

## Location and Extent Staff Report

**Date:** July 8, 2026

**To:** Douglas County Planning Commission

**From:** Eric Pavlinek, Principal Planner *EP*  
Brett Thomas, AICP, Planning Manager *SK for BT*  
Steven E. Koster, AICP, Deputy Director of Community Development *SK*

**Subject:** Rampart Delivery System Expansion – Location and Extent

**Project File:** LE2026-008

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**Planning Commission Hearing:**

**July 20, 2026 @ 6:00 p.m.**

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### **I. EXECUTIVE SUMMARY**

The City of Aurora requests approval of a Location and Extent application (L & E) for the Rampart Delivery System (RDS) Expansion Project. The project includes approximately 6.5 miles of 76-inch diameter steel pipeline and replacement of the existing above grade outlet works valve building. The improvements are necessary to accommodate increased water supply needed in the City and in Douglas County. The project will connect to Aurora's existing RDS system, The Denver Water Foothills Water Treatment Plant, and the Roxborough Water and Sanitation District system.

### **II. APPLICATION INFORMATION**

#### **A. Applicant**

City of Aurora  
26791 East Quincy Avenue  
Aurora, Colorado 80016

#### **B. Applicant's Representative**

Connor Gilpatrick, HDR Inc.  
1670 Broadway Suite 3400  
Denver, Colorado 80202

#### **C. Request**

The City of Aurora is requesting L & E approval for installation of approximately 6.5 miles raw water pipeline and related appurtenances. Construction of a new valve building is included with this first phase of improvements.

#### **D. Location**

L & E improvements will be located on property owned by the City at the Aurora Rampart Reservoir, which is located southeast of the intersection of N. Rampart Range Road and Roxborough Park Road, north of Roxborough State Park. The proposal includes construction of a new valve building northeast of the reservoir. The new pipeline will traverse northeast from this location through property zoned Agricultural One and then through the Sterling Ranch community near Plum Valley Heights. The pipeline will then traverse north to Titan Road and then northeast across the Union Pacific Railroad and US Highway 85. The last portion of the alignment will be installed near the Chatfield Acres and Chatfield East communities prior to connecting to existing infrastructure in Highlands Ranch. Vicinity, zoning, and aerial maps which show site location and existing conditions are attached to the staff report.

#### **E. Project Description**

The City of Aurora is requesting approval of an L & E for the installation of buried pipeline and associated appurtenances. The proposal includes approximately 6.5 miles of new 76-inch diameter pipeline. The pipeline alignment will begin on property owned by the City, adjacent to the Aurora Rampart Reservoir, and will traverse generally northeast as depicted on the L & E exhibit. Along the pipeline, there will be buried structures, including blowoff drain valve vaults, access manways, air valve vaults, isolation valve vaults, and vent pipes. The vaults, manways, and vent pipes provide safe access to the pipeline and appurtenances for operation and maintenance purposes along the alignment. The vaults and manways will be flush with the ground or partially above grade. Vent pipes will extend above ground.

The applicant indicates that community impacts expected are minimal and related to temporary disturbance from construction activities and construction traffic. A Grading, Erosion, and Sediment Control (GESC) Plan and Report are required by Public Works Engineering (Engineering) to identify erosion and sediment control measures for mitigation of construction disturbance and assurance that disturbed areas are properly maintained.

The new valve building will be located on a 9.79-acre parcel northeast of the Aurora Rampart Reservoir. The building will be located near the existing building that it replaces. The approximate 1,800-square-foot structure will be approximately 27 feet tall and will be constructed of CMU veneer with a metal roof. Exterior light fixtures will be full cut off and will comply with the County's Lighting Standards.

Four construction staging areas are identified on the L & E exhibit for the pipeline construction. These staging areas are located within easements being acquired for the project. These staging areas will be primarily used for storage purposes of materials and equipment needed for completion of the project. These sites will also provide parking for vehicles and equipment used in construction of the project.

Construction is anticipated to occur over the course of 18 months, during the weekdays, between the hours of 7:00 a.m. and 6:00 p.m. to minimize disruption to neighbors. The applicant indicates that construction traffic will use existing roadways and easements to access the project site. Once operational, it is anticipated that existing City staff will oversee operations and maintenance of the project.

### **III. CONTEXT**

#### **A. Background**

The applicant indicates that the project will increase system capacity to meet the increase in demands in Aurora and Douglas County. The existing RDS includes an outlet works valve building near the Aurora Rampart Reservoir and two pipelines that convey water from the reservoir to the City's water treatment facilities in Aurora. The proposed raw water line will generally parallel existing pipelines constructed in 1957 and 1978.

#### **B. Adjacent Land Uses and Zoning**

The project area includes property zoned Agricultural One, Planned Development, Open Space, Rural Residential, General Industrial, and Estate Residential.

### **IV. PHYSICAL SITE CHARACTERISTICS**

#### **A. Site Characteristics and Constraints**

No existing physical conditions are present that constrain installation of the proposed infrastructure or valve house building.

#### **B. Access**

Access for installation and maintenance purposes is generally provided by existing public roads. The applicant will be required to submit a traffic control plan for traffic impacts related to construction of the pipeline and vault building.

#### **C. Drainage and Erosion**

The applicant is responsible for preparation of site-specific engineering plans, which include a GESC Plan and Report. A drainage conformance letter has been submitted and is being reviewed by Engineering.

#### **D. Floodplain**

Portions of the pipeline will cross the Willow Creek and Plum Creek floodplains. A floodplain development permit may be required from Douglas County.

### **V. PROVISION OF SERVICES**

#### **A. Fire Protection**

Fire protection within the area is provided by South Metro Fire Rescue (South Metro) and West Metro Fire Protection District. South Metro reviewed the request and had

no objection to the project. At the writing of the staff report, no response has been received from West Metro Fire Protection District.

**B. Sheriff Services**

The Douglas County Sheriff's Office (DCSO) provides emergency services within the area. At the writing of the staff report, no response has been received from DCSO.

**C. Water and Sanitation**

No additional water and sewer demands are generated by the project.

**D. Utilities**

Area utility service providers were provided a referral on this application. Xcel Energy noted a potential conflict with the project as they own and operate existing natural gas electric distribution facilities along the project route. Additional comments were provided regarding approvals and license agreements required for the project. No other utility provider issued comments at the writing of the staff report.

**E. Other Required Processes and Permits**

In addition to the L & E approval, a GESC Plan, GESC Report, and construction plans with plan and profile drawings for crossing Waterton Road, Titan Road, Roxborough Park Road, W. Lakeside Drive, N Lakeside Place and floodplains must be finally accepted by Engineering for review and approval prior to construction of the project. Building permits from the Douglas County Building Division will also be necessary.

**VI. PUBLIC NOTICE AND INPUT**

Courtesy Notices of an application in process were sent to adjacent property owners. No adjacent property owners or members of the public commented on the proposal at the writing of the staff report. Referral response requests were sent to referral agencies on June 29, 2026 and the referral period concludes on July 13, 2026. Referral agency responses received are attached to the staff report for reference.

**VII. STAFF ASSESSMENT**

Staff has evaluated the application in accordance with Section 32 of the Douglas County Zoning Resolution. The applicant has indicated that the proposed improvements will increase system capacity to meet the increasing demands.

Should the Planning Commission approve the L & E request, the applicant will be required to receive final approval of all Engineering plans and permits prior to commencement of the project. Proof that necessary easements, license agreements, permits and approvals from other entities and property owners have been obtained is also required prior to commencement of construction.



| <b>ATTACHMENTS</b>                                            | <b>PAGE</b> |
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## Land Use Application

Please complete, sign, and date this application. Return it with the required items on the Submittal Checklist to [planningsubmittals@douglas.co.us](mailto:planningsubmittals@douglas.co.us). Submittals may also be mailed or submitted in person to Planning Resources.

### **PROJECT INFORMATION**

**Project Type:** New Valve House and 6.5 Mile Pipeline

**Marketing Name:** Rampart Delivery System Expansion Phase 1A

**Presubmittal Review Project Number:** PS2025-270

**PROJECT SITE** (Rampart Reservoir Outlet Works)

**Address:** 6736 N. Roxborough Park Rd, Littleton, CO 80125

**State Parcel Number(s):** 235512000010

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

### **PROPERTY OWNER(S)**

**Name(s):** City of Aurora (Dean Bedford)

**Address:** 26791 E. Quincy Ave, Aurora, CO 80016

**Phone:** 720-859-4342

**Email:** dbedford@auroragov.org

### **AUTHORIZED REPRESENTATIVE**

**Name:** Keith Bushdiecker or Connor Gilpatrick

**Company:** HDR Inc.

**Address:** 1670 Broadway Suite 3400, Denver, CO 80202

**Phone:** 303-764-1547 / 303-323-9514

**Email:** connor.gilpatrick@hdrinc.com

*A notarized Letter of Authorization is required from the property owner, unless the owner is acting as the representative.*

### **ACKNOWLEDGMENT**

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*.

Gilpatrick, Connor Brian

 Digitally signed by Gilpatrick, Connor Brian  
Date: 2026.06.22 10:27:14-06'00'

6/22/2026

Applicant's Signature

Date

***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](mailto:planning@douglas.co.us).***

**Project Number (Office Use Only):**



## General Narrative

Landowner: City of Aurora

Applicant: City of Aurora, Dean Bedford, PE

Representative: HDR, Connor Gilpatrick, EI

The City of Aurora (City) is requesting approval of a Location and Extent (L&E) to expand the capacity of its Rampart Delivery System (RDS). The existing RDS includes an outlet works valve building at the toe of the Rampart Reservoir and two pipelines that convey water from the Rampart Reservoir to the City's water treatment facilities in Aurora. This expansion project will be phased, starting with Phase 1A. This phase includes the replacement of the existing above grade outlet works valve building (Outlet Works) with a new structure and approximately 6.5 miles of 76-inch diameter steel pipe. These improvements will increase system capacity to meet increasing demands in Aurora and Douglas County. This project also includes the construction of connections to Aurora's existing RDS pipelines, the Denver Water Foothills Water Treatment Plant and the Roxborough Water & Sanitation District system. The new pipeline will be joining the existing RDS that includes a 40/42-inch and a 54/60-inch pipeline.

These improvements are necessary to accommodate increased water supply needed by the City and Douglas County per both Aurora's Integrated Water Master Plan 2 (IWMP2) and the Douglas County 2040 Comprehensive Master Plan as it increases the amount of renewable water to county residents. This will support the long-term goal to reduce dependence on nonrenewable water from the Denver Basin aquifer. Construction for this phase is projected to start in Quarter 4 of 2026 and run for 18 months, ending in Quarter 2 of 2028.

The new pipeline alignment begins at the Outlet Works and continues generally northeast to the south edge of Highlands Ranch, east of Highway 85, and routes around the south and east of edges of the current Sterling Ranch extents. Refer to the Project Overview & Vicinity Exhibits in Appendix A. The pipeline will be in permanent easements or in public right of way. Permanent easement acquisition is on-going and nearly complete.

The new Outlet Works will replace the existing outlet works building located at the same site (Appendix B). The proposed Outlet Works footprint is approximately 35 feet wide by 52 feet long and will house several valves and controls to manage and monitor flow in the three pipelines. In addition, a 36-inch reservoir drain line with valves will be housed in the Outlet Works.

Along the pipeline, there will be buried structures, including blowoff (drain) valve vaults, access manways, air valve vaults, isolation valve vaults and vent pipes. The vaults, manways and vent pipes provide safe access to the pipeline and appurtenances for operation and maintenance along the alignment. The vaults and manways will be flush with the ground or slightly above grade, while the vents pipes extend above the ground.

## Community Impact

The RDS transports water northeast from the Rampart Reservoir, located south of Sterling Ranch, to the City. This new pipeline will generally parallel a 40/42-inch diameter pipeline, built in 1957, and a 54/60-inch pipeline constructed in 1978. The raw water conveyed by this system is utilized for non-potable (irrigation) service, as well as being treated for drinking water needs both in the City and in the Roxborough area. The RDS is a key piece of infrastructure in Aurora's raw water production, currently providing 70% of the City's needs for drinking water



supply, irrigation and fire protection. The other 30% is met through other sources including an unsustainable backup supply from the Denver Basin aquifer.

The existing Outlet Works and pipelines are able to meet the current water demands of the City. However, the City projects a 26% increase in demand over the next 20 years, which will continue beyond 2040. The City also intends to reduce Denver Basin aquifer usage as it is unsustainable. Thus, the RDS has been identified for expansion to develop existing water supplies. Since the City is partially inside of Douglas County, increasing Douglas County's renewable water supply fits with section 7 of Douglas County's Comprehensive Master Plan. The complete expansion of the RDS has been separated into 5 phases, with only Phase 1A currently in progress. Phase 1B construction is expected to follow the initial phase, starting in 2028. The timing of Phases 2, 3, and 4 will depend on available funding, demand increases and the need to replace existing pipeline segments before the end of their useful life. Phase 1A increases RDS capacity to 81 MGD, and the completed RDS expansion will increase capacity to 125 MGD.

Most community impacts from the RDS Phase 1A project will be temporary, occurring during the 18-month construction period. The new Outlet Works replacing the existing OW structure next to Rampart Reservoir is located on property owned by the City that is surrounded by the reservoir and predominantly undeveloped land. The majority of the pipeline will be installed in open-cut trenches, with the remainder being tunneled underneath Plum Creek and major transportation infrastructure including Highway 85 and railroads. The current alignment crosses through both public rights-of-way and private property while avoiding existing structures. Several surface streets will be impacted where crossed by the pipeline. Existing infrastructure (pavement, curb & gutter, sidewalks, etc.) in Douglas County right-of-way will be restored to pre-construction conditions. Traffic management plans (MHTs) for the affected roads will be generated with the assistance of the City's Construction Manager/General Contractor (CMGC) once engaged. The approach will be to maintain one lane of traffic (with flaggers) on less travelled roads and two-way traffic on more active roads. Generally, construction activities will be limited to 7am to 6pm, Monday through Friday.

Communication and coordination with the affected property owners was initiated at the outset of the RDS Expansion project and will be ongoing through construction. Where the pipeline alignment runs through private properties, easement have been or will be acquired. These agreements define the terms, conditions and restrictions required by the owners for construction activities on the property. Following is more detail at critical properties along the pipeline route.

