elk migration route as well as traffic flow.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

Also, I've seen comments that the Bloom builders will pay for additional road expansions and such. However, that doesn't make the additional traffic wanted or accepted by existing residents. The opening of Chambers Road has already made it a very busy road for residents seeking a quicker route to I-25. We do not need another massive increase in residents and traffic to the roads or to the area in general. Many of my neighbors sought the "back country" feel and that was a major decision in purchasing a home in this area. I know we're already frustrated by the major increase in homes and Looking Glass is only around 25% occupancy. Not to mention, there are condos and apartments being constructed at the intersection of Stroh and Crowfoot. Lord knows we do not need another subdivision around here period!

I look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards as well as in the best interests of the existing Parker residents.

Sincerely,
Samantha Rawlings
720-280-3189

From:	Chun Lu
To:	Planning
Subject:	Bloom Estates development
Date:	Wednesday, January 21, 2026 3:19:43 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hi,

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Alice Carter
6814 Hillside Way
Parker, CO 80134

From:	Nicole Von Zup
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Begging for the Protection of the Elk-Every Creature Deserves a Home
Date:	Wednesday, January 21, 2026 3:13:26 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Nicole Barton
E Indian Brook Circle
Parker, CO 80134

From:	Christina Bakhour
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom Estates Development
Date:	Wednesday, January 21, 2026 3:12:23 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

To whom it may concern:

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Christina Bakhour
11892 Chipper Lane
Parker, CO 80134

From:	Tammi Hoerner
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Parker Community Concerned Citizens.
Date:	Wednesday, January 21, 2026 3:12:19 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Tammi Hoerner
2396 Elkhorn St
Parker 80138

Be sure to stop into my website at: sweethomescolorado.net

UPCOMING HOLIDAYS & CLOSURES:
SUNDAYS: By appointment only
April 5th: Easter
May 10th: Mother's Day
May 24th-25th: Memorial Day
June 13th- 21st: Travel & Father's Day
July 4th

From:	Bruno J. Meli
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Bloom Development Objections
Date:	Wednesday, January 21, 2026 3:08:19 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Bruno J. Meli

720-581-9126

brunojmeli@icloud.com

From:	Kacie Baker
To:	ak@wkccolorado.com; Planning; kara.vanhoose@state.co.us; matt.martinez@state.co.us; BOCC; Planning Commission
Subject:	Tired Parker Citizen
Date:	Wednesday, January 21, 2026 3:07:46 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

Good afternoon -

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Why do we as the people have to continuously advocate for the rights of what makes CO so special, unique and sought after. Get the dollar signs out of your eyes for 2 seconds to see that this is the wrong choice.

Sincerely,
Kacie Baker
11019 Brownstone Drive
Parker, CO

From: vanessa schafer
To: Planning
Subject: Bloom development
Date: Wednesday, January 21, 2026 3:05:22 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Vanessa Schafer
17165 Rose Mallow St.
Parker CO 80134
Sent from my iPhone

From:	Nat Brancaccio
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Proposed Bloom Estates Development
Date:	Wednesday, January 21, 2026 3:33:26 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
The Adkins Family
Parker, CO

From:	Brandon .
To:	ak@wkccolorado.com; Planning Commission; Planning; matt.martinez@state.co.us; BOCC; kara.vanhoose@state.co.us
Subject:	Concerned resident.
Date:	Wednesday, January 21, 2026 3:32:50 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Brandon Jeanpaul
18340 Tree Sparrow ave Parker, CO 80134

From:	Jennifer Richmond
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Bloom Estates
Date:	Wednesday, January 21, 2026 3:37:02 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Jennifer Richmond
17029 Motsenbocker Way
Parker,CO 80134
Sent from my iPhone

From:	Pamela Seki
To:	Planning
Subject:	Bloom Estates Proposal
Date:	Wednesday, January 21, 2026 3:49:18 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.

• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Glenn & Pamela Seki

17172 Hop Clover Avenue

Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Crowsnest
Date: Thursday, January 22, 2026 11:17:57 AM
Attachments: v15044gf0000d5a20i7og65inb1mku80.mp4

From: brittany mchugh <brittany091090@gmail.com>
Sent: Wednesday, January 21, 2026 3:00 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Crowsnest

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

My name is Brittany McHugh and I am against the crowfoot project. I live in Pradera and I drive crowfoot every day and you wouldn't believe the amount of wildlife I have seen in this area. I'm attaching a video of the herd of elk roaming around just a few weeks ago. I think it's important to note my husband owns the largest residential electrical contracting company in the state so we are normally all for Colorado growth but this is just not right and everyone knows it. I will see you at the next meeting.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big

game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Brittany McHugh
5203 Soledad Circle, Parker CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Preserving elk migration habitat
Date: Thursday, January 22, 2026 11:21:05 AM

From: A Basile <basile347@yahoo.com>
Sent: Thursday, January 22, 2026 9:48 AM
To: k@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Preserving elk migration habitat

Caution: This email originated outside the organization. Be cautious with links and attachments.

I am writing as a resident of Douglas County and the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

- A comprehensive Wildlife Impact Study conducted during peak migration months.
- A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on

January 29th and expect the County to hold this project to the highest environmental standards.

Further, the amount of development in Parker and Douglas County is counter to the quality of life and wildlife heritage that we hold dear as Colorado residents. Impacts are becoming more and more evident from our ability to preserve critical wildlife habitat to future concerns over the quality of our water supply.

Sincerely,

Alfred Basile
10855 Touchstone Loop
Parker, CO

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates Opposition
Date: Thursday, January 22, 2026 11:20:05 AM

From: Amy A. <hokie1996@gmail.com>
Sent: Wednesday, January 21, 2026 10:11 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom Estates Opposition

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Dear representatives,

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Amy & Ben Alderton
7553 Nuthatch Circle
Parker, CO 80134

~~~~~~~~~~~~~~~~
Amy Alderton
~~~~~~~~~~~~~~~~

From:	walterannette@comcast.net
To:	ak@wkccolorado.com; Planning; Planning Commission; BOCC; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject:	Trails at Crowfoot Community - Annette & Don Walter Resident Response To: Proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave)
Date:	Thursday, January 22, 2026 1:50:26 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

My name is Annette Walter, and I am writing on behalf of my husband Donald and I regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). We are residents of the Trails at Crowfoot community and reside a few hundred feet from the proposed location of the Bloom Estates development.

While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. I personally have witnessed the migration of these spectacular animals adjacent to our neighborhood and cannot imagine what would happen to animals and our property if their migration patterns are disrupted. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors.

We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. **Non-Compliance with Governor Polis's Executive Order B 2019 008:** state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors
2. **Increased Wildlife-Vehicle Collisions**: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
3. **Habitat Fragmentation:** Violating the spirit of state-level protections for Colorado's big game.
4. **Property Damage:** Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners and injuries to the elk.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

1. A comprehensive Wildlife Impact Study conducted during peak migration months.
2. A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
3. A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.

4. Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Annette M. Walter and Donald R. Walter
14413 Shasta Daisy Lane
Parker, CO 80134
Email: walterannette@comcast.net
Cell: 408-431-6545

From: Planning Commission
To: Michael Pesicka
Subject: FW: Elk migration corridor
Date: Friday, January 23, 2026 7:41:55 AM

From: Bhaskar Nayak <bhaskarnyk20@gmail.com>
Sent: Thursday, January 22, 2026 2:25 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Elk migration corridor

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Bhaskar Nayak
11554 Tyrolite Trl, Parker, CO 80138

From: carrie N.
To: Planning
Subject: against the Bloom development
Date: Thursday, January 22, 2026 6:43:23 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Carrie and Shaun Niles
13798 Deertrack Ln, Parker, CO 80134

From:	Casey Connelly
To:	ak@wkcolorado.com; Planning; planningcommision@douglas.co.us; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject:	Stop Bloom
Date:	Wednesday, January 21, 2026 10:16:45 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hello,

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Casey Connelly

From: Planning Commission
To: Michael Pesicka
Subject: FW: Elk Migration Route and Bloom Estates Development
Date: Friday, January 23, 2026 7:42:17 AM

From: Chelsea Hays <chelseahays503@gmail.com>
Sent: Thursday, January 22, 2026 8:38 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Elk Migration Route and Bloom Estates Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Chelsea Hays
5464 Military Trl
Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Objection to the Bloom Development in Parker.
Date: Thursday, January 22, 2026 11:20:11 AM

From: Christine Plentyhoops <christine@plentyhoops.com>
Sent: Wednesday, January 21, 2026 10:28 PM
To: Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Objection to the Bloom Development in Parker.

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

I am writing as a resident of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Christine Plentyhoops
21758 Omaha Ave
Parker, CO 80138

Kind Regards,

Christine Plentyhoops
720-488-0516 (O)
720-338-8875 (C)
877-267-8196 (F)
cplentyhoops@primerica.com

From:	Planning Commission
To:	Michael Pesicka
Subject:	FW: Bloom Estates Development/Negative Environmental Impact Involving Elk Migration Route
Date:	Thursday, January 22, 2026 11:19:05 AM

From: Kristen Weiland <kmarie.weiland@gmail.com>
Sent: Wednesday, January 21, 2026 4:11 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Cc: darin weiland <darindub@gmail.com>
Subject: Bloom Estates Development/Negative Environmental Impact Involving Elk Migration Route

Caution: This email originated outside the organization. Be cautious with links and attachments.

To Whom It May Concern:

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Darin & Kristen Weiland
14454 Hop Clover Trail
Parker, CO 80134

From: Planning
To: Michael Pesicka
Subject: FW: The proposed Bloom Estates development
Date: Friday, January 23, 2026 8:12:30 AM

Shanna Austin | Public Outreach & Assistance Manager
Douglas County Department of Community Development
Planning Resources Division
Address | 100 Third St., Castle Rock, CO 80104
Direct | 303-814-4349 **Main** | 303-660-7460
Email | saustin@douglas.co.us | planning@douglas.co.us
NOTICE: Douglas County Planning does not charge "Approval" fees. Douglas County communicates through our official email accounts ending in @douglas.co.us; beware of phishing scams using similar addresses. If you have questions or concerns about the validity of an email or invoice, please call our Public Outreach and Assistance team at 303-660-7460 or email planning@douglas.co.us.

From: DAVID PERRETT <dperrett3@msn.com>
Sent: Thursday, January 22, 2026 2:17 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Cc: Carol Perrett <cperrett3@msn.com>
Subject: The proposed Bloom Estates development

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

All the best,
David and Carol Perrett

From: Planning Commission
To: Michael Pesicka
Subject: FW: Proposed Bloom Estates Development in Douglas County
Date: Friday, January 23, 2026 7:41:36 AM

From: Dave Wheat <davewheat503@gmail.com>
Sent: Thursday, January 22, 2026 3:49 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Cc: Dave Wheat <davewheat503@gmail.com>; Toni Wheat <wheatsrus@gmail.com>
Subject: Proposed Bloom Estates Development in Douglas County

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Hello,

We are writing as residents of the Pradera/Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave) in Parker. While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

For those of us in the Trails at Crowfoot neighborhood, we are much closer (distance-wise) to the proposed Bloom Estates build. In addition to the above:

1. Trails at Crowfoot properties on the immediate Northern border of the proposed Bloom Estates build were charged premiums for our lots. This was done less than 5-years ago for the reasons of viewing wildlife, backyard privacy, and especially the view of Pikes Peak. This will be taken away by the addition of the Bloom Estates. Adequate compensation for financial and lifestyle losses incurred due to the creation of Bloom Estates should be offered. At a minimum, compensation should include: a) the lot premium we paid, and b) the loss of property value we will inevitably incur by losing said wildlife, privacy, peace of mind, and the view of Pikes Peak.
2. Being closer to the build site, we will certainly experience several years of dust, noise, construction traffic, disruption, and inconvenience, all literally in our respective back yard. The land owner, the developer, contractors, Douglas County, and anyone else involved in establishing or receiving tax revenue from Bloom Estates are all going to profit handsomely from this project -- yet it will be at the expense and permanent damage of area native wildlife, migration routes, and Bloom Estates neighbor's financial investments, peace of mind, and well being. Compensation is warranted.

We look forward to discussing these concerns with the developer’s representative on January 29th.

Sincerely,

Dave and Toni Wheat
17566 Rose Mallow Ave.
Parker, CO 80134

cell: 503.705.0801
e-mail: davewheat503@gmail.com
LinkedIn: www.linkedin.com/in/davewheat/

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom estates
Date: Thursday, January 22, 2026 11:19:21 AM

-----Original Message-----
From: David Bauer <bauer434@yahoo.com>
Sent: Wednesday, January 21, 2026 6:20 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom estates

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
David Bauer
17329 Rose Mallow St.
Parker CO

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom estates development
Date: Thursday, January 22, 2026 11:20:52 AM

From: Emily Kirlin <emilyvanderbosch@gmail.com>
Sent: Thursday, January 22, 2026 9:11 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom estates development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Emily Kirlin
10769 Appaloosa Court
Parker, Colorado 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates Development
Date: Thursday, January 22, 2026 11:20:43 AM

From: Jacqueline Phillips <nursejphillips@gmail.com>
Sent: Thursday, January 22, 2026 8:32 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Estates Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

- A comprehensive Wildlife Impact Study conducted during peak migration months.
- A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
- A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
- Binding fencing restrictions (wildlife-friendly designs only) to be written into the

development's HOA bylaws.
We look forward to discussing these concerns with the developer’s representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Jackie Phillips
14293 Hop Clover Trail
Parker, CO 80134

From: BOCC
To: Michael Pesicka
Subject: FW: Proposed Bloom Estates development
Date: Friday, January 23, 2026 11:15:42 AM

From: Jaime Jackson <jrd1192@msn.com>
Sent: Friday, January 23, 2026 11:07 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Proposed Bloom Estates development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

I am writing as a resident of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While I understand the pressures of growth in Parker, I have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

I look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Jaime Davis Jackson
17767 Weymouth Ave Parker

From: Planning Commission
To: Michael Pesicka
Subject: FW: Formal Concerns Regarding Bloom Estates Development and Elk Migration Corridors
Date: Friday, January 23, 2026 7:41:24 AM

From: Jamie Sunderman <nordyaddict@gmail.com>
Sent: Thursday, January 22, 2026 6:29 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Formal Concerns Regarding Bloom Estates Development and Elk Migration Corridors

Caution: This email originated outside the organization. Be cautious with links and attachments.

I am writing as a resident of the Parker community to address the proposed Bloom Estates development. While I recognize the inevitability of growth in our region, I have significant concerns regarding the impact this high-density project will have on a documented elk migration route south of Crowfoot and Rose Mallow Ave.

This land is a vital corridor. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats. The current proposal threatens to permanently sever this route, which will likely result in:

• Public Safety Risks: Increased wildlife-vehicle collisions on Crowfoot Valley Rd and Hwy 83.

• Regulatory Non-Compliance: Fragmentation that contradicts state-level big game protections.

• Residential Conflict: Property damage as displaced elk move into existing neighborhoods.

I formally request that the Planning Commission require a comprehensive Wildlife Impact Study and a written consultation summary from Colorado Parks and Wildlife (CPW) before any zoning approvals. I look forward to discussing these requirements with the developer on January 29th.

Sincerely,
Jamie Sunderman
14933 Rider Pl, Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Development
Date: Friday, January 23, 2026 7:41:43 AM

From: Jessica Carcoana <jclarkparis@gmail.com>
Sent: Thursday, January 22, 2026 4:21 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Good afternoon,
I am writing as a resident of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental

standards.
Sincerely,

Jessica Carcoana
13787 Ashgrove Cir, Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates Development
Date: Thursday, January 22, 2026 11:19:58 AM

From: Jordan Smith <jbird1098@aol.com>
Sent: Wednesday, January 21, 2026 9:08 PM
To: Planning Commission <PlanningCommission@douglas.co.us>
Subject: Bloom Estates Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Jordan Smith
17900 Calendula Dr Parker

From: Planning Commission
To: Michael Pesicka
Subject: FW: Proposed Bloom Estates development
Date: Thursday, January 22, 2026 11:19:34 AM

From: Kathy Rhoades <katheeez@msn.com>
Sent: Wednesday, January 21, 2026 7:25 PM
To: ak@wkcolorado.com; planning@douglaa.co.us; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Cc: Planning Commission <PlanningCommission@douglas.co.us>
Subject: Proposed Bloom Estates development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Good evening,
We are writing as residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave).

While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Kathy Rhoades
17100 Rose Mallow Ave
Parker Co 80134

Sent via the Samsung Galaxy S23 Ultra 5G, an AT&T 5G smartphone

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom development - fight to protect the last remaining elk migration corridors
Date: Thursday, January 22, 2026 11:19:29 AM

From: LENORE BATES <klbates6625@msn.com>
Sent: Wednesday, January 21, 2026 6:26 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom development - fight to protect the last remaining elk migration corridors

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Parker & Douglas Couty:

I join in on my community's comments on this zoning, and making sure significant consideration is for wildlife. I know it is important because my neighborhood's large deer and antelope herds have been impacted by large-annexed developments on Inspiration and Piney Lake Rd. As well as the changes to our trees, birds, dark skies, scenic views, land contours, secluded gulches, and the added infrastructure, such as 385' towers, traffic, and noise.

Therefore, we are writing as residents of the Parker community and Douglas County regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning

Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Lenore Bates
12803 N Piney Lake Rd
Parker CO 80138
303-841-9029 landline/home
303-884-7879 cell

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom project
Date: Thursday, January 22, 2026 11:20:48 AM

From: Leslie Ufford <leslieufford@gmail.com>
Sent: Thursday, January 22, 2026 8:52 AM
To: ak@wkccolorado.com
Cc: Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; bocce@douglas.co.us; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom project

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Leslie Ufford
9422 Tammy Ln, Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Elk migration corridor preservation
Date: Thursday, January 22, 2026 11:21:00 AM

-----Original Message-----
From: Lbjbasile@yahoo.com <lbjbasile@yahoo.com>
Sent: Thursday, January 22, 2026 9:34 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Elk migration corridor preservation

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Lorri Basile
10855 Touchstone Loop
Parker, CO
80134
Sent from my iPhone

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates Development
Date: Thursday, January 22, 2026 11:19:54 AM

-----Original Message-----
From: Maddie D <madelinedickman1@gmail.com>
Sent: Wednesday, January 21, 2026 9:06 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Estates Development

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route. This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Madeline Dickman
6353 Trappers Trail Ave
Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Protect Elk Migration - Parker CO
Date: Thursday, January 22, 2026 11:19:16 AM

-----Original Message-----
From: Madison Griffin <griffinmadisonl07@gmail.com>
Sent: Wednesday, January 21, 2026 5:54 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Protect Elk Migration - Parker CO

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Madison
Hitching post trail, 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Crowsnest annexation
Date: Thursday, January 22, 2026 11:20:30 AM

From: Dana Knauff <danaknauff14@gmail.com>
Sent: Thursday, January 22, 2026 7:41 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Crowsnest annexation

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local deer, elk and pronghorn herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Mary Dana Knauff

7827 E Warbonnet Trl
Parker, Co 80138

--
Dana

"Peace begins with a smile"
Mother Teresa

From: Planning
To: Michael Pesicka
Subject: FW: Bloom Estates
Date: Thursday, January 22, 2026 11:55:37 AM

-----Original Message-----
From: Meagan Mayer <meaganmayer@hotmail.com>
Sent: Thursday, January 22, 2026 10:28 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Estates

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

- A comprehensive Wildlife Impact Study conducted during peak migration months.
- A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
- A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
- Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Meagan Minshall
17452 Rose Mallow Ave

From:	Melissa Heffernan
To:	ak@wkccolorado.com; Planning; planningcommission@douglas.co; BOCC; matt.martinez@state.co.us; kara.vanhoose@state.co
Cc:	Brian Heffernan
Subject:	Bloom Estates Development Concerns
Date:	Wednesday, January 21, 2026 9:27:43 PM

Caution: This email originated outside the organization. Be cautious with links and attachments.

Hello,

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Kind Regards,

Melissa Heffernan
23702 Glenmoor Dr
Parker, CO 80138

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Housing Project off of Bayou Gulch and Scott Road
Date: Friday, January 23, 2026 7:42:05 AM

From: Michael Hurley <landmhurley@gmail.com>
Sent: Thursday, January 22, 2026 4:24 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Housing Project off of Bayou Gulch and Scott Road

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Hello, this is Michael and Laura Hurley. We are residents of the Pradera community (5621 Raintree Dr) and are concerned about the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the desire for growth we are very concerned about the amount of growth that has already been approved along Crowfoot Valley Rd. We are already seeing a large disruption in elk migration paths and this proposed development will have further negative consequences on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Michael and Laura Hurley

From: Planning Commission
To: Michael Pesicka
Subject: FW: Community Concerns Regarding Bloom Estates Development and Elk Migration Corridor
Date: Thursday, January 22, 2026 11:21:35 AM

From: Molly Barnwell <mollylane227@gmail.com>
Sent: Thursday, January 22, 2026 10:45 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Community Concerns Regarding Bloom Estates Development and Elk Migration Corridor

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Dear Bloom Estates Development Team,

I am writing on behalf of residents of the Trails at Crowfoot community regarding the proposed Bloom Estates development located south of Crowfoot and Rose Mallow Avenue. While we recognize the continued growth pressures in Parker and Franktown, we have serious concerns about the environmental impact of this specific project — particularly its location within a documented elk migration corridor.

This parcel of land currently serves as a critical passageway for local elk herds moving between seasonal habitats. Under Governor Polis's Executive Order B 2019-008, state agencies are directed to prioritize the protection of big game migration routes and seasonal habitat connectivity. We are concerned that the current high-density proposal for Bloom Estates risks permanently disrupting this corridor and could result in several unintended consequences, including:

1. Increased wildlife-vehicle collisions as displaced elk are forced toward Crowfoot Valley Road and Highway 83.
2. Habitat fragmentation that undermines long-term conservation efforts for Colorado's big game populations.
3. Increased human-wildlife conflict, including property damage as animals are pushed into existing residential neighborhoods.

Before any zoning approvals or site plans move forward, we respectfully request that the Planning Commission require the following actions as part of the development review process:

• A comprehensive wildlife impact study conducted during peak migration periods.
• Formal written input and recommendations from Colorado Parks and Wildlife (CPW).
• A site design that includes a dedicated, undeveloped wildlife movement buffer of at least 300–500 feet to allow safe passage.
• Binding wildlife-friendly fencing standards incorporated into HOA covenants and development requirements.

We appreciate the opportunity to engage in dialogue and look forward to discussing these concerns with your team on January 29th. Our community strongly encourages the developer and county to hold this project to the highest environmental and conservation standards while balancing responsible growth.

Thank you for your time and consideration.

Sincerely,
Molly Barnwell
Trails at Crowfoot Resident

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates Project
Date: Thursday, January 22, 2026 11:20:25 AM

-----Original Message-----
From: Nadine Goldberg <nadinegoldberg@outlook.com>
Sent: Thursday, January 22, 2026 5:15 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom Estates Project

Caution: This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Stop the insanity!!!

Sincerely,
Nadine Goldberg
10276 Arrowhead Lane Parker, CO 80138

From: Planning Commission
To: Michael Pesicka
Subject: FW: Protect the Last Remaining Elk Migration Corridor
Date: Friday, January 23, 2026 7:42:32 AM

From: Solveig Swenson <solveigswenson@gmail.com>
Sent: Friday, January 23, 2026 6:37 AM
To: Planning Commission <PlanningCommission@douglas.co.us>
Subject: Protect the Last Remaining Elk Migration Corridor

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,
Solveig Swenson

9407 Twenty Mile Rd #205
Parker 80144

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Development
Date: Thursday, January 22, 2026 11:21:10 AM

From: Niki Nguyen <nguynik@gmail.com>
Sent: Thursday, January 22, 2026 10:27 AM
To: Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us; ak@wkccolorado.com
Subject: Bloom Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet to allow passage.

• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,

Son Ngoc Nguyen
Nhi Y Nguyen
17268 Rose Mallow Ave.
Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Estates development
Date: Thursday, January 22, 2026 11:20:20 AM

From: Steve House <stevenmhouse307@gmail.com>
Sent: Thursday, January 22, 2026 2:43 AM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; kara.vanhoose@state.co.us
Subject: Bloom Estates development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:

1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.

2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.

3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:

• A comprehensive Wildlife Impact Study conducted during peak migration months.

• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.

Sincerely,
Steve House
6639 Pinery Villa Pl
Parker, CO 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Apposition Statement for Bloom Estate Development
Date: Thursday, January 22, 2026 11:19:38 AM

-----Original Message-----
From: Sumer Sandel <sumer.sandel@hotmail.com>
Sent: Wednesday, January 21, 2026 8:34 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Apposition Statement for Bloom Estate Development

Caution: This email originated outside the organization. Be cautious with links and attachments.

To whom it may concern:

We are writing as residents of the Parker community regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.

This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Sumer Daley
8916 Mad River rd
Parker Co 81034
Sent from my iPhone

From: Planning Commission
To: Michael Pesicka
Subject: FW: Bloom Project
Date: Thursday, January 22, 2026 11:19:10 AM

From: Todd Carnes <todd.carnes.ll@gmail.com>
Sent: Wednesday, January 21, 2026 5:23 PM
To: ak@wkccolorado.com; Planning <Planning@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>; BOCC <BOCC@douglas.co.us>; matt.martinez@state.co.us; Kara.VanHoose@state.co.us
Subject: Bloom Project

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

To whom it may concern,

We are writing as residents of the Pradera/ Trails at Crowfoot communities regarding the proposed Bloom Estates development (located south of Crowfoot and Rose Mallow Ave). While we understand the pressures of growth in Parker and Franktown, we have significant concerns regarding the impact this specific project will have on a documented elk migration route.
This parcel of land serves as a vital corridor for local herds. Under Governor Polis's Executive Order B 2019 008, state agencies are directed to prioritize the conservation of seasonal habitats and migration corridors. We believe the current high-density proposal for Bloom Estates threatens to permanently sever this route, leading to:
1. Increased Wildlife-Vehicle Collisions: Forcing elk onto roads like Crowfoot Valley Rd or Hwy 83.
2. Habitat Fragmentation: Violating the spirit of state-level protections for Colorado's big game.
3. Property Damage: Displaced elk are more likely to move into existing residential gardens and fenced areas, causing conflict with current homeowners.

Before any zoning or site plans are approved, we formally request that the Planning Commission require the developer to provide:
• A comprehensive Wildlife Impact Study conducted during peak migration months.
• A written summary of recommendations from the local representative from Colorado Parks and Wildlife (CPW).
• A site plan that includes a dedicated, unbuilt migration buffer of at least 300–500 feet

to allow passage.
• Binding fencing restrictions (wildlife-friendly designs only) to be written into the development's HOA bylaws.
We look forward to discussing these concerns with the developer’s representative on January 29th and expect the County to hold this project to the highest environmental standards.
Sincerely,

Todd and Angela Carnes
4923 Raintree Cir.
Parker, CO. 80134

From: Planning Commission
To: Michael Pesicka
Subject: FW: Proposed Crowfoot Development
Date: Thursday, January 22, 2026 11:19:48 AM

From: Will Trail <willtrail@yahoo.com>
Sent: Wednesday, January 21, 2026 9:02 PM
To: ak@wkccolorado.com
Cc: Planning <Planning@douglas.co.us>; matt.martinez@state.co.us; BOCC <BOCC@douglas.co.us>; Planning Commission <PlanningCommission@douglas.co.us>
Subject: Proposed Crowfoot Development

> **Caution:** This email originated outside the organization. Be cautious with links and attachments.

Dear Members of the Planning Commission,

We are writing as residents of the Parker community to express our concerns regarding the proposed Bloom Estates development, located south of Crowfoot and Rose Mallow Avenue. While we recognize and appreciate the need to plan for Parker's continued growth, we believe this particular proposal raises serious environmental concerns due to its location within a documented elk migration corridor.

This parcel of land functions as a critical pathway for local elk herds. Governor Polis's Executive Order B 2019 008 directs state agencies to prioritize the protection of seasonal wildlife habitats and migration corridors. In its current high-density form, the Bloom Estates proposal risks permanently disrupting this corridor, which would likely result in:

- Increased wildlife-vehicle collisions, as elk are forced onto nearby roadways such as Crowfoot Valley Road and Highway 83.
- Significant habitat fragmentation, undermining the intent of statewide protections for Colorado's big game species.
- Increased property damage and human-wildlife conflict, as displaced elk move into existing neighborhoods, gardens, and fenced properties.

Before any zoning changes or site plans are approved, we respectfully request that the Planning Commission require the developer to provide:

- A comprehensive wildlife impact study conducted during peak migration periods.
- A written summary of findings and recommendations from a local representative of Colorado Parks and Wildlife (CPW).

We look forward to discussing these concerns with the developer's representative at the January 29th meeting and expect the County to hold this project to the highest environmental and stewardship standards.

Sincerely,
Will Trail
Parker, CO

An amendment to the CMP is not consistent with Criteria 8

[Jason]

The expansion for the Pinery Separated Urban Area does NOT result in a compelling public benefit

1. First, the Bloom proposal dramatically reduces open space – today, it is open space of 200 acres and the development would substantially reduce that space; post-development 80% of the open space that Bloom leaves behind will be entirely up against Crowfoot Valley Road and not to the benefit of the surrounding communities – you can see this in the very map they have shown to you of their proposal

2. Second, the connectivity to any park is a complete falsehood – Mr. Shoukas and Mr. Bader have referred to access to the Macanta Regional Park – the connection to that neighborhood is a full five miles from Bloom and would have to go through or around multiple neighborhoods

3. Third, Bloom will wipeout wildlife corridors not enhance them; Pradera and Trails residents see wildlife moving through the space today and a new 130 home development does nothing to improve any corridors; if anything building 130 homes while building water features up against Crowfoot Valley Road by Bloom is downright dangerous given increased traffic and shrinking open space for wildlife to which we are already committed in Trails, Macenta and Looking Glass

4. Fourth, the proposed density for Bloom is NOT consistent with the part of Pradera with which it abuts – the Pradera lots are 1.5 – 2.0 acre lots along Raintree Circle and the nearby streets in Northwest Pradera

[Jason]

5. Fifth, the additional taxes from Bloom are deminimous for Douglas County – if we assume 130 homes at $10,000 per year, the County would receive only $1.3mm – a rounding error for relative to the $85 million -$100 million Douglas County receives for the newly approved neighborhoods where we are building 12,000 new homes (assuming $7,000-$9,000 per home)

6. Sixth, any proposed road network in Bloom adds nothing to the surrounding community – first they plan to gate the road based on the plan that they showed; Bloom's gated community does not provide access to parks or other recreation for surrounding neighborhoods as will most likely be fully fenced as well by the time the project is complete; the road through Bloom will not add any meaningful transport capacity to our community

7. Seventh, the land to which the applicant would like to rezone does not require any restoration or enhancement – as residents that overlook the land, we can assure you that it is beautiful open space providing wonderful viewshed; it includes wildflowers, native grasses, rolling hills, scrub oak, teaming with wildlife including burrowing owl, peregrine falcons, fox, coyotes, rabbits, multiple different species of birds

To reiterate, I am not in favor of an amendment to the CMP as it does not provide any compelling public benefit

An amendment to the CMP is NOT consistent with Criteria 1

[Joe]

An amendment is NOT consistent with the spirit, intent, goals, objectives and policies of the CMP

Here are 4 reasons as to why this proposed amendment is not consistent with Criteria 1:

1. The CMP policy is in place to preserve the “rural character and heritage of Douglas County”
    - By the very nature of this application, the western side of the proposed development is defined as A-1 agricultural; the Bloom development is asking for a change for development at substantially higher density and is not in keeping with the stated goal of the CMP

2. The CMP Policy is in place to preserve scenic views and open space
    - Viewshed for Pradera residents and those at Trails at Crowfoot will be permanently altered – the proposed development will litter the viewshed with homes rather than rolling hills, wildflowers, native grasses and scrub oak

3. The CMP Policy is in place to foster natural landscape
    - We are unclear as to how a 130 home development on the existing space will “foster the natural landscape”
    - If you look at surrounding communities that have been approved, there are no corridors for wildlife, all scrub oak ripped out and no remaining wildflowers

[Joe]

4. CMP Policy in place to preserve non-urban community values
    - Part of the reason we have a review of the CMP every 5 years is to ensure that the rural heritage of Douglas County is preserved to ensure careful community planning and avoidance of unadultered urban sprawl
    - Given all of the home build on Crowfoot Road, we would submit that preserving this land as agricultural is a part of protecting the rural heritage of Douglas County
    - Most of us residents moved here given the careful planning and commitment of our elected officials to preserving the rural heritage of Douglas County – we were attracted to the careful intersection of urban growth while protecting the rural heritage and values of our communities

To reiterate, I am not in favor of an amendment to the CMP as it is NOT consistent with the spirit, intent, goals, objectives and policies of the CMP

An amendment to the CMP is NOT consistent with Criteria 2

[Alan]

Proposed amendment NOT consistent with compatibility of surrounding land uses and zoning

1. Firstly, density in Bloom is a dramatic departure from its neighbor to the South, the Northwest portion of Pradera
   - This parcel in Northwest Pradera is outlined by Bayou Gulch Road to the East, Pradera Parkway that runs across the South and to the Northwest and abuts the proposed Bloom development to the North, consists of 270 acres with 104 dwellings = implied density of 1 dwelling per 2.6 acres
   - Bloom proposed density is [ ] per dwelling and this likely will change to even greater density in subsequent proposals if this amendment to our CMP is approved
   - The applicant has referred to Pradera density that is 0.55 acres – this is straight up misleading as it includes all of the smaller lot homes on the Eastern side of Pradera that in no way adjoin the Bloom development – this is a very disingenuous comparison on the part of Mr. Shoukous and the applicant

2. Secondly, we continue to have A-1 agricultural land to the Northwest and across Crowfoot Valley Road - and this provides optimal wildlife corridors in an area of Douglas County that is undergoing tremendous development with the Trails at Crowfoot, Looking Glass and Macanta
   - We would argue that the CMP review of last year adequately protected wildlife by preserving the agricultural nature of the land under consideration by the amendment – any change to this would be out of keeping with the intent of the CMP

To reiterate, I am not in favor of an amendment to the CMP

An amendment to the CMP is NOT consistent with Criteria 3

[Emily / Gwyn]

Proposed Amendment NOT consistent with the compatibility with existing, natural and environmental conditions of the site and preservation of important natural features and scenic viewsheds, riparian corridors, wildlife habitat and movement corridors and historic resources

- First, clearly viewsheds for existing homeowners both in Pradera and in Trails at Crowfoot are completely wiped out with the density and construction of a 130 home neighborhood;
  - Existing residents go from beautiful open space views complete with rolling hills, wildflowers and scrub oak to looking at urban sprawl that completely blocks our views

- Second, wildlife habitat is largely wiped out in the existing agricultural land; currently, the land is teeming with wildlife including burrowing owls, a protected species under the Migratory Bird Treaty Act, American peregrine falcon, fox, coyote, rabbit, deer, elk and innumerous bird species

- Third, movement corridors for existing wildlife are substantially impaired should we amend the CMP – today, the proposed land for the Bloom development is used extensively as a corridor for wildlife and has become more heavily used as surrounding areas are taken up with urban development;
  - the surrounding residents in Pradera have noticed how important this particular space has become as a wildlife corridor given the substantial home build out in our area along other areas of Crowfoot Valley Road to the Southwest and Northeast

- Fourth, the proposed land for which Bloom proposes to amend our CMP sits to the southeast of other agricultural land and is a natural corridor for wildlife

To reiterate, I am not in favor of an amendment to the CMP

[Tony]

An amendment to the CMP is NOT consistent with Criteria 4

Proposed Amendment NOT consistent with adequate water supply, water and sewer treatment facilities, transportation networks, access, fire protection, school facilities, and parks and trails

- **Water supply** not helped with a new "out of cycle" CMP amendment that provides for more development and homes that need water
  - Douglas County already is having to source water from San Luis Valley at great expense and cost
  - The landscape proposal for Bloom development will also strain water supply

- **Fire mitigation:** the events of the recent Marshall Fire also should give us pause regarding an off cycle CMP amendment;
  - Currently this agricultural land provides a great natural buffer for our growing neighborhoods in areas that are prone to high winds – we already have very, high density neighborhoods under construction
  - Further filling the space with high density homes made of wood won't help against fire and high wind
  - To reinforce the threat of fire, on December 19, 2021, Douglas County held a fireworks display where several fires were started and South Metro Fire was needed to put out the flames – fortunately, these fires were contained to buffer areas based on careful planning by our County officials – any buffer goes away for our neighborhoods if you approve this amendment

- **Roads and Transportation Networks** already going to be enormously impacted by existing neighborhood build out
  - For example, Crowfoot Valley Road the main artery for Bloom is only a two lane road
  - As residents in Pradera, we can tell you that this road is already strained and we have barely started the buildout of the neighborhoods that have been approved (Magenta, Trails at Crowfoot, [other one])
  - Highway access will be further constrained as well – both Parker Road and Founders Parkway will be further constrained on top of the coming traffic nightmare that we already see coming

[Tony]

- **Trail and park build benefit is not clear and misleading:**
  - First, under the Bloom development, 75% of the open space is along Crowfoot Valley Road – this does not benefit any of the surrounding neighborhoods but only Bloom itself and you can see this in the plan maps that they have shared with [the commissioners];
    - A lot of this open space will be reduced when Crowfoot Valley road is inevitably widened to four lanes in the future
  - Second, the applicant and Mr. Shoukos refer to a trail system in Bloom that connects to [Magenta] Regional Park – this Magenta park is fully 4-5 miles from Bloom and so any trail would need to run either around or through our current communities; a new development does nothing to expand any trail system to Magenta Regional Park –
    - the applicant and Mr Shoukous will show you a circuitous route to get there – in our view, this does nothing in terms of a "public benefit"

I am opposed to the Proposed Amendment to the CMP – it is NOT consistent with adequate water supply, water and sewer treatment facilities, transportation networks, access, fire protection, school facilities, and parks and trails

[Stephanie]

An amendment to the CMP is NOT consistent with Criteria 5

Proposed Amendment NOT consistent with how existing and planned capabilities of affected special districts can adequately handle the service demand

- We have a five year CMP review that specifically addresses how existing and planned capabilities of affected special districts will impact the service demand on our County resources
  - As existing residents and as a County, we as residents rely on this planning cadence and the Master Plan as a way to control urban build in our communities; the Bloom development build would only add to strained services in our community undergoing dramatic change – it will do nothing to alleviate these pressures
  - As homeowners, we rely on the CMP to protect us as residents – we don't see any good reason why the proposed property would benefit from an "out of cycle" change to the CMP – as you said in our last session, this would be a "unique" change – the residents don't see the rationale

- We also have been told by this builder, as have you, the Committee, that these plans for development are conceptual – if density is changed after this amendment, which we anticipate that it will go up, this will further constrain service fulfillment by our rapidly growing County, particularly in the area of Crowfoot Valley Road where we already have several massive developments

[Dotson]

An amendment to the CMP is NOT consistent with Criteria 6

Criteria 6: The amendment is NOT in keeping with how social, economic, or land use conditions have changed or are in the process of changing in such a manner to support the proposed amendment to the CMP

- As a County and neighborhood, we reviewed our CMP just [one?] year ago to account for the attractiveness of Douglas County as a destination for new families and transplants from both inside and outside of Colorado
  - We get it – this is an amazing and beautiful place to live

- As residents, we believe that the current agricultural designation and estate residential designation of the land under proposed amendment is important to preserve the heritage, rural character, viewposts and natural landscape for which we all invested in this great County
  - We rely on this thoughtful plan as homeowners and indeed, most of us were told by certain realtors and builders, that it would remain this way

- In your last meeting with the applicant, Mr Shoukous referred to the proposed land areas as a “piece of a jigsaw puzzle” – as if it should just be filled in
  - With all due respect to Mr. Shoukas, we have the CMP process in place to exactly counter this kind of thinking
  - This current area serves as important fire protection buffer for residents of Pradera and Trails at Crowfoot and is teeming with wildlife crowded out from other development under construction along Crowfoot Valley Road to the tune of 12,000 homes
  - This isn’t a “jigsaw piece” to be filled in just because – in our view, the current land designation is very much in keeping with the goals and policies of the CMP and any change would run counter to those goals and policies

[John]

An amendment to the CMP is NOT consistent with Criteria 7

Criteria 7: Land proposed for urban development is NOT a logical expansion of the Pinery Separated Urban Area

- Bloom is not a logical expansion of Pinery separated urban area as it is a gated community with lack of access to our separated urban areas and vice versa
- This land always been intended as a “separation” buffer and is approved as such through 2040 in the CMP
- The Bloom concept itself is illogical as an expansion of the Pinery Separated Urban area as it does not rely on natural landscape which would be consistent with what we see in Pradera and the Pinery; instead Bloom intends to plant non-native species heavily reliant on water instead of retaining the natural characteristics of the land
    - Natural landscape including drought resistant species is critical to protecting the surrounding neighborhoods from fire and drought conditions

For these reasons, the Bloom development is not consistent with criteria 7 of the CMP

[This is a repeat on number 8 so that we hammer some of these points and no public benefit]

An amendment to the CMP is not consistent with Criteria 8

[Melanie]

The expansion for the Pinery Separated Urban Area does NOT result in a compelling public benefit

1. First, the Bloom proposal dramatically reduces open space – today, it is open space of 200 acres and the development would substantially reduce that space; post-development 80% of the open space that Bloom leaves behind will be entirely up against Crowfoot Valley Road and not to the benefit of the surrounding communities – you can see this in the very map they have shown to you of their proposal

2. Second, the connectivity to any park is a complete falsehood – Mr. Shoukas and Mr. Bader have referred to access to the Macanta Regional Park – the connection to that neighborhood is a full five miles from Bloom and would have to go through or around multiple neighborhoods

3. Third, Bloom will wipeout wildlife corridors not enhance them; Pradera and Trails residents see wildlife moving through the space today and a new 130 home development does nothing to improve any corridors; if anything building 130 homes while building water features up against Crowfoot Valley Road by Bloom is downright dangerous given increased traffic and shrinking open space for wildlife to which we are already committed in Trails, Macenta and Looking Glass

4. Fourth, the proposed density for Bloom is NOT consistent with the part of Pradera with which it abuts – the Pradera lots are 1.5 – 2.0 acre lots along Raintree Circle and the nearby streets in Northwest Pradera

[Melanie]

5. Fifth, the additional taxes from Bloom are deminimous for Douglas County – if we assume 130 homes at $10,000 per year, the County would receive only $1.3mm – a rounding error for relative to the $85 million -$100 million Douglas County receives for the newly approved neighborhoods where we are building 12,000 new homes (assuming $7,000-$9,000 per home)

6. Sixth, any proposed road network in Bloom adds nothing to the surrounding community – first they plan to gate the road based on the plan that they showed; Bloom's gated community does not provide access to parks or other recreation for surrounding neighborhoods as will most likely be fully fenced as well by the time the project is complete; the road through Bloom will not add any meaningful transport capacity to our community

7. Seventh, the land to which the applicant would like to rezone does not require any restoration or enhancement – as residents that overlook the land, we can assure you that it is beautiful open space providing wonderful viewshed; it includes wildflowers, native grasses, rolling hills, scrub oak, teaming with wildlife including burrowing owl, peregrine falcons, fox, coyotes, rabbits, multiple different species of birds

To reiterate, I am not in favor of an amendment to the CMP as it does not provide any compelling public benefit

Douglas County
ECONOMIC DEVELOPMENT CORPORATION

Douglas County Board of County Commissioners
100 Third Street
Castle Rock, CO 80104

Dear Commissioners,

On behalf of the Douglas County Economic Development Corporation, I am writing to express my support for the proposed Bloom Preliminary Plan (Project File: SB2025-017) located on the west side of Bayou Gulch Road just north of Scott Avenue in unincorporated Douglas County.

As President and CEO of the Douglas County EDC, I spend a great deal of time working with companies that are evaluating our County as a destination for expansion and relocation. A consistent theme in these conversations is that companies want to locate where their employees—particularly senior leadership and highly specialized talent—can live in exceptional communities that reflect the quality-of-life Douglas County is known for.

The proposed Bloom development represents an excellent example of this principle in action. With 32 custom-built homes on approximately 80 acres, the project aligns naturally with the intent of the Estate Residential zoning district in unincorporated Douglas County. In many respects, Bloom can be considered an infill opportunity, thoughtfully completing development in an area where the community fabric and zoning vision have long anticipated Estate Residential homes.

Just as importantly, the housing typology proposed at Bloom—high-quality custom homes on generous lots that are interwoven with open space—is precisely the type of housing environment that is sought after by executives and senior professionals of the companies the EDC works to recruit. These companies bring quality jobs, investment, and long-term economic vitality to

Douglas County and the broader region. Ensuring that our County continues to offer a full spectrum of desirable housing options is an important component of remaining competitive in attracting and retaining these employers.

I also appreciate that the Bloom proposal respects the natural beauty and landscape that make Douglas County such a special place to live. By carefully matching the development concept to the underlying zoning and the character of the surrounding area, Bloom represents a thoughtful realization of the highest and best use of Estate Residential zoning.

Douglas County's continued success depends on balancing economic growth with thoughtful land use decisions that maintain the quality-of-life residents value. In my view, Bloom reflects that balance well.

For these reasons, I respectfully encourage the Board of County Commissioners to support the proposed Bloom Preliminary Plan on April 28th.

Thank you for your continued leadership and stewardship of Douglas County.

Warm Regards,



Ellie Reynolds

CEO & President

Douglas County Economic Development Corporation

9.1 Phase Drainage Report

PHASE II DRAINAGE STUDY

For:

Bloom Subdivision

PARKER, COLORADO

Prepared for

AFFINITY AT CROWFOOT, LLC
P.O. BOX 1143
BROOMFIELD, CO 80020
ATTN: CAYD BADER

Submitted by: Atwell, LLC

DONNA BARRENTINE, P.E.
6200 SOUTH SYRACUSE WAY
GREENWOOD VILLAGE, CO 80111
303.825.7100

PROJECT NO. 21003148

SUBMITTAL DATE: 04/15/2025

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CERTIFICATION STATEMENT

"I hereby certify that this Final Drainage Study for the ***Bloom Subdivision*** *development was prepared by me (or under my direct supervision) in accordance with the provisions of the* ***Douglas County Storm Drainage Design and Technical Criteria Manual*** *for the owners thereof."*

_____

Donna Barrentine*, Registered Professional Engineer*

State of Colorado ***No. LICENSE 0044754***

GENERAL LOCATION AND DESCRIPTION

Bloom Subdivision (herein after referred to as "Site") is located within Douglas County, Colorado in Section 9, Township 7 South, Range 66 West of the 6th Meridian, Douglas County, Colorado. The Site is a proposed single-family detached residential development on 81.07 acres of undeveloped land.

This Site is bordered by Bayou Gulch Road to the east, Trails at Crowfoot Subdivision to the north and agricultural land to the west. One access point along Bayou Gulch Road will be provided to allow access to the site and utility infrastructure for the residential development. The stormwater runoff will be routed to the detention basin located in the south west section of the Cielo Development across Bayou Gulch Road from Bloom Subdivision.

The proposed residential development is designated as medium-density residential with 32 single-family detached residential units with lot sizes ranging from 1 acre to 2.5 acres each. A General Vicinity Map is provided as Appendix A of this report.

Soil Conditions

NRCS Soils Survey results indicate that the existing soils are Fondis-Kutch Association and Newlin Gravelly Sandy Loam, 8 to 30 percent slopes. These soils are identified as a Groups B and C having a moderately high to very high infiltration rates when thoroughly wet. The NRCS Soils Survey for the site has been included as Appendix B.

The Site does not include mapped floodplains. A copy of the FEMA FIRM Map is included in Appendix C.

DRAINAGE BASINS AND SUB-BASINS

Existing Major Drainage Basins

Runoff from existing basins will flow directly into existing storm sewer network strucutes. The existing conditions of the site are mainly open space grassy vegetated areas. See the Existing Drainage Map for existing basin boundaries associated with this development included in Appendix F.

E Basins

The historical existing drainage basins within the property boundary consists of approximately 27.15 acres grassy wooded areas. Four sub-basins have been delineated. These sub-basins convey stormwater by sheet flowing directly to Scott Gulch and Cherry Creek.

Sub-Basin E-1 (4.15 acres) is located along the eastern boundary of the site. The basin has a composite imperviousness of 2.0%. Runoff sheet flows east to design point E1 directly into an existing flared end section that conveys runoff into the existing storm sewer and carrys it east to existing Pond A. (Interception Q_5=0.44 CFS, Q_{100}=8.91 CFS).

Sub-Basin E-2 (9.17 acres) is located along the northern boundary of the site. The basin has a composite imperviousness of 2.0%. Runoff sheet flows east to design point E2 and into existing Bauoy Gulch Road directly into an existing Type-R, sump inlet that conveys runoff into the existing storm sewer and carrys it east to existing Pond A. (Interception Q_5=0.70 CFS, Q_{100}=14.06 CFS).

Sub-Basin E-3 (33.70 acres) is located at the center of the site. The basin has a composite imperviousness of 2.0%. Runoff sheet flows east to design point E3 and into an Type-C area inlet that conveys runoff into the existing storm sewer and carrys it east to existing Pond A. (Interception Q_5=0.89 CFS, Q_{100}=66.80 CFS).

Sub-Basin E-4 (0.68 acres) is located at the north west corner of the site. The basin has a composite imperviousness of 2.0%. Runoff sheet flows east to design point E4 and flow off site. (Interception Q_5=0.02 CFS, Q_{100}=1.71 CFS).

Sub-Basin E-5 (11.95 acres) is located at the center of the site. The basin has a composite imperviousness of 2.0%. Runoff sheet flows east to design point E5 and into existing Bauoy Gulch Road directly into an existing Type-R, sump inlet that conveys runoff into the existing storm sewer and carrys it east to existing Pond A. (Interception Q_5=0.21 CFS, Q_{100}=15.43 CFS).

Sub-Basin E-5 (19.03 acres) is located at the center of the site. The basin has a composite imperviousness of 2.0%. %. Runoff sheet flows east to design point E6 and into existing Bauoy Gulch Road directly into an existing Type-R, sump inlet that conveys runoff into the existing storm sewer and carrys it east to existing Pond A. (Interception Q_5=0.34 CFS, Q_{100}=25.11 CFS).

Proposed Major Drainage Basins

This Drainage Report describes the proposed drainage basins based on the proposed grading for this development. Runoff from on-site basins are tributary to an existing stormwater detention pond entitled "Pond A" located within the Cielo Subdivision Filing No. 1 development, located east of the Bloom Subdivision, on the east side of Bayou Gulch Road. Onsite drainage will be collected in on-site inlets and conveyed through proposed storm sewer infrastructure into an existing storm pipe on the west side of Bayou Gulch Road within the southwest corner of the property. See the Proposed Drainage Map for basin boundaries associated with this development included in Appendix F.

A Basins

The A Basins occupy most of the site and consist of approximately 74.86 acres of single-family residential areas with some landscaped open space. Twenty sub-basins have been delineated. These sub-basins convey stormwater through street conveyance to onsite storm inlets and into storm sewer system or conveyed stormwater to existing type C inlets or flared end sections to onsite storm inlets. The collected stormwater within A basins will ultimately outlet into existing Pond A within the Cielo Subdivision Filing No. 1 development.

Sub-Basin A-1 (1.62 acres) is located in the northwest corner of the site along Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of 10.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the southern section of the sub-basin to design point A1. Runoff will continue to be conveyed by street curb and gutter through sub-basin A-2 to design point A2, through sub-basin A-3 to design point A3 until it reaches sub-basin A-4 where it will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A4 and be routed southeast to existing Pond A. (Interception Q_5=0.45 CFS, Q_{100}=4.27 CFS, Cumulative Q_5=1.44 CFS, Q_{100}=13.7 CFS).

Sub-Basin A-2 (6.72 acres) is located in the northwest corner of the site along Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the southeastern section of the sub-basin to design point A2. Runoff will continue to be conveyed by street curb and gutter through sub-basin A-3 to design point A3 until it reaches sub-basin A-4 where it will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A4 and be routed southeast to existing Pond A. (Interception Q_5= 1.73 CFS, Q_{100}=16.47 CFS, Cumulative Q_5=3.17 CFS, Q_{100}=30.17 CFS).

Sub-Basin A-3 (7.03 acres) is located in the north central section of the site along Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the southeastern section of the sub-basin to design point A3. Runoff will continue to be conveyed by street curb and gutter to sub-basin A-4 where it will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A4 and be routed southeast to existing Pond A. (Interception Q_5= 2.73 CFS, Q_{100}=19.82 CFS, Cumulative Q_5=5.9 CFS, Q_{100}=30.17 CFS).

Sub-Basin A-4 (3.41 acres) is located in the north central section of the site along Local Road A and Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of

15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the low point within Local Road B of the sub-basin at design point A4. It will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A4 and be routed southeast to existing Pond A. (Interception Q_5= 1.47 CFS, Q_{100}=10.68 CFS, Cumulative Q_5=5.9 CFS, Q_{100}=30.17 CFS).

Sub-Basin A-5 (1.41 acres) is located at north east portion of the site along Local Road A. The basin consists of roadway and open space. The basin has a composite imperviousness of 35.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road A of the sub-basin at design point A5, from there it will be conveyed along Bayou Gulch Road. It will enter the storm sewer via an existing 10-foot Type-R sump inlet and be routed east to Pond A. (Interception Q_5=1.06 CFS, Q_{100}=4.33 CFS).

Sub-Basin A-6 (0.67 acres) is located at the north east portion of the site along Local Road A. The basin consists of roadway and open space. The basin has a composite imperviousness of 40.0%. %. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road A of the sub-basin at design point A6, from there it will be conveyed along Bayou Gulch Road. It will enter the storm sewer via an existing 10-foot Type-R sump inlet and be routed east to Pond A. (Interception Q_5=0.81 CFS, Q_{100}=3.05 CFS).

Sub-Basin A-7 (5.10 acres) is located at the north east portion of the site along Local Road A and existing Bayou Gulch Road. The basin consists of residential lots and open space. The basin has a composite imperviousness of 55.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road B of the sub-basin at design point A7. It will enter the storm sewer via a 15-foot Type-R, sump inlet and be routed south to existing Pond A. (Interception Q_5=1.79 CFS, Q_{100}=12.96 CFS).

Sub-Basin A-8 (4.26 acres) is located in the western boundary of the site along Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the north east section of the sub-basin to design point A8. Runoff will continue to be conveyed by street curb and gutter through sub-basin A-1 to design point A1, through sub-basin A-2 to design point A2, through sub-basin A-3 to design point A3 until it reaches sub-basin A-4 where it will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A4 and be routed southeast to existing Pond A. (Interception Q_5=0.99 CFS, Q_{100}=9.43 CFS)

Sub-Basin A-9 (4.32 acres) is located in the center of the site along Local Road B. The basin consists of roadway, open space, and residential lots. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a local low point at the north east section of the sub-basin to design point A9. Runoff will continue to be conveyed by street curb and gutter through sub-basin A10 where it will enter the storm sewer network via a 15-foot Type-R, sump inlet at design point A10 and be routed southeast to existing Pond A. (Interception Q_5=0.87 CFS, Q_{100}=8.25 CFS).

Sub-Basin A-10 (5.20 acres) is located in the center of the site along Local Road B. The basin consists of a roadway, residential lots, and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road B of the sub-basin at design point A10. It will enter the storm sewer via a 15-foot Type-R, sump inlet and be routed southeast to Pond A. (Interception Q_5=1.34 CFS, Q_{100}=12.79 CFS, Cumulative Q_5=2.21 CFS, Q_{100}=21.04 CFS).

Sub-Basin A-11 (6.97 acres) is located within the center of the site along Local Road C. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road C of the sub-basin at design point A11. It will enter the storm sewer via a 10-foot Type-R, sump inlet and be routed east to existing Pond A. (Interception Q_5=2.72 CFS, Q_{100}=19.74 CFS).

Sub-Basin A-12 (2.25 acres) is located within the north east portion of the site along Local Road C. The basin consists of a roadway, residential lots, and open space. The basin has a composite imperviousness of 20.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road C of the sub-basin at design point A12. It will enter the storm sewer via a 10-foot Type-R, sump inlet and be routed east to Pond A. (Interception Q_5=0.86 CFS, Q_{100}=6.26 CFS).

Sub-Basin A-13 (5.60 acres) is located along the eastern boundary of the site along existing Bayou Gulch Road. The basin consists of a residential lots and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow over open space and then conveyed to a low point of the sub-basin at design point A13. It will enter the storm sewer via an existing Type-C inlet and be routed east to Pond A. (Interception Q_5=1.52 CFS, Q_{100}=14.44 CFS).

Sub-Basin A-14 (1.33 acres) is located within the south west portion of the site along Local Road B. The basin consists roadway, residential lots, and open space. The basin has a composite imperviousness of 20.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the eastern section of the sub-basin to design point A14. Runoff will continue to be conveyed by street curb and gutter through sub-basin A-17 to Type-R on grade inlets at design point A17, runoff from sub-basin A-20 will also be conveyed into sub-basin A-17 and flow via street curb and gutter to a Type-R inlet at design point A17 and be routed east to existing Pond A. (Interception Q_5=0.51 CFS, Q_{100}=3.69 CFS).

Sub-Basin A-15 (1.13 acres) is located within the south west portion of the site along Local Road B. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 20.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to the local low point at the eastern section of the sub-basin to design point A15. Runoff will continue to be conveyed by street curb and gutter through sub-basin A-16 to design point A16 where it will enter the storm sewer via a 10-foot Type-R Inlet, sump inlet and be routed east to existing pond A. (Interception Q_5=0.44 CFS, Q_{100}=3.21 CFS,)

Sub-Basin A-16 (1.32 acres) is located within the center of the site along Local Road B. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 20.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road B of the sub-basin at design point A16. It will enter the storm sewer via a 10-foot Type-R, sump inlet and be routed east to existing Pond A. (Interception Q_5=0.59 CFS, Q_{100}=4.32 CFS, Cumulative Q_5=1.03 CFS, Q_{100}=7.53 CFS).

Sub-Basin A-17 (0.96 acres) is located within the center of the site along Local Road C. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road C of the sub-basin at

design point A17. It will enter the storm sewer via a 10-foot Type-R, on-grade inlet and be routed east to existing Pond A. (Interception Q_5=0.26 CFS, Q_{100}=2.52 CFS, Cumulative Q_5=2.11 CFS, Q_{100}=25.19 CFS).

Sub-Basin A-18 (4.25 acres) is located within the center of the site along Local Road C. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road C of the sub-basin at design point A18. It will enter the storm sewer via a 10-foot Type-R, on-grade inlet and be routed east to existing Pond A. (Interception Q_5=1.78 CFS, Q_{100}=12.88 CFS).

Sub-Basin A-19 (1.23 acres) is located within the center of the site along Local Road C. The basin consists of roadway, residential lots, and open space. The basin has a composite imperviousness of 15.0%. Runoff will sheet flow to the street curb and gutter and then conveyed to a low point within Local Road C of the sub-basin at design point A19. It will enter the storm sewer via a 10-foot Type-R, sump inlet and be routed east to existing Pond A. (Interception Q_5=1.78 CFS, Q_{100}=12.88 CFS).

Sub-Basin A-20 (10.06 acres) is located along the south western boundary line of the site. The basin consists of residential lots and open space. The basin has a composite imperviousness of 10.0%. Runoff will sheet flow to the street curb and gutter within sub-basin A-17 and then be conveyed to a low point within Local Road C of the sub-basin at design point A17. It will enter the storm sewer via a 10-foot Type-R, on-grade inlet and be routed east to existing Pond A. (Interception Q_5=1.34 CFS, Q_{100}=18.98 CFS).

OS Basins

OS Basins consist of approximately 3.70 acres of single-family residential area within the southeastern portion of the site. Runoff within these basins will sheet flow off the site as it has historically done.

Sub-Basin 0S-1 (3.70 acres) is located along the southern portion of the site property boundary and consists of residential lots and open space. The basin has an estimated composite imperviousness of 10.0%. Runoff will sheet flow within the open space and run off site as it historically has. (Q_5=0.63 CFS, Q_{100}=8.86 CFS)

DRAINAGE DESIGN CRITERIA

Regulations

This drainage report was prepared in accordance with the Douglas County Drainage Criteria Manual (DCDCM) as well as the Mile-High Flood District Urban Storm Drainage Criteria Manual (USDCM).

Hydrologic Criteria

The rational method was used to determine peak runoff rates from the site. One-Hour rainfall of 1.11 and 2.32 inches, for Parker – The Pinery Country Club, have been utilized for the 5-year and 100-year respectfully for runoff calculations. Soil types were derived using the National Resources Conservation Service (NRCS) Web Soil Survey and found to include a mix of type B and C soils; however, the majority of the site is type B soils. The Rational Method Calculations for this development are included in Appendix D.

STORMWATER MANAGEMENT FACILITY DESIGN

General Concept

The proposed drainage plan for this project was developed to maintain flow patterns similar to historic flows. Flows from the developed portion of the site will be collected and conveyed through proposed storm sewer infrastructure and routed to an existing detention facility, known as Pond A, located within the Cielo subdivision located just east of the Bloom subdivision. Existing Pond A outfalls to the existing natural drainage way south of Scott Avenue. Details are included in the following section.

Specific Details

The land will be developed with urban infrastructure typical for Colorado including streets with curb and gutter, grass-lined swales, inlets and storm sewers and detention pond. In accordance with the approved final drainage report for the Cielo Subdivision, the existing detention pond is designed to provide full spectrum extended detention to provide water quality and flood attenuation for the development goal of zero negative impacts downstream.

Stormwater Conveyance Facilities

Within the road network, stormwater runoff from the developed site will be conveyed overland via surface flow within streets to proposed storm sewer inlets. At sump locations, inlets will be sized to collect 100-year flows. Runoff entering the inlets will be conveyed through the proposed storm sewer system to the detention Pond.

Stormwater Storage Facilities

Detention/Existing Water Quality Pond A

The Bloom Development is tributary to existing Pond A, which will provide full spectrum detention and water quality treatment before being discharged to the existing drainage way south of Scott Avenue. Pond A was designed to handle the developed flows within the development.

According to the approved final drainage report for the Cielo Subdivision, it was anticipated that the future Sagewood Development, now known as the Bloom subdivision, would have a composite imperviousness of 20% with approximately 92.34 acres that would be tributary to Pond A with the Cielo Subdivision. Per Atwell's drainage evaluation of the actual area tributary to the existing Pond A within this proposed 81 acre Bloom Development, our estimated composite imperviousness is 17.5% with approximately 74.86 acres of tributary area. Based on actual anticipated conditions for the Bloom Development with less tributary acreage and lower composite imperviousness, we are estimating a lower drainage contribution to Pond A, and thus, the drainage design will be in compliance with the approved design conditions of Pond A.

CONCLUSIONS

Compliance with Standards

This Phase II Drainage Report for the proposed Bloom Subdivision presents the drainage analysis and the proposed improvements for the development using the criteria and standards of the Douglas County Storm Drainage Design Manual criteria and the MHFD Urban Storm Drainage Criteria Manual and is in full compliance

with CRS37-92-602(8) for storm water storage facilities within the State of Colorado with zero expected negative downstream impacts on adjacent property and drainage facilities.

REFERENCES

1. *Urban Storm Drainage Criteria Manual*; Mile High Flood District, Latest Edition.

2. *Douglas County Drainage and Technical Criteria Manual,* Latest Edition.

3. Flood Insurance Rate Map; Federal Emergency Management Agency, December 2006.

4. Phase III Final Drainage Report, Cielo Subdivision, Atwell, LLC; December 2018.

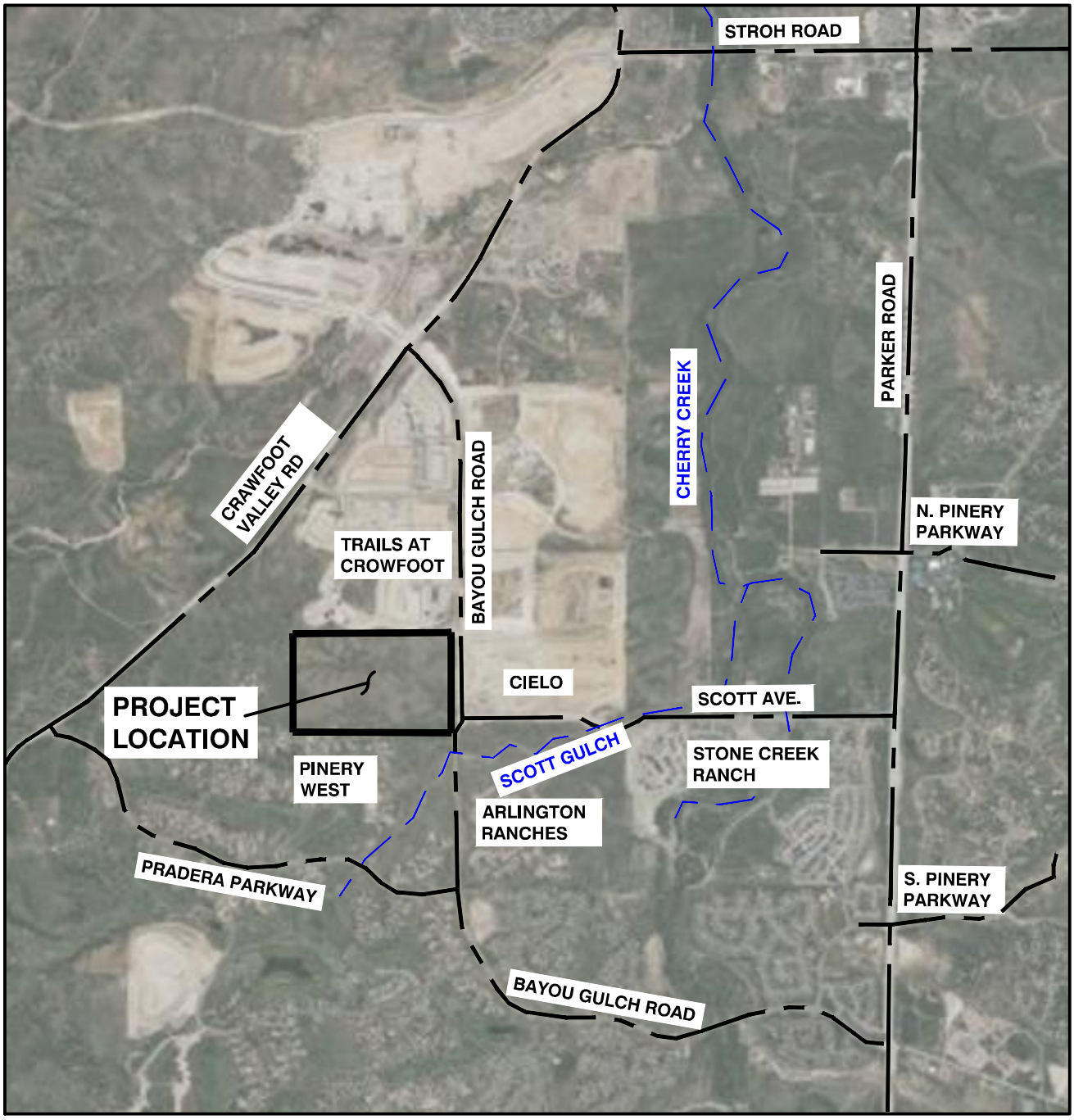
APPENDIX A

VICINITY MAP

BLOOM SUBDIVISION

VICINITY MAP

SHEET 01 OF 01



PROJECT NO.: 22003148
DATE: 06/27/2022

SCALE: 1"=2500'

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

APPENDIX B

SOILS SURVEY

United States Department of Agriculture

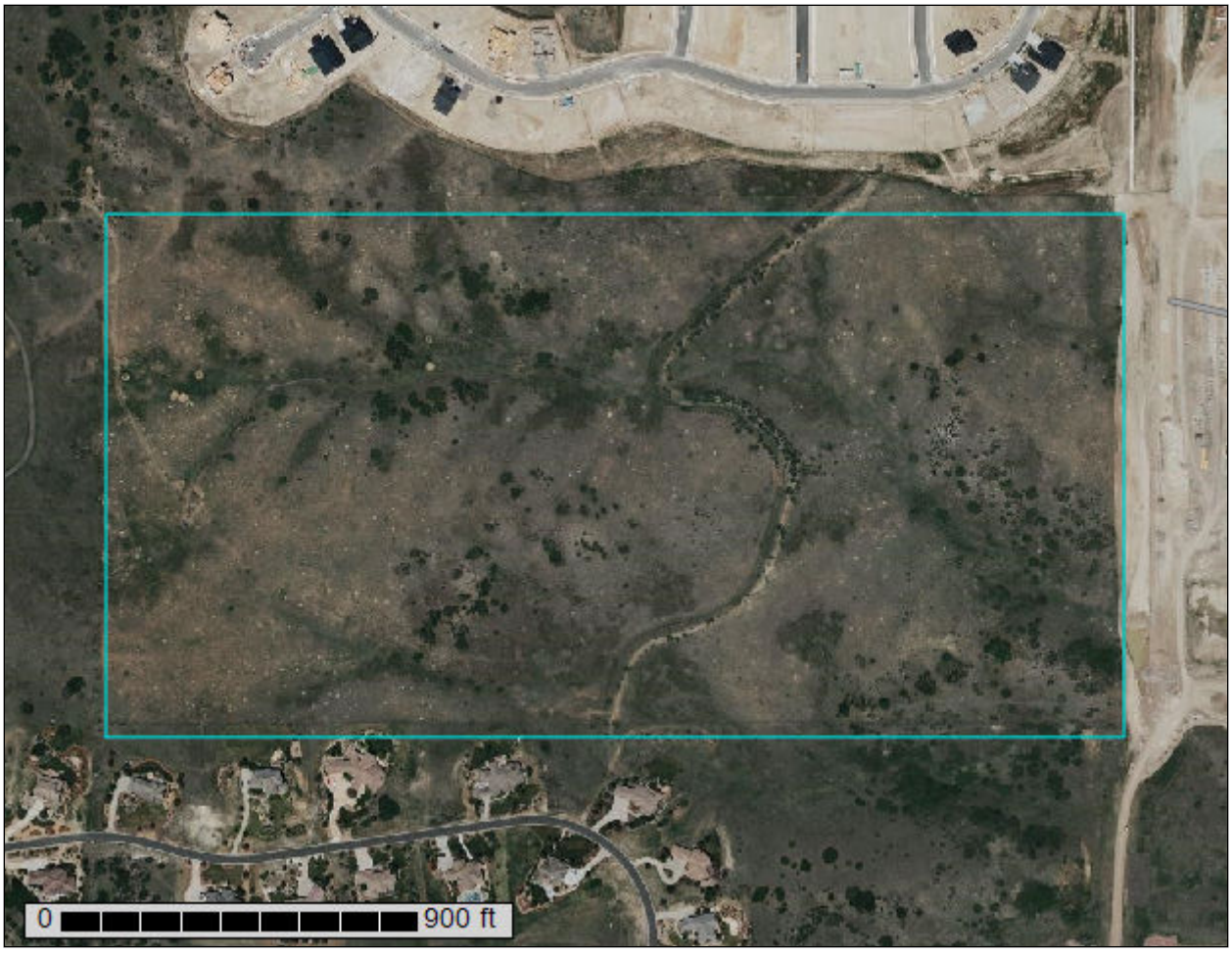
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Castle Rock Area, Colorado

Bloom



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.


104° 47' 40" W
104° 47' 0" W
517700
517800
517900
518000
518100
518200
518300
518400
518500
518600
39° 27' 14" N
39° 26' 54" N
4367100
4367000
4366900
4366800
4366700
4366600
B
NeE
Fu
C
B
NeE
Fu
C
NeE
B
Soil Map may not be valid at this scale.
Map Scale: 1:4,300 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 14, Aug 31, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Fu	Fondis-Kutch association	31.6	~ 40% C 40.7%
NeE	Newlin gravelly sandy loam, 8 to 30 percent slopes	46.0	~ 60% B 59.3%
Totals for Area of Interest		**77.6**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Castle Rock Area, Colorado

Fu—Fondis-Kutch association

Map Unit Setting

National map unit symbol: jqyq
Elevation: 5,500 to 6,800 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 47 to 50 degrees F
Frost-free period: 120 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Fondis and similar soils: 50 percent
Kutch and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fondis

Setting

Landform: Valley sides, draws
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits over coarse-silty outwash derived from arkose

Typical profile

H1 - 0 to 7 inches: loam
H2 - 7 to 24 inches: clay
H3 - 24 to 60 inches: sandy clay loam

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R049XB208CO - Clayey Foothill
Hydric soil rating: No

Description of Kutch

Setting

Down-slope shape: Linear

Across-slope shape: Linear
Parent material: Fine-textured residuum weathered from calcareous shale

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 32 inches: clay
H3 - 32 to 36 inches: weathered bedrock

Properties and qualities

Slope: 5 to 40 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 5.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Ecological site: R049XB208CO - Clayey Foothill
Hydric soil rating: No

Minor Components

Bresser

Percent of map unit: 5 percent
Hydric soil rating: No

Newlin

Percent of map unit: 5 percent
Hydric soil rating: No

Hilly gravelly land

Percent of map unit: 4 percent
Hydric soil rating: No

Aquic haplustolls

Percent of map unit: 1 percent
Landform: Swales
Hydric soil rating: Yes

NeE—Newlin gravelly sandy loam, 8 to 30 percent slopes

Map Unit Setting

National map unit symbol: jqzg
Elevation: 5,500 to 6,600 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 49 to 51 degrees F
Frost-free period: 120 to 135 days
Farmland classification: Not prime farmland

Map Unit Composition

Newlin and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Newlin

Setting

Landform: Terraces, mesas, plateaus
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Unconformable sandy and gravelly and/or mixed source alluvium

Typical profile

H1 - 0 to 8 inches: gravelly sandy loam
H2 - 8 to 17 inches: gravelly sandy clay loam
H3 - 17 to 22 inches: gravelly sandy loam
H4 - 22 to 60 inches: very gravelly sand

Properties and qualities

Slope: 8 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R049XY214CO - Gravelly Foothill
Hydric soil rating: No

Minor Components

Bresser

Percent of map unit: 5 percent
Hydric soil rating: No

Satanta

Percent of map unit: 4 percent
Hydric soil rating: No

Stapleton

Percent of map unit: 4 percent
Hydric soil rating: No

Aquic haplustolls

Percent of map unit: 2 percent
Landform: Swales
Hydric soil rating: Yes

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

APPENDIX C

FIRMette Map

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables shown on this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Floodway Data table shown on this FIRM.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided by the Douglas County GIS Department and the Town of Castle Rock GIS Department. Additional input was provided by the City of Lone Tree and Town of Parker. These data are current as of 2010.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

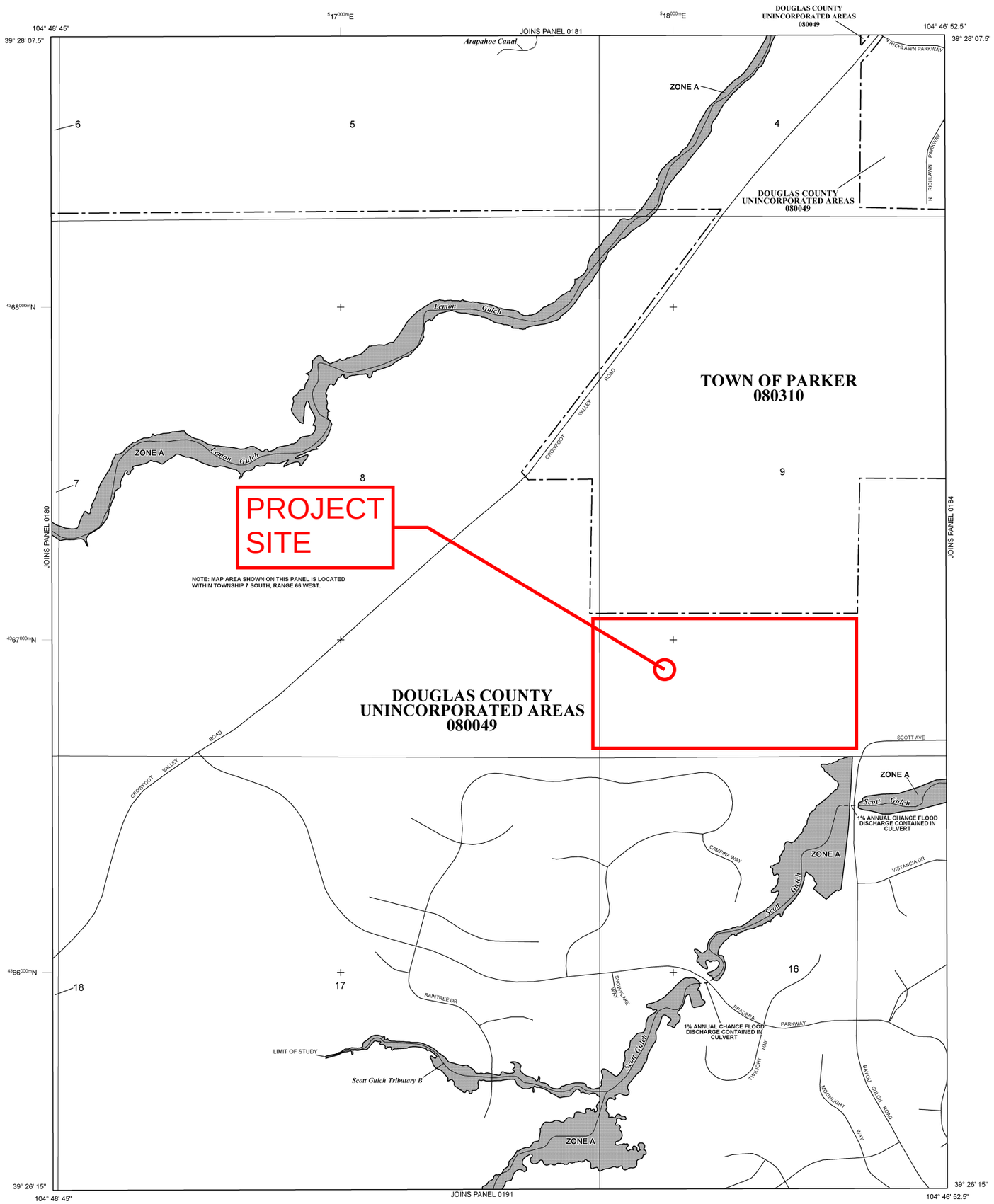
Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map,** how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

	1% Annual Chance Floodplain Boundary
	0.2% Annual Chance Floodplain Boundary
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
513	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

A A	Cross section line
23 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
$^{4}89^{000m}$N	1000-meter Universal Transverse Mercator grid values, zone 13
DX5510 ×	Bench mark (see explanation in Notes to Users section of this FIRM panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

SEPTEMBER 30, 2005

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

MARCH 16, 2016: to update corporate limits, to change base flood elevations, to add base flood elevations, to add special flood hazard areas, to update map format, to add roads and road names, to reflect updated topographic information, to incorporate previously issued letters of map revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0183G

FIRM

FLOOD INSURANCE RATE MAP

DOUGLAS COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 183 OF 495
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DOUGLAS COUNTY	080049	0183	G
PARKER, TOWN OF	080310	0183	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08035C0183G
MAP REVISED
MARCH 16, 2016

Federal Emergency Management Agency

APPENDIX D

HYDROLOGICAL CALCULATIONS

Calculation of Peak Runoff using Rational Method

Designer: KDB
Company: Atwell, LLC
Date: 7/7/2022
Project: Bloom
Location: Parker, CO

Version 2.00 released May 2017

Cells of this color are for required user-input
Cells of this color are for optional override values
Cells of this color are for calculated results based on overrides

$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_i^{0.33}}$ Computed $t_c = t_i + t_t$

$t_t = \frac{L_t}{60(14i + 9)}$ Regional $t_c = (26 - 17i) + \frac{L_t}{60(14i + 9)}$

$t_{minimum}$ = 5 (urban)
$t_{minimum}$ = 10 (non-urban)

Selected $t_c = \max\{t_{minimum}, \min(\text{Computed } t_c, \text{Regional } t_c)\}$

Select UDFCD location for NOAA Atlas 14 Rainfall Depths from the pulldown list OR enter your own depths obtained from the NOAA website (click this link)

	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
1-hour rainfall depth, P1 (in) =	0.83	1.11	1.36	1.72	2.01	2.32	3.10
	a	b	c				
Rainfall Intensity Equation Coefficients =	28.50	10.00	0.786				

$I(in/hr) = \frac{a * P_1}{(b + t_c)^c}$

$Q(cfs) = CIA$

Subcatchment Name	Area (ac)	NRCS Hydrologic Soil Group	Percent Imperviousness	Runoff Coefficient, C							Overland (Initial) Flow Time			Channelized (Travel) Flow Time					Time of Concentration			Rainfall Intensity, I (in/hr)							Peak Flow, Q (cfs)						
				2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	Overland Flow Length L_i (ft)	Overland Flow Slope S_i (ft/ft)	Overland Flow Time t_i (min)	Channelized Flow Length L_t (ft)	Channelized Flow Slope S_t (ft/ft)	NRCS Conveyance Factor K	Channelized Flow Velocity V_t (ft/sec)	Channelized Flow Time t_t (min)	Computed t_c (min)	Regional t_c (min)	Selected t_c (min)	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
E-1	4.15	C	2.0	0.01	0.05	0.15	0.33	0.40	0.49	0.59	300.00	0.062	17.96	235.00	0.042	5	1.02	3.82	21.78	27.72	21.78	1.56	2.09	2.56	3.23	3.78	4.36	5.83	0.07	0.44	1.56	4.43	6.32	8.91	14.37
E-2	9.17	C	2.0	0.01	0.05	0.15	0.33	0.40	0.49	0.59	300.00	0.053	18.91	1600.00	0.048	5	1.10	24.34	43.26	38.78	38.78	1.12	1.49	1.83	2.31	2.70	3.11	4.16	0.11	0.70	2.46	6.99	9.97	14.06	22.68
E-3	33.70	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	300.00	0.570	8.96	2360.00	0.500	5	3.54	11.13	20.08	31.65	20.08	1.63	2.18	2.67	3.38	3.95	4.55	6.08	0.47	0.89	6.58	29.76	45.09	66.80	111.41
E-4	0.68	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	160.00	0.087	12.17	10.00	0.087	5	1.47	0.11	12.28	25.72	12.28	2.07	2.76	3.38	4.27	5.00	5.77	7.70	0.01	0.02	0.17	0.76	1.15	1.71	2.85
E-5	11.95	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	300.00	0.028	24.22	2020.00	0.050	5	1.12	30.11	54.33	41.88	41.88	1.06	1.42	1.74	2.20	2.57	2.97	3.96	0.11	0.21	1.52	6.88	10.42	15.43	25.74
E-6	19.03	B	2.0	0.01	0.01	0.07	0.26	0.34	0.44	0.54	300.00	0.062	18.63	1900.00	0.053	5	1.15	27.51	46.14	40.48	40.48	1.09	1.45	1.78	2.25	2.63	3.03	4.05	0.18	0.34	2.47	11.19	16.95	25.11	41.88

Calculation of Peak Runoff using Rational Method

Designer: KDB
Company: Atwell, LLC
Date: 7/7/2022
Project: Bloom
Location: Parker, CO

Version 2.00 released May 2017

Cells of this color are for required user-input
Cells of this color are for optional override values
Cells of this color are for calculated results based on overrides

$t_i = \frac{0.395(1.1 - C_5)\sqrt{L_i}}{S_i^{0.33}}$ Computed $t_c = t_i + t_t$

$t_t = \begin{cases} \text{Regional } t_c = (26 - 17i) + \frac{L_t}{60(14i + 9)} \\ \text{Selected } t_c = \max\{t_{minimum}, \min(\text{Computed } t_c, \text{Regional } t_c)\} \end{cases}$

$t_{minimum} = 5$ (urban)
$t_{minimum} = 10$ (non-urban)

Select UDFCD location for NOAA Atlas 14 Rainfall Depths from the pulldown list OR enter your own depths obtained from the NOAA website (click this link)

	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
1-hour rainfall depth, P1 (in) =	0.83	1.11	1.36	1.72	2.01	2.32	3.10
	a	b	c				
Rainfall Intensity Equation Coefficients =	28.50	10.00	0.786				

$I(in/hr) = \frac{a * P_1}{(b + t_c)^c}$

$Q(cfs) = CIA$

Subcatchment Name	Area (ac)	NRCS Hydrologic Soil Group	Percent Imperviousness	Runoff Coefficient, C							Overland (Initial) Flow Time			Channelized (Travel) Flow Time					Time of Concentration			Rainfall Intensity, I (in/hr)							Peak Flow, Q (cfs)						
				2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	Overland Flow Length L_i (ft)	Overland Flow Slope S_i (ft/ft)	Overland Flow Time t_i (min)	Channelized Flow Length L_t (ft)	Channelized Flow Slope S_t (ft/ft)	NRCS Conveyance Factor K	Channelized Flow Velocity V_t (ft/sec)	Channelized Flow Time t_t (min)	Computed t_c (min)	Regional t_c (min)	Selected t_c (min)	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr	500-yr
A-1	1.62	C	10.0	0.06	0.12	0.21	0.38	0.44	0.52	0.62	300.00	0.072	16.03	140.00	0.042	20	4.10	0.57	16.60	25.39	16.60	1.80	2.40	2.94	3.72	4.35	5.02	6.70	0.18	0.45	0.98	2.26	3.11	4.27	6.73
A-2	6.72	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	300.00	0.093	14.85	595.00	0.050	20	4.47	2.22	17.07	27.45	17.07	1.77	2.37	2.90	3.67	4.29	4.95	6.61	1.08	1.73	3.47	8.46	11.85	16.47	26.24
A-3	7.03	C	15.0	0.10	0.16	0.24	0.40	0.47	0.55	0.64	300.00	0.114	13.21	670.00	0.055	20	4.69	2.38	15.59	27.74	15.59	1.85	2.47	3.03	3.83	4.48	5.17	6.91	1.29	2.73	5.16	10.86	14.71	19.82	30.85
A-4	3.41	C	15.0	0.10	0.16	0.24	0.40	0.47	0.55	0.64	190.00	0.087	11.49	200.00	0.033	20	3.63	0.92	12.41	25.10	12.41	2.06	2.75	3.36	4.26	4.97	5.74	7.67	0.70	1.47	2.78	5.85	7.92	10.68	16.62
A-5	1.41	C	35.0	0.26	0.32	0.39	0.52	0.57	0.63	0.70	300.00	0.052	14.15	620.00	0.027	20	3.29	3.14	17.30	24.57	17.30	1.76	2.35	2.88	3.64	4.26	4.92	6.57	0.64	1.06	1.58	2.64	3.39	4.33	6.45
A-6	0.67	C	40.0	0.30	0.36	0.43	0.54	0.59	0.65	0.71	25.00	0.036	4.37	600.00	0.028	20	3.35	2.99	7.36	23.29	7.36	2.52	3.36	4.11	5.20	6.08	7.02	9.37	0.50	0.81	1.18	1.90	2.41	3.05	4.49
A-7	5.10	C	15.0	0.10	0.16	0.24	0.40	0.47	0.55	0.64	300.00	0.064	15.98	290.00	0.045	7	1.48	3.25	19.23	25.50	19.23	1.67	2.23	2.73	3.45	4.04	4.66	6.22	0.85	1.79	3.37	7.10	9.62	12.96	20.17
A-8	4.26	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	300.00	0.042	19.30	420.00	0.050	20	4.47	1.57	20.87	26.27	20.87	1.60	2.13	2.62	3.31	3.87	4.46	5.96	0.62	0.99	1.99	4.84	6.79	9.43	15.02
A-9	4.32	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	300.00	0.020	24.66	700.00	0.050	20	4.47	2.61	27.27	28.15	27.27	1.38	1.84	2.26	2.85	3.33	3.85	5.14	0.54	0.87	1.74	4.23	5.93	8.25	13.13
A-10	5.20	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	300.00	0.113	13.93	870.00	0.055	20	4.69	3.09	17.02	29.02	17.02	1.78	2.37	2.90	3.67	4.29	4.96	6.62	0.84	1.34	2.69	6.56	9.20	12.79	20.36
A-11	6.97	C	15.0	0.10	0.16	0.24	0.40	0.47	0.55	0.64	300.00	0.113	13.24	660.00	0.061	20	4.94	2.23	15.47	27.46	15.47	1.86	2.48	3.04	3.85	4.50	5.19	6.94	1.29	2.72	5.14	10.81	14.64	19.74	30.72
A-12	2.25	B	20.0	0.13	0.15	0.22	0.37	0.44	0.52	0.61	70.00	0.020	11.43	775.00	0.045	20	4.24	3.04	14.48	27.76	14.48	1.92	2.56	3.14	3.97	4.64	5.36	7.16	0.55	0.86	1.54	3.35	4.59	6.26	9.82
A-13	5.60	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	300.00	0.103	14.36	295.00	0.057	20	4.77	1.03	15.39	25.31	15.39	1.87	2.49	3.05	3.86	4.51	5.20	6.95	0.95	1.52	3.04	7.41	10.39	14.44	23.00
A-14	1.33	B	20.0	0.13	0.15	0.22	0.37	0.44	0.52	0.61	75.00	0.020	11.83	790.00	0.060	20	4.90	2.69	14.52	27.16	14.52	1.92	2.56	3.13	3.96	4.63	5.35	7.15	0.32	0.51	0.91	1.98	2.71	3.69	5.79
A-15	1.13	B	20.0	0.13	0.15	0.22	0.37	0.44	0.52	0.61	70.00	0.020	11.43	715.00	0.060	20	4.90	2.43	13.86	26.72	13.86	1.96	2.61	3.20	4.05	4.73	5.46	7.30	0.28	0.44	0.79	1.72	2.36	3.21	5.04
A-16	1.32	B	20.0	0.13	0.15	0.22	0.37	0.44	0.52	0.61	70.00	0.200	5.35	335.00	0.056	20	4.73	1.18	6.53	24.60	10.00	2.25	3.00	3.68	4.65	5.44	6.28	8.39	0.38	0.59	1.06	2.31	3.17	4.32	6.77
A-17	0.96	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	70.00	0.020	11.91	850.00	0.060	20	4.90	2.89	14.80	28.66	14.80	1.90	2.54	3.11	3.93	4.59	5.30	7.08	0.17	0.26	0.53	1.29	1.81	2.52	4.02
A-18	4.25	C	15.0	0.10	0.16	0.24	0.40	0.47	0.55	0.64	65.00	0.020	10.92	720.00	0.060	20	4.90	2.45	13.37	27.86	13.37	1.99	2.66	3.26	4.12	4.81	5.55	7.42	0.84	1.78	3.35	7.06	9.56	12.88	20.05
A-19	1.23	B	15.0	0.09	0.11	0.18	0.34	0.41	0.50	0.59	80.00	0.020	12.73	480.00	0.061	20	4.94	1.62	14.35	26.37	14.35	1.93	2.57	3.15	3.99	4.66	5.38	7.18	0.21	0.34	0.69	1.68	2.35	3.27	5.21
A-20	10.06	B	10.0	0.06	0.07	0.14	0.31	0.38	0.47	0.57	300.00	0.060	17.83	920.00	0.080	7	1.98	7.74	25.58	29.51	25.58	1.43	1.91	2.34	2.96	3.46	3.99	5.33	0.82	1.34	3.24	9.29	13.36	18.98	30.73
OS-1	3.70	B	10.0	0.06	0.07	0.14	0.31	0.38	0.47	0.57	300.00	0.080	16.22	10.00	0.080	7	1.98	0.08	16.30	24.36	16.30	1.81	2.42	2.97	3.75	4.38	5.06	6.76	0.38	0.63	1.51	4.33	6.23	8.86	14.34

APPENDIX E

REFERENCE MATERIALS

Phase III Drainage Report

for

Cielo Subdivision

Prepared for

Owner / Developer:

Arlington Land Partners, LLC
6700 E. Scott Avenue
Parker, CO 80134
(310) 460-6324
Contact: Mike Sanders

Submitted by: Atwell, LLC

Project Number 16000498

May 2016
Revised February 2018
Revised July 2018
Revised January 2018

This report amendment and plan amendment for the Phase III drainage design of Cielo Subdivision was prepared by me (or under my direct supervision) in accordance with the provisions of Douglas County Drainage Design and Technical Criteria for the owners thereof. I understand that Douglas County does not and will not assume liability for drainage facilities designed by others.

