MIDVALLEY CONNECTOR UTA

MIDVALLEY CONNECTOR ENVIRONMENTAL ASSESSMENT

June 2022

Prepared by
Federal Transit Administration
Utah Transit Authority

Project Partners

UTA

Federal Transit Administration

UDOT Keeping Utah Moving

WASATCH FRONT REGIONAL COUNCIL

Salt Lake Community College

SALT LAKE COUNTY

Midvalley Connector Bus Rapid Transit Project
Environmental Assessment

Prepared by:
Federal Transit Administration and
Utah Transit Authority

June 2022

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effects
BMP	Best Management Practices
BRT	Bus Rapid Transit
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CO2	carbon dioxide
D&RGW	Denver & Rio Grande Western Railroad
Dr.	Drive
EA	Environmental Assessment
EB	eastbound
EC	Eligible/Contributing
EPA	U.S. Environmental Protection Agency
FTA	Federal Transit Administration
GHG	Greenhouse Gases
ID	Identification
LOS	Level of Service
LPA	Locally Preferred Alternative
mph	miles per hour
MS4	municipal separate storm sewer system
MTCO2eq	metric ton of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_x	nitrogen dioxide
NPL	National Priorities List
NRHP	National Register of Historic Places
NWF	Northern Wasatch Front
O/E	Observed/Expected
PCN	Preconstruction Notification
PM	particulate matter
$PM_{2.5}$	particulate matter with a diameter less than or equal to 2.5 micrometers
PM_{10}	particulate matter with a diameter less than or equal to 10 micrometers
Rd.	Road
RTP	Regional Transportation Plan
S.	South
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SLCC	Salt Lake Community College
SSOD	Smelter Site Overlay District
St.	Street
SWCA	SWCA Environmental Consultants
TIP	Transportation Improvement Program
TOD	Transit-oriented Development
U.S.C.	United States Code
UDEQ	Utah Department of Environmental Quality
UDOT	Utah Department of Transportation
UPDES	Utah Pollutant Discharge Elimination System
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	United States Fish and Wildlife Service
UT	Utah
UTA	Utah Transit Authority
VMT	vehicle-miles traveled
W.	West
WB	westbound
WFRC	Wasatch Front Regional Council
WOTUS	Waters of the U.S.

Comments on the Environmental Assessment

A public comment period for the Midvalley Connector Bus Rapid Transit Environmental Assessment (EA) is from July 1, 2022 to August 2, 2022. The EA is available on the project website (www.midvalleyconnector.com) and at the Utah Transit Authority (UTA) Frontlines Headquarters. The public was notified of the availability and opportunity to review and comment on the EA via newspaper notices, city and project websites, email, and flyers placed in public locations and private businesses along the project route. State and local agencies also received the Notice of the Availability of the EA for review and comment and were given the opportunity to request a digital copy of the document. All comments must be provided by August 2, 2022 to be included in the final decision document. Written comments will be accepted at the public meeting, online at the project website, through email, and through hard copy comments forms. A public meeting is planned for July 18, 2022 to provide information about the project to the public, and to give the public an opportunity to ask questions of representatives from the project team and to provide comments.

Following the close of the comment period, the Federal Transit Administration (FTA) and UTA will thoroughly consider any comment submitted. Based on information contained in this EA and comments received, FTA will determine whether there are significant environmental impacts that warrant preparation of an Environmental Impact Statement (EIS). If the FTA determines that there are no significant impacts, it will issue a Finding of No Significant Impact (FONSI). The determination will be made available to the general public and all who submit formal comments on this EA.

Introduction

The Federal Transit Administration (FTA), the lead federal agency, and the Utah Transit Authority (UTA), the project proponent—in coordination with project partners Taylorsville City, Murray City, West Valley City, the Utah Department of Transportation (UDOT), Salt Lake Community College (SLCC), Salt Lake County, and the Wasatch Front Regional Council (WFRC)—have prepared this Environmental Assessment (EA) to assess the potential social, economic, and environmental impacts of the proposed Midvalley Connector Bus Rapid Transit (BRT) project.

Bus rapid transit, or BRT, is a high-quality bus-based transit system that delivers fast, comfortable, and cost-effective transit service. BRT has faster, more frequent bus service; the addition of dedicated, bus-only lanes; and iconic stations with improved user amenities like off-board fare collection, real-time messaging, lighting, and benches. The proposed project is a new BRT service connecting the Murray Central Station to the SLCC Redwood campus in Taylorsville and the West Valley Central Station. The project will be federally funded, requiring that FTA and UTA complete an EA per the National Environmental Policy Act (NEPA) requirements.

The EA is prepared in accordance with the NEPA (42 United States Code [U.S.C.] 4321 *et seq.)*, the *Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA* (40 Code of Federal Regulation [CFR] 1500 – 1508), FTA's *Environmental Impact and Related Procedures* (23 CFR part 771), Section 4(f) requirements (49 U.S.C. 303 and 23 U.S. C. 138) and FTA's Section 4(f) implementation procedures (23 CFR part 774). This EA briefly discusses the purpose and need for the proposed action, the alternatives considered per 42 U.S.C. 4332.102(2)(E), and the environmental effects of the proposed action. Public involvement information and identification of the agencies and persons consulted (per 40 CFR 1508.9) are also included.

Project Schedule

Project construction is anticipated to occur between Winter 2023 and Spring 2025. Passenger service is anticipated to start fall Spring 2025.

Phase	Local planning and visioning	Environmental	Design	Construction	Startup	Operations
Timeline	2012 – 2021	Spring 2021 – Fall 2022	Fall 2022 – Winter 2023	Winter 2023 – Spring 2025	Spring 2025	Spring 2025
Purpose	Alternative development/ identify preferred BRT route	Seek FTA approval for environmental	Prepare detailed engineering and implementation plans	Construct BRT system infrastructure	Prepare for operations	Begin BRT operations

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This schedule is contingent on award of federal funds, which is anticipated to occur in late fall 2022.

Chapter 1. Purpose and Need

1.1 Project Location

The project area extends approximately 7 miles along the BRT route (Figure 1-1) and spans three cities in Salt Lake County—Murray, Taylorsville, and West Valley City. Together, these communities make up approximately 22 percent of the county's total population (U.S. Census Bureau 2019). The eastern terminus of the project is at the Murray Central Station, which serves bus, TRAX light rail, and FrontRunner commuter rail, and is adjacent to the Intermountain Medical Center. The western terminus is at the West Valley Central Station, which serves bus and TRAX light rail, and is adjacent to West Valley City Hall and Valley Fair Mall. The project area encompasses residential areas (including high-density and senior housing facilities), SLCC Redwood Campus, office parks, mixed residential and retail areas, and various recreational and shopping opportunities.

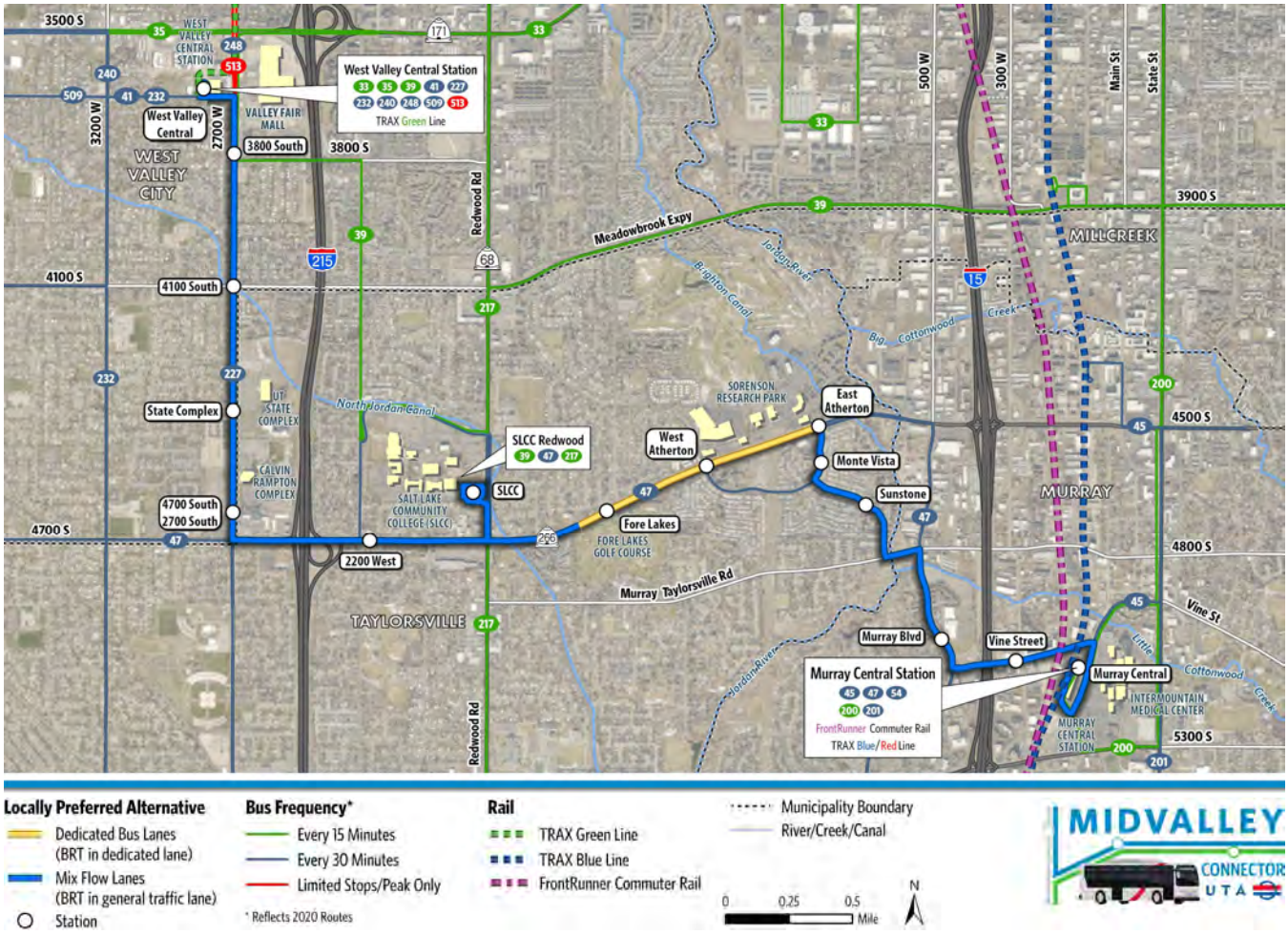


Figure 1-1. Project Area

1.2 Purpose of the Project

The purpose of the Midvalley Connector BRT project is to:

- Provide a local and regional connection for destinations from the Murray Central Station to the West Valley Central Station.
- Improve transit service frequency and visibility to attract riders.
- Increase mobility and provide an alternative mode of transportation for future population and travel demand growth.
- Enhance the local economy by encouraging redevelopment and improving accessibility to existing and planned developments.

1.3 Need for the Project

The need for the Midvalley Connector BRT project includes the following:

- The existing transit network lacks an efficient and direct transit connection from FrontRunner commuter rail and TRAX light rail stations to local and regional destinations in the project area.
- Accessibility and visibility are limited due to a lack of direct transit service connections between existing and planned development areas in the region.
- Transit service demand and the need for alternative mobility options will increase as the population and SLCC student enrollment continue to grow.

1.3.1 Transit Connections

The project is located in the center of the Salt Lake Valley and is home to some of the region's largest employers. Improving connection between existing and planned employers/points of interest and the TRAX light rail Green, Red, and Blue lines, and FrontRunner commuter rail (Figure 1-1) would increase the use of alternative modes of transportation while also strengthening the potential for future development and redevelopment. There is a need for direct, frequent connections to regional transit options including the Murray Central Station, the West Valley Central Station, and key employment, educational, and redevelopment locations in between.

1.3.2 Traffic Congestion

Roadways in the project area, including Redwood Road, 2700 West, and 4700 South, are experiencing increasing traffic congestion. Level of service (LOS) is a term used to describe how well an intersection or road operates. On a scale from A to F, LOS A represents free-flow conditions and LOS F represents severe congestion and delay. LOS E or F is typically considered failing. Two intersections along the proposed BRT route are currently failing, and twelve are projected to experience severe congestion by the year 2040 (Figure 1-2). Traffic volumes at many of the intersections along the route are expected to more than double by 2040 (Avenue Consultants 2017). The intersection at 2700 West and 4700 South is of interest, as it is one of the most congested intersections in the state. Worsening LOS will mean reduced traffic operations, increased congestion, and longer travel times. Due to right-of-way constraints, capacity increases through additional general-purpose lanes are not feasible. Enhancing bus service in the area would improve travel options and increase the number of persons able to travel through these congested areas.

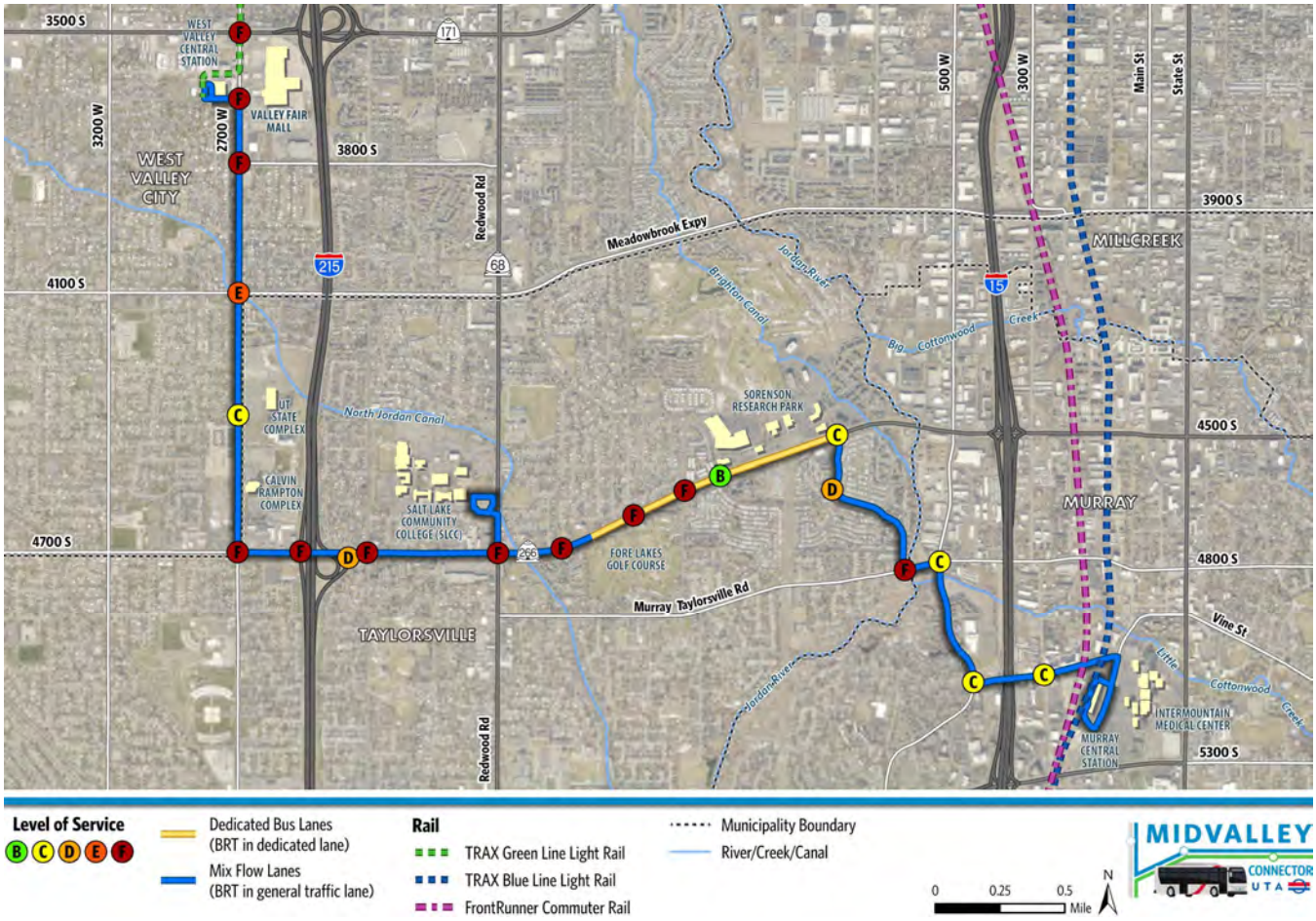


Figure 1-2. Future (2040) Intersection Level of Service

1.3.3 Mobility

Travel options are needed to increase mobility for transit-dependent populations, particularly disadvantaged populations, students, and other transit-dependent groups such as elderly persons, youth, and persons with disabilities. According to the 2015-2019 American Community Survey, 10.0 percent of the population in the project vicinity on average lives below the poverty threshold; this percentage is above the statewide average of 8.9 percent (U.S. Census Bureau 2019). The SLCC Redwood campus is a commuter campus and serves approximately 13,000 students annually (SLCC 2018) with plans to expand the campus in the next 5 to 10 years, including additional student housing. Parking is currently limited, and expansion will limit it further. SLCC identified transit as a critical component of the college-wide master plan to enhance student access, reduce overall cost to students, and reduce dependence on single occupant vehicles.

Chapter 2. Alternatives

2.1 Introduction

The EA evaluates two alternatives: the No Build Alternative and the Build Alternative, which is the Locally Preferred Alternative (LPA).

Development of the Locally Preferred Alternative

The LPA was identified based on the findings of several previous planning studies, as well as the engineering and operational analysis, environmental resource evaluations, and stakeholder input. Planning studies have supported the identification and development of the LPA for the project including:

- **Taylorsville-Murray Transit Corridor Alternatives Analysis (2009):** The 2009 study's alternatives evaluation identified a preferred mode and general alignment between the Murray Central Station to the SLCC Taylorsville Redwood campus based on community input, the ability to serve key activity centers, and the ability to encourage redevelopment and improve accessibility to planned developments (UTA 2009).
- **Taylorsville-Murray Transit Environmental Study Report (ESR) (2013):** The 2013 ESR identified the LPA BRT route, station locations, sections of the route where new dedicated bus lanes would be constructed, and sections of the route where the bus would travel in mixed-flow lanes with general traffic (UTA 2013). The proposed LPA BRT route would begin near Murray City Center district and would travel to the Murray Central station and then to 4500 South on existing travel lanes functioning as mixed flow. The proposed route would then follow west along 4500/4700 South in center-running exclusive lanes for approximately 1.4 miles to Redwood Road. The route would then function as mixed flow and continue straight on 4500/4700 South through the Redwood Road/4700 South intersection. The BRT vehicle would turn north onto a new transit-only road at 1780 West and the route would conclude at the SLCC station. This study included eight stations. In February and March of 2013, Murray City, Taylorsville City, and UTA passed resolutions in support of the LPA. UTA approved the ESR and the LPA in a final decision document dated September 2013.
- **Taylorsville Expressway BRT Master Plan (2015):** In 2015, Taylorsville City prepared a BRT master plan that provided recommendations for complete street refinements along 4500/4700 South to be included with the LPA (City of Taylorsville 2015). Recommendations included high comfort pedestrian and bicycle facilities, station accessibility design, location enhancements, and neighborhood connectivity. In addition, urban design guidelines recommended building design, placement, use, and orientation to the street for future development along the corridor.
- **Midvalley Connector BRT ESR (2019):** Subsequent to completion of the 2013 ESR, Murray, Taylorsville, West Valley City, and UTA coordinated to remove the route between the Murray City Center and Murray Central Station and extend the western project terminus from the SLCC Redwood campus to the West Valley Central Station, connecting the Murray Central and West Valley Central stations with BRT service. The proposed route would continue west along 4700 South from the SLCC campus, and then north along 2700 West, where it would terminate at West Valley Central Station (UTA 2019). The extension added seven stations along this portion of the route for a total of 15 stations along the entire route. Murray City, Taylorsville City, and West Valley City passed resolutions in support of the 2019 LPA on April 16, 2019, January 17, 2019, and March 12, 2019, respectively. UTA approved the ESR and the LPA in a final decision document dated August 2019.

2.2 No Build Alternative

The No Build Alternative provides a baseline for comparing the travel benefits of the LPA. The No Build Alternative includes the planned projects from the WFRC 2019–2050 Regional Transportation Plan (RTP, WFRC 2019) and city projects that would be constructed between now and 2050. The No Build Alternative does not include the dedicated, bus-only lanes, or other enhancements and improvements associated with the proposed BRT project. If the No Build Alternative is selected, there would be no active transportation element connecting the Jordan River Parkway Trail to SLCC. The existing bus routes would continue using the current schedule and provide service at existing capacities.

2.3 Build Alternative

The Build Alternative is the LPA, a 7-mile BRT route that begins at the Murray Central Station, travels through Murray along Vine Street to Murray Boulevard, and traverses Taylorsville via Sunstone Road, Atherton Drive, along 4700 South to SLCC. From SLCC, the BRT route follows 4700 South west to 2700 West and then north along 2700 West to the West Valley Central Station in West Valley City (see Figure 1-1). The route includes 15 stations.

For most of the route, the bus travels in mixed-flow lanes, meaning the bus will travel in the existing travel lanes with other vehicles. The LPA includes one section of the route with dedicated bus lanes: along 4500/4700 South from East Atherton Drive to Redwood Road. The proposed BRT service would offer higher speed and more frequent bus operations, and include the following:

- Off-board fare collection (using ticket vending machines) for faster boarding.
- Enhanced, real-time transit information (next bus information) at stations.
- Frequent service throughout the day (10- to 15-minute headways).
- Transit signal priority for BRT buses at all signalized intersections along the BRT route.
- Comfortable, sheltered seating at stations.

2.3.1 Typical Roadway Sections

The BRT typical roadway sections vary depending on the proposed transit features and existing road configuration. Renderings of typical roadway sections are provided in Appendix B. The sections are divided into three geographic areas for ease of description:

- Murray Central Westbound: Murray Central Station to 4500/4700 South.
- Dedicated Transit Lanes: 4500/4700 South to SLCC.
- Redwood Road to West Valley Central Station: SLCC to West Valley Central Station.

Murray Central Westbound: This section of the LPA starts at the eastern terminus of the BRT route at Murray Central Station and ends at the intersection of East Atherton Drive and 4500/4700 South. The bus would operate in mixed-flow traffic for the entire 2-mile section. The roads in this section have one general purpose lane in each direction. The roads typically have sidewalks, curb and gutter, and landscaping. On northbound Murray Boulevard, bike and parking lanes will be constructed on both sides of the street as part of a separate project. Options to mitigate potential conflicts between bus ingress/egress at stations and bicycle lanes on northbound Murray Boulevard will be considered during final design.

Dedicated Transit Lanes: The dedicated transit section begins at the intersection of East Atherton Drive and 4500/4700 South and terminates at the intersection of 4700 South and Redwood Road. Transit infrastructure in the dedicated transit section would include bus-only lanes and BRT stations in the center of the street. The dedicated lanes would run for approximately 1.4 miles. Varying bicycle and pedestrian infrastructure, such as sidewalks and shared-use paths, would exist along the dedicated transit lanes on 4500/4700 South. In addition to the BRT project, local bus route 47 will also use the exclusive lanes. This local route will connect 5600 West to the Murray North TRAX station via 4700/4500 South.

Redwood Road to West Valley Central Station: West of Redwood Road, the LPA would return to mixed-flow traffic operation for the remaining 3 miles from SLCC to West Valley Central Station. Along Redwood Road, there are three general purpose lanes in each direction with a center turn lane. Curb and gutter, sidewalks, and landscaping are present on both sides of the street. On northbound 2700 West, there are two general purpose lanes in each direction, as well as bike lanes. The SLCC Transit Hub would provide connections to local bus routes.

Options to mitigate potential conflicts between bus ingress/egress at stations and bicycle lanes on 2700 West will be considered during final design. In addition, the West Valley Central Station layout would need to be altered slightly to accommodate the additional buses needed for the LPA.

Center-Running Stations: Because the buses only have doors on the right side, they would approach the center-running station in the lane opposite their direction of travel (contraflow to auto traffic). Buses would perform weave movements before and after each station through intersections and dedicated weave sections within the center-running lanes. A full operational analysis would be prepared as part of the final design to ensure adequate center-running station design(s) for 10 -minute headways.

2.3.2 Stations

In total, 15 stations are planned for the LPA (see Figure 1-1, Table 2-1). Each station identified in this EA was chosen based on various criteria within a half-mile of each station: presence of a population center; presence of an activity center; presence of an employment center; bike and pedestrian access; ridership; distance between stations; complementary transit infrastructure; compatibility with local, regional and state plans; development opportunities; stakeholder support; and multimodal connectivity.

Table 2-1. Station Locations and Description

Station Name/ Location	Type of Station (Side vs. Center)	Description
Murray Central	Transit Hub	Transit hub with connections to TRAX light rail and FrontRunner commuter rail and five bus routes; planned surrounding infill development will increase demand for service. Allowance of high-density residential in this area is being considered.
Vine Street	Side	Surrounding new and planned development will increase ridership capture. New apartments are under construction.
Murray Boulevard	Side	High-density housing provides high ridership, with planned development of residential mixed with retail. The Former American International School of Utah has been purchased with plans for up to 600 residential units, an event center, and a school.
Sunstone	Side	High-density apartment complexes provide high ridership.
Monte Vista	Side	High-density apartment complexes provide high ridership.
East Atherton	Center (WB*) & Side (EB*)	High ridership capture from Sorenson Research Park and apartments on the south side of 4500/4700 South. Additional office buildings planned at north end of Sorenson Research Park.
West Atherton	Center	High ridership capture from Sorenson Research Park, and adjacent apartments, and planned high-density housing development.
Fore Lakes	Center	Ridership facilitated by adjacent neighborhood and potential transit-oriented redevelopment of Fore Lakes Golf Course.
SLCC	Transit Hub	Connections to multiple bus routes and campus shuttle. Proposed redevelopment around SLCC as a mixed-use transit-oriented development (TOD). Improved transit connectivity for residents. Dormitories are planned on campus that would house 350-400 students.
2200 West	Side	High- and mid-density senior housing and adjacent apartments provide high ridership capture, addresses an existing transit gap.
4700 South 2700 West	Side	Surrounding commercial uses and services for transit users include grocery stores, banks, restaurants, pharmacies, and others. Planned development of major office building with parking and retail/restaurants
State Complex	Side	High ridership capture from State Office Building and potential redevelopment for office and residential to the north and west.
4100 South	Side	Mixed mid-and low-density housing surround the intersection
3800 South	Side	Mixed mid- and low-density housing and commercial use node.
West Valley Central	Transit Hub	West Valley City Center TOD with connections to 10 bus routes and TRAX light rail. Expanding commercial and multi-family unit housing development and new medical center

WB – westbound, EB – eastbound

2.3.2.1 Architecture, Features, and Layout

The conceptual architecture and layouts for stations along the BRT route are provided in Figures 2-1 through 2-4 and incorporate elements recommended in the Taylorsville Expressway BRT Master Plan (City of Taylorsville 2015). Amenities to be incorporated into the station design would include benches, off-board fare collection, shelter, lighting, and real-time bus status displays. The LPA would feature three different station designs to accommodate the center-running and mixed-flow roadway alignments:

- The center-running dedicated lanes on 4500/4700 South would feature a single platform in the center of 4500/4700 South designed to serve both directions of travel (Figure 2-1 and Figure 2-2).
- The East Atherton station would include two components: a unique, one-sided center station serving only westbound buses (Figure 2-3) and a side-running station that will serve eastbound buses (Figure 2-4).
- Stations along the mixed-flow portions of the route are proposed as side stations (Figure 2-4).

Figure 2-1. Two-sided Center-running Station
Side and Front view (top) and Plan View (bottom)

Figure 2-2. Rendering of a Two-sided Center-running Station

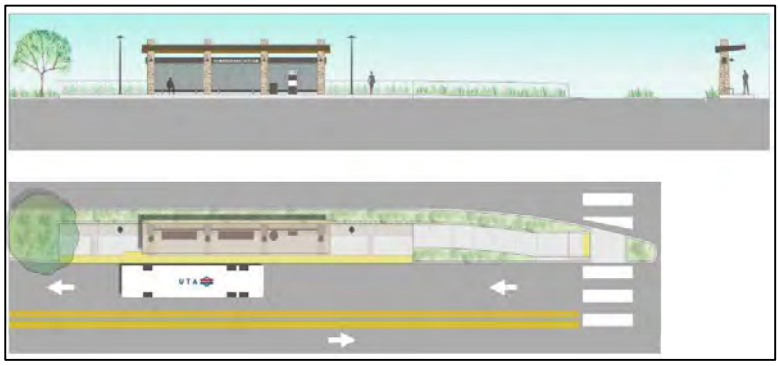


Figure 2-3. One-sided Center-running Station
Front (top) and Plan View (bottom); *(Station type for the East Atherton Station westbound)*

Figure 2-4. Side-running Station
Side and Front Views (top) and Plan Views (bottom); *(Station type for the following stations: Vine Street, Murray Boulevard, Sunstone, 2200 West, 4700 South 2700 West, State Complex, 4100 South, 3800 South, East Atherton eastbound)*

Murray Central Station: The Murray Central Station currently provides connections to five UTA bus routes: the 45, 47, 54, and 201 (all of which are 30-minute frequencies); and the 200 (15-minute frequency). In addition, the TRAX light rail Blue and Red lines depart every 15 minutes, and the FrontRunner commuter rail departs every 30 minutes during peak periods and every hour during off-peak periods. The station would be redesigned slightly with the addition of three bus bays, a driver relief facility, and an alteration to the ingress and egress of the bus loading zones and park-and-ride lots (Figure 2-5).

Salt Lake Community College: The SLCC Station provides connections to three existing UTA bus routes: 39 and 217 (15-minute frequency); and the 47 (30-minute frequency). The SLCC bus station would be redesigned to accommodate the additional buses for the LPA, provide a driver relief facility, and create a uniquely branded station to increase ridership and transit visibility within the community.

The hub would be moved from its current location on the northern edge of campus to the southern edge of campus (Figure 2-6 and Figure 2-7). The new hub location would be the center of a transit-oriented community that would foster integration between SLCC, and the surrounding land uses through high-quality transit connections, mixed uses, and walkable development.

West Valley Central Station: The West Valley Central Station provides connections to 10 bus routes: the 33, 35, and 39 (operating on 15-minute frequencies); the 41, 227, 232, 240, 248, and 509 (operating on 30-minute frequencies); and the 513, which provides limited stops and 30-minute peak service. The West Valley Central Station is also the southern terminus of the TRAX light rail Green line. As part of this project, the station would be redesigned slightly to accommodate the addition of the BRT in a way that minimally affects the operations of existing routes. The location of an additional bus bay has been preliminarily identified at the northern end of the existing station loop (Figure 2-8).

Figure 2-5. Murray Central Station BRT Flow

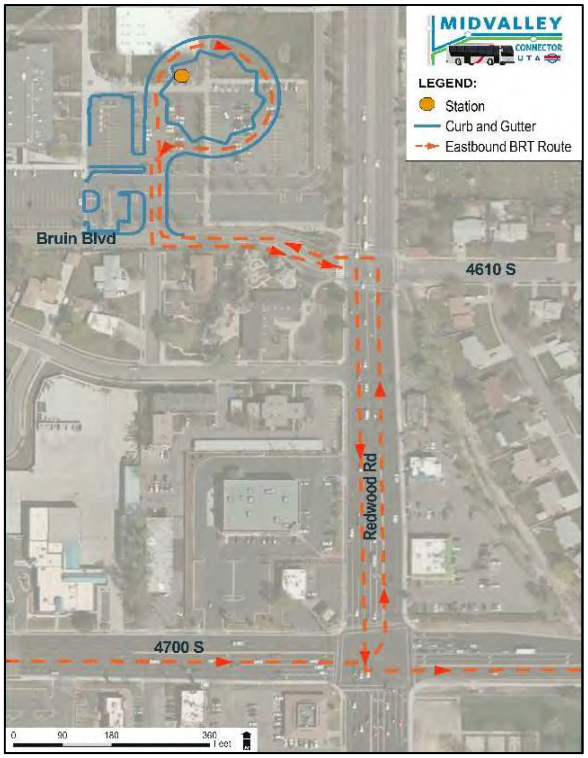


Figure 2-6. SLCC Station Eastbound BRT Flow

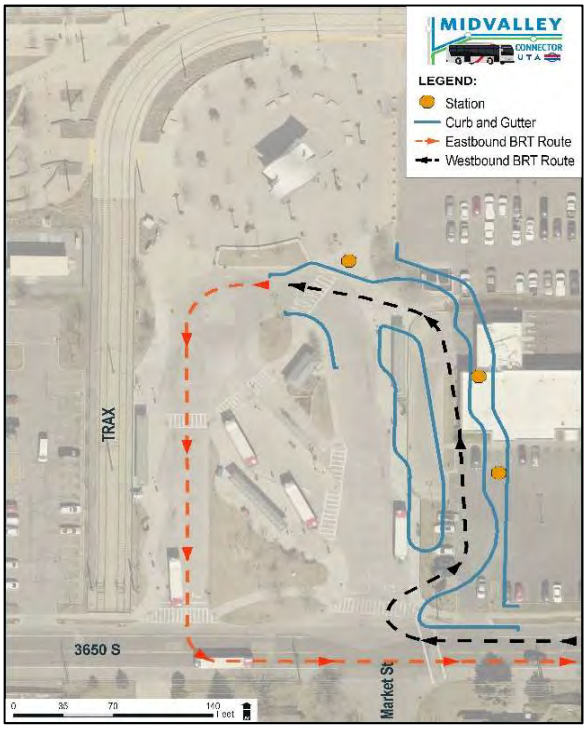


Figure 2-7. SLCC Station Westbound BRT Flow

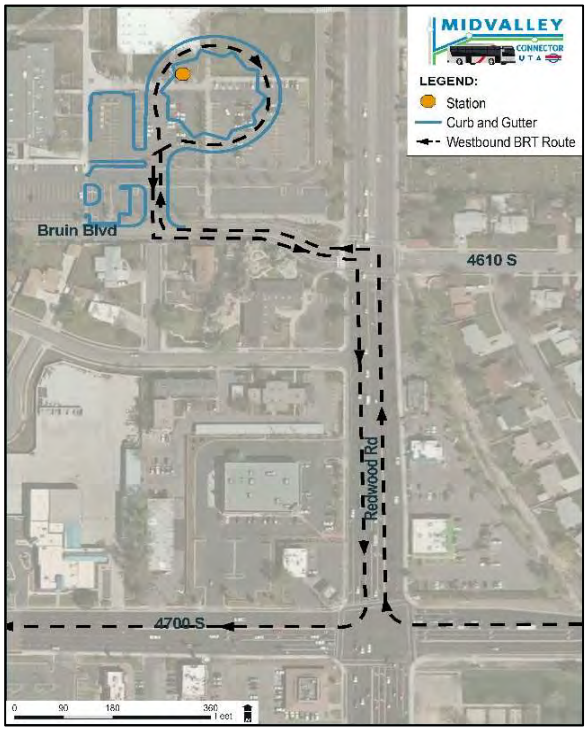


Figure 2-8. West Valley Central Station BRT Flow

2.3.3 Buses and Operations

Ridership was modeled using FTA's Simplified Trips-on-Project Software (STOPS) program and the estimated base year (2019) ridership is 2,070 average weekday boardings (Midvalley Connector Ridership; UTA 2022a). The LPA would use 40-foot buses with doors on the right side that would have a 50-person capacity seated and standing. The bus type (likely electric) and branding would be determined by UTA in coordination with project partners during final design. Vehicle branding would be consistent with UTA standards for BRT buses. For the purpose of this EA, the use of diesel buses was evaluated to cover the worst-case scenario.

The proposed BRT route would provide frequent service throughout the day (15-minute frequency) from 6 a.m. to 10 p.m., 30-minute frequency from 10 p.m. to 12 a.m. and 4 a.m. to 6 a.m. Under the LPA, a total of 10 buses would serve the BRT system and would run every 10 to 15 minutes from 6 a.m. to 10 p.m. Four buses would run every 30 minutes during the hours of 10 p.m. to 12 a.m. and 4 a.m. and 6 a.m. An additional two to three buses would be required for each trip during periods of special service. Additional buses could be pulled from the existing UTA fleet in the event of breakdowns, route modifications, or special service. The final schedule would be determined by UTA during final design and implementation. Options for using electric vehicles are being evaluated. If electric vehicles are used, charging infrastructure would be added at the Murray Central and West Valley stations and at the Meadowbrook maintenance facility to accommodate these buses.

BRT buses would have system-wide signal priority using a dedicated short-range communication system. Equipment would be installed in traffic signal controllers at all traffic signals within the project area, and the buses would have on-board units.

2.3.4 Complete Streets

The LPA includes pedestrian and bicycle amenities throughout the corridor to provide essential "first-mile/last-mile" connections to stations and surrounding land uses. First-mile/last-mile refers to passenger travel getting to and from bus and rail stops.

Complete streets are those that incorporate high comfort facilities for bikers and pedestrians, creating a "complete" facility that supports all modes of transportation. Complete street facilities include wide sidewalks, adequately separated bike lanes, greenery, accessible transit stops, and obvious demarcation of crossing infrastructure for non-automotive modes. The LPA would include complete street elements along 4700 South from East Atherton Drive to Redwood Road. Under the LPA, signalized intersections in the project area would feature painted crosswalks, push button activation, countdown timers, median refuges, signage, and textured curb ramps.

The LPA would incorporate a new shared-use path on the north side of 4500/4700 South connecting the Jordan River Parkway Trail at the east end of the corridor to the North Jordan Canal Trail near Redwood Road. The North Jordan Canal Trail would provide connectivity to SLCC by way of 4610 South/Bruin Boulevard by improving the trail to include paving the maintenance access road with 8-foot-wide asphalt pavement between 4700 South and Conifer Way, connecting the shared-use path on 4700 South to the existing sidewalk on Conifer Way, and by using the existing signal at Conifer Way to provide connection to SLCC. The existing sidewalk on the south side of 4500/4700 South may be widened at the discretion of Taylorsville City as a separate project and subject to separate environmental review.

Murray City has identified and designed a roadway alignment for striped bicycle lanes on Murray Boulevard from 4800 South to Glyndon Way within the project area. This facility would feature 5 -foot bicycle lanes in each direction, curbside parking, 11-foot through lanes and a 12-foot center-turn lane. These features will be constructed as a separate project and have been assumed in the design of the LPA along this portion of the route.

The 2015 Taylorsville Expressway BRT Master Plan recommends complete street refinements along 4500/4700 South to be included in the LPA. Complete street elements and a shared use path are included in the design between Redwood Road and East Atherton. Bicycle facilities at side-running stations in other areas along the route would be evaluated in final design.

Chapter 3. Environmental Consequences

Chapter 3 provides a summary of expected direct and indirect effects or impacts associated with the construction and operation of the Build Alternative and the No Build Alternative. Additional information about potential impacts or affected resources can be found in the following technical documents that were prepared for this project:

- Noise Analysis Technical Report (UTA 2022b)
- Biological Resources and Wetlands Technical Report (UTA 2022c)
- A Supplemental Cultural Resources Assessment for the Midvalley Connector Transit Project, Salt Lake County, Utah (Certus Environmental Solutions 2021)
- Land Use Compatibility Technical Memorandum (UTA 2022d)

3.1 Environmental Resources of No Concern

Based on early coordination, scoping, database searches, site visits, and analysis, the following resources either did not occur within the project area or would experience no or negligible impact as a result of the LPA:

- Unique farmlands under the Farmland Protection Policy Act of 1981
- Navigable waterways under Section 10 of the Rivers and Harbors Act of 1899
- Neighborhoods and community resources
- Section 6(f) resources under the Land and Water Conservation Act of 1965
- Wildlife or waterfowl refuges per Section 4(f) of the USDOT Act of 1966
- Endangered species under Section 7 of the Endangered Species Act of 1973, raptors or other biological resources
- Soils
- Groundwater
- Floodplains
- Geologic resources

3.2 No Build Alternative Effects

Under the No Build Alternative, other planned projects identified in the WRFC 2019-2050 RTP and city projects would be constructed, but the proposed enhancements and improvements as part of the proposed BRT project would not be constructed or operated. No active transportation element would connect the Jordan River Parkway Trail to SLCC, and the existing bus routes would continue operating on their current schedules and existing capacities. The purpose and need for the project would not be addressed, and improvements to transit connections, access, and mobility would not occur.

Under the No Build Alternative, project construction, ground disturbance, and related temporary construction impacts would not occur. No impacts to transit, parking, pedestrian and bicycle facilities, rights-of-way, economics, environmental justice, visual resources, cultural resources, Section 4(f) resources, noise conditions, water quality, biological resources, hazardous waste sites, safety and security, utilities, energy, or air quality would occur.

3.3 Transportation

This section identifies the existing auto, transit, pedestrian, and bicycle transportation systems throughout the study area, and their roles in providing regional and local mobility. Transportation infrastructure improvements for plan year 2050 were used as a baseline to compare the effects of the LPA on the existing systems.

3.3.1 Traffic Operations

Traffic operations were evaluated through a LOS analysis conducted for the intersections in the study area (see Section 1.3.2). Two intersections within the study area currently exhibit failing operations (LOS E): 4700 South/2700 West and 4800 South/Sunstone Road. East-west traffic along 4700 South operates at an acceptable LOS overall within the study area, but experiences congestion at times during morning and evening peak travel periods (Avenue Consultants 2017).

The overall impact of the LPA on traffic operations would be minor. The addition of BRT would not change LOS at intersections, but overall mobility for transit riders would improve due to the addition of the dedicated bus lane and transit signal priority at all signalized intersections along the BRT route. By 2050, 12 intersections within the study area are projected to fail in the PM peak period under No Build conditions (see Figure 1-2); the LPA would not noticeably change these conditions.

The left turns along 4700 South at 1175 West would be eliminated as part of the BRT project. The elimination of the left turns at this intersection is necessary due to the introduction of the exclusive BRT lanes coupled with no traffic signal and the high accident history of the intersection. A traffic signal with a protected left turn would be added just to the west of the 1175 West and 4700 South at the intersection of 4700 South and the Fore Lake Golf Course access. In addition to facilitating safe pedestrian access to the center platform and safe BRT operations the traffic signal at 1300 West would allow west travelling vehicles that are no longer able to turn south at 1175 West, to make a U-turn and return eastbound toward 1175 West to access the areas south of 4700 South. Vehicles travelling eastbound at 1175 West and 4700 South would be able to make a U-turn at the intersection of Atherton Drive and 4700 South and continue westbound back to the 1175 West and 4700 South intersection where then can turn and proceed northbound.

Under the No Build Alternative, traffic operations would require less U-turns than the LPA, but mobility of transit users would continue as it is today

3.3.2 Transit

The Murray Central and West Valley Central stations serve 15 UTA bus routes, four of which provide service within the study area: routes 39, 47, 217, and 227. Both stations are important for north-south and east-west bus connectivity on regional and local scales. SLCC acts as an additional local bus hub, providing connections to routes 39, 47, and 217.

Currently, a portion of Route 47 operates on a similar route to the LPA between Murray Central Station and 2700 West. From that point, the bus continues west to 5600 West where it turns and eventually terminates at 4100 South. Route 39 provides east/west service on 3900 South and connects to SLCC and West Valley Central. Service on Redwood Road is provided by route 217, which runs from Salt Lake City to West Jordan, passing SLCC. Route 227 operates on 2700 West, providing a connection to West Valley Central Station. Figure 1-1 in Chapter 1 shows the existing bus routes within the project area. Existing route-wide ridership for the four routes serving the study area is shown in Table 3-1.

Table 3-1. Existing Bus Ridership within Study Area

Route	Average Daily Ridership (2019)
39	2,361
47	1,518
217	3,582
227	151

The LPA would likely result in changes to local services routes operating near the study area. Changes to existing bus routing would be determined by UTA during the final design and implementation stages of the LPA, and will be based upon the operational feasibility, service demand, performance, and other federal regulations associated with changing a bus route (i.e., Title VI and Americans with Disabilities Act [ADA] evaluations). For changes to the existing transit service routes, UTA would complete a new service plan for the revised routes. This plan would include outreach to current riders, a public comment period for the draft plan, and public hearings in the affected area. Upon completion of the public comment period, the service plan will be finalized and will be completed 60 days prior to change day. While changes would occur, the service area would continue to be fully covered by the new routes. No adverse impact would occur.

