



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION VIII
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North Dakota,
South Dakota,
Utah and Wyoming

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September 23, 2025

Mr. Carlos Braceras
Executive Director
Utah Department of Transportation
4501 South 2700 West
P.O. Box 141265
Salt Lake City, UT 84114-1265

Re: NEPA Reevaluation Approval for the **FrontRunner Forward Program – South of Draper Double Track Project**

Dear Mr. Braceras:

Thank you for providing the environmental documentation for the reevaluation of the **FrontRunner Forward Program – South of Draper Double Track** project. The project is planning to utilize Federal Transit Administration (FTA) Capital Investment Grants (CIG) Program funding to develop an in-fill station and double track alignment of the existing FrontRunner Commuter rail line from Draper Station to 1300 West in the cities of Bluffdale and Draper, Salt Lake County, Utah.

FTA understands that the design has been modified to construct a new FrontRunner infill station in Bluffdale (UTA milepost S 19) within the South of Draper Double Track Project area. The proposed station would include a new platform, an overhead pedestrian bridge, bus bays, parking areas, and an access road. The station would potentially include one or two at-grade pedestrian crossings to add access from the proposed station platform to Royal Coachman Drive to the west. To accommodate the station platform, the proposed FrontRunner double-track alignment would be shifted farther west. A potential construction equipment and material storage staging site (Bluffdale staging site) has also been added to this Project.

Based on the findings of the reevaluation for the project, FTA understands the following **additional** mitigation measures or changes in mitigation measures will be implemented:

- Use of Phillip Gates Memorial Park with de minimis impact in compliance with Section 4(f) will require the following mitigation:
 - Placing temporary fencing around construction areas that allows safe use of remaining areas of the park and trail.
 - Restoring park landscaping, including replacing trees that would be removed, to the same conditions or better than existing.
 - Reconfiguring the parking area to retain the existing number of parking spaces after retaining wall construction is complete.
- USACE Nationwide Permit 14, as required in the original 2023 CE, is **no longer required** based on recent court finding and guidance documents on Clean Water Act jurisdiction.
- The 2024 CE mitigation Natural and Biological Resources commitment has been modified slightly to require the following: Shrub and tree removal should occur outside the migratory bird nesting period, which is April 1 to July 15. If clearing and grubbing does need to occur during nesting season, preconstruction surveys will be conducted to determine whether there are any occupied nests in the area of disturbance. This survey must be conducted no more than 1 week before tree removal.
- New impacts to the Jordan and Salt Lake Canal require agreements with Salt Lake City Department of Public Utilities (SLCDPU). These agreements will cover the right-of-way and temporary

construction easement as well as the long-term maintenance of any fence gates and pedestrian crossings of the canal. The agreements will also address box culvert repairs and rail subgrade repairs.

- Construction will comply with UDOT's Standard Specification Section 02498 (Vibration Monitoring during Construction).
- The Project will require the following additional permits:
 - Encroachment permit from Bluffdale City for work at the Phillip Gates Memorial Park and access to the Bluffdale staging site.
 - Agreements from SLCDPU for impacts to the Jordan and Salt Lake Canal.

Based on the documentation provided by your office, FTA concurs with the finding that the proposed project continues to meet the definition of a categorical exclusion (CE). FTA has also determined, as a result of the changes in project scope, the CE type for the project has changed to list D type "other" pursuant to 23 CFR §771.118(d). If you have any questions regarding this finding, please contact Robyn Kullas in my office at Robyn.Kullas@dot.gov or (303)362-2389. Please keep FTA informed of any additional changes to the project should they occur.

Sincerely,

David Beckhouse
Deputy Regional Administrator

Cc:

Brian Allen, Utah Department of Transportation
Jay Fox, Utah Transit Authority
Janelle Robertson, Utah Transit Authority
Patti Garver, Utah Transit Authority
Autumn Hu, Utah Transit Authority

FrontRunner Forward

South of Draper Double Track Project

Environmental Reevaluation

September 2025

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- Attachment 2. South of Draper Double Track Project Conceptual Plans
- Attachment 3. Additional Land/Property Acquisition, Relocation, Leases, and Easements
- Attachment 4. Cultural, Historic, and Archaeological Resources
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- Attachment 9. Aquatic Resources Delineation Report
- Attachment 10. Impacts to Aquatic Resources
- Attachment 11. Canal Exemption Memo
- Attachment 12. Biological Resources Report

Abbreviations

APE	area of potential effects
CE	categorical exclusion
CFR	<i>Code of Federal Regulations</i>
CWA	Clean Water Act
D&RGW	Denver & Rio Grande Western Railroad
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act or Environmental Site Assessment
FFSL	Utah Division of Forestry, Fire and State Lands
FTA	Federal Transit Administration
ID	identifier
IPaC	Information, Planning, and Conservation System
LF	linear feet
LLC	limited liability company
LRT	light rail transit
ML	mainline
No.	number
UOL	Utah Open Lands
PCN	preconstruction notification
Project	South of Draper Double Track Project
ROW	right-of-way
RTP	regional transportation plan
Section 106	Section 106 of the National Historic Preservation Act
Section 4(f)	Section 4(f) of the Department of Transportation Act of 1966
SHPO	Utah State Historic Preservation Office
SLCDPU	Salt Lake City Department of Public Utilities
TCE	temporary construction easement
UDOT	Utah Department of Transportation
UOL	Utah Open Lands
UP	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	<i>United States Code</i>
USFWS	U.S. Fish and Wildlife Service
UTA	Utah Transit Authority
WFRC	Wasatch Front Regional Council

1 Introduction

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are constructing a second track along about 2.8 miles of existing single track on the FrontRunner commuter rail line from Draper Station to 1300 West in the cities of Bluffdale and Draper, Salt Lake County, Utah. The Federal Transit Administration (FTA) approved a categorical exclusion (CE) for the South of Draper Double Track Project (Project) on July 24, 2024.

After the 2024 CE approval and during the 2024 legislative session, the State of Utah allocated \$50 million to develop a station near The Point, the 600-acre site of the former Utah State Prison in the city of Bluffdale. The proposed station would provide additional access to the FrontRunner commuter rail line, improve regional mobility options, and encourage transit-supportive local and regional land use planning initiatives and redevelopment strategies. UTA and UDOT hereby are proposing to construct a new FrontRunner infill station in Bluffdale (approximately UTA milepost S 19) within the South of Draper Double Track Project extents.

The proposed station would include a new platform, an overhead pedestrian bridge, bus bays, parking areas, and an access road. The station would potentially include one or two at-grade pedestrian crossings to add access from the proposed station platform to Royal Coachman Drive to the west. To accommodate the station platform, the proposed FrontRunner double-track alignment would be shifted farther west. The Project is being reevaluated to document the anticipated environmental impacts of the proposed station and shifted double track and to determine whether the Project still qualifies for a CE. A potential construction equipment and material storage staging site (Bluffdale staging site) has also been identified for this Project and is included in this reevaluation.

The South of Draper Double Track Project is one of many projects under the FrontRunner Forward Program (also known as the FrontRunner 2X project), which includes double tracking and realigning certain sections of FrontRunner and constructing this new infill station and a new maintenance facility. Further details about investments associated with the FrontRunner Forward Program are included in a separate report, *FrontRunner Forward Strategic Double Track Recommended Service Alternative Overview – A Planning and Environmental Linkage Study (PEL)* (UTA 2025).

2 Project Changes

The proposed Bluffdale station would be located on the east side of the existing UTA FrontRunner and Union Pacific Railroad (UP) tracks south of Bangerter Highway and north of 14600 South in Bluffdale, Utah. This site is about 1.7 miles south of the existing FrontRunner Draper Station (located at 12997 S. FrontRunner Boulevard). The location of the proposed station is influenced by the existing Bangerter Highway bridge abutments and the need to limit environmental impacts to the Galena Soónkahni Preserve farther north. To the south, the existing Phillip Gates Memorial Park further influences the southern limits of the new station (see Figure 1).

The FrontRunner platform and a second FrontRunner mainline (ML) track would be located west of the existing FrontRunner mainline track and existing UP track. Within the station area, east of the UP track, space would be allocated for a future light rail transit (LRT) line. Farther east of the future LRT tracks, a perimeter greenway would provide a high-quality green space and an active transportation corridor to access the station. The station layout would include a centrally located station square as the focal point,

and space would be allocated for buses to access the station. The station access road would be constructed at about 855 West and developed through coordination with Bluffdale City. The park-and-ride facilities would be located south of the bus bays, and a rideshare and “kiss-and-ride” area would be located east of the station square.

The station’s conceptual design includes shelters and an elevated enclosed pedestrian bridge over the FrontRunner and UP tracks to access the FrontRunner station platform. The platform, which would be about 23 feet wide, would provide a waiting area for passengers and give access to station amenities such as ticket vending machines, garbage receptacles, and wayfinding information (maps and signs). The pedestrian bridge would span about 160 feet between the two buildings; the western building would house elevators and stairs, and the eastern building (next to the proposed station parking lot) would house elevators, stairs, an operator breakroom, and operator restrooms. UTA and UDOT are coordinating with Bluffdale City on the potential construction of an at-grade pedestrian crossing on the west side of the platform as well as access to a sidewalk along Royal Coachman Drive.

As part of the conceptual station design, the two buildings connected by the pedestrian bridge would be about 37 feet above the platform. Lighting design would follow UTA’s Commuter Rail Design Criteria (2015) and would incorporate CPTED (crime prevention through environmental design) standards. Area and guideway lighting fixtures and standards would incorporate directional shielding where needed to prevent unwanted light and glare from intruding into adjacent land uses. Lighting plans might be subject to local jurisdictional requirements and approval. See the conceptual station design plans in Attachment 1, *Bluffdale Station Conceptual Design Plans*.

To accommodate the station platform, the design for the proposed FrontRunner ML track number (No.) 2 would be modified to shift the track alignment about 28 feet to the west of the location evaluated in the original CE. The anticipated additional work resulting from this shift would include:

- Placing about 2,600 linear feet (LF) of the Jordan and Salt Lake City Canal into a box culvert
- Realigning about 120 LF of the Jordan and Salt Lake City Canal
- Realigning the existing canal access road on top of the proposed box culvert
- Constructing a drainage ditch adjacent to the proposed access road
- Constructing a retaining wall adjacent to Phillip Gates Memorial Park
- Potentially relocating utilities (to be determined during final design)
- Widening the existing track bed (see Figure 1 on page 4)

Both permanent right-of-way (ROW) acquisition and temporary construction easements (TCEs) would be required for the Project. The conceptual design for the shifted double track is included in Attachment 2, *South of Draper Double Track Project Conceptual Plans*.

The majority of the proposed station footprint falls outside the original project area for the South of Draper Double Track Project that was defined in the original CE. The expanded project area for the proposed station was defined as an irregularly shaped polygon to incorporate all proposed project elements including the bus bays, the park-and-ride facilities, the “kiss-and-ride” area, and station access road. The expanded project area extends south to 14600 South for the access road, which would be located at about 855 West. The expanded project area also includes an optional access road running

east into The Point. This optional access road was not advanced for this Project. In addition, an expanded project area is necessary to accommodate the double-track shift. This expanded area comprises two small, irregularly shaped polygons located west of the original project area, adjacent to and within Phillip Gates Memorial Park. This expanded project area covers the limits of work that would be done within the park for constructing a retaining wall, reconfiguring the parking lot, and relocating utilities. This expanded project area totals about 1.5 acres (see Figure 1).

The station area is about 70 acres, which primarily comprises open space. The total revaluation area, which includes the track shift, station, access road, and staging site totals about 136 acres.

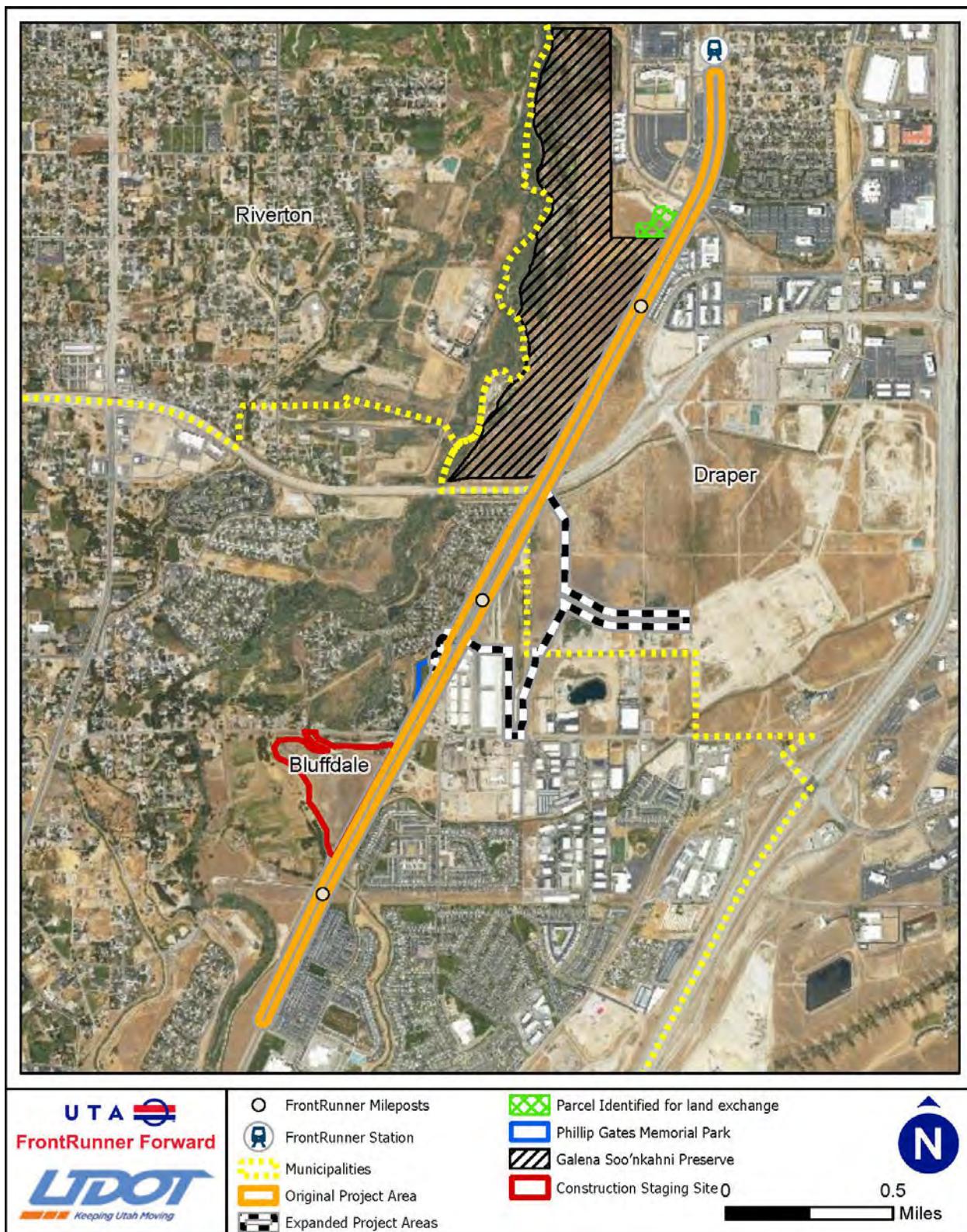
Additionally, since the CE was approved, UTA, UDOT, the Utah Division of Forestry, Fire and State Lands (FFSL), and Utah Open Lands (UOL) have agreed on a parcel from which an equitable amount of land will be purchased by UDOT and exchanged for the 0.23 acres of land within the Galena Soónkahni Preserve needed for the Project. The impact to the Galena Soónkahni Preserve was evaluated in the original CE, and there are no changes to this previously identified impact. The land identified for exchange is undeveloped land that directly abuts the northeastern edge of the Galena Soónkahni Preserve and is currently owned by Ivory Innovations (parcel ID 27363510210000). The acquisition of this land would be a partial take of about 0.23 acres from the 5.2-acre Ivory Innovations parcel (see Figure 1 on page 4). Once the land exchange is finalized, the new land would be owned by FFSL and incorporated into the Galena Soónkahni Preserve conservation easement held by UOL.

Because no project construction activities are anticipated on the land identified for exchange other than being incorporated into the Galena Soónkahni Preserve, there would be no environmental effects on the site. This partial acquisition is discussed in Section 3.2.1, *Land Use and Zoning*, and Section 3.2.2, *Land/Property Acquisition, Relocation, Leases, and Easements*, and is discussed further in Section 4, *Summary of Changes to Environmental Impacts*.

The proposed Bluffdale staging site is vacant land owned by UTA located west of the FrontRunner Corridor and south of 14600 South in Bluffdale. Access to the approximately 34-acre site would be via an existing gravel road running from 14600 South, over an existing structure in the Jordan and Salt Lake Canal, and onto the site. The site is purposed for construction equipment and material storage staging. There is soil stockpiled at this site that was left over from the original FrontRunner construction (2008-2012) that, if suitable, would be excavated and used for the Project. For more information see Section 3.2.13, *Construction Impacts*.

Throughout this reevaluation and associated technical reports, the term “expanded project area” is used to describe the general study location and limits of changes to the Project. The term “design footprint” is used to describe the conceptual project design. The design footprint is also used to assess impacts to resources and includes the anticipated limits of physical disturbance, including space for potential temporary construction workspaces and the limits of anticipated ROW acquisition.

Figure 1. South of Draper Double Track Expanded Project Area



3 Changes to Environmental Impacts and Mitigation

The following sections provide an overview of various environmental resources and present the reevaluation findings for the expanded Project. To help determine changes to resource impacts and mitigation, the 2024 CE worksheet and supporting technical documents were reviewed. In addition, publicly available environmental databases were reviewed to determine whether additional environmental resources could be present in the expanded project area. Additional environmental field surveys were completed for cultural, aquatic, and biological resources in the expanded project area. An Environmental Assessment (EA) for the Point of the Mountain Transit Project (FTA 2025) evaluated the area around the construction staging site, which was the proposed location for a new bus maintenance facility. The Environmental Assessment and the supporting environmental surveys that were performed in 2022 and 2023, were reviewed to determine the presence of environmental resources at the Bluffdale staging site.

Section 3.1, *Resources with No Changes*, summarizes the project team's reevaluation findings that have not changed from the 2024 CE. Section 3.2, *Resources with Changes*, presents the findings for more in-depth resource evaluations and the minor changes compared to the findings of the 2024 CE.

3.1 Resources with No Changes

Farmland. No changes were identified.

Floodplains. No changes were identified.

Water Resources and Water Quality. No changes were identified. The construction stormwater permit from the Utah Department of Environmental Quality, which was identified in the CE, will include the new station and Bluffdale staging site. Also refer to Section 3.2.9, *Wetlands and Waters of the U.S.*, for changes related to aquatic resources and Section 3.2.12, *Utilities*, for impacts to an irrigation canal.

Natural and Biological Resources. No changes were identified. The CE identifies a mitigation requirement that shrub and tree removal should occur outside the migratory bird nesting period, which is April 1 to July 15. If clearing and grubbing does need to occur during nesting season, preconstruction surveys will be conducted to determine whether there are any occupied nests in the area of disturbance. This survey must be conducted no more than 1 week before tree removal.

3.2 Resources with Changes

This section presents the reevaluation findings for the environmental impacts that have changed with the addition of the station, track shift, and Bluffdale staging site along with any changes to the previously committed (in the 2024 CE) or new mitigation actions. Table 2, *Changes to Environmental Impacts and Mitigation*, on page 16, summarizes the anticipated new environmental impacts to and mitigation measures for the reevaluated environmental resources. This table also indicates whether no new impacts or mitigation are identified for a particular resource.

3.2.1 Land Use and Zoning

A total of 17.63 acres of land consisting of land currently zoned as agricultural (13.9 acres), urban (3.62 acres), and parkland (0.11 acres) would be converted to a transportation use by the Project. The conversion of this land to a transportation use would be consistent with local and regional future land use and transportation plans for the expanded project area as identified in the Wasatch Choice Vision (<https://wasatchchoice.org/>). The proposed station would be located adjacent to the planned

development area for The Point. The Point is a 600-acre area in Draper, Utah, that is being redeveloped into a mixed-use community with a multimodal transportation system focused on reducing reliance on cars through integrated transit options and pedestrian- and bike-friendly infrastructure.

In addition, the 0.23 acres of property that would be acquired for the land exchange for the impact to the Galena Soónkahni Preserve is currently zoned for “Other”. That property would be converted to conservation easement land. The amount of exchanged land is subject to change after land appraisals are complete. Because no land-disturbing actions would occur on the portion of parcel identified for the land exchange, no changes to environmental impacts are anticipated.

The 34-acre Bluffdale staging site is currently zoned as residential. The Project would not change the long-term use or zoning of the site.

3.2.2 Land/Property Acquisition, Relocation, Leases, and Easements

Nine parcels totaling about 22.77 acres of land would be permanently and/or temporarily acquired. There would be no residential or business relocations. Attachment 3, *Additional Land/Property Acquisition, Relocation, Leases, and Easements*, contains a detailed breakdown of property impacts and figures that show the additional ROW required for the Project.

UTA and UDOT will conduct acquisitions in accordance with the provisions in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 *United States Code* [USC] Section 61 and the implementing regulation 49 *Code of Federal Regulations* [CFR] Part 24).

3.2.3 Cultural, Historic, and Archaeological Resources

Three archaeological sites were identified in the original area of potential effects (APE) and were determined eligible for the National Register of Historic Places: the Denver & Rio Grande Western Railroad (D&RGW; site 42SL293/42UT1101), [REDACTED] and the Jordan and Salt Lake City Canal (site 42SL214). The original undertaking would result in **no adverse effect** under Section 106 of the National Historic Preservation Act and a **use with de minimis impact** under Section 4(f) of the Department of Transportation Act of 1966 to these three archaeological sites. The Utah State Historic Preservation Office (SHPO) concurred with FTA’s finding on September 29, 2023.

Due to the project scope change, the APE was expanded as shown in the figure series provided in Attachment 4, *Cultural, Historic, and Archaeological Resources*. An additional archaeological inventory and historic buildings inventory were conducted in the expanded APE in March 2024. Archeological and historic building surveys of the Bluffdale staging site were conducted in May 2023 as part of a separate project and referenced for this reevaluation.

Determinations of Eligibility. The expanded APE included noncontributing segments and features of two National Register-eligible sites: sites 42SL214 (the Jordan and Salt Lake City Canal) and site 42SL290 (the East Jordan Canal), in addition to the National Register-eligible site 42SL293 (Denver & Rio Grande Western Railroad). No historic buildings were identified in the expanded APE. **Findings of Effect.** Sites 42SL214 (Jordan and Salt Lake City Canal) and 42SL290 (East Jordan Canal) would both be directly impacted by construction of Bluffdale Station and double track; however, the affected features of the sites do not contribute to the overall eligibility of either resource.

Access to the construction staging site would be over a contributing segment of 42SL214. The access road may be lightly graded but would not be widened or otherwise notably altered. The use of the

existing access road across the Jordan & Salt Lake City Canal (42SL214) would not result in any impacts to the canal site itself as the structure carrying the road across the canal would also not be altered.

FTA determined the anticipated impacts within the expanded APE would result in **no adverse effect** on both sites 42SL214 and 42SL290.

Site 42SL293 (Denver & Rio Grande Western Railroad) would not be directly altered by the station development in the expanded APE but would be spanned by a new pedestrian crossing between the station parking area and the station platform. This pedestrian crossing would slightly alter the setting of the site, which is not a character defining feature of the resource. FTA has determined these impacts would constitute **no adverse effect** to site 42SL293.

Based on these updated findings under Section 106, FTA determined the expanded undertaking would result in a **use with *de minimis* impact** of sites 42SL214, 42SL290, and 42SL293 under Section 4(f).

FTA retained the overall finding of **no adverse effect** under Section 106 and a **use with *de minimis* impact** under Section 4(f) for the South of Draper Double Track Project. SHPO concurred with these findings in a letter to FTA dated September 8, 2025.

Attachment 4 contains the expanded APE and site location figures and the Section 106 consultation documentation.

3.2.4 Visual/Aesthetic Resources

The project team anticipates that the final design of the Project would be consistent with the context of the surrounding community while also staying consistent with other existing FrontRunner stations. The proposed station design would be sensitive to the local character of the area and would not detract from the context of the surrounding area. The design would minimize effects on the visual setting resulting from the proposed project changes at the existing transit corridor, though residents along Royal Coachman Drive, especially those in the first row of homes with the most direct views of the station area, would experience a change in views to the east. The noticeable visual changes would decrease as one moves north or south, farther from the proposed station elements.

The project team does not anticipate any adverse visual impacts from the Project at the proposed station location, nor any adverse proximity or visual effects on the location, design, setting, materials, workmanship, feeling, or association of historic resources in or near the proposed station location. The station's features would be compatible with the scale of the existing built environment surrounding the station area and would fit into the overall FrontRunner corridor context. The station would introduce new structural elements to an area that, while currently open space, is rapidly developing.

See the visual and aesthetic resources technical memorandum in Attachment 5, *Visual/Aesthetic Resources*.

3.2.5 Parks and Recreation Resources

Permanent (0.11 acres) and TCE (0.82 acres) impacts to Phillip Gates Memorial Park would occur immediately adjacent to UTA's existing property boundary for the FrontRunner rail corridor, and neither the permanent conversion of park land to transportation use nor the TCE impacts would have a notable impact on the use of the park as a recreation resource. Several trees near the park's parking lot would be removed and would be replaced by the project contractor in coordination with Bluffdale City. In addition, 0.01 acres of green space on the south end of the park that is included in the 0.82-acre TCE

would be converted to a grading slope to accommodate a retaining wall construction; however, this grass area is extremely close to 14600 South and on a slope immediately adjacent to unmaintained vegetation. According to Bluffdale City Parks and Recreation Department personnel, the grass area is not used by park patrons.

None of the park's amenities, including the playground, picnic pavilion, restrooms, and trails, or the pond/stormwater detention basin located south of the playground, would be affected by the Project.

In addition, a small portion of Spring View Farms Trail, a trail within Phillip Gates Memorial Park and designated as a trail on Bluffdale City's master trails plan and active transportation plan, on the north end of the park where the trail connects with Royal Coachman Drive would be included in the TCE for construction equipment access and staging. Using a small portion of this trail as TCE would still allow the trail to remain open throughout construction, and the trail would be restored to its original condition after construction. The TCE along this portion of the trail would have **no use** under Section 4(f) and is considered a temporary occupancy per 23 CFR Section 774.14(d).

Mitigation. UTA and UDOT will obtain an encroachment permit from Bluffdale City for the temporary construction use of the park. UTA and UDOT, along with Bluffdale City, will establish the areas to place temporary fencing to best accommodate construction access and equipment staging while safely allowing enough room for both park users and authorized emergency and maintenance vehicles. UTA and UDOT will provide Bluffdale City with just compensation for the acquisition of the park property and will mitigate construction impacts by restoring park landscaping, including replacing trees that would be removed, to the same conditions or better than existing. Additional mitigation is described in the official jurisdiction letter titled "Section 4(f) – Request for Concurrence: FrontRunner South of Draper Double Track Project (Phillip Gates Memorial Park) in Salt Lake County, Utah."

A public comment period was provided from July 13 to July 27, 2025, for the public to review FTA's determination of impacts from the Project to Phillip Gates Memorial Park. The notice of the public comment period was posted on the Utah.gov website and the UDOT FrontRunner project website (<https://udotinput.utah.gov/FrontRunnerProject>) (July 13, 2025), printed in *The Salt Lake Tribune* (July 12 and 13, 2025) and *Deseret News* (July 11, 2025), and posted in the park (July 15, 2025). During the public comment period, FTA, UTA, and UDOT received six individual comment submissions from the public and none from an agency. Comments specific to the Section 4(f) *de minimis* impact to the park consisted of three general themes: concerns about the temporary closure of the park during construction, safety and security, and a question regarding access to the emergency exit from the Spring View Farms neighborhood through the park onto 14600 South. These issues have been evaluated and will be mitigated.

Based on the information presented above, FTA has determined that the Section 4(f) use of Phillip Gates Memorial Park by the Project would be a **use with *de minimis* impact**, and the requirements of 23 CFR Part 774 have been satisfied. Bluffdale City concurred with this determination on August 15, 2025 in the official jurisdiction letter titled "Section 4(f) – Request for Concurrence: FrontRunner South of Draper Double Track Project (Phillip Gates Memorial Park) in Salt Lake County, Utah."

The Section 4(f) consultation documentation and the public comment summary report are included in Attachment 6, *Parks and Recreation Resources*.

3.2.6 Noise and Vibration

The South of Draper Double Track Project design change would include a new infill station and widening the tracks at the station. UTA and UDOT anticipate that, in this location, the residences west of the proposed station would experience an increase of 0.1 to 0.2 decibels (dB) in noise level, which is below the moderate impact threshold.

Additionally, in this area, a receiver would need to be located within 95 feet of the existing UTA FrontRunner track for the change in vibration level to be greater than 3 vibration decibels (VdB), which is the threshold for vibration impact. The closest receivers are 124 feet from the existing UTA track; therefore, no vibration impact is anticipated due to the proposed infill station.

Because no impacts are identified for either noise or vibration, no mitigation is required.

See Attachment 7, *Noise and Vibration*, for the noise and vibration assessment.

3.2.7 Air Quality

The Wasatch Front Regional Council's (WFRC) 2023–2050 regional transportation plan (RTP, which includes the South of Draper Double Track Project) and WFRC's Air Quality Conformity Memorandum 41 were adopted in May 2023. (WFRC 2023) Amendment 1 of WFRC's 2023–2025 RTP includes the proposed Bluffdale Station (WRFS 2024a). WFRC's Air Quality Memorandum 42, which used the latest planning assumptions and emissions estimates, confirms that WFRC's 2023–2050 RTP and Amendment 1 are consistent with and conform to the State Implementation Plan (SIP) or the U.S. Environmental Protection Agency's (EPA) interim conformity guidelines (WFRC 2024b).

The South of Draper Double Track Project (UDOT PIN 20253 and UDOT PIN 21213) is also listed in WFRC's 2023–2028 Transportation Improvement Program (TIP) (WRFS 2024c).

The Project is not a project of air quality concern, and UTA and UDOT do not expect the Project to adversely affect local compliance with the National Ambient Air Quality Standards (NAAQS). No hot-spot analysis is required. See the *FrontRunner Forward Corridor Level Air Quality Analysis Addendum* (UTA 2025a).

3.2.8 Hazardous Materials

The Utah Geospatial Resource Center's Land-Related Contaminant and Cleanup database, the Utah Department of Environmental Quality's (UDEQ 2025) online database, and reports by Environmental Data Resources, Inc. (EDR 2022 and 2024), were reviewed for sites with known or suspected contamination in the hazardous materials evaluation area for the Project, which consisted of a 0.5-mile radius around the expanded project area and the Bluffdale staging site. Based on the site screening, two sites are near the expanded project area but present a low risk to the Project because they are both located more than 1,500 feet away from the nearest proposed construction activities. These two sites of low risk are:

- Biozyme LLC Compost facility, located about 1,600 feet east of the proposed station footprint boundary. This composting facility, which was built on state land that was owned by the Utah Department of Corrections, processed food waste from various sources and diverted up to 40% of landfill waste. The facility was closed on October 2, 2013, and met the approved closure requirements per its Salt Lake Valley Health Department permit.

- Utah State Prison Farm Entrance, located about 2,000 feet east of the proposed station footprint boundary. One petroleum storage tank was removed from the ground in 1994, and one leaking underground storage tank was closed using a Regional Contamination Level / Maximum Contamination Level approach in 1995.

In accordance with FTA's standard operating procedures and applicable regulatory requirements, UTA and UDOT will conduct environmental due diligence by the applicable ASTM standards to identify whether hazardous materials are present before property acquisitions and construction occur. Plans for hazardous materials handling and disposal will be developed for the Project and will comply with the *Materials Management Plan for Utah Transit Authority Rail Corridor* (UTA 2025b). Developing these plans would include coordination with state and federal agencies with jurisdiction over the properties.

If contamination is found after completion of the Phase I Environmental Site Assessment (ESA) and Phase II (if needed) ESA, a soil and groundwater management plan will be developed before construction. This plan will describe the necessary investigations needed to characterize contaminant concentrations in the project area, if any; describe, based on the results of the investigation, the protection measures that will be used to prevent the spread of contamination; communicate the health risks to construction workers; define appropriate handling and disposal or treatment methods for contaminated media; and help the project team better identify construction-related impacts.

See Attachment 8, *Hazardous Waste*, for a map showing the sites of low risk in the expanded project area. Attachment 8 also contains a map extracted from the 2022 EDR Report showing the results of the hazardous materials screening for the area around the Bluffdale staging site.

3.2.9 Wetlands and Waters of the U.S.

An aquatic resources survey was conducted in the expanded project area for the proposed station in 2024; the results are presented in an aquatic resources delineation report (see Attachment 9, *Aquatic Resources Delineation Report*). These resources included 0.17 acres of palustrine emergent wetlands, 0.35 acres (1,186 LF) of canals and ditches, and 0.23 acres of open-water ponds. The impacts from the proposed station would be about 0.08 acres to ditches and 0.20 acres to open-water ponds. There would be no impacts to the palustrine emergent wetlands.

No additional aquatic resource delineation surveys were conducted west of the rail corridor because that area was captured by the original delineation and recent surveys from another project. About 2,600 LF (0.92 acres) of the Jordan and Salt Lake City Canal would be placed into a box culvert, and about 120 LF of the remaining open-channel portion of the canal would be realigned. Besides the Jordan and Salt Lake Canal which runs around the perimeter of the Bluffdale staging site and will not be impacted, no aquatic resources were identified at the staging site.

Table 1 summarizes the permanent aquatic resources impacts, and Attachment 10, *Impacts to Aquatic Resources*, provides exhibits that show the locations of the impacted aquatic resources.

Table 1. Impacts to Aquatic Resources

Water	Original Impacts (acres)	Additional Impacts (acres)	Total Impacts (acres)
Wetlands	0.00	0.00	0.00
Streams	0.00	0.00	0.00
Ditches	<0.01	0.08	0.09
Jordan and Salt Lake Canal	<0.01	0.92	0.92
Open-water ponds	0.00	0.20	0.20

Because the aquatic resources impacted by the proposed project lack a continuous surface connection to a downstream water of the U.S., it is likely that the U.S. Army Corps of Engineers (USACE) would characterize these aquatic resources as nonjurisdictional according to the latest guidance on aquatic resources, and these aquatic resources would not be subject to permitting under Section 404 of the Clean Water Act (CWA) (USACE and EPA 2025).

Following the guidance established by USACE and EPA (USACE and EPA 2020), the proposed activity, which would involve placing the Jordan and Salt Lake City Canal into a box culvert, is exempt from regulation under Section 404 of the CWA. Attachment 11, *Canal Exemption Memo*, provides a memo regarding the jurisdictional rationale of the exemption of impacts to the Jordan and Salt Lake City Canal.

The 2024 CE identified a need to submit a preconstruction notification (PCN) seeking Section 404 permit coverage under Nationwide Permit 14 for linear transportation projects. Because the impacted waters are considered nonjurisdictional, Section 404 permit coverage is no longer required.

3.2.10 Threatened and/or Endangered Species

No suitable habitat for threatened and endangered species were identified in the original biological survey. A second reconnaissance-level survey was conducted in June 2024 for the expanded project area east of the rail corridor. Two insect species that are proposed to be listed under the Endangered Species Act (ESA) were identified with potentially suitable habitats within the expanded project area: monarch butterfly (*Danaus plexippus*) and Suckley's cuckoo bumble bee (*Bombus suckleyi*). No suitable habitat for threatened and endangered species were identified for the Point of the Mountain Transit project, which included the Bluffdale stage site west of the rail corridor.

Attachment 12, *Biological Resources Report*, provides a detailed description of the assessment methods and conclusions related to the presence of suitable habitat for these species. The results of the assessment are summarized below.

3.2.10.1 Monarch Butterfly

Milkweed is an essential feature of quality monarch habitat, and milkweed plants were observed growing in the expanded project area.

Proposed species are not protected by the take prohibitions of Section 9 of the ESA until the rule to list is finalized. Under Section 7(a)(4) of the ESA, "Federal agencies must confer with the [U.S. Fish and Wildlife] Service if their action will jeopardize the continued existence of a proposed species." Given that the expanded project area is outside the proposed critical habitat for this species, the Project would not jeopardize the continued existence of monarch butterflies.

3.2.10.2 Suckley's Cuckoo Bumble Bee

Potentially suitable nesting and foraging habitat exists in the expanded project area. Ground disturbance would eliminate potential nesting sites, and vegetation removal would eliminate potential foraging material.

Proposed species are not protected by the take prohibitions of Section 9 of the ESA until the rule to list is finalized. Under Section 7(a)(4) of the ESA, “Federal agencies must confer with the [U.S. Fish and Wildlife] Service if their action will jeopardize the continued existence of a proposed species.” Suckley’s cuckoo bumble bees have not been observed in the United States since 2016, and critical habitat has not been proposed for this species. Given the broad nature of potentially suitable nesting and foraging habitat, the lack of observations in the United States, and the fact that critical habitat has not been proposed, the Project would not likely jeopardize the continued existence of Suckley’s cuckoo bumble bees.

3.2.11 Traffic and Parking

Through coordination with Bluffdale City, UTA and UDOT determined that access to the proposed infill station should be provided via a new north–south road from 14600 South at about 855 West. The new roadway connection to 14600 South would improve station access to the park-and-ride and drop-off facilities and accommodate bus access while offering flexibility in bus routing. Because the station would be constructed in an area planned for future development, UTA and UDOT anticipate that nearby roads would have enough capacity, identified through separate planning efforts, to accommodate anticipated growth with or without the new station.

To help understand the parking demand at the proposed station, UTA and UDOT conducted an analysis based on expended regional land development forecasts and future FrontRunner ridership projections. The parking demand analysis also considered the existing parking capacities at the existing Draper and Lehi Stations, which are nearest to the proposed infill station. The analysis determined that 350 to 500 parking spaces at the proposed station park-and-ride lot should be provided. This parking supply would be adequate to meet the demand. Initially, about 350 spaces would be constructed because the adjacent Draper and Lehi Station park-and-ride lots are currently under capacity and can accommodate more vehicles. UTA and UDOT would monitor the pace of development within The Point and the parking demands at the existing Draper and Lehi Stations and would expand parking at the proposed station as needed. Additionally, UTA and UDOT would provide bus service to the station to provide transit connections to local destinations and the regional transit network.

The area around the proposed station is planned for higher-density, mixed-use development as part of The Point development, which would encourage the use of pedestrian and bicycle facilities to the station. Transit patrons who are not within walking distance of the proposed station could choose to bicycle to and from the station. UTA currently provides bicycle racks at FrontRunner stations and would incorporate bicycle racks at the proposed station. Furthermore, bicycles are permitted on UTA’s FrontRunner system, and 100% of UTA’s existing buses are outfitted with an external bicycle rack on the front of the bus.

Some Bluffdale residents have expressed concern with the potential for increased traffic into the neighborhood and along Royal Coachman Drive, the north south roadway on the eastern edge of the Spring View Farms neighborhood, closest to the rail corridor to which the pedestrian access for the station platform is proposed to connect. At a neighborhood meeting on May 15, 2025, see Section

3.2.14, attendees requested that Bluffdale City restrict access to the station from their neighborhood by non-residents by not allowing station parking along Royal Coachman Drive. Because the proposed 855 West (0.5 miles off 14600 S.) access road to the station park and ride lot offers a direct route to the station with ample parking, the project team anticipates that majority of transit users will use this access road and prefer the benefits of the park and ride lot where security is monitored by transit police, and traffic and parking in the neighborhood will not become a major issue.

3.2.12 Utilities

Two power poles at the north end of Phillip Gates Memorial Park would be impacted by the retaining wall construction and would need to be relocated by Rocky Mountain Power to the southwest (see Figure 2 in the letter titled “Section 4(f) – Request for Concurrence: FrontRunner South of Draper Double Track Project (Phillip Gates Memorial Park) in Salt Lake County, Utah” in Attachment 6, *Parks and Recreation Resources*). Although the existing poles are within the park property, they are within an exclusive Rocky Mountain Power easement. After the poles are relocated, Rocky Mountain Power and Bluffdale City would need to redefine a new easement to allow Rocky Mountain Power continued access for required power line and pole maintenance.

In addition, at Bluffdale City’s request, as part of the Project, UDOT would add a drainage pipe from just west of the rail corridor to the pond/stormwater detention basin in Phillip Gates Memorial Park to maintain the current drainage pattern after the retaining wall is constructed. The drainage pipe would be constructed in the TCE shown in Figures 2 and 3 in the letter titled “Section 4(f) – Request for Concurrence: FrontRunner South of Draper Double Track Project (Phillip Gates Memorial Park) in Salt Lake County, Utah” in Attachment 6.

UDOT will obtain agreements with the Salt Lake City Department of Public Utilities (SLCDPU) for ROW and TCE needs as well as the long-term maintenance of any fences, gates, and pedestrian crossings across the canal. The agreements will also address box culvert repairs and rail subgrade maintenance.

3.2.13 Construction Impacts

As with most construction projects, there would be some minor impacts during construction. Construction equipment such as trucks, bulldozers, graders, and rollers would add a minor amount of noise to an already very loud, active freight and commuter rail corridor. As described in the CE, the contractor is required to and will control fugitive dust and stormwater runoff. A public communication plan will be developed to coordinate construction activities with local residents, stakeholders, and businesses that could be affected by the work.

The areas around the proposed station and the staging site are currently undeveloped. Construction to place the canal in a box culvert would stay largely within the canal ROW and frequent crossing of Spring View Farms Trail to access the canal ROW is not anticipated. There are multi- and single-family homes near the Bluffdale staging site and adjacent to the canal ROW on the east side of the rail corridor. UTA and UDOT do not anticipate that station construction and canal work would substantially disturb these residents or nearby businesses. There would be temporary traffic control along 14600 South to construct the station access road and for construction equipment leaving and entering both the construction area and Bluffdale staging site.

Construction will comply with UDOT’s Standard Specification Section 02498 (Vibration Monitoring during Construction) that will directly monitor vibration at susceptible facilities adjacent to construction

areas where construction activities are generating high-intensity vibrations (pile driving, heavy compaction equipment, or demolition).