SIGNATURE: _____ 01/15/2019

Registered Professional Engineer State
Of Colorado No. 32615
(Affix Seal)

COLORADO REGISTERED
JEFFREY J. FRENCH
32615
PROFESSIONAL ENGINEER

Arlington Land Partners, LLC hereby certifies that the drainage facilities of Cielo Subdivision 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 drainage facilities designed and/or certified by my engineer and that Douglas County reviews drainage plans pursuant to Colorado Revised Statutes, Title 30, Article 28; but cannot, on behalf of Cielo Subdivision guarantee that final drainage design review will absolve Arlington Land Partners, 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.

Michael Sanders
Name of Developer

Authorized Signature

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Drainage Plan and Historic Drainage Plan — Back Pocket

I. INTRODUCTION

This Phase III Drainage Study has been completed for Arlington Land Partners, LLC in order to present an effective storm water management plan for the proposed Cielo Subdivision Filing No. 1. Included within this report is an overall drainage plan for the site along with reference information for drainage basins and storm water conveyance facilities.

II. GENERAL LOCATION AND DESCRIPTION

A. The Cielo site is generally located at the northeast corner of the intersection of Scott Avenue and Bayou Gulch Road south of Parker, Colorado. More specifically, the site is located in the Southeast Quarter of Section 9, Township 7 South, Range 66 west of the Sixth Principal Meridian, County of Douglas, State of Colorado. The Cielo site consists of approximately 151.08 acres of agricultural land and is entirely within unincorporated Douglas County. A site vicinity map is included in the appendix.

The site is bounded by Scott Avenue and the Vistancia community/open space to the south, the Hess Ranch Property annexed into the Town of Parker to the North, the Hungry Horse Open Space owned by Douglas County to the east and the proposed Sagewood Development zoned low density residential to the west. The Pradera Community is just southwest of the site and the proposed Stone Creek Ranch development is to the southeast. The overall area consists of 151.08 acres that is proposed be developed into approximately 343 single family residential lots (2.2 du/ac), a K-8 school site, open space, parks and associated roadways.

B. The site is currently undeveloped land. The ground is covered with native grasses and brush with pockets of small trees. The topography is gently rolling terrain with a majority of the slopes under 10%. There are three to four pockets of steeper terrain on the south portion of the property at the edge of Scott Gulch. The site's only body of water is Scott Gulch that runs in the Southeast corner of the site. Existing drainageways follow the existing terrain and drain towards Scott Gulch to the south and Cherry Creek to the east. The historic Arapahoe Canal is on the western edge of the site but it is no longer in use. There are existing stock ponds located in the southwest corner of the site. The ponds are no longer in use and are not used for water storage.

Five distinct soils are identified on-site and in the tributary areas: 1) Fondis Clay Loam (Type C); 2) Fondis Kutch Association (Type C); 3) Newlin Gravelly SandyLoam (Type B); 4) Sampson Loam (Type B); 5) Sandy alluvial land (Type A). Generally, the Type C hydrologic group soils exist in the higher elevations of the site in the north west corner and center of the site. The Type A soils exist only within the Scott Gulch drainageway. Off-site tributary areas are a mix of Type B and C soils. Since there will be extensive grading activities and significant transport of soil from the high areas of the site to lower areas, Type C soils are conservatively assumed for the entire developed condition drainage design.

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map, the majority of the site lies within Zone X. The Southeast corner of the site lies within

Zone A. Zone X is designated as "Areas determined to be outside the 500-year flood plain." Zone A is designated as the 100-year flood plain or "Areas with a 1% annual chance of flooding" where no base flood elevations are provided. Mandatory flood insurance purchase requirements and floodplain management standards apply. A portion of the FEMA map, Community Panel No. 08035C0183F & 08035C0184F (Reference 2).

On the western edge of the site, a part of the historic Arapahoe Canal remains. In 1889, the Denver Water Storage Company built a Dam in Castlewood Canyon. The overflow for the Dam was handled by a ditch called the Arapahoe Canal. In 1933, the dam collapsed and caused a flood destroying property and livestock as far north as Denver. The remnants of the dam and the canal are visible along the western slopes of the Cherry Creek. This debris has been discernible and is known by the surrounding communities for many years and will have no adverse impact on the Cielo development.

Preliminary subsurface investigations were previously conducted by Colorado Geoscience and Design, Inc. The scope of the study was to perform field and laboratory investigations to identify general subsurface conditions across the site for the purpose of developing typical foundation and geotechnical engineering related recommendations for the design and construction of the previously submitted development. A new report was prepared by CTL Thompson based on the project final site plan and is more comprehensive and specific to the new lot locations (Reference 8).

The subsurface conditions encountered varied across the site. The soils consist of non-expansive to highly expansive slightly sandy to sandy very stiff clay. Clayey sand underlain by clayey sandstone or sandstone/claystone was also encountered within the site. These soil conditions are typical throughout Douglas County and standard mitigation procedures such as over excavation and the installation of underdrain systems can be used to address the swelling potential (Reference 9).

III. DRAINAGE BASINS AND SUB-BASINS

A. Major Basins are described as follows, including historic basins, developed condition basins, and off-site basins:

Historic Basin H1 is defined by the 55.6 acres of undeveloped land in the southwest half of the site. The historic drainage pattern is overland sheet flow in the direction of northwest to southeast towards the Scott Gulch with slopes ranging from 2% to 25%. Existing swales conveys flows across the basis and crosses the existing Scott Avenue (gravel road) via culverts to the Scott Gulch.

Historic Basin H2 is defined by the 42.2 acres of undeveloped land in the Northwest half of the site. The historic drainage pattern is overland sheet flow in the direction of Southwest to Northeast towards the Cherry Creek with slopes ranging from 1% to 15%. Existing swales conveys flows to the north property line.

Historic Basin H3 is defined by the 46.9 acres of undeveloped land in the Northeast half of the site. The historic drainage pattern is overland sheet flow in the direction of Southwest to Northeast towards the Cherry Creek with slopes ranging from 1% to 15%. Existing swales conveys flows to the north and east property line.

Historic Basin H4 is defined by the 13.8 acres of undeveloped land in part of the East half of the site. The historic drainage pattern is overland sheet flow in the direction of West to East towards the Cherry Creek with slopes ranging from 1% to 15%.

Offsite Basin OS-1 is defined by 101.8 acres of open space (Vistancia Open Space) and single family residential development (Vistancia Subdivision) south of the site. Runoff from the basin flows northeast towards the Scott Gulch (Reference 4). The basin will not affect the Cielo site but will factor into the CLOMR for the Scott Gulch. Flows for this basin are taken directly from the Scott Gulch OSP (Reference 4).

Offsite Basin OS-2 is defined by 24.1 acres of undeveloped land space partly within the Hess Ranch Property north of the site. Runoff from the basin flows northeast towards the Cherry Creek. The basin is downstream of the proposed site and will not factor into any proposed drainage design.

Offsite Basin OS-3 is defined by 41.9 acres of open space (Hungry Horse Open Space) east of the site. Runoff from the basin flows northeast towards the Cherry Creek. The basin is downstream of the propose site and will not factor into any proposed drainage design.

Offsite Basin OS-4 is defined by 34.6 acres of open space (Hungry Horse Open Space) east of the site. Runoff from the basin flows east towards Scott Gulch before its confluence with Cherry Creek. The basin is downstream of the proposed site and will not factor into any proposed drainage design.

Offsite Basin OS-5 is defined by the 10.6 acres of open space to the west of the site. Runoff from the basin flows west toward the proposed Cielo site. The basin generates a 100 year flow rate of 30.8 cfs which will collect in low point near the northwest corner of the site that will form when Bayou Gulch Road is constructed. The runoff conceptually conveyed in an open swale around along the north property line to its existing flow path.

Offsite Basins OS-6 and OS-7 are defined by the 92 acres of open space to the west of the site. Runoff from the basin flows west toward the proposed Cielo site. Under historic conditions, the basins generate a 100-year flow of 210 cfs.

Offsite Basin OS-8 is defined by 305.8 acres of single family residential development (Pradera Subdivision) southwest of the site. Runoff from the basin flows east towards the existing Pradera Regional Detention Facility (Reference 5). The pond outlets to the west into the Scott Gulch and will factor into the CLOMR for the Scott Gulch. Flows for this basin are taken directly from the Scott Gulch OSP (Reference 5).

The Scott Gulch major drainageway crosses the southeast corner of the property. Scott Gulch has an upstream tributary area of approximately 4 square miles and conveys 100-year flows of 2580 cfs, at the Scott Avenue culvert crossing (Reference 5). The existing channel bottom varies from 15 to 30 feet wide with a sandy surface and moderate side slopes south of Scott Gulch and east of the Cielo property. Within the Cielo property, Scott Gulch follows a course that contains multiple short-radius bends and highly eroded side-slopes of up to 1:1. The average channel grade through this segment is approximately 1.6%.

For the proposed developed condition, the site divided in to 6 major basin areas as follows:

The proposed Basin A consists of the westernmost areas of residential lots, tributary to the proposed Detention Pond A located in the southwest corner of the project site. Pond A also receives storm water run-on from the 92 acres of offsite area from the proposed Sagewood Development and runoff from Bayou Gulch Road. The offsite tributary areas are designated as basins O61-O63 and O71-O73, which coincide with the historic basins OS-6 and OS-7. These areas will be mostly lower density residential and have an overall developed imperviousness of 15.5%. Basin A will consist of 20.6 acres of single-family residential development dwelling units per acre. Overall composite imperviousness of Basin A is 44.6%. Overall composite imperviousness of Basins A + O61-O73 is 20.8% requiring about 6.2 acre-ft of storage for 100-year detention. Basin A generally follows the same drainage patterns as historic basin H1 and outfalls to Scott Gulch adjacent to the development site.

The proposed Basin B is generally the southeast area of the site and is tributary to the proposed detention pond B located in the southeast corner of the site. Basin B will consist of 34.4 acres of single-family residential development. Overall composite imperviousness of Basin B is 48.7%, requiring about 3.23 acre-ft of storage for 100-year detention. Basin B generally follows the same drainage patterns as historic basin H1 and outfalls to Scott Gulch adjacent to the development site.

The proposed Basin C primarily covers the future school parcel in the northwest corner of the site and is tributary to the proposed detention pond C located in the existing natural swale at north edge of the site. The on-site portion of Basin C consists of 28.91 acres of land proposed for a future school and adjacent roads with minor overland runoff from residential lots. Overall composite imperviousness of Basin C will be 58.5% under fully developed conditions. The undeveloped land, approximately 10.6 acres, to the west of Bayou Gulch Road (Historic sub-basin OS-5/Proposed sub-basin O-51 as described below) will be routed through Pond C at historic flow rates and additional storage will only be provided for the WQCV for this additional area. Approximately 3.0 acre-feet of storage will be required for on-site 100-year detention plus an additional 0.1 acre-feet for the WQCV from the off-site area. Basin C generally follows the same drainage patterns as historic basin H2 and Pond C will outfall to the natural swale in OS-2 which drains through the future Hess Ranch development and the Hungry Horse open space to Cherry Creek.

The proposed Basin D generally covers the northeast corner of the site, but will also include the park and well sites in the west-central area of the site. Basin D will consist of 36.9 acres of single-family residential development. Overall composite imperviousness of Basin

D will be 40.4%, requiring about 3.05 acre-ft of volume for 100-year detention in Pond D. Basin D generally follows the same drainage patterns as historic basin H3 and will outfall to the natural swale in OS-3 which drains through the Hungry Horse Open Space to Cherry Creek.

The proposed Basin E is generally the south-central areas of the site and is tributary to the proposed detention pond E located in the south-central area of the site, just east of proposed Estancia Boulevard. Basin E will generally consist of 24.3 acres of single-family residential development. Overall composite imperviousness of Basin E is 49.2%, requiring 2.3 acre-ft of storage for 100-year detention. Basin E generally follows the same drainage patterns as historic basin H1 to Scott Gulch adjacent to the development site.

Areas designated as Basins F include perimeter areas of the site which cannot be captured and directed to on-site detention ponds. Due to attenuation of flows in the detention ponds on-site, the flows from Basin F areas that leave the site will not cause receiving drainages to exceed historic flows.

Areas designated as Basin G include drainage from Scott Avenue in the vicinity of the Scott Gulch box culvert crossing. These areas are below what can be captured by the proposed detention facilities and are collected in inlets that exclusively serve Scott Avenue.

B. Each major basin is divided into multiple sub-basins for detailed analysis and design of drainage features. Most of the on-site sub-basins include residential lots and are assigned a uniform imperviousness of 45% per USDCM Figure 6-3 (Lot size < 0.25 ac.) Sub-basins that are open space are assigned an imperviousness of 10%. Sub-basins that consist primarily of collector or arterial rights of way are assigned an imperviousness of 100%. All other imperviousness values used for sub-basins are specifically explained.

Basin A is divided into 17 sub-basins which will be served by two storm sewer systems that outfall to Pond A as follows:

- Sub -basins A1 – A3 include the east half of Milagros Drive and adjacent residential lots and streets. These basins drain to On-Grade Inlet A3 (10’ Type R), with carry-over flow continuing west to A8.1.
- Sub-basins A4-A6 include the west half of Milagros Drive, adjacent lots and streets, and the south half of Presidio Parkway. These basins drain to On-Grade Inlet A6 (10’ Type R), with carry-over flow continuing west to A8.1.
- Sub-basin A8.1 includes a portion of the north half of the east/west Loma Vista Drive loop and adjacent lots. This basin drains to On-Grade Inlet A8.1 (10’ Type R), with carry-over flow continuing west to A8.
- Sub-basins A7 and A8 include the east half of the north/south Loma Vista Drive loop and adjacent lots and streets. These basins drain to Sump Inlet A8 (10’ Type R).
- Sub-basin A9.1 includes a portion of the south half of the east/west Loma Vista Drive loop and adjacent lots. This basin drains to On-Grade Inlet A9.1 (5’ Type R), with carry-over flow continuing west to A10.

- Sub-basins A9 and A10 include the outer half of the Loma Vista Drive loop and adjacent lots. These basins drain to On-Grade Inlet A9.1 (5' Type R), with carry-over flow continuing west to Sump Inlet A10 (15' Type R). Inlets A8 and A10 act as a pair and A8 can attain 5.6" of ponding before spilling across the road crown to A10, which can attain 6" of ponding before spilling to tract C, which drains directly to Pond A.
- Sub-basin A11 includes residential lots the back up to the tract for Pond A and drains direct to the pond.
- Sub-basin A12 includes an open space tract east of Bayou Gulch Road which drains via a grass swale to Pond A.
- Sub-basin A13 includes the east half of Bayou Gulch Road north of Presidio Parkway and drains to on-grade inlet A13 (15' Type R) north of the Presidio Parkway intersection, which captures minor and major storm runoff. 15' of inlet is required for 97% major storm capture, with carryover flow continuing east to D2.
- Sub-basin A14 includes the east half of Bayou Gulch Road between Scott Avenue and Presidio Parkway. The basin drains to On-Grade Inlet 14 (15' Type R) and Sump Inlet A14.1 (10' Type R) at the low point in Bayou Gulch. The profile of Bayou Gulch Road was generally determined through a conceptual regional arterial study that was provided by Douglas County. The intersection with Scott Avenue, which has been designed to conform to the county-provided profile, limits the attainable ponding depth at the low point to 0.33 feet. On-grade inlet A14 has been provided to partially capture Basin A14 flows so that Inlet A14.1 can intercept the remaining flows within the allowable ponding depth. Overflow from Inlet A14.1 is around the curb return of Scott Avenue.
- Sub-basin A15 is the tract for Pond A.

The areas of OS-6 and OS-7 are also tributary to Pond A. For developed condition analysis, these areas are divided into sub-basins O61-O63 and O71-O73 as follows:

- Sub-basin O61includes 25 acres of the future Hess Ranch development that is west of Bayou Gulch Road and ultimately tributary to Scott Gulch. The natural flow path for O61 crosses into the Sagewood site before crossing Bayou Gulch and it is anticipated with the master plan for Hess Ranch that O61 developed peak will be detained on that property before being released at historic rates. It is anticipated that the peak 100-year release from the future pond will not exceed the historic runoff. For this reason, the area is analyzed assuming 2% imperviousness to compute the maximum expected flow.
- Sub-basin O62 coincides with Basin P-1B of the Sagewood Phase 1 drainage plan and is shown to drain to a set of inlets in a future street opposite Presidio Parkway. The Cielo storm sewer design accommodates future connections for O61 and O62 with a pipe stub from the trunk line in Bayou Gulch Road. The preliminary land plan for Sagewood shows lots sizes that are greater than 0.75 acres, so a 20% imperviousness is assigned for this area.
- Sub-basin O63 coincides with Basin P-1A of the Sagewood Phase 1 drainage plan an drains to a natural low point that will be cut off by Chamber Road grading. A flared end section will be installed to collect these flows and direct them to Pond A. This area is also assigned 20% imperviousness. In the interim condition, before Sagewood is developed, the flared end section at DP 23 will collect all of the undeveloped runoff from OS-6.

- Sub-basin O71 includes a large area that drains overland to the existing drainage path across from Pond A. This area includes multiple sub-basins with the Sagewood drainage plan and areas that are off-site to that property. The areas of O71 within Sagewood are taken at 20% imperviousness and the offsite areas are taken at 2%. O71 runoff will drain via the existing natural drainage path to the low point west of Bayou Gulch and will be intercepted by an Inlet O71 (triple type D) immediately west of Bayou Gulch Road. Due to the elevation difference between existing ground and the Bayou Gulch Road profile, a 3 foot sump will be graded to ensure the flows will be fully captured by the inlets with ample freeboard to avoid right-of –way encroachment by inlet ponding. In the interim condition, before development of the Sagewood site, the triple type D inlet with standard grate and receiving pipe will accommodate all of the existing undeveloped runoff from OS-7. Fully developed conditions, under the current Sagewood site would reduce flows to Inlet O71 since the tributary area of Basin O71 is significantly less. In this case, a close mesh grate will still enable full capture of flows with less the 1 foot of ponding if required for pedestrian safety next to the completed west half of Bayou Gulch Road.
- Sub-basin O72 includes the west half of Bayou Gulch road and adjacent cut slopes that may drain to Bayou Gulch. Flow from basin O72 will be captured by On-Grade Inlet O72.1 (15' Type R) and Sump Inlet O72.2 (10' Type R), which function similar to A14.1 and A14.2 with the ponding limitation at the low point. The west half of the road is not expected to be constructed with the Cielo development.
- Sub-basin O73 coincides with Basin P-5A of the Sagewood Phase 1 drainage plan and is shown to drain to a set of inlets in a future street opposite Scott Avenue. A 20% imperviousness is assigned to this area. The Cielo storm sewer design accommodates future connections for O73 with a pipe stub from the trunk line in Bayou Gulch Road.

Additionally, Basin O11 defines an off-site area of Bayou Gulch Road the will be captured in a proposed inlet at the southeast corner of Bayou Gulch Road and Scott Avenue immediately south of the Cielo site. Because the county's design of Bayou Gulch Road is preliminary, Basin O11 is conservatively defined as the east half of the road section to the future inlets between the pond outlet and future pond overflow. Basin O11 is within the limits of historic Basin O-1which flows direct to Scott gulch. Inlet O11 (15' Type R) will connect directly to the Pond A Outfall pipe which discharges to Scott Gulch via open swale.

Basin B is divided into 15 sub-basins which will be served by one storm sewer system that outfalls to Pond B as follows:

- Sub-basin B1 includes residential lots on Los Olivios Point and part of Estancia Boulevard. B1 drains to On-grade Inlet B1 (10' Type R) with carry-over flow continuing down Los Olivos Point into B3.
- Sub-Basins B2-B4 include lots on Los Olivios Point and La Posada Place and drain to On-grade Inlet B3 (10' Type R) and Sump Inlet B4 (15' Type R). The overflow for B4 is through Tract J to B8.
- Sub-basins B5 and B6 include the block between La Posada Place and Vista Arroyo Street and drain to On-grade Inlets B5 and B6 (Both 15' Type R). Carry-over flows continue in Vista Arroyo Street to B8.

- Sub-basins B7-B12 include the west/north half of Vista Arroyo Street, adjacent lots, and adjoining segments of La Posada Place and Tesoro Point. On-Grade Inlet B7 (10' Type R) intercepts flow from B7 with carry-over flow continuing to B8. On-Grade Inlet B8 (15' Type R) intercepts flow from B8 with carry-over flow continuing to Inlet B11. On-Grade Inlet B9 (15' Type R) intercepts flow form B9 with carry-over flow continuing to Inlet B11. On-Grade Inlet B11 (15' Type R) intercepts flow form B11 with carry-over flow continuing to Inlet B12. Sump Inlet B12 (15' Type R) intercepts direct flows from B12 and any remaining carry-over flow from B5-B10.
- Sub-basins B13 and B14 include the outer half of Vista Arroyo Street and adjacent lots and drain to Sump Inlet B14 (15' Type R) opposite Inlet B12. Inlets B12 and B14 act as a pair and B12 can attain 5.6" of ponding before spilling across the road crown to B14, which can attain 6" of ponding before spilling to tract N, which drains directly to Pond B.
- Sub-basin B15 is the tract for Pond B and immediately adjacent areas.
- Sub-basins G6 and G7 include portions of Scott Avenue that will be diverted to Pond B.

Basin C is divided into 8 sub-basins as follows:

- Basin C1 includes Tract A which is reserved as a future school site and will be developed separately from the residential areas of the Cielo Subdivision. Presently, a site plan for the school has not been developed. Storm sewer infrastructure downstream of the school, including Detention Pond C and receiving storm sewer are sized for the build-out of the school site at 55% assumed imperviousness per USDCM Table 6-3. As an interim condition, a double Type D inlet will be constructed to collect runoff from the undeveloped site. At the time when the drainage design for the school site is done, it is anticipated that Inlet C1 will serve as the tie-in point for the site's internal storm infrastructure and/or be replaced.

- Sub-basins C2 and C3 includes the east half of Bayou Gulch Road and south half of Pedregal Drive and will drain via curb and gutter to On-grade inlet C3 (10' Type R) immediately west of the Estancia Boulevard intersection. C2 flows are routed to C3 so that they can be detained in Pond C. Carry-over flow from C3 rounds the corner to sub-basin C4.
- Sub-basin C4 includes the west half of Estancia Boulevard adjacent to the future school site and receives carry-over flow from D4. C4 drains to Sump Inlet C4 (10' Type R) at the low point opposite Pond C. Inlet C4 also accepts major storm carry-over from C3 and C5 immediately to the north.
- Sub-basin C5 includes the north half of Pedregal Drive and drains to On-Grade Inlet C5 (10' Type R) opposite Inlet C3. Inlet C3 and C5 are intended to capture the majority of flows from Pedregal Drive and minimize the frequency that carry-over flows occur through the crosspan or around the return of the Pedegral Drive/Estancia Boulevard intersection, where heightened vehicle and pedestrian traffic is anticipated due to the future school site.
- Sub-basin C6 includes east half of Estancia Boulevard and drains to Sump Inlet C6 (10' Type R) at the low point next to Pond C. Pedregal Drive and Estancia Boulevard both have typical roadway sections that begin to daylight at the back of walk and limit gutter flow and inlet ponding depth to 7.2 inches for the major storm. These limitations are

reflected in the calculations. In the major storm, Inlet C4 and C6 function as an inlet pair due to crown overtopping.

- Sub-basin C7 includes the back halves of a strip of residential lots that flow directly to Pond C from the south.
- Sub-basin C8 is an open space area that contains Pond C.
- Basin O51 includes the area of the future Hess Ranch development that is tributary to Basin C. It is anticipated with the master plan for Hess Ranch that the O51 developed runoff volume will be detained on that property before being released at historic rates. It is anticipated that the peak 100-year release from the future pond will not exceed the historic runoff. For this reason, the area is analyzed assuming 2% imperviousness to compute the maximum expected flow. Flows from O51 are routed around the Cielo subdivision through a storm sewer in Bayou Gulch Road and Pedregal Drive. The detained flows will be discharged into Pond C for water quality before being released into the existing, natural drainage swale routing water through sub-basin OS-2, the historic flow path of Basins OS-5 and H2. A type D inlet is used to intercept Basin O51 flows and allows for a pipe depth that will not be prohibitive to future connection by a pond outlet structure.

Basin D is divided into 19 sub-basins as follows:

- Sub-basins D1 and D3 contain the park site north of Presidio Parkway and are assigned a 10% imperviousness. Drainage from these parcels will be overland flow to the curb/gutter of adjacent Presidio Parkway and Estancia Boulevard. Carry-over flow from sub-basins D1 and D3 continues to sub-basin D4 via overland flow.
- Sub-basin D2 and D4 include north and west halves of Presidio Parkway and Estancia Boulevard and drains to On-Grade Inlet D4 (15' Type R) after collection of overland flow from D1 and D3. Intercepted flow from D4 is directed to Pond D via storm sewer through Tract Q. Carry-over flow from D4 continues in Estancia Boulevard to sub-basin C4.
- Sub-basins D5, D6 and D8 include residential lots fronting Las Palmas, Los Conchas and Cristobal Points, respectively. Each of these basins drain to Sump Inlet D5, D6 (10' Type R) and D8 (15' Type R) which are located at the end of each cul-de-sac. Emergency overflow from these inlets is through Tract Q.
- Sub Basins D5.1, D6.1, D7.1 and D8.1 contain areas of the Tract Q open space and the rear halves of residential abutting Tract Q. The four basins drain to area inlets in the open space tract. Each of these areas contributes less than 5 cfs of flow in the major storm. Grass lining is adequate for all segment of the swale as verified with USDCM Figures 8-22 and 8-23, which are included in the report calculations for controlling swale segments.
- Sub-basin D9 is a strip of residential lots that back to open space tracts and flow directly to sub-basin D16.
- Sub-basins D10-D12 include residential lots fronting Las Rosas Drive and Santa Cruz Point and drain to Sump Inlets D11 and D12 (10' Type R). Overflow for both inlets is west into the Pond D tract.
- Sub-basins D13-D15 include residential lots fronting the east-west segment of Las Rosas Drive and drain to Sump Inlets D13 and D15 (10' Type R). Overflow for both inlets is

east into Tract S toward the Pond D outfall location. This path also serves as the emergency overflow for Pond D.

- Sub-basin D16 is an open space tract that includes Pond D.

Basin E is divided into 13 sub-basins as follows:

- Sub-basins E1-E2 include Amarosa Drive and Palmia Lane and adjacent lots. E1 and E2 drain to On-Grade Inlet E2 (15' Type R), which is intended to capture minor storm flows and most larger event flows before the cross-slope transition in Amarosa Drive diminishes gutter capacity. Un-intercepted flow from the major storm crosses Amarosa Drive to E7 after the crown transitions to cross-slope due to upward extension of the flowline warp from the Loma Vista Drive/Amarosa Drive intersection.
- Sub-basin E3 includes the east half of Amarosa Drive and drains to on-grade inlet E3 (10' Type R).
- Sub-basin E4 includes the north half of Loma Vista Drive east of the intersection with Amarosa Drive. Sub-basin E4 is captured by On-Grade Inlet E4 (10' Type R) before the cross-slope transition in Loma Vista Drive diminishes gutter capacity.
- Sub-basins E5-E7 include the Margarita Point cul-de-sac and the south half of Loma Vista Drive. On-Grade Inlet E5 (10' Type R) intercepts flow from sub-basin E5 with carry-over flow combining with sub-basins E6 and E7 before On-grade Inlet E7 (15' Type R). E7 also collects sheet flow from the Loma Vista Drive/Amarosa Drive intersection that flows southeast due to the cross-slope that results from flowline warping at that intersection to transition the relatively steep approach grades. Carry-over flow from E7 flows to E11 at Estancia Boulevard. Due to the significant elevation difference between the upper reaches of Village A and Scott Avenue, relatively steep street grades are necessary in the area of the subdivision and the drainage design is intended to accommodate the atypical warps and cross-slopes that result by maximizing capture of flows uphill of the street transitions out of standard section.
- Sub-basin E8 includes the west half of Estancia Boulevard and adjacent tract and lots and drains to on-grade Inlets E8 (10' Type R). Carry over flow from E8 continues south in Estancia Boulevard south to E11.
- Sub-basin E9 includes the east half of Estancia Boulevard and the back halves of adjacent residential lots and drains to On-grade Inlet E9 and Sump Inlet E10 (both 10' Type R). Inlet E10 only accommodates 10 feet of minor storm spread between the inlet and median so capture of minor storm flows required by On-grade inlet E9 before spread encroaches beyond acceptable limits for minor storm. Major storm ponding depth for E10 is controlled by the northeast curb return with Scott Avenue.
- Sub-basin E11 includes the west half of Estancia Boulevard and the back halves of adjacent residential lots. Direct runoff from E11 and remaining un-intercepted flows from E1-E8 are intercepted by Sump Inlet E11 (15' Type R). The minor storm capacity for E11 is aided by the left turn Bay at Scott Avenue, which allows for 17 feet of spread and 10 feet of unobstructed passage between the inlet and median. Major storm ponding depth for E11 is controlled by the southern median return.
- Sub-basin E12 includes the back halves of the residential lots adjacent to the north half of Scott Avenue between Chamber and Estancia Boulevard. E12 drains to the 18" flared end section before routing water to Pond E.
- Sub-basin E13 is the open space tract that includes Pond E.

- Sub-basin G 5 includes a portion of Scott Avenue that will be diverted to Pond E.

IV. DESIGN CRITERIA

A. The Douglas County Storm Drainage Design and Technical Criteria Manual (SDDTCM) serves as the governing document for the Cielo drainage design. Where the SDDTCM defers to Urban Drainage, the 2016 edition of the Urban Storm Drainage Criteria Manual (USDCM) is referenced.

B. The Cielo subdivision is not part of a previously prepared master drainage plan. Drainage studies for the constructed Vistancia subdivision and the under-design Stone Creek Ranch subdivision do not impact the Cielo site as they are not directly tributary or downstream of the Cielo Site.

Scott Gulch is the subject of and Outfall Systems Plan that was produced in 2004 by CH2M Hill (Reference 5). The OSP presents a drainage analysis for anticipated development within the Scott Gulch watershed and identifies alternatives to mitigate the effect of development and changes in runoff. The recommended alternative, Alternative 5, proposes a modification of the Pradera regional detention pond 2500 ft. upstream of the Scott Avenue crossing of Scott Gulch. At present, Bayou Gulch Road serves as the embankment for the Pradera regional pond. The OSP recommendation proposes raising the Bayou Gulch by 0.5 feet to provide an increase in storage. The resulting 100-year design flow for the downstream reach of Scott Gulch is 1477 cfs. The Bayou Gulch roadway improvements and associated regional detention volume modifications are currently under design. For this reason, the recommended design flow of 1477 cfs is appropriate for design of improvements to Scott Gulch and Scott Avenue. Existing and future Scott Gulch flows for relevant design storms are also taken from the OSP Study.

Additionally, the preliminary design in the OSP for the recommended alternative proposes bank protection at sharp channel bends and grade control structures in the reach of Scott Gulch that crosses through the Cielo property. However, due the proposed Scott Avenue re-alignment, culvert reconstruction and resulting modifications to the Scott Gulch Channel, a more detailed and site-specific design will be used in favor of the OSP recommendation. Relevant excerpts from the OSP have been included in the appendix.

C. The rational method is used for hydrologic calculations since all major drainage basins are smaller than 90 acres. Per Douglas County Criteria, a 5 year recurrence interval is used as the minor event storm and a 100-year recurrence interval is used as the major event storm. Rainfall Intensities for Rational Method calculations computed from Intensity-Duration curves based on Eqn 5-4 of the USDCM and the one hour point rainfalls depths for Douglas

County Zone 1 (1.43 in for 5-yr storm and 2.60 in. for 100-yr storm). The rainfall intensity values computed are consistent with the I-D curve in Figure 6-2 of the SDDTCM. Time of concentration and runoff calculations follow the SF-2 and SF-3 formats given in the SDDTCM.

All five (5) Detention Ponds are designed as full-spectrum facilities. Rainfall depths for storage calculation are taken from the Douglas County Zone 1 one-hour point rainfall depths. NOAA Atlas 14 values were used for the 25-year and 500-year rainfall depths as these storm events are not presented in the Douglas County values. Storage volumes have been computed for Water Quality Capture Volume (WQCV), Excess Urban Runoff Volume (EURV) and 100-year detention volume. Pond volumes are compliant with the UDFCD recommendation in Section 12-4 of the 2016 USDCM that additional volumes are not added to the 100-year detention volume. Hence, the UD-Detention v3.07 spreadsheet is used for volume and outlet computation without any accessory calculation or customization of the standard UD template. Outlets are designed with an orifice plate to control WQCV and EURV releases and a grated drop box with restrictor plate over the outlet pipe to control 100-year releases.

D. Hydraulic design: Curb and gutter conveyance capacities for major and minor storms are determined using the UD-Inlet v4.05 spreadsheet by UDFCD. Interception and carry-over flows for on-grade inlets are included in the spreadsheet, as required by Section 8.4.1 for final design of on-grade inlets. Capacities of inlets in sump locations based on available or allowable ponding depth per Figures 8-12 and 8-13 of the county's SDDTCM. All inlet computations use the recommended and/or default weir and orifice coefficients and clogging factors provided by UDFCD.

Storm sewers are designed to meet the minor and major storm performance criteria that are defined in section 9.8 of the Douglas County SDDTCM. Pipe slopes and manhole drops are designed to efficiently manage the significant grade differences across the site and to meet the velocity constraint of 18 feet per second, with a maximum velocity of 15 feet per second at all outfalls. Storm sewer hydraulics are analyzed using StormCAD V8i software by Bentley. Headloss computations in manholes use the standard method for bends and generic method for lateral junctions, which are consistent with USDCM equations 7-56 and 7-58, respectively. Loss coefficients used within the StormCAD software are provided by UDFCD in a technical memorandum titled 'Modeling Hydraulic and Energy Gradients in Storm Sewers: A Comparison of Computational Methods', dated October 6, 2009 (Reference 13). In all cases, the major storm hydraulic grade lines are kept at least 1 foot below grade.

Releases from detention ponds and bypass flows are directly via pipe and/or surface swales to historic drainage paths and historic or lesser flow rates. The uppermost segments of the detention pond outlet pipes are designed to flow in open channel conditions with

supercritical flow to allow proper flow control function from the restrictor plate. Pipe and swale outfalls are designed to dissipate energy and disperse flows so that flows velocities do not exceed 15 feet per second. Minor swales designs are guided by USDCM Figures 8-22 through 8-25, where appropriate. Flowmaster V8i software by Bentley is used to provide supplemental open channel and weir calculations where necessary.

The Scott Gulch drainage way design has been guided by a combination of Douglas County SDDTCM and USDCM criteria, as well as direct guidance from UDFCD in coordination meetings. The specific Scott Gulch design criteria and there relation to the drainageway design are described in detail in Section V of the report.

E. Water quality enhancement will be provided in the full-spectrum detention facilities on-site. Water Quality Capture Volume is per the USDCM calculation and WQ outlets are sized to drain the WQCV over 40 hours or more.

V. STORMWATER MANAGEMENT FACILTY DESIGN

A. The proposed on-site conveyance facilities will consist of a combination of storm pipe, swales/channels, curb/gutter, and inlets. Generally, surface conveyance (curb/gutter, street and swales) will be utilized where practicable to manage stormwater within the minor and major storm constraints set forth in Chapter 7 of the SDDTCM (Reference 1). Inlets and storm sewers will be used to intercept surface flows where necessary to keep flow depth/spread within acceptable limits for the minor and major storm or in situations where surface stormwater may cause specific hazards or nuisance. Due to the overall grading design required to cover the elevation differences across the site, there are several areas where on-grade inlet are used to intercept flow because sump conditions are impractical. Local flow patterns in each sub-basin, inlet locations, and overflow paths are included in the minor drainage basin section of the report (III.B).

Scott Gulch Drainageway.

The Scott Avenue crossing of Scott Gulch is proposed to be reconstructed with this development. At present 3 existing 72" culverts convey Scott Gulch under Scott Avenue, which is an unpaved rural road. The existing crossing does not have capacity for the 100-year flow in Scott Gulch. Between Scott Avenue and the east boundary of Cielo, Scott Gulch follows a steep, meandering segment with significant bank erosion. To upgrade to a minor collector, Scott Road will require a horizontal realignment, flattened vertical profile, and a wider crossing over Scott Gulch. The right-of way for the proposed Scott Avenue encroaches on one of the existing meanders in Scott Gulch, which will require modification of the Scott Gulch alignment. Additionally, the existing bend radii and side slopes are not adequate to maintain channel stability and are more difficult to mitigate than to re-design.

The Scott Gulch drainageway is designed as a composite channel section with a low-flow and overbanks. Design flows for each component are as follows:

- Low flow design flow is **85 cfs**, or approximately 1/3 of the developed 2-year flow.
- Full channel design flow is **1477 cfs**, the 100-year flow from the OSP Study accounting for regional detention in the Pradera Pond, ½ mile upstream.
- Additionally, the conveyance of the fully developed, un-detained flow of **3519 cfs** is verified for an emergency condition only, as identified in the OSP Study.

The channel design is controlled by the following design criteria, as discussed with UDFCD:

- Maximum depth of 2 feet for the low-flow channel
- Maximum depth of 5 feet above overbank areas for 100-year design flows
- Maximum velocity in overbank areas of 5 feet per second (outside of bend areas)
- Maximum average velocity of 7 feet per second for 100-year design flows

Ideally, the channel velocity for low-flow and overbanks should be limited to 5 feet per second. However, the steep existing topography, space limitations and relatively large design flows require two to three times the available channel width to limit average velocity to 5 feet per second and concurrently restrict maximum depth to 5 feet. Instead, the available space will be optimized by lining the low-flow channel with type VL soil riprap and limiting both average channel velocity and low-flow velocity to less than 7 feet per second for the 100-year design flows. The riprap lining also helps to better manage the channel roughness in the newly constructed condition and limit the extremes in depth and velocity performance between the newly constructed and mature channel conditions.

The resulting channel section is a 12 foot wide low flow 2 feet of depth and 2.5:1 side slopes. The unlined channel overbanks are 8 feet each side with 4:1 side slopes. The channel grade will be flattened to 0.24% with four grouted stepped boulder drop structures for grade control and energy dissipation. The channel section is analyzed for both the newly constructed and mature channel conditions to ensure that maximum velocity and maximum depth criteria are met, respectively. Assumed manning's n roughness values are listed below:

Manning's n value	Low flow	Overbanks
New construction	0.035	0.032
Mature channel	0.040	0.041

The composite channel has been preliminarily design using UD-Channels v1.04 spreadsheet and Flowmaster V8i software by Bentley. Calculations for relevant design scenarios are included in the appendix. Channel centerline radii do not exceed double the top width of the

channel water surface at design flow. Additional protection will be provided at bends per USDCM criteria.

Four grouted stepped boulder drop structures will be constructed to manage grade control. The drop structures will match the cross section of the channel with low-flow and overbanks. The drops will be 5 feet vertical over a 5:1 drop face with a 1.5 foot deep, 20 foot long stilling basin, for a net height of 3.5 feet. B36 boulders will be used. Due to the unit discharge exceeding 35 cfs/ft, the UDFCD detailed design method is used. Calculations are included in the report appendix. Low flow and overbank sections have been analyzed independently. As with the general composite channel, flow calculations for the drops have been done using Flowmaster V8i software by Bentley.

The new culvert crossing must be design to pass the 100-year flow in Scott Gulch without overtopping since Scott Gulch is a major drainageway. The improved crossing is proposed as a triple cell concrete box culvert with a longitudinal slope of 0.4%. The outer cells will have a height of 6 ft. and the center cell will have a height of 8 ft and a dropped invert to correspond with the depth of the low-flow channel relative to the overbanks. Since the 100-year design flow depth in the channel is less than 5 feet in the overbanks, the box culvert will operate under open channel flow conditions in the design event. The box culverts are also analyzed under the emergency flow condition. A froude number of at least 1.2 is maintained in all cases the ensure that critical flow conditions are not approached. A drop structure is placed immediately downstream of the box culvert to avoid possible hydraulic jump or backwater conditions.

B. Five storm water storage facilities are being proposed on the Site. The ponds are sized based on the contributing impervious which determine the 100-year detention volumes. The EURV release rate is based on a drain time to not exceed 72 hours. The ponds have been generally located based on the historic flow paths (Refer to the Phase III Drainage Plan).

Pond A is located at the northwest corner of Bayou Gulch Road and Scott Road. The Pond will occupy an off-site parcel that is specifically intended for storm water detention for Basin A of the Cielo site, Bayou Gulch Road and the 92acre Sagewood site directly west of Bayou Gulch Road. The Pond will accept and detain un-attenuated offsite flow from developed basins Basin O61-O73as well as onsite flow from Basin A. Required detention for Pond A is 6.63 acre-feet, which accommodates an overall tributary area of 113 acres with a composite imperviousness of 20.8%. Pond A will outfall to the existing natural drainage path on the south of Scott Avenue that leads up from the Scott Gulch crossing. A riprap apron will be provided at the pipe outfall, with calculations provided in the appendix. The outfall swale will be 10 feet wide with 4:1 side slopes and a longitudinal grade of 0.65% to limit major storm velocity to less than 5 feet per second. Check structures will be installed to manage grade. The confluence of the Pond A outfall swale with Scott Gulch will be located at the westernmost drop structure.

Pond B is located in the southeast corner of the site and will detain onsite flow from Basin B. Required detention for Pond B is 3.23 acre-feet, which accommodates an overall tributary area of 33 acres with a composite imperviousness of 48.7%. Pond B will outfall directly to

Scott Gulch on the north side of Scott Avenue. Detention Pond B is located outside of the existing and final limits of the 100-year floodplain.

Pond C is located inside the northern edge of the site and will detain onsite flow from Basin C, which is approximately 28.9 acres with a composite imperviousness of 58.5%. The required detention for Pond C plus the WQCV from O-51 is 3.1 acre-feet. Sub-basin O-51 will be detained by the future Hess Ranch project, therefore, the historic/future detained discharge of 29.63 CFS will pass through Pond C undetained. Pond C will outfall to an existing swale at the northern site boundary which is the historic flow path of runoff from the Basin C area of the site. A riprap apron will be constructed at the Pond C outfall for energy dissipation. The existing flow path between the Pond C outfall is concentrated and eroded and will be improved as a riprap lined swale down to the north property line. Beyond the north property line, the existing swale topography disperses flow and reduces velocity and depth to limits suitable for overland flow. Coordination required with the property across the north site boundary will be ongoing through the detailed design.

Pond D is located in an open space tract in the northeast quadrant of the site. Pond D will detain flows from adjacent residential lots in Basin D. Required detention volume for Pond D is 3.05 acre-feet, which accommodates an overall tributary area of 37 acres with a composite imperviousness of 40.4%. Pond D will outfall to a low point in the northeast corner of the site and eastward as per historic conditions. The final pipe segment of the Pond D outfall has flattened slope and up-sized pipe to reduce exit velocities. A low tailwater basin is proposed in a broad swale where flows can be more easily dispersed. Immediately east of the property line, the flow path is more heavily vegetated.

Pond E is located in an open space tract in the south-central area of the site. Required detention for Pond E is 2.3 acre-feet, which accommodates an overall tributary area of 24.3 acres with a composite imperviousness of 49.2%. Pond E will outfall directly to Scott Gulch on the north side of Scott Avenue. Detention Pond E is and will be located out of the final limits of the 100-year flood plain. The outlet for Pond E will be located at the downstream drop structure on Scott Gulch, which will provide energy dissipation for the outlet.

The outfall swales from Ponds C and D both pass through existing stock ponds downstream of the project within the Hungry Horse Open Space. Due to flow attenuation, these ponds will not see greater peak flows for design storms in than existing condition. Since the stock ponds are within county property, the minor stock ponds may either be improved or left undisturbed at the county's discretion.

C. All water quality features on site are located in the proposed full-spectrum detention ponds and function and described in the previous section.

D. A CLOMR for Scott Gulch is in development and is being coordinated with the proposed drainageway design. The CLOMR has been submitted to FEMA and Urban Drainage and is currently under review for approval of the revised floodplain limits. The CLOMR has been developed to define the impacts to the floodplain, floodway, and appropriate mitigation. All of the proposed lots on the site are outside of the 100-year floodplain. It is not anticipated

that installation of the culvert or associated approach grading will significantly impact upstream properties with backwater effect since the culvert will have 100-year flow capacity and the area immediately upstream is a large open space tract. It is also not anticipated that channel improvements will create adverse effects downstream because the parcel to the east is also open space.

E. Apart from the CLOMR for Scott Gulch, the need for additional permitting requirements is not anticipated.

F. Relevant tables, figures and charts used in rainfall analysis of stormwater facility design have been included in the appendix. The applicability of each included item is described in the Design Criteria section or the report or in other previous sections as appropriate.

VI. CONCLUSIONS

This Phase III Drainage Report outlines the basic storm water management plan for the proposed development. This report follows all standard criteria with no requested variances. Downstream drainage facilities will not be negatively affected, as historic drainage patterns and allowable release rates are planned to be maintained. The CLOMR for the project is currently being processed through Urban Drainage and FEMA. A copy of the most recent CLOMR submittal has been coordinated and provided to Douglas County.

VII. REFERENCES

1. Douglas County Storm Drainage Design and Technical Criteria Manual; Douglas County; July 8, 2008.

2. Urban Storm Drainage Criteria Manuals; Urban Drainage and Flood Control District; latest edition.

3. Flood Insurance Rate Map of Douglas County Colorado, Federal Emergency Management Agency, Panel's #08035C0183F & #08035C0184F, September 30, 2005.

4. Kinney Creek and Fonder Draw Watersheds Outfall Systems Planning Report; WRC; May 2007.

5. Scott Gulch and Lemon Gulch Watersheds Outfall System Plan, CH2MHill, July 2006.

6. Phase III Drainage Report for Scott Road Filing No. 1, Peak Civil Consultants; September 2004.

7. Scott Gulch Channel Improvements An Addendum to the Phase III Drainage Report For Scott Road Filing No. 1, Peak Civil Consultants; December 2004.

8. Flood Insurance Study Volumes 1-3 for Douglas County, Colorado and Incorporated Areas, Federal Emergency Management Agency; September 30, 2005.

9. Geologic and Preliminary Geotechnical Investigation - Arlington ranch Property Northwest of South Parker Road and East Scott Avenue, Douglas County, Colorado, CTL Thompson, May 18; 2015.

10. Hydrologic Soil Group – Castle Rock Area, Colorado, Web Soil Survey, National Cooperative Soils Survey, December 23, 2013.

11. Lemon and Scott Gulches - Outfall System Planning Alternatives Evaluation Report; CH2MHill, November 2005.

12. Phase I Drainage Report for Sagewood Estates; Manhard Consulting; April 11, 2016

13. Modeling Hydraulic and Energy Gradients in Storm Sewers: A Comparison of Computational Methods, AMEC Earth & Environmental, Inc.; October 6, 2009.

APPENDIX A

HYDROLOGIC CALCULATIONS

PROJECT INFORMATION

Project Name:	Cielo Subdivision
Project Number:	16000498
Submittal:	CD
Calculated By:	DIF
Calculated By Date:	1/15/2019
Checked By:	JJF
Checked By Date:	1/15/2019

2 Year 1-Hour Point Depth (in)	1.060
5 Year 1-Hour Point Depth (in)	1.43
10 Year 1-Hour Point Depth (in)	1.66
50 Year 1-Hour Point Depth (in)	2.26
100 Year 1-Hour Point Depth (in)	2.60
Rainfall Data Source	Douglas County Storm Drainage Design and Technical Criteria Manual
Soil Type (A,B,C,D)	B&C

IDF Curve for StormCAD

Duration Tc (min)	I 2-Year (in/hr)	I 5-Year (in/hr)	I 100-Year (in/hr)
5	3.60	4.85	8.82
6	3.42	4.61	8.38
7	3.26	4.40	7.99
8	3.12	4.20	7.64
9	2.99	4.03	7.32
10	2.87	3.87	7.03
15	2.41	3.25	5.90
20	2.09	2.81	5.11
30	1.66	2.24	4.08
40	1.40	1.88	3.42
50	1.21	1.63	2.97
60	1.07	1.45	2.63

COMPOSITE C-FACTOR & WEIGHTED PERCENT IMPERVIOUSNESS ANALYSIS
Cielo Subdivision

Atwell, LLC.
LCC
Date: January 2019

Runoff Coefficients

	C2	C5	C10	C100	I (%)	
Undeveloped Area (Type B Soil)	0.01	0.01	0.07	0.44	2.0%	(Tables 6-3 6-5, USDCM)
Undeveloped Area (Type C Soil)	0.01	0.05	0.15	0.49	2.0%	(Tables 6-3 6-5, USDCM)
Historic (Type C Soil)	0.01	0.05	0.15	0.49	2.0%	(Tables 6-3 6-5, USDCM)
Paved Area / Pond WSE (Type B/C Soil)	0.84	0.86	0.87	0.89	100.0%	(Tables 6-3 6-5, USDCM)
Basin O62-O72 Lots (Type C Soil)	0.14	0.20	0.28	0.57	20.0%	(Tables 6-3 6-5, USDCM)
Basin A Lots (Type C Soil)	0.34	0.40	0.46	0.67	45.0%	(Tables 6-3 6-5, USDCM)
Basin B Lots (Type C Soil)	0.34	0.40	0.46	0.67	45.0%	(Tables 6-3 6-5, USDCM)
Basin D Lots (Type C Soil)	0.34	0.40	0.46	0.67	45.0%	(Tables 6-3 6-5, USDCM)
Basin E Lots (Type C Soil)	0.34	0.40	0.46	0.67	45.0%	(Tables 6-3 6-5, USDCM)
Park Area (Type C Soil)	0.06	0.12	0.21	0.52	10.0%	(Tables 6-3 6-5, USDCM)
School (Type C Soil)	0.43	0.48	0.54	0.71	55.0%	(Tables 6-3 6-5, USDCM)

	BASIN ID	Total Area (AC)	Undeveloped (AC)	Paved Area (AC)	Lots (AC)	Park Area (AC)	Area Check (AC)	Comp. C2	Comp. C5	Comp. C10	Comp. C100	Comp. I (%)
OFF-SITE BASINS ROUTED TO POND A	O61	24.62	24.62	0.00	0.00	0.00	Ok	0.01	0.01	0.07	0.44	2.0%
	O62	9.98	0.00	0.00	9.98	0.00	Ok	0.14	0.20	0.28	0.57	20.0%
	O63	3.48	0.00	0.00	3.48	0.00	Ok	0.14	0.20	0.28	0.57	20.0%
	O71	38.84	6.44	0.00	32.40	0.00	Ok	0.12	0.17	0.25	0.55	17.0%
	O72	3.60	0.00	2.00	0.00	1.60	Ok	0.49	0.53	0.58	0.73	60.0%
	O73	11.82	0.00	0.00	11.82	0.00	Ok	0.14	0.20	0.28	0.57	20.0%
	Total Offsite Tributary to Pond A:	**92.34**	**31.06**	**2.00**	**57.68**	**1.60**	**Ok**	**0.23**	**0.27**	**0.33**	**0.59**	**15.5%**
ON-SITE BASINS ROUTED TO POND A	A1	0.69	0.00	0.00	0.69	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A2	0.82	0.00	0.00	0.82	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A3	0.63	0.00	0.00	0.63	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A4	0.44	0.00	0.00	0.44	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A5	0.63	0.00	0.00	0.63	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A6	1.38	0.00	0.00	1.38	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A7	1.17	0.00	0.00	1.17	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A8	1.46	0.00	0.00	1.46	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A8.1	0.50	0.00	0.00	0.50	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A9	0.31	0.00	0.00	0.31	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A9.1	0.38	0.00	0.00	0.38	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A10	3.24	0.00	0.00	3.24	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A11	0.50	0.00	0.00	0.50	0.00	Ok	0.34	0.40	0.46	0.67	45.0%
	A12	1.67	0.00	0.00	0.00	1.67	Ok	0.06	0.12	0.21	0.52	10.0%
	A13	1.12	0.00	1.12	0.00	0.00	Ok	0.84	0.86	0.87	0.89	100.0%
	A14	2.06	0.00	2.06	0.00	0.00	Ok	0.84	0.86	0.87	0.89	100.0%
	A15	3.58	0.00	0.00	0.00	3.58	Ok	0.06	0.12	0.21	0.52	10.0%
	Total Onsite Basin A:	**20.58**	**0.00**	**3.18**	**12.15**	**5.25**	**Ok**	**0.35**	**0.40**	**0.46**	**0.67**	**44.6%**
	Total Tributary to Pond A:	**112.92**	**31.06**	**5.18**	**69.83**	**6.85**	**Ok**	**0.08**	**0.09**	**0.12**	**0.27**	**20.8%**

STANDARD FORM SF-2
TIME OF CONCENTRATION

PROJECT: Cielo Subdivision

CALCULATED BY: DIF DATE: 1/15/2019

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Tc)			TRAVEL TIME (Tt)				Tc CHECK (Urbanized Basins)			FINAL Tc	REMARKS
DESIG:	AREA (acres)	C_5	LENGTH (ft)	AVG. SLOPE (%)	Ti (min)	LENGTH (ft)	AVG. SLOPE (%)	VEL (fps)	Tt (min)	COMP Tc	TOTAL LENGTH (ft)	Tc=(L/180)+10 (min)	(min)	
O61	24.62	0.01	300	10.0	15.9	850	6.0	1.2	11.6	**27.5**	1150	16.4	**16.4**	
O62	9.98	0.14	70	3.0	10.1	1900	4.0	4.0	7.9	**18.0**	1970	20.9	**18.0**	
O63	3.48	0.14	300	6.0	16.6	250	4.0	1.0	4.2	**20.8**	550	13.1	**13.1**	
O71	38.84	0.12	300	8.0	15.5	2700	5.0	1.1	40.2	**55.7**	3000	26.7	**26.7**	
O72	3.60	0.49	30	2.0	4.8	1700	4.0	4.0	7.1	**11.9**	1730	19.6	**11.9**	
O73	11.82	0.14	70	3.0	10.1	2200	7.0	5.3	6.9	**17.0**	2270	22.6	**17.0**	
A1	0.69	0.34	140	3.0	11.3	130	1.0	2.0	1.1	**12.4**	270	11.5	**11.5**	
A2	0.82	0.34	180	4.5	11.2	100	2.0	2.8	0.6	**11.8**	280	11.6	**11.6**	
A3	0.63	0.34	120	2.0	12.0	170	1.6	2.5	1.1	**13.1**	290	11.6	**11.6**	
A4	0.44	0.34	20	2.0	4.9	450	2.0	2.8	2.7	**7.5**	470	12.6	**7.5**	
A5	0.63	0.34	140	3.0	11.3	130	1.0	2.0	1.1	**12.4**	270	11.5	**11.5**	
A6	1.38	0.34	180	4.0	11.7	100	2.0	2.8	0.6	**12.2**	280	11.6	**11.6**	
A7	1.17	0.34	180	3.0	12.8	180	2.0	2.8	1.1	**13.9**	360	12.0	**12.0**	
A8	1.46	0.34	125	2.0	12.2	400	1.6	2.5	2.6	**14.8**	525	12.9	**12.9**	
A8.1	0.50	0.34	125	2.0	12.2	140	1.6	2.5	0.9	**13.1**	265	11.5	**11.5**	
A9	0.31	0.34	45	2.0	7.3	200	1.6	2.5	1.3	**8.6**	245	11.4	**8.6**	
A9.1	0.38	0.34	45	2.0	7.3	240	1.6	2.5	1.6	**8.9**	285	11.6	**8.9**	
A10	3.24	0.34	140	4.0	10.3	800	3.5	3.7	3.6	**13.8**	940	15.2	**13.8**	
A11	0.50	0.34	60	10.0	5.0			0.0		**5.0**	60	10.3	**5.0**	
A12	1.67	0.06	70	10.0	7.3	750	3.3	3.6	3.4	**10.8**	820	14.6	**10.8**	
A13	1.12	0.84	40	2.0	2.4	600	3.0	3.5	2.9	**5.2**	640	13.6	**5.2**	
A14	2.06	0.84	40	2.0	2.4	900	4.0	4.0	3.8	**6.1**	940	15.2	**6.1**	
A15	3.58	0.06	100	20.0	7.0			0.0		**7.0**	100	10.6	**7.0**	
B1	2.52	0.34	180	3.5	12.2	300	1.0	2.0	2.5	**14.7**	480	12.7	**12.7**	
B2	1.24	0.34	40	2.0	6.9	650	2.8	3.3	3.2	**10.1**	690	13.8	**10.1**	
B3	1.55	0.34	200	4.0	12.3	400	1.0	2.0	3.3	**15.6**	600	13.3	**13.3**	
B4	1.98	0.34	40	2.0	6.9	600	1.0	2.0	5.0	**11.9**	640	13.6	**11.9**	
B5	4.13	0.34	120	3.0	10.5	1250	2.5	3.2	6.6	**17.0**	1370	17.6	**17.0**	
B6	3.79	0.34	120	5.0	8.8	1050	3.0	3.5	5.1	**13.9**	1170	16.5	**13.9**	
B7	0.68	0.34	40	2.0	6.9	500	3.8	3.9	2.1	**9.0**	540	13.0	**9.0**	
B8	1.30	0.34	80	3.0	8.5	370	0.9	1.9	3.3	**11.9**	450	12.5	**11.9**	
B9	3.54	0.34	180	3.0	12.8	550	2.1	2.9	3.2	**16.0**	730	14.1	**14.1**	
B10	1.13	0.34	80	3.0	8.5	400	0.9	1.9	3.6	**12.1**	480	12.7	**12.1**	
B11	0.84	0.34	40	2.0	6.9	700	1.9	2.8	4.2	**11.1**	740	14.1	**11.1**	
B12	2.73	0.34	40	2.0	6.9	850	3.0	3.5	4.1	**11.0**	890	14.9	**11.0**	
B13	1.46	0.34	40	2.0	6.9	850	3.0	3.5	4.1	**11.0**	890	14.9	**11.0**	
B14	2.21	0.34	40	2.0	6.9	1300	0.9	1.9	11.7	**18.6**	1340	17.4	**17.4**	
B15	3.72	0.53	40	2.0	5.1	1300	0.9	1.9	11.7	**16.8**	1340	17.4	**16.8**	
G5	0.30	0.71	50	2.0	4.0	250	1.0	2.0	2.1	**6.0**	300	11.7	**6.0**	
G6	1.26	0.84	300	1.0	8.1	1300	1.0	2.0	10.8	**19.0**	1600	18.9	**18.9**	

STANDARD FORM SF-2
TIME OF CONCENTRATION

PROJECT: Cielo Subdivision

CALCULATED BY: DIF DATE: 1/15/2019

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Tc)			TRAVEL TIME (Tt)				Tc CHECK (Urbanized Basins)			FINAL Tc	REMARKS
DESIG:	AREA (acres)	C_5	LENGTH (ft)	AVG. SLOPE (%)	Ti (min)	LENGTH (ft)	AVG. SLOPE (%)	VEL (fps)	Tt (min)	COMP Tc	TOTAL LENGTH (ft)	Tc=(L/180)+10 (min)	(min)	
O51	10.60	0.01	300	7.0	17.9	800	6.0	1.2	10.9	**28.8**	1100	16.1	**16.1**	
C1 (INT)	22.44	0.01	300	2.0	27.1	1500	2.0	0.7	35.4	**62.5**	1800	20.0	**20.0**	
C1 (DEV)	22.44	0.43	50	2.0	6.8	1700	2.7	3.3	8.6	**15.4**	1750	19.7	**15.4**	
C2	0.98	0.84	40	2.0	2.4	550	2.0	2.8	3.2	**5.6**	590	13.3	**5.6**	
C3	0.70	0.84	20	2.0	1.7	1000	4.5	4.2	3.9	**5.6**	1020	15.7	**5.6**	
C4	0.36	0.84	20	2.0	1.7	550	2.0	2.8	3.2	**4.9**	570	13.2	**5.0**	
C5	0.73	0.84	20	2.0	1.7	1000	4.5	4.2	3.9	**5.6**	1020	15.7	**5.6**	
C6	0.33	0.84	20	2.0	1.7	450	2.0	2.8	2.7	**4.3**	470	12.6	**5.0**	
C7	0.74	0.34	80	12.0	5.4			0.0		**5.4**	80	10.4	**5.4**	
C8	2.63	0.35	100	20.0	5.1			0.0		**5.1**	100	10.6	**5.1**	
D1	3.89	0.06	200	4.0	16.8	350	1.5	2.4	2.4	**19.2**	550	13.1	**13.1**	
D2	0.57	0.84	30	2.0	2.0	500	1.8	2.7	3.1	**5.2**	530	12.9	**5.2**	
D3	2.95	0.06	200	4.0	16.8	250	2.5	1.1	3.8	**20.6**	450	12.5	**12.5**	
D4	0.90	0.84	30	2.0	2.0	1150	1.8	2.7	7.1	**9.2**	1180	16.6	**9.2**	
D5	2.93	0.34	150	3.0	11.7	400	3.5	3.7	1.8	**13.5**	550	13.1	**13.1**	
D5.1	0.44	0.34	40	10.0	4.1			0.0		**4.1**	40	10.2	**5.0**	
D6	3.52	0.34	150	3.0	11.7	550	4.0	4.0	2.3	**14.0**	700	13.9	**13.9**	
D6.1	0.75	0.34	40	10.0	4.1			0.0		**4.1**	40	10.2	**5.0**	
D7.1	0.30	0.34	40	10.0	4.1			0.0		**4.1**	40	10.2	**5.0**	
D8	4.68	0.34	150	5.0	9.9	700	3.0	3.5	3.4	**13.2**	850	14.7	**13.2**	
D8.1	0.79	0.34	40	10.0	4.1			0.0		**4.1**	40	10.2	**5.0**	
D9	0.91	0.34	60	5.0	6.2			0.0		**6.2**	60	10.3	**6.2**	
D10	1.05	0.34	80	2.0	9.8	400	3.6	3.8	1.8	**11.5**	480	12.7	**11.5**	
D11	3.59	0.34	160	4.0	11.0	500	1.0	2.0	4.2	**15.2**	660	13.7	**13.7**	
D12	0.99	0.34	50	2.0	7.7	350	1.0	2.0	2.9	**10.6**	400	12.2	**10.6**	
D13	2.89	0.34	50	2.0	7.7	1400	1.9	2.8	8.5	**16.2**	1450	18.1	**16.2**	
D14	0.54	0.34	10	2.0	3.5	600	1.6	2.5	4.0	**7.4**	610	13.4	**7.4**	
D15	2.73	0.34	80	3.0	8.5	1400	1.9	2.8	8.5	**17.0**	1480	18.2	**17.0**	
D16	2.51	0.32	120	10.0	7.2			0.0		**7.2**	120	10.7	**7.2**	
E1	2.97	0.34	150	20.0	6.3			0.0		**6.3**	150	10.8	**6.3**	
E2	1.07	0.34	200	13.0	8.3			0.0		**8.3**	200	11.1	**8.3**	
E3	2.38	0.34	150	13.0	7.2			0.0		**7.2**	150	10.8	**7.2**	
E4	1.58	0.34	175	3.5	12.0	500	1.0	0.7	11.9	**23.9**	675	13.8	**13.8**	
E5	3.21	0.34	150	2.0	13.4	800	1.0	0.7	19.0	**32.4**	950	15.3	**15.3**	
E6	0.53	0.34	100	2.0	10.9	800	1.0	0.7	19.0	**30.0**	900	15.0	**15.0**	
E7	1.71	0.34	50	2.0	7.7	700	1.0	0.7	16.7	**24.4**	750	14.2	**14.2**	
E8	2.50	0.34	100	2.0	10.9	450	1.0	0.7	10.7	**21.6**	550	13.1	**13.1**	
E9	1.65	0.34	100	2.0	10.9	500	1.0	0.7	11.9	**22.8**	600	13.3	**13.3**	
E10	0.22	0.77	100	2.0	4.8			0.0		**4.8**	100	10.6	**5.0**	
E11	1.18	0.56	100	2.0	7.8			0.0		**7.8**	100	10.6	**7.8**	
E12	3.00	0.25	300	2.0	21.2	500	5.0	1.6	5.3	**26.5**	800	14.4	**14.4**	

STANDARD FORM SF-2
TIME OF CONCENTRATION

PROJECT: Cielo Subdivision

CALCULATED BY: DIF DATE: 1/15/2019

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Tc)			TRAVEL TIME (Tt)				Tc CHECK (Urbanized Basins)			FINAL Tc	REMARKS
DESIG:	AREA (acres)	C_5	LENGTH (ft)	AVG. SLOPE (%)	Ti (min)	LENGTH (ft)	AVG. SLOPE (%)	VEL (fps)	Tt (min)	COMP Tc	TOTAL LENGTH (ft)	Tc=(L/180)+10 (min)	(min)	
E13	1.44	0.68	50	5.0	3.2			0.0		**3.2**	50	10.3	**5.0**	
G7	0.83	0.84	300	1.0	8.1	700	1.0	2.0	5.8	**14.0**	1000	15.6	**14.0**	

STANDARD FORM SF-2
TIME OF CONCENTRATION

PROJECT: Cielo Subdivision

CALCULATED BY: DIF DATE: 1/15/2019

SUB-BASIN DATA			INITIAL/OVERLAND TIME (Tc)			TRAVEL TIME (Tt)				Tc CHECK (Urbanized Basins)			FINAL Tc	REMARKS
DESIG:	AREA (acres)	C_5	LENGTH (ft)	AVG. SLOPE (%)	Ti (min)	LENGTH (ft)	AVG. SLOPE (%)	VEL (fps)	Tt (min)	COMP Tc	TOTAL LENGTH (ft)	Tc=(L/180)+10 (min)	(min)	
F1	3.99	0.07	15	2.0	5.7	370	2.5	3.2	2.0	**7.7**	385	12.1	**7.7**	
F2	5.04	0.34	15	2.0	4.2	370	2.5	3.2	2.0	**6.2**	385	12.1	**6.2**	
F3	3.38	0.34	15	2.0	4.2	320	4.4	4.2	1.3	**5.5**	335	11.9	**5.5**	
F4	2.87	0.34	15	2.0	4.2	320	4.4	4.2	1.3	**5.5**	335	11.9	**5.5**	
O11	0.73	0.84	20	2.0	1.7	200	0.8	1.8	1.9	**3.5**	220	11.2	**5.0**	
G1	0.43	0.84	300	1.0	8.1	100	1.0	2.0	0.8	**9.0**	400	12.2	**9.0**	
G2	1.59	0.32	300	1.0	24.4	200	1.0	2.0	1.7	**26.0**	500	12.8	**12.8**	
G3	0.35	0.84	300	1.0	8.1	150	1.0	2.0	1.3	**9.4**	450	12.5	**9.4**	
G4	0.18	0.84	300	1.0	8.1	100	1.0	2.0	0.8	**9.0**	400	12.2	**9.0**	
H1	55.60	0.01	300	3.0	23.7	2700	3.0	0.9	52.0	**75.7**	3000	26.7	**26.7**	
H2	42.20	0.01	300	4.0	21.6	2400	4.0	1.0	40.0	**61.6**	2700	25.0	**25.0**	
H3	46.90	0.01	300	4.6	20.6	1800	4.6	1.1	28.0	**48.6**	2100	21.7	**21.7**	
H4	13.80	0.01	300	2.5	25.2	900	2.5	0.8	19.0	**44.2**	1200	16.7	**16.7**	
OS-1	101.80	0.01	300	2.0	27.1	4700	2.0	0.7	110.8	**137.9**	5000	37.8	**37.8**	
OS-2	24.10	0.01	300	2.0	27.1	2200	2.0	0.7	51.9	**79.0**	2500	23.9	**23.9**	
OS-3	41.90	0.01	300	2.0	27.1	2100	2.0	0.7	49.5	**76.6**	2400	23.3	**23.3**	
OS-4	34.60	0.01	300	2.0	27.1	1800	2.0	0.7	42.4	**69.5**	2100	21.7	**21.7**	
OS-5	10.60	0.01	300	7.0	17.9	800	6.0	1.2	10.9	**28.8**	1100	16.1	**16.1**	
OS-6	26.60	0.01	300	8.0	17.2	1200	6.5	1.3	15.7	**32.9**	1500	18.3	**18.3**	
OS-7	62.96	0.01	300	6.0	18.9	2700	6.0	1.2	36.7	**55.6**	3000	26.7	**26.7**	
OS-8	305.80	0.01	300	2.0	27.1	4700	2.0	0.7	110.8	**137.9**	5000	37.8	**37.8**	

*VEL = $C_v S_w^{0.5}$

FROM UD Table R0-2

Type of Land Surface	Conveyance Coefficient, C_v
Tillage/Field	5
Short Pasture and Lawns	7
Paved Areas	20

Atwell, LLC

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 5-year

DESCRIPTION	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	
Crosspan	1	A1	0.69	0.40	11.5	0.28	3.65	1.01													carry-over to A3
Crosspan	2	A2	0.82	0.40	11.6	0.33	3.65	1.20													carry-over to A3
10' Type R On-Grade Inlet A3	3	A3	0.63	0.40	11.6	0.25	3.64	0.92													
Street	4	A4	0.44	0.40	7.5	0.18	4.29	0.75													carry-over to A6
Crosspan	5	A5	0.63	0.40	11.5	0.25	3.65	0.92													carry-over to A6
10' Type R On-Grade Inlet A6	6	A6	1.38	0.40	11.6	0.55	3.65	2.01													
Crosspan	7	A7	1.17	0.40	12.0	0.47	3.59	1.67													carry-over to A8
10' Type R Sump Inlet A8	8	A8	1.46	0.40	12.9	0.58	3.48	2.03													
5' Type R On-Grade Inlet A8.1	8.1	A8.1	0.50	0.40	11.5	0.20	3.66	0.73													carry-over to A8
Street	9	A9	0.31	0.40	8.6	0.12	4.09	0.51													carry-over to A10
5' Type R On-Grade Inlet 9.1	9.1	A9.1	0.38	0.40	8.9	0.15	4.04	0.61													carry-over to A10
15' Type R Sump Inlet A10	10	A10	3.24	0.40	13.8	1.30	3.37	4.37													
Direct to Pond	11	A11	0.50	0.40	5.0	0.20	4.85	0.98													
Swale	12	A12	1.67	0.12	10.8	0.20	3.75	0.75													
On-Grade Inlet A13	13	A13	1.12	0.86	5.2	0.97	4.79	4.63													carry-over to C4
Future Detained from Hess	21	O61	24.62	0.01	16.4	0.25	3.11	0.77													
Future Sagewood Inlets	22	O62	9.98	0.20	18.0	2.00	2.97	5.93													
Future FES Inlet O-63	23	O63	3.48	0.20	13.1	0.70	3.46	2.41													
Interim FES Inlet O-63	23	OS-6	26.60	0.05	18.3	1.33	2.94	3.91													
Future Scott Gulch Tributary	24	O71	38.84	0.17	26.7	6.54	2.40	15.72													
Interim Scott Gulch Tributary	24	OS-7	62.96	0.05	26.7	3.15	2.40	7.56													
Future Sump Inlet O72	25	O72	3.60	0.53	11.9	1.91	3.61	6.90													
Future Sagewood Inlets	26	O73	11.82	0.20	17.0	2.36	3.05	7.22													
Sump Inlet A14	14	A14	2.06	0.86	6.1	1.77	4.59	8.12													
Direct to Pond	15	A15	3.58	0.12	7.0	0.43	4.40	1.89													
10' Type R On-Grade Inlet B1	31	B1	2.52	0.40	12.7	1.01	3.51	3.53													
Crosspan	32	B2	1.24	0.40	10.1	0.50	3.85	1.91													carry-over to B3
10' Type R On-Grade Inlet B3	33	B3	1.55	0.40	13.3	0.62	3.43	2.12													
15' Type R Sump Inlet B4	34	B4	1.98	0.40	11.9	0.79	3.60	2.85													
10' Type R On Grade-Inlet B5	35	B5	4.13	0.40	17.0	1.65	3.05	5.04													
10' Type R On Grade-Inlet B6	36	B6	3.79	0.40	13.9	1.52	3.36	5.10													
10' Type R On Grade-Inlet B7	37	B7	0.68	0.40	9.0	0.27	4.02	1.10													
10' Type R On Grade-Inlet B8	38	B8	1.30	0.40	11.9	0.52	3.61	1.87													
On Grade-Inlet B9	39	B9	3.54	0.40	14.1	1.42	3.35	4.74													