3.3.3 Parking

Existing parking facilities are available for transit riders at the Murray Central and West Valley Central stations. Murray Central Station provides approximately 1,083 parking stalls, 19 of which are dedicated accessible parking stalls. West Valley Central Station provides approximately 166 off-street parking stalls, five of which are dedicated accessible parking stalls. An additional 55 on-street parking stalls are provided adjacent to the station on Lehman Avenue and Market Street.

The SLCC campus is permit-only parking, limited to students attending classes onsite or at another SLCC satellite campus. There are approximately 4,586 parking stalls—3,609 student stalls, 686 faculty and staff stalls, 82 metered visitor stalls, 68 motorcycle stalls, and 88 accessible parking stalls (SLCC 2017).

The LPA would have minimal effects to on-street parking at side station locations throughout the corridor. On-street parking at four stations would no longer be available. Approximately 5 on-street parking spots would be lost at 4100 South southbound, State Complex southbound, and Murry Boulevard northbound and southbound for a combined total of 20 on-street parking spaces. Station redesigns at Murray Central and SLCC would remove approximately 65 parking stalls and 328 stalls, respectively. At Murray Central, 32 of the 65 stalls would be restriped and available for use. At SLCC, 31 of the 328 stalls would be restriped and remain. However, replacing some auto trips to SLCC with transit trips would decrease the need for parking and could offset the loss of parking stalls where the proposed SLCC bus hub would be constructed, thereby minimizing the impact.

3.3.4 Pedestrian and Bicycle Facilities

None of the cities within the study area have an extensive bicycle network, but major facilities are planned along the BRT route. In general, sidewalks exist throughout the study area with the exception of a small segment on the north side of 4700 South and multiple small segments on the west side of 2700 West. Standard crosswalks are present at most intersections within the study area.

Bicycle facilities on major roads within the study area are infrequent. Striped bike lanes and those marked with a symbol of a bicycle and two arrows represent cyclists and drivers to coexist in the same lane (sharrows) are present only in West Valley City along 2700 West. The only shared-use path in the study area is the Jordan River Parkway Trail, which runs north-south the length of Salt Lake County. Existing bicycle lane widths vary depending on roadway and sidewalk design in West Valley City. Namely, the bicycle lane on 2700 West varies between 4 and 5 feet and is on both sides of the road from 4100 South up to the West Valley Central Hub. The west side of the street features an intermittent 8-foot parking/bicycle combination lane. The gutter is used as the bike lane in sections of the street. The most consistent on-street bicycle facility in the study area is along 3800 South, complete with bicycle markings and sharrows.

Implementation of the LPA would result in a beneficial impact on pedestrian and bicycle connectivity throughout the study area using complete street design elements such as shared pedestrian and bicycle space, landscaping, upgraded crosswalks, increased station accessibility, and connections between regional trails. Additional sidewalks would be constructed in the project area at the following locations:

- Approximately 7,275 feet of shared use path along the north side of 4700 South
- Approximately 77 feet of sidewalk on Murray Boulevard northbound
- Approximately 500 feet of sidewalk on Vine Street westbound

Further beneficial impacts would result from improvements to the existing pedestrian and bicycle facility on 4500/4700 South through a shared-use path along 4700 South that would connect the Jordan River Parkway Trail to SLCC, and the proposed 1300 West regional bicycle facility recommended in UDOT's Salt Lake County West Side Bicycle Connectivity Study.

3.4 Land Use and Consistency with Regional and Local Plans

This section addresses the LPA's compatibility with current and future land use patterns, policies, and plans within Murray, Taylorsville, and West Valley City. The study area for this land use evaluation consists of the project footprint plus a quarter-mile along each side of the LPA. Within this quarter-mile buffer, the predominant land uses include low and high density residential, commercial, and healthcare. Other uses include industrial, education, parks, and vacant/undeveloped land (Figure 3-1).

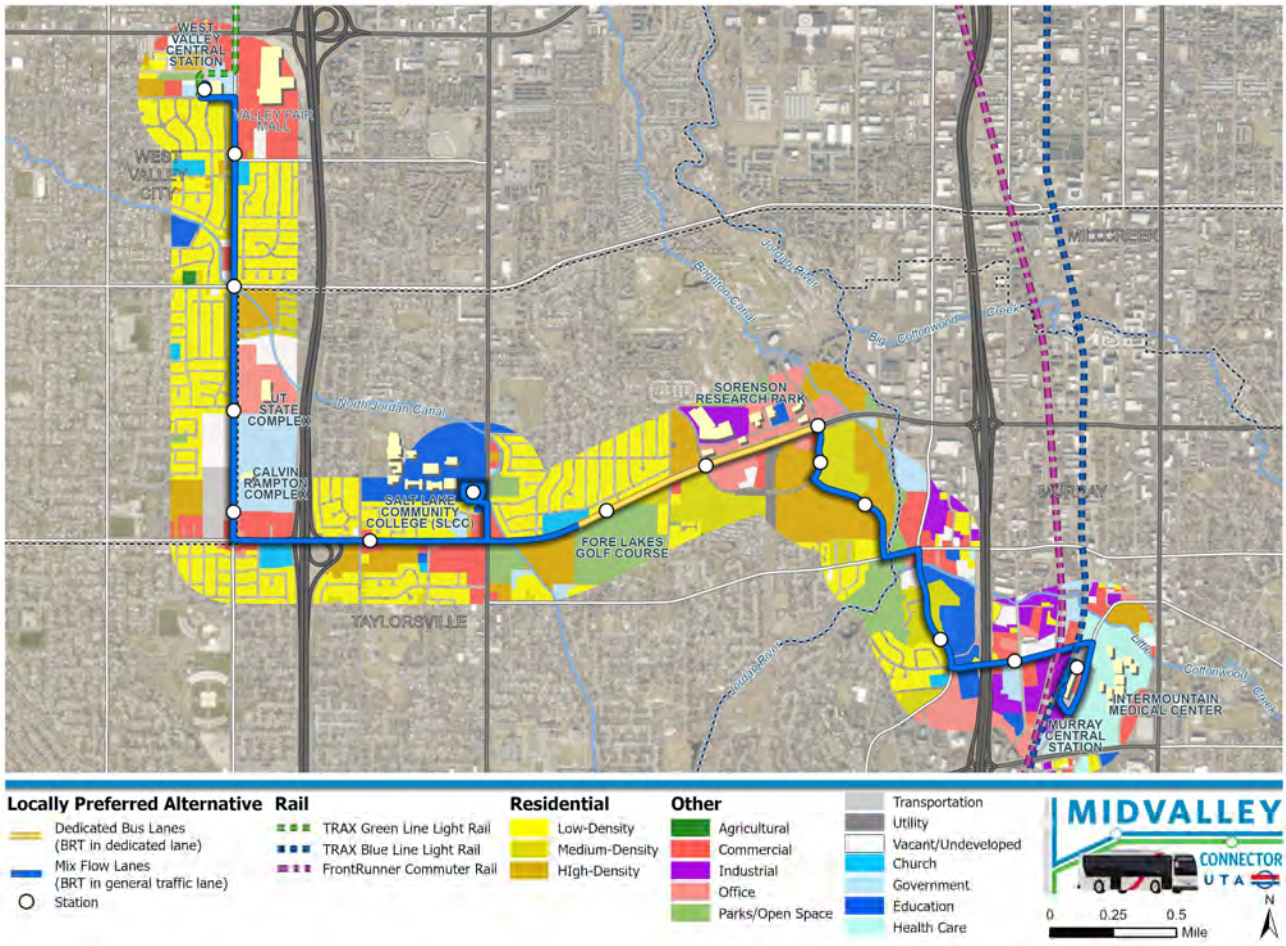


Figure 3-1. Existing Land Use

The LPA would be constructed primarily within the existing transportation right-of-way which would not directly change land use. Changes in the hub at SLCC and the construction of the dedicated bus lane would result in minor changes in land use as existing educational or residential land would be converted to transportation uses (see Section 3.5 for additional right-of-way information). The LPA is consistent with and supports planned regional and local growth and development (Figure 3-2) and the goals and objectives from regional and local plans:

- *Murray General Plan* – Adopted in 2017, recommends the creation of community nodes around transit by converting vacant and underutilized land for TOD, as well as designation of land for mixed use around the City Center and transit station areas to improve access to high-capacity transit.
- *City of Taylorsville General Plan* – Adopted in 2006, recommends expansion of a BRT or light rail system along 2700 West.
- *Murray Central Station Master Plan* - Adopted in 2019, focuses on the Murray Central Station and opportunities for significant modification and redevelopment of the station and surrounding areas. The plan specifically mentions this project and recommends the BRT station be well-integrated into the bus and TRAX rail areas of the station, as well as that the BRT should share a second TRAX platform with the rail service.
- *Taylorsville Expressway BRT Master Plan* – Adopted in 2015, guides the connection between transportation and land use along 4500/4700 South. Recommends dedicated lanes on 4700 South, urban design with improved pedestrian and bicycle infrastructure, and surrounding BRT with TOD and mixed-use development. Also suggests future mixed-use redevelopment of Fore Lakes Golf Course.

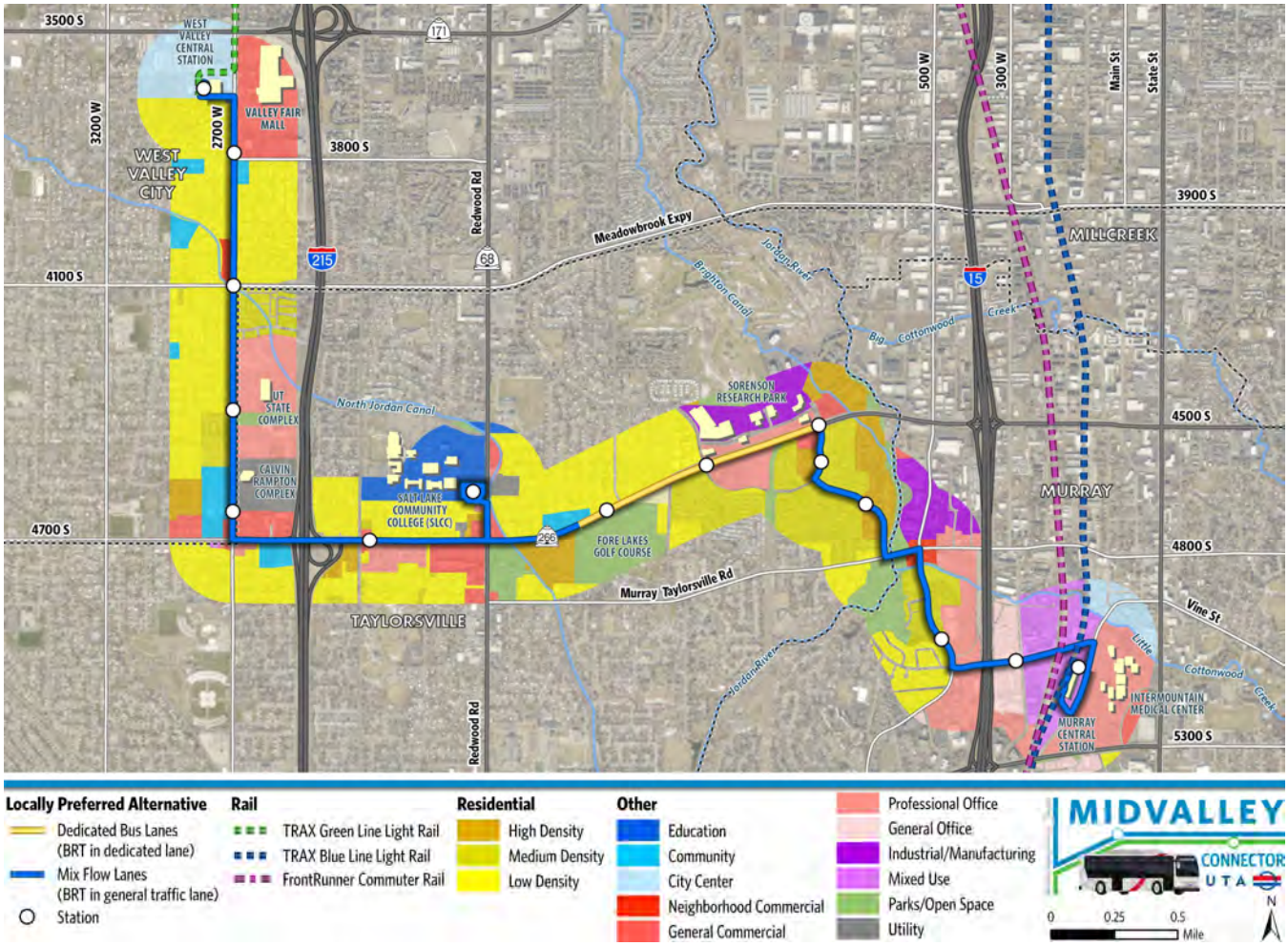


Figure 3-2. Planned Future Land Use

- *Vision West 2035* – Updated in 2015, guides future development near West Valley Central Station, as well as at the other Midvalley Connector BRT stations in the city.
- *Fairbourne Station Vision* – Adopted in 2012, identifies land use policies for the 3500 South area and identifies the area around West Valley Central as a recognizable town center with mixed-use and TOD. The plan supports a revitalization of high-density housing stock in proximity to civic services, transit, commerce, and entertainment.

Implementation of the LPA would benefit regional transit planning goals, visions, and growth principles. The additional access to transit services would potentially accelerate the demand for and thus the construction of planned projects. However, the future construction would be the fulfillment of planned development. The LPA would not induce additional growth in the vicinity of the project.

3.5 Right-Of-Way Acquisition

This section describes the property acquisition, lease, and easement requirements to build and operate the LPA. Land acquisitions were assessed in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended July 2008 (42 U.S.C. 61) and the Utah Relocation Assistance Act (Utah Code 57-12). The Utah Act provides a uniform policy for the fair and equitable treatment of persons displaced from their homes or businesses without discrimination on any basis. The requirements of both acts would be implemented for this project. The study area for the right-of-way acquisition analysis is the project's proposed right-of-way limits.

Except for 4700 South from South Atherton Drive to Redwood Road, BRT buses under the LPA would travel with mixed traffic along city-, state-, and SLCC-owned streets and would not require roadway widening. Homes along 4700 South are facing away from the road, typically with a fence between the residence and street. The existing North Jordan Canal Trail is situated on an unpaved maintenance road that is frequently labeled as a trail on some maps. There is currently no shared-use connection between 4700 South and SLCC.

The LPA would include a culvert extension of approximately 60 feet where it crosses the North Jordan Canal. An easement through the properties accommodates the canal. The work would require right-of-way acquisition, and a new agreement between UDOT and the canal company for access to the canal maintenance road, encasement and maintenance of the canal.

Land acquisition would be necessary to expand existing and add new stations and to widen a portion of 4700 South under the LPA. In addition, new right-of-way along Hemlock Drive would be needed to improve and extend the North Jordan Canal Trail from 4700 South to SLCC. For this analysis, it was assumed that structures within 15 feet of the project right-of-way line would be relocated. For properties where structures are more than 15 feet from the right-of-way line, it is assumed that partial acquisitions would occur.

A total of 78 parcels would be affected by the LPA, consisting of partial acquisitions, temporary construction easements, and lease agreements. No full parcel acquisitions would occur. A total of 0.67 acre would be acquired and 2.6 acres of temporary construction easement would be needed. At 34 parcels, both partial acquisitions and temporary construction easements would be needed. At 41 parcels, only temporary construction easements would be needed to accommodate construction activities. At the remaining three parcels, all construction and operations would be accommodated through a lease agreement. See Appendix C for a full list of temporary construction easements and partial right-of-way acquisitions with additional attributes and notes for each parcel. Property owners would be compensated at fair market value per the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended. Overall impacts to property owners would be minor.

The right-of-way required for the LPA, and the resulting acquisitions, were estimated using preliminary design. Therefore, the impacts are considered a preliminary estimate. Refinement during final design may result in different impacts for specific properties than those described. Impacts as assessed are minor and are expected to remain within a similar range overall with any design refinements.

3.6 Economics

The study area considered for the analysis of economics consists of the communities through which the project crosses. Implementation of the LPA would provide expedited bus transit that can alleviate a portion of roadway demand that is generated by development making growth and business placement more attractive along the corridor. Increasing the service to entertainment, employment, and retail destinations expands the potential for individual benefits by way of additional job opportunities, healthcare options, quality of goods, and social interactions. West Valley City and Taylorsville City have planned for TOD within the BRT alignment corridor, expressing a desire for business growth in proximity to residential housing and alternative transportation. Murray is considering the addition of high-density residential around the Murray Central Station. If limitations at the site can be modified, this housing would be incorporated into a new station area plan. In addition, the Former American International School of Utah has been purchased with plans for up to 600 residential units, an event center, and a school. In Taylorsville, five office buildings have also been proposed within Taylorsville's Sorenson Research Park along with a high-density housing development with 450 residential units across from the research park. The presence of a transportation alternative with comparable trip times to automobiles can increase the number of visitors to the existing and planned activity centers. In addition, construction of the LPA would provide temporary and permanent jobs using the existing services and business within the study area. Additional information is provided in the Land Use Compatibility Technical Memorandum (UTA 2022d).

3.7 Environmental Justice

Environmental justice impacts were assessed according to Executive Order 12898, FTA Circular 4703.1, U.S. Department of Transportation Order on Environmental Justice (USDOT Order 5610.2[a]), the Council on Environmental Quality's Environmental Justice Guidance under NEPA.

The USDOT Order 5610.2(a) on Environmental Justice defines a minority as a person who is one of the following:

- Black: a person having origins in any of the black racial groups of Africa;
- Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- Asian American: a person having origins in any of the original people of the Far East, Southeast Asia, or the Indian subcontinent;
- American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

The Order also defines minority populations as any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who would be similarly affected by a proposed USDOT program, policy, or activity.

A low-income household is defined as one living at or below the U.S. Department of Health and Human Services poverty guidelines. The 2019 Health and Human Services poverty guidelines are based on the poverty thresholds updated each year by the Census Bureau. The 2021 poverty guidelines are adjusted for household size and range from $12,880 for a one-person household to $44,660 for an eight-person household (U.S. Department of Health and Human Services 2021).

The study area for Environmental Justice is defined by the block groups within or crossing the quarter-mile buffer of the project. U.S. Census Bureau data at this level was used to identify the location of minority and low-income populations. Table 3-2 shows the percentage of the population within the study area that is a minority, is Hispanic or Latino, and/or falls below the poverty threshold, based on median household income data. As indicated in Table 3-2, there are both low-income and minority populations within the study area.

Noise impacts would occur at the eastern end of the project as a result of an increased number of buses. This impact would be minor to moderate (see Noise Section 3.11). Noise increases are not limited to areas where protected populations occur. Direct impacts to private property would generally include temporary easements at station locations along the entire corridor and minor right-of-way purchases at several properties adjacent to the major intersections along 4700 South from Redwood Road to Atherton Drive. Property owners would be reimbursed at fair market value for the strip of land that would be incorporated into the project. See Section 3.5, Right-of-Way Acquisition for details on impacts and mitigation. Construction impacts would be temporary. The LPA would improve available transit opportunities and efficiency within the study area for all. Overall, protected populations would not be disproportionately affected in relation to non-minority or non-low-income populations.

Table 3-2. Low-income and Minority Populations in the Study Area

Location	Total Population	% Hispanic / Latino	% Non-White	% Below Poverty
Murray	49,105	11%	12%	7.5%
Census Tract 1121	9,062	**20%**	**15%**	**7.9%**
Taylorsville	60,138	24%	26%	9.7%
Census Tract 1135.10	3,411	10%	15%	**19.7%**
Census Tract 1135.11	3,708	17%	20%	**10.9**%
Census Tract 1135.12	3,727	**27%**	**37%**	**11.2%**
Census Tract 1135.13	6,048	**30%**	24%	**11.0%**
Census Tract 1135.14	6,496	**47%**	**39%**	**17.2%**
Census Tract 1135.15	6,148	13%	20%	3.5%
Census Tract 1135.22	3,440	11%	21%	2.9%
West Valley City	136,009	38%	42%	12.4%
Census Tract 1133.09	4,996	**40%**	33%	**13.6**%
Census Tract 1133.10	2,792	37%	**42%**	7.9%
Census Tract 1135.20	4,501	27%	27%	3.6%
Study Area Average	**54,329**	**25%**	**27%**	**10.0%**

Source: U.S. Census Bureau 2019

Note: **Bold items** indicate census tracts that are equal to or greater than the city average.

3.8 Visual Resources

The study area for visual resources effects at the landscape level consists of the area that can be seen from within or adjacent to the project, which is mostly developed and urban in nature. Development includes commercial buildings with large parking lots, existing roadways, and residential properties which include multiple National Register of Historic Properties (NRHP)-eligible homes. An undeveloped parcel exists on the east side of 2700 West, near the State Office Building.

The visual landscape in the study area is similar to that of the Salt Lake Valley overall, which is characterized by typical urban development, including commercial, high-density residential on major arterials, and single-family neighborhoods on smaller collector and local roads. The west side of Salt Lake County has mostly unobstructed views of the Wasatch Mountains, except for obvious obstructions, such as trees, utility poles, and buildings.

The LPA would have a limited impact to the visual landscape, as there is very little to no change from existing conditions in the study area. The BRT route is planned on existing roadways, many of which are served by existing bus routes. Widening would take place on 4700 South to accommodate center-running stations. The wider road is within the transportation corridor and would have little impact on the visual character of the area. On the north side of this widening, a 10-foot panel will replace the existing backyard fences. The 10-foot panel would consist of a 4-foot retaining panel and a 6-foot wall panel. The wall would extend approximately 3,700 feet from the North Jordan Canal to 1175 West. The stations are designed to be aesthetically pleasing and would blend in with the current urban environment. The new features, including walls and stations would not have substantial negative effects on the visual character of the area and would not draw the eye since they are consistent with the exiting visual conditions.

3.9 Cultural Resources

The National Historic Preservation Act (NHPA) outlines the national policy and procedures regarding historic properties (i.e., any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places [NRHP] and properties of traditional religious and cultural importance to an Indian tribe or Native

Hawaiian organization). Section 106 of the NHPA and its implementing regulations (36 CFR 800) require federal agencies to consider the effects of their undertakings on such properties prior to the expenditure of any federal funds or issuance of any license or permit. In accordance with the Section 106 process, FTA is required to consult with the State Historic Preservation Office (SHPO), Native American Tribes, other interested local groups, and the Advisory Council on Historic Preservation, as needed.

The Midvalley BRT project constitutes an undertaking under Section 106 as it has the potential to cause direct or indirect effects to historic properties. The area of potential effect (APE) for the project encompasses the existing transportation right-of-way where no construction would occur, a 100-foot buffer around each BRT station, and a 50-foot buffer in locations where new right of way and/or temporary construction easements are needed (Figure 3-3). For the assessment of architectural historic resources, structures that were 45 years old or older (i.e., 1976 or older) were reviewed and documented. The entire APE was surveyed for cultural resources (historic and archaeological) in 2021.

Detailed information regarding cultural resources can be found in *A Selective Reconnaissance-Level Survey of Architectural Resources for the Murray-Taylorsville BRT Project, Salt Lake County, Utah* (SWCA 2013a), *A Cultural Resource Inventory of the Murray-Taylorsville BRT Project – Segment 1, Salt Lake County, Utah* (SWCA 2013b), *A Cultural Resource Assessment for the Midvalley Connector Transit Project – Segment 2, Salt Lake County, Utah* (Certus Environmental Solutions 2018a), *An Addendum Cultural Resources Assessment for the Midvalley Connector Transit Project – Segment 1, Salt Lake County, Utah* (Certus Environmental Solutions 2018b), and *A Supplemental Cultural Resource Assessment for the Midvalley Connector Transit Project, Salt Lake County, Utah* (Certus Environmental Solutions 2021).

An architectural inventory was completed and 50 historic properties with NRHP-eligible structures were identified within the APE. The location of each is presented in Figure 3-3. The identified historic structures consist of residential homes and a historic marker. Of the 50 historic structures, 18 will not be affected by the LPA, and 32 will have no adverse effect. Of these 32 historic structures with no adverse effect, 14 require temporary construction easement, 18 require small right-of-way acquisitions and temporary construction easements. None of the eligible structures or their qualifying characteristics would be adversely affected by the LPA. No historic properties would be adversely affected by the LPA.

An archaeological and historic linear resource (e.g., roads, railroads, or similar) inventory was completed and three archaeological and/or historic linear resources eligible for the NRHP were identified in the APE (Figure 3-3):

- Denver & Rio Grande Western Railroad (D&RGW), Site 42SL000293.
- Utah Southern/Union Pacific Railroad, Site 42SL000344.
- North Jordan Canal, Site 42SL000342.

The two historic railroads identified in the APE will not be affected by the LPA. The project would use the existing roadway in the location of the identified segments, and construction of footings for the station canopies and sidewalk would occur adjacent to but outside the area of the historic railroads.

The LPA would include a culvert extension where it crosses the North Jordan Canal at 4700 South. The culvert would be extended approximately 60 feet, or 3,347 square feet, during roadway widening to accommodate exclusive BRT lanes. This culvert extension would not diminish the integrity of the canal as a whole and would therefore have no adverse effect on the North Jordan Canal. The actual extent of the culvert extension would be determined in final design.

On October 14, 2021, FTA sent a letter to the Utah SHPO on eligibility and effects for the LPA. FTA determined that the LPA would have **no historic properties affected** for 18 historic and two (2) archaeological resources; **no adverse effect** on 32 historic properties with NRHP-eligible structures and one archaeological site. The Utah SHPO concurred with FTA's determinations and findings on October 15, 2021. For more information refer to Appendix D. In addition to consultation with the Utah SHPO, consultation also occurred with Native American tribes.

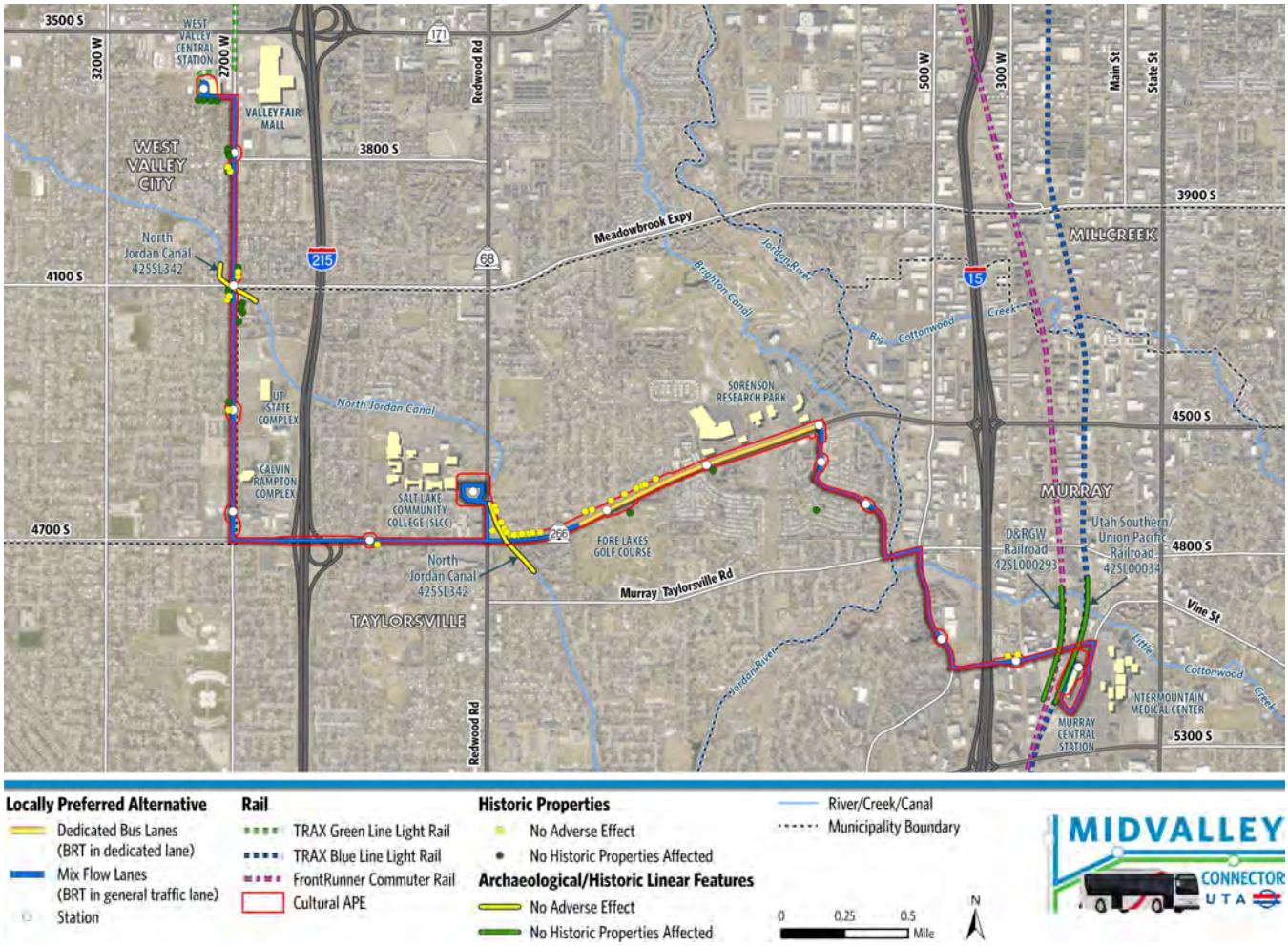


Figure 3-3. Cultural Resources in the Study Area

3.10 Section 4(f) (Parks, Recreational, and Historic Resources)

Section 4(f) requirements (49 U.S.C. 303, 23 U.S.C. 138) stipulate that the Secretary of Transportation may approve a proposed transportation project requiring the property from significant publicly-owned parks, recreational areas, or wildlife and waterfowl refuges or from significant historic sites (also known as Section 4(f) properties) only if the agency determines that: (1) there is no prudent and feasible alternative to using that land; and 2) the project includes all possible planning to minimize harm to the property resulting from such use; or the agency determines that the use of the property, after consideration of avoidance, minimization, mitigation, or enhancement measures to be implemented as a condition of approval, will have a *de minimis* impact, as defined in 23 CFR 774.17 on the property. A use of Section 4(f) property, defined in 23 CFR 774.17, occurs:

- When land is permanently incorporated into a transportation facility;
- When there is a temporary occupancy of the Section 4(f) property that is adverse in terms of the statute's preservation purpose as determined by the criteria in §774.13(d); or
- When there is a constructive use of a Section 4(f) property, which occurs when the transportation project does not incorporate land, but its proximity to the property substantially impairs the activities, features, or attributes that qualify a resource for protection under Section 4(f) (23 CFR 774.15).

For projects that only have minor "use" of a Section 4(f) resource after considering avoidance, minimization, mitigation, and enhancement measures, and after the required coordination process as described in 23 CFR 774.5(b), FTA may determine that a use will result in only a *de minimis* impact to a Section 4(f) resource.

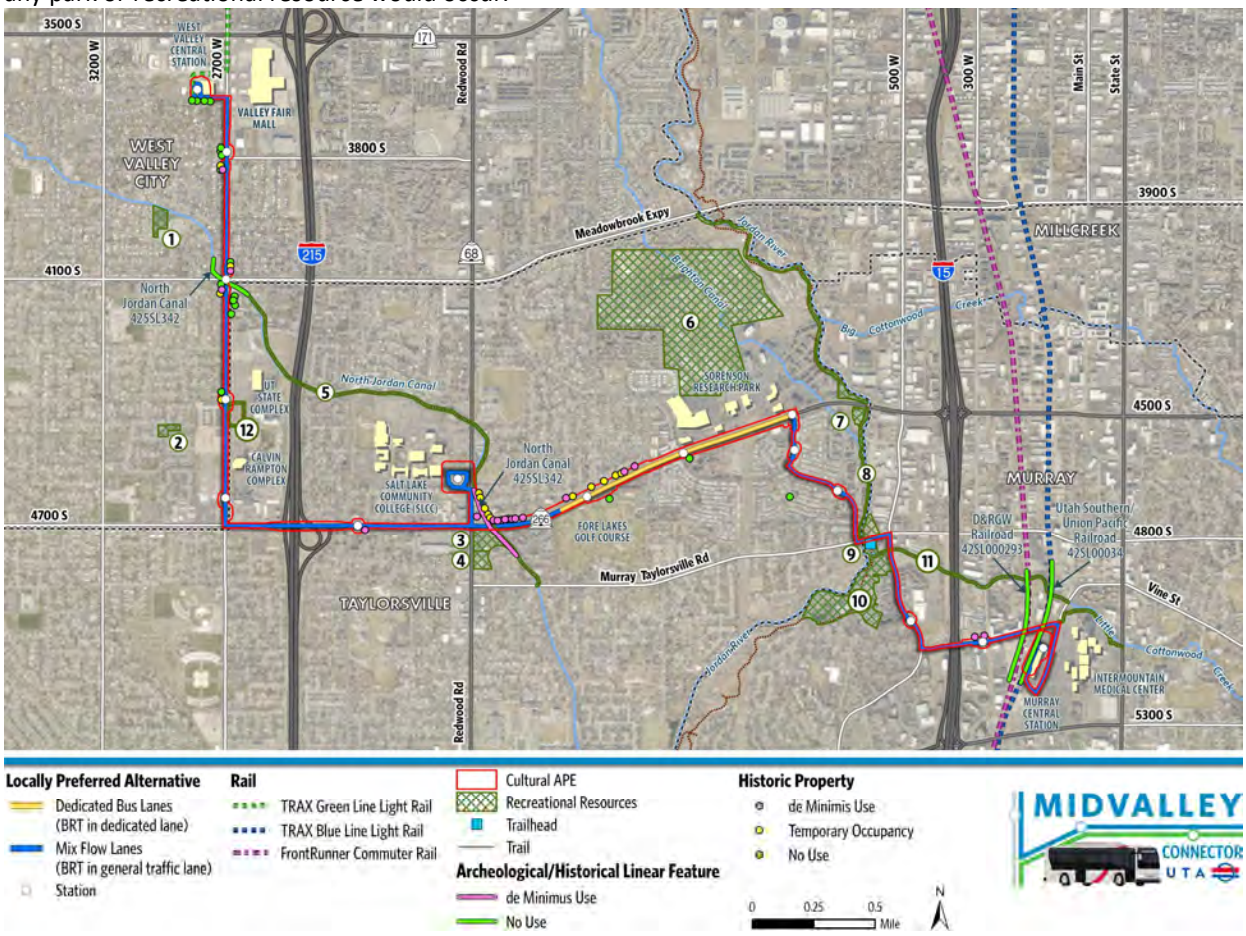
For historic sites, *de minimis* impact may be made when FTA has determined in accordance with 36 CFR 800 that no historic properties are affected by the project or that the project will have a "no adverse effect" on the historic property in question, and SHPO concurs with such determination (23 CFR 774.17 and § 774.5).

Section 4(f) resources within the study area are presented on Figure 3-4. No wildlife or waterfowl refuges are present within the study area.

3.10.1 Parks and Recreational Section 4(f) Resources

Recreational resources located within 0.25 mile of the study area were considered. The 12 publicly owned parks and recreational areas listed in Table 3-3 occur within the study area. The North Jordan Canal Trail, located along the east side of the North Jordan Canal south of 4700 South, is on an access road owned by the North Jordan Irrigation Company. There is an agreement with Taylorsville City to allow the use of this road; however, the primary purpose of the road is to service the irrigation canal. Since recreation is not its primary purpose, the trail is not afforded protection under Section 4(f).

None of the recreational resources identified in Table 3-3 would be affected by the LPA. The parks and trails are located within the study area but located away from where construction would occur. In addition, while travel times to reach the recreational sites may increase somewhat during construction due to workers and construction equipment being present and narrowing or closure of lanes, access would be maintained. Noise generated or other impacts during construction would not affect the features or attributes for which these resources are afforded protection under Section 4(f). No use of any park or recreational resource would occur.



Note: Numbers on map refer to column 1 in Table 3-3.

Figure 3-4. Section 4(f) Resources

Table 3-3. Park and Recreational Resources

Map ID	Name	Location	Ownership	Features and Attributes
1	Rolling Meadows Elementary School	2950 W Whitehall Dr. West Valley, UT	Granite School District, Public	Playground and fields
2	Roxborough Park	2900 W Roxborough Park St. West Valley, UT	West Valley Public	Playground and field; tennis courts
3	Taylorsville Park (North)	4721 South 1700 West Taylorsville, UT	Taylorsville Public	Open space
4	Taylorsville Park (South)/ Taylorsville Skate Park	4751 South Plymouth View Dr. Taylorsville, UT	Salt Lake County Public	Open space, pavilion, skateboard park
5	North Jordan Canal Trail [not a 4(f) resource]	Along the North Jordan Canal Taylorsville, UT	Various Public	Trail
6	Meadow Brook Golf Course	4197 South 1300 West Taylorsville, UT	Taylorsville Public	18-hole course, restaurant and pro shop
7	Freedom Shrine	612 West Taylorsville Expressway (4500 South) Taylorsville, UT	Taylorsville Public	Historical Information
8	Jordan River Parkway Trail	Along the Jordan River Taylorsville and Murray, UT	Various Public	Trail
9	Little Confluence Trailhead	4800 South 677 West Taylorsville, UT	Murray City Public	Open space, parking
10	Arrowhead Park	593 W 4800 S Murray, UT	Murray City Public	Picnic tables, restrooms, river access
11	Little Cottonwood Creek Trail	Along Little Cottonwood Creek Murray, UT	Murray City Public	Trail
12	Public recreation loop	4431 South 2700 West West Valley City, UT	State of UT Public	Recreation loop

Source: Google Earth, Salt Lake County Parks and Recreation website, Murray City Parks and Recreation website, and City of Taylorsville Parks and Recreation website.

3.10.2 Historic Properties Afforded Section 4(f) Protection

Historic sites within the cultural resources APE that are listed on, or eligible for, NRHP listing under Criteria A, B, or C are afforded protection under Section 4(f). The determination of eligibility for historic properties is made by FTA and with concurrence from the pertinent SHPO. There are 50 historic properties with NRHP-eligible structures and three NRHP-eligible archaeological resources in the study area. See Section 3.9, Cultural Resources, for a complete discussion of these resources.

Of the three archaeological resources, the two railroads would be avoided. There would be no use of these resources. The North Jordan Canal, which is eligible for the NRHP under Criterion A, is afforded protection under Section 4(f). The 60-foot culvert extension where the canal crosses 4700 South would affect 3,347 square feet of the North Jordan Canal. However, there would be no adverse effect on the resource as a whole due to construction. The change to the canal is consistent with the existing and other crossings of the canal and would only affect a small portion of the linear feature. The culvert expansion of the LPA would result in a *de minimis* use of the canal. An October 14, 2021, letter with this information was provided to the Official with Jurisdiction, the Utah SHPO, who concurred with this finding of no adverse effect to this historic resource on October 15, 2021.

As noted in Section 3.9, Cultural Resources, a finding of no adverse effect or no historic properties affected determination was made for all of the resources within the study area. Of the 50 historic properties with NRHP-eligible structures, 32 properties would be temporarily affected during construction or right-of-way would be acquired from those properties.

For 14 of the properties (Table 3-4), impacts to the historic sites would be temporary, lasting only for the duration of construction adjacent to the property. Once construction is complete, the properties would be restored to their pre-construction condition or better. No acquisition of land would occur. The temporary construction affect would be minor and would not adversely affect the features or attributes for which the properties are afforded protection under Section 4(f). Based on these findings, the impact due to temporary occupancy of these historic sites would be so minimal as to not constitute a use within the meaning of Section 4(f). A letter with this information was provided to the Official with Jurisdiction, the Utah SHPO on October 14, 2021; the SHPO concurred with the finding of no adverse effect to these historic properties on October 15, 2021.

Minor acquisitions of right-of-way would be required at 18 historic properties. Small strips of land closest to the road would be required to complete the road widening. The size of the acquisition for each property will be refined during final design. These acquisitions would not affect the historic houses or adversely affect the features or attributes for which these resources are afforded protection under Section 4(f). The LPA would result in a *de minimis* impact on these properties. A letter with this information was provided to the Official with Jurisdiction, the Utah SHPO on October 14, 2021; the SHPO concurred with the finding of no adverse effect to these historic properties on October 15, 2021. These properties are identified in Table 3-4.

In addition to consultation with the Utah SHPO, notification of the *de minimis* finding was included in Section 106 consultation with Native American tribes. No objections were raised.

Table 3-4. Cultural Properties Afforded Protection Under Section 4(f)

#	Cultural Property Address	Section 4(f) Determination	Total Sq. Ft.	Partial Acquisition	Temporary Easement
1	4068-4072 S. 2665 W.	Temporary Occupancy	5,011	0	304
2	4131 S. 2735 W.	Temporary Occupancy	8,669	0	1,121
3	3819 S. Lee Maur St.	Temporary Occupancy	10,890	0	805
4	1237 W. Tamarack Dr.	Temporary Occupancy	7,864	0	1,030
5	1253 W. Tamarack Dr.	Temporary Occupancy	7,889	0	1,030
6	1285 W. Tamarack Dr.	Temporary Occupancy	7,881	0	1,030
7	1317 W. Tamarack Dr.	Temporary Occupancy	9,207	0	1,200
8	1369 W. Tamarack Rd.	Temporary Occupancy	17,880	0	2,640
9	2717 W. Bedford Rd.	Temporary Occupancy	8,787	0	286
10	4618 S. Hemlock Dr.	Temporary Occupancy	10,179	0	1,544
11	4628 S. Hemlock Dr.	Temporary Occupancy	10,436	0	1,790
12	4650 S. Hemlock Dr.	Temporary Occupancy	9,853	0	1,326
13	4672 S. Hemlock Dr.	Temporary Occupancy	7,927	0	1,113
14	4676 S. Hemlock Dr.	Temporary Occupancy	9,997	0	238
1	4078-4080 S. 2665 W.	*De minimis*	4,356	19	495
2	2115 W. 4700 S.	*De minimis*	51,837	399	717
3	4119 S. 2735 W.	*De minimis*	10,103	93	1,432
4	2718-2720 W. 3835 S.	*De minimis*	22,379	99	19
5	314 W. Vine St.	*De minimis*	69,110	640	1,477
6	1201 W. Tamarack Dr.	*De minimis*	9,205	1,200	160
7	1229 W. Tamarack Dr.	*De minimis*	9,200	1,200	160
8	1405 W. Tamarack Rd.	*De minimis*	146,474	1,324	9,954
9	4681 S. Redwood Rd.	*De minimis*	59,739	2,886	630
10	1555 W. Hemlock Dr.	*De minimis*	9,334	326	1,214
11	1567 W. Hemlock Dr.	*De minimis*	9,375	320	1,200
12	1579 W. Hemlock Dr.	*De minimis*	8,768	150	1,125
13	1591 W. Hemlock Dr.	*De minimis*	9,152	160	1,201
14	1601 W. Hemlock Dr.	*De minimis*	8,766	160	1,203
15	1615 W. Hemlock Dr.	*De minimis*	8,887	422	1,444
16	1625 W. Hemlock Dr.	*De minimis*	10,505	1,804	1,585
17	5066 S. Commerce Dr.	*De minimis*	21,547	449	1,006
18	4675 S. Beechwood Rd.	*De minimis*	10,186	362	1,386
1	42SL342 North Jordan Canal	*De minimis*		Extend culvert 60 feet	

3.11 Noise and Vibration

A noise analysis was conducted to evaluate noise impacts of the LPA, from the Murray Central Station to the West Valley Central Station. The noise analysis was conducted per the September 2018 FTA Transit Noise and Vibration Impact Assessment Manual. Full details of the noise methodology and assessment are included in the May 2021 *Midvalley Connector Bus Rapid Transit Noise Analysis Technical Report* (UTA 2022b). A vibration assessment was not conducted for this project since there are no improvements to existing rail or new rail alignment included. The study area for noise impacts from the LPA includes a 225-foot screening area along the LPA.