**N. Moore Road Improvements:** A segment of the pipeline alignment is in the right-of-way of N. Moore Rd. south of Titan Rd., which is scheduled for improvement and widening by Douglas County. Aurora and Douglas County have been working together to coordinate schedules resulting in synergistic benefits and reducing impacts to each other's work.

**Zebulon Regional Sports Complex:** The pipeline also runs along Moore Rd. at and south of Waterton Rd., which is the western border of the Zebulon Regional Sports Complex development. Coordination is on-going with Douglas County and the Zebulon development engineers to reduce utility conflicts and accommodate future infrastructure and improvement plans for the regional sports complex.

**John Adams Academy:** A segment of the pipeline runs through the John Adams Academy (JAA) parcel, which is scheduled to open in August 2026. To reduce safety risks and disruption of school activities, construction of the pipeline through this property will be scheduled during the school's summer break in 2027.



## Drainage Conformance

Based on the design analysis in the attached Drainage Compliance Letter (Appendix D), the proposed site improvements are consistent with the current drainage concepts patterns, as well as drainage criteria from Douglas County and Mile High Flood District. Given the limited disturbance area, the negligible change in hydrologic response (runoff) compared to the existing condition, and the provision of conveyance improvements, the project meets the intent of Douglas County drainage requirements without requiring the addition of water quality or detention facilities. Therefore, a variance from the County's detention requirements is requested. Additionally, because the scope and drainage impact of the project is limited, the Drainage Compliance Letter serves as a substitute for a Phase III Drainage Report, consistent with correspondence with Douglas County, (provided in Appendix D).

## Traffic Study

### *Maintenance and Access*

Existing City staff will oversee operations and maintenance, and no additional shifts or staff will be necessary to meet the operations and maintenance needs of the new Outlet Works. The new Outlet Works will not increase traffic frequency, occupancy duration, or vehicle type and size at the site once placed into service.

### *Construction*

The estimated construction duration for Phase 1A is approximately 18 months and is anticipated to begin in Q4 of 2026. Construction work hours will be between 7 AM and 6PM Monday through Friday. Construction traffic will use existing roadways and easements to access the site and pipeline corridor Traffic control plans will be developed by the contractor for approval by Douglas County to mitigate impacts due to the pipeline construction. The Outlet Works construction is expected to have negligible impact on traffic as construction will occur away from roads inside City property.

## Staging Areas

Four general staging areas for the pipeline construction have been identified at this time. These are shown on the Project Overview & Vicinity Map in Appendix A. The first general staging area is near the Outlet Works at the start of the pipeline. The second is near the south side of Waterton Rd. where the pipeline turns and runs east along the road. The third general staging area is adjacent to W. Lakeside Ct. near the northeast end, and the last is at the end of the alignment. These four selected staging areas are in easements being acquired for the project. Once the CMGC is on board, additional staging areas may be acquired, which may include tunnel locations shown on the Project Overview & Vicinity Map and others. The general staging areas will store pipe, equipment, tools and materials prior to installation. The tunnel staging areas will house the tunnel casing pipe, spoils, construction equipment, generators, slurry pack racks, water storage tanks, shakers, centrifuges, and other temporary miscellaneous items. The general staging areas will be utilized throughout the project's duration, while the tunnel staging areas will be vacated once the tunneling operations are complete.



# Comprehensive Master Plan Land Use Reference Map

## Comprehensive Master Plan Areas

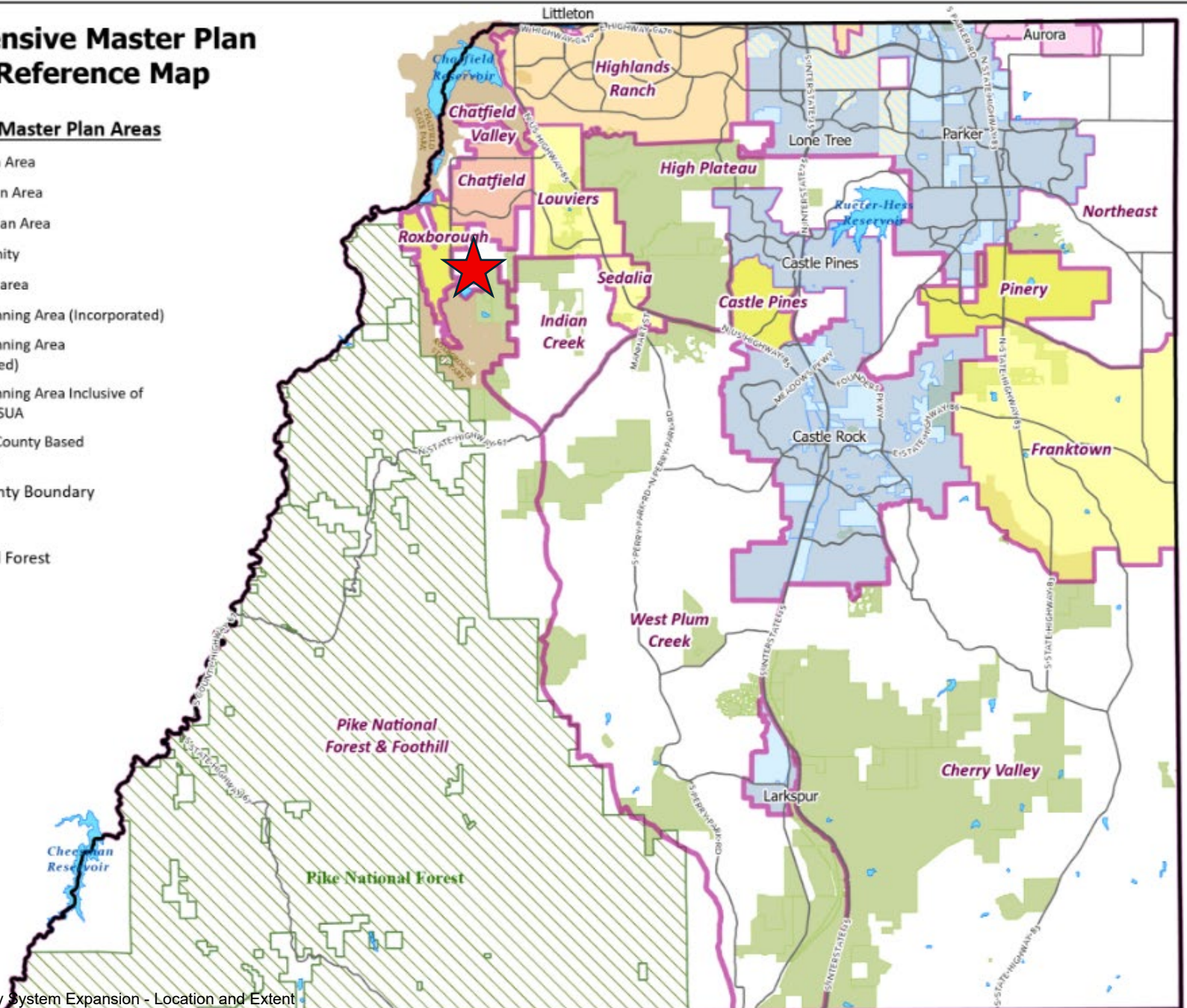
- Primary Urban Area
- Chatfield Urban Area
- Separated Urban Area
- Rural Community
- Nonurban Subarea
- Municipal Planning Area (Incorporated)
- Municipal Planning Area (Unincorporated)
- Municipal Planning Area Inclusive of County PUA / SUA
- Non-Douglas County Based Municipalities
- Douglas County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

## Parks

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

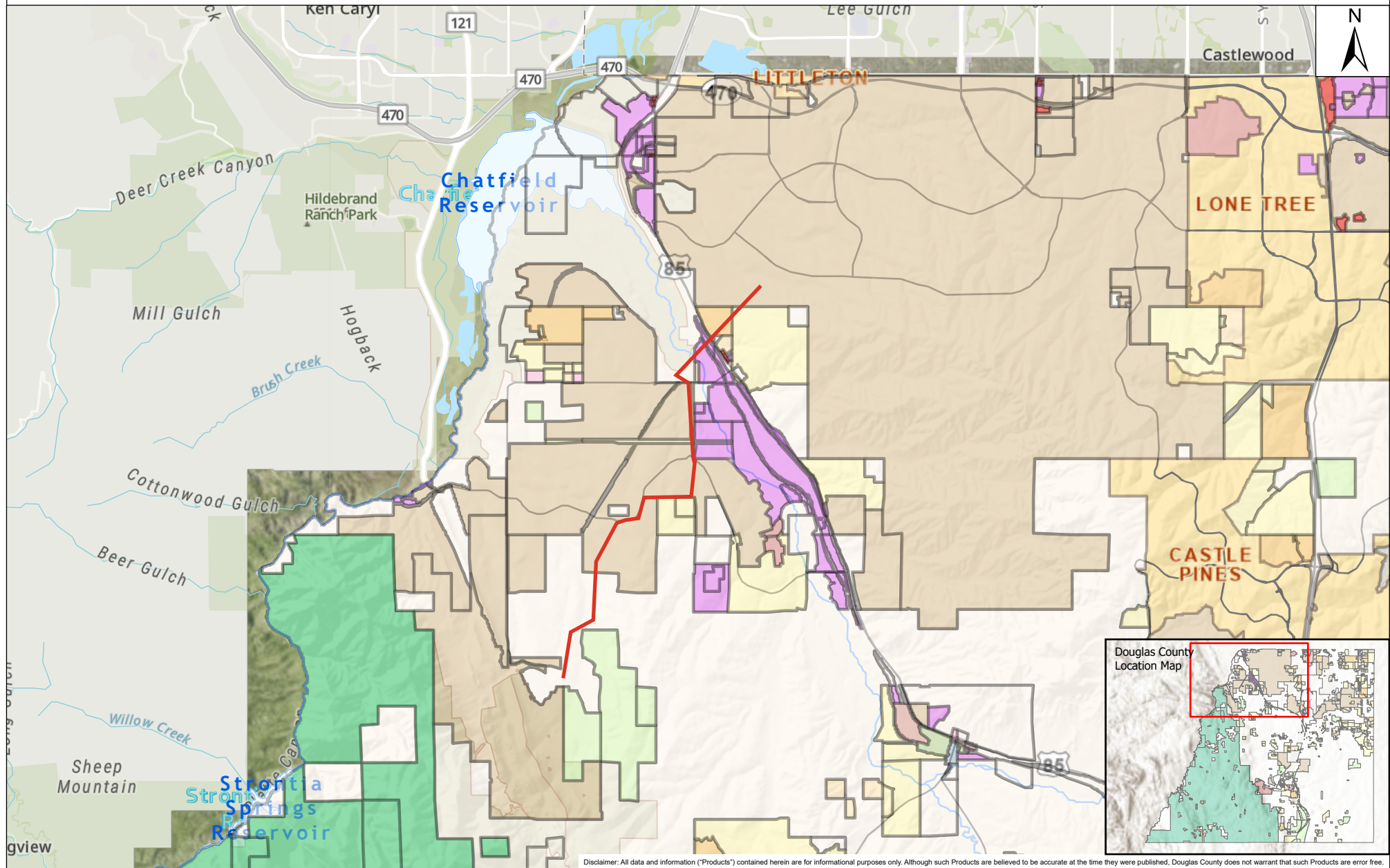
## Roadways

- Major Roads





# Rampart Delivery System Expansion LE2026-008



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





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- A1 - AGRICULTURAL ONE
- PD - PLANNED DEVELOPMENT
- OS - OPEN SPACE CONSERVATION



# Rampart Delivery System Expansion LE2026-008



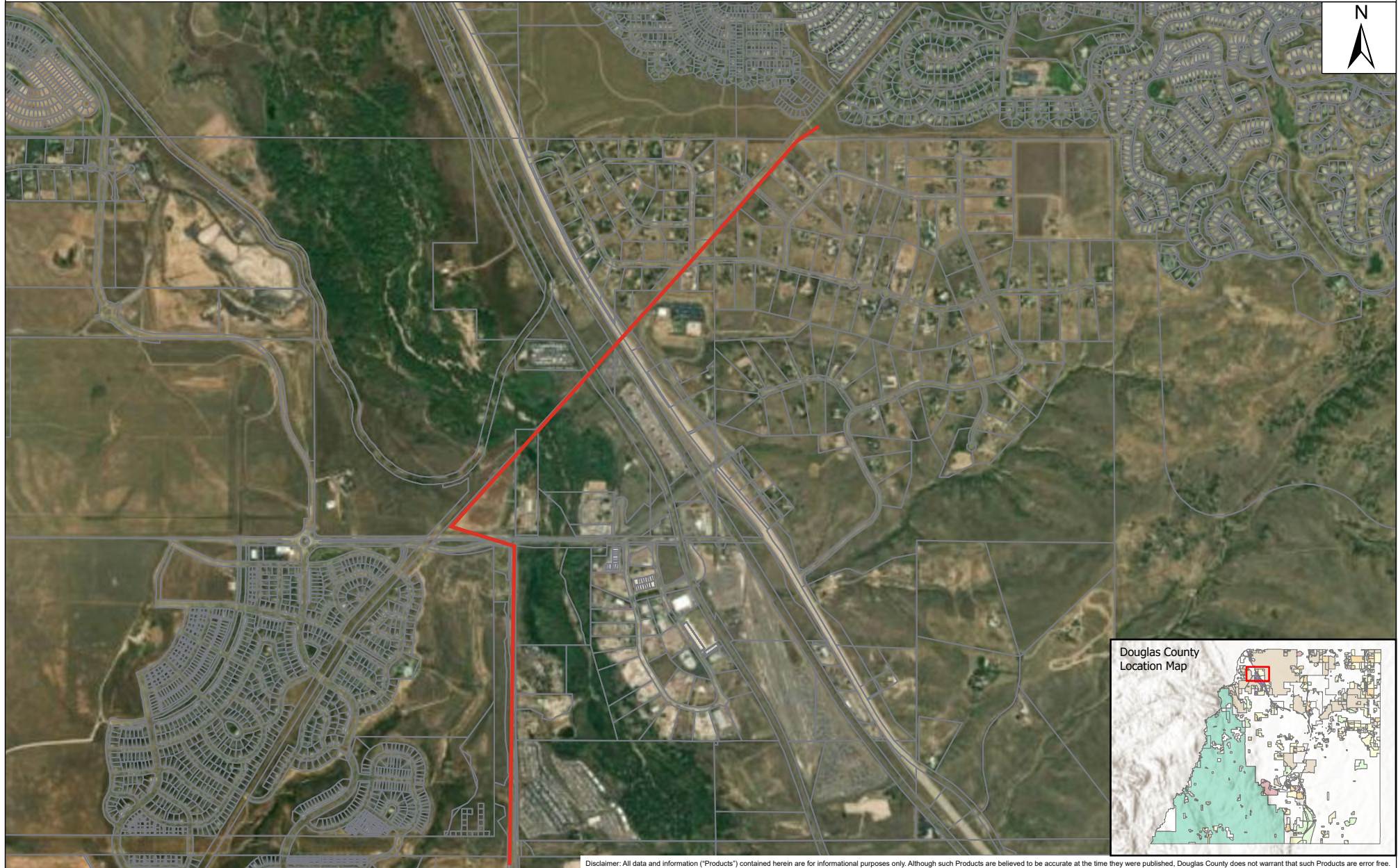
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|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|  GI - GENERAL INDUSTRIAL      |  A1 - AGRICULTURAL ONE     |
|  PD - PLANNED DEVELOPMENT     |  RR - RURAL RESIDENTIAL    |
|  OS - OPEN SPACE CONSERVATION |  SR - SUBURBAN RESIDENTIAL |