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 5-year

DESCRIPTION	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	
Street	40	B10	1.13	0.40	12.1	0.45	3.57	1.61													carry-over to B11
15' Type R On-Grade Inlet B11	41	B11	0.84	0.40	11.1	0.34	3.70	1.24													carry-over to B12
15' Type R Sump Inlet B12	42	B12	2.73	0.40	11.0	1.09	3.72	4.07													
Street	43	B13	1.46	0.40	11.0	0.58	3.72	2.18													corry-over to B14
15' Type R Sump Inlet B14	44	B14	2.21	0.40	17.4	0.88	3.02	2.66													
Direct to Pond	45	B15	3.72	0.57	16.8	2.14	3.07	6.56													
10' Type R On-Grade Inlet G5	126	G5	0.30	0.74	6.0	0.22	4.60	1.02													
10' Type R On-Grade Inlet G6	127	G6	1.26	0.86	18.9	1.08	2.90	3.14													
Interim Area Inlet C1	71	C1 (INT)	22.44	0.05	20.0	1.12	2.81	3.16													Area Inlet Design
Future Pipe Stub	71	C1 (DEV)	22.44	0.48	15.4	10.77	3.20	34.51													
Street	72	C2	0.98	0.86	5.6	0.84	4.70	3.96													carry-over to C3
10' Type R On-Grade Inlet C3	73	C3	0.70	0.86	5.6	0.60	4.70	2.83													
10' Type R Sump Inlet C4	74	C4	0.36	0.86	5.0	0.31	4.85	1.50		58.33											
10' Type R On-Grade Inlet C5	75	C5	0.73	0.86	5.6	0.63	4.70	2.94													
10' Type R Sump Inlet C6	76	C6	0.33	0.86	5.0	0.28	4.85	1.37													
Direct to Pond	77	C7	0.74	0.40	5.4	0.30	4.75	1.41													
Direct to Pond	78	C8	2.63	0.39	5.1	1.03	4.84	5.00													
Future Detained from Hess	79	O51	10.60	0.05	16.1	0.53	3.14	1.66		5-yr detained release = (up to 1.0 * pre-dev peak)		*1.66*									
Interim FES Inlet O-51	79	OS-5	10.60	0.05	16.1	0.53	3.14	1.66													
Overland	81	D1	3.89	0.12	13.1	0.47	3.46	1.61													carry-over to D4
Street	82	D2	0.57	0.86	5.2	0.49	4.81	2.38													carry-over to D4
Overland	83	D3	2.95	0.12	12.5	0.35	3.53	1.25													carry-over to D4
15' Type R On-Grade Inlet D4	84	D4	0.90	0.86	9.2	0.77	4.00	3.09													
10' Type R Sump Inlet D5	85	D5	2.93	0.40	13.1	1.17	3.46	4.05													
Type C Area Inlet D5.1	85.1	D5.1	0.44	0.40	5.0	0.18	4.85	0.86													
10' Type R Sump Inlet D6	86	D6	3.52	0.40	13.9	1.41	3.36	4.73													
Type D Area Inlet D6.1	86.1	D6.1	0.75	0.40	5.0	0.30	4.85	1.45													
Type D Area Inlet D7.1	87.1	D7.1	0.30	0.40	5.0	0.12	4.85	0.58													
15' Type R Sump Inlet D8	88	D8	4.68	0.40	13.2	1.87	3.44	6.43													
Type D Area Inlet D8.1	88.1	D8.1	0.79	0.40	5.0	0.31	4.85	1.52													
Direct to Pond	89	D9	0.91	0.40	6.2	0.36	4.55	1.66													
Street	90	D10	1.05	0.40	11.5	0.42	3.65	1.54													carry-over to D11
10' Type R Sump Inlet D11	91	D11	3.59	0.40	13.7	1.44	3.39	4.87													
10' Type R Sump Inlet D12	92	D12	0.99	0.40	10.6	0.39	3.77	1.49													
10' Type R Sump Inlet D13	93	D13	2.89	0.40	16.2	1.16	3.13	3.63													
Street	94	D14	0.54	0.40	7.4	0.22	4.32	0.93													carry-over to D15
10' Type R Sump Inlet D15	95	D15	2.73	0.40	17.0	1.09	3.06	3.33													
Direct to Pond	96	D16	2.51	0.37	7.2	0.92	4.35	4.02													

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 5-year

DESCRIPTION	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	
Crosspan	51	E1	2.97	0.40	6.3	1.19	4.55	5.41													carry-over to E2
15' Type R On-Grade Inlet E2	52	E2	1.07	0.40	8.3	0.43	4.14	1.77													
10' Type R On-Grade Inlet E3	53	E3	2.38	0.40	7.2	0.95	4.35	4.14													
10' Type R On-Grade Inlet E4	54	E4	1.58	0.40	13.8	0.63	3.38	2.13													
10' Type R On-Grade Inlet E5	55	E5	3.21	0.40	15.3	1.29	3.22	4.14													
Crosspan	56	E6	0.53	0.40	15.0	0.21	3.25	0.69													carry-over to E7
15' Type R On-Grade Inlet E7	57	E7	1.71	0.40	14.2	0.68	3.33	2.28													
10' Type R On-Grade Inlet E8	58	E8	2.50	0.40	13.1	1.00	3.46	3.45													
10' Type R On-Grade Inlet E9	59	E9	1.65	0.40	13.3	0.66	3.43	2.26													
10' Type R On-Grade Inlet E10	60	E10	0.22	0.79	5.0	0.17	4.85	0.85													
10' Type R On-Grade Inlet E11	61	E11	1.18	0.59	7.8	0.70	4.24	2.95													
18" FES E12	62	E12	3.01	0.31	14.4	0.93	3.30	3.07													
Direct to Pond	63	E13	1.44	0.71	5.0	1.02	4.85	4.96													
15' Type R On-Grade Inlet G7	128	G7	0.83	0.86	14.0	0.71	3.36	2.40													
Overland	111	F1	3.99	0.12	7.7	0.47	4.27	2.02													
Overland	112	F2	5.04	0.40	6.2	2.02	4.57	9.22													
Overland	113	F3	3.38	0.40	5.5	1.35	4.73	6.38													
Overland	114	F4	2.87	0.40	5.5	1.15	4.73	5.42													
15' Type R On-Grade Inlet O11	121	O11	0.73	0.86	5.0	0.63	4.85	3.05													
10' Type R On-Grade Inlet G1	122	G1	0.43	0.86	9.0	0.37	4.03	1.49													
10' Type R On-Grade Inlet G2	123	G2	1.59	0.37	12.8	0.59	3.49	2.06													
10' Type R On-Grade Inlet G3	124	G3	0.35	0.86	9.4	0.30	3.97	1.19													
10' Type R On-Grade Inlet G4	125	G4	0.18	0.86	9.0	0.15	4.03	0.62													
Scott Gulch		H1	55.60	0.05	26.7	2.78	2.40	6.68													
Cherry Creek		H2	42.20	0.05	25.0	2.11	2.49	5.26													
Cherry Creek		H3	46.90	0.05	21.7	2.35	2.70	6.32													
Cherry Creek		H4	13.80	0.05	16.7	0.69	3.09	2.13													
Scott Gulch		OS-1	101.80	0.05	37.8	5.09	1.95	9.93													
Cherry Creek		OS-2	24.10	0.05	23.9	1.21	2.56	3.08													
Cherry Creek		OS-3	41.90	0.05	23.3	2.10	2.59	5.42													
Scott Gulch		OS-4	34.60	0.05	21.7	1.73	2.70	4.66													
Cherry Creek		OS-5	10.60	0.05	16.1	0.53	3.14	1.66													
Scott Gulch		OS-6	26.60	0.05	18.3	1.33	2.94	3.91													
Cherry Creek		OS-7	62.96	0.05	26.7	3.15	2.40	7.56													

5-year P1 = 1.43 inches (UDFCD, Fig. RA-2) I = 28.5(P1)/(10+Tc)^0.786 (Ref. 2, Eq RA-3)

Atwell, LLC

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 100-year

DESCRIPTION	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	
Crosspan	1	A1	0.69	0.67	11.5	0.46	6.65	3.09													carry-over to A3
Crosspan	2	A2	0.82	0.67	11.6	0.55	6.63	3.65													carry-over to A3
10' Type R On-Grade Inlet A3	3	A3	0.63	0.67	11.6	0.42	6.62	2.79													
Street	4	A4	0.44	0.67	7.5	0.29	7.80	2.29													carry-over to A6
Crosspan	5	A5	0.63	0.67	11.5	0.42	6.65	2.81													carry-over to A6
10' Type R On-Grade Inlet A6	6	A6	1.38	0.67	11.6	0.92	6.63	6.12													
Crosspan	7	A7	1.17	0.67	12.0	0.78	6.53	5.10													carry-over to A8
10' Type R Sump Inlet A8	8	A8	1.46	0.67	12.9	0.98	6.32	6.18													
5' Type R On-Grade Inlet A8.1	8.1	A8.1	0.50	0.67	11.5	0.34	6.65	2.23													carry-over to A8
Street	9	A9	0.31	0.67	8.6	0.21	7.43	1.54													carry-over to A10
5' Type R On-Grade Inlet 9.1	9.1	A9.1	0.38	0.67	8.9	0.25	7.35	1.87													carry-over to A10
15' Type R Sump Inlet A10	10	A10	3.24	0.67	13.8	2.17	6.13	13.31													
Direct to Pond	11	A11	0.50	0.67	5.0	0.34	8.82	2.98													
Swale	12	A12	1.67	0.52	10.8	0.87	6.82	5.92													carry-over to C4
On-Grade Inlet A13	13	A13	1.12	0.89	5.2	1.00	8.71	8.71													
Future Detained from Hess	21	O61	24.62	0.44	16.4	10.83	5.66	61.28													
Future Sagewood Inlets	22	O62	9.98	0.57	18.0	5.69	5.40	30.71													
Future FES Inlet O-63	23	O63	3.48	0.57	13.1	1.98	6.29	12.48													
Interim FES Inlet O-63	23	OS-6	26.60	0.49	18.3	13.03	5.35	69.73													
Future Scott Gulch Tributary	24	O71	38.84	0.55	26.7	21.30	4.37	93.05													
Interim Scott Gulch Tributary	24	OS-7	62.96	0.49	26.7	30.85	4.37	134.76													
Future Sump Inlet O72	25	O72	3.60	0.73	11.9	2.61	6.56	17.14													
Future Sagewood Inlets	26	O73	11.82	0.57	17.0	6.74	5.55	37.41													
Sump Inlet A14	14	A14	2.06	0.89	6.1	1.83	8.34	15.28													
Direct to Pond	15	A15	3.58	0.52	7.0	1.86	8.00	14.87													
10' Type R On-Grade Inlet B1	31	B1	2.52	0.67	12.7	1.69	6.38	10.75													
Crosspan	32	B2	1.24	0.67	10.1	0.83	7.00	5.83													carry-over to B3
10' Type R On-Grade Inlet B3	33	B3	1.55	0.67	13.3	1.04	6.23	6.45													
15' Type R Sump Inlet B4	34	B4	1.98	0.67	11.9	1.33	6.55	8.69													
10' Type R On Grade-Inlet B5	35	B5	4.13	0.67	17.0	2.77	5.55	15.35													
10' Type R On Grade-Inlet B6	36	B6	3.79	0.67	13.9	2.54	6.12	15.54													
10' Type R On Grade-Inlet B7	37	B7	0.68	0.67	9.0	0.46	7.31	3.34													
10' Type R On Grade-Inlet B8	38	B8	1.30	0.67	11.9	0.87	6.56	5.70													
On Grade-Inlet B9	39	B9	3.54	0.67	14.1	2.37	6.08	14.44													

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 100-year

		DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			
DESCRIPTION	DESIGN POINT	AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	REMARKS
Street	40	B10	1.13	0.67	12.1	0.76	6.50	4.91													carry-over to B11
15' Type R On-Grade Inlet B11	41	B11	0.84	0.67	11.1	0.56	6.74	3.79													carry-over to B12
15' Type R Sump Inlet B12	42	B12	2.73	0.67	11.0	1.83	6.77	12.38													
Street	43	B13	1.46	0.67	11.0	0.98	6.77	6.63													corry-over to B14
15' Type R Sump Inlet B14	44	B14	2.21	0.67	17.4	1.48	5.49	8.11													
Direct to Pond	45	B15	3.72	0.75	16.8	2.79	5.58	15.58													
10' Type R On-Grade Inlet G5	126	G5	0.30	0.83	6.0	0.25	8.36	2.08													
10' Type R On-Grade Inlet G6	127	G6	1.26	0.89	18.9	1.12	5.27	5.91													
Interim Area Inlet C1	71	C1 (INT)	22.44	0.49	20.0	11.00	5.11	56.24													Area Inlet Design
Future Pipe Stub	71	C1 (DEV)	22.44	0.71	15.4	15.93	5.82	92.81													
Street	72	C2	0.98	0.89	5.6	0.87	8.55	7.46													carry-over to C3
10' Type R On-Grade Inlet C3	73	C3	0.70	0.89	5.6	0.62	8.55	5.33													
10' Type R Sump Inlet C4	74	C4	0.36	0.89	5.0	0.32	8.82	2.82													
10' Type R On-Grade Inlet C5	75	C5	0.73	0.89	5.6	0.65	8.55	5.53													
10' Type R Sump Inlet C6	76	C6	0.33	0.89	5.0	0.29	8.82	2.58													
Direct to Pond	77	C7	0.74	0.67	5.4	0.50	8.64	4.29													
Direct to Pond	78	C8	2.63	0.66	5.1	1.73	8.79	15.19													
Future Detained from Hess	79	O51	10.60	0.49	16.1	5.19	5.70	29.63	100-yr detained release = (up to 1.0 * pre-dev peak)			*29.63*									
Interim FES Inlet O-51	79	OS-5	10.60	0.49	16.1	5.19	5.70	29.63													
Overland	81	D1	3.89	0.52	13.1	2.02	6.29	12.71													carry-over to D4
Street	82	D2	0.57	0.89	5.2	0.51	8.75	4.48													carry-over to D4
Overland	83	D3	2.95	0.52	12.5	1.53	6.41	9.83													carry-over to D4
15' Type R On-Grade Inlet D4	84	D4	0.90	0.89	9.2	0.80	7.27	5.82													
10' Type R Sump Inlet D5	85	D5	2.93	0.67	13.1	1.96	6.29	12.34													
Type C Area Inlet D5.1	85.1	D5.1	0.44	0.67	5.0	0.30	8.82	2.61													
10' Type R Sump Inlet D6	86	D6	3.52	0.67	13.9	2.36	6.12	14.42													
Type D Area Inlet D6.1	86.1	D6.1	0.75	0.67	5.0	0.50	8.82	4.42													
Type D Area Inlet D7.1	87.1	D7.1	0.30	0.67	5.0	0.20	8.82	1.77													
15' Type R Sump Inlet D8	88	D8	4.68	0.67	13.2	3.14	6.25	19.59													
Type D Area Inlet D8.1	88.1	D8.1	0.79	0.67	5.0	0.53	8.82	4.64													
Direct to Pond	89	D9	0.91	0.67	6.2	0.61	8.28	5.06													
Street	90	D10	1.05	0.67	11.5	0.70	6.64	4.68													carry-over to D11
10' Type R Sump Inlet D11	91	D11	3.59	0.67	13.7	2.41	6.16	14.82													
10' Type R Sump Inlet D12	92	D12	0.99	0.67	10.6	0.66	6.86	4.54													
10' Type R Sump Inlet D13	93	D13	2.89	0.67	16.2	1.94	5.69	11.04													
Street	94	D14	0.54	0.67	7.4	0.36	7.85	2.84													carry-over to D15
10' Type R Sump Inlet D15	95	D15	2.73	0.67	17.0	1.83	5.56	10.15													
Direct to Pond	96	D16	2.51	0.64	7.2	1.62	7.92	12.81													

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)
DEVELOPED

CALCULATED BY: DIF
DATE: 1/15/2019
CHECKED BY:

JOB NO: 16000498
PROJECT: Cielo Subdivision (DEVELOPED)
DESIGN STORM: 100-year

DESCRIPTION	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIG.	AREA (Acres)	RUNOFF COEFF	Tc (min)	C A (Acres)	I (in/hour)	Q (cfs)	Tc (min)	(C A) (Acres)	I (in/hour)	Q (cfs)	SLOPE (%)	CARRY-OVER FLOW (cfs)	INTERCEPTED FLOW (cfs)	SLOPE (%)	PIPE SIZE (in.)	LENGTH (ft)	VELOCITY (fps)	Tt (min)	
Crosspan	51	E1	2.97	0.67	6.3	1.99	8.28	16.48													carry-over to E2
15' Type R On-Grade Inlet E2	52	E2	1.07	0.67	8.3	0.72	7.54	5.39													
10' Type R On-Grade Inlet E3	53	E3	2.38	0.67	7.2	1.59	7.92	12.60													
10' Type R On-Grade Inlet E4	54	E4	1.58	0.67	13.8	1.06	6.15	6.50													
10' Type R On-Grade Inlet E5	55	E5	3.21	0.67	15.3	2.15	5.85	12.60													
Crosspan	56	E6	0.53	0.67	15.0	0.36	5.90	2.10													carry-over to E7
15' Type R On-Grade Inlet E7	57	E7	1.71	0.67	14.2	1.15	6.06	6.95													
10' Type R On-Grade Inlet E8	58	E8	2.50	0.67	13.1	1.67	6.29	10.52													
10' Type R On-Grade Inlet E9	59	E9	1.65	0.67	13.3	1.11	6.23	6.90													
10' Type R On-Grade Inlet E10	60	E10	0.22	0.86	5.0	0.19	8.82	1.66													
10' Type R On-Grade Inlet E11	61	E11	1.18	0.76	7.8	0.89	7.70	6.86													
18" FES E12	62	E12	3.01	0.62	14.4	1.87	6.01	11.23													
Direct to Pond	63	E13	1.44	0.82	5.0	1.18	8.82	10.39													
15' Type R On-Grade Inlet G7	128	G7	0.83	0.89	14.0	0.74	6.10	4.51													
Overland	111	F1	3.99	0.53	7.7	2.10	7.76	16.26													
Overland	112	F2	5.04	0.67	6.2	3.38	8.31	28.08													
Overland	113	F3	3.38	0.67	5.5	2.26	8.59	19.44													
Overland	114	F4	2.87	0.67	5.5	1.92	8.59	16.51													
15' Type R On-Grade Inlet O11	121	O11	0.73	0.89	5.0	0.65	8.82	5.73													
10' Type R On-Grade Inlet G1	122	G1	0.43	0.89	9.0	0.38	7.33	2.81													
10' Type R On-Grade Inlet G2	123	G2	1.59	0.65	12.8	1.03	6.35	6.54													
10' Type R On-Grade Inlet G3	124	G3	0.35	0.89	9.4	0.31	7.21	2.25													
10' Type R On-Grade Inlet G4	125	G4	0.18	0.89	9.0	0.16	7.33	1.17													
Scott Gulch		H1	55.60	0.49	26.7	27.24	4.37	119.01													
Cherry Creek		H2	42.20	0.49	25.0	20.68	4.53	93.69													
Cherry Creek		H3	46.90	0.49	21.7	22.98	4.90	112.65													
Cherry Creek		H4	13.80	0.49	16.7	6.76	5.61	37.94													
Scott Gulch		OS-1	101.80	0.49	37.8	49.88	3.55	176.97													
Cherry Creek		OS-2	24.10	0.49	23.9	11.81	4.65	54.88													
Cherry Creek		OS-3	41.90	0.49	23.3	20.53	4.71	96.66													
Scott Gulch		OS-4	34.60	0.49	21.7	16.95	4.90	83.10													
Cherry Creek		OS-5	10.60	0.49	16.1	5.19	5.70	29.63													
Scott Gulch		OS-6	26.60	0.49	18.3	13.03	5.35	69.73													
Cherry Creek		OS-7	62.96	0.49	26.7	30.85	4.37	134.76													

100-year P1 = 2.6 inches (UDFCD, Fig. RA-6) I = 28.5(P1)/(10+Tc)^0.786 (Ref. 2, Eq RA-3)

Atwell, LLC

APPENDIX B

HYDRAULIC CALCULATIONS

Cielo Subdivision

5-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
11	011	FB-A1	6,041.42	6036.00	216.9	0.025	36	0.013	16.50	10.86	6042.72	6039.23	6043.21	6039.31	105.43
12	A10	011	6,046.96	6045.92	26.1	0.040	30	0.013	16.51	13.05	6048.33	6046.82	6048.89	6048.51	81.87
13	013	A10	6,047.87	6047.57	22.6	0.013	30	0.013	11.23	7.89	6048.99	6048.47	6049.42	6049.24	47.26
13.1	A08	013	6,049.72	6048.86	40.3	0.021	18	0.013	4.51	7.55	6050.54	6049.43	6050.86	6050.26	15.34
14	014	013	6,050.88	6048.37	135.1	0.019	24	0.013	6.77	7.87	6051.80	6049.01	6052.16	6049.97	30.83
15	015	014	6,054.39	6051.08	220.1	0.015	24	0.013	6.82	7.31	6055.32	6051.76	6055.67	6052.58	27.74
16	016	015	6,055.70	6054.59	72.7	0.015	24	0.013	6.84	7.35	6056.63	6055.79	6056.98	6055.98	27.95
16.1	A03	016	6,056.63	6056.20	21.5	0.020	18	0.013	3.14	6.66	6057.30	6057.04	6057.56	6057.19	14.85
16.2	A06	016	6,056.63	6056.20	21.5	0.020	18	0.013	3.71	6.98	6057.37	6057.04	6057.65	6057.25	14.85
17	A14.1	018	6,047.29	6046.53	38.2	0.020	24	0.013	0.00	0.00	6047.29	6046.84	6047.29	6046.84	31.91
18	O72.1	018	6,048.93	6046.53	80.2	0.030	24	0.013	0.00	0.00	6048.93	6046.84	6048.93	6046.84	39.13
19	018	019	6,045.53	6044.52	100.5	0.010	36	0.013	7.22	6.19	6046.38	6045.19	6046.68	6045.78	66.86
20	019	A14	6,040.20	6040.00	39.2	0.005	60	0.013	40.14	7.56	6041.97	6041.61	6042.62	6042.45	186.02
21	A14	FB-A7	6,037.43	6037.00	84.5	0.005	72	0.013	44.40	7.64	6039.20	6039.23	6039.83	6039.56	302.10
22	022	018	6,047.17	6046.03	113.9	0.010	30	0.013	7.22	6.29	6048.06	6046.74	6048.39	6047.35	41.03
23	023	022	6,048.91	6047.67	124.1	0.010	24	0.013	7.22	6.40	6049.86	6048.45	6050.23	6049.08	22.61
24	O72	019	6,045.14	6042.71	81.2	0.030	60	0.013	20.67	11.65	6046.40	6043.46	6046.84	6045.39	450.52
24.1	O71	O72	6,045.98	6045.64	16.8	0.020	60	0.013	16.01	9.41	6047.08	6046.47	6047.47	6047.34	370.49
25	025	019	6,051.34	6044.22	315.5	0.023	42	0.013	13.42	9.70	6052.45	6044.92	6052.86	6046.39	151.13
26	026	025	6,064.46	6051.84	315.5	0.040	42	0.013	13.51	11.90	6065.58	6052.45	6065.98	6054.65	201.21
26.1	FES-063	026	6,074.07	6069.94	126.7	0.033	36	0.013	3.97	7.84	6074.69	6070.31	6074.91	6071.27	120.41
27	027	026	6,078.23	6068.96	370.8	0.025	36	0.013	11.30	9.74	6079.30	6069.62	6079.69	6071.10	105.45
27.1	A13	027	6,085.80	6083.73	151.2	0.014	24	0.013	4.70	6.36	6086.56	6084.30	6086.85	6084.93	26.47
28	028	027	6,084.72	6082.73	99.7	0.020	36	0.013	6.70	7.71	6085.53	6083.27	6085.82	6084.20	94.23
34	B5	MH44	6,037.49	6036.34	58.0	0.020	18	0.013	5.11	7.60	6038.36	6036.95	6038.72	6037.83	14.79
35	MH44	MH40	6,035.34	6031.09	424.9	0.010	30	0.013	9.79	6.86	6036.38	6032.67	6036.78	6032.81	41.02
36	MH40	MH39	6,030.59	6029.29	127.6	0.010	36	0.013	21.31	8.45	6032.07	6030.45	6032.65	6031.56	67.32
37	B6	MH44	6,037.26	6036.34	45.9	0.020	18	0.013	5.19	7.66	6038.14	6036.96	6038.50	6037.83	14.87
38	MH39	MH38	6,029.09	6028.57	55.3	0.009	36	0.013	21.18	8.19	6030.57	6029.79	6031.15	6030.75	64.67
42	MH38	MH37	6,028.37	6027.96	40.8	0.010	36	0.013	21.12	8.38	6029.85	6029.18	6030.42	6030.14	66.86
43	MH37	MH36	6,027.76	6027.36	41.2	0.010	36	0.013	21.07	8.28	6029.23	6028.58	6029.81	6029.52	65.72
44	MH36	MH35	6,027.16	6026.82	42.1	0.008	36	0.013	21.03	7.73	6028.63	6028.08	6029.21	6028.94	59.94
45	MH35	MH34	6,026.62	6024.54	158.1	0.013	36	0.013	20.98	9.23	6028.09	6026.61	6028.67	6026.86	76.50
46	MH34	MH33	6,024.34	6020.35	228.2	0.017	36	0.013	24.96	10.73	6025.95	6022.00	6026.60	6022.61	88.19
47	MH33	MH32	6,020.35	6019.43	54.4	0.017	36	0.013	24.73	10.58	6021.95	6020.60	6022.60	6022.05	86.73
48	MH32	MH31	6,019.23	6018.63	26.7	0.022	36	0.013	24.67	11.71	6020.83	6020.33	6021.47	6020.88	99.98
49	MH31	B14	6,017.93	6017.50	21.6	0.020	42	0.013	30.86	11.79	6019.65	6019.42	6020.32	6019.93	141.95
50	B14	MH30	6,017.50	6012.42	164.6	0.031	42	0.013	35.54	14.37	6019.35	6014.97	6020.09	6015.32	176.74
51	B12	MH31	6,020.09	6019.88	15.9	0.013	24	0.013	6.96	7.01	6021.03	6020.65	6021.39	6021.26	26.00
52	B9	MH34	6,027.34	6025.34	45.7	0.044	24	0.013	4.81	9.68	6028.11	6026.61	6028.40	6026.69	47.32
53	B1	MH43	6,045.67	6045.13	27.1	0.020	18	0.013	3.60	6.92	6046.39	6045.65	6046.68	6046.32	14.83

Cielo Subdivision

5-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
54	MH42	MH41	6,041.35	6040.40	66.0	0.014	18	0.013	7.49	7.44	6042.41	6041.24	6042.90	6042.09	12.60
55	MH43	MH42	6,044.93	6041.55	337.7	0.010	18	0.013	3.59	5.39	6045.65	6042.66	6045.94	6042.77	10.51
56	MH41	B4	6,039.70	6038.14	56.8	0.027	24	0.013	7.46	9.30	6040.67	6039.27	6041.05	6039.53	37.49
57	B4	B8	6,037.94	6032.28	141.5	0.040	24	0.013	10.12	11.61	6039.08	6032.92	6039.55	6035.02	45.24
58	B8	MH40	6,031.58	6031.09	17.3	0.028	30	0.013	12.91	10.77	6032.79	6032.67	6033.26	6032.91	69.03
59	MP-AA	INL-05	6,031.27	6029.40	167.4	0.011	48	0.013	0.80	3.19	6031.53	6029.61	6031.61	6029.77	151.81
60	MH62	MH61	6,028.45	6025.71	218.8	0.013	54	0.013	3.80	5.24	6029.00	6026.12	6029.18	6026.55	220.05
61	MH61	MH60	6,025.51	6022.39	312.0	0.010	54	0.013	3.70	4.81	6026.05	6022.82	6026.23	6023.18	196.64
62	MH60	MH59	6,022.19	6016.36	312.2	0.019	54	0.013	3.55	5.90	6022.72	6016.72	6022.90	6017.26	268.71
63	MH59	MH58	6,016.16	6015.03	56.3	0.020	54	0.013	3.45	6.00	6016.68	6015.38	6016.86	6015.94	278.58
70	MP-CC	FES-C2	6,019.53	6019.04	99.7	0.005	36	0.013	10.90	5.39	6020.58	6020.03	6020.96	6020.48	46.76
72	072	071	6,057.97	6045.44	334.3	0.038	24	0.013	1.66	6.69	6058.42	6046.28	6058.58	6046.31	43.81
73	073	072	6,077.47	6062.47	400.0	0.038	24	0.013	1.66	6.69	6077.92	6062.74	6078.07	6063.43	43.81
74	074	073	6,091.20	6081.97	341.8	0.027	24	0.013	1.66	5.96	6091.65	6082.26	6091.80	6082.81	37.17
75	075	074	6,096.70	6092.20	184.1	0.024	24	0.013	1.66	5.76	6097.15	6092.50	6097.30	6093.01	35.37
76	O51	075	6,098.50	6097.20	67.4	0.019	24	0.013	1.66	5.30	6098.95	6097.51	6099.10	6097.95	31.42
81	081	FB-D2	6,031.20	6031.00	26.2	0.008	30	0.013	7.64	5.80	6032.97	6032.97	6033.03	6033.02	35.83
82	082	081	6,033.04	6031.39	221.1	0.007	30	0.013	7.79	5.79	6033.97	6033.02	6034.31	6033.10	35.43
83	083	082	6,033.62	6033.24	51.1	0.007	30	0.013	7.82	5.79	6034.55	6034.42	6034.89	6034.60	35.37
83.1	D11	083	6,034.18	6033.82	19.2	0.019	30	0.013	6.49	7.62	6035.02	6034.95	6035.33	6035.09	56.01
83.2	D12	083	6,034.30	6033.82	22.3	0.022	18	0.013	1.49	5.52	6034.90	6034.95	6034.98	6034.97	15.41
84.1	D04	D05.1	6,057.05	6052.49	227.9	0.020	24	0.013	8.34	8.57	6058.08	6053.66	6058.49	6053.96	32.00
85	D05	D05.1	6,053.55	6053.02	26.8	0.020	18	0.013	4.11	7.16	6054.33	6053.59	6054.63	6054.29	14.77
85.1	D05.1	D06.1	6,051.99	6041.59	288.0	0.036	30	0.013	12.67	11.69	6053.19	6043.45	6053.65	6043.61	77.94
86	D06	D06.1	6,042.68	6042.09	29.5	0.020	24	0.013	4.81	7.33	6043.45	6043.45	6043.74	6043.52	31.99
86.1	D06.1	D07.1	6,041.39	6037.36	182.7	0.022	30	0.013	18.28	10.85	6042.84	6038.30	6043.44	6040.13	60.92
87.1	D07.1	D08.1	6,036.56	6033.78	230.6	0.012	36	0.013	18.55	8.64	6037.94	6035.75	6038.47	6035.97	73.23
88	D08	D08.1	6,035.72	6034.78	47.2	0.020	24	0.013	6.55	7.99	6036.63	6035.75	6036.97	6036.04	31.92
88.1	D08.1	FB-D7	6,033.78	6031.06	217.2	0.013	36	0.013	25.56	9.57	6035.41	6032.97	6036.07	6033.42	74.64
89	D15	FB-D1	6,031.73	6031.13	60.4	0.010	24	0.013	7.90	6.54	6032.91	6032.97	6033.17	6033.08	22.55
90	D13	D15	6,032.60	6032.23	37.5	0.010	18	0.013	3.68	5.39	6033.33	6032.85	6033.62	6033.29	10.43
91	091	FES-D1	5,995.19	5994.67	45.0	0.012	24	0.013	0.90	3.69	5995.52	5994.93	5995.63	5995.14	24.32
92	092	091	6,011.76	5997.25	241.8	0.060	24	0.013	0.90	6.56	6012.09	5997.43	6012.20	5998.10	55.41
93	E8	MH48	6,030.03	6028.37	83.2	0.020	18	0.013	3.51	6.88	6030.75	6029.13	6031.02	6029.37	14.84
93	093	092	6,021.55	6013.76	129.9	0.060	24	0.013	0.90	6.56	6021.88	6013.94	6021.99	6014.61	55.40
94	MH51	MH50	6,034.81	6034.05	40.4	0.019	18	0.013	4.19	7.06	6035.59	6035.23	6035.91	6035.36	14.41
94	MP-DD	093	6,026.15	6023.55	43.2	0.060	24	0.013	0.90	6.57	6026.48	6023.73	6026.59	6024.40	55.50
96	MH54	MH53	6,039.27	6035.60	162.9	0.023	24	0.013	7.20	8.58	6040.22	6036.55	6040.59	6036.92	33.95
97	MH50	MH49	6,033.05	6028.88	109.1	0.038	30	0.013	16.09	12.77	6034.40	6030.47	6034.95	6030.84	80.19
98	MH49	MH48	6,028.68	6027.37	43.6	0.030	30	0.013	18.93	12.25	6030.16	6029.13	6030.77	6029.54	71.09
101	C06	FB-C1	6,023.71	6023.00	141.5	0.005	42	0.013	46.24	7.88	6026.80	6026.57	6027.21	6026.93	71.26

Cielo Subdivision

5-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
102	C04	C06	6,030.86	6030.64	44.3	0.005	42	0.013	45.44	7.82	6032.96	6032.68	6033.84	6033.63	70.90
103	C01	C04	6,037.01	6036.36	43.5	0.015	42	0.013	44.51	11.74	6039.09	6037.98	6039.96	6039.60	122.80
104	C03	C01	6,041.32	6040.12	43.5	0.027	24	0.013	11.43	10.49	6042.53	6040.93	6043.04	6042.36	37.51
104	E7	MH49	6,030.56	6029.68	30.8	0.029	18	0.013	2.99	7.46	6031.22	6030.47	6031.47	6030.63	17.75
106	E11	MH45	6,017.60	6017.38	21.7	0.010	30	0.013	6.06	6.01	6019.10	6019.10	6019.16	6019.15	41.30
120	E5	MH51	6,035.44	6035.01	21.5	0.020	18	0.013	4.19	7.23	6036.22	6035.59	6036.54	6036.27	14.85
121	MH53	MH50	6,035.10	6033.55	50.6	0.031	24	0.013	11.09	10.81	6036.29	6035.23	6036.79	6035.47	39.59
122	E3	MH53	6,036.03	6035.60	19.6	0.022	18	0.013	4.18	7.46	6036.81	6036.55	6037.12	6036.75	15.55
123	B3	MH42	6,042.30	6041.75	27.3	0.020	18	0.013	4.07	7.19	6043.07	6042.66	6043.38	6042.87	14.91
123	E4	MH52	6,037.21	6036.60	24.3	0.025	18	0.013	2.16	6.50	6037.76	6036.98	6037.97	6037.57	16.64
124	MH52	MH50	6,036.40	6034.05	90.8	0.026	18	0.013	2.15	6.56	6036.95	6035.23	6037.16	6035.27	16.90
125	E2	MH54	6,040.10	6039.77	23.7	0.014	18	0.013	7.21	7.28	6041.14	6040.63	6041.61	6041.37	12.41
126	MH47	MH46	6,024.45	6018.69	145.0	0.040	30	0.013	22.10	14.15	6026.05	6019.58	6026.74	6022.69	81.75
127	MH46	MH45	6,018.19	6016.38	138.0	0.013	42	0.013	24.13	9.47	6019.70	6019.10	6020.27	6019.24	115.22
128	E9	MH46	6,020.80	6020.19	48.4	0.013	18	0.013	2.30	5.17	6021.37	6020.64	6021.59	6021.06	11.79
133	O11	MH63	6,044.06	6043.90	7.9	0.020	18	0.013	3.08	6.66	6044.84	6044.90	6045.01	6045.00	14.95
134	MH63	MH62	6,043.90	6031.44	276.8	0.045	18	0.013	3.08	8.86	6044.57	6031.82	6044.82	6033.04	22.29
135	G1	G2	5,998.52	5997.75	42.3	0.018	24	0.013	1.18	4.69	5998.89	5998.23	5999.02	5998.29	30.52
136	G2	FES-G2	5,997.55	5996.56	66.5	0.015	24	0.013	2.91	5.71	5998.15	5997.00	5998.36	5997.50	27.60
137	G3	G4	5,996.02	5995.59	42.9	0.010	24	0.013	1.20	3.82	5996.40	5995.90	5996.53	5996.13	22.65
138	G4	FES-G1	5,995.39	5995.00	38.8	0.010	24	0.013	1.79	4.30	5995.85	5995.38	5996.02	5995.67	22.68
139	INL-05	MH62	6,029.17	6028.95	18.3	0.012	48	0.013	0.80	3.27	6029.43	6029.16	6029.51	6029.32	157.49
141	MH58	MH57	6,014.83	6006.83	400.0	0.020	54	0.013	3.43	5.98	6015.35	6007.18	6015.52	6007.74	278.09
142	MH57	MH56	6,006.63	6004.90	159.2	0.011	54	0.013	3.31	4.79	6007.14	6005.30	6007.31	6005.65	204.98
143	MH56	CULVERT-1	6,004.70	6001.94	265.5	0.010	54	0.013	3.26	4.69	6005.20	6002.34	6005.38	6002.68	200.49
143	C05	071	6,050.48	6049.55	22.1	0.042	18	0.013	2.99	8.56	6051.14	6049.96	6051.39	6050.90	21.50
144	MH48	MH47	6,027.17	6024.65	63.1	0.040	30	0.013	22.13	14.18	6028.77	6026.33	6029.46	6026.95	81.96
147	MH101	MH100	6,003.19	6000.88	98.3	0.023	30	0.013	0.80	4.42	6003.48	6001.08	6003.58	6001.38	62.87
148	MH100	HW-1	6,000.68	6000.09	59.2	0.010	30	0.013	0.80	3.28	6000.97	6000.33	6001.07	6000.50	40.95
149	MH103	MH102	6,007.45	6005.77	111.7	0.015	30	0.013	0.80	3.79	6007.74	6005.99	6007.84	6006.21	50.30
150	MH102	MH101	6,005.57	6003.35	111.1	0.020	30	0.013	0.80	4.18	6005.86	6003.56	6005.96	6003.83	57.98
152	MH30	FB-B1	6,012.23	6011.47	131.6	0.006	42	0.013	38.91	7.98	6014.17	6013.24	6014.96	6014.23	76.45
153	G5	G6	6,016.03	6016.30	51.2	-0.005	24	0.013	3.40	4.12	6016.94	6016.90	6017.18	6017.00	16.42
154	MH45	E10	6,015.88	6015.50	37.5	0.010	48	0.013	31.56	9.21	6018.87	6018.88	6019.02	6019.00	144.59
155	E10	FB-E1	6,015.30	6015.00	58.8	0.005	48	0.013	32.05	7.22	6018.83	6018.82	6018.95	6018.92	102.60
155	MP-BB	FES-B1	5,997.62	5997.00	124.5	0.005	30	0.013	0.80	2.57	5997.91	5997.29	5998.01	5997.39	28.94
157	HW-E1	E11	6,020.00	6019.28	23.9	0.030	18	0.013	3.07	7.67	6020.67	6019.72	6020.92	6020.50	18.23
158	MP-EE	MH103	6,011.09	6008.45	145.3	0.018	30	0.013	0.80	4.04	6011.38	6008.66	6011.48	6008.91	55.29
160	071	C03	6,045.24	6044.41	22.2	0.037	24	0.013	4.64	9.06	6046.00	6044.89	6046.28	6045.88	43.74
161	MH45	MH107	6,018.38	6019.48	106.4	-0.010	18	0.013	2.39	4.87	6020.07	6019.10	6020.28	6019.23	10.68
162	G7	MH107	6,021.65	6019.68	95.2	0.021	18	0.013	2.41	6.26	6022.24	6020.35	6022.46	6020.51	15.11

Cielo Subdivision

5-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
180	G5	MH30	6,015.83	6013.92	380.6	0.005	24	0.013	4.19	4.29	6016.55	6014.97	6016.81	6015.07	16.02

Cielo Subdivision						
5-year Outfall Summary						
Label	Elevation (Invert) (ft)	Boundary Condition Type	Elevation (User Defined Tailwater) (ft)	Flow (Total Out) (cfs)	Depth (Node) (ft)	Hydraulic Grade (ft)
FB-C1	6023.00	User Defined Tailwater	6,026.57	45.9	3.57	6026.57
FES-C2	6019.04	Free Outfall		10.9	0.99	6020.03
FES-B1	5997.00	Free Outfall		0.8	0.29	5997.29
FB-B1	6011.47	User Defined Tailwater	6,013.11	38.8	1.77	6013.24
FES-G1	5995.00	Free Outfall		1.8	0.38	5995.38
HW-1	5996.80	Free Outfall		0.8	3.53	6000.33
FES-G2	5996.56	Free Outfall		2.9	0.44	5997.00
CULVERT-1	5998.44	Free Outfall		3.2	3.90	6002.34
FB-E1	6015.00	User Defined Tailwater	6,018.82	32.0	3.82	6018.82
FB-A1	6036.00	User Defined Tailwater	6,039.23	16.4	3.23	6039.23
FB-D1	6031.13	User Defined Tailwater	6,032.97	7.9	1.84	6032.97
FB-D7	6031.06	User Defined Tailwater	6,032.97	25.3	1.91	6032.97
FES-D1	5994.67	Free Outfall		0.9	0.26	5994.93
FB-D2	6031.00	User Defined Tailwater	6,032.97	7.6	1.97	6032.97
FB-A7	6037.00	User Defined Tailwater	6,039.23	44.3	2.23	6039.23

Cielo Subdivision												
5-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
A03	6063.43	6056.63	Circular Structure			60	3.14	6057.35	6057.30	Standard	0.05	0.05
A06	6063.17	6056.63	Circular Structure			60	3.71	6057.42	6057.37	Standard	0.05	0.05
A08	6058.09	6049.72	Circular Structure			60	4.51	6050.59	6050.54	Standard	0.05	0.05
A10	6056.93	6046.96	Circular Structure			60	16.51	6048.38	6048.33	Standard	0.05	0.05
A13	6097.74	6085.80	Circular Structure			60	4.70	6086.61	6086.56	Standard	0.05	0.05
A14	6055.72	6037.43	Circular Structure			84	44.40	6039.25	6039.20	Standard	0.05	0.05
A14.1	6054.84	6047.29	Circular Structure			60	0.00	6047.34	6,047.29	Standard	0.05	0.05
B1	6052.13	6045.67	Circular Structure			60	3.60	6046.44	6,046.39	Standard	0.05	0.05
B3	6048.73	6042.30	Circular Structure			60	4.07	6043.12	6,043.07	Standard	0.05	0.05
B4	6047.66	6037.94	Circular Structure			60	10.12	6039.27	6039.08	Standard	0.40	0.19
B5	6044.01	6037.49	Circular Structure			60	5.11	6038.41	6,038.36	Standard	0.05	0.05
B6	6043.66	6037.26	Circular Structure			60	5.19	6038.19	6,038.14	Standard	0.05	0.05
B8	6038.66	6031.58	Circular Structure			60	12.91	6032.84	6,032.79	Standard	0.05	0.05
B9	6034.06	6027.34	Circular Structure			60	4.81	6028.16	6,028.11	Standard	0.00	0.05
B12	6030.46	6020.09	Circular Structure			60	6.96	6021.08	6,021.03	Standard	0.05	0.05
B14	6030.47	6017.50	Circular Structure			60	35.54	6019.42	6019.35	Standard	0.10	0.07
C01	6057.13	6037.01	Box Structure	11.33	2.92		44.51	6040.23	6039.09	Standard	1.32	1.14
C03	6057.04	6041.32	Circular Structure			60	11.43	6042.58	6042.53	Standard	0.05	0.05
C04	6055.53	6031.31	Box Structure	3.00	10.00		45.44	6033.01	6032.96	Standard	0.05	0.05
C05	6057.13	6050.48	Circular Structure			60	2.99	6051.19	6051.14	Standard	0.05	0.05
C06	6055.53	6023.71	Box Structure	3.00	10.00		46.24	6026.85	6026.80	Standard	0.05	0.05
D04	6068.18	6057.05	Circular Structure			60	8.34	6058.13	6058.08	Standard	0.05	0.05
D05	6060.15	6053.55	Circular Structure			60	4.11	6054.38	6054.33	Standard	0.05	0.05
D05.1	6059.00	6051.99	Circular Structure			60	12.67	6053.66	6053.19	Standard	1.02	0.47
D06	6049.95	6042.68	Circular Structure			60	4.81	6043.50	6043.45	Standard	0.05	0.05
D06.1	6050.00	6041.39	Circular Structure			60	18.28	6043.45	6042.84	Standard	1.02	0.61
D07.1	6045.82	6036.56	Circular Structure			60	18.55	6037.99	6037.94	Standard	0.10	0.05
D08	6040.76	6035.72	Circular Structure			60	6.55	6036.68	6036.63	Standard	0.05	0.05
D08.1	6040.97	6033.78	Circular Structure			60	25.56	6035.75	6035.41	Standard	0.52	0.34
D11	6037.73	6034.18	Circular Structure			60	6.49	6035.07	6035.02	Standard	0.05	0.05
D12	6037.73	6034.30	Circular Structure			60	1.49	6034.95	6034.90	Standard	0.05	0.05
D13	6036.44	6032.60	Circular Structure			60	3.68	6033.38	6033.33	Standard	0.05	0.05
D15	6036.44	6031.73	Circular Structure			60	7.90	6032.96	6032.91	Standard	0.05	0.05
E2	6048.12	6040.10	Circular Structure			60	7.21	6041.19	6041.14	Standard	0.05	0.05

Cielo Subdivision												
5-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
E3	6041.82	6036.03	Circular Structure			60	4.18	6036.86	6036.81	Standard	0.05	0.05
E4	6045.24	6037.21	Circular Structure			60	2.16	6037.81	6037.76	Standard	0.05	0.05
E5	6041.92	6035.44	Circular Structure			60	4.19	6036.27	6036.22	Standard	0.05	0.05
E7	6036.52	6030.56	Circular Structure			60	2.99	6031.27	6031.22	Standard	0.05	0.05
E8	6039.31	6030.03	Circular Structure			60	3.51	6030.80	6030.75	Standard	0.05	0.05
E9	6026.16	6020.30	Circular Structure			60	2.30	6021.42	6021.37	Standard	0.05	0.05
E10	6023.30	6015.30	Box Structure	10.00	2.67		32.05	6018.88	6018.83	Standard	0.05	0.05
E11	6023.78	6017.60	Box Structure	15.00	2.67		6.06	6019.15	6019.10	Standard	0.10	0.05
FES-063	6081.98	6074.07	Circular Structure			60	3.97	6074.74	6074.69	Standard	0.05	0.05
G1	6006.61	5998.52	Box Structure	10.00	2.67		1.18	5998.94	5998.89	Standard	0.05	0.05
G2	6006.61	5997.55	Box Structure	15.00	2.67		2.91	5998.23	5998.15	Standard	0.40	0.09
G3	6001.27	5996.02	Circular Structure			60	1.20	5996.45	5996.40	Standard	0.05	0.05
G4	6001.28	5995.39	Circular Structure			60	1.79	5995.90	5995.85	Standard	0.05	0.05
G5	6020.26	6015.83	Box Structure	10.00	2.67		4.19	6016.90	6016.55	Standard	1.32	0.35
G6	6020.53	6016.30	Box Structure	15.00	2.67		3.40	6016.99	6016.94	Standard	0.05	0.05
G7	6026.93	6021.65	Box Structure	15.00	2.67		2.41	6022.29	6022.24	Standard	0.05	0.05
INL-05	6044.51	6029.17	Circular Structure			72	0.80	6029.48	6029.43	Standard	0.05	0.05
MP-BB	6013.08	5997.62	Circular Structure			60	0.80	5997.96	5997.91	Standard	0.05	0.05
MP-CC	6026.43	6019.53	Box Structure	2.92	5.67		10.90	6020.63	6020.58	Standard	0.05	0.05
MP-DD	6031.00	6026.15	Circular Structure			60	0.90	6026.53	6026.48	Standard	0.05	0.05
MP-EE	6014.73	6010.76	Circular Structure			60	0.80	6011.43	6011.38	Standard	0.05	0.05
O11	6054.18	6044.06	Circular Structure			60	3.08	6044.89	6044.84	Standard	0.05	0.05
O51	6104.56	6098.50	Box Structure	2.92	5.66		1.66	6099.00	6098.95	Standard	0.05	0.05
O71	6052.81	6045.98	Circular Structure			72	16.01	6047.13	6047.08	Standard	0.05	0.05
O72	6054.81	6045.14	Circular Structure			72	20.67	6046.45	6046.40	Standard	0.05	0.05
O72.1	6054.24	6048.93	Circular Structure			72	0.00	6048.98	6048.93	Standard	0.05	0.05
11	6056.20	6041.42	Circular Structure			60	16.50	6042.92	6042.72	Standard	0.40	0.20
13	6057.60	6047.87	Circular Structure			60	11.23	6049.11	6048.99	Standard	0.27	0.12
14	6059.30	6050.88	Circular Structure			60	6.77	6051.85	6051.80	Standard	0.10	0.05
15	6062.60	6054.39	Circular Structure			60	6.82	6055.79	6055.32	Standard	1.32	0.47
16	6063.40	6055.70	Circular Structure			60	6.84	6057.04	6056.63	Standard	1.16	0.41
18	6056.00	6045.53	Circular Structure			60	7.22	6046.84	6046.38	Standard	1.52	0.46
19	6056.70	6040.20	Circular Structure			84	40.14	6042.92	6041.97	Standard	1.46	0.95
22	6056.60	6047.17	Circular Structure			60	7.22	6048.49	6048.06	Standard	1.32	0.43

Cielo Subdivision												
5-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
23	6066.40	6048.61	Circular Structure			60	7.22	6049.91	6049.86	Standard	0.05	0.05
25	6064.30	6051.34	Circular Structure			60	13.42	6052.50	6052.45	Standard	0.05	0.05
26	6079.20	6064.46	Circular Structure			60	13.51	6065.79	6065.58	Standard	0.52	0.21
27	6093.90	6078.23	Circular Structure			60	11.30	6079.50	6079.30	Standard	0.52	0.20
28	6093.50	6084.72	Circular Structure			60	6.70	6085.58	6085.53	Standard	0.05	0.05
71	6059.06	6045.24	Circular Structure			60	4.64	6046.28	6046.00	Standard	1.02	0.29
72	6072.71	6057.97	Circular Structure			60	1.66	6058.47	6058.42	Standard	0.05	0.05
73	6096.03	6077.47	Circular Structure			60	1.66	6077.97	6077.92	Standard	0.05	0.05
74	6100.00	6091.20	Circular Structure			60	1.66	6091.85	6091.65	Standard	1.32	0.21
75	6108.00	6096.70	Circular Structure			60	1.66	6097.25	6097.15	Standard	0.64	0.10
81	6037.50	6031.20	Circular Structure			60	7.64	6033.02	6032.97	Standard	0.64	0.05
82	6038.60	6033.04	Circular Structure			60	7.79	6034.42	6033.97	Standard	1.32	0.45
83	6038.20	6033.62	Circular Structure			60	7.82	6034.95	6034.55	Standard	1.16	0.40
91	6008.20	5995.25	Circular Structure			60	0.90	5995.67	5995.52	Standard	1.32	0.15
92	6037.70	6011.76	Circular Structure			60	0.90	6012.14	6012.09	Standard	0.40	0.05
93	6039.00	6021.55	Circular Structure			60	0.90	6022.03	6021.88	Standard	1.32	0.15
MH30	6023.20	6012.23	Circular Structure			60	38.91	6014.97	6014.17	Standard	1.02	0.80
MH31	6030.90	6017.93	Circular Structure			60	30.86	6020.33	6019.65	Standard	1.02	0.68
MH32	6030.90	6019.23	Circular Structure			60	24.67	6020.88	6020.83	Standard	0.05	0.05
MH33	6031.40	6020.35	Circular Structure			36	24.73	6022.00	6021.95	Standard	0.05	0.05
MH34	6033.90	6024.34	Circular Structure			60	24.96	6026.61	6025.95	Standard	1.02	0.66
MH35	6035.70	6026.62	Circular Structure			60	20.98	6028.14	6028.09	Standard	0.05	0.05
MH36	6036.10	6027.16	Circular Structure			60	21.03	6028.68	6028.63	Standard	0.05	0.05
MH37	6036.60	6027.76	Circular Structure			60	21.07	6029.29	6029.23	Standard	0.05	0.05
MH38	6037.00	6028.37	Circular Structure			60	21.12	6029.90	6029.85	Standard	0.05	0.05
MH39	6037.70	6029.09	Circular Structure			60	21.18	6030.62	6030.57	Standard	0.05	0.05
MH40	6039.10	6030.59	Circular Structure			60	21.31	6032.67	6032.07	Standard	1.02	0.59
MH41	6048.40	6039.70	Circular Structure			60	7.46	6040.82	6040.67	Standard	0.40	0.15
MH42	6049.00	6041.35	Circular Structure			60	7.49	6042.66	6042.41	Standard	0.52	0.25
MH43	6052.40	6044.93	Circular Structure			60	3.59	6045.77	6045.65	Standard	0.40	0.11
MH44	6043.70	6035.34	Circular Structure			60	9.79	6036.79	6036.38	Standard	1.02	0.40
MH45	6023.90	6015.88	Circular Structure			60	31.56	6019.10	6018.87	Standard	1.52	0.23
MH46	6025.80	6018.19	Circular Structure			60	24.13	6020.00	6019.70	Standard	0.52	0.30
MH47	6032.00	6024.45	Circular Structure			60	22.10	6026.33	6026.05	Standard	0.40	0.28

Cielo Subdivision												
5-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
MH48	6035.40	6027.17	Circular Structure			60	22.13	6029.13	6028.77	Standard	0.52	0.36
MH49	6037.00	6028.68	Circular Structure			60	18.93	6030.47	6030.16	Standard	0.52	0.32
MH50	6041.35	6033.05	Circular Structure			60	16.09	6035.23	6034.40	Standard	1.52	0.83
MH51	6041.30	6034.81	Circular Structure			60	4.19	6035.72	6035.59	Standard	0.40	0.12
MH52	6041.35	6036.40	Circular Structure			60	2.15	6037.04	6036.95	Standard	0.40	0.08
MH53	6042.22	6035.10	Circular Structure			60	11.09	6036.55	6036.29	Standard	0.52	0.26
MH54	6048.10	6039.27	Circular Structure			60	7.20	6040.37	6040.22	Standard	0.40	0.15
MH56	6014.72	6004.70	Circular Structure			72	3.26	6005.27	6005.20	Standard	0.40	0.07
MH57	6018.39	6006.63	Circular Structure			72	3.31	6007.19	6007.14	Standard	0.05	0.05
MH58	6025.50	6014.83	Circular Structure			72	3.43	6015.42	6015.35	Standard	0.40	0.07
MH59	6028.80	6016.16	Circular Structure			72	3.45	6016.75	6016.68	Standard	0.40	0.07
MH60	6033.80	6022.19	Circular Structure			72	3.55	6022.77	6022.72	Standard	0.05	0.05
MH61	6038.70	6025.51	Circular Structure			72	3.70	6026.10	6026.05	Standard	0.05	0.05
MH62	6043.90	6028.45	Circular Structure			72	3.80	6029.09	6029.00	Standard	0.52	0.10
MH63	6054.40	6043.90	Circular Structure			60	3.08	6044.90	6044.57	Standard	1.32	0.34
MH100	6010.90	6000.68	Circular Structure			60	0.80	6001.03	6000.97	Standard	0.64	0.06
MH101	6011.35	6003.19	Circular Structure			60	0.80	6003.53	6003.48	Standard	0.10	0.05
MH102	6017.68	6005.57	Circular Structure			60	0.80	6005.91	6005.86	Standard	0.10	0.05
MH103	6019.48	6007.45	Circular Structure			60	0.80	6007.85	6007.74	Standard	1.16	0.11
MH107	6025.24	6019.48	Circular Structure			60	2.39	6020.35	6020.07	Standard	1.32	0.29
MP-AA	6037.36	6031.27	Circular Structure			72	0.80	6031.58	6031.53	Standard	0.05	0.05

Cielo Subdivision

100-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
11	011	FB-A1	6,041.42	6036.00	216.9	0.025	36	0.013	50.18	14.73	6043.73	6042.69	6044.88	6043.47	105.43
12	A10	011	6,046.96	6045.92	26.1	0.040	30	0.013	50.21	17.52	6049.26	6047.68	6051.01	6050.56	81.87
13	013	A10	6,047.87	6047.57	22.6	0.013	30	0.013	34.29	10.49	6049.86	6049.30	6050.90	6050.69	47.26
13.1	A08	013	6,049.72	6048.86	40.3	0.021	18	0.013	13.73	9.82	6051.09	6050.01	6052.11	6051.39	15.34
14	014	013	6,050.88	6048.37	135.1	0.019	24	0.013	20.66	10.52	6052.51	6050.14	6053.39	6050.91	30.83
15	015	014	6,054.39	6051.08	220.1	0.015	24	0.013	20.77	9.69	6056.02	6052.37	6056.91	6053.83	27.74
16	016	015	6,055.70	6054.59	72.7	0.015	24	0.013	20.83	6.63	6057.81	6057.20	6058.50	6057.88	27.95
16.1	A03	016	6,056.63	6056.20	21.5	0.020	18	0.013	9.56	5.41	6058.78	6058.60	6059.24	6059.06	14.85
16.2	A06	016	6,056.63	6056.20	21.5	0.020	18	0.013	11.28	6.39	6058.85	6058.60	6059.49	6059.24	14.85
17	A14.1	018	6,047.29	6046.53	38.2	0.020	24	0.013	0.00	0.00	6053.36	6053.36	6053.36	6053.36	31.91
18	O72.1	018	6,048.93	6046.53	80.2	0.030	24	0.013	0.00	0.00	6053.36	6053.36	6053.36	6053.36	39.13
19	018	019	6,045.53	6044.52	100.5	0.010	36	0.013	37.41	5.29	6052.70	6052.39	6053.14	6052.82	66.86
20	019	A14	6,040.20	6040.00	39.2	0.005	60	0.013	339.90	17.31	6045.59	6044.79	6050.24	6049.58	186.02
21	A14	FB-A7	6,037.43	6037.00	84.5	0.005	72	0.013	347.82	12.30	6043.23	6042.69	6045.63	6045.14	302.10
22	022	018	6,047.17	6046.03	113.9	0.010	30	0.013	37.41	7.62	6054.31	6053.36	6055.21	6054.27	41.03
23	023	022	6,048.91	6047.67	124.1	0.010	24	0.013	37.41	11.91	6058.90	6055.50	6061.10	6057.71	22.61
24	O72	019	6,045.14	6042.71	81.2	0.030	60	0.013	148.93	7.59	6052.65	6052.39	6053.55	6053.28	450.52
24.1	O71	O72	6,045.98	6045.64	16.8	0.020	60	0.013	137.44	7.00	6052.75	6052.70	6053.51	6053.46	370.49
25	025	019	6,051.34	6044.22	315.5	0.023	42	0.013	167.12	17.37	6061.09	6052.39	6065.78	6057.07	151.13
26	026	025	6,064.46	6051.84	315.5	0.040	42	0.013	167.79	17.44	6070.10	6061.33	6074.83	6066.05	201.21
26.1	FES-063	026	6,074.07	6069.94	126.7	0.033	36	0.013	70.64	17.71	6076.74	6071.70	6078.50	6075.89	120.41
27	027	026	6,078.23	6068.96	370.8	0.025	36	0.013	100.64	16.98	6081.13	6072.56	6084.35	6075.71	105.45
27.1	A13	027	6,085.80	6083.73	151.2	0.014	24	0.013	8.80	7.57	6086.86	6084.52	6087.28	6085.42	26.47
28	028	027	6,084.72	6082.73	99.7	0.020	36	0.013	91.99	15.19	6087.58	6085.23	6090.30	6088.55	94.23
34	B5	MH44	6,037.49	6036.34	58.0	0.020	18	0.013	15.59	8.82	6039.65	6038.37	6040.86	6039.58	14.79
35	MH44	MH40	6,035.34	6031.09	424.9	0.010	30	0.013	29.80	9.11	6037.78	6035.55	6038.36	6036.12	41.02
36	MH40	MH39	6,030.59	6029.29	127.6	0.010	36	0.013	65.36	9.25	6034.19	6032.97	6035.52	6034.29	67.32
37	B6	MH44	6,037.26	6036.34	45.9	0.020	18	0.013	15.74	8.91	6039.40	6038.37	6040.63	6039.60	14.87
38	MH39	MH38	6,029.09	6028.57	55.3	0.009	36	0.013	64.99	9.19	6032.90	6032.37	6034.21	6033.69	64.67
42	MH38	MH37	6,028.37	6027.96	40.8	0.010	36	0.013	64.82	9.17	6032.31	6031.92	6033.62	6033.23	66.86
43	MH37	MH36	6,027.76	6027.36	41.2	0.010	36	0.013	64.70	9.15	6031.86	6031.47	6033.16	6032.77	65.72
44	MH36	MH35	6,027.16	6026.82	42.1	0.008	36	0.013	64.58	9.14	6031.41	6031.01	6032.70	6032.31	59.94
45	MH35	MH34	6,026.62	6024.54	158.1	0.013	36	0.013	64.45	9.12	6030.95	6029.47	6032.24	6030.76	76.50
46	MH34	MH33	6,024.34	6020.35	228.2	0.017	36	0.013	76.67	10.85	6027.61	6024.59	6029.43	6026.42	88.19
47	MH33	MH32	6,020.35	6019.43	54.4	0.017	36	0.013	75.97	10.75	6024.50	6023.79	6026.29	6025.59	86.73
48	MH32	MH31	6,019.23	6018.63	26.7	0.022	36	0.013	75.80	10.72	6023.71	6023.36	6025.49	6025.15	99.98
49	MH31	B14	6,017.93	6017.50	21.6	0.020	42	0.013	94.75	9.85	6021.82	6021.63	6023.33	6023.14	141.95
50	B14	MH30	6,017.50	6012.42	164.6	0.031	42	0.013	109.10	11.34	6021.43	6019.50	6023.43	6021.49	176.74

Cielo Subdivision

100-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
51	B12	MH31	6,020.09	6019.88	15.9	0.013	24	0.013	21.22	6.76	6023.50	6023.36	6024.21	6024.07	26.00
52	B9	MH34	6,027.34	6025.34	45.7	0.044	24	0.013	14.58	4.64	6029.66	6029.47	6030.00	6029.81	47.32
53	B1	MH43	6,045.67	6045.13	27.1	0.020	18	0.013	10.94	6.19	6050.55	6050.26	6051.15	6050.85	14.83
54	MH42	MH41	6,041.35	6040.40	66.0	0.014	18	0.013	22.88	12.95	6045.03	6041.88	6047.63	6044.50	12.60
55	MH43	MH42	6,044.93	6041.55	337.7	0.010	18	0.013	10.91	6.17	6050.02	6046.38	6050.62	6046.97	10.51
56	MH41	B4	6,039.70	6038.14	56.8	0.027	24	0.013	22.83	12.52	6041.40	6040.46	6042.40	6041.28	37.49
57	B4	B8	6,037.94	6032.28	141.5	0.040	24	0.013	31.04	15.51	6039.82	6035.76	6041.41	6037.28	45.24
58	B8	MH40	6,031.58	6031.09	17.3	0.028	30	0.013	39.62	8.07	6035.71	6035.55	6036.72	6036.56	69.03
59	MP-AA	INL-05	6,031.27	6029.40	167.4	0.011	48	0.013	139.40	13.70	6034.78	6033.16	6036.99	6035.17	151.81
60	MH62	MH61	6,028.45	6025.71	218.8	0.013	54	0.013	145.05	14.78	6031.99	6028.44	6033.81	6031.64	220.05
61	MH61	MH60	6,025.51	6022.39	312.0	0.010	54	0.013	144.98	13.52	6029.05	6025.27	6030.86	6028.09	196.64
62	MH60	MH59	6,022.19	6016.36	312.2	0.019	54	0.013	144.87	17.21	6025.73	6020.42	6027.54	6021.85	268.71
63	MH59	MH58	6,016.16	6015.03	56.3	0.020	54	0.013	144.79	17.69	6019.69	6019.09	6021.51	6020.52	278.58
70	MP-CC	FES-C2	6,019.53	6019.04	99.7	0.005	36	0.013	66.20	9.37	6022.83	6021.64	6024.19	6023.25	46.76
72	072	071	6,057.97	6045.44	334.3	0.038	24	0.013	29.63	14.97	6059.83	6049.51	6061.30	6050.89	43.81
73	073	072	6,077.47	6062.47	400.0	0.038	24	0.013	29.63	14.97	6079.33	6063.68	6080.80	6067.16	43.81
74	074	073	6,091.20	6081.97	341.8	0.027	24	0.013	29.63	13.14	6093.06	6083.32	6094.53	6086.00	37.17
75	075	074	6,096.70	6092.20	184.1	0.024	24	0.013	29.63	12.61	6098.56	6095.00	6100.03	6096.39	35.37
76	O51	075	6,098.50	6097.20	67.4	0.019	24	0.013	29.63	9.43	6100.66	6099.50	6102.04	6100.88	31.42
81	081	FB-D2	6,031.20	6031.00	26.2	0.008	30	0.013	23.13	4.71	6035.25	6035.17	6035.60	6035.52	35.83
82	082	081	6,033.04	6031.39	221.1	0.007	30	0.013	23.67	4.82	6036.21	6035.47	6036.57	6035.84	35.43
83	083	082	6,033.62	6033.24	51.1	0.007	30	0.013	23.79	4.85	6036.86	6036.69	6037.22	6037.05	35.37
83.1	D11	083	6,034.18	6033.82	19.2	0.019	30	0.013	19.73	4.02	6037.33	6037.28	6037.58	6037.53	56.01
83.2	D12	083	6,034.30	6033.82	22.3	0.022	18	0.013	4.59	2.60	6037.33	6037.28	6037.43	6037.39	15.41
84.1	D04	D05.1	6,057.05	6052.49	227.9	0.020	24	0.013	32.88	10.46	6060.64	6055.82	6062.34	6057.52	32.00
85	D05	D05.1	6,053.55	6053.02	26.8	0.020	18	0.013	12.50	7.08	6056.20	6055.82	6056.98	6056.60	14.77
85.1	D05.1	D06.1	6,051.99	6041.59	288.0	0.036	30	0.013	46.50	16.57	6054.24	6049.31	6055.79	6050.70	77.94
86	D06	D06.1	6,042.68	6042.09	29.5	0.020	24	0.013	14.63	4.66	6049.43	6049.31	6049.77	6049.65	31.99
86.1	D06.1	D07.1	6,041.39	6037.36	182.7	0.022	30	0.013	63.57	12.95	6046.65	6042.26	6049.26	6044.87	60.92
87.1	D07.1	D08.1	6,036.56	6033.78	230.6	0.012	36	0.013	64.48	9.12	6042.13	6039.98	6043.43	6041.27	73.23
88	D08	D08.1	6,035.72	6034.78	47.2	0.020	24	0.013	19.96	6.35	6040.34	6039.98	6040.97	6040.60	31.92
88.1	D08.1	FB-D7	6,033.78	6031.06	217.2	0.013	36	0.013	86.00	12.17	6038.78	6035.17	6041.08	6037.47	74.64
89	D15	FB-D1	6,031.73	6031.13	60.4	0.010	24	0.013	24.06	7.66	6035.85	6035.17	6036.76	6036.08	22.55
90	D13	D15	6,032.60	6032.23	37.5	0.010	18	0.013	11.17	6.32	6036.33	6035.90	6036.95	6036.52	10.43
91	091	FES-D1	5,995.19	5994.67	45.0	0.012	24	0.013	26.50	8.44	5997.08	5996.47	5998.24	5997.70	24.32
92	092	091	6,011.76	5997.25	241.8	0.060	24	0.013	26.50	17.44	6013.56	5998.22	6014.79	6002.95	55.41
93	E8	MH48	6,030.03	6028.37	83.2	0.020	18	0.013	10.65	6.03	6033.64	6032.78	6034.20	6033.35	14.84
93	093	092	6,021.55	6013.76	129.9	0.060	24	0.013	26.50	17.43	6023.35	6014.75	6024.58	6019.32	55.40

Cielo Subdivision

100-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
94	MH51	MH50	6,034.81	6034.05	40.4	0.019	18	0.013	12.67	7.17	6039.24	6038.65	6040.04	6039.45	14.41
94	MP-DD	093	6,026.15	6023.55	43.2	0.060	24	0.013	26.50	17.46	6027.95	6024.67	6029.18	6028.01	55.50
96	MH54	MH53	6,039.27	6035.60	162.9	0.023	24	0.013	21.95	6.99	6042.24	6040.71	6043.00	6041.47	33.95
97	MH50	MH49	6,033.05	6028.88	109.1	0.038	30	0.013	48.92	9.97	6036.30	6034.75	6037.85	6036.30	80.19
98	MH49	MH48	6,028.68	6027.37	43.6	0.030	30	0.013	57.58	11.73	6033.64	6032.78	6035.78	6034.92	71.09
101	C06	FB-C1	6,023.71	6023.00	141.5	0.005	42	0.013	141.59	14.72	6030.99	6028.19	6034.36	6031.56	71.26
102	C04	C06	6,030.86	6030.64	44.3	0.005	42	0.013	140.03	14.55	6034.94	6033.99	6038.23	6037.38	70.90
103	C01	C04	6,037.01	6036.36	43.5	0.015	42	0.013	138.29	14.37	6040.60	6039.71	6043.81	6043.02	122.80
104	C03	C01	6,041.32	6040.12	43.5	0.027	24	0.013	48.00	15.28	6046.79	6044.84	6050.42	6048.46	37.51
104	E7	MH49	6,030.56	6029.68	30.8	0.029	18	0.013	9.15	5.18	6034.99	6034.75	6035.40	6035.17	17.75
106	E11	MH45	6,017.60	6017.38	21.7	0.010	30	0.013	18.15	3.70	6023.35	6023.31	6023.57	6023.52	41.30
120	E5	MH51	6,035.44	6035.01	21.5	0.020	18	0.013	12.68	7.18	6039.87	6039.56	6040.67	6040.36	14.85
121	MH53	MH50	6,035.10	6033.55	50.6	0.031	24	0.013	33.73	10.74	6039.78	6038.65	6041.57	6040.44	39.59
122	E3	MH53	6,036.03	6035.60	19.6	0.022	18	0.013	12.69	7.18	6040.99	6040.71	6041.80	6041.51	15.55
123	B3	MH42	6,042.30	6041.75	27.3	0.020	18	0.013	12.42	7.03	6046.76	6046.38	6047.53	6047.15	14.91
123	E4	MH52	6,037.21	6036.60	24.3	0.025	18	0.013	6.59	3.73	6039.19	6039.09	6039.40	6039.31	16.64
124	MH52	MH50	6,036.40	6034.05	90.8	0.026	18	0.013	6.57	3.72	6039.01	6038.65	6039.22	6038.87	16.90
125	E2	MH54	6,040.10	6039.77	23.7	0.014	18	0.013	21.96	12.42	6043.58	6042.54	6045.98	6044.94	12.41
126	MH47	MH46	6,024.45	6018.69	145.0	0.040	30	0.013	67.16	13.68	6028.40	6024.52	6031.31	6027.42	81.75
127	MH46	MH45	6,018.19	6016.38	138.0	0.013	42	0.013	73.36	7.63	6024.04	6023.31	6024.95	6024.21	115.22
128	E9	MH46	6,020.80	6020.19	48.4	0.013	18	0.013	7.03	3.98	6024.73	6024.52	6024.98	6024.76	11.79
133	O11	MH63	6,044.06	6043.90	7.9	0.020	18	0.013	5.78	7.91	6045.34	6045.35	6045.54	6045.52	14.95
134	MH63	MH62	6,043.90	6031.44	276.8	0.045	18	0.013	5.77	10.59	6044.83	6032.93	6045.22	6033.10	22.29
135	G1	G2	5,998.52	5997.75	42.3	0.018	24	0.013	2.21	5.65	5999.04	5998.73	5999.22	5998.76	30.52
136	G2	FES-G2	5,997.55	5996.56	66.5	0.015	24	0.013	8.19	7.66	5998.57	5997.31	5998.97	5998.20	27.60
137	G3	G4	5,996.02	5995.59	42.9	0.010	24	0.013	2.25	4.60	5996.54	5996.02	5996.73	5996.35	22.65
138	G4	FES-G1	5,995.39	5995.00	38.8	0.010	24	0.013	3.39	5.19	5996.03	5995.52	5996.27	5995.94	22.68
139	INL-05	MH62	6,029.17	6028.95	18.3	0.012	48	0.013	139.40	14.15	6033.06	6032.93	6035.00	6034.85	157.49
141	MH58	MH57	6,014.83	6006.83	400.0	0.020	54	0.013	144.78	17.66	6018.36	6009.14	6020.18	6013.97	278.09
142	MH57	MH56	6,006.63	6004.90	159.2	0.011	54	0.013	144.68	13.97	6010.16	6008.96	6011.98	6010.38	204.98
143	MH56	CULVERT-1	6,004.70	6001.94	265.5	0.010	54	0.013	144.63	13.73	6008.23	6004.80	6010.04	6007.66	200.49
143	C05	071	6,050.48	6049.55	22.1	0.042	18	0.013	5.61	10.23	6051.39	6050.14	6051.78	6051.35	21.50
144	MH48	MH47	6,027.17	6024.65	63.1	0.040	30	0.013	67.27	13.70	6031.26	6029.57	6034.18	6032.48	81.96
147	MH101	MH100	6,003.19	6000.88	98.3	0.023	30	0.013	21.80	11.64	6004.78	6002.71	6005.46	6003.21	62.87
148	MH100	HW-1	6,000.68	6000.09	59.2	0.010	30	0.013	21.80	8.47	6002.27	6001.42	6002.95	6002.47	40.95
149	MH103	MH102	6,007.45	6005.77	111.7	0.015	30	0.013	21.80	9.88	6009.04	6006.93	6009.72	6008.41	50.30
150	MH102	MH101	6,005.57	6003.35	111.1	0.020	30	0.013	21.80	10.97	6007.16	6004.43	6007.84	6006.22	57.98
152	MH30	FB-B1	6,012.23	6011.47	131.6	0.006	42	0.013	111.80	11.62	6017.35	6015.73	6019.45	6017.83	76.45

Cielo Subdivision

100-year Pipe Summary

Label	Start Node	Stop Node	Invert (Start) (ft)	Invert (Stop) (ft)	Length (ft)	Slope (Calculated) (ft/ft)	Diameter (in)	Manning's n	Flow (cfs)	Velocity (ft/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Energy Grade Line (In) (ft)	Energy Grade Line (Out) (ft)	Capacity (Design) (cfs)
153	G5	G6	6,016.03	6016.30	51.2	-0.005	24	0.013	6.39	2.03	6020.14	6020.10	6020.20	6020.16	16.42
154	MH45	E10	6,015.88	6015.50	37.5	0.010	48	0.013	93.51	7.44	6022.00	6021.84	6022.86	6022.70	144.59
155	E10	FB-E1	6,015.30	6015.00	58.8	0.005	48	0.013	94.45	7.52	6021.79	6021.54	6022.67	6022.42	102.60
155	MP-BB	FES-B1	5,997.62	5997.00	124.5	0.005	30	0.013	7.90	5.02	5998.55	5997.89	5998.90	5998.28	28.94
157	HW-E1	E11	6,020.00	6019.28	23.9	0.030	18	0.013	11.23	6.35	6023.68	6023.40	6024.30	6024.03	18.23
158	MP-EE	MH103	6,011.09	6008.45	145.3	0.018	30	0.013	21.80	10.60	6012.68	6009.54	6013.36	6011.28	55.29
160	071	C03	6,045.24	6044.41	22.2	0.037	24	0.013	35.23	11.21	6047.51	6046.98	6049.47	6048.93	43.74
161	MH45	MH107	6,018.38	6019.48	106.4	-0.010	18	0.013	4.47	2.53	6023.50	6023.31	6023.60	6023.41	10.68
162	G7	MH107	6,021.65	6019.68	95.2	0.021	18	0.013	4.57	2.59	6023.81	6023.63	6023.92	6023.74	15.11
180	G5	MH30	6,015.83	6013.92	380.6	0.005	24	0.013	7.94	2.53	6019.96	6019.50	6020.06	6019.59	16.02

Cielo Subdivision						
100-year Outfall Summary						
Label	Elevation (Invert) (ft)	Boundary Condition Type	Elevation (User Defined Tailwater) (ft)	Flow (Total Out) (cfs)	Depth (Node) (ft)	Hydraulic Grade (ft)
FB-C1	6023.00	User Defined Tailwater	6,028.19	141.1	5.19	6028.19
FES-C2	6019.04	Free Outfall		66.2	2.60	6021.64
FES-B1	5997.00	Free Outfall		7.9	0.89	5997.89
FB-B1	6011.47	User Defined Tailwater	6,015.73	111.5	4.26	6015.73
FES-G1	5995.00	Free Outfall		3.4	0.52	5995.52
HW-1	5996.80	Free Outfall		21.8	4.62	6001.42
FES-G2	5996.56	Free Outfall		8.2	0.75	5997.31
CULVERT-1	5998.44	Free Outfall		144.6	6.36	6004.80
FB-E1	6015.00	User Defined Tailwater	6,021.54	94.2	6.54	6021.54
FB-A1	6036.00	User Defined Tailwater	6,042.69	49.9	6.69	6042.69
FB-D1	6031.13	User Defined Tailwater	6,035.17	24.0	4.04	6035.17
FB-D7	6031.06	User Defined Tailwater	6,035.17	85.3	4.11	6035.17
FES-D1	5994.67	Free Outfall		26.5	1.80	5996.47
FB-D2	6031.00	User Defined Tailwater	6,035.17	23.1	4.17	6035.17
FB-A7	6037.00	User Defined Tailwater	6,042.69	347.2	5.69	6042.69

Cielo Subdivision												
100-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
A03	6063.43	6056.63	Circular Structure			60	9.56	6058.83	6058.78	Standard	0.05	0.05
A06	6063.17	6056.63	Circular Structure			60	11.28	6058.90	6058.85	Standard	0.05	0.05
A08	6058.09	6049.72	Circular Structure			60	13.73	6051.15	6051.09	Standard	0.05	0.05
A10	6056.93	6046.96	Circular Structure			60	50.21	6049.35	6049.26	Standard	0.05	0.09
A13	6097.74	6085.80	Circular Structure			60	8.80	6086.91	6086.86	Standard	0.05	0.05
A14	6055.72	6037.43	Circular Structure			84	347.82	6043.35	6043.23	Standard	0.05	0.12
A14.1	6054.84	6047.29	Circular Structure			60	0.00	6053.41	6,053.36	Standard	0.05	0.05
B1	6052.13	6045.67	Circular Structure			60	10.94	6050.60	6,050.55	Standard	0.05	0.05
B3	6048.73	6042.30	Circular Structure			60	12.42	6046.81	6,046.76	Standard	0.05	0.05
B4	6047.66	6037.94	Circular Structure			60	31.04	6040.46	6039.82	Standard	0.40	0.64
B5	6044.01	6037.49	Circular Structure			60	15.59	6039.71	6,039.65	Standard	0.05	0.06
B6	6043.66	6037.26	Circular Structure			60	15.74	6039.46	6,039.40	Standard	0.05	0.06
B8	6038.66	6031.58	Circular Structure			60	39.62	6035.76	6,035.71	Standard	0.05	0.05
B9	6034.06	6027.34	Circular Structure			60	14.58	6029.71	6,029.66	Standard	0.00	0.05
B12	6030.46	6020.09	Circular Structure			60	21.22	6023.55	6,023.50	Standard	0.05	0.05
B14	6030.47	6017.50	Circular Structure			60	109.10	6021.63	6021.43	Standard	0.10	0.20
C01	6057.13	6037.01	Box Structure	11.33	2.92		138.29	6044.84	6040.60	Standard	1.32	4.24
C03	6057.04	6041.32	Circular Structure			60	48.00	6046.98	6046.79	Standard	0.05	0.18
C04	6055.53	6031.31	Box Structure	3.00	10.00		140.03	6035.11	6034.94	Standard	0.05	0.16
C05	6057.13	6050.48	Circular Structure			60	5.61	6051.44	6051.39	Standard	0.05	0.05
C06	6055.53	6023.71	Box Structure	3.00	10.00		141.59	6031.16	6030.99	Standard	0.05	0.17
D04	6068.18	6057.05	Circular Structure			60	32.88	6060.72	6060.64	Standard	0.05	0.09
D05	6060.15	6053.55	Circular Structure			60	12.50	6056.25	6056.20	Standard	0.05	0.05
D05.1	6059.00	6051.99	Circular Structure			60	46.50	6055.82	6054.24	Standard	1.02	1.58
D06	6049.95	6042.68	Circular Structure			60	14.63	6049.48	6049.43	Standard	0.05	0.05
D06.1	6050.00	6041.39	Circular Structure			60	63.57	6049.31	6046.65	Standard	1.02	2.66
D07.1	6045.82	6036.56	Circular Structure			60	64.48	6042.26	6042.13	Standard	0.10	0.13
D08	6040.76	6035.72	Circular Structure			60	19.96	6040.39	6040.34	Standard	0.05	0.05
D08.1	6040.97	6033.78	Circular Structure			60	86.00	6039.98	6038.78	Standard	0.52	1.20
D11	6037.73	6034.18	Circular Structure			60	19.73	6037.38	6037.33	Standard	0.05	0.05
D12	6037.73	6034.30	Circular Structure			60	4.59	6037.38	6037.33	Standard	0.05	0.05
D13	6036.44	6032.60	Circular Structure			60	11.17	6036.38	6036.33	Standard	0.05	0.05
D15	6036.44	6031.73	Circular Structure			60	24.06	6035.90	6035.85	Standard	0.05	0.05
E2	6048.12	6040.10	Circular Structure			60	21.96	6043.70	6043.58	Standard	0.05	0.12