Construction near Phillip Gates Memorial Park is expected to take about 18 to 24 months. Reconfiguring the park's parking lot and its access from Royal Coachman Drive and the connection to the maintenance access road could require temporarily closing the eastern section of the parking lot at various times over about a 3-week period; however, parking spaces on the western section of the parking lot would remain available throughout much of the construction. For about 3 months during construction of the retaining wall along the eastern edge of the park, a portion of the easternmost section of the access road would be used as a TCE and would be closed to park users. However, an approximately 8-foot width of the access road would remain open to park users, maintenance and emergency vehicles and vehicle egress for the Spring View Farms neighborhood in case of emergency; the Spring View Farms Trail along the western edge of the park would also remain open to the public for the duration of construction.

Construction equipment would be visible for up to 3 months in the park and would add a minor amount of noise to the park from an adjacent active freight and commuter rail corridor. In addition, typically used temporary construction fences, such as chain-link fences, temporary fence panels, or welded wire mesh fences, would be installed to mark the approved TCE work area in and near the park, and no work or equipment movement would be allowed outside the fences. Emergency and maintenance vehicle access to the park would remain open during construction.

3.2.14 Public Outreach and Agency Coordination

Since the original CE was approved, UTA and UDOT have coordinated with Draper City, Bluffdale City, and the Point of the Mountain State Land Authority (POMSLA). A neighborhood meeting was held on May 15, 2025, to share preliminary station designs with the community, facilitate productive dialogue between the project team and stakeholders, and gather residents' input and feedback regarding the proposed station. The meeting followed an open house format that allowed attendees to come and go at their convenience, engage in one-on-one discussions with project team members, and direct technical questions to relevant experts. About 100 people attended the event, the majority of whom were residents of the Spring View Farms neighborhood.

As described in Section 1, *Introduction*, the station would potentially include one or two at-grade pedestrian crossings to add access from the proposed station platform to Royal Coachman Drive and the neighborhood to the west. Residents' preference for the pedestrian crossings were mixed. UTA and UDOT will continue to coordinate with Bluffdale City regarding the proposed pedestrian access from the station platform into this neighborhood to balance concerns with benefits of a direct connection to transit.

Additional outreach was also conducted in support of the Section 4(f) *de minimis* impact to Phillip Gates Memorial Park as described in Section 3.2.5, *Parks and Recreation Resources*, and Attachment 6, *Parks and Recreation Resources*.

3.2.15 Safety and Security

UTA has an ordinance that establishes safety, parking enforcement, and orderly conduct requirements for users of public transit. To enforce the ordinance, UTA has transit public safety officers who patrol UTA facilities, including stations, park-and-ride facilities, and transit vehicles. UTA's transit officers work closely with the local cities to respond to criminal activities and to prevent crime. These transit officers

have received the same training and have passed the same testing requirements as all law enforcement officers in the state; however, UTA's transit officers are able to police only UTA's transit vehicles and facilities.

For safety and security at the station platform and parking lot, lights will be added to illuminate station areas during its hours of operation, with lighting requirements that follow city ordinances. UTA will direct the light downward and away from residential areas as much as possible, and lighting will be reduced when Frontrunner operations stop for the night. In addition, UTA has security cameras installed at all UTA rail platforms and central stations. Emergency call boxes are also installed on all FrontRunner stations and platforms; these call boxes put customers in direct communication with UTA law enforcement. The proposed station would include both security cameras and emergency call boxes. Finally, UTA's "See Something, Say Something" campaign allows citizens to call or text directly to UTA police dispatch.

Safe traffic movement through the expanded project area is an important consideration. UTA and UDOT will continue to provide measures (such as lighting at the station and park-and-ride lot, fencing along the rail corridor, security, crossing gates, traffic signals, and pedestrian overpass) to promote a safe and secure environment on and near its transit system.

3.2.16 State and Local Permits, Policies, and Ordinances

The project contractor will obtain an encroachment permit from Bluffdale City to define the work areas within both the TCE and the area of permanent impact in Phillip Gates Memorial Park. Access to the Bluffdale staging site from 14600 South will require authorization from Bluffdale City.

The project contractor will obtain agreements with the SLCDPU for impacts to the Jordan and Salt Lake Canal and its ROW.

4 Summary of Changes to Environmental Impacts

Table 2 summarizes the resources with anticipated environmental impacts and whether the impacts have changed from the 2024 CE.

Table 2. Changes to Environmental Impacts and Mitigation

Environmental Resource	Environmental Impacts and Mitigation
Land Use and Zoning	<p>About 17.63 acres of land consisting of land currently zoned as agricultural, urban, and parkland would be converted to a transportation use by the Project; however, the conversion would be consistent with local and regional future land use and transportation plans envisioned for this area in the Wasatch Choice Vision. In addition, about 0.23 acres of private property would be acquired and exchanged with FFSL for the impacts to the Galena Soónkahni Preserve. The impacts to the Preserve were described in the original CE.</p> <p>No mitigation is required.</p>
Land/Property Acquisition, Relocation, Leases, and Easements	<p>Nine parcels totaling 22.77 acres would be permanently and/or temporarily acquired for the Project, including a partial acquisition (0.23 acre) for the land exchange to mitigate for the original project impacts to the Galena Soónkahni Preserve.</p> <p>No additional mitigation is required.</p>
Cultural, Historic, and Archaeological Resources, and Section 4(f) Resources	<p>Several irrigation distribution ditches associated with site 42SL214 (the Jordan and Salt Lake City Canal) and a feature associated with site 42SL290 (the East Jordan Canal) are historic resources identified in the expanded APE. The segment of site 42SL214 as well as the distribution ditches of both sites were determined to be noncontributing to the overall site eligibility. The use of the existing access road across the contributing segment of 42SL214 at the Bluffdale staging site would not result in any impacts to the canal site itself as the structure carrying the road across the canal would also not be altered. A no adverse effect determination was made for these irrigation features.</p> <p>The Denver & Rio Grande Western Railroad (42SL293) would not be directly altered by the station development in the expanded APE but would be spanned by a new pedestrian crossing. This pedestrian crossing would slightly alter the setting of the site, which is not a character-defining feature of it, resulting in no adverse effect determination.</p> <p>An overall finding of no adverse effect under Section 106 and a use with de minimis impact under Section 4(f) for the South of Draper Double Track Project, including all components in both the original and expanded APEs, is determined. SHPO concurred with these findings on September 9, 2025.</p> <p>No mitigation is required.</p>
Visual/Aesthetic Resources	<p>Although the addition of the proposed station would add a new element to the surrounding viewshed, UTA and UDOT do not anticipate any adverse visual impacts at the proposed station location, nor any adverse proximity or visual effects on the location, design, setting, materials, workmanship, feeling, or association of historic resources in or near the proposed station location.</p>

Environmental Resource	Environmental Impacts and Mitigation
	No mitigation is required.
Parks and Recreation Resources, and Section 4(f) Resources	<p><i>Phillip Gates Memorial Park.</i> About 0.11 acres of permanent ROW and an additional 0.82 acres of TCE would be needed from this park to construct a retaining wall and relocate utilities. In addition, some trees in the park would be removed and replaced.</p> <p>FTA has determined that the use of Phillip Gates Memorial Park would be a use with de minimis impact, and the requirements of 23 CFR Part 774 have been satisfied.</p> <p><i>Spring View Farms Trail.</i> A small portion of this trail would be included in the TCE. This would have no use under Section 4(f) because this would be considered a temporary occupancy per 23 CFR Section 774.14(d).</p> <p>Bluffdale City concurred with this determination on August 15, 2025.</p> <p>Mitigation for park impacts will include:</p> <ul style="list-style-type: none"> • Placing temporary fencing around construction areas that allows safe use of remaining areas of the park and trail. • Restoring park landscaping, including replacing trees that would be removed, to the same conditions or better than existing. • Reconfiguring the parking area to retain the existing number of parking spaces after retaining wall construction is complete.
Noise and Vibration	<p>Residential development is located on the west side of the rail corridor. A general noise and vibration assessment was completed using FTA methodologies. No noise or vibration impacts were identified.</p> <p>No mitigation is required.</p>
Air Quality	<p>The Project with the proposed infill station is not a project of local air quality concern.</p> <p>No mitigation required.</p>
Hazardous Materials	No changes were identified.
Farmland	No changes were identified.
Floodplains	No changes were identified.
Water Resources and Water Quality	No changes were identified.
Wetlands and Waters of the U.S.	<p>Additional impacts to about 0.92 acres of canal (Jordan and Salt Lake City Canal), about 0.08 acres of ditches, and about 0.20 acres of open-water ponds were identified. The Jordan and Salt Lake City Canal would be placed into a box culvert. Potential aquatic resource impacts are exempt from regulation under Section 404 of the CWA per USACE and EPA's joint memorandum (USACE and EPA 2020 and 2025). The 2024 CE identified a need to submit a PCN seeking Section 404 permit coverage under Nationwide Permit 14 for linear transportation projects. Because the impacted waters are considered nonjurisdictional, Section 404 permit coverage is no longer required.</p>
Threatened and/or Endangered Species	<p>Potentially suitable nesting and foraging habitat exists in the project area for monarch butterfly (proposed threatened) and Suckley's cuckoo bumble bee (proposed endangered). However, critical habitat either has not been designated or is outside the expanded project area, and minor</p>

Environmental Resource	Environmental Impacts and Mitigation
	<p>impacts from the Project would not jeopardize the continued existence of these species.</p> <p>No mitigation is required.</p>
Natural and Biological Resources	<p>Habitat for migratory birds is present in the expanded project area and the Bluffdale staging site.</p> <p>The 2024 CE mitigation commitment is modified slightly to the following: Shrub and tree removal should occur outside the migratory bird nesting period, which is April 1 to July 15. If clearing and grubbing does need to occur during nesting season, preconstruction surveys will be conducted to determine whether there are any occupied nests in the area of disturbance. This survey must be conducted no more than 1 week before tree removal.</p>
Traffic and Parking	<p>Because the station would be constructed in an area planned for future development, and the relatively minor amount of traffic accessing the station, UTA and UDOT anticipate that nearby roads would have enough capacity to accommodate anticipated growth with or without the new station.</p> <p>No mitigation is required.</p>
Utilities	<p>Impacts to a drainage ditch and utility poles at the Phillips Gate Memorial Park were anticipated in the original CE along with the required commitment to coordinate with utility owners.</p> <p>New impacts to the Jordan and Salt Lake Canal require agreements with SLCDPU. These agreements will cover the ROW and TCE as well as the long-term maintenance of any fence gates and pedestrian crossings of the canal. The agreements will also address box culvert repairs and rail subgrade repairs.</p>
Construction Impacts	<p>No substantial changes to general construction impacts as described in the original CE.</p> <p>Phillip Gates Memorial Park will be impacted during construction. Mitigations are listed in Section 3.2.5, <i>Parks and Recreation Resources</i>, Section 4(f).</p> <p>Construction will comply with UDOT's Standard Specification Section 02498 (Vibration Monitoring during Construction).</p>
Safety and Security	No changes were identified.
Public Outreach and Agency Coordination	<p>Since the original CE was approved, UTA and UDOT have coordinated with Draper City, Bluffdale City, and the Point of the Mountain State Land Authority (POMSLA). UTA and UDOT also held an open house on May 15, 2025, to present the new station to the Bluffdale community. A public comment period was provided from July 13 to July 27, 2025, for the public to review the Project's impacts to Phillip Gates Memorial Park. During the public comment period, FTA, UTA, and UDOT received 5 individual comment submissions from the public and none from an agency or Tribe. The comment themes were concerns about the temporary closure of the park during construction, safety and security, noise, and a question regarding access to the emergency exit from the Spring View Farms neighborhood through the park onto 14600 South. All of these issues have been evaluated and will be mitigated.</p>

Environmental Resource	Environmental Impacts and Mitigation
State and Local Permits, Policies, and Ordinances	<p>The Project will require the following additional permits.</p> <ul style="list-style-type: none"> • Encroachment permit from Bluffdale City for work at the Phillip Gates Memorial Park and access to the Bluffdale staging site. • Agreements from SLCDPU for impacts to the Jordan and Salt Lake Canal.

5 Conclusion

The expected impacts to the natural and built environment as a result of adding the proposed station, associated track shift, and staging area would not result in substantial changes to the findings identified in the original CE, which was approved on July 24, 2024, by FTA Region 8; the CE designation for the Project remains valid; however, as a result of the changes in project scope, the CE list and type for the project has changed to list D “other” pursuant to 23 CFR §771.118(d). Any additional findings and/or mitigation are identified in Table 2, *Changes to Environmental Impacts and Mitigation*, above.

6 References

[EDR] Environmental Data Resources

- 2022 EDR Area/Corridor Report. Inquiry Number: 7159532.2s. Point of the Mountain. October 26.
 2024 EDR Area/Corridor Report. Inquiry Number: 7684880.3s. FrontRunner Point Improvements. June 28.

[UDEQ] Utah Department of Environmental Quality

- 2025 Interactive Map. <https://enviro.deq.utah.gov>. Accessed June 3, 2025.

[USACE and EPA] U.S. Army Corps of Engineers and U.S. Environmental Protection Agency

- 2020 Joint Memorandum to the Field between the U.S. Department of The Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches under Section 404 of The Clean Water Act. https://www.epa.gov/system/files/documents/2022-12/Ditch%20Exemption%20Memo_Final.pdf. July 24.
 2025 Memorandum to the Field between the U.S. Department of the Army, U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency Concerning the Proper Implementation of “Continuous Surface Connection” under the Definition of “Waters of the United States” under the Clean Water Act. <https://www.epa.gov/system/files/documents/2025-03/2025cscguidance.pdf>. March 12.

[UTA] Utah Transit Authority

- 2025a FrontRunner Forward Corridor Level Air Quality Analysis Addendum. April 14.
 2025b Materials Management Plan for Utah Transit Authority Rail Corridor. January 14.

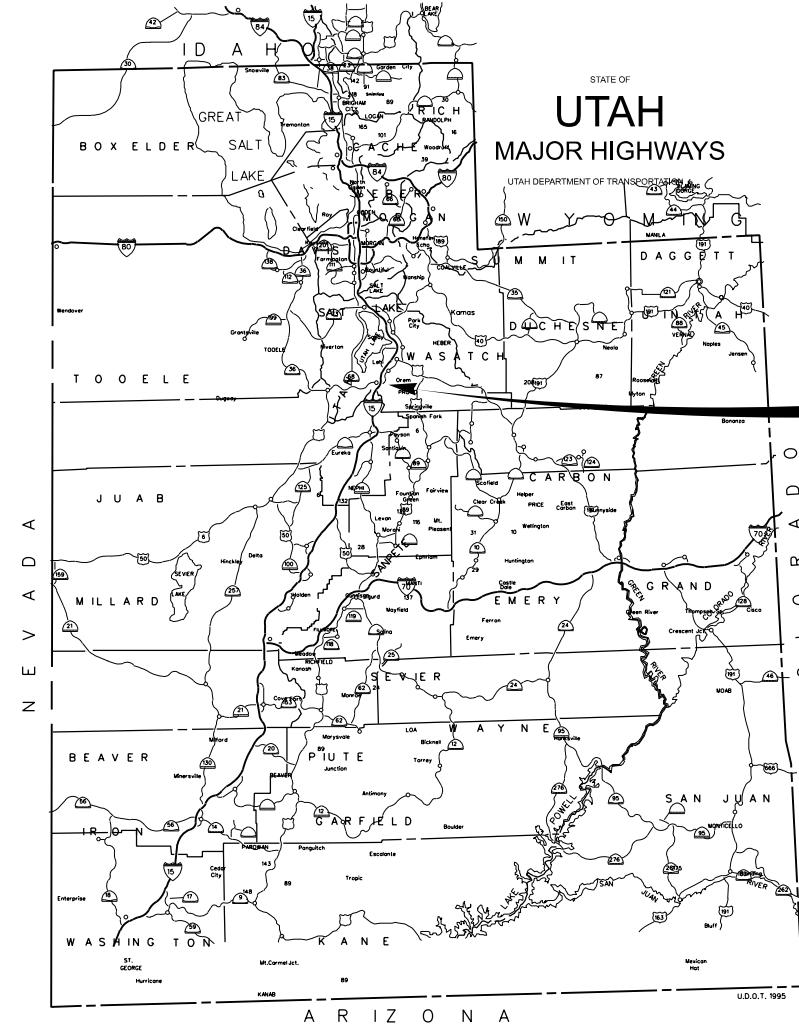
[WFRC] Wasatch Front Region Council

- 2023 2023 to 2050 Regional Transportation Plan. May 25. https://wfrc.org/VisionPlans/RegionalTransportationPlan/2023_2050Plan/2023RTP.pdf.

- 2024a Resolution of the Wasatch Front Regional Council Approving Amendment 1 to the Wasatch Front 2023–2050 Regional Transportation Plan. https://wfrc.org/VisionPlans/RegionalTransportationPlan/2023_2050Plan/2023RTP_Amendment1_SignedResolution.pdf. May 23.
- 2024b Air Quality Memorandum: Conformity Analysis for the WFRC 2023–2050 Regional Transportation Plan. Report No. 42. https://wfrc.org/Programs/AirQuality/AirQualityMemoArchive/AQ%20memo42_RTP_2023-2050_A1_FINAL.pdf.
- 2024c Transportation Improvement Program (TIP). <https://wfrc.org/programs/transportation-improvement-program>. August.

ATTACHMENT 1

Bluffdale Station Conceptual Design Plans



UTAH

DEPARTMENT OF TRANSPORTATION

SEE SHEET DR_1-A FOR INDEX TO SHEETS

SHEET
NO.
DR_1

U.S. Standard Units
(Inch-Pound Units)

ALL UNITS IN FEET UNLESS
OTHERWISE NOTED

PLANS OF PROPOSED STATE TRANSIT FACILITY

CIG GRANT AND STATE FUNDED

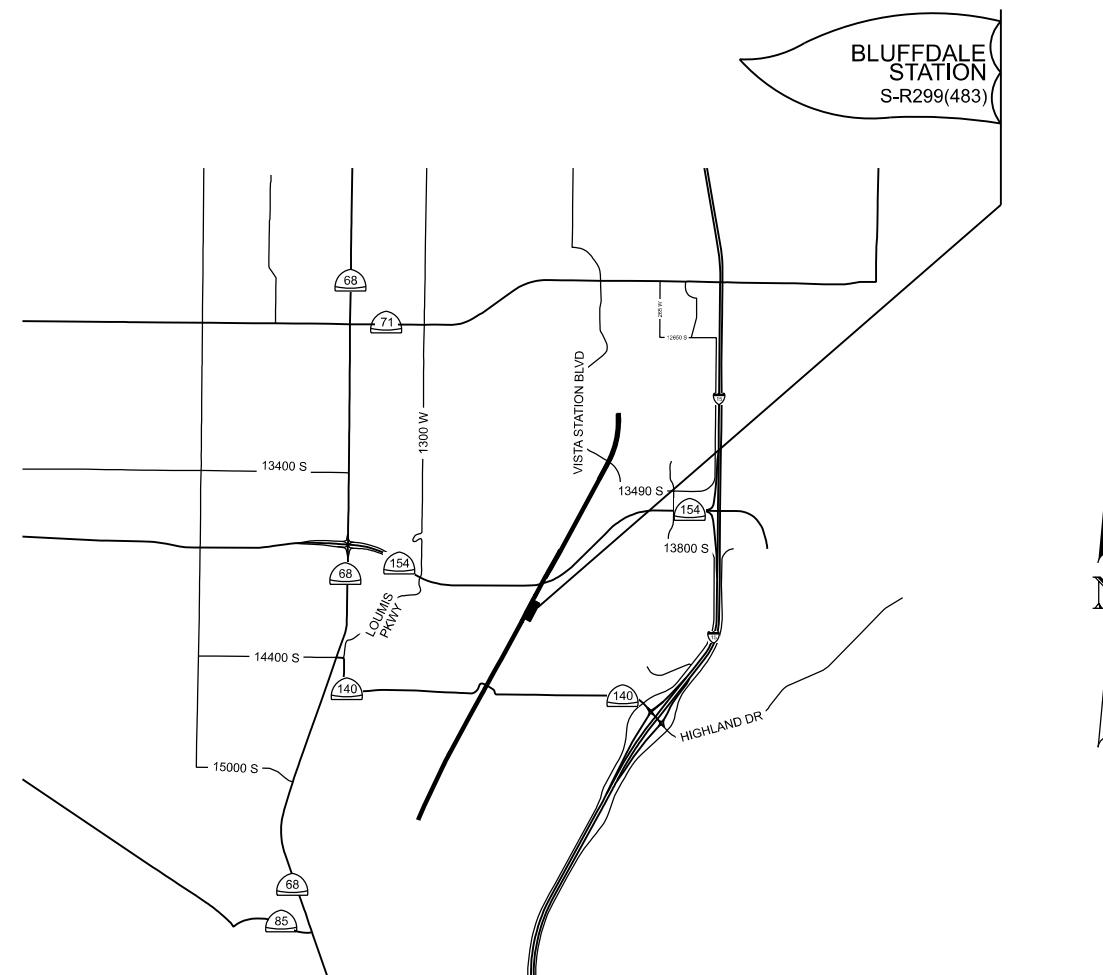
S-R299(483) PIN: 21213

FRONTRUNNER POINT IMPROVEMENTS

BLUFFDALE STATION

SALT LAKE COUNTY

30% PLAN SET



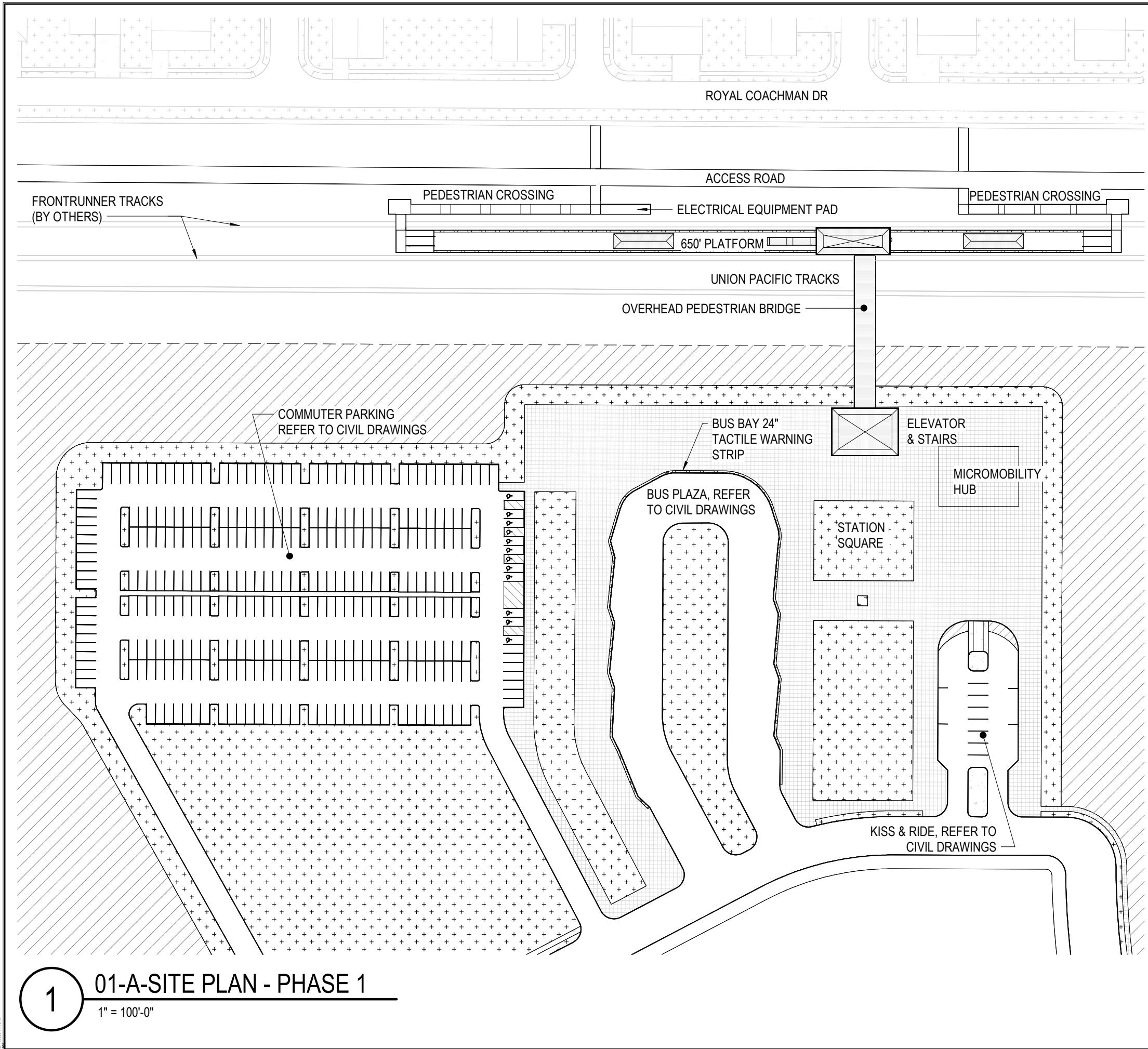
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CONTAINING THIS SIGNATURE

VERIFIED FOR SUBMISSION FOR ADVERTISEMENT

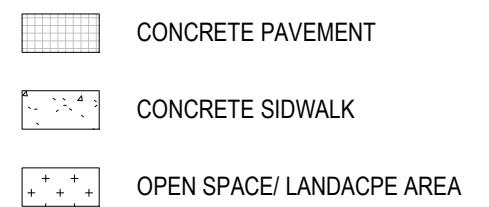
DESIGN ENGINEER

UTAH DEPARTMENT OF TRANSPORTATION
APPROVED FOR USE BY UDOT

REGION THREE PRECONSTRUCTION ENGINEER



SITE LEGEND

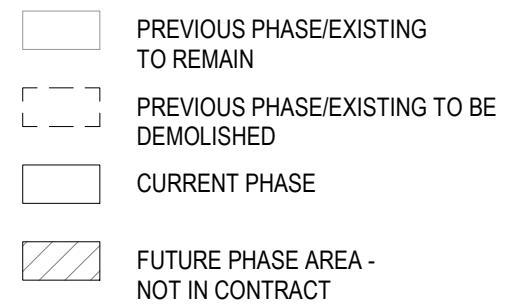


*REFER TO CIVIL, LANDSCAPE DRAWINGS, AND BASIS OF DESIGN DOCUMENT FOR ADDITIONAL INFORMATION

REVISIONS

REMARKS

PHASING LEGEND



HDR

PROFESSIONAL ENGINEER

APPROVED

DATE

FRONTRUNNER POINT IMPROVEMENTS
BLUFFDALE STATION

PROJECT NUMBER S-R299(483) PIN 21213

DRAWN BY

QC CHECKED BY

RT

NO. DATE APPROVED BY

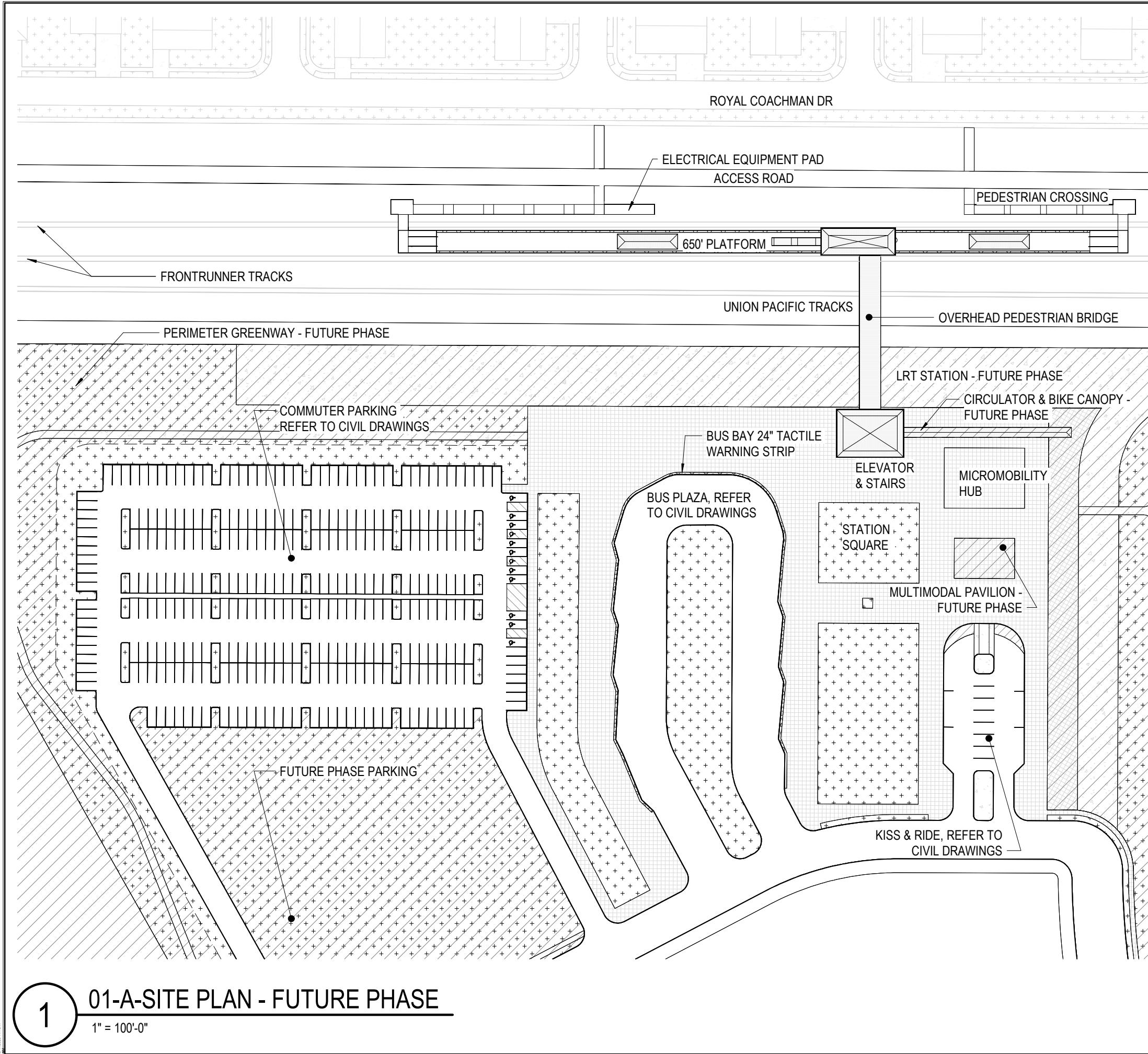
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PHASE 1:
SITE DEVELOPMENT TO INCLUDE BLUFFDALE STATION HOUSE & PLATFORM WITH RAMPS AND CROSSWALK CONNECTION TO PUBLIC WAY ON THE WEST SIDE, KISS AND RIDE, BUS PLAZA, AND COMMUTER PARKING.

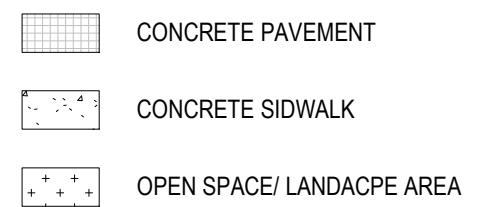
PHASE 2 (FUTURE):
NOT IN CONTRACT - FUTURE DEVELOPMENT SCOPE SHOWN FOR REFERENCE ONLY.



A-051

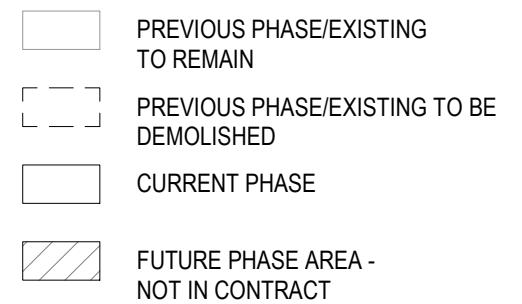


SITE LEGEND



*REFER TO CIVIL, LANDSCAPE DRAWINGS, AND BASIS OF DESIGN DOCUMENT FOR ADDITIONAL INFORMATION

PHASING LEGEND



PHASE DESCRIPTION

PHASE 1:
SITE DEVELOPMENT TO INCLUDE BLUFFDALE STATION HOUSE & PLATFORM WITH RAMPS AND CROSSWALK CONNECTION TO PUBLIC WAY ON THE WEST SIDE, KISS AND RIDE, BUS PLAZA, AND COMMUTER PARKING.

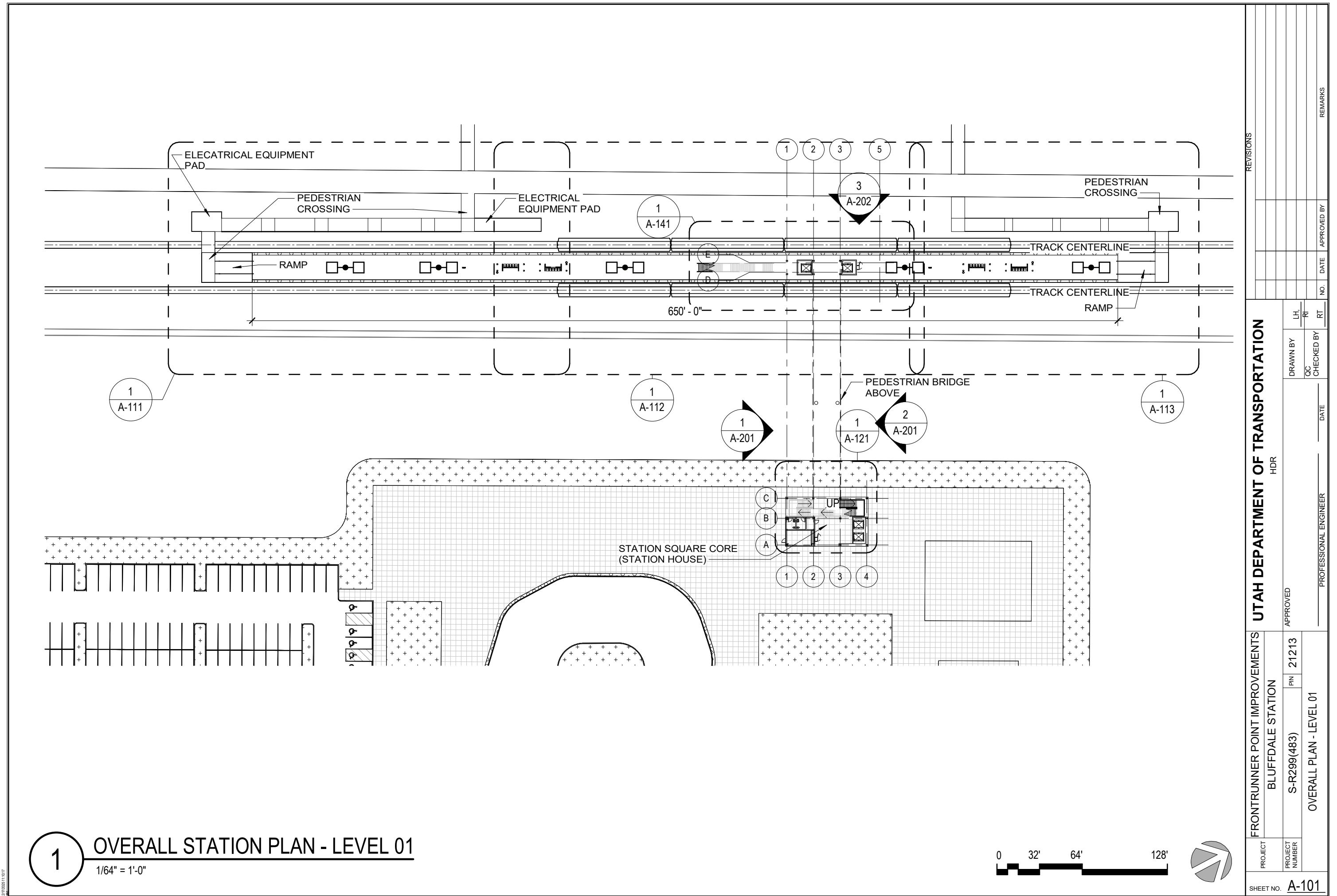
PHASE 2 (FUTURE):
NOT IN CONTRACT - FUTURE DEVELOPMENT SCOPE SHOWN FOR REFERENCE ONLY.

UTAH DEPARTMENT OF TRANSPORTATION

PROJECT NUMBER	FRONTRUNNER POINT IMPROVEMENTS	BLUFFDALE STATION	PIN	21213	APPROVED	HDR
S-R299(483)	ARCHITECTURAL SITE PLAN - PHASE 2					

REVISIONS	REMARKS





OVERALL STATION PLAN - LEVEL 02

1/64" = 1'-0"

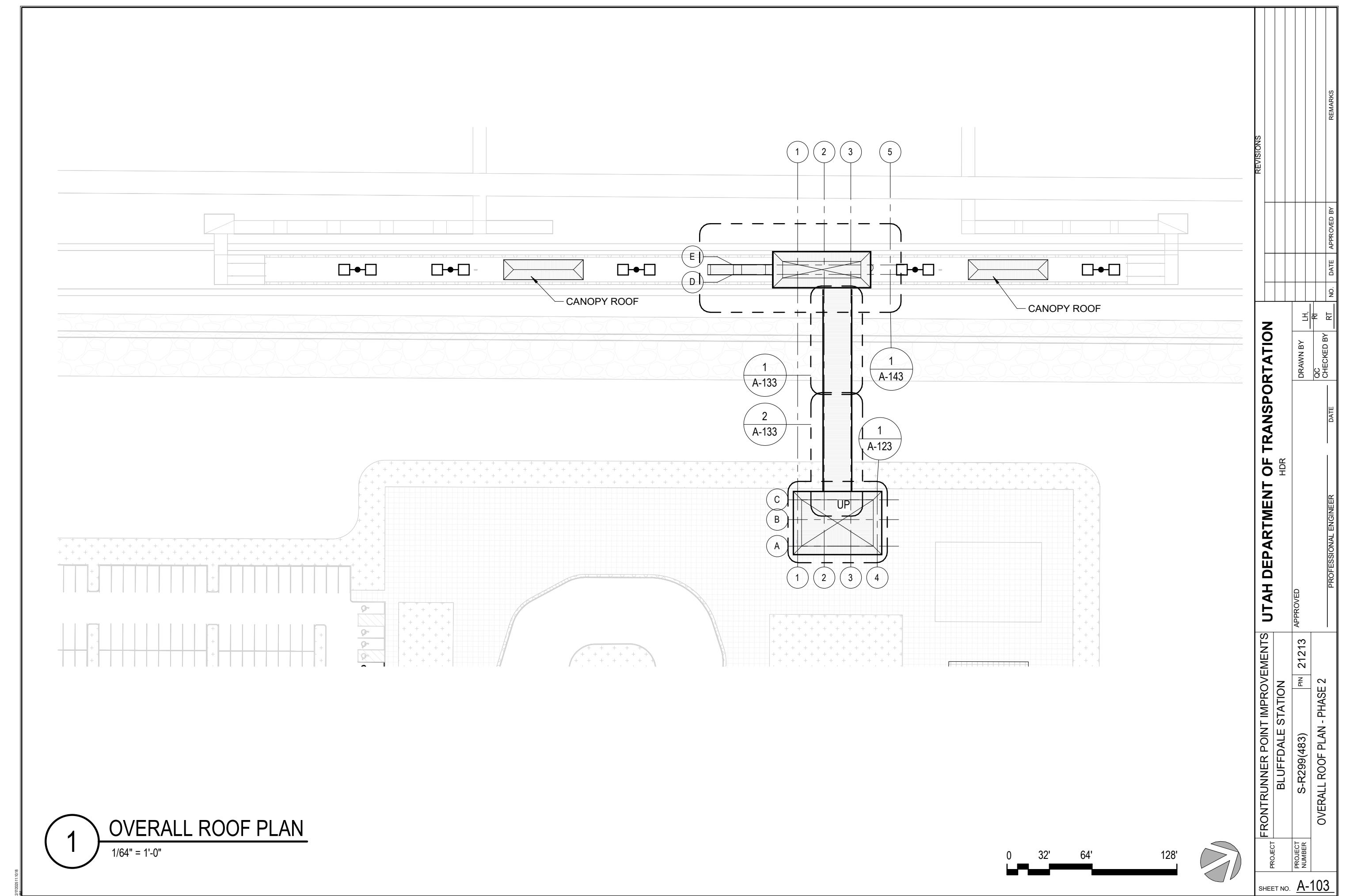
2/17/2025 11:19:17

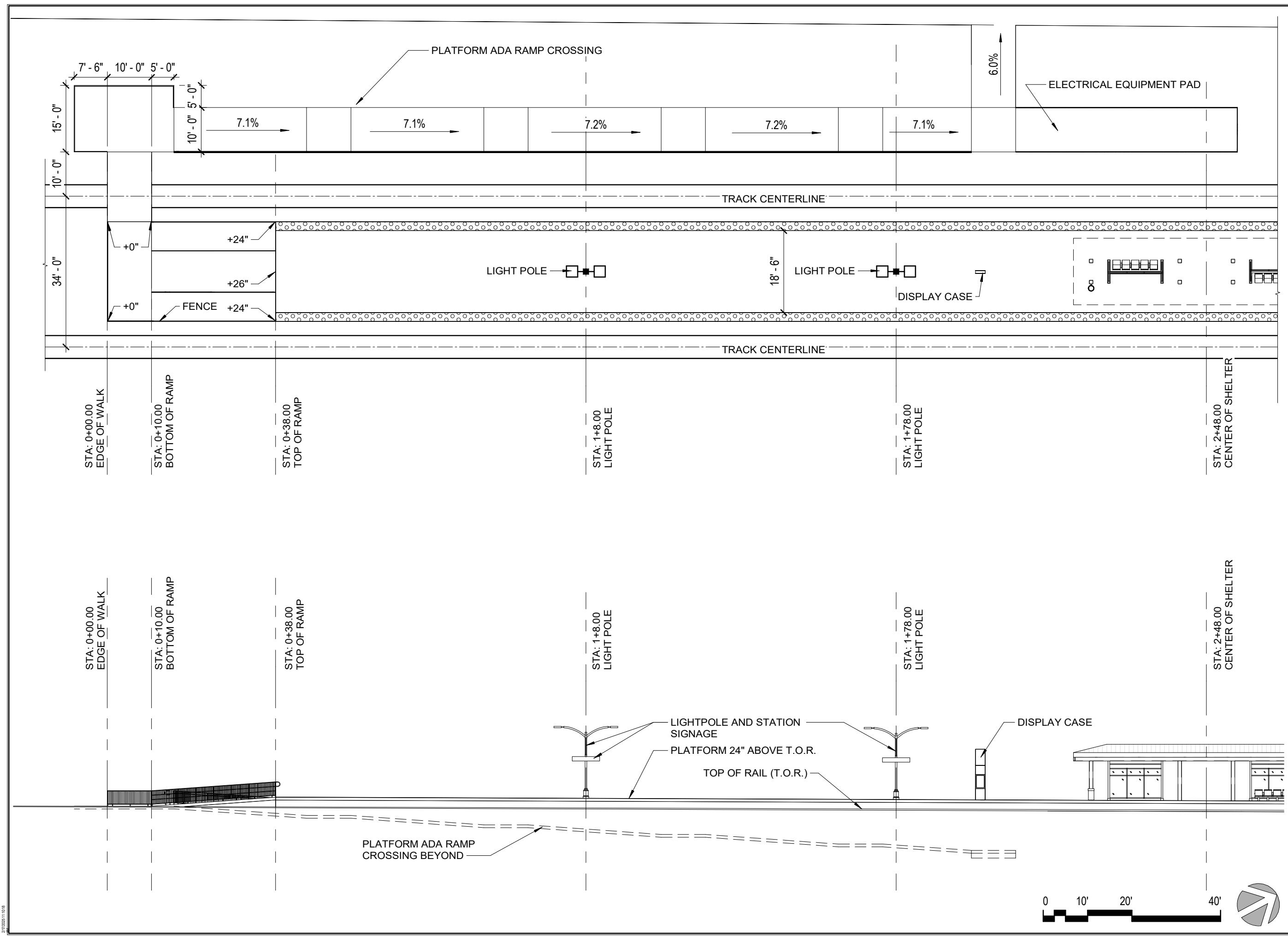


6

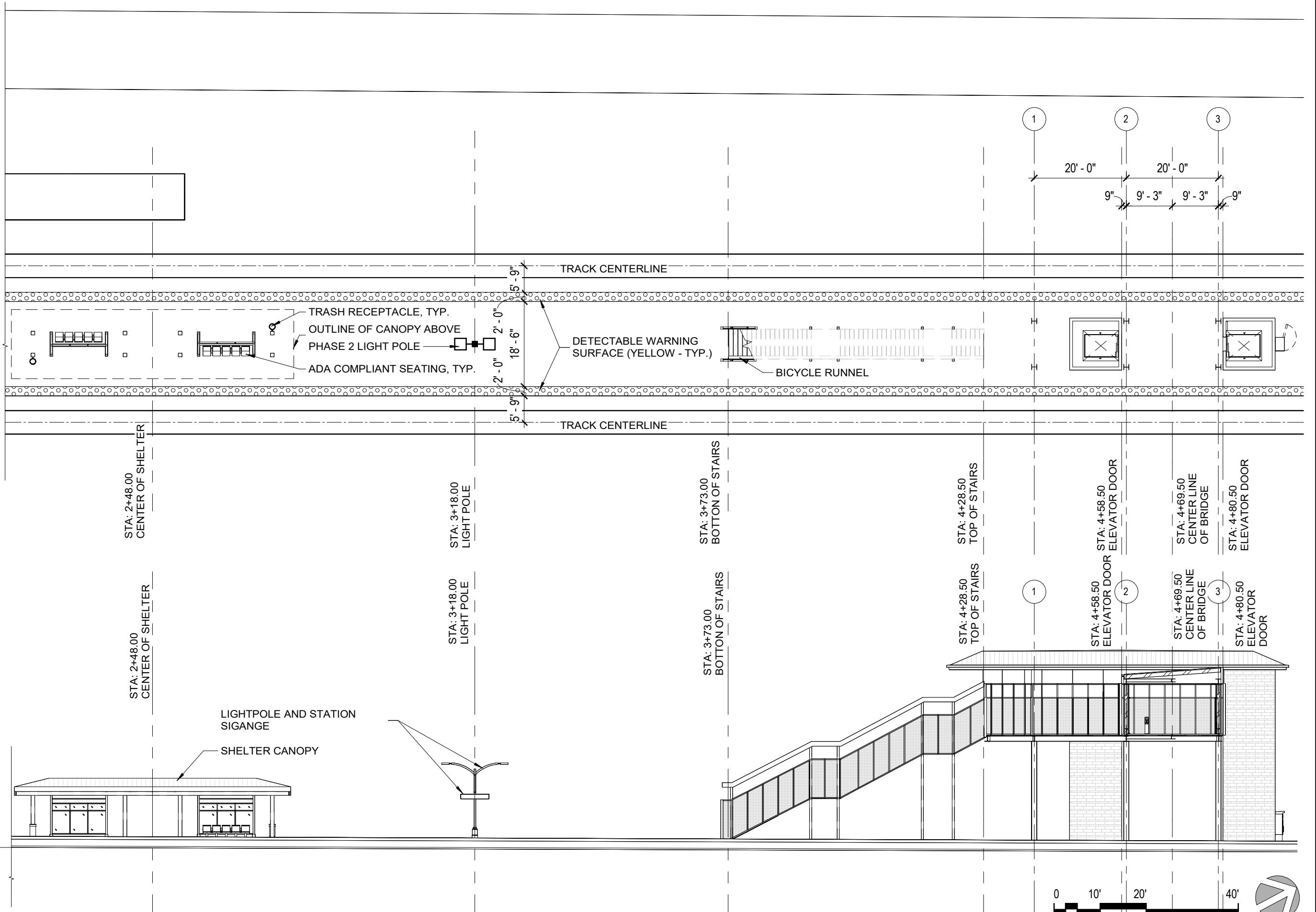
SHEET NO. A-102

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BLUFFDALE STATION						REVISIONS					
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FRONTRUNNER POINT IMPROVEMENTS	S-R299(483)	BLUFFDALE STATION	21213	APPROVED		LH	RT	LH	RT	APPROVED BY	REMARKS
OVERALL PLAN - LEVEL 02						PROFESSIONAL ENGINEER	DATE	PROFESSIONAL ENGINEER	DATE	APPROVED BY	REMARKS
A-102											