# Rampart Delivery System Expansion LE2026-008



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 C - COMMERCIAL  
 LI - LIGHT INDUSTRIAL  
 GI - GENERAL INDUSTRIAL  
 PD - PLANNED DEVELOPMENT

 A1 - AGRICULTURAL ONE  
 LRR - LARGE RURAL RESIDENTIAL  
 RR - RURAL RESIDENTIAL  
 ER - ESTATE RESIDENTIAL

**Initial Referral Agency Response Report****Page 1 of 3****Project Name:** Rampart Delivery System Expansion**Project File #:** LE2026-008**Date Sent:** 06/29/2026**Date Due:** 07/13/2026

| <b>Agency</b>                                         | <b>Date Received</b> | <b>Agency Response</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Response Resolution</b>      |
|-------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Addressing Analyst                                    | 07/07/2026           | <b>Verbatim Response:</b><br>The proposed address for the outlet works facility is 6370 ROXBOROUGH PARK ROAD. This address is not to be used for any purpose other than for plan review until after this project is approved. Proposed addresses are subject to changes as necessary for 911 dispatch and life safety purposes. Addresses are recorded by Douglas County following all necessary approvals. Contact DCAddressing@douglasco.gov or 303.660.7411 with questions. | Comments provided to applicant. |
| Arrowhead Shores                                      |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| AT&T Long Distance - ROW                              |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Black Hills Energy                                    |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Building Services                                     | 07/02/2026           | <b>Verbatim Response:</b><br>No comment.                                                                                                                                                                                                                                                                                                                                                                                                                                       | No action required.             |
| CDPHE - Water Quality Control Division                |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| CenturyLink                                           |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Chatfield Community Association                       |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Chatfield East HOA                                    |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Colorado Department of Transportation CDOT-Region # 1 | 07/01/2026           | <b>Summary of Response:</b><br>Any work in the State Highway Right-of-Way will require a permit from CDOT.<br>The proposed pipeline will cross US 85. A utility permit will be required.                                                                                                                                                                                                                                                                                       | Comments provided to applicant. |
| Colorado Parks and Wildlife                           |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| City of Aurora                                        |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Comcast                                               |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| CORE Electric Cooperative                             |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |
| Denver Water Board                                    |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |

**Initial Referral Agency Response Report****Page 2 of 3****Project Name:** Rampart Delivery System Expansion**Project File #:** LE2026-008**Date Sent:** 06/29/2026**Date Due:** 07/13/2026

| <b>Agency</b>                                 | <b>Date Received</b> | <b>Agency Response</b>                                                                                                                                                                                                                                                            | <b>Response Resolution</b>      |
|-----------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Dominion Water and Sanitation District        |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Douglas County Health Department              | 06/30/2026           | <b>Verbatim Response:</b><br>No comment.                                                                                                                                                                                                                                          | No action required.             |
| Engineering Services                          |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Highlands Ranch Community Association         |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Highlands Ranch Metro District                |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Highlands Ranch Water and Sanitation District |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Louviers Conservation Partnership             |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Mile High Flood District                      |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Office of Emergency Management                | 06/29/2026           | <b>Verbatim Response:</b><br>No comment.                                                                                                                                                                                                                                          | No action required.             |
| Plum Valley Heights HOA                       |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Roxborough Park Foundation                    |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Roxborough Ridge HOA                          |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Roxborough Village Filing 14B HOA             |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Roxborough Village First HOA                  |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Roxborough Water & Sanitation District        | 07/01/2026           | <b>Summary of Response:</b><br>The District provided comments on the L & E exhibit as it relates to existing RWSD infrastructure. See letter.                                                                                                                                     | Comments provided to applicant. |
| Sheriff's Office                              |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| Sheriff's Office E911                         |                      | No response received as of staff report preparation.                                                                                                                                                                                                                              |                                 |
| South Metro Fire Rescue                       | 07/02/2026           | <b>Verbatim Response:</b><br>South Metro Fire Rescue (SMFR) has reviewed the provided documents and has no objection to the proposed Location and Extent. Applicants and Contractors are encouraged to include SMFR in coordinating construction impacts of the proposed project. | Comments provided to applicant. |



**Initial Referral Agency Response Report****Page 3 of 3****Project Name:** *Rampart Delivery System Expansion***Project File #:** LE2026-008**Date Sent:** 06/29/2026**Date Due:** 07/13/2026

| <b>Agency</b>                            | <b>Date Received</b> | <b>Agency Response</b>                                                                                                                                                                                                                                                                                              | <b>Response Resolution</b>      |
|------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| Sterling Ranch Community Authority Board |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                |                                 |
| Wildfire Mitigation                      |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                |                                 |
| West Metro Fire Protection District      |                      | No response received as of staff report preparation.                                                                                                                                                                                                                                                                |                                 |
| Xcel Energy-Right of Way & Permits       | 07/07/2026           | <b>Summary of Response:</b><br>Xcel Energy noted a potential conflict with the project as they own and operate existing natural gas electric distribution facilities along the project route. Additional comments were provided regarding approvals and license agreements required for the project.<br>See letter. | Comments provided to applicant. |

## Eric Pavlinek

**From:** Loeffler - CDOT, Steven <steven.loeffler@state.co.us>  
**Sent:** Wednesday, July 1, 2026 2:20 PM  
**To:** Eric Pavlinek  
**Cc:** Aaron Eyl  
**Subject:** Re: Douglas County eReferral (LE2026-008) Is Ready For Review

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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

Eric,

I have reviewed the referral for the Rampart Delivery System Expansion have the following comments:

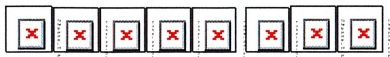
- Any work in the State Highway Right-of-Way will require a permit from our office. Application is made online at the following link: <https://socgov.my.site.com/portal/s/login/?ec=302&startURL=%2Fportal%2Fs%2F>
- The proposed pipeline will cross US 85. A utility permit will be required. See prior bullet for permit application link.

Thank you for the opportunity to review this referral.

**Steve Loeffler**  
Permits Unit- Region 1



P 303.757.9891 | F 303.757.9053  
2829 W. Howard Pl. 2nd Floor, Denver, CO 80204  
[steven.loeffler@state.co.us](mailto:steven.loeffler@state.co.us) | [www.codot.gov](http://www.codot.gov) | [www.cotrip.org](http://www.cotrip.org)



On Mon, Jun 29, 2026 at 10:20 AM <[epavlinek@douglasco.gov](mailto:epavlinek@douglasco.gov)> wrote:

There is an eReferral for your review. Please use the following link to log on to your account:

[https://urldefense.com/v3/\\_https://apps.douglas.co.us/planning/projects/Login.aspx\\_!!PUG2raq7KiCZwBk!ejkz97TAxiA10G7B6gkQveLtMcT5b62aTnNCIdoQLb6sLNi3f3QEY2WRzK2B8ALik2ha3wap3f7JSZntSBn3Y2HT4TOeV8un\\$](https://urldefense.com/v3/_https://apps.douglas.co.us/planning/projects/Login.aspx_!!PUG2raq7KiCZwBk!ejkz97TAxiA10G7B6gkQveLtMcT5b62aTnNCIdoQLb6sLNi3f3QEY2WRzK2B8ALik2ha3wap3f7JSZntSBn3Y2HT4TOeV8un$)

Project Number: LE2026-008

Project Title: Rampart Delivery System Expansion – Location and Extent

Project Summary: The applicant, City of Aurora, requests approval of a Location and Extent (L & E) to expand capacity of its Rampart Delivery System. Improvements include installation of approximately 6.5 miles of 76-inch pipeline and construction of a new valve building.

This referral will close on Monday, July 13, 2026.

If you have any questions, please contact me.

Sincerely,

Eric Pavlinek

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



## REFERRAL RESPONSE REQUEST – LOCATION AND EXTENT

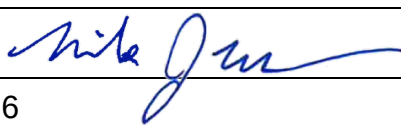
 Date sent: June 29, 2026

 Comments due by: July 13, 2026
**Project Name:** Rampart Delivery System Expansion – Location and Extent

**Project File #:** LE2026-008

**Project Summary:** The applicant, City of Aurora, requests approval of a Location and Extent (L & E) to expand capacity of its Rampart Delivery System. Improvements include installation of approximately 6.5 miles of 76-inch pipeline and construction of a new valve building.

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

|                                                                                                                                                                                                                                                |                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> No Comment                                                                                                                                                                                                            |                                                                                                              |
| <input type="checkbox"/> Please be advised of the following concerns:<br><div style="border-bottom: 1px solid black; height: 20px; margin-top: 5px;"></div> <div style="border-bottom: 1px solid black; height: 20px; margin-top: 5px;"></div> |                                                                                                              |
| <input checked="" type="checkbox"/> See letter attached for detail.                                                                                                                                                                            |                                                                                                              |
| <b>Agency:</b> Roxborough Water & Sanitation District                                                                                                                                                                                          | <b>Phone #:</b> 303.979.7286                                                                                 |
| <b>Your Name:</b> Mike Marcum                                                                                                                                                                                                                  | <b>Your Signature:</b>  |
| (please print)                                                                                                                                                                                                                                 | <b>Date:</b> 07/01/2026                                                                                      |

A public hearing on this request will be held before the Douglas County Planning Commission on Monday, **July 20, 2026, at 6:00 pm.** See the County website or contact the Planning Department for instructions on how to participate.

Sincerely,



 Eric Pavlinek, Project Planner  
 Enclosure

July 01, 2026

HDR Inc.  
Connor Gilpatrick  
1670 Broadway, Suite 3400  
Denver, CO 80202

RE: Rampart Delivery System Expansion

Dear Mr. Gilpatrick,

TST Infrastructure, LLC (TST) is the Roxborough Water and Sanitation District (RWSD) Engineer. TST has reviewed the following documents submitted for review relating to the City of Aurora's Rampart Delivery System Expansion:

- "Impact Report and L&E Exhibits " dated 06/22/26
- "Referral Agency List Report" dated 06/29/26

The document was reviewed for compliance with the RWSD Rules and Regulations and the following are comments to the documents reviewed:

#### **Appendix A – Project Overview & Vicinity Exhibits**

1. On the Alignment and Vicinity Map sheet for STA 329+00 to 358+36, the proposed crossing of RWSD's water main at the intersection of W Pineview Drive and W Lakeside Drive depicts the existing RWSD water main as running north-south. However, the District's records drawings indicate this water main runs east-west along W Lakeside Drive.
2. On the Alignment and Vicinity Map sheet for STA 329+00 to 358+36, RWSD has an existing 8 inch water main that runs northwest to southeast across the parcel owned by the City & County of Denver at the intersection of W Pineview Dr and W Lakeside Drive. The exhibit does not show this proposed water main crossing.

#### **Referral Agency List Report**

1. Please note that the Roxborough Water and Sanitation District email addresses have changed. Specifically, Mike Marcum's email address is now Mike@roxwaterco.gov.

Roxborough Water and Sanitation District reserves the right to provide additional comments/requirements if additional/revised plans are submitted.

As design for the Rampart Delivery System Expansion project progresses, please provide additional design detail and continue coordinating with the Roxborough Water and Sanitation District to confirm that the proposed water main does not conflict with the District's existing utilities.



Rampart Delivery System Expansion  
July 01, 2026  
Page 2

Should you have any questions, please contact me via email at [tford@tstinfrastucture.com](mailto:tford@tstinfrastucture.com) or by phone at 303-799-5197.

Sincerely,

Tanner Ford, P.E.