Cielo Subdivision												
100-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
E3	6041.82	6036.03	Circular Structure			60	12.69	6041.04	6040.99	Standard	0.05	0.05
E4	6045.24	6037.21	Circular Structure			60	6.59	6039.24	6039.19	Standard	0.05	0.05
E5	6041.92	6035.44	Circular Structure			60	12.68	6039.92	6039.87	Standard	0.05	0.05
E7	6036.52	6030.56	Circular Structure			60	9.15	6035.04	6034.99	Standard	0.05	0.05
E8	6039.31	6030.03	Circular Structure			60	10.65	6033.69	6033.64	Standard	0.05	0.05
E9	6026.16	6020.30	Circular Structure			60	7.03	6024.78	6024.73	Standard	0.05	0.05
E10	6023.30	6015.30	Box Structure	10.00	2.67		94.45	6021.84	6021.79	Standard	0.05	0.05
E11	6023.78	6017.60	Box Structure	15.00	2.67		18.15	6023.40	6023.35	Standard	0.10	0.05
FES-063	6081.98	6074.07	Circular Structure			60	70.64	6076.82	6076.74	Standard	0.05	0.09
G1	6006.61	5998.52	Box Structure	10.00	2.67		2.21	5999.09	5999.04	Standard	0.05	0.05
G2	6006.61	5997.55	Box Structure	15.00	2.67		8.19	5998.73	5998.57	Standard	0.40	0.16
G3	6001.27	5996.02	Circular Structure			60	2.25	5996.59	5996.54	Standard	0.05	0.05
G4	6001.28	5995.39	Circular Structure			60	3.39	5996.08	5996.03	Standard	0.05	0.05
G5	6020.26	6015.83	Box Structure	10.00	2.67		7.94	6020.10	6019.96	Standard	1.32	0.13
G6	6020.53	6016.30	Box Structure	15.00	2.67		6.39	6020.19	6020.14	Standard	0.05	0.05
G7	6026.93	6021.65	Box Structure	15.00	2.67		4.57	6023.86	6023.81	Standard	0.05	0.05
INL-05	6044.51	6029.17	Circular Structure			72	139.40	6033.16	6033.06	Standard	0.05	0.10
MP-BB	6013.08	5997.62	Circular Structure			60	7.90	5998.60	5998.55	Standard	0.05	0.05
MP-CC	6026.43	6019.53	Box Structure	2.92	5.67		66.20	6022.90	6022.83	Standard	0.05	0.07
MP-DD	6031.00	6026.15	Circular Structure			60	26.50	6028.01	6027.95	Standard	0.05	0.06
MP-EE	6014.73	6010.76	Circular Structure			60	21.80	6012.73	6012.68	Standard	0.05	0.05
O11	6054.18	6044.06	Circular Structure			60	5.78	6045.39	6045.34	Standard	0.05	0.05
O51	6104.56	6098.50	Box Structure	2.92	5.66		29.63	6100.73	6100.66	Standard	0.05	0.07
O71	6052.81	6045.98	Circular Structure			72	137.44	6052.80	6052.75	Standard	0.05	0.05
O72	6054.81	6045.14	Circular Structure			72	148.93	6052.70	6052.65	Standard	0.05	0.05
O72.1	6054.24	6048.93	Circular Structure			72	0.00	6053.41	6053.36	Standard	0.05	0.05
11	6056.20	6041.42	Circular Structure			60	50.18	6044.19	6043.73	Standard	0.40	0.46
13	6057.60	6047.87	Circular Structure			60	34.29	6050.14	6049.86	Standard	0.27	0.28
14	6059.30	6050.88	Circular Structure			60	20.66	6052.60	6052.51	Standard	0.10	0.09
15	6062.60	6054.39	Circular Structure			60	20.77	6057.20	6056.02	Standard	1.32	1.17
16	6063.40	6055.70	Circular Structure			60	20.83	6058.60	6057.81	Standard	1.16	0.79
18	6056.00	6045.53	Circular Structure			60	37.41	6053.36	6052.70	Standard	1.52	0.66
19	6056.70	6040.20	Circular Structure			84	339.90	6052.39	6045.59	Standard	1.46	6.80
22	6056.60	6047.17	Circular Structure			60	37.41	6055.50	6054.31	Standard	1.32	1.19

Cielo Subdivision												
100-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
23	6066.40	6048.61	Circular Structure			60	37.41	6059.01	6058.90	Standard	0.05	0.11
25	6064.30	6051.34	Circular Structure			60	167.12	6061.33	6061.09	Standard	0.05	0.23
26	6079.20	6064.46	Circular Structure			60	167.79	6072.56	6070.10	Standard	0.52	2.46
27	6093.90	6078.23	Circular Structure			60	100.64	6082.80	6081.13	Standard	0.52	1.67
28	6093.50	6084.72	Circular Structure			60	91.99	6087.71	6087.58	Standard	0.05	0.14
71	6059.06	6045.24	Circular Structure			60	35.23	6049.51	6047.51	Standard	1.02	1.99
72	6072.71	6057.97	Circular Structure			60	29.63	6059.90	6059.83	Standard	0.05	0.07
73	6096.03	6077.47	Circular Structure			60	29.63	6079.40	6079.33	Standard	0.05	0.07
74	6100.00	6091.20	Circular Structure			60	29.63	6095.00	6093.06	Standard	1.32	1.95
75	6108.00	6096.70	Circular Structure			60	29.63	6099.50	6098.56	Standard	0.64	0.94
81	6037.50	6031.20	Circular Structure			60	23.13	6035.47	6035.25	Standard	0.64	0.22
82	6038.60	6033.04	Circular Structure			60	23.67	6036.69	6036.21	Standard	1.32	0.48
83	6038.20	6033.62	Circular Structure			60	23.79	6037.28	6036.86	Standard	1.16	0.42
91	6008.20	5995.25	Circular Structure			60	26.50	5998.60	5997.08	Standard	1.32	1.52
92	6037.70	6011.76	Circular Structure			60	26.50	6014.05	6013.56	Standard	0.40	0.49
93	6039.00	6021.55	Circular Structure			60	26.50	6024.98	6023.35	Standard	1.32	1.63
MH30	6023.20	6012.23	Circular Structure			60	111.80	6019.50	6017.35	Standard	1.02	2.14
MH31	6030.90	6017.93	Circular Structure			60	94.75	6023.36	6021.82	Standard	1.02	1.54
MH32	6030.90	6019.23	Circular Structure			60	75.80	6023.79	6023.71	Standard	0.05	0.09
MH33	6031.40	6020.35	Circular Structure			36	75.97	6024.59	6024.50	Standard	0.05	0.09
MH34	6033.90	6024.34	Circular Structure			60	76.67	6029.47	6027.61	Standard	1.02	1.86
MH35	6035.70	6026.62	Circular Structure			60	64.45	6031.01	6030.95	Standard	0.05	0.06
MH36	6036.10	6027.16	Circular Structure			60	64.58	6031.47	6031.41	Standard	0.05	0.06
MH37	6036.60	6027.76	Circular Structure			60	64.70	6031.92	6031.86	Standard	0.05	0.07
MH38	6037.00	6028.37	Circular Structure			60	64.82	6032.37	6032.31	Standard	0.05	0.07
MH39	6037.70	6029.09	Circular Structure			60	64.99	6032.97	6032.90	Standard	0.05	0.07
MH40	6039.10	6030.59	Circular Structure			60	65.36	6035.55	6034.19	Standard	1.02	1.36
MH41	6048.40	6039.70	Circular Structure			60	22.83	6041.80	6041.40	Standard	0.40	0.40
MH42	6049.00	6041.35	Circular Structure			60	22.88	6046.38	6045.03	Standard	0.52	1.36
MH43	6052.40	6044.93	Circular Structure			60	10.91	6050.26	6050.02	Standard	0.40	0.24
MH44	6043.70	6035.34	Circular Structure			60	29.80	6038.37	6037.78	Standard	1.02	0.59
MH45	6023.90	6015.88	Circular Structure			60	93.51	6023.31	6022.00	Standard	1.52	1.31
MH46	6025.80	6018.19	Circular Structure			60	73.36	6024.52	6024.04	Standard	0.52	0.47
MH47	6032.00	6024.45	Circular Structure			60	67.16	6029.57	6028.40	Standard	0.40	1.16

Cielo Subdivision												
100-year Inlet and Junction Summary												
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Structure Type	Length (ft)	Width (ft)	Diameter (in)	Flow (Total Out) (cfs)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Headloss Method	Headloss Coefficient (Standard)	Headloss (ft)
MH48	6035.40	6027.17	Circular Structure			60	67.27	6032.78	6031.26	Standard	0.52	1.52
MH49	6037.00	6028.68	Circular Structure			60	57.58	6034.75	6033.64	Standard	0.52	1.11
MH50	6041.35	6033.05	Circular Structure			60	48.92	6038.65	6036.30	Standard	1.52	2.35
MH51	6041.30	6034.81	Circular Structure			60	12.67	6039.56	6039.24	Standard	0.40	0.32
MH52	6041.35	6036.40	Circular Structure			60	6.57	6039.09	6039.01	Standard	0.40	0.09
MH53	6042.22	6035.10	Circular Structure			60	33.73	6040.71	6039.78	Standard	0.52	0.93
MH54	6048.10	6039.27	Circular Structure			60	21.95	6042.54	6042.24	Standard	0.40	0.30
MH56	6014.72	6004.70	Circular Structure			72	144.63	6008.96	6008.23	Standard	0.40	0.72
MH57	6018.39	6006.63	Circular Structure			72	144.68	6010.25	6010.16	Standard	0.05	0.09
MH58	6025.50	6014.83	Circular Structure			72	144.78	6019.09	6018.36	Standard	0.40	0.73
MH59	6028.80	6016.16	Circular Structure			72	144.79	6020.42	6019.69	Standard	0.40	0.73
MH60	6033.80	6022.19	Circular Structure			72	144.87	6025.82	6025.73	Standard	0.05	0.09
MH61	6038.70	6025.51	Circular Structure			72	144.98	6029.14	6029.05	Standard	0.05	0.09
MH62	6043.90	6028.45	Circular Structure			72	145.05	6032.93	6031.99	Standard	0.52	0.95
MH63	6054.40	6043.90	Circular Structure			60	5.77	6045.35	6044.83	Standard	1.32	0.52
MH100	6010.90	6000.68	Circular Structure			60	21.80	6002.71	6002.27	Standard	0.64	0.44
MH101	6011.35	6003.19	Circular Structure			60	21.80	6004.85	6004.78	Standard	0.10	0.07
MH102	6017.68	6005.57	Circular Structure			60	21.80	6007.23	6007.16	Standard	0.10	0.07
MH103	6019.48	6007.45	Circular Structure			60	21.80	6009.83	6009.04	Standard	1.16	0.79
MH107	6025.24	6019.48	Circular Structure			60	4.47	6023.63	6023.50	Standard	1.32	0.13
MP-AA	6037.36	6031.27	Circular Structure			72	139.40	6034.89	6034.78	Standard	0.05	0.11

Swale A12 -100-yr

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.030	
Channel Slope	0.03600	ft/ft
Left Side Slope	5.00	ft/ft (H:V)
Right Side Slope	5.00	ft/ft (H:V)
Bottom Width	2.00	ft
Discharge	5.92	ft³/s

Results

Normal Depth	0.39	ft
Flow Area	1.55	ft²
Wetted Perimeter	6.00	ft
Hydraulic Radius	0.26	ft
Top Width	5.92	ft
Critical Depth	0.45	ft
Critical Slope	0.02006	ft/ft
Velocity	3.82	ft/s
Velocity Head	0.23	ft
Specific Energy	0.62	ft
Froude Number	1.31	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.39	ft
Critical Depth	0.45	ft
Channel Slope	0.03600	ft/ft

OUTFALL O51 RIPRAP APRON CALCULATIONS

Cielo Subdivision
Atwell, LLC
1/26/2017
Per USDCM Vol. 2, Ch. 9, S. 3.2

ROCK SIZE

Per USDCM Vol. 2, Ch. 9, S. 3.2.3

$D_{50} = (0.023Q)/(Y_t^{1.2}D_c^{0.3})$ Mean particle size; Equation 9-16

Q =	29.63	cfs	Outfall C 100-year discharge
FR=	0.78		Froude number in pipe
D_c =	2	ft	Diameter of outlet Pipe
Yn=	0.87	ft	Normal depth in outlet pipe
Da=	1.435	ft	Equation 9-18 for supercritical flow
Y_t =	0.87	ft	Tailwater Depth from Flowmaster
Yt/D=	0.435		Hydraulic jump downstream of outlet
Q/Da^1.5	17.2		
D_{50} =	**1.5**	**ft**	**Type H Riprap**
	18	in	

Type H Riprap **Thickness of Riprap Layer = $2D_{50}$ = 3 ft**

EXTENT OF PROTECTION

Per USDCM Vol. 2, Ch. 9, S. 3.2.1

$L_p = (1/2\tan\Theta)(A_t/Y_t - W)$ Lentgh of protection; Equation 9-11

W =	2	ft	Diameter of outlet Pipe
Y_t =	0.87	ft	Tailwater depth
A_t = Q/V		ft^2	Required area of flow at allowable velocity; Equation 9-12
Q =	29.63	cfs	Outfall C 100-year discharge
V =	12	ft/sec	Max velocity allowed by UDFCD for riprap lining
A_t =	2.47	ft^2	
$Q/D^{2.5}$ =	5.2		Froude Parameter
Y_t/D =	0.44		
D =	2	ft	Diameter of outlet pipe
1/2tanΘ =	6.7		Expansion factor; Figure 9-35
L_p =	**10**	**ft**	**(minimum length of protection)**

$T = 2(L_p\tan\Theta)+W$ Width of riprap at furthest downstream point; Equation 9-13

$\Theta = \tan^{-1}[1/(2*\text{Expansion Factor})]$ Equation 9-13

Θ = 0.07 °

T = 5 ft (minimum width at end of protection)

POND A OUTFALL RIPRAP APRON CALCULATIONS

Cielo Subdivision
Atwell, LLC
1/26/2017
Per USDCM Vol. 2, Ch. 9, S. 3.2

ROCK SIZE

Per USDCM Vol. 2, Ch. 9, S. 3.2.3

$D_{50} = (0.023Q)/(Y_t^{1.2}D_c^{0.3})$ Mean particle size; Equation 9-16

Q =	139.4	cfs	Outfall C 100-year discharge
FR=	0.6		Froude number in pipe
D_c =	4.5	ft	Diameter of outlet Pipe
Yn=	1.92	ft	Normal depth in outlet pipe
Da=	3.21	ft	Equation 9-18 for supercritical flow
Y_t =	1.92	ft	Tailwater Depth from Flowmaster
Yt/D=	0.4		Hydraulic jump downstream of outlet
Q/Da^1.5	24.2		
D_{50} =	**1.5**	**ft**	**Type VH Riprap**
	24	in	

Type VH Riprap **Thickness of Riprap Layer = $2D_{50}$ = 4 ft**

EXTENT OF PROTECTION

Per USDCM Vol. 2, Ch. 9, S. 3.2.1

$L_p = (1/2\tan\Theta)(A_t/Y_t - W)$ Lentgh of protection; Equation 9-11

W =	4.5	ft	Diameter of outlet Pipe
Y_t =	2.14	ft	Tailwater depth
A_t = Q/V		ft^2	Required area of flow at allowable velocity; Equation 9-12
Q =	139.4	cfs	Outfall C 100-year discharge
V =	5	ft/sec	Max velocity allowed by UDFCD for sandy soils
A_t =	27.88	ft^2	
$Q/D^{2.5}$ =	3.2		Froude Parameter
Y_t/D =	0.48		
D =	4.5	ft	Diameter of outlet pipe
1/2tanΘ =	4.8		Expansion factor; Figure 9-35
L_p =	**38**	**ft**	

$T = 2(L_p\tan\Theta)+W$ Width of riprap at furthest downstream point; Equation 9-13

$\Theta = \tan^{-1}[1/(2*\text{Expansion Factor})]$ Equation 9-13

Θ = 0.10 °

T = 12 ft

LOW TAILWATER BASIN POND D OUTFALL

Cielo Subdivision
Atwell, LLC
2/8/20018
Per USDCM Vol. 2, Ch. 9, S. 3.2

5994.67 Invert elevation of outlet Pipe

ROCK SIZE

Per USDCM Vol. 2, Ch. 9, S. 3.2.3

$D_{50} = (0.023Q)/(Y_t^{1.2}D_c^{0.3})$ Mean particle size; Equation 9-16

$Q =$ 26.5 cfs Outfalls B1 & B2 combined 5-year discharge
$D_c =$ 2 ft Diameter of outlet Pipe

$Y_t = D_c/3$ Low tailwater depth; Per USDCM Vol. 2, Ch. 9, S. 3.2.2
$Y_t =$ 0.67 ft

$D_{50} =$ 0.8 ft
10 in *** Use 6 inches**

Type VL Riprap Per UDFCD Specifications Section 31 37 00; Table 1

$T = 2D_{50}$ Thickness of Riprap Layer; Equation 9-15
T = 1.0 ft

DIMENSIONS OF LOW TAILWATER BASIN

Per USDCM Vol. 2, Ch. 9, S. 3.2.2

24 in Diameter of largest outlet Pipe (Outfall B1; Storm Run 2-A)

D = 1.5 ft Depth of basin; Figure 9-37
W = 6 ft Bottom width of basin; Figure 9-37
L = 20 ft Total length of basin; Figure 9-37

HEADWALL HEIGHT

Per USDCM Vol. 2, Ch. 9, S. 3.1.2

$B = 2D_{50}$ Height of headwall; Figure 9-30
B = 1.0 ft

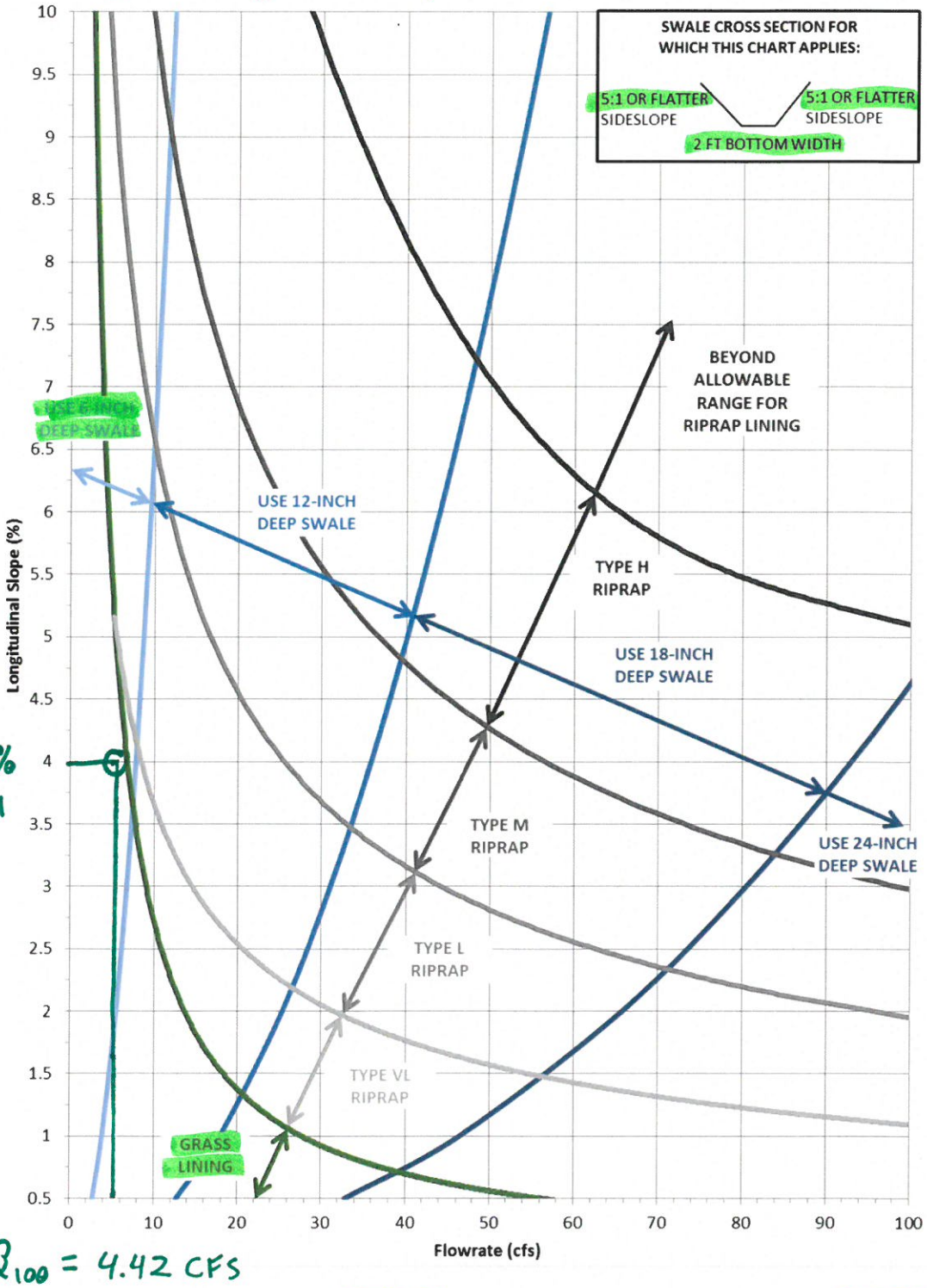
Swale A12 -100-yr

GVF Output Data

Critical Slope	0.02006	ft/ft

Tract Q Swale

Controlling Flow/Slope is Basin D6.1



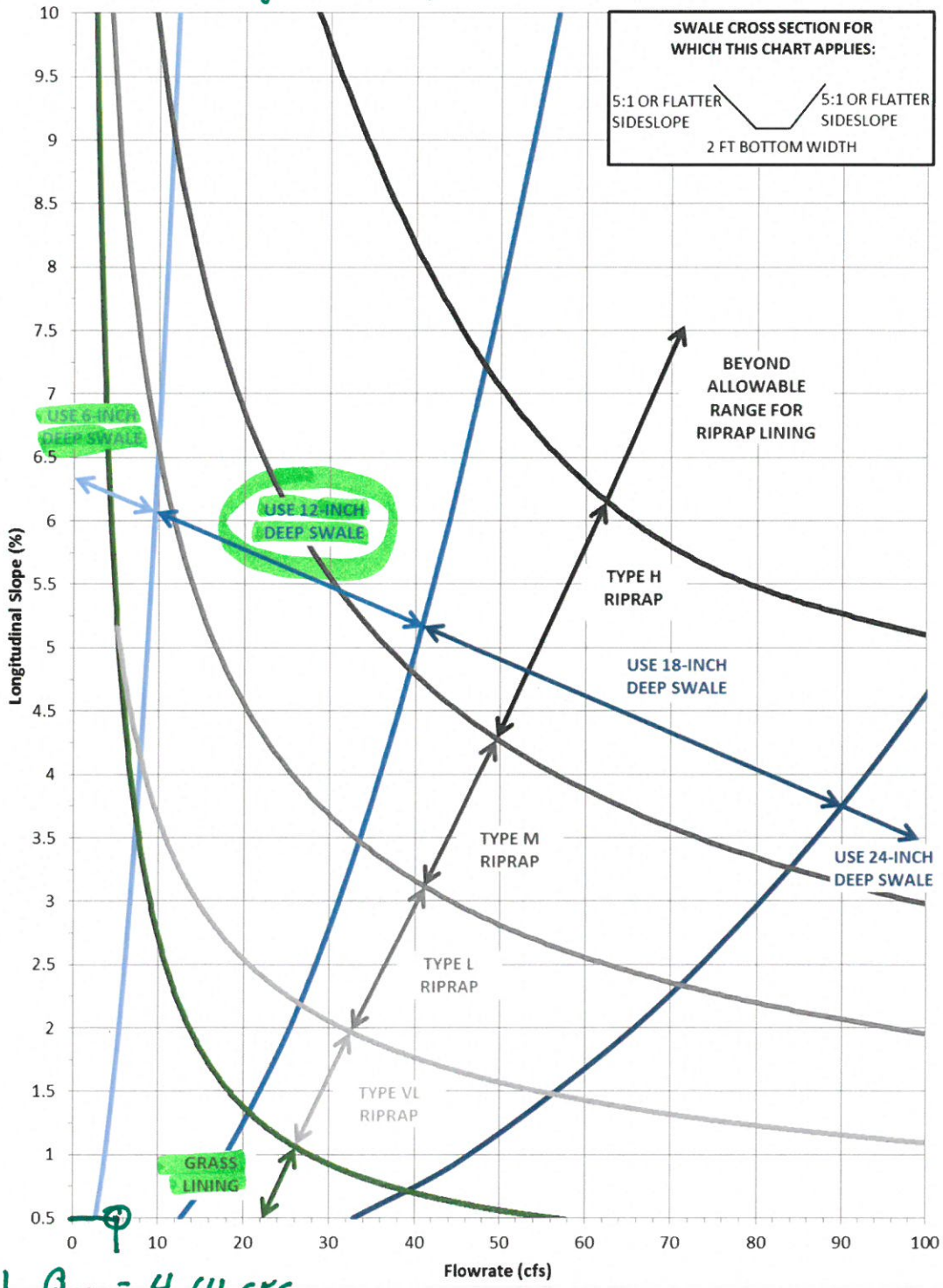
Swale Slope = 4.0% through Basin D6.1

Basin D6.1 Q_{100} = 4.42 CFS

Figure 8-22. Swale stability chart; 2- to 4-foot bottom width and side slopes between 5:1 and 10:1 (Note: Riprap classifications refer to gradation for riprap used in soil riprap or void-filled riprap. See Figure 8-34 for gradations.) (Source: Muller Engineering Company)

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Controlling Flow/Slope is Basin D8.1



Basin D8.1 Q_{100} = 4.64 CFS

Figure 8-22. Swale stability chart; 2- to 4-foot bottom width and side slopes between 5:1 and 10:1 (Note: Riprap classifications refer to gradation for riprap used in soil riprap or void-filled riprap. See Figure 8-34 for gradations.) (Source: Muller Engineering Company)

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Pond A Outfall Channel

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.035	
Channel Slope	0.00650	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	10.00	ft
Discharge	139.40	ft³/s

Results

Normal Depth	1.92	ft
Flow Area	33.95	ft²
Wetted Perimeter	25.83	ft
Hydraulic Radius	1.31	ft
Top Width	25.36	ft
Critical Depth	1.48	ft
Critical Slope	0.01778	ft/ft
Velocity	4.11	ft/s
Velocity Head	0.26	ft
Specific Energy	2.18	ft
Froude Number	0.63	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	1.92	ft
Critical Depth	1.48	ft
Channel Slope	0.00650	ft/ft

Pond A Outfall Channel

GVF Output Data

Critical Slope	0.01778	ft/ft

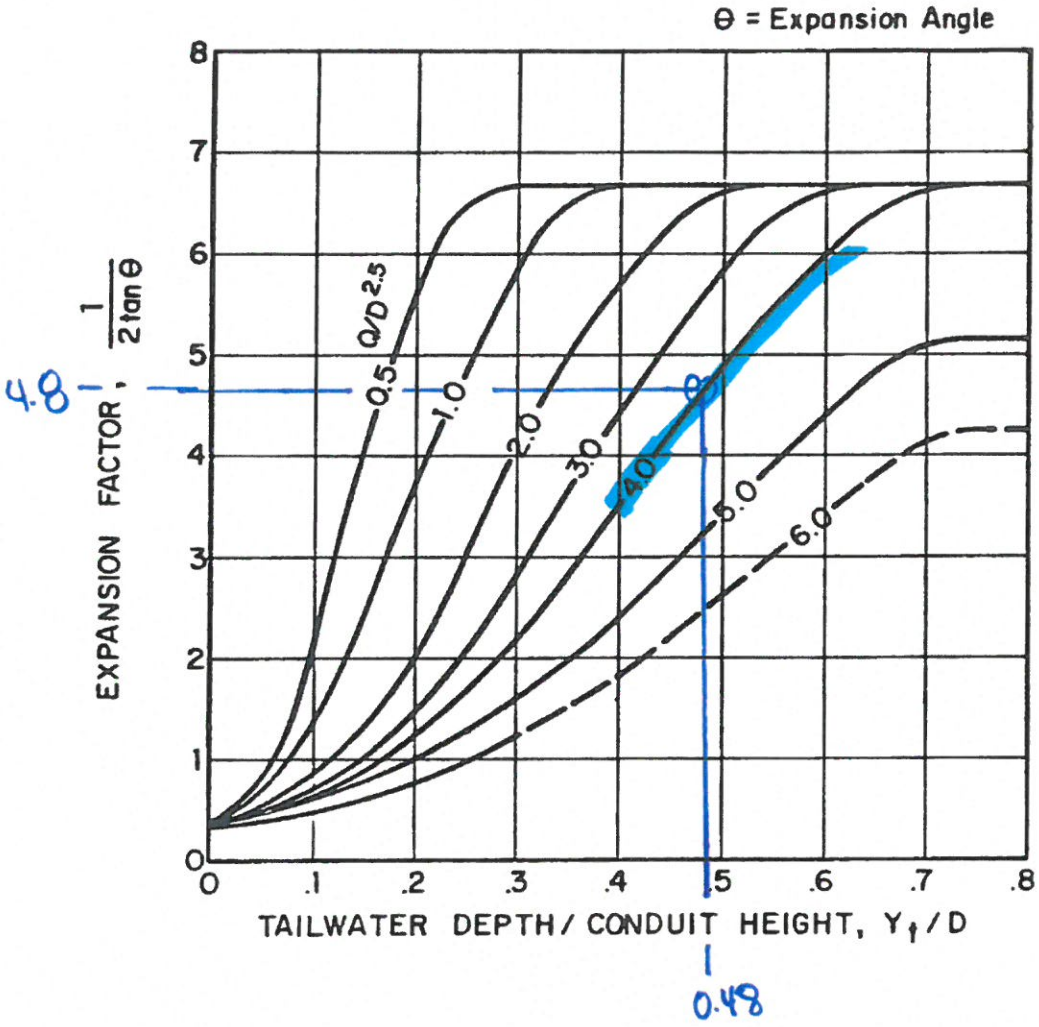


Figure 9-35. Expansion factor for circular conduits

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$$H_a = \frac{(H + Y_n)}{2}$$ Equation 9-19

Where the maximum value of H_a shall not exceed H, and:

D_a = parameter to use in place of D in Figure 9-38 when flow is supercritical (ft)
D_c = diameter of circular culvert (ft)
H_a = parameter to use in place of H in Figure 9-39 when flow is supercritical (ft)
H = height of rectangular culvert (ft)
Y_n = normal depth of supercritical flow in the culvert (ft)

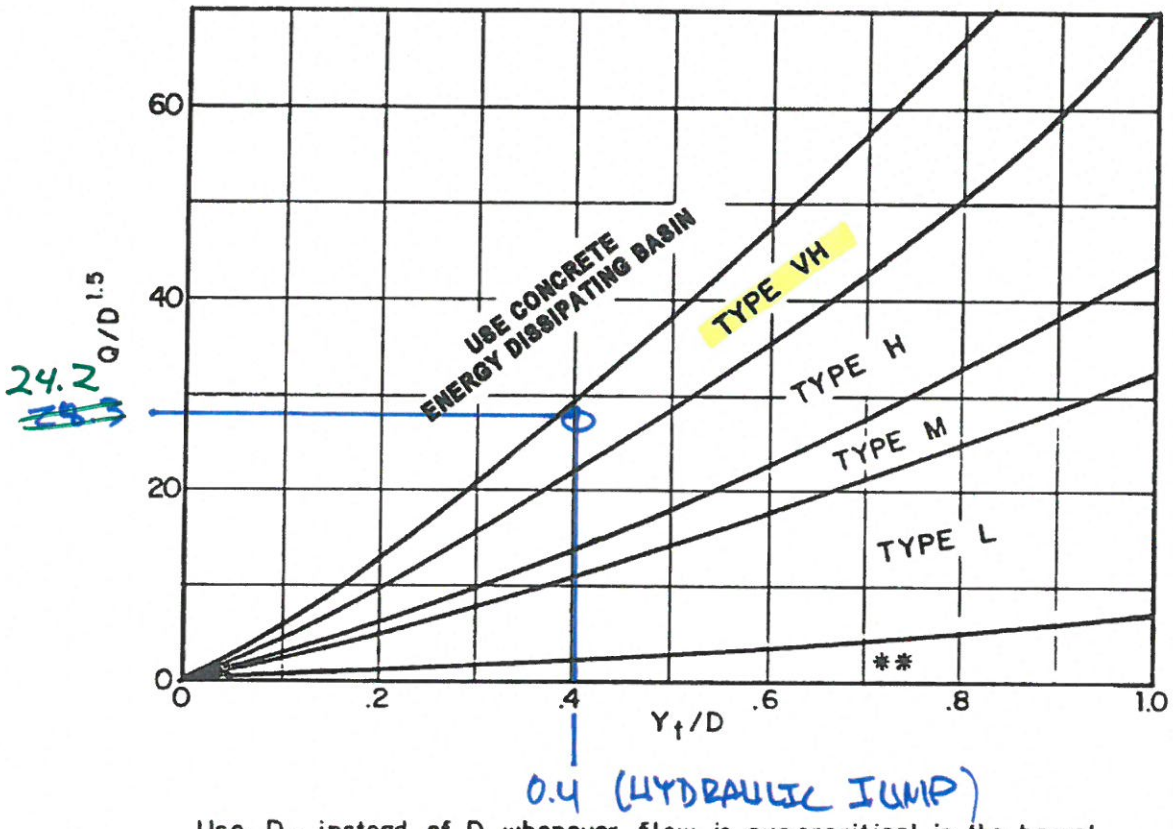


Figure 9-38. Riprap erosion protection at circular conduit outlet (valid for $Q/D_{2.5} \leq 6.0$)

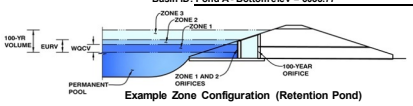
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DETENTION BASIN STAGE-STORAGE TABLE BUILDER

UD-Detention, Version 3.07 (February 2017)

Project: Cielo Subdivision

Basin ID: Pond A - Bottom elev = 6033.77



Example Zone Configuration (Retention Pond)

Required Volume Calculation

Selected BMP Type =	EDB	
Watershed Area =	112.93	acres
Watershed Length =	3,000	ft
Watershed Slope =	0.027	ft/ft
Watershed Imperviousness =	20.80%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	50.0%	percent
Percentage Hydrologic Soil Groups C/D =	50.0%	percent
Desired WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	User Input	
Water Quality Capture Volume (WQCV) =	1.119	acre-feet
Excess Urban Runoff Volume (EURV) =	2.206	acre-feet
2-yr Runoff Volume (P1 = 1.06 in.) =	1.600	acre-feet
5-yr Runoff Volume (P1 = 1.43 in.) =	2.829	acre-feet
10-yr Runoff Volume (P1 = 1.66 in.) =	4.596	acre-feet
25-yr Runoff Volume (P1 = 1.98 in.) =	8.805	acre-feet
50-yr Runoff Volume (P1 = 2.26 in.) =	11.640	acre-feet
100-yr Runoff Volume (P1 = 2.6 in.) =	15.545	acre-feet
500-yr Runoff Volume (P1 = 3.25 in.) =	22.560	acre-feet
Approximate 2-yr Detention Volume =	1.495	acre-feet
Approximate 5-yr Detention Volume =	2.667	acre-feet
Approximate 10-yr Detention Volume =	3.632	acre-feet
Approximate 25-yr Detention Volume =	4.523	acre-feet
Approximate 50-yr Detention Volume =	4.828	acre-feet
Approximate 100-yr Detention Volume =	6.216	acre-feet

Optional User Override 1-hr Precipitation

1.06	inches
1.43	inches
1.66	inches
1.98	inches
2.26	inches
2.60	inches
3.25	inches

Stage-Storage Calculation

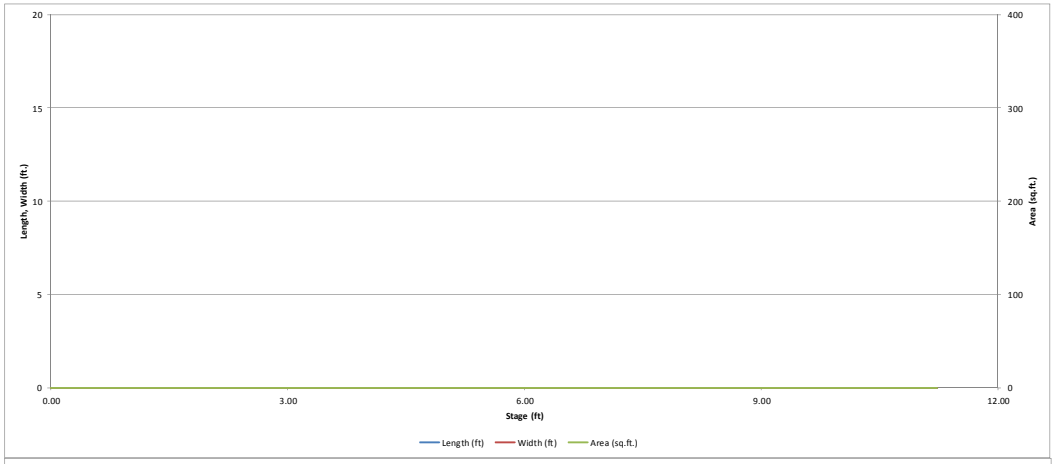
Zone 1 Volume (WQCV) =	1.119	acre-feet
Zone 2 Volume (EURV - Zone 1) =	1.087	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	4.010	acre-feet
Total Detention Basin Volume =	6.216	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

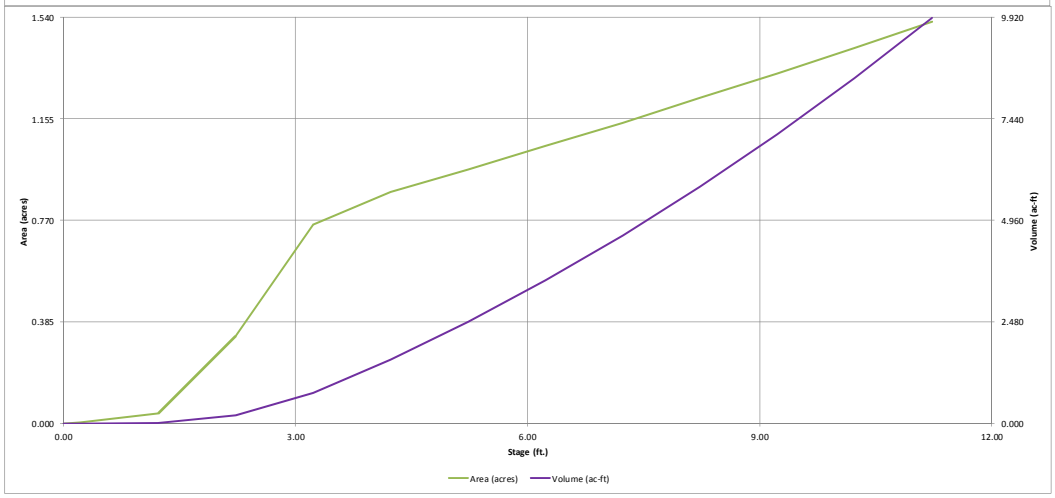
Depth Increment = ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	10	0.000		
6034	--	0.23	--	--	--	158	0.004	18	0.000
6035	--	1.23	--	--	--	1,727	0.040	945	0.022
6036	--	2.23	--	--	--	14,464	0.332	9,057	0.208
6037	--	3.23	--	--	--	32,805	0.753	32,692	0.750
6038	--	4.23	--	--	--	38,244	0.878	68,216	1.566
6039	--	5.23	--	--	--	41,935	0.963	108,306	2.486
6040	--	6.23	--	--	--	45,775	1.051	152,161	3.493
6041	--	7.23	--	--	--	49,643	1.140	199,870	4.588
6042	--	8.23	--	--	--	53,687	1.232	251,535	5.774
6043	--	9.23	--	--	--	57,751	1.326	307,254	7.054
6044	--	10.23	--	--	--	62,001	1.423	367,130	8.428
6045	--	11.23	--	--	--	66,286	1.522	431,273	9.901

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

UD-Detention, Version 3.07 (February 2017)



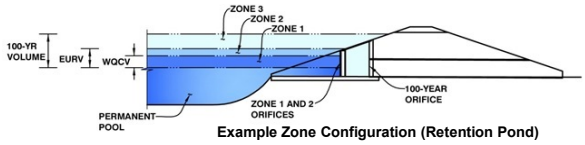


Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)

Project: Cielo Subdivision

Basin ID: Pond A - Bottom elev. = 6033.77



Example Zone Configuration (Retention Pond)

	Stage (ft)	Zone Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	3.71	1.119	Orifice Plate
Zone 2 (EURV)	4.94	1.087	Orifice Plate
Zone 3 (100-year)	8.59	4.010	Weir&Pipe (Restrict)
		6.216	Total

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)
Underdrain Orifice Diameter =	N/A	inches

Calculated Parameters for Underdrain

Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Centroid =	N/A	feet

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Invert of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Orifice Plate =	5.00	ft (relative to basin bottom at Stage = 0 ft)
Orifice Plate: Orifice Vertical Spacing =	N/A	inches
Orifice Plate: Orifice Area per Row =	N/A	inches

Calculated Parameters for Plate

WQ Orifice Area per Row =	N/A	ft^2
Elliptical Half-Width =	N/A	feet
Elliptical Slot Centroid =	N/A	feet
Elliptical Slot Area =	N/A	ft^2

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	1.73	3.48					
Orifice Area (sq. inches)	3.98	3.98	3.98					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected	
Invert of Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter =	N/A	N/A	inches

Calculated Parameters for Vertical Orifice

	Not Selected	Not Selected	
Vertical Orifice Area =	N/A	N/A	ft^2
Vertical Orifice Centroid =	N/A	N/A	feet

User Input: Overflow Weir (Dropbox) and Grate (Flat or Sloped)

	Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	6.23	N/A	ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length =	20.00	N/A	feet
Overflow Weir Slope =	0.00	N/A	H:V (enter zero for flat grate)
Horiz. Length of Weir Sides =	5.66	N/A	feet
Overflow Grate Open Area % =	70%	N/A	%, grate open area/total area
Debris Clogging % =	50%	N/A	%

Calculated Parameters for Overflow Weir

	Zone 3 Weir	Not Selected	
Height of Grate Upper Edge, H_t =	6.23	N/A	feet
Over Flow Weir Slope Length =	5.66	N/A	feet
Grate Open Area / 100-yr Orifice Area =	8.60	N/A	should be ≥ 4
Overflow Grate Open Area w/o Debris =	79.24	N/A	ft^2
Overflow Grate Open Area w/ Debris =	39.62	N/A	ft^2

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Restrictor	Not Selected	
Depth to Invert of Outlet Pipe =	2.50	N/A	ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter =	48.00	N/A	inches
Restrictor Plate Height Above Pipe Invert =	33.00		inches

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

	Zone 3 Restrictor	Not Selected	
Outlet Orifice Area =	9.21	N/A	ft^2
Outlet Orifice Centroid =	1.54	N/A	feet
Half-Central Angle of Restrictor Plate on Pipe =	1.96	N/A	radians

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	9.23	ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length =	90.00	feet
Spillway End Slopes =	4.00	H:V
Freeboard above Max Water Surface =	1.00	feet

Calculated Parameters for Spillway

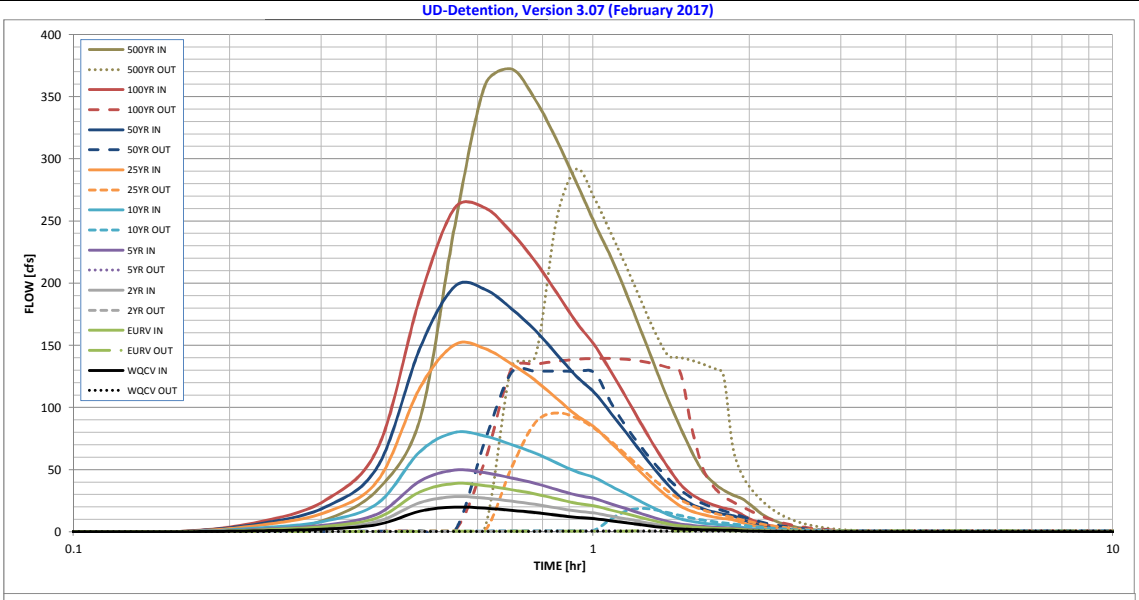
Spillway Design Flow Depth=	0.95	feet
Stage at Top of Freeboard =	11.18	feet
Basin Area at Top of Freeboard =	1.52	acres

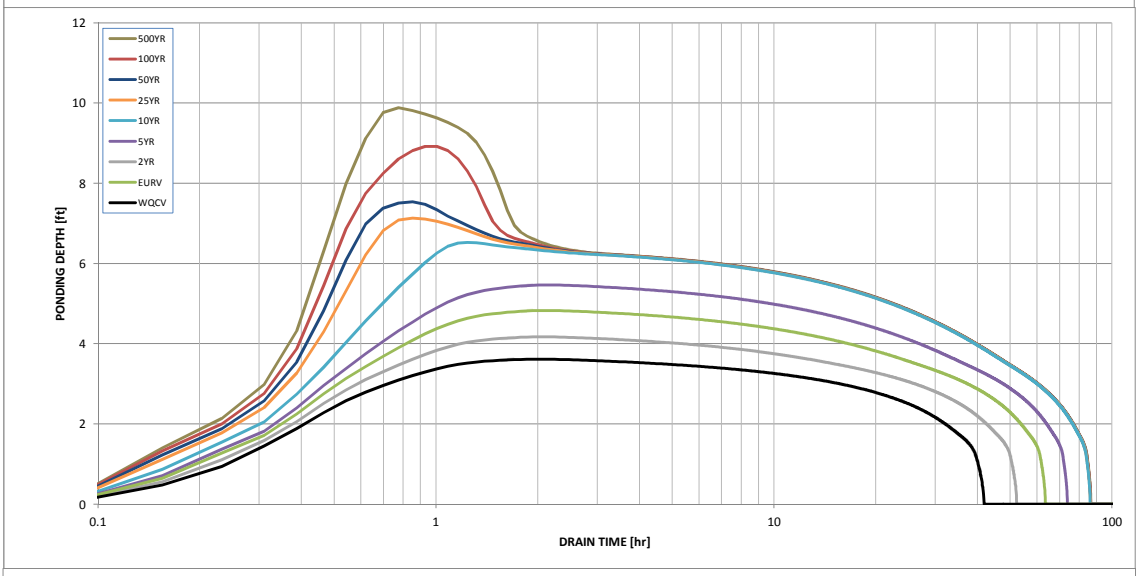
Routed Hydrograph Results

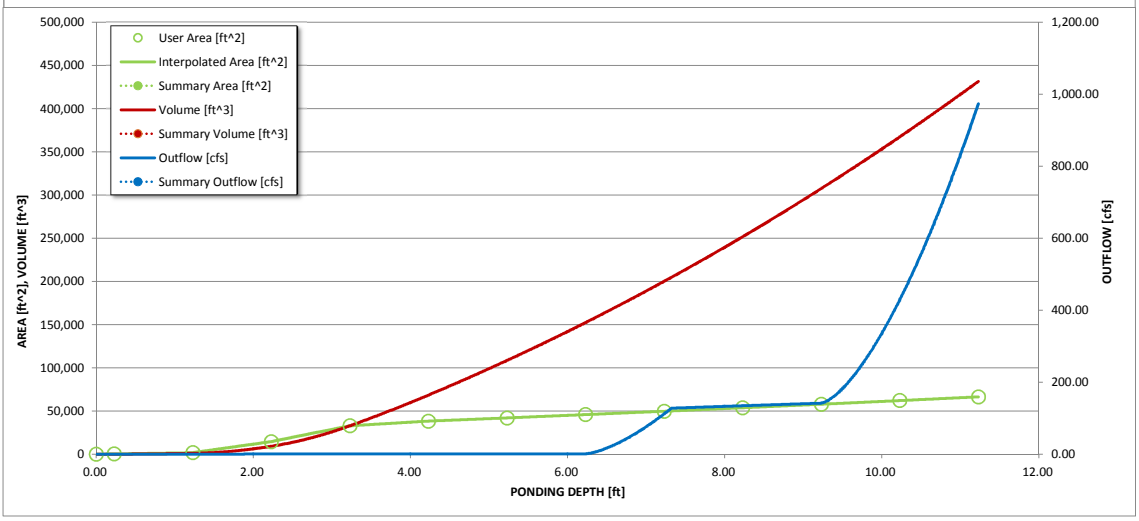
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	0.53	1.07	1.06	1.43	1.66	1.98	2.26	2.60	3.25
Calculated Runoff Volume (acre-ft) =	1.119	2.206	1.600	2.829	4.596	8.805	11.640	15.545	22.560
OPTIONAL Override Runoff Volume (acre-ft) =									
Inflow Hydrograph Volume (acre-ft) =	1.119	2.206	1.600	2.828	4.595	8.796	11.637	15.539	22.560
Predevelopment Unit Peak Flow, q (cfs/acre) =	0.00	0.00	0.01	0.08	0.28	0.78	1.07	1.45	2.12
Predevelopment Peak Q (cfs) =	0.0	0.0	1.5	8.5	31.8	88.3	120.8	163.7	239.7
Peak Inflow Q (cfs) =	19.8	38.8	28.3	49.6	79.9	150.4	197.3	260.6	372.2
Peak Outflow Q (cfs) =	0.5	0.7	0.6	0.8	18.8	95.6	129.3	139.4	291.7
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	0.1	0.6	1.1	1.1	0.9	1.2
Structure Controlling Flow =	Plate	Plate	Plate	Plate	Overflow Grate 1	Overflow Grate 1	Outlet Plate 1	Outlet Plate 1	Spillway
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	0.2	1.2	1.6	1.7	1.8
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	39	58	48	67	77	72	68	64	58
Time to Drain 99% of Inflow Volume (hours) =	**41**	61	51	71	82	79	78	76	73
Maximum Ponding Depth (ft) =	3.62	4.83	4.17	5.46	6.53	7.13	7.53	8.92	9.88
Area at Maximum Ponding Depth (acres) =	0.80	0.93	0.87	0.98	1.08	1.13	1.17	1.30	1.39
Maximum Volume Stored (acre-ft) =	1.046	2.099	1.514	2.710	3.802	4.475	4.934	6.634	7.936

Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)







S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

Detention Basin Outlet Structure Design

Outflow Hydrograph Workbook Filename:

Storm Inflow Hydrographs **UD-Detention, Version 3.07 (February 2017)**

The user can override the calculated inflow hydrographs from this workbook with inflow hydrographs developed in a separate program.

Time Interval	SOURCE	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK
	TIME	WQCV [cfs]	EURV [cfs]	2 Year [cfs]	5 Year [cfs]	10 Year [cfs]	25 Year [cfs]	50 Year [cfs]	100 Year [cfs]	500 Year [cfs]
4.65 min	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:04:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydrograph	0:09:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	0:13:57	0.87	1.66	1.22	2.11	3.29	5.66	7.02	8.65	10.66
1.075	0:18:36	2.35	4.55	3.33	5.79	9.17	16.49	21.03	26.83	34.86
	0:23:15	6.04	11.68	8.55	14.86	23.54	42.36	54.04	69.03	90.47
	0:27:54	16.59	32.07	23.48	40.77	64.54	115.85	147.56	188.11	245.74
	0:32:33	19.85	38.81	28.26	49.58	79.89	150.44	197.26	260.39	358.93
	0:37:12	18.97	37.18	27.04	47.55	76.99	147.26	195.00	260.59	372.24
	0:41:51	17.27	33.84	24.61	43.27	70.17	135.05	179.43	240.76	347.56
	0:46:30	15.47	30.40	22.08	38.92	63.23	121.84	161.98	217.46	314.76
	0:51:09	13.40	26.45	19.17	33.94	55.35	107.18	142.81	192.17	281.00
	0:55:48	11.66	23.00	16.65	29.56	48.34	93.84	125.11	168.44	248.48
	1:00:27	10.57	20.84	15.10	26.75	43.61	84.17	111.91	150.19	220.40
	1:05:06	8.77	17.39	12.57	22.35	36.59	71.28	95.25	128.55	190.66
	1:09:45	7.19	14.35	10.35	18.48	30.33	59.28	79.30	107.14	161.00
	1:14:24	5.59	11.27	8.09	14.56	24.07	47.53	63.86	86.70	132.84
	1:19:03	4.21	8.60	6.13	11.17	18.62	37.06	49.94	68.03	106.84
	1:23:42	3.05	6.34	4.49	8.28	13.93	28.03	37.91	51.94	84.37
	1:28:21	2.35	4.81	3.42	6.25	10.43	20.76	27.95	38.46	64.54
	1:33:00	1.92	3.90	2.79	5.06	8.38	16.49	22.11	30.16	48.73
	1:37:39	1.63	3.29	2.36	4.26	7.05	13.82	18.50	25.12	39.60
	1:42:18	1.43	2.88	2.06	3.72	6.13	11.97	15.98	21.63	33.69
	1:46:57	1.28	2.58	1.85	3.33	5.48	10.66	14.22	19.20	29.60
	1:51:36	1.18	2.37	1.70	3.05	5.01	9.74	12.96	17.47	26.67
	1:56:15	0.87	1.75	1.25	2.26	3.75	7.44	10.03	13.73	21.48
	2:00:54	0.63	1.27	0.92	1.64	2.71	5.36	7.22	9.90	15.70
	2:05:33	0.47	0.94	0.67	1.21	2.01	3.98	5.37	7.33	11.45
	2:10:12	0.34	0.70	0.50	0.90	1.49	2.96	3.98	5.44	8.56
	2:14:51	0.25	0.50	0.36	0.66	1.09	2.18	2.95	4.03	6.40
	2:19:30	0.18	0.36	0.26	0.47	0.79	1.58	2.14	2.93	4.74
	2:24:09	0.13	0.26	0.19	0.34	0.57	1.14	1.54	2.12	3.46
	2:28:48	0.08	0.18	0.13	0.24	0.40	0.81	1.10	1.52	2.57
	2:33:27	0.05	0.11	0.08	0.15	0.26	0.54	0.73	1.02	1.82
	2:38:06	0.03	0.06	0.04	0.08	0.15	0.32	0.44	0.63	1.20
	2:42:45	0.01	0.03	0.02	0.04	0.07	0.16	0.22	0.32	0.71
	2:47:24	0.00	0.01	0.00	0.01	0.02	0.05	0.07	0.12	0.35
	2:52:03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11
	2:56:42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:01:21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:06:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:10:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:15:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:19:57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:24:36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:29:15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:33:54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:38:33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:43:12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:47:51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:52:30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:57:09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:01:48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:06:27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:11:06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:15:45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:20:24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:25:03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:29:42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:34:21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:39:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:43:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:48:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:52:57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:57:36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:02:15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:06:54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:11:33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:16:12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:20:51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:25:30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:30:09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:34:48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)

Summary Stage-Area-Volume-Discharge Relationships

The user can create a summary S-A-V-D by entering the desired stage increments and the remainder of the table will populate automatically.

The user should graphically compare the summary S-A-V-D table to the full S-A-V-D table in the chart to confirm it captures all key transition points.

Stage - Storage Description	Stage [ft]	Area [ft^2]	Area [acres]	Volume [ft^3]	Volume [ac-ft]	Total Outflow [cfs]

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Cielo Subdivision

Facility Location & Jurisdiction: Pond A

User Input: Watershed Characteristics

Watershed Slope =	0.027	ft/ft
Watershed Length =	3000	ft
Watershed Area =	112.93	acres
Watershed Imperviousness =	20.8%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	50.0%	percent
Percentage Hydrologic Soil Groups C/D =	50.0%	percent

Location for 1-hr Rainfall Depths (use dropdown):

User Input

WQCV Treatment Method = Extended Detention

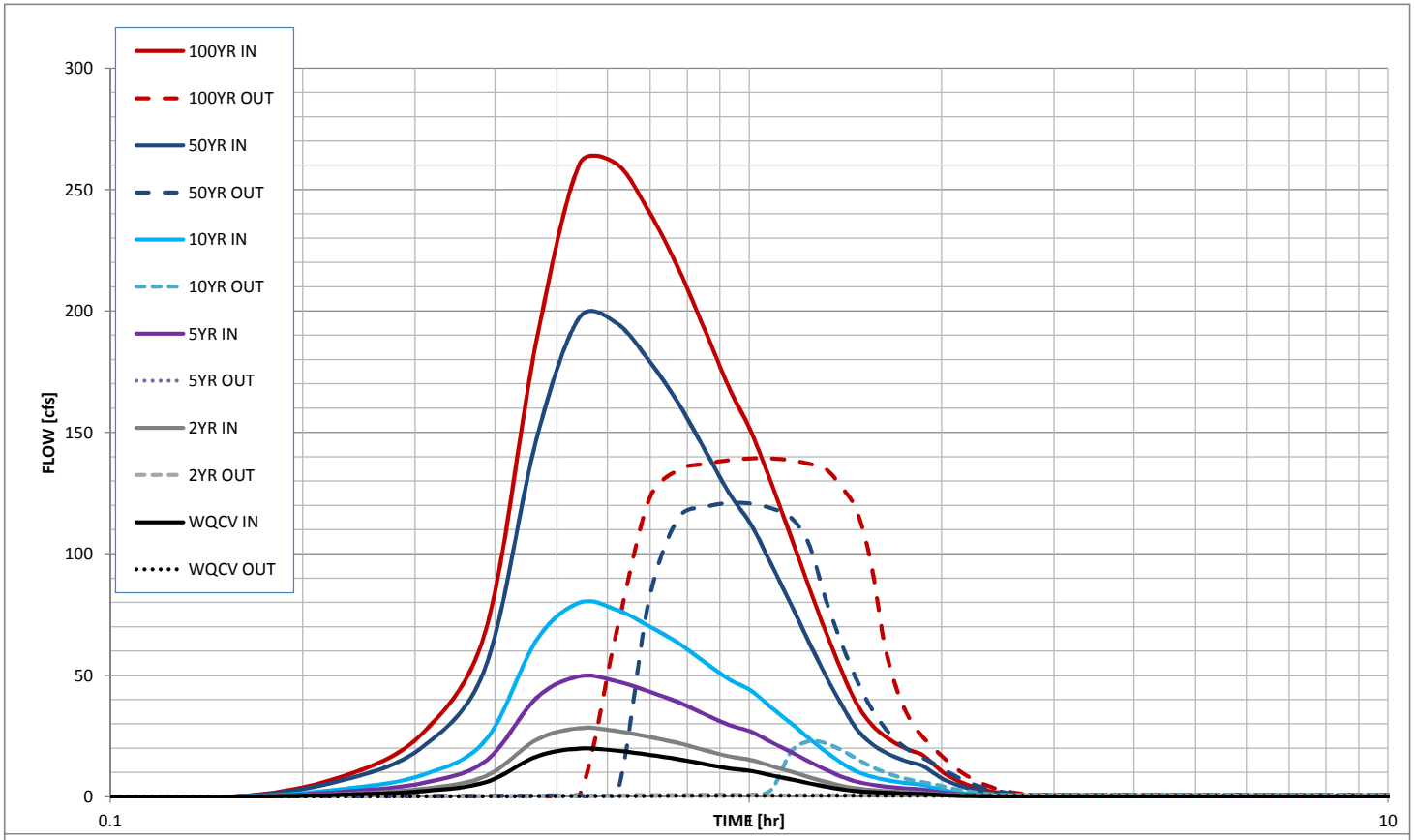
User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	10	0.00	0.00
0.23	158	0.23	0.06
1.23	1,727	1.23	0.15
2.23	14,464	2.23	0.29
3.23	32,805	3.23	0.40
4.23	38,244	4.23	0.60
5.23	41,935	5.23	0.73
6.23	45,775	6.23	0.84
7.23	49,643	7.23	111.58
8.23	53,687	8.23	134.46
9.23	57,751	9.23	141.59
10.23	62,001	10.23	427.97
11.23	66,286	11.23	972.84

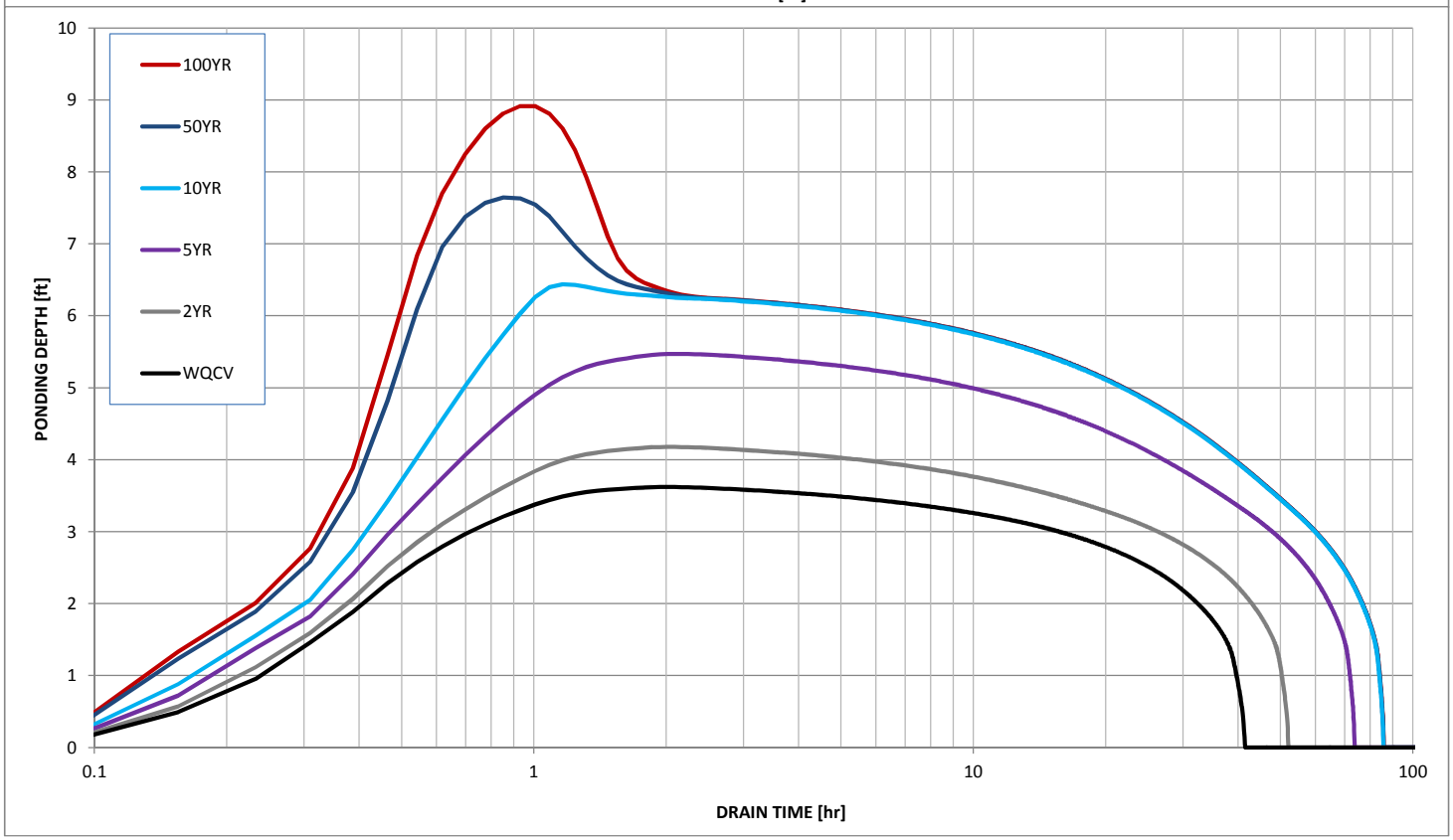
After completing and printing this worksheet to a pdf, go to:
https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
create a new stormwater facility, and
attach the pdf of this worksheet to that record.

Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	0.53	1.06	1.43	1.66	2.26	2.60	in
Calculated Runoff Volume =	1.119	1.600	2.829	4.596	11.640	15.545	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	1.119	1.600	2.828	4.595	11.638	15.539	acre-ft
Time to Drain 97% of Inflow Volume =	38.2	47.9	**67.3**	76.6	68.2	64.1	hours
Time to Drain 99% of Inflow Volume =	40.0	50.1	70.8	81.5	77.8	**76.0**	hours
Maximum Ponding Depth =	3.62	4.18	5.47	6.44	7.64	8.91	ft
Maximum Ponded Area =	0.80	0.87	0.98	1.07	1.18	**1.30**	acres
Maximum Volume Stored =	1.043	1.507	2.707	3.699	5.053	6.629	acre-ft

Stormwater Detention and Infiltration Design Data Sheet



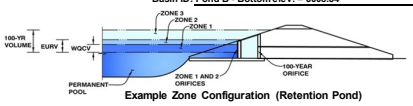


DETENTION BASIN STAGE-STORAGE TABLE BUILDER

UD-Detention, Version 3.07 (February 2017)

Project: Cielo Subdivision

Basin ID: Pond B - Bottom elev. = 6008.54



Example Zone Configuration (Retention Pond)

Required Volume Calculation

Selected BMP Type =	EDB	
Watershed Area =	34.37	acres
Watershed Length =	1,700	ft
Watershed Slope =	0.030	ft/ft
Watershed Imperviousness =	48.70%	percent
Percentage Hydrologic Soil Group A =	0.0%	percent
Percentage Hydrologic Soil Group B =	80.0%	percent
Percentage Hydrologic Soil Groups C/D =	20.0%	percent
Desired WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths =	User Input	
Water Quality Capture Volume (WQCV) =	0.581	acre-feet
Excess Urban Runoff Volume (EURV) =	1.745	acre-feet
2-yr Runoff Volume (P1 = 1.06 in.) =	1.288	acre-feet
5-yr Runoff Volume (P1 = 1.43 in.) =	1.921	acre-feet
10-yr Runoff Volume (P1 = 1.66 in.) =	2.571	acre-feet
25-yr Runoff Volume (P1 = 1.98 in.) =	3.756	acre-feet
50-yr Runoff Volume (P1 = 2.26 in.) =	4.576	acre-feet
100-yr Runoff Volume (P1 = 2.6 in.) =	5.721	acre-feet
500-yr Runoff Volume (P1 = 3.25 in.) =	7.824	acre-feet
Approximate 2-yr Detention Volume =	1.206	acre-feet
Approximate 5-yr Detention Volume =	1.806	acre-feet
Approximate 10-yr Detention Volume =	2.315	acre-feet
Approximate 25-yr Detention Volume =	2.644	acre-feet
Approximate 50-yr Detention Volume =	2.801	acre-feet
Approximate 100-yr Detention Volume =	3.233	acre-feet

Optional User Override 1-hr Precipitation	
1.06	inches
1.43	inches
1.66	inches
1.98	inches
2.26	inches
2.60	inches
3.25	inches

Stage-Storage Calculation

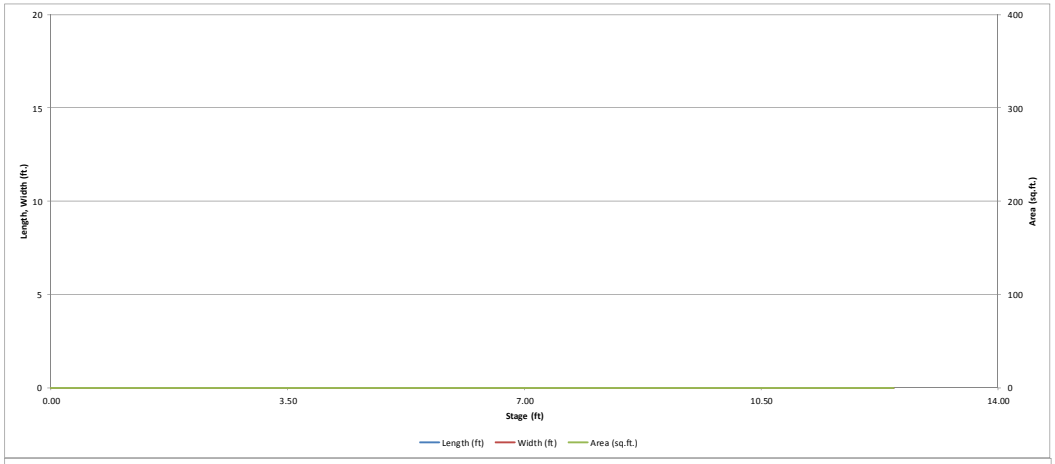
Zone 1 Volume (WQCV) =	0.581	acre-feet
Zone 2 Volume (EURV - Zone 1) =	1.164	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	1.489	acre-feet
Total Detention Basin Volume =	3.233	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	user	acre-feet

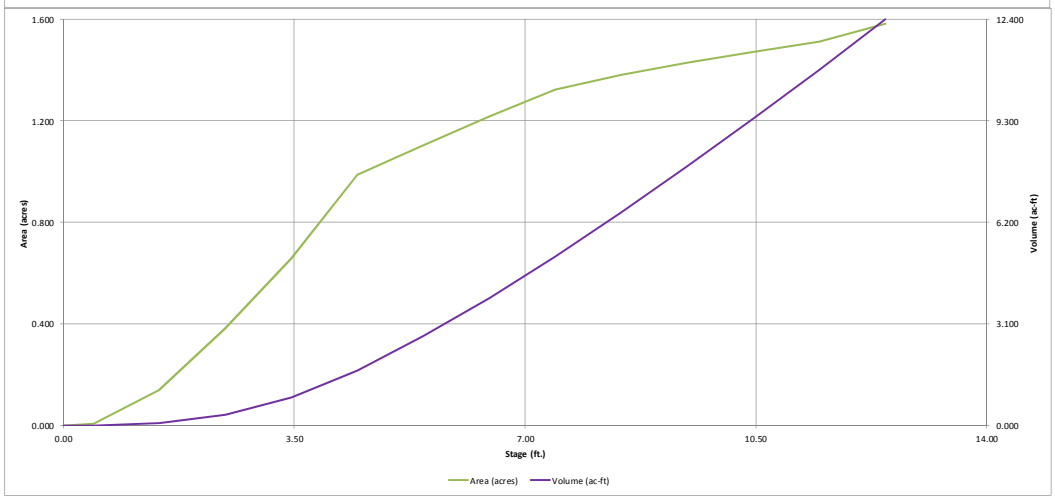
Depth Increment = ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	10	0.000		
6009	--	0.46	--	--	--	351	0.008	80	0.002
6010	--	1.46	--	--	--	6,145	0.141	3,270	0.075
6011	--	2.46	--	--	--	16,683	0.383	14,745	0.338
6012	--	3.46	--	--	--	28,674	0.658	37,423	0.859
6013	--	4.46	--	--	--	42,964	0.986	73,242	1.681
6014	--	5.46	--	--	--	47,986	1.102	118,717	2.725
6015	--	6.46	--	--	--	53,003	1.217	169,212	3.885
6016	--	7.46	--	--	--	57,574	1.322	224,500	5.154
6017	--	8.46	--	--	--	60,148	1.381	283,361	6.505
6018	--	9.46	--	--	--	62,187	1.428	344,529	7.909
6019	--	10.46	--	--	--	64,042	1.470	407,643	9.358
6020	--	11.46	--	--	--	65,858	1.512	472,593	10.849
6021	--	12.46	--	--	--	68,889	1.581	539,967	12.396

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

UD-Detention, Version 3.07 (February 2017)



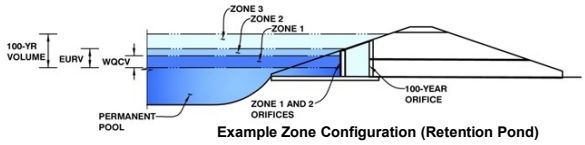


Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)

Project: Cielo Subdivision

Basin ID: Pond B - Bottom elev. = 6008.54



Example Zone Configuration (Retention Pond)

	Stage (ft)	Zone Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	3.00	0.581	Orifice Plate
Zone 2 (EURV)	4.53	1.164	Orifice Plate
Zone 3 (100-year)	5.92	1.489	Weir&Pipe (Restrict)
		3.233	Total

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	
Underdrain Orifice Diameter =	N/A	inches	

Calculated Parameters for Underdrain

Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Centroid =	N/A	feet

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Invert of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Orifice Plate =	4.53	ft (relative to basin bottom at Stage = 0 ft)
Orifice Plate: Orifice Vertical Spacing =	N/A	inches
Orifice Plate: Orifice Area per Row =	N/A	inches

Calculated Parameters for Plate

WQ Orifice Area per Row =	N/A	ft^2
Elliptical Half-Width =	N/A	feet
Elliptical Slot Centroid =	N/A	feet
Elliptical Slot Area =	N/A	ft^2

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	1.46	2.96					
Orifice Area (sq. inches)	2.41	2.41	12.57					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected	
Invert of Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter =	N/A	N/A	inches

Calculated Parameters for Vertical Orifice

	Not Selected	Not Selected	
Vertical Orifice Area =	N/A	N/A	ft^2
Vertical Orifice Centroid =	N/A	N/A	feet

User Input: Overflow Weir (Dropbox) and Grate (Flat or Sloped)

	Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	4.54	N/A	ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length =	22.66	N/A	feet
Overflow Weir Slope =	0.00	N/A	H:V (enter zero for flat grate)
Horiz. Length of Weir Sides =	2.92	N/A	feet
Overflow Grate Open Area % =	70%	N/A	%, grate open area/total area
Debris Clogging % =	50%	N/A	%

Calculated Parameters for Overflow Weir

	Zone 3 Weir	Not Selected	
Height of Grate Upper Edge, H_t =	4.54	N/A	feet
Over Flow Weir Slope Length =	2.92	N/A	feet
Grate Open Area / 100-yr Orifice Area =	119.04	N/A	should be ≥ 4
Overflow Grate Open Area w/o Debris =	46.32	N/A	ft^2
Overflow Grate Open Area w/ Debris =	23.16	N/A	ft^2

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Restrictor	Not Selected	
Depth to Invert of Outlet Pipe =	10.92	N/A	ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter =	30.00	N/A	inches
Restrictor Plate Height Above Pipe Invert =	4.00		inches

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

	Zone 3 Restrictor	Not Selected	
Outlet Orifice Area =	0.39	N/A	ft^2
Outlet Orifice Centroid =	0.20	N/A	feet
Half-Central Angle of Restrictor Plate on Pipe =	0.75	N/A	radians

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	11.46	ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length =	75.00	feet
Spillway End Slopes =	4.00	H:V
Freeboard above Max Water Surface =	1.00	feet

Calculated Parameters for Spillway

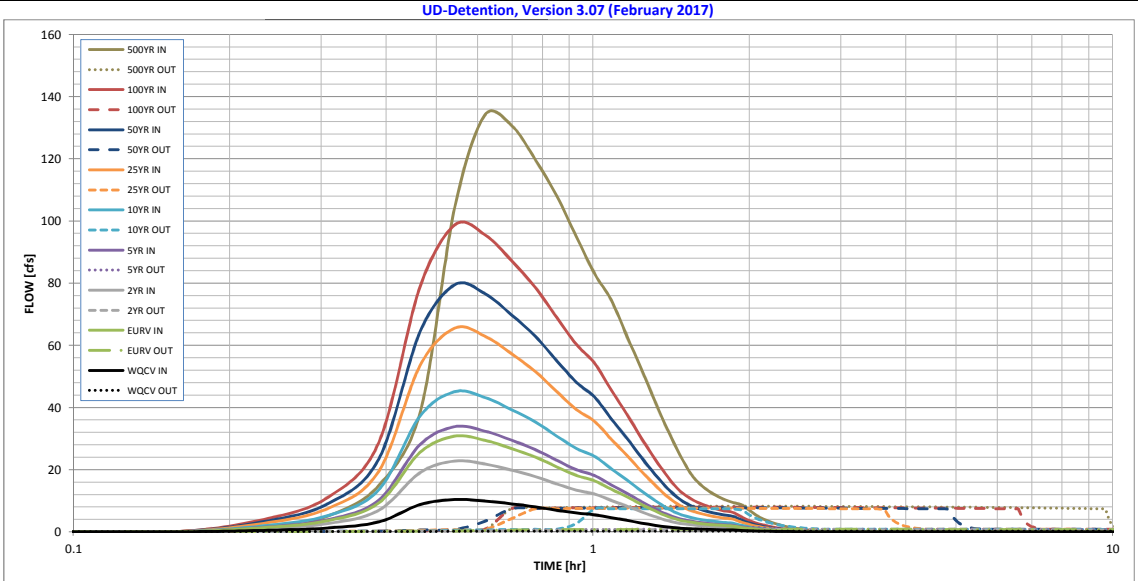
Spillway Design Flow Depth=	0.54	feet
Stage at Top of Freeboard =	13.00	feet
Basin Area at Top of Freeboard =	1.58	acres

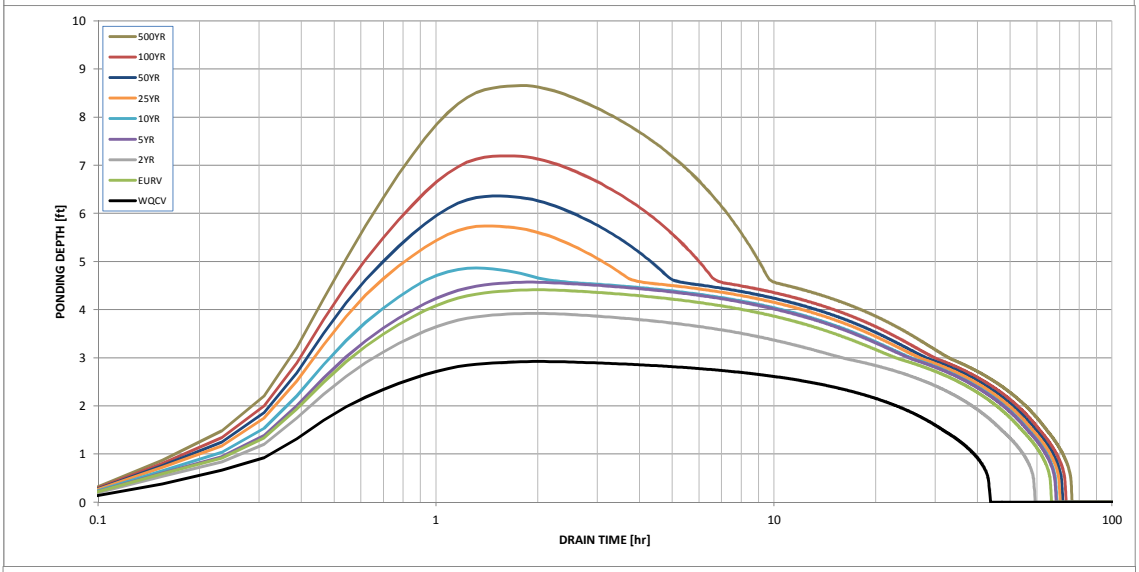
Routed Hydrograph Results

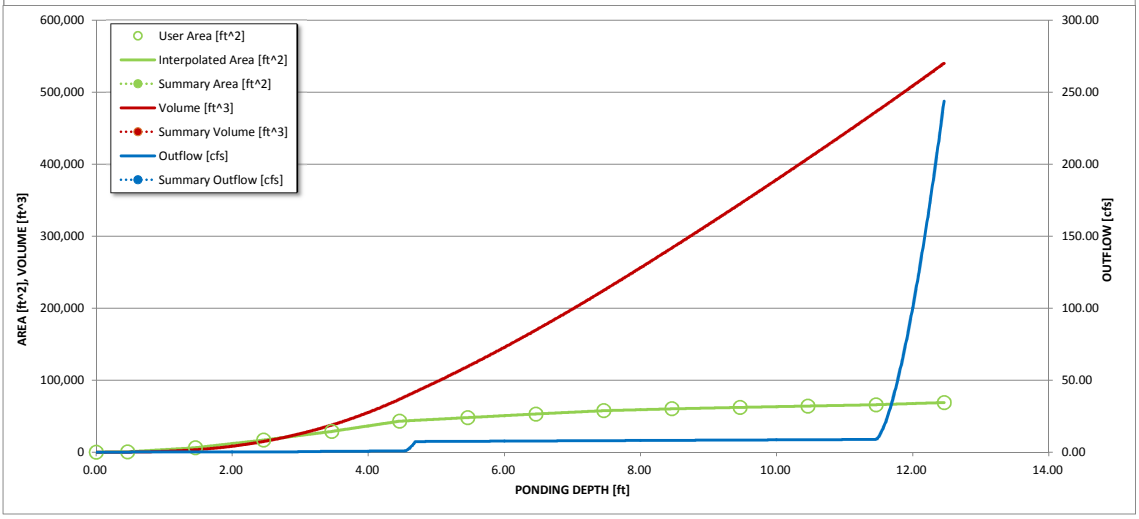
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	0.53	1.07	1.06	1.43	1.66	1.98	2.26	2.60	3.25
Calculated Runoff Volume (acre-ft) =	0.581	1.745	1.288	1.921	2.571	3.756	4.576	5.721	7.824
OPTIONAL Override Runoff Volume (acre-ft) =									
Inflow Hydrograph Volume (acre-ft) =	0.580	1.742	1.287	1.919	2.568	3.753	4.572	5.707	7.813
Predevelopment Unit Peak Flow, q (cfs/acre) =	0.00	0.00	0.01	0.04	0.24	0.74	1.03	1.41	2.08
Predevelopment Peak Q (cfs) =	0.0	0.0	0.4	1.5	8.2	25.5	35.4	48.4	71.4
Peak Inflow Q (cfs) =	10.4	30.8	22.8	33.8	45.1	65.5	79.5	98.7	134.1
Peak Outflow Q (cfs) =	0.2	0.8	0.7	1.5	7.4	7.6	7.7	7.9	8.2
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	1.0	0.9	0.3	0.2	0.2	0.1
Structure Controlling Flow =	Plate	Plate	Plate	Overflow Grate 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1	Outlet Plate 1
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	0.0	0.1	0.1	0.1	0.1	0.1
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	40	58	53	59	57	55	55	54	53
Time to Drain 99% of Inflow Volume (hours) =	**42**	63	57	65	64	64	64	64	65
Maximum Ponding Depth (ft) =	2.92	4.41	3.92	4.57	4.87	5.74	6.36	7.19	8.66
Area at Maximum Ponding Depth (acres) =	0.51	0.97	0.81	1.00	1.03	1.13	1.20	1.29	1.39
Maximum Volume Stored (acre-ft) =	0.544	1.633	1.197	1.791	2.085	3.027	3.751	4.801	6.768

Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)







S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

Detention Basin Outlet Structure Design

Outflow Hydrograph Workbook Filename:

Storm Inflow Hydrographs **UD-Detention, Version 3.07 (February 2017)**

The user can override the calculated inflow hydrographs from this workbook with inflow hydrographs developed in a separate program.