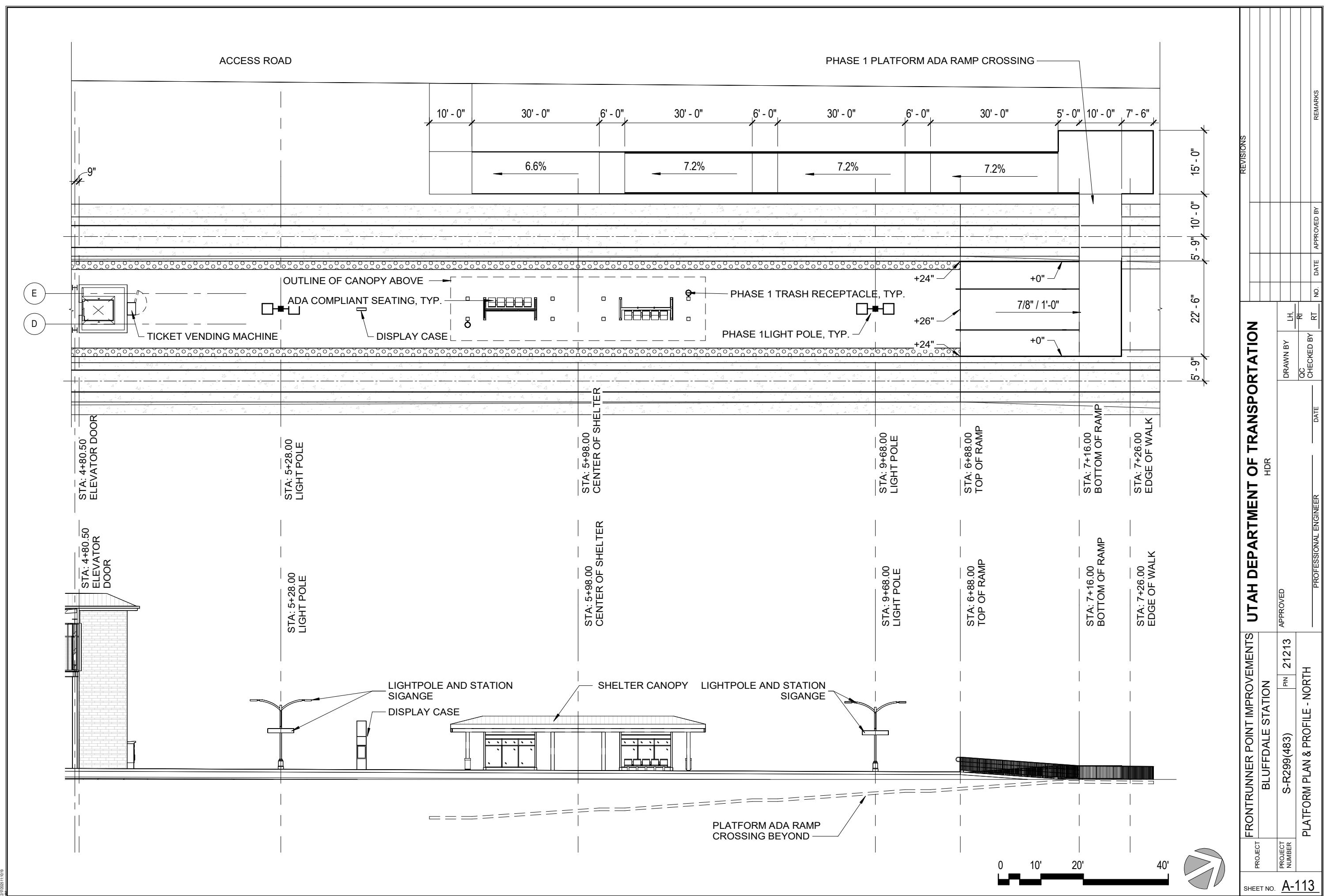




FRONTRUNNER POINT IMPROVEMENTS						REVISIONS						
BLUFFDALE STATION												
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PLATFORM PLAN & PROFILE - SOUTH						PROFESSIONAL ENGINEER						
SHEET NO.	A-111											
UTAH DEPARTMENT OF TRANSPORTATION												
HDR												
REMARKS												

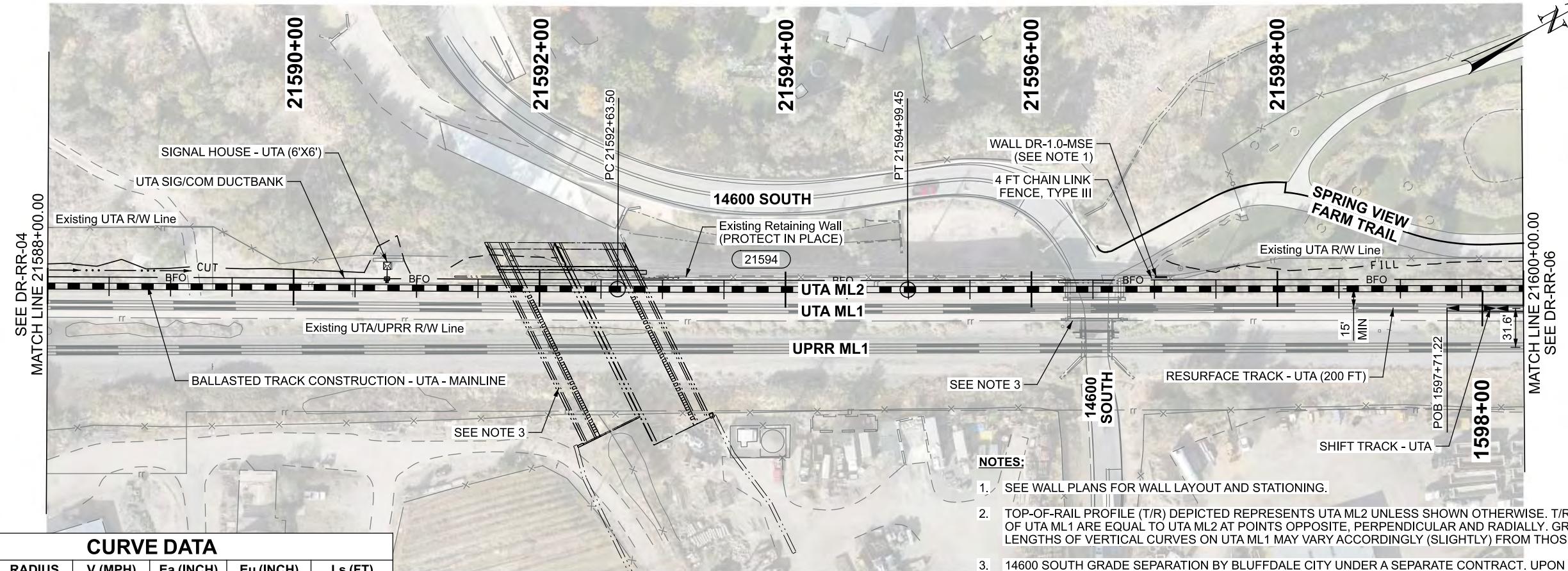


FRONTRUNNER POINT IMPROVEMENTS									
BLUFFDALE STATION									
UTAH DEPARTMENT OF TRANSPORTATION									
HDR									
PROJECT NO.	S-R299(483)		PIN	21213	APPROVED	DRAWN BY	L.H.		
PROJECT NUMBER						QC CHECKED BY	R.T.	NO.	DATE
PLATFORM PLAN & PROFILE - CENTER									
PROFESSIONAL ENGINEER _____ DATE _____									
REMARKS									
SHEET NO. A-112									



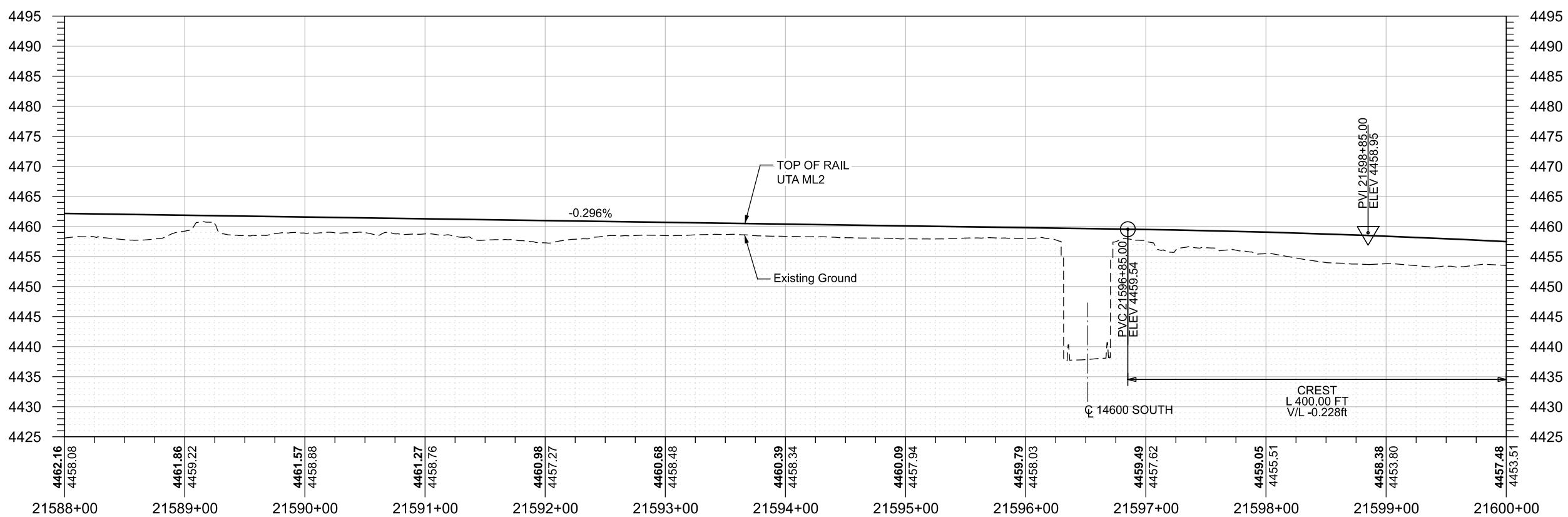
ATTACHMENT 2

South of Draper Double Track Project Conceptual Plans



CURVE DATA					
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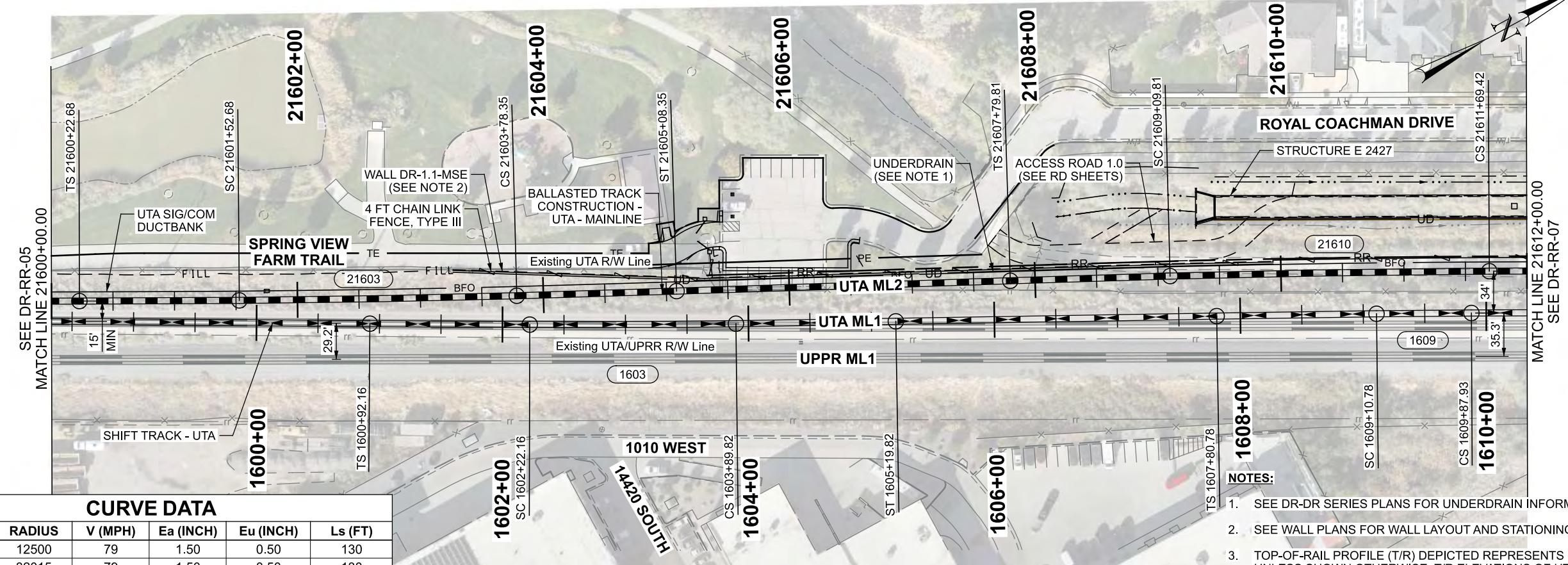
1. SEE WALL PLANS FOR WALL LAYOUT AND STATIONING.
2. TOP-OF-RAIL PROFILE (T/R) DEPICTED REPRESENTS UTA ML2 UNLESS SHOWN OTHERWISE. T/R ELEVATIONS OF UTA ML1 ARE EQUAL TO UTA ML2 AT POINTS OPPOSITE, PERPENDICULAR AND RADIALY. GRADIENTS AND LENGTHS OF VERTICAL CURVES ON UTA ML1 MAY VARY ACCORDINGLY (SLIGHTLY) FROM THOSE OF UTA ML2.
3. 14600 SOUTH GRADE SEPARATION BY BLUFFDALE CITY UNDER A SEPARATE CONTRACT. UPON COMPLETION OF NEW GRADE SEPARATION, EXISTING 14600 SOUTH CROSSING WILL BE FILLED BY OTHERS PRIOR TO FR2X TRACK CONSTRUCTION



UTA ML2

INTERMEDIATE SUBMITTAL
NOT FOR CONSTRUCTION
DATE: 06/11/2025

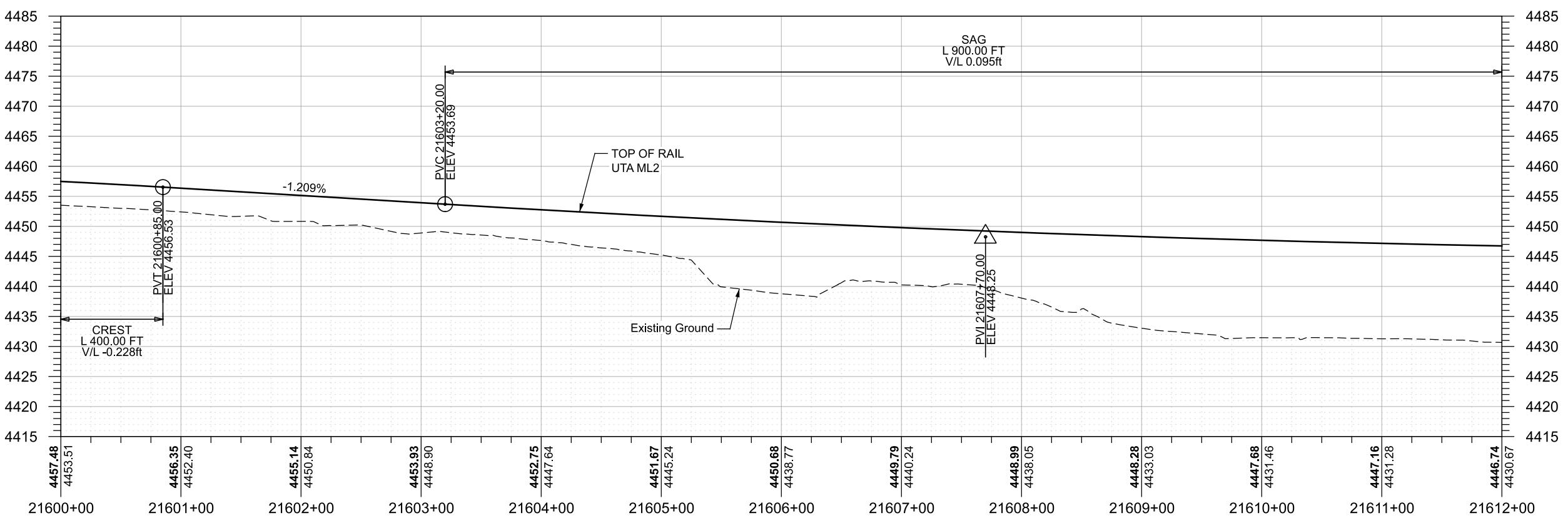
UTAH DEPARTMENT OF TRANSPORTATION					
HORROCKS					
FRONTRUNNER 2X			DRAFTER SEGMENT		
PROJECT NUMBER	S-ST99(835)	PIN	20253	APPROVED	DRAWN BY HAA
PROJECT NUMBER	RAILROAD			PROFESSIONAL ENGINEER DATE	QC CHECKED BY MJW
				MM/DD/YY	



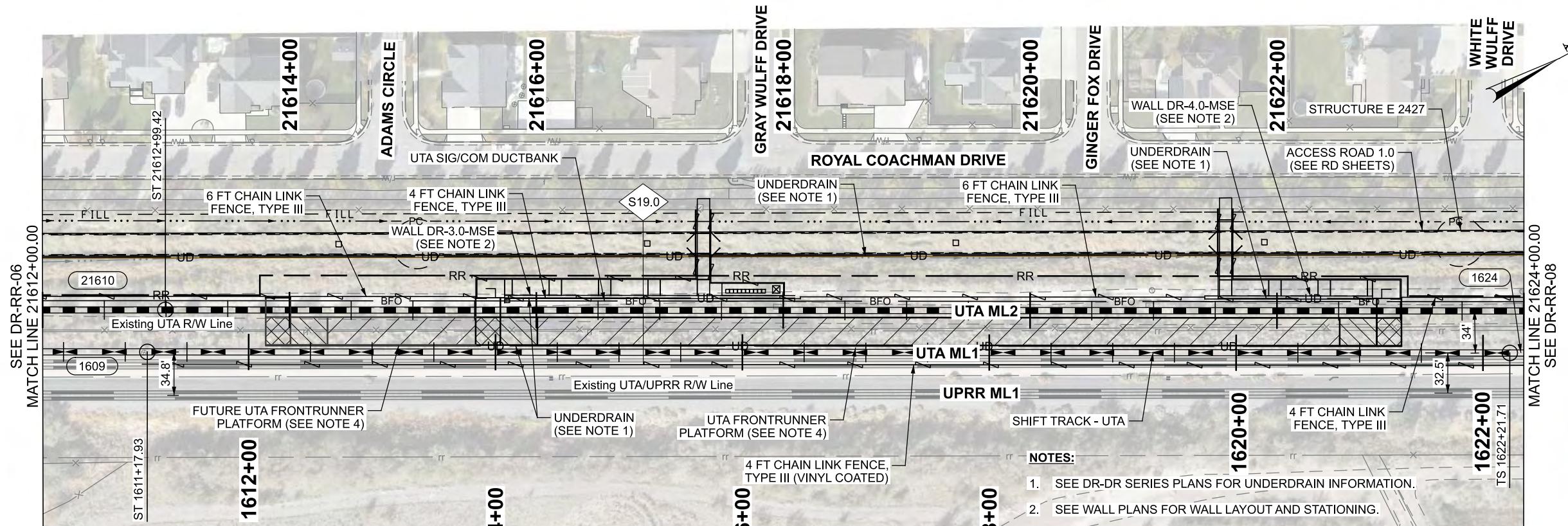
INTERMEDIATE SUBMITTAL

NOT FOR CONSTRUCTION
DATE: 06\11\2025

UTAH DEPARTMENT OF TRANSPORTATION					
FRONTRUNNER ZX			HORROCKS		
PROJECT NUMBER		DRAPER SEGMENT		APPROVED	
S-STR99(835)	PIN	20253	PROFESSIONAL ENGINEER	MM/DD/YY	DRAWN BY QC CHECKED BY DATE
RAILROAD					HAA MJW



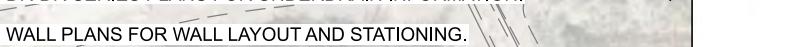
UTA ML2

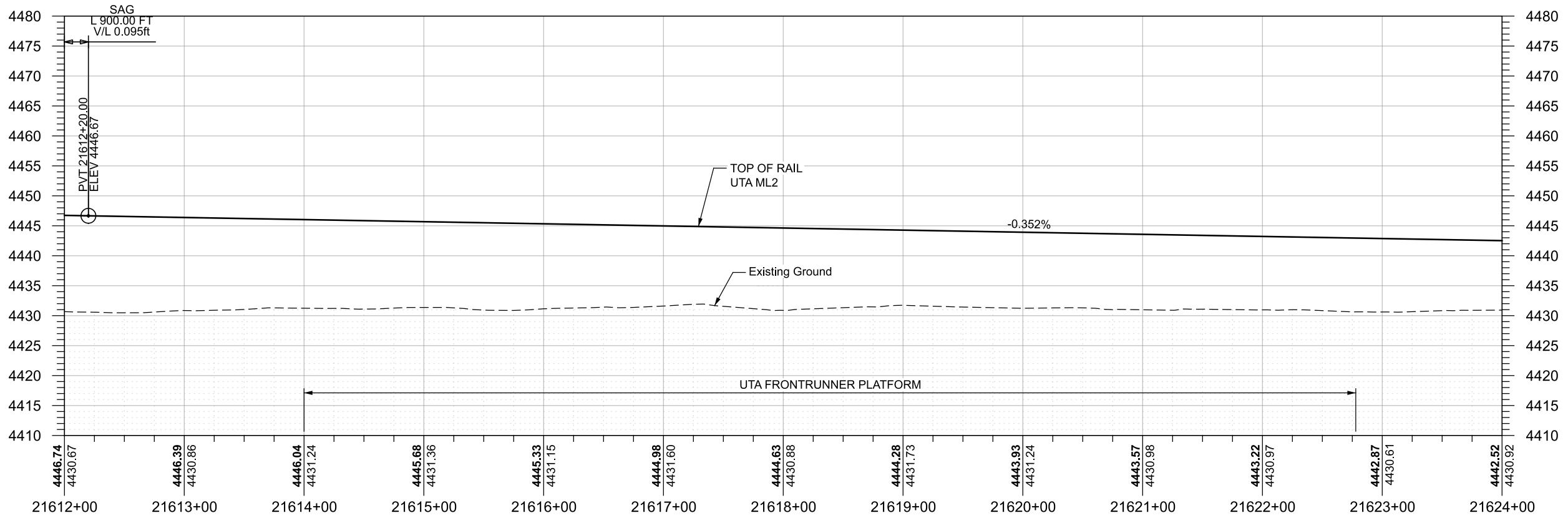


CURVE DATA

CURVE DATA					
Curve ID	Radius	V (MPH)	Ea (Inch)	Eu (Inch)	Ls (FT)
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1624	12500	79	1.50	0.50	130
21610	12500	79	1.50	0.50	130

NOTES

- 
 1. SEE DR-DR SERIES PLANS FOR UNDERDRAIN INFORMATION.
 2. SEE WALL PLANS FOR WALL LAYOUT AND STATIONING.
 3. TOP-OF-RAIL PROFILE (T/R) DEPICTED REPRESENTS UTA ML2 UNLESS SHOWN OTHERWISE. T/R ELEVATIONS OF UTA ML1 ARE EQUAL TO UTA ML2 AT POINTS OPPOSITE, PERPENDICULAR AND RADIAL. GRADIENTS AND LENGTHS OF VERTICAL CURVES ON UTA ML1 MAY VARY ACCORDINGLY (SLIGHTLY) FROM THOSE OF UTA ML2.
 4. PLATFORM FOUNDATIONS AND STEM WALLS CONSTRUCTED BY FR2X PROJECT. SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION. FULL PLATFORM AND PEDESTRIAN OVERPASS TO BE CONSTRUCTED UNDER SEPARATE CONTRACT.

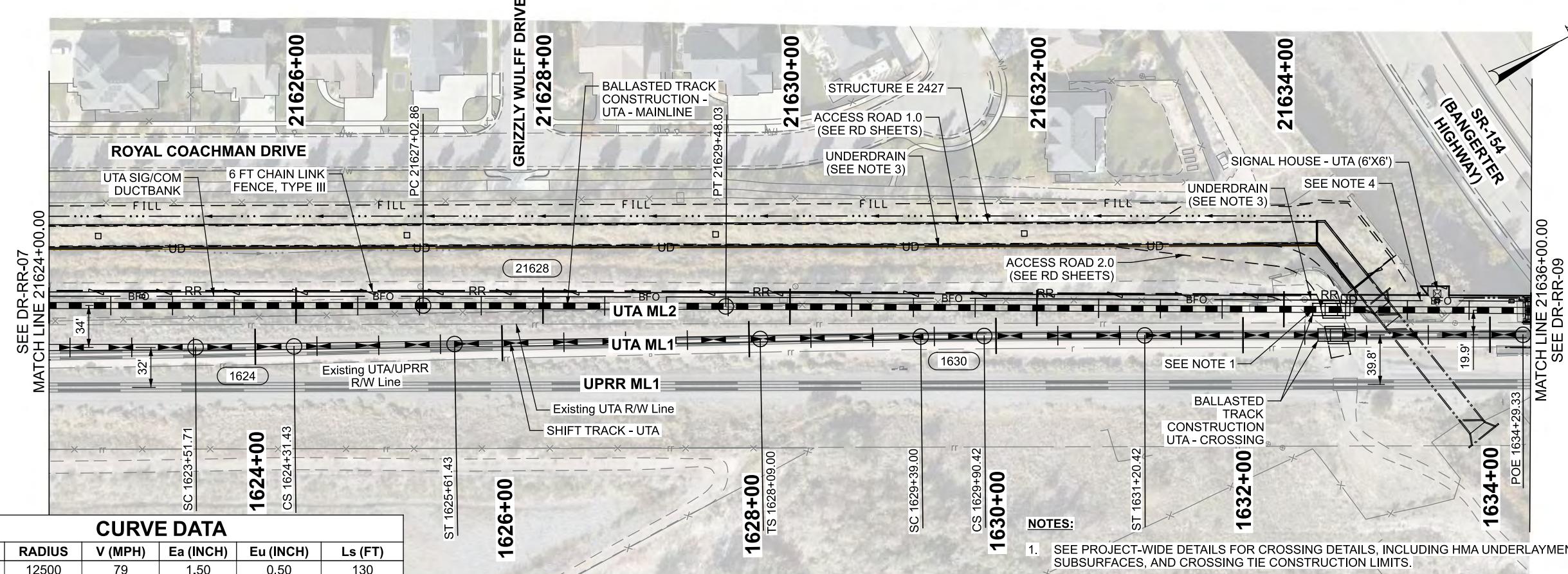


UTA ML2

INTERMEDIATE SURMITS

NOT FOR CONSTRUCTION

UTAH DEPARTMENT OF TRANSPORTATION			
HORROCKS			
FRONTRUNNER 2X		DRAPER SEGMENT	
PROJECT NUMBER	S-ST99(835)	PIN	20253
APPROVED.....		
PROFESSIONAL ENGINEER		
RAILROAD		MM/DD/YY DATE	QC CHECKED BY HAA MJW



INTERMEDIATE SUBMITTAL

NOT FOR CONSTRUCTION
DATE: 06\11\2025

UTAH DEPARTMENT OF TRANSPORTATION

TOF TR

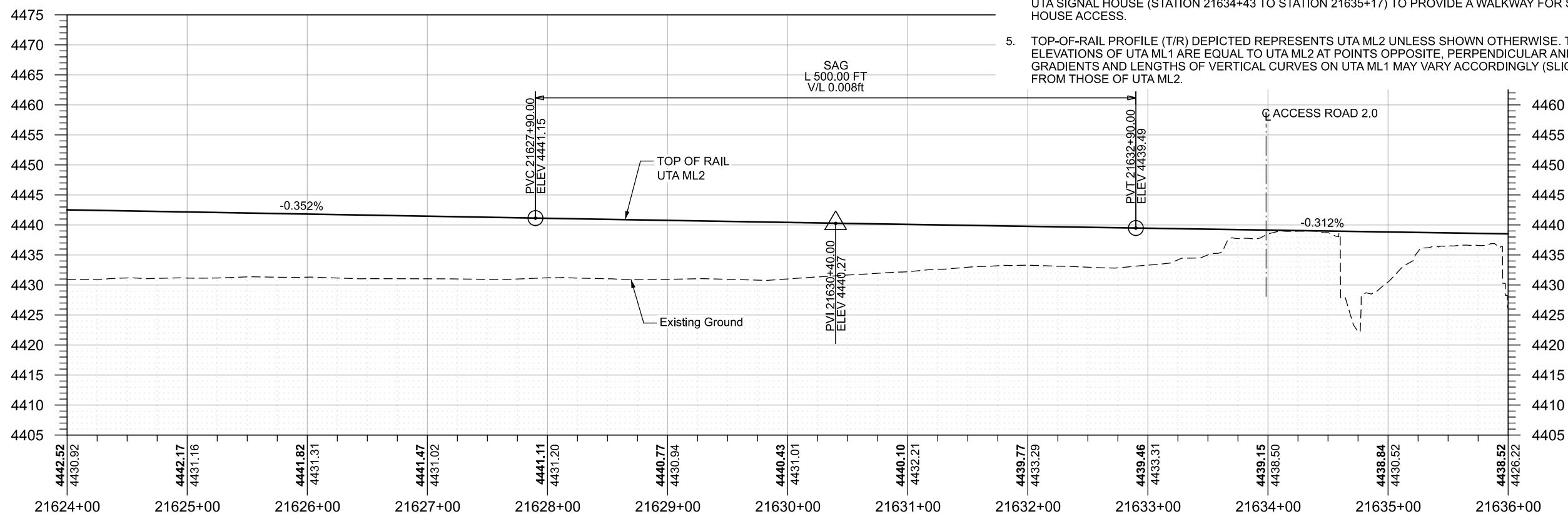
UTA

6

APPROVED

NO

1. SEE PROJECT-WIDE DETAILS FOR CROSSING DETAILS, INCLUDING HMA UNDERLAYERMENT, SUBSURFACES, AND CROSSING TIE CONSTRUCTION LIMITS.
 2. SEE DR-GC-01A FOR GRADE CROSSING PANEL INFORMATION.
 3. SEE DR-DR SERIES PLANS FOR UNDERDRAIN INFORMATION.
 4. WIDEN UTA ML2 BALLAST AN ADDITIONAL 2 FT TO THE WEST BETWEEN ACCESS ROAD 2.0 AND THE (6'X6') UTA SIGNAL HOUSE (STATION 21634+43 TO STATION 21635+17) TO PROVIDE A WALKWAY FOR SIGNAL HOUSE ACCESS.
 5. TOP-OF-RAIL PROFILE (T/R) DEPICTED REPRESENTS UTA ML2 UNLESS SHOWN OTHERWISE. T/R ELEVATIONS OF UTA ML1 ARE EQUAL TO UTA ML2 AT POINTS OPPOSITE, PERPENDICULAR AND RADIALLY. GRADIENTS AND LENGTHS OF VERTICAL CURVES ON UTA ML1 MAY VARY ACCORDINGLY (SLIGHTLY) FROM THOSE OF UTA ML2.



UTA ML2

FRONTRUNNER 2X		DRAPER SEGMENT		UTAH DEPARTMENT OF TRANSPORTATION	
PROJECT NUMBER		S-ST99(835)		HORROCKS	
PROJECT NUMBER	S-ST99(835)	PIN	20253	APPROVED	DRAWN BY
RAILROAD		PROFESSIONAL ENGINEER		MM/DD/YY DATE	QC CHECKED BY
SHEET NO. DR-RR-08				HAA MJW	

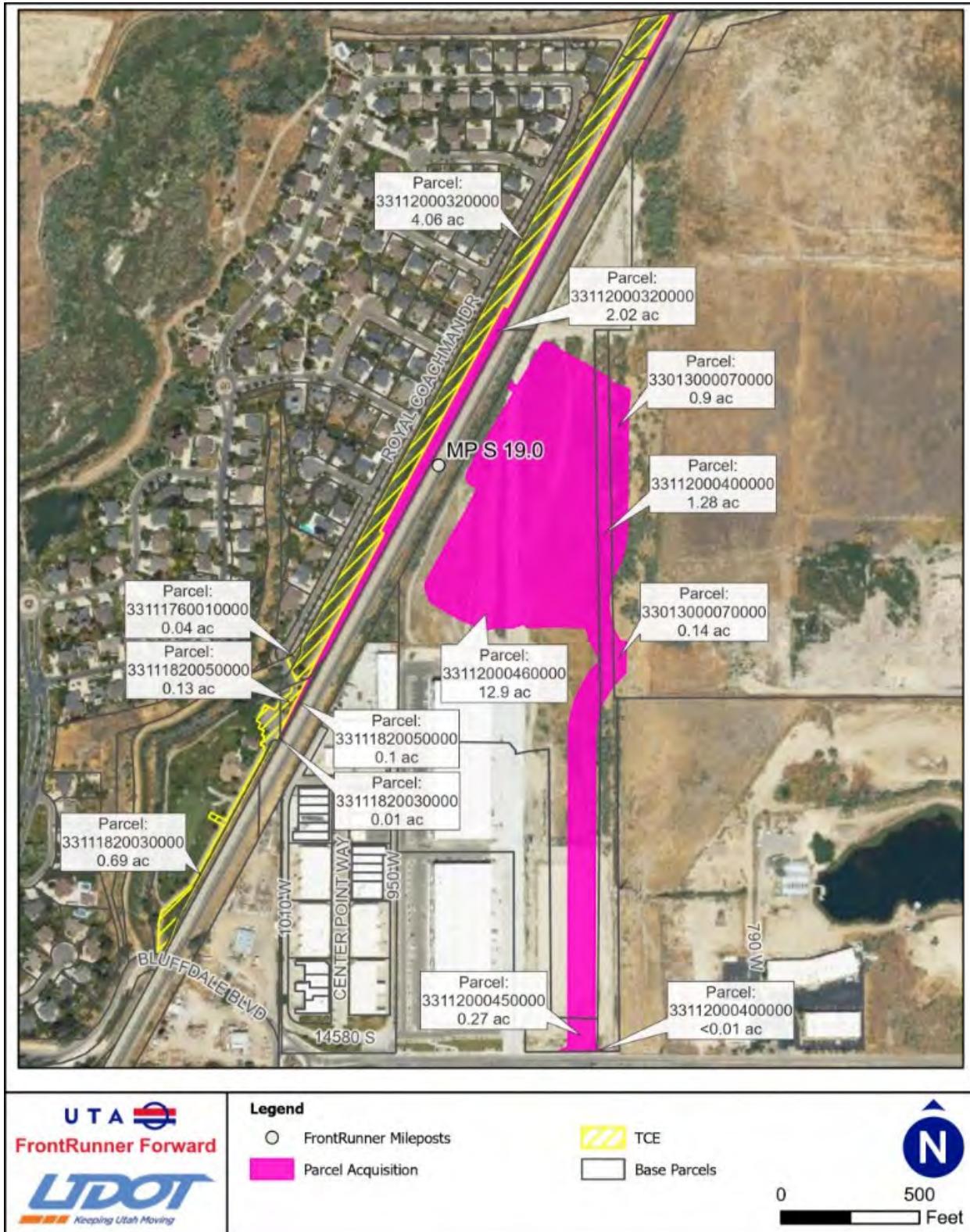
ATTACHMENT 3

*Additional Land/Property Acquisition, Relocation, Leases,
and Easements*

Table A.3-1. ROW Parcel Impacts for the South of Draper Double Track Project

Parcel ID	Owner	Parcel Address	Acquisition (acres)	TCE (acres)	Relocation?	Acquisition Type
33112000400000	SUNDBORN, LLC	924 W 14600 S	1.28	—	No	Full acquisition
33112000460000	SUNDBORN, LLC ET AL	924 W 14600 S	12.9	—	No	Full acquisition
33112000450000	SUNDBORN, LLC ET AL	870 W 14600 S	0.27	--	No	Full acquisition
33013000070000	STATE OF UTAH DIVISION OF FINANCE	14445 S MINUTEMAN DR	1.04	—	No	Partial acquisition
33112000320000	SALT LAKE CITY CORP	14287 S ROYAL COACHMAN DR	2.02	4.06	No	Partial acquisition and TCE
33111760010000	SALT LAKE CITY CORP	—	—	0.04	No	TCE
33111820050000	BLUFFDALE CITY (Phillip Gates Memorial Park)	14359 S ROYAL COACHMAN DR	0.10	0.13	No	Partial acquisition and TCE
33111820030000	BLUFFDALE CITY (Phillip Gates Memorial Park)	14359 S ROYAL COACHMAN DR	0.01	0.69	No	Partial acquisition and TCE
27363510210000	IVORY INNOVATIONS (Parcel identified for land exchange)	13376 VISTA STATION BLVD	0.23	—	No	Partial acquisition
			TOTAL	17.85	4.92	

Figure A.3-1. ROW Parcel Impacts for the South of Draper Double Track Project



**Figure A.3-2. Parcel for Exchange due to Impacts to Galena Soónkahni Preserve
(note that the entire parcel is not needed)**



ATTACHMENT 4

Cultural, Historic, and Archaeological Resources

Per the Archaeological Resources Protection Act (ARPA) and guidance from the Utah State Historic Preservation Office (SHPO), archaeological site information has been redacted to protect sensitive cultural resources.