TST Infrastructure, LLC

CC: Mike Marcum, General Manager for Roxborough Water and Sanitation District  
Mitchell Stroehlein, Director of Operations for Roxborough Water and Sanitation District  
Michael Gerstner, P.E., Principal Engineer at TST Infrastructure, LLC

Attachment: "Vicinity\_Map\_STA\_329+00\_to\_358+36\_TF.pdf"



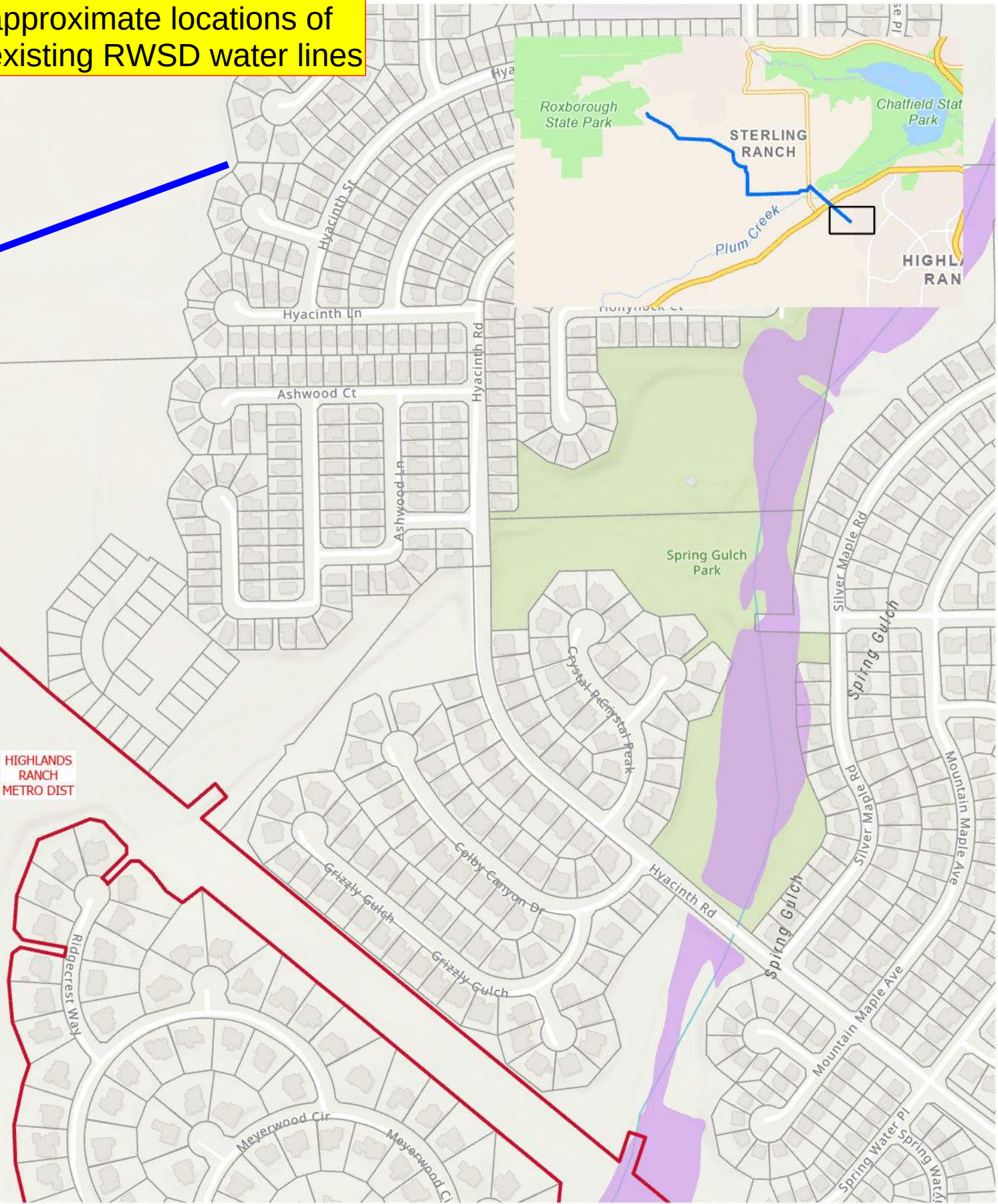
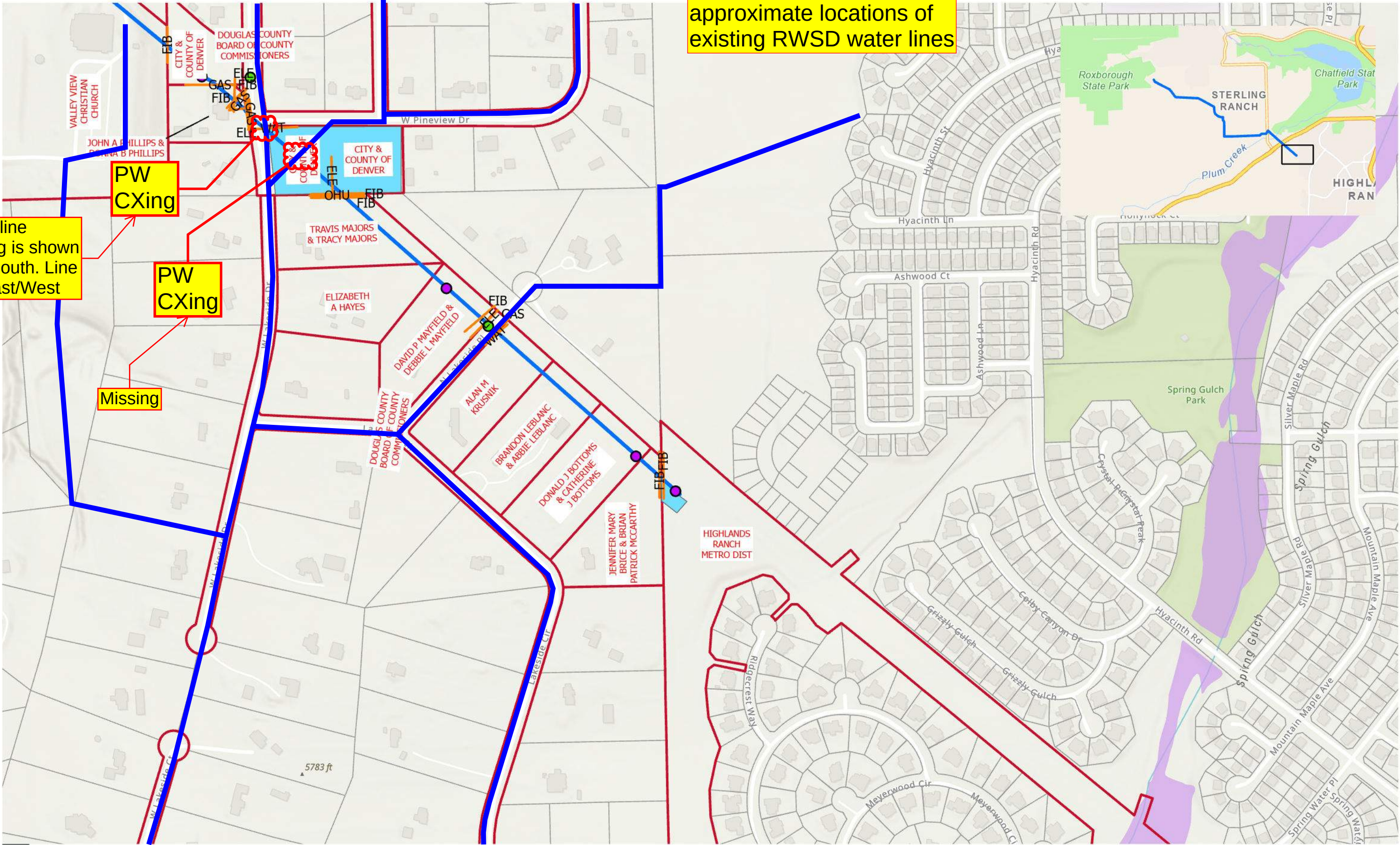
Lines in dark blue are the approximate locations of existing RWSD water lines

RWSD line crossing is shown North/South. Line runs East/West

PW CXing

PW CXing

Missing













**ALIGNMENT AND VICINITY MAP**  
STA 329+00 to 358+36

RAMPART DELIVERY SYSTEM EXPANSION

\\DENPI-GISFS01\GISDATA\PROJECTS\CITY\_OF\_AURORA\_CO\10405768\_AURORA\_RDS\_3RD\_RAW\_WL\_1A\7.2\_WIP\APRX\AURORA\_RDS\_3RD\_RAW\_WL.APRX DATE: 6/10/2026

Rampart Delivery System Expansion - Location and Extent  
Project File: LE2026-008  
Planning Commission Staff Report - Page 23 of 43



# **SOUTH METRO FIRE RESCUE**

## **FIRE MARSHAL'S OFFICE**

---



Eric Pavlinek, Project Planner  
Douglas County Department of Community Development, Planning Services  
100 Third St  
Castle Rock Co 80104  
303.660.7460  
303.660.9550 Fax

Project Name: Rampart Delivery System Expansion – Location and Extent  
Project File #: **LE2026-008**  
S Metro Review #: REFOTH26-00147

Review date: July 2, 2026

Plan reviewer: Aaron Miller  
720.989.2246  
[aaron.miller@southmetro.org](mailto:aaron.miller@southmetro.org)

**Project Summary:** The applicant, City of Aurora, requests approval of a Location and Extent (L & E) to expand capacity of its Rampart Delivery System. Improvements include installation of approximately 6.5 miles of 76-inch pipeline and construction of a new valve building.

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 Location and Extent. Applicants and Contractors are encouraged to include SMFR in coordinating construction impacts of the proposed project.



**Right of Way & Permits**

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

July 7, 2026

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

Attn: Eric Pavlinek

**Re: Rampart Delivery System Expansion - Location and Extent, Case # LE2026-008**

Public Service Company of Colorado's (PSCo) Right of Way and Permits Referral Desk has determined there are **possible conflicts** with the above captioned project. Public Service Company has an existing *electric transmission* line and an existing *natural gas transmission* pipeline with associated land rights as shown within this property. Any activity including annexation, zoning, grading, proposed landscaping, erosion control or similar activities involving our existing right-of-way will require Public Service Company approval. Encroachments across Public Service Company's easements must be reviewed for safety standards, operational and maintenance clearances, liability issues, and acknowledged with a Public Service Company License Agreement to be executed with the property owner. PSCo is requesting that, prior to any final approval of the development plan, it is the responsibility of the property owner/developer/contractor to contact the following for development plan review and execution of License Agreements:

- **for Electric Transmission:** email [coloradorightofway@xcelenergy.com](mailto:coloradorightofway@xcelenergy.com) or website [www.xcelenergy.com/rightofway](http://www.xcelenergy.com/rightofway)
- **for Natural Gas Transmission:** [cloud.marketing.xcelenergy.com/encroachment](http://cloud.marketing.xcelenergy.com/encroachment)

Please be aware PSCo owns and operates existing natural gas and electric distribution facilities along the project route.

The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via [Building and Remodeling | Partner Resources | Xcel Energy](#). It is then the responsibility of the developer to contact the Xcel Designer assigned to the project for approval of design details.

**IMPORTANT:** Because Douglas County does not process referral resubmittals, PSCo respectfully requests that, before Douglas County approves this application, the Applicant provides the County with documentation summarizing the coordination efforts undertaken with PSCo/Xcel Energy Designers, Engineers, and Right-of-Way Agents. This documentation should also include evidence of PSCo/Xcel Energy's approval, concurrence, or confirmation that the proposed project has been reviewed and that potential utility impacts have been adequately addressed. Providing this information prior to final County approval will help ensure that any

impacts to existing PSCo facilities, easements, and rights are appropriately evaluated and resolved.

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



# Technical Memorandum

Date: Friday, January 23, 2026

Project: City of Aurora, Rampart 3<sup>rd</sup> Waterline 1A – Outlet Works Valve House Building Replacement Design

To: Director of Engineering Services  
Douglas County Public Works Engineering, 100 Third St, Castle Rock, CO 80104

From: Gregory Young, PE  
HDR, 1670 Broadway, Suite 3400, Denver, CO 80202

Subject: Variance Request for Valve House Replacement Drainage Design

## Purpose

The purpose of this technical memorandum (memo) is to present project drainage design documentation to Douglas County Public Works Engineering (DPWE) to request variances for:

- drainage detention requirements, and
- a Phase III Drainage Report, per Douglas County's L&E Report requirements, using this memo as a substitute.

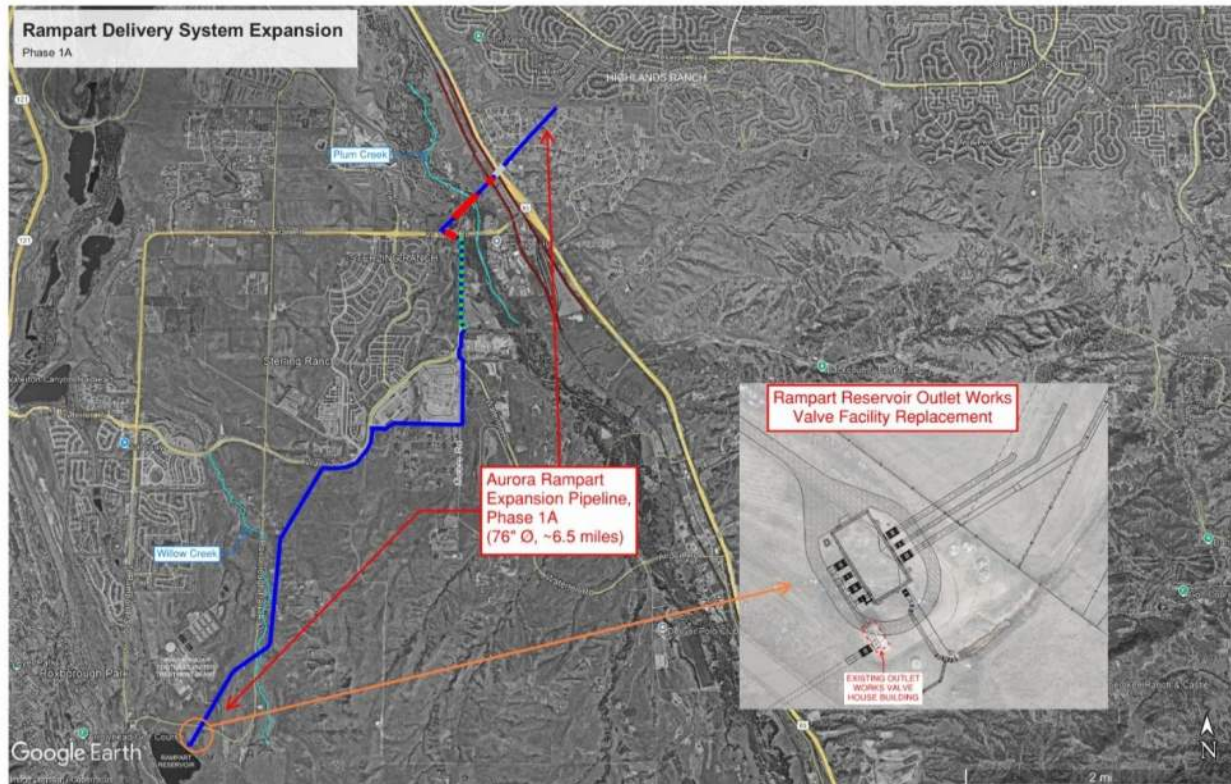
The Outlet Works Valve House Building Replacement Design (the Project) is a component of the Rampart 3<sup>rd</sup> Waterline 1A project. Subsequent sections of this memo will provide project background information, hydrologic and hydraulic analysis, and conclusions pertaining drainage impacts of the proposed valve house building replacement development. It is anticipated that the proposed valve house building replacement development will result in a negligible change to runoff conditions at the site, thereby validating a variance request for Douglas County drainage detention facilities requirements for site development. Additionally, Appendix A contains correspondence with Douglas County, verifying the acceptance of this memo for variance from detention requirements and a Phase III Drainage Report.