Time Interval	SOURCE	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK	WORKBOOK
	TIME	WQCV [cfs]	EURV [cfs]	2 Year [cfs]	5 Year [cfs]	10 Year [cfs]	25 Year [cfs]	50 Year [cfs]	100 Year [cfs]	500 Year [cfs]
4.65 min	0:00:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0:04:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydrograph	0:09:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	0:13:57	0.46	1.33	0.99	1.46	1.92	2.74	3.27	3.97	5.15
1.074	0:18:36	1.24	3.62	2.69	3.97	5.27	7.59	9.13	11.19	14.85
	0:23:15	3.18	9.29	6.92	10.21	13.53	19.48	23.43	28.74	38.14
	0:27:54	8.74	25.52	19.01	28.02	37.14	53.41	64.23	78.73	104.36
	0:32:33	10.36	30.75	22.79	33.83	45.08	65.51	79.49	98.73	134.07
	0:37:12	9.89	29.44	21.79	32.39	43.21	62.95	76.60	95.55	130.78
	0:41:51	9.00	26.79	19.84	29.48	39.33	57.29	69.82	87.24	119.78
	0:46:30	8.03	24.04	17.78	26.46	35.36	51.60	62.91	78.64	108.04
	0:51:09	6.93	20.88	15.41	23.00	30.81	45.11	55.07	68.95	94.95
	0:55:48	6.04	18.14	13.40	19.98	26.82	39.36	48.10	60.28	83.10
	1:00:27	5.47	16.45	12.15	18.12	24.28	35.55	43.38	54.28	74.63
	1:05:06	4.51	13.70	10.09	15.10	20.27	29.77	36.40	45.67	63.08
	1:09:45	3.68	11.29	8.29	12.45	16.75	24.65	30.18	37.90	52.43
	1:14:24	2.83	8.83	6.46	9.76	13.18	19.50	23.95	30.18	41.95
	1:19:03	2.10	6.71	4.88	7.43	10.10	15.04	18.52	23.41	32.67
	1:23:42	1.53	4.92	3.55	5.46	7.47	11.21	13.86	17.59	24.66
	1:28:21	1.18	3.75	2.72	4.15	5.64	8.42	10.38	13.12	18.30
	1:33:00	0.97	3.05	2.23	3.38	4.57	6.78	8.33	10.50	14.57
	1:37:39	0.83	2.58	1.88	2.85	3.86	5.71	7.01	8.82	12.22
	1:42:18	0.73	2.26	1.65	2.49	3.36	4.97	6.09	7.66	10.59
	1:46:57	0.65	2.02	1.48	2.24	3.01	4.45	5.45	6.84	9.44
	1:51:36	0.60	1.86	1.36	2.05	2.77	4.08	4.99	6.26	8.62
	1:56:15	0.44	1.37	1.00	1.51	2.05	3.03	3.73	4.71	6.56
	2:00:54	0.32	1.00	0.73	1.10	1.49	2.20	2.70	3.40	4.73
	2:05:33	0.24	0.74	0.54	0.81	1.10	1.62	1.99	2.52	3.51
	2:10:12	0.17	0.54	0.40	0.60	0.81	1.21	1.48	1.87	2.61
	2:14:51	0.12	0.39	0.29	0.44	0.59	0.88	1.09	1.38	1.92
	2:19:30	0.09	0.28	0.20	0.31	0.42	0.63	0.78	0.99	1.39
	2:24:09	0.06	0.20	0.15	0.23	0.31	0.46	0.57	0.72	1.01
	2:28:48	0.04	0.14	0.10	0.15	0.21	0.32	0.40	0.51	0.71
	2:33:27	0.02	0.09	0.06	0.10	0.13	0.21	0.26	0.33	0.47
	2:38:06	0.01	0.05	0.03	0.05	0.07	0.12	0.15	0.19	0.28
	2:42:45	0.00	0.02	0.01	0.02	0.03	0.05	0.07	0.09	0.13
	2:47:24	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04
	2:52:03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	2:56:42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:01:21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:06:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:10:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:15:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:19:57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:24:36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:29:15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:33:54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:38:33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:43:12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:47:51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:52:30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3:57:09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:01:48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:06:27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:11:06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:15:45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:20:24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:25:03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:29:42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:34:21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:39:00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:43:39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:48:18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:52:57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4:57:36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:02:15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:06:54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:11:33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:16:12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:20:51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:25:30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:30:09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5:34:48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Detention Basin Outlet Structure Design

UD-Detention, Version 3.07 (February 2017)

Summary Stage-Area-Volume-Discharge Relationships

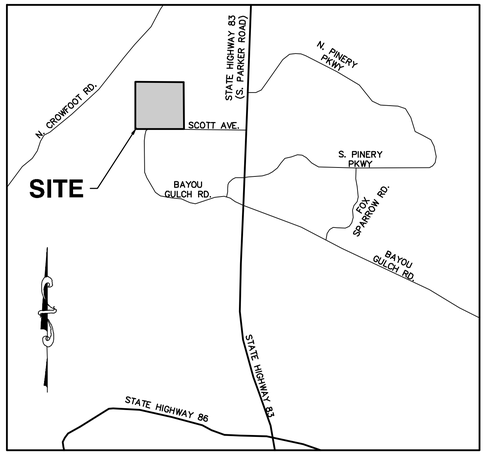
The user can create a summary S-A-V-D by entering the desired stage increments and the remainder of the table will populate automatically.

The user should graphically compare the summary S-A-V-D table to the full S-A-V-D table in the chart to confirm it captures all key transition points.

Stage - Storage Description	Stage [ft]	Area [ft^2]	Area [acres]	Volume [ft^3]	Volume [ac-ft]	Total Outflow [cfs]

CIELO SUBDIVISION
PHASE III DRAINAGE PLANS

A PART OF THE SOUTHEAST QUARTER OF SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO



VICINITY MAP
1"=5000'

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	HISTORIC DRAINAGE MAP
3	OVERALL PLAN
4	DRAINAGE PLAN
5	DRAINAGE PLAN
6	DRAINAGE PLAN
7	DRAINAGE PLAN

LEGEND

- PROPERTY BOUNDARY
- PROPERTY LINE
- PROPOSED CURB & GUTTER
- PROPOSED SIDEWALK
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- EXISTING RIGHT OF WAY
- PROPOSED EASEMENT
- EXISTING EASEMENT

A = SUB BASIN DESIGNATION
B = AREA IN ACRES
C = 5 YR RUNOFF COEFFICIENT
D = 100 YR RUNOFF COEFFICIENT

A = MAJOR BASIN DESIGNATION
B = AREA IN ACRES
C = 5 YR RUNOFF COEFFICIENT
D = 100 YR RUNOFF COEFFICIENT

- C5 — DESIGN POINT
- DRAINAGE BASIN BOUNDARY
- MAJOR DRAINAGE BASIN BOUNDARY
- EXISTING STORM SEWER
- PROPOSED STORM SEWER INLET
- PROPOSED STORM SEWER
- PROPOSED UTILITY EASEMENT
- 6500 — PROPOSED GRADE CONTOUR
- 6500 — EXISTING CONTOUR
- FLOW DIRECTION
- PROPOSED TRICKLE PAN
- PROPOSED 6' CROSSPAN

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303.462.1100

SITE BENCHMARK:

DOUGLAS COUNTY CONTROL POINT "CDOT55" LOCATED NEAR THE EAST R.O.W. LINE OF SOUTH PARKER ROAD (HIGHWAY 83) APPROXIMATELY 265 FEET NORTH OF THE NORTH LINE OF SECTION 15 T.7S, R.66W, 6TH P.M.

PUBLISHED ORTHOMETRIC HEIGHT: 1843.49M (NAVD 88 ELEVATION 6049.18 US SURVEY FEET)

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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6700 EAST SCOTT AVENUE
PARKER, CO 80134
(310) 460-6324 PHONE
MICHAEL SANDERS

CLIENT

ARLINGTON LAND PARTNERS

CIELO SUBDIVISION
DOUGLAS COUNTY, COLORADO
CHAMBERS ROAD
CONSTRUCTION PLANS

COVER SHEET

DATE 5/24/2016

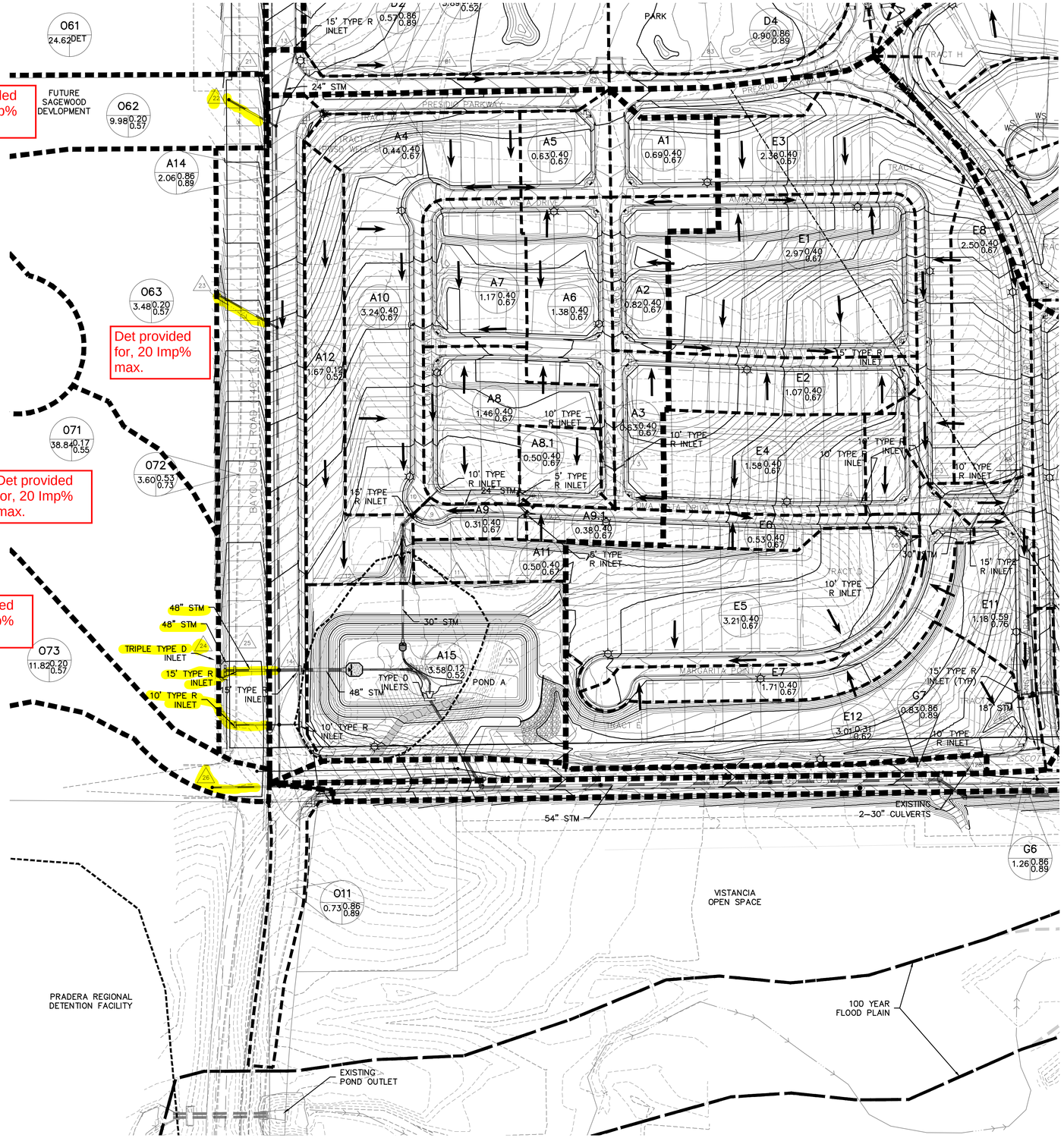
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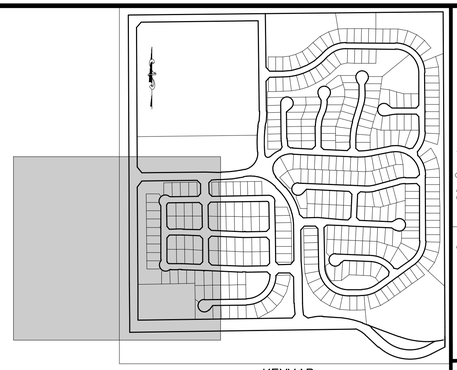
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P.M. JJF
BOOK --
JOB 16000498
SHEET NO. 1

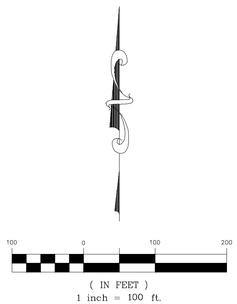
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KEYMAP
1" = 600'



(IN FEET)
1 inch = 100 ft.

NOTES:

1. DETENTION POND A IS LOCATED IN AN OFFSITE PARCEL AND IS INTENDED TO PROVIDE DETENTION AND WATER QUALITY FOR CIELO PA-1 AND THE 85 TRIBUTARY ACRES OF THE SAGEWOOD SITE DIRECTLY WEST OF BAYOU GULCH ROAD.

SITE BENCHMARK:

DOUGLAS COUNTY CONTROL POINT "CDOT55" LOCATED NEAR THE EAST R.O.W. LINE OF SOUTH PARKER ROAD (HIGHWAY 83) APPROXIMATELY 265 FEET NORTH OF THE NORTH LINE OF SECTION 15 T.7S, R.66W, 6TH P.M.

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DRAINAGE PLAN

DATE 5/24/2016

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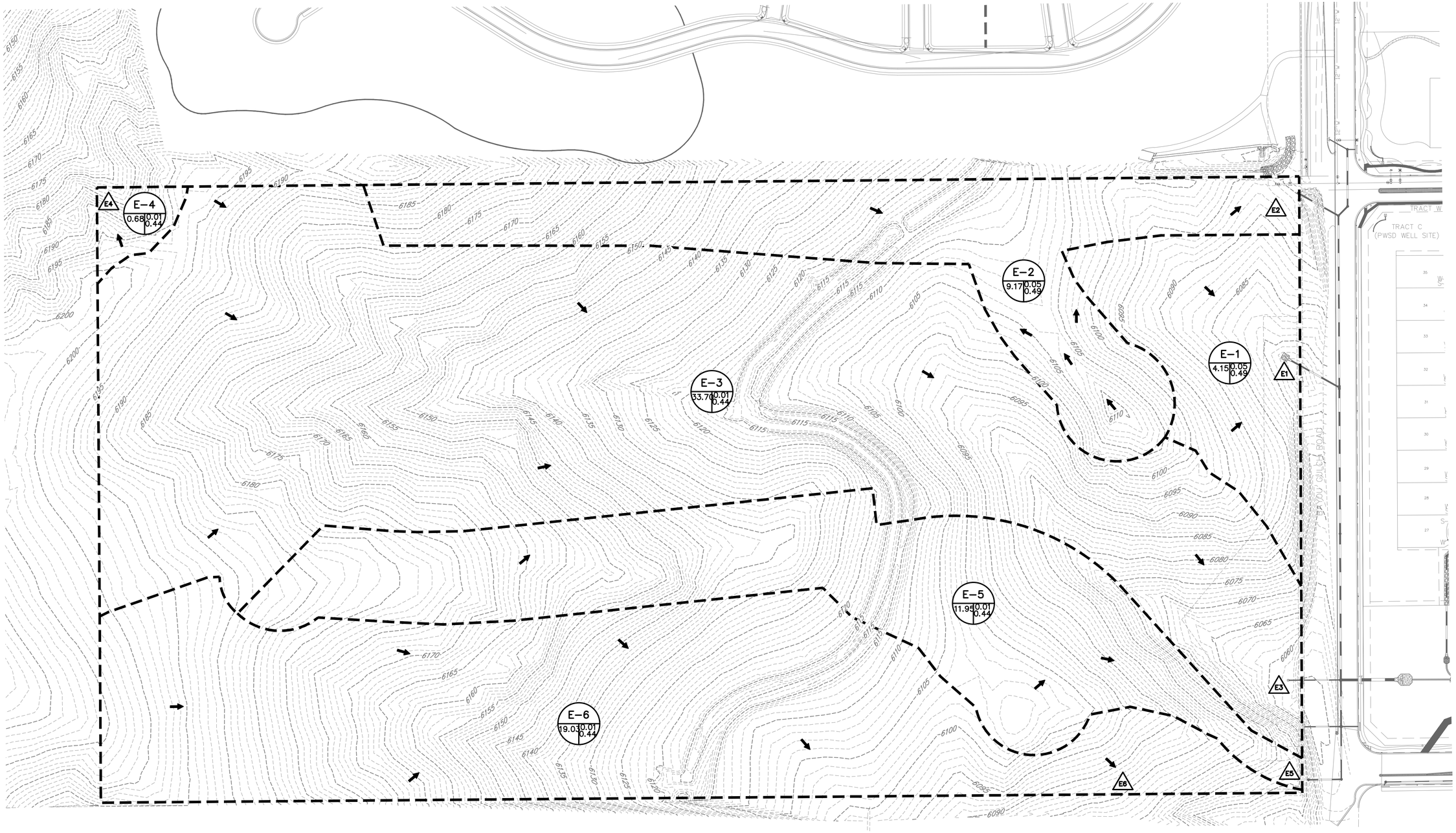
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CAD FILE: I:\6000498-DRAINAGE PLAN.DWG

APPENDIX F

DRAINAGE MAPS



LEGEND

PROPERTY BOUNDARY	A = BASIN DESIGNATION
EXISTING LOT LINE	B = AREA IN ACRES
PROPOSED CURB & GUTTER	C = 5 YR RUNOFF COEFFICIENT
EXISTING CURB & GUTTER	D = 100 YR RUNOFF COEFFICIENT
PROPOSED SIDEWALK	# DESIGN POINT
PROPOSED CONCRETE PAVEMENT	DRAINAGE BASIN BOUNDARY
SECTION LINE	DRAINAGE FLOW ARROW
PROPOSED EASEMENT	HP LP HIGH OR LOW POINT
EXISTING EASEMENT	
PROPOSED 1' CONTOURS	
EXISTING 1' CONTOURS	

100 0 100 200
(IN FEET)
1 inch = 100 ft.

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BROOMFIELD, CO 80020
(303) 246-6799
CAYD BADER

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XXXXXXXX

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO

EXISTING DRAINAGE MAP

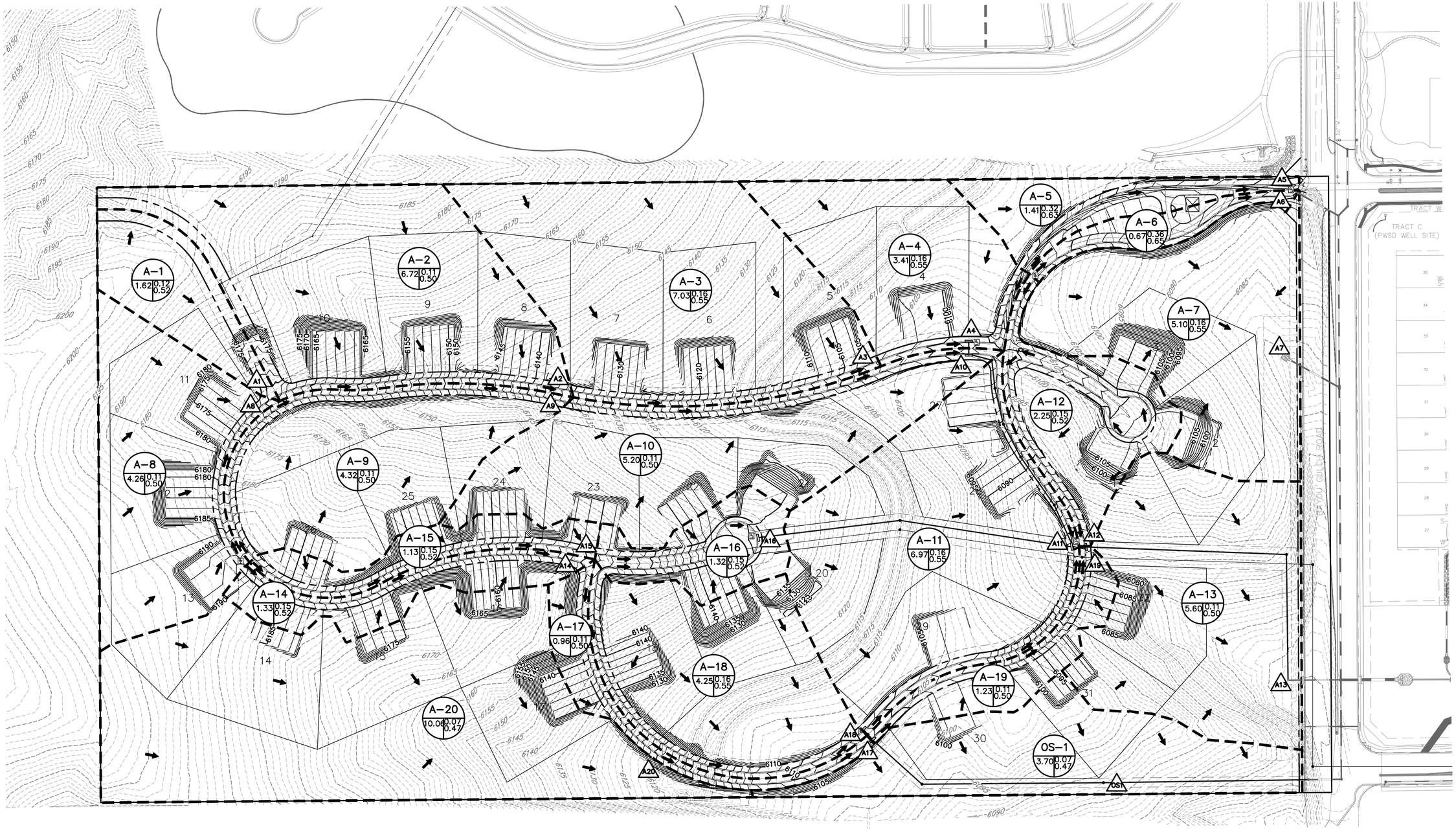
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P.M. DEB
JOB 20003952
SHEET NO. 1

CAD FILE: 2200348-DRAINAGE MAP EXISTING.DWG

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DIRECT PROPOSED RUNOFF SUMMARY TABLE									
BASIN	DESIGN POINT	AREA (AC.)	5 YEAR Q (CFS)	100 YEAR Q (CFS)	BASIN	DESIGN POINT	AREA (AC.)	5 YEAR Q (CFS)	100 YEAR Q (CFS)
A-1	A1	1.62	0.45	4.27	A-12	A12	2.25	0.86	6.26
A-2	A2	6.72	1.73	16.47	A-13	A13	5.6	1.52	14.44
A-3	A3	7.03	2.73	19.82	A-14	A14	1.33	0.51	3.69
A-4	A4	3.41	1.47	10.68	A-15	A15	1.13	0.44	3.21
A-5	A5	1.41	1.06%	4.33	A-16	A16	1.32	0.59	4.32
A-6	A6	0.67	0.81	3.05	A-17	A17	0.96	0.26	2.52
A-7	A7	5.1	1.79	12.96	A-18	A18	4.25	1.78	12.88
A-8	A8	4.26	0.99	9.43	A-19	A19	1.23	0.34	3.27
A-9	A9	4.32	0.87	8.25	A-20	A20	10.06	1.34	18.98
A-10	A10	5.2	1.34	12.79	OS-1	OS1	3.7	0.63	8.86
A-11	A11	6.97	2.72	19.74					

LEGEND

- PROPERTY BOUNDARY
- EXISTING LOT LINE
- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED SIDEWALK
- PROPOSED CONCRETE PAVEMENT
- SECTION LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED 1' CONTOURS
- EXISTING 1' CONTOURS

A = BASIN DESIGNATION
B = AREA IN ACRES
C = 5 YR RUNOFF COEFFICIENT
D = 100 YR RUNOFF COEFFICIENT

DESIGN POINT

DRAINAGE BASIN BOUNDARY

DRAINAGE FLOW ARROW

HP LP HIGH OR LOW POINT

100 0 100 200
(IN FEET)
1 inch = 100 ft.

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PROPOSED DRAINAGE MAP

DATE --

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CAD FILE: 22003148-DRAINAGE MAP PROPOSED.DWG

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9.2 Preliminary Geotech

CTL | THOMPSON INCORPORATED

DUE DILIGENCE PRELIMINARY GEOTECHNICAL INVESTIGATION BAYOU GULCH ROAD & PRESIDO PARKWAY PARCEL PARCEL #: 2349-090-00-002 & 2349-093-00-001 DOUGLAS COUNTY, COLORADO

Prepared For:

AFFINITY HOLDINGS, LLC
4155 East Jewell Avenue, Suite 500
Denver, Colorado 80222

Attention: Cayd Bader

Project No. DN51,524-115-R1

May 20, 2022

1971 West 12th Avenue | Denver, Colorado 80204 | Phone: 303-825-0777 | Fax: 303-825-4252

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FIGS. 1A AND 1B – LOCATIONS OF EXPLORATORY BORINGS

FIG. 2 – SURFACE DIAGRAM OF BEDROCK

FIG. 3 – GROUNDWATER SURFACE DIAGRAM

FIG. 4 – PRELIMINARY RISK ASSESSMENT FOR EXPANSIVE SOILS AND BEDROCK

FIG. 5 – BENCH FILL DETAIL

FIG. 6 – SEWER UNDERDRAIN DETAIL

FIG. 7 – UNDERDRAIN CUTOFF WALL DETAIL

FIG. 8 – CONCEPTUAL UNDERDRAIN PROFILE

FIG. 9 – DRAINAGE SUB-DRAIN

APPENDIX A – SUMMARY LOGS OF EXPLORATORY BORING LOGS

APPENDIX B – LABORATORY TEST RESULTS AND TABLE B-I

APPENDIX C – GUIDELINE SITE GRADING SPECIFICATIONS

SCOPE

This report presents the results of our Due Diligence Preliminary Geotechnical Investigation for the Bayou Gulch Road and Presido Parkway Parcel (Parcel #: 2349-090-00-002 & 2349-093-00-001) in Douglas County, Colorado (Fig. 1). The purpose of our investigation was to evaluate the subsurface conditions to assist in due diligence planning of site development and residential construction. The report includes descriptions of soil and bedrock conditions and groundwater levels found in our exploratory borings, and discussions of site development and construction as influenced by geotechnical considerations. The scope of service was described in our Proposal (DN 22-0116) dated March 17, 2022.

This report is based on published geology maps, subsurface conditions found in our exploratory borings, results of field and laboratory tests, engineering analysis of field and laboratory data, and our experience with similar projects. It is also based on a Concept Plan prepared by pcs group, inc., dated January 28, 2022.

The report contains descriptions of the site conditions and proposed construction, our field investigation and laboratory test methods, subsurface conditions encountered in the borings and laboratory tests, measured groundwater levels, preliminary discussions of geologic conditions and hazards, recommendations for site development and earthwork, preliminary estimates for pavement section ranges and materials, potential foundation and floor support alternatives, and surface and subsurface drainage. The preliminary discussions of foundation and floor system alternatives are intended for planning purposes only and should not be used to design foundations. Additional investigation is recommended to plan mitigation of expansive soils. Site (lot) specific investigations will be necessary to design residences. A summary of our conclusions and recommendations follows, with more detailed discussion in the report.

SUMMARY OF CONCLUSIONS

1. The primary geotechnical concerns that we believe will influence development and building performance is the presence of expansive clay and claystone. We believe this concern can be mitigated with proper planning, engineering, design, construction and monitoring for settlement. There are no geotechnical constraints that preclude development.

2. Strata encountered in our borings generally consisted of sandy to very sandy, silty clay and/or clayey sand alluvium. Bedrock of the Dawson formation was encountered in all six borings at depths of 1 to 12 feet. The clay and claystone are expansive. We judge the sand and sandstone to be low swelling or non-expansive.

3. Groundwater depths were checked after drilling on April 14, 2022. Water was measured in five borings at depths of 21½ to 31 feet. Groundwater levels will likely fluctuate seasonally and may rise in response to precipitation and landscape irrigation and changes in the level of the adjacent canals and Cherry Creek tributary.

4. Based on the swell-consolidation test results and our experience, we estimate potential heave may range up to about 4 inches at the existing ground surface based on a 24-foot depth of wetting. Changes to site grades will affect these estimates. We recommend drilling additional borings once grading plans have been finalized, or site grading is completed, to further delineate areas that may merit sub-excavation.

5. Footing foundations and slab-on-grade basement floors may be considered where the underlying soil is low swelling or non-expansive, or where sub-excavation is performed. Drilled pier foundations can be considered in lieu of sub-excavation. Without sub-excavation, we anticipate low to moderate risk of poor slab-on-grade performance in basements.

6. Preliminary data suggests that the residential streets will require at least 4 inches of asphalt and 6 inches of aggregate base course. Sub-excavation of pavement subgrade to a depth of 3.5 feet will likely be necessary for most of the site. A design-level subgrade investigation and pavement design should be done prior to paving.

7. Control of surface and subsurface drainage will be critical to the performance of foundations, slabs-on-grade and pavements. Overall surface drainage should be designed to provide rapid run-off of surface water away from structures, and off of pavements and flatwork.

SITE CONDITIONS

The Bayou Gulch Road and Presido Parkway Parcel, Parcel #2349-090-00-002 and 2349-093-00-001, is located southwest of Bayou Gulch Road and Presido Parkway in Douglas, Colorado (Photo 1 and Fig. 1). Aerial photographs imply the parcels have been primarily used for cattle ranching. Residential development is on-going to the north and east of the parcels. Existing residences are present to the south and west. A remnant section of the Arapahoe Canal runs south/north through the center of the site. A drainage gully transverses west to east through the middle of the site and leads to the old Arapahoe Canal. A Cherry Creek tributary canal is 600 feet to the south and Lemon Gulch is about 0.6-mile northwest of the parcels. The southeast corner of the site is bordered by the 100-year floodplain as shown in Photo 2.



Photo 1. Google Earth© Aerial Site Photo 6/2021

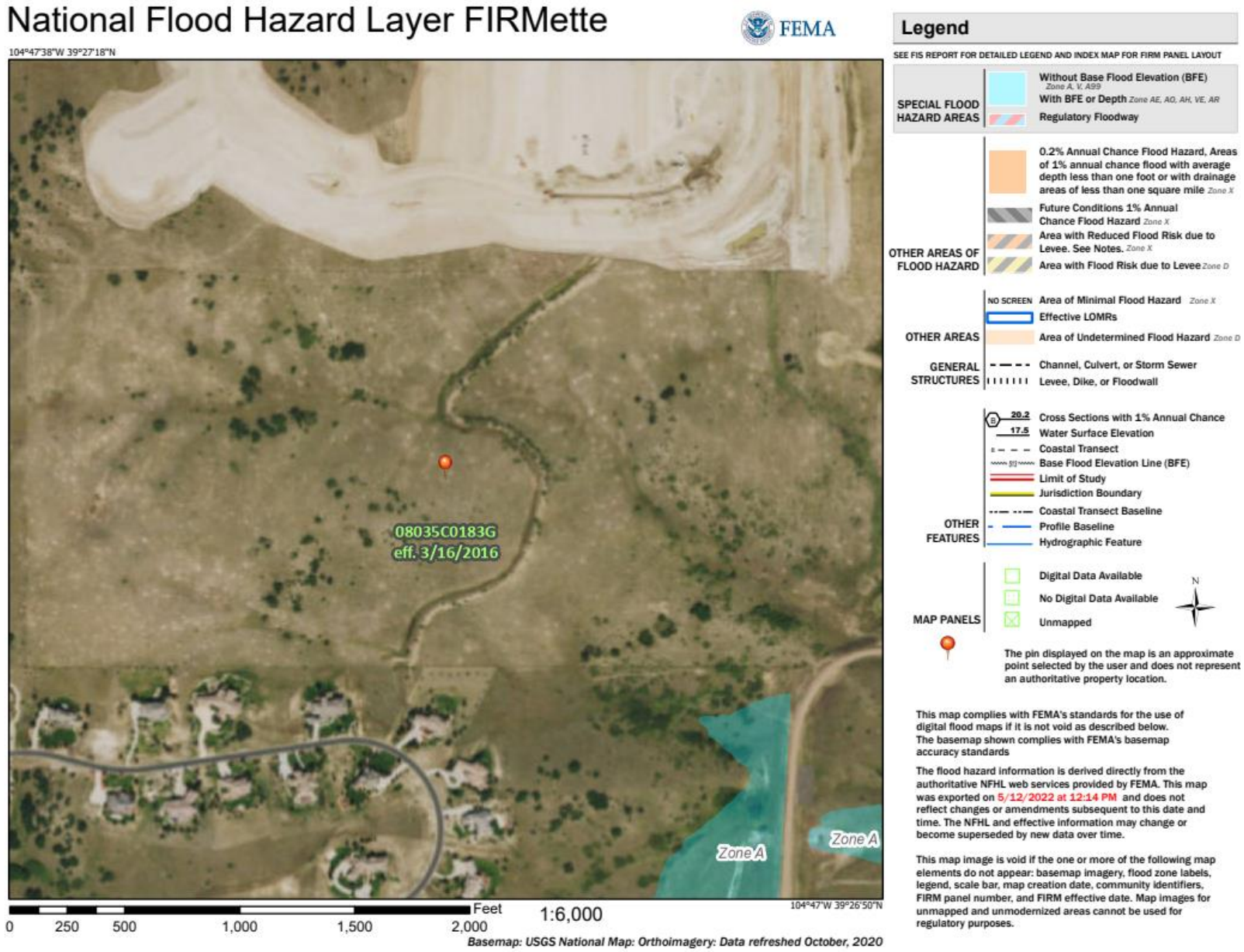


Photo 2: FEMA National Flood Hazard Layer FIRMette
Solid Blue 'Zone A' – 100-year Floodplain



Photo 3: Google Earth© Aerial Site Photo 12/1937

We reviewed historical Google Earth imagery dating back to 1937 (Photo 3). Site use has remained generally unchanged. What appears to be a cattle water station is located at the west end of the site. These stations are usually accompanied by an adjacent well. An auxiliary structure is present just north of this station. The ground is covered in grass, weeds and scattered shrubs and trees. The site slopes to the east and has a maximum vertical relief of about 140 feet.

SITE GEOLOGY

The geology and existence of geologic hazards on this site were evaluated through review of subsurface data and available literature. According to the Geologic Map of the Castle Rock North Quadrangle, Douglas County, Colorado (Thorson, Jon P.: Colorado Geological Survey Open File Report 05-2, 2005), the site is predominantly underlain by alluvium deposits of late Pleistocene age over claystone and sandstone bedrock of the Dawson Formation. An excerpt from the geologic map is presented as Photo 4.

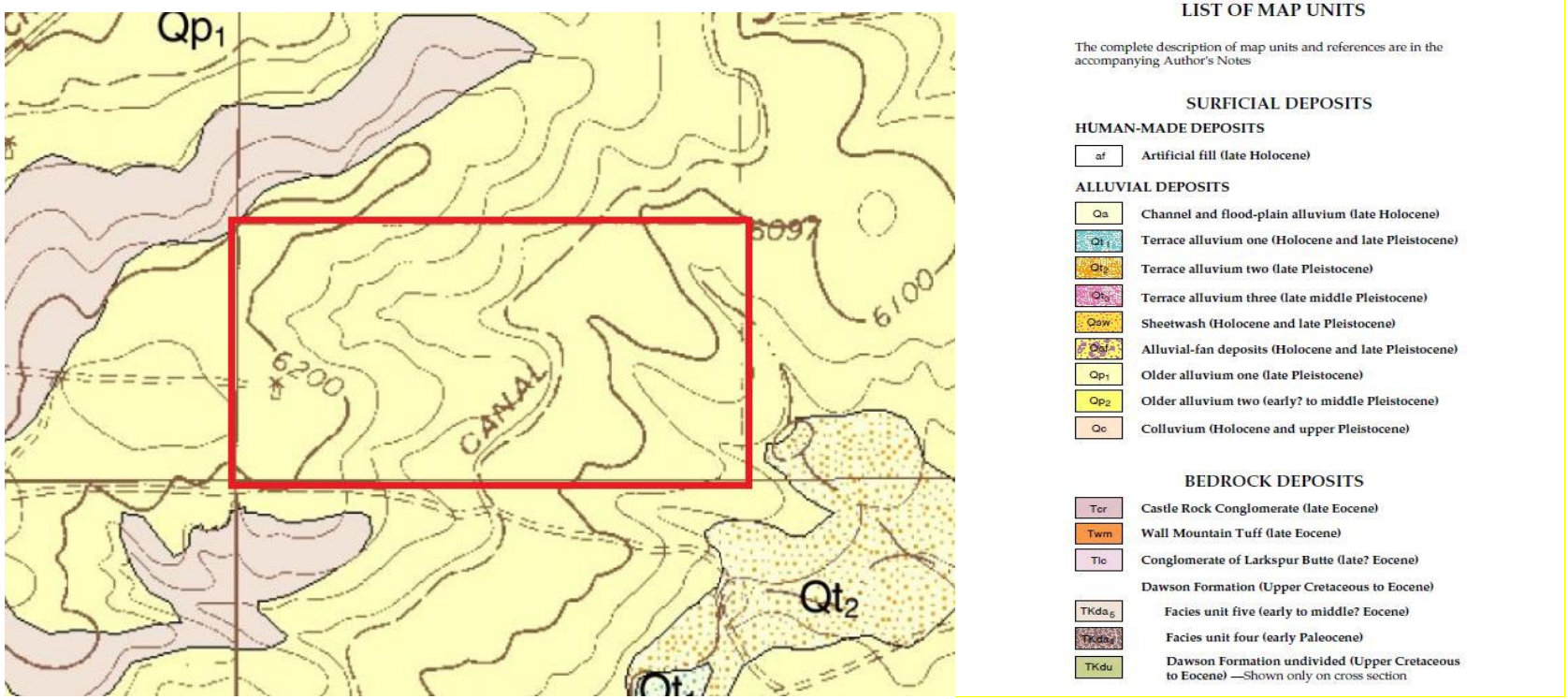


Photo 4: Excerpt from Geologic Map of the Castle Rock North Quadrangle, Douglas County, Colorado (Thorson, Jon P. Colorado Geological Survey, Open File Report 05-2, 2005)

PROPOSED DEVELOPMENT

We understand plans for future development are in the early conceptual phase. According to a Concept Plan created by pcs group inc. (dated January 28, 2022) the site may be developed for 36 single-family custom residences. We anticipate the residences will be one or two-story, wood-framed structures with basements and/or crawl spaces and attached multi-car garages. Basements may be full depth, walkout, or garden-level. Paved streets will provide access throughout the development. Grading plans were not available at the time of our investigation.

INVESTIGATION

We investigated subsurface conditions by drilling 6 widely-spaced exploratory borings at the approximate locations shown on Figs. 1A and 1B. The boring locations and elevations are approximate and were determined by a representative of our firm using a Leica GS18 GPS unit referencing the North American Datum of 1983 (NAD 83). Prior to drilling, we contacted the Utility Notification Center of Colorado and local sewer and water districts to clear boring locations for conflicts with buried utilities. The borings were advanced to depths of 25 to 35 feet using a solid stem, continuous-flight auger and a truck-mounted CME-45B drill rig.

Samples of the soil and bedrock were obtained at 5-foot intervals using 2.5-inch diameter (O.D.) modified California barrel samplers driven by an automatic 140-pound hammer falling 30 inches. A representative of CTL|Thompson, Inc. was present during drilling to observe drilling operations, log the soil and bedrock, and obtain samples. Summary logs of the exploratory borings with results of field penetration resistance tests and a portion of the laboratory data are presented in Appendix A.

Samples were returned to our laboratory where they were examined and assigned testing. Laboratory tests included dry density, moisture content, percent silt and clay-sized particles (passing the No. 200 sieve), Atterberg limits, gradation,

swell-consolidation, total suction, and water-soluble sulfate concentration. Swell-consolidation tests were performed by wetting the samples under existing overburden pressures (the weight of the overlying soil). Load-back analysis was performed on select samples to help estimate swelling pressures. Results of laboratory tests are presented in Appendix B and are summarized in Table B-I.

SUBSURFACE CONDITIONS

Strata encountered in our borings consisted of about 1 to 12 feet of alluvial clay and sand underlain by claystone and/or sandstone bedrock. Bedrock was encountered in all six borings at depths of roughly 1 to 12 feet below existing ground surface. Some pertinent engineering characteristics of the soil and bedrock are presented in the following paragraphs.

Alluvium - Sand and Clay

About 1 to 11½ feet of sandy to very sandy, silty clay and nil to 5 feet of clayey sand was encountered above the bedrock in our borings. The clay was generally very stiff to hard and one sample of sand was medium dense based on field penetration resistance testing. Four samples of clay swelled 0.9 to 6.3 percent when wetted, with an average swell of 3.8 percent. Two clay samples contained 55 and 73 percent fines (passing the No. 200 sieve) and exhibited moderate and high plasticity, respectively. One sand sample contained 30 percent fines and exhibited moderate plasticity. We judge the sand to be low swelling or non-expansive. Tests indicate the clay is variably expansive.

Bedrock – Dawson Formation

Claystone and/or sandstone bedrock was encountered below the native soils in each boring at depths of 1 to 12 feet, approximate elevations 6085 to 6171 feet, as shown on Fig. 2. The bedding of claystone and sandstone is known to be variably

erratic. In other words, the presence of claystone and the thickness of claystone can change significantly over relatively short horizontal distances. The claystone is weathered or hard to very hard and the sandstone is hard to very hard. Nine claystone samples swelled 0.2 to 4.3 percent when wetted, with an average swell of 1.5 percent. Four claystone samples had total soil suction values of 3.45 to 3.96 pF and developed load-back swelling pressures of approximately 4,600 to 13,200 psf. One claystone sample contained 67 percent fines and exhibited moderate plasticity. One sandstone sample compressed 0.3 percent when wetted and had a total soil suction value of 4.02 pF. Six sandstone samples contained 9 to 28 percent fines, three of which also contained 1 to 13 percent gravel content. We judge the sandstone to be non-expansive or perhaps low swelling. Tests indicates the claystone is variably expansive.

Groundwater

Groundwater was encountered in TH-6 during drilling at a depth of about 23½ feet. When the borings were checked after drilling on April 14, 2022, water was measured in five borings at depths of 21½ to 31 feet, approximate elevations 6073½ to 6157½, as shown on Figure 3. We recommend providing at least 3 feet, and preferably 5 feet, of separation between basements and groundwater. Groundwater may be encountered during deep utility installation, depending on final grading plans. Groundwater levels will likely fluctuate seasonally and may rise in response to precipitation and landscape irrigation and changes in the level of adjacent canals and the Cherry Creek tributary.

GEOLOGIC HAZARDS AND GEOTECHNICAL CONCERNS

Geologic hazards at the site include expansive soil and bedrock, erosion associated with the alluvium, and the regional geologic hazards of seismicity and naturally occurring radioactive materials. Potential flooding of the Cherry Creek tributary canal is also a natural hazard. No geologic hazards that would preclude the proposed

development were identified. We believe potential hazards and concerns can be mitigated with proper engineering, design, and construction practices, as discussed in this report.

Expansive Clay and Claystone

Tests indicates the clay and claystone encountered in our borings are expansive. There is risk that ground heave will damage pavements, slabs-on-grade and foundations. Engineered design of grading, pavements, foundations, slabs-on-grade, and surface drainage can mitigate, but not eliminate, the effects of expansive soil. Additional borings and laboratory tests can help delineate areas where sub-excavation may be merited to allow for footing foundations and enhanced slab-on-grade performance in basements and garages.

We used the results of swell tests to evaluate potential heave of the soils underling the site. The analysis involves dividing the soil profile into layers and modeling the heave of each layer from representative swell tests. We chose two methods to evaluate potential ground heave, the Thompson method and the partial-wetting technique by Houston et al.[1]. The latter study theorizes that the highest degree of wetting occurs near-surface with a gradually decreasing degree of wetting with depth. The Thompson method does not account for partial wetting and assigns a constant 30 percent reduced wetting factor to each layer; this typically results in higher estimates at greater depths. Houston, Stauffer, West, Bradford, and Houston's 2017 publication indicated about 80 to 90 percent of the laboratory measured swell actually occurred on a site in the area in the upper 30 to 40 percent of the depth of wetting, decreasing parabolically from that point to the maximum depth of wetting, i.e., about 50 percent of the laboratory measure swell occurs in the field at 70 percent of the depth of wetting and 10 percent occurs at 90 percent of the depth of wetting. We chose to report

[1] Houston, S.L., Stauffer, P.A., West, M.W., Bradford, E.L., Houston, W.N. (2017) "*Use of the Net Partial Wetting Factor (NPWF) Method of Computation of Remaining Heave: A Forensic Study*", Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers.

estimated potential heave by averaging the results of the Thompson method and partial-wetting technique. Based on the swell-consolidation test results and our experience, we estimate potential heave may range up to about 4 inches based on a 24-foot depth of wetting. Changes to site grades will affect these estimates. This estimate neglects potential compression of non-expansive soils due to wetting. Our estimates are summarized in Table I. Fig. 4 presents the risk due to heave at each boring location.

TABLE I:
ESTIMATED POTENTIAL GROUND HEAVE AT THE EXISTING GROUND SURFACE BASED ON 24-FOOT DEPTH OF WETTING

Boring	Estimated Potential Ground Heave (in)
TH-1	3
TH-2	1½
TH-3	3½
TH-4	2½
TH-5	2½
TH-6	4

Flooding

The site plan shows that the southeastern portion of the site is bordered by the 100-year floodplain of a Cherry Creek tributary. Increased development in the area may lead to a rise in flow and subsequentially push the 100-year floodplain into the site. This will also most likely impact groundwater and raise the water table locally. The presence of this floodplain indicates the likely existence of compressible soils. Grading should be designed by the Civil Engineer to mitigate potential flooding.

Existing Fill

Although not encountered in our borings, there may be some existing fill present on-site at the west end of the site relating to the cattle water station and nearby structure. Existing fill soils are considered unsuitable to support improvements and

should be removed and replaced as moisture-conditioned, compacted fill. Portions of fill that do not contain deleterious material, trash, organics, or other debris can be re-used as engineered fill.

Seismicity

Based on available mapping, we found no active faults within or near the site. The soil and bedrock units are not expected to respond unusually to seismic activity. Based on methods described in Chapter 16 of the 2018 International Residential Code (IRC), we judge the Seismic Site Classification ranges between C and D.

Radioactivity

It is normal in the Front Range of Colorado and nearby eastern plains area to measure radon gas in poorly ventilated spaces (e.g., full depth residential basements) in contact with soil or bedrock. Radon 222 gas is considered a health hazard and is just one of several radioactive products in the chain of the natural decay of uranium into lead. Radioactive nuclides are common in the soil and bedrock underlying the subject site. Because these sources exist or will exist on most sites in the area, there is a potential for radon gas accumulation in poorly ventilated spaces. The concentration of radon that can develop is a function of many factors, including the radionuclide activity of the soil and bedrock, construction methods and materials, soil gas pathways, and accumulation areas. The only reliable method to determine if a hazard exists is to perform radon testing of completed residential structures to determine the level of radon gas accumulation. Typical mitigation methods consist of sealing soil gas entry areas, ventilation of below-grade spaces, and gas venting from foundation drain systems. Radon rarely accumulates to significant levels in above-grade living spaces. We recommend provision for ventilation of foundation drain systems if a radon problem is discovered.

Erosion

Erosion potential on the site is considered low to moderate based on the sub-surface materials. Uncontrolled and concentrated surface runoff has the potential to create damaging erosion. Erosion potential will increase during construction, but should return to pre-construction rates or less if proper grading practices, surface drainage design, and re-vegetation efforts are implemented

Other Considerations

We did not identify significant economically recoverable, high-quality aggregate in our borings. We believe there are no economic aggregate or energy resources on the property.

SITE DEVELOPMENT

The primary geotechnical concern that we believe will influence development and building performance is the presence of expansive clay and claystone. This concern can be mitigated with proper planning, engineering, design and construction. We believe there are no geologic or geotechnical constraints that would preclude development. The following sections provide site development recommendations.

Existing Fill

Although not encountered in our borings, existing fill may be present adjacent to existing structures and is not suitable to support new improvements. Existing fill (if encountered) should be removed and replaced as moisture-conditioned, compacted fill as discussed in the next section.

Site Grading

The on-site soils are suitable for use as site grading fill provided they are substantially free of debris, organics, and other deleterious materials. The ground surface in areas to be filled should be stripped of vegetation, scarified, and moisture conditioned to between 1 and 4 percent above optimum moisture content for clay and claystone and within 2 percent of optimum for sand and sandstone, and compacted to at least 95 percent of standard Proctor maximum dry density (ASTM D 698). We anticipate stripping may require cuts of 3 to 6 inches for the majority of the site.

The properties of fill will affect the performance of foundations, slabs-on-grade, utilities, pavements, flatwork and other improvements. If imported soil is needed to achieve site grades, it should ideally contain between 30 to 55 percent fines (passing the No. 200 sieve) and exhibit a liquid limit less than 40 and a plasticity index less than 20. The material should be tested and approved by our firm prior to importing to the site.

Fill should be placed in thin loose lifts, moisture conditioned and compacted prior to placement of the next lift using the criteria presented in the previous paragraphs. The placement and compaction of site grading fill should be observed and density tested by our representative during construction. Guideline grading specifications are presented in Appendix C. If 20 feet or more of fill is required to meet proposed grades, we recommend special compaction and moisture content specifications. Fill deeper than 20 feet should be moisture conditioned to between 2 percent below and 1 percent above optimum and compacted to 98 percent standard Proctor maximum dry density, regardless of composition.

Fill placed on slopes of 20 percent or steeper the slopes should be benched prior to placing fill (Fig. 5). Depending on proposed grading there may be non-uniform depths of fill below residence sites. Where depth varies more than about 5 feet across a residence footprint, sub-excavation or benching of existing slopes should be

considered to create a more uniform fill depth. We recommend additional review of these conditions as grading and sub-excavation plans are formalized.

Our experience indicates fill and backfill can settle, even if properly compacted to criteria provide above. Factors that influence the amount of settlement are depth of fill, material type, degree of compaction, amount of wetting and time. Most of this settlement usually occurs during and soon after construction; for clayey fill, it may continue for longer. The degree of compression of fill under its own weight will likely range from low for granular soils (½ percent or less), to moderate for clay/sand mixtures (1 to 2 percent), to high for highly plastic clay (2 percent or more). Heave or additional settlement may occur after development in response to wetting.

Excavation

We believe the soils penetrated by our exploratory borings can be excavated with typical heavy-duty equipment. We recommend the owner and the contractor become familiar with applicable local, state and federal safety regulations, including the current Occupational Safety and Health Administration (OSHA) Excavation and Trench Safety Standards. Based on our investigation and OSHA standards, we anticipate the clay and bedrock will classify as Type B and sand as Type C soil. Type B requires 1:1 and Type C requires 1½:1 for temporary excavations in dry conditions. Excavation slopes specified by OSHA are dependent upon soil types and groundwater conditions encountered. The contractor's "competent person" is required to identify the soils encountered in the excavations and refer to OSHA standards to determine appropriate slopes. Stockpiles of soils and equipment should not be placed within a horizontal distance equal to one-half the excavation depth from the edge of the excavation. A professional engineer should design excavations deeper than 20 feet.

Preliminary Sub-Excavation Considerations

Expansive clay and claystone were encountered in our borings. We estimate potential ground heave up to 4 inches is possible at existing ground surface. Many builders and developers elect to perform sub-excavation to mitigate expansive soil and bedrock and allow use of shallow foundations and slab-on-grade basement floors. Based on our experience in the area, we anticipate sub-excavation depths may be on the order of 10 feet below lowest foundation element across most of the site to allow use of footing foundations and to enhance the performance slab-on-grade floors in basements and garages. There may be areas where shallower or no sub-excavation is merited. Since these lots will likely be developed for custom homes, we understand that wide-spread sub-excavation will not be done as part of the site development. Sub-excavation would likely occur on a lot-by-lot basis by the builder's earthwork contractor. We recommend drilling additional borings within the residence footprint after the completion of site grading to identify lots that may merit sub-excavation for footing use.

Sub-excavation is also commonly employed to mitigate potential heave of pavements and need for swell mitigation as part of pavement design and construction. If highly plastic soils are found as pavement subgrade, they could be excavated and replaced with the on-site sands to reduce pavement section thickness and to provide more reliable performance of pavement systems.

Sub-excavation has been employed in the Denver area with satisfactory performance for the large majority of the sites where this ground modification method has been completed. We have seen isolated instances where differential settlement of the sub-excavation fill has led to damage to buildings supported on footings. In most cases, the settlement was caused by wetting associated with poor surface drainage or seepage, and/or poorly compacted fill placed at the horizontal limits of excavation. Wetting of the fill may cause softening and settlement.

Slopes

We recommend permanent cut and fill slopes be designed with a maximum slope of 3:1 (horizontal to vertical); use of 4:1 would be better to control erosion. If site constraints (property boundaries and streets) do not permit construction with recommended slopes, we should be contacted to evaluate the subsurface soils and steeper slopes. Slopes higher than 20 feet should be evaluated by our office on a case-by-case basis. Concentrated surface drainage should not be allowed to sheet flow across slopes or pond near the crest of slopes. All slopes should be re-vegetated soon after grading to reduce erosion.

Utilities

Water and sewer lines are usually constructed beneath paved roads. Compaction of trench backfill can have a significant effect on the life and serviceability of pavements. Trench backfill should be placed in thin (8 inches or less) loose lifts and moisture conditioned to between optimum and 4 percent above optimum moisture content for clay and claystone, and compacted to at least 95 percent of maximum dry density (ASTM D 698). Sand fill should be moisture conditioned to within 2 percent of optimum moisture content and compacted to at least 100 percent of maximum dry density. The placement and compaction of utility trench backfill should be observed and tested by a representative of our firm during construction.

Our experience indicates use of a self-propelled compactor results in more reliable performance compared to backfill “compacted” by a sheepsfoot wheel attachment on a backhoe or trackhoe. The upper portion of the trenches should be made wide enough to allow the use of a self-propelled compactor. Special attention should be paid to backfill placed adjacent to manholes as we have seen instances where settlement in excess of 2 percent has occurred. Any improvements placed over backfill should be designed to accommodate movement.

Underdrains

With long term development and subsequent irrigation, groundwater may develop and rise. Our firm typically advocates an underdrain system (if permitted) below sanitary sewer mains and services to control groundwater that may accumulate in response to development and provide a gravity outlet for foundation drains. If a gravity outfall for the underdrain system is not possible, an alternative would be to outfall underdrains to a wet well where water can be removed with a pump; maintenance should be expected with this option. It may not be practical to install underdrains at this site if a gravity discharge is not available. If an underdrain system is not installed, individual house foundation drains would discharge into sumps with pumps. Sump discharge can result in ponding and recycling if slopes between lots are not adequately graded and well-drained. Problems with chronic ice or algae formation on sidewalks have also developed from sump discharge.

The underdrain should consist of ¾ to 1½-inch clean, free-draining gravel surrounding rigid PVC pipe (Fig. 6). The pipe should be sized for anticipated flow by the civil engineer and may consist of 4 or 6-inch lines. The PVC pipe should be placed at a grade of at least 0.5 percent. A concrete cutoff should be constructed around the sewer pipe and underdrain pipe immediately downstream of the point where the underdrain pipe exits the sewer trench and transitions to the outlet (Fig. 7). The underdrains should be designed to discharge to a gravity outfall and be provided with a permanent concrete headwall and trash rack. If the underdrain discharges into a detention pond, the risk of flood water backflow through the underdrain into basements should be evaluated. A check valve or backflow preventer can be considered. Where feasible, the underdrain services should be installed deep enough so that the lowest point of the basement foundation drain can be connected to the underdrain service as a gravity outlet (Fig. 8). Underdrain services can be 3-inch to avoid confusion with the 4 or 6-inch main line.

Sub-Fill Drain

A sub-fill drain is recommended along the bottom of the existing drainages where more than about 15 feet of site grading fill is planned. The drain should slope with the grade of the existing drainages and have a minimum slope of 0.5 percent. A typical sub-fill drain detail is provided as Fig. 9. A perforated pipe should be connected to the end of the drain and protected with a concrete headwall. The alignment and profile of the sub-fill drain should be shown in the development plans. We recommend re-routing the drainages to avoid installation of sub-fill drains below proposed building/structure footprints.

Preliminary Pavement Considerations

Pavement subgrade may consist of non-expansive or low swelling sand or sandstone, expansive clay, or fill of similar composition. Douglas County requires mitigation of expansive subgrade soil (swell of 2 percent or more when wetted under a confining pressure of 200 psf). The data indicates that pavement subgrade should be sub-excavated to a depth of at least 3.5 feet below bottom of pavement. Our experience is that most fill made from clayey soils and moisture conditioned to above optimum may swell more than 2 percent under these criteria. For this reason, Douglas County requires mitigation of potential heave damage beyond sub-excavation for clayey soils. This can consist of replacement with soils with swell less than 2 percent such as clean sand, silty sand, or possibly clayey sand; another option is chemical stabilization using cement, lime, fly-ash, or mixtures thereof. Replacement of the upper foot of the sub-excavation with CDOT Class 6 Aggregate Road Base is a common alternative.

The table below presents the minimum pavement sections as outlined in Table 5.7 in the Douglas County Roadway Design and Technical Criteria Manual. The sections below do not include potential swelling soil mitigation that may consist of chemical amendment or additional road base. Douglas County does not allow asphalt

placed direction on soil subgrade; i.e., no aggregate base course. These estimates are for preliminary planning purposes. A design-level subgrade investigation and pavement design should be performed prior to paving.

TABLE II:
DOUGLAS COUNTY
PRELIMINARY PLANNING DESIGN PAVEMENT SECTIONS

Roadway Classification	Hot Mix Asphalt Concrete (HMAC) + Aggregate Base Course (ABC)	Portland Cement Concrete (PCC)
Local Residential	4” HMAC + 6” ABC	6” PCC

BUILDING CONSTRUCTION CONSIDERATIONS

The following discussions are preliminary and are not intended for design or construction. After grading is completed, design-level investigations should be performed on a lot-specific basis.

Foundations

Our investigation indicates expansive clay and claystone are present at depths likely to influence the performance of shallow foundations and surface flatwork. Footing foundations can likely be used provided non-expansive or low swelling conditions are present, or where sub-excavation of expansive material is performed (if merited). Drilled piers can be considered instead of sub-excavation. We recommend additional borings to further delineate areas that may or may not merit sub-excavation. Additional investigation of each lot should be conducted after grading and sub-excavation are completed.

Slab-On-Grade Construction

Structurally supported floors are required in first floor living areas. Slab-on-grade basement floors may be considered on low and some moderate swell sites

where potential heave is acceptable to builders and home buyers. Structurally supported basement floors should be used on all sites with high or very high risk of poor basement slab performance. Sub-excavation should reduce potential heave to about 2 inches or less on lots where high swell soils are sub-excavated and should allow wider use of slab-on-grade floors.

The performance of garage floors, driveways, sidewalks, and other surface flatwork will likely be poor where high swell materials are shallow, unless sub-excavation is performed. The following precautions will be required to reduce the potential for damage due to movement of slabs-on-grade for this site.

1. Isolation of the slabs from foundation walls, columns and other slab penetrations;

2. Voiding of interior partition walls to allow for slab movement without transferring movement to the structure;

3. Flexible water and gas connections to allow for slab movement. A flexible plenum above furnaces will be required; and

4. Proper surface grading and foundation drain installation to reduce water availability to sub-slab and foundation soils

Below-Grade Areas

Surface water can penetrate relatively permeable loose backfill soils located adjacent to residences and collect at the bottom of relatively impermeable basement excavations causing wet or moist conditions. Basement foundation walls should be designed for lateral earth pressures. Foundation drains should be constructed around the lowest excavation levels and ideally should be connected to an underdrain system (if permitted) to provide a gravity outlet. The drains can be connected to a sump pit where water can be removed by pumping if an underdrain is not provided.

Surface Drainage

The performance of improvements will be influenced by surface drainage. When developing an overall drainage scheme, consideration should be given to drainage around each residence. The ground surface around the residences should be sloped to provide positive drainage away from the foundations. We recommend a slope of at least 10 percent for the first 10 feet surrounding each residence, where practical. If the distance between houses is less than 20 feet, the slope in this area should be 10 percent to the swale between houses. Where possible, drainage swales should slope at least 2 percent. Variation from these criteria is acceptable in some areas. For examples, for lots graded to direct drainage from the rear yard to the front, it is difficult to achieve the recommended slope at the high point behind a house. We believe it is acceptable to use a slope of about 6 inches in the first 10 feet (5 percent) in this instance and others when achieving 10 percent is not practical. Roof downspouts and other water collection systems should discharge beyond the limits of all backfill around structures.

Proper control of surface runoff is also important to control the erosion of surface soils. Sheet flow should not be directed over unprotected slopes. Water should not be allowed to pond at the crest of slopes. Permanent slopes should be prepared in such a way to reduce erosion.

Attention should be paid to compact the soils behind curb and gutter adjacent to streets and in utility trenches during the development. If surface drainage between preliminary development and construction phases is neglected, performance of the roadways, flatwork and foundations may be poor.

Concrete

Concrete in contact with soil can be subject to sulfate attack. We measured water-soluble sulfate concentrations in two samples from this site. Concentrations

were measured at less than 0.01 and 0.05 percent. For this level of sulfate concentration, ACI 332-20 *Code Requirements for Residential Concrete* indicates there are no special requirements for sulfate resistance. Superficial damage may occur to the above grade exposed surfaces of concrete walls and grade beams in contact with soils, even though sulfate levels are relatively low. To control this risk and to resist freeze-thaw deterioration, the water-to-cementitious materials ratio should not exceed 0.50 for concrete in contact with soils that are likely to stay moist due to surface drainage or high water tables. Concrete should have a total air content of 6 percent +/- 1.5 percent. We advocate all foundation walls and grade beams in contact with the subsoils (including the inside and outside faces of garage and crawl space grade beams) be damp-proofed.

RECOMMENDED FUTURE INVESTIGATIONS

We recommend the following investigations and services:

1. Additional investigation to evaluate potential sub-excavation extent and depths once site use and grading plans have been finalized, or site grading has been completed;
2. Construction testing and observation during site development, grading, and pavement construction;
3. Subgrade investigation and pavement design(s) after grading;
4. Design-level Soils and Foundation Investigation(s) after grading or sub-excavation is completed; and
5. Foundation installation observations.

CONSTRUCTION OBSERVATIONS

We recommend that CTL|Thompson, Inc. provide construction observation services to allow us the opportunity to verify whether soil conditions are consistent with those found during this investigation. If others perform these observations, they

must accept responsibility to judge whether the recommendations in this report remain appropriate.

GEOTECHNICAL RISK

The concept of risk is an important aspect with any geotechnical evaluation primarily because the methods used to develop geotechnical recommendations do not comprise an exact science. We never have complete knowledge of subsurface conditions. Our analysis must be tempered with engineering judgment and experience. Therefore, the recommendations presented in any geotechnical evaluation should not be considered risk-free. Our recommendations represent our judgment of those measures that are necessary to increase the chances that the structures will perform satisfactorily. It is critical that all recommendations in this report are followed during construction.

LIMITATIONS

This report has been prepared for the exclusive use of Affinity Holdings, LLC and your design and construction team to provide geotechnical design and construction criteria for development of the subject site. The information, conclusions, and recommendations presented herein are based upon consideration of many factors including, but not limited to, the type of structures proposed, the geologic setting, and the subsurface conditions encountered. The conclusions and recommendations contained in the report are not valid for use by others. Standards of practice evolve in the area of geotechnical engineering. The recommendations provided are appropriate for about three years. If the proposed residences are not constructed within about three years, we should be contacted to determine if we should update this report.

Our borings were widely spaced to provide a general picture of subsurface conditions for preliminary planning of development and residence construction. Variations in the subsoil conditions not indicated by our borings are likely. A representative

of our firm should observe the foundation excavations to verify the exposed subsoils are as anticipated. We believe this investigation was conducted in a manner consistent with that level of care and skill ordinarily used by geotechnical engineers practicing in this area at this time. No warranty, express or implied, is made.

If we can be of further service in discussing either the contents of this report or the analysis of the influence of subsurface conditions on the design of the proposed development, please call.

CTL | THOMPSON, INC.



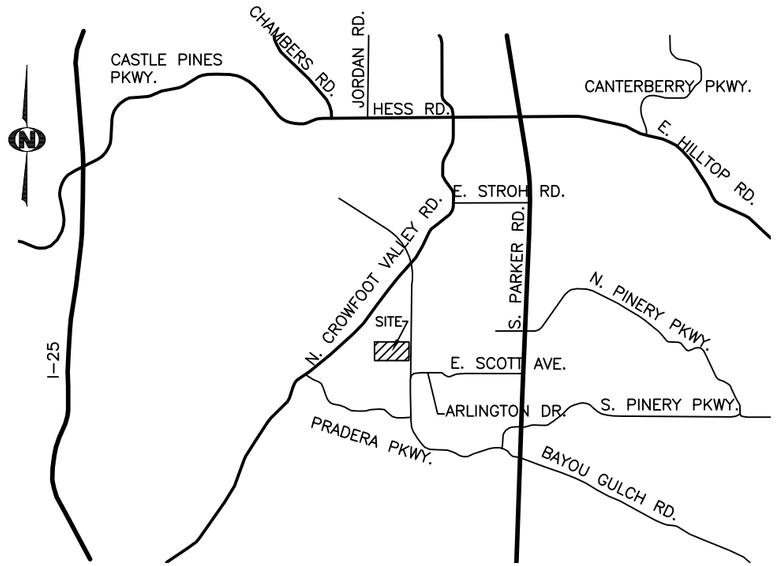
Robert J. Brown,
Staff Geologist

Reviewed by:

Matthew D. Monteith, P.E.
Senior Geotechnical Engineer, Associate

Via e-mail: caydb@affinholdings.com

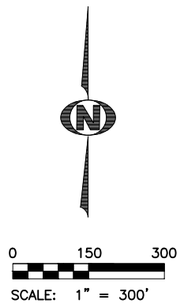




VICINITY MAP
NOT TO SCALE

LEGEND:

TH-1 APPROXIMATE LOCATION OF EXPLORATORY BORING



0 150 300
SCALE: 1" = 300'

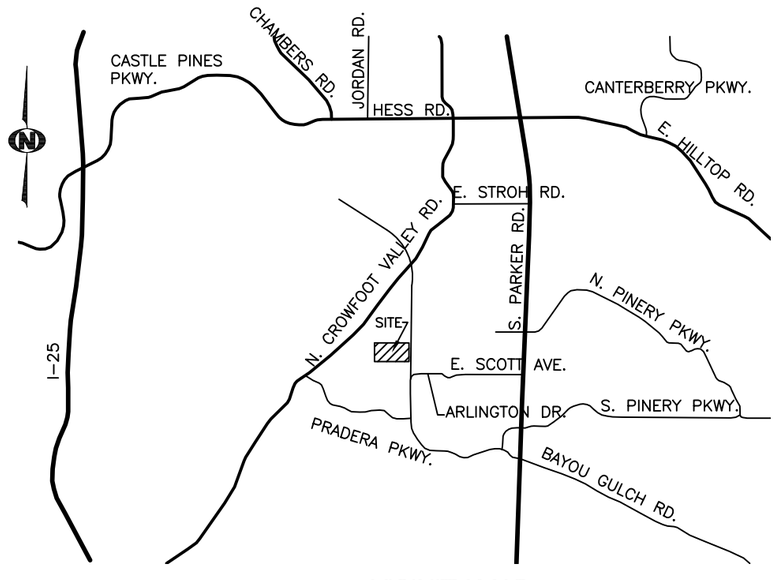
Locations of Exploratory Borings (Aerial Image)

Fig. 1A

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T Project No. DN51,524-115-R1

Douglas County Planning
Filed in Error - 2/25/2025
Board of County Commissioners Staff Report - Page 548 of 648



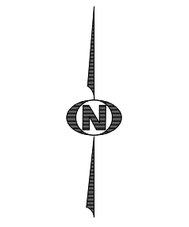


VICINITY MAP
NOT TO SCALE

LEGEND:

TH-1 APPROXIMATE LOCATION OF EXPLORATORY BORING

TOPOGRAPHIC CONTOURS PROVIDED ON SITE PLAN



Locations of Exploratory Borings (Site Plan)

Fig. 1B



LEGEND:

TH-1 ●	APPROXIMATE LOCATION OF EXPLORATORY BORING
(8)	ESTIMATED DEPTH TO BEDROCK SURFACE (FEET)
[6171]	APPROXIMATE BEDROCK SURFACE ELEVATION (FEET)

NOTE: THIS ESTIMATE WAS BASED UPON A SUBJECTIVE ANALYSIS OF DRILL HOLE DATA AND MAY NOT REFLECT LOCAL VARIATIONS.

N

0 150 300

SCALE: 1" = 300'

Surface Diagram of Bedrock

Fig. 2

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTLT Project No. DN51,524-115-R1



LEGEND:

TH–1 ●	APPROXIMATE LOCATION OF EXPLORATORY BORING
(21.5)	MEASURED DEPTH OF GROUNDWATER SURFACE ON APRIL 14, 2022 (FEET)
[6157.5]	APPROXIMATE ELEVATION OF GROUNDWATER SURFACE ON APRIL 14, 2022 (FEET)
GNE	GROUNDWATER NOT ENCOUNTERED

NOTE: THIS ESTIMATE WAS BASED UPON A SUBJECTIVE ANALYSIS OF DRILL HOLE DATA AND MAY NOT REFLECT LOCAL VARIATIONS AND SEASONAL FLUCTUATIONS.

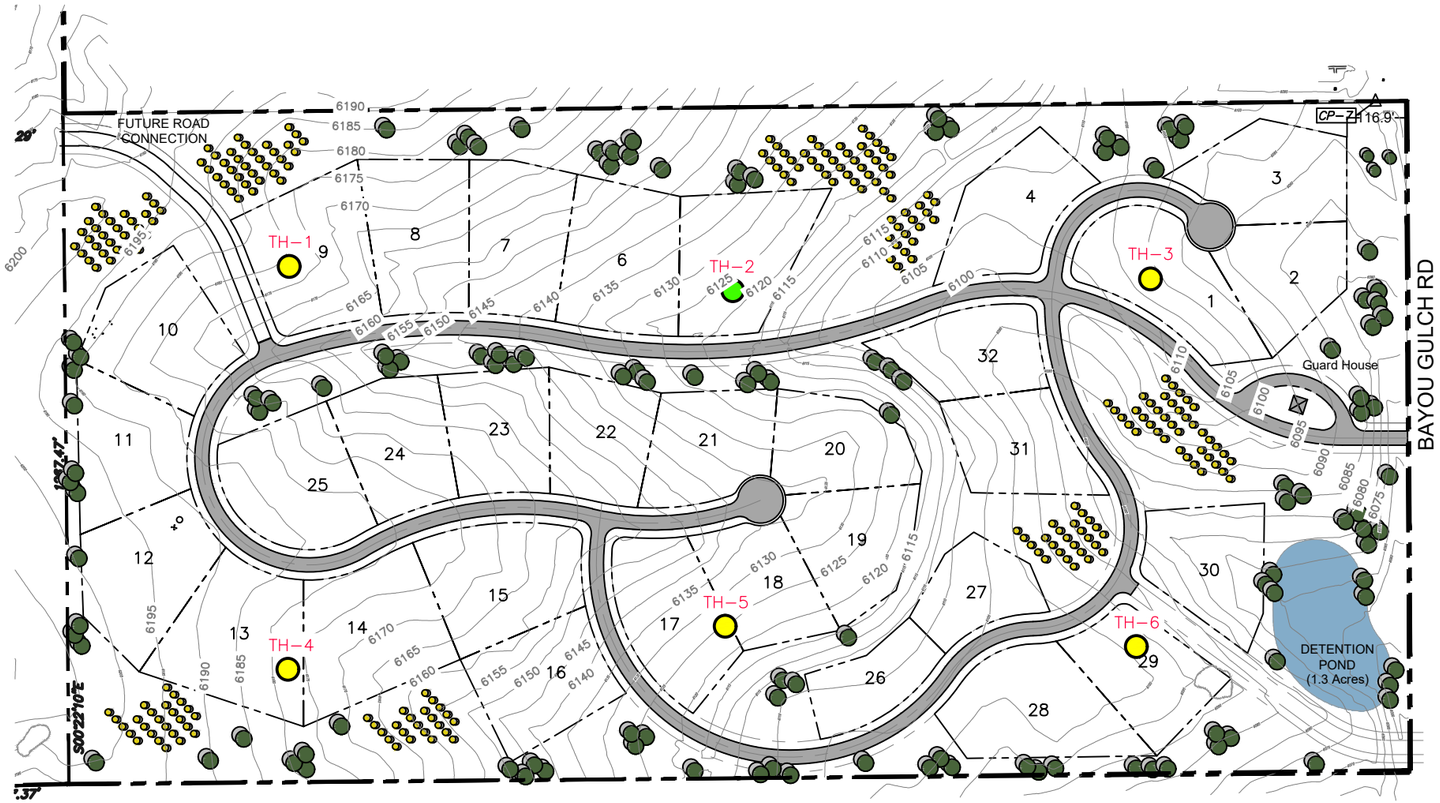
N

0 150 300

SCALE: 1" = 300'

Groundwater Surface Diagram Fig. 3

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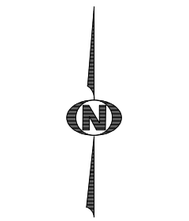
LEGEND:

TH–1 APPROXIMATE LOCATION OF EXPLORATORY BORING

LOW RISK

MODERATE RISK

NOTE: THIS ESTIMATE WAS BASED UPON A SUBJECTIVE ANALYSIS OF LABORATORY TEST RESULTS AND DRILL HOLE DATA.

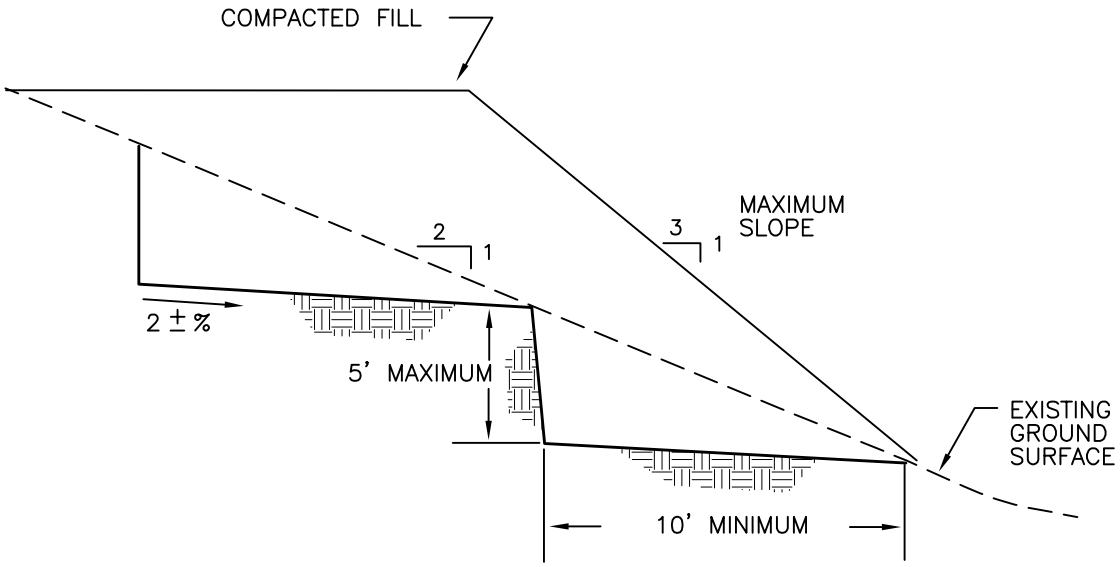


0 150 300

SCALE: 1" = 300'

Preliminary Risk Assessment For Expansive Soils and Bedrock Fig. 4

60-BENCHED-FILL_01



NOTES:

1) NATURAL SLOPES OF 20 PERCENT OR STEEPER ARE TO BE BENCHED PRIOR TO FILL PLACEMENT.

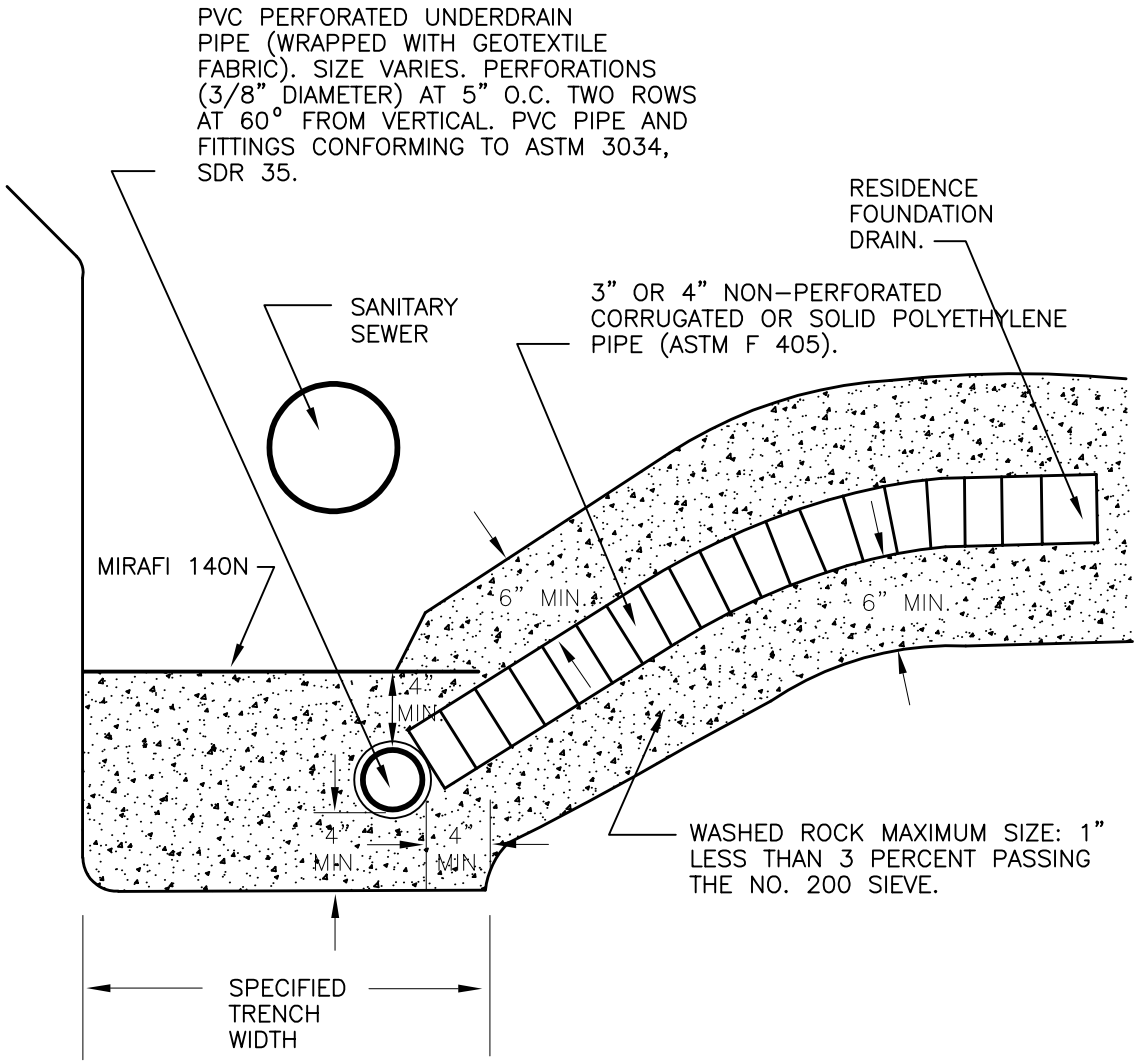
2) SLOPE BENCHES TO OUTSLOPE AT 2± PERCENT.