ATTACHMENT 5

Visual/Aesthetic Resources

FrontRunner Forward Technical Memorandum

To: Project File

From: HDR

Date: July 22, 2025

Subject: Visual and Aesthetic Resources for the Proposed Bluffdale Station

Introduction

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are constructing a second track along about 2.8 miles of existing single track on the FrontRunner commuter rail line from Draper Station to 1300 West in the cities of Bluffdale and Draper, Salt Lake County, Utah. The Federal Transit Administration (FTA) approved a categorical exclusion (CE) for the South of Draper Double Track Project (Project) on July 24, 2024.

Since the CE was approved, UTA and UDOT are proposing to construct a new infill station (Bluffdale Station) adjacent to the FrontRunner rail corridor (approximately UTA milepost S 19) in Bluffdale. The station would include a new platform, an overhead pedestrian bridge, bus bays, parking areas, and access road. To accommodate the station platform, the proposed FrontRunner double-track alignment would be shifted about 28 feet further west. The station platform and a second FrontRunner mainline (ML) would be located west of the existing UTA FrontRunner ML track and existing Union Pacific Railroad (UP) track. The proposed Bluffdale Station would provide additional access to the FrontRunner commuter rail line, improve regional mobility options, and encourage transit-supportive local and regional land use planning initiatives and redevelopment strategies. The station and the associated track shift require a reevaluation of the associated environmental impacts to determine whether the Project still qualifies for a CE.

This memorandum summarizes and evaluates the expected changes to visual and aesthetic resources from the addition of the station.

Project Description

Bluffdale Station would be located on the east side of the existing UTA FrontRunner and UP tracks south of Bangerter Highway and north of 14600 South in the city of Bluffdale, about 1.7 miles south of the existing FrontRunner Draper Station (located at 12997 S. FrontRunner Boulevard). To accommodate the station platform, the FrontRunner ML track number (No.) 2 portion of the South of Draper Double Track section would be shifted about 28 feet to the west. The station layout includes a centrally located station square as the focal point, and space is allocated for buses to access the station. The station's conceptual design includes shelters and an elevated pedestrian bridge over the FrontRunner and UP tracks to access the station platform. The station would be accessed by a new road at about 855 West; this road would be developed through coordination with Bluffdale City. The park-and-ride facilities

would be located south of the bus bays, and a rideshare and “kiss-and-ride” area would be located east of the station square. The required utility relocations would be determined during the final design of the Project. Both permanent right-of-way acquisition and temporary construction easements would be required for the Project.

The South of Draper Double Track Project is one of many projects under the FrontRunner Forward Program (also known as the FrontRunner 2X project), which includes double tracking and realigning certain sections of FrontRunner and constructing this new infill station and a new maintenance facility. Further details about investments associated with the FrontRunner Forward Program are included in a separate report, *FrontRunner Forward Strategic Double Track Recommended Service Alternative Overview – A Planning and Environmental Linkage Study (PEL)* (UTA 2025).

Station Area Overview

The proposed station area is currently an undeveloped open space, and the surrounding areas have residential, commercial, and light industrial and manufacturing land uses (Figure 1). The general visual character of the proposed station area is suburban. There is a housing development that consists mainly of single-family residences west of the existing FrontRunner corridor across from Royal Coachman Drive and the Jordan and Salt Lake City Canal (Figure 2).

Close-up views immediately east of the FrontRunner corridor and south of the proposed station area include commercial and light industrial development in the Center Point Business Park. The buildings in this business park are generally two stories tall and surrounded by open spaces. A high-voltage overhead power transmission line runs east of and parallel to the business park. This developing area is visible from the residential development along Royal Coachman Drive.

The visual backdrop looking west from the FrontRunner corridor behind these homes is the Oquirrh Mountains and the Rio Tinto Kennecott mine. When looking to the east, the backdrop is the Wasatch Mountains range, which includes the prominent summit of Lone Peak, and the view to the southeast is the lower hills of the Traverse Mountains in Draper, just east of Interstate 15 (I-15) (Figure 3).

Figure 1: Proposed Station Area Looking West
(near the existing industrial park; August 2, 2024)



Figure 2: Proposed Station Area Looking South along Royal Coachman Drive
(with the canal and rail corridor to the left and Grey Wulff Drive to the right; March 17, 2024)



Figure 3: Proposed Station Area Looking Southeast from Royal Coachman Drive

(toward the Traverse Mountains with canal in the foreground; August 2, 2024)



Historical Context of the Station Area

The proposed station area's architecture and infrastructure date from the historic period through the present. Construction of the Jordan and Salt Lake City Canal began in 1879; it was among the first major canal-building projects carried out in the Salt Lake Valley. The canal was constructed as a means of irrigating the otherwise dry land above the river floodplain; it was located away from water sources emanating from the canyons of the Wasatch Mountains. The western segment of the canal was realigned in 2005–2006 in the area of the proposed station to accommodate the construction of the Spring View Farms housing subdivision and Phillip Gates Memorial Park.

The trackage for the Denver & Rio Grande Western (D&RGW) Railroad was constructed into Salt Lake City during the 1880s. It is unclear exactly when the tracks in the proposed station area were constructed, but they are visible in aerial images from 1937 and are mapped along the current alignments in early-1950s topographic maps of the area. The FrontRunner commuter rail system through this area became operational in 2012.

The adjacent neighborhood west of Royal Coachman Drive was developed in the early 2000s, and the commercial development east of the tracks is more recent and ongoing.

Visual Effects

The proposed station location is currently an undeveloped open space. Constructing the station elements would change the appearance of the open space. However, the station would be consistent within the overall present-day context of the FrontRunner corridor.

The proposed station's conceptual design includes three shelters and an elevated enclosed pedestrian bridge over the FrontRunner and UP tracks. The pedestrian bridge would span about 160 feet between the two buildings; the western building would house elevators and stairs, and the eastern building (next to the proposed station parking lot) would house elevators, stairs, an operator break room, and operator restrooms (Figure 4).

Figure 4: Conceptual Aerial View of the Proposed Bluffdale Station



In conceptual station design, the two buildings connected by the pedestrian bridge are about 37 feet above the platform and, along with the pedestrian bridge, would be visible from the homes west of the station. The station platform would provide a waiting area for passengers and give access to station amenities such as ticket vending machines, garbage receptacles, and wayfinding information (maps and signs). The station platform would be about 23 feet wide.

As part of the construction process for this project, a majority of the currently open Jordan and Salt Lake City Canal would be placed in a box culvert through the station area, and the mature trees growing in the canal easement would be removed. These changes would moderately change the look and feel of the canal through this area (Figure 3).

The proposed station would be located east of Royal Coachman Drive directly across from the -intersection of Gray Wulff Drive and Royal Coachman Drive (Figure 2). People traveling southeast on Royal Coachman Drive would have a view of the station, the platform level of which would be about 10 feet above street level, and the pedestrian bridge (Figure 5). Some of the houses along Royal Coachman Drive are oriented such that the side of the house faces the station area, while some houses have their front doors and garage doors facing the station area. Although the station structures would be visible from the homes along Royal Coachman Drive, the structures would not substantially screen distant views from these homes because the footprint of the buildings and pedestrian bridge is about 80 feet wide where they would face the homes, and the station area would be located about 200 feet east of the homes. The structures would not obstruct views of distant mountains that are visible from locations in the station area. The new station structures and pedestrian bridge would be visible from these homes, and viewers in these homes would experience a moderate change in views to the east. Trees line the park strip on the east side of Royal Coachman Drive and partially screen views in the direction of the station area. The trees are young, and as they mature they would provide an increased visual screen between the houses and the proposed station.

Figure 5: Conceptual View of Station from Gray Wulff Drive, Looking East



In addition to the structures, light from both the station and the parking area would be visible from the homes west of the station, but the lights will be designed with directional shielding to keep unwanted light and glare from intruding into adjacent land uses, including the nearby homes. The station lighting

design would follow UTA's Commuter Rail Design Criteria (2015) and incorporate CPTED (crime prevention through environmental design) standards.

The proposed station would also be visible from Phillip Gates Memorial Park, which was constructed in 2007–2008 before FrontRunner was constructed through the south part of the Salt Lake Valley. As part of the Project, an approximately 825-foot-long retaining wall would be built along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent starts. To reduce any further encroachment into the park, the wall would be built along the eastern edge of the park, including along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall would range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. In the areas where the wall is higher, short- and mid-range views from the east side of the park looking to the east would be blocked, though the farther west a viewer is in the park, the more views to the east would be visible. UTA and UDOT will work with Bluffdale City during the final design phase of the Project to determine the aesthetic wall treatment.

Although views from the park to the station area would moderately change with the addition of the station elements, the look and feel of the park is not expected to be affected.

Summary

The project team does not anticipate any adverse visual impacts from the Project at the proposed station location, nor any adverse proximity or visual effects on the location, design, setting, materials, workmanship, feeling, or association of historic resources in or near the proposed station location.

The project team anticipates that the final design of the station elements would be consistent with the context of the surrounding community while also being consistent with other existing FrontRunner stations. The proposed station would be designed to be sensitive to the local character of the area and would not detract from the context of the surrounding area. The design would minimize effects on the visual setting through the transit corridor, though residents along Royal Coachman Drive, especially those in the first row of homes with the most direct views of the station area, would experience a moderate change in views to the east. The noticeable visual changes would decrease as one moves north or south farther from the station elements.

The station's features would be compatible with the scale of the existing built environment surrounding the station area and would fit into the overall FrontRunner corridor context. It would introduce new structural elements to an area that, while currently an open space, is rapidly developing.

References

[UTA] Utah Transit Authority

- 2015 Utah Transit Authority Commuter Rail Design Criteria, Chapter 1. Revision 3.
https://www.rideuta.com/-/media/Files/Doing-Business/Design-Info/CRTDesignCriteriaRev32015_Design_Information_2014.pdf. March.
- 2025 FrontRunner Forward Strategic Double Track Recommended Service Alternative Overview – A Planning and Environmental Linkage Study (PEL).

ATTACHMENT 6

Parks and Recreation Resources



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION VIII
Colorado, Montana,
North Dakota,
South Dakota,
Utah and Wyoming

1961 Stout Street
Suite 13301
Denver, Colorado 80294
(303) 362-2400 (voice)

August 13, 2025

Bruce Kartchner, City Manager
Bluffdale City
2222 West 14400 South
Bluffdale, UT 84065

Re: Section 4(f) – Request for Concurrence: FrontRunner South of Draper Double Track Project (Phillip Gates Memorial Park) in Salt Lake County, Utah

Dear Mr. Kartchner:

The Federal Transit Administration (FTA), in coordination with the Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT), is evaluating the potential “use” of properties by the FrontRunner South of Draper Double Track Project (Project) as defined by Section 4(f) of the Department of Transportation Act of 1966, 23 United States Code (USC) Section 138, and 49 USC Section 303, and implementing regulation 23 Code of Federal Regulations (CFR) Part 774. FTA requests your concurrence as the Official with Jurisdiction (OWJ) for a use with *de minimis* impact to Phillip Gates Memorial Park as a result of the South of Draper Double Track Project.

Project Description

The existing double-track section at Draper Station is about 1.0 mile long, and its primary use is allowing trains traveling in opposite directions to pass each other. The Project will lengthen the existing double-track section by about 2.8 miles, moving the southern terminus of the section from the Vista Station Boulevard bridge to 1300 West. The Project also includes the addition of a new FrontRunner in-fill station in Bluffdale (Figure 1).

North of Bangerter Highway, the anticipated track work includes constructing a new FrontRunner mainline track approximately 15 feet east of the existing mainline track, shifting the existing FrontRunner mainline track where necessary, removing one existing turnout, constructing one new turnout, constructing a new bridge over Bangerter Highway and 14600 South, extending a box culvert, demolishing an existing retaining wall and constructing new retaining walls on the west side of the corridor on the north and south approaches to the Bangerter Highway bridge, constructing a new retaining wall on the eastern edge of Phillip Gates Memorial Park north of 14600 South, and constructing new retaining walls in other sections to minimize property impacts and right-of-way acquisition.

Generally, south of the Bangerter Highway grade-separated crossing, the new track will be constructed west of the existing UTA mainline (ML) number (No.) 1 within the existing UTA right-of-way, except that a small amount of right-of-way will be acquired just south of the existing 14600 South grade-separated crossing. North of the Bangerter Highway grade-separated crossing, a new UTA ML No. 1 will be constructed east of the existing track, and the existing UTA ML No. 1 will become UTA ML No. 2.

To minimize impacts from new track construction and the shift of UTA ML No. 2, a retaining wall will be constructed north of 14600 South along the eastern edge of Phillip Gates Memorial Park; this retaining wall will require a minor amount of property acquisition (Figure 2). Construction for the Project is expected to occur from approximately fall 2025 to summer 2029, and the project-related work on the Phillip Gates Memorial Park grounds (further discussed below) is expected to occur from fall 2027 to spring 2028.

Section 4(f)

Section 4(f) of the DOT Act of 1966 affords special protection to publicly owned parks, recreational resources, wildlife and waterfowl refuges, and publicly or privately owned historic sites. Use of a Section 4(f) property occurs when (1) land is permanently incorporated into a transportation facility; (2) temporary occupancy of the land could be adverse in relation to the protected activities, features, or attributes of the property; or (3) there is a constructive use (the project's impacts are so severe that the protected activities, features, or attributes of an adjacent property are substantially impaired).

A *de minimis* impact is one that, after taking into account all measures to minimize harm (such as avoidance, minimization, mitigation, or enhancement measures), results in no adverse effect to the activities, features, or attributes that qualify the property for protection under Section 4(f). A *de minimis* determination requires concurrence from the OWJ, which is the Bluffdale City Parks and Recreation Department for Phillip Gates Memorial Park and requires public involvement as defined by 23 CFR Section 774.5(b).

Section 4(f) Use of Phillip Gates Memorial Park and Spring View Farms Trail (Segment)

Phillip Gates Memorial Park, located at 14359 S. Royal Coachman Drive in Bluffdale, is a 4.54-acre public park owned by Bluffdale City and managed by the Bluffdale City Parks and Recreation Department. The entire eastern edge of the park is adjacent to the existing FrontRunner rail corridor. Spring View Farms Trail, a multi-use pathway and distinct Section 4(f) property within the park, runs along the western perimeter of the park.

An emergency and maintenance access road runs along the east side of the park between the park's grass area and the FrontRunner corridor. According to Bluffdale City staff, this access road was originally created as an emergency access for the residential development to the south and west of the park. Currently, city staff use this access to maintain the park amenities as well as the pond and other stormwater detention facilities. There is a signed emergency-access-only gate for this road on the south side of the park from 14600 South; this gate prevents park visitors from driving through the park.

The access road is not currently included as part of the Spring View Farms Trail system on Bluffdale City's master trails plan or active transportation plan, but it will eventually be designated as a trail access and added to the city plans after 14600 South is realigned, which should be completed by the end of 2026 through a separate project led by Bluffdale City.

A chain-link fence and power line run between the eastern park boundary and the UTA right-of-way. The power poles are located just east of the chain-link fence in the UTA-owned right-of-way area west of the existing tracks, except for the two northernmost poles, which are located in the park within a public utility easement.

The park is well-equipped for active, outdoor recreation activities. In addition to the paved multi-use trails for walking, running, and cycling, the park includes other amenities such as open green space and trees, a large playground, benches, a pavilion, picnic tables, restrooms, drinking fountains, and electrical outlets. The park landscape is mostly lawn with individual shade trees.

According to Bluffdale City Parks and Recreation Department personnel, the park is used primarily for active recreation. The Recreation Coordinator for the Parks and Recreation Department stated that, although Bluffdale City does not use the park for any active recreation programming (that is, holding City-sponsored, organized recreation program activities), the park does have full amenities, including a playground, bathroom, pavilion, and fields, and residents sometimes rent the pavilion for parties or other events. The park is most often used as a typical family neighborhood park. According to the Bluffdale City Parks and Recreation Public Works Manager, the park was constructed around 2007–2008. The existing Union Pacific Railroad (UP) alignment was in operation at that time (although FrontRunner started operation in this area in 2012).

Both Phillip Gates Memorial Park and Spring View Farms Trail on the west side of the park meet the qualifications for a Section 4(f) resource as defined in 23 CFR Part 774. Both the park and the trail are publicly owned and are open to the public as recreation areas. A primary purpose of the park and its associated trail system is recreation and park activities, and the park and trail are considered locally significant.

The new UTA ML No. 2 will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed (Figure 2). To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start. The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the wall for safety, and the chain-link fence that currently runs along the eastern edge of the park and UTA right-of-way boundaries will be reestablished as needed to ensure full separation between the park and UTA right-of-way, likely on the south end of the park where the wall ends. The project team will work with Bluffdale City during the final design phase of the Project to determine the wall treatment.

Constructing the retaining wall will require a strip take of 0.11 acre of park property on the north end of the park. The 0.11 acre of park property will be permanently incorporated into the UTA right-of-way (Figure 2); it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. In addition, two power poles at the north end of the park will be impacted by wall construction and will need to be relocated by Rocky Mountain Power to the southwest (Figure 3). Although the existing poles are within the park property, they are within an exclusive Rocky Mountain Power easement. After the poles are relocated, Rocky Mountain Power and Bluffdale City will need to redefine a new easement to allow Rocky Mountain Power continued access for any required power line and pole maintenance.

The parking lot and connection to the access road will be reconfigured. An additional 0.08 acre of park area, comprising 0.02 acre of existing green space and 0.06 acre of existing pavement on both the north and south ends of the parking area, will be either converted to pavement or replaced with new pavement so that parking spaces removed by the wall construction could be wholly replaced. The Project will maintain the same number of parking spaces (22 spaces total, including two Americans with Disabilities Act [ADA]-compliant spaces) and access to the parking lot as the existing conditions. Although it will be reconfigured slightly, this 0.08 acre will remain park property. In addition, the pillars and gates that are currently south of the parking lot that leads into the access road will be replaced.

Some of the trees in the park will be removed and replaced. As shown in Figures 3 and 4, up to eight trees in the park (seven trees on the east side of Royal Coachman Drive just north of the parking lot and an additional tree just south of the parking lot) will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team will minimize impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete. An additional three trees that are within the existing UTA right-of-way just south of the parking lot along the eastern edge of the park might also be removed. An image of one of the park trees that could be removed is provided in Figure 4; this tree is consistent in size with all trees that will be removed.

Construction access and equipment staging will require a 0.82-acre temporary construction easement (TCE) along the eastern section of the park (Figures 2 and 3) from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot (Figures 2 and 3) and Royal Coachman Drive within the park. Portions of this TCE will be used at different times during construction, and, when they are not being used, they will remain open to the public. About an 8-foot width of the access road will remain open during construction as a pathway for park users and as an emergency and maintenance access for authorized vehicles. The eastern portion of the parking lot, including about 10 parking spaces, and the southern terminus of Royal Coachman Drive leading into the park will also be closed during certain times over about a 3-month period for material staging and during construction of the retaining wall. In addition, a small area on the north end of the park where the designated trail connects with Royal Coachman Drive will be included in the TCE.

After the retaining wall is constructed, the eastern and southern portion of the parking lot, including 14 parking spaces, will be closed at various times over a 3-week period while the contractor reconfigures the parking lot (Figure 3). Aside from the closures described above, the western portion of the parking lot, Royal Coachman Drive, and the park grounds and amenities outside the fenced section of the TCE along the access road will all remain open to the public during construction, and emergency and maintenance vehicles will be allowed to use the access road. In addition, 0.01 acre of green space on the south end of the park that is included in the 0.82-acre TCE will be converted to a grading slope to accommodate the wall construction. The 0.01 acre of affected property on the south end of the park includes manicured grass; however, this grass area is extremely close to 14600 South and on a slope immediately adjacent to unmaintained vegetation. According to Bluffdale City Parks and Recreation Department personnel, the grass area is not used by park patrons.

The project contractor will obtain an encroachment permit from Bluffdale City to define the work areas within both the TCE and the area of permanent impact. Although the TCE shown in Figures 2 and 3 includes the fullest extent needed for construction vehicles, the project team along with Bluffdale City will establish the areas to place temporary fencing to best accommodate construction access and construction equipment staging while safely allowing enough room for both park users and authorized emergency and maintenance vehicles on Spring View Farms Trail.

UTA and UDOT will provide Bluffdale City just compensation for the acquisition of the park property and TCE; this acquisition will comply with the Uniform Relocation Assistance and Real Property Acquisition Polices Act of 1970 regulation. Construction impacts will be mitigated by restoring park landscaping to the same conditions or better than existing. During final design, the project team will consult with Bluffdale City regarding a replacement landscaping plan, including the replacement of any trees removed within the park boundaries, and will ensure that the slope easement on the south end of the park looks like a natural slope when construction is complete. After construction is complete, the slope easement will be maintained by Bluffdale City. The project team will also continue to consult with Bluffdale City regarding the design of the parking lot and associated utility relocations.

At the City's request, the project will add a drainage pipe from just west of the rail corridor to the pond/stormwater detention basin to maintain the current drainage pattern after the wall is constructed. Construction of the drainage pipe will occur in the TCE shown in Figures 2 and 3.

Further evaluation of impacts by Section 4(f) resource criteria is discussed below.

- **Impacts to Public Recreation Resources Including Park Amenities.** Permanent and TCE impacts to Phillip Gates Memorial Park will occur immediately adjacent to UTA's existing property boundary for the FrontRunner rail corridor, and neither the permanent conversion of park land to transportation use nor the TCE impacts will have a notable impact on the use of the park as a recreational resource. Up to eight trees near the park parking lot will be removed (Figures 3 and 4) and will be replaced by the project contractor in coordination with Bluffdale City after construction is complete. During final design, the project team will consult with Bluffdale City regarding the landscaping plan.

None of the park's amenities—including the playground, picnic pavilion, restrooms, or trails—will be affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project.

- **Impacts to Spring View Farms Trail.** Spring View Farms Trail enters Phillip Gates Memorial Park from the north along Royal Coachman Drive and follows the western boundary of the park, then ends on the south end of the park at the access road. The pathway that follows the park's western boundary and the pathway/sidewalk along Royal Coachman Drive is a designated trail in Bluffdale City's master trails plan and active transportation plan. The access road that runs along the east side of the park is not designated as part of the trail system in Bluffdale City's trails master plan. There is a small portion of the designated trail, which qualifies as a distinct Section 4(f) property within the larger Phillip Gates Memorial Park Section 4(f) property, on the north end of the park where the trail connects with Royal Coachman Drive that will be included in the TCE for construction equipment access and staging. This portion of the designated trail within the TCE will remain open throughout construction and will be restored to its original condition after construction. The TCE along this portion of the trail will have *no use* under Section 4(f) and will be considered a Temporary Occupancy per 23 CFR Section 774.14(d).
- **Visual Impacts.** Currently, the FrontRunner corridor runs along the eastern edge of Phillip Gates Memorial Park on a slightly elevated embankment. A chain-link fence separates the park from the FrontRunner corridor. Mid-range views east of the rail corridor from the park include commercial warehouse buildings. In the distance, the tops of the Wasatch Mountains are visible.

Because the park is close to the rail corridor, widening the existing railroad right-of-way will not substantially alter the visual quality or aesthetics at the park. The new retaining wall will be visible from the park, and this change could affect the immediate views of the rail corridor. The wall will be about 12 feet high at the north end of the park adjacent to the parking lot and will be about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the wall for safety, and the chain-link fence that currently runs along the eastern edge of the park and UTA right-of-way boundaries will be reestablished after the wall is constructed. The height of the wall could block the view of the rail corridor, though the distant views to the east of the mountain tops will remain when viewed from most of the park. Views to the north, south, and west will not be affected.

- **Noise.** Because the Project will place a new, second FrontRunner track west of the current FrontRunner track and closer to Phillip Gates Memorial Park and Spring View Farms Trail, the noise impacts to the park and associated trail were also considered.

According to FTA's *Transit Noise and Vibration Impact Assessment Manual* (2018), parks that are used primarily for active recreation such as sports complexes and bike or running paths are not considered noise-sensitive. However, parks that are used primarily for passive recreation, such as for reading, having conversations, or meditating, are treated as noise-sensitive and should be included in land use category 3. The FTA manual advises practitioners to consult the state or local agency with jurisdiction over the park regarding how the park is used and, if possible, to visit the park to observe how it is used.

The project team contacted Bluffdale City Parks and Recreation Department personnel to verify that the park is used primarily for active recreation. The Recreation Coordinator for the Parks and Recreation Department stated that, although Bluffdale City does not use the park for any active recreation programming (that is, holding City-sponsored, organized recreation program activities), the park does have full amenities, including a playground, bathroom, pavilion, and fields, and residents sometimes rent the pavilion for parties or other events. However, the park is most often used as a typical family neighborhood park. The Recreation Coordinator, Skyler Killian, further said that he has never received any noise complaints concerning the proximity of FrontRunner to the park (personal communication, June 18, 2024).

According to the City of Bluffdale's Parks and Recreation Public Works Manager, the park was constructed around 2007–2008. The existing UP alignment was in operation at that time (although FrontRunner was not operational until 2012). For this reason, it is reasonable to assume that the park has been subject to ongoing noise from various sources including freight trains, local traffic, and FrontRunner trains since 2012.

Because of the active recreation amenities associated with the park, anecdotal active recreation uses of the park, and the park's proximity to several existing noise sources, including the UP and FrontRunner trains, neither the park nor the associated Spring View Farms Trail is considered noise sensitive; therefore, the park does not require a noise assessment.

- **Construction Impacts.** Construction of the Project is expected to take approximately 18 to 24 months. Reconfiguring the parking lot and its access from Royal Coachman Drive and the connection to the access road could require temporarily closing the eastern section of the parking lot at various times over a 3-week period; however, parking spaces on the western section of the parking lot will remain available throughout construction. Once construction is complete, there will be no net loss in the number of parking spaces, and the Royal Coachman Drive access will be restored to current conditions. For about 3 months during wall construction, a portion of the easternmost section of the access road will be used as a TCE and will be closed to park users. However, an approximately 8-foot width of the access road will remain open to park users and maintenance and emergency vehicles; the Spring View Farms Trail along the western edge of the park will also remain open to the public for the duration of construction.

After the wall is constructed, the parking lot will be reconfigured so that there is no net loss of parking spaces. The parking lot will be reconfigured to maintain the current number of parking spaces, including maintaining the same number of ADA-compliant spaces (two), and to maintain connection to the access road. During the wall construction and parking lot reconfiguration, parking spaces on the west side of the park will be open for public use, the east-side parking spaces will continue to be closed at various times for the 3-month wall and subsequent parking lot

construction, and the south-side parking spaces will be closed only when the parking lot is being reconfigured. Street parking is also available on Royal Coachman Drive. Additionally, about three-quarters of the width of the access road will be included in the TCE and will be temporarily inaccessible for about 3 months; however, a fence will be placed in Spring View Farms Trail so that about one-quarter of the roadway (an approximately 8-foot width) will remain open to park users during construction. Neither short-term nor long-term use of Spring View Farms Trail will be affected.

Construction equipment, such as trucks, bulldozers, graders, and rollers, will be visible for up to 3 months and will add a minor amount of noise to an active freight and commuter rail corridor. In addition, typically used temporary construction fences, such as chain-link fences, temporary fence panels, or welded wire mesh fences, will be installed to mark the approved TCE work area in and near the park, and no work or equipment movement will be allowed outside the fences.

Emergency and maintenance vehicle access will remain open on Spring View Farms Trail during construction.

Neither permanently converting the park's land to transportation use nor the TCE within a section of the park and Spring View Farms Trail will have a notable impact on the activities, features, or attributes of either the park or the trail.

Coordination with Bluffdale City

UTA and UDOT initially met with Bluffdale City officials on August 5, 2024, to discuss the Project and its anticipated impacts to the park. Bluffdale City agreed that the park's parking lot could be reconfigured to accommodate the retaining wall. A second meeting was held with the city engineer and public works personnel on March 18, 2025, to discuss the retaining wall, parking lot reconfiguration, tree removal, and utility relocations. City officials requested some changes to the parking lot reconfiguration and wanted to understand how the City will be compensated for the loss of trees. A third meeting was held with park personnel, the city engineer, and public works staff on May 1, 2025. At this meeting, UTA, UDOT, and a Bluffdale City official discussed wall type options and agreed that the proposed grading slope in the southern section of the park was acceptable. The meeting attendees agreed that the Project will not affect the park's features or activities and that the project contractor will replace the trees in the park affected by construction in coordination with Bluffdale City after construction is complete.

Public Comment Period

A 2 -week public comment period was provided from July 13 to July 25, 2025, for the public to review the project impacts to Phillip Gates Memorial Park. The notice of the public comment period was posted on the Utah.gov website as well as the UDOT FrontRunner project website (<https://udotinput.utah.gov/FrontRunnerProject>); printed in *The Salt Lake Tribune* and the *Deseret News*; and posted at the park.

During the public comment period, FTA received six individual comment submissions from the public. Comments specific to the Section 4(f) *de minimis* impact to the park consisted of three general themes: concerns about the temporary closure of the park during construction, safety and security, and a question regarding access to the emergency exit from the Spring View Farms neighborhood onto 14600 South through the park. These concerns have been evaluated and will be mitigated (if necessary), as discussed in the above sections of this letter.

Bluffdale City Concurrence

Based on the information presented above, FTA has determined that the use of Phillip Gates Memorial Park by the South of Draper Double Track Project will be a use with *de minimis* impact, and the requirements of 23 CFR Part 774 have been satisfied. In addition, FTA has determined that the temporary occupancy of the northern connection of Spring View Farms Trail does not present temporary or permanent adverse physical impacts to the resource, its function, or the activities associated with the resource. The temporary occupancy is minor in nature. FTA has determined that these activities will meet the requirements of the temporary occupancy exception in Section 4(f) regulation 23 CFR Section 774.13(d).

To acknowledge receipt of this letter and your concurrence with these determinations regarding Phillip Gates Memorial Park and Spring View Farms Trail, please provide your signature below. If you have any questions or need additional information, please contact Robyn Kullas at (303) 362-2389 or robyn.kullas@dot.gov.

Sincerely,

**DAVID L
BECKHOUSE**

Digitally signed by DAVID L
BECKHOUSE
Date: 2025.08.13 15:12:58
-06'00'

David Beckhouse
Deputy Regional Administrator

As the party responsible for managing the Section 4(f) property (Phillip Gates Memorial Park including a segment of Spring View Farms Trail) identified in this letter, I concur with the determinations stated above.


Bruce Karchner, City Manager
Bluffdale City

8/15/2025

Date

Figure 1. Vicinity Map for South of Draper Double Track Project





Area with Proposed Slope Easement

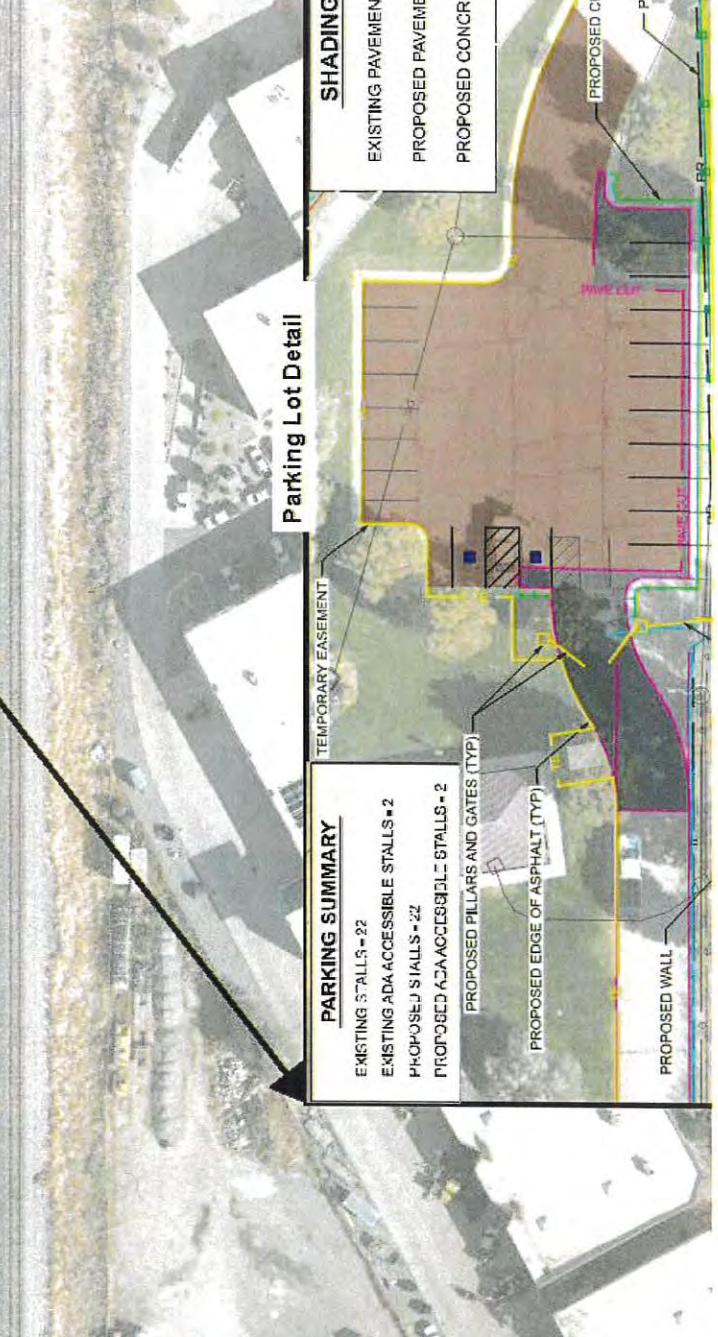
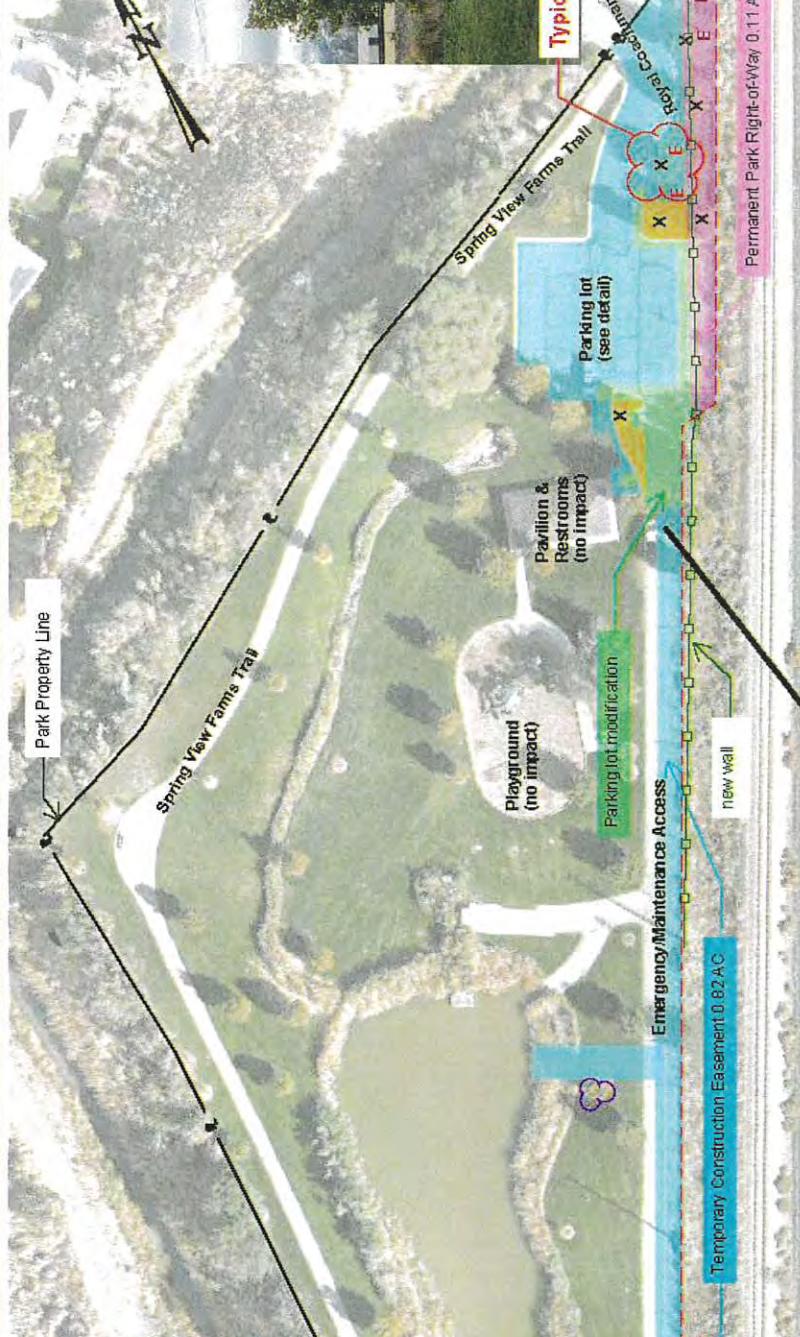


Temporary Construction Easement
Existing UTA right-of-way
Existing UT right-of-way
Slope easement
Emergency/Maintenance Access
Space impact
easement

Tree-Protect in place Tree
Potential tree removal
Retaining wall
Existing UTA right-of-way
Park Property Boundary
Existing Power Pole
Relocated Power Pole

Temporary Construction Easement
Existing UTA right-of-way
Existing UT right-of-way
Slope easement
Emergency/Maintenance Access
Space impact
easement

Tree-Protect in place Tree
Potential tree removal
Retaining wall
Existing UTA right-of-way
Park Property Boundary
Existing Power Pole
Relocated Power Pole



Temporary EASEMENT
EXISTING STALLS • 22
EXISTING ADA ACCESSIBLE STALLS • 2
PROPOSED STALLS • 22
PROPOSED ADA ACCESSIBLE STALLS • 2
PROPOSED PILLARS AND GATES (TYP)
PROPOSED EDGE OF ASPHALT (TYP)
PROPOSED WALL
PROPOSED CL

PHILLIP GATES
MEMORIAL PARK
IMPACT AREAS

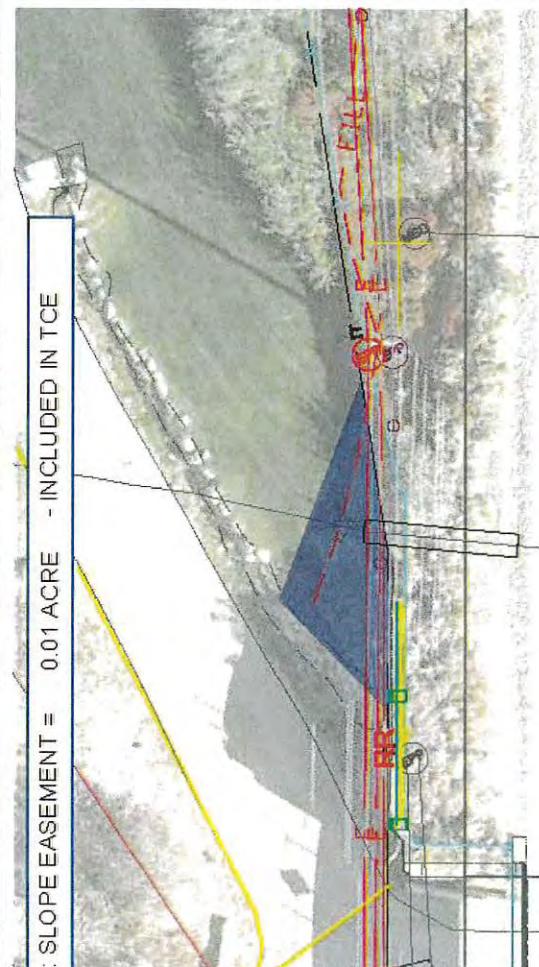
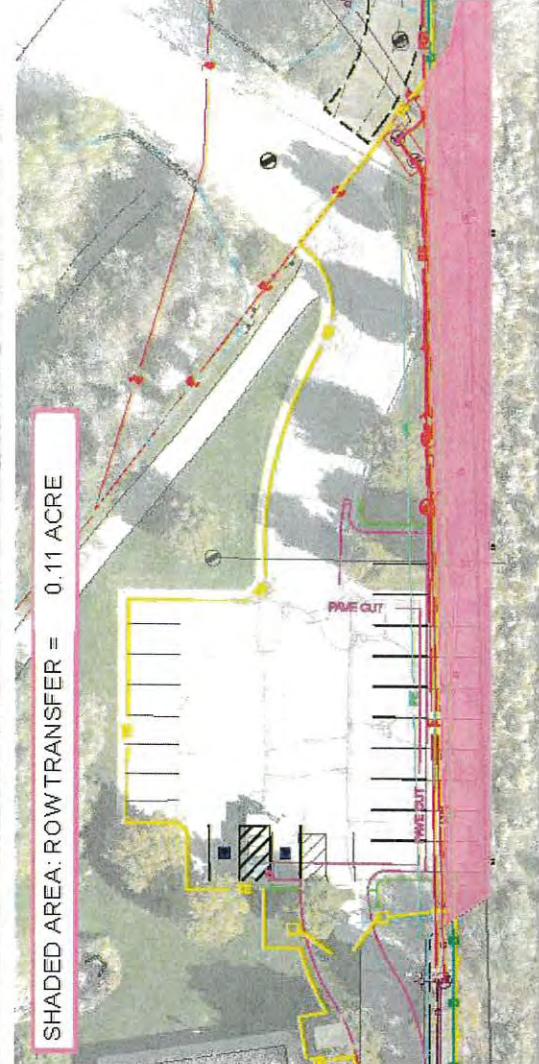
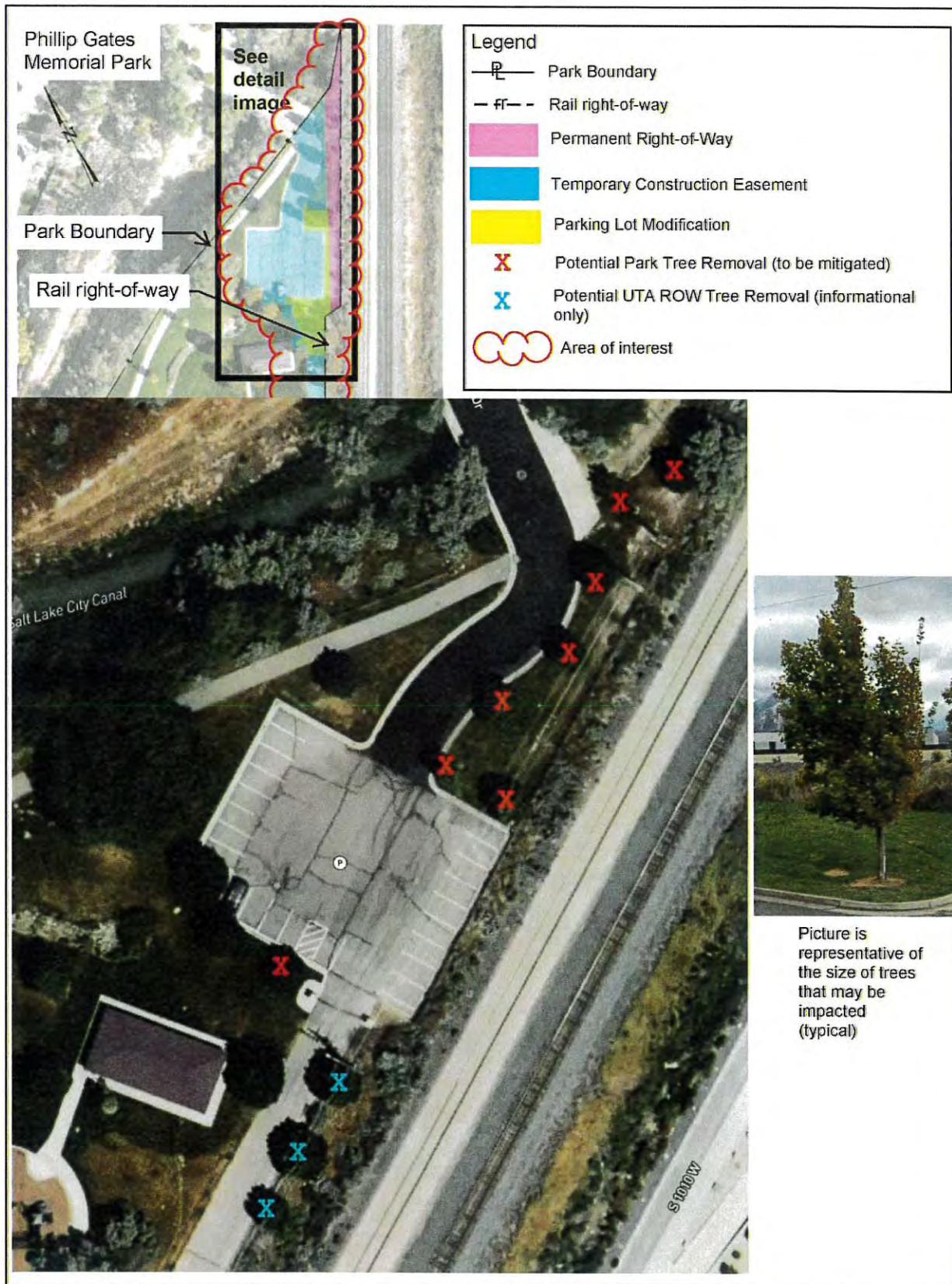


Figure 4. Potential Tree Impacts



FrontRunner Forward

South of Draper Double Track Project

Phillip Gates Memorial Park Section 4(f) *De Minimis* Impact Public Comment Summary

August 2025

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1 Introduction

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are constructing a second track along about 2.8 miles of existing single track on the FrontRunner commuter rail line from Draper Station to 1300 West in the cities of Bluffdale and Draper, Salt Lake County, Utah. The Federal Transit Administration (FTA) approved a categorical exclusion (CE) for the South of Draper Double Track Project (Project) on July 24, 2024. Design changes have been made since the 2024 CE approval, requiring a reevaluation of impacts to resources.