The majority of development within the study area along the BRT route is residential with commercial development occurring primarily east of Murray Boulevard and adjacent to Redwood Road and 4700 South. There are no noise sensitive receptors within the screening distance of the Murray Central Station. The only noise sensitive receptor on the SLCC campus within the screening distance of the proposed BRT alignment is the campus itself. SLCC's plan to construct dormitories on campus in 2021 has been delayed. The planned dormitories are approximately 600 feet north from the SLCC Hub, outside of the 225-foot noise screening distance and would not be impacted by the project noise. Noise sensitive receptors within the screening distance of the West Valley Central Station are a library and residential development (Figure 3-5). Noise sensitive receptors adjacent to the dedicated BRT lane include a mix of residential and commercial properties, and residential development where the route is along Atherton Drive and Sunstone Road.

Twelve representative noise sensitive receptors within the study area were selected based on changes in alignment and speeds along the LPA and represent the closest receptors in those areas, as shown on Figure 3-5. The existing noise sources within the study area primarily include car and truck traffic as well as existing buses that use the route proposed for BRT. The existing noise exposure was based on field noise measurements collected for the 2013 and 2019 noise analyses (UTA 2019). Conditions have not substantially changed since the field noise measurements were collected.

FTA noise impact criteria are based on a comparison of the existing outdoor noise levels and the future outdoor noise levels from the proposed project. Project impacts are categorized as no impact, moderate impact, or severe impact, as determined from the allowable limit in project generated noise exposure over the existing noise exposure.

After determining the existing noise exposure, the total project noise and total noise exposure are calculated to determine if the project would result in any potential noise impacts. The total project noise is the noise level from the project alone, and the total noise exposure is the cumulative noise level when project noise is added to existing noise levels. Under the LPA, buses would run every 10 to 15 minutes from 6 a.m. to 10 p.m. and every 30 minutes during the hours of 10 p.m. to 12 a.m. and 4 a.m. to 6 a.m. To assume worse-case scenario conditions, the noise analysis assumed 10-minute headways during the daytime hours resulting in an average of 12 diesel buses per hour during the daytime hours as defined by FTA (7 a.m. to 10 p.m.) and an average of 3.1 diesel buses per hour during the evening hours as defined by FTA (10 p.m. to 7 a.m.). Existing posted speeds along the local streets and arterials (Redwood and 2700 West) are 25 miles per hour (mph) and 40 mph, respectively. The portion of 4700 South east of Redwood is 50 mph and west of Redwood is 40 mph. Future posted speeds were assumed to be the same. For this project, UTA is considering the use of diesel or electric buses. The type of buses would be determined by UTA during final design and implementation. Therefore, the noise analysis was conducted to provide results for two scenarios 1) use of diesel buses and 2) use of electric buses.

For the diesel bus scenario, all representative receptors, except R1 and R2, are located at a distance outside the "moderate" noise impact contour, indicating that those receptors would experience no noise impacts. The noise levels at residential receptors R1 and R2 are located just within the "moderate" noise impact contour (Figure 3-6). For residential receptors R1 and R2, the results indicate a 3 dB increase above existing noise levels and less than 1 dB above the no impact threshold (Figure 3-6). Per the FTA manual, the need for noise mitigation is determined based on the magnitude of impact and consideration of a number of factors related to the proposed project, such as the increase in noise, the effectiveness and feasibility of mitigation, existing transportation noise, and the cost. However, since reasonableness is not strictly defined, FTA recommends project sponsors develop a noise mitigation policy. UTA developed a noise mitigation policy based on reasonable and feasible considerations when considering the need for mitigation and is used for determining the need for mitigation for the project. UTA's policy states that for no impact or low-moderate noise impact mitigation is not required, for high-moderate noise impact mitigation will be considered, and for severe noise impact mitigation will be required (UTA 2018). As shown in Figure 3-6, noise levels at residential receptors R1 and R2 are in the UTA low-moderate impact range,

less than 1 dB over the FTA no impact threshold. Therefore, no noise mitigation will be required for the proposed project if using diesel buses.

For the electric bus scenario, all representative receptors are located at a distance outside the “moderate” noise impact contour, indicating that the proposed project would result in no noise impacts. Therefore, no noise mitigation will be required for the proposed project if using electric buses.

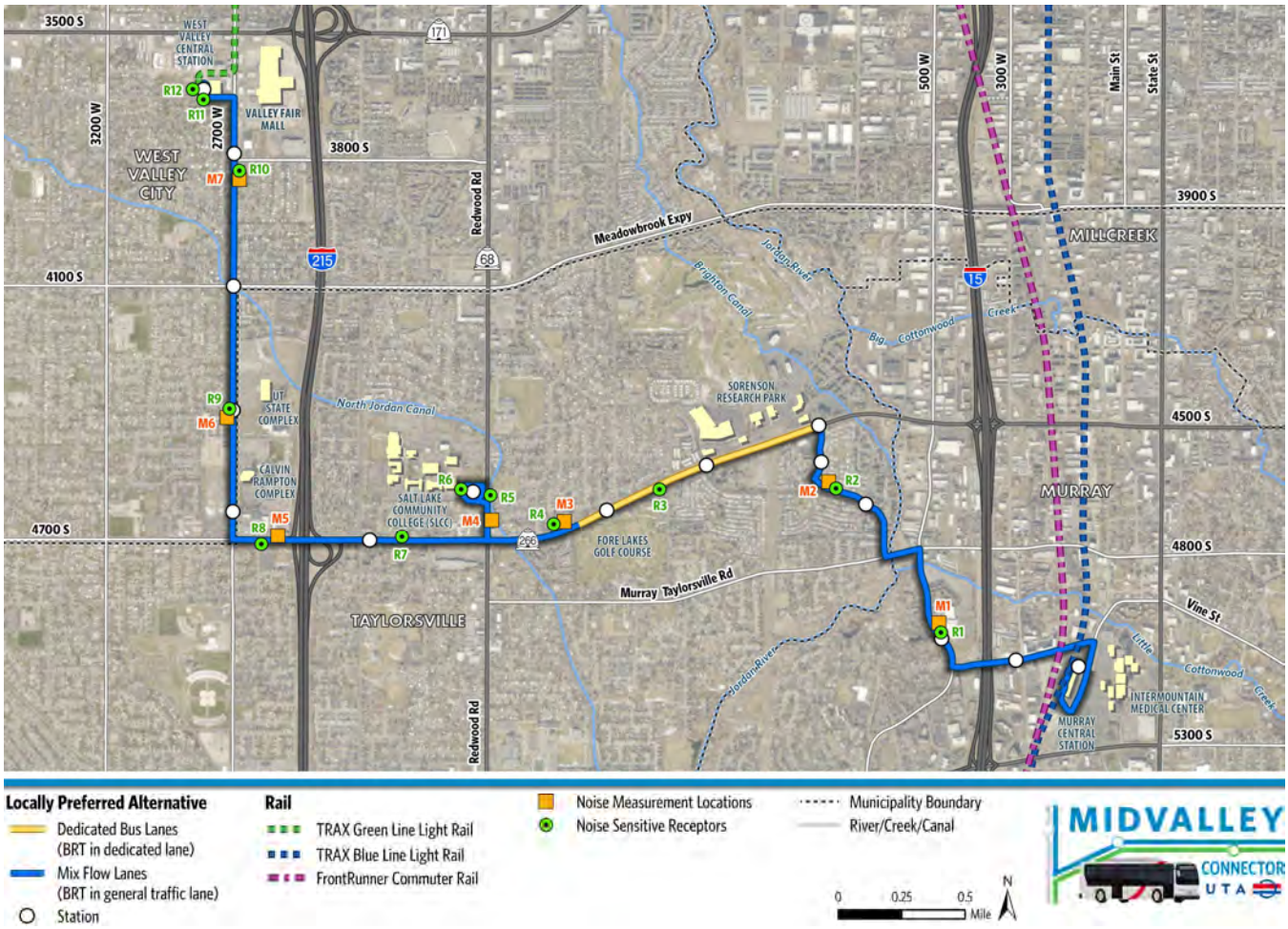


Figure 3-4. Noise Measurement and Sensitive Receptor Locations

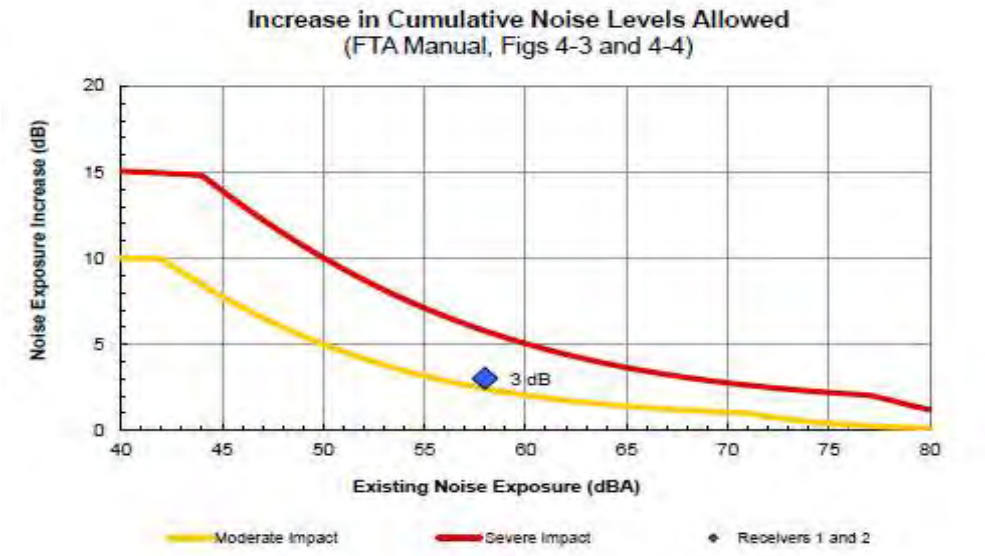


Figure 3-5. R1 and R2 Noise Levels Compared to Noise Thresholds for the Diesel Bus Scenario

3.12 Water Resources, Wetlands and Water Quality

The study area for water resources and wetlands consists of the project right-of-way. The study area includes two natural water courses, the Jordan River and Little Cottonwood Creek, and two canals the North Jordan Canal and Brighton Canal (Figure 3-7). The Jordan River is perennial, flowing north from Utah Lake to the Great Salt Lake. Little Cottonwood Creek is a perennial stream flowing west from the Wasatch Mountains to its confluence with the Jordan River. The Brighton Canal is a perennial irrigation canal that diverts water from the Jordan River and ultimately drains into the Great Salt Lake. The North Jordan Canal is also a perennial irrigation canal that flows north from the Jordan River to the Kennecott/Riter Canal. The project crosses floodplains at Little Cottonwood Creek and the Jordan River (Federal Emergency Management Agency Flood Insurance Rate Map Nos. 49035C0280E [effective September 21, 2001]; 49035C0290G, 49035C0291G, 49035C0292G, 49035C0294G [effective September 25, 2009]) (Figure 3-7). However, no construction would occur at these locations, so there would be no impact to floodplains. For this reason, floodplains are not addressed further.

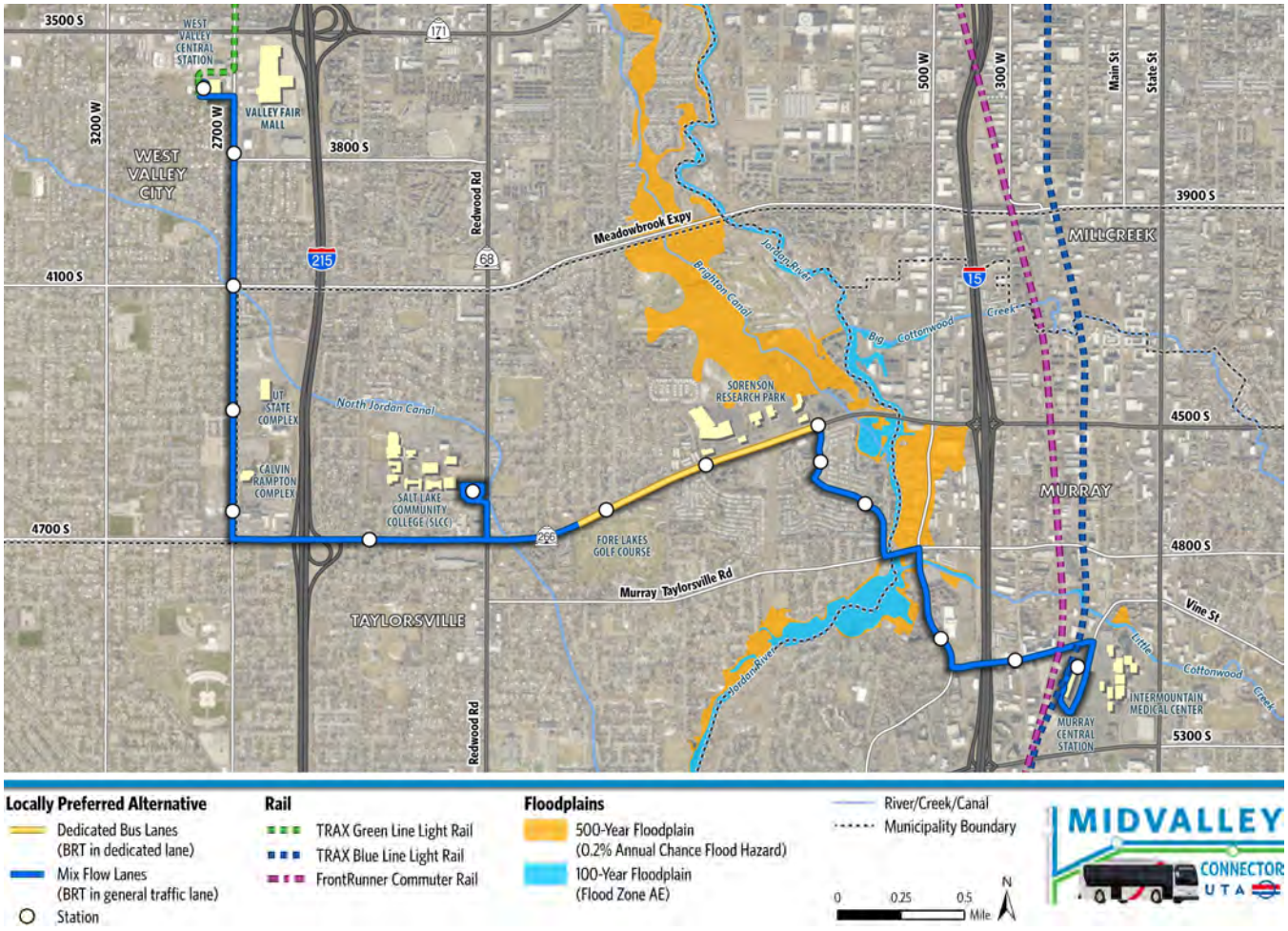


Figure 3-6. Floodplains within the Project Corridor

Field surveys were conducted on November 28, 2017 and February 1, 2018 to identify Waters of the U.S. including wetlands (WOTUS), within the study area. Impacts to WOTUS require a Clean Water Act Section 404 permit, which is administered by the U.S. Army Corps of Engineers (USACE). Details of the surveys and results, including the location and boundaries of wetlands, are included in the *Midvalley Connector Biological Resources and Wetlands Technical Report* (UTA 2022c). Four surface water features totaling 15.494 acres, in addition to six wetlands totaling approximately 0.65 acres, were identified as potential WOTUS in the study area (Figure 3-8). The USACE issued a preliminary jurisdictional determination on November 12, 2021 (Appendix E) which concurred with the delineation for the project. The USACE determined that wetlands and surface waters within the study area are jurisdictional WOTUS and subject to the Clean Water Act Section 404 permitting.

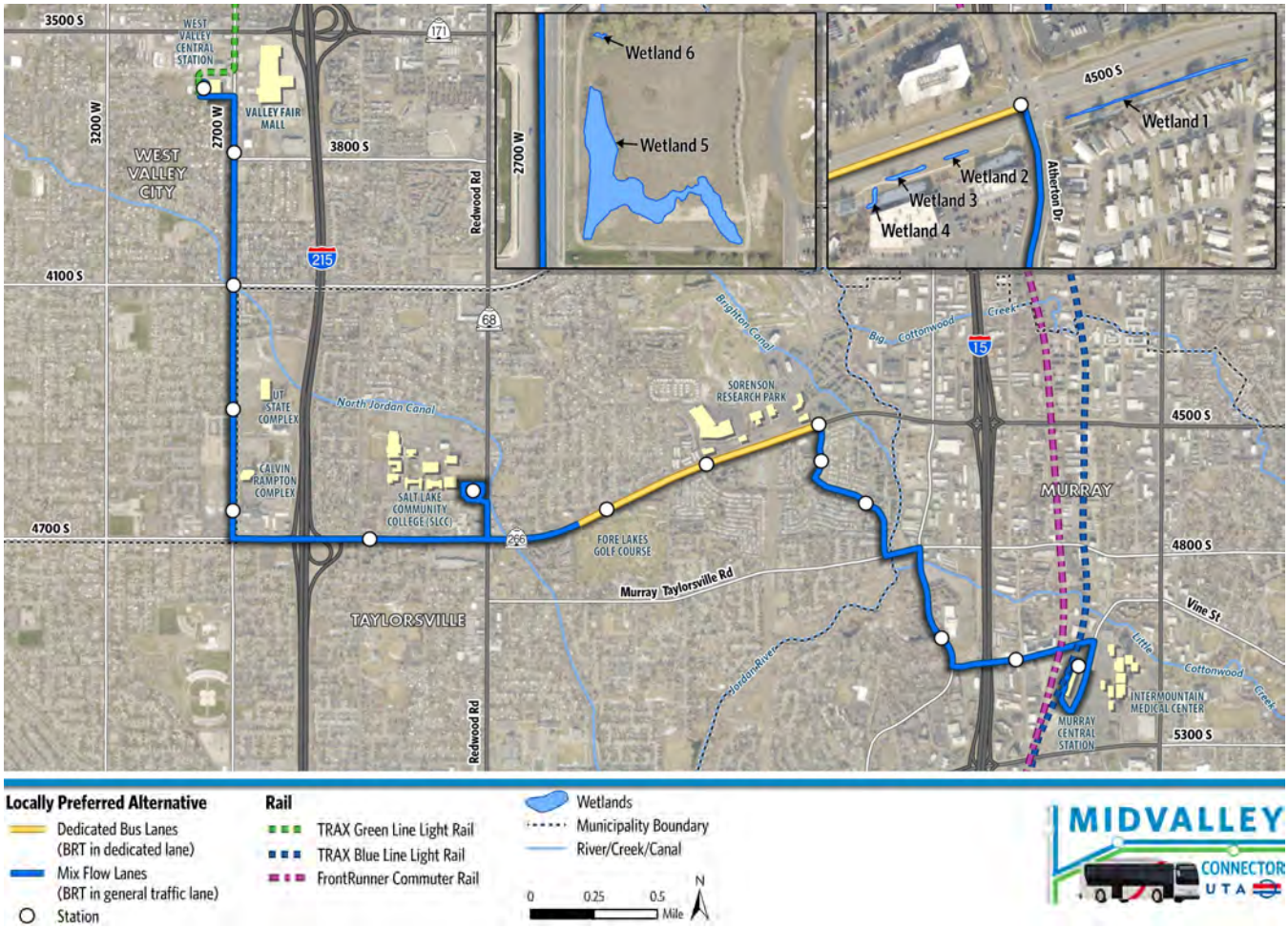


Figure 3-7. Wetlands

The LPA would include road widening where the project crosses the North Jordan Canal west of Redwood Road and north of 4700 South. The existing culvert over the canal would be extended approximately 60 feet, or 3,347 square feet, as a result of the LPA. Widening of the culvert on the north side of North Jordan Canal at its intersection at 4700 South would result in a permanent change to the canal. The proposed improvements would have no long-term impact on flow of the North Jordan Canal. If possible, work would occur during irrigation dry up when water is removed from the canal for regular annual maintenance. Otherwise, temporary earthen cofferdams would be placed upstream and downstream of the culvert extensions to dewater the workspace and would be removed at the conclusion of construction.

Permanent impacts to surface waters and wetlands were calculated by overlaying roadway design and construction disturbance limits for the LPA onto the delineated waters and wetlands. If any of the roadway design, including installation of concrete or other materials, would be placed in wetlands or other waters, it is considered a direct permanent impact.

The culvert extension would permanently impact approximately 0.021 acre of the North Jordan Canal surface waters. There would be no surface water impacts to the Jordan River, Little Cottonwood Creek, and the Brighton Canal. It is anticipated that construction would permanently impact 0.021 acre of Wetland 1, 0.013 acre of Wetland 2, and 0.027 acre of Wetland 3 (refer to Table 3-5).

Permanent impacts to wetlands and surface waters require compliance with Section 404 of the Clean Water Act. Based on the current design and impacts, the project would qualify for a Nationwide Permit Number 14 (Linear Transportation Projects) which would require submittal of a Preconstruction Notification (PCN) and authorization by USACE. During final design, the impacts would be reconfirmed to verify this permit is appropriate. Executive Order 11990, Protection of Wetlands, requires the project avoid long- and short-term adverse impacts associated with the destruction or modification

of wetlands to the extent possible and to avoid direct or indirect support of new construction in wetlands when a practicable alternative is available. For unavoidable impacts to wetlands, UTA will obtain authorization of the use of Nationwide Permit Number 14 (Linear Transportation Projects) with a Preconstruction Notification prior to commencement of construction and any impacts to wetlands.

Table 3-5. Water Resources in the Project Area and Anticipated Impacts

Water Resource	Type of Aquatic Resource	Amount of Aquatic Resource in Project Area		Anticipated Permanent Impacts (acres)
		Acres	Linear Feet	
Brighton Canal	Surface water	1.005	2,945	0.00
Jordan River	Surface water	7.225	5,391	0.00
Little Cottonwood Creek	Surface water	3.589	5,749	0.00
North Jordan Canal	Surface water	3.675	9,527	0.021
SURFACE WATER TOTAL		**15.494**	**23,612**	**0.021**
Wetland 1	Wetland	0.074	N/A	0.021
Wetland 2	Wetland	0.013	N/A	0.013
Wetland 3	Wetland	0.027	N/A	0.027
Wetland 4	Wetland	0.017	N/A	0.00
Wetland 5	Wetland	0.518	N/A	0.00
Wetland 6	Wetland	0.003	N/A	0.00
WETLANDS TOTAL		**0.652**	**N/A**	**0.061**
SURFACE WATER AND WETLANDS TOTAL		**16.146**	**23,612**	**0.082**

Impacts to the North Jordan Canal would also require a permit from the Salt Lake County Flood Control District because the North Jordan Canal is a stormwater flood control facility. The permit from the Salt Lake County Flood Control District would confirm that the project will not impact or cause additional risk for flooding relative to existing conditions.

Storm water runoff from the roads associated with the LPA currently discharge to the North Jordan Canal, Jordan River, Brighton Canal, or Little Cottonwood Creek via overland flow, roadside ditches and swales, or Salt Lake County storm drain systems. There are also retention ponds that receive roadway runoff to the west of Murray Boulevard, north of Vine Street. The Salt Lake County trunk line, an underground pipe carrying large volumes of water, is located along the north side of 4700 South.

This project is located within designated municipal separate storm sewer systems (MS4s) that are operated by the Murray City Public Works Department, the Taylorsville City Public Works Division, and the West Valley City Public Works Department within each municipality's city limits; and UDOT for state routes. Discharges to these storm sewer systems are managed by each jurisdiction's municipal separate storm sewer system (MS4) Utah Pollution Discharge Elimination System (UPDES) permit and applicable Storm Water Management Plans, which are overseen and administered by Utah Department of Environmental Quality (UDEQ). Construction with soil disturbance one acre or more will require coverage under and compliance with the UPDES construction storm water general permit.

The LPA would result in an increase in impervious surfaces and a corresponding increase in storm water runoff. The main increase in impervious area would result from widening for exclusive lanes on 4700 South. Roadway runoff is currently treated by grassy swales and natural water treatment facilities near the rivers and canals. A landscaped trail is planned on the North Jordan Canal, along with several grassy swales where appropriate to mitigate any increase in storm water runoff. Under the LPA, proposed drainage west of the canal would either continue to discharge to the canal, or it would be collected by a new storm drain system bypassing the canal and discharge to the Jordan River. Existing drainage patterns would be reconnected for all side stations. Coordination with the North Jordan Canal Company would take place during final design.

The LPA would result in impacts to the Salt Lake County storm drain by potentially discharging additional roadway runoff along 4700 South. The existing Salt Lake County storm drain system is a regional system with an existing detention pond and outfall into the Jordan River approximately 1,000 feet from the project. Due to the proximity of the project to this outfall, any additional roadway runoff from the project would enter and pass through the system prior to peak flows from the regional area this system serves. The conveyance capacity of the pipes and storage capacity of the pond would not be impacted by this project. Therefore, no enhancement to the outfall or additional detention is necessary.

While it would not affect peak flow in the system, the LPA would affect Salt Lake County's trunk line due to construction of a shared-use path and associated earthwork over the existing trunk line and adding new storm drain connections associated with widening of 4700 South. The current pipe is made of various materials, the majority of which is 60-inch, asphalt-coated metal pipe. It is assumed that this pipe will remain in place. Any potential impacts would be addressed in coordination with Salt Lake County during final design.

Proposed drainage east of the canal would combine with the existing roadway runoff that discharges to the Jordan River. Coordination with Salt Lake County would take place to determine if detention to reduce peak flow prior to discharging to the Jordan River would be required. The retention ponds to the west of Murray Boulevard will not be modified and would not be affected.

Compliance with the city and UDOT MS4 permits would be upheld by planned low-impact development along the LPA. Grassy swales would be added along the route where space allows, and there would be no change to the natural flood control facility north of 4430 South at the crossing of the Jordan River Parkway. No adverse impact is anticipated.

3.13 Hazardous Material

The study area for hazardous material impacts due to the construction and operation from the LPA consists of the quarter-mile study area along the LPA. Potential hazardous waste sites were identified within the study area by reviewing Environmental Protection Agency (EPA) and UDEQ databases for the presence of the following sites (EPA 2021b; UDEQ 2021):

- Brownfields: Abandoned industrial and commercial facilities available for re-use.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): Superfund sites contaminated with hazardous substances.
- National Priorities List (NPL): Superfund sites on the NPL.
- Formerly used defense sites.
- Military Munitions Response: Sites with potential unexploded ordnance, discarded military munitions, and munitions constituents.
- Resource Conservation and Recovery Act Large Quantity Generator: Facilities that handle hazardous waste (not necessarily contaminated).
- Toxic Release Inventory: Facilities that produce or handle large amounts of toxic chemicals, including chemical, mining, oil, and gas (not necessarily contaminated).
- Sites with leaking underground storage tanks.

Six CERCLA sites and one Brownfields Project were identified within a quarter mile of the LPA. One of the CERCLA sites identified is the Murray Smelter site, a former large lead smelter that operated from 1872 to 1949. Its boundaries are 5300 South to the south, State Street to the east, Little Cottonwood Creek to the north, and the west set of Union Pacific railroad tracks to the west. The EPA and Murray City entered into an agreement that established a formal role for the city in identifying potential future land uses at the site, development of cleanup options, and implementing institutional controls required by the EPA's cleanup decision. Remediation of the site included excavation and off-site disposal of soils containing the highest levels of arsenic; excavation and onsite consolidation in a repository of soils containing lower levels of arsenic; demolition of two smokestacks; and removal and replacement of lead-contaminated soils.

The Smelter Site Overlay District (SSOD) was created by Murray City to protect human health and the environment from the remaining contamination at the site. Development of the former smelter site is regulated by the SSOD (Murray Code Chapter 17.25). A portion of Cottonwood Street and the Murray Central Station parking lot are constructed on top of an

encapsulated repository that contains contaminated soil. A development permit must be obtained from Murray City prior to demolition, excavation, or construction within any area of the SSOD.

There would be no impact from hazardous waste sites identified in locations where the LPA is in mixed-flow traffic (traveling on existing lanes). No right-of-way acquisition and/or excavation would be required; therefore, there would be no threat of exposure from hazardous materials to the public or construction workers in these areas.

Right-of-way acquisition and/or excavation would be required for the dedicated bus lanes and at proposed stations. Hazardous waste sites identified within a quarter mile of dedicated lanes and/or proposed stations, and their potential risk, are described in Table 3-6.

Table 3-6. Hazardous Waste Sites with Potential for Impact

Facility/ Property Name	Site Type	Facility ID	Distance and Direction from LPA	Potential Risk
Murray Smelter Drum Site	CERCLA	UTSFN9048112	South of LPA (intermodal center parking lot); within the boundaries of the Murray Smelter site	Low due to distance from site.
Murray Smelter (SSOD)	CERCLA	UTD980951420	Overlapping LPA – Murray Central Station is located on remediated site	Moderate – improvements at the intermodal center are proposed near the SSOD encapsulated repository that contains contaminated soil.

3.14 Safety and Security

The safety and security study area consists of the project limits and a 25-foot buffer in each direction. Within the study area, the pedestrian and bicycle environment varies, with some areas lacking amenities that would discourage bicyclists and pedestrians to choose these modes. Connections between key locations such as the Jordan River Parkway Trail and SLCC are incomplete. Currently, buses run through the majority of the project area approximately every 30 minutes, requiring travelers to frequently wait at bus stops for extended periods. The use of side stations by buses is ongoing. While generally, this does not present issues, there is a potential for a conflict between the buses pulling to the side to use the stations and bicycles either sharing the lane or within bike lanes.

There are six existing local bus stops on 4500/4700 South within the dedicated lane area of the LPA (three EB and three WB), four of them provide bus loading from an unpaved shoulder area. Sidewalk does not exist on the north side and pedestrian access across 4500/4700 South is uncontrolled. The LPA would improve safety in this area by adding a continuous shared use path on the north side and sidewalk on the south side, curb and gutter on both sides. Pedestrian access across the corridor would be improved with the new signal at the Fore Lakes station. Access to center stations is accommodated at signalized intersections.

There are three existing unsignalized intersections on 4500/4700 South within the dedicated lane area of the LPA. The dedicated lane and median barrier components of the LPA would improve safety by eliminating the median turnaround at 1400 West, change the intersection at 1175 West to a right in/right out configuration and signalize the intersection 1300 West. These intersection changes and the protected turn phases at signalized intersections associated with the LPA would reduce the expected crash rate by approximately half.

No negative impacts to safety and security are anticipated from the LPA. The LPA would provide several additional features that would improve safety in the proposed transit corridor. These include lighting, ramps that comply with ADA, pedestrian facilities, intersection improvements, and wind screens at BRT stations.

3.15 Utilities

Various utilities were identified along the LPA in its entirety, from Murray Central Station to West Valley Central Station. The study area for potential utility impacts is the existing right-of-way with a 25-foot buffer.

Utilities within the study area were identified from available records and coordination with utility companies. There are 32 utilities identified to date within, crossing, or running parallel to the study area. These utilities provide water, sewer, storm, power, traffic signals, fiber, telephone, cable, and gas, and are identified in Table 3-7.

Potential impacts to utilities are categorized by level of impact to best determine what type of mitigation would be required. The levels of impact are defined as follows:

- High: The utility is directly in conflict with the proposed construction and would need to be removed and relocated outside of the conflict area.
- Medium: The utility is affected by construction limits and requires treatment such as a casing extension, new casing installation, lowering, or other adjustments. The utility would remain in the same location.
- Low: The utility is minimally or not affected by construction. In many cases, the utility would need to be protected during construction, but no additional measures would be needed.

Table 3-7 lists the level of impact anticipated for the utilities identified within the study area. Coordination with utility companies would be initiated as the design is finalized. Specific locations of utilities, as well as potential levels of impact, would also be updated throughout the final design process as more detailed utility information is gathered.

Table 3-7. Utilities Within the Study Area

Owner	Utility Type	Impact Level
Municipality		
Cottonwood Improvement District	Sewer	None
Murray City	Water, Sewer, Storm, Power	High
Salt Lake County	Traffic Signals, Fiber, Storm	Medium
Taylorsville City	Storm, Power, Sewer, Water	Medium
West Valley City	Storm	High
Agency		
Granger-Hunter Improvement District	Water	Low
	Sewer	Medium
Jordan Valley Water Conservancy District	Water	Low
Kearns Improvement District	Sewer	Low
North Jordan Canal Company	Water	Medium
Taylorsville-Bennion Improvement District	Water, Sewer	Low
UDOT	Fiber	Medium
	Storm	Low
Public Organization		
Salt Lake Community College	Storm, Power, Sewer, Water	Medium
Private Company		
AT&T	Fiber	High
AT&T Local Services SL & Weber Co.	Fiber	Medium
CentraCom	Fiber	Low
Century Link	Telephone	High
Comcast	Cable/Fiber	High
Dominion Energy	Gas	Low
Emery Telcom	Fiber/Telephone	Medium
Extenet Systems Inc.	Fiber	Medium
First Digital	Telephone	Medium
Integra Telecom	Fiber	None
L3	Fiber	Low

Owner	Utility Type	Impact Level
Monte Vista Homes	Water	Low
Rocky Mountain Power	Power	High
Syringa	Fiber/Telephone	High
Utopia	Fiber	High
Verizon	Fiber	High
XO Communications	Fiber	High
Zayo	Fiber	Medium

3.16 Air Quality

The EPA has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, including carbon monoxide (CO), nitrogen dioxide (NOx), ozone, lead, particulate matter with a diameter less than or equal to 10 micrometers (PM_{10}) and particulate matter with a diameter less than or equal to 2.5 micrometers ($PM_{2.5}$), and sulfur dioxide. Of these, lead and sulfur dioxide are not considered transportation-related pollutants and will not be discussed. A geographic area that is below the NAAQS for one or more pollutants is called an attainment area. However, if the concentration of any one pollutant exceeds the limit of the NAAQS in an area, that area is designated as being in non-attainment. An area can also be designated as a maintenance area if it has previously been designated as non-attainment but has since demonstrated attainment of the standard.

The study area is comprised of the cities of Murray, Taylorsville, and West Valley in Salt Lake County, Utah. As a result of the NAAQS violations, EPA has designed the area nonattainment for ozone and $PM_{2.5}$, and maintenance for PM_{10}. Table 3-8 lists the NAAQSs for ozone, $PM_{2.5}$, and PM_{10} that are or were exceeded. These designations make the project subject to the air quality conformity requirements for ozone, PM_{10}, and $PM_{2.5}$.

Table 3-8. National Ambient Air Quality Standards

Pollutant	Primary/ Secondary	Averaging Time	Level	Form
O_3	primary and secondary	8 hours	0.070 ppm [a]	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
$PM_{2.5}$	primary	1 year	12.0 µg/m³	Annual mean, averaged over 3 years
	secondary	1 year	15.0 µg/m³	Annual mean, averaged over 3 years
PM_{10}	primary and secondary	24 hours	35 µg/m³	98th percentile, averaged over 3 years
	primary and secondary	24 hours	150 µg/m³	Not to be exceeded more than once per year on average over 3 years

Source: EPA 2021a.

[a] Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

µg/m³ = microgram(s) per cubic meter
ppm = part(s) per million

Under the conformity provisions of the Clean Air Act Amendments, regionally significant and federally funded projects located in designated non-attainment or attainment/maintenance areas must demonstrate transportation conformity to State Implementation and Maintenance Plans. To determine if a project demonstrates conformity to the State Implementation and Maintenance Plans (SIP), a project must be included in a conforming RTP and Transportation Improvement Program (TIP) and must not result in localized hot spots that will contribute to any new localized CO, PM_{10},

and $PM_{2.5}$ NAAQS violation, increases the frequency or severity of existing CO, PM_{10}, and $PM_{2.5}$ NAAQS violations, or delay the timely attainment of the NAAQS. Since the study area is in attainment for CO, hot-spot analysis for CO is not required.

The Midvalley Connector BRT project is included in a conforming TIP, specifically WFRC's 2019-2050 RTP and the 2021-2026 TIP. The 2019-2050 RTP demonstrates conformity with the SIP for PM_{10} and conformity with interim conformity guidelines for $PM_{2.5}$ for the Salt Lake County non-attainment area. The RTP also demonstrated conformity with the interim conformity guidelines for ozone for the Northern Wasatch Front (NWF) nonattainment area. Therefore, all transportation projects in the WFRC region in the 2021-2026 TIP were found to conform to the SIP. The BRT would provide an efficient option for people moving through this corridor. Use of the BRT instead of personal vehicles would reduce the vehicle miles driven and reduce emissions.

3.16.1 Localized Impacts (PM_{10} and $PM_{2.5}$)

PM_{10} and $PM_{2.5}$ are pollutants of concern for Utah. Under the transportation conformity requirements, a PM_{10} and $PM_{2.5}$ hot-spot analysis is required for "projects of air quality concern." The EPA specified in 40 CFR 93.123(b)(1) types of projects of air quality concern such as transit projects that involve significant number or significant increase in diesel vehicles, or projects that are identified in the SIP as localized air quality concern. The Utah SIP does not identify any projects as being of localized air quality concern. The BRT would require a maximum of six buses per hour in each direction or 12 total per hours for both directions during the daytime peak period, which would not be considered a significant increase in the number of diesel vehicles. If electric buses are used, the BRT would release little to no PM in the study area.

The rule goes into further detail to define projects of air quality concern as those involving "new bus and rail terminals and transfer points that have significant number of diesel vehicles congregating at a single location" and "expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location" [40 CFR 93.123(b)(1) (iii and iv, respectively)]. The major design feature of the LPA that would most notably affect the determination for a hot-spot analysis is the proposed new bus terminal near SLCC and the potential for adding capacity to the study area. The proposed bus hub location, in a parking lot just east of the Construction Trades building at SLCC, would provide up to four BRT and six standard bus stops. In addition, the LPA would include 12 buses per hour (two-way total) stopping at this hub. Due to the small number of buses the LPA would have minimal effect on localized air emissions and is not expected to cause an exceedance of the NAAQS. In addition, the only planned project road addition would be a dedicated bus lane on 4700 South. It is assumed that this would not generate additional capacity within the project vicinity, but rather improve the flow of traffic by removing buses from the travel lane. Based on the type of projects mentioned above, the LPA would not be a project of air quality concern, and a quantitative PM_{10} and $PM_{2.5}$ hot-spot analysis is not required to demonstrate conformity for this project.

At a regional level, the project has been determined to conform to the SIP for Salt Lake County. The qualitative project-level analysis demonstrates that PM_{10} and $PM_{2.5}$ emissions from the Midvalley Connector BRT project, including the SLCC proposed transit hub, would not result in, or contribute to, any violations of the NAAQS. Local and regional concentrations of all other criteria pollutants are not expected to be affected by implementation of the LPA.

3.16.2 Greenhouse Gas Emissions

Greenhouse gases (GHGs) are gases that trap heat in the atmosphere by absorbing infrared radiation. Scientific evidence indicates a relationship between the increase in GHG emissions from human activities and increasing global temperatures over the past century. Carbon dioxide (CO_2) is the primary GHG from human activities; emissions of CO_2 occur largely from combustion of fossil fuels (coal, natural gas, and oil).

Transportation is a major source of greenhouse gas (GHG) emissions in the United States, accounting for 29 percent of 2019 GHG emissions (EPA 2020). The largest source of GHG emissions in 2019 was passenger cars at 41 percent. Public transportation plays an important role in reducing a community's transportation GHG emissions through transportation and land use efficiencies. For transit projects, FTA determined it practicable to assess the effects of GHG emissions and climate change at a programmatic level. In January 2017, FTA issued Report Number 0097, Greenhouse Gas Emissions from Transit Projects: Programmatic Assessment (FTA 2017); the Programmatic Assessment is hereby incorporated by reference.

For the Programmatic Assessment, the annual GHG emissions from a sample of 12 BRT projects averaged approximately 710 ± 830 metric ton of carbon dioxide equivalent (MTCO2eq). All of the BRT projects analyzed resulted in total annual GHG emissions of less than 2,400 MTCO2eq per year; one project resulted in an overall reduction in annual GHG emissions (FTA 2017). Most of the GHG emissions from BRT projects were estimated to be operations-related tail-pipe emissions, followed by construction-related upstream emission. Although the BRT projects analyzed were expected to displace emissions through a reduction in personal vehicle vehicle-miles traveled (VMT), their expected displaced GHG emissions were typically lower than the GHG emissions volumes they were expected to generate.

The analysis concluded that BRT projects generate relatively low levels of GHG emissions primarily due to their lower infrastructure needs and low annual transit VMT. The BRT projects in the sample were predominately at-grade with high ratios of displaced personal vehicle VMT as compared to transit VMT. BRT projects that share these characteristics are expected to have similar GHG emissions levels as those estimated for the BRT sample. Calculating project-specific GHG emissions for BRT projects is expected to provide only limited information beyond the information collected and considered in the programmatic analysis (FTA 2017). Therefore, the findings from the Programmatic Assessment are incorporated by reference in lieu of conducting an individual analysis for the Midvalley BRT project.

3.17 Energy

The LPA would incentivize the use of transit options by providing more frequent buses that can move passengers at speeds comparable to traveling by private vehicle. In addition, the LPA would provide enhanced shared-use path, sidewalks, and bike lanes to better accommodate non-motorized forms of transportation. These features would result in a decreased demand on fossil fuels, manufacturing of vehicles, and need for expanded transportation infrastructure. The use of electric buses instead of diesel buses would further decrease the dependency on fossil fuels and reduce greenhouse gas emissions. Electric buses are more energy efficient than diesel buses. UTA has been coordinating with Rocky Mountain Power and Murray Power to ensure that the existing power grid could meet the power demand of electric buses for the LPA. No additional power generation infrastructure would be needed to accommodate the LPA. In addition, Rocky Mountain Power's plan to continue with clean energy acquisition and foundational transmission investments will result in 74 percent reduction of power generation greenhouse gas emissions from 2005 levels by 2030, and 98 percent reduction of greenhouse gas emissions from 2005 levels by 2050.

3.18 Construction Impacts

The study area for construction impacts consists of the project limits and a 25-foot buffer in each direction. Construction would likely result in a temporary change in access to commercial properties, which could result in driver inconvenience and possible temporary reduction of sales. However, access to businesses would be maintained throughout construction. Temporary construction easements would be needed for 78 parcels, totaling approximately 2.6 acres. Upon the completion of construction, the use of the areas affected by construction would be resumed by the property owner.

During construction of the LPA, there may be some delays due to narrowed or temporarily closed lanes which could slow access to and from public facilities, but access would be maintained to all facilities and services at all times. This impact would be short-term and would cease when construction is complete. Construction impacts including noise, detours, changes to bicycle and pedestrian travel patterns, delays, and dust could temporarily alter the connectivity, accessibility, and walkability of the neighborhoods adjacent the corridor. Safe alternatives for automobiles, pedestrians, and cyclists would be provided and clearly marked to maintain access and flow of traffic in and out of affected neighborhoods. Temporary construction and noise impacts are expected for minority and low-income populations along the corridor; however, these impacts are not predominately born by the minority or low-income populations, nor are they of greater severity when compared with impacts to non-minority and non-low-income populations.

Temporary construction impacts would occur at 32 historic properties for construction access and at the historic North Jordan Canal where it crosses 4700 South due to the culvert extension. Ground-disturbing activities during construction could potentially result in the discovery of previously unidentified, subsurface cultural or paleontological resources.

Although utility service would be maintained throughout most construction activities, utility service could be temporarily disrupted during construction.

During construction of the LPA, short-term noise impacts may occur as a result of both stationary and mobile construction equipment. These impacts would be temporary at any one location. In addition, construction would temporarily increase PM_{10} through emissions and fugitive dust. PM_{10} emissions from construction activities are usually local and short-term, lasting only for the duration of the construction period. Construction emissions would be minimized through good construction practices, such as limiting exposed and disturbed surfaces, minimizing construction equipment and vehicle speeds, watering exposed surfaces, and properly maintaining vehicle engines as well as any additional measures required per the dust-control plan.

There is potential for temporary impacts to surface water quality during construction. Construction activities may disturb vegetation which could facilitate erosion. Runoff from disturbed areas could temporarily increase pollutant loading into receiving waters. Best management practices (BMPs), such as silt fences, erosion control fabric, mulching, and revegetation, would be used to minimize pollutant loading.