## Background

The Project is located along the northeast side of the Aurora Rampart Reservoir on state parcel number 235512000010, at 6265 North Roxborough Park Road, Littleton, Colorado, 80125. The waterline replacement is in the first phase of a pipeline project for the City of Aurora that extends from their Rampart Reservoir, running northeasterly 6.5 miles through Douglas County to the south edge of Highlands Ranch. The replacement of the existing valve house building is located at the reservoir. The Project site is adjacent to the toe of the Rampart Dam (Dam), the Dam's outlet works, and the proposed valve house building replacement building footprint aligns with an existing drainage grass swale, which is intended for stormwater drainage from the northeast slope of the dam. The existing grass swale drains the site via an 18-inch storm sewer culvert, which then flows into an existing drainage channel that runs north off-site. Figure 1 displays the project vicinity map.

The proposed grading and drainage design includes a proposed valve house building replacement, adjacent to Rampart Dam outlet works, with a minimum 12-foot (ft) wide access drive for semi-truck access to the proposed valve house building replacement. The drainage design concept involves facilitating surface drainage through a drainage channel located on the southwest side of the site, collecting existing upstream drainage and proposed site drainage, which will be discharged into the existing drainage channel that runs northerly, off-site. The

proposed drainage channel is a trapezoidal section, armored with riprap. The armoring is intended to prevent erosion from runoff entering the channel from the steep side slopes of the dam and the transition from the proposed channel entering the existing drainage channel that flows north, off-site. Hydrologic and hydraulic analysis was performed using Douglas County's Storm Drainage Design and Technical Criteria Manual and Mile High Flood District's (MHFD) Urban Storm Drainage Criteria Manual (USDCM). Douglas County's Storm Drainage Design and Technical Criteria Manual guidelines are based on, and written with, the intention of being consistent with USDCM and are considered synonymous standards. Therefore, unless a criteria-manual-specific section or figure is referenced, Douglas County's Storm Drainage Design and Technical Criteria Manual and USDCM will be referred to as "the Criteria" in subsequent sections of this memo.



**Figure 1. Project vicinity map**

## Analysis

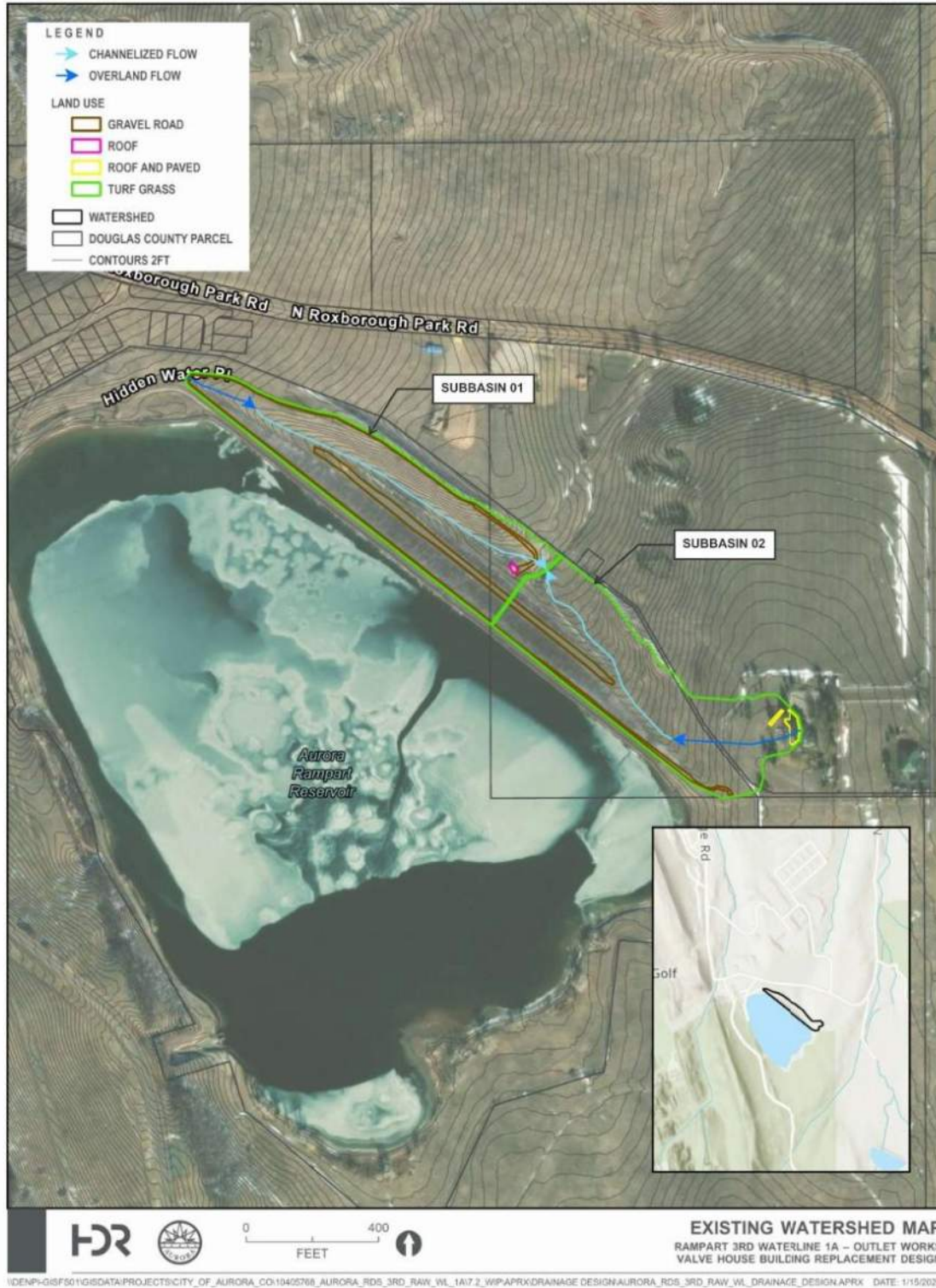
Hydrologic and hydraulic (H&H) analysis was performed for the Project drainage design based on the Criteria. Hydrologic analysis involved collecting data and performing associated calculations to determine the design discharge for minor and major design storms, specifically 5- and 100-year recurrence storms. Hydraulic analysis includes preliminary Project hydraulic design for drainage, applying the hydrologic results. Details on the H&H analysis and results are discussed in the subsequent subsections of this memo.

## Hydrology

The Project site's primary drainage basin area is approximately 11.24 acres and is subdivided into two subbasins: Subbasin 01 and Subbasin 02. The site is located in Subbasin 01. Both subbasins drain to the existing drainage swale, which flows northeasterly off site. Subbasin 01 and Subbasin 02 are 5.56 acres and 5.68 acres, respectively. The subbasins were analyzed using the Rational Method, adhering to the Criteria's hydrological methods, where the Rational Method is applicable for watershed areas equal to or less than 160 acres. The

MHFD Rational Method Workbook (Excel spreadsheet) was used to develop the existing and proposed conditions for the Project site's drainage subbasins. Inputs to the spreadsheet include drainage basin area in acres, the National Resources Conservation Service (NRCS) hydrologic soil group (HSG), land use or surface type, design storm rainfall depths, and longest flow path parameters, i.e., flow path segment flow regime, length, slope, and NRCS conveyance factor for channelized flow regime. Watershed maps for the existing and proposed conditions are displayed in Figures 2 and 3, respectively.

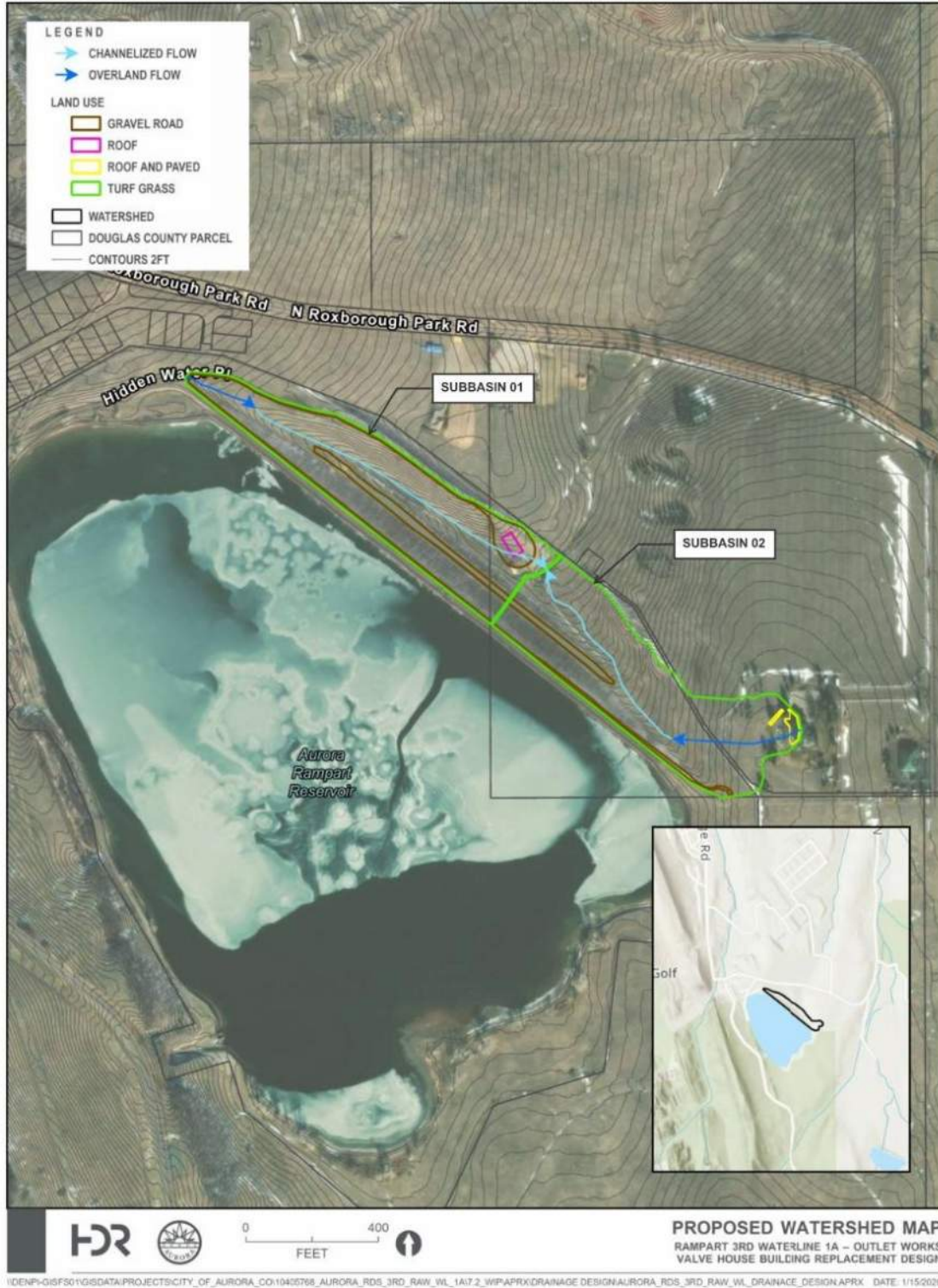




**Figure 2. Existing conditions watershed map**

hdrinc.com 1670 Broadway, Suite 3400, Denver, CO 80202-4824  
 (303) 764-1520





**Figure 3. Proposed conditions watershed map**

hdrinc.com 1670 Broadway, Suite 3400, Denver, CO 80202-4824  
(303) 764-1520

Based on NRCS Web Soil Survey for the drainage basin, HSG type C/D encompasses the entirety of the drainage area (see Appendix C.). The 1-hour rainfall depth for this area came from Douglas County's Storm Drainage Design and Technical Criteria Manual Chapter 6, Table 6-1, where Douglas County is broken up into three Zones for rainfall depth distribution. The Project site is located in Zone 1 of Douglas County, which encompasses the area west of the Douglas/Elbert County line west to the base of the foothills. For Zone 1, the 1-hour point rainfall values are summarized below in Table 1.

**Table 1. 1-hour Point Rainfall Values of Douglas County, Zone 1**

| Return Period<br>(years) | 1-hour Rainfall Depth<br>(inches) |
|--------------------------|-----------------------------------|
| 2                        | 1.06                              |
| 5                        | 1.43                              |
| 10                       | 1.66                              |
| 50                       | 2.26                              |
| 100                      | 2.60                              |

The rainfall depth values were then fit to the Zone 1 rainfall intensity curve. The rainfall intensities for the site were derived using the site's time of concentration and runoff coefficients (see Appendix B.) A desktop review of the drainage basins was performed to derive the land use or, in this case, surface type to develop runoff coefficients and subbasin impermeability. There are three primary surface types for Subbasins 01 and 02, roadways and paved streets, roofs, and receiving pervious areas i.e., grass buffers and grass swales, which were selected using USDCM Volume 1 Table 6-3. The gravel road areas were selected to be roadway and paved streets surface type because according to Section 6.3.4 of the Douglas County Storm Drainage Design and Technical Criteria Manual (Douglas County, 2022),

Douglas County requires that gravel parking areas, storage areas, and access drives, proposed on Site Improvement Plans, be analyzed as pavement. This is due to a history of gravel areas being paved over time by property owners and the resulting adverse impacts on the stormwater management facilities and adjacent properties. (p. 6-7)

The roof surface type was selected for the existing and proposed valve house, and the receiving pervious area was selected for the grass open space in the drainage area. Receiving pervious area surface type was selected for the grass areas in the drainage area rather than grass open space – i.e. 20% impervious rather than 5%, respectively – because these areas are located on the sloped face of and at the toe of the adjacent Rampart Reservoir dam. The dam is designed to be impervious, even with grass; therefore, receiving pervious areas rather than grass open space as the surface type provides a more conservative and, more accurate, imperviousness percentage value for the drainage areas. In the MHFD Rational Workbook, Subbasin 01 and 02 are called EX01 and EX02, respectively, in the existing condition and PR01 and PR02, respectively, in the proposed condition. The hydrologic analysis results for existing and proposed conditions in the 5-year and 100-year storm events are summarized in Table 2, below.