As the lead agency for the Project, FTA, in compliance with Section 4(f) of the Department of Transportation Act of 1966, 23 United States Code (USC) Section 138 (as amended) and 49 USC Section 303 (as amended), provided public notification of the intent to make a *de minimis* impact finding for Phillip Gates Memorial Park, a Section 4(f) resource in the project area.

Phillip Gates Memorial Park, located at 14359 S. Royal Coachman Drive in Bluffdale, is a 4.54-acre public park owned by Bluffdale City and managed by the Bluffdale City Parks and Recreation Department. The entire eastern edge of the park is adjacent to the existing FrontRunner rail corridor. Spring View Farms Trail, a multi-use pathway and distinct Section 4(f) property within the park, runs along the western perimeter of the park. The park is well-equipped for active outdoor recreation activities. In addition to the paved multi-use trails for walking, running, and cycling, the park includes other amenities such as open green space and trees, a large playground, benches, a pavilion, picnic tables, restrooms, drinking fountains, and electrical outlets. The park landscape is mostly lawn with individual shade trees.

Spring View Farms Trail, a multi-use pathway and distinct Section 4(f) property within the park, runs along the western perimeter of the park. An emergency and maintenance access road runs along the east side of the park between the park's grass area and the FrontRunner corridor. According to Bluffdale City staff, this access road was originally created as an emergency access for the residential development to the south and west of the park. Currently, city staff use this access to maintain the park amenities as well as the pond and other stormwater detention facilities.

There is a small portion of Spring View Farms trail on the north end of the park where the trail connects with Royal Coachman Drive that will be included in a temporary construction easement for construction equipment access and staging. This portion of the trail will remain open throughout construction and will be restored to its original condition after construction. The temporary construction easement along this portion of the trail will have **no use** under Section 4(f) and will be considered a Temporary Occupancy per 23 Code of Federal Regulations (CFR) Section 774.14(d).

2 Project Impacts

The new UTA track will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed. To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start. The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-

link fence will be added on top of the wall for safety, and the chain-link fence that currently runs along the eastern edge of the park and UTA right-of-way boundaries will be reestablished as needed to ensure full separation between the park and UTA right-of-way, likely on the south end of the park where the wall ends. The project team will work with Bluffdale City during the final design phase of the Project to determine the wall treatment.

Constructing the retaining wall will require a strip take of approximately 0.11 acre of park property along the northeast corner of Phillip Gates Memorial Park immediately adjacent to the existing rail corridor. The 0.11 acre of park property will be permanently incorporated into the UTA right-of-way; it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. The parking lot will be reconfigured to accommodate the proposed wall; however, the number of parking spaces will not be reduced. Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team is committed to minimizing impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete.

Construction access and equipment staging will require an approximately 0.82-acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public.

None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms, or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features, or attributes of either the park or the trail. FTA has determined that the use of Phillip Gates Memorial Park by the South of Draper Double Track Project will be a **use with *de minimis* impact**, and the requirements of 23 CFR Part 774 have been satisfied.

3 Public Comment Period

FTA, UTA, and UDOT conducted a 14-day public comment period from July 13, 2025, through July 27, 2025, to gather comments regarding the use of Phillip Gates Memorial Park as a result of the Project and FTA's intent to make use with *de minimis* impact finding under Section 4(f). All comments received during the comment period are included in this report and will be considered by the project team. A range of methods were used to ensure that the public was adequately notified about and invited to participate in the process.

The following methods were used to notify the public of the public comment period, the materials available for review, and how to comment:

- Notifications were published on the FrontRunner 2X project website:
<https://frontrunner2x.utah.gov/news>.
- Notifications were published on the Utah.gov public notice website:
<https://www.utah.gov/pmn/sitemap/notice/1010753.html>
- Notifications were placed in the following publications:
 - *The Salt Lake Tribune* – Saturday, July 12, 2025; Sunday, July 13, 2025
 - *Deseret News* – Friday, July 11, 2025
- Signs were placed on the north end, on the south end, and in the center of Phillip Gates Memorial Park near common areas with clear visibility.

Copies of the notification materials listed above are included in Appendix A, *Notifications for Public Comment Period*.

4 Phillip Gates Memorial Park Section 4(f) De Minimis Impact Comments

During the public comment period, FTA, UTA, and UDOT received five individual comment submissions from the public, some of which included more than one concern. No comments were received from any agencies. All comments are included in a table with an identifying comment number in Appendix B, *Public Comments*. Comments are organized chronologically, and a single comment might include several issues. One comment was sent shortly after the comment period ended, but it is included in the comments table in Appendix B.

Although some comments were specific to park impacts, several comments reflected general project concerns or were in support of the project. The comment topics included:

- Concern about closing part of the park during construction
- Opposition to the South of Draper Double Track Project in general
- Parking concerns
- Security during construction
- Neighborhood emergency exit access through the park
- Train and station operation noise
- Transient and low-income populations
- Use of taxes
- Support of FrontRunner improvements

Appendix A

Notifications for Public Comment Period

Notice of public comment period for Section 4(f) *de minimis* impact to Phillip Gates Memorial Park



The Utah Transit Authority (UTA), in coordination with the Utah Department of Transportation (UDOT), is proposing to add double track south of the existing Draper Station of the FrontRunner commuter rail system in the cities of Draper and Bluffdale in Salt Lake County, Utah. As the lead agency for this project, the Federal Transit Administration (FTA), in compliance with Section 4(f) of the Department of Transportation (DOT) Act of 1966 (23 Code of Federal Regulations Section 774.17), is providing public notification of its intent to make a finding of use with de minimis impact to Phillip Gates Memorial Park, a Section 4(f) resource in the project area.

Section 4(f) use of Phillip Gates Memorial Park

To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along most of the eastern edge of the park. To accommodate wall construction, a small portion (about 0.11 acre) of Phillip Gates Memorial Park will be incorporated into the FrontRunner right-of-way (see figure). Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot and will be replaced when construction is completed. Construction access and equipment staging will require an approximate 0.82-acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park (see figure). Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public. Visit FrontRunner2X.utah.gov for a full description of impacts and mitigation actions.

None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms, or trails—will be permanently affected by the Project. These changes will not have a notable impact on the activities, features or attributes of the park, which will remain open throughout construction.

Public comment period for the Section 4(f) *de minimis* impact

The public comment period starts July 13, and ends July 27, 2025. Any person or group wishing to submit comments regarding the Project's effect on Phillip Gates Memorial Park, or FTA's intent to make a finding of use with de minimis impact under Section 4(f), may do so by contacting the project team during this comment period. Comments provided during the comment period will be reviewed and considered by FTA, UTA and UDOT as the Project develops. Comments received during the comment period will be documented in the project record.

How to comment:

Email: FrontRunner2X@utah.gov
Website: FrontRunner2X.utah.gov
Voicemail: 888-882-0373

Para información en español, llame al 888-882-0373.

Letter postmarked by July 27, 2025 to:
FrontRunner 2X c/o HDR
2825 E. Cottonwood Pkwy, Ste 200
Salt Lake City, UT 84121



Sign Placement at Phillip Gates Memorial Park

A. Entrance



B. South end along trail



C. Mid-park between gazebo and playground looking north



D. Mid-park between gazebo and playground looking south



Publication Name:

Deseret News

Publication URL:

Publication City and State:

Salt Lake City, UT

Publication County:

Salt Lake

Notice Popular Keyword Category:

Notice Keywords:

Phillip Gates

Notice Authentication Number:

202507311939585480278

2742324366

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Friday, July 11, 2025

Notice Content

NOTICE OF PUBLIC COMMENT PERIOD July 13 – July 27, 2025 Phillip Gates Memorial Park Section 4(f) use with de minimis Impacts as part of the FrontRunner South of Draper Double Track Project in Bluffdale, Salt Lake County, Utah The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are proposing to add double track south of the existing Draper Station of the FrontRunner commuter rail system in the cities of Draper and Bluffdale in Salt Lake County, Utah. As the lead agency for this project, the Federal Transit Administration (FTA), in compliance with Section 4(f) of the Department of Transportation (DOT) Act of 1966 (23 Code of Federal Regulations [CFR] Section 774.17), is providing public notification of its intent to make a finding of use with de minimis impact to Phillip Gates Memorial Park, a Section 4(f) resource in the project area. The proposed UTA track will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed. To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start. The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the proposed retaining wall for safety, and another chain-link fence will be installed along the entire eastern edge of the park and UTA right-of-way boundaries to ensure full separation between the park and UTA right-of-way. Constructing the retaining wall will require a permanent acquisition of approximately 0.11 acres of park property on the north end of the park. The 0.11-acre of park property will be permanently incorporated into the UTA right-of-way; it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team is committed to minimizing impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete. Construction access and equipment staging will require a 0.82-acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public. None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms, or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features, or attributes of either the park or the trail. The public comment period starts July 13 and ends July 27, 2025. Any person or group wishing to submit comments regarding the project's effect on Phillip Gates Memorial Park, or FTA's intent to make a de minimis impact finding under Section 4(f), may do so in writing. Submit comments by email to FrontRunner2X@utah.gov; by web at

FrontRunner2X.utah.gov; ; or by postal mail postmarked by July 27, 2025, to FrontRunner 2X c/o HDR, 2825 E. Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121. Comments provided during the comment period will be reviewed and considered by FTA, UTA, and UDOT as the Project develops. Comments received during the comment period will be documented in the project record. To review impact information, visit FrontRunner2X.utah.gov. Para información en español, llame al 888-882-0373. DN0028894

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Publication Name:

The Salt Lake Tribune

Publication URL:

Publication City and State:

Salt Lake City, UT

Publication County:

Salt Lake

Notice Popular Keyword Category:

Notice Keywords:

Phillip Gates

Notice Authentication Number:

202507311938369711807

2742324366

Notice URL:

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Notice Publish Date:

Saturday, July 12, 2025

Notice Content

NOTICE OF PUBLIC COMMENT PERIOD July 13 – July 27, 2025 Phillip Gates Memorial Park Section 4(f) use with de minimis Impacts as part of the FrontRunner South of Draper Double Track Project in Bluffdale, Salt Lake County, Utah The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are proposing to add double track south of the existing Draper Station of the FrontRunner commuter rail system in the cities of Draper and Bluffdale in Salt Lake County, Utah. As the lead agency for this project, the Federal Transit Administration (FTA), in compliance with Section 4(f) of the Department of Transportation (DOT) Act of 1966 (23 Code of Federal Regulations [CFR] Section 774.17), is providing public notification of its intent to make a finding of use with de minimis impact to Phillip Gates Memorial Park, a Section 4(f) resource in the project area. The proposed UTA track will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed. To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start. The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the proposed retaining wall for safety, and another chain-link fence will be installed along the entire eastern edge of the park and UTA right-of-way boundaries to ensure full separation between the park and UTA right-of-way. Constructing the retaining wall will require a permanent acquisition of approximately 0.11 acres of park property on the north end of the park. The 0.11-acre of park property will be permanently incorporated into the UTA right-of-way; it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team is committed to minimizing impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete. Construction access and equipment staging will require a 0.82-acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public. None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms, or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features, or attributes of either the park or the trail. The public comment period starts July 13 and ends July 27, 2025. Any person or group wishing to submit comments regarding the project's effect on Phillip Gates Memorial Park, or FTA's intent to make a de minimis impact finding under Section 4(f), may do so in writing. Submit comments by email to FrontRunner2X@utah.gov; by web at

FrontRunner2X.utah.gov; ; or by postal mail postmarked by July 27, 2025, to FrontRunner 2X c/o HDR, 2825 E. Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121. Comments provided during the comment period will be reviewed and considered by FTA, UTA, and UDOT as the Project develops. Comments received during the comment period will be documented in the project record. To review impact information, visit FrontRunner2X.utah.gov. Para información en español, llame al 888-882-0373. SLT0033803

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Publication Name:
The Salt Lake Tribune

Publication URL:

Publication City and State:
Salt Lake City, UT

Publication County:
Salt Lake

Notice Popular Keyword Category:

Notice Keywords:
Phillip Gates

Notice Authentication Number:
202507311939391361111
2742324366

Notice URL:

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Notice Publish Date:
Sunday, July 13, 2025

Notice Content

NOTICE OF PUBLIC COMMENT PERIOD July 13 – July 27, 2025 Phillip Gates Memorial Park Section 4(f) use with de minimis Impacts as part of the FrontRunner South of Draper Double Track Project in Bluffdale, Salt Lake County, Utah The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are proposing to add double track south of the existing Draper Station of the FrontRunner commuter rail system in the cities of Draper and Bluffdale in Salt Lake County, Utah. As the lead agency for this project, the Federal Transit Administration (FTA), in compliance with Section 4(f) of the Department of Transportation (DOT) Act of 1966 (23 Code of Federal Regulations [CFR] Section 774.17), is providing public notification of its intent to make a finding of use with de minimis impact to Phillip Gates Memorial Park, a Section 4(f) resource in the project area. The proposed UTA track will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed. To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start. The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the proposed retaining wall for safety, and another chain-link fence will be installed along the entire eastern edge of the park and UTA right-of-way boundaries to ensure full separation between the park and UTA right-of-way. Constructing the retaining wall will require a permanent acquisition of approximately 0.11 acres of park property on the north end of the park. The 0.11-acre of park property will be permanently incorporated into the UTA right-of-way; it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team is committed to minimizing impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete. Construction access and equipment staging will require a 0.82-acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public. None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms, or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features, or attributes of either the park or the trail. The public comment period starts July 13 and ends July 27, 2025. Any person or group wishing to submit comments regarding the project's effect on Phillip Gates Memorial Park, or FTA's intent to make a de minimis impact finding under Section 4(f), may do so in writing. Submit comments by email to FrontRunner2X@utah.gov; by web at

FrontRunner2X.utah.gov; ; or by postal mail postmarked by July 27, 2025, to FrontRunner 2X c/o HDR, 2825 E. Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121. Comments provided during the comment period will be reviewed and considered by FTA, UTA, and UDOT as the Project develops. Comments received during the comment period will be documented in the project record. To review impact information, visit FrontRunner2X.utah.gov. Para información en español, llame al 888-882-0373. SLT0033803

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Updates

July 13, 2025: Notice of Public Comment Period July 13 - July 27, 2025

FrontRunner South of Draper Double Track Project Section 4(f) de Minimis Impacts to Phillip Gates Memorial Park

Use the form below to submit your comment about the FrontRunner South of Draper Double Track Project's Section 4(f) de minimis impacts to Phillip Gates Memorial Park. Comments provided to the project team by July 27, 2025, will be reviewed and considered by the Federal Transit Administration (FTA), UTA and UDOT and documented in the project record. The project team will contact you if any additional information is needed. More information about these impacts to Phillip Gates Memorial Park is provided below the form.

The comment period for the Section 4(f) de minimis impacts to Phillip Gates Memorial Park is over.

Thank you to everyone who participated.

To contact the project team or to sign up for updates about the project, visit the [Stay Engaged](#) tab.

Section 4(f) de minimis Overview

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are proposing to add double track and a new station south of the existing Draper Station of the FrontRunner commuter rail system in the cities of Draper and Bluffdale in Salt Lake County, Utah. As the lead agency for this project, the Federal Transit Administration (FTA), in compliance with Section 4(f) of the Department of Transportation Act of 1966, 23 *United States Code* (USC) Section 138, and 49 USC Section 303, is providing public notification of its intent to make a *de minimis* impact finding regarding impacts to Phillip Gates Memorial Park, a Section 4(f) resource in the project area.

About the Section 4(f) Resource

Phillip Gates Memorial Park, located at 14359 S. Royal Coachman Drive in Bluffdale, is a 4.54-acre public park owned by Bluffdale City and managed by the Bluffdale Parks and Recreation Department. The entire eastern edge of the park is adjacent to the existing FrontRunner rail corridor. The park, which includes a parking lot, is well equipped for active, outdoor recreation activities. The park's amenities include open green spaces and trees, a large playground, benches, a pavilion, picnic tables, restrooms, drinking fountains and electrical outlets. The park also has paved multi-use trails for walking, running and cycling. Dogs are allowed in the park on leashes.

Spring View Farms Trail, a multi-use pathway and distinct Section 4(f) property within the park, runs along the western perimeter of the park. An emergency and maintenance access road runs along the east side of the park between the park's grass area and the FrontRunner corridor. According to Bluffdale City staff, this access road was originally created as an emergency access for the residential development to the south and west of the park. Currently, city staff use this access to maintain the park amenities as well as the pond and other stormwater detention facilities.

Both Phillip Gates Memorial Park and Spring View Farms Trail on the west side of the park meet the qualifications for a Section 4(f) resource as defined in 23 *Code of Federal Regulations* (CFR) Part 774. Both the park and the trail are publicly owned and are open to the public as recreation areas. A primary purpose of the park and its associated trail system is recreation and park activities, and the park and trail are considered locally significant.

A small portion of Spring View Farms Trail on the north end of the park, where the trail connects with Royal Coachman Drive, will be included in a temporary construction easement for construction equipment access and staging. This portion of the trail will remain open throughout construction and will be restored to its original condition after construction. The temporary construction easement along this portion of the trail will have no use under Section 4(f) and will be considered a Temporary Occupancy per 23 CFR Section 774.14(d).

A small portion of Spring View Farms Trail on the north end of the park, where the trail connects with Royal Coachman Drive, will be included in a temporary construction easement for construction equipment access and staging. This portion of the trail will remain open throughout construction and will be restored to its original condition after construction. The temporary construction easement along this portion of the trail will have *no use* under Section 4(f) and will be considered a *Temporary Occupancy* per 23 CFR Section 774.14(d).

Section 4(f) Use of Phillip Gates Memorial Park

The new UTA track will be constructed entirely within the existing UTA right-of-way, and existing vegetation within the UTA right-of-way will be removed. To reduce the project footprint and minimize impacts to Phillip Gates Memorial Park, an approximately 825-foot-long retaining wall will be constructed along the entire length of the park except for an approximately 150-foot gap at the south end of the park property between the location where a wall for 14600 South ends and the location where the new retaining wall for the project extent will start.

The wall will be built along the eastern edge of the park mostly within the UTA right-of-way and along a sliver of the park's parking lot. Because the topography varies, the height of the retaining wall will range from 12 feet high adjacent to the park's parking lot on the north end to about 4 to 7 feet high at the south end of the park. A 6-foot-high chain-link fence will be added on top of the proposed retaining wall for safety, and another chain-link fence will be installed along the entire eastern edge of the park and UTA right-of-way boundaries to ensure full separation between the park and UTA right-of-way.

Constructing the retaining wall will require a permanent acquisition of approximately 0.11 acre of park property on the north end of the park. The 0.11-acre of park property will be permanently incorporated into the UTA right-of-way; it includes a small sliver of paved parking lot in addition to the lawn space north of the parking lot immediately adjacent to the existing FrontRunner track slope. The parking lot will be reconfigured to accommodate the proposed wall; however, the number of parking spaces will not be reduced. Some of the trees in the park will be removed to construct the retaining wall and to reconstruct the access road and parking lot. The exact number of trees that will be removed will not be known until final design and construction; however, the project team is committed to minimizing impacts to the extent possible. Any trees removed within the park will be replaced by the project contractor in coordination with Bluffdale City after construction is complete.

Construction access and equipment staging will require an approximate 0.82 acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public.

None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features or attributes of either the park or the trail. FTA has determined that the use of Phillip Gates Memorial Park by the South of Draper Double Track Project will be a use with *de minimis* impact, and the requirements of 23 CFR Part 774 have been satisfied.



Construction access and equipment staging will require an approximate 0.82 acre temporary construction easement along the eastern section of the park from the western edge of the FrontRunner right-of-way through about three-quarters of the width of the access road as well as all of the parking lot and the portion of Royal Coachman Drive that is within the park. Portions of this temporary construction easement will be used at different times during construction, and, when they are not being used, they will remain open to the public.

None of the park's amenities—including the playground, picnic pavilion, parking lot, restrooms or trails—will be permanently affected by the Project. The pond/stormwater detention basin, located south of the playground, will also not be affected by the Project. Neither permanently converting the park's land to transportation use nor the temporary construction easement within a section of the park will have a notable impact on the activities, features or attributes of either the park or the trail. FTA has determined that the use of Phillip Gates Memorial Park by the South of Draper Double Track Project will be a use with *de minimis* impact, and the requirements of 23 CFR Part 774 have been satisfied.

Public Comments

The public comment period starts **July 13** and ends **July 27, 2025**. Any person or group wishing to submit comments regarding the Project's effect on the Phillip Gates Memorial Park, or FTA's intent to make a finding of use with *de minimis* impact under Section 4(f), may do so in writing. Submit comments by email to FrontRunner2X@utah.gov; by web at FrontRunner2X.utah.gov; or by postal mail postmarked by **July 27** to FrontRunner 2X c/o HDR, 2825 E. Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121.

Comments provided during the comment period will be reviewed and considered by FTA, UTA, and UDOT as the Project develops. Comments received during the comment period will be documented in the project record. To review impact information, visit FrontRunner2X.utah.gov.

Para información en español, llame al [888-882-0373](tel:888-882-0373).

As the lead agency for the Project, FTA, in compliance with Section 4(f) of the Department of Transportation Act of 1966, 23 United States Code (USC) Section 138, and 49 USC Section 303, is providing public notification of its intent to make a finding of use with de minimis impact to Phillip Gates Memorial Park, a Section 4(f) resource.

Proposed FrontRunner Double Track Draper to Bluffdale Project

[SUBSCRIBE TO PUBLIC BODY](#)

General Information

Government Type:

State Agency

Entity:

Utah Department of Transportation (UDOT)

Public Body:

[Department of Transportation](#)

Notice Information

[Add Notice to Calendar](#)

Notice Title:

Proposed FrontRunner Double Track Draper to Bluffdale Project

Notice Tags:

Frontrunner, Draper, Bluffdale, Rail System, Double Track

Notice Type(s):

Notice, Bond

Event Start Date & Time:

July 13, 2025 08:00 AM

Event End Date & Time:

July 27, 2025 04:00 PM

Event Deadline Date & Time:

07/27/25 04:00 PM

Description/Agenda:

This is a notice of a public comment period regarding the proposed double tracking of FrontRunner from Draper to Bluffdale.

The public comment period runs from 7/13/2025-7/27/2025

See attached information sheet

Notice of Special Accommodations (ADA):

NA

Notice of Electronic or Telephone Participation:

NA

Other Information:

The public comment period starts July 13 and ends July 27, 2025. Any person or group wishing to submit comments regarding the project's effect on Phillip Gates Memorial Park, or FTA's intent to make a de minimis impact finding under Section 4(f), may do so in writing. Submit comments by email to FrontRunner2X@utah.gov; by web at FrontRunner2X.utah.gov; or by postal mail postmarked by July 27, 2025, to FrontRunner 2X c/o HDR, 2825 E. Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121.

Meeting Information

Meeting Location:

2825 E. Cottonwood Parkway Suite 200

FrontRunner 2X c/o HDR

Salt Lake City, UT 84121

[Show in Apple Maps](#) [Show in Google Maps](#)

Contact Name:

Utah Department of Transportation

Contact Email:

contactudot@utah.gov

Contact Phone:

(801)965-4000

Notice Posting Details

Notice Posted On:

July 18, 2025 11:21 AM

Notice Last Edited On:

July 18, 2025 11:21 AM

Deadline Date:

July 27, 2025 04:00 PM

Download Attachments

File Name	Category	Date Added
20253_P1_Phillip Gates 4f Legal Notice_Final.pdf	Audio Recording	2025/07/18 11:08 AM

Appendix B

Public Comments

FrontRunner 2X 4(f) *de minimis* impact to Phillip Gates Memorial Park Public Comments

#	Name	Date	Source	Comment
1	Devon Swenson	7/16/2025	Web	<p>The Phillip Gates Memorial Park was constructed and paid for by the Springview Farms community and donated to Bluffdale city. Dozens of people utilize the walking trail around the park on a daily basis. Closing half of the access to the park would not only be a rude inconveniencing those who donated the park, but would also become a safety hazard for children playing at the park.</p> <p>80% of the Springview Farms community wholeheartedly opposed the construction of the Bluffdale front runner station because of its proximity to our neighborhood, but also because of the wasteful government spending in adding a station just 2 miles from the one in Draper. The TRAX spur from the Draper station clearly provides greater access to those needing public transit to access The Point development.</p> <p>An overwhelming majority of the residence of the community strongly oppose this construction project!</p>
2	Landon Murray	7/16/2025	Web	<p>My biggest worries as a homeowner in spring view farms is traffic and parking disturbing the neighborhood and park. There are kids playing all over the neighborhood.</p> <p>I would hope they don't connect the park to 14600s road and there is no access to the front runner through spring view farms.</p>
3	Anonymous	7/18/2025	Web	UDOT is building experience in this type of project with the Shepherd Lane project in Farmington. I would encourage mobile construction video security to help with safety and security, as I have seen graffiti under Park Lane.
4	Nate Cottle	7/21/2025	Web	Does this close off the emergency exit that Springview Farm has in case of an emergency?
5	Brian Johnson	7/24/2025	Web	The "necessity" of this proposed retaining wall and construction are evidence that railroad tracks are being built too close to existing homes, parks, and playgrounds. There are insufficient protections in place to prevent children both playing in this playground and playing in the existing, adjacent neighborhood from accessing the tracks and being killed. A chain link fence is insufficient protection. A solid, sound dampening wall of sufficient height (10 feet high) is the only way to protect the existing

				<p>residents of the neighborhood that is being destroyed by this project.</p> <p>The double tracking in this proposed location will be approximately 50 feet from existing single family residences and front yards. This proximately will mean every train passing, stopping, and being announced will break existing noise decibel limits for the town of Bluffdale. Each instance (which will happen multiple times a day) will result in a call to the local police regarding the noise ordinance violation. Each instance will result in the local police having to document and file paperwork regarding the offending party (UTA). UTA will need to provide funds for the additional police needed to manage these hourly noise complaints as well as the transient crime any future station will bring.</p> <p>Utah does not need double tracking. A minuscule percentage of Utahns use Front Runner because we live in a geographically disperse area where rail transportation makes no sense for local residents. Most individuals who use front runner are homeless or have tax-subsidized passes. The amount of tax money lost to this fruitless effort should be published and the decision to lose more tax dollars to front runner should be presented as a vote to Utahns. Let the residents decide if hundreds of millions of tax dollars should continue to be spent on a form of public transportation that is useless to residents.</p> <p>I would also respectfully request that a report be published that discloses all campaign contributions between individuals and companies tied to the profit of the front runner project and the political leaders making the decisions to spend tax dollars on it.</p>
6	Brian Lewis	7/27/2025	Web	I think this is a great idea. This impact is very small and I support any improvements to the frontrunner. I think this is perfectly acceptable.

ATTACHMENT 7

Noise and Vibration

FrontRunner Forward Technical Memorandum

To: Utah Transit Authority

From: Lance Meister, Cross-Spectrum Acoustics, Inc.

Date: June 20, 2025

Subject: South of Draper Double Track Project Noise and Vibration Assessment for Design Change

Summary

The purpose of this memorandum is to summarize the noise and vibration impact assessment resulting from the design change to the South of Draper Double Track Project. The original project proposed extending double track approximately 2.8 miles south of the Draper Station. The recent project scope change includes adding a new infill station (Bluffdale Station) to the FrontRunner system (approximately UTA milepost S 19) in the City of Bluffdale (see Figure 1).

The results of the noise and vibration assessment (May 2024) indicated that there would be no noise or vibration impacts associated with the original South of Draper Double Track Project.

The proposed infill station would include a new platform, an overhead pedestrian bridge, bus bays, and parking areas. The previous double-track alignment that was evaluated would be shifted further west to accommodate the station platform.

The results of the updated assessment indicate that there would be no noise or vibration impacts. The tracks at the proposed Bluffdale Station would be wider than the standard track separation, and closer to the residences to the west of the station, but the noise and vibration levels would remain below the thresholds for impact.

Figure 1. South of Draper Double Track Project



Federal Transit Administration Noise and Vibration Impact Criteria

The Federal Transit Administration (FTA) noise and vibration criteria for transit projects are detailed in the FTA's noise and vibration manual.¹

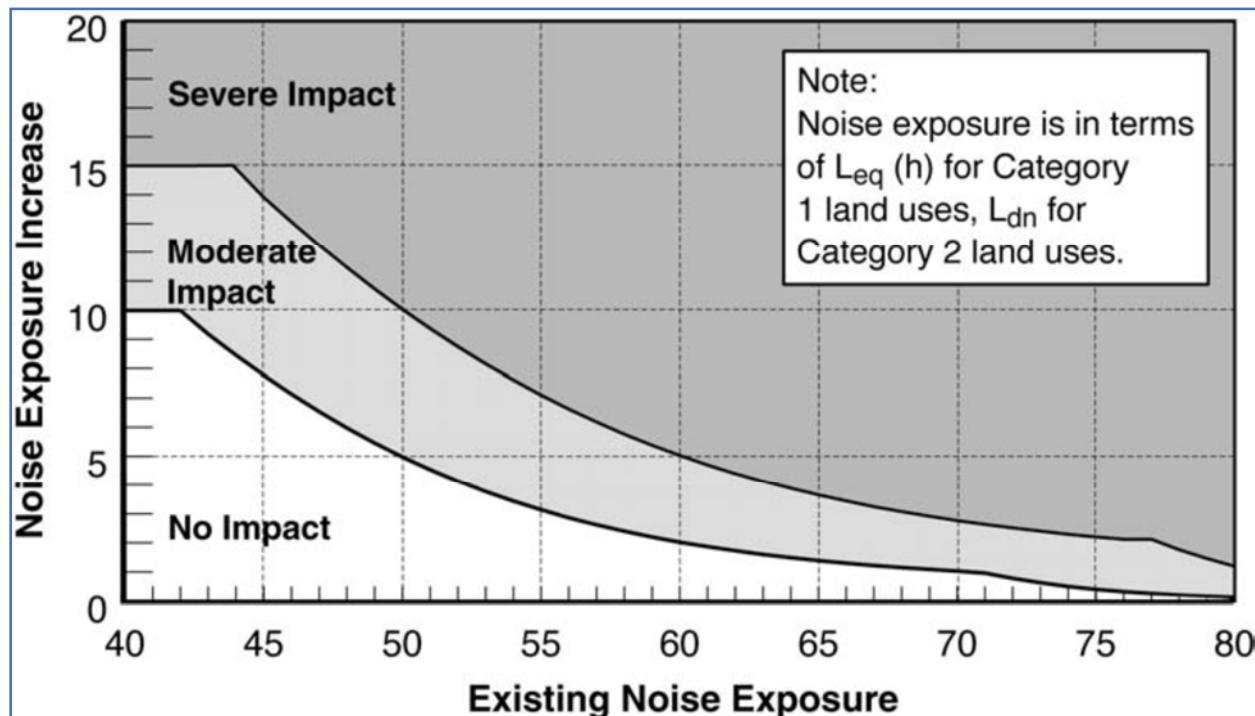
The FTA noise criteria are based on the land use category of the sensitive receptor. The descriptors and criteria for assessing noise impact vary according to land use categories adjacent to the project. For Category 2, land uses where people live and sleep (e.g., residential neighborhoods, hospitals, and hotels), the Day-Night Average Sound Level (Ldn) is the assessment parameter. For other land use types (Category 1 or 3) where there are noise-sensitive uses (e.g., outdoor concert areas, schools, and libraries), the equivalent continuous sound level (Leq) for an hour of noise sensitivity that coincides with train activity is the assessment parameter.

The noise impact criteria are defined by the two curves in Figure 2, which compare the change in noise due to the project to the existing noise before the introduction of the project. These criteria are used in projects where there is not a new project, but where there can be changes in noise, such as with the introduction of a second track. The FTA noise impact criteria include three levels of impact, as shown in Figure 2. The three levels of impact include:

- **No Impact:** In this range, the project is considered to have no impact since, on average, the introduction of the project will result in an insignificant increase in the number of people highly annoyed by the new project noise.
- **Moderate Impact:** Project-generated noise in this range is considered to cause impact at the threshold of measurable annoyance. Moderate impacts serve as an alert to project planners for potential adverse impacts and complaints from the community. Mitigation should be considered at this level of impact based on project specifics and details concerning the affected properties.
- **Severe Impact:** Project-generated noise in this range is likely to cause a high level of community annoyance. Noise mitigation should be applied for severe impacts where feasible.

¹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123, September 2018.

Figure 2. FTA Cumulative Noise Impact Criteria



SOURCE: FTA 2018

The FTA vibration criteria for new projects without existing vibration sources are based on the vibration level and number of project operations, and not on the increase in vibration levels. As the number of operations increase, the vibration impact threshold becomes more stringent. In a project location with existing vibration from trains (which is the case for this Project), the criterion is based on a change in vibration relative to the existing. For locations with more than 12 operations per day (such as the FrontRunner corridor), vibration impact occurs when the increase in vibration is at least 3 vibration decibels (VdB) over the existing vibration levels.

Noise and Vibration Assessment Methodology

The noise and vibration impact assessment methodology is the same as that described in the original South of Draper Double Track Project technical memorandum, which follows the FTA's noise and vibration manual. A detailed noise assessment and a general vibration assessment were conducted for the project.

Affected Environment

The land use adjacent to the proposed infill station includes residential uses on the west side of the tracks and commercial uses and open spaces on the east side of the tracks. The modeled existing noise levels range from 61-71 decibel A-weighted (dBA) L_{dn} , depending on the distance from the tracks to the receiver, and the number of rows of intervening buildings. The existing noise is dominated by the Union Pacific (UP) freight train operations.

Impact Assessment

The South of Draper Double Track Project design change would include a new Bluffdale Station and a widening of the tracks at the station relative to standard track separation. In this location, the residences to the west of the design change would anticipate an increase of 0.1 to 0.2 decibel (dB) in noise level, which is below the moderate impact threshold.

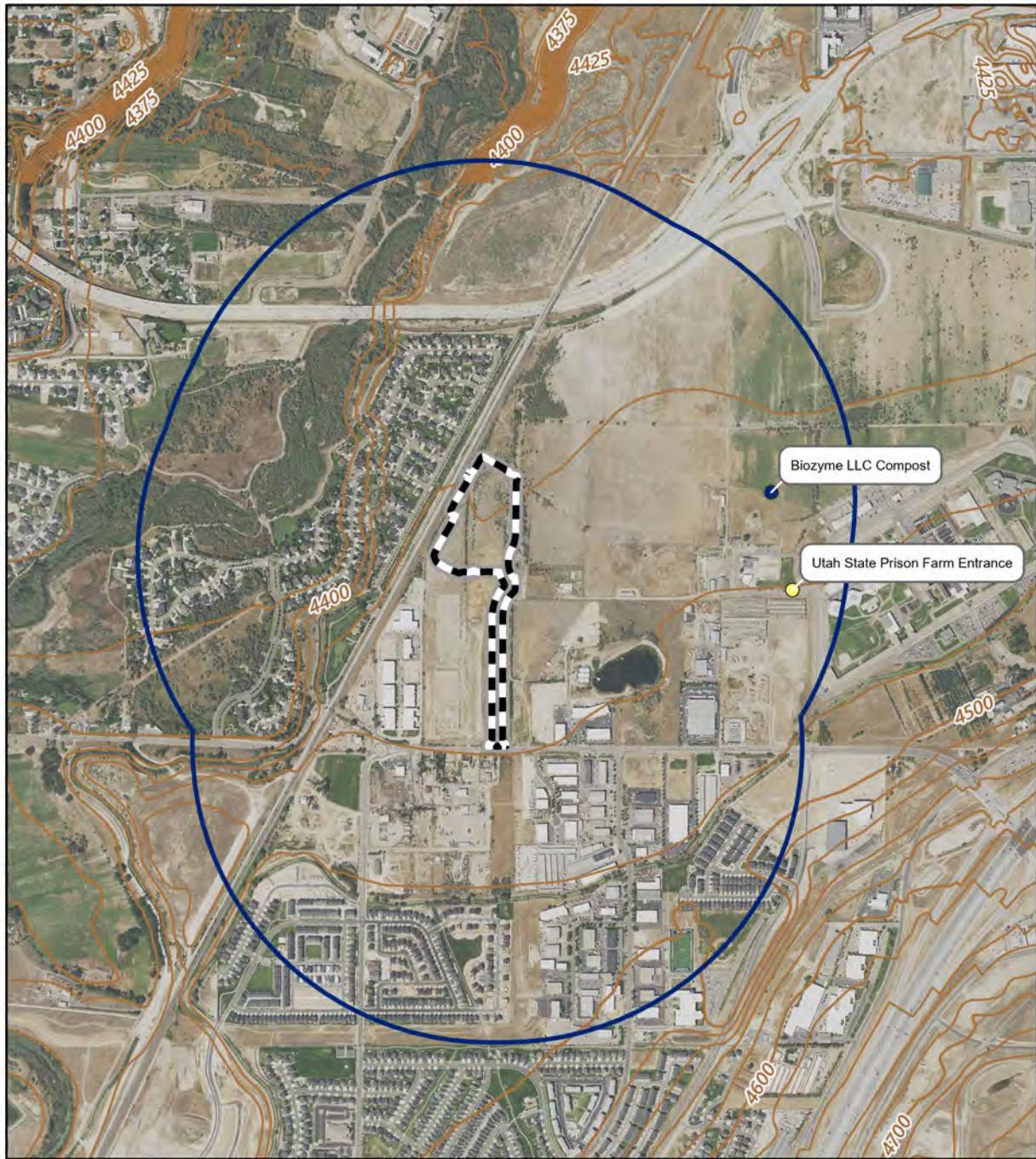
Additionally, in this area, a receiver would need to be located within 95 feet of the existing UTA FrontRunner track for the change in vibration level to be greater than 3 VdB, which is the threshold for vibration impact. The closest receivers are 124 feet from the existing UTA track; therefore, no vibration impact is anticipated due to the proposed infill station.

Mitigation

Because there are no impacts identified for either noise or vibration, no mitigation would be required.