Migratory birds and raptors would likely avoid the construction area if affected by the noise or vibration. Comparable habitat is found nearby, so this would not adversely affect the birds or raptors. While no nests were observed in the study area during field investigations, mitigation would be implemented during construction to comply with the Migratory Bird Treaty Act (16 U.S.C. 703-712) and Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). During construction of the LPA, there is a potential to spread invasive species during the clearing of vegetation. In addition, weed seeds can be introduced to the study area or taken from the study area and distributed elsewhere via mud or vegetation stuck to the construction equipment. BMPs would be implemented to reduce the potential for this to occur.

Construction on Murray Central Station is outside of the limits of the Murray Smelter repository. Damage to the repository cap could potentially expose soils contaminated with arsenic; however, given the location of the improvements away from the repository, this is not anticipated to occur. Short-term exposure to arsenic-contaminated soil can cause a wide spectrum of adverse health effects. The primary route of exposure is ingestion of contaminated soil, by direct hand to mouth activity or by swallowing airborne soil and dust particles that enter the mouth and nose. It is further possible that unforeseen hazardous materials may be encountered during construction.

3.19 Environmental Permits, Commitments, and Mitigation Measures

The environmental commitments, permits and mitigation measures identified in Table 3-9 will be implemented during final design and construction of the LPA.

Table 3-9. Environmental Permits, Commitments, and Mitigation Measures

Resource	Impact	Mitigation Measures
Transportation	Construction impacts including detours, changes to bicycle and pedestrian travel patterns, delays, and dust could temporarily alter the connectivity, accessibility, and walkability of the neighborhoods adjacent the corridor. Eliminating left-turn lanes at 1175 West and 4700 South would require motorist to travel to the next intersection.	A traffic management plan coordinated with UDOT, Murray, Taylorsville, and West Valley cities may be necessary to assure access to local roads and businesses during construction activities. Traffic signal at 1300 West will allow protected U-turn accommodating westbound traffic wishing to travel south on 1175 West.
Right-of-way Acquisition	Acquisition of a minor amount of new right-of-way would be needed from private landowners to construct new stations, to widen 4700 South, and to improve and extend the North Jordan Canal.	Property acquisitions will include fair compensation measures for property owners. All acquisitions will be conducted in accordance with 49 CFR Part 24, the Uniform Relocation Act, and the State of Utah Relocation Program, as specified in the Utah Relocation Assistance Act (Utah Code 57 12).
Cultural Resources	No adverse effect to historic properties. Ground-disturbing activities during construction could potentially result in the discovery of previously unidentified, subsurface cultural or paleontological resources.	If previously unidentified cultural resources are discovered during construction, activities in the area of the discovery will immediately stop. The process outlined in 36 CFR 800.13 will be followed.
Noise	During construction, short-term noise impacts may occur as a result of both stationary and mobile construction equipment.	Temporary construction noise mitigation measures will include limiting construction activities to daytime hours (between 7 a.m. and 10 p.m.) in accordance with the Taylorsville, Murray, and West Valley City noise ordinances, as well as adequately notifying the public of construction operations and schedules.
Water Resources	North Jordan Canal culvert would be extended by 60 feet. Construction may permanently impact up to 0.061 acre of wetlands and 0.021 of surface waters.	Based on current design, the project is authorized under Section 404 Nationwide Permit Number 14 with a Preconstruction Notification (PCN) submittal and authorization from USACE. During final design, the area of impact will be reviewed to verify this is still the appropriate permit. UTA and its contractor will submit a PCN to USACE for authorization and will comply with all terms and conditions of NWP No. 14 and Section 401 Water Quality Certification conditions. A Salt Lake County Flood Control permit will be obtained for the proposed work in the North Jordan Canal to confirm the project will not impact or cause additional risk for flooding relative to existing conditions.
Water Quality	Increased impervious surfaces and storm water runoff. Construction activities may disturb vegetation which could facilitate erosion. Runoff from disturbed areas could temporarily	UTA and the contractor will submit a Notice of Intent and Notice of Termination to UDEQ for the UPDES construction storm water general permit. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared as required by the UPDES permit and

Resource	Impact	Mitigation Measures
	increase pollutant loading into receiving waters.	will be reviewed by agencies with MS4 UPDES permit within the study area including UDOT, Murray City Public Works Department, Taylorsville City Public Works Division, and West Valley City Public Works Department. An erosion control plan will be developed and incorporated into construction documents.
Migratory Birds and Raptors	No nests were observed in the study area; however, potential migratory bird and raptor habitat occurs within project area. Migratory birds and raptors would likely avoid the construction area if affected by the noise. Comparable habitat is found nearby, so this would not adversely affect the birds or raptors. Impacts to birds during construction would be temporary and would be minimized by the implementation of the BMPs.	If any active nests are located during project construction, the species-specific spatial and temporal buffer found in the *Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances* (USFWS 2002) will be applied. To comply with the Migratory Bird Treaty Act, vegetation (i.e., trees, shrubs, and herbaceous plants) will not be removed during the bird breeding season (April 1 to July 31, depending on the species of concern and weather in a given year). If construction is to occur during this time, bird nest clearance surveys will be completed by a qualified biologist to verify the absence of nests prior to vegetation removal. If nests are found, further coordination with USFWS is required to comply with both the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Construction activities occurring completely outside the nesting season do not necessitate surveys.
Invasive Species	Potential to spread invasive species during vegetation clearing. Weed seeds can be introduced to the study area or taken from the study area and distributed elsewhere via mud or vegetation stuck to the construction equipment.	The project will comply with Executive Order 13112 Invasive Species and follow the recommendations and objectives described in the National Invasive Species Management Plan to prevent the introduction of invasive species and provide for their control and minimization. It would also comply with Rule R68-9-4 of the Utah Noxious Weed Act to prevent dissemination of noxious weed seeds or such parts of noxious weed plants that could cause new growth by contaminated articles. Any clearing of vegetation will be performed using appropriate best management practices to ensure that weed seeds and/or other portions of plant (such as a buds or offshoots, which can be used to reproduce the plant) are not transported. Mitigation measures for potential impacts to vegetation resources beyond what are included in the EA are not warranted.
Hazardous Materials	Moderate risk of exposure at Murray Central Station where construction would overlap the former Murray SSOD.	Final design and construction work in the Murray SSOD will be coordinated with the EPA, UDEQ, Murray City, and the property owner. Excavation or breaks in the cap over the contaminated category II material is prohibited. Specifications for protecting the cap will be included in construction documents. A development permit must be obtained from Murray

Resource	Impact	Mitigation Measures
		City prior to demolition, excavation, or construction within any area of the SSOD. If any unforeseen hazardous materials are encountered during construction, necessary procedures will be implemented in conformance with local, state, and federal regulations, and the appropriate authorities will be notified. In addition, appropriate handling and disposal procedures will be implemented during construction to reduce or eliminate impacts from hazardous materials.
Utilities	Potential utility conflicts within study area (refer to Table 3-7).	Appropriate coordination will occur with all utility providers within the study area to ensure that necessary permits and agreements are in place prior to construction and all necessary notifications have been issued. Utilities directly in conflict with proposed construction will be relocated outside of the new roadway, within public right-of-way. Utilities impacted by construction that do not require relocation will be protected in place (e.g., using a utility casing, adjusting the height of the utility, or adjusting the grading around the utility). Utilities that are minimally impacted by construction will require protection only during construction.
Air Quality	Construction would temporarily increase PM_{10} through emissions and fugitive dust.	A dust-control plan will be prepared for the construction phase of the project.
Energy	Minor increase in demand for electricity due to charging electric buses. Reduction in emissions due to converting from diesel to electric buses and reduced auto use.	Project design will incorporate efficient and environmentally sustainable measures.
Construction	Temporary changes in access, lane closures, detours, increased noise, and increased dust.	A public involvement plan will be developed to work with the public and provide them with up-to-date construction information.

Chapter 4. Public Involvement and Agency Coordination

This chapter describes the public involvement activities and stakeholder and agency coordination undertaken for the Midvalley Connector EA. Outreach activities for the Midvalley Connector EA included distribution of outreach materials, city and community council updates, and a public meeting. The public involvement, stakeholder, and coordination efforts for the project were designed to be inclusive, comprehensive, transparent, and continuous throughout the course of the project.

4.1 Project Team

The Midvalley Connector project team consists of the FTA and UTA, in partnership with the cities of Taylorsville, Murray, and West Valley, WFRC, SLCC, UDOT, and Salt Lake County. Local team coordination took place on a monthly basis to discuss the LPA, station locations and design, environmental impacts, public comments and concerns, and phasing and funding opportunities.

4.2 Agency Coordination

4.2.1 Agency Coordination

Agency coordination for the project began in March 2021. A letter dated March 3, 2021, with project information, opportunity for comment, and contact information was sent by FTA to several federal, state, and local agencies, and federally recognized Native American tribes. The Utah SHPO responded indicating no comments on March 5, 2021. The Utah State Floodplain Manager responded on March 9, 2021, recommending coordination regarding floodplains and documentation and complying with the National Flood Insurance Program and local floodplain regulations. The Salt Lake County Council responded on April 26, 2021, acknowledging the work completed on the project and that the project will use federal funds and is in the process of obtaining NEPA compliance. The UDEQ responded on April 29, 2021, encouraging the use of the Division of Environmental Response and Remediation interactive map for information on potential contamination and that future project construction activities will encounter hazardous substances. The scoping letter, distribution list, and responses may be found in Appendix F.

4.2.2 SHPO and Tribal Coordination

Section 106 Consultation for the EA was initiated October 14, 2021. FTA consulted with the Utah SHPO regarding impacts to cultural resources and Section 4(f) resources for this EA. The Utah SHPO concurred with the FTA's eligibility determinations and findings of effect on October 15, 2021. The Section 106 consultation documents are included in Appendix D.

The study area does not include tribal lands; however, Native American tribes could have an interest in the project based on their histories and due to the potential to discover historic/archaeological resources. FTA consulted with the following Native American tribes on December 27, 2021:

- Confederated Tribes of the Goshute Reservation
- Skull Valley Band of Goshute Indians
- Northwestern Band of Shoshone Nation
- Shoshone-Bannock Tribes of the Fort Hall Reservation
- Ute Indian Tribe of the Uintah and Ouray Reservation
- Paiute Indian Tribe of Utah

No response was received. The email letter sent to the Native American tribes is included in Appendix F.

4.2.3 Clean Water Act Section 404 Permitting

The USACE approved UTA's preliminary jurisdictional delineation on November 12, 2021 (Appendix E). The USACE determined wetlands and surface waters within the study area are potential jurisdictional WOTUS subject to Clean Water Act Section 404 permitting. It is anticipated the project would be constructed under a Nationwide Permit Number 14

(Linear Transportation Projects) with submittal of a Preconstruction Notification. USACE concurred with this permitting approach in an email to UTA on January 20, 2022 (Appendix E). UTA will submit the Preconstruction Notification to obtain authorization from USACE in compliance with Section 404 of the Clean Water Act prior to construction within any potentially jurisdictional WOTUS within the project limits.

4.3 Public Outreach

Over the course of the project, the project team updated the public through project and city websites, social media, newsletters, poster distribution to public locations throughout the study area, city council updates, and meetings with community councils. One-on-one meetings with key stakeholders and business owners also took place to allow for input on the proposed route, station locations, and potential impacts or community opinions. In addition, a 30-day public comment period and public hearing will be held following release of the EA.

4.4 Adoption of the Locally Preferred Alternative

Representatives from UTA, UDOT, Taylorsville, Murray, and West Valley have been actively involved in planning the Midvalley Connector BRT project. Their input has been incorporated into the development and selection of the LPA.

Taylorsville City, Murray City, and West Valley City each adopted resolutions of support for the LPA presented in this EA on January 17, 2019; April 16, 2019; and March 12, 2019.In addition, the UTA Local Advisory Council and Board of Trustees each passed a resolution of support for the LPA on July 31, 2019.

Appendix A
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Appendix B
Typical Sections

Typical Roadway Sections

The proposed BRT roadway typical sections are presented on Figure B-1 to Figure B-7 on the following pages and have been divided into three geographic sections for ease of display:

- Murray Central Westbound: TRAX Murray Central Station to 4500/4700 South.
- Dedicated Transit Lanes: 4500/4700 South to SLCC.
- Redwood Road to TRAX West Valley Central Station: SLCC to TRAX West Valley Central Station.

These typical sections are conceptual renderings that show a specific location within each segment; actual dimensions and treatments may vary within each segment from the provided example.

Murray Central Westbound: This section of the LPA starts at the eastern terminus of the route at TRAX Murray Central Station and ends at the intersection of East Atherton Drive and 4500/4700 South. The bus would operate in mixed-flow traffic for the entire 2 miles of the section (Figure B-1 to Figure B-3). Options to mitigate potential conflicts between bus ingress/egress at stations and bicycle lanes on Northbound Murray Boulevard would be considered during final design.

Dedicated Transit Lanes: The dedicated transit section begins at the intersection of East Atherton Drive and 4500/4700 South and terminates at the intersection of 4700 South and Redwood Road (Figure B-4). Transit infrastructure would be used at multiple locations on the dedicated transit section. The dedicated lanes would run for approximately 1.4 miles. Varying bicycle and pedestrian infrastructure would exist along the dedicated transit lanes on 4500/4700 South.

Redwood Road to TRAX West Valley Central Station: West of Redwood Road, the LPA would return to mixed-flow traffic operation for the remaining 3 miles to SLCC and TRAX West Valley Central Station. The SLCC Transit Hub would feature connections to local bus routes. Once leaving SLCC, the bus would travel in mixed-flow lanes. The typical sections are shown on Figure B-5 through Figure B-7.

Options to mitigate potential conflicts between bus ingress/egress at stations and bicycle lanes on 2700 West would be considered during final design. In addition, the TRAX West Valley Central Station layout would need to be altered slightly to accommodate the additional rolling stock of buses needed for the LPA.

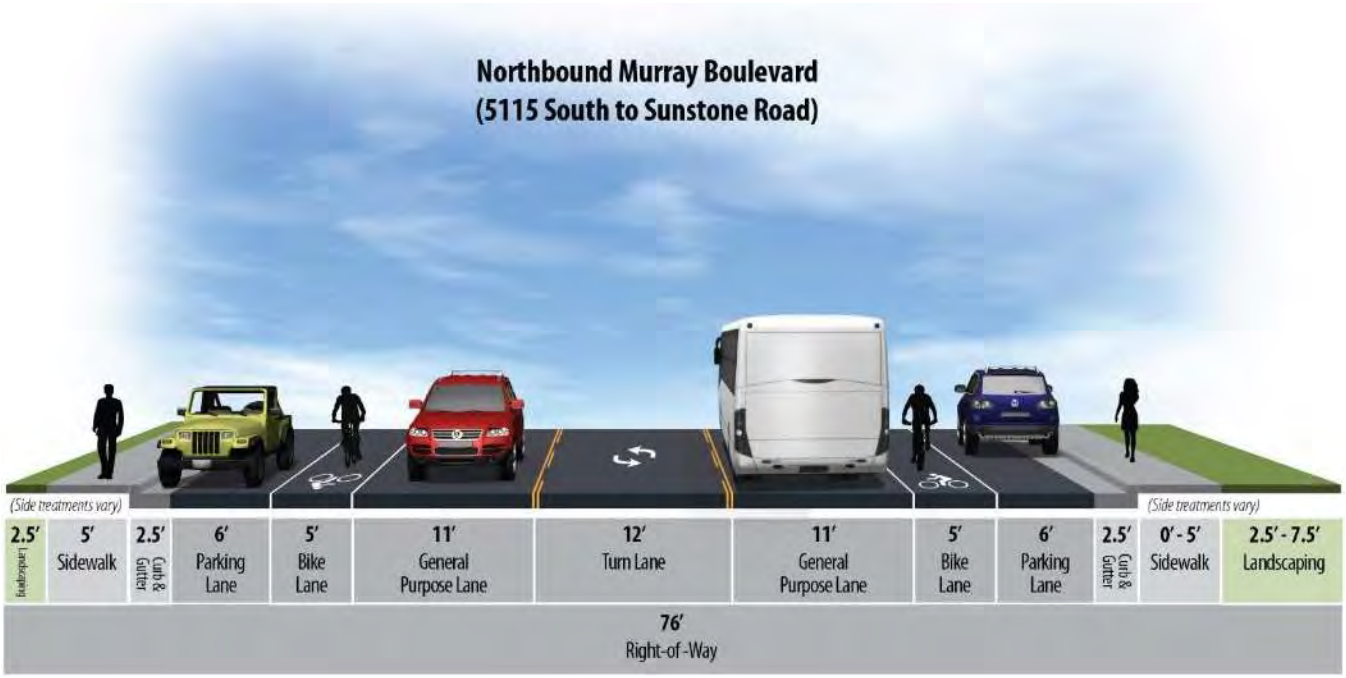


Figure B-1. Northbound Murray Boulevard (Example shown at 5050 South Murray Boulevard)

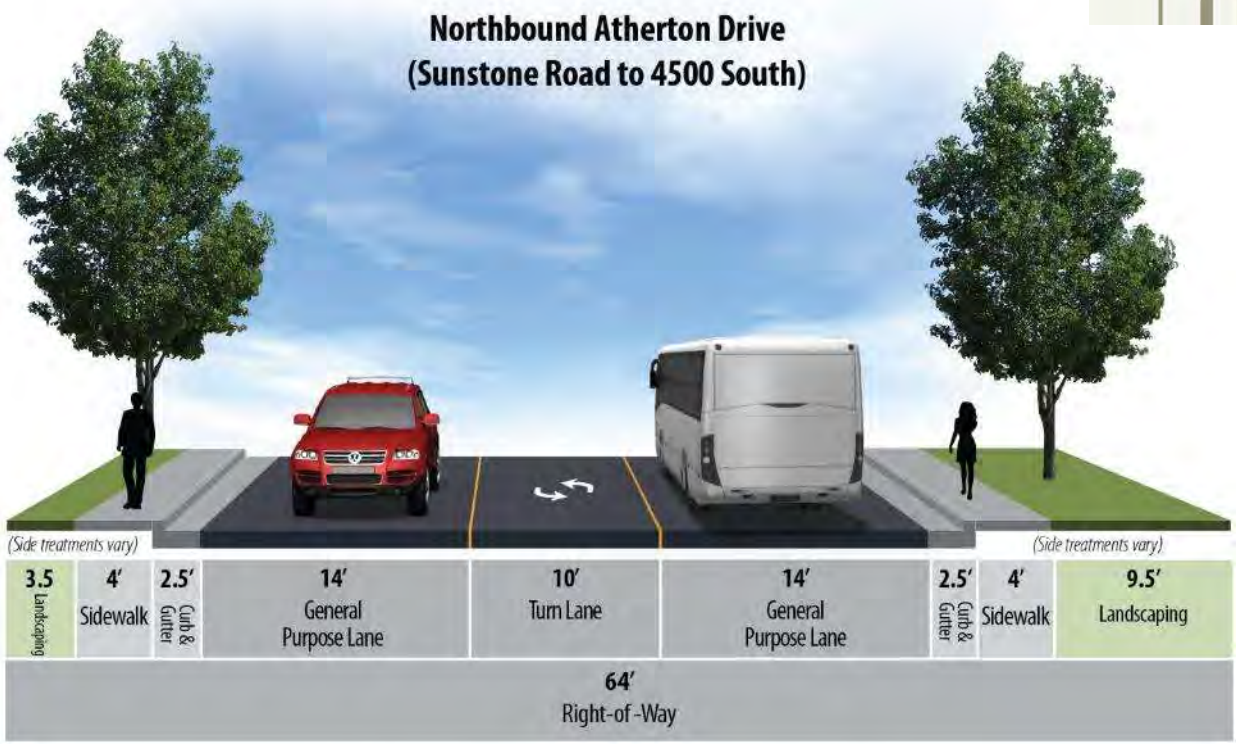
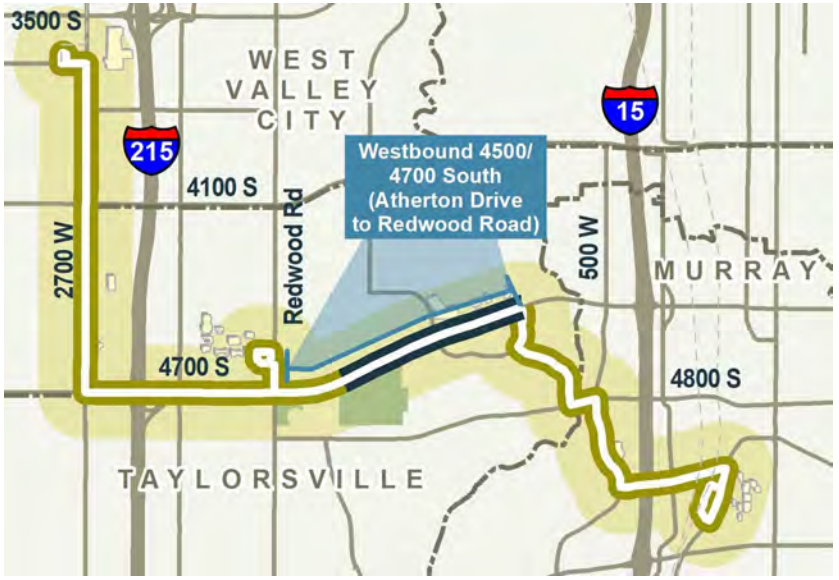


Figure B-2. Northbound Atherton Drive, (Example shown at 4500 South Atherton Drive)

Figure B-3. Northbound Sunstone Road, (Example shown at 4870 South Sunstone Road)



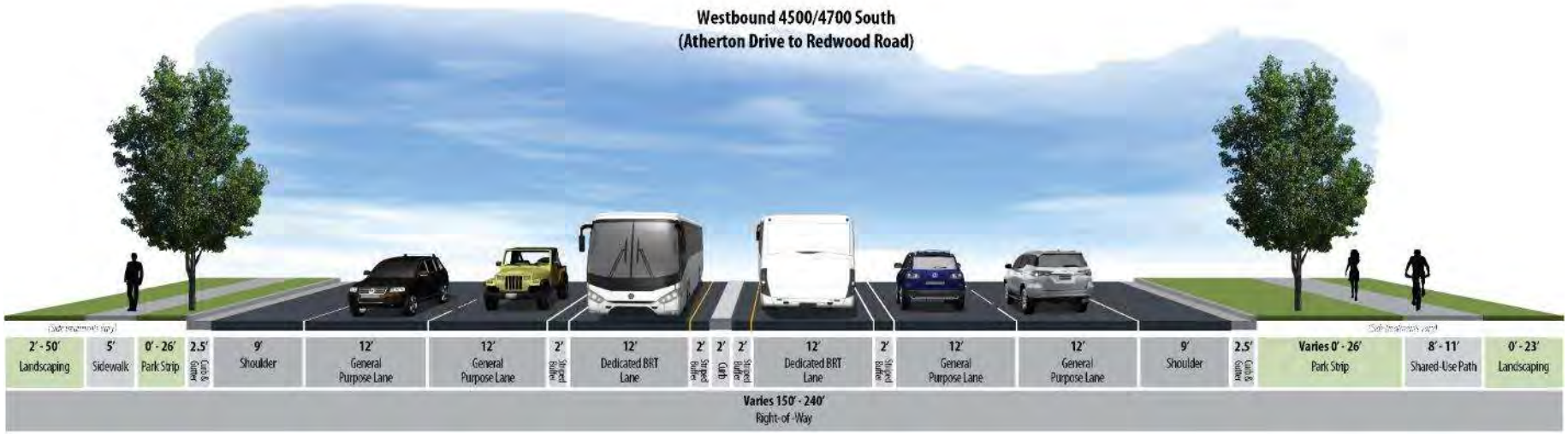


Figure B-4. Westbound 4500/4700 South, (Example shown at 935 West 4700 South)

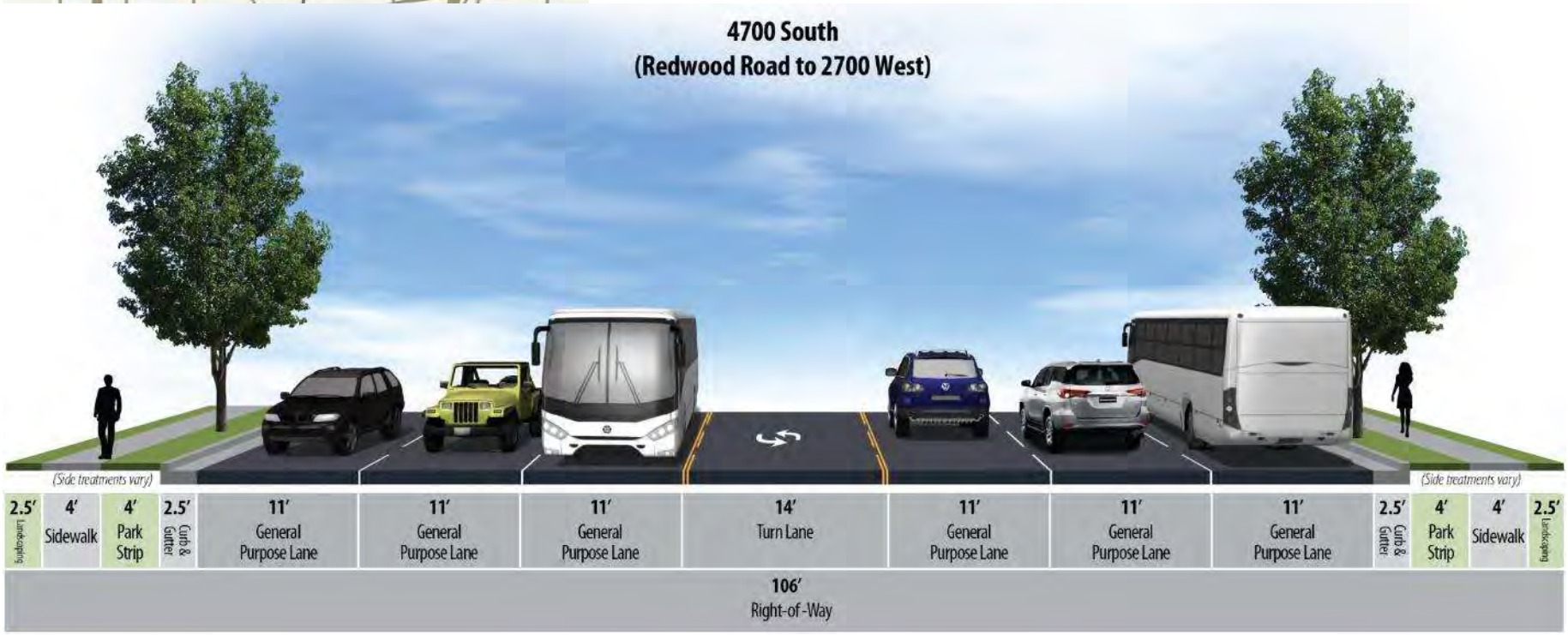


Figure B-5. Westbound 4700 South, (Example shown at 1960 West 4700 South)

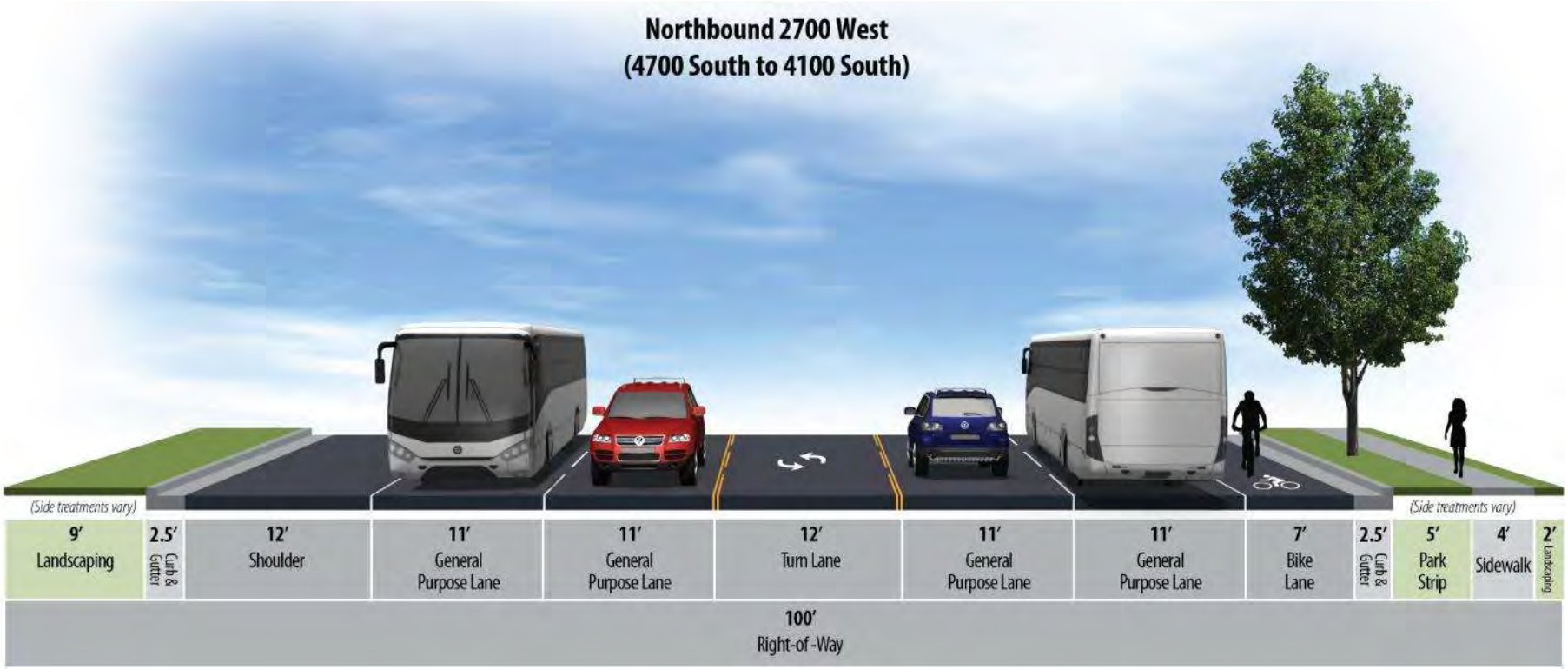


Figure B-6. Northbound 2700 West, (Example shown at 4270 South 2700 West)

Figure B-7. Northbound 2700 West to TRAX West Valley Central, (Example shown at 3930 South 2700 West)

Appendix C
Right-of-Way Acquisitions

Street Address	City	Parcel Type	Parcel Short ID	Parcel Assessor ID	Parcel Area (SQFT)	Partial Acquisition (SQFT)	Construction Easement (SQFT)	Notes
4639 S SUNSTONE RD # COM	Murray	Commercial	354-015	21013540150000	420,354		941	
4924 S MURRAY BLVD	Murray	Residential	160-001a	21121600010000	556,764	490	1,327	Same parcel number as parcel across the street - Murray Blvd, Several Parcels within
316 W VINE ST	Murray	Commercial	253-022	21122530220000	69,110	640	1,477	
5066 S COMMERCE DR	Murray	Commercial	253-024	21122530240000	21,547	449	1,006	
5102 S COMMERCE DR	Murray	Commercial	254-004	21122540040000	21,244	476	577	Eligible building demolished and replaced by newer one
5144 S COTTONWOOD ST	Murray	Commercial	426-020	21124260200000	284,080			OTHER - No property will be purchased at these parcels. An agreement and/or easement with UTA will be established for BRT use
328 W VINE ST	Murray	Commercial	253-026	21122530260000	16,604	61	428	
4642 S SUNSTONE RD APT 272	Taylorsville	Residential	353-001	21013530010000	92,959		885	
4393 S RIVERBOAT RD	Taylorsville	Commercial	276-012	21022760120000	250,800		103	
1295 W TAMARACK RD	Taylorsville	Residential	351-001	21023510010000	9,183		1,200	
1285 W TAMARACK RD	Taylorsville	Residential	351-002	21023510020000	7,881		1,030	
1275 W TAMARACK RD	Taylorsville	Residential	351-003	21023510030000	7,883		1,030	
1267 W TAMARACK RD	Taylorsville	Residential	351-004	21023510040000	7,885		1,030	
1261 W TAMARACK RD	Taylorsville	Residential	351-005	21023510050000	7,887		1,030	
1253 W TAMARACK RD	Taylorsville	Residential	351-006	21023510060000	7,889		1,030	
1245 W TAMARACK RD	Taylorsville	Residential	351-007	21023510070000	7,892		1,030	
1237 W TAMARACK RD	Taylorsville	Residential	351-008	21023510080000	7,894		1,030	
1229 W TAMARACK RD	Taylorsville	Residential	351-009	21023510090000	9,200	160	1,200	
1221 W TAMARACK RD	Taylorsville	Residential	351-010	21023510100000	9,201		1,200	
1211 W TAMARACK RD	Taylorsville	Residential	351-011	21023510110000	9,200		1,200	
1201 W TAMARACK RD	Taylorsville	Residential	351-012	21023510120000	9,205	160	1,200	
1195 W TAMARACK RD	Taylorsville	Residential	351-013	21023510130000	9,212		1,200	
1189 W TAMARACK RD	Taylorsville	Residential	351-014	21023510140000	9,207	320	1,200	
1177 W TAMARACK RD	Taylorsville	Residential	351-015	21023510150000	12,182	313	1,245	
4599 S GREENBROOK CT # COM	Taylorsville	Residential	353-043	21023530430000	155,073		1,360	
4545 S ATHERTON DR	Taylorsville	Residential	400-025	21024000250000	271,370		954	
4595 S MONTE VISTA DR	Taylorsville	Residential	426-003	21024260030000	1,086,250		2,339	
4546 S ATHERTON DR	Taylorsville	Commercial	427-004	21024270040000	40,205		2,034	
4600 S REDWOOD RD	Taylorsville	SLCC Campus	328-009	21033280090000	4,727,131			OTHER - No property will be purchased at these parcels. An agreement and/or easement with UTA will be established for BRT use
2160 W 4700 S	Taylorsville	Commercial	352-017	21033520170000	21,341	255	3,292	
4615 S 1780 W	Taylorsville	SLCC Campus	378-001	21033780010000	14,611			OTHER - Eligible building demolished,1780 W Road Impacts; No property will be purchased at this parcel. An agreement and/or easement with UTA will be established for BRT use.
4681 S REDWOOD RD	Taylorsville	Commercial	453-005	21034530050000	59,739	2,886	630	North Jordan Canal Trail Impacts
4618 S HEMLOCK DR	Taylorsville	Residential	454-001	21034540010000	10,179		1,544	North Jordan Canal Trail Impacts
4628 S HEMLOCK DR	Taylorsville	Residential	454-002	21034540020000	10,436		1,790	North Jordan Canal Trail Impacts
4640 S HEMLOCK DR	Taylorsville	Residential	454-003	21034540030000	9,333		1,366	North Jordan Canal Trail Impacts
4644 S HEMLOCK DR	Taylorsville	Residential	454-004	21034540040000	9,619		1,280	North Jordan Canal Trail Impacts
4650 S HEMLOCK DR	Taylorsville	Residential	454-005	21034540050000	9,853		1,326	North Jordan Canal Trail Impacts
4660 S HEMLOCK DR	Taylorsville	Residential	454-006	21034540060000	8,837		1,092	North Jordan Canal Trail Impacts
4672 S HEMLOCK DR	Taylorsville	Residential	454-007	21034540070000	7,927		1,113	North Jordan Canal Trail Impacts
4676 S HEMLOCK DR	Taylorsville	Residential	454-008	21034540080000	9,997		238	North Jordan Canal Trail Impacts
1625 W HEMLOCK DR	Taylorsville	Residential	457-001	21034570010000	10,505	1,804	1,585	North Jordan Canal Trail Impacts
1615 W HEMLOCK DR	Taylorsville	Residential	457-002	21034570020000	8,887	422	1,444	North Jordan Canal Trail Impacts
1601 W HEMLOCK DR	Taylorsville	Residential	457-003	21034570030000	8,766	160	1,203	
1591 W HEMLOCK DR	Taylorsville	Residential	457-004	21034570040000	9,152	160	1,201	
1579 W HEMLOCK DR	Taylorsville	Residential	457-005	21034570050000	8,768	150	1,125	
1567 W HEMLOCK DR	Taylorsville	Residential	457-006	21034570060000	9,375	320	1,200	
1555 W HEMLOCK DR	Taylorsville	Residential	457-007	21034570070000	9,334	326	1,214	
4675 S BEECHWOOD RD	Taylorsville	Residential	480-004	21034800040000	10,186	362	1,386	
1495 W TAMARACK RD	Taylorsville	Commercial	480-005	21034800050000	134,226	1,580	5,908	
1441 W TAMARACK RD	Taylorsville	Commercial	480-006	21034800060000	146,474	1,324	9,954	
1369 W TAMARACK RD	Taylorsville	Residential	480-007	21034800070000	17,880		2,640	
1355 W TAMARACK RD	Taylorsville	Residential	480-008	21034800080000	9,829		1,296	
1341 W TAMARACK RD	Taylorsville	Residential	480-009	21034800090000	9,736		1,275	
1335 W TAMARACK RD	Taylorsville	Residential	480-010	21034800100000	9,739		1,275	
1321 W TAMARACK RD	Taylorsville	Residential	480-011	21034800110000	8,018		1,050	
1317 W TAMARACK RD	Taylorsville	Residential	480-012	21034800120000	9,207		1,200	
1309 W TAMARACK RD	Taylorsville	Residential	480-013	21034800130000	9,146	160	1,200	

4315 S 2700 W	Taylorsville	Commercial	251-007	21042510070000	1,388,820		1,733	
4663 S 2700 W	Taylorsville	Commercial	451-024	21044510240000	21,569	521	957	
2105 W 4700 S	Taylorsville	Commercial	101-060	21101010600000	51,837	399	717	Address in 2017 cultural report is 2115 W 4700 S
2187 W 4700 S	Taylorsville	Commercial	101-073	21101010730000	33,106	34	165	
1285 W TAYLORSVILLE EXPY	Taylorsville	Commercial	226-052	21102260520000	2,741,780		14,784	
2654 W 4700 S	West Valley City	Commercial	451-027	21044510270000	319,390		387	
2717 W BEDFORD RD	West Valley City	Residential	182-021	21041820210000	8,787		286	
2718 W 3835 S	West Valley City	Residential	328-007	15333280070000	871	19	45	
2720 W 3835 S	West Valley City	Residential	328-011	15333280110000	22,379		54	Parcel contains 2 cultural properties: 2718-2720 W 3835 S, and 2722-2724 W 3835 S
2773 W HIGHGATE DR	West Valley City	Residential	329-030	21043290300000	493,970		1	
2780 W 4700 S	West Valley City	Commercial	329-014	21043290140000	822,417	528	1,344	WV Driver's License Division
2788 W 3650 S	West Valley City	Commercial	129-005	15331290050000	37,462	13,022	4,786	
3590 S CONSTITUTION BLVD	West Valley City	Commercial	129-050	15331290500000	137,938	939	1,276	
3765 S CONSTITUTION BLVD	West Valley City	Commercial	251-015	15332510150000	91,996	481	2,316	
3819 S LEE MAUR ST	West Valley City	Commercial	328-008	15333280080000	10,890		805	
3820 S CONSTITUTION BLVD	West Valley City	Commercial	328-009	15333280090000	436	273	652	
4071 S DUBLIN CIR	West Valley City	Residential	456-005	15334560050000	5,011		304	
4078 S DUBLIN CIR	West Valley City	Residential	456-006	15334560060000	5,663	79	1,200	
4080 S DUBLIN CIR	West Valley City	Residential	456-007	15334560070000	4,356	19	495	Address in 2017 cultural report is 4078-4080 S 2665 W
4119 S 2735 W	West Valley City	Residential	131-001	21041310010000	10,103	93	1,432	
4131 S 2735 W	West Valley City	Residential	131-002	21041310020000	8,669		1,121	

Duplex - both parcels counted as one

Lease Agreement / Easement

Cultural Property

Total Parcel Impacted	34	75
Total Acres Impacted	0.67	2.61

Appendix D
Section 106 Consultation

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)

October 14, 2021

Chris Hansen
Deputy SHPO – Compliance Preservation
Utah Division of State History
300 S. Rio Grande Street
Salt Lake City, Utah 84101

Savanna Agardy
Compliance Archaeologist
Utah Division of State History
300 S. Rio Grande Street
Salt Lake City, Utah 84101

Re: Section 106 Consultation – Area of Potential Effects, Eligibility and Effects for Midvalley Connector Bus Rapid Transit Project, Salt Lake County, Utah

Dear Mr. Hansen and Ms. Agardy:

The Federal Transit Administration (FTA), in coordination with the Utah Transit Authority (UTA), is evaluating potential effects of the proposed Midvalley Connector Bus Rapid Transit (BRT) Project. The proposed project provides new BRT service connecting the Murray Central Station to the Salt Lake Community College (SLCC) Redwood campus in Taylorsville and the West Valley Central station. Since federal funding is anticipated, the proposed project is required to comply with the National Environmental Policy Act (NEPA) and an Environmental Assessment (EA) is being prepared. In addition, the proposed project constitutes an undertaking and is subject to review under Section 106 of the National Historic Preservation Act (NHPA) of 1966 as amended and its implementing regulations at 36 CFR 800. FTA requests your review of the Area of Potential Effects (APE), and concurrence on eligibility and effects for the proposed project.

Description of Proposed Undertaking

The 7- mile BRT route would begin at the Murray Central Station, travel along Vine Street to Murray Boulevard, and traverse Taylorsville via Sunstone Road and Atherton Drive and then 4700 South to SLCC. From SLCC, the BRT route would travel west on 4700 South to 2700 West and then north along 2700 West to the light rail West Valley Central Station. A portion of the BRT would travel in dedicated lanes and a portion in mix flow general traffic lanes. The BRT project would be served by 15 stations with a mix of center and side stations. See Figure 1-1 for the Locally Preferred Alternative.

Area of Potential Effect

Based on the nature of improvements, the APE encompasses the existing transportation right-of-way where no construction would occur, a 100-foot buffer around each BRT station, and a 50 foot buffer in locations where new right-of-way and/or temporary construction easements are needed. The APE is shown in Figure 2-1 through Figure 2-7. The entire APE was surveyed for cultural resources in 2021.

Identification of Historic Properties/Determination of Eligibility

Since 2013, multiple cultural resource surveys have been completed for the project. The most recent survey of the APE was completed by Certus Environmental Solutions (Certus) in February 2021. The cultural surveys completed for the proposed project include the following:

- *A Selective Reconnaissance-Level Survey of Architectural Resources for the Murray-Taylorsville BRT Project, Salt Lake County, Utah* (SWCA 2013a)
- *A Cultural Resource Inventory of the Murray-Taylorsville BRT Project – Segment 1, Salt Lake County, Utah* (SWCA 2013b)
- *A Cultural Resource Assessment for the Midvalley Connector Transit Project – Segment 2, Salt Lake County, Utah* (Certus Environmental Solutions 2018a)
- *An Addendum Cultural Resources Assessment for the Midvalley Connector Transit Project – Segment 1, Salt Lake County, Utah* (Certus Environmental Solutions 2018b)
- *A Supplemental Cultural Resource Assessment for the Midvalley Connector Transit Project, Salt Lake County, Utah* (Certus Environmental Solutions 2021)

For the identification of historic properties, structures that were 45 years old or older (i.e., 1976 or older) were documented and reviewed to account for the timing of construction. The 2021 cultural resource survey report identifies 22 historic properties within the APE, of which 15 are recommended as eligible for the National Register of Historic Places (NRHP), the remaining 7 were considered not eligible. The 2021 survey did not identify any new NRHP-eligible archaeological sites within the APE from the previous surveys. The 15 NRHP-eligible historic properties identified in 2021 are listed below.

- 2716 W. Bedford Rd.
- 2717 W. Bedford Rd.
- 4681 S. Redwood Rd.
- 4618 S. Hemlock Dr.
- 4628 S. Hemlock Dr.
- 4650 S. Hemlock Dr.
- 4672 S. Hemlock Dr.
- 4676 S. Hemlock Dr.
- 1369 W. Tamarack Rd.
- 1405 W. Tamarack Rd.
- 1285 W. Taylorsville Expy.
- 4551 S. Atherton Dr.
- 4635 S. Grandeur Peak Cir.
- 314 W. Vine St.
- 5066 S. Commerce Dr.