**Table 2. Hydrologic Analysis Results Summary**

| Subbasin                               | EX01  | PR01  | EX02  | PR02  |
|----------------------------------------|-------|-------|-------|-------|
| Area (acres)                           | 5.56  | 5.56  | 5.68  | 5.68  |
| Imperviousness (%)                     | 32.90 | 35.20 | 27.50 | 27.50 |
| 5-year Runoff Coefficient, $C_5$       | 0.30  | 0.32  | 0.26  | 0.26  |
| 100-year Runoff Coefficient, $C_{100}$ | 0.62  | 0.60  | 0.63  | 0.60  |
| Time of Concentration (min)            | 24.41 | 24.12 | 23.03 | 23.03 |
| 5-year Intensity (in/hr), $I_5$        | 2.53  | 2.54  | 2.61  | 2.61  |
| 100-year Intensity (in/hr), $I_{100}$  | 4.59  | 4.62  | 4.74  | 4.74  |
| 5-year Peak Flow (cfs), $Q_5$          | 4.26  | 4.56  | 3.84  | 3.84  |
| 100-year Peak Flow (cfs), $Q_{100}$    | 15.80 | 16.14 | 16.07 | 16.07 |

## Hydraulics

The preliminary hydraulic design is a trapezoidal drainage ditch that meets the Criteria for a grass swale. The hydraulic design criteria for grass-lined channels can be found in Table 12-3 in Douglas County's Storm Drainage Design and Technical Criteria Manual. The drainage ditch is designed to accommodate the 100-year design storm (major storm) peak flow, 16.14 cfs. The preliminary drainage ditch design geometry is a 5-ft bottom-width channel with 4:1 side slopes, which was analyzed in FlowMaster to determine the channel's capacity and velocities. Per the Criteria, channel capacity analysis for determining channel freeboard used a Manning's roughness coefficient,  $n$ , of 0.035; channel velocity analysis for determining velocities and Froude number used a roughness coefficient of 0.030. Preliminary drainage ditch hydraulic analysis inputs and results can be viewed in Appendix D.

## Conclusions

The H&H evaluation completed for the proposed Outlet Works Valve House Building Replacement demonstrates that the Project will not adversely impact existing drainage conditions at the site. Based on hydrologic analysis, only negligible differences were observed between existing and proposed peak flows. These minor changes are attributed primarily to slight increases in impervious area associated with the building replacement and access drive; however, the resulting runoff increases are minimal (significantly less than one acre of disturbance) and do not warrant additional detention facilities.

The proposed hydraulic design of a trapezoidal drainage ditch meets the requirements of Douglas County's Storm Drainage Design and Technical Criteria Manual and the Mile High Flood District's USDCM. The drainage channel will provide adequate capacity, velocity control, and erosion protection for both existing upstream drainage and proposed site runoff while maintaining the functionality of the existing drainage system that conveys flows off-site.

Given the limited disturbance area, the negligible change in hydrologic response, and the provision of compliant conveyance improvements, the Project satisfies the intent of Douglas County drainage design standards without requiring detention facilities. Therefore, a variance from the County's detention requirements is requested. Additionally, because the scope and drainage impact of the Project are limited and well-documented herein, this memorandum appropriately serves as a substitute for a Phase III Drainage Report, consistent with the correspondence with Douglas County included in Appendix A.

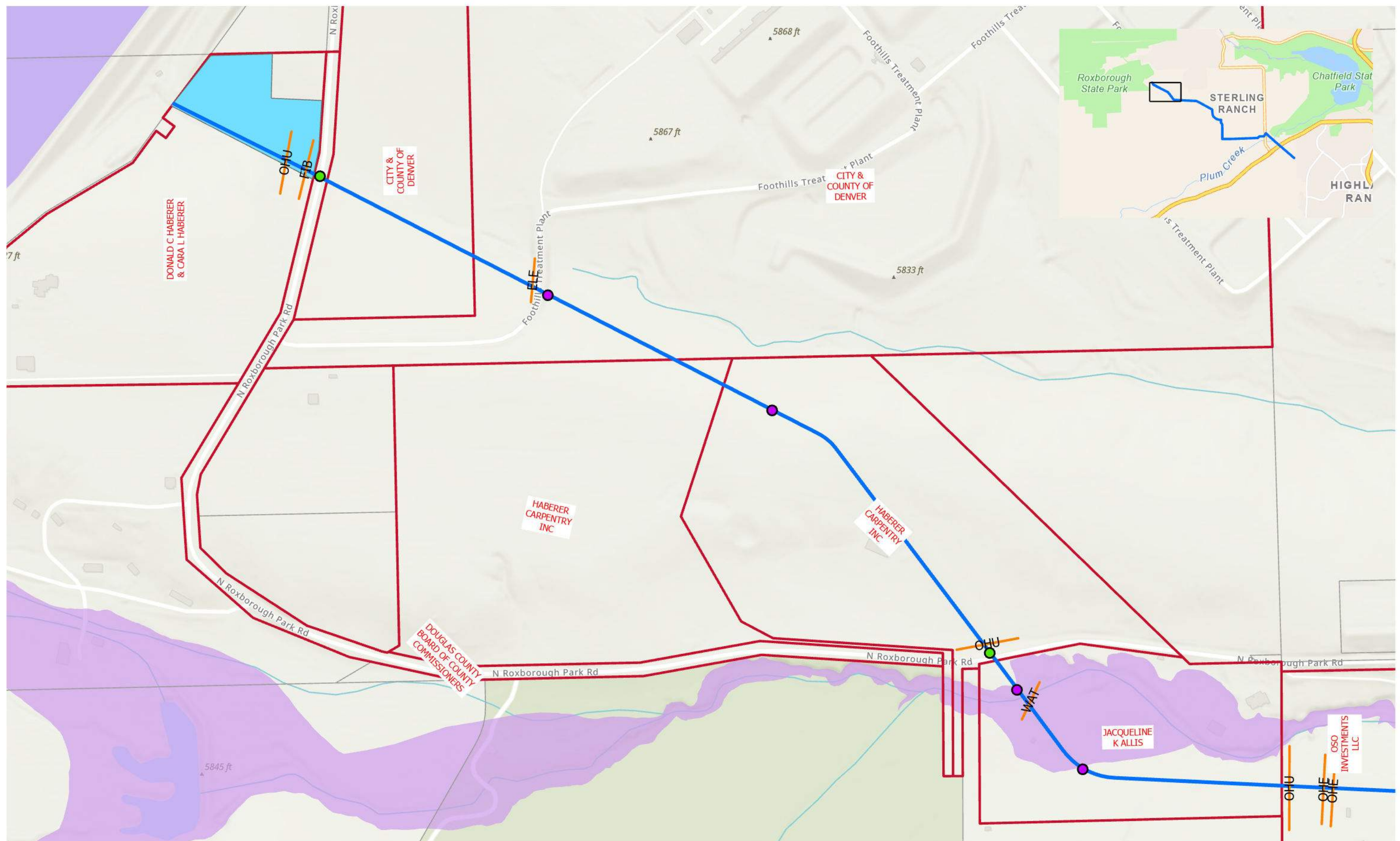
## References

- Douglas County. (2022). *Storm Drainage Design and Technical Criteria Manual*. Douglas County Public Works. <https://www.douglas.co.us/public-works/stormwater/storm-drainage-design-and-technical-criteria-manual/>
- Mile High Flood District. (2024). *Urban Storm Drainage Criteria Manual: Volume 1 – Management, Hydrology, and Hydraulics* (Partially updated March 2024). <https://www.mhfd.org/criteria-manual-volume-1>
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. (n.d.). *Web Soil Survey*. U.S. Department of Agriculture. <https://websoilsurvey.nrcs.usda.gov/app/>

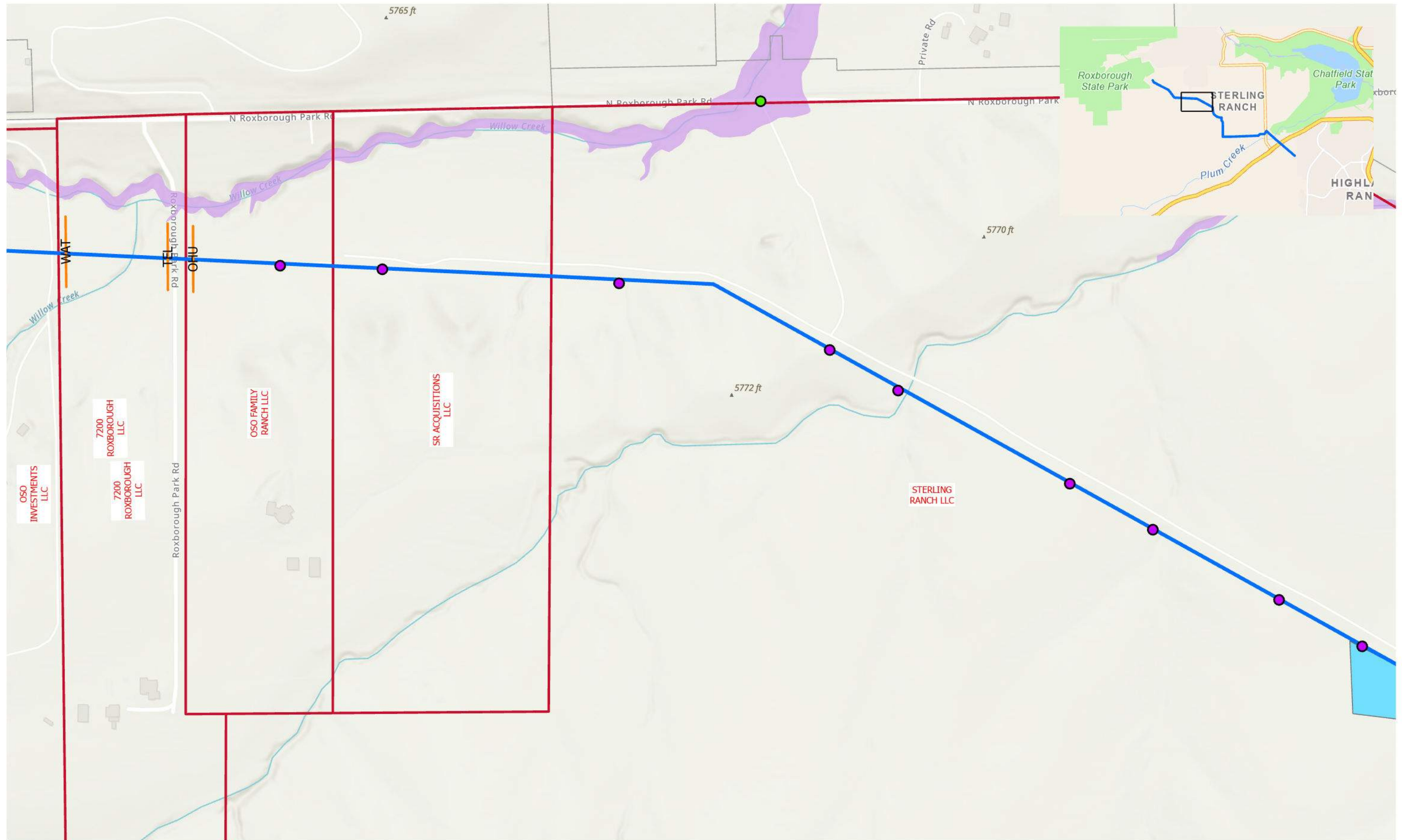












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Proposed Pipeline
Parcels

Floodplains
Intersected Parcels

Access Points
Utility Crossings

Above Grade Structures
Staging Areas

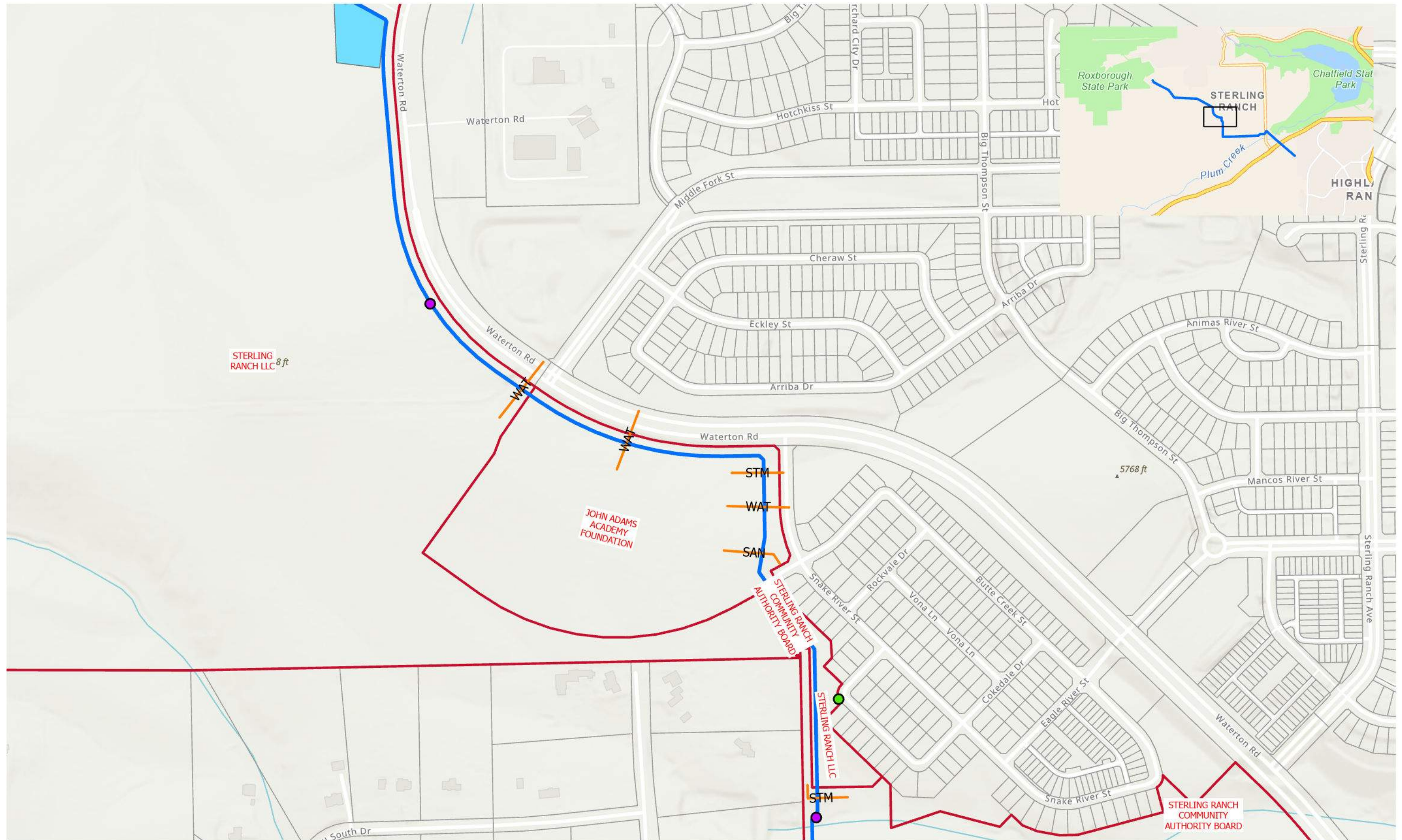
**ALIGNMENT AND VICINITY MAP**  
**STA 70+00 to 130+00**