NOT TO SCALE

Benched Fill Detail

Fig. 5

50-UNDERDRAIN_02



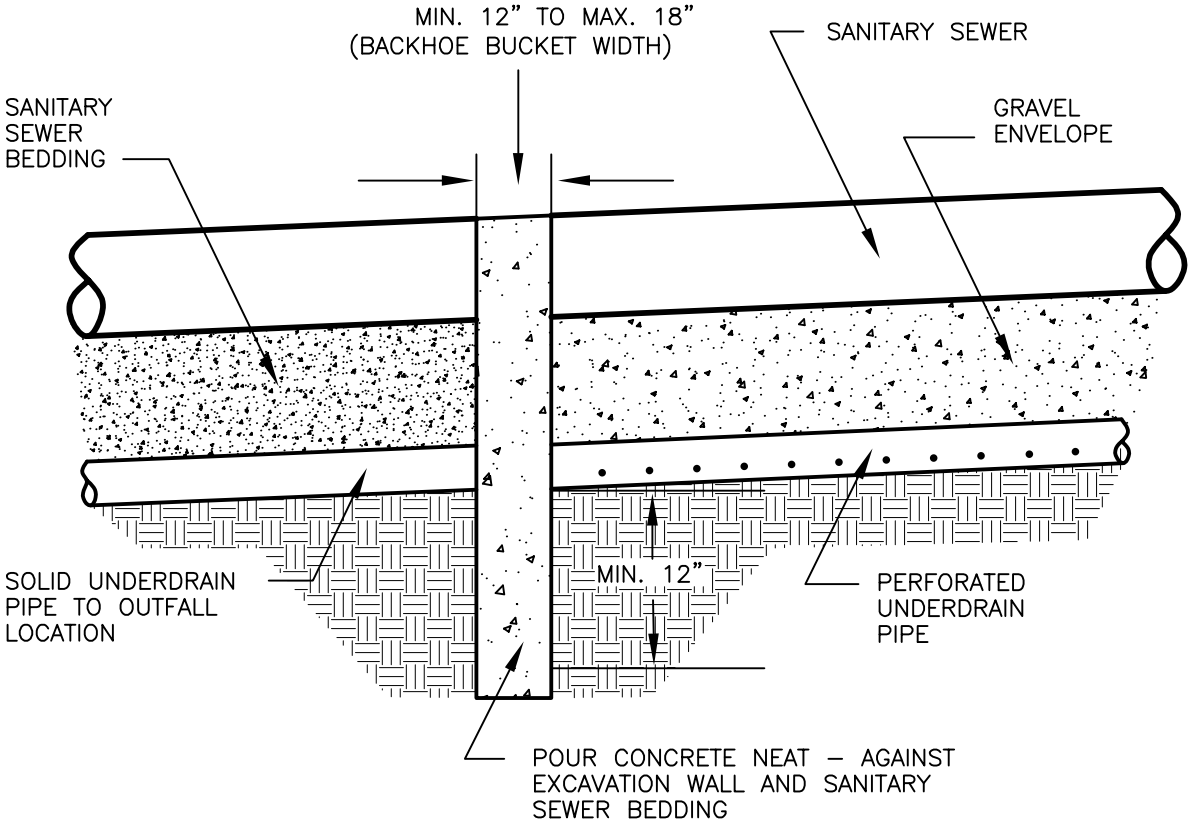
NOTE: NOT TO SCALE.

Sewer Underdrain Detail

Fig. 6

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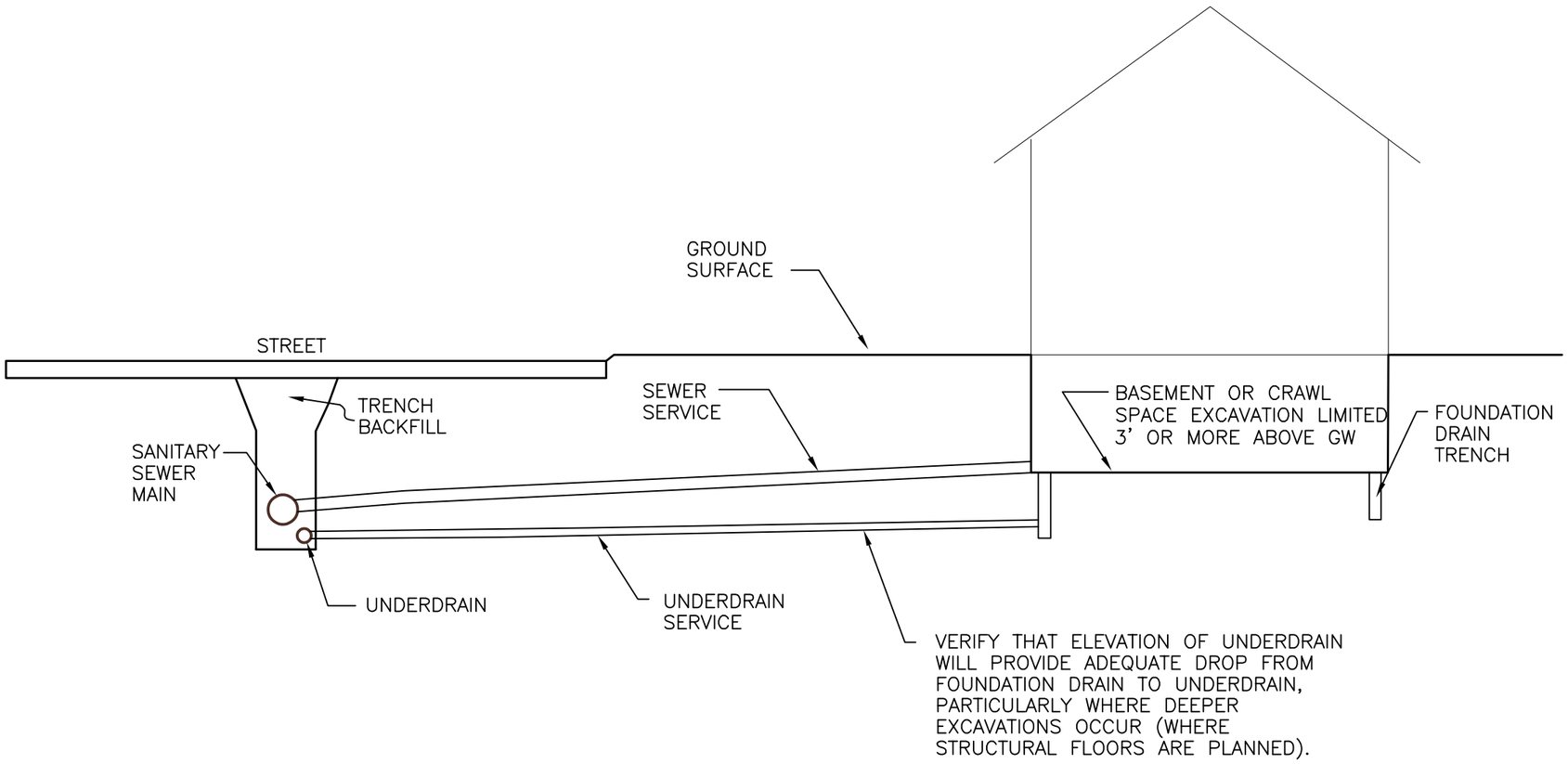
50-UNDERDRAIN_05



NOTE:
THE CONCRETE CUTOFF WALL SHOULD EXTEND INTO THE UNDISTURBED SOILS OUTSIDE THE UNDERDRAIN AND SANITARY SEWER TRENCH A MINIMUM DISTANCE OF 12 INCHES.

Underdrain Cutoff Wall Detail

Fig. 7



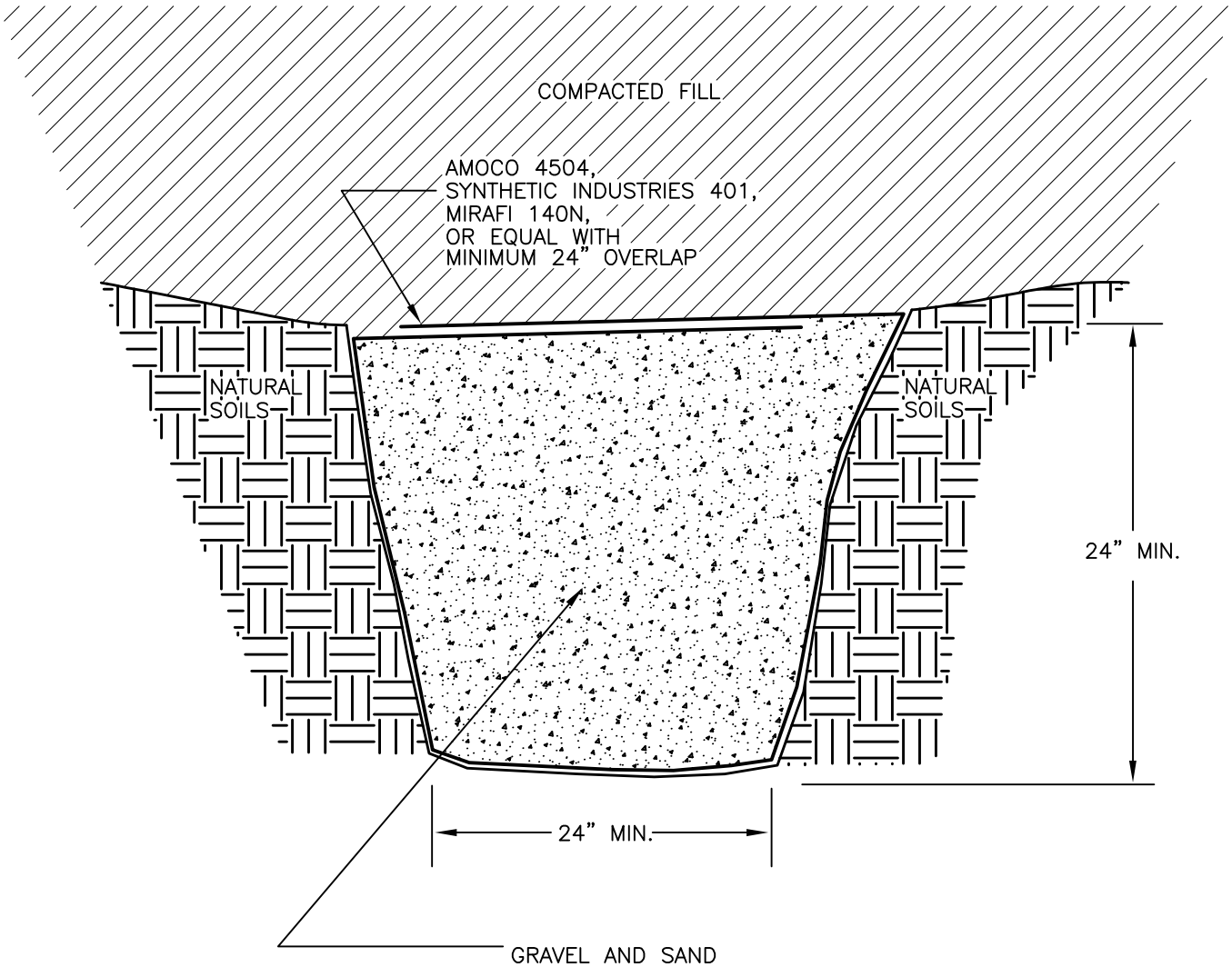
NOT TO SCALE

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CTL|T Project No. DN51,524-115-R1

Conceptual Underdrain Profile

Fig. 8

40-SUBDRAIN_01



SIEVE SIZE	% PASSING
1 1/2"	100
3/4"	82–100
3/8"	64–80
#4	46–64
#8	34–52
#16	25–42
#30	12–30
#50	5–15
#100	1–3
#200	0–1

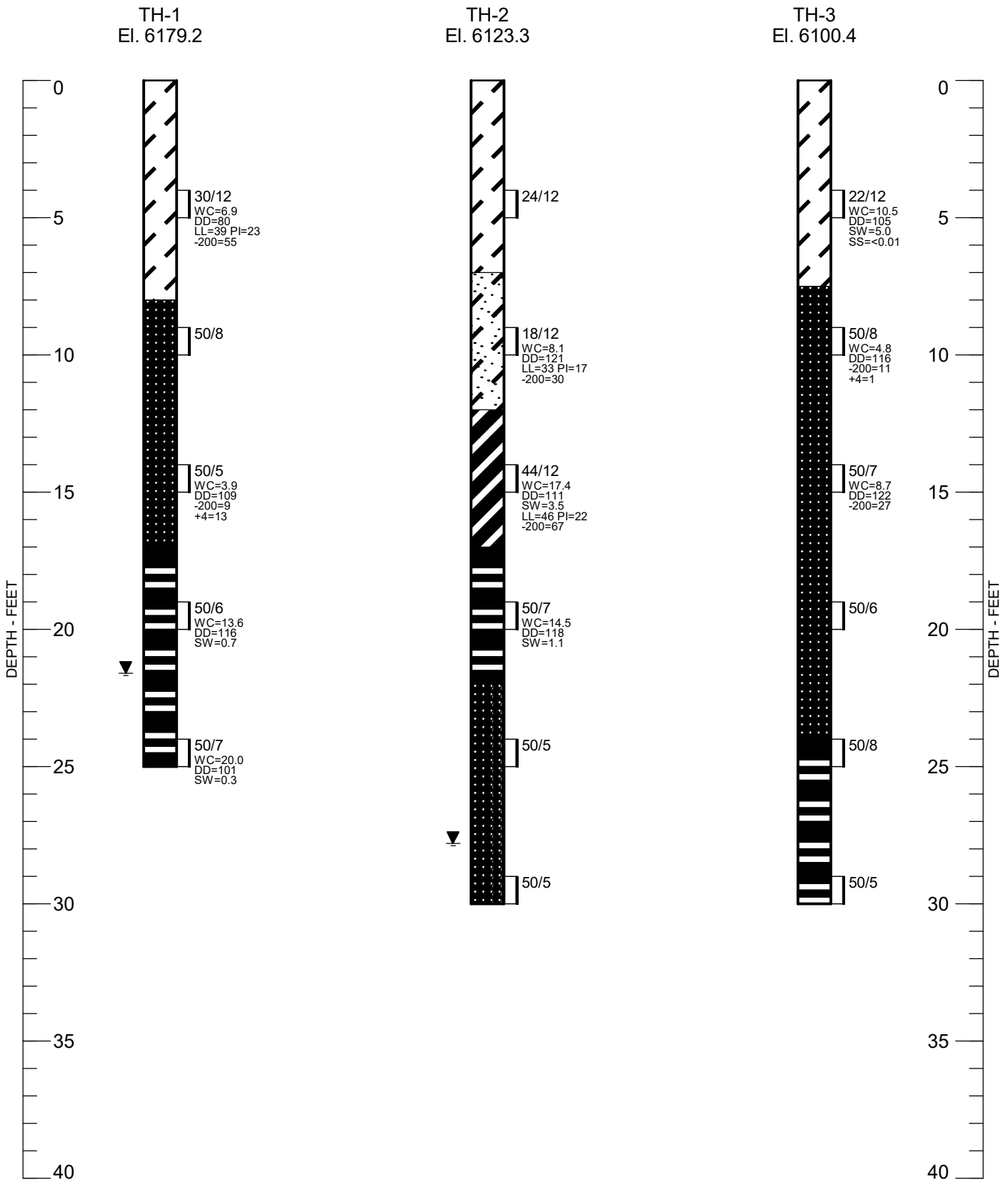
NOTE:
THE SAND AND GRAVEL GRADATION CAN BE MET BY MIXING COURSE CONCRETE AGGREGATE NO. 57 AND FINE CONCRETE AGGREGATE NO. 67 IN EQUAL PARTS BY WEIGHT.

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Drainage Sub-Drain

Fig. 9

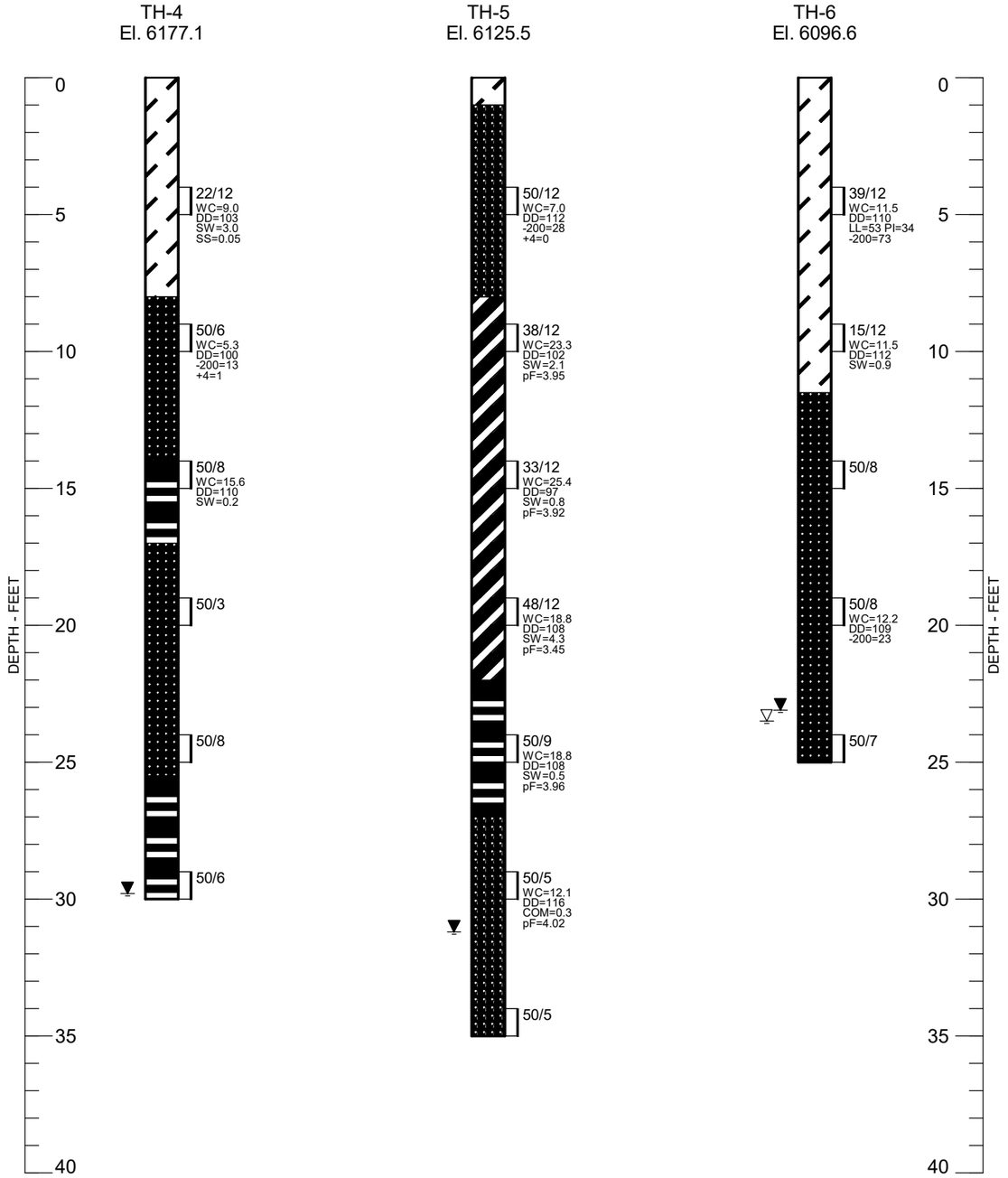
APPENDIX A
SUMMARY LOGS OF EXPLORATORY BORINGS



SUMMARY LOGS OF EXPLORATORY BORINGS

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BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
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FIG. A- 1



SUMMARY LOGS OF EXPLORATORY BORINGS

LEGEND:

CLAY, SANDY TO VERY SANDY, SILTY, VERY STIFF TO HARD, SLIGHTLY MOIST, BROWN, WHITE, GRAY, OLIVE (CL, CH).

SAND, CLAYEY, MEDIUM DENSE, SLIGHTLY MOIST, BROWN, WHITE, GRAY, OLIVE (SC).

WEATHERED CLAYSTONE, SANDY AT TIMES, SLIGHTLY MOIST, OLIVE, BROWN, RUST, GRAY (CL).

BEDROCK, SANDSTONE, SLIGHTLY SILTY TO SILTY, VARIABLE GRAVEL CONTENT, HARD TO VERY HARD, SLIGHTLY MOIST TO MOIST, TAN, WHITE, GRAY, PINK, RUST (SM, SC, SP-SC, SP-SM).

BEDROCK, CLAYSTONE, SANDY AT TIMES, MEDIUM HARD TO VERY HARD, SLIGHTLY MOIST, GRAY, RUST, TAN, OLIVE, WHITE (CL).

DRIVE SAMPLE. THE SYMBOL 30/12 INDICATES 30 BLOWS OF A 140-POUND HAMMER FALLING 30 INCHES WERE REQUIRED TO DRIVE A 2.5-INCH O.D. SAMPLER 12 INCHES.

WATER LEVEL MEASURED AT TIME OF DRILLING.

WATER LEVEL MEASURED AFTER DRILLING ON APRIL 14, 2022.

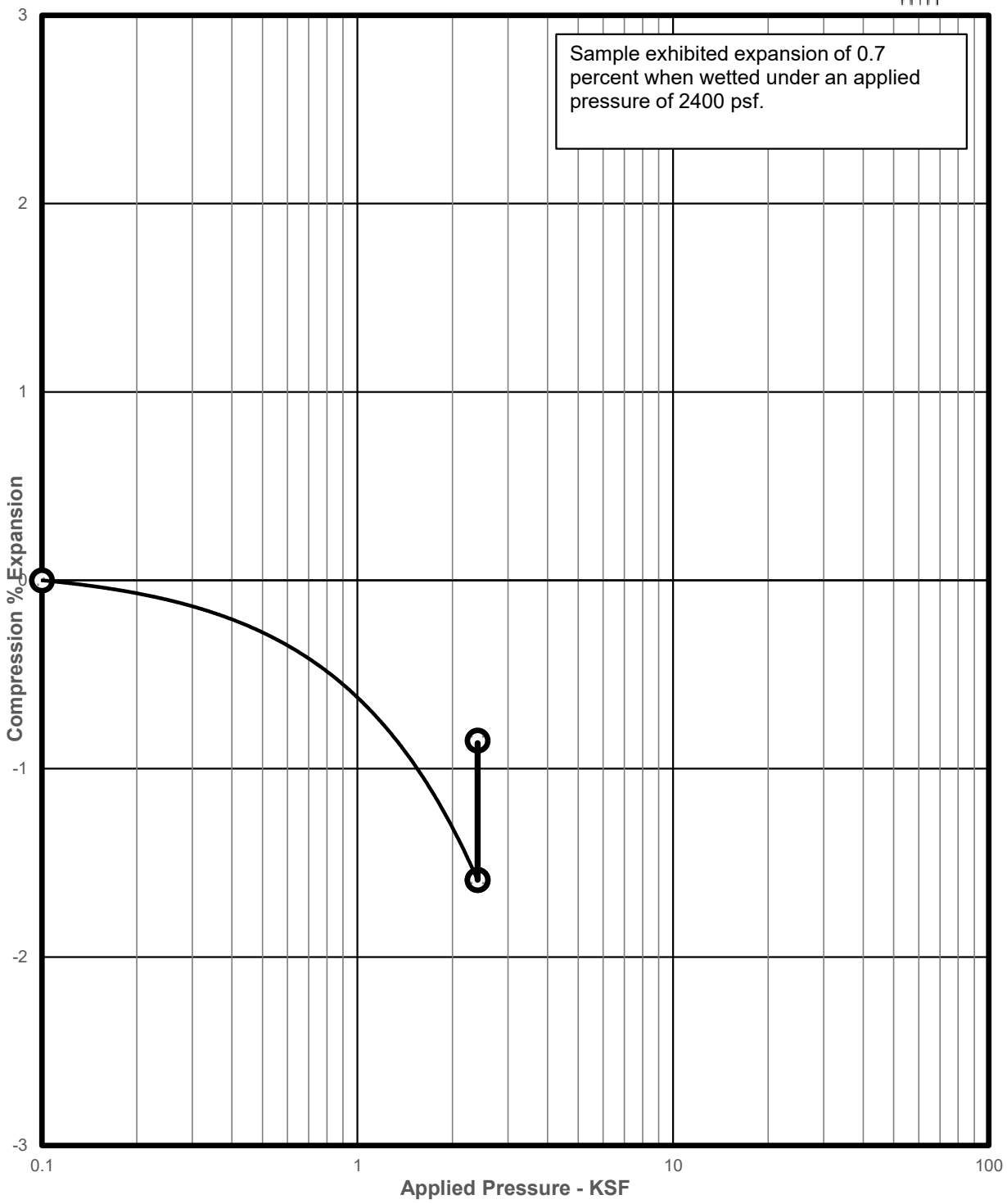
NOTES:

1. THE BORINGS WERE DRILLED ON APRIL 12, 2022 USING 4-INCH DIAMETER, CONTINUOUS-FLIGHT SOLID-STEM AUGER AND TRUCK-MOUNTED CME-45 DRILL RIG.
2. BORING LOCATIONS AND ELEVATIONS ARE APPROXIMATE AND WERE DETERMINED BY A REPRESENTATIVE OF OUR FIRM USING A LEICA GS18 GPS UNIT REFERENCING THE NORTH AMERICAN DATUM OF 1983 (NAD 83).
3. WC - INDICATES MOISTURE CONTENT (%).
   DD - INDICATES DRY DENSITY (PCF).
   SW - INDICATES SWELL WHEN WETTED UNDER APPROXIMATE OVERBURDEN PRESSURE (%).
   COM - INDICATES COMPRESSION WHEN WETTED UNDER APPROXIMATE OVERBURDEN PRESSURE (%).
   LL - INDICATES LIQUID LIMIT.
   PI - INDICATES PLASTICITY INDEX.
   -200 - INDICATES PASSING NO. 200 SIEVE (%).
   SS - INDICATES WATER-SOLUBLE SULFATE CONTENT (%).
   pF - INDICATES SOIL SUCTION VALUE (pF).
4. THESE LOGS ARE SUBJECT TO THE EXPLANATIONS, LIMITATIONS AND CONCLUSIONS CONTAINED IN THIS REPORT.

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BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

FIG. A- 2

APPENDIX B
LABORATORY TEST RESULTS AND TABLE B-I

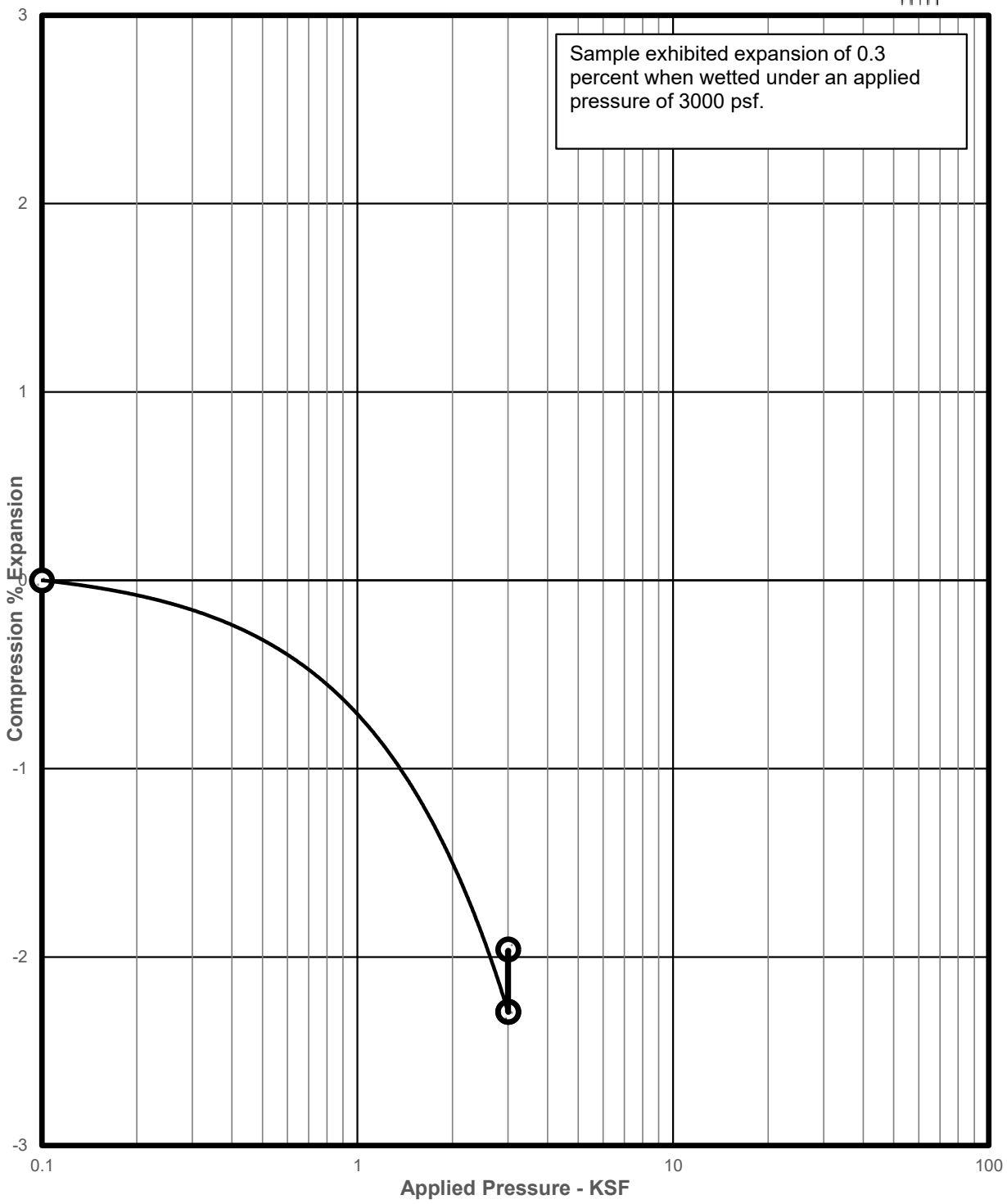


SAMPLE OF: CLAYSTONE
FROM: TH-1 AT 19 FEET

DRY UNIT WEIGHT: 116 pcf
MOISTURE CONTENT: 13.6 %

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Swell Consolidation Test Results FIG. B- 1

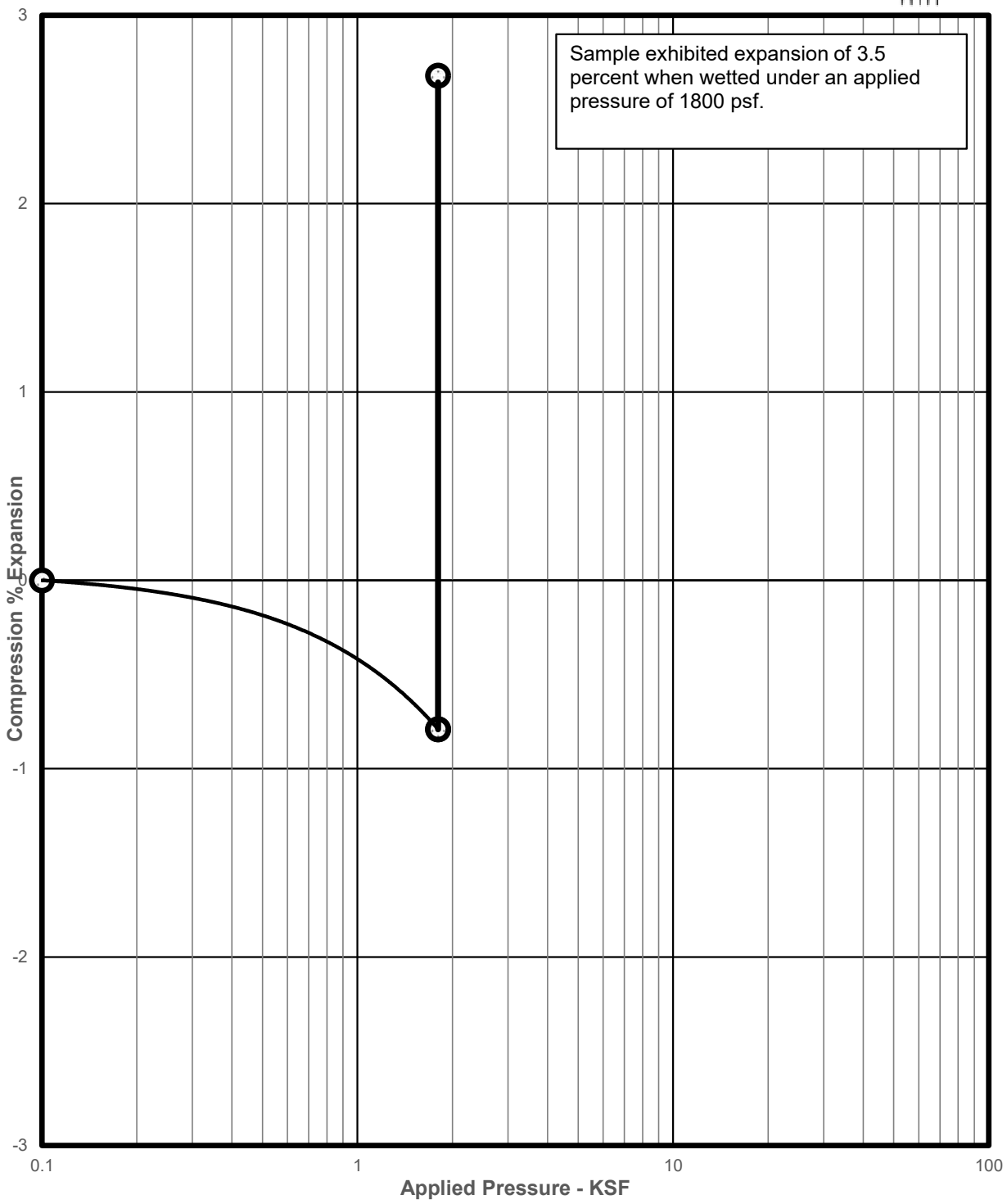


SAMPLE OF: CLAYSTONE
FROM: TH-1 AT 24 FEET

DRY UNIT WEIGHT: 101 pcf
MOISTURE CONTENT: 20.0 %

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Swell Consolidation Test Results FIG. B- 2

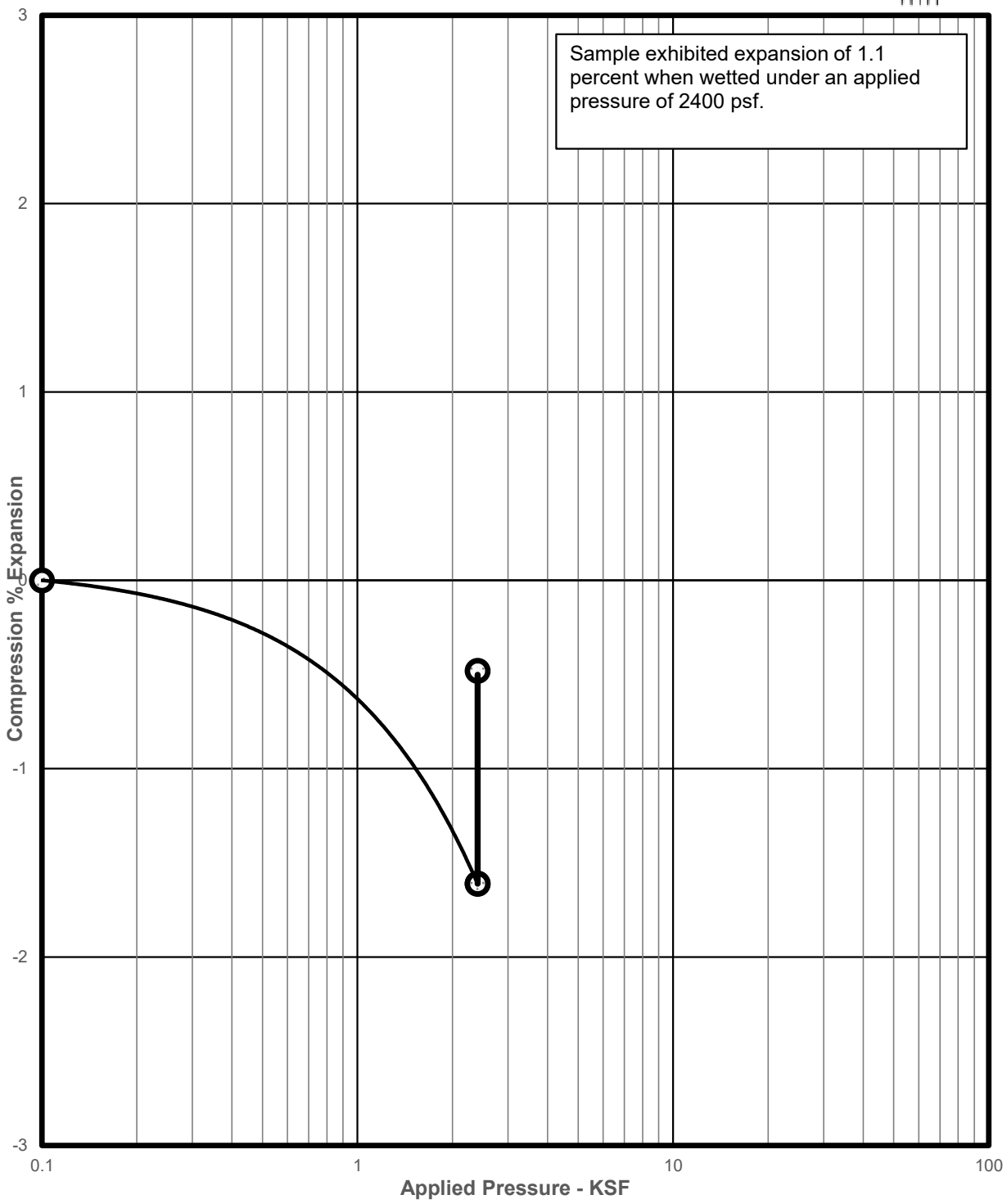


SAMPLE OF: CLAYSTONE
FROM: TH-2 AT 14 FEET

DRY UNIT WEIGHT: 111 pcf
MOISTURE CONTENT: 17.4 %

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CTL|T PROJECT NO. DN51,524-115-R1

Swell Consolidation Test Results FIG. B- 3

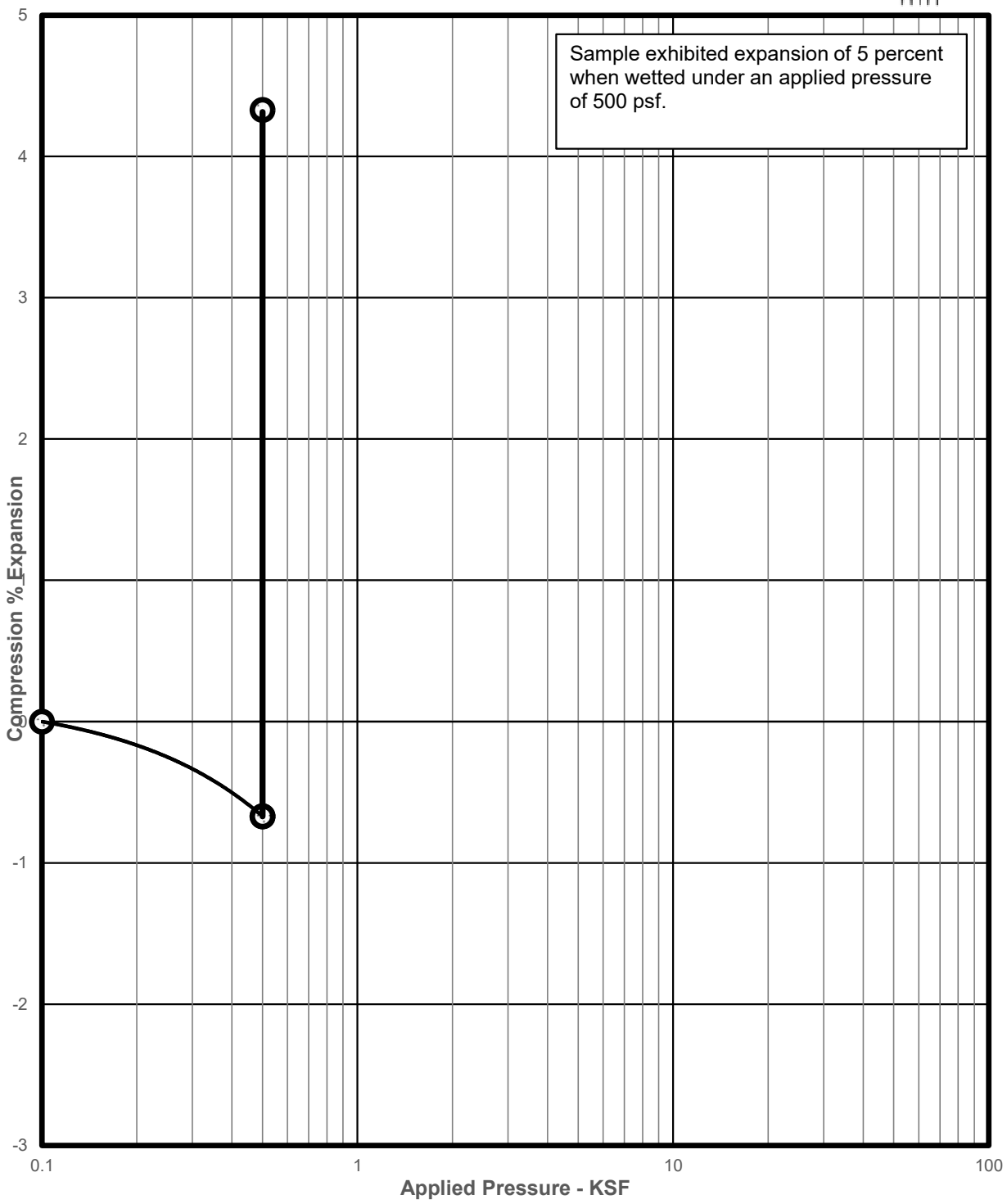


SAMPLE OF: CLAYSTONE
FROM: TH-2 AT 19 FEET

DRY UNIT WEIGHT: 118 pcf
MOISTURE CONTENT: 14.5 %

AFFINITY HOLDINGS, LLC
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CTL|T PROJECT NO. DN51,524-115-R1

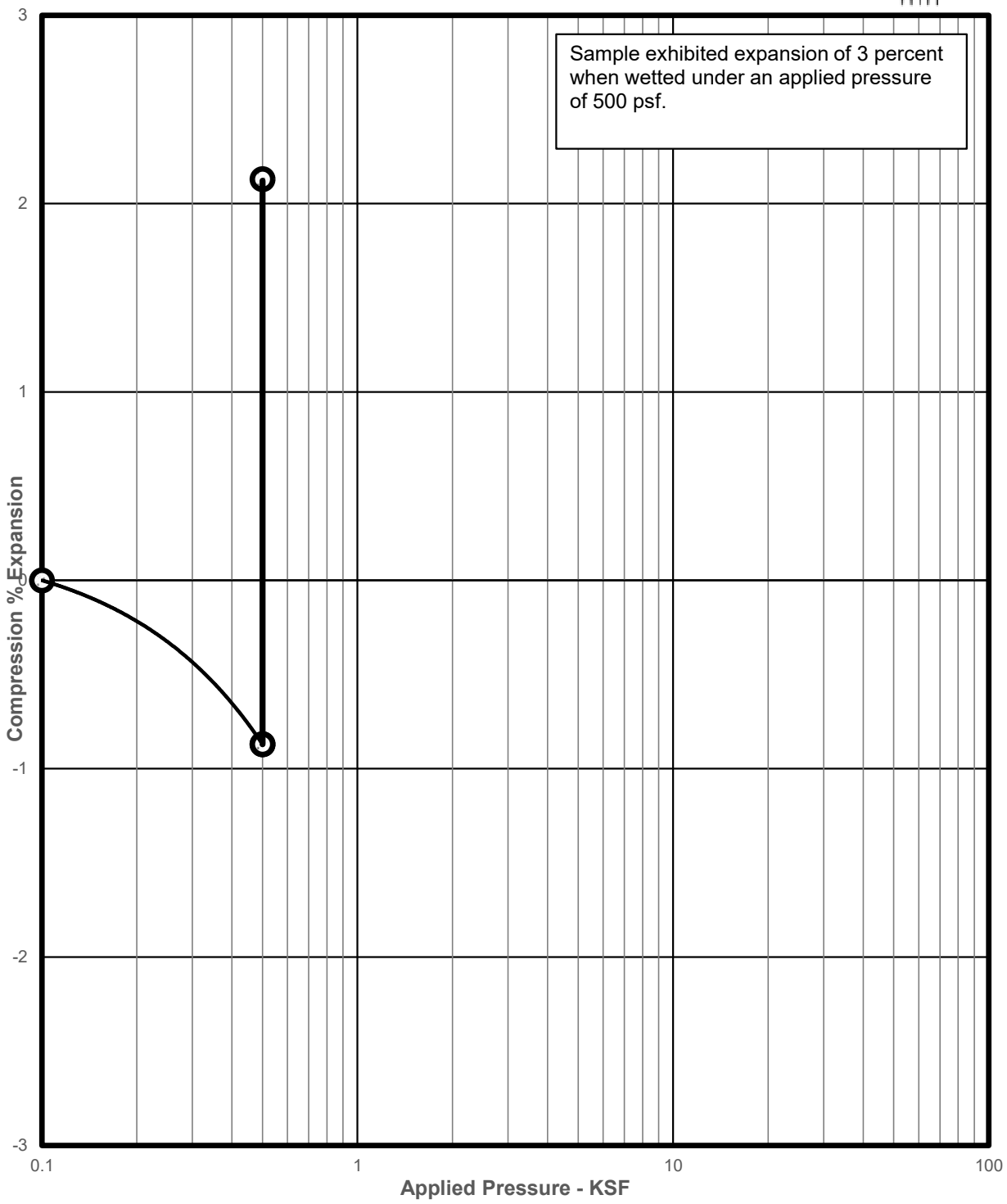
Swell Consolidation Test Results FIG. B- 4



SAMPLE OF: CLAY, SANDY (CL) DRY UNIT WEIGHT: 105 pcf
FROM: TH-3 AT 4 FEET MOISTURE CONTENT: 10.5 %

AFFINITY HOLDINGS, LLC
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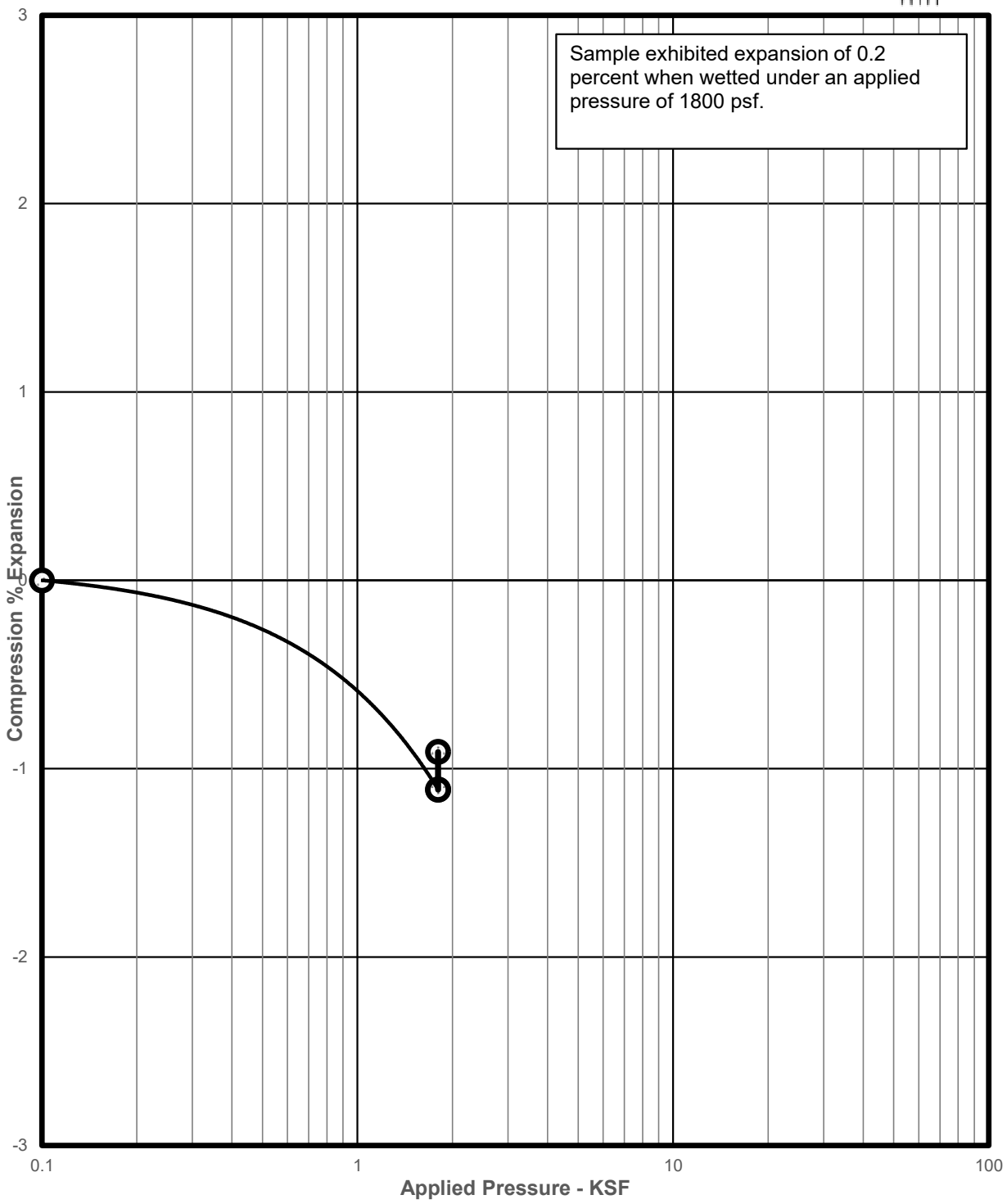
Swell Consolidation Test Results FIG. B- 5



SAMPLE OF: CLAY, SANDY (CL) DRY UNIT WEIGHT: 103 pcf
FROM: TH-4 AT 4 FEET MOISTURE CONTENT: 9.0 %

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Swell Consolidation Test Results FIG. B- 6

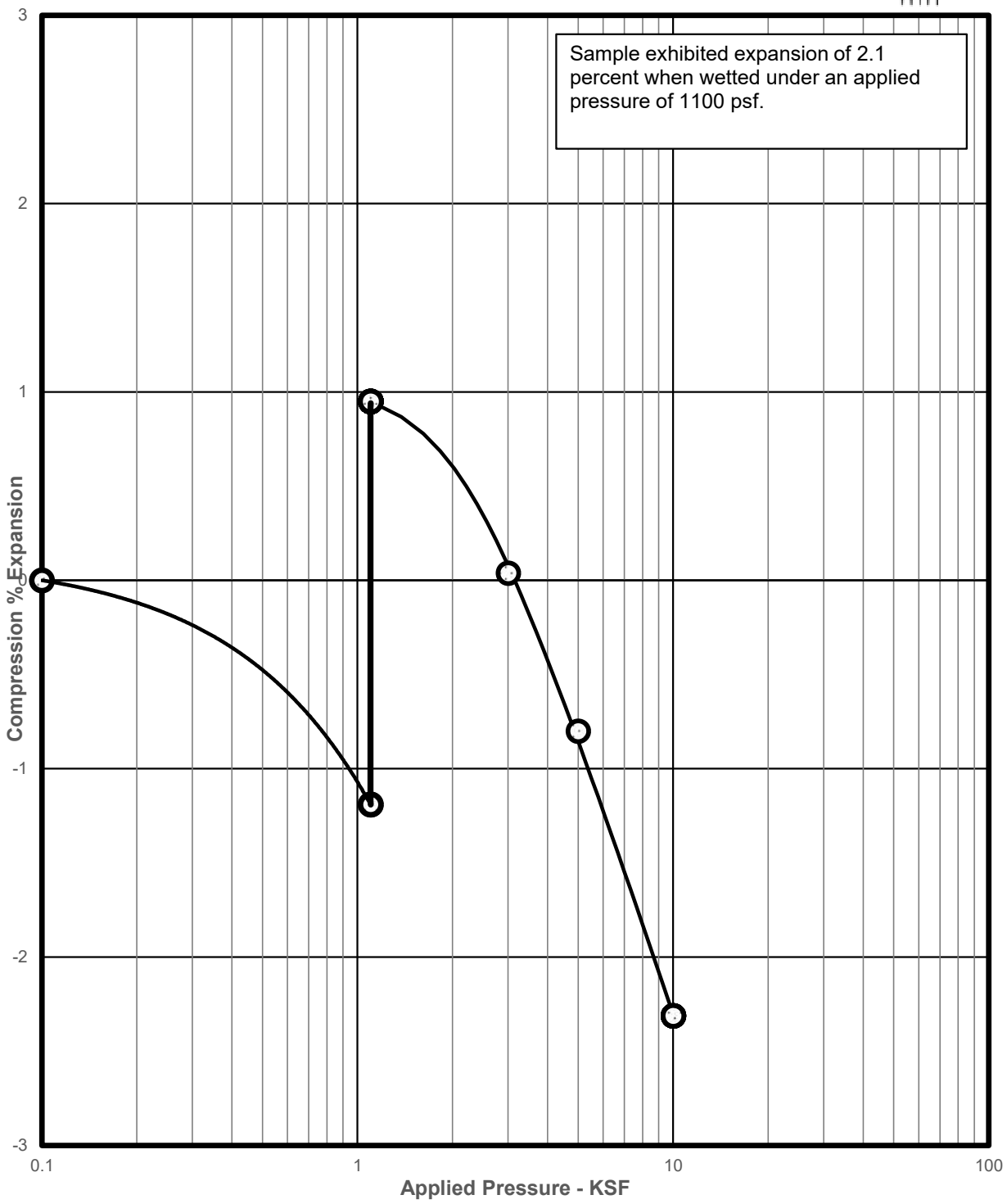


SAMPLE OF: CLAYSTONE
FROM: TH-4 AT 14 FEET

DRY UNIT WEIGHT: 110 pcf
MOISTURE CONTENT: 15.6 %

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Swell Consolidation Test Results FIG. B- 7

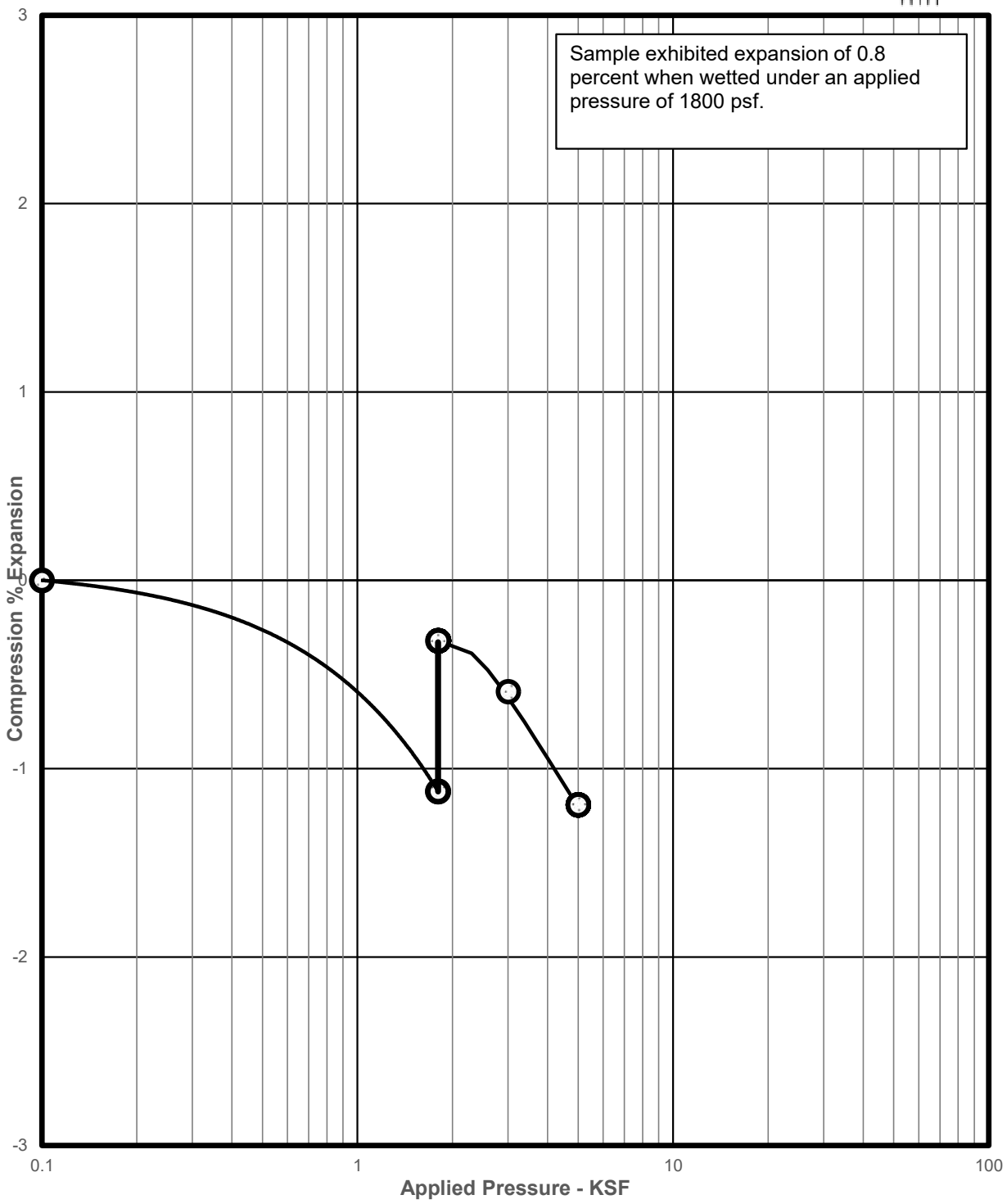


SAMPLE OF: CLAYSTONE
FROM: TH-5 AT 9 FEET

DRY UNIT WEIGHT: 102 pcf
MOISTURE CONTENT: 23.3 %

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Swell Consolidation Test Results FIG. B- 8

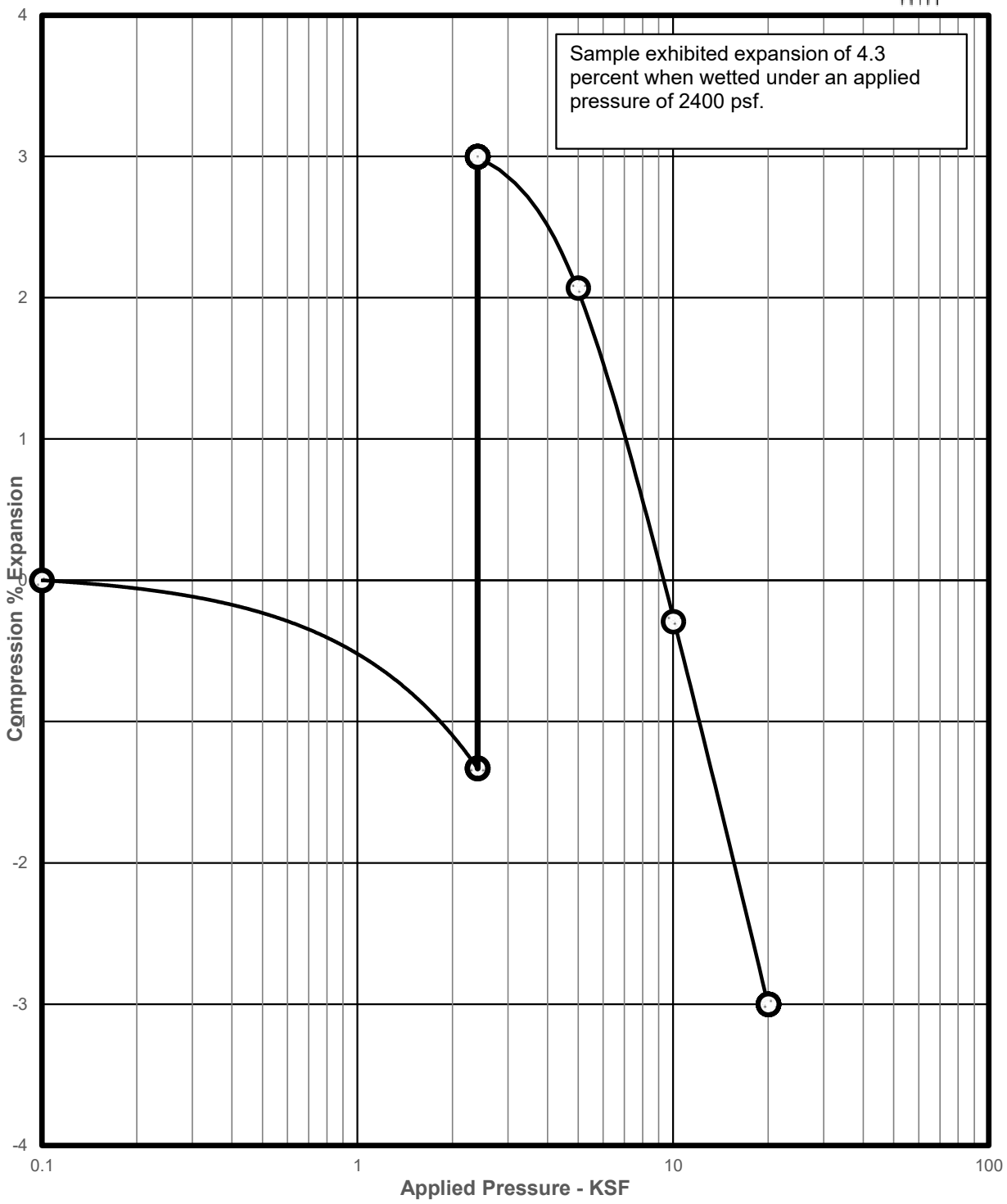


SAMPLE OF: CLAYSTONE
FROM: TH-5 AT 14 FEET

DRY UNIT WEIGHT: 97 pcf
MOISTURE CONTENT: 25.4 %

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

Swell Consolidation Test Results FIG. B- 9

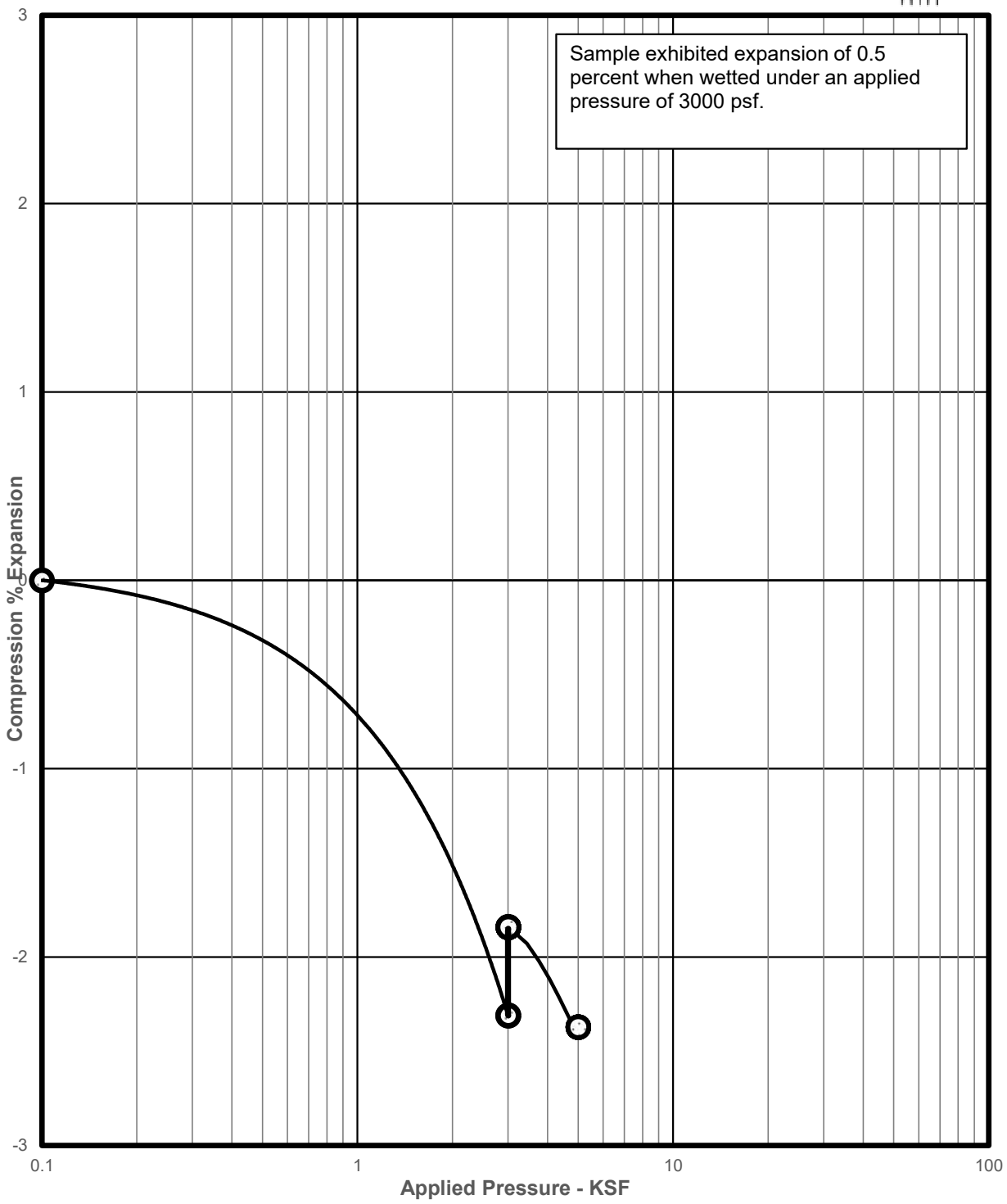


SAMPLE OF: CLAYSTONE
FROM: TH-5 AT 19 FEET

DRY UNIT WEIGHT: 108 pcf
MOISTURE CONTENT: 18.8 %

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

Swell Consolidation Test Results FIG. B- 10

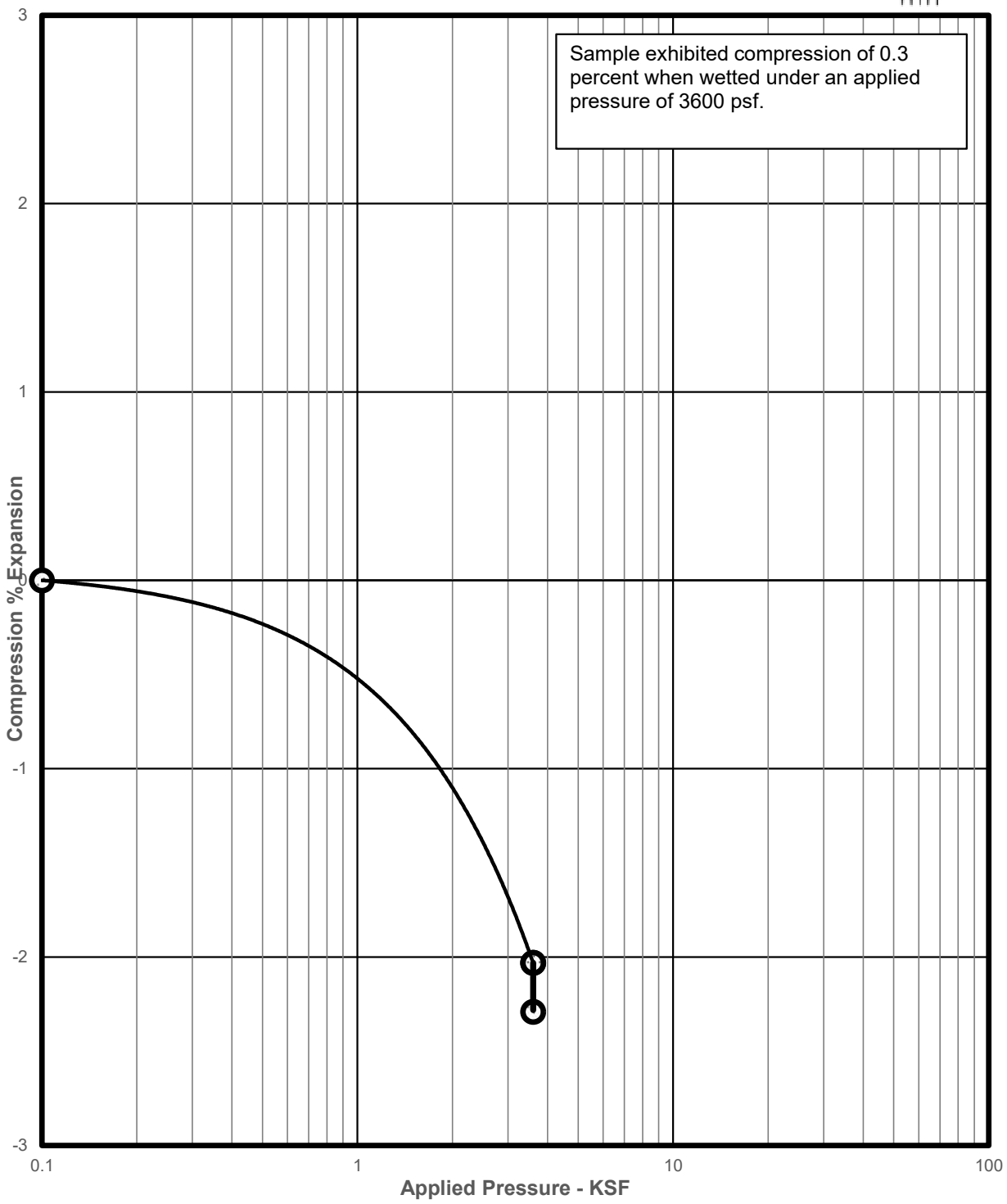


SAMPLE OF: CLAYSTONE
FROM: TH-5 AT 24 FEET

DRY UNIT WEIGHT: 108 pcf
MOISTURE CONTENT: 18.8 %

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
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Swell Consolidation Test Results FIG. B- 11

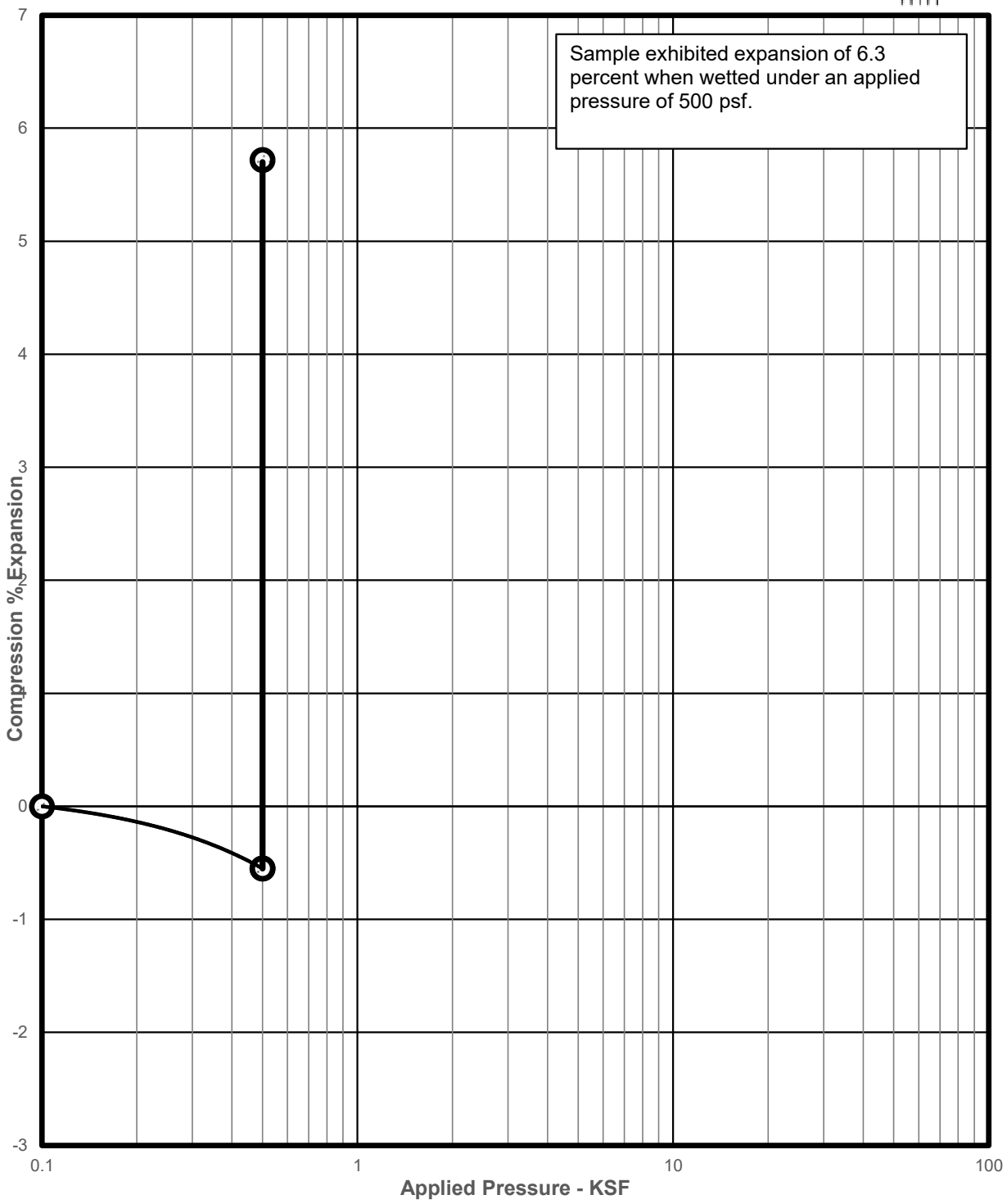


SAMPLE OF: SANDSTONE
FROM: TH-5 AT 29 FEET

DRY UNIT WEIGHT: 116 pcf
MOISTURE CONTENT: 12.1 %

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

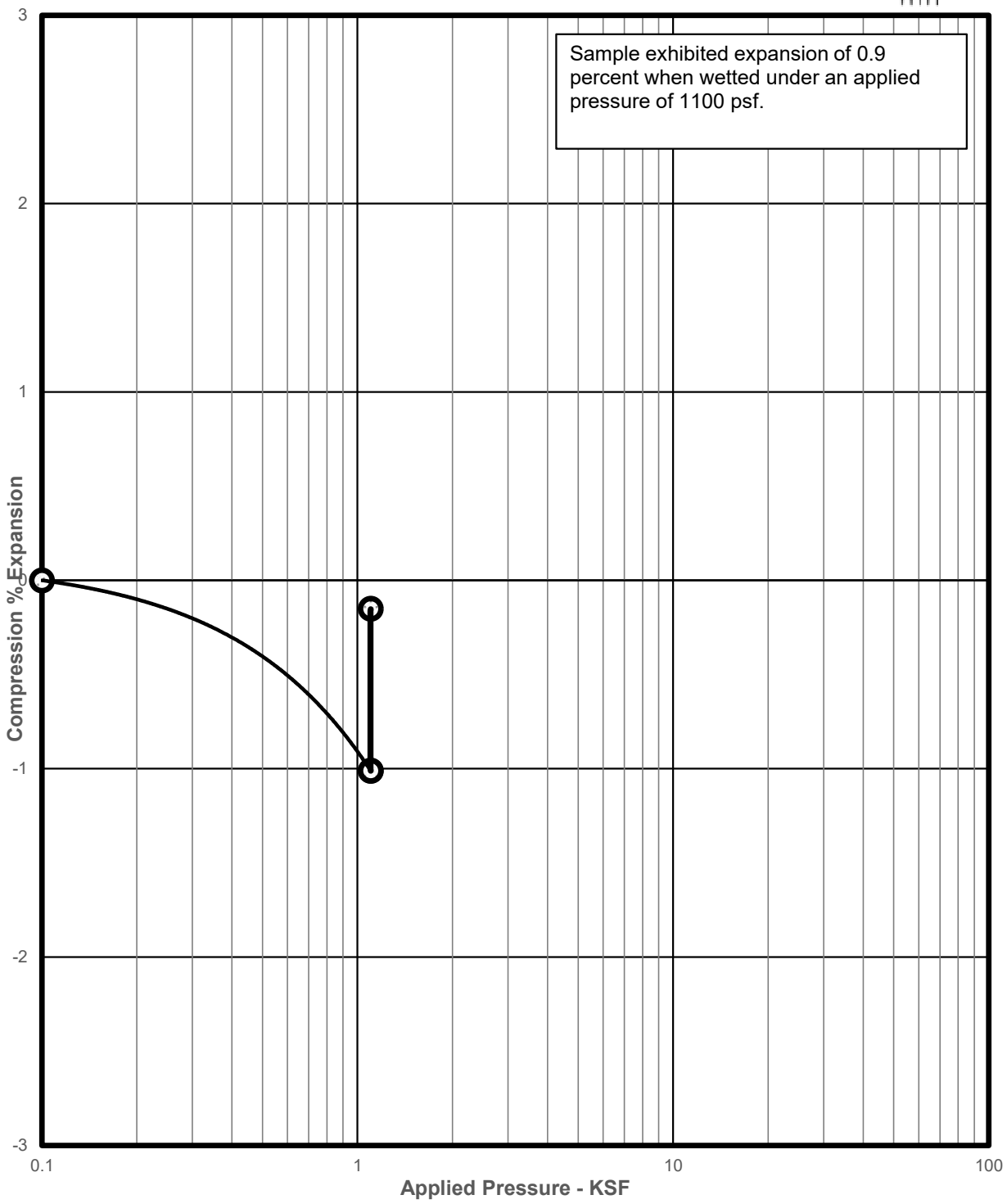
Swell Consolidation Test Results FIG. B- 12



SAMPLE OF: CLAY, SANDY (CL) DRY UNIT WEIGHT: 110 pcf
FROM: TH-6 AT 4 FEET MOISTURE CONTENT: 11.5 %

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

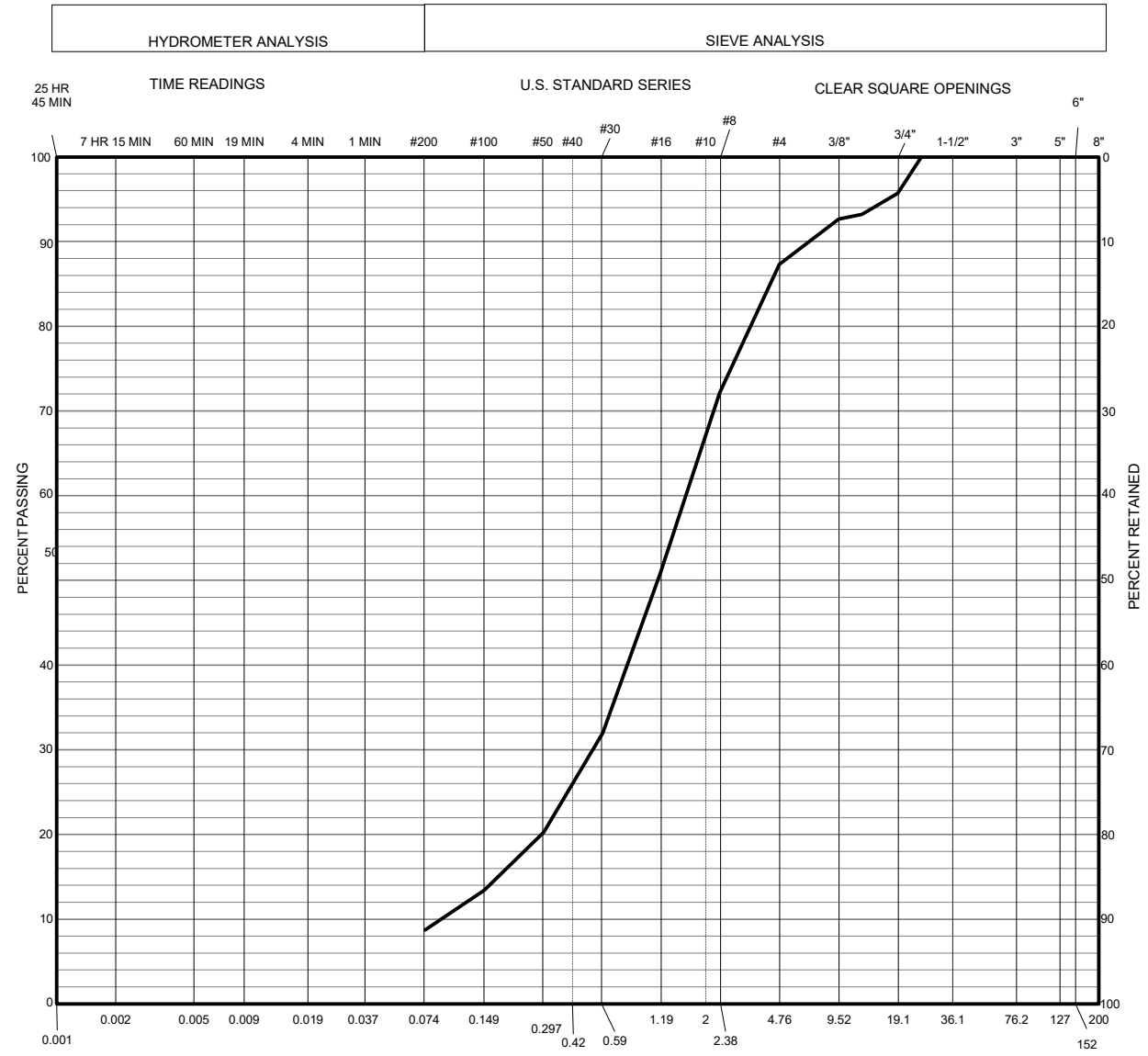
Swell Consolidation Test Results FIG. B- 13



SAMPLE OF: CLAY, SANDY (CL) DRY UNIT WEIGHT: 112 pcf
FROM: TH-6 AT 9 FEET MOISTURE CONTENT: 11.5 %

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Swell Consolidation Test Results FIG. B- 14