In addition to the 15 newly recorded properties listed above, 38 historic and archaeological resources were recorded in the previous surveys, for a total of 53 NRHP-eligible sites within the APE out of a total of 73 (20 are not eligible). These include 50 NRHP-eligible historic properties and three (3) NRHP-eligible archaeological/linear sites. A complete list of historic properties and archaeological/linear sites in the APE is provided in Tables 1 through 3, and are shown in Figures 2-1 through 2-7, attached. Table 4 lists the 20 properties that are not eligible within the APE.

Findings of Effect for Individual Resources

FTA has evaluated the anticipated impacts of the proposed project on historic properties and archaeological resources identified within the APE. The findings of effect are discussed in more detail below.

No Historic Properties Affected

FTA has determined that the proposed project would result in no historic properties affected for 18 NRHP-eligible historic properties and two (2) NRHP-eligible archaeological/linear resources. These historic properties and archaeological resources would be avoided in their entirety and are listed in Table 1. The locations of these properties can be found in Figures 3-1 through 3-20, also attached.

No Adverse Effect

FTA has determined that the proposed project would result in no adverse effect on 32 NRHP-eligible historic properties and one (1) archaeological site. Tables 2 and 3 summarize these historic properties and archaeological site, and the nature of the anticipated effects to each. Figures 3-1 through 3-20 show their locations.

The proposed project would require temporary construction easements (TCE) for construction of new station platforms and shelters, reconstruction of sidewalks, curb and gutter, or driveway approaches at 14 of these 32 historic properties. Minor, temporary construction activities would occur within parcel boundaries and the properties would be fully restored following construction. Given the anticipated design of the shelters (shown in Figures 1-2 through 1-4, attached), there would be no significant indirect visual effects on any adjacent historic properties. It is not anticipated that the stations would unduly compromise the historic setting or feeling of the properties, and the primary public views of the property from the adjacent sidewalks would remain intact. Therefore, FTA has determined that temporary occupancies associated with TCEs would not result in an adverse effect to these historic properties. These historic properties are listed in Table 2.

For 18 of the 32 historic properties with a finding of no adverse effect, the proposed project would require taking a small strip of property from the edge of the parcels on which historic structures are located. No NRHP-eligible building or contributing feature is located within the area to be acquired. Based on this finding, FTA intends to make a *de minimis* impact determination on these historic properties under Section 4(f) Requirements based on your concurrence with our "no adverse effect" determination. These historic properties are listed in Table 3.

For archaeological site 42SL342 (the North Jordan Canal), the proposed project would require construction of a 60-foot culvert extension within the documented site boundary. The change to the canal would be consistent with the existing and other crossings of the canal and would only affect a small portion of the longer linear feature, but no adverse effect to the site as a whole would result from the construction. The culvert extension would not adversely affect the activities, features, or attributes of this resource; therefore, FTA has determined a no adverse effect finding for this resource. In addition, based on this finding, FTA intends to make a *de minimis* impact determination on this resource under Section 4(f) Requirements based on your concurrence with our "no adverse effect" determination. This archaeological resource is listed in Table 3.

In conclusion, FTA finds that the proposed project would have **no historic properties affected** for 18 historic and 2 archaeological resources. FTA finds that the proposed project would have **no adverse effect** on 14 historic properties with NRHP-eligible structures. In addition, FTA finds that the proposed project would have **no adverse effect** at 18 historic properties with NRHP-eligible structures and one archaeological site (42SL342 – North Jordan Canal)

FTA requests your concurrence with the above determinations of eligibility and findings of effect. Please provide your concurrence via email to tracey.macdonald@dot.gov. If you have any questions or would like more information, please contact Tracey at (303) 362-2386.

Sincerely,

DAVID L BECKHOUSE

Digitally signed by DAVID L BECKHOUSE
Date: 2021.10.14 12:39:54 -06'00'

Cindy Terwilliger
Regional Administrator

Enclosures:

- Figure 1-1. Locally Preferred Alternative
- Figure 1-2. Typical Two-Sided Center Station
- Figure 1-3. Typical One-Sided Center Station
- Figure 1-4. Typical Side Station
- Figure 2-1 through 2-7. APE for Buildings/Structures and Archaeology/Linear Features
- Figure 3-1 through 3-20. Historic Properties – Findings of Effect
- Table 1. Historic Properties – Findings of No Historic Properties Affected/No Use of Section 4(f) Resources
- Table 2. Historic Properties – Findings of No Adverse Effect/No Use of Section 4(f) Resources (Temporary Occupancy)
- Table 3. Historic Properties – Findings of No Adverse Effect/de Minimis Use of Section 4(f) Resources
- Table 4. Historic Properties – Not Eligible for Listing on the National Register of Historic Places

cc: Autumn Hu, Utah Transit Authority
Hal Johnson, Utah Transit Authority
David Amott, Preservation Utah