RAMPART DELIVERY SYSTEM EXPANSION

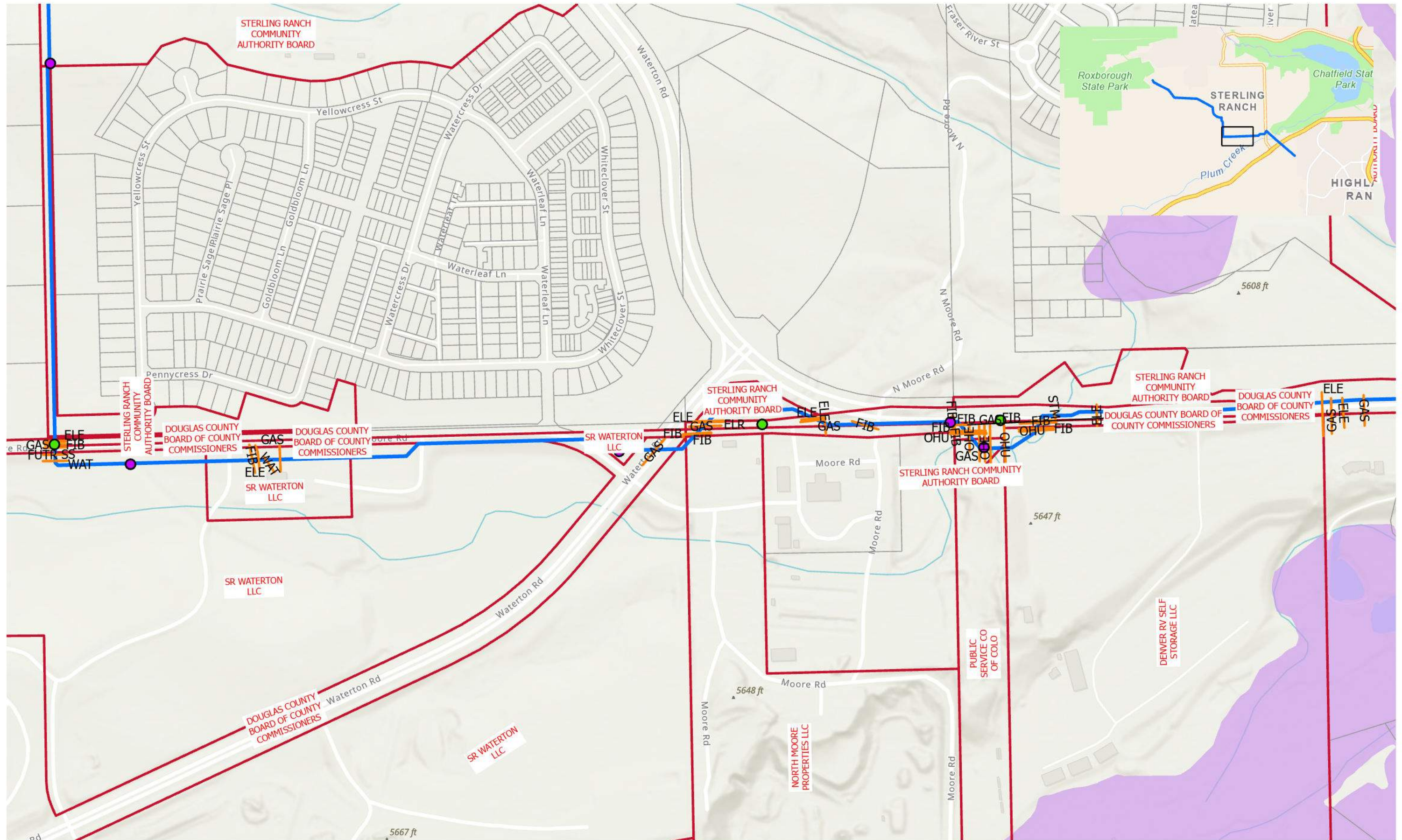
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Rampart Delivery System Expansion - Location and Extent  
 Project File: LE2026-008  
 Planning Commission Staff Report - Page 37 of 43

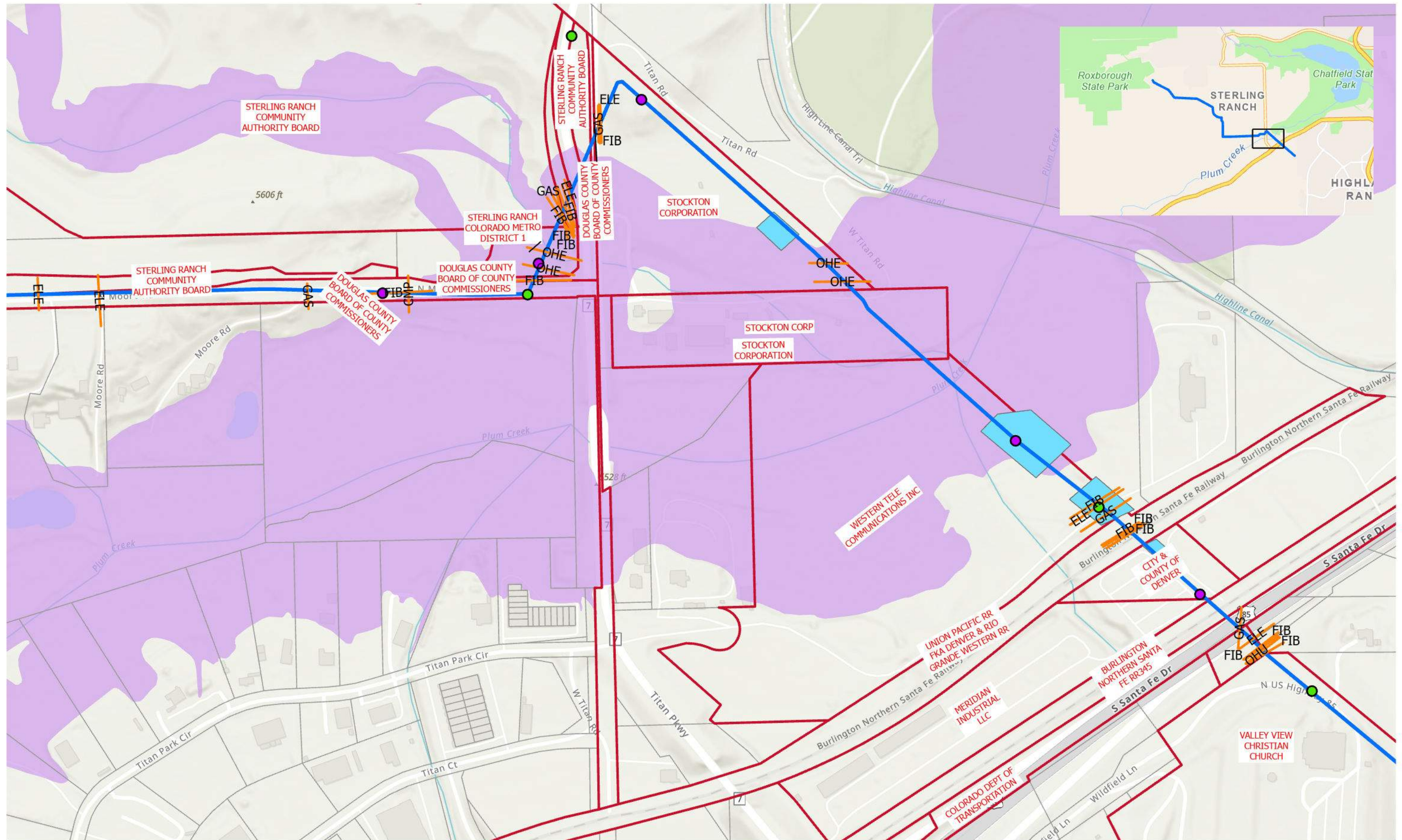






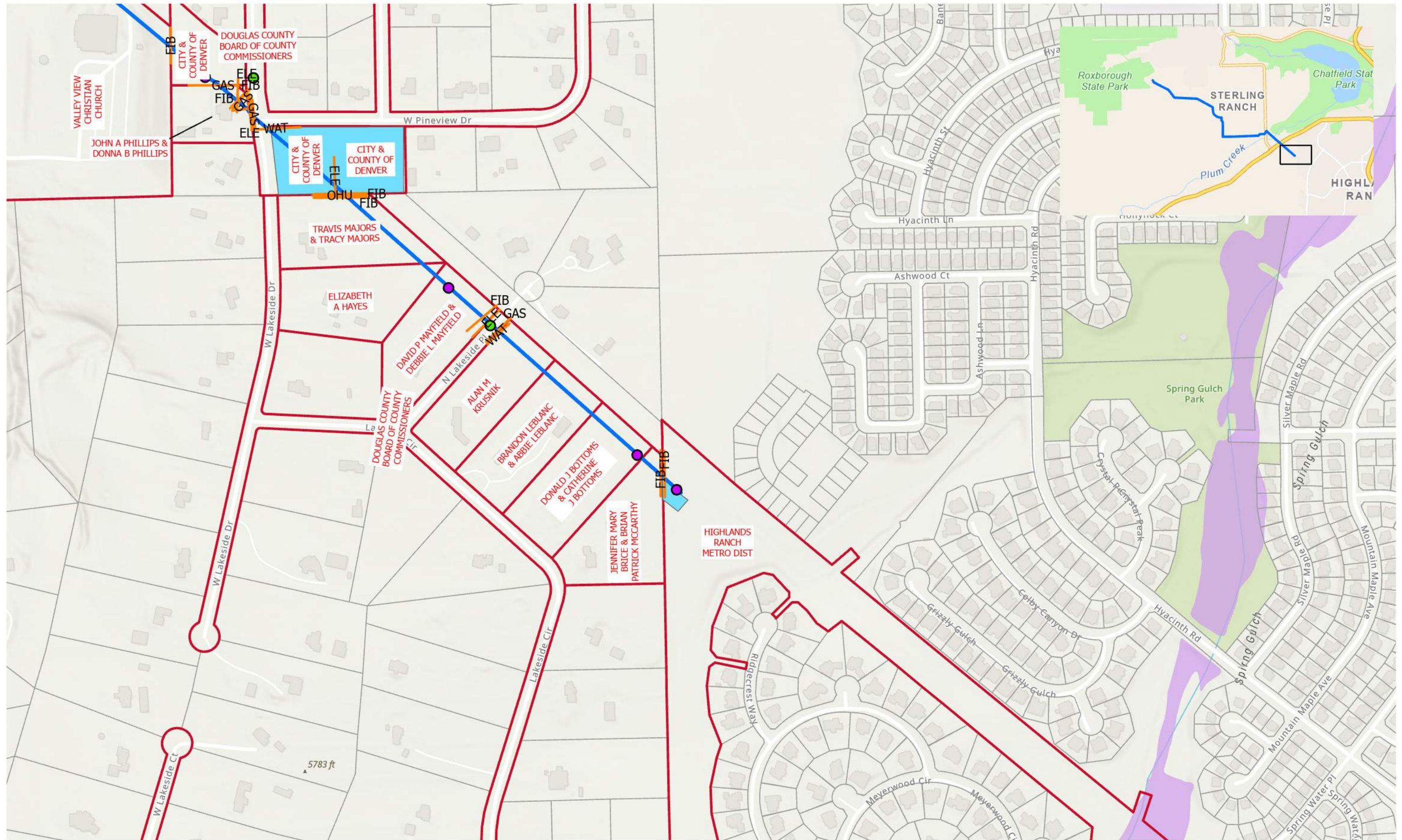






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# CITY OF AURORA, CO RAMPART RESERVOIR FACILITY

PART OF THE SW 1/4 OF THE SE 1/4 OF SECTION 12,  
TOWNSHIP 7 SOUTH, RANGE 69 WEST OF THE 6TH P.M.,  
DOUGLAS COUNTY, COLORADO