SAMPLE OF: SANDSTONE
FROM: TH-1 AT 14 FEET

GRAVEL: 12.7%
SILT & CLAY: 8.7%
PLASTIC INDEX: -

SAND: 78.6%
LIQUID LIMIT: -

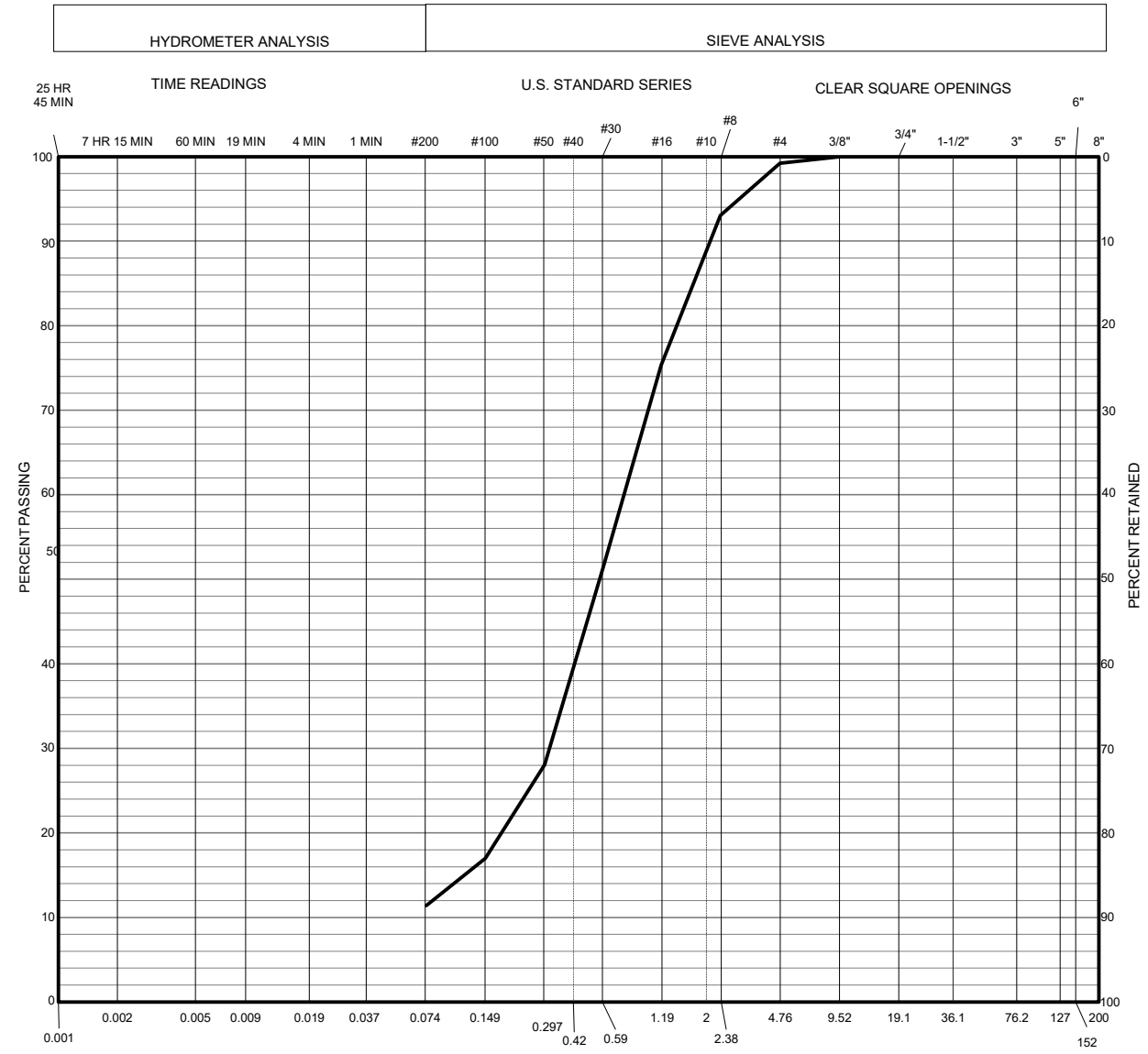
D10 0.095 D30 0.550 D60: 1.687 CU: 17.7 CC: 1.9

Size (mm)	-	-	25.0	19.0	12.5	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-	-
% Passing	-	-	100.0	95.7	93.2	92.6	87.3	72.1	50.9	32.0	20.2	13.4	8.7	-	-	-	-	-	-

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Gradation Test Results

FIG. B- 15



SAMPLE OF: SANDSTONE
FROM: TH-3 AT 9 FEET

GRAVEL: 0.8%
SILT & CLAY: 11.4%
PLASTIC INDEX: -

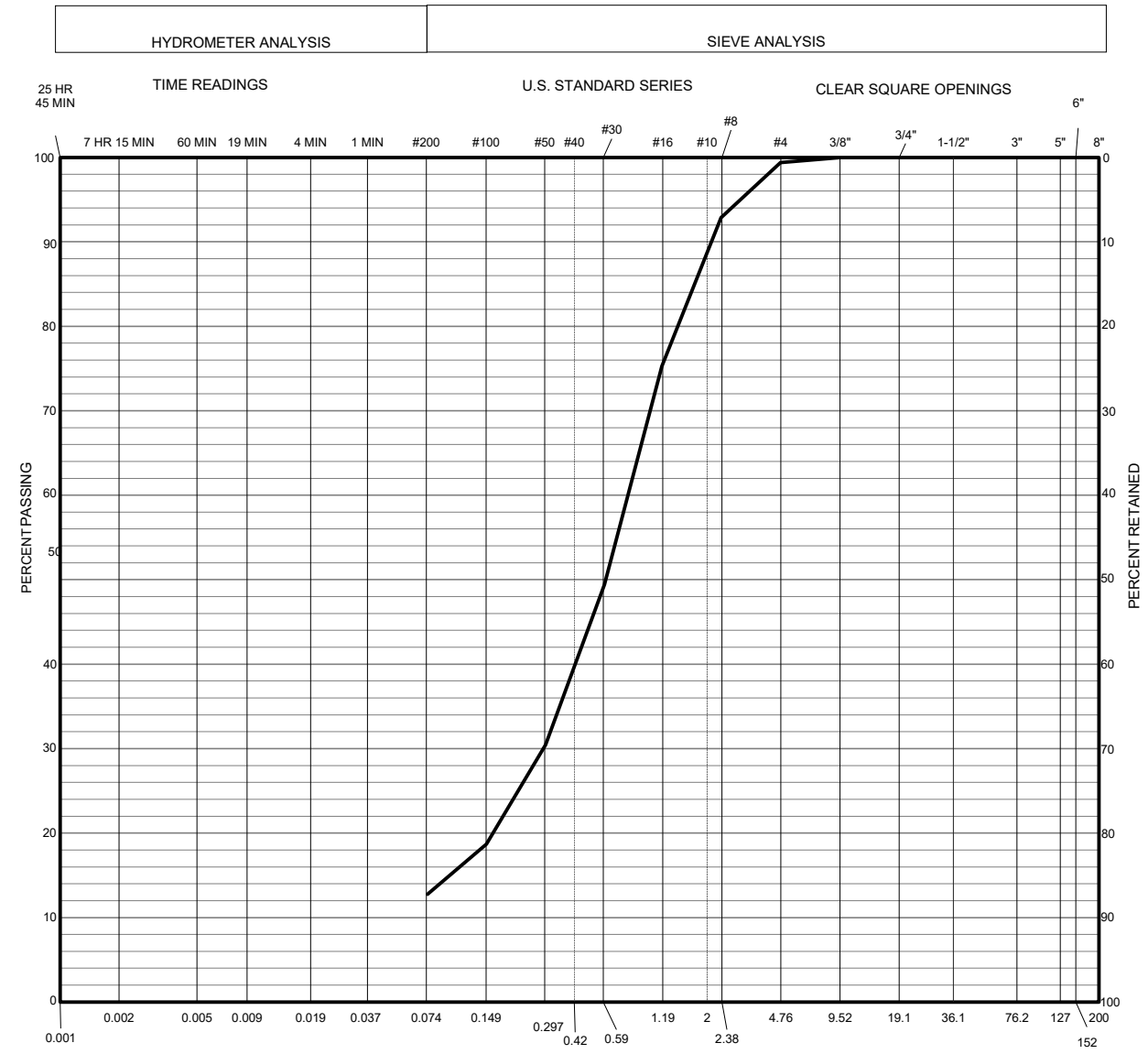
SAND: 87.8%
LIQUID LIMIT: -

D10 -- D30 0.325 D60: 0.806 CU: -- CC: --

Size (mm)	-	-	-	-	-	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-	-
% Passing	-	-	-	-	-	100.0	99.2	93.0	75.3	51.6	28.0	17.0	11.4	-	-	-	-	-	-

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

Gradation Test Results FIG. B- 16



SAMPLE OF: SANDSTONE
FROM: TH-4 AT 9 FEET

GRAVEL: 0.6%
SILT & CLAY: 12.8%
PLASTIC INDEX: -

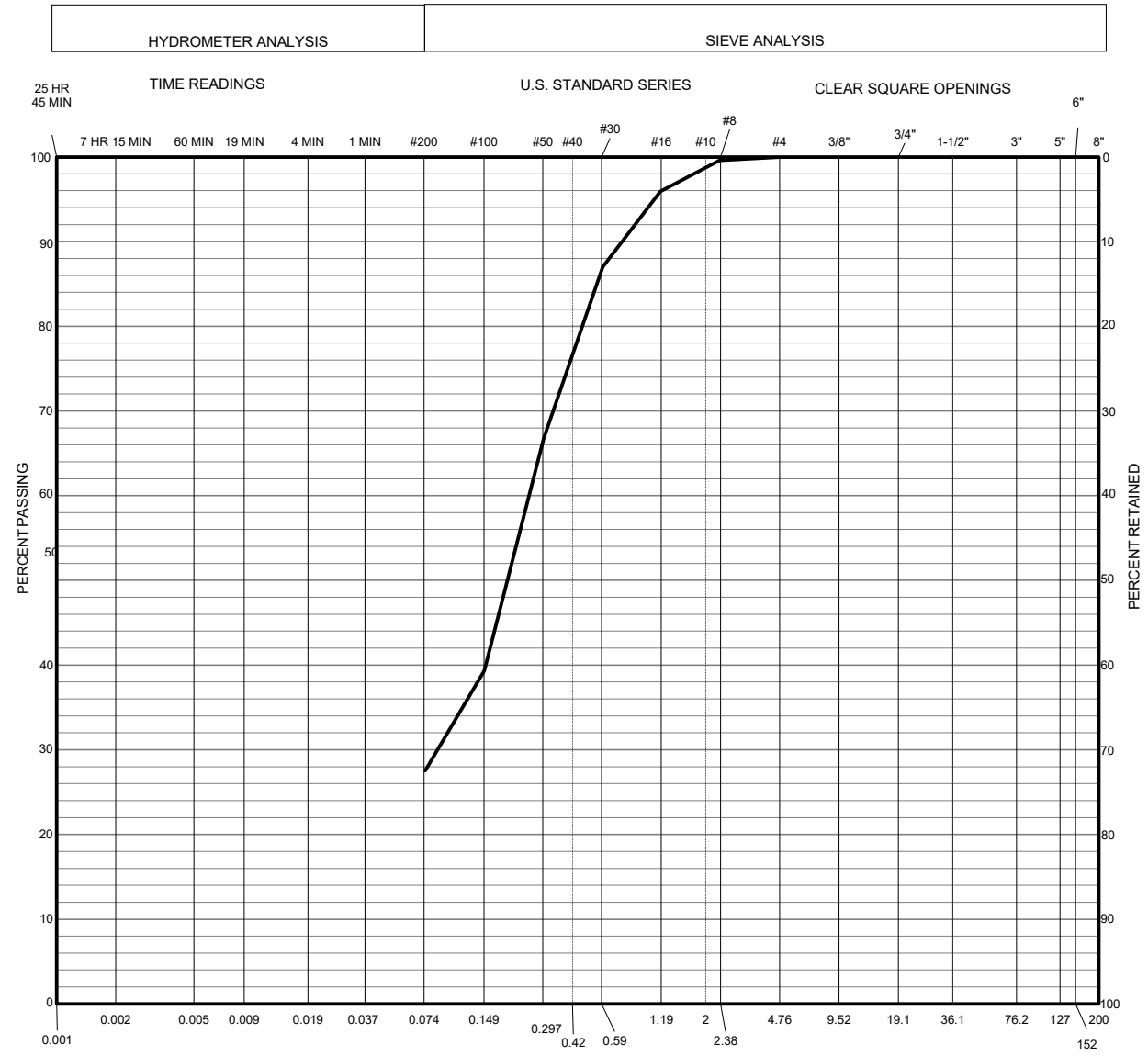
SAND: 86.6%
LIQUID LIMIT: -

D10 -- D30 0.294 D60: 0.837 CU: -- CC: --

Size (mm)	-	-	-	-	-	9.5	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-	-
% Passing	-	-	-	-	-	100.0	99.4	92.9	75.3	49.4	30.5	18.7	12.8	-	-	-	-	-	-

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BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
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Gradation Test Results FIG. B- 17



SAMPLE OF: SANDSTONE
FROM: TH-5 AT 4 FEET

GRAVEL: 0.0%
SILT & CLAY: 27.6%
PLASTIC INDEX: -

SAND: 72.4%
LIQUID LIMIT: -

D10 -- D30 0.091 D60: 0.263 CU: -- CC: --

Size (mm)	-	-	-	-	-	-	4.8	2.4	1.2	0.6	0.3	0.2	0.1	-	-	-	-	-	-
% Passing	-	-	-	-	-	-	100.0	99.6	95.9	87.0	66.7	39.3	27.6	-	-	-	-	-	-

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

Gradation Test Results

FIG. B- 18

TABLE B - I

SUMMARY OF LABORATORY TEST RESULTS

BORING	DEPTH (ft)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	SWELL TEST DATA				SOIL SUCTION VALUE (pF)	ATTERBERG LIMITS		SOLUBLE SULFATE CONTENT (%)	RETAINED NO. 4 SIEVE (%)	PASSING NO. 200 SIEVE (%)	SOIL TYPE
				SWELL (%)	COMPRESSION (%)	APPLIED PRESSURE (psf)	SWELL PRESSURE (psf)		LIQUID LIMIT	PLASTICITY INDEX				
TH-1	4	6.9	80						39	23			55	CLAY, VERY SANDY (CL)
TH-1	14	3.9	109									13	9	SANDSTONE
TH-1	19	13.6	116	0.7		2,400								CLAYSTONE
TH-1	24	20.0	101	0.3		3,000								CLAYSTONE
TH-2	9	8.1	121						33	17			30	SAND, CLAYEY (SC)
TH-2	14	17.4	111	3.5		1,800			46	22			67	CLAYSTONE
TH-2	19	14.5	118	1.1		2,400								CLAYSTONE
TH-3	4	10.5	105	5.0		500					<0.01			CLAY, SANDY (CL)
TH-3	9	4.8	116									1	11	SANDSTONE
TH-3	14	8.7	122										27	SANDSTONE
TH-4	4	9.0	103	3.0		500					0.05			CLAY, SANDY (CL)
TH-4	9	5.3	100									1	13	SANDSTONE
TH-4	14	15.6	110	0.2		1,800								CLAYSTONE
TH-5	4	7.0	112									0	28	SANDSTONE
TH-5	9	23.3	102	2.1		1,100	5,800	3.95						CLAYSTONE
TH-5	14	25.4	97	0.8		1,800	4,700	3.92						CLAYSTONE
TH-5	19	18.8	108	4.3		2,400	13,200	3.45						CLAYSTONE
TH-5	24	18.8	108	0.5		3,000	4,600	3.96						CLAYSTONE
TH-5	29	12.1	116		0.3	3,600		4.02						SANDSTONE
TH-6	4	11.5	110	6.3		500			53	34			73	CLAY, SANDY (CL)
TH-6	9	11.5	112	0.9		1,100								CLAY, SANDY (CL)
TH-6	19	12.2	109										23	SANDSTONE

AFFINITY HOLDINGS, LLC
BAYOU GULCH ROAD AND PRESIDO PARKWAY PARCEL
CTL|T PROJECT NO. DN51,524-115-R1

APPENDIX C
GUIDELINE SITE GRADING SPECIFICATIONS

GUIDELINE SITE GRADING SPECIFICATIONS

Bayou Gulch Road and Presido Parkway Parcel
Douglas County, Colorado

1. DESCRIPTION

This item shall consist of the excavation, transportation, placement and compaction of materials from locations indicated on the plans, or staked by the Engineer, as necessary to achieve preliminary street and overlot elevations. These specifications shall also apply to compaction of excess cut materials that may be placed outside of the subdivision and/or filing boundaries.

2. GENERAL

The Soils Representative shall be the Owner's representative. The Soils Representative shall approve fill materials, method of placement, moisture contents and percent compaction, and shall give written approval of the completed fill.

3. CLEARING JOB SITE

The Contractor shall remove all vegetation, trees, brush and rubbish before excavation or fill placement begins. The Contractor shall dispose of the cleared material to provide the Owner with a clean, neat appearing job site. Cleared material shall not be placed in areas to receive fill or where the material will support structures of any kind.

4. SCARIFYING AREA TO BE FILLED

Topsoil and vegetable matter shall be substantially removed from the ground surface upon which fill is to be placed. The surface shall then be plowed or scarified to a depth of 8 inches, moisture treated to above optimum moisture content, and compacted until the surface is free from ruts, hummocks or other uneven features, which would prevent uniform compaction by the equipment to be used.

5. COMPACTING AREA TO BE FILLED

After the foundation for the fill has been cleared and scarified, it shall be disked or bladed until it is free from large clods to a depth of 8 to 12 inches, brought to the proper moisture content (between 1 and 4 percent above optimum for clay and within 2 percent of optimum for sand) and compacted to not less than 95 percent of maximum density as determined in accordance with ASTM D 698. The foundation materials shall be worked, stabilized, or removed and replaced if necessary in accordance with the soils representative’s recommendations in preparation for fill.

6. FILL MATERIALS

Fill soils shall be substantially free from vegetable matter or other deleterious substances, and shall not contain rocks having a diameter greater than six (6) inches and

claystone pieces larger than three (3) inches. Fill materials shall be obtained from cut areas shown on the plans or staked in the field by the Engineer.

On-site materials classifying as CL, CH, SC, SM, SW, SP, GP, GC and GM are acceptable. Concrete, asphalt, organic matter and other deleterious materials or debris shall not be used as fill.

7. MOISTURE CONTENT

For fill material classifying as CH, CL or SC, the fill shall be moisture treated to between 1 and 4 percent above optimum moisture content. Soils classifying as SM, SW, SP, GP, GC and GM shall be moisture treated to within 2 percent of optimum moisture content as determined from Proctor compaction tests. Fill placed deeper than 20 feet below proposed grade should be moisture treated to between 2 percent below and 1 percent above optimum, regardless of composition. Sufficient laboratory compaction tests shall be made to determine the optimum moisture content for the various soils encountered in borrow areas.

The Contractor may be required to add moisture to the excavation materials in the borrow area if, in the opinion of the Soils Representative, it is not possible to obtain uniform moisture content by adding water on the fill surface. The Contractor may be required to rake or disc the fill soils to provide uniform moisture content through the soils.

The application of water to embankment materials shall be made with any type of watering equipment approved by the Soils Representative, which will give the desired results. Water jets from the spreader shall not be directed at the embankment with such force that fill materials are washed out.

Should too much water be added to any part of the fill, such that the material is too wet to permit the desired compaction from being obtained, rolling and all work on that section of the fill shall be delayed until the material has been allowed to dry to the required moisture content. The Contractor will be permitted to rework wet material in an approved manner to hasten its drying.

8. COMPACTION OF FILL AREAS

Selected fill material shall be placed and mixed in evenly spread layers. After each fill layer has been placed, it shall be uniformly compacted to not less than the specified percentage of maximum density. Fill shall be compacted to at least 95 percent of the maximum dry density as determined in accordance with ASTM D 698. Fill placed deeper than 20 feet below proposed grade should be compacted to 98 percent of the maximum dry density. Fill materials shall be placed such that the thickness of loose materials does not exceed 8 inches and the compacted lift thickness does not exceed 6 inches.

Compaction as specified above shall be obtained by the use of sheepsfoot rollers, multiple-wheel pneumatic-tired rollers, or other equipment approved for soils classifying as CL, CH, or SC. Granular fill shall be compacted using vibratory equipment or other approved equipment. Compaction shall be accomplished while the fill material

is at the specified moisture content. Compaction of each layer shall be continuous over the entire area. Compaction equipment shall make sufficient passes to ensure that the required density is obtained.

9. COMPACTION OF SLOPES

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compaction operations shall be continued until slopes are stable, but not too dense for planting, and there is not an appreciable amount of loose soils on the slopes. Compaction of slopes may be done progressively in increments of three to five feet (3' to 5') in height or after the fill is brought to its total height. Permanent fill slopes shall not exceed 3:1 (horizontal to vertical).

10. PLACEMENT OF FILL ON NATURAL SLOPES

Where natural slopes are steeper than 20 percent in grade and the placement of fill is required, cut benches shall be provided at the rate of one bench for each 5 feet in height (minimum of two benches). Benches shall be at least 10 feet in width. Larger bench widths may be required by the Engineer. Fill shall be placed on completed benches as outlined within this specification.

11. DENSITY TESTS

Field density tests shall be made by the Soils Representative at locations and depths of his choosing. Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density tests shall be taken in compacted material below the disturbed surface. When density tests indicate that the density or moisture content of any layer of fill or portion thereof is below that required, the particular layer or portion shall be reworked until the required density or moisture content has been achieved.

12. SEASONAL LIMITS

No fill material shall be placed, spread or rolled while it is frozen, thawing, or during unfavorable weather conditions. When work is interrupted by heavy precipitation, fill operations shall not be resumed until the Soils Representative indicates that the moisture content and density of previously placed materials are as specified.

13. NOTICE REGARDING START OF GRADING

The Contractor shall submit notification to the Soils Representative and Owner advising them of the start of grading operations at least three (3) days in advance of the starting date. Notification shall also be submitted at least 3 days in advance of any resumption dates when grading operations have been stopped for any reason other than adverse weather conditions.

14. REPORTING OF FIELD DENSITY TESTS

Density tests made by the Soils Representative, as specified under "Density Tests" above, shall be submitted progressively to the Owner. Dry density, moisture content, and percentage compaction shall be reported for each test taken.

15. DECLARATION REGARDING COMPLETED FILL

The Soils Engineer shall provide a written declaration stating that the site was filled with acceptable materials, and was placed in general accordance with the specifications.

LSC TRANSPORTATION CONSULTANTS, INC.

1889 York Street
Denver, CO 80206
(303) 333-1105
FAX (303) 333-1107
E-mail: lscdenver@lsctrans.com

February 12, 2026

Mr. Ben Satterwhite, PE
Atwell, LLC
143 Union Boulevard, Suite 700
Lakewood, CO 80228

Re: Bloom Update
Douglas County, CO
LSC #210011

Dear Mr. Satterwhite:

In response to your request, LSC Transportation Consultants, Inc. has prepared this updated traffic impact analysis for the proposed Bloom residential development in Douglas County, Colorado, to address County comments. As shown on Figure 1, the site is located west of Bayou Gulch Road and south of Presidio Parkway. The site was previously studied in the July 18, 2022 *Bayou Gulch Road & Presidio Parkway Traffic Impact Analysis* by LSC.

REPORT CONTENTS

The report contains the following: the existing roadway and traffic conditions in the vicinity of the site including the lane geometries, traffic controls, posted speed limits, etc.; the existing weekday peak-hour traffic volumes; the existing daily traffic volumes in the area; the typical weekday site-generated traffic volume projections for the site; the assignment of the projected traffic volumes to the area roadways; the projected short-term and long-term background and resulting total traffic volumes on the area roadways; the site's projected traffic impacts; and any recommended roadway improvements to mitigate the site's traffic impacts.

LAND USE AND ACCESS

The site is proposed to include 32 single-family detached estate residential dwelling units. Full movement access is proposed to Bayou Gulch Road aligning with existing Presidio Parkway as shown in the conceptual site plan in Figure 2.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

The major roadways in the site's vicinity are shown on Figure 1 and are described below.

- **Bayou Gulch Road** is a north-south, two-lane arterial roadway east of the site. The intersection with Presidio Parkway is stop-sign controlled. It is planned to be widened to four

lanes by others by 2045. The posted speed limit in the vicinity of the site is 35 mph. Bayou Gulch Road provides access north to Crowfoot Valley Road and Chambers Road and south to Scott Avenue.

- **Presidio Parkway** is an east-west, two-lane collector roadway east of the site. The intersections with Bayou Gulch Road is stop-sign controlled. No speed limit is posted in the vicinity of the site.

- **Scott Avenue** is an east-west, two-lane collector roadway south of the site. The intersection with Bayou Gulch Road is stop-sign controlled. The posted speed limit in the vicinity of the site is 30 mph. Scott Avenue provides access east to Parker Road (SH 83).

Existing Traffic Conditions

Figure 3 shows the existing lane geometries, traffic controls, and traffic volumes in the site's vicinity on a typical weekday. The weekday peak-hour traffic volumes and daily traffic counts are from the attached traffic counts conducted by Counter Measures in February, 2025.

2028 and 2045 Background Traffic

Figure 4 shows the estimated 2028 background traffic, lane geometry, and traffic control, assuming three years of growth at an annual rate of five percent plus half buildout of the Leman Academy to the northeast.

Figure 5 shows the estimated 2045 background traffic, lane geometry, and traffic control based on the projections in the 2023 *Leman Academy TIS* (2023 TIA) by LSC which assumed a total traffic volume of 21,700 vpd on Bayou Gulch Road adjacent to the site. Figure 9a from the 2023 TIA is attached for reference.

Existing, 2028, and 2045 Background Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay and LOS F is indicative of a high level of congestion or delay. Attached are specific level of service definitions for signalized and unsignalized intersections.

The intersections in Figures 3 through 5 were analyzed as appropriate to determine the existing, 2028, and 2045 background levels of service using Synchro. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **Bayou Gulch Road/Presidio Parkway:** All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to operate at LOS "D" or better through 2045.

2. **Bayou Gulch Road/Scott Avenue:** All movements at this unsignalized intersection currently operate at LOS "B" or better during both morning and afternoon peak-hours and are expected to operate at LOS "B" or better through 2028. By 2045, the intersection is

expected to be signalized by others and operate at an overall LOS "B" during both peak-hours.

TRIP GENERATION

Table 2 shows the estimated average weekday, morning peak-hour, and afternoon peak-hour trip generation for the proposed site based on the rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE) for the proposed land use.

The site is projected to generate about 302 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 6 vehicles would enter and about 17 vehicles would exit the site. During the afternoon peak-hour, which generally occurs for one hour between 4:00 and 6:00 p.m., about 19 vehicles would enter and about 11 vehicles would exit.

TRIP DISTRIBUTION

Figure 6 shows the estimated directional distribution of the site-generated traffic volumes on the area roadways. The estimates were based on the location of the site with respect to the regional population, employment, and activity centers; and the site's proposed land use.

TRIP ASSIGNMENT

Figure 7 shows the estimated site-generated traffic volumes based on the directional distribution percentages (from Figure 6) and the trip generation estimate (from Table 2).

2028 AND 2045 TOTAL TRAFFIC

Figure 8 shows the 2028 total traffic which is the sum of the 2028 background traffic volumes (from Figure 4) and the 2028 site-generated traffic volumes (from Figure 7). Figure 8 also shows the recommended 2028 lane geometry and traffic control. Figure 8 includes the recommended improvements by the Applicant.

Figure 9 shows the 2045 total traffic which is the sum of 2045 background traffic volumes (from Figure 5) and the 2045 site-generated traffic volumes (from Figure 7). Figure 9 also shows the recommended 2045 lane geometry and traffic control.

PROJECTED LEVELS OF SERVICE

The intersections in Figures 8 and 9 were analyzed to determine the 2028 and 2045 total levels of service. Table 1 shows the level of service analysis results. The level of service reports are attached.

1. **Bayou Gulch Road/Presidio Parkway/Site Access:** All movements at this unsignalized intersection are expected to operate at LOS "D" or better during both morning and afternoon peak-hours through 2045.

2. **Bayou Gulch Road/Scott Avenue:** All movements at this unsignalized intersection are expected to operate at LOS "B" or better during both morning and afternoon peak-hours through 2028. By 2045, the intersection is expected to be signalized by others and operate at an overall LOS "B" during both peak-hours.

TRAFFIC SIGNAL COST CONTRIBUTION

The County has indicated the project will be required to participate in funding two future traffic signals - one at Intersection #1 and another at Intersection #2. The calculations on Figures 7 and 9 show the applicant's contribution at Intersection #1 should be 6.95 percent and at Intersection #2 should be 0.43 percent.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

1. The site is projected to generate about 302 vehicle-trips on the average weekday, with about half entering and half exiting during a 24-hour period. During the morning peak-hour, about 6 vehicles would enter and 17 vehicles would exit the site. During the afternoon peak-hour, about 19 vehicles would enter and about 11 vehicles would exit.

Projected Levels of Service

2. All movements at the intersections analyzed are expected to operate at acceptable levels of service during both morning and afternoon peak-hours through 2045.

Conclusions

3. The impact of the Bloom residential development can be accommodated by the existing and planned roadway network with the recommendations shown in Figure 8. It would also be appropriate for the applicant to make a 6.95 percent traffic signal contribution at Intersection #1 and 0.43 percent at Intersection #2.

* * * * *

We trust our findings will assist you in gaining approval of the proposed Bloom residential development. Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.



By _____
Christopher S. McGranahan, PE
Principal/President

CSM/wc 2-12-26

Enclosures: Tables 1 and 2
Figures 1 - 9
Traffic Count Reports
Level of Service Definitions
Level of Service Reports

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Table 1
Intersection Levels of Service Analysis
Bloom Update
Douglas County, CO
LSC #210011; February, 2026

Intersection No. & Location	Traffic Control	Existing Traffic Level of Service AM	Existing Traffic Level of Service PM	2028 Background Traffic Level of Service AM	2028 Background Traffic Level of Service PM	2028 Total Traffic Level of Service AM	2028 Total Traffic Level of Service PM	2045 Background Traffic Level of Service AM	2045 Background Traffic Level of Service PM	2045 Total Traffic [1] Level of Service AM	2045 Total Traffic [1] Level of Service PM
1) Bayou Gulch Road/Presidio Parkway/ Site Access	TWSC										
NB Left		--	--	--	--	A	A	--	--	A	A
EB Left/Through		--	--	--	--	C	B	--	--	D	B
EB Right		--	--	--	--	A	A	--	--	A	A
WB Left		B	B	B	B	B	B	C	D	B	B
WB Through/Right		A	A	B	A	B	A	C	B	C	B
SB Left		A	A	A	A	A	A	A	A	A	A
Critical Movement Delay		10.6	10.6	11.7	11.1	17.4	14.2	20.1	25.2	30.2	14.7
2) Bayou Gulch Road/Scott Road	TWSC										
WB Left		B	A	B	B	B	B	--	--	--	--
WB Right		A	A	A	A	A	A	--	--	--	--
SB Left		A	A	A	A	A	A	--	--	--	--
Critical Movement Delay		10.2	9.9	10.9	10.5	10.9	10.5	--	--	--	--
	Signalized										
WB Left		--	--	--	--	--	--	D	C	D	C
WB Right		--	--	--	--	--	--	D	D	D	D
NB Through		--	--	--	--	--	--	A	B	A	B
NB Right		--	--	--	--	--	--	A	A	A	A
SB Left		--	--	--	--	--	--	A	A	A	A
SB Through		--	--	--	--	--	--	A	A	A	A
Entire Intersection Delay (sec /veh)		--	--	--	--	--	--	14.3	16.6	14.3	16.7
Entire Intersection LOS		--	--	--	--	--	--	B	B	B	B

[1] The intersection of Bayou Gulch Road/N. Pinery Parkway (future traffic signal) was included in the modeling to show the effects of gaps created by it and the future traffic signal at Intersection #2 to the south.

Table 2
ESTIMATED TRAFFIC GENERATION
Bloom Update
Douglas County, CO
LSC #210011; February, 2026

		Trip Generation Rates[1]					Vehicle - Trips Generated				
		Average	AM Peak Hour		PM Peak Hour		Average	AM Peak Hour		PM Peak - Hour	
Trip Generating Category	Quantity	Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
Currently Proposed Land Use											
Single-Family Detached Housing [2]	32 DU [3]	9.43	0.182	0.518	0.592	0.348	302	6	17	19	11

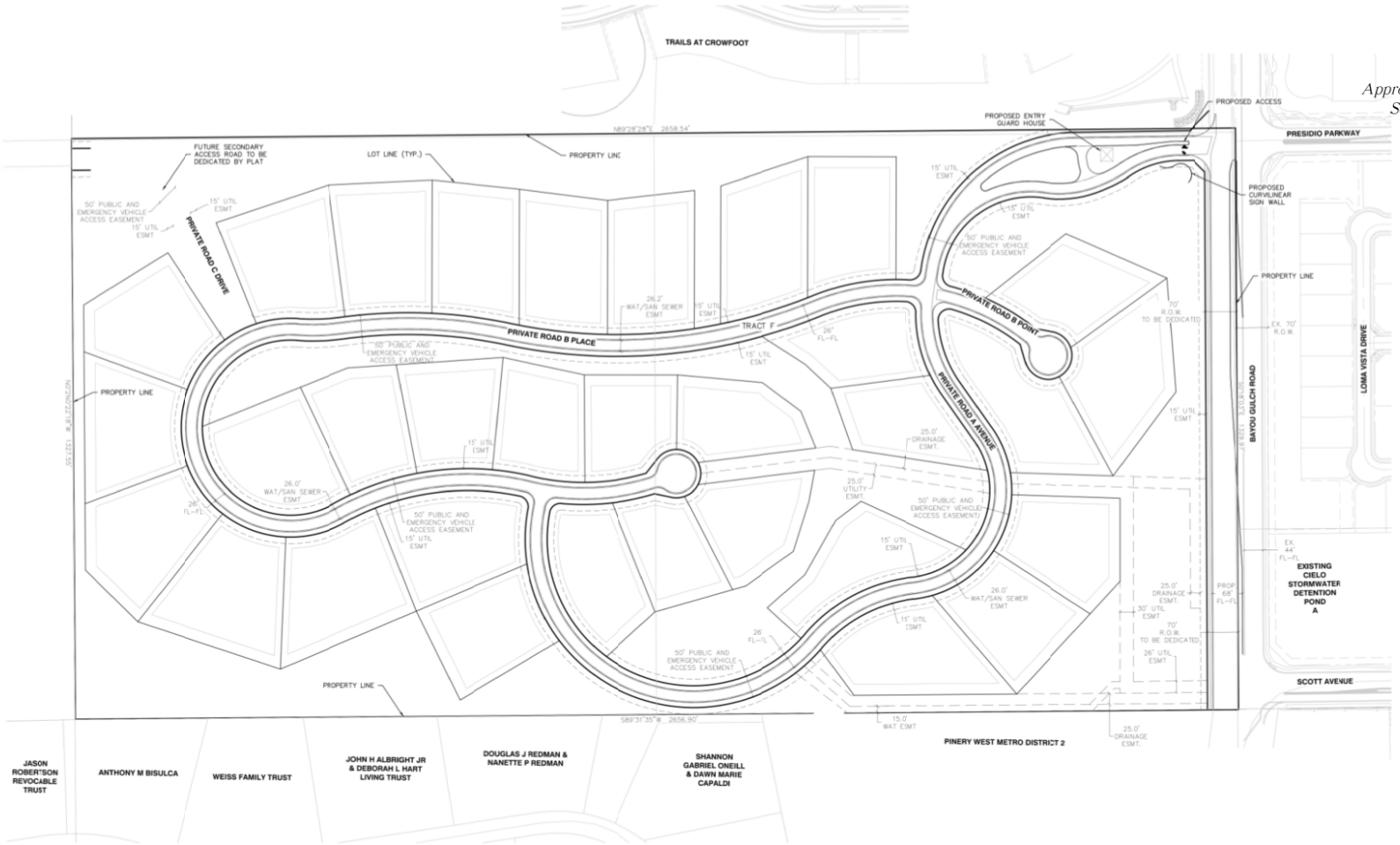
Notes:
(1) Source: *Trip Generation*, Institute of Transportation Engineers, 11th Edition, 2021
(2) ITE Land Use No. 210 - Single-Family Detached Housing
(3) DU = Dwelling Units



Figure 1

Vicinity Map

Bloom Update (LSC #210011)

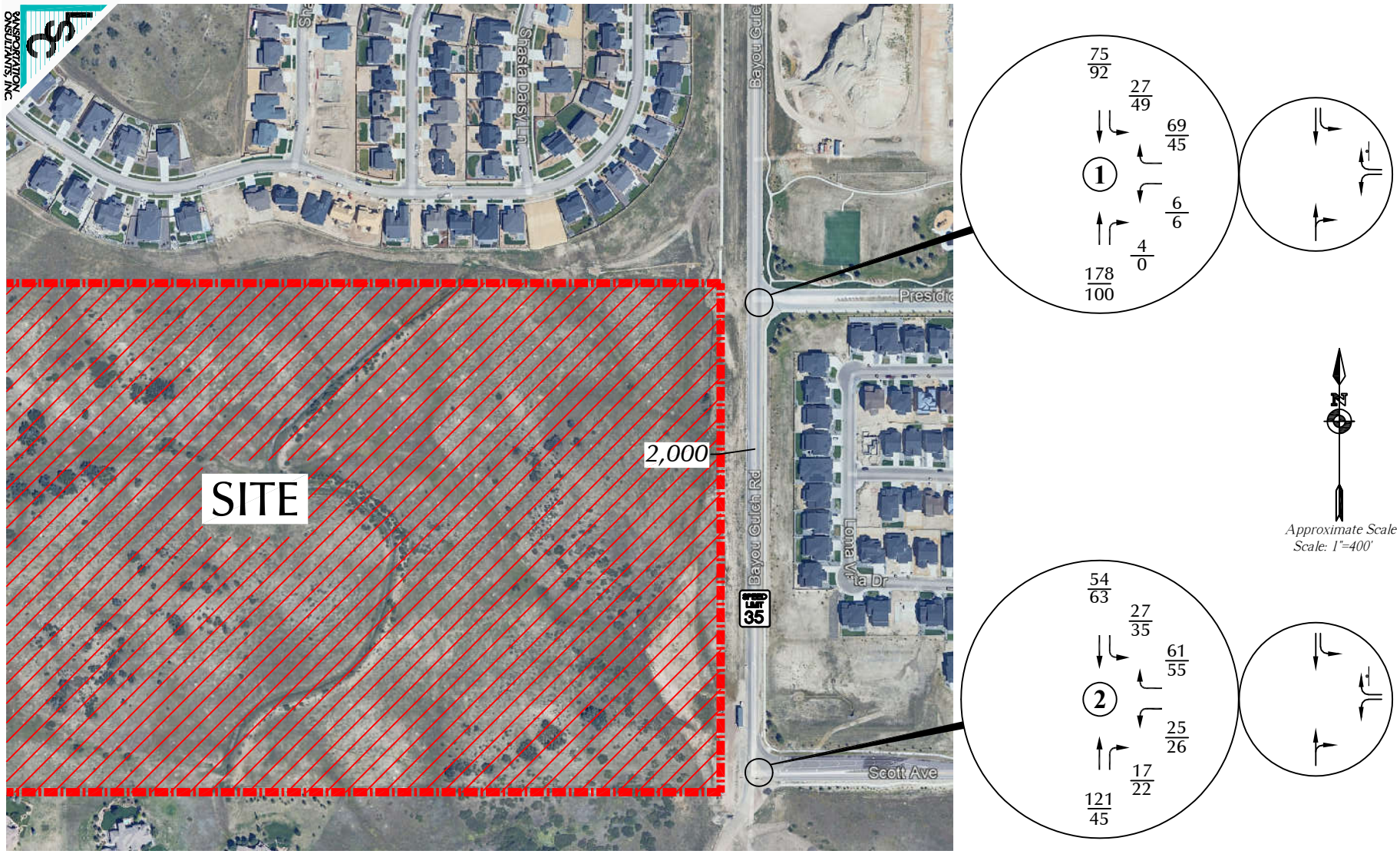


Approximate Scale
Scale: NTS

Figure 2

Site Plan

Bloom Update (LSC #210011)



LEGEND:

⊢ = Stop Sign

LIMIT 40 = Speed Limit

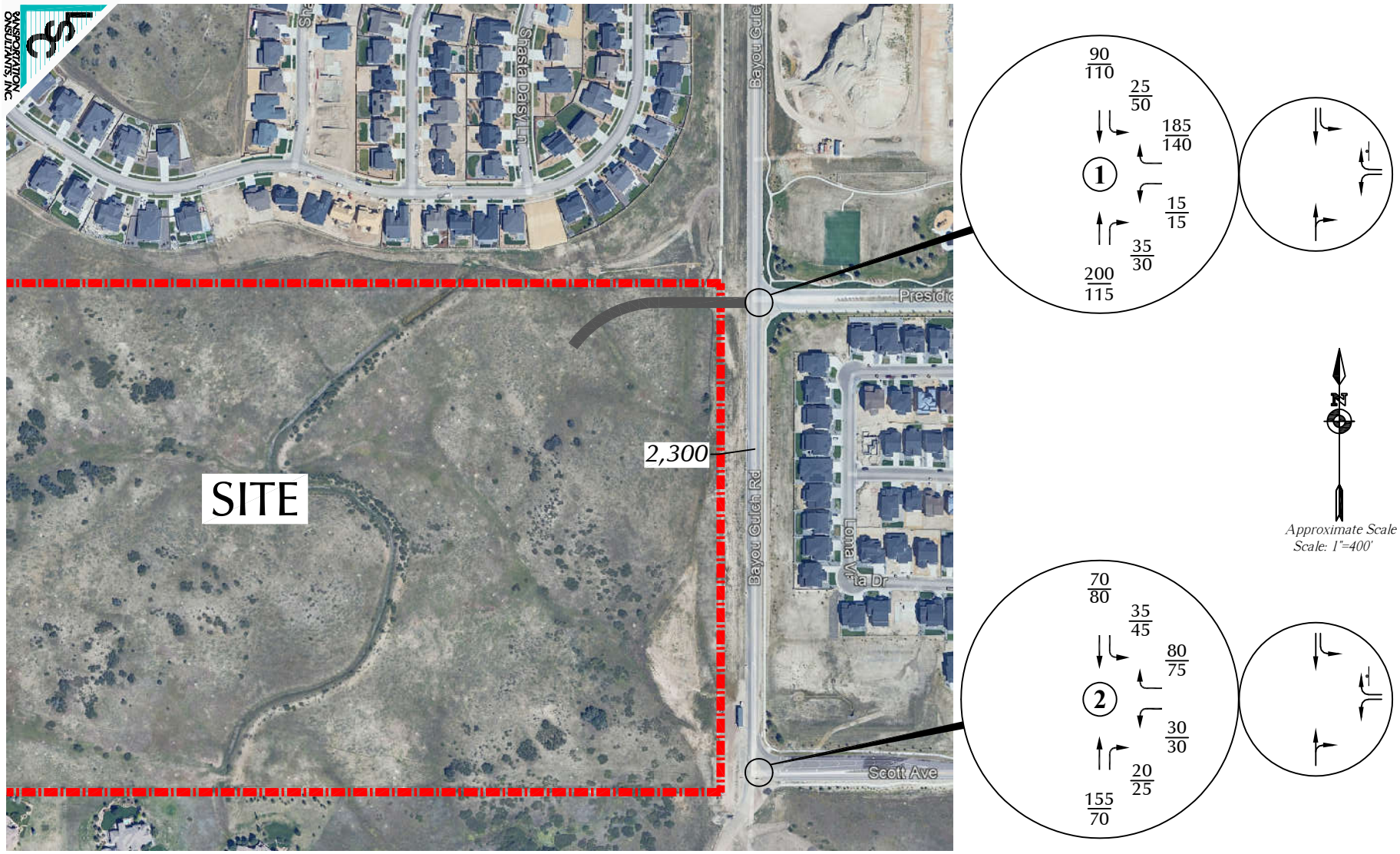
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Figure 3

Existing Traffic, Lane Geometry and Traffic Control

Bloom Update (LSC #210011)



LEGEND:

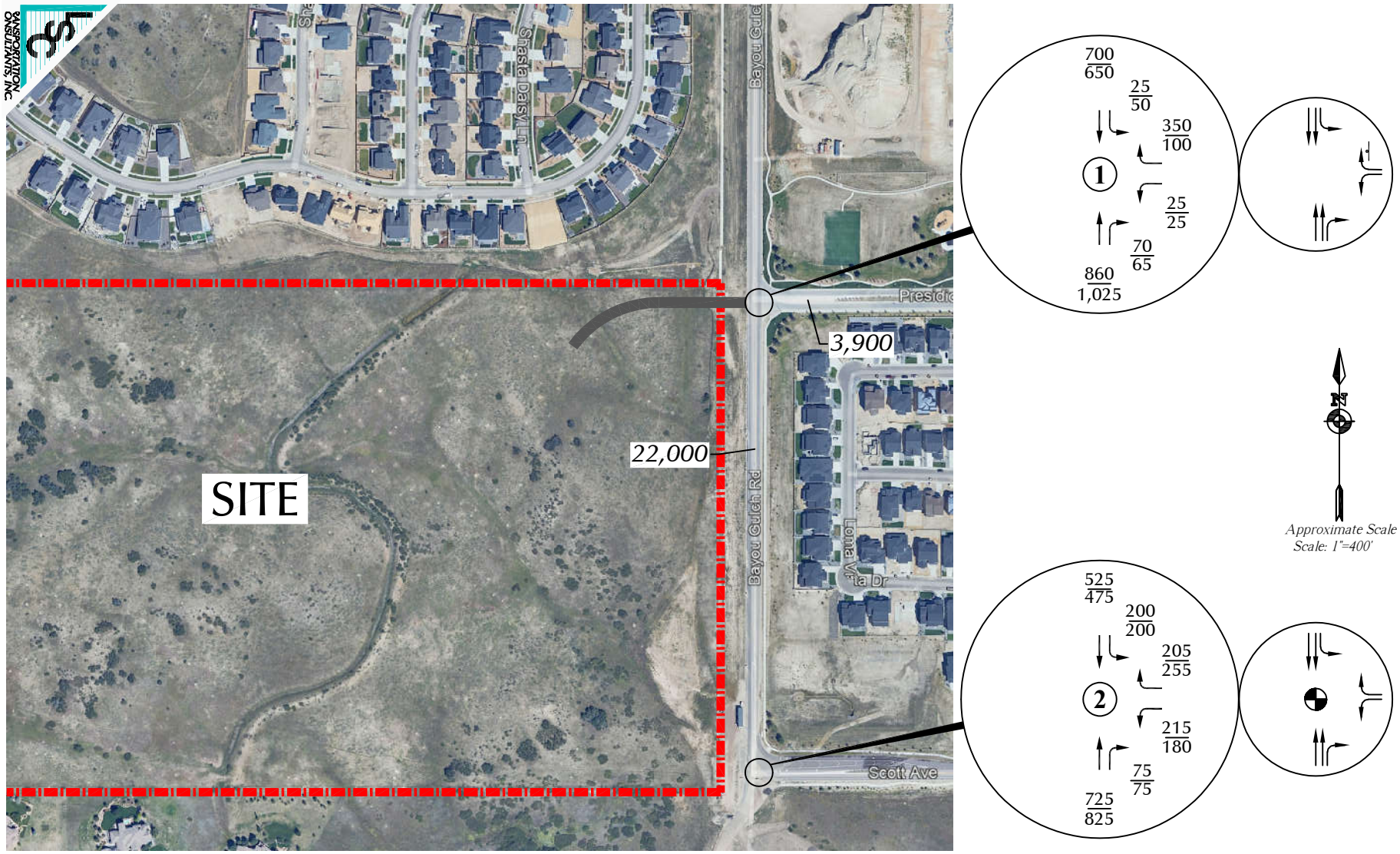
⊦	= Stop Sign
26/35	= AM Peak Hour Traffic / PM Peak Hour Traffic
1,000	= Average Daily Traffic

Note: Assumes three years of growth at an annual rate of five percent plus half buildout of the Leman Academy to the northeast.

Figure 4

Year 2028 Background Traffic, Lane Geometry and Traffic Control

Bloom Update (LSC #210011)



LEGEND:

= Stop Sign

= Traffic Signal

$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

1,000 = Average Daily Traffic

Note: Based on the 2023 Lemon Academy TIS by LSC.

Figure 5

Year 2045 Background Traffic, Lane Geometry and Traffic Control

Bloom Update (LSC #210011)



Approximate Scale
Scale: 1"=1,200'

LEGEND:
65% = Percent Directional Distribution

Figure 6

Directional Distribution of Site-Generated Traffic

Bloom Update (LSC #210011)



LEGEND:

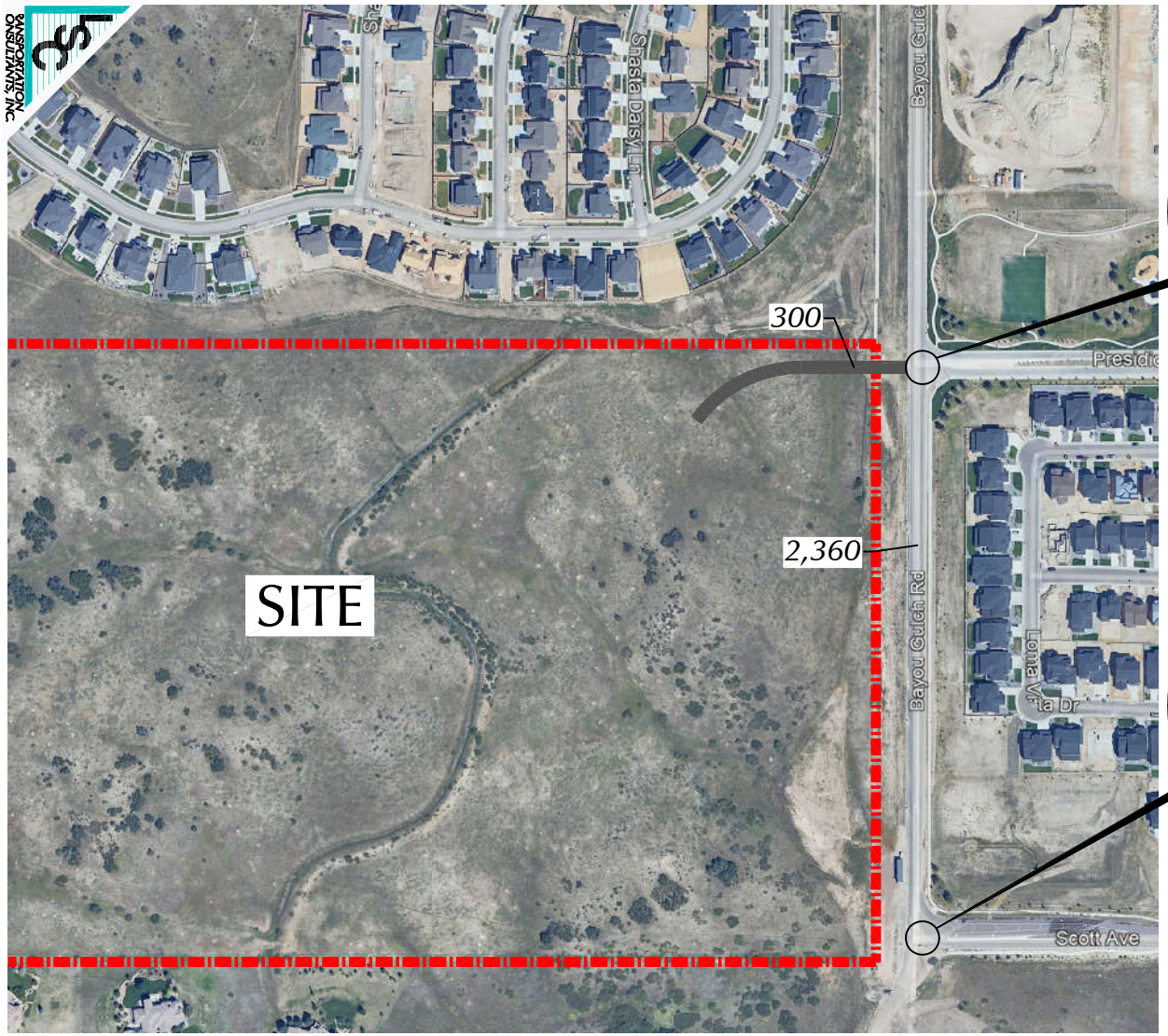
$\frac{26}{35}$ = $\frac{\text{AM Peak Hour Traffic}}{\text{PM Peak Hour Traffic}}$

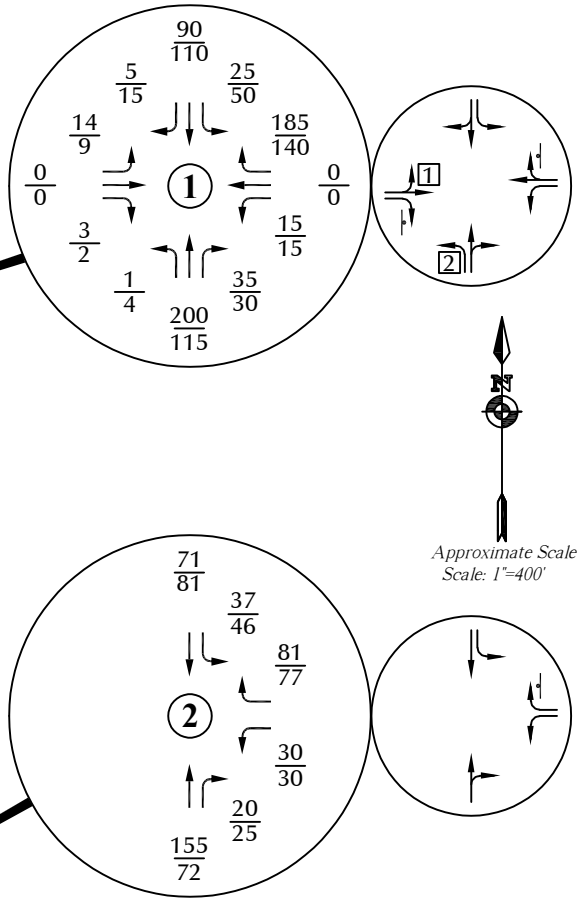
1,000 = Average Daily Traffic

Figure 7

Assignment of Site-Generated Traffic

Bloom Update (LSC #210011)





Recommended Improvements by Applicant:

1 Construct west leg of Intersection with 100-foot EB RT.

2 NB LT = Construct Lane - 200 feet + 10:1 transition taper - this improvement can likely be made by modifying the existing pavement marking's.

LEGEND:

⊦ = Stop Sign

26/35 = AM Peak Hour Traffic / PM Peak Hour Traffic

1,000 = Average Daily Traffic

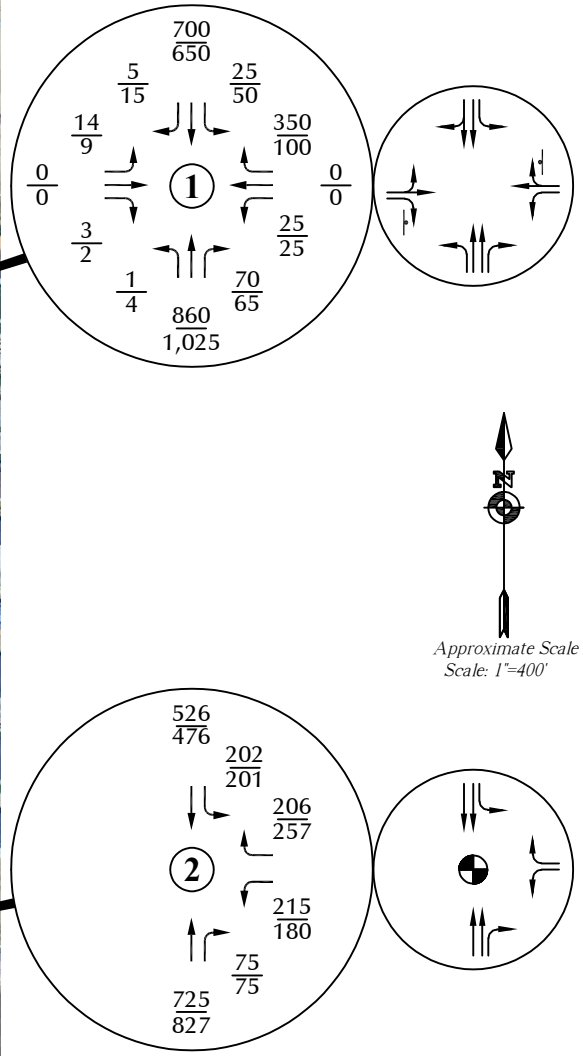
Note: These volumes are the sum of the volumes in Figures 4 and 7.

Figure 8

Year 2028 Total Traffic, Lane Geometry and Traffic Control

Bloom Update (LSC #210011)





Approximate Scale
Scale: 1"=400'

LEGEND:

= Stop Sign

= Traffic Signal

26/35 = AM Peak Hour Traffic / PM Peak Hour Traffic

1,000 = Average Daily Traffic

Note: These volumes are the sum of the volumes in Figures 5 and 7.

Figure 9

Year 2045 Total Traffic, Lane Geometry and Traffic Control

Bloom Update (LSC #210011)

COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
E/W STREET: PRESIDIO PKWY
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOU GULCH RD PRESIDIO PKWY
Site Code : 00000008
Start Date : 2/26/2025
Page No : 1

Groups Printed- Bank 2

	BAYOU GULCH RD SOUTHBOUND				PRESIDIO PKWY WESTBOUND				BAYOU GULCH RD NORTHBOUND				NO ACCESS EASTBOUND				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:30 AM	4	13	0	0	0	0	11	0	0	12	0	0	0	0	0	0	40
06:45 AM	10	19	0	0	0	0	4	0	0	29	0	0	0	0	0	0	62
Total	14	32	0	0	0	0	15	0	0	41	0	0	0	0	0	0	102
07:00 AM	6	17	0	0	1	0	16	0	0	33	0	1	0	0	0	0	74
07:15 AM	8	18	0	0	1	0	17	0	0	51	2	0	0	0	0	0	97
07:30 AM	5	20	0	0	2	0	16	0	0	48	0	0	0	0	0	0	91
07:45 AM	8	20	0	0	2	0	20	0	0	46	2	0	0	0	0	0	98
Total	27	75	0	0	6	0	69	0	0	178	4	1	0	0	0	0	360
08:00 AM	8	11	0	0	1	0	19	0	0	20	1	0	0	0	0	0	60
08:15 AM	11	14	0	0	1	0	16	0	0	25	0	0	0	0	0	0	67
Total	19	25	0	0	2	0	35	0	0	45	1	0	0	0	0	0	127
04:00 PM	12	20	0	0	1	0	12	0	0	31	0	0	0	0	0	0	76
04:15 PM	17	27	0	0	3	0	10	0	0	19	0	0	0	0	0	0	76
04:30 PM	7	24	0	0	0	0	7	0	0	16	0	0	0	0	0	0	54
04:45 PM	13	21	0	0	2	0	16	0	0	24	0	0	0	0	0	0	76
Total	49	92	0	0	6	0	45	0	0	90	0	0	0	0	0	0	282
05:00 PM	11	18	0	0	1	0	12	0	0	20	0	0	0	0	0	0	62
05:15 PM	19	19	0	0	2	0	11	0	0	18	1	0	0	0	0	0	70
05:30 PM	10	27	0	0	1	0	5	0	0	15	0	0	0	0	0	0	58
05:45 PM	15	22	0	0	1	0	2	0	0	10	0	0	0	0	0	0	50
Total	55	86	0	0	5	0	30	0	0	63	1	0	0	0	0	0	240
Grand Total	164	310	0	0	19	0	194	0	0	417	6	1	0	0	0	0	1111
Apprch %	34.6	65.4	0	0	8.9	0	91.1	0	0	98.3	1.4	0.2	0	0	0	0	
Total %	14.8	27.9	0	0	1.7	0	17.5	0	0	37.5	0.5	0.1	0	0	0	0	

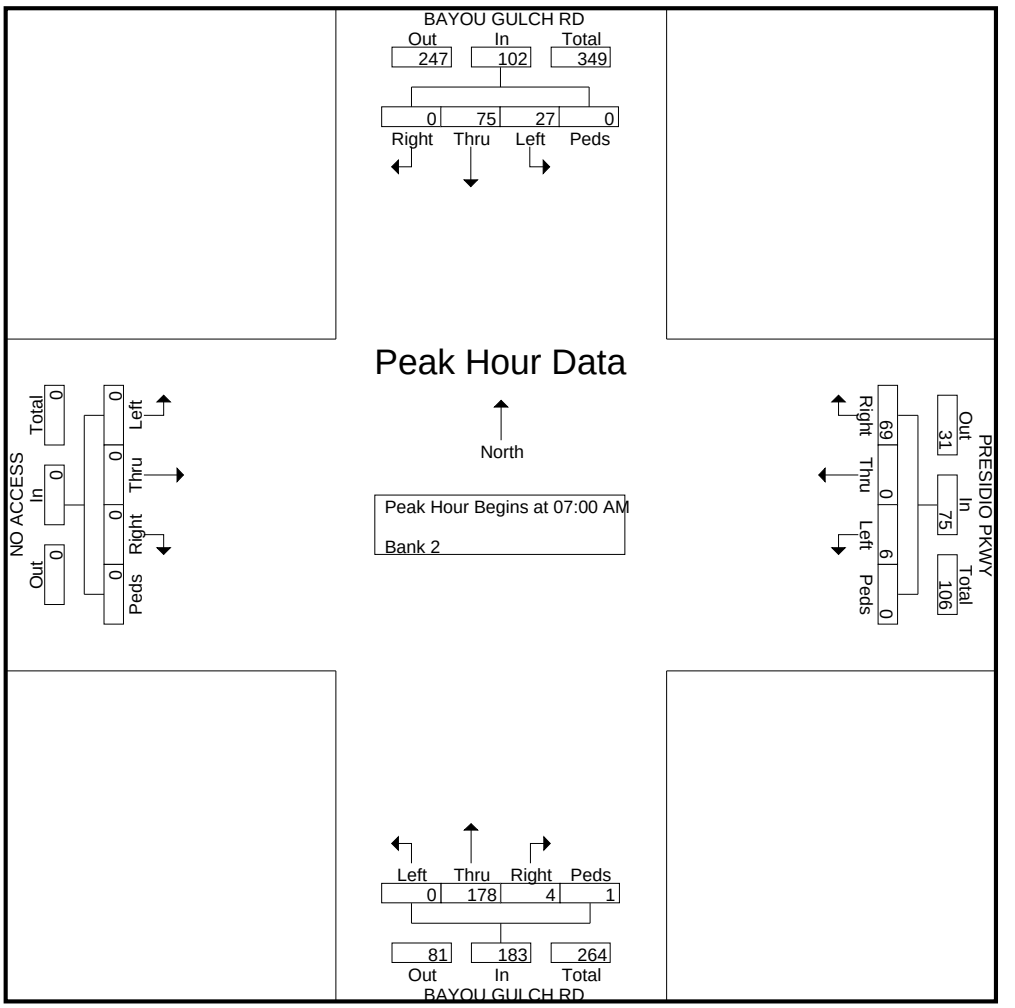
COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
E/W STREET: PRESIDIO PKWY
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOU GULCH RD PRESIDIO PKWY
Site Code : 00000008
Start Date : 2/26/2025
Page No : 2

	BAYOU GULCH RD SOUTHBOUND					PRESIDIO PKWY WESTBOUND					BAYOU GULCH RD NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	6	17	0	0	23	1	0	16	0	17	0	33	0	**1**	34	0	0	0	0	0	74
07:15 AM	**8**	18	0	0	26	1	0	17	0	18	0	**51**	**2**	0	**53**	0	0	0	0	0	97
07:30 AM	5	**20**	0	0	25	**2**	0	16	0	18	0	48	0	0	48	0	0	0	0	0	91
07:45 AM	8	20	0	0	**28**	2	0	**20**	0	**22**	0	46	2	0	48	0	0	0	0	0	**98**
Total Volume	27	75	0	0	102	6	0	69	0	75	0	178	4	1	183	0	0	0	0	0	360
% App. Total	26.5	73.5	0	0		8	0	92	0		0	97.3	2.2	0.5		0	0	0	0		
PHF	.844	.938	.000	.000	.911	.750	.000	.863	.000	.852	.000	.873	.500	.250	.863	.000	.000	.000	.000	.000	.918



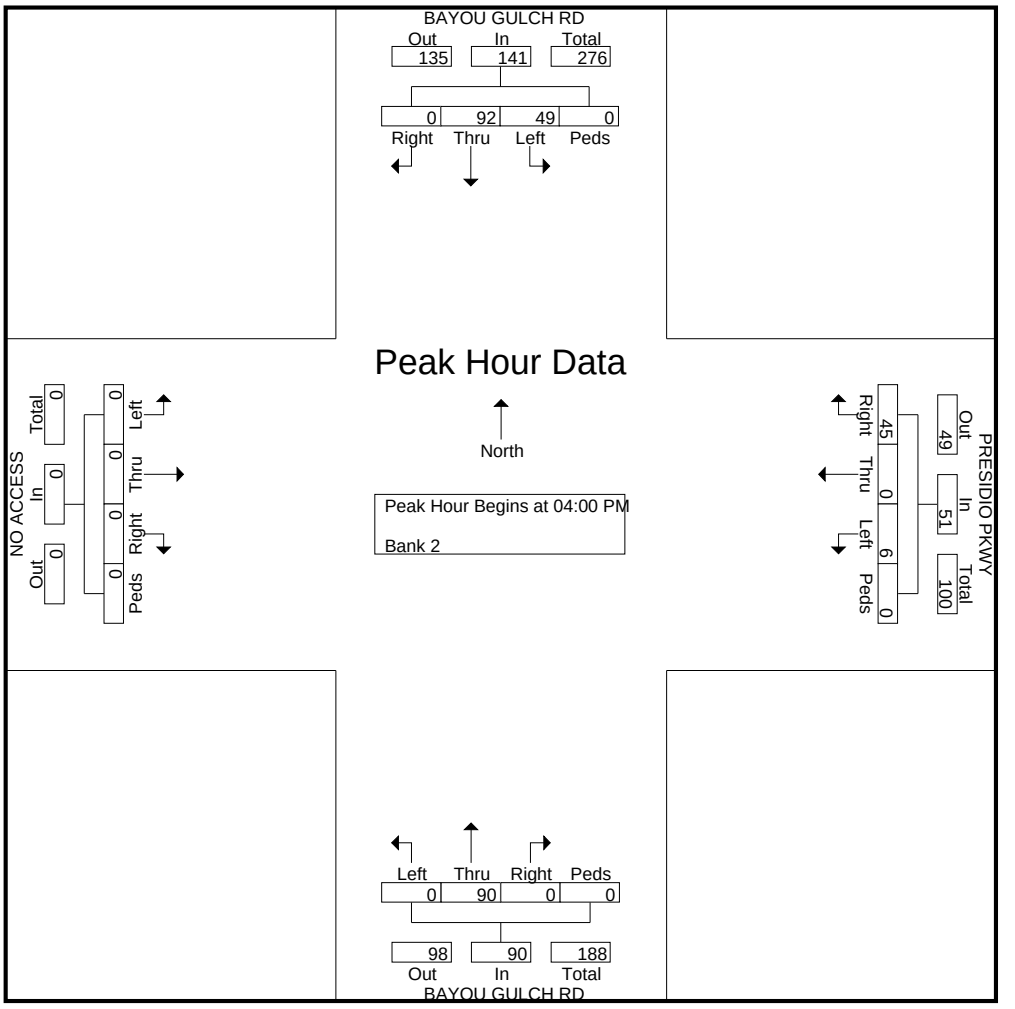
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Site Code : 00000008
Start Date : 2/26/2025
Page No : 3

	BAYOU GULCH RD SOUTHBOUND					PRESIDIO PKWY WESTBOUND					BAYOU GULCH RD NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	12	20	0	0	32	1	0	12	0	13	0	**31**	0	0	**31**	0	0	0	0	0	**76**
04:15 PM	**17**	**27**	0	0	**44**	**3**	0	10	0	13	0	19	0	0	19	0	0	0	0	0	76
04:30 PM	7	24	0	0	31	0	0	7	0	7	0	16	0	0	16	0	0	0	0	0	54
04:45 PM	13	21	0	0	34	2	0	**16**	0	**18**	0	24	0	0	24	0	0	0	0	0	76
Total Volume	49	92	0	0	141	6	0	45	0	51	0	90	0	0	90	0	0	0	0	0	282
% App. Total	34.8	65.2	0	0		11.8	0	88.2	0		0	100	0	0		0	0	0	0		
PHF	.721	.852	.000	.000	.801	.500	.000	.703	.000	.708	.000	.726	.000	.000	.726	.000	.000	.000	.000	.000	.928



COUNTER MEASURES INC

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DENVER COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
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COUNTY: DOUGLAS

File Name : BAYOU GULCH RD SCOTT AVE
Site Code : 00000008
Start Date : 2/26/2025
Page No : 1

Groups Printed- Unshifted

	BAYOU GULCH RD SOUTHBOUND				SCOTT AVE WESTBOUND				BAYOU GULCH RD NORTHBOUND				NO ACCESS EASTBOUND				
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Int. Total
06:30 AM	0	14	0	0	4	0	7	0	0	6	4	0	0	0	0	0	35
06:45 AM	9	10	0	0	1	0	7	0	0	21	5	0	0	0	0	0	53
Total	9	24	0	0	5	0	14	0	0	27	9	0	0	0	0	0	88
07:00 AM	4	14	0	0	9	0	8	0	0	26	3	1	0	0	0	0	65
07:15 AM	6	10	0	0	6	0	14	0	0	34	6	0	0	0	0	0	76
07:30 AM	7	12	0	0	5	0	18	0	0	31	6	0	0	0	0	0	79
07:45 AM	8	14	0	0	5	0	19	0	0	27	2	0	0	0	0	0	75
Total	25	50	0	0	25	0	59	0	0	118	17	1	0	0	0	0	295
08:00 AM	6	6	0	0	4	0	9	0	0	13	3	0	0	0	0	0	41
08:15 AM	7	7	0	0	0	0	8	0	0	17	3	0	0	0	0	0	42
Total	13	13	0	0	4	0	17	0	0	30	6	0	0	0	0	0	83
04:00 PM	7	15	0	0	9	0	19	0	0	14	4	0	0	0	0	0	68
04:15 PM	11	15	0	0	6	0	10	0	0	12	8	0	0	0	0	0	62
04:30 PM	9	18	0	0	8	0	11	1	0	8	3	0	0	0	0	0	58
04:45 PM	8	15	0	0	3	0	15	0	0	11	7	0	0	0	0	0	59
Total	35	63	0	0	26	0	55	1	0	45	22	0	0	0	0	0	247
05:00 PM	11	7	0	0	5	0	10	0	0	13	10	0	0	0	0	0	56
05:15 PM	12	6	0	0	8	0	11	0	0	9	2	0	0	0	0	0	48
05:30 PM	14	17	0	0	10	0	13	0	0	5	5	0	0	0	0	0	64
05:45 PM	10	19	0	0	10	0	8	0	0	4	3	0	0	0	0	0	54
Total	47	49	0	0	33	0	42	0	0	31	20	0	0	0	0	0	222
Grand Total	129	199	0	0	93	0	187	1	0	251	74	1	0	0	0	0	935
Apprch %	39.3	60.7	0	0	33.1	0	66.5	0.4	0	77	22.7	0.3	0	0	0	0	
Total %	13.8	21.3	0	0	9.9	0	20	0.1	0	26.8	7.9	0.1	0	0	0	0	

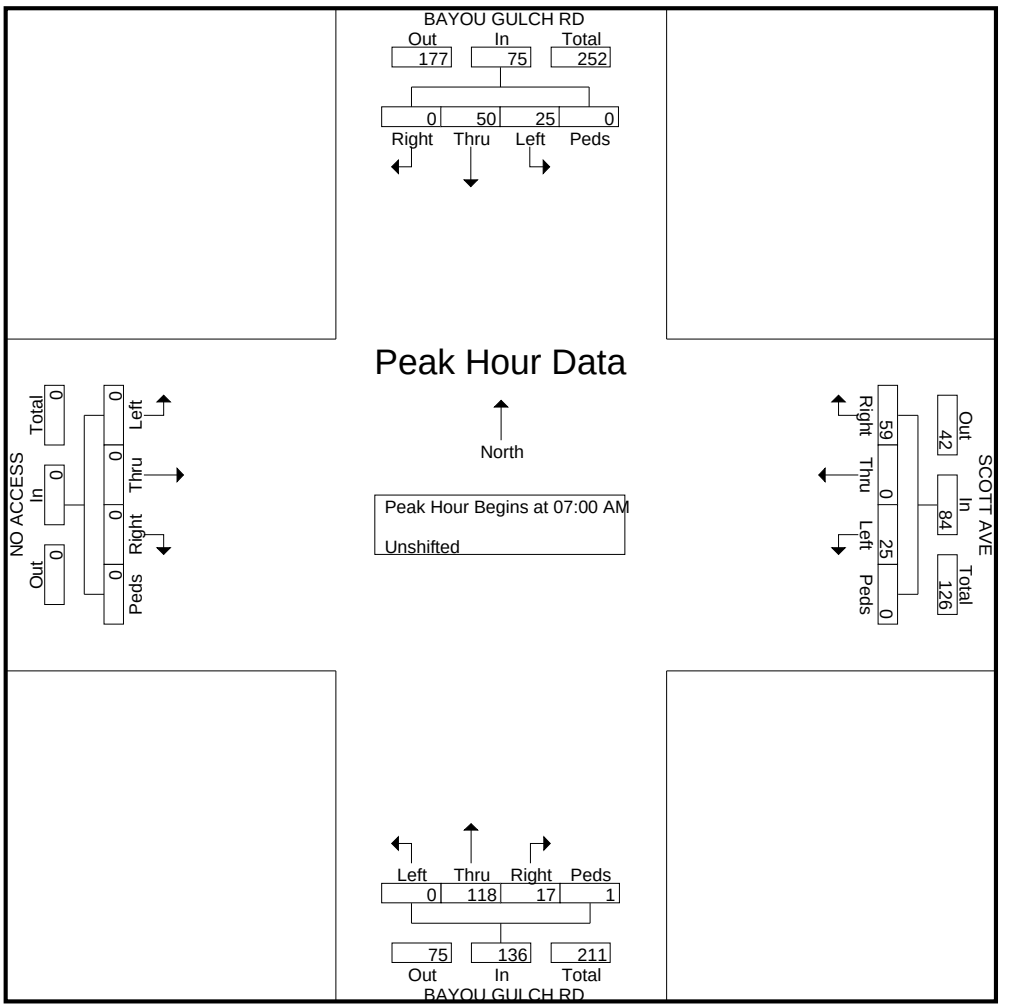
COUNTER MEASURES INC

1889 YORK ST
DENVER COLORADO
303-333-7409

N/S STREET: BAYOU GULCH RD
E/W STREET: SCOTT AVE
CITY: PARKER
COUNTY: DOUGLAS

File Name : BAYOU GULCH RD SCOTT AVE
Site Code : 00000008
Start Date : 2/26/2025
Page No : 2

	BAYOU GULCH RD SOUTHBOUND					SCOTT AVE WESTBOUND					BAYOU GULCH RD NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	4	**14**	0	0	18	**9**	0	8	0	17	0	26	3	**1**	30	0	0	0	0	0	65
07:15 AM	6	10	0	0	16	6	0	14	0	20	0	**34**	**6**	0	**40**	0	0	0	0	0	76
07:30 AM	7	12	0	0	19	5	0	18	0	23	0	31	6	0	37	0	0	0	0	0	**79**
07:45 AM	**8**	14	0	0	**22**	5	0	**19**	0	**24**	0	27	2	0	29	0	0	0	0	0	75
Total Volume	25	50	0	0	75	25	0	59	0	84	0	118	17	1	136	0	0	0	0	0	295
% App. Total	33.3	66.7	0	0		29.8	0	70.2	0		0	86.8	12.5	0.7		0	0	0	0		
PHF	.781	.893	.000	.000	.852	.694	.000	.776	.000	.875	.000	.868	.708	.250	.850	.000	.000	.000	.000	.000	.934



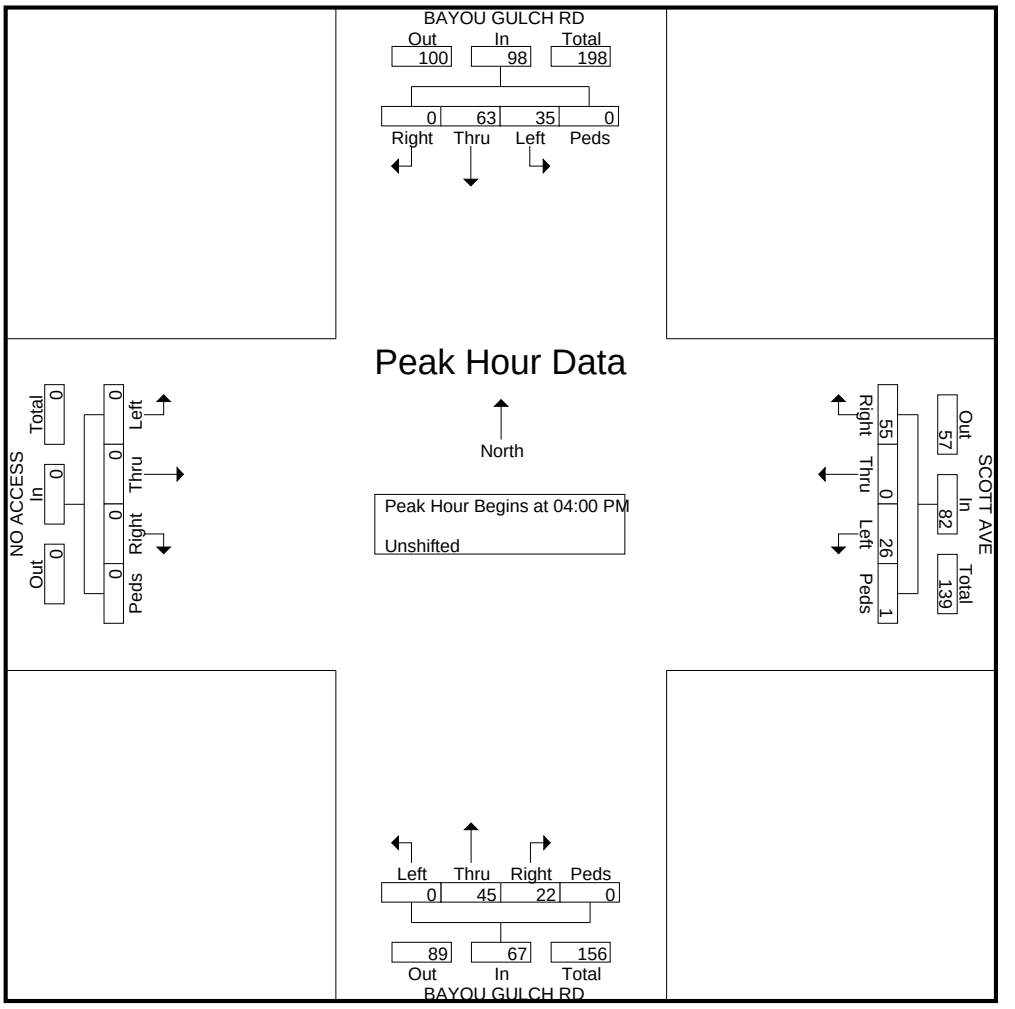
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	BAYOU GULCH RD SOUTHBOUND					SCOTT AVE WESTBOUND					BAYOU GULCH RD NORTHBOUND					NO ACCESS EASTBOUND					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	7	15	0	0	22	**9**	0	**19**	0	**28**	0	**14**	4	0	18	0	0	0	0	0	**68**
04:15 PM	**11**	15	0	0	26	6	0	10	0	16	0	12	**8**	0	**20**	0	0	0	0	0	62
04:30 PM	9	**18**	0	0	**27**	8	0	11	**1**	20	0	8	3	0	11	0	0	0	0	0	58
04:45 PM	8	15	0	0	23	3	0	15	0	18	0	11	7	0	18	0	0	0	0	0	59
Total Volume	35	63	0	0	98	26	0	55	1	82	0	45	22	0	67	0	0	0	0	0	247
% App. Total	35.7	64.3	0	0		31.7	0	67.1	1.2		0	67.2	32.8	0		0	0	0	0		
PHF	.795	.875	.000	.000	.907	.722	.000	.724	.250	.732	.000	.804	.688	.000	.838	.000	.000	.000	.000	.000	.908



LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

LOS	Average Vehicle Delay sec/vehicle	Operational Characteristics
A	<10 seconds	Describes operations with low control delay, up to 10 sec/veh. This LOS occurs when progression is extremely favorable and most vehicles arrive during the green phase. Many vehicles do not stop at all. Short cycle lengths may tend to contribute to low delay values.
B	10 to 20 seconds	Describes operations with control delay greater than 10 seconds and up to 20 sec/veh. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of delay.
C	20 to 35 seconds	Describes operations with control delay greater than 20 and up to 35 sec/veh. These higher delays may result from only fair progression, longer cycle length, or both. Individual cycle failures may begin to appear at this level. Cycle failure occurs when a given green phase does not serve queued vehicles, and overflows occur. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	35 to 55 seconds	Describes operations with control delay greater than 35 and up to 55 sec/veh. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	55 to 80 seconds	Describes operations with control delay greater than 55 and up to 80 sec/veh. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent.
F	>80 seconds	Describes operations with control delay in excess of 80 sec/veh. This level, considered unacceptable to most drivers, often occurs with over-saturation, that is, when arrival flow rates exceed the capacity of lane groups. It may also occur at high v/c ratios with many individual cycle failures. Poor progression and long cycle lengths may also contribute significantly to high delay levels.

LEVEL OF SERVICE DEFINITIONS

From *Highway Capacity Manual*, Transportation Research Board

UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS)

Applicable to Two-Way Stop Control, All-Way Stop Control, and Roundabouts

LOS	Average Vehicle Control Delay	Operational Characteristics
A	<10 seconds	Normally, vehicles on the stop-controlled approach only have to wait up to 10 seconds before being able to clear the intersection. Left-turning vehicles on the uncontrolled street do not have to wait to make their turn.
B	10 to 15 seconds	Vehicles on the stop-controlled approach will experience delays before being able to clear the intersection. The delay could be up to 15 seconds. Left-turning vehicles on the uncontrolled street may have to wait to make their turn.
C	15 to 25 seconds	Vehicles on the stop-controlled approach can expect delays in the range of 15 to 25 seconds before clearing the intersection. Motorists may begin to take chances due to the long delays, thereby posing a safety risk to through traffic. Left-turning vehicles on the uncontrolled street will now be required to wait to make their turn causing a queue to be created in the turn lane.
D	25 to 35 seconds	This is the point at which a traffic signal may be warranted for this intersection. The delays for the stop-controlled intersection are not considered to be excessive. The length of the queue may begin to block other public and private access points.
E	35 to 50 seconds	The delays for all critical traffic movements are considered to be unacceptable. The length of the queues for the stop-controlled approaches as well as the left-turn movements are extremely long. There is a high probability that this intersection will meet traffic signal warrants. The ability to install a traffic signal is affected by the location of other existing traffic signals. Consideration may be given to restricting the accesses by eliminating the left-turn movements from and to the stop-controlled approach.
F	>50 seconds	The delay for the critical traffic movements are probably in excess of 100 seconds. The length of the queues are extremely long. Motorists are selecting alternative routes due to the long delays. The only remedy for these long delays is installing a traffic signal or restricting the accesses. The potential for accidents at this intersection are extremely high due to motorist taking more risky chances. If the median permits, motorists begin making two-stage left-turns.