ATTACHMENT 8

Hazardous Waste



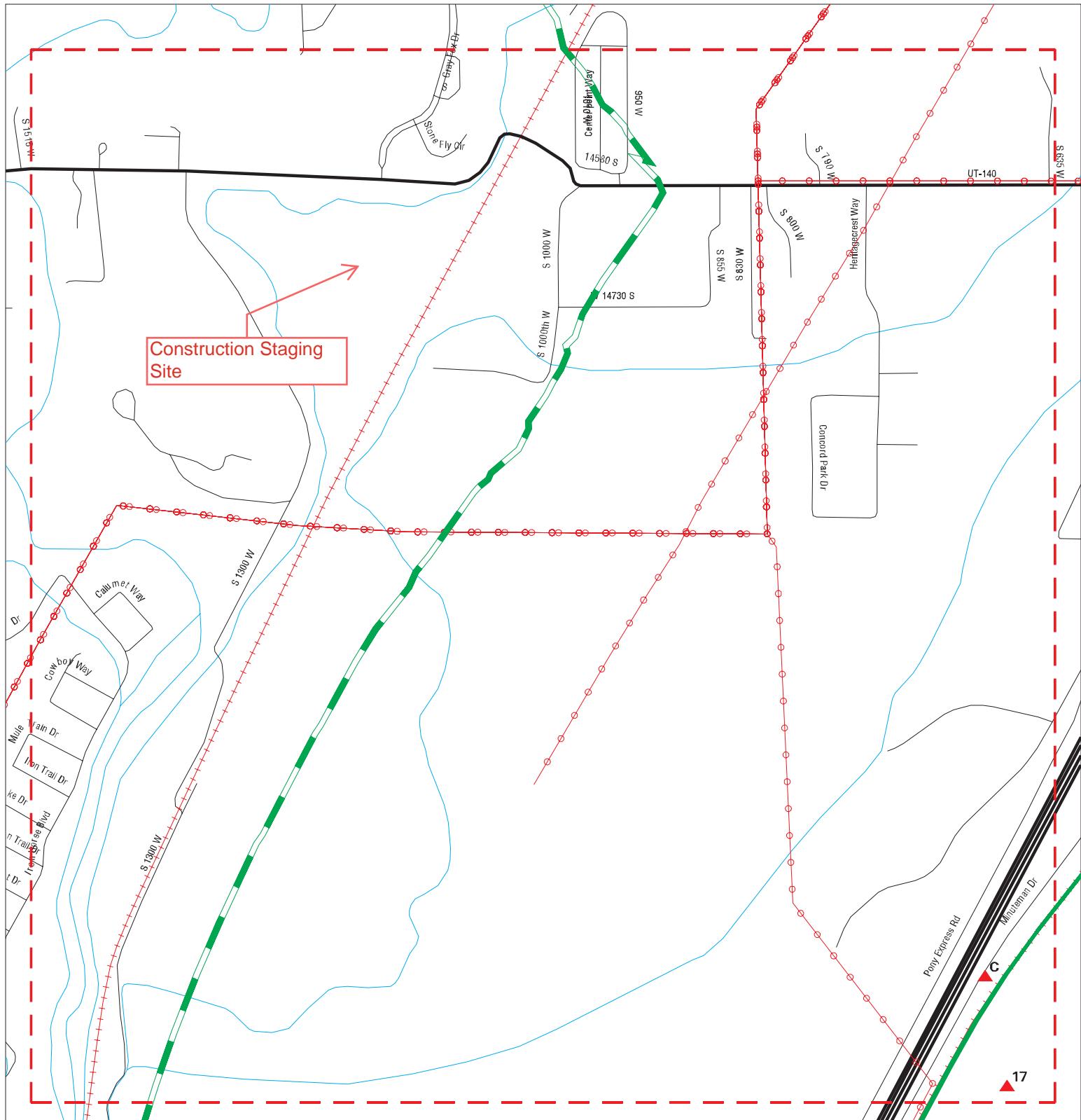
Legend

- Design Footprint
- Hazardous Materials Evaluation Area

- Petroleum Storage Tank
- Solid Waste Facilities



Focus Map - 6 - 7159532.2s



SITE NAME: Point of The Mountain
 ADDRESS: Point of The Mountain
 CITY/STATE: Lehi UT
 ZIP: 84043

CLIENT: Parametrix, Inc.
 CONTACT: Kelly Carini
 INQUIRY #: 7159532.2s
 DATE: 10/26/22

ATTACHMENT 9

Aquatic Resources Delineation Report

FrontRunner Forward

South of Draper Double Track Project Reevaluation

Aquatic Resources Delineation Report

May 2025

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Acronyms and Abbreviations

Acronym	Definition
GIS	geographic information systems
GPS	global positioning system
I-15	Interstate 15
NWPL	National Wetland Plant List
OHWM	ordinary high water mark
project	South of Draper Double Track Project
SP	sampling point
TNW	traditional navigable water
U.S.	United States
UDOT	Utah Department of Transportation
UP	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USDA NRCS	U.S. Department of Agriculture, Natural Resources Conservation Service
UTA	Utah Transit Authority
WOTUS	waters of the United States

Introduction

On behalf of the Utah Transit Authority (UTA) in coordination with Utah Department of Transportation (UDOT), HDR has prepared this aquatic resources delineation report in support of the UTA South of Draper Double Track Project Reevaluation in Salt Lake County, Utah.

The purpose of this report is to identify and describe aquatic resources in the delineation survey area (survey area) for the project (see Appendix A, *Project Overview Map*). The results of the delineation are summarized in Table 3. The jurisdictional status of the delineated aquatic resources is subject to determination by the U.S. Army Corps of Engineers (USACE).

Aquatic Resources Delineation Survey Area

The survey area is located south of Bangerter Highway and north of 14600 South in Bluffdale. It includes land east of the UTA and Union Pacific Railroad (UP) corridor at approximately UTA milepost S 19. The survey area extends to the east and the south to accommodate all proposed project elements including the station, parking, and access roads. The survey area covers about 69 acres and includes land owned by UTA, UP, and public and private entities.

The survey area can be accessed from the USACE Bountiful Field Office by taking the following route: head west toward Interstate 15 (I-15), continue south on I-15 for about 27 miles, take exit 288, and continue west on 14600 South for about 0.9 mile. As defined by the Public Land Survey System, the survey area is located in Section 1, 2, 11, and 12; Township 4 South; Range 1 West. The elevation in the survey area ranges from about 4,440 to 4,460 feet above mean sea level.

Contact Information

Project Applicant and Owner

Utah Transit Authority
Attention: Janelle Robertson
(801) 512-3023
jrobertson@rideuta.com

Land Ownership

Land in the survey area is owned by UTA, UP, and public and private entities. Contact and access information for landowners can be coordinated as necessary.

Contact Information for the Delineation Consultant

The delineation was performed by HDR.
HDR, Inc.
2825 E. Cottonwood Parkway, Suite 200
Salt Lake City, Utah 84121

Delineation Lead:

Joshua McMillin
(801) 509-8143
joshua.mcmillin@hdrinc.com

Field Biologists:

Amy Croft, Michael Perkins, and Evan Blanford

Delineation Methodology

The delineation team conducted delineation fieldwork to map aquatic resources during 2024. All areas within the approximately 69-acre survey area were included in the delineation. Appendix B, *Aquatic Resources Delineation Map Series*, provides maps of the aquatic resources that were delineated in the survey area.

Preliminary Data Gathering

Before conducting delineation fieldwork, the delineation team reviewed information from several sources, including the following:

- Aerial images of the project area
- Topography and surface water maps from the U.S. Geological Survey
- National Hydric Soils List for Utah (USDA NRCS 2025a)
- Prior surveys and delineations across parts of the survey area
- U.S. Fish and Wildlife Service's National Wetlands Inventory maps in geographic information systems (GIS) format
- U.S. Department of Agriculture, Natural Resources Conservation Service's (USDA NRCS) Web Soil Survey (USDA NRCS 2025b)
- USACE delineation manuals and delineation reference guides (described in the *Delineation Procedures* section below)

Delineation Procedures

The delineation was conducted in accordance with the following delineation manuals and delineation reference guides:

- *Corps of Engineers Wetlands Delineation Manual* (USACE 1987)
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008)
- *National Ordinary High Water Mark Field Delineation Manual for Rivers and Streams* (USACE 2025)
- USACE regulatory guidance letters and joint agency regulations, policies, references, and guidance

The delineation team assessed the entire survey area to determine the presence or absence of aquatic features. The routine method was applied by selecting sampling point locations in the field. These sampling points were placed at locations where landform, vegetative, or hydrologic characteristics indicated the potential for wetlands. A minimum of one set of paired sampling points (one in a wetland and one just outside the wetland boundary) was established to help delineate each wetland or wetland complex. Additional sampling points were located as needed to help determine wetland boundaries.

The delineation team recorded detailed information about vegetation, soils, and hydrologic characteristics for each sampling point and used this information to determine whether an area qualifies as a wetland and to help identify the wetland boundaries. All datasheets are included in Appendix C,

Delineation Data Forms, and representative sampling point photographs are included in Appendix D, *Representative Aquatic Resource Photographs*.

Based on the information gathered from sampling points and observable changes in elevation and plant communities, the delineation team mapped aquatic resource boundaries in the survey area through a combination of global positioning system (GPS)-based field mapping (using ArcGIS Field Maps, a sub-meter GPS receiver, and a tablet or mobile phone) and desktop digitization using images from Hexagon from 2021. To produce aquatic resources delineation maps for the survey area, data were exported into GIS software (ArcGIS Pro 3.3.2).

Wetlands

A determination of the occurrence of wetlands is based on the presence or absence of hydrophytic (wetland) vegetation, hydric (wetland) soils, and wetland hydrology. All three criteria must be present for an area to be designated as a wetland unless problematic conditions or significant disturbances are identified and evaluated in accordance with delineation procedures. Wetland boundaries are considered to be a line across which the vegetation, soils, and hydrologic characteristics begin or cease to meet wetland criteria.

Vegetation

Hydrophytic vegetation refers to the plant life that grows in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (USACE 1987). Hydrophytic vegetation indicators include (1) a prevalence of hydrophytic vegetation—that is, a majority of dominant plant species are facultative (FAC), facultative wetland (FACW), or obligate (OBL) wetland plants as listed in the National Wetland Plant List (NWPL; USACE 2023)—and (2) morphological or physiological adaptations to saturated soil conditions.

Table 1 lists the most recent NWPL indicator statuses assigned to plant species for delineating wetlands (Lichvar and others 2012). A list of plant species observed at delineation sampling points, including their indicator status, is provided in Appendix E, *Plant Species Observed*.

Table 1. Wetland Indicator Status System

Indicator Status	Indicator Symbol	Definition
Obligate wetland	OBL	Plants that almost always occur in wetlands.
Facultative wetland	FACW	Plants that usually occur in wetlands but could occur in non-wetlands.
Facultative	FAC	Plants that occur in wetlands and non-wetlands.
Facultative upland	FACU	Plants that usually occur in non-wetlands but could occur in wetlands.
Upland plants	UPL	Plants that almost never occur in wetlands.
Not listed	NL	Plants that are not listed on the NWPL and therefore are assumed to be upland.

Source: Lichvar and others 2012

The delineation team documented vegetation in a sample plot surrounding each sampling point. Each polygon area was visually inspected, plant species were identified, and procedures for hydrophytic vegetation indicators were applied. Vegetation was considered hydrophytic when over 50% of the

dominant species had an indicator status of FAC, FACW, or OBL or, in cases where the dominance was less than or equal to 50%, when the Prevalence Index was less than 3.0.

Soils

Hydric soils are saturated, flooded, or ponded for long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile. Anaerobic conditions favor the growth and regeneration of hydrophytic vegetation. Hydric soil indicators are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. The delineation team used a standard Munsell soil color chart to determine the soil matrix and mottle colors (Munsell Color 2009). In accordance with USACE methodology, soil profiles were investigated at sampling points in the survey area and were examined for indicators of hydric conditions.

Hydrology

The term *wetland hydrology* encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season. Areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on the characteristics of vegetation and soils due to anaerobic and reducing conditions, respectively. Wetland hydrology indicators include obvious characteristics, such as surface water, soil saturation, and water table depth. Other indicators include soil cracking, a salt crust, drainage patterns, water-stained leaves, and the presence of oxidized rhizospheres. The delineation team evaluated hydrology at each sampling point in the survey area.

Other (Non-wetland) Aquatic Resources

This delineation team also evaluated the presence of aquatic resources other than wetlands potentially subject to USACE's jurisdiction. In nontidal areas, USACE maintains jurisdiction over areas below the ordinary high water mark (OHWM) in water features such as navigable streams, rivers, and lakes, and tributaries to navigable waters.

The delineation team delineated non-wetland aquatic features based on the presence of a bed and bank and an OHWM (USACE 2005, 2025). Potentially jurisdictional non-wetland features were delineated along the OHWM. If a feature did not exhibit a bed and bank and an OHWM, and did not show distinct vegetation changes, it was not further evaluated as a potential aquatic resource or considered to be a potentially jurisdictional water. Additionally, if a feature exists in a culvert or pipe, it was not further evaluated as a potential aquatic resource.

Existing Conditions

The survey area consists primarily of the existing UTA and UP tracks; roads and road shoulders; urban land developed for residential, industrial, and commercial uses; disturbed uplands adjacent to roads; and some wetland and riparian areas.

The survey area is part of the Moist Wasatch Front Foothslopes subregion in the Central Basin and Range Ecoregion (Woods and others 2001). The Moist Wasatch Front Foothslopes supports the majority of Utah's population and commercial activity, and it is fed by perennial streams and aqueducts that originate in the Wasatch Range. The average annual precipitation in the survey area is 15.69 inches (U.S. Climate Data 2025). Weather data for the survey area were obtained from historical records collected in Draper, Utah.

The delineation field reconnaissance was conducted on June 7 and October 30, 2024. During the field surveys, temperatures ranged from 36 to 94 degrees Fahrenheit, skies were mostly sunny to partly cloudy, and there was no measurable precipitation (NOAA 2025).

General Hydrology

The survey area is located in the Jordan River watershed, hydrologic unit code 16020204 (USGS 2025). The Jordan River originates at Utah Lake, flows north through the Salt Lake Valley, and discharges into the Great Salt Lake. Water in the survey area and adjacent areas generally drains west toward the Jordan River.

The surface waters in the surface include one named canal (Jordan and Salt Lake City Canal) and multiple ditches.

General Soil Conditions

Five soil types were identified in the survey area (Table 2), the following three of which are listed as hydric in the National Hydric Soils List for Utah (USDA NRCS 2025a):

- Bramwell silty clay loam, drained
- Chipman silty clay loam, saline, sodic, 0 to 1 percent slope
- Deckerman fine sandy loam, 0 to 1 percent slopes

Table 2 lists the five soil types that were identified in the survey area. Soil map unit boundaries for the survey area are provided in Appendix F, *USDA NRCS Custom Soil Resource Report* (USDA NRCS 2025b).

Table 2. Soil Types Identified in the Survey Area

Soil Name	Map Unit Symbol	Acreage
Bramwell silty clay loam, 0 to 1 percent slopes	BsA	1.7
Chipman silty clay loam, saline, sodic, 0 to 1 percent slope	Ck	66.0
Deckerman fine sandy loam, 0 to 1 percent slopes	De	0.1
Hillfield loam, 0 to 1 percent slopes	HIA	0.8
Hillfield loam, 1 to 3 percent slopes	HIB	0.2
Total		68.9

General Plant Community Types

In general, the survey area consists primarily of urban land developed for industrial and commercial uses, disturbed uplands, and some wetland and riparian areas.

Upland Communities

Common upland species in the survey area include basin big sagebrush (*Artemisia tridentata*), Canada thistle (*Cirsium arvense*), cheatgrass (*Bromus tectorum*), crested wheatgrass (*Agropyron cristatum*), tall wheatgrass (*Thinopyrum ponticum*), and whitetop (*Cardaria draba*). Plant species' naming conventions are according to the USDA NRCS Plants Database (USDA NRCS 2025c).

Wetland Communities

All wetlands in the survey area were delineated as palustrine emergent wetlands. Common species in these communities include common reed (*Phragmites australis*) and common threesquare (*Schoenoplectus pungens*).

Riparian Communities

A riparian community was observed adjacent to some of the wetlands and ditches delineated in the survey area. Common riparian species in the survey area include boxelder (*Acer negundo*), crack willow (*Salix fragilis*), Fremont cottonwood (*Populus fremontii*), narrowleaf willow (*Salix exigua*), and Russian olive (*Elaeagnus angustifolia*).

Results

This section describes the results of the aquatic resources delineation survey. The maps in Appendix B, *Aquatic Resources Delineation Map Series*, show the extent of aquatic resources in the survey area and the locations of wetland delineation sampling points. To help delineate potential wetlands, the delineation team completed four wetland determination forms (see Appendix C, *Delineation Data Forms*). On-site photographs are provided in Appendix D, *Representative Aquatic Resource Photographs*.

The entire delineation survey area is about 69 acres and contains a total of 0.75 acre of aquatic resources. These resources consist of 0.17 acre of palustrine emergent wetlands, 0.35 acre (1,186 linear feet) of canals and ditches, and 0.23 acre of open-water ponds. Table 3 summarizes all of the aquatic resource features that were delineated.

Wetlands

Two palustrine emergent wetlands totaling 0.17 acre were delineated in the survey area. Appendix B, *Aquatic Resources Delineation Map Series*, includes maps of delineated wetlands and associated wetland delineation sampling point locations. Characteristics of the delineated wetlands are summarized in Table 3. Table 3 also provides information about the size, classification, and location of wetlands delineated in the survey area.

Other (Non-wetland) Aquatic Resources

Other (non-wetland) aquatic resources identified in the survey area consist of open-water ponds, canals, and ditches.

Open-water Ponds

Two open-water ponds totaling 0.23 acre were delineated in the survey area. The delineated open-water features consist of a stormwater impoundment and depression basin. Table 3 summarizes the open-water features delineated in the survey area.

Canals and Ditches

A total of 0.35 acre (1,186 linear feet) of canals and ditches were delineated in the survey area. These resources consist of the Jordan and Salt Lake City Canal and four unnamed ditches. All of these features have a defined bed and bank and have an OHWM. Table 3 summarizes the ditches delineated in the survey area.

Table 3. Aquatic Resources Summary

Aquatic Resource Feature Name	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number ^e	Description
<i>Wetlands</i>							
PEM-1	PEM	0.06	—	40.4931183	-111.9152222	1	Wetland PEM-1 is located in a depression south of Bangerter Highway north of ditch D-1 in Bluffdale. This wetland is characterized by sampling point SP-1. Observations in this wetland include hydrophytic vegetation with common threesquare and broadleaf cattail; hydric soil indicators A4 (Hydrogen Sulfide), A11 (Depleted Below Dark Surface), and F3 (Depleted Matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology source for this wetland is water flowing north from ditch D-1, which receives water from open-water pond OW-1. Wetland PEM-1 continues north and drains into a culvert that appears to drain into a detention basin adjacent to the UP tracks. This detention basin outlets to the west beneath the railroad tracks into the residential storm drain system. Wetland PEM-1 is likely nonjurisdictional because it lacks a continuous surface connection to a relatively permanent water or any other downstream waters of the United States (WOTUS).
PEM-2	PEM	0.11	—	40.4905510	-111.9182739	2	Wetland PEM-2 is located adjacent to the UP tracks north of 14600 South in Bluffdale. This wetland is characterized by sampling point SP-3. Observations in this wetland include hydrophytic vegetation with common reed; hydric soil indicators A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix); and surface water, high water table, and saturation as primary hydrology indicators. The hydrology source for this wetland is stormwater runoff and ponding of precipitation. Wetland PEM-2 is likely nonjurisdictional because it appears to lack a continuous surface connection to a relatively permanent water or any other downstream WOTUS.

(Continued on next page)

Aquatic Resource Feature Name	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number ^e	Description
Open-water Ponds							
OW-1	PUB	0.21	—	40.4920082	-111.9152222	1	Open-water pond OW-1 is located south of ditch D-1 north of 14600 South in Bluffdale. OW-1 receives water from a pipe culvert from ditch D-2 to the south and flows north into ditch D-1. Ditch D-1 drains into wetland PEM-1 which drains into a culvert that appears to drain into a detention basin adjacent to the UP tracks. This detention basin outlets to the west beneath the railroad tracks into the residential storm drain system
OW-2	PUB	0.02	—	40.4914932	-111.9081268	3	Open-water pond OW-2 is located north of 14600 South and south of Bangerter Highway in Bluffdale. OW-2 is a depressional feature that appears to capture precipitation. Open-water pond OW-2 is likely nonjurisdictional because it lacks a continuous surface connection to a relatively permanent water or any other downstream WOTUS.
Canals and Ditches							
C-1 (Jordan and Salt Lake City Canal)	R5	0.05	123	40.4965324	-111.9139786	1	Canal C-1 (Jordan and Salt Lake City Canal) is located just south of Bangerter Highway in Bluffdale. The lateral extent of the OHWM averaged approximately 18 feet and was indicated by physical characteristics including breaks in bank slopes and changes in vegetation cover and species. Canal C-1 is moderately degraded with high invasive species cover (common reed). The Jordan and Salt Lake City Canal is a 28-mile-long irrigation canal that originates from the Jordan River and flows north through the Salt Lake Valley. The canal is generally above ground until it reaches 3400 South, where it becomes buried in a pipe. At the intersection of State Street and North Temple in Salt Lake City, it drains into the City Creek conduit. City Creek then flows west and drains into the Jordan River, which flows into the Great Salt Lake, a traditional navigable water (TNW).
D-1	R5	0.09	231	40.4926338	-111.9152069	1	Ditch D-1 is located south of wetland PEM-1 north of 14600 South in Bluffdale. Ditch-D-1 receives water from open-water pond OW-1 to the south and drains into wetland PEM-1 to the north. Wetland PEM-1 continues north and drains into a culvert that appears to drain into a detention basin adjacent to the UP tracks. This detention basin outlets to the west beneath the railroad tracks into the residential storm drain system.

(Continued on next page)

Aquatic Resource Feature Name	Cowardin Code ^a	Size (acres) ^b	Length (feet) ^c	Latitude ^d	Longitude ^d	Map Page Number ^e	Description
D-2	R5	0.20	694	40.4887657	-111.9152679	2	Ditch D-2 is located north of 14600 South and south of ditch D-1 in Bluffdale. Ditch D-2 drains north into a culvert where water releases into open-water pond OW-1. Open-water pond OW-1 drains into ditch D-1, which then drains into wetland PEM-1. Wetland PEM-1 continues north and drains into a culvert that appears to drain into a detention basin adjacent to the UP tracks. This detention basin outlets to the west beneath the railroad tracks into the residential storm drain system
D-3a	R5	0.01	110	40.4911346	-111.9061737	3	Ditches D-3a and D-3b total 0.02 acre (138 linear feet). Ditch D-3a flows northeast into ditch D-3b, which continues beyond the survey area, where it eventually dissipates into uplands. Ditches D-3a and D-3b are likely nonjurisdictional because they do not drain to a downstream WOTUS.
D-3b	R5	<0.01	28	40.4913178	-111.9060440	3	

^a Codes from *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin and others 1979): **PEM** (emergent, palustrine), **PUB** (unconsolidated bottom, palustrine), and **R5** (unknown perennial, riverine).

^b Displayed values are rounded to two decimal places, so the totals might not match the sum of the reported values exactly.

^c Coordinates for the center point each feature are listed.

^d Displayed values are rounded to the nearest whole linear foot, so the totals might not match the sum of the reported values exactly.

^e See Appendix B, *Aquatic Resources Delineation Map Series*.

Delineation Summary

All areas in the delineation survey area were assessed to determine the presence or absence of aquatic resources, including wetlands and other waters, in accordance with the procedures and guidelines established by USACE. The entire delineation survey area is about 69 acres and contains a total of 0.75 acre of aquatic resources. These resources consist of 0.17 acre of palustrine emergent wetlands, 0.35 acre (1,186 linear feet) of canals and ditches, and 0.23 acre of open-water ponds. All features recorded and mapped are included in Appendix B, *Aquatic Resources Delineation Map Series*.

Jurisdictional Status of Delineated Aquatic Resources

Aquatic resources in the survey area do not have an identifiable connection to interstate or foreign commerce, and they do not include any interstate waters or traditional navigable waters. The descriptions in Table 3 above provide information that USACE could use to help determine the jurisdictional status of each delineated aquatic resource feature.

Typically, an applicant is required to submit an approved jurisdictional determination request with a delineation report in order for USACE to determine the jurisdictional status of delineated aquatic resources. As a delineation report, this document does not provide information regarding the expected impacts of the project.

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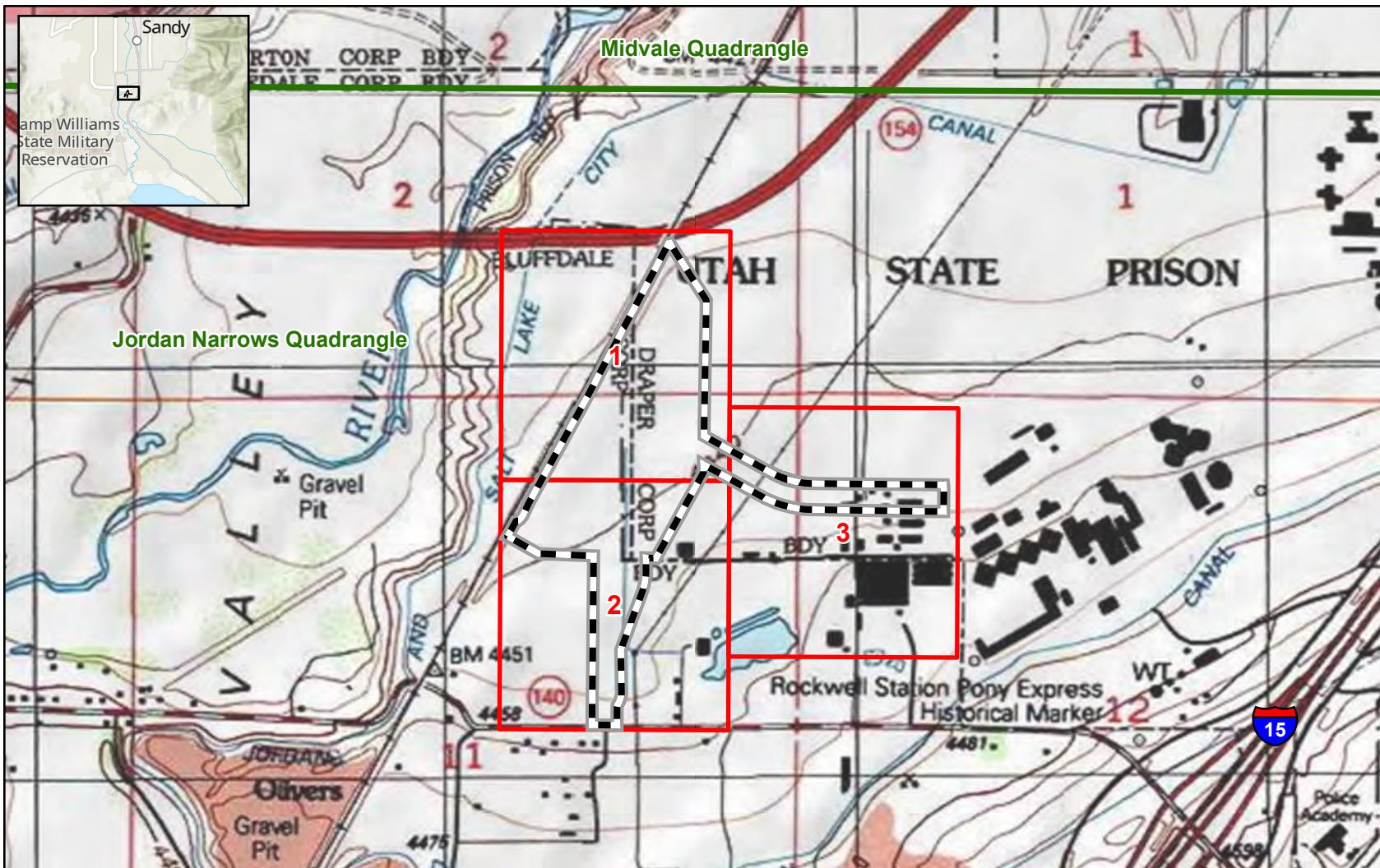
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Appendix A

Project Overview Map



Sandy

AMP WILLIAMS
State Military
Reservation

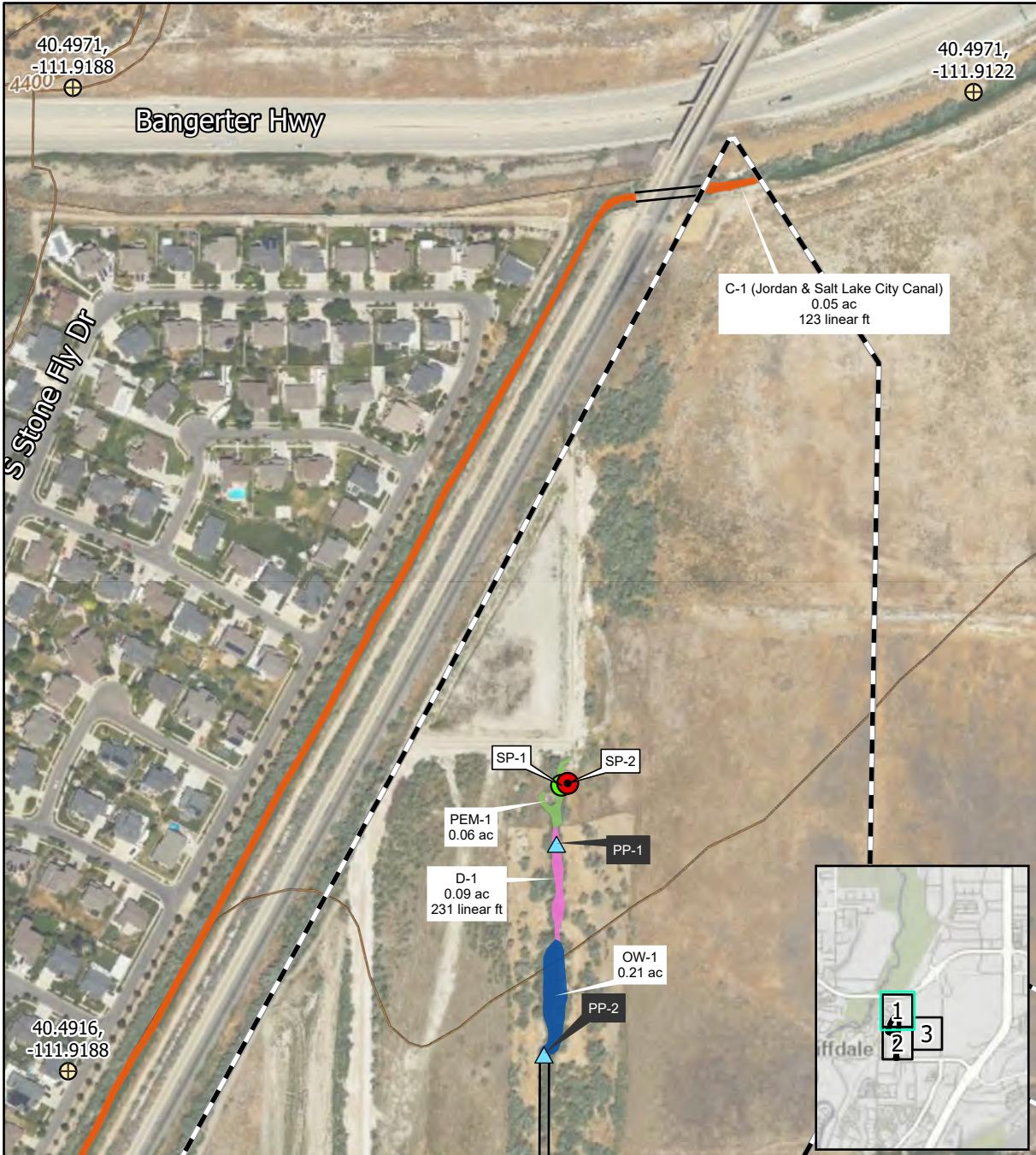
Midvale Quadrangle

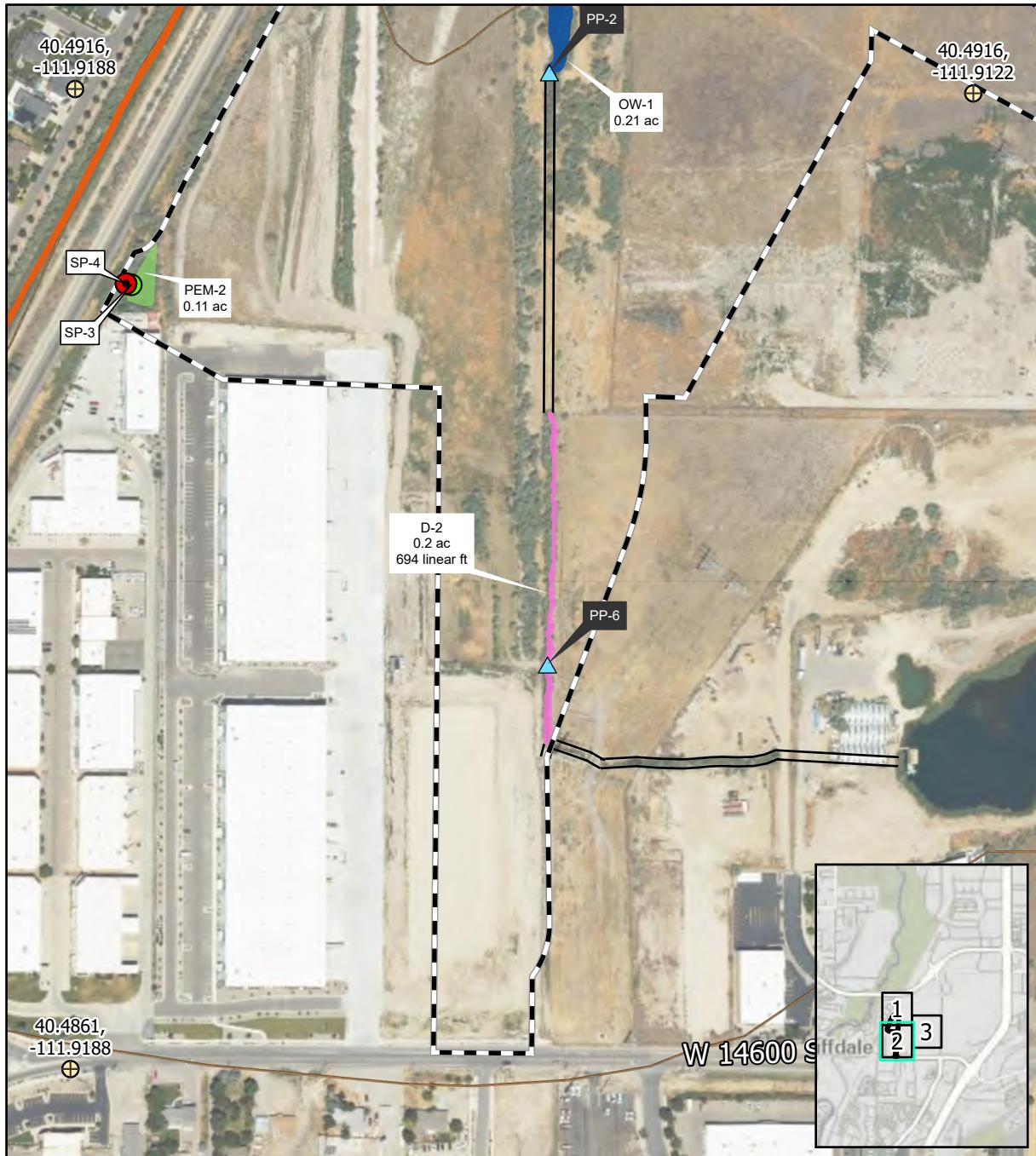
ERTON CORP BDY

EDDALE CORP BDY

Appendix B

Aquatic Resources Delineation Map Series





Legend

- ⊕ Geographic Control Points
- ◻ Delineation Survey Area
- Culvert

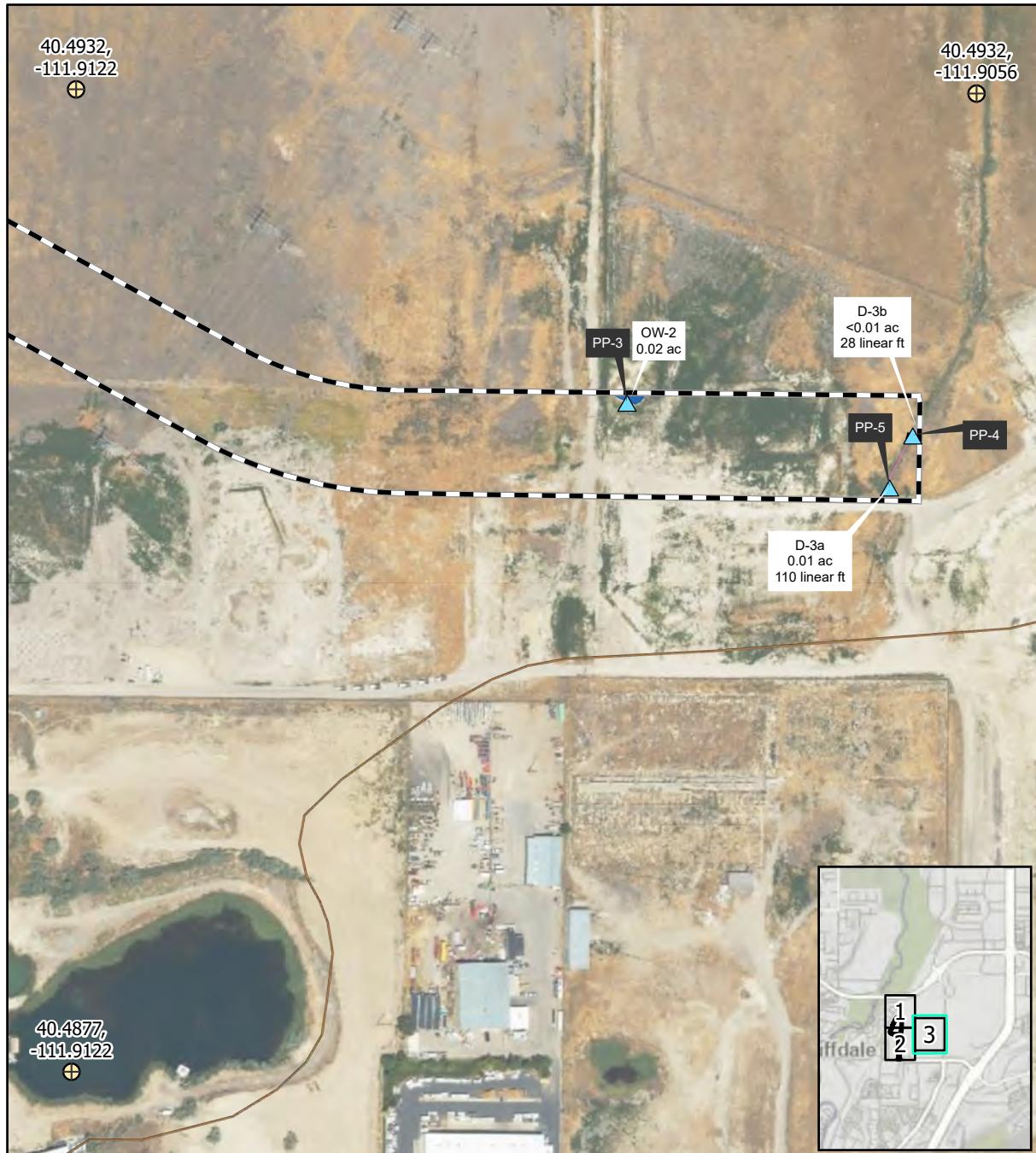
- ▲ Photo Points
- Sampling Site**
 - In Point Wetland
 - Out Point NonWetland

- Aquatic Resource Type**
 - Ditch
 - PEM Wetland
 - Canal



40.4932,
-111.9122

40.4932,
-111.9056



UDOT
Keeping Utah Moving

Legend

- ⊕ Geographic Control Points
- Delineation Survey Area
- Culvert

- ▲ Photo Points

- Aquatic Resource Type**
- Ditch
- Open Water

0 250 Feet



Appendix C

Delineation Data Forms

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: UTA FR2X City/County: Salt Lake County Sampling Date: 6/7/2024Applicant/Owner: UDOT State: UT Sampling Point: SP-1Investigator(s): Michael Perkins, Evan Blanford Section, Township, Range: T4S R1W S11Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): 1Subregion (LRR): LRR D Lat: 40.4931755065918 Long: -111.915168762207 Datum: NAD83Soil Map Unit Name: Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes NWI classification: NoneAre climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Hydric Soil Present? Yes <u>X</u> No _____	Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Sampling point meets the criteria for a wetland.			

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: <u>30 ft radius</u>)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
=Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15 ft radius</u>)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____
1. _____	_____	_____	_____	OBL species <u>110</u> x 1 = <u>110</u>
2. _____	_____	_____	_____	FACW species <u>0</u> x 2 = <u>0</u>
3. _____	_____	_____	_____	FAC species <u>0</u> x 3 = <u>0</u>
4. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>
5. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>
=Total Cover				Column Totals: <u>110</u> (A) <u>110</u> (B)
<u>Herb Stratum</u> (Plot size: <u>5 ft radius</u>)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Prevalence Index = B/A = <u>1.00</u>
1. <u>Typha latifolia</u>	<u>30</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Schoenoplectus pungens</u>	<u>80</u>	<u>Yes</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
=Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>5 ft radius</u>)	<u>Absolute % Cover</u>	<u>Dominant Species?</u>	<u>Indicator Status</u>	Hydrophytic Vegetation Indicators:
1. _____	_____	_____	_____	X Dominance Test is >50%
2. _____	_____	_____	_____	X Prevalence Index is $\leq 3.0^1$
=Total Cover				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>	Problematic Hydrophytic Vegetation ¹ (Explain)		
Remarks: Hydrophytic vegetation present.				