Figure 1-1. Locally Preferred Alternative

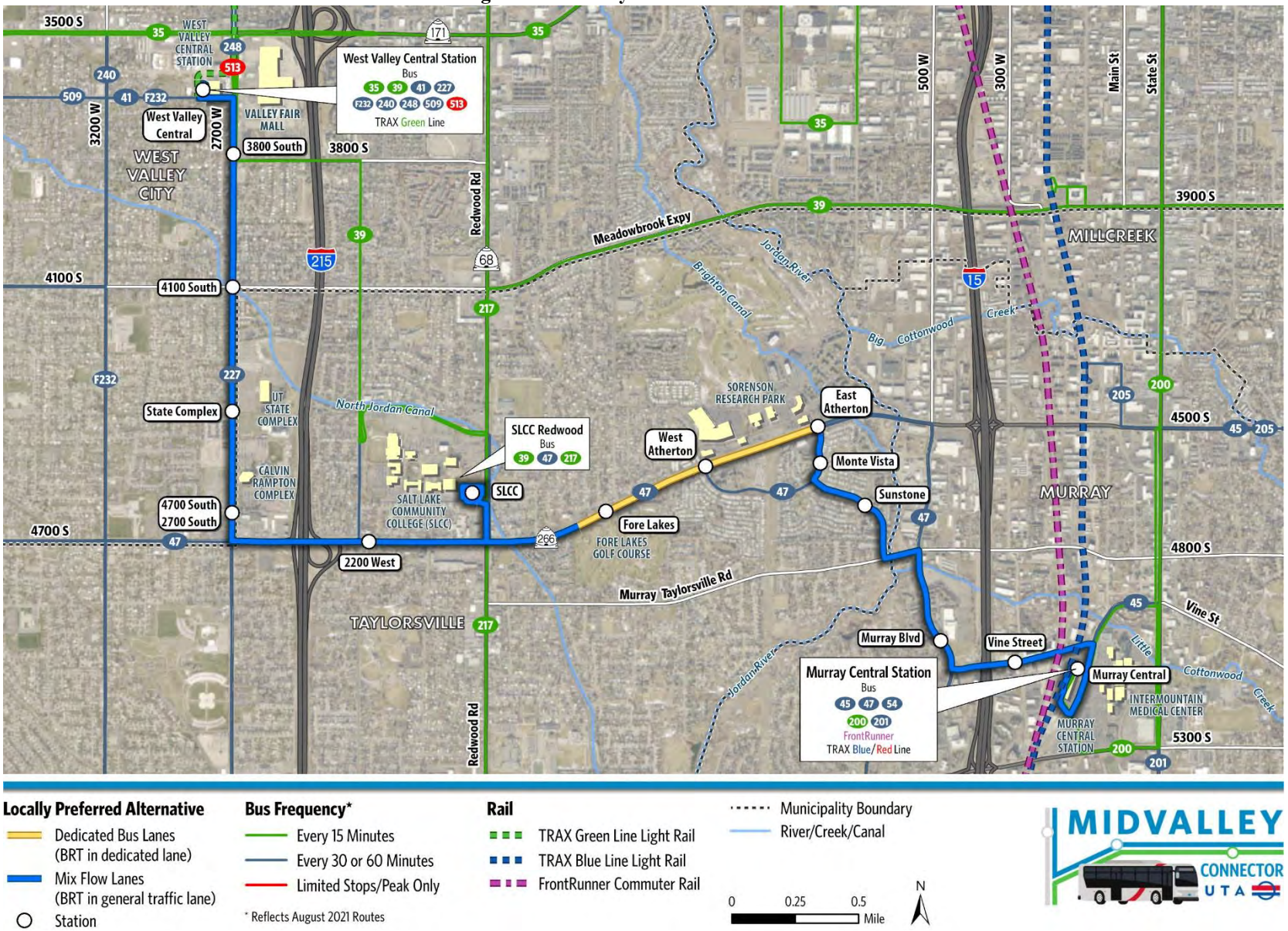


Figure 1-2. Typical Two-Sided Center Station

Figure 1-3. Typical One-Sided Center Station

Figure 1-4 Typical Side Station

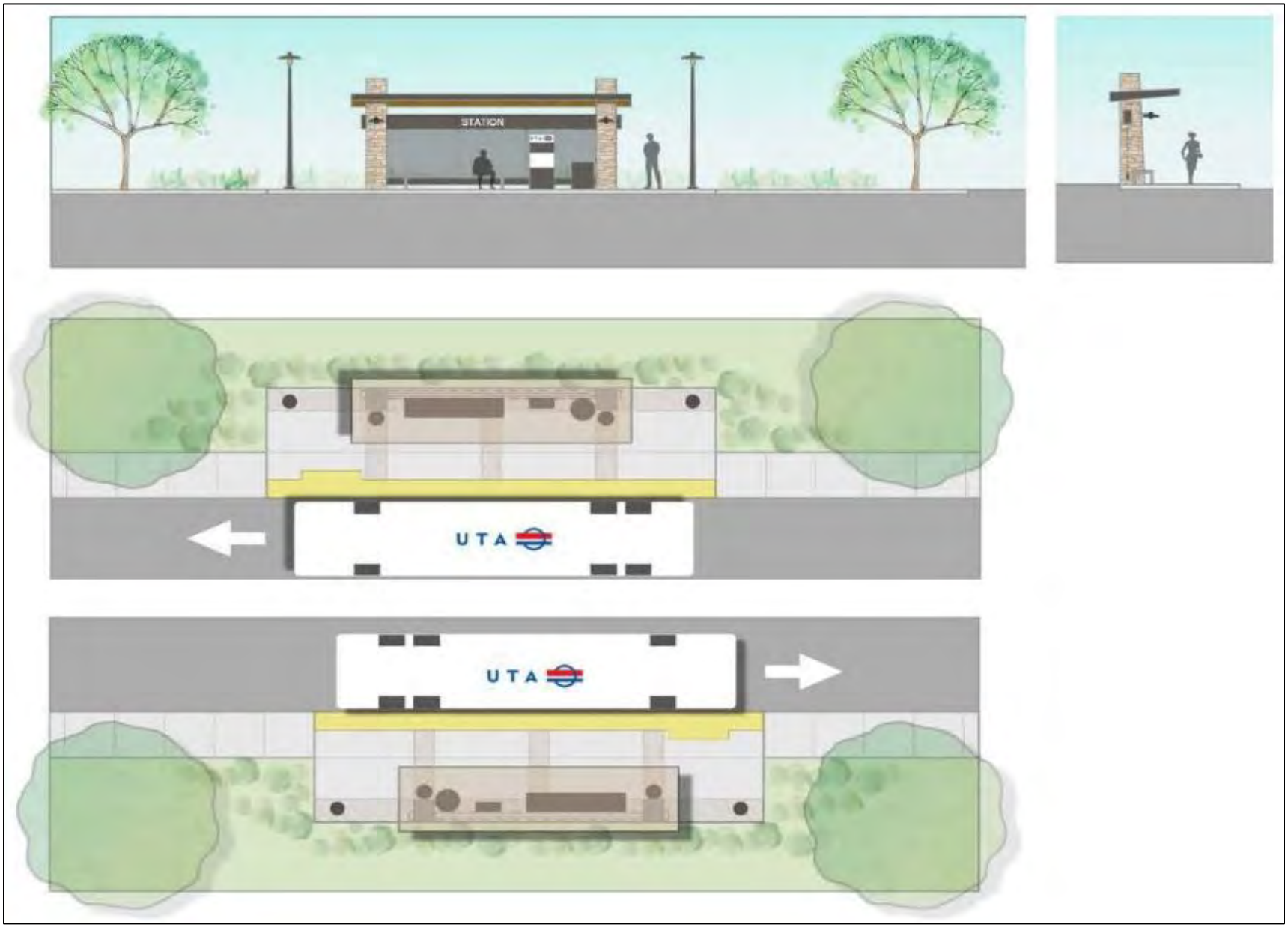


Figure 2-1. APE for Buildings/Structures and Archaeology

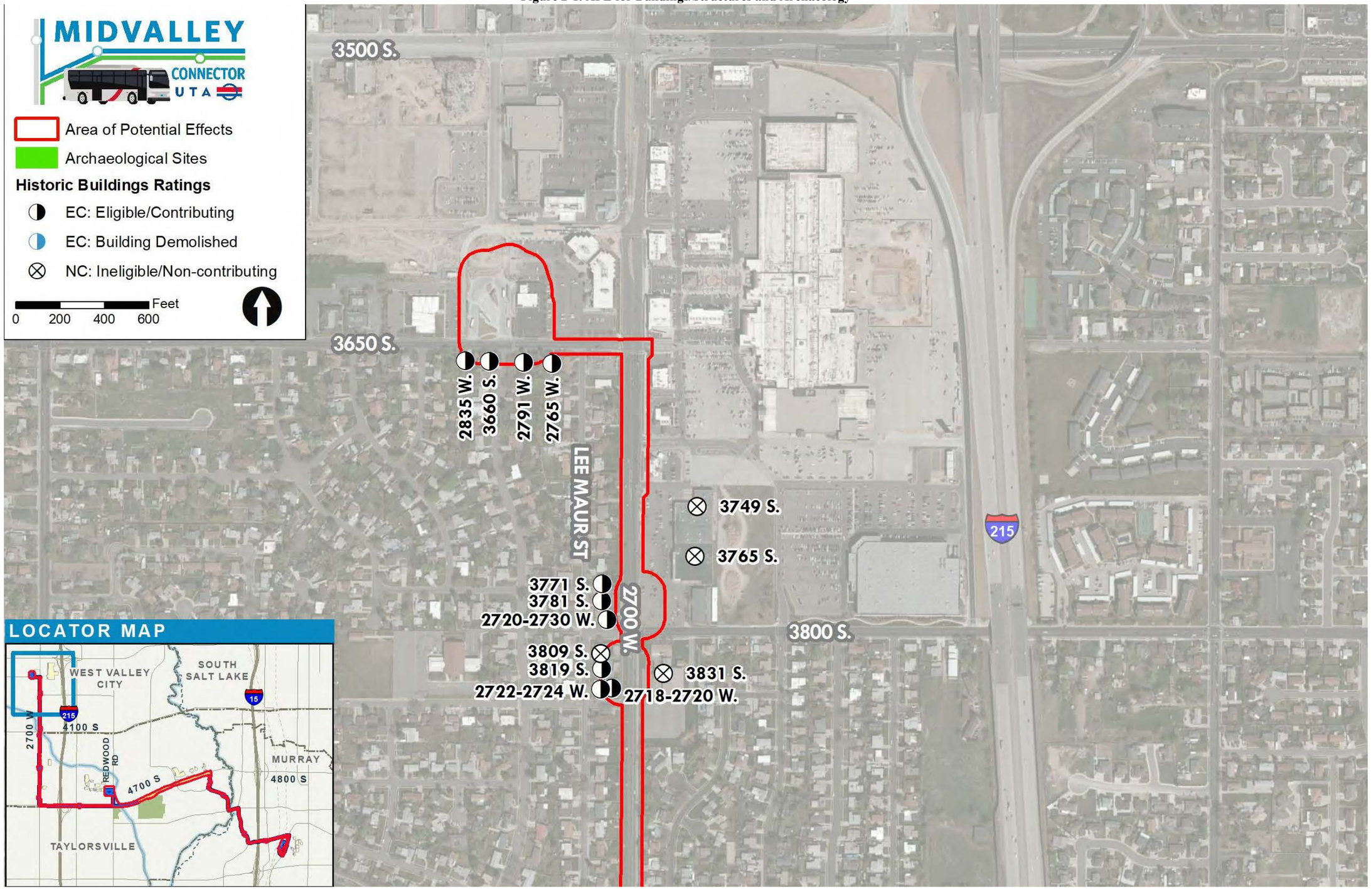


Figure 2-2. APE for Buildings/Structures and Archaeology

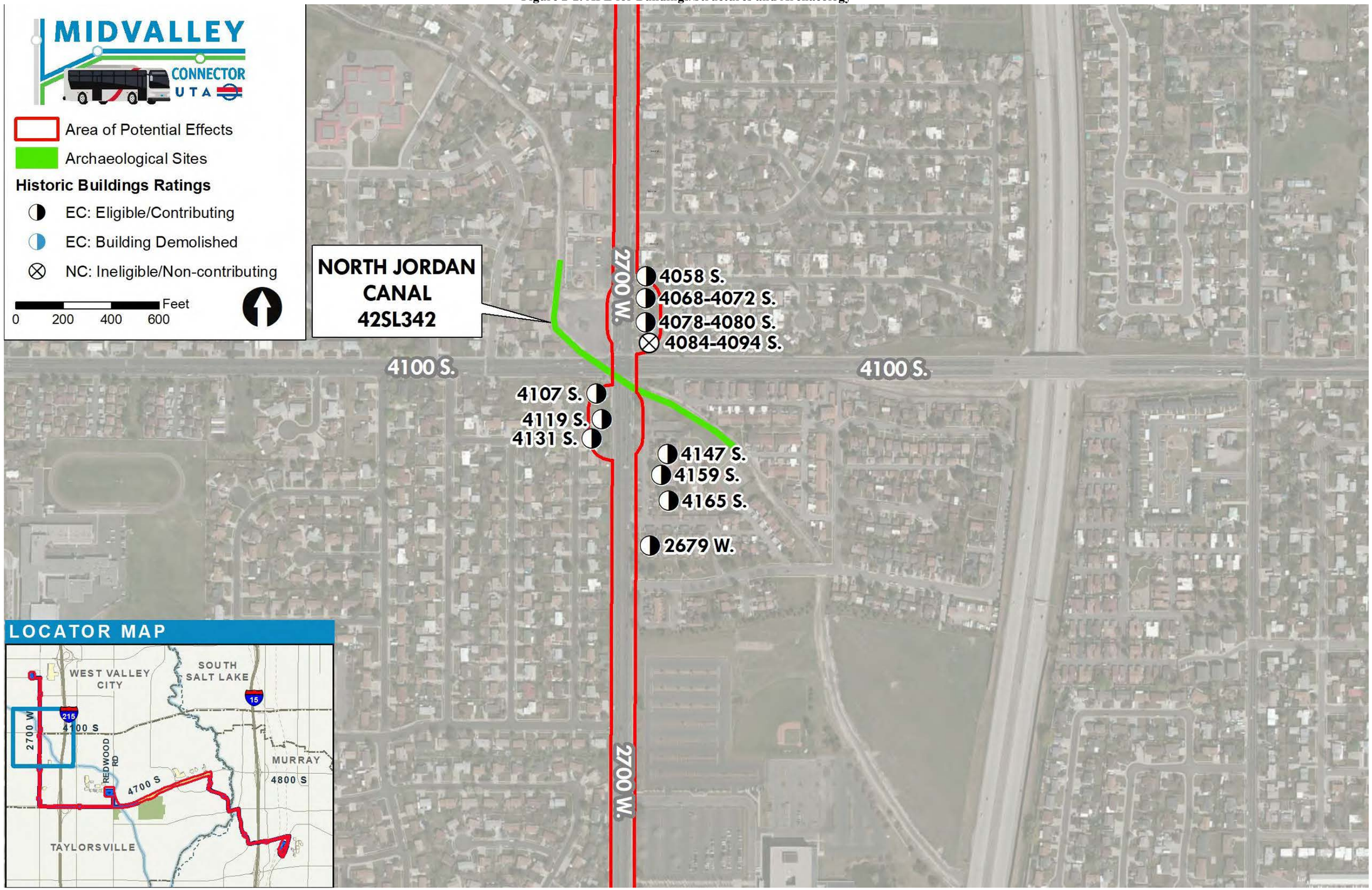


Figure 2-3. APE for Buildings/Structures and Archaeology

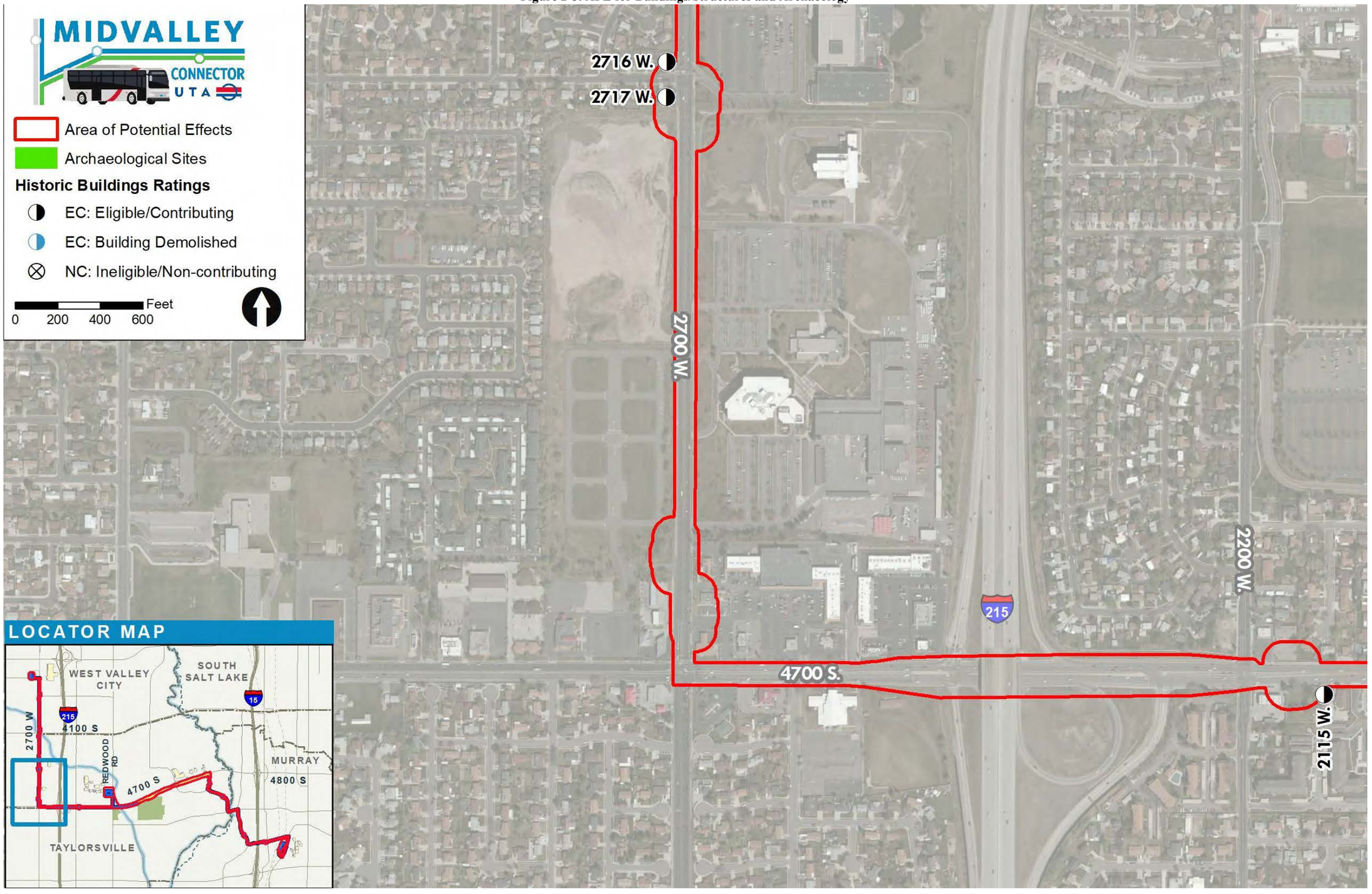


Figure 2-4. APE for Buildings/Structures and Archaeology

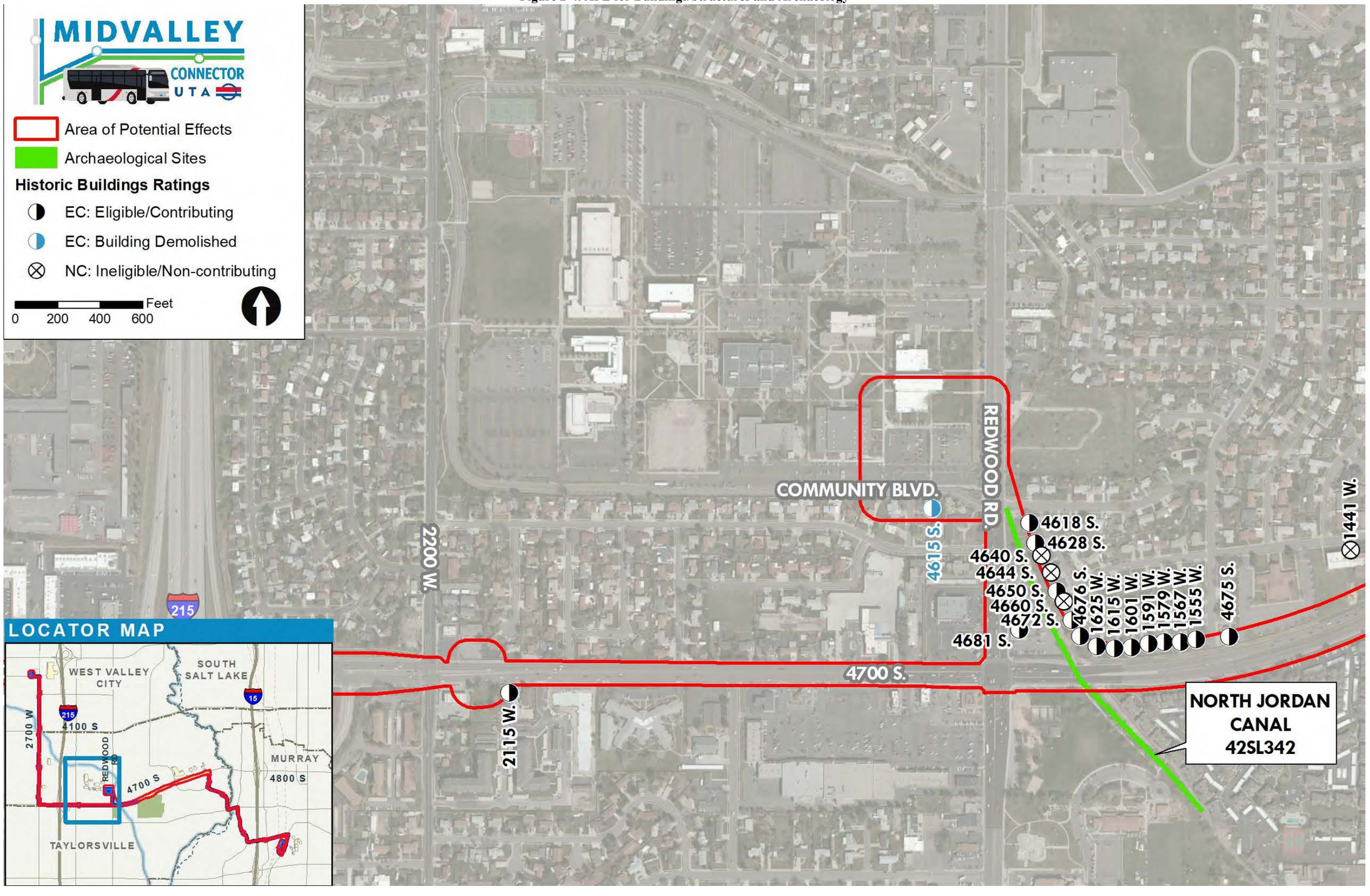


Figure 2-5. APE for Buildings/Structures and Archaeology

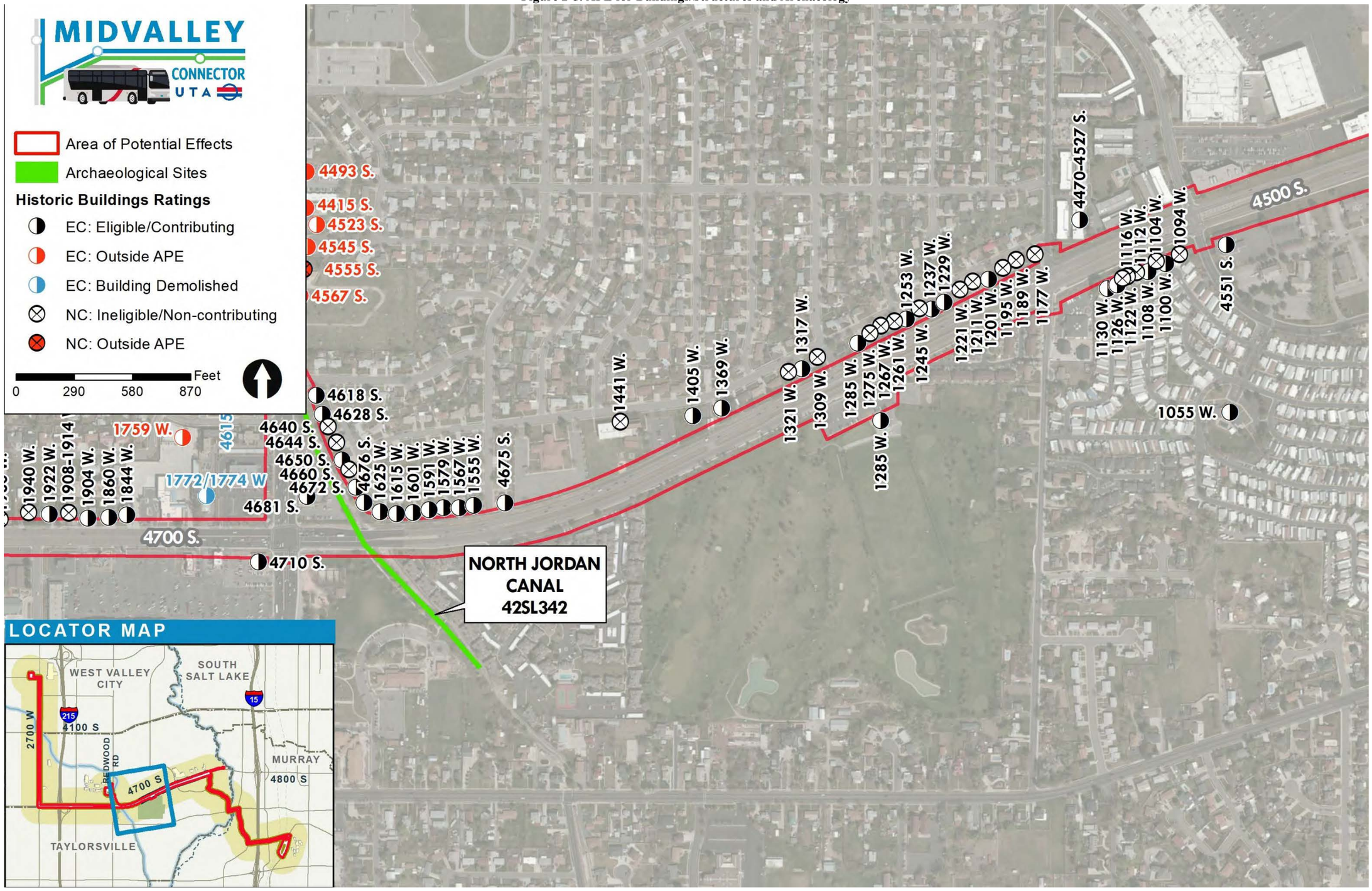


Figure 2-6. APE for Buildings/Structures and Archaeology

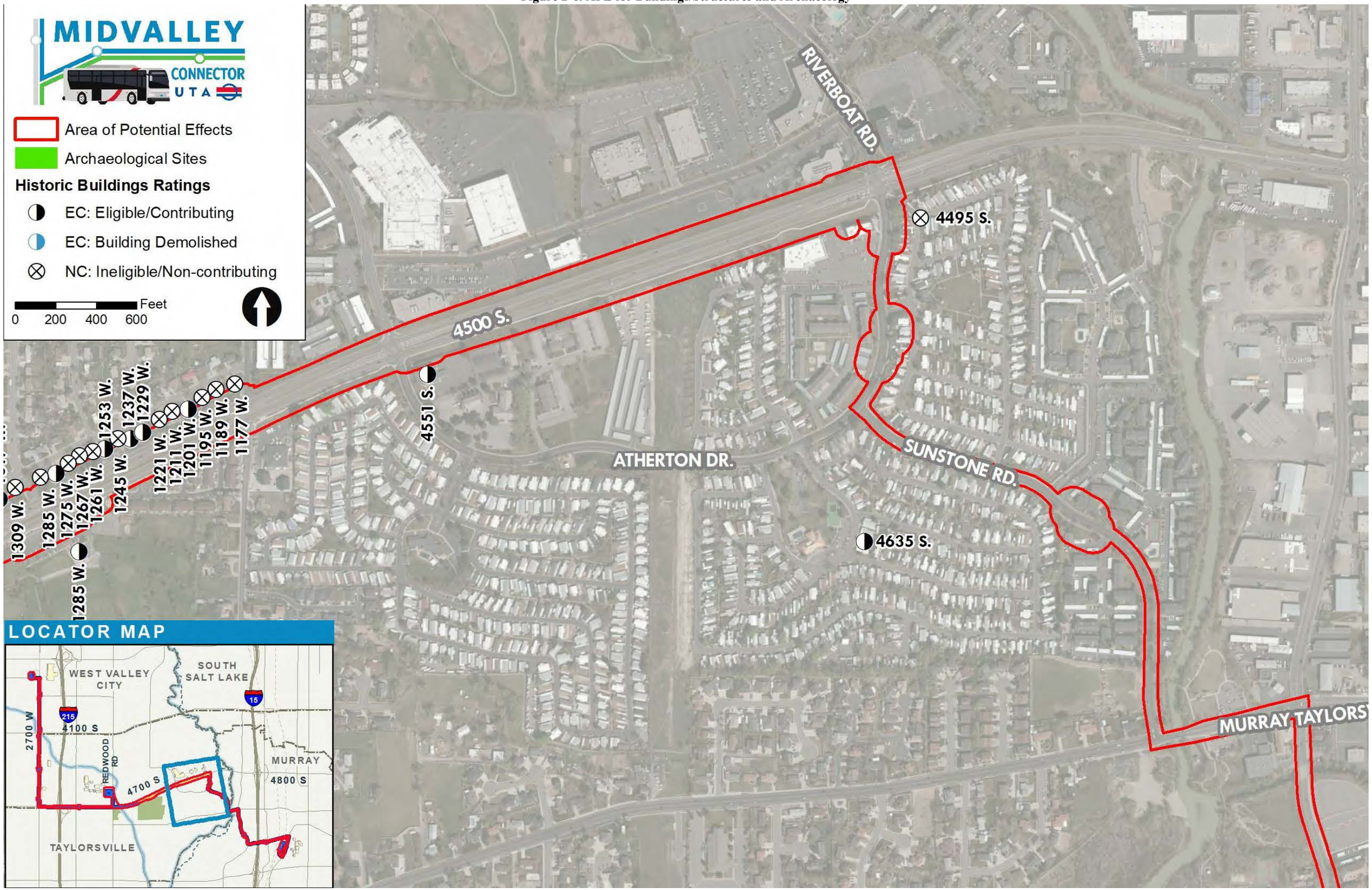


Figure 2-7. APE for Buildings/Structures and Archaeology

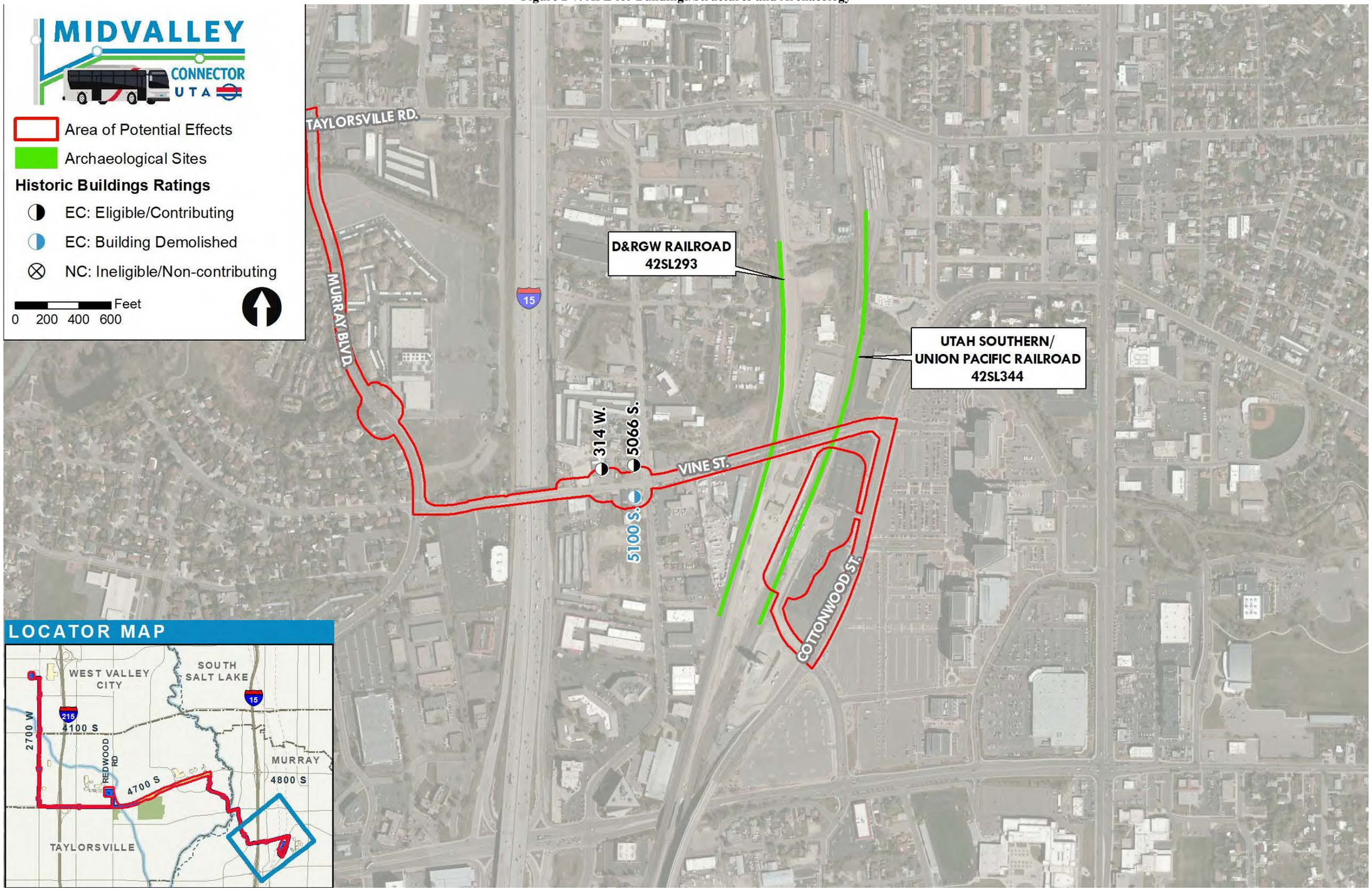


Figure 3-1. Historic Properties – Finding of Effect

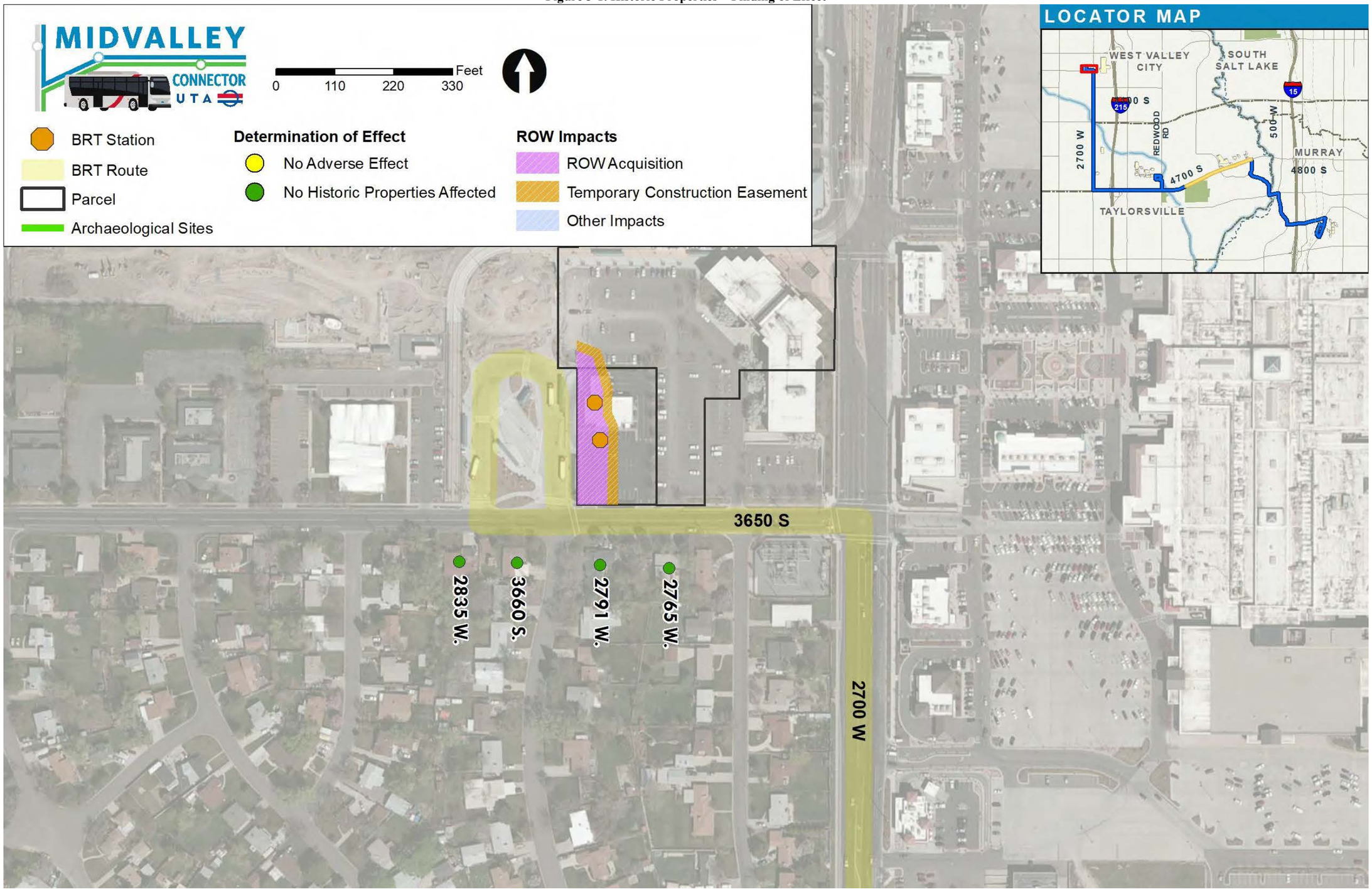


Figure 3-2. Historic Properties – Finding of Effect

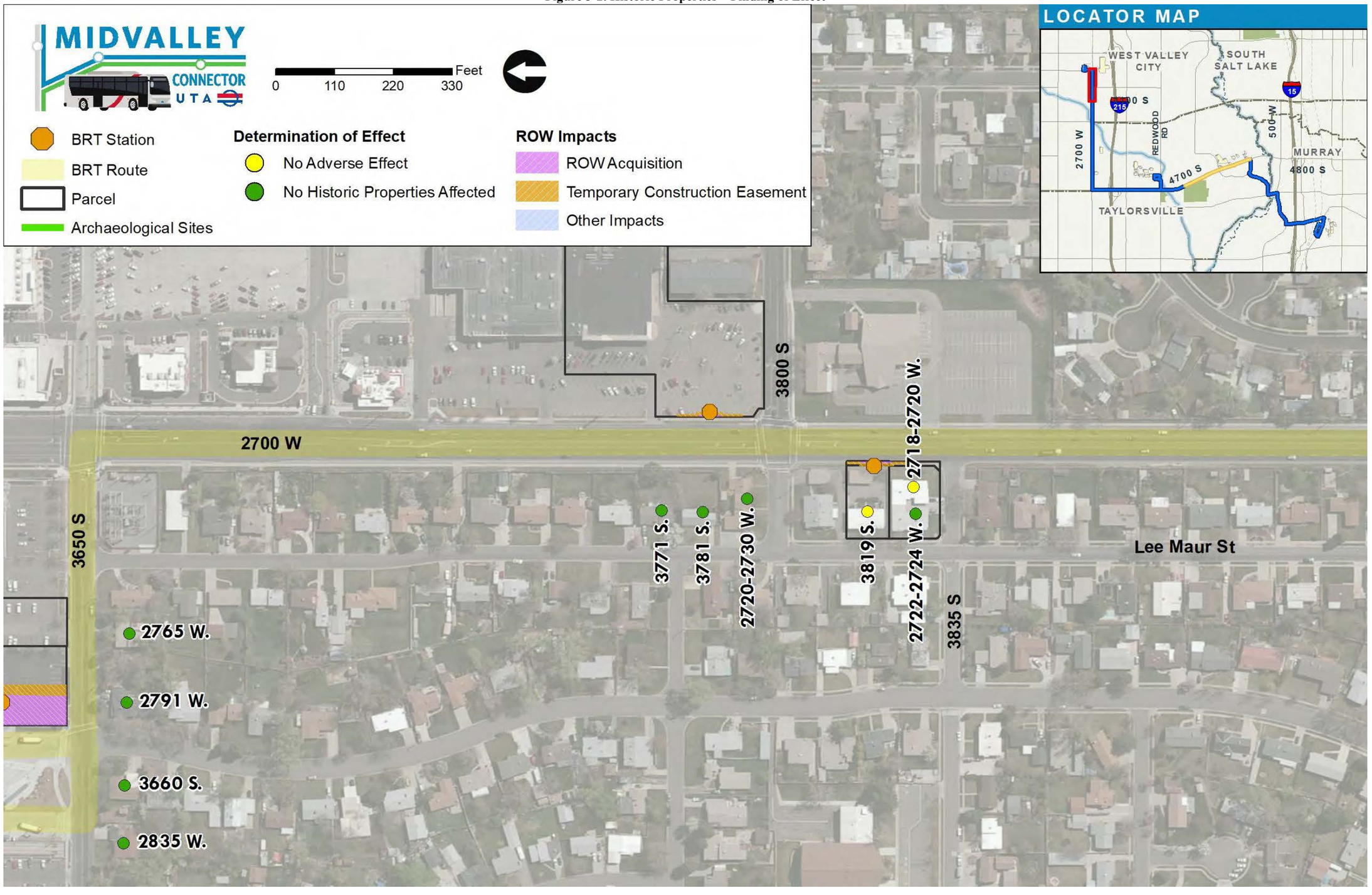


Figure 3-3. Historic Properties – Finding of Effect

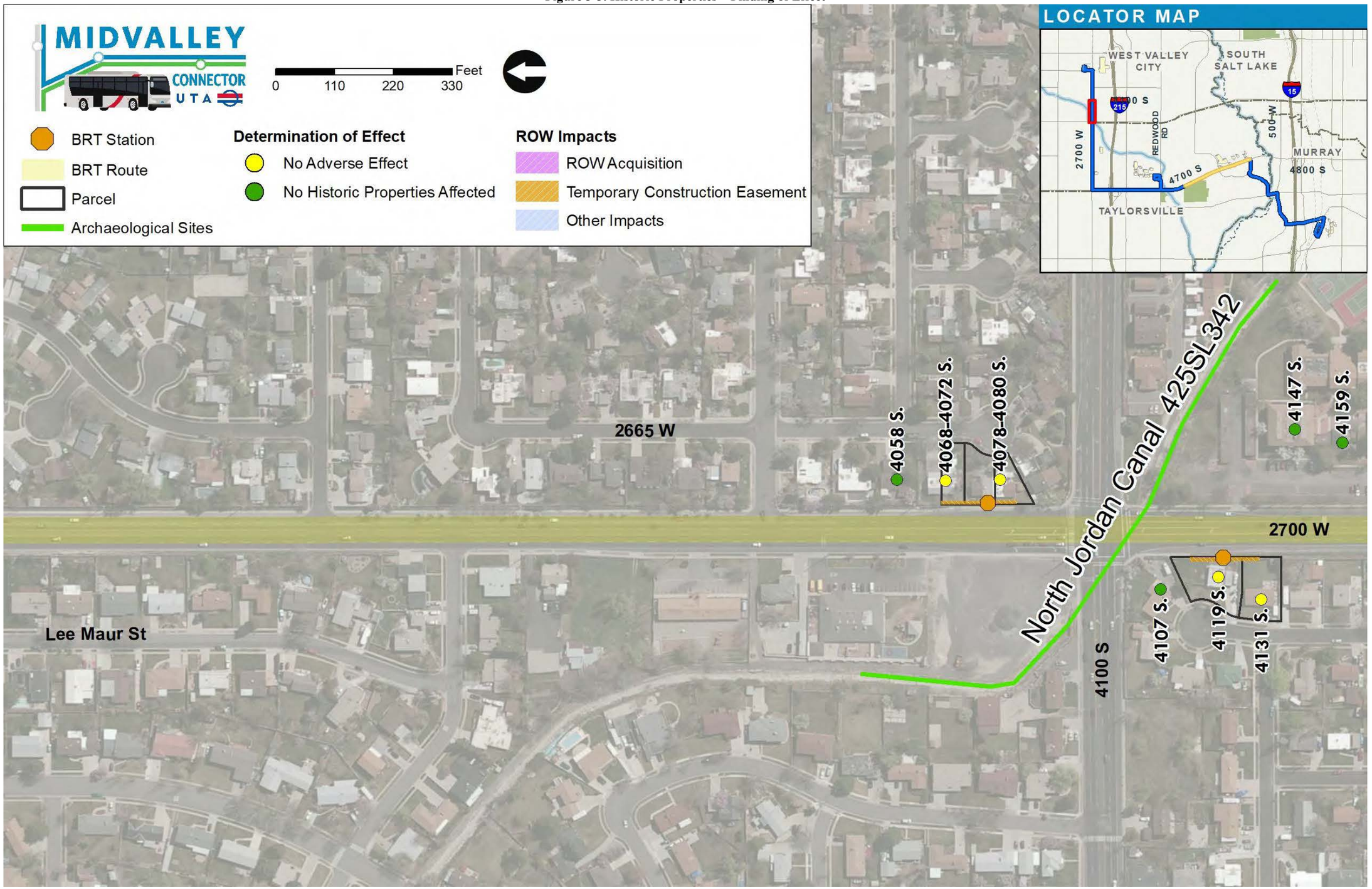


Figure 3-4. Historic Properties – Finding of Effect

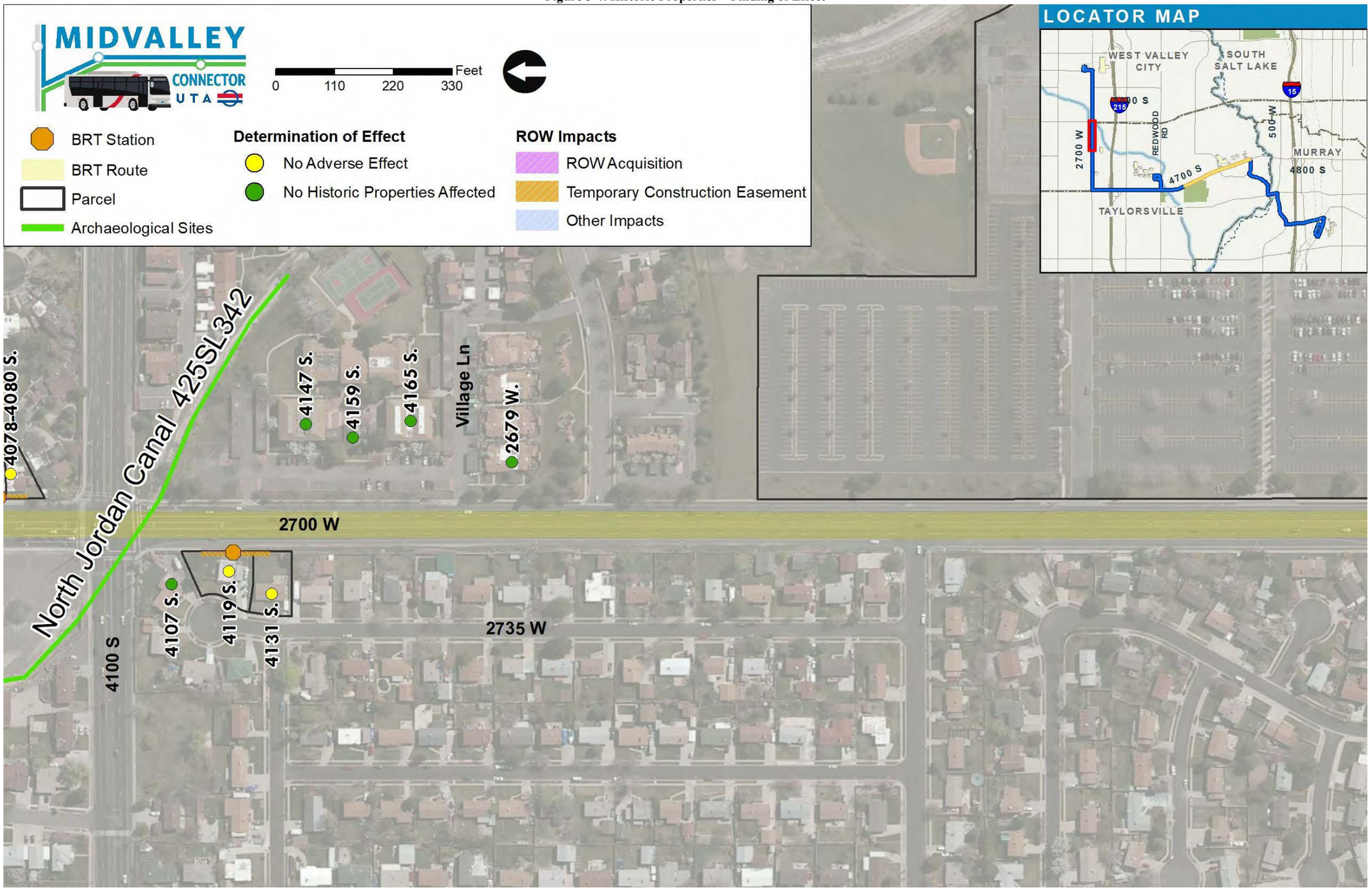


Figure 3-5. Historic Properties – Finding of Effect

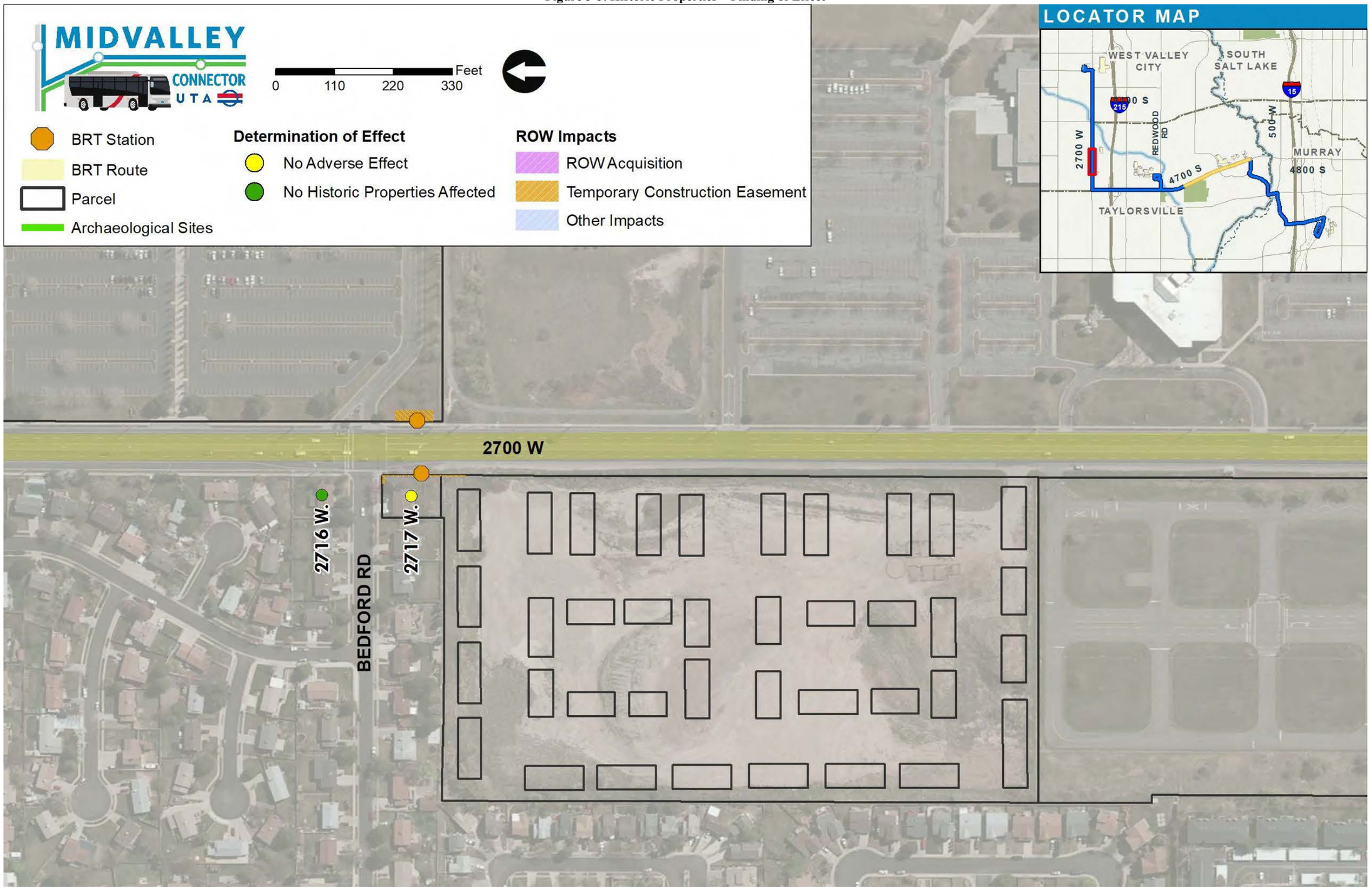
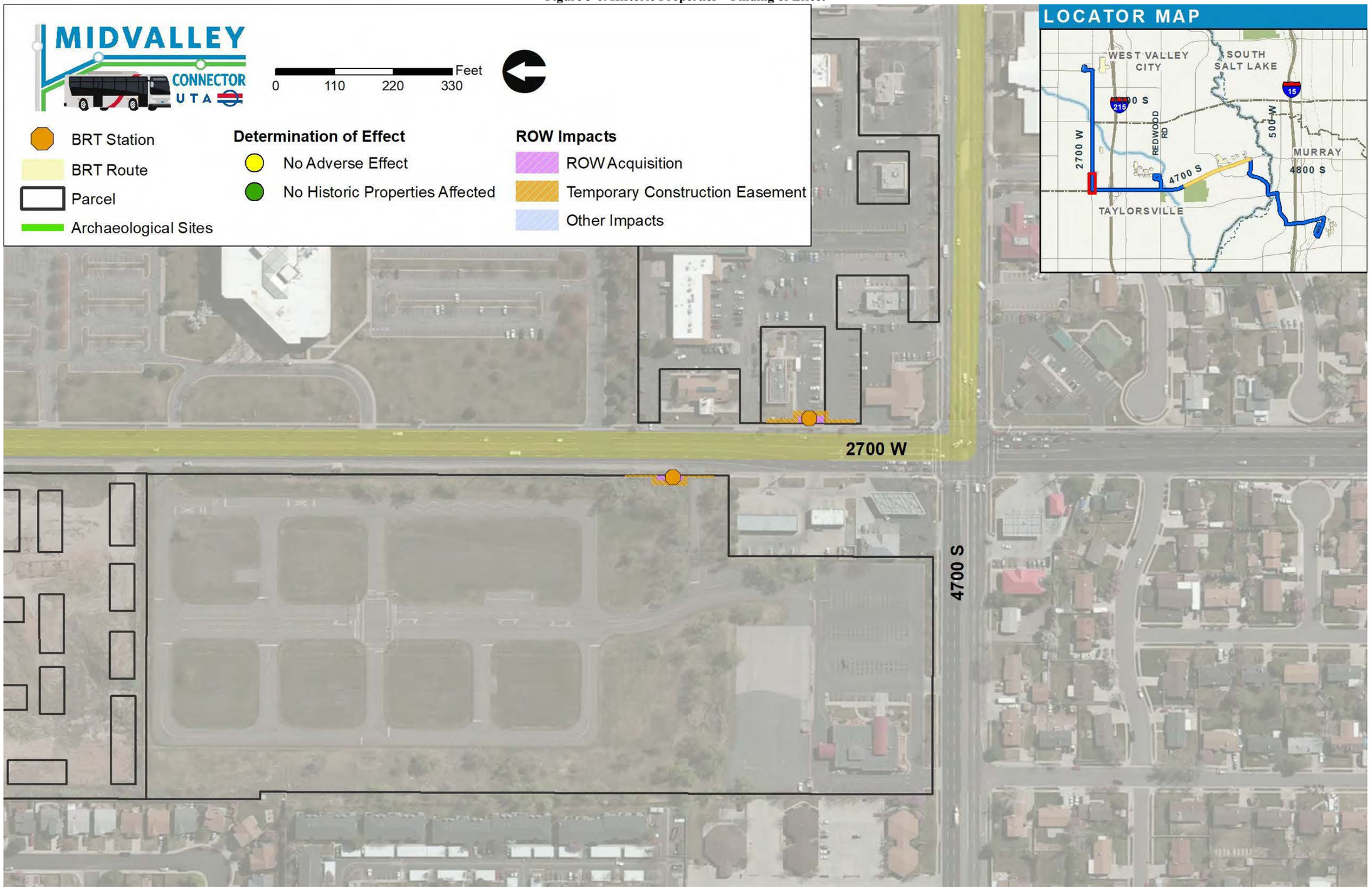


Figure 3-6. Historic Properties – Finding of Effect



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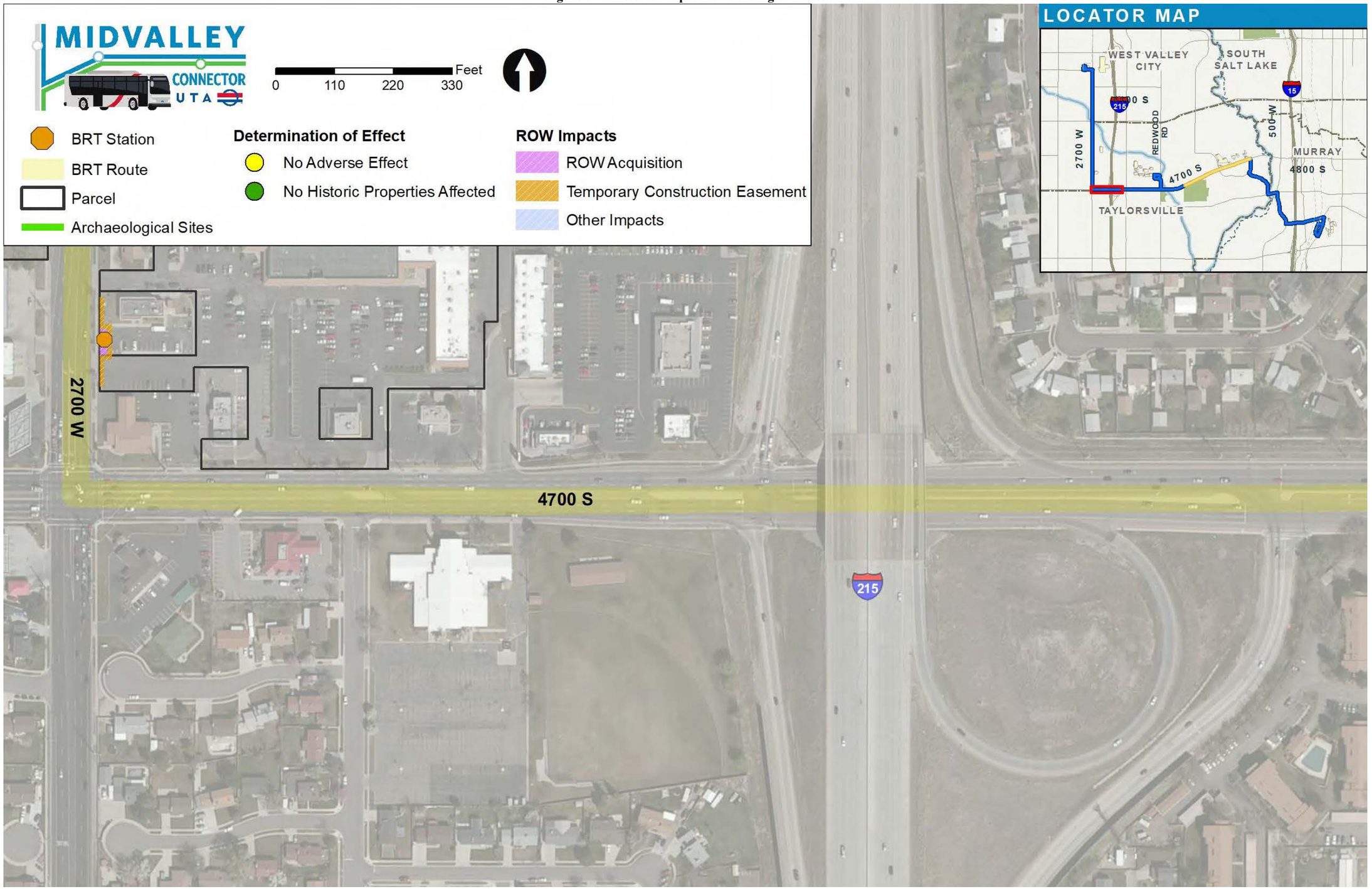