CITY OF AURORA  
RAMPART RESERVOIR  
LSP 4945  
ACCT #R0208426  
ACCT #R0487535

DONALD C. HABERER &  
CARA L. HABERER  
REC. NO. 2003013264

AURORA RAMPART RESERVOIR  
PROPERTY RULE AND ORDER  
BOOK 192, PAGE 225

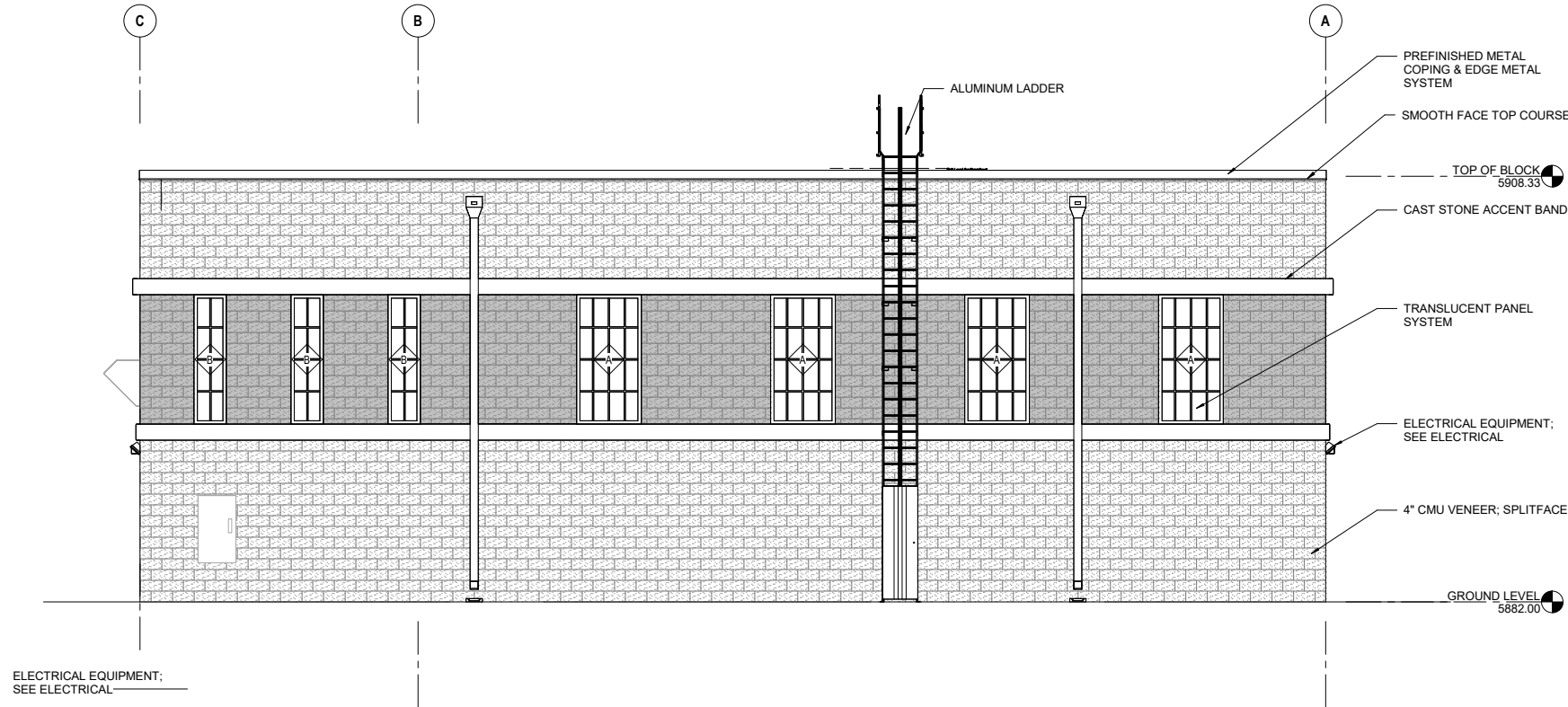
DON C. HABERER &  
CARA L. HABERER  
REC. NO. 2003013264

RAMPART RESERVOIR

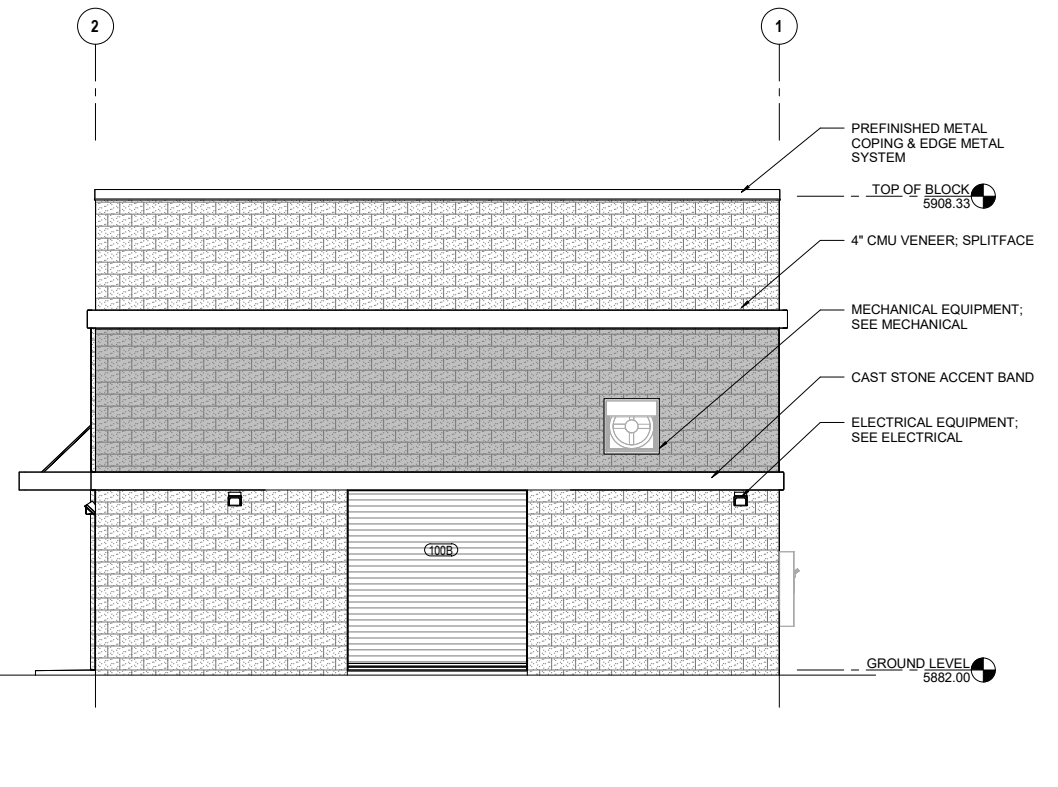
**OUTLET WORKS  
OVERALL SITE PLAN**



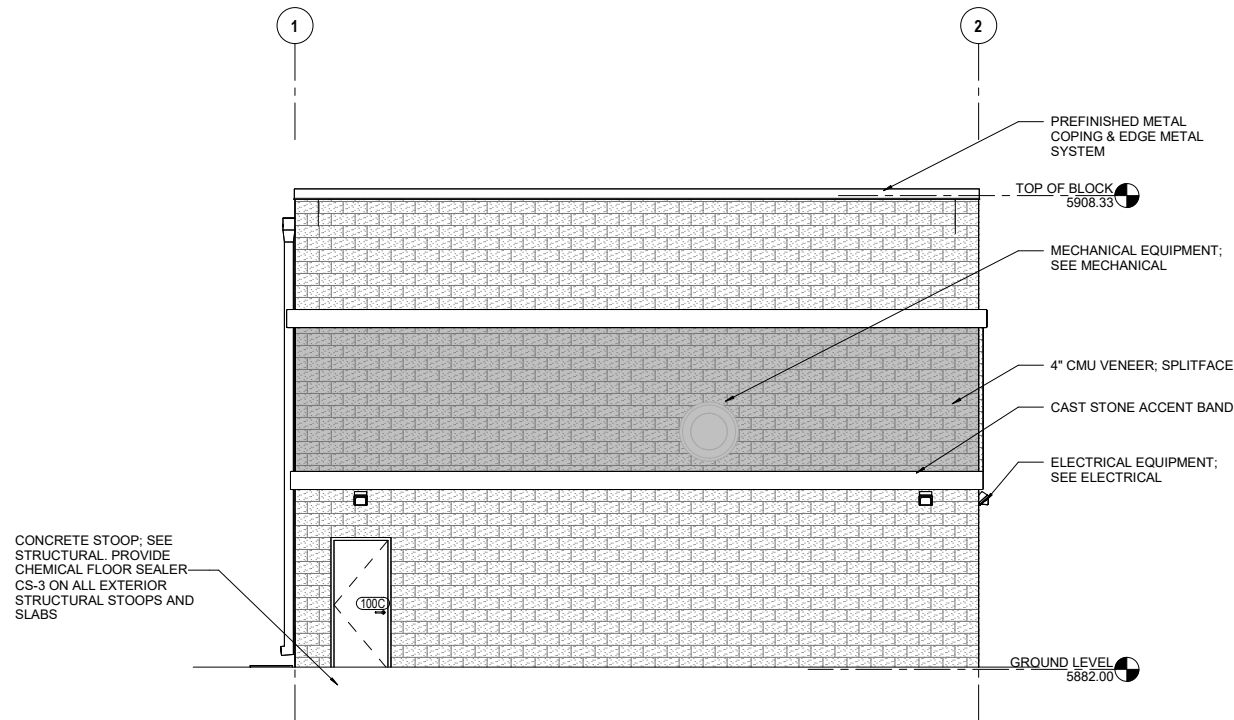
Autodesk Docs//10405768\_Aurora Rampart Delivery System\_2024/10/05/768\_01A.rvt  
6/9/2026 11:09:39 AM



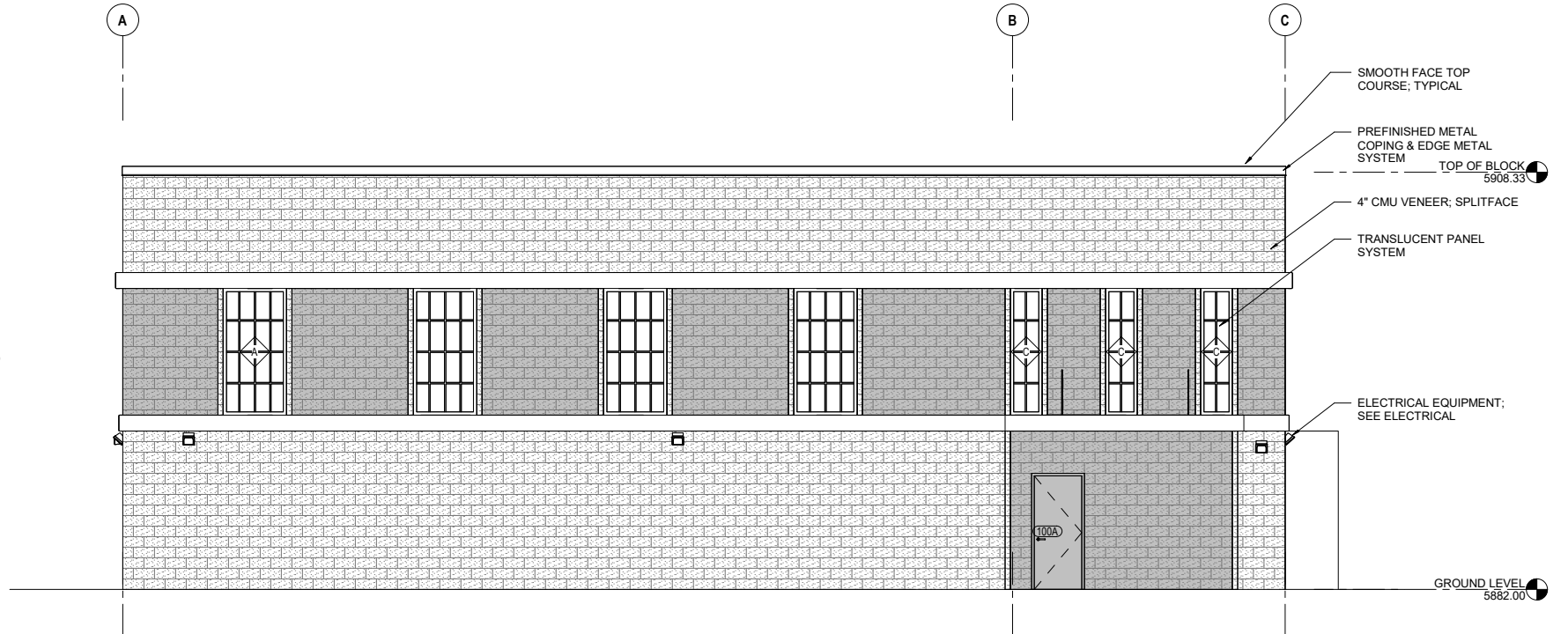
1 SOUTH ELEVATION  
01A102 3/16" = 1'-0"



2 WEST ELEVATION  
01A102 3/16" = 1'-0"



3 EAST ELEVATION  
01A101 3/16" = 1'-0"



4 NORTH ELEVATION  
01A102 3/16" = 1'-0"



HDR ENGINEERING, INC.  
1670 BROADWAY, SUITE 3400  
DENVER, CO 80202

Rampart Delivery System Expansion - Location and Extent  
Project File: LE2026-008  
Planning Commission Staff Report - Page 43 of 43

| ISSUE | DATE    | DESCRIPTION          |
|-------|---------|----------------------|
| B     | 02/2026 | 60% DESIGN SUBMITTAL |
| A     | 04/2025 | 30% DESIGN SUBMITTAL |

|                  |                 |
|------------------|-----------------|
| PROJECT MANAGER  | K. BUSHDIECKER  |
| PROJECT ENGINEER | B. REINER       |
| STRUCTURAL       | C. MULDERICK    |
| ARCHITECTURAL    | R. MCKINLEY     |
| PROCESS          | A. POOLEY       |
| MECHANICAL       | B. PERLBERG     |
| ELECTRICAL       | J. HUCKENPAHLER |
| INSTRUMENTATION  | J. BORDELON     |
| DRAWN BY         | S. KENNY        |
| PROJECT NUMBER   | 10405768        |

PRELIMINARY  
NOT FOR CONSTRUCTION  
OR RECORDING



RAMPART DELIVERY SYSTEM EXPANSION  
PHASE 1A  
DOUGLAS COUNTY, CO

OUTLET WORKS  
ARCHITECTURE EXTERIOR ELEVATIONS

FILENAME 10405768\_01D.rvt  
SCALE 3/16" = 1'-0"



SHEET  
01A201