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - X Hydrogen Sulfide (A4)
 - Stratified Layers (A5) (**LRR C**)
 - 1 cm Muck (A9) (**LRR D**)
 - X Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1)
 - Sandy Gleved Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Loamy Mucky Mineral (F1)
 - Loamy Gleved Matrix (F2)
 - X Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (**LRR C**)
 - 2 cm Muck (A10) (**LRR B**)
 - Iron-Manganese Masses (F12) (**LRR D**)
 - Reduced Vertic (F18)
 - Red Parent Material (F21)
 - Very Shallow Dark Surface (F22)
 - Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes **No**

Remarks:

Hydric soil indicators A4 (Hydrogen Sulfide), A11 (Depleted Below Dark Surface), and E3 (Depleted Matrix) present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Surface Water (A1) | Salt Crust (B11) |
| <input checked="" type="checkbox"/> High Water Table (A2) | Biotic Crust (B12) |
| <input checked="" type="checkbox"/> Saturation (A3) | Aquatic Invertebrates (B13) |
| <input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine) | <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | Oxidized Rhizospheres on Living Roots (C3) |
| <input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine) | Presence of Reduced Iron (C4) |
| <input checked="" type="checkbox"/> Surface Soil Cracks (B6) | Recent Iron Reduction in Tilled Soils (C6) |
| <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7) |
| <input checked="" type="checkbox"/> Water-Stained Leaves (B9) | Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- Water Marks (B1) **(Riverine)**
 - Sediment Deposits (B2) **(Riverine)**
 - Drift Deposits (B3) **(Riverine)**
 - Drainage Patterns (B10)
 - Dry-Season Water Table (C2)
 - Crayfish Burrows (C8)
 - Saturation Visible on Aerial Imagery (C9)
 - Shallow Aquitard (D3)
 - X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 1
Water Table Present? Yes X No _____ Depth (inches): 0
Saturation Present? Yes X No _____ Depth (inches): 0

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present with surface water, high water table, saturation, and hydrogen sulfide odor as primary hydrology indicators.

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: UTA FR2X City/County: Salt Lake County Sampling Date: 6/7/2024

Applicant/Owner: UDOT State: UT Sampling Point: SP-2

Investigator(s): Michael Perkins, Evan Blanford Section, Township, Range: T4S R1W S11

Landform (hillside, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): 0

Subregion (LRR): LRR D Lat: 40.4931869506836 Long: -111.91512298584 Datum: NAD83

Soil Map Unit Name: Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Sampling point does not meet the criteria for a wetland.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0.0% (A/B)
4. _____	_____	_____	_____		
=Total Cover					
Sapling/Shrub Stratum (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species 0	x 1 = 0
3. _____	_____	_____	_____	FACW species 0	x 2 = 0
4. _____	_____	_____	_____	FAC species 0	x 3 = 0
5. _____	_____	_____	_____	FACU species 20	x 4 = 80
=Total Cover				UPL species 40	x 5 = 200
				Column Totals: 60 (A)	280 (B)
				Prevalence Index = B/A = 4.67	
Herb Stratum (Plot size: 5 ft radius)	_____	_____	_____	Hydrophytic Vegetation Indicators:	
1. <i>Carduus nutans</i>	20	Yes	FACU	Dominance Test is >50%	
2. <i>Thinopyrum intermedium</i>	15	Yes	UPL	Prevalence Index is $\leq 3.0^1$	
3. <i>Cardaria draba</i>	25	Yes	UPL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
=Total Cover					
Woody Vine Stratum (Plot size: 1 ft radius)	_____	_____	_____		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
=Total Cover					
% Bare Ground in Herb Stratum 40	% Cover of Biotic Crust _____			Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: Upland vegetation community.					

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|---|------------------------------|
| — Histosol (A1) | — Sandy Redox (S5) |
| — Histic Epipedon (A2) | — Stripped Matrix (S6) |
| — Black Histic (A3) | — Loamy Mucky Mineral (F1) |
| — Hydrogen Sulfide (A4) | — Loamy Gleyed Matrix (F2) |
| — Stratified Layers (A5) (LRR C) | — X Depleted Matrix (F3) |
| — 1 cm Muck (A9) (LRR D) | — Redox Dark Surface (F6) |
| — Depleted Below Dark Surface (A11) | — Depleted Dark Surface (F7) |
| — Thick Dark Surface (A12) | — Redox Depressions (F8) |
| — Sandy Mucky Mineral (S1) | |
| — Sandy Gleyed Matrix (S4) | |

³Indicators of hydrophytic vegetation and wetland

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (**LRR C**)
 - 2 cm Muck (A10) (**LRR B**)
 - Iron-Manganese Masses (F12) (**LRR D**)
 - Reduced Vertic (F18)
 - Red Parent Material (F21)
 - Very Shallow Dark Surface (F22)
 - Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes No

Remarks:

Hydric soil indicator F3 (Depleted Matrix) present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- | | |
|---|--|
| Surface Water (A1) | Salt Crust (B11) |
| High Water Table (A2) | Biotic Crust (B12) |
| Saturation (A3) | Aquatic Invertebrates (B13) |
| Water Marks (B1) (Nonriverine) | Hydrogen Sulfide Odor (C1) |
| Sediment Deposits (B2) (Nonriverine) | Oxidized Rhizospheres on Living Roots (C3) |
| Drift Deposits (B3) (Nonriverine) | Presence of Reduced Iron (C4) |
| Surface Soil Cracks (B6) | Recent Iron Reduction in Tilled Soils (C6) |
| Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7) |
| Water-Stained Leaves (B9) | Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- Water Marks (B1) **(Riverine)**
 - Sediment Deposits (B2) **(Riverine)**
 - Drift Deposits (B3) **(Riverine)**
 - Drainage Patterns (B10)
 - Dry-Season Water Table (C2)
 - Crayfish Burrows (C8)
 - Saturation Visible on Aerial Imagery (C9)
 - Shallow Aquitard (D3)
 - FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No wetland hydrology indicators present.

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: UTA FR2X City/County: Salt Lake County Sampling Date: 10/30/2024

Applicant/Owner: UDOT State: UT Sampling Point: SP-3

Investigator(s): Joshua McMillin, Amy Croft Section, Township, Range: T4S R1W S11

Landform (hillside, terrace, etc.): Basin Local relief (concave, convex, none): Concave Slope (%): 1

Subregion (LRR): LRR D Lat: 40.49048233 Long: -111.9183502 Datum: NAD83

Soil Map Unit Name: Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Sampling point meets the criteria for a wetland.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 2 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
4. _____	_____	_____	_____		
=Total Cover					
Sapling/Shrub Stratum (Plot size: 15 ft radius)	_____	_____	_____	Prevalence Index worksheet:	
1. <i>Elaeagnus angustifolia</i>	20	Yes	FAC	Total % Cover of: _____ Multiply by: _____	
2. _____	_____	_____	_____	OBL species 0 x 1 = 0	
3. _____	_____	_____	_____	FACW species 80 x 2 = 160	
4. _____	_____	_____	_____	FAC species 20 x 3 = 60	
5. _____	_____	_____	_____	FACU species 0 x 4 = 0	
=Total Cover 20				UPL species 0 x 5 = 0	
Herb Stratum (Plot size: 5 ft radius)	_____	_____	_____	Column Totals: 100 (A) 220 (B)	
1. <i>Phragmites australis</i>	80	Yes	FACW	Prevalence Index = B/A = 2.20	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
=Total Cover 80				Hydrophytic Vegetation Indicators:	
Woody Vine Stratum (Plot size: 5 ft radius)	_____	_____	_____	X Dominance Test is >50%	
1. _____	_____	_____	_____	X Prevalence Index is ≤3.0 ¹	
2. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
=Total Cover				Problematic Hydrophytic Vegetation ¹ (Explain)	
% Bare Ground in Herb Stratum 10	% Cover of Biotic Crust 0				
Remarks: Hydrophytic vegetation present.				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5) (**LRR C**)
 - 1 cm Muck (A9) (**LRR D**)
 - X Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1)
 - Sandy Gleved Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Loamy Mucky Mineral (F1)
 - Loamy Gleved Matrix (F2)
 - X Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (**LRR C**)
 - 2 cm Muck (A10) (**LRR B**)
 - Iron-Manganese Masses (F12) (**LRR D**)
 - Reduced Vertic (F18)
 - Red Parent Material (F21)
 - Very Shallow Dark Surface (F22)
 - Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Yes No

Remarks:

Hydric soil indicators A11 (Depleted Below Dark Surface) and F3 (Depleted Matrix) present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- | | | |
|---|---|--|
| X | Surface Water (A1) | Salt Crust (B11) |
| X | High Water Table (A2) | Biotic Crust (B12) |
| X | Saturation (A3) | Aquatic Invertebrates (B13) |
| | Water Marks (B1) (Nonriverine) | Hydrogen Sulfide Odor (C1) |
| | Sediment Deposits (B2) (Nonriverine) | Oxidized Rhizospheres on Living Roots (C3) |
| | Drift Deposits (B3) (Nonriverine) | Presence of Reduced Iron (C4) |
| | Surface Soil Cracks (B6) | Recent Iron Reduction in Tilled Soils (C6) |
| | Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7) |
| | Water-Stained Leaves (B9) | Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- Water Marks (B1) **(Riverine)**
 - Sediment Deposits (B2) **(Riverine)**
 - Drift Deposits (B3) **(Riverine)**
 - Drainage Patterns (B10)
 - Dry-Season Water Table (C2)
 - Crayfish Burrows (C8)
 - Saturation Visible on Aerial Imagery (C9)
 - Shallow Aquitard (D3)
 - X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 2
Water Table Present? Yes X No _____ Depth (inches): 0
Saturation Present? Yes X No _____ Depth (inches): 0

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology present with surface water, high water table, and saturation as primary hydrology indicators

U.S. Army Corps of Engineers

WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024

Requirement Control Symbol EXEMPT:

(Authority: AR 335-15, paragraph 5-2a)

Project/Site: UTA FR2X City/County: Salt Lake County Sampling Date: 10/30/2024

Applicant/Owner: UDOT State: UT Sampling Point: SP-4

Investigator(s): Joshua McMillin, Amy Croft Section, Township, Range: T4S R1W S11

Landform (hillside, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 30

Subregion (LRR): LRR D Lat: 40.49048996 Long: -111.9183884 Datum: NAD83

Soil Map Unit Name: Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Sampling point does not meet the criteria for a wetland.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 ft radius)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Elaeagnus angustifolia</i>	25	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: 3 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)	
4. _____	_____	_____	_____		
25 =Total Cover					
Sapling/Shrub Stratum (Plot size: 15 ft radius)	25	Yes	FAC	Prevalence Index worksheet:	
1. <i>Elaeagnus angustifolia</i>	25	Yes	FAC	Total % Cover of: _____ Multiply by: _____	
2. _____	_____	_____	_____	OBL species 0 x 1 = 0	
3. _____	_____	_____	_____	FACW species 0 x 2 = 0	
4. _____	_____	_____	_____	FAC species 50 x 3 = 150	
5. _____	_____	_____	_____	FACU species 0 x 4 = 0	
25 =Total Cover				UPL species 10 x 5 = 50	
Herb Stratum (Plot size: 5 ft radius)	10	Yes	UPL	Column Totals: 60 (A) 200 (B)	
1. <i>Thinopyrum intermedium</i>	10	Yes	UPL	Prevalence Index = B/A = 3.33	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
10 =Total Cover				Hydrophytic Vegetation Indicators:	
Woody Vine Stratum (Plot size: 5 ft radius)	10	Yes	UPL	X Dominance Test is >50%	
1. _____	_____	_____	_____	Prevalence Index is ≤3.0 ¹	
2. _____	_____	_____	_____	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
=Total Cover				Problematic Hydrophytic Vegetation ¹ (Explain)	
% Bare Ground in Herb Stratum 90	% Cover of Biotic Crust 0	1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: Hydrophytic vegetation present.					

SOIL

Sampling Point: SP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5) (**LRR C**)
 - 1 cm Muck (A9) (**LRR D**)
 - Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1)
 - Sandy Gleved Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Loamy Mucky Mineral (F1)
 - Loamy Gleved Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (**LRR C**)
 - 2 cm Muck (A10) (**LRR B**)
 - Iron-Manganese Masses (F12) (**LRR D**)
 - Reduced Vertic (F18)
 - Red Parent Material (F21)
 - Very Shallow Dark Surface (F22)
 - Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present?

Remarks:

No hydric soil indicators present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- | | |
|---|--|
| Surface Water (A1) | Salt Crust (B11) |
| High Water Table (A2) | Biotic Crust (B12) |
| Saturation (A3) | Aquatic Invertebrates (B13) |
| Water Marks (B1) (Nonriverine) | Hydrogen Sulfide Odor (C1) |
| Sediment Deposits (B2) (Nonriverine) | Oxidized Rhizospheres on Living Roots (C3) |
| Drift Deposits (B3) (Nonriverine) | Presence of Reduced Iron (C4) |
| Surface Soil Cracks (B6) | Recent Iron Reduction in Tilled Soils (C6) |
| Inundation Visible on Aerial Imagery (B7) | Thin Muck Surface (C7) |
| Water-Stained Leaves (B9) | Other (Explain in Remarks) |

Secondary Indicators (minimum of two required)

- Water Marks (B1) **(Riverine)**
 - Sediment Deposits (B2) **(Riverine)**
 - Drift Deposits (B3) **(Riverine)**
 - Drainage Patterns (B10)
 - Dry-Season Water Table (C2)
 - Crayfish Burrows (C8)
 - Saturation Visible on Aerial Imagery (C9)
 - Shallow Aquitard (D3)
 - FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No X Depth (inches):
Water Table Present? Yes No X Depth (inches):
Saturation Present? Yes No X Depth (inches):

Wetland Hydrology Present? Yes No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

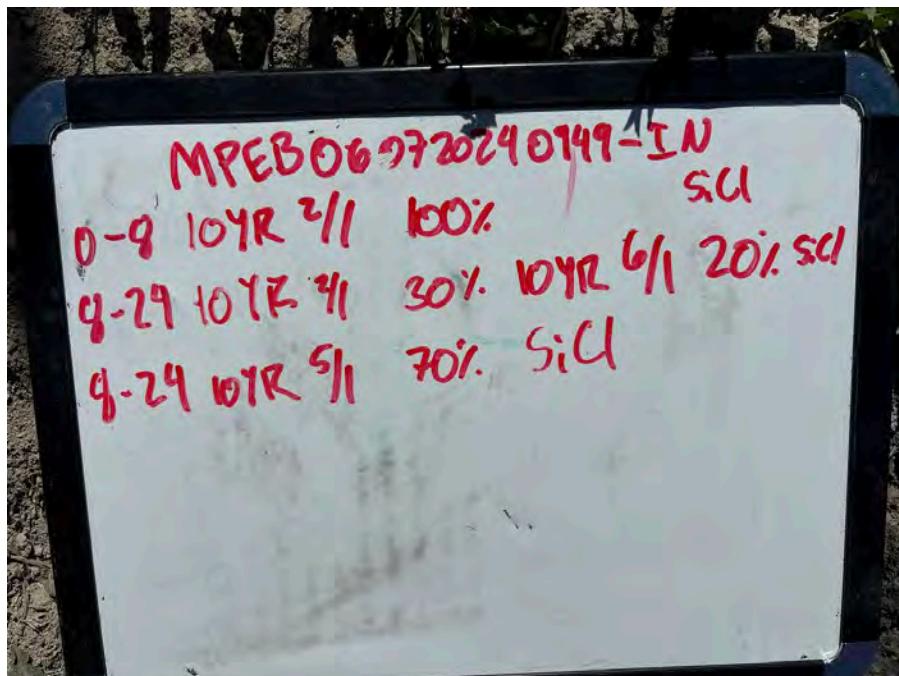
Remarks:

No wetland hydrology indicators present.

Appendix D

Representative Aquatic Resource Photographs

Delineation Sampling Point SP-1



Soil Pit Photo

Date: 6/07/2024



Site Photo

Orientation: North | Date: 6/07/2024

Delineation Sampling Point SP-2



Soil Pit Photo

Date: 6/07/2024



Site Photo

Orientation: Southeast | Date: 6/07/2024

Delineation Sampling Point SP-3



Soil Pit Photo
Date: 10/30/2024



Site Photo
Orientation: East | Date: 10/30/2024

Delineation Sampling Point SP-4



Soil Pit Photo
Date: 10/30/2024



Site Photo
Orientation: North | Date: 10/30/2024

Ditch D-1



Representative Photo of Segment D-1
Associated Photo Point in Appendix B: Photo Point PP-1
Orientation: North, Downstream | Date: 6/07/2024

Ditch D-2



Representative Photo of Segment D-2
Associated Photo Point in Appendix B: Photo Point PP-6
Orientation: Northeast, Downstream | Date: 6/07/2024

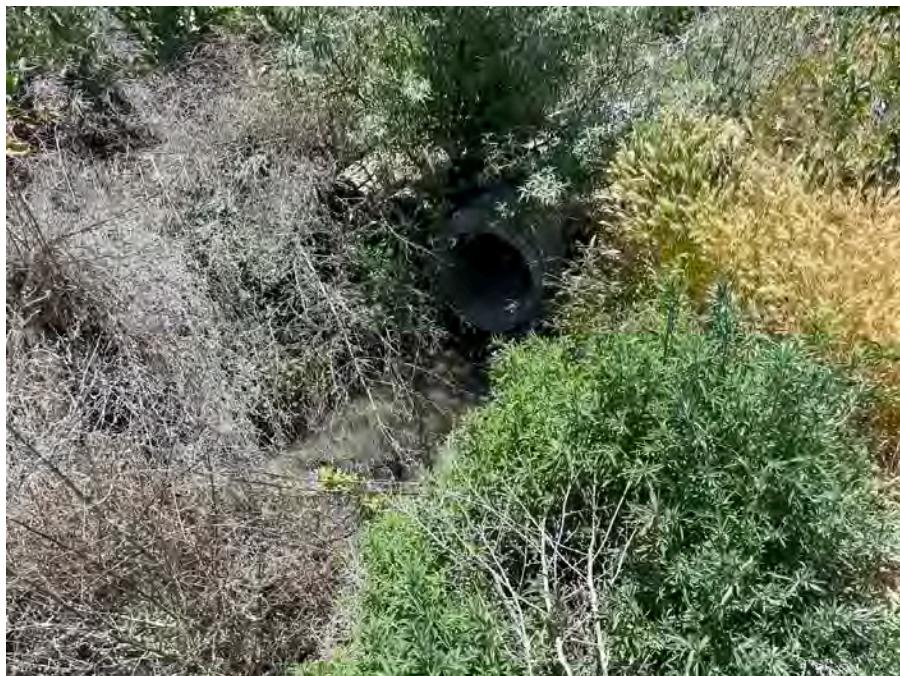
Ditch D-3



Representative Photo of Segment D-3a

Associated Photo Point in Appendix B: Photo Point PP-5

Orientation: North, Downstream | Date: 6/07/2024



Representative Photo of Segment D-3b

Associated Photo Point in Appendix B: Photo Point PP-4

Orientation: South, Upstream | Date: 6/07/2024

Open-water Pond OW-1



Associated Photo Point in Appendix B: Photo Point PP-2

Orientation: North | Date: 6/07/2024

Open-water Pond OW-2



Associated Photo Point in Appendix B: Photo Point PP-3

Orientation: North | Date: 6/07/2024

Appendix E

Plant Species Observed

Table E-1. Plant Species Observed

Scientific Name ^a	Common Name ^b	Wetland Indicator Status ^c
<i>Artemisia tridentata</i>	basin big sagebrush	UPL
<i>Asclepias speciosa</i>	showy milkweed	FAC
<i>Bromus tectorum</i>	cheatgrass	UPL
<i>Cardaria draba</i>	whitetop	UPL
<i>Carduus nutans</i>	nodding plumeless thistle	FACU
<i>Cirsium arvense</i>	Canada thistle	FACU
<i>Distichlis spicata</i>	saltgrass	FAC
<i>Elaeagnus angustifolia</i>	Russian olive	FAC
<i>Juncus arcticus</i> ssp. <i>littoralis</i> (<i>J. balticus</i>)	mountain rush	FACW
<i>Lepidium latifolium</i>	broadleaved pepperweed	FAC
<i>Maianthemum stellatum</i>	starry false lily of the valley	FACU
<i>Parthenocissus quinquefolia</i>	Virginia creeper	FAC
<i>Phalaris arundinacea</i>	reed canarygrass	FACW
<i>Phragmites australis</i>	common reed	FACW
<i>Rosa woodsii</i>	Wood's rose	FACU
<i>Rumex crispus</i>	curly dock	FAC
<i>Salix exigua</i>	narrowleaf willow	FACW
<i>Schoenoplectus acutus</i>	hardstem bulrush	OBL
<i>Schoenoplectus pungens</i>	common threesquare	OBL
<i>Thinopyrum intermedium</i>	intermediate wheatgrass	UPL

^{a, b} Naming conventions according to USDA NRCS Plants Database (<https://plants.usda.gov>).

^c Indicator Status as assigned for the Arid West Region in the National Wetland Plant List (USACE 2022).

FAC = facultative; **FACU** = facultative upland; **FACW** = facultative wetland; **UPL** = upland plants (or not listed species assumed to be upland); **OBL** = obligate wetland.

Appendix F

USDA NRCS Custom Soil Resource Report



United States
Department of
Agriculture

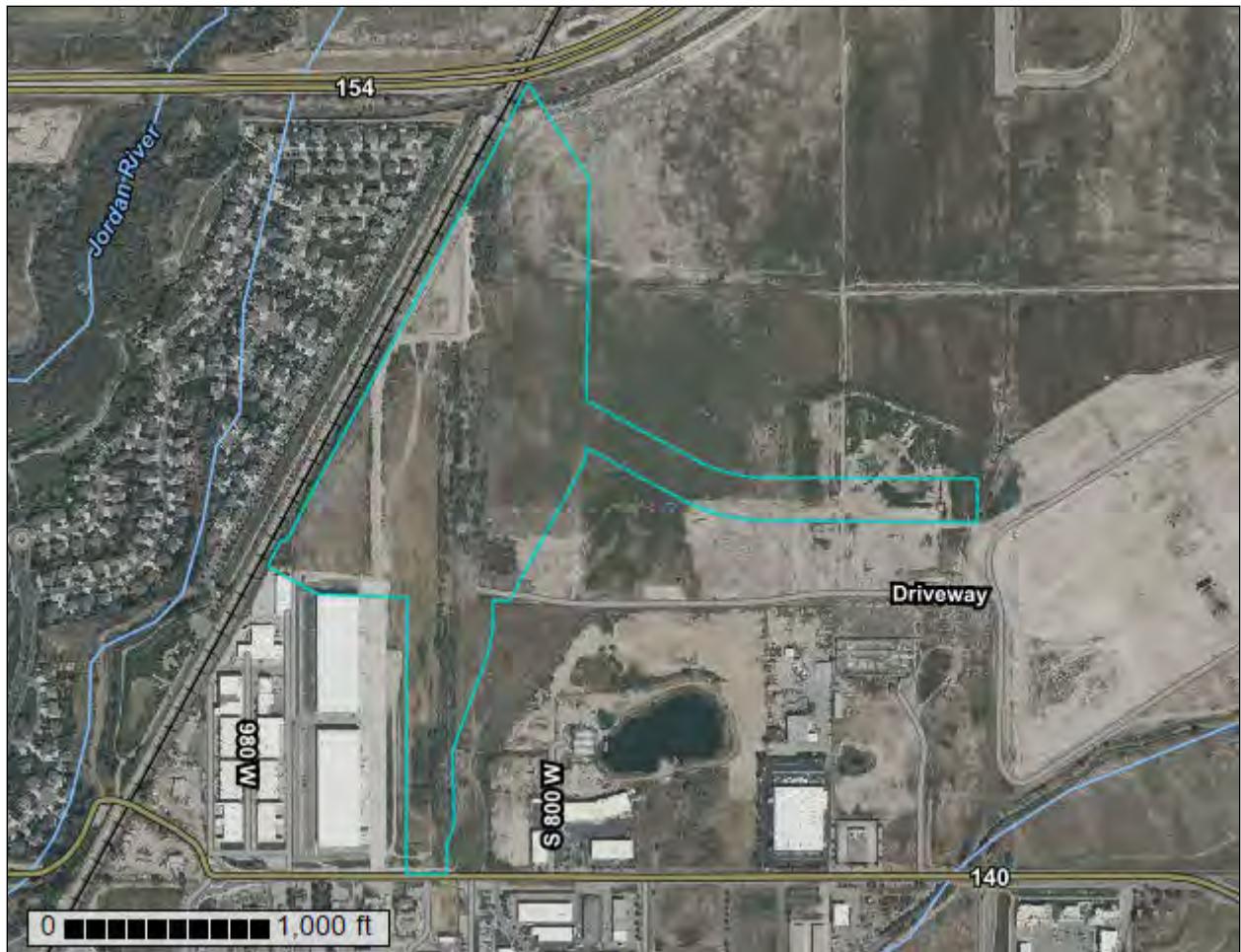
NRCS

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 Salt Lake Area, Utah

South of Draper Double Track Project Reevaluation



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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Ck—Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes.....	14
De—Deckerman fine sandy loam, 0 to 1 percent slopes.....	16
HIA—Hillfield loam, 0 to 1 percent slopes.....	17
HIB—Hillfield loam, 1 to 3 percent slopes.....	18
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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

Custom Soil Resource Report

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.

Custom Soil Resource Report
Soil Map



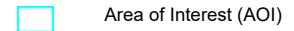
Map Scale: 1:12,000 if printed on B portrait (11" x 17") sheet.

0 150 300 600 900
0 500 1000 2000 3000
Meters
Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 12N 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

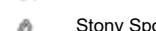


Slide or Slip



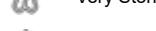
Sodic Spot

Spoil Area



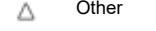
Spoil Area

Stony Spot



Stony Spot

Very Stony Spot



Very Stony Spot

Wet Spot



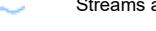
Wet Spot

Other



Other

Special Line Features



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.

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: Salt Lake Area, Utah

Survey Area Data: Version 17, Aug 28, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 17, 2023—Sep 25, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BsA	Bramwell silty clay loam, 0 to 1 percent slopes	1.7	2.5%
Ck	Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes	66.0	95.8%
De	Deckerman fine sandy loam, 0 to 1 percent slopes	0.1	0.2%
HIA	Hillfield loam, 0 to 1 percent slopes	0.8	1.2%
HIB	Hillfield loam, 1 to 3 percent slopes	0.2	0.2%
Totals for Area of Interest		68.9	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.

Salt Lake Area, Utah

BsA—Bramwell silty clay loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6gv

Elevation: 4,300 to 4,450 feet

Mean annual precipitation: 13 to 15 inches

Mean annual air temperature: 49 to 51 degrees F

Frost-free period: 130 to 150 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Bramwell and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bramwell

Setting

Landform: Lake plains

Landform position (three-dimensional): Rise, talus

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

A11 - 0 to 2 inches: silty clay loam

A12 - 2 to 8 inches: silty clay loam

C1ca - 8 to 22 inches: silty clay loam

C2ca - 22 to 35 inches: silty clay loam

C3 - 35 to 47 inches: silty clay

C4 - 47 to 72 inches: clay

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 36 to 48 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 30 percent

Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)

Sodium adsorption ratio, maximum: 13.0

Available water supply, 0 to 60 inches: High (about 9.3 inches)

Interpretive groups

Land capability classification (irrigated): 3w

Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: D

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

Hydric soil rating: No

Minor Components

Harrisville

Percent of map unit: 5 percent

Welby

Percent of map unit: 5 percent

Bluffdale

Percent of map unit: 5 percent

Ck—Chipman silty clay loam, saline, sodic, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6h1

Elevation: 4,200 to 4,350 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Not prime farmland

Map Unit Composition

Chipman and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Chipman

Setting

Landform: Flood plains

Landform position (three-dimensional): Dip, talus

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Alluvium

Typical profile

A11 - 0 to 6 inches: silty clay loam

A12 - 6 to 16 inches: silty clay loam

C1ca - 16 to 36 inches: silty clay loam

C2ca - 36 to 46 inches: silty clay loam

C3ca - 46 to 51 inches: silty clay loam

C4 - 51 to 59 inches: silty clay

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 60 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: D
Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)
Hydric soil rating: No

Minor Components

Ironton

Percent of map unit: 3 percent

Sandy alluvial land

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R028AY022UT - Wet Fresh Streambank
Hydric soil rating: No

Bramwell, hardpan variant

Percent of map unit: 3 percent

Magna

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R028AY024UT - Wet Saline Meadow (Saltgrass)
Hydric soil rating: Yes

Mixed alluvial land

Percent of map unit: 3 percent
Landform: Flood plains
Landform position (three-dimensional): Dip, talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R028AY022UT - Wet Fresh Streambank
Hydric soil rating: Yes

De—Deckerman fine sandy loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6hb
Elevation: 4,200 to 4,300 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Not prime farmland

Map Unit Composition

Deckerman and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Deckerman

Setting

Landform: Lake plains, flood plains
Landform position (three-dimensional): Rise, talus
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium and/or lacustrine deposits

Typical profile

A11&A12 - 0 to 6 inches: fine sandy loam
C1 - 6 to 12 inches: loam
C2ca - 12 to 20 inches: loam
C3 - 20 to 35 inches: sandy loam
C4 - 35 to 43 inches: loam
IIC5 - 43 to 60 inches: silty clay loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 60.0
Available water supply, 0 to 60 inches: Moderate (about 6.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w

Hydrologic Soil Group: D

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

Hydric soil rating: No

Minor Components

Saltair

Percent of map unit: 5 percent

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R028AY132UT - Desert Salty Silt (Iodinebush)

Hydric soil rating: Yes

Lasil

Percent of map unit: 5 percent

Ecological site: R028AY001UT - Alkali Bottom (Alkali Sacaton)

HIA—Hillfield loam, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: j6j5

Elevation: 4,400 to 4,800 feet

Mean annual precipitation: 14 to 18 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 160 to 180 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hillfield and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillfield

Setting

Landform: Lake terraces

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 3 inches: loam

A1 - 3 to 10 inches: loam

Ac - 10 to 18 inches: loam

C1ca - 18 to 31 inches: loam

C2ca - 31 to 50 inches: very fine sandy loam

C3 - 50 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water supply, 0 to 60 inches: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): 2c
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush) (028AY310UT)
Hydric soil rating: No

Minor Components

Kidman

Percent of map unit: 5 percent

Taylorsville

Percent of map unit: 5 percent

HIB—Hillfield loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: j6j6
Elevation: 4,400 to 4,800 feet
Mean annual precipitation: 14 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 160 to 180 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hillfield and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hillfield

Setting

Landform: Lake terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Lacustrine deposits

Typical profile

Ap - 0 to 3 inches: loam
A1 - 3 to 10 inches: loam
Ac - 10 to 18 inches: loam
C1ca - 18 to 31 inches: loam
C2ca - 31 to 50 inches: very fine sandy loam
C3 - 50 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water supply, 0 to 60 inches: Moderate (about 8.8 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: R028AY310UT - Upland Loam (Bonneville Big Sagebrush) North
Other vegetative classification: Upland Loam (Mountain Big Sagebrush)
(028AY310UT)
Hydric soil rating: No

Minor Components

Taylorsville

Percent of map unit: 5 percent

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- 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>

Custom Soil Resource Report

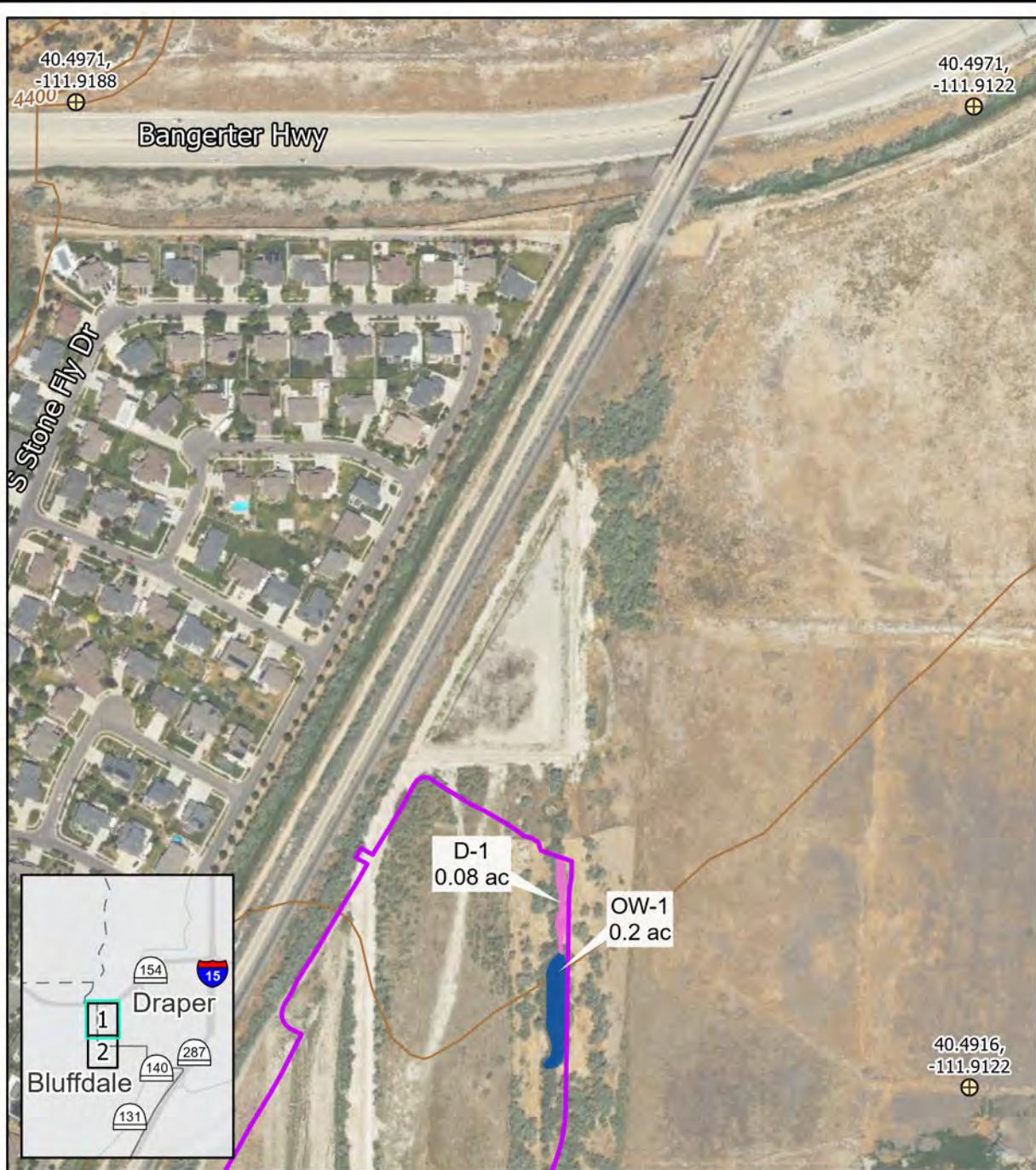
United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

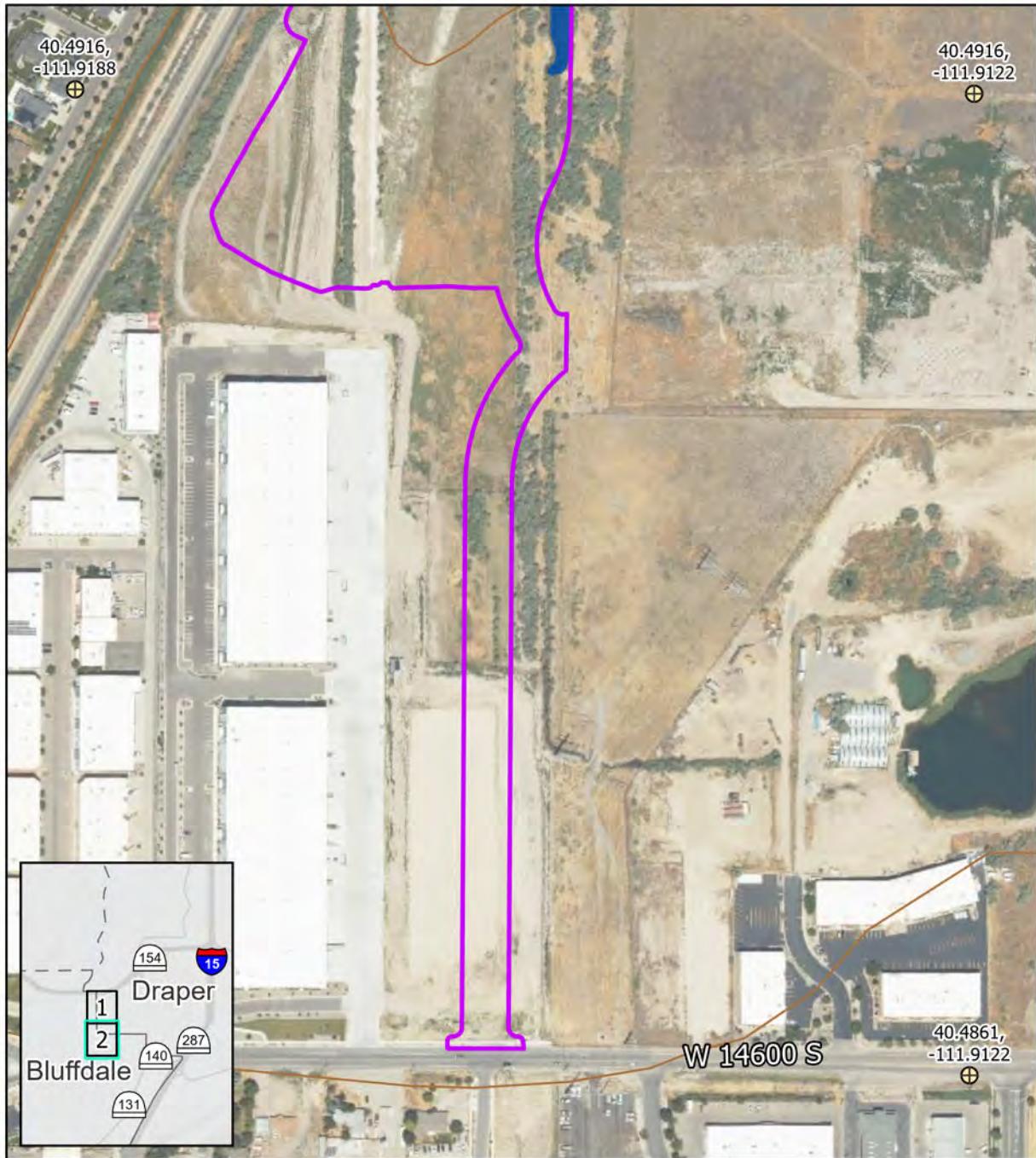
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ATTACHMENT 10

Impacts to Aquatic Resources





UDOT
Keeping Utah Moving

Legend

Design Footprint

Geographic Control Points

Aquatic Resource Type

Ditch

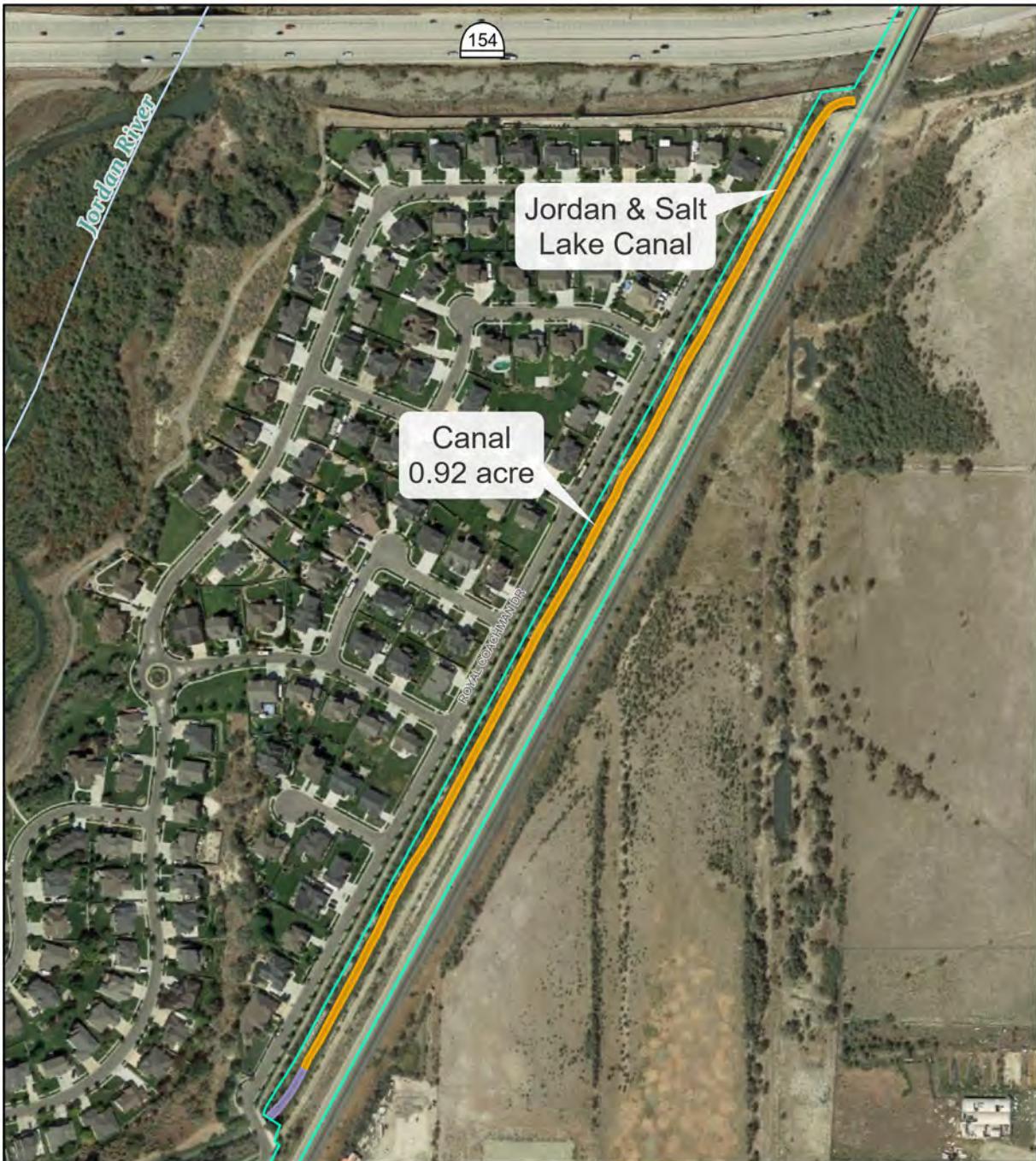
Open Water



0

250

Feet



Legend

- Design Footprint
- Canal - Box Culvert Impact
- Canal - Realignment Impact



0

500

Feet

ATTACHMENT 11

Canal Exemption Memo

Memo

To	Utah Department of Transportation
From	HDR
Date	September 26, 2024
Re	Ditch Exemption Rationale for Impacts to the Jordan and Salt Lake City Canal from the FrontRunner 2X Project

Introduction

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are proposing to modify the Draper Station area double-track section permitted as part of the FrontRunner 2X project in Bluffdale and Draper in southern Salt Lake County, Utah. The FrontRunner double track section in Bluffdale and Draper needs to be widened to create room for a new in-fill station platform.