Figure 3-8. Historic Properties – Finding of Effect

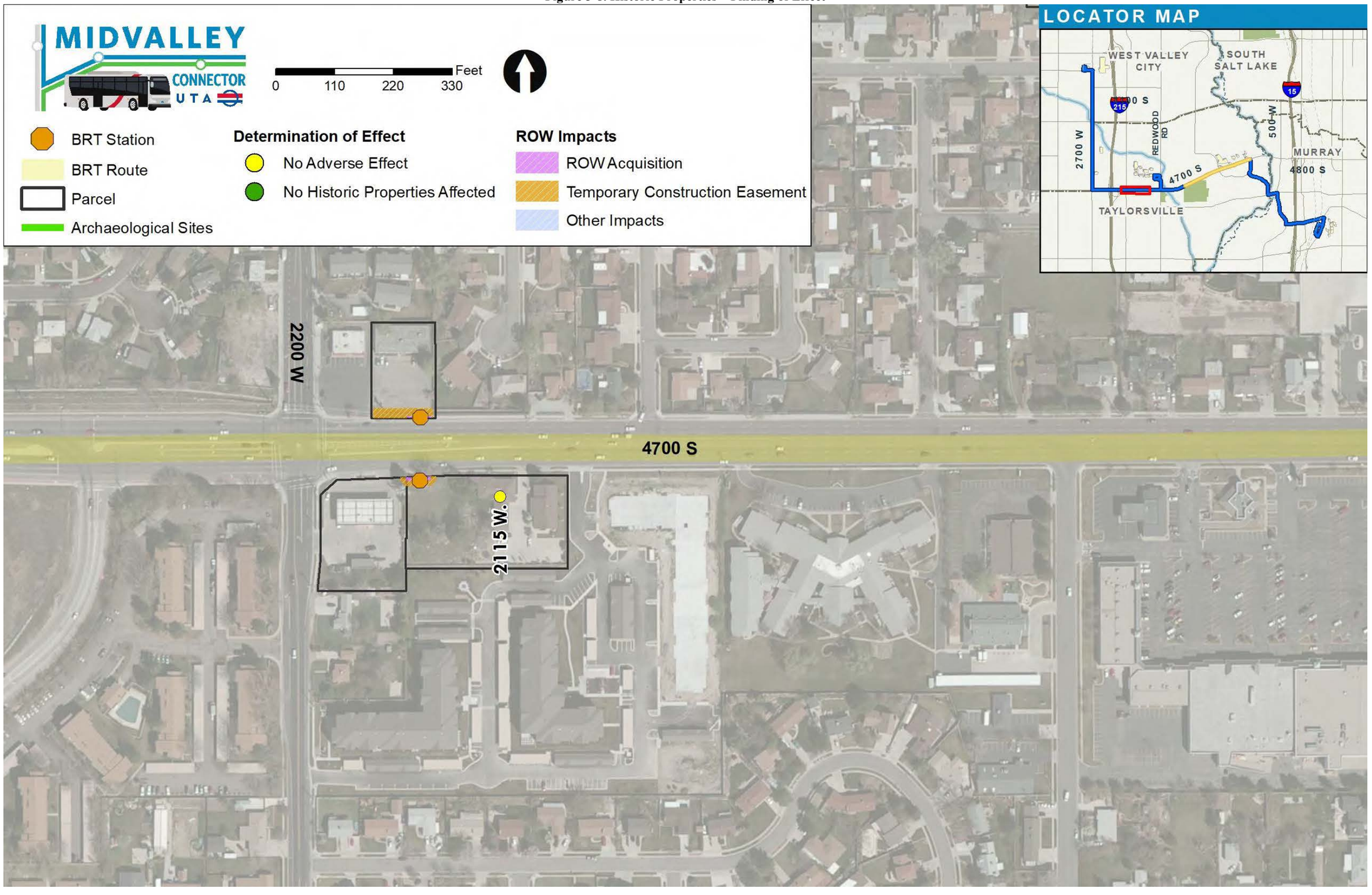


Figure 3-9. Historic Properties – Finding of Effect

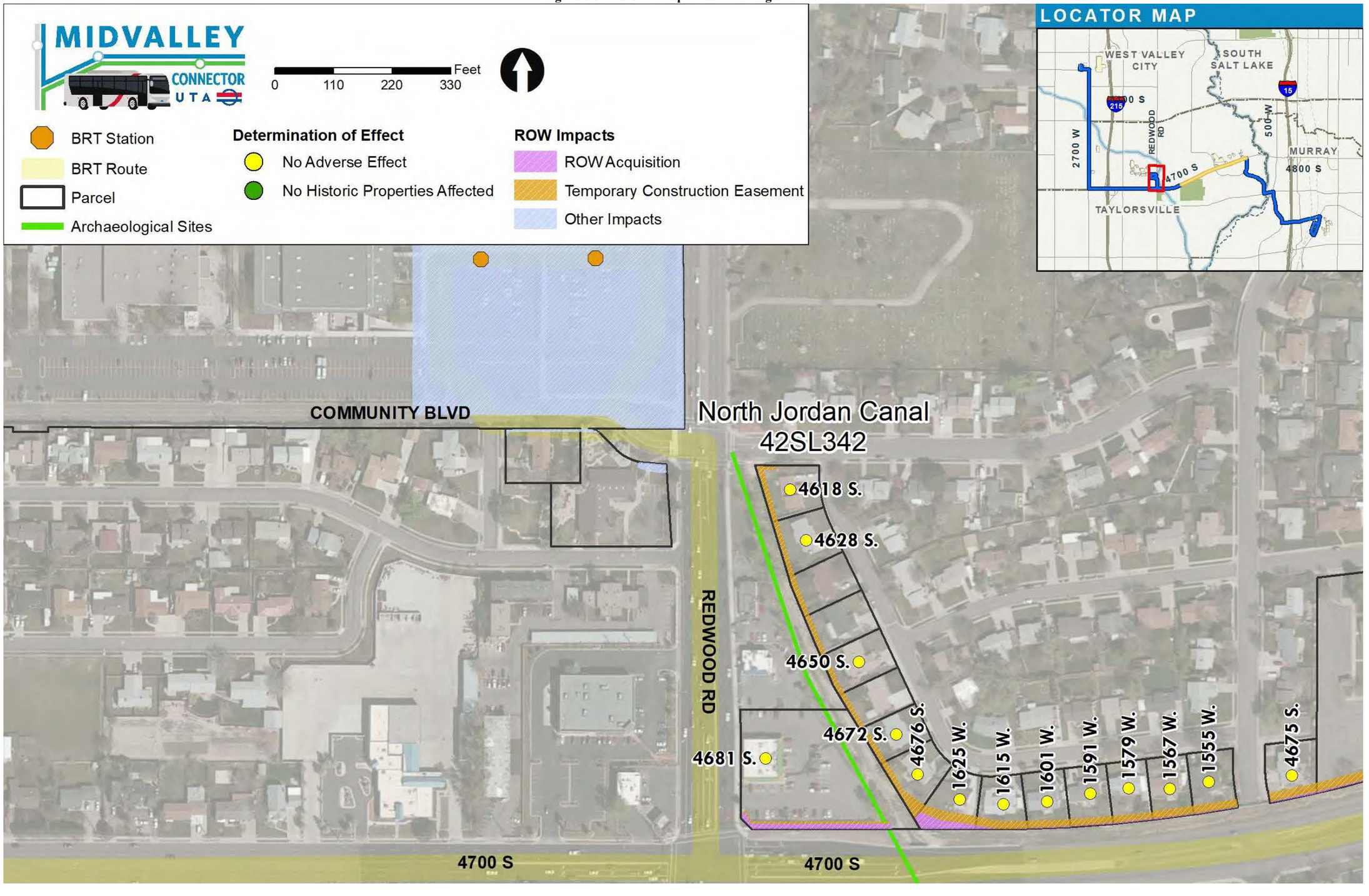


Figure 3-10. Historic Properties – Finding of Effect

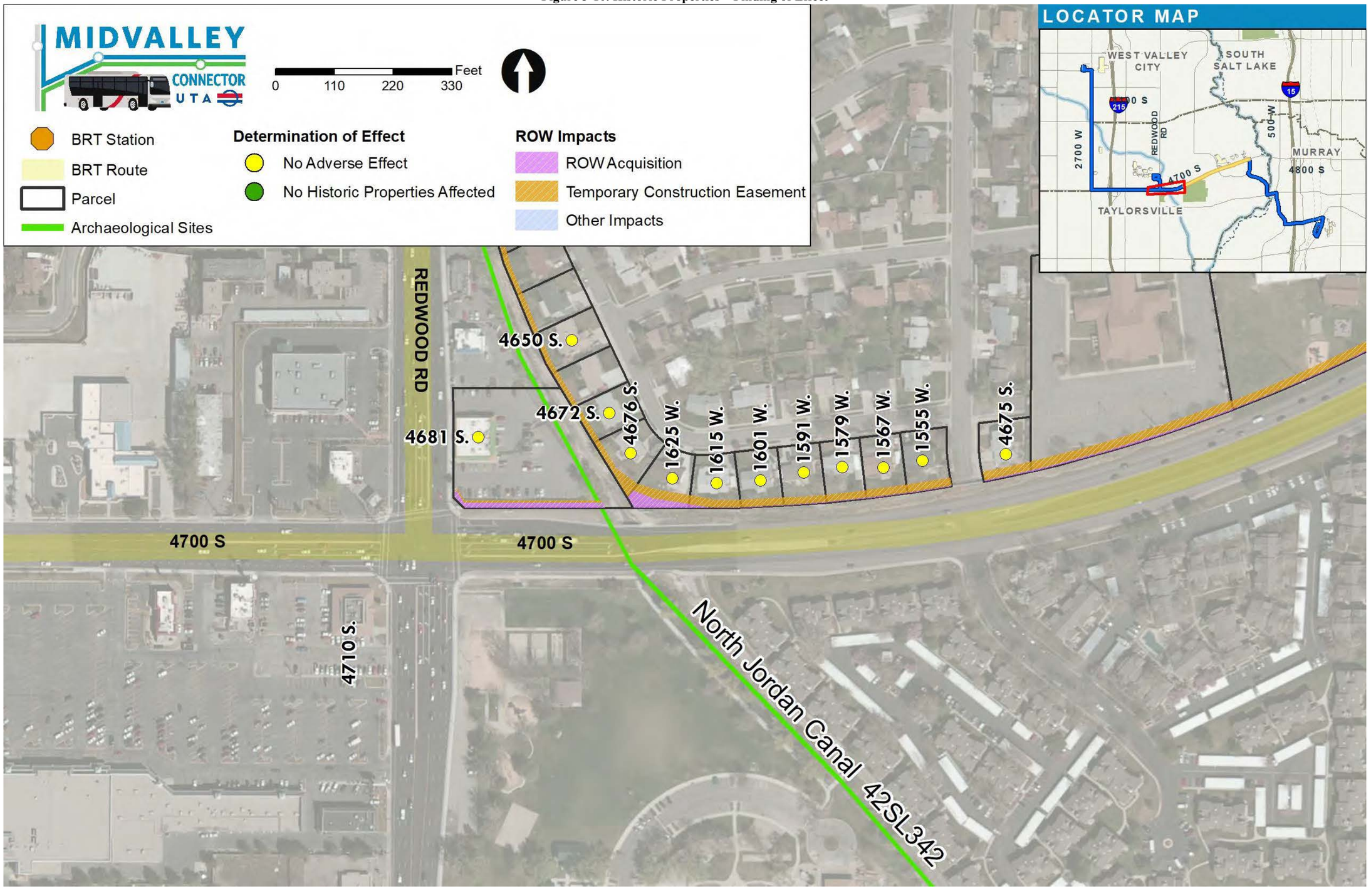


Figure 3-11. Historic Properties – Finding of Effect

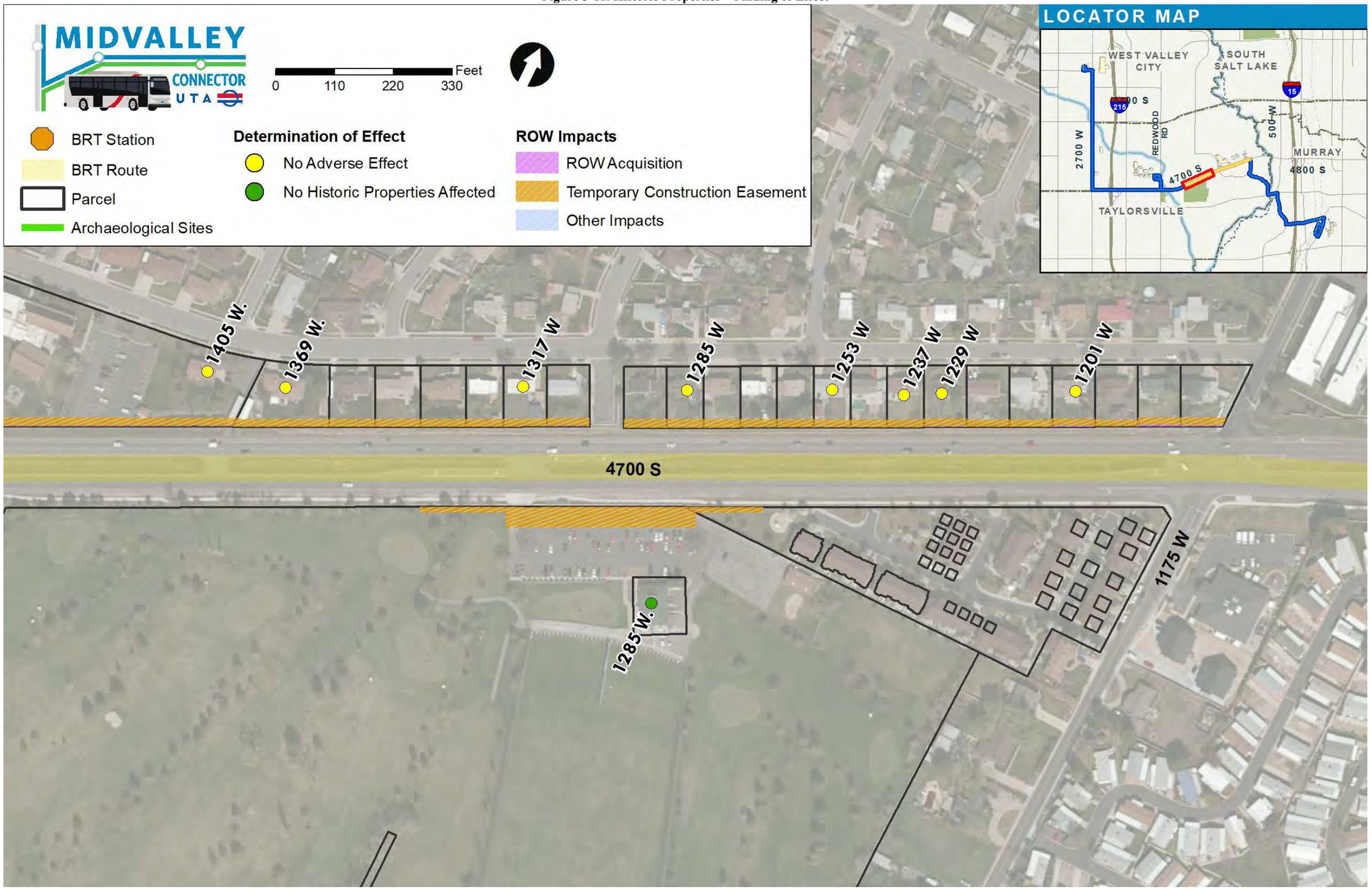


Figure 3-12. Historic Properties – Finding of Effect

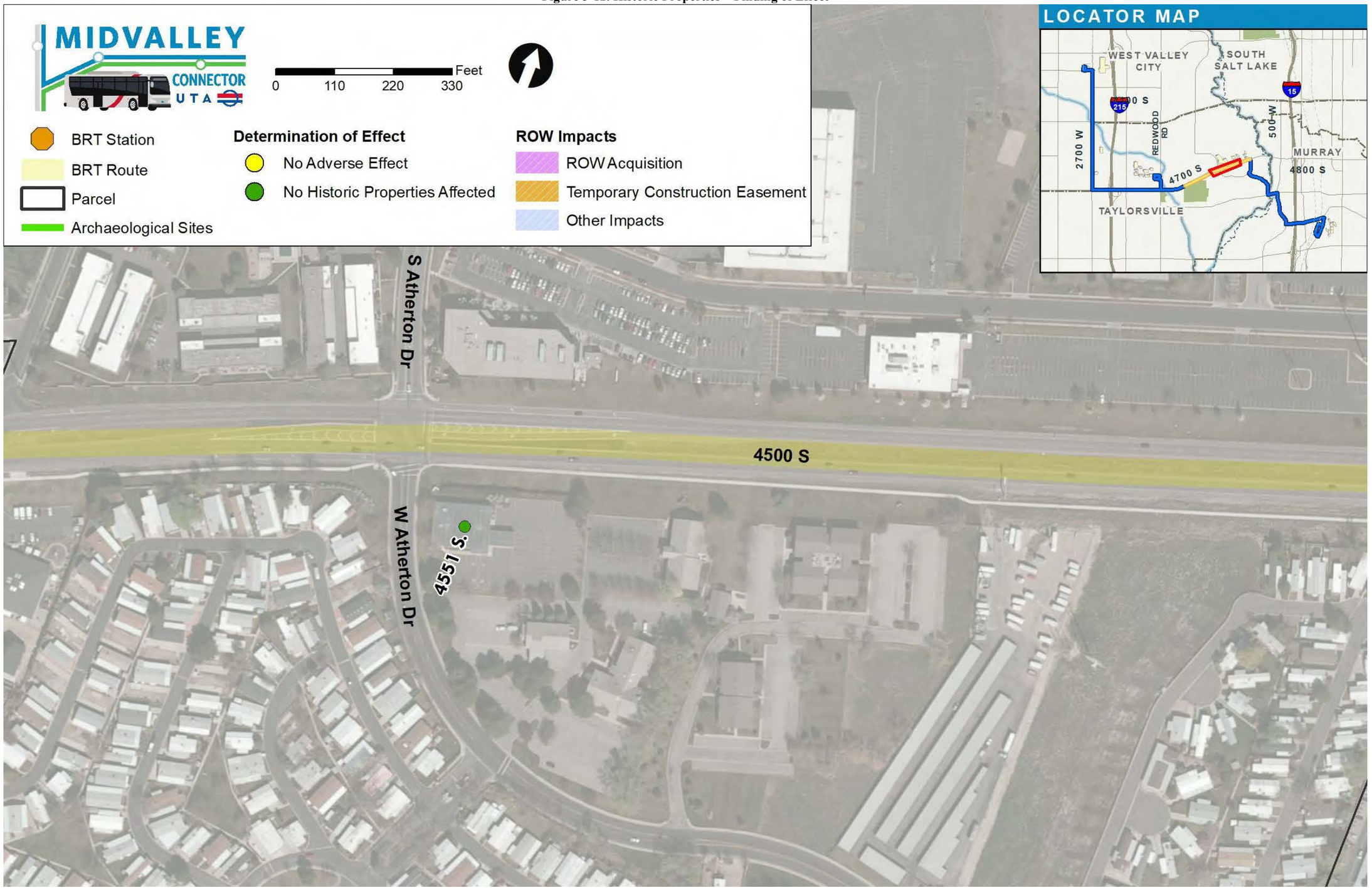


Figure 3-13. Historic Properties – Finding of Effect

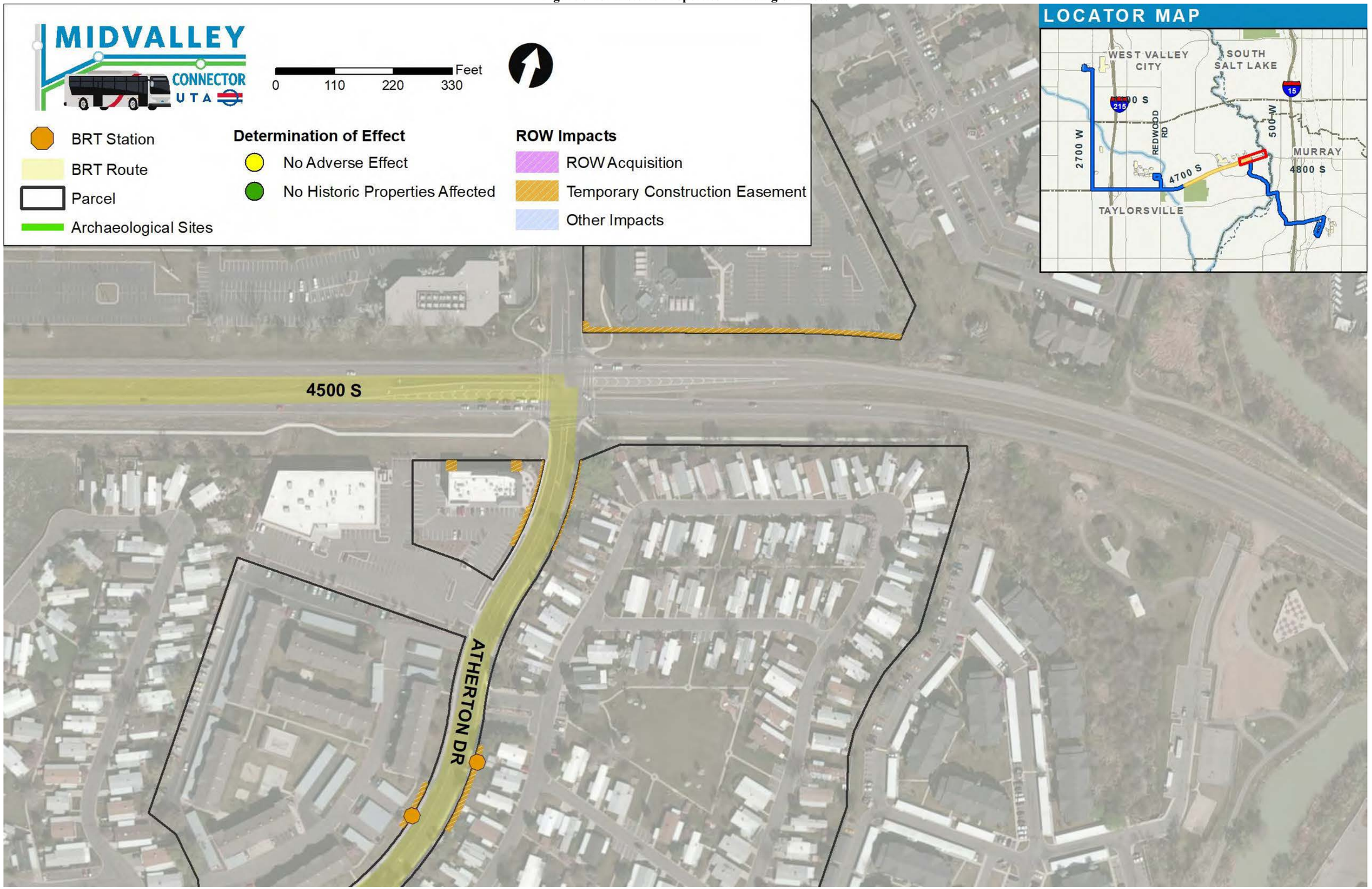


Figure 3-14. Historic Properties – Finding of Effect

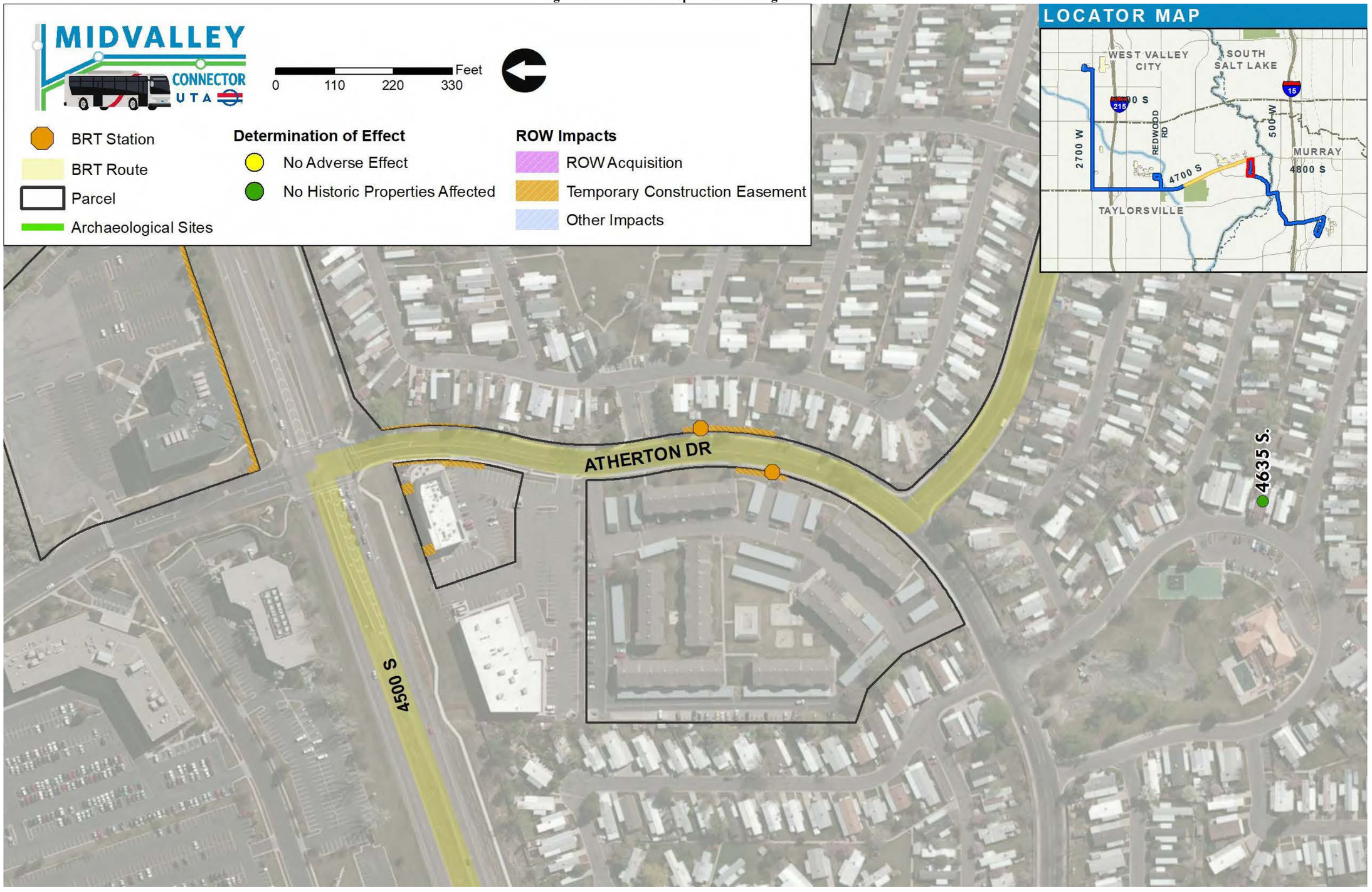


Figure 3-15. Historic Properties – Finding of Effect

Figure 3-16. Historic Properties – Finding of Effect

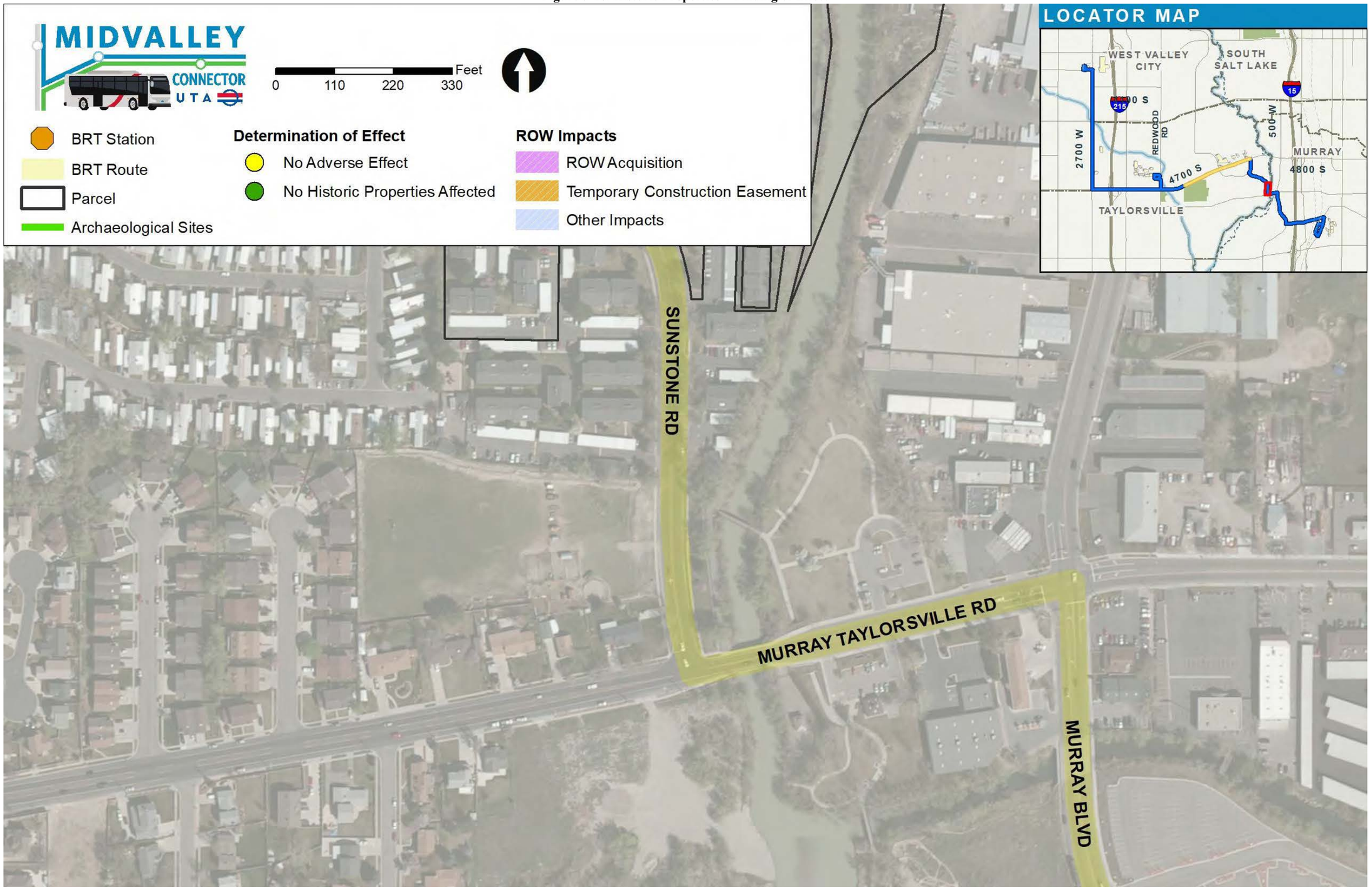


Figure 3-17. Historic Properties – Finding of Effect

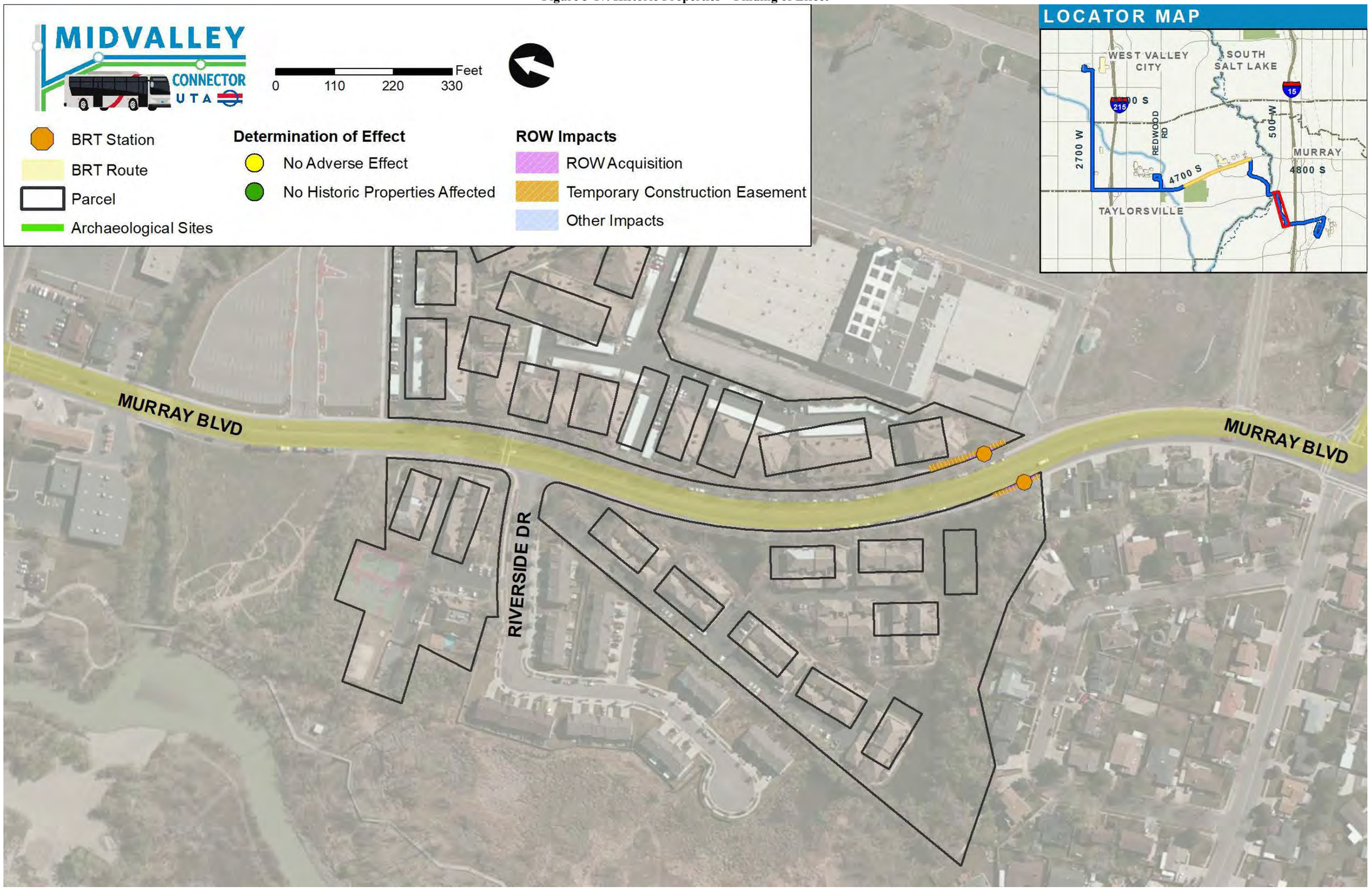


Figure 3-18. Historic Properties – Finding of Effect

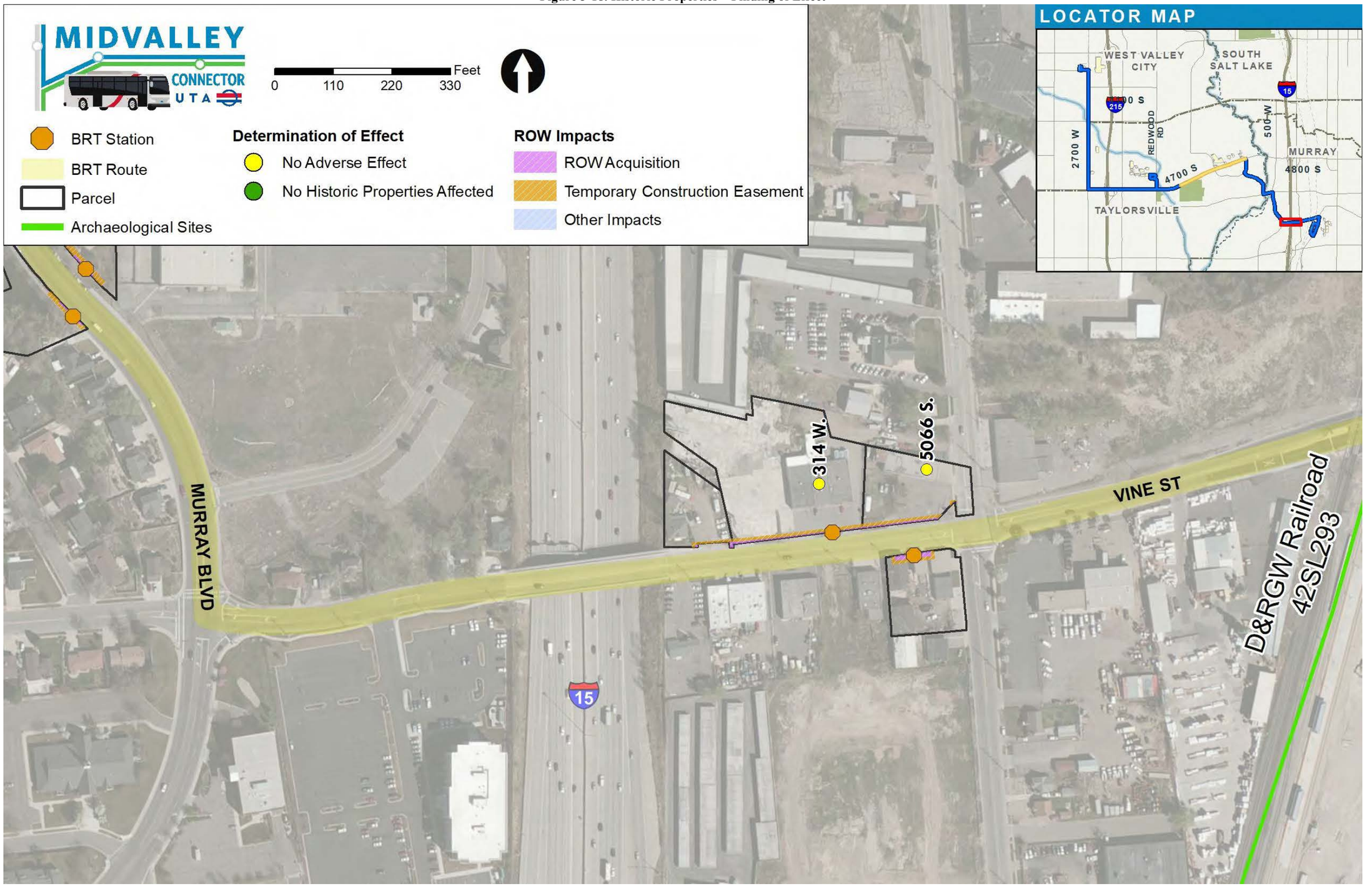


Figure 3-19. Historic Properties – Finding of Effect

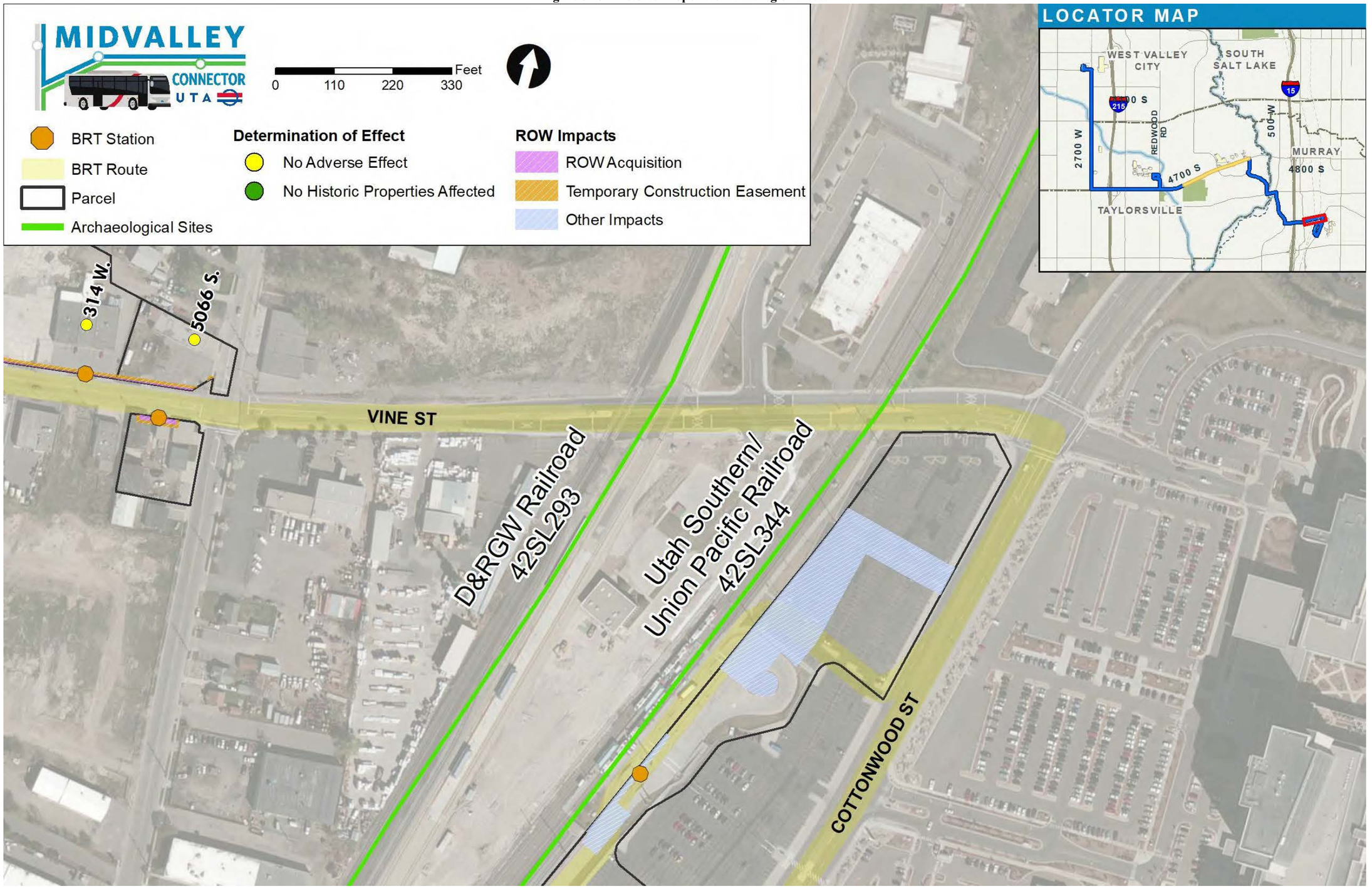


Figure 3-20. Historic Properties – Finding of Effect

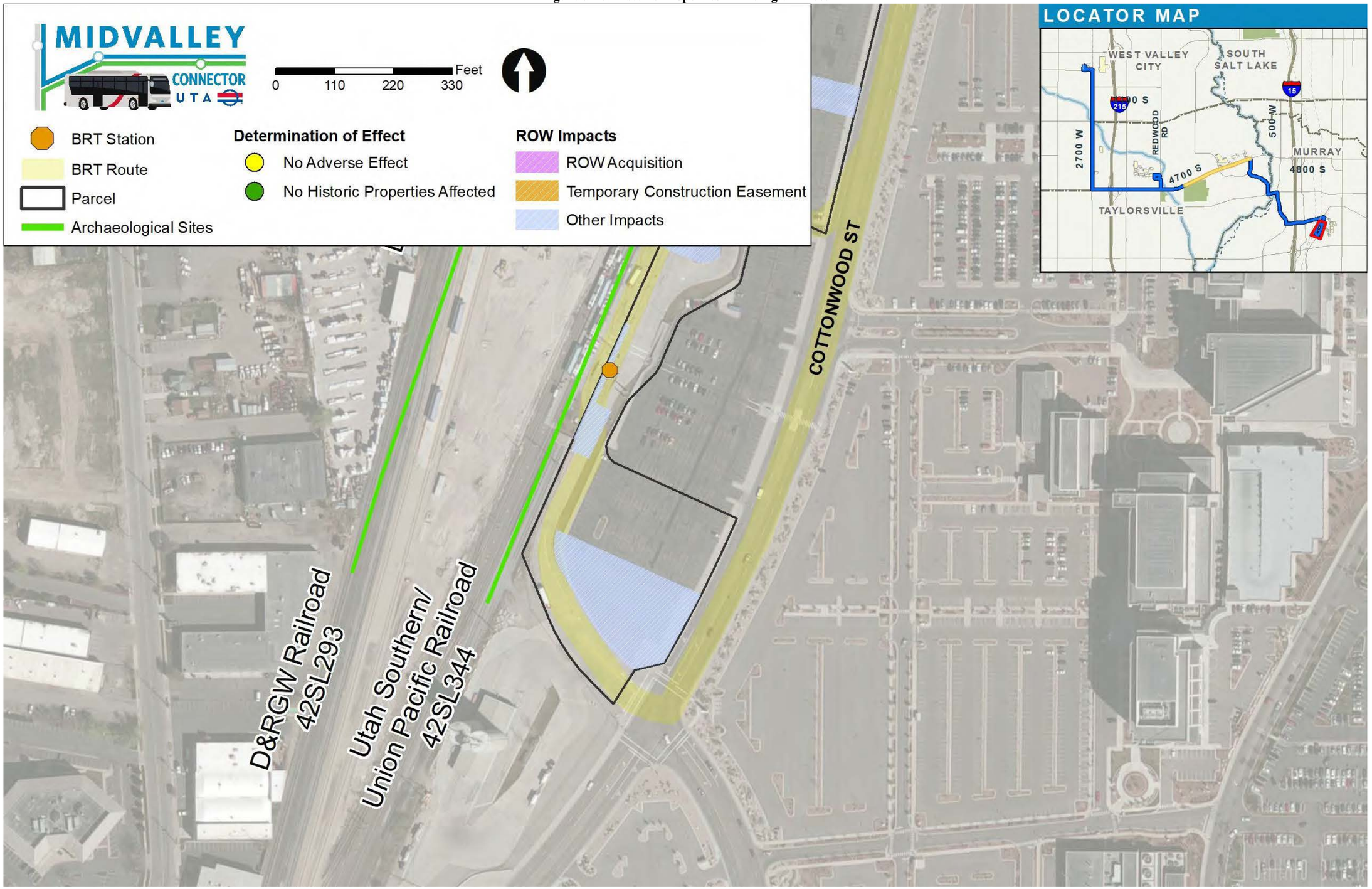


Table 1. Historic Properties – Findings of No Historic Properties Affected/No Use of Section 4(f) Resources

	Address / Site Number	Description	SHPO Rating/NRHP Eligibility	Nature of Impact	Previous SHPO concurrence	Change in Finding
1	4058 S. 2665 W.	c. 1972 Ranch dwelling/Ranch-Rambler style	EC/Eligible	Avoided	2018	Yes
2	4165 S. 2670 W.	c. 1972 Other Apartment dwelling/Late 20th Century: Other style	EC/Eligible	Avoided	2018	No
3	4159 S. 2670 W.	c. 1972 Other building (clubhouse)/Shed style	EC/Eligible	Avoided	2018	No
4	4147 S. 2670 W.	c. 1972 Other Apartment dwelling/Late 20th Century: Other style	EC/Eligible	Avoided	2018	No
5	4107 S. 2735 W.	c. 1970 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	Avoided	2018	No
6	2720-2730 W. 3800 S.	c. 1959 Duplex dwelling/ Ranch-Rambler style	EC/Eligible	Avoided	2018	Yes
7	2722-2724 W. 3835 S.	c. 1959 Duplex dwelling/Post-WWII: Other style	EC/Eligible	Avoided	2018	No
8	2765 W. Lancer Way	c. 1959 Split Level dwelling/ Ranch-Rambler style	EC/Eligible	Avoided	2018	No
9	2791 W. Lancer Way	c. 1957 Duplex dwelling/Ranch-Rambler style	EC/Eligible	Avoided	2018	No
10	2835 W. Lancer Way/ 2835 W. 3650 S.	c. 1956 Ranch dwelling/Ranch-Rambler & Contemporary styles	EC/Eligible	Avoided	2018	No
11	3781 S. Lee Maur St.	c. 1960 Other Residential Type/Period Revival style	EC/Eligible	Avoided	2018	Yes
12	3771 S. Lee Maur St.	c. 1959 Split Level dwelling/ Ranch-Rambler style	EC/Eligible	Avoided	2018	No
13	2679 W. Village Ln.	c. 1972 Duplex dwelling/ Ranch-Rambler style	EC/Eligible	Avoided	2018	No
14	2716 W. Bedford Rd.	c. 1976 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	Avoided	No	N/A
15	4551 S. Atherton Dr.	c. 1976 1-story Other Commercial/Public building exhibiting Modern: Other style	EC/Eligible	Avoided	No	N/A
16	4635 S. Grandeur Peak Cir	c. 1953 Manufactured home park with approximately 295 1-story single-wide and double-wide manufactured homes	EC/Eligible	Avoided	No	N/A
17	3660 S. Market St.	c. 1956 Ranch dwelling/Ranch-Rambler styles	EC/Eligible	Avoided	2018	No
18	1285 W. Taylorsville Expy.	c. 1973 1-story Other Commercial/Public building (clubhouse) exhibiting Late 20th Century: Other style	EC/Eligible	Avoided	No	N/A
	Archaeological Resource					
1	42SL293	Denver & Rio Grande Western Railroad	EC/Eligible	Avoided	2018	No
2	42SL344	Utah Southern/Union Pacific Railroad	EC/Eligible	Avoided	2018	No

Table 2. Historic Properties – Findings of No Adverse Effect/No Use of Section 4(f) Resources (Temporary Occupancy)

	Address / Site Number	Description	SHPO Rating/ NRHP Eligibility	Nature of Impact	Previous SHPO concurrence	Change in Finding
1	4068-4072 S. 2665 W.	c. 1972 Double House dwelling/Post-WWII: Other style	EC/Eligible	A TCE of 304 sq. ft. from the property's total 5,011 sq. ft. would be required. No right-of-way would be acquired. The historic building would not be affected.	2018	Yes
2	4131 S. 2735 W.	c. 1970 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A TCE of 1,121 sq. ft. from the property's total 8,669 sq. ft. would be required. No right-of-way would be acquired. The historic building would not be affected.	2018	No
3	3819 S. Lee Maur St.	c. 1963 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A TCE of 805 sq. ft. from the property's total 10,890 sq. ft. would be required. No right-of-way would be needed. The historic building would not be affected.	2018	Yes
4	1237 W. Tamarack Dr.	c. 1970 Split Entry dwelling/ Ranch-Rambler & Split Entry styles	EC/Eligible	A TCE of 1,030 sq. ft. from the property's 7,894 sq. ft. would be required. No right-of-way would be needed. The historic building would not be affected.	2018	No
5	1253 W. Tamarack Dr.	c. 1971 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A TCE of 1,030 sq. ft. from the property's total 7,889 sq. ft. would be required No right-of-way would be needed. The historic building would not be affected.	2018	No
6	1285 W. Tamarack Dr.	c. 1970 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A TCE of 1,030 sq. ft. from the property's total 7,881 sq. ft. would be required. No right-of-way would be needed. The historic building would not be affected.	2018	No
7	1317 W. Tamarack Dr.	c. 1971 Split Entry dwelling/ Mansard style	EC/Eligible	A TCE of 1,200 sq. ft. would from the property's 9,207 sq. ft. would be required. No right-of-way would be needed. The historic building would not be affected.	2018	No
8	1369 W. Tamarack Rd.	c. 1975 1-story Ranch (w/ garage) single-family dwelling exhibiting Ranch/Rambler style	EC/Eligible	A TCE of 2,640 sq. ft. from the property's total 17,880 sq. ft. would be required. No new right-of-way needed. The historic building would not be impacted.	No	N/A
9	2717 W. Bedford Rd.	c. 1976 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A TCE of 286 sq. ft. from the property's total 8,787 sq. ft. would be required. The historic building would not be impacted.	No	N/A
10	4618 S. Hemlock Dr.	c. 1961 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Split Entry and Modern: Other styles	EC/Eligible	A TCE of 1,544 sq. ft. from the property's total 10,179 sq. ft. would be required. The historic building would not be affected.	No	N/A
11	4628 S. Hemlock Dr.	c. 1961 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A TCE of 1,790 sq. ft. from the property's total 10,436 sq. ft. would be required. No new right-of-way needed. The historic building would not be affected.	No	N/A
12	4650 S. Hemlock Dr.	c. 1961 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A TCE of 1,326 sq. ft. from the property's total 9,853 sq. ft. would be required. No new right-of-way needed. The historic building would not be affected.	No	N/A
13	4672 S. Hemlock Dr.	c. 1961 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A TCE of 1,113 sq. ft. from the property's total 7,927 sq. ft. would be required. No new right-of-way needed. The historic building would not be affected.	No	N/A
14	4676 S. Hemlock Dr.	c. 1961 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A TCE of 238 sq. ft. from the property's total 9,997 sq. ft. would be required. No new right-of-way needed. The historic building would not be affected.	No	N/A

Table 3. Historic Properties – Findings of No Adverse Effect/de Minimis Use of Section 4(f) Resources

	Address / Site Number	Description	SHPO Rating/ NRHP Eligibility	Nature of Impact	Previous SHPO concurrence	Change in Finding
1	4078-4080 S. 2665 W.	c. 1971 Double House dwelling/Post-WWII: Other style	EC/Eligible	A 495 sq. ft. TCE and 19 sq. ft. of new right-of-way would be required from the 4,356 sq. ft. parcel. The historic building would not be affected.	2018	Yes
2	4119 S. 2735 W.	c. 1970 Ranch dwelling/ Ranch-Rambler & Post-WWII: Other styles	EC/Eligible	A 1,432 sq. ft. TCE and 93 sq. ft. of new right-of-way would be required from the property's total 10,103 sq. ft. The historic building would not be affected.	2018	No
3	2718-2720 W. 3835 S.	c. 1962 Duplex dwelling/ Post-WWII: Other style	EC/Eligible	A 99 sq. ft. TCE and 19 sq. ft. of new right-of-way would be required from the property's total 22,379 sq. ft. The historic buildings would not be affected. This home shares a common parcel with another home; temporary construction easements are quantified for the parcel as a whole.	2018	Yes
4	2115 W. 4700 S.	c. 1962 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A 717 sq. ft. TCE and 399 sq. ft. of new right-of-way would be required from the 51,837 sq. ft. parcel. The historic building would not be affected.	2018	Yes
5	314 W. Vine St.	c. 1975 1-story Service Bay/Business building exhibiting Modern: Other style. Clad in concrete block	EC/Eligible	A 1,477 sq. ft. TCE and 640 sq. ft. of new right-of-way would be required from the 69,110 sq. ft. parcel. The historic building would not be affected.	No	N/A
6	1201 W. Tamarack Dr.	c. 1970 Split Entry dwelling/ Ranch-Rambler & Split Entry styles	EC/Eligible	A 1,200 sq. ft. TCE and 160 sq. ft. of right-of-way of the property's total 9,205 sq. ft. would be required. The historic building would not be affected.	2018	No
7	1229 W. Tamarack Dr.	c. 1970 Ranch dwelling/ Ranch-Rambler style	EC/Eligible	A 1,200 sq. ft. TCE and 160 sq. ft. of right-of-way of the property's total 9,200 sq. ft. would be required. The historic building would not be affected.	2018	No
8	1405 W. Tamarack Rd.	c. 1974 1.5-story Split Entry (w/ garage) single-family dwelling exhibiting Split Entry and Ranch/Rambler styles	EC/Eligible	A 9,954 sq. ft. TCE and 1,324 sq. ft. of new right-of-way would be required from the 146,474 sq. ft. parcel. The historic building would not be affected.	No	N/A
9	4681 S. Redwood Rd.	c. 1975 1-story Other Commercial/Public building (restaurant) exhibiting Late 20th Century Mansard (Neo-Mansard) style	EC/Eligible	A 630 sq. ft. TCE and 2,886 sq. ft. of new right-of-way would be required from the 59,739 sq. ft. parcel. The historic building would not be affected.	No	N/A
10	1555 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A 1,214 sq. ft. TCE and 326 sq. ft. of new right-of-way from the property's total 9,334 sq. ft. would be required. The historic building would not be affected.	2018	No
11	1567 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A 1,200 sq. ft. TCE and 320 sq. ft. of new right-of-way from the property's total 9,375 sq. ft. would be required. The historic building would not be affected.	2018	No
12	1579 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A TCE of 1,125 sq. ft. and 150 sq. ft. of new right-of-way from the property's total 8,768 sq. ft. would be required. The historic building would not be affected.	2018	No
13	1591 W. Hemlock Dr.	c. 1965 Split Level dwelling/ Split Level style	EC/Eligible	A 1,201 sq. ft. TCE and 160 sq. ft. of new right-of-way from the property's total 9,152 sq. ft. would be required. The historic building would not be affected.	2018	No
14	1601 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A 1,203 sq. ft. TCE and 160 sq. ft. of new right-of-way from the property's total 8,766 sq. ft. would be required. The historic building would not be affected.	2018	No
15	1615 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A 1,444 sq. ft. TCE and 422 sq. ft. of new right-of-way would be required from the property's total 8,887 sq. ft. The historic building would not be affected.	2018	No
16	1625 W. Hemlock Dr.	c. 1965 Split Entry dwelling/ Split Entry style	EC/Eligible	A 1,585 sq. ft. TCE and 1,804 sq. ft. of new right-of-way would be required from the property's total 10,505 sq. ft. The historic building would not be affected.	2018	No

Table 3. Historic Properties – Findings of No Adverse Effect/de Minimis Use of Section 4(f) Resources

	Address / Site Number	Description	SHPO Rating/ NRHP Eligibility	Nature of Impact	Previous SHPO concurrence	Change in Finding
17	5066 S. Commerce Dr.	c. 1973 1-story Service Bay/Business building exhibiting Modern: Other style	EC/Eligible	A 1,006 sq. ft. TCE and 449 sq. ft. of new right-of-way from the property's total 21,547 sq. ft. would be required. The historic building would not be impacted.	No	N/A
18	4675 S. Beechwood Rd.	c. 1962 Split Level dwelling/ Ranch-Rambler style	EC/Eligible	A 1,386 sq. ft. TCE and 362 sq. ft. of new right-of-way from the property's total 10,186 sq. ft. would be required. The historic building would not be affected.	2018	No
	Archaeological Resource					
1	42SL342	North Jordan Canal	EC/Eligible	Extend the culvert 60 feet to accommodate roadway widening	2018	No

Table 4. Historic Properties – Within the APE, Not Eligible for Listing on the National Register of Historic Places

	Address / Site Number	Description	SHPO Rating/NRHP Eligibility	Nature of Impact	Previous SHPO concurrence	Change in Finding
1	4615 S. 1780 W.	c. 1960 Ranch/Ranch-Rambler style	Previously reported EC/Eligible; No longer present	N/A Structure has been demolished since original documentation	2018	Yes
2	5100 Commerce Dr.	c. 1965 Other Commercial-Public building/Late 20th Century: Other	Previously reported EC/Eligible; No longer present	N/A Structure has been demolished since original documentation	2018	Yes
3	1189 W. Tamarack Dr.	c. 1970 1.5-story split entry (w/carport) single-family dwelling exhibiting Split Entry and Mansard styles	NC/Ineligible	N/A	2018	No
4	1195 W. Tamarack Dr.	c. 1970 1.5-story split entry (w/carport) single-family dwelling exhibiting Ranch/Rambler style	NC/Ineligible	N/A	2018	No
5	1211 W. Tamarack Dr.	c. 1970 1.5-story split entry (w/carport) single-family dwelling exhibiting Ranch/Rambler and Other styles	NC/Ineligible	N/A	2018	No
6	1221 W. Tamarack Dr.	c. 1970 1.5-story split entry (w/carport) single-family dwelling exhibiting Ranch/Rambler and Other styles	NC/Ineligible	N/A	2018	No
7	1245 W. Tamarack Dr.	c. 1971 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Ranch/Rambler and Late 20th Century: Other styles	NC/Ineligible	N/A	2018	No
8	1261 W. Tamarack Dr.	c. 1971 1-story Ranch (w/ carport) single-family dwelling exhibiting Ranch/Rambler style	NC/Ineligible	N/A	2018	No
9	1267 W. Tamarack Dr.	C. 1971 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Split Entry and Mansard styles	NC/Ineligible	N/A	2018	No
10	1275 W. Tamarack Dr.	c. 1970 1.5-story split entry (w/carport) single-family dwelling exhibiting Ranch/Rambler and Split-Entry styles	NC/Ineligible	N/A	2018	No
11	1295 W. Tamarack Dr.	c. 1971 1.5-story Split Entry (w/carport) single-family dwelling exhibiting Mansard style	NC/Ineligible	N/A	2018	No
12	1309 W. Tamarack Dr.	c. 1970 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Ranch/Rambler and Post-WWII: Other styles	NC/Ineligible	N/A	2018	No
13	1321 W. Tamarack Dr.	c. 1971 1.5-story Split Entry (w/ carport) single-family dwelling exhibiting Mansard style	NC/Ineligible	N/A	2018	No
14	3749 South Constitution Blvd.	c. 1975 1-story Other Commercial/Public building exhibiting Late 20th Century: Other style.	NC/Ineligible	N/A	No	N/A
15	3765 South Constitution Blvd	c. 1976 1-story Other Commercial/Public building exhibiting Late 20th Century: Other style	NC/Ineligible	N/A	No	N/A
16	4640 South Hemlock Dr.	c. 1961 1.5-story Split Level (w/ carport) single-family dwelling exhibiting Split Level and Ranch/Rambler styles	NC/Ineligible	N/A	No	N/A
17	4644 South Hemlock Dr.	c. 1961 1-story Ranch (w/ garage) single-family dwelling exhibiting Ranch/Rambler styles	NC/Ineligible	N/A	No	N/A
18	4660 South Hemlock Dr.	c. 1961 1.5-story Split Level (w/ carport) single-family dwelling exhibiting Split Level and Ranch/Rambler styles	NC/Ineligible	N/A	No	N/A
19	1441 West Tamarack Rd.	c. 1974 1-story Church/ Chapel building exhibiting Late 20th Century: Other style	NC/Ineligible	N/A	No	N/A
20	4495 South Monte Vista Dr.	c. 1975 Manufactured home park with approximately 160 1-story single-wide and double-wide manufactured homes	NC/Ineligible	N/A	No	N/A

Spencer J. Cox
Governor

Deidre M. Henderson
Lieutenant Governor

Jill Remington Love
Executive Director
Utah Department of Cultural and Community Engagement

Utah Division of State History

Jennifer Ortiz
Director

Christopher Merritt
State Historic Preservation Officer

October 15, 2021

Cindy Terwilliger
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration

RE: Midvalley Connector BRT Project

For future correspondence, please reference Case No. 21-2166

Dear Ms. Terwilliger,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced project on October 14, 2021. Based on the information provided to our office, we concur with your determinations of eligibility and with your findings of effect for the proposed undertaking.

This information is provided to assist with Section 106 responsibilities as per §36CFR800. If you have questions, please contact me at (801) 245-7239 or by email at clhansen@utah.gov.

Sincerely,

Christopher Hansen
Preservation Planner/Utah SHPO

Hu, Autumn (NEPA Project Administrator)

From: MacDonald, Tracey (FTA) <tracey.macdonald@dot.gov>
Sent: Monday, December 27, 2021 10:03 AM
To: rupert.steele@ctgr.us; banner02@gmail.com; cbow@utahpaiutes.org; dboyer@sbtribes.com; candaceb@svgoshutes.com; luked@utetribe.com; ptimbimboo@nwbshoshone.com; csmith@sbtribes.com; betsyc@utetribe.com
Subject: Section 106 Compliance Review: Midvalley Bus Rapid Transit Project, Salt Lake County, UT
Attachments: Midvalley BRT Project_Consultation Options Form.docx; Midvalley APE.pdf

Good Morning,

On March 3, 2021, the Federal Transit Administration (FTA) in coordination with Utah Transit Authority (UTA), sent a project update letter to interested parties regarding the preparation of an Environmental Assessment (EA) for a proposed bus rapid transit (BRT) project in Salt Lake County, Utah. The proposed BRT route (referred to as the Midvalley Connector) will run from Murry Central TRAX Station to the Salt Lake Community College (SLCC) Redwood Campus in Taylorsville, then to the West Valley Central Station. The majority of the proposed BRT route operates within the existing roadway right-of-way, with minor exceptions at intersections and proposed station locations primarily along 4700 South.

FTA is the federal agency responsible for conducting the government-to-government consultations with Federally-recognized tribes under Executive Order 13175, the National Historic Preservation Act, Council on Environmental Quality Implementing Regulations of the National Environmental Policy Act, and other Federal laws and treaties. FTA and UTA will conduct a review of the proposed project to comply with Section 106 of the National Historic Preservation Act and its implementing regulations at 36 CFR 800. We are inviting you to participate in consultation to help us identify resources that may have traditional, religious and cultural importance to your Tribe, and if such resources exist, to help assess how the proposed project might affect them. Please note we are requesting information only on such places that you believe may be impacted by the proposed project so that we may try to avoid, minimize or mitigate potential adverse effects.

The Area of Potential Effect (APE) for the proposed project is attached.

Your timely response within 30 days of receipt of this email will greatly help us incorporate your concerns into the project development. For that purpose, we respectfully request that you complete the attached Consultation Options Form and return to FTA by **January 28, 2022**. If you have any questions or comments on the proposed project, please feel free to contact me.