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	69	178	4	27	75
Future Vol, veh/h	6	69	178	4	27	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	-	205	-
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	7	75	193	4	29	82

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	335	195	0	0	197	0
Stage 1	195	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	660	846	-	-	1376	-
Stage 1	838	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	646	846	-	-	1376	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	868	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	646	846	1376	-
HCM Lane V/C Ratio	-	-	0.01	0.089	0.021	-
HCM Control Delay (s)	-	-	10.6	9.7	7.7	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.3	0.1	-

Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	61	121	17	27	54
Future Vol, veh/h	25	61	121	17	27	54
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	400	-	-	230	-
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	27	66	132	18	29	59

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	258	141	0	0	150	0
Stage 1	141	-	-	-	-	-
Stage 2	117	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	731	907	-	-	1431	-
Stage 1	886	-	-	-	-	-
Stage 2	908	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	716	907	-	-	1431	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	2.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	716	907	1431	-
HCM Lane V/C Ratio	-	-	0.038	0.073	0.021	-
HCM Control Delay (s)	-	-	10.2	9.3	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	45	100	0	49	92
Future Vol, veh/h	6	45	100	0	49	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	-	205	-
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	7	49	109	0	53	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	315	109	0	0	109	0
Stage 1	109	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	678	945	-	-	1481	-
Stage 1	916	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	654	945	-	-	1481	-
Mov Cap-2 Maneuver	654	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	2.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	654	945	1481	-
HCM Lane V/C Ratio	-	-	0.01	0.052	0.036	-
HCM Control Delay (s)	-	-	10.6	9	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	55	45	22	35	63
Future Vol, veh/h	26	55	45	22	35	63
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	400	-	-	230	-
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	28	60	49	24	38	68

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	205	61	0	0	73	0
Stage 1	61	-	-	-	-	-
Stage 2	144	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	783	1004	-	-	1527	-
Stage 1	962	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	763	1004	-	-	1527	-
Mov Cap-2 Maneuver	763	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	861	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	2.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	763	1004	1527	-
HCM Lane V/C Ratio	-	-	0.037	0.06	0.025	-
HCM Control Delay (s)	-	-	9.9	8.8	7.4	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

Intersection	
Int Delay, s/veh	5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	185	200	35	25	90
Future Vol, veh/h	15	185	200	35	25	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	-	205	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	70	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	264	217	38	27	98

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	388	236	0	0	255	0
Stage 1	236	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	616	803	-	-	1310	-
Stage 1	803	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	603	803	-	-	1310	-
Mov Cap-2 Maneuver	603	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	858	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	1.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	603	803	1310	-
HCM Lane V/C Ratio	-	-	0.027	0.329	0.021	-
HCM Control Delay (s)	-	-	11.1	11.7	7.8	-
HCM Lane LOS	-	-	B	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	1.4	0.1	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	80	155	20	35	70
Future Vol, veh/h	30	80	155	20	35	70
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	400	-	-	230	-
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	33	87	168	22	38	76

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	331	179	0	0	190	0
Stage 1	179	-	-	-	-	-
Stage 2	152	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	664	864	-	-	1384	-
Stage 1	852	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	646	864	-	-	1384	-
Mov Cap-2 Maneuver	646	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	852	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	646	864	1384	-
HCM Lane V/C Ratio	-	-	0.05	0.101	0.027	-
HCM Control Delay (s)	-	-	10.9	9.6	7.7	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	140	115	30	50	110
Future Vol, veh/h	15	140	115	30	50	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	150	0	-	-	205	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	85	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	165	125	33	54	120

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	370	142	0	0	158	0
Stage 1	142	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	630	906	-	-	1422	-
Stage 1	885	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	606	906	-	-	1422	-
Mov Cap-2 Maneuver	606	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	606	906	1422	-
HCM Lane V/C Ratio	-	-	0.027	0.182	0.038	-
HCM Control Delay (s)	-	-	11.1	9.9	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0.1	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	75	70	25	45	80
Future Vol, veh/h	30	75	70	25	45	80
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	400	-	-	230	-
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	33	82	76	27	49	87

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	275	90	0	0	103	0
Stage 1	90	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	715	968	-	-	1489	-
Stage 1	934	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	691	968	-	-	1489	-
Mov Cap-2 Maneuver	691	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	691	968	1489	-
HCM Lane V/C Ratio	-	-	0.047	0.084	0.033	-
HCM Control Delay (s)	-	-	10.5	9.1	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.1	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	3	15	0	185	1	200	35	25	90	5
Future Vol, veh/h	14	0	3	15	0	185	1	200	35	25	90	5
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	150	-	-	200	-	-	205	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	70	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	3	16	0	264	1	217	38	27	98	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	525	412	101	394	395	236	103	0	0	255	0	0
Stage 1	155	155	-	238	238	-	-	-	-	-	-	-
Stage 2	370	257	-	156	157	-	-	-	-	-	-	-
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	463	530	954	566	542	803	1489	-	-	1310	-	-
Stage 1	847	769	-	765	708	-	-	-	-	-	-	-
Stage 2	650	695	-	846	768	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	306	518	954	555	530	803	1489	-	-	1310	-	-
Mov Cap-2 Maneuver	306	518	-	555	530	-	-	-	-	-	-	-
Stage 1	846	753	-	764	707	-	-	-	-	-	-	-
Stage 2	436	694	-	826	752	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.9	11.7	0	1.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1489	-	-	306	954	555	803	1310	-	-
HCM Lane V/C Ratio	0.001	-	-	0.05	0.003	0.029	0.329	0.021	-	-
HCM Control Delay (s)	7.4	-	-	17.4	8.8	11.7	11.7	7.8	-	-
HCM Lane LOS	A	-	-	C	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	1.4	0.1	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	81	155	20	37	71
Future Vol, veh/h	30	81	155	20	37	71
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	400	-	-	230	-
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	33	88	168	22	40	77

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	336	179	0	0	190	0
Stage 1	179	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	659	864	-	-	1384	-
Stage 1	852	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	640	864	-	-	1384	-
Mov Cap-2 Maneuver	640	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	846	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	2.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	640	864	1384	-
HCM Lane V/C Ratio	-	-	0.051	0.102	0.029	-
HCM Control Delay (s)	-	-	10.9	9.6	7.7	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	2	15	0	140	4	115	30	50	110	15
Future Vol, veh/h	9	0	2	15	0	140	4	115	30	50	110	15
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	150	-	-	200	-	-	205	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	85	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	0	2	16	0	165	4	125	33	54	120	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	468	402	128	387	394	142	136	0	0	158	0	0
Stage 1	236	236	-	150	150	-	-	-	-	-	-	-
Stage 2	232	166	-	237	244	-	-	-	-	-	-	-
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	505	537	922	572	542	906	1448	-	-	1422	-	-
Stage 1	767	710	-	853	773	-	-	-	-	-	-	-
Stage 2	771	761	-	766	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	400	515	922	553	520	906	1448	-	-	1422	-	-
Mov Cap-2 Maneuver	400	515	-	553	520	-	-	-	-	-	-	-
Stage 1	765	683	-	850	771	-	-	-	-	-	-	-
Stage 2	629	759	-	735	677	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	10.1	0.2	2.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1448	-	-	400	922	553	906	1422	-	-
HCM Lane V/C Ratio	0.003	-	-	0.024	0.002	0.029	0.182	0.038	-	-
HCM Control Delay (s)	7.5	-	-	14.2	8.9	11.7	9.9	7.6	-	-
HCM Lane LOS	A	-	-	B	A	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	77	72	25	46	81
Future Vol, veh/h	30	77	72	25	46	81
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	400	-	-	230	-
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	33	84	78	27	50	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	280	92	0	0	105	0
Stage 1	92	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	710	965	-	-	1486	-
Stage 1	932	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	686	965	-	-	1486	-
Mov Cap-2 Maneuver	686	-	-	-	-	-
Stage 1	932	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	2.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	686	965	1486	-
HCM Lane V/C Ratio	-	-	0.048	0.087	0.034	-
HCM Control Delay (s)	-	-	10.5	9.1	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.1	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	25	0	350	0	860	70	25	700	0
Future Vol, veh/h	0	0	0	25	0	350	0	860	70	25	700	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	-	-	-	150	-	0	-	-	-	205	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	75	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	27	0	467	0	935	76	27	761	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1408	-	506	-	0	0	1011	0	0
Stage 1	973	-	-	-	-	-	-	-	-
Stage 2	435	-	-	-	-	-	-	-	-
Critical Hdwy	6.84	-	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	-	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	273	0	*733	0	-	-	1043	-	0
Stage 1	689	0	-	0	-	-	-	-	0
Stage 2	620	0	-	0	-	-	-	-	0
Platoon blocked, %	1		1		-	-	1	-	
Mov Cap-1 Maneuver	266	0	*733	-	-	-	1043	-	-
Mov Cap-2 Maneuver	266	0	-	-	-	-	-	-	-
Stage 1	689	0	-	-	-	-	-	-	-
Stage 2	604	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.2	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	266	733	1043	-
HCM Lane V/C Ratio	-	-	0.102	0.637	0.026	-
HCM Control Delay (s)	-	-	20.1	18.1	8.5	-
HCM Lane LOS	-	-	C	C	A	-
HCM 95th %tile Q(veh)	-	-	0.3	4.6	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	215	205	725	75	200	525
Future Volume (veh/h)	215	205	725	75	200	525
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1870	1870	1870
Adj Flow Rate, veh/h	234	223	788	82	217	571
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	305	271	2183	974	516	2590
Arrive On Green	0.17	0.17	0.61	0.61	0.06	0.73
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	234	223	788	82	217	571
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	11.3	12.2	9.9	1.9	3.7	4.7
Cycle Q Clear(g_c), s	11.3	12.2	9.9	1.9	3.7	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	305	271	2183	974	516	2590
V/C Ratio(X)	0.77	0.82	0.36	0.08	0.42	0.22
Avail Cap(c_a), veh/h	505	449	2183	974	550	2590
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	35.6	36.0	8.6	7.1	5.8	3.9
Incr Delay (d2), s/veh	4.1	6.2	0.5	0.2	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	5.1	3.5	0.6	1.1	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.7	42.2	9.1	7.2	6.3	4.1
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	457		870			788
Approach Delay, s/veh	40.9		8.9			4.7
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.3	59.8			70.1	19.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	43.5			55.5	25.5
Max Q Clear Time (g_c+I1), s	5.7	11.9			6.7	14.2
Green Ext Time (p_c), s	0.1	6.3			4.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	25	0	100	0	1025	65	50	650	0
Future Vol, veh/h	0	0	0	25	0	100	0	1025	65	50	650	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	-	-	-	150	-	0	-	-	-	205	-	-
Veh in Median Storage, #	-	1	-	-	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	0	27	0	109	0	1114	71	54	707	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1612	-	593	-	0	0	1185	0	0
Stage 1	1150	-	-	-	-	-	-	-	-
Stage 2	462	-	-	-	-	-	-	-	-
Critical Hdwy	6.84	-	6.94	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	-	3.32	-	-	-	2.22	-	-
Pot Cap-1 Maneuver	*217	0	*664	0	-	-	961	-	0
Stage 1	*627	0	-	0	-	-	-	-	0
Stage 2	*601	0	-	0	-	-	-	-	0
Platoon blocked, %	1		1		-	-	1	-	
Mov Cap-1 Maneuver	*205	0	*664	-	-	-	961	-	-
Mov Cap-2 Maneuver	*205	0	-	-	-	-	-	-	-
Stage 1	*627	0	-	-	-	-	-	-	-
Stage 2	*567	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.2	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	205	664	961	-
HCM Lane V/C Ratio	-	-	0.133	0.164	0.057	-
HCM Control Delay (s)	-	-	25.2	11.5	9	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.6	0.2	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	180	255	825	75	200	475
Future Volume (veh/h)	180	255	825	75	200	475
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1870	1870	1870
Adj Flow Rate, veh/h	196	277	897	82	217	516
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	361	321	1991	888	442	2439
Arrive On Green	0.20	0.20	0.56	0.56	0.07	0.69
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	196	277	897	82	217	516
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	8.9	15.2	13.4	2.2	4.3	4.8
Cycle Q Clear(g_c), s	8.9	15.2	13.4	2.2	4.3	4.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	361	321	1991	888	442	2439
V/C Ratio(X)	0.54	0.86	0.45	0.09	0.49	0.21
Avail Cap(c_a), veh/h	495	440	1991	888	455	2439
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	32.2	34.7	11.6	9.2	8.3	5.2
Incr Delay (d2), s/veh	1.3	12.3	0.7	0.2	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	6.8	4.9	0.7	1.5	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.4	47.0	12.4	9.4	9.1	5.4
LnGrp LOS	C	D	B	A	A	A
Approach Vol, veh/h	473		979			733
Approach Delay, s/veh	41.4		12.1			6.5
Approach LOS	D		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	11.3	55.4			66.8	23.2
Change Period (Y+Rc), s	5.0	5.0			* 5	5.0
Max Green Setting (Gmax), s	7.0	43.0			* 56	25.0
Max Q Clear Time (g_c+I1), s	6.3	15.4			6.8	17.2
Green Ext Time (p_c), s	0.0	7.2			3.8	1.0

Intersection Summary	
HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	3	25	0	350	1	860	70	25	700	5
Future Vol, veh/h	14	0	3	25	0	350	1	860	70	25	700	5
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	150	-	-	200	-	-	205	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	75	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	0	3	27	0	467	1	935	76	27	761	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1288	1831	383	1410	1795	506	766	0	0	1011	0	0
Stage 1	818	818	-	975	975	-	-	-	-	-	-	-
Stage 2	470	1013	-	435	820	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*445	261	*801	*445	290	*733	*1198	-	-	1043	-	-
Stage 1	*708	631	-	*686	602	-	-	-	-	-	-	-
Stage 2	*691	570	-	*755	629	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*158	254	*801	*434	283	*733	*1198	-	-	1043	-	-
Mov Cap-2 Maneuver	*158	254	-	*434	283	-	-	-	-	-	-	-
Stage 1	*708	614	-	*685	601	-	-	-	-	-	-	-
Stage 2	*251	569	-	*733	613	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	26.5	17.9	0	0.3
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	* 1198	-	-	158	801	434	733	1043	-	-
HCM Lane V/C Ratio	0.001	-	-	0.096	0.004	0.063	0.637	0.026	-	-
HCM Control Delay (s)	8	-	-	30.2	9.5	13.8	18.1	8.5	-	-
HCM Lane LOS	A	-	-	D	A	B	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0.2	4.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	215	206	725	75	202	526
Future Volume (veh/h)	215	206	725	75	202	526
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1870	1870	1870
Adj Flow Rate, veh/h	234	224	788	82	220	572
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	306	272	2178	972	516	2588
Arrive On Green	0.17	0.17	0.61	0.61	0.07	0.73
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	234	224	788	82	220	572
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	11.3	12.3	9.9	1.9	3.8	4.7
Cycle Q Clear(g_c), s	11.3	12.3	9.9	1.9	3.8	4.7
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	306	272	2178	972	516	2588
V/C Ratio(X)	0.77	0.82	0.36	0.08	0.43	0.22
Avail Cap(c_a), veh/h	505	449	2178	972	548	2588
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	35.5	36.0	8.7	7.1	5.8	4.0
Incr Delay (d2), s/veh	4.0	6.2	0.5	0.2	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	5.1	3.5	0.6	1.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	39.5	42.1	9.1	7.3	6.4	4.2
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	458		870			792
Approach Delay, s/veh	40.8		9.0			4.8
Approach LOS	D		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.4	59.7			70.1	19.9
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	43.5			55.5	25.5
Max Q Clear Time (g_c+I1), s	5.8	11.9			6.7	14.3
Green Ext Time (p_c), s	0.1	6.3			4.3	1.2

Intersection Summary	
HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	2	25	0	100	4	1025	65	50	650	15
Future Vol, veh/h	9	0	2	25	0	100	4	1025	65	50	650	15
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	150	-	-	200	-	-	205	-	-
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	10	0	2	27	0	109	4	1114	71	54	707	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1388	2016	362	1620	1989	593	723	0	0	1185	0	0
Stage 1	823	823	-	1158	1158	-	-	-	-	-	-	-
Stage 2	565	1193	-	462	831	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*477	130	*835	*445	*141	*664	1202	-	-	961	-	-
Stage 1	*623	580	-	*626	*549	-	-	-	-	-	-	-
Stage 2	*626	521	-	*787	*574	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*380	123	*835	*423	*133	*664	1202	-	-	961	-	-
Mov Cap-2 Maneuver	*380	123	-	*423	*133	-	-	-	-	-	-	-
Stage 1	*621	547	-	*624	*547	-	-	-	-	-	-	-
Stage 2	*522	520	-	*741	*542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.7	12	0	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1202	-	-	380	835	423	664	961	-	-
HCM Lane V/C Ratio	0.004	-	-	0.026	0.003	0.064	0.164	0.057	-	-
HCM Control Delay (s)	8	-	-	14.7	9.3	14.1	11.5	9	-	-
HCM Lane LOS	A	-	-	B	A	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.2	0.6	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	180	257	827	75	201	476
Future Volume (veh/h)	180	257	827	75	201	476
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	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	1870	1870	1870
Adj Flow Rate, veh/h	196	279	899	82	218	517
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	357	318	2064	921	454	2486
Arrive On Green	0.20	0.20	0.58	0.58	0.07	0.70
Sat Flow, veh/h	1781	1585	3647	1585	1781	3647
Grp Volume(v), veh/h	196	279	899	82	218	517
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1585	1781	1777
Q Serve(g_s), s	8.9	15.4	12.8	2.1	4.1	4.6
Cycle Q Clear(g_c), s	8.9	15.4	12.8	2.1	4.1	4.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	357	318	2064	921	454	2486
V/C Ratio(X)	0.55	0.88	0.44	0.09	0.48	0.21
Avail Cap(c_a), veh/h	426	379	2064	921	480	2486
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	32.3	34.9	10.6	8.3	7.5	4.8
Incr Delay (d2), s/veh	1.3	18.0	0.7	0.2	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	7.4	4.6	0.7	1.4	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.6	52.9	11.3	8.5	8.3	4.9
LnGrp LOS	C	D	B	A	A	A
Approach Vol, veh/h	475		981			735
Approach Delay, s/veh	44.9		11.0			5.9
Approach LOS	D		B			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.7	56.8			67.4	22.6
Change Period (Y+Rc), s	4.5	4.5			4.5	4.5
Max Green Setting (Gmax), s	7.5	47.5			59.5	21.5
Max Q Clear Time (g_c+I1), s	6.1	14.8			6.6	17.4
Green Ext Time (p_c), s	0.1	7.5			3.8	0.7

Intersection Summary	
HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

ERO Resources Corporation

Denver 1626 Cole Boulevard, Suite 100, Lakewood, CO 80401
Durango 835 East 2nd Avenue, Suite 314, Durango, CO 81301
Grand Junction 715 Horizon Drive, Unit 301, Grand Junction, CO 81506
Idaho 7154 West State Street, Suite 398, Boise, ID 83714

November 17, 2025

TO: Cayd Bader
Crowfoot Valley Land, LLC
7887 East Belleview Avenue, Suite 1100
Denver, CO 80111

FROM: Jared Watson, Biologist, ERO Resources Corporation (ERO)

RE: Wildlife Analysis Memorandum, Bayou Gulch Road and Presidio Parkway Development Project, Douglas County, Colorado

ERO Resources Corporation (ERO) is providing this Technical Memorandum to provide the results of the desktop habitat assessment for important big game and movement corridors that might be affected by the Bayou Gulch and Presidio Parkway Development Project (project) west of Bayou Gulch Road in Douglas County, Colorado (project area; Figure 1). As part of the review process, Crowfoot Valley Land, LLC (CVL) retained ERO to provide a natural resources assessment for a portion of the project area.

The natural resources and associated regulations described in this report are valid as of the date of this report and may be relied upon for the specific use for which it was prepared by ERO under contract with CVL. Because of their dynamic natures, site conditions and regulations should be reconfirmed by a qualified consultant before relying on this report for a use other than that for which ERO was contracted.

Project Location

The project area is in Section 9, Township 7 South, Range 66 West of the 6th Principal Meridian in Douglas County, Colorado (Figure 1). The UTM coordinates of the approximate center of the project area are NAD 83 518149mE, 4366877mN, Zone 13 North. The longitude/latitude of the project area is -104.789065°W/39.451263°N. The elevation of the project area is approximately 6,200 feet above sea level.

Project Background

CVL is planning to develop a larger 78 acre parcel, into approximately thirty-two 1.1 to 1.8 acre lots for residential purposes (approximately 45 acres; attached conceptual design plans). CVL will employ best management practices to ensure that any wildlife using or passing through the project area will continue to have pathways available through the project area after development. Implementation of green spaces and open corridors on the edges and the center of the development will allow for animal movement throughout the project area (see attached conceptual design plans).

Project Area Description

The project area is approximately 79 acres located west of Bayou Gulch Road in Douglas County, Colorado, which is planned for future residential development. Bayou Gulch Road is east of the project area, residential developments are to the north and south, and a fallow field is to the west (Figure 2). The area surrounding the project area has gradually been developed for agricultural and residential use, and appears to have been continuously disturbed by development activities for more than 30 years. Residential development appears to have started in the general area in the late 1990s (Google 2025). The project area is proposed for residential development. Vegetation in the project area appears to consist of a sparsely vegetated shortgrass prairie with clusters of shrubs. Dominant species in the upland grassland community are typically composed of a mixture of native and nonnative species, including slender wheatgrass (*Elymus trachycaulus*), white horehound (*Marrubium vulgare*), prickly lettuce (*Lactuca serriola*), field bindweed (*Convolvulus arvensis*), and smooth brome (*Bromus inermis*). An approximately 6-foot-wide concrete irrigation canal runs north-to-south in the project area and appears to terminate at a stormwater outfall in the adjacent residential development.

Vegetation Communities

Wildlife habitat in the project area correlates with the existing vegetation communities and topographic features. The primary vegetation communities found in the project area are shortgrass prairie (degraded and developed/disturbed) and riparian. Each primary vegetation community is described in more detail below.

Shortgrass Prairie – Degraded

The shortgrass-prairie – degraded community in the project area is typically comprised of shortgrass prairie vegetation that has been degraded by prairie dog grazing, which is evident on aerial images (Google 2025). The highest occurrences of noxious weeds occur in this habitat type. This vegetation community appears to be the dominant type in the project area. Species commonly include fringed sage (*Artemisia frigida*), smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*), crested wheatgrass (*Agropyron cristatum*), kochia (*Bassia scoparia*), field bindweed (*Convolvulus arvensis*), and Gambel oak (*Quercus gambelii*).

Black-tailed prairie dog (*Cynomys ludovicianus*) colonies appear to be present throughout the project area (Google 2025). Typically, small predators, such as coyote (*Canis latrans*), red fox (*Vulpes vulpes*), and prairie rattlesnake (*Crotalus viridis*), use this vegetation community to hunt small rodents, ground-nesting birds, and reptiles.

Shortgrass Prairie – Developed/Disturbed

The shortgrass prairie – developed/disturbed community in the project area primarily lacks vegetation due to previous human disturbance. However, the locations that contain vegetation have been severely degraded due to the presence of noxious weeds and grazing. This community is dominated by species such as smooth brome, cheatgrass, Canada thistle (*Cirsium arvense*), and Scotch thistle (*Onopordum acanthium*), with limited occurrences of chokecherry (*Prunus virginiana*), Woods' rose (*Rosa woodsii*), and Gambel oak.

Riparian

Riparian habitat is present in the northwest portion of the project area and outside of the project area along Cherry Creek. Commonly occurring plant species in the riparian habitat include smooth brome, redtop (*Agrostis gigantea*), reed canarygrass (*Phalaris arundinacea*), ricecut grass (*Leersia oryzoides*), narrowleaf willow (*Salix exigua*), chokecherry, western snowberry (*Symphoricarpos orbiculatus*), and Woods' rose.

Of note, Cherry Creek outside of the project area provides water, protective cover, foraging, and nesting habitat for big game, other wildlife, and birds. Several wildlife species dwell in this vegetation community, while others use it as a passageway. Maintaining these areas as habitat corridors would contribute to the colonization, migration, and breeding of wildlife species.

Wildlife Habitat

High Priority Habitat and Large Game

In 2021, Colorado Parks and Wildlife (CPW) released a High Priority Habitat (HPH) table that identifies species and habitats, as well as recommendations to avoid and minimize impacts on wildlife from land use development (CPW 2025). ERO reviewed data from CPW map databases and determined that no HPH areas overlap the project area (CPW 2025). Although no HPH or big game migration and movement corridors occur in the project area, ERO assessed the project area for potential habitat for species and habitats during the desktop analysis. Of note, CPW mapped elk overall range, resident population HPH does occur approximately 0.25 miles west of the project area, and it is possible that elk pass through the project area on their way to higher quality habitat; however it is unlikely that elk travel frequently through the project area because CPW HPH severe winter range and production areas are mapped further south and west of the project area. Because the project area is located in mule deer overall range and pronghorn resident population, these species are discussed in more detail below.

Mule Deer

Species Background

Mule deer are found in all ecosystems in Colorado, from grasslands to alpine tundra. Spring and summer ranges are typically mosaics of meadows, aspen woodlands, alpine tundra-subalpine forest edges, or montane forest edges (Fitzgerald et al. 1994). Seasonally, mule deer are relatively sedentary, although most will spend the summer at higher elevations and migrate to lower elevations in the winter. Mule deer diets vary seasonally but generally consist of browse from trees and shrubs, forbs, and grasses.

Potential Habitat and Possible Effects

The project area is within mule deer overall range and is adjacent to mule deer summer and winter concentration areas (Natural Diversity Information Source [NDIS] 2025). Additionally, the Cherry Creek corridor approximately 1 mile to the east is a known mule deer concentration area (Colorado Natural Heritage Program [CNHP] 2022). No mule deer HPH areas, which includes migration corridors, severe winter range, and winter concentration areas, are located in the project area (CPW 2025; NDIS 2025). The closest mule deer winter concentration area is approximately 0.75 mile southwest of the project area near the Pradera Golf Course development. It is likely that mule deer forage along Cherry Creek and cross through the project area. It is unlikely that the project would adversely affect mule deer given

the level of human disturbance and development. Additionally, the project would not impede access to habitat along Cherry Creek or summer and winter concentration areas.

Pronghorn

Species Background

The pronghorn inhabits grasslands and semidesert shrublands on rolling topography that provides good visibility (Fitzgerald et al. 1994). Pronghorns tend to favor vast expanses of open areas and are typically sensitive to human presence, including residential and commercial development and habitat loss (Sawyer and Lindzey 2000). Pronghorns primarily occupy grasslands, sagebrush plains, deserts, and foothills. In Colorado, pronghorns occur on the eastern plains, in large mountain parks and valleys, and in shrublands on the Western Slope (Fitzgerald et al. 1994; NatureServe 2022).

Pronghorns are considered browsers, typically feeding on sagebrush throughout the year, in addition to leafy forage in summer(CPW 2017). They eat several plants that are unpalatable or toxic to livestock, which allows them to coincide in areas alongside cattle. Pronghorns generally live in social groups throughout the year (Byers 1997). Pronghorns typically mate in the fall from mid-September to mid-October, but in southern states may start breeding as early as late July (CPW 2017; NatureServe 2022). In Colorado, pronghorns typically give birth in the first half of June (NatureServe 2022).

Potential Habitat and Possible Effects

The entire project area is in pronghorn overall range and a known resident population (CNHP 2024). No pronghorn HPH areas, which include migration corridors and winter concentration areas, are located in the project area (CPW 2025). The closest HPH, a winter concentration area, is more than 8 miles northeast of the project area. Although pronghorns could potentially forage in the project area, it is unlikely that the project would adversely affect pronghorns because the project area is already at the edge of pronghorn overall range and the project would not impede access to suitable habitat.

Recommendations

Due to the high level of human disturbance in the project area and surrounding areas, ERO has concluded that the project activities will likely only temporarily disturb mule deer and pronghorns passing through the project area; however, any resident pronghorn using the habitat would permanently lose access to grazing areas. Additionally, because no HPH for mule deer or pronghorn occurs in the project area, consultation with CPW is not required.

Wildlife-friendly fencing should be used in accordance with CPW guidance; for more information on this, please refer to the CPW document “Fencing with Wildlife in Mind” available at the CPW website https://cpw.widencollective.com/assets/share/asset/vlrphdeji6. Future residents should be educated on wildlife interactions and provided with links to CPW’s educational websites for “Living with Wildlife” and “Avoid Wildlife Conflicts” https://cpw.state.co.us/living-wildlife.

SIGNED:



Jared Watson
Biologist

Attachments: Figure 1, Figure 2, Figure 3, and Conceptual Design Plans

References

Byers, John. 1997. *American Pronghorn: Social Adaptations and Ghosts of Predators Past*. Chicago University Press.

Colorado Natural Heritage Program. 2024. "Colorado's Conservation Data Explorer (CODEX)." https://codex.cnhp.colostate.edu/.

Colorado Parks and Wildlife. 2017. "Pronghorn Species Profile." November 13. https://cpw.state.co.us/learn/Lists/Wildlife%20Species/DispForm.aspx?ID=27.

Colorado Parks and Wildlife. 2025. "Colorado Parks & Wildlife High Priority Habitat (HPH) Web Map Application." Map Database. ArcGIS, February 21. https://www.arcgis.com/apps/instant/basic/index.html?appid=d4ab1b022c7f473880d0aa5f18937d33.

Fitzgerald, J.P., C.A. Meaney, and D.M. Armstrong. 1994. *Mammals of Colorado*. Denver Museum of Natural History and University Press of Colorado.

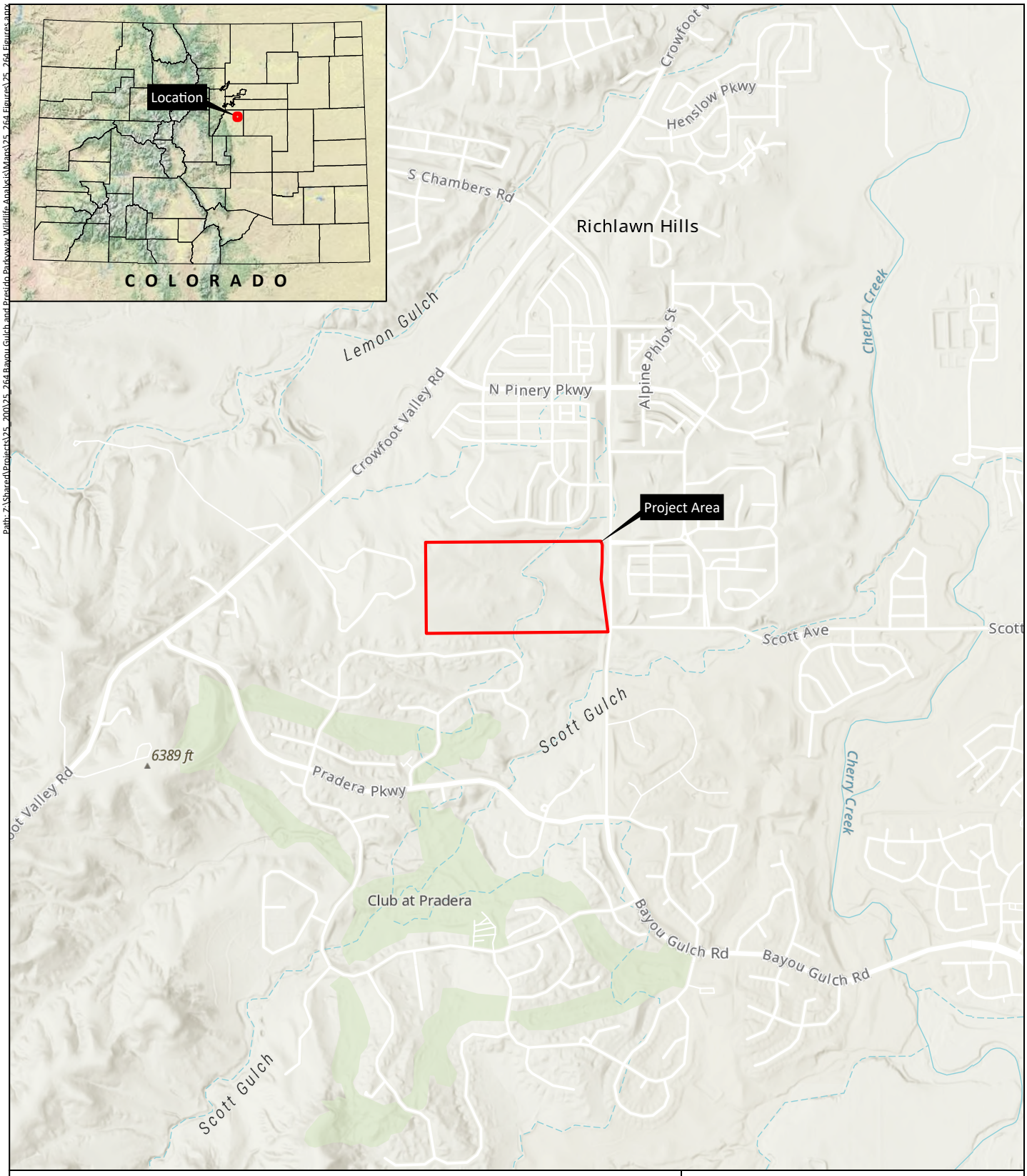
Google Earth. 2023. *Map Showing Project Area in Las Animas County, Colorado.* https://earth.google.com/web/search/Trinidad,+CO/@37.17985645,-104.48346595,1837.57304181a,14817.51227652d,35y,0h,0t,0r/data=CncaTRJHCiUweDg3MTExYjYzMTdiMTQ1MTE6MHhlNjdhMTQ5OTkwZjYxOGRiGRDwWviwlUJAIUk03NsIIFrAKgxUcmluaWRhZCwgQ08YAiABIiYKJAmZdIHyXbA1QBGXdIHyXbA1wBkeLTz6cmZCQCHImAwlTcNQwA.

Google Earth. 2025. "Google Earth Pro." Online database. Google Earth Pro Version 7.3.3.7786 (64-Bit). https://earth.google.com/web/@0,0,0a,22251752.77375655d,35y,0h,0t,0r.

Natural Diversity Information Source. 2025. "Natural Diversity Information Source." Colorado Parks and Wildlife: Colorado Hunting Atlas. https://ndismaps.nrel.colostate.edu/index.html?app=HuntingAtlas.

NatureServe. 2022. "NatureServe Explorer: An Online Encyclopedia of Life." https://explorer.natureserve.org/.

Sawyer, H., and F. Lindzey. 2000. "Jackson Hole Pronghorn Study." Wyoming Cooperative Fish and Wildlife Research Unit, Larimer, WY.



Path: Z:\Shared\Projects\25_200\25_264 Bayou Gulch and Presidio Parkway Wildlife Analysis\Maps\25_264 Figures\25_264 Figures.aprx

Bayou Gulch Road and Presidio Parkway Development Project

Section 9, T7S, R66W; 6th PM

UTM NAD 83: Zone 13N; 518149mE, 4366877mN

Longitude 104.789065°W, Latitude 39.451263°N

USGS Castle Rock North, CO Quadrangle

Douglas County, Colorado

USA_Topo_Maps: Copyright:© 2013 National Geographic Society, i-cubed
World Topographic Map: Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community
Terrain: Esri, NASA, NGA, USGS, FEMA

0 1,000 2,000 feet

N

Figure 1
Vicinity Map

Prepared for: Crowfoot Valley Land. LLC
File: 25_264 Figures.mxd [dlH]
October 13, 2025

ERO Resources Corp.

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Bayou Gulch Road and Presidio Parkway Development Project

- Project Area
- Canal/Ditch
- Intermittent Stream
- NHD Intermittent Waterbody

NWI Wetlands
- Riverine

The entire Project Area is in mapped Colorado Parks and Wildlife Overall Range for: black bear, mountain lion, mule deer, and pronghorn; and resident population for pronghorn.

N

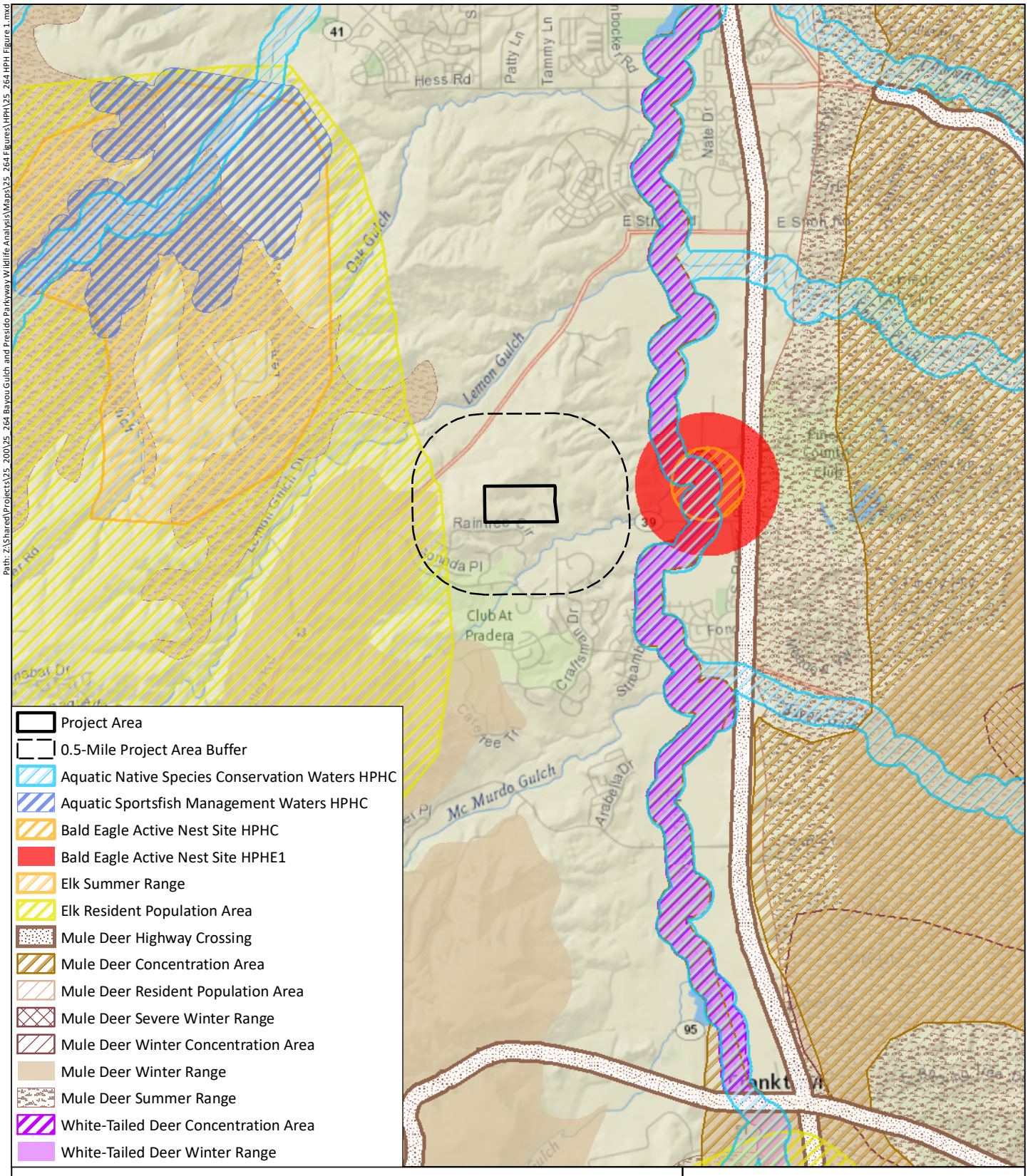
0 200 400 feet

Figure 2
Existing Conditions

Prepared for: Crowfoot Valley Land. LLC
File: 25_264 Figures.mxd [dlH]
October 31, 2025

ERO Resources Corp.

Hybrid Reference Layer: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
World Imagery: Vantor



Path: Z:\Shared\Projects\25_200\25_264 Bayou Gulch and Presido Parkway Wildlife Analysis\Maps\25_264 Figures\HPH\25_264 HPH Figure 1.mxd

Bayou Gulch Road and Presido Parkway Development Project

Figure 3
CPW Wildlife Habitat

Prepared for: Crowfoot Valley Land. LLC
File: 25_264 HPH Figure 1.mxd [dlH]
November 18, 2025

ERO Resources Corp.

National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Land Use Summary			
Site Acreage		Lot Info	
Open Space	28.1	Number of Lots	32
Detention	1.3	Underlying Zoning	ER
Lots	42.1	Front Setback	25'
Right-Of-Way	9.5	Side Setback	15'
TOTAL	**81**	Rear Setback	25'

Trails at Crowfoot

Bayou Gulch Rd.

Gate House

+/-100'

101'

156.2'

57.6

FUTURE SECONDARY ACCESS, RIGHT OF WAY DEDICATED BY THIS PLAT

LOT LINE

PROPERTY LINE

N89°29'28"E 2658.54'

200.0'

10 1.5 Ac
9 1.5 Ac
8 1.3 Ac
7 1.4 Ac
6 1.4 Ac
5 1.4 Ac
4 1.3 Ac
3 1.2 Ac
2 1.4 Ac
1 1.8 Ac
11 1.4 Ac
12 1.3 Ac
25 1.2 Ac
24 1.1 Ac
23 1.1 Ac
22 1.2 Ac
21 1.1 Ac
32 1.1 Ac
31 1.1 Ac
26 1.4 Ac
13 1.4 Ac
16 1.5 Ac
20 1.2 Ac
19 1.1 Ac
27 1.1 Ac
30 1.1 Ac
14 1.6 Ac
15 1.6 Ac
18 1.3 Ac
17 1.3 Ac
29 1.2 Ac
28 1.5 Ac

Detention Area

230.1'

218.6'

107.1'

32.5'

128.8'

35.5'

S89°31'35"W 2656.90

Arlington Dr.

+/-135'

+/-118'

+/-75'

+/-100'

+/-156'

Alison Ranch

Pradera

bloom

Bloom Douglas County, CO

Site Plan Illustrative | September, 2025

25' 50' 100'

pcs group

November 19, 2025

Affinity At Crowfoot
Attn: Cayd Bader
P.O. Box 1143
Broomfield, Co 80020

RE: Will Serve Letter – Douglas County, State of Colorado.
Conditional Will Serve Letter – Parker Water & Sanitation District to provide Water and Sanitation Services to **Bloom Development.**

Account #:R0135626
State Parcel #:2349-090-00-002
SW1/4SW1/4 9-7-66 40.00 AM/L

Account #:R0480779
State Parcel #:2349-093-00-001
SE1/4SW1/4 9-7-66 40 AM/L

Dear Sirs:

The Parker Water & Sanitation District (PWSD) acknowledges its willingness and ability to serve the **"Bloom Development"** described above. The parcel is identified as future build out and will be part of PWSD upon successful completion of inclusion. And that Sanitary Sewer services may be provided to the development through an Inter-Governmental Agreement (IGA) between PWSD and the Pinery Water & Wastewater (Pinery) District.

COMMITMENT TO SERVE

PWSD is committed to providing service to all future developments within its service area, based on the water supply sources available within the PWSD's water rights portfolio. Such commitment to provide service is conditioned upon compliance with all successful inclusion into the District, PWSD Rules and Regulations, Standard and Specifications, and/or conditions specific to the property; including payment of the appropriate fees and any charges related to water and/or sanitation service, as established from time to time by PWSD Directors.

DISTRICT WATER DEMAND

The current PWSD water demand is approximately 7,700 acre-feet per year (AF/yr), while at build out, the total of 23,500 AF/yr. The proposed development of **"Bloom Development"** will be included in our future projections.

PROPOSED BLOOM DEMAND (1805A)

The projected Bloom demand based on PWSD Section 3, Rules and Regulations, Landscape/Irrigation worksheet is equivalent to 46.2 Acre feet/yr; which equates to 32 single-family equivalent taps (SFEs), with additional needs of approximately 10 single-family equivalents (SFE) for landscape irrigation. The districts demand calculation of 1.1 Acre Feet/yr. Per SFE plus additional irrigation requirements require a higher standard than the Douglas County's 1805A of 0.75 Acre Feet/Yr per residence.

DISTRICT WATER SUPPLY

PWSD has an extensive water rights portfolio of adjudicated Denver Basin aquifer groundwater rights, both junior and senior tributary water rights, storage rights in Rueter-Hess Reservoir of 71,920 AF, return flows from effluent and lawn irrigation for use in the PWSD augmentation plan.

The attached Table 1 summarizes PWSD's adjudicated first-use rights, which indicates a total of 41,134 AF/yr (the anticipated yield of these rights in both an average and dry year (Section 1805A.01.2(2)b. of the DCZR). Not included in Table 1 are the rights associated with storage in Rueter-Hess Reservoir or any of PWSD's reuse rights, which will provide significant additional supplies to PWSD.

In summary, with the estimated buildout demand of 23,500 AF/yr, and PWSD's 41,134 AF/yr of adjudicated first-use water rights and the Denver Basin groundwater that **"Bloom Development"** will dedicate with successful inclusion, PWSD has significant excess water supplies which can serve **"Bloom Development"**, and all future planned buildout within PWSD.

PROPOSED USES

The Bloom Development proposed uses correspond to the allowed uses of the District's Water Rights.

WATERQUALITY

PWSD is in compliance with the Colorado Department of Public Health and Environment testing and quality requirements and provides a high-quality water supply to all customers.

SANITARY SERVICE

PWSD shall provide sanitary service for all taps requested for Bloom Development upon successful inclusion to the District.

FEASIBILITY OF SERVICE

It is physically and economically feasible for PWSD to provide service to the proposed development of **"Bloom Development."**

If you have any questions regarding any of the information provided or PWSD's ability to provide service to the proposed development, please do not hesitate to call us.

Sincerely,
Parker Water & Sanitation District

Heather Justus
Water Resource Manager

Attachments and Links:

Exhibit Plan
Table 1 Summary of PWSD Water Rights
Map of the existing PWSD's service area (Section 1805A.01.2(2)f. of the DCZR)
2022 Evidence of potability of PWSD's water supply for the subdivision (Section 1805A.01.2(3) of the DCZR). 2022
https://www.pwsd.org/DocumentCenter/View/3584/2022-Consumer- Confidence-Report-PDF?bidId=
2023 Consumer Confidence Report
https://www.pwsd.org/DocumentCenter/View/3763/2023- PWSD-Consumer-Confidence-Report-PDF

TABLE 1
SUMMARY OF PWSD WATER RIGHTS

DECREED WATER AVAILABLE FOR PWSD USE

SOURCE	Volume (ac-ft/yr) Decreed in Case No.												
	83CW348(A)	95CW039	87CW104(A) [2]	87CW104(B) [2]	95CW089 [2]	99CW006 [2]	06CW179 [2]	02CW227 [3]	94CW042 [4]	03CW258, et al[5]	82CW434 [6]	85CW448, 04CW348 [7]	TOTAL
Cherry Creek alluvium [1]	726.7	132.3										24,130	859.0
Lower Dawson-NT			742.6	631.8	391.8	430.2	868.6	30.6	178.3	821.0	364.0		4,458.9
Lower Dawson-NNT			219.4	0.0	79.5	380.8	807.6						1,487.3
Denver-NT			430.1	908.6	272.6	611.9	235.6	94.4	104.0	1258.0	422.0		4,337.2
Denver-NNT			1016.2	9.0	377.9	616.1	1980.6						3,999.8
Arapahoe-NT			1161.7	627.0	698.3	1945.7	2447.1	64.5	547.3	2954.0	487.0		10,932.6
Laramie-Fox Hills-NT			1044.1	625.3	419.2	700.8	1350.0	49.4	16.0	980.0	310.0		5,494.8
												TOTAL[8] =	**31,569.6**

DENVER BASIN WATER DEEDED AS PART OF INCLUSION (NOT CURRENTLY PART OF PWSD WELL FIELDS)

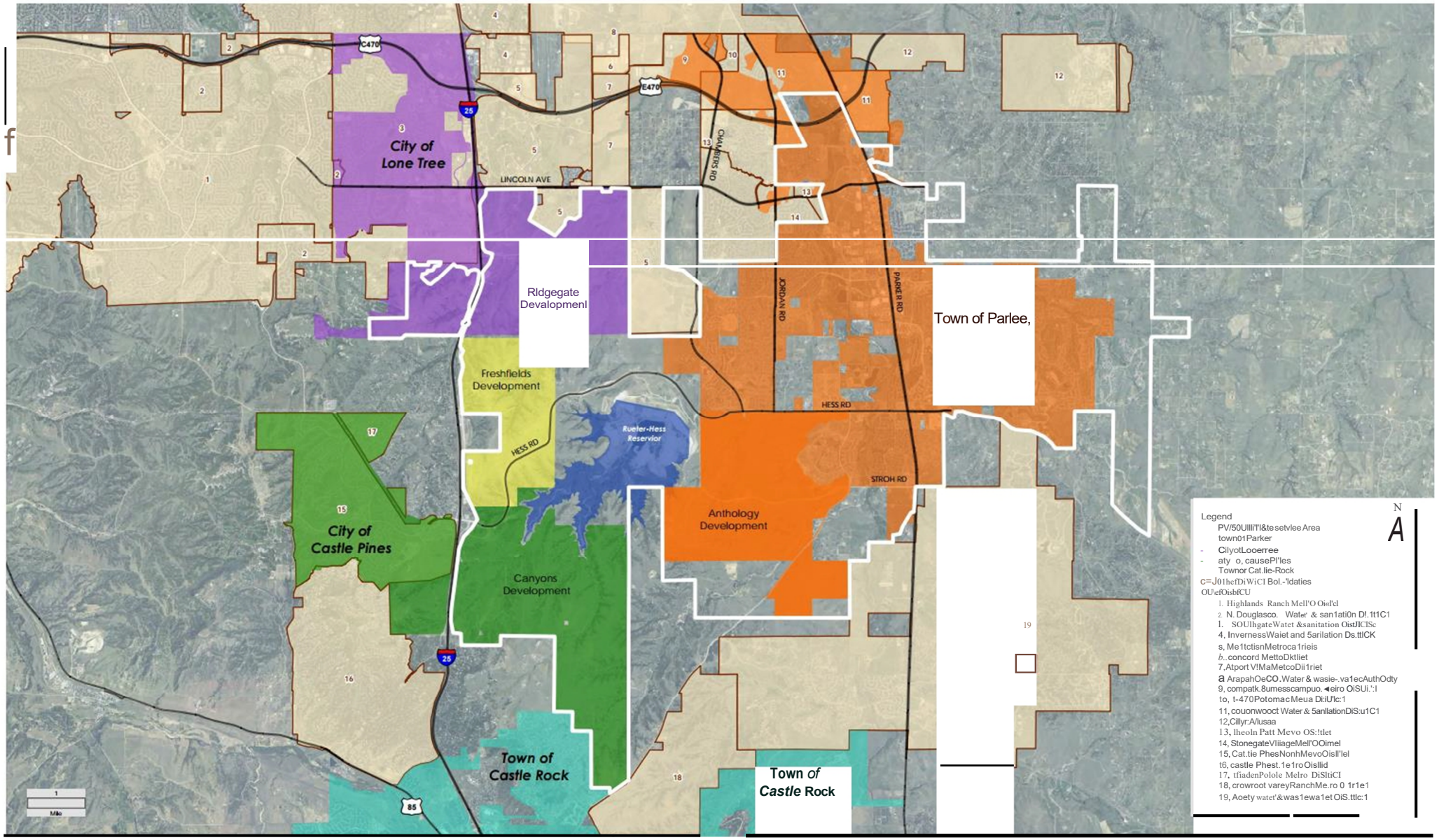
SOURCE	Annual Volume (ac-ft) Dedicated as Part of PWSD Inclusion[9]												
	Carousel Farms	Cielo	Developmental Pathways	Dransfeldt Place	Gregg East	Harvie Park	Hess Ranch	Hess Road Gailen Buck	Hess Road Town of Parker	Meadowlark	Miller Creek	Parker Parcel	Parker Homestead Parcel A
Upper Dawson - NNT		13.8				4.1	38.4						
Lower Dawson-NT		41.8	0.4	1.7	1.7	20.0	457.6	6.0	4.7	19.4	5.7	14.5	
Lower Dawson-NNT	11.2												51.0
Denver-NT		73.4			3.1	24.6	655.0	7.5	6.1	89.1	7.9	20.4	
Denver-NNT	18.1		0.5	9.1			164.6						71.0
Arapahoe-NT	17.6	75.2	0.5	8.1	3.1	0.0	780.7	8.3	6.6	108.4	7.0	21.4	75.3
Laramie-Fox Hills-NT	11.3	47.4	0.3	6.3	2.3	22.6	474.7	5.1	4.0	65.0	5.7	14.2	45.9

SOURCE	Annual Volume (ac-ft) Dedicated as Part of PWSD Inclusion[9]										
	Parker Point	Public Service CO Sec 20	Public Service CO Sec 21	Public Service CO Sec 22	Reata Ridge Parcel	Salisbury Heights	Sierra Ridge	Steven's Ranch	Stroh Ranch Parcel	Twenty Mile Town Center II	TOTAL
Upper Dawson - NNT								43.8			100.1
Lower Dawson-NT	4.2		3.7		15.4	4.1		442.8	595.9	0.9	1640.5
Lower Dawson-NNT		4.4		6.4			77.9				150.9
Denver-NT	5.8			10.4	21.4	5.1		318.4	855.7	1.3	2105.1
Denver-NNT		6.6	4.8				132.5	387.2			794.4
Arapahoe-NT	7.4	6.6	4.9	9.4	26.4	5.4	143.1	724.0	920.3	1.2	2960.8
Laramie-Fox Hills-NT	4.6	4.0	3.2	7.3	16.5	3.5	89.6	431.5	546.7	0.9	1812.6
										TOTAL =	**9,564.4**

GRAND TOTAL (DENVER BASIN AND CHERRY CREEK WATER RIGHTS)[10] =	41,134.0

1) Water rights changed to municipal use. All of this water is fully consumable and reusable.
2) PWSD well field decree.
3) Hover parcel.
4) Well field established between PWSD and Stroh Ranch for full Stroh Ranch water supply, but water availability limited to volume of water deeded to PWSD from Stroh Ranch.
5) Rights also include water decreed in 82CW116, W-8033, 81CW403, 83CW333, and 98CW459. Water deeded to PWSD from RidgeGate property but not part of the PWSD well fields.
6) Water deeded to PWSD from Freshfields property but not part of the PWSD well fields.
7) Combined RHR and Lake Gulch storage rights - RHR as alternate place of storage, not included in totals
8) Total potential yield of these rights
9) All wellfield inclusion volumes are preliminary and subject to change
10) Updated March, 2019

PWSD Service Area



March 25, 2026

Cayd Bader, CEO
Affinity Holdings, LLC
303-246-6799

Re: District Inclusion Deferral Request for the Bloom Preliminary Plan
Project No. SB2025-017

Dear Mr. Bader:

Thank you for submitting your request for a deferral of the requirement to submit evidence of inclusion of the Bloom Preliminary Plan property into the Parker Water and Sanitation District. It is our understanding that the inclusion process is underway and will be completed prior to consideration by the Board of County Commissioners (Board) of a final plat for the project. It is also our understanding that waiting for completion of the property's inclusion into the Parker Water and Sanitation District prior to approval of the preliminary plan could result in delays for the project.

Pursuant to Section 406.07, the requested deferral of the submittal requirement for evidence of inclusion of the Bloom Preliminary Plan property into the Parker Water and Sanitation District is granted, on the condition that such evidence must be submitted prior to consideration of the first final plat associated with the Bloom Preliminary Plan by the Board.

Best regards,

Katherine E. Carter

Kati Carter, AICP
Director of Community Development

Mike Pesicka, Principal Planner
Jeanette Bare, AICP, Planning Manager
Steven E. Koster, AICP, Deputy Director of Community Development

BLOOM PRELIMINARY PLAN

SITUATED IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 6 TRACTS, SB2025-017

LEGAL DESCRIPTION:

THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, AND THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO.

BASIS OF BEARINGS:

BEARINGS ARE BASED ON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE NORTH END BY A 3-1/4" ALUMINUM CAP STAMPED "ARCHER & ASSOC 1986 PLS 6935" AND AT THE SOUTH END BY A 3-1/4" ALUMINUM CAP STAMPED "1989 PLS 13213". SAID WEST LINE BEARS SOUTH 00°23'24" EAST.

GENERAL NOTES:

1. LAND TITLE GUARANTEE COMPANY ORDER NO. ABC70686281-6, EFFECTIVE DATE 07/20/2022. WAS RELIED UPON FOR RECORD INFORMATION REGARDING RIGHTS-OF-WAY, EASEMENTS AND ENCUMBRANCES. THIS SURVEY DOES NOT REPRESENT A TITLE SEARCH BY ATWELL, LLC. TO DETERMINE OWNERSHIP, RIGHTS-OF-WAY, EASEMENTS OR OTHER MATTERS OF PUBLIC RECORD.

2. DISTANCES ON THIS PLAN ARE GROUND DISTANCES EXPRESSED IN U.S. SURVEY FEET AND DECIMALS THEREOF. A U.S. SURVEY FOOT IS DEFINED AS EXACTLY 1200/3937 METERS.

3. STORM SEWER DRAINAGE EASEMENTS WILL BE GRANTED TO DOUGLAS COUNTY AT THE TIME OF FINAL PLAT TO ACCOMMODATE DRAINAGE INFRASTRUCTURE WITHIN TRACTS A AND C FOR THE PURPOSES OF ACCESSING, MAINTAINING, AND REPAIRING STORM WATER MANAGEMENT IMPROVEMENTS, INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, HYDRAULIC STRUCTURES (COLLECTIVELY, THE "STORM FACILITIES").

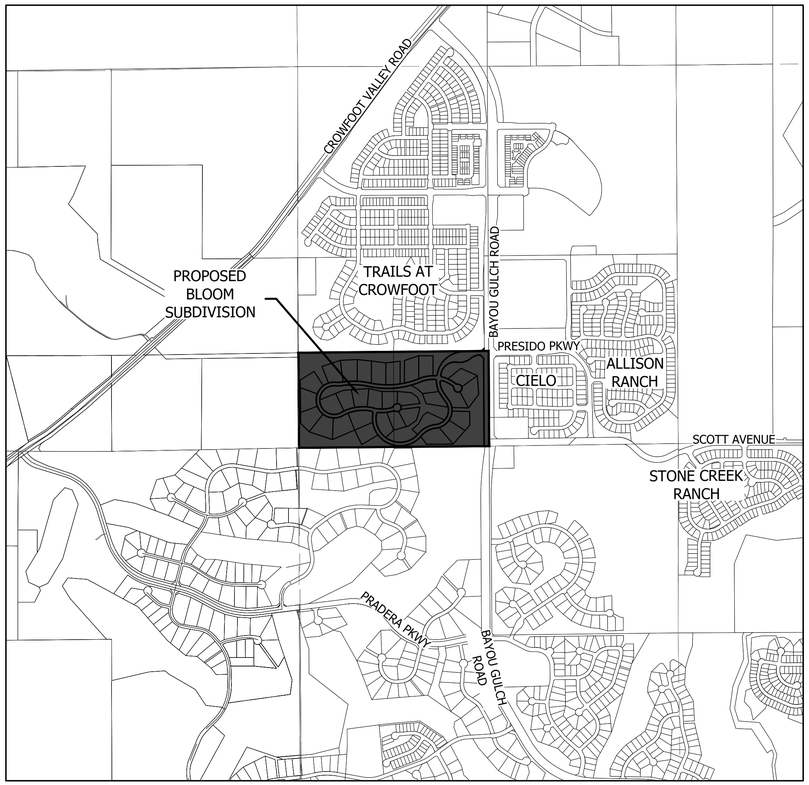
4. THE MAINTENANCE AND REPAIR OF THE STORM FACILITIES LOCATED IN THE SUBDIVISION WILL BE ACCEPTED BY DOUGLAS COUNTY AT THE TIME OF FINAL PLAT AND WILL BE THE RESPONSIBILITY OF THE SYSTEM OWNER. IN THE EVENT SUCH MAINTENANCE AND REPAIRS ARE NOT PERFORMED BY THE SYSTEM OWNER TO THE SATISFACTION OF DOUGLAS COUNTY, THEN DOUGLAS COUNTY WILL 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 WILL GIVE NOTICE AS SOON AS PRACTICABLE, TO PERFORM ALL NECESSARY WORK, THE COST OF WHICH WILL 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 WILL HAVE THE RIGHT TO ENFORCE SUCH OBLIGATION BY APPROPRIATE LEGAL ACTION. IT IS THE SYSTEM OWNER'S RESPONSIBILITY TO CONSTRUCT, MAINTAIN AND REPAIR THE FACILITIES IN A MANNER CONSISTENT WITH ALL APPLICABLE PLANS APPROVED OR ACCEPTED BY DOUGLAS COUNTY.

5. THE ONSITE WATER & SANITARY SEWER EASEMENT WILL BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT FOR SANITARY SEWER AND WATER MAINS SERVICING THE SUBDIVISION.

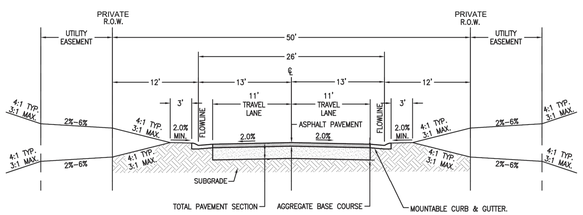
6. TRACTS A, B AND C WILL BE OWNED AND MAINTAINED BY THE BLOOM METRO DISTRICT, FOR THE PURPOSE OF DRAINAGE, OPEN SPACE, LANDSCAPING, PUBLIC ACCESS, AND UTILITIES.

7. PRIVATE ROADS TO BE DEDICATED TO THE HOA OR BLOOM METRO DISTRICT TO PROVIDE PUBLIC AND EMERGENCY VEHICLE ACCESS TO THE COMMUNITY.

8. THE FOLLOWING EASEMENTS SHOWN ON SHEET 2 ARE SPECIFIED AS FOLLOWS:
   - THE 31' UTILITY EASEMENT IN TRACT A IS FOR SANITARY SEWER AND WATER MAIN TO BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT VIA FINAL PLAT.
   - THE 30" UTILITY EASEMENT IS FOR SANITARY SEWER INSTALLATION WITHIN TRACT A.
   - THE 26' WATER AND SAN SEWER EASEMENT WITHIN THE PRIVATE ROADS IS GRANTED TO PARKER WATER AND SANITATION DISTRICT VIA FINAL PLAT.
   - THE 20' DRAINAGE EASEMENTS ARE FOR STORM SEWER INFRASTRUCTURE AND SHALL BE GRANTED TO DOUGLAS COUNTY VIA FINAL PLAT.
   - THE 15' WATER EASEMENT ON THE SOUTH SIDE OF TRACT C IS FOR A WATER LINE EXTENSION TO SCOTT AVENUE. THIS WATER EASEMENT WILL BE DEDICATED TO PARKER WATER AND SANITATION DISTRICT VIA FINAL PLAT.
   - THE 15' DRY UTILITY EASEMENT ALONG EACH SIDE OF THE ROADS WITHIN BLOOM SUBDIVISION ARE FOR DRY UTILITY INSTILLATION, WHICH INCLUDES GAS, ELECTRIC AND TELECOMMUNICATIONS.



1 MILE VICINITY MAP
SCALE 1"=1000'



PROPOSED PRIVATE ROAD SECTION
N.T.S

Sheet List Table	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	PRELIMINARY SITE PLAN
3	PRELIMINARY UTILITY PLAN
4	PRELIMINARY GRADING AND SLOPE ANALYSIS PLAN

DEVELOPER:
AFFINITY AT CROWFOOT, LLC
P.O. BOX 1143
BROOMFIELD, CO 80020
(303) 246-6799
CONTACT: CAYD BADER

CIVIL ENGINEER:
ATWELL, LLC
6200 SOUTH SYRACUSE WAY
SUITE 125
GREENWOOD VILLAGE, CO 80111
(303) 332-5370
CONTACT: JEFF FRENCH

SURVEYOR:
ATWELL, LLC
143 UNION BLVD.
SUITE 700
LAKEWOOD, CO 80228
(303) 928-6724
CONTACT: JOSH BREEDLOVE

LANDSCAPE ARCHITECT/PLANNER:
PCS GROUP, INC
200 KALAMATH STREET
DENVER, COLORADO 80223
(303) 531-4905
CONTACT: PAUL SHOUKAS

ABBREVIATIONS LEGEND

AC	ACREAGE
ADE	ACCESS & DRAINAGE EASEMENT
ESMT	EASEMENT
EX	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
FT	FEET
M	METER
MH	MANHOLE
PVC	POLY VINYL CHORIDE
P.U.E	PUBLIC UTILITY EASEMENT
R.O.W	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
SAN	SANITARY SEWER
S.F	SQUARE FEET
STM	STORM
TYP	TYPICAL
UTIL ESMT	UTILITY EASEMENT
WAT	WATER
W.E	WATER EASEMENT
W/L	WATER LINE
W.S.E	WATER & SANTIARY EASEMENT

LEGEND

- PROPERTY BOUNDARY
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED SIDEWALK
- EXISTING SIDEWALK
- EXISTING SECTION LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED CONTOURS
- EXISTING CONTOURS
- PROPOSED SANITARY
- EXISTING SANITARY
- PROPOSED STORM
- EXISTING STORM
- PROPOSED WATER
- EXISTING WATER
- EXISTING ELECTRIC
- EXISTING IRRAGATION
- EXISTING GAS
- EXISTING OVERHEAD ELECTRIC
- EXISTING COMMUNICATION
- PROPOSED HYDRANT
- EXISTING HYDRANT
- PROPOSED WATER VALVE
- EXISTING WATER VALVE

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

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CAYD BADER

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO
PRELIMINARY PLAN
COVER SHEET

DATE 4/15/2025

A	1st SUBMITTAL TO JURISDICTION 04/15/2025 - DEB
B	2nd SUBMITTAL TO JURISDICTION 10/17/2025 - BKS
C	3rd SUBMITTAL TO JURISDICTION 12/05/2025 - BKS
D	4th SUBMITTAL TO JURISDICTION 01/30/2026 - BKS

REVISIONS

DR. KDB | CH. DM
P.M. DEB
JOB 20003952
SHEET NO. 1 OF 4

CAD FILE: 22003148 - SITE PLAN COVER.DWG

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NOTES:
1. WATER AND SANITARY EASEMENTS WILL BE GRANTED TO PARKER WATER AND SANITATION DISTRICT (PWSD). PWSD WILL OWN AND MAINTAIN THE WATER AND SANITARY INFRASTRUCTURE WITHIN THESE EASEMENTS.
2. PUBLIC AND EMERGENCY ACCESS EASEMENTS WILL BE GRANTED TO THE PUBLIC. THE BLOOM METRO DISTRICT WILL OWN AND MAINTAIN ROADWAYS WITHIN THESE EASEMENTS.

BLOOM PRELIMINARY PLAN

SITUATED IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 6 TRACTS, SB2025-017

LAND USE TABLE				
GROSS AREA	81.0709 AC		SMALLEST RESIDENTIAL LOT	43,931.05 SF / 1.01 AC
NET AREA (EXCLUDING PUBLIC AND PRIVATE RIGHT-OF-WAY)	70.64 AC	87.13%	LARGEST RESIDENTIAL LOT	72,202.75 SF / 1.66 AC
TOTAL NUMBER OF LOTS	32		AVERAGE RESIDENTIAL LOT	58,726.69 SF / 1.35 AC
AREA OF LOTS	43.14 AC	53.21%	DENSITY (GROSS)	0.39 DU/AC
TOTAL NUMBER OF TRACTS	6		ZONING – RESIDENTIAL	ER
OPEN SPACE / DRAINAGE / PUBLIC UTILITIES (TRACTS A, B, C, D, E)	27.50 AC	33.92%		
AREA OF PRIVATE ROADS (TRACT F)	8.22 AC	10.14%		
AREA OF BAYOU GULCH ROAD DEDICATION	2.21 AC	2.73%		

TRACT AREA				
TRACT ID	OWNERSHIP / MAINTENANCE	TRACT USE	SQUARE FOOT	ACRE
A	BLOOM METRO DISTRICT	OPEN SPACE, DRAINAGE, PUBLIC UTILITIES	629,138.90	14.4430
B	BLOOM METRO DISTRICT	OPEN SPACE, DRAINAGE, PUBLIC UTILITIES	284,657.89	6.5348
C	BLOOM METRO DISTRICT	OPEN SPACE, DRAINAGE, PUBLIC UTILITIES	261,007.64	5.9919
D	BLOOM METRO DISTRICT	OPEN SPACE	12,418.60	0.2850
E	BLOOM METRO DISTRICT	OPERATIONS	6,098.73	0.1401
F	BLOOM METRO DISTRICT	PRIVATE ACCESS & UTILITIES	358,102.69	8.2209

TRAILS AT CROWFOOT
LAND USE: RESIDENTIAL

CROWFOOT CASTLE, LLC
LAND USE: AGRICULTURAL

JASON ROBERTSON REVOCABLE TRUST
LAND USE: RESIDENTIAL

ANTHONY M BISULCA
LAND USE: RESIDENTIAL

WEISS FAMILY TRUST
LAND USE: RESIDENTIAL

JOHN H ALBRIGHT JR & DEBORAH L HART LIVING TRUST
LAND USE: RESIDENTIAL

DOUGLAS J REDMAN & NANETTE P REDMAN
LAND USE: RESIDENTIAL

SHANNON GABRIEL ONEILL & DAWN MARIE CAPALDI
LAND USE: RESIDENTIAL

PINERY WEST METRO DISTRICT 2
LAND USE: OPEN-SPACE

PRESIDIO PARKWAY
LOMA VISTA DRIVE
BAYOU GULCH ROAD
SCOTT AVENUE
REVIVAL PLACE
REVIVAL AVENUE
RENEWAL POINT
PROPOSED ACCESS
PROPOSED ENTRY GUARD HOUSE
PROPOSED CURVILINEAR SIGN WALL
PROPOSED FENCE
EXISTING CIELO STORMWATER DETENTION POND A
EX. 69' R.O.W.
EX. 44' FL-FL
PROP. 68' FL-FL
70' R.O.W. TO BE DEDICATED
50' PUBLIC AND EMERGENCY VEHICLE ACCESS EASEMENT
26.0' WAT/SAN SEWER ESMT
15' UTIL ESMT
25.0' DRAINAGE ESMT.
25.0' UTILITY ESMT.
30' UTIL ESMT
27' UTIL ESMT
TRACT A
TRACT B
TRACT C
TRACT D
TRACT E

LEGEND
- PROPERTY BOUNDARY
- PROPOSED RIGHT-OF-WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- PROPOSED CATCH CURB & GUTTER
- EXISTING SECTION LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT

(IN FEET)
1 inch = 100 ft.

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(303) 246-6799
CAYD BADER

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO
PRELIMINARY PLAN
PRELIMINARY SITE PLAN

DATE 4/15/2025

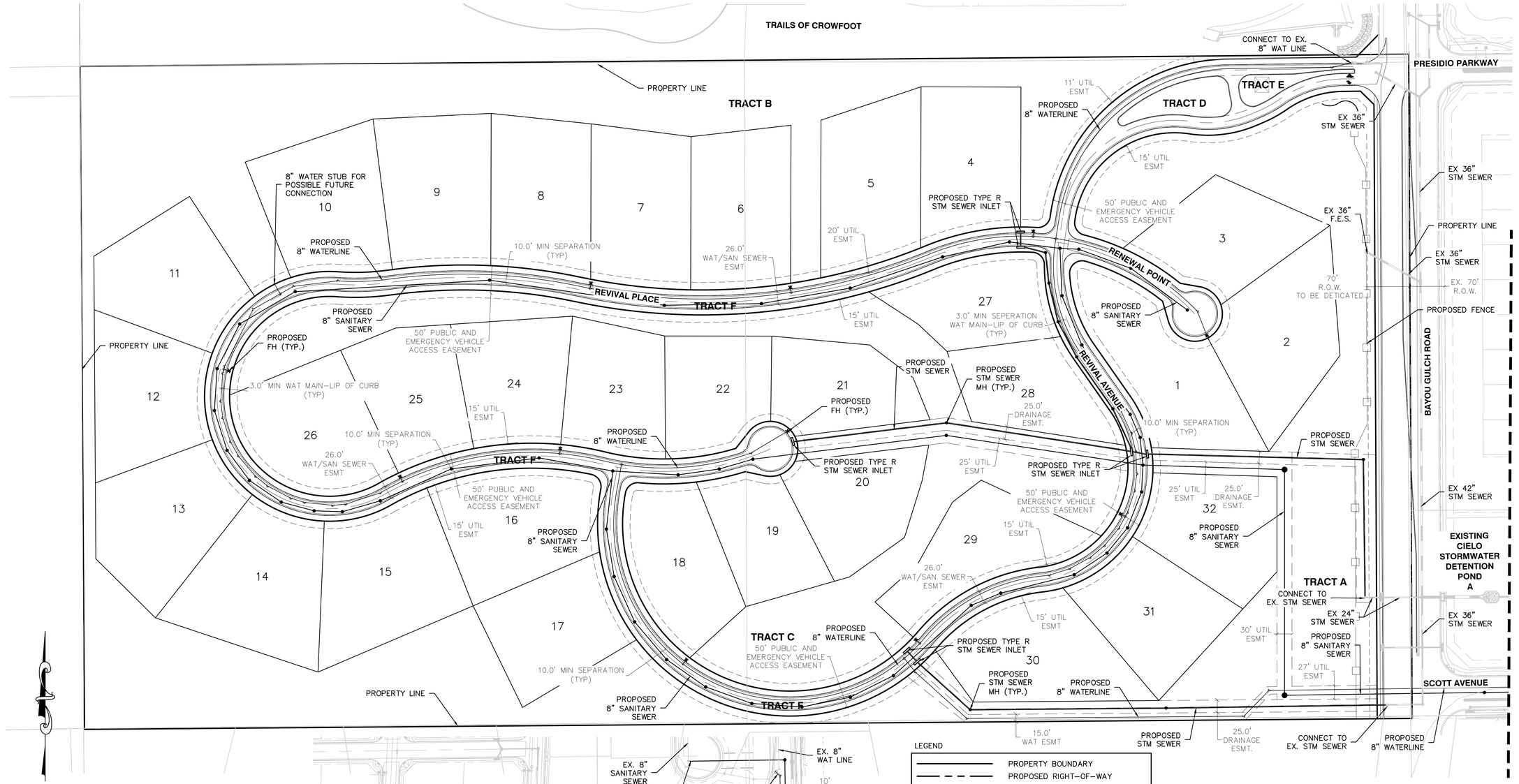
	REVISIONS
A	1ST SUBMITTAL TO JURISDICTION 04/15/2025 – DEB
B	2ND SUBMITTAL TO JURISDICTION 10/17/2025 – BKS
C	3RD SUBMITTAL TO JURISDICTION 12/15/2025 – BKS
D	4TH SUBMITTAL TO JURISDICTION 01/29/2026 – BKS
E	5TH SUBMITTAL TO JURISDICTION 03/24/2026 – BKS

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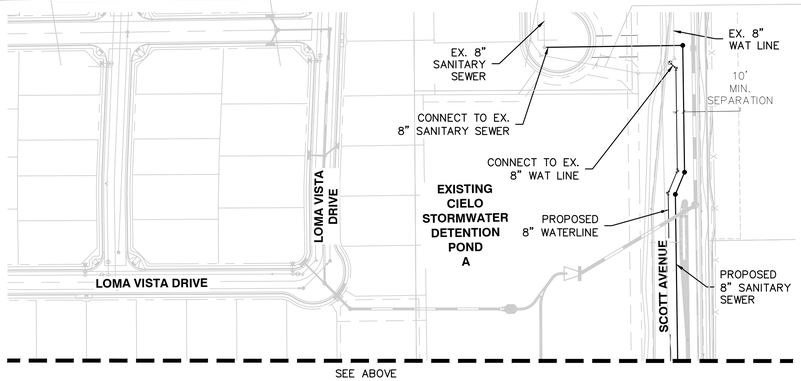
CAD FILE: 22003148 – SITE PLAN.DWG

BLOOM PRELIMINARY PLAN

SITUATED IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 6 TRACTS, SB2025-017



(IN FEET)
1 inch = 100 ft.



(IN FEET)
1 inch = 100 ft.

LEGEND

- PROPERTY BOUNDARY
- PROPOSED RIGHT-OF-WAY
- EXISTING RIGHT-OF-WAY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- PROPOSED CATCH CURB & GUTTER
- EXISTING SECTION LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED SANITARY SEWER
- EXISTING SANITARY SEWER
- PROPOSED STORM
- EXISTING STORM
- PROPOSED WATER
- EXISTING WATER
- PROPOSED HYDRANT
- EXISTING HYDRANT
- PROPOSED WATER VALVE
- EXISTING WATER VALVE

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P.O. BOX 1143
BROOMFIELD, CO 80020
(303) 246-6799
CAYD BADER

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO
PRELIMINARY PLAN
PRELIMINARY UTILITY PLAN

DATE 4/15/2025

A	1st SUBMITTAL TO JURISDICTION 04/15/2025 – DEB
B	2nd SUBMITTAL TO JURISDICTION 10/17/2025 – BKS
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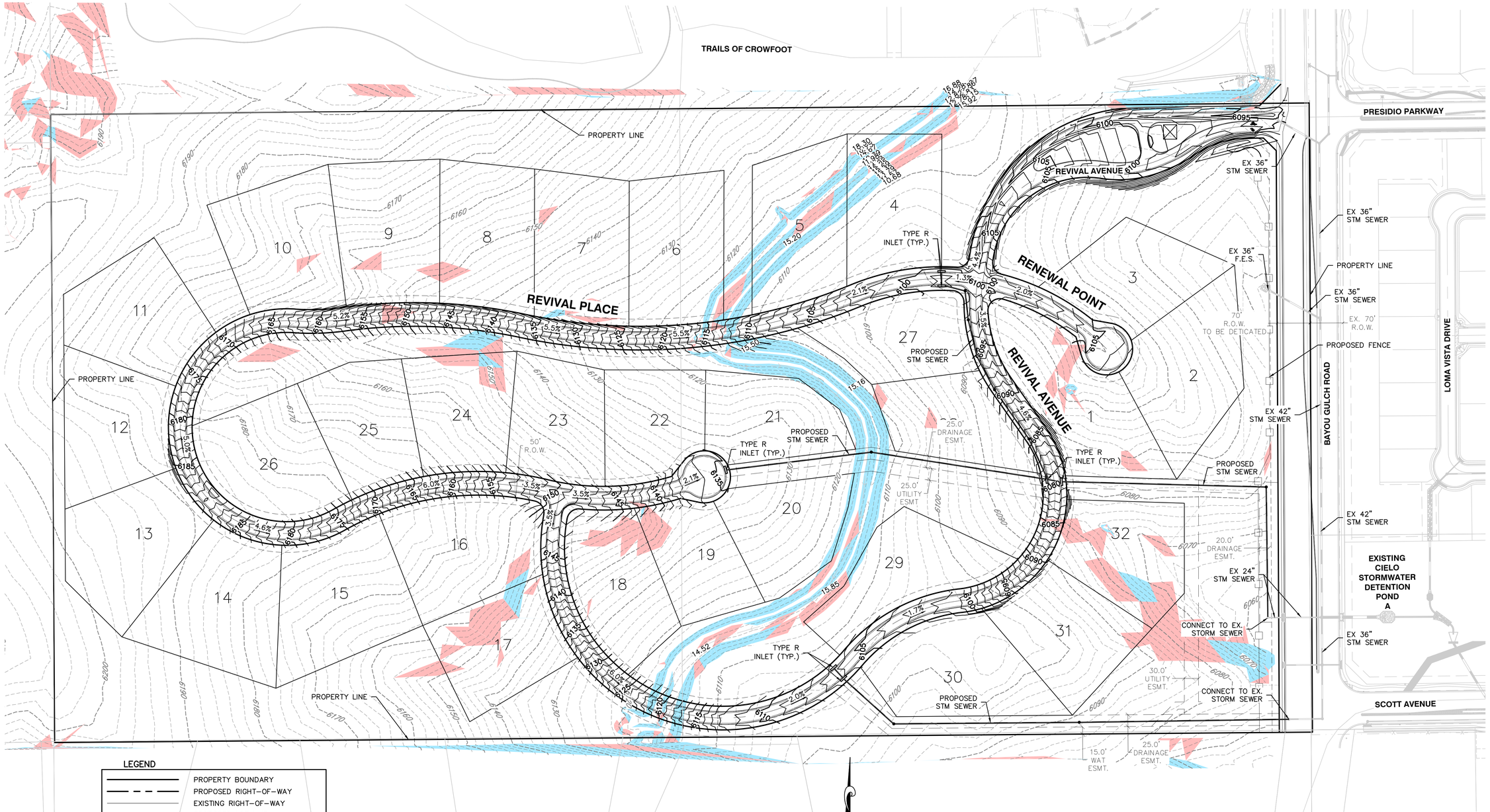
REVISIONS

DR. KDB | CH. DM
P.M. DEB
JOB 20003952
SHEET NO. 3 OF 4

CAD FILE: 22003148 – UTILITY PLANDWG

BLOOM PRELIMINARY PLAN

SITUATED IN SECTION 9, TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN
COUNTY OF DOUGLAS, STATE OF COLORADO
81.07 ACRES, 32 RESIDENTIAL LOTS, 6 TRACTS, SB2025-017



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CAYD BADER

BLOOM SUBDIVISION
DOUGLAS COUNTY, COLORADO

PRELIMINARY PLAN
PRELIMINARY GRADING AND SLOPE ANALYSIS PLAN

DATE 4/15/2025

A	1st SUBMITTAL TO JURISDICTION 04/15/2025 – DEB
B	2nd SUBMITTAL TO JURISDICTION 10/17/2025 – BKS
C	3rd SUBMITTAL TO JURISDICTION 12/05/2025 – BKS
D	4th SUBMITTAL TO JURISDICTION 01/30/2026 – BKS

REVISIONS

DR. KDB CH. DM
P.M. DEB
JOB 20003952
SHEET NO. 4 OF 4

CAD FILE: 22003148 – PRELIM GRADING.DWG