As a result of the widened track, approximately 0.92 acre of the Jordan and Salt Lake City Canal would be placed in a box culvert to accommodate realigning a canal access road over the box culvert.

HDR has prepared this memorandum to examine whether Clean Water Act (CWA) Section 404 permitting applies to the impacts to the Jordan and Salt Lake City Canal according to current jurisdictional guidelines. The Federal Transit Administration (FTA), the lead federal agency for National Environmental Policy Act (NEPA) compliance, also requested information on the potential CWA Section 404 permitting for use in reevaluating the approved categorical exclusion for the project.

Regulatory Guidance

On July 24, 2020, the U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) signed a memorandum to provide a clear and consistent approach regarding applying the regulation exemptions under Section 404(f)(1) of the CWA for the construction or maintenance of irrigation ditches and for the maintenance of drainage ditches (USACE and EPA 2020). In the memorandum, USACE and EPA defined the following terms (USACE and EPA 2020):

- **Ditch:** A constructed or excavated channel used to convey water.
- **Irrigation Ditch:** A ditch that either conveys water to an ultimate irrigation use or place of use or moved and/or conveys irrigation water away from irrigated lands.
- **Drainage Ditch:** A ditch where increasing drainage of a particular land area or infrastructure is at least part of the designed purpose.

Section 404(f)(1)(c) of the CWA and 40 Code of Federal Regulations Section 232.3(c)(3) state that discharges of dredged or fill material for the purpose of construction or maintenance of jurisdictional irrigation ditches, or the maintenance (but not construction) of jurisdictional drainage ditches, are not prohibited by or otherwise subject to regulation under Section 404 of the CWA (USACE and EPA 2020).

Activities that are considered acceptable under this exemption are maintenance and/or construction activities. In the memorandum, “maintenance” and “construction” are defined as follows:

- **Maintenance:** An activity undertaken to preserve or restore the original designed purpose and approximate capacity of the original, as-built configuration of a ditch.
- **Construction:** New work, or work that results in a relocation, an extension, or an expansion of an existing ditch and/or related structure. In general, the construction of an irrigation ditch must be intended to primarily serve an irrigation purpose in order for the construction activity to be exempt.

USACE and EPA have provided guidance that can be used to determine whether the ditch exemptions are applicable. This guidance includes the following five steps (USACE and EPA 2020):

1. Determine whether the proposed activity will occur in waters of the United States. The agencies' (USACE and EPA) regulations and associated preamble language, guidance documents, and technical manuals may be used to make this determination. If the proposed activity will not occur in waters of the United States, the proposed activity is not prohibited by nor regulated under Section 404 of the CWA.
2. Determine whether the proposed activity involves a discharge of dredged and/or fill material. If no discharge of dredged and/or fill material will occur, the proposed activity is not prohibited by nor regulated under Section 404 of the CWA.
3. Determine whether the proposed activity involves an "irrigation ditch" or a "drainage ditch" according to the definitions above.
4. Determine whether the proposed activity is "maintenance," which is exempt for irrigation and drainage ditches, or "construction," which is exempt for irrigation ditches only.
5. Determine the applicability of the "recapture provision." CWA Section 404(f)(2) sets forth a two-part test, and both parts must be met to "recapture" an activity (that is, to bring the activity within the scope of regulation under CWA Section 404, such that a permit would be required).
 - a. Is the discharge incidental to a proposed activity where the purpose of the activity is to convert an area of the waters of the United States into a use to which it was not previously subject? This is also known as the "change in use" test.
 - b. If Part a of the test is met, will the proposed activity impair the flow or circulation of waters of the United States or reduce the reach of such waters?

If an activity has been determined in the first four steps of this guidance to involve discharges of dredged or fill material into waters of the United States, the discharges are for the purpose of construction or maintenance of irrigation ditches, and the elements of the recapture provision are not satisfied, then the activity is exempt from regulation under Section 404 of the CWA (USACE and EPA 2020).

Ditch Exemption Rationale for the Jordan and Salt Lake City Canal

The Jordan and Salt Lake City Canal is a 28-mile-long irrigation canal that originates from the Jordan River and flows north through the Salt Lake Valley. The canal is generally above ground until it reaches 3400 South, where it becomes buried in a pipe. At the intersection of State Street and North Temple in Salt Lake City, the canal drains into the City Creek conduit. City Creek then flows west and drains into the Jordan River, which flows into the Great Salt Lake, a traditional navigable water.

The Jordan and Salt Lake City Canal's primary purpose is to provide irrigation throughout the Salt Lake Valley. For this reason, per the definition established by USACE and EPA (USACE and EPA 2020), the canal would be considered an "irrigation ditch."

The project proposes placing approximately 0.92 acre of the Jordan and Salt Lake City Canal into a box culvert to accommodate realigning a canal access road over the box culvert. Relocating irrigation ditches (including placing an irrigation ditch into a pipe) is considered a construction activity, which is exempt from Section 404 of the CWA.

As defined by USACE and EPA (USACE and EPA 2020), placing the Jordan and Salt Lake City Canal into a box culvert is considered a "change of use." However, placing the canal into a box culvert would not be subject to the recapture provision because it would not impair the flow or circulation of waters of the United States or reduce the reach of such waters as there are no waters of the United States adjacent to or crossing through the canal at this location.

Following the guidance established by USACE and EPA (USACE and EPA 2020), the proposed activity would involve constructing an existing irrigation ditch. The proposed activity does not satisfy the elements of the recapture provision; for this reason, placing the Jordan and Salt Lake City Canal into a box culvert is exempt from regulation under Section 404 of the CWA.

References

[USACE and EPA] U.S. Army Corps of Engineers and U.S. Environmental Protection Agency

- 2020 Joint Memorandum to the Field between the U.S. Department of The Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches under Section 404 of The Clean Water Act. https://www.epa.gov/system/files/documents/2022-12/Ditch%20Exemption%20Memo_Final.pdf. July 24.

ATTACHMENT 12

Biological Resources Report

FrontRunner Forward

South of Draper Double Track Project Reevaluation

Biological Resources Report

June 2025

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Appendix A. Species Lists

Introduction

The Utah Transit Authority (UTA) and the Utah Department of Transportation (UDOT) are constructing a second track along about 2.8 miles of existing single track on the FrontRunner commuter rail line from Draper Station to 1300 West in the cities of Bluffdale and Draper, Salt Lake County, Utah. The Federal Transit Administration (FTA) approved a categorical exclusion (CE) for the South of Draper Double Track Project (Project) on July 24, 2024.

Since the CE was approved, UTA and UDOT are proposing to construct a new infill station (Bluffdale Station) adjacent to the FrontRunner rail corridor (approximately UTA milepost S 19) in Bluffdale. The station would include a new platform to access FrontRunner, bus bays, and parking areas. The previous double-track alignment that was proposed in the approved CE would be shifted farther west to accommodate the station platform. The station platform would be located west of the existing UTA FrontRunner mainline track and east of the proposed UTA FrontRunner mainline track. Bluffdale Station would provide additional access to the FrontRunner commuter rail line, improve regional mobility options, and encourage transit-supportive local and regional land use planning initiatives and redevelopment strategies. The station and the associated track shift require a reevaluation of the associated environmental impacts to determine whether the Project still qualifies for a CE.

This report summarizes the existing biological resources that could be affected by the Project.

Project Description

Bluffdale Station would be located on the east side of the existing UTA FrontRunner and Union Pacific Railroad (UP) tracks south of Bangerter Highway and north of 14600 South in the city of Bluffdale, about 1.7 miles south of the existing FrontRunner Draper Station (located at 12997 S. FrontRunner Boulevard). To accommodate the station platform, the FrontRunner mainline (ML) track number (No.) 2 portion of the South of Draper Double Track section would be shifted about 28 feet to the west. The station layout includes a centrally located station square as the focal point, and space is allocated for buses to access the station. The station's conceptual design includes shelters and an elevated pedestrian bridge over the FrontRunner and UP tracks to access the station platform. The station would be accessed by a new road at about 855 West; this road would be developed through coordination with Bluffdale City. The park-and-ride facilities would be located south of the bus bays, and a rideshare and "kiss-and-ride" area would be located east of the station square. The required utility relocations would be determined during the final design of the Project. Both permanent right-of-way acquisition and temporary construction easements would be required for the Project.

The South of Draper Double Track Project is one of many projects under the FrontRunner Forward Program (also known as the FrontRunner 2X project), which includes double tracking and realigning certain sections of FrontRunner and constructing the new infill station. Further details about investments associated with the FrontRunner Forward Program are included in a separate report, *FrontRunner Forward Strategic Double Track Recommended Service Alternative Overview – A Planning and Environmental Linkage Study (PEL)* (UTA 2025).

Regulatory Setting

Threatened and Endangered Species

The Endangered Species Act (ESA; 16 United States Code [USC] Sections 1531–1544) establishes a framework to protect and conserve species listed as threatened or endangered and their habitats.

The ESA prohibits the “take” of endangered species except when the take is incidental to, and not the purpose of, carrying out an otherwise lawful activity, or when the take is for scientific purposes, or to enhance the propagation or survival of the species.

What is take of a listed species?

The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an individual of a species listed as threatened or endangered (16 USC Section 1532).

Under Section 7 of the ESA, federal agencies must consult with the U.S. Fish and Wildlife Service (USFWS) before taking any action that will likely affect a federally listed threatened or endangered species or designated critical habitat for an endangered species. In addition, federal agencies must ensure that their actions are not likely to jeopardize the continued existence of any listed species or to destroy or adversely modify any designated critical habitat.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (16 USC Sections 703–712) makes it unlawful to pursue, hunt, take, capture, kill, possess, sell, barter, purchase, transport, export, or import any migratory bird or their parts, nests, or eggs of any such bird, with the exception of taking game birds during established hunting seasons. Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* (January 10, 2001), directs federal agencies taking actions likely to affect migratory birds to support the implementation of the Migratory Bird Treaty Act.

Bald and Golden Eagle Protection Act

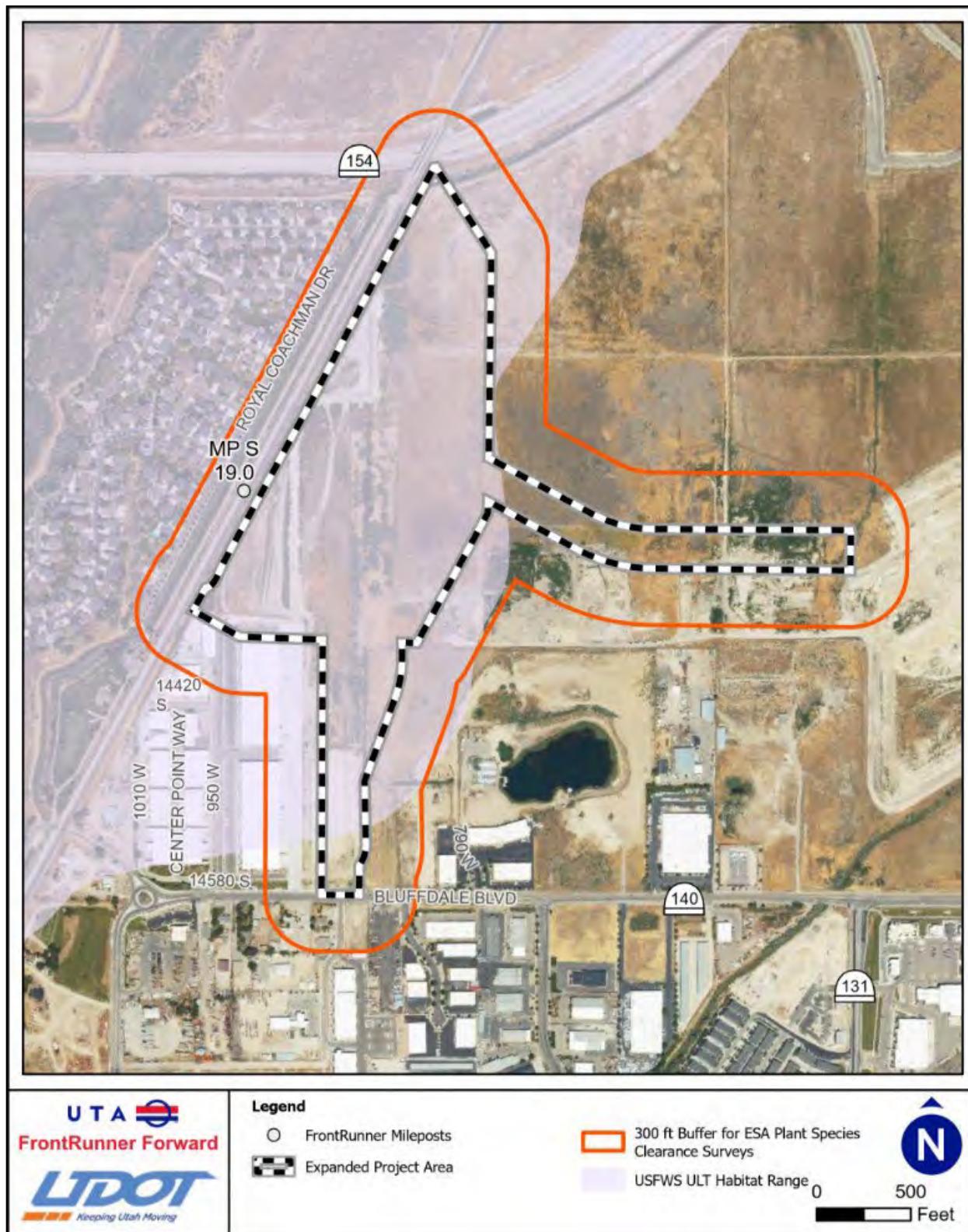
The Bald and Golden Eagle Protection Act (16 USC Sections 668–668d) makes it unlawful to take, import, export, sell, purchase, transport, or barter any bald or golden eagle or their parts, products, nests, or eggs. “Take” includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles.

Candidate Conservation Agreements

USFWS considers candidate species to be plants and animals that are candidates for listing under the ESA. With candidate species, there is enough information regarding their biological status and threats to propose them as threatened or endangered. However, higher-priority listing activities currently prevent these species from being listed under the ESA. Candidate species are not subject to the legal protections of the ESA.

A Candidate Conservation Agreement (CCA) is a formal, voluntary agreement between USFWS and one or more parties to address the conservation needs of candidate species or species that could become candidates in the near future. Participants voluntarily commit to implement specific actions designed to remove or reduce threats to the species covered by the CCA. Developing a CCA is one of the primary ways of identifying appropriate conservation efforts. Proactive conservation efforts for candidate species can, in some cases, eliminate the need to list them under the ESA.

Figure 1. Expanded Project Area for the South of Draper Double Track Project Reevaluation



Methodology

Expanded Project Area for the Reevaluation

The expanded project area for the South of Draper Double Track Project Reevaluation is in Salt Lake County. The expanded project area is about 68.93 acres and ranges in elevation from about 4,420 to 4,460 feet above mean sea level. Figure 1 above provides an overview of the expanded project area.

The expanded project area is part of the Moist Wasatch Front Foothills subregion of the Central Basin and Range Ecoregion (Woods and others 2001). The subregion supports most of Utah's population and commercial activity and is fed by perennial streams and aqueducts that originate in the Wasatch Range. The expanded project area is in the Jordan watershed (hydrologic unit code 16020204) (USGS 2025). The Jordan and Salt Lake City Canal is in the expanded project area.

The expanded project area consists primarily of the existing UTA FrontRunner and Union Pacific Railroad tracks, disturbed upland areas, commercial development, two small wetland areas, and riparian communities growing adjacent to the banks of the Jordan and Salt Lake City Canal, the perimeter of a pond, and the perimeter of a wetland and adjacent drainage ditch. Common upland plant species observed in the expanded project area include nodding plumeless-thistle (*Carduus nutans*), intermediate wheatgrass (*Thinopyrum intermedium*), and whitetop (*Cardaria draba*). Plant species observed in the wetland areas include common reed (*Phragmites australis*), broadleaf cattail (*Typha latifolia*), and common threesquare (*Schoenoplectus pungens*). Russian olive (*Elaeagnus angustifolia*) and narrowleaf willow (*Salix exigua*) were observed in the riparian areas.

U.S. Fish and Wildlife Service Botanical Clearance Survey Area

USFWS's Utah Ecological Services Field Office has established guidelines for the minimum standards for conducting botanical surveys for plant species listed under the ESA in Utah (USFWS 2011). Clearance surveys, which are used to document compliance with the provisions of Section 7 of the ESA, are one type of survey described in these guidelines.

Clearance surveys cover 100% of a project area to determine whether a target plant species is present. "Project area" is the area in which a target species might be impacted by a proposed activity. Clearance surveys also determine species distribution and abundance before ground-disturbing activities begin. Clearance surveys must include an assessment of all potential habitat in the project area plus a buffer. The standard buffer for clearance surveys is 300 feet from the project area.

In accordance with the *U.S. Fish and Wildlife Service (USFWS) Utah Field Office Guidelines for Conducting and Reporting Botanical Inventories and Monitoring of Federally Listed, Proposed, and Candidate Plants* (USFWS 2011), a 300-foot buffer was applied to the expanded project area and assessed for potentially suitable habitat for federally listed plant species included in USFWS's Information, Planning, and Conservation System (IPaC) lists. Figure 1 above shows USFWS's clearance survey buffer area in relation to the expanded project area.

Data Collection

Biologists used several methods to collect data regarding the biological resources in the expanded project area. These methods included conducting literature reviews; interpreting aerial photographs; and conducting reconnaissance-level field surveys for wildlife, vegetation, and rare, threatened, and endangered species.

USFWS's IPaC website was used to obtain a list of federally threatened, endangered, or candidate species that might occur in the expanded project area and/or might be affected by the Project (USFWS 2025a). USFWS's Environmental Conservation Online System (ECOS) was also consulted for a list of species under conservation agreement that are known to occur in Salt Lake County (USFWS 2025b). Additionally, biologists obtained a species list from the Utah Division of Wildlife Resources' (UDWR) Wildlife Habitat Analysis Tool to determine whether there are records of occurrence for any of the federally listed threatened, endangered, candidate species, or species under conservation agreement in the vicinity of the expanded project area (UDWR 2025). Reports from IPaC and the Wildlife Habitat Analysis Tool are provided in Appendix A, *Species Lists*.

The Utah Species Field Guide (UDWR, no date), NatureServe (no date), Audubon (no date), the Utah Native Plant Society (no date), Cornell Lab's All About Birds website (Cornell Lab of Ornithology 2019), and species-specific recovery plans in USFWS's ECOS (USFWS 2025b, 2025c) were referenced for species preferred habitat descriptions.

Ute Ladies'-tresses Habitat Evaluation

All areas where the USFWS Ute ladies'-tresses (*Spiranthes diluvialis*) range map and the expanded project area plus the 300-foot buffer for USFWS botanical surveys overlap were visually inspected to confirm whether these areas displayed characteristics consistent with the Ute ladies'-tresses suitable habitat criteria described in the revised version of the 1992 *Interim Survey Requirements for Ute Ladies'-tresses Orchid (Spiranthes diluvialis)* (USFWS 2017a). See Figure 1 above for an overview of the USFWS Ute ladies'-tresses habitat range in relation to the expanded project area and buffer area.

Results

Threatened, Endangered, and Candidate Species

The IPaC report identified two federally listed species that might occur in the expanded project area and/or might be affected by the Project: one bird species, yellow-billed cuckoo (*Coccyzus americanus*), and one plant species, Ute ladies'-tresses. The IPaC report also identified two insect species that are proposed to be listed under the ESA: monarch butterfly (*Danaus plexippus*) and Suckley's cuckoo bumble bee (*Bombus suckleyi*). The expanded project area does not include designated or proposed critical habitat for any of these species.

Table 1 describes the preferred habitat for each species. There is no suitable habitat in the expanded project area for yellow-billed cuckoo or Ute ladies'-tresses. Potentially suitable habitat exists in the expanded project area for monarch butterfly and Suckley's cuckoo bumble bee.

Table 1. Federally Listed Species That Might Occur in the Expanded project area and/or Might be Affected by the Project

Common Name ^a (Scientific Name)	Federal Status	Preferred Habitat ^b	Critical Habitat Present? ^c	Potentially Suitable Habitat Present?
Birds				
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Threatened	Yellow-billed cuckoos prefer to nest in tall cottonwood and willow riparian woodland with dense understory foliage. They prefer patches of at least 25 acres of dense riparian forest with a canopy cover of at least 50% in both the understory and overstory. USFWS's suitable habitat guidelines for this species for Utah require patches of multilayered vegetation that are at least 12 acres in extent and at least 100 meters (328 feet) wide by 100 meters long (USFWS 2017b).	Final critical habitat has been designated for this species. The expanded project area is outside the critical habitat.	There is no suitable habitat in the expanded project area or within a ½-mile radius. The existing riparian vegetation does not meet habitat size requirements.
Insects				
Monarch butterfly (<i>Danaus plexippus</i>)	Proposed ^d Threatened	In the spring, summer, and early fall, monarch butterflies can be found wherever there are milkweeds in fields, meadows, and parks. They overwinter in the cool, high mountains of central Mexico and woodlands in central and southern California. Milkweed (<i>Asclepias</i> spp.) is an essential feature of quality monarch habitat. Female monarch butterflies lay their eggs on the underside of young leaves or flower buds of milkweed. Common places milkweed occurs include short- and tall-grass prairies, livestock pastures, agricultural margins, roadsides, wetland and riparian areas, sandy areas, and gardens. In addition to milkweed, other nectar sources, trees for roosting, and close proximity to water are key components of monarch habitat (Western Association of Fish and Wildlife Agencies 2019).	There is proposed critical habitat for this species. The expanded project area is outside the critical habitat.	Potentially suitable habitat exists in the expanded project area. Milkweed plants were observed during the field survey. There are records of individuals within ½-mile and 2-mile radii of the expanded project area (UDWR 2025).
Suckley's cuckoo bumble bee (<i>Bombus suckleyi</i>)	Proposed ^d Endangered	Suckley's cuckoo bumble bee is an obligate parasitic species that is entirely dependent on the workers of host colonies to raise their young. Suckley's cuckoo bumble bee has two confirmed hosts, the western bumble bee (<i>Bombus occidentalis</i>) and the Nevada bumble bee (<i>Bombus nevadensis</i>); the western bumble bee is the most widely known host. Western bumble bees nest primarily in underground cavities and abandoned animal burrows more often than they do in aboveground structures. Suckley's cuckoo bumble bee has a broad distribution across North America, primarily in the western half of the United States and the Yukon of Canada. It has been found between 6 and 10,500 feet in elevation in various habitat types including, prairies, grasslands, meadows, woodlands, forests, croplands, and urban areas. Suckley's cuckoo bumble bees require diverse pollen and nectar resources for nutrition (USFWS 2024).	Critical habitat has not been designated for this species.	Potentially suitable habitat exists in the expanded project area. The area offers potential nesting sites and diverse pollen and nectar sources for foraging.

(Continued on next page)

Table 1. Federally Listed Species That Might Occur in the Expanded project area and/or Might be Affected by the Project

Common Name ^a (Scientific Name)	Federal Status	Preferred Habitat ^b	Critical Habitat Present? ^c	Potentially Suitable Habitat Present?
Plants				
Ute ladies'-tresses (<i>Spiranthes diluvialis</i>)	Threatened	This white-flowered orchid is found below 7,000 feet in elevation in moist to very wet meadows, along streams, in abandoned stream meanders, and near springs, seeps, and lake shores where competition for light, space, water, and other resources is normally kept low by periodic or recent disturbance. Ute ladies'-tresses are also known to occur in seasonally flooded river terraces, subirrigated or spring-fed abandoned stream channels and valleys, and lake shores. Populations have also been observed along irrigation canals, berms, levees, irrigated meadows, excavated gravel pits, roadside barrow pits, reservoirs, and other human-modified wetlands (Fertig and others 2005).	Critical habitat has not been designated for this species.	There is no suitable habitat in the expanded project area or within a 300-foot buffer. The site is heavily disturbed and does not provide a hydrologic regime that provides consistently adequate soil moisture necessary to support Ute ladies'-tresses.

^a Source: Species list from USFWS 2025a

^b Sources: Audubon, no date; Cornell Lab of Ornithology 2019; NatureServe, no date; UDWR, no date; Utah Native Plant Society, no date; and species-specific recovery plans in USFWS's ECOS (USFWS 2025c)

^c "Critical habitat" is a term defined in the ESA (ESA Section 3(5)(A)); it refers to specific areas that contain physical or biological features that are essential to the conservation of a species and that might need special management or protection.

^d "Proposed" species are any species that USFWS has determined is likely to become endangered within the foreseeable future throughout all or a significant portion of its range or is in danger of extinction throughout all or a significant portion of its range, and USFWS has proposed a draft rule to list the species as threatened or endangered. Proposed species are not protected by the take prohibitions of Section 9 of the ESA until the rule to list is finalized. Under Section 7(a)(4) of the ESA, "Federal agencies must confer with the [USFWS] if their action will jeopardize the continued existence of a proposed species" (USFWS 2025d).

Species under Conservation Agreement

USFWS's ECOS was consulted for a list of species under conservation agreement that are known to occur in Salt Lake County. One amphibian species, Columbia spotted frog (*Rana luteiventris*); and two fish species, Bonneville cutthroat trout (*Oncorhynchus clarkii utah*) and least chub (*Lotichthys phlegethonitis*), were identified.

Table 2 describes the preferred habitat for each species. There is no suitable habitat in the expanded project area for Bonneville cutthroat trout or least chub. Potentially suitable habitat could exist in the expanded project area for Columbia spotted frog.

Table 2. Species under Conservation Agreement That Are Known to Occur in Salt Lake County

Common Name ^a (Scientific Name)	Preferred Habitat ^b	Potentially Suitable Habitat Present?
Amphibians		
Columbia spotted frog (<i>Rana luteiventris</i>)	Columbia spotted frogs are highly aquatic and are rarely found far from permanent quiet water. They usually live at the grassy/sedgy margins of streams, lakes, ponds, springs, and marshes and use stream-side small-mammal burrows as shelter. Breeding typically occurs in small pools or ponds with little or no current surrounded by dense aquatic vegetation.	Potentially suitable breeding habitat could exist in one of the ponds in the expanded project area; however, this pond is surrounded by disturbed uplands and would not provide quality habitat. There are records of individuals within a 2-mile radius of the expanded project area; however, these individuals were last observed in 1968 (UDWR 2025).
Fish		
Bonneville cutthroat trout (<i>Oncorhynchus clarkii utah</i>)	Habitat for Bonneville cutthroat trout ranges from high-elevation streams with coniferous and deciduous riparian trees, to low-elevation streams in sage-steppe grasslands containing herbaceous riparian zones, to lakes.	There is no suitable habitat in the expanded project area. This species is not found in the Jordan and Salt Lake City Canal.
Least chub (<i>Lotichthys phlegethonitis</i>)	Least chubs are endemic to the Bonneville Basin of Utah. There are only five wild populations, three in the Snake Valley in Utah's West Desert and two in the Sevier River drainage. A refuge population has been established at the Utah State Wahweap Fish Hatchery in Kane County. Least chubs inhabit spring-fed marshes and wetlands.	There is no suitable habitat in the expanded project area. This species is not found in the Jordan and Salt Lake City Canal.

^a Source: Species list from USFWS 2025b

^b Sources: NatureServe, no date; UDWR, no date; and species-specific recovery plans in USFWS's ECOS (USFWS 2025b)

Migratory Birds

The expanded project area includes a woody riparian community that consists primarily of Russian olive and a few scattered narrowleaf willows growing adjacent to the banks of the Jordan and Salt Lake City Canal, the perimeter of a pond, and the perimeter of a wetland and adjacent drainage ditch. Suitable foraging and/or potential nesting habitat for migratory birds is present in and adjacent to the expanded project area.

Summary

The IPaC report identified one federally listed bird species (yellow-billed cuckoo), one federally listed plant species (Ute ladies'-tresses), and two insect species proposed for ESA listing (monarch butterfly and Suckley's cuckoo bumble bee) that might occur in the expanded project area and/or might be affected by the Project. In addition, three species under conservation agreement are known to occur in Salt Lake County. Of these species, potentially suitable habitat was identified in the expanded project area for Suckley's cuckoo bumble bee, monarch butterfly, and Columbia spotted frog. In addition, potentially suitable habitat was identified in the expanded project area for migratory birds.

Monarch Butterfly. Milkweed is an essential feature of quality monarch habitat, and milkweed plants were observed growing in the expanded project area.

Proposed species are not protected by the take prohibitions of Section 9 of the ESA until the rule to list is finalized. Under Section 7(a)(4) of the ESA, “Federal agencies must confer with the [USFWS] if their action will jeopardize the continued existence of a proposed species” (USFWS 2025d). Given that the proposed critical habitat for this species is outside the expanded project area, the Project would not jeopardize the continued existence of monarch butterflies.

Suckley's Cuckoo Bumble Bee. Suckley's cuckoo bumble bees are an obligate parasitic species that are entirely dependent on the workers of host colonies to raise their young; the western bumble bee is the most widely known host. Western bumble bees nest primarily in underground cavities and abandoned animal burrows. Suckley's cuckoo bumble bees are found across North America between 6 and 10,500 feet in elevation. They require diverse pollen and nectar resources for nutrition, and common habitat types include prairies, grasslands, meadows, woodlands, forests, croplands, and urban areas. Potentially suitable nesting and foraging habitat exists in the expanded project area. Ground disturbance would eliminate potential nesting sites, and vegetation removal would eliminate potential foraging material.

Proposed species are not protected by the take prohibitions of Section 9 of the ESA until the rule to list is finalized. Under Section 7(a)(4) of the ESA, “Federal agencies must confer with the [USFWS] if their action will jeopardize the continued existence of a proposed species” (USFWS 2025d). Suckley's cuckoo bumble bees have not been observed in the United States since 2016 (USFWS 2024), and critical habitat has not been proposed for this species. Given the broad nature of potentially suitable nesting and foraging habitat, the lack of observations in the United States, and that critical habitat has not been proposed, the Project will not likely jeopardize the continued existence of Suckley's cuckoo bumble bees.

Columbia Spotted Frog. Columbia spotted frogs are highly aquatic and are rarely found far from permanent quiet water. Breeding typically occurs in small pools or ponds with little or no current surrounded by dense aquatic vegetation. Potentially suitable breeding habitat could exist in one of the

ponds in the expanded project area; however, this pond is surrounded by disturbed uplands and would not provide ideal habitat. Filling the pond would eliminate this site as potentially suitable habitat for Columbia spotted frogs. However, because this resource is degraded and surrounded by disturbed uplands, the habitat is low quality and is unlikely to support Columbia spotted frogs. Therefore, impacts to Columbia spotted frogs are unlikely.

Migratory Birds. Potentially suitable nesting and foraging habitat is available in the woody riparian community growing adjacent to the banks of the Jordan and Salt Lake City Canal, the perimeter of a pond, and the perimeters of a wetland and adjacent drainage ditch. Removing trees or shrubs would eliminate these areas as potential nesting and foraging habitat, and construction work would temporarily disturb the nesting, hunting, and browsing activities of avian species.

Mitigation

Any shrub, tree, or tree limb removal should occur outside the general bird nesting season between April 15 and July 31. If removal must occur during this period, preconstruction nesting surveys will be performed by a qualified biologist in the area that will be disturbed. The surveys will determine whether active bird nests are present. If nests are found, all nesting birds will need to be confirmed by a biologist as fledged before vegetation is removed. If these measures are followed, the Project will not result in a direct or incidental take under the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act.

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Appendix A

Species Lists



Utah Division of Wildlife Resources
1594 W. North Temple
Salt Lake City, UT 84116
(801) 538-4700, wildlife.utah.gov



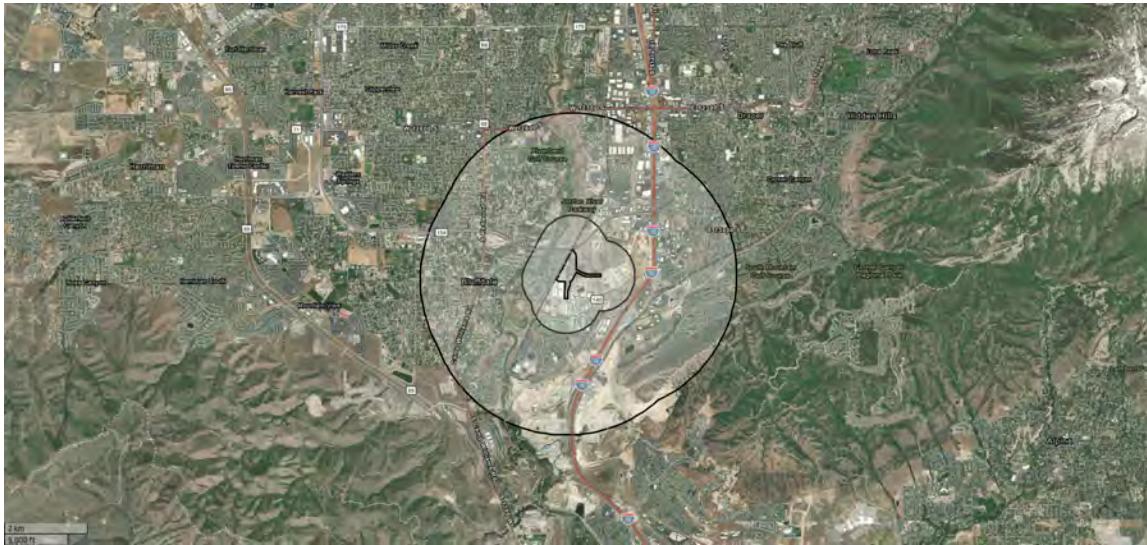
Report Number: erb_17118

Report Date: 2025-04-17 11:54:57

South of Draper Double Track Project Reevaluation

Location: South of Draper, Utah

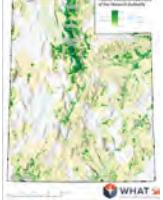
Description: South of Draper Double Track Project Reevaluation



Project Area of Interest with a half-mile and two-mile radius.

Half-Mile Radius

Species Name	Scientific Name	UWAP Status	ESA Status	Last Reported Date	SDHM
Red-tailed Hawk	<i>Buteo jamaicensis</i>	None	None	2013-05-29	
	<i>Pyropyga nigricans</i>	None	None	2022-08-13	

Species Name	Scientific Name	UWAP Status	ESA Status	Last Reported Date	SDHM
Ubiquitous Pea clam	<i>Pisidium casertanum</i>	None	None	1992-08-13	
Monarch butterfly	<i>Danaus plexippus</i>	SGCN	None	2016-08-06	 Full View
Marsh Pondsail	<i>Stagnicola elodes</i>	None	None	1992-08-13	

Two-Mile Radius

Species Name	Scientific Name	UWAP Status	ESA Status	Last Reported Date	SDHM
Swainson's Hawk	<i>Buteo swainsoni</i>	None	None	2014-06-10	
Red-tailed Hawk	<i>Buteo jamaicensis</i>	None	None	2014-08-13	
Tadpole Physa	<i>Physa gyrina</i>	None	None	1992-08-13	
Golden Fossaria	<i>Galba obrussa</i>	None	None	1992-08-13	
Toquerville Springsnail	<i>Pyrgulopsis kolobensis</i>	None	None	2012-02-22	

Species Name	Scientific Name	UWAP Status	ESA Status	Last Reported Date	SDHM
Ash Gyro	<i>Gyraulus parvus</i>	None	None	2022-06-01	
Marsh Pondsail	<i>Stagnicola elodes</i>	None	None	1992-08-13	
Niobrara Ambersnail	<i>Oxyloma haydeni</i>	None	None	1936-05-02	
Ubiquitous Peaclam	<i>Pisidium casertanum</i>	None	None	1992-08-13	
Monarch butterfly	<i>Danaus plexippus</i>	SGCN	None	2022-09-26	 Full View
Western Glass-snail	<i>Vitrina pellucida</i>	None	None	1942-PRE	
Morrison's Bumble Bee	<i>Bombus morrisoni</i>	SGCN	None	2020-05-11	
	<i>Pyropyga nigricans</i>	None	None	2022-08-13	
Olive Clubtail	<i>Stylurus olivaceus</i>	SGIN	None	1999-07-20	
Bear Lake Springsnail	<i>Pyrgulopsis pilosryana</i>	SGCN	None	1992-08-13	

Species Name	Scientific Name	UWAP Status	ESA Status	Last Reported Date	SDHM
Green River Pebblesnail	<i>Fluminicola coloradoensis</i>	SGCN	None	1994-06-30	
Coarse Rams-horn	<i>Planorabella binneyi</i>	SGIN	None	1936-05-02	
California Myotis	<i>Myotis californicus</i>	None	None	1993-07-13	
Narrowleaf Dock	<i>Rumex stenophyllus</i>	None	None	2006-10-27 00:00:00	
Columbia Spotted Frog	<i>Rana luteiventris</i>	SGCN	None	1968	
American Bittern	<i>Botaurus lentiginosus</i>	SGIN	None	2013-05-27	

Definitions

State Status	
SGCN, SGIN	Species of greatest conservation need (SGCN) or the special subcategory, species of greatest Information need (SGIN), are listed in the Utah Wildlife Action Plan (UWAP) and also included in the Utah Field Guide
U.S. Endangered Species Act	
LE	A taxon that is listed by the U.S. Fish and Wildlife Service as "endangered" with the probability of worldwide extinction
LT	A taxon that is listed by the U.S. Fish and Wildlife Service as "threatened" with becoming endangered
LE;XN	An "endangered" taxon that is considered by the U.S. Fish and Wildlife Service to be "experimental and nonessential" in its designated use areas in Utah
C	A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to

	justify it being a "candidate" for listing as endangered or threatened
PT/PE	A taxon "proposed" to be listed as "endangered" or "threatened" by the U.S. Fish and Wildlife Service

Species Distribution and Habitat Suitability Models

Species distribution and habitat suitability models (SDHMs) can inform wildlife management decisions such as habitat protection, enhancement, and restoration. They may also help assess environmental impacts by identifying species' habitats. When reevaluating SDHMs with new information, they can help identify or track changes or trends in habitat quality. SDHMs assess habitats' spatial arrangement and connectivity, identify crucial habitats, or describe the environmental conditions a species selects. SDHMs provide an understanding of the impacts of invasive species spread and identify suitable areas for species translocations/re-introductions.

SDHMs show a predicted suitable habitat for a species based on various biotic and abiotic environmental factors. These models may be useful for statewide evaluation but should not be considered verified species presence or absence. Field survey information should be utilized to verify the presence or absence of taxa when making species-specific decisions. Models produced by the Utah Division of Wildlife Resources (DWR) were conducted using a blend of Generalized Linear Models, Generalized Additive Models, Random Forest Models, Boosted Regression Tree Models, and Maximum Entropy Models.

Mitigation Strategies

Typical recommendations to consider and help guide project activities to avoid, minimize or mitigate impacts on wildlife and their habitats from project disturbances are displayed below for some wildlife species found within/near your project area.

The DWR understands that mitigation strategies might conflict. Please reach out to DWR staff to develop strategies to minimize impacts on wildlife while still achieving project goals. Your project is located in the following UDWR region(s):

DWR Region Full Name	Regional Phone	Impact Analysis Biologist	Email	Phone
Central Region	801-491-5678	Josee Seamons	jseamons@utah.gov	385-421-1277

Wildlife Action Plan

The [Utah Wildlife Action Plan](#) (UWAP) is Utah's guiding document for native species conservation. The DWR encourages parties to use the UWAP in their environmental planning, as it provides a conservation framework to prevent future listings under the ESA.

Disclaimer

The information provided in this report is based on data existing in the Utah Division of Wildlife Resources' central database at the time of the request. It should not be regarded as a final statement on the occurrence of any species on or near the designated site, nor should it be considered a substitute for on-the-ground biological surveys. Moreover, because the Utah Division of Wildlife Resources' central database is continually updated, any given response is only appropriate for its respective request.

The Utah DWR provides no warranty nor accepts any liability occurring from any incorrect, incomplete, or misleading data or from any incorrect, incomplete, or misleading use of these data.

The results include a query of species tracked by the Utah Natural Heritage Program and Utah Division of Wildlife Resources, which includes all species listed under the U.S. Endangered Species Act, species in the Utah Wildlife Action Plan, and other species. Other significant wildlife values might also be present on the designated site.

For additional information about species listed under the Endangered Species Act and their Critical Habitats that may be affected by activities in this area or for information about Section 7 consultation under the Endangered Species Act, please visit <https://ecos.fws.gov/ipac/> or contact the U.S. Fish and Wildlife Service Utah Ecological Services Field Office at (801) 975-3330 or utahfieldoffice_esa@fws.gov.

The "Not For Consultation" watermark is meant to inform users that this tool is not a substitute for the U.S. Fish and Wildlife Service (USFWS) environmental review process. While this tool provides courtesy information on ESA species for context, the U.S. Fish and Wildlife Service is the authority on Information for Planning and Consultation Endangered Species Act Reviews. Additionally, the Wildlife Habitat Analysis Tool provides information to assist in analysis but does not replace coordination and consultation with Utah Division of Wildlife Resource biologists who can often serve as an expert resource for site-specific information.

Supplemental Data

Unmapped Corridors

Unmodeled Corridors: Absent

Wildlife Habitat Information

Species	Season	Value	Comments
California Quail	year-long	crucial	
Ring-Necked Pheasant	year-long	substantial	

Report Generated For

Name: Evan Blanford

Organization: HDR

Email: evan.blanford@hdrinc.com

Phone: (385)-378-4941

End of Report

Thank you for using the Utah Wildlife Habitat Analysis tool. Feel free to reach out to the department for additional information or assistance.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Utah Ecological Services Field Office

2369 West Orton Circle, Suite 50

West Valley City, UT 84119-7603

Phone: (801) 975-3330 Fax: (801) 975-3331

In Reply Refer To:

04/17/2025 17:48:31 UTC

Project Code: 2025-0084815

Project Name: South of Draper Double Track Project Reevaluation

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Utah Ecological Services Field Office

2369 West Orton Circle, Suite 50
West Valley City, UT 84119-7603
(801) 975-3330

PROJECT SUMMARY

Project Code: 2025-0084815

Project Name: South of Draper Double Track Project Reevaluation

Project Type: Railroad - New Construction

Project Description: South of Draper Double Track Project Reevaluation

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.4914889,-111.9089478879684,14z>



Counties: Salt Lake County, Utah

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee <i>Bombus suckleyi</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

FLOWERING PLANTS

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Utah Department of Transportation
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Address: 2825 East Cottonwood Parkway
Address Line 2: Suite 200
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