Sincerely,

Tracey S. MacDonald
Director, Office of Planning & Program Development
Federal Transit Administration, Region 8
1961 Stout Street, Suite 13301
Denver, CO 80294
Phone: (303) 362-2386
Cell: (202) 809-0200
tracey.macdonald@dot.gov

Section 106 Consultation Options

TRIBE NAME

Project Name: Midvalley Bus Rapid Transit (BRT) Project, Salt Lake County, UT

Please check the appropriate response. Use the back of this form or additional sheets if you wish to make comments:

Project	There are no known places of traditional religious or cultural importance present or within the vicinity of the proposed project and **further consultation is not requested**.	There are or may be places of traditional religious or cultural importance present or within the vicinity of the proposed project and **further consultation is requested.**	Our organization has no interest associated with this proposed project and **further consultation is not required**
Midvalley BRT Project, UT	☐	☐	☐

If you have chosen to continue consultation, please indicate the manner in which you wish to do so:

Mail (Address):

Phone:

Fax:

E-mail:

Other: (please describe)

TRIBE NAME designated contact for this proposed project:

_____ Phone: _____

NAME, TITLE (Please print)

Signed: _____ Date: _____

Within 30 days from date of letter please email your response to:

Tracey MacDonald
Director Planning and Program Development
Federal Transit Administration
E-mail: tracey.macdonald@dot.gov
Phone: (303) 362-2386

Figure 2-1. APE for Buildings/Structures and Archaeology

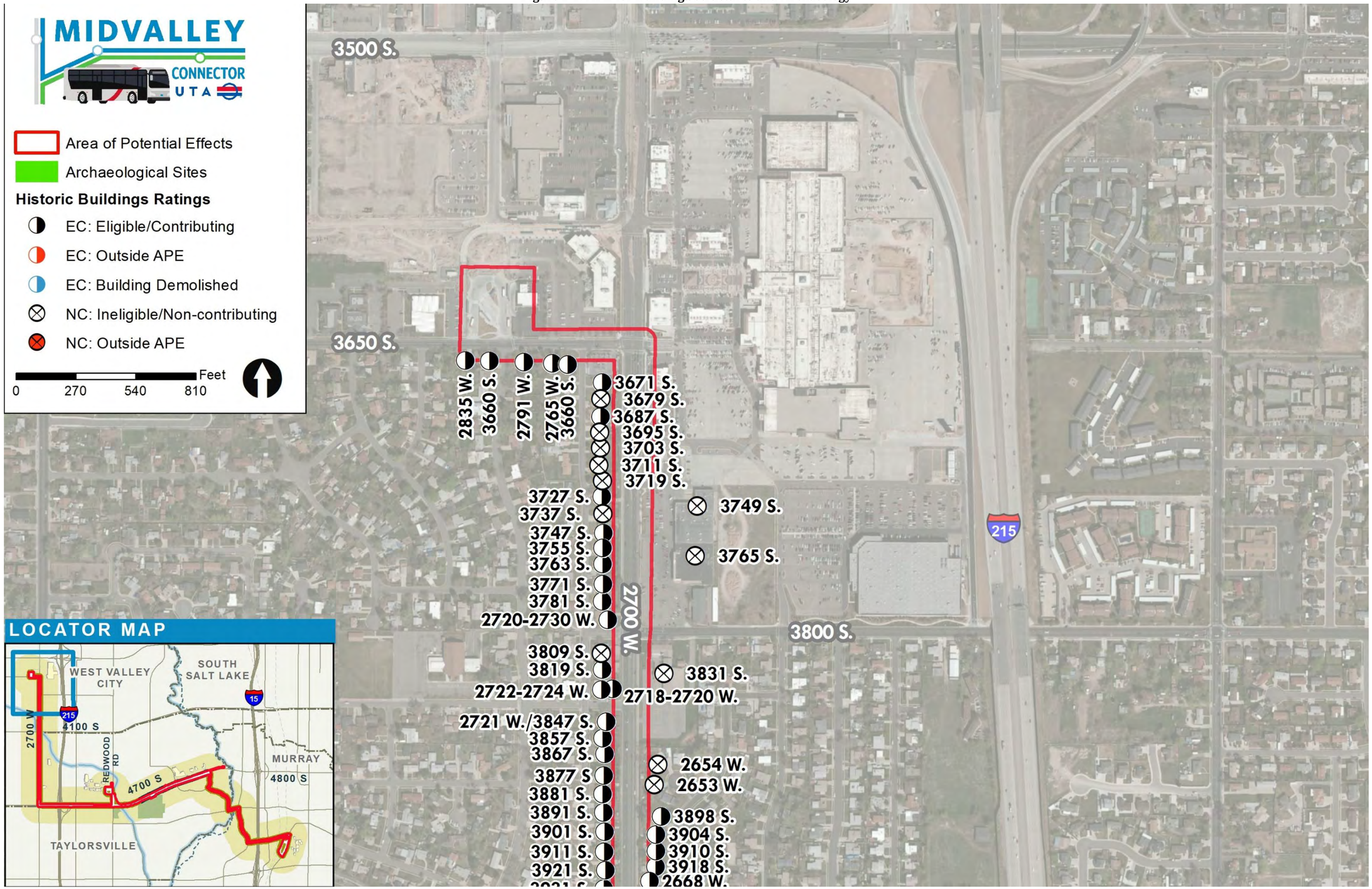


Figure 2-2. APE for Buildings/Structures and Archaeology

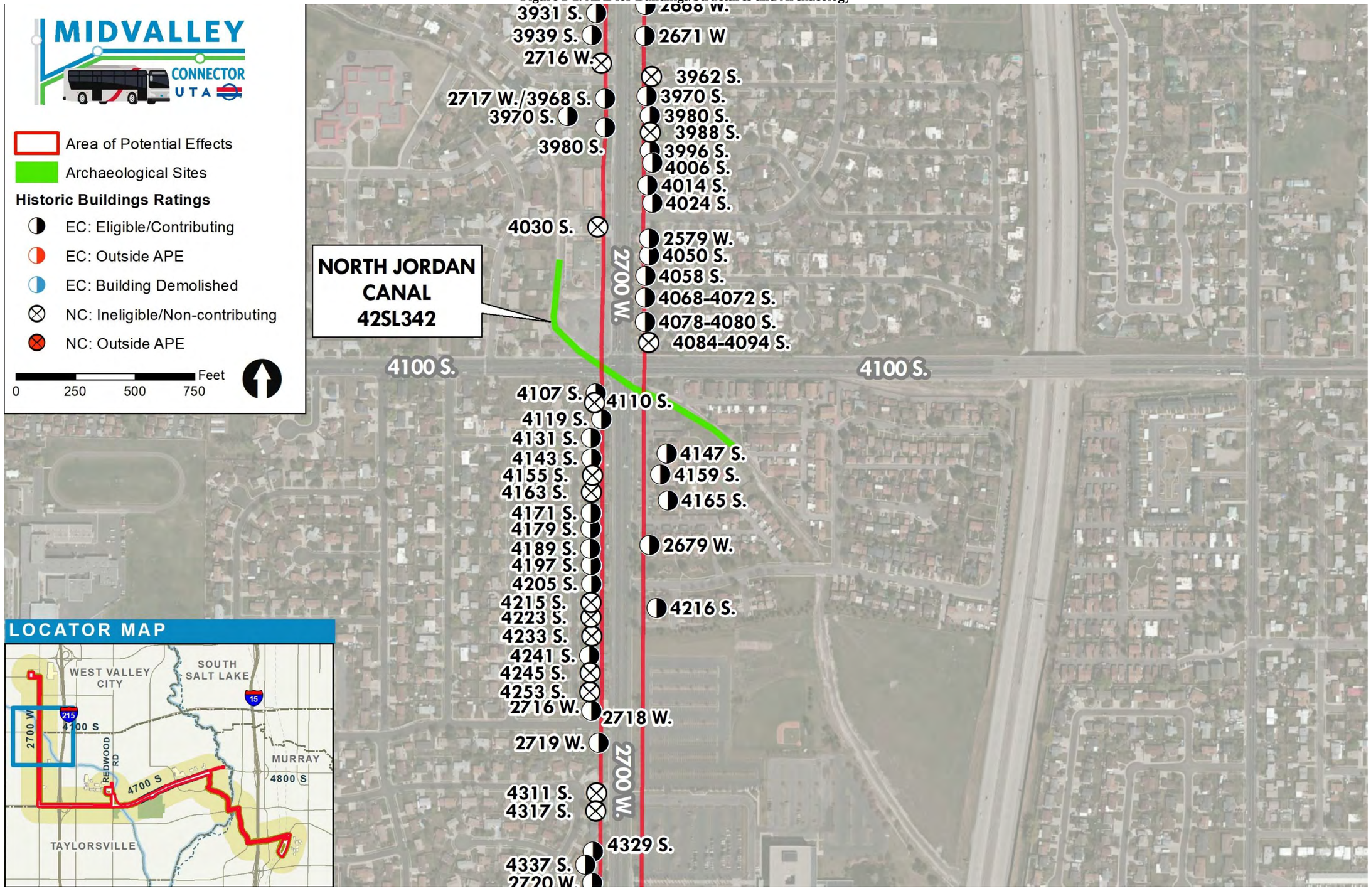


Figure 2-3. APE for Buildings/Structures and Archaeology

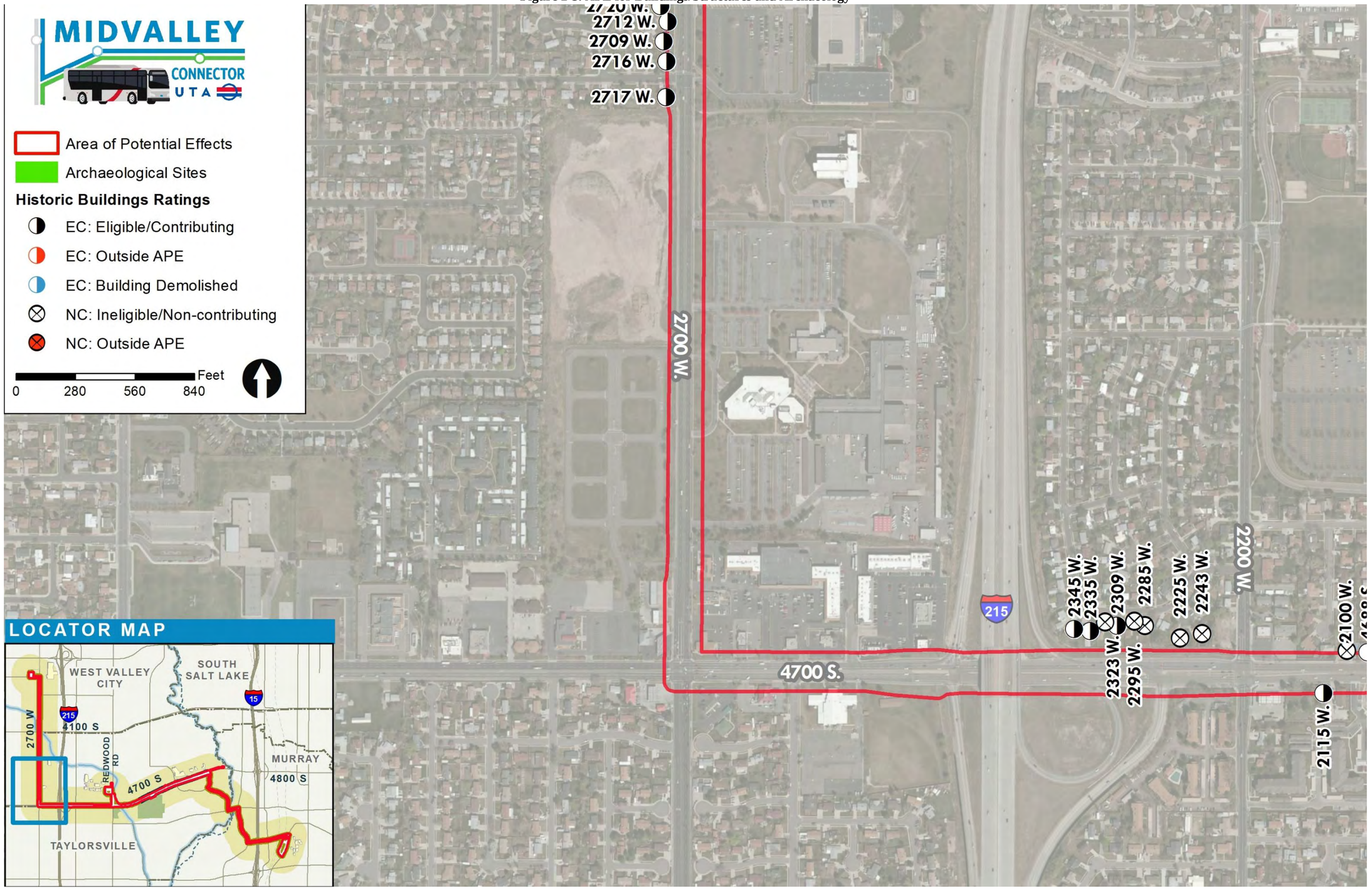


Figure 2-4. APE for Buildings/Structures and Archaeology

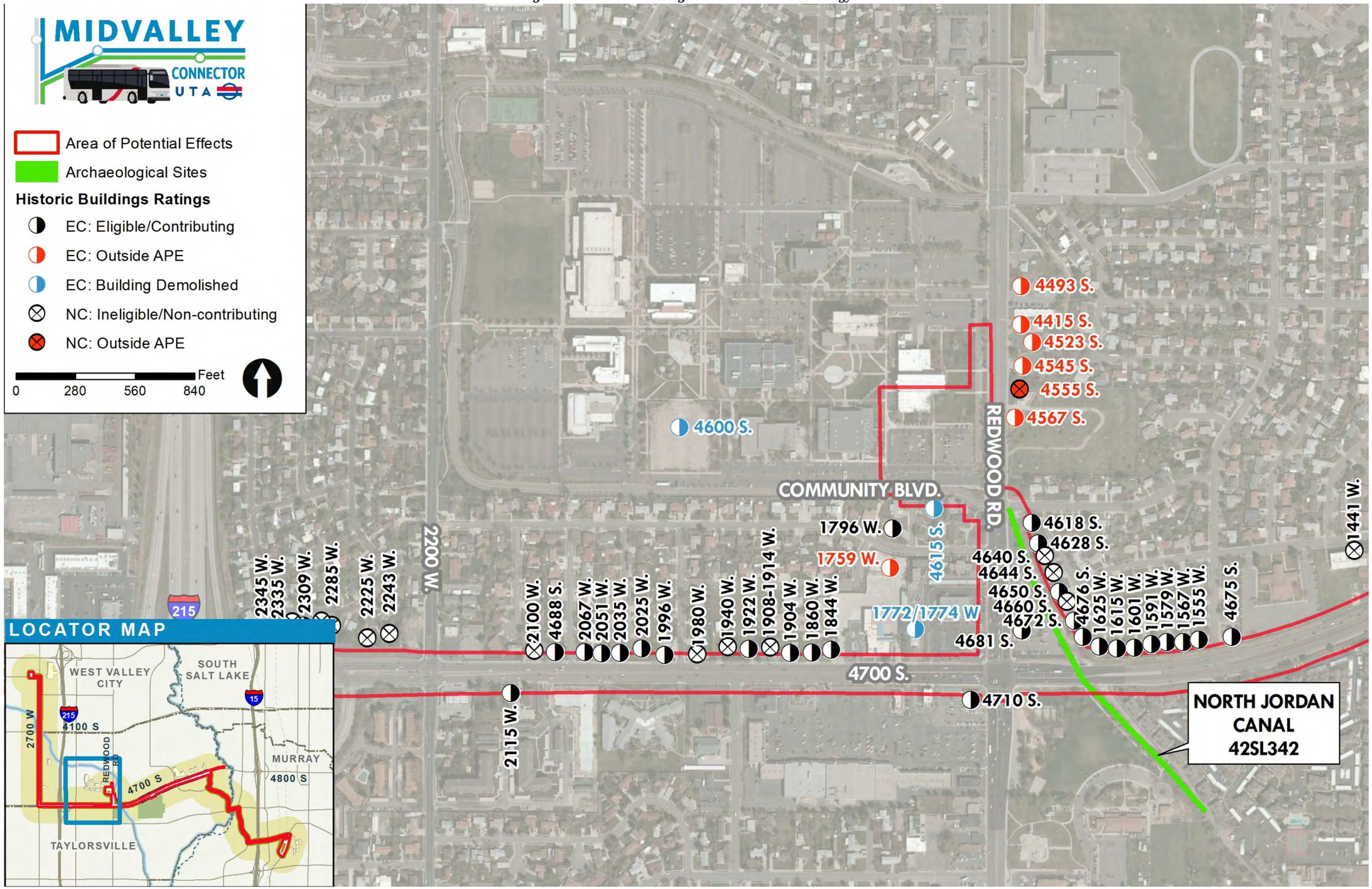


Figure 2-5. APE for Buildings/Structures and Archaeology

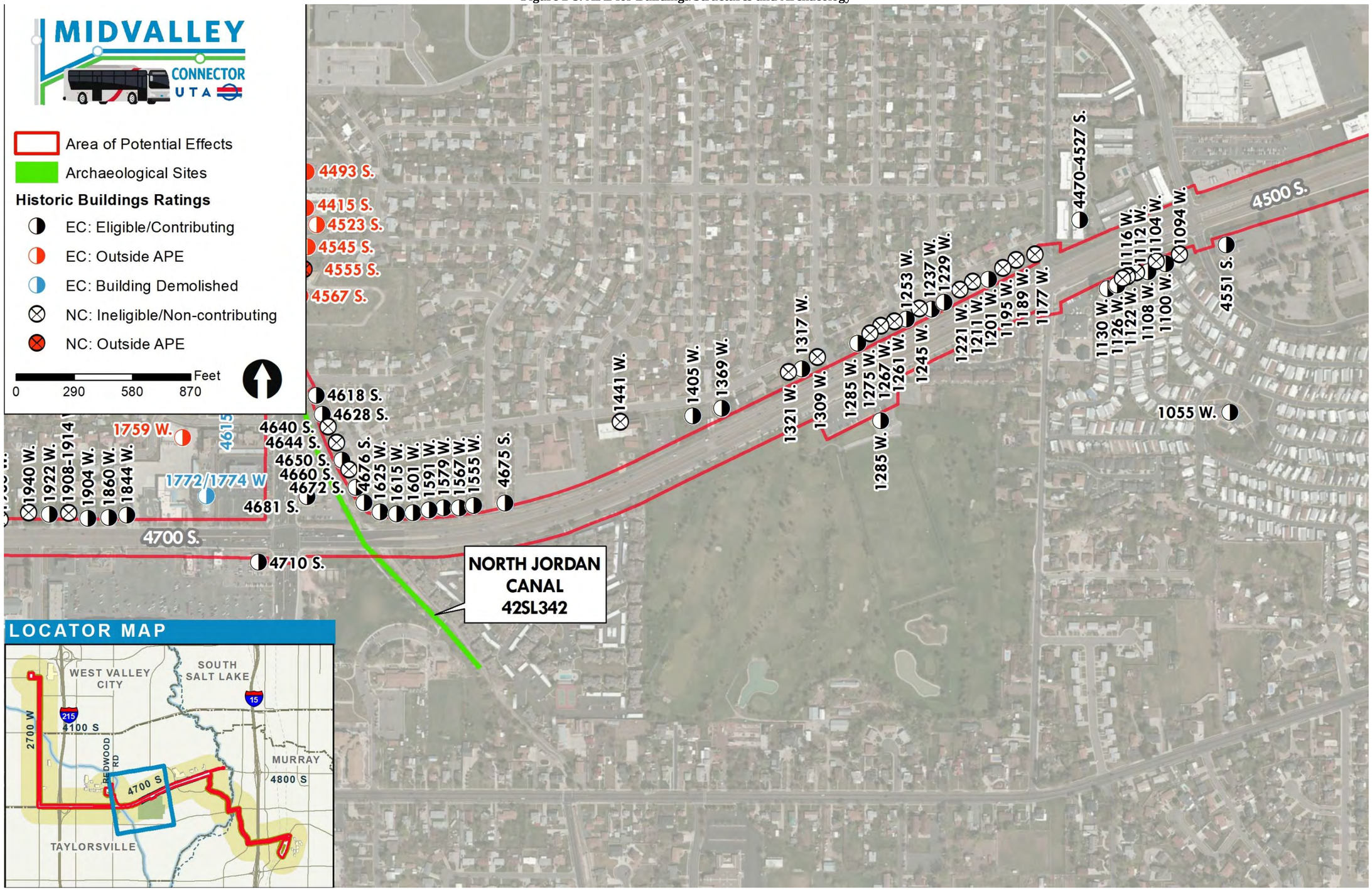


Figure 2-6. APE for Buildings/Structures and Archaeology

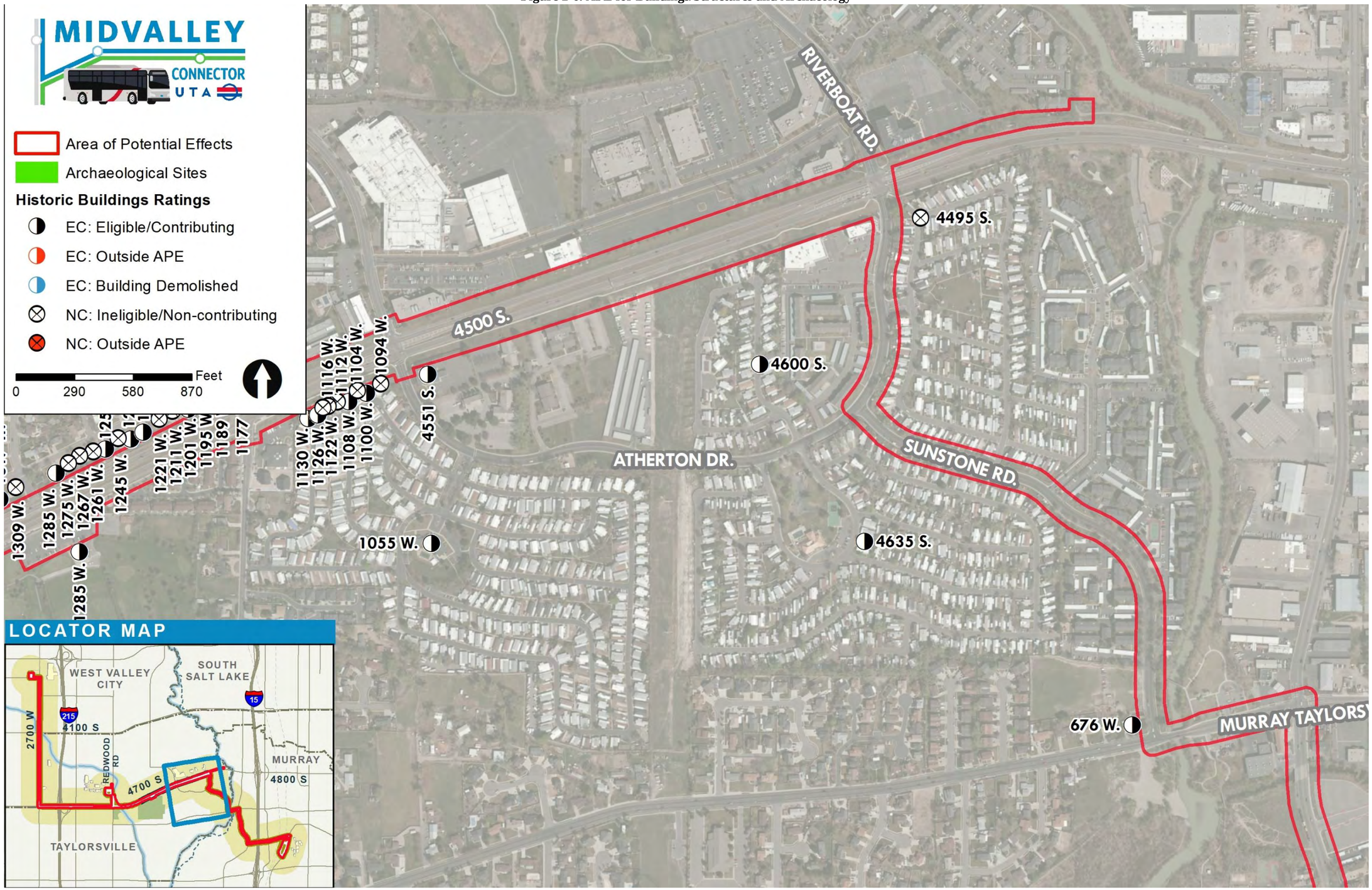
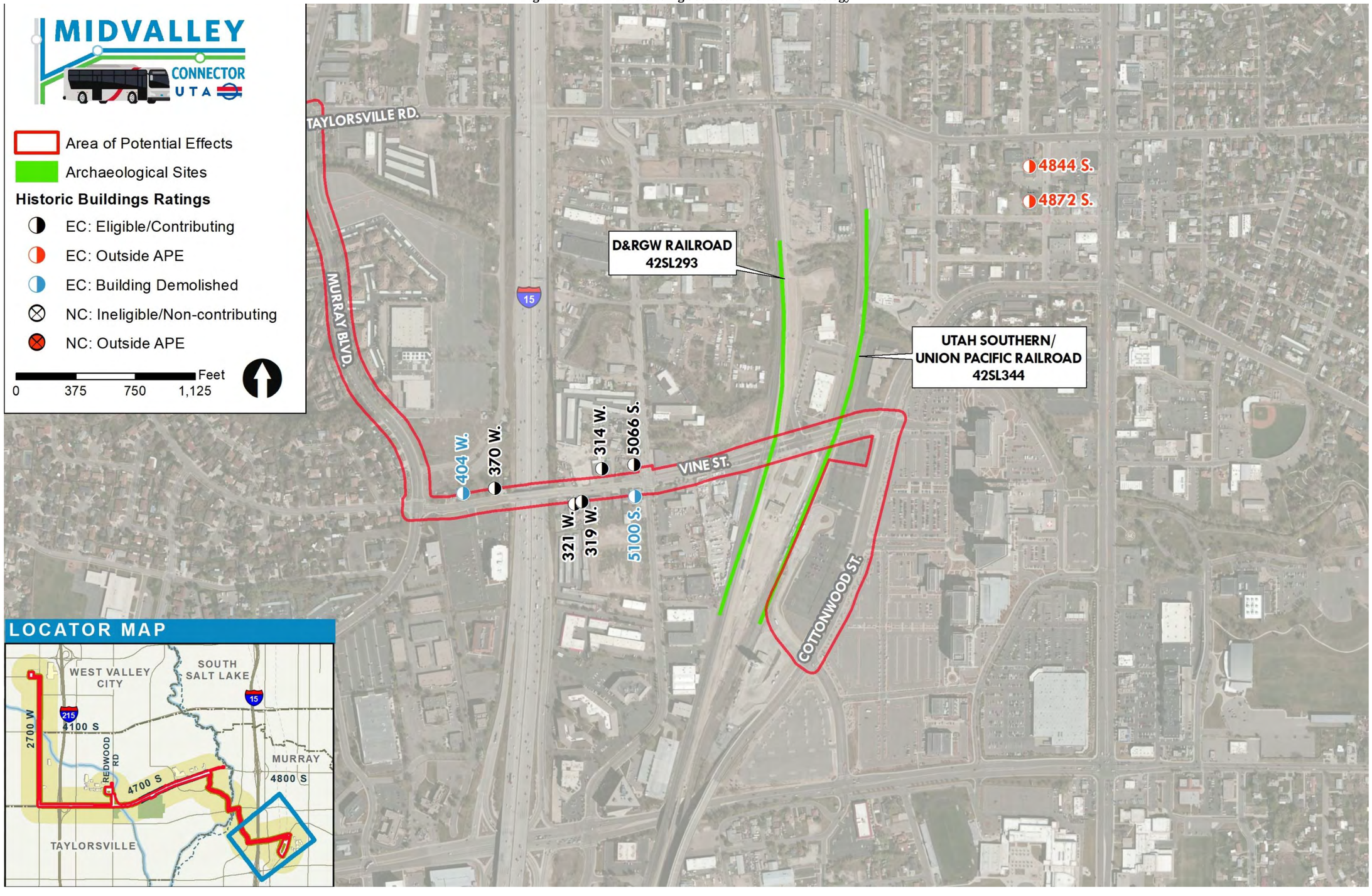


Figure 2-7. APE for Buildings/Structures and Archaeology



Appendix E
Aquatic Resource Preliminary Jurisdictional Determination

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

November 12, 2021

Regulatory Division (SPK-2021-00197)

Utah Transit Authority
Attn: Ms. Autumn Hu
699 West 200 South
Salt Lake City, Utah 84101
ahu@rideuta.com

Dear Ms. Hu:

We are responding to your September 20, 2021 request for a preliminary jurisdictional determination (JD) for the Midvalley Connector Bus Rapid Transit site. The approximately 2,175-acre project site is located at midpoint location Latitude: 40.667629, Longitude: -111.938859, West Valley City, City of Taylorsville and Murray City, Salt Lake County, Utah (Enclosure 1).

Based on available information, we concur with your aquatic resources delineation for the site as depicted on the enclosed June 22, 2021 "Midvalley Connector Project Salt Lake City" drawings, prepared by Jacobs Engineering Group, Inc. (Enclosure 2). The approximately 0.65 acre of wetlands and 15.49 acres (23,612 linear feet) of linear features, including 3.59 acre (5,391 linear feet) of the Jordan River, 7.22 acre (5,749 linear feet) of Little Cottonwood Creek, 1.00 acre (2,945 linear feet) of the Brighton Canal, and 3.67 acre (9,527 linear feet) of the North Jordan Canal, present within the survey area are potential jurisdictional aquatic resources ("waters of the United States") regulated under Section 404 of the Clean Water Act. This letter verifies that the location and boundaries of wetlands were delineated consistent with the wetland definition at 33 CFR §328.3(c)(16), the 1987 Corps of Engineers Wetlands Delineation Manual (Wetlands Research Program Technical Report Y-87-1) and the applicable regional supplements; and the location and boundaries of non-tidal waters conform with the ordinary high water mark definition at 33 CFR §328.3(c)(7), Regulatory Guidance Letter 05-05, and any applicable regional guide.

At your request, we have completed a preliminary JD for the site. Enclosed find a copy of the Preliminary Jurisdictional Determination Form (Enclosure 3). Please sign and return the completed form to the address listed below within 30 days of the date of this letter. If you do not return the signed form within 30 days, we will presume concurrence and finalize the preliminary jurisdictional determination.

We recommend you provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

The delineation included herein has been conducted to identify the location and extent of the aquatic resource boundaries and/or the jurisdictional status of aquatic resources for purposes of the Clean Water Act for the particular site identified in this request. This delineation and/or jurisdictional determination may not be valid for the Wetland Conservation Provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should discuss the applicability of a certified wetland determination with the local USDA service center, prior to starting work.

You may request an approved JD for this site at any time prior to starting work within waters, including after a permit decision is made. To request an approved JD for this site, complete the attached Request for Aquatic Resources Delineation or Jurisdictional Determination Form (Enclosure 4) and return it to this office at the address listed below. A Notification of Appeal Process and Request for Appeal Form is enclosed to notify you of your options with this determination (Enclosure 5).

We appreciate feedback, especially about interactions with our staff and processes.

Please refer to identification number SPK-2021-00197 in any correspondence concerning this project. If you have any questions, please contact me at 533 West 2600 South, Suite 150, Bountiful, Utah 84010, by email at Nicole.D.Fresard@usace.army.mil, or telephone at (801) 295-8380 ext. 8321. For program information or to complete our Customer Survey, visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Jennifer C. Thomason

for Nicole Fresard
Senior Project Manager
Nevada-Utah Section

Enclosures

cc: Ms. Sebra Bushey, Jacobs Engineering Group, Inc (Sabra.Bushey@jacobs.com)

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. **REPORT COMPLETION DATE FOR PJD:** November 12, 2021

B. **NAME AND ADDRESS OF PERSON REQUESTING PJD:**
Autumn Hu
Utah Transit Authority
669 W 200 South
Salt Lake City, Utah 84101

C. **DISTRICT OFFICE, FILE NAME, AND NUMBER:**
SPK, Midvalley Connector Bus Rapid Transit, SPK-2021-00197

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Utah County/parish/borough: Salt Lake County City: West Valley City, City of Taylorsville, and Murray City.
Center coordinates of site (lat/long in degree decimal format):
Lat.: 40.676407° Long.: -111.922989°
Universal Transverse Mercator: 12
Name of nearest waterbody: Jordan River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination. Date: November 10, 2021
☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Brighton Canal	40.672153	-111.908603	2,945 Linear feet	Non-wetland waters	Section 404
Jordan River	40.663977	-111.911914	5,391 Linear Feet	Non-wetland waters	Section 404
Little Cottonwood Creek	40.660948	-111.88871	5,749 Linear Feet	Non-wetland waters	Section 404
North Jordan Canal	40.664306	-111.933689	9,527 Linear Feet	Non-wetland waters	Section 404
Wetland 1	40.674379	-111.91303	0.07 acres	Wetland	Section 404
Wetland 2	40.673926	-111.914731	0.01 acres	Wetland	Section 404
Wetland 3	40.673748	-111.915382	0.02 acres	Wetland	Section 404
Wetland 4	40.6736	-111.9155	0.01 acres	Wetland	Section 404
Wetland 5	40.673871	-111.957325	0.52 acres	Wetland	Section 404
Wetland 6	40.674681	-111.957604	0.003 acres	Wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Enclosure 3

an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the.JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there “may be” waters of the U.S. and/or that there “may be” navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

_x_ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: “Midvalley Connector Project Aquatic Resource Delineation Report” dated September 2021 prepared by Jacobs Engineering Group, Inc.
Map: _____.
_x_ Data sheets prepared/submitted by or on behalf of the PJD requestor.
_x_ Office concurs with data sheets/delineation report.
___ Office does not concur with data sheets/delineation report. Rationale: _____.
___ Data sheets prepared by the Corps: _____.
___ Corps navigable waters' study: _____.
___ U.S. Geological Survey Hydrologic Atlas: _____.

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

___ USGS NHD data.
___ USGS 8 and 12 digit HUC maps.
___ U.S. Geological Survey map(s). Cite scale & quad name: _____.
_x_ Natural Resources Conservation Service Soil Survey. Citation: Web Soil Survey included in the Aquatic Resources Report
_x_ National wetlands inventory map(s). Cite name: U.S. Fish and Wildlife Service Mapper included in the Aquatic Resources Report
___ State/local wetland inventory map(s): _____.
_x_ FEMA/FIRM maps: FEMA FIRM Maps included in the Aquatic Resources Report
___ 100-year Floodplain Elevation is: _____. (National Geodetic Vertical Datum of 1929)
_x_ Photographs: _x_ Aerial (Name & Date): GoogleEarth 7.3.3.7692. (Historic Aerial Imagery). Salt Lake County, Utah. Latitude: 40.676407° Longitude: -111.922989°. Retrieved November 10, 2021 from http://www.earth.google.com.
___ or ___ Other (Name & Date): _____.
___ Previous determination(s). File no. and date of response letter: _____.
_x_ Other information (please specify): On April 4, 2021 the Corps received a scoping letter from the Federal Transit Administration (FTA) for the Midvalley Connector Bus Rapid Transit project. In the letter, The FTA informed the Corps that an Environmental Assessment was prepared and requested input regarding resource considerations. The Corps provided a response on April 4, 2021 explaining jurisdiction under Section 404 of the Clean Water Act and designated the FTA as the lead Federal Agency for compliance with Section 7 of the Endangered Species Act and Section 106 of the National Historic Preservation Act.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

FRESARD.NICOLE.DANIELA.1513507182 Digitally signed by FRESARD.NICOLE.DANIELA.1513507182 Date: 2021.12.06 16:40:13 -07'00'

Signature and date of Regulatory staff member completing PJD

Autumn Hu Digitally signed by Autumn Hu DN: cn=Autumn Hu, o=Utah Transit Authority, ou=Capital Development, email=ahu@rideuta.com, c=US Date: 2021.11.19 16:05:50 -07'00'

Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requester to return signed PJD forms. If the requester does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Hu, Autumn (NEPA Project Administrator)

From: Fresard, Nicole D CIV USARMY CESPK (USA) <Nicole.D.Fresard@usace.army.mil>
Sent: Thursday, January 20, 2022 12:39 PM
To: Hu, Autumn (NEPA Project Administrator)
Subject: RE: Midvalley Connetor BRT - PJD

Hello Autumn, I apologize for the oversight. You can use this email as confirmation that this error will not change our determination. Alternatively, I can correct the form and provide you with revised documentation.

Thank you,

Nicole Fresard
Senior Project Manager
U.S. Army Corps of Engineers
Regulatory Division
533 West 2600 South, Suite 150
Bountiful, UT 84010
801-295-8380 x 8321
Nicole.D.Fresard@usace.army.mil

From: Hu, Autumn (NEPA Project Administrator) <AHu@rideuta.com>
Sent: Thursday, January 20, 2022 11:12 AM
To: Fresard, Nicole D CIV USARMY CESPK (USA) <Nicole.D.Fresard@usace.army.mil>
Subject: [URL Verdict: Neutral][Non-DoD Source] Midvalley Connetor BRT - PJD

Hi Nicole,

I would like to call your attention to a minor error in your cover letter dated November 12, 2021 associated with the preliminary jurisdictional determination (PJD) for the Midvalley Connector BRT Project (Corps File No. SPK 2021-00197). The letter is attached. The associated acreages for the Jordan River and Little Cottonwood Creek were switched. Below is a summary table with data that were submitted with the original request for PJD; the acreages were included in the Aquatic Resource Delineation Report. The two highlighted numbers were switched in your cover letter. The Jordan River and the Little Cottonwood Creek are within the study area, but they will not be impacted by the project. I don't believe this error changes the PJD. I would like get your confirmation on this.

Water Resource	Type of Aquatic Resource	Amount of Aquatic Resource in Project Area	
		Acres	Linear Feet
Brighton Canal	Surface water	1.005	2,945
Jordan River	Surface water	7.225	5,391
Little Cottonwood Creek	Surface water	3.589	5,749
North Jordan Canal	Surface water	3.675	9,527
SURFACE WATER TOTAL		**15.494**	**23,612**
Wetland 1	Wetland	0.074	N/A
Wetland 2	Wetland	0.013	N/A
Wetland 3	Wetland	0.027	N/A

Wetland 4	Wetland	0.017	N/A
Wetland 5	Wetland	0.518	N/A
Wetland 6	Wetland	0.003	N/A
WETLANDS TOTAL		**0.652**	**N/A**
SURFACE WATER AND WETLANDS TOTAL		**16.146**	**23,612**

Sincerely,
Autumn

Autumn Hu, P.E.
NEPA Project Administrator
Utah Transit Authority
801.741.8858 (Office)
385.419.9189 (Mobile)
ahu@rideuta.com

Hu, Autumn (NEPA Project Administrator)

From: Fresard, Nicole D CIV USARMY CESPK (USA) <Nicole.D.Fresard@usace.army.mil>
Sent: Thursday, January 20, 2022 11:48 AM
To: Hu, Autumn (NEPA Project Administrator)
Subject: RE: Midvalley Connector BRT - Section 404 Permit

Good morning, thank you for discussing the project over the phone with me this morning. Making a decision about mitigation at this time would be pre-decisional; however, as indicated in NWP 14 general conditions: "*Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1⁄10-acre and require preconstruction notification.*" Therefore, based on the site conditions and the proposed impacts, it is not expected that compensatory mitigation would be required for this project since unavoidable impacts have been avoided and minimized and the loss of waters of the U.S. would be below the threshold for compensatory mitigation.

v/r

Nicole Fresard
Senior Project Manager
U.S. Army Corps of Engineers
Regulatory Division
533 West 2600 South, Suite 150
Bountiful, UT 84010
801-295-8380 x 8321
Nicole.D.Fresard@usace.army.mil

From: Hu, Autumn (NEPA Project Administrator) <AHu@rideuta.com>
Sent: Wednesday, January 19, 2022 5:08 PM
To: Fresard, Nicole D CIV USARMY CESPK (USA) <Nicole.D.Fresard@usace.army.mil>
Subject: [URL Verdict: Neutral][Non-DoD Source] Midvalley Connector BRT - Section 404 Permit

Hello Nicole,

UTA will be preparing the Section 404 permit for the Midvalley Connector BRT Project (Corps File No. SPK 2021-00197) and would like to confirm our permitting approach with the Corps.

UTA intends to proceed with permitting for this project under Nationwide Permit No. 14, Linear Transportation Projects, because the project proposes to modify roadways to accommodate a new bus rapid transit facility that would permanently impact WOTUS and the project would adhere to all of the NWP 14's general conditions. UTA intends to prepare a Preconstruction Notification because it is anticipated the project would permanently impact 0.06 acre of wetlands (a special aquatic site). In addition, an existing culvert within the North Jordan Canal would be extended, which would result in approximately 0.02 acre of permanent impacts.

UTA would also like to confirm that compensatory mitigation would not be required for this project because construction would proceed under a NWP, would permanently affect less than 0.1 acre of wetlands, and any environmental effects from the Midvalley Connector project would be minimal.

Please let us know if you have any questions and whether the outlined approach above sounds appropriate for this project. Thank you for your time and assistance.

Sincerely,
Autumn

Autumn Hu, P.E.
NEPA Project Administrator
Utah Transit Authority
801.741.8858 (Office)
385.419.9189 (Mobile)
ahu@rideuta.com

Appendix F
Agency Coordination Documentation

Scoping Agencies List

First Name	Last Name	Title	Agency/Tribe	Street Address	City	State	Zip	Email
Federal								
Nancy	Dragani	Acting Regional Administrator	Federal Emergency Management Agency, Region VIII	Building 710, Box 25267	Devner	CO	80225-0267	Nancy.dragani@fema.dhs.gov
Debra H.	Thomas	Acting Regional Administrator	Environmental Protection Agency, Region 8	1595 Wynkoop Street	Denver	CO	80202-1129	thomas.debrah@epa.gov
Edward	Woolford	Environmental Program Manager	Federal Highway Administration, Utah Division	2520 West 4700 South, Suite 9A	Salt Lake City	UT	84129	edward.woolford@dot.gov
Bryan	Bowker	Regional Director	Bureau of Indian Affairs - Western Regional Office	2600 North Central Avenue, 4th Floor Mailroom	Phoenix	AZ	85001	bryan.bowker@bia.gov
Jason	Gipson	Chief	U.S. Army Corps of Engineers - Utah/Nevada Regulatory Branch	533 West 2600 South, Suite 150	Bountiful	UT	84010	jason.a.gipson@usace.army.mil
Emily	Fife	State Conservationist	USDA Natural Resources Conservation Service	125 South State St., Room 4010	Salt Lake City	UT	84111	Emily.fife@usda.gov
Yvette	Converse	Field Supervisor	U.S. Fish and Wildlife Service, Utah Field Office	2369 West Orton Circle, Suite 50	West Valley City	UT	84119	Yvette_Converse@fws.gov
Cory E.	Angeroth	Director	U.S. Geological Survey, Utah Water Science Center	2329 West Orton Circle	West Valley City	UT	84119-2047	angeroth@usgs.gov
Sarah	Stokely	Program Analyst	Office of Federal Agency Programs, Federal Permitting, Licensing, & Assistance Section	401 F Street NW, Suite 308	Washington	DC	20001	sstokely@achp.gov
Kent	Kofford	Area Manager	Bureau of Reclamation, Provo Area Office	302 East Lakeview Parkway	Provo	UT	84606-7317	kkofford@usbr.gov
State Agencies								
Robert	Stewart	Region 2 Director	Utah Department of Transportation	2010 S 2760 W	Salt Lake City	UT	84104	rstewart@utah.gov
Eric	Chaston	Region 2 Traffic Operations Engineer	Utah Department of Transportation	2010 S 2760 W	Salt Lake City	UT	84104	echaston@utah.gov
Bryce	Bird	Director	Utah Division of Air Quality	195 North 1950 West - P.O. Box 144820	Salt Lake City	UT	84114	bbird@utah.gov
Tim	Davis	Director	Utah Division of Drinking Water	195 North 1950 West - P.O. Box 144830	Salt Lake City	UT	84114	timdavis@utah.gov
Brent	Everett	Director	Utah Division of Environmental Response and Remediation	195 North 1950 West - P.O. Box 144840	Salt Lake City	UT	84114	beverett@utah.gov
Erica	Gaddis	Director	Utah Division of Water Quality	195 North 1950 West - P.O. Box 144870	Salt Lake City	UT	84114	egaddis@utah.gov
Brian	Steed	Executive Director	Utah Department of Natural Resources	1594 West North Temple - P.O. Box 145610	Salt Lake City	UT	84114	briansteed@utah.gov
Teresa	Wilhelmsen	State Engineer	Utah Division of Water Rights	1594 West North Temple, Suite 220 - PO Box 146300	Salt Lake City	UT	84114	teresawilhelmsen@utah.gov
Todd	Adams	Director	Utah Division of Water Resources	1594 West North Temple, Suite 310 - PO Box 146201	Salt Lake City	UT	84114	toddadams@utah.gov
Jeff	Rasmussen	Director	Utah Division of Parks and Recreation	1594 West North Temple, Suite 116 - PO Box 146001	Salt Lake City	UT	84114	jeffrasmussen@utah.gov
Rory	Reynolds	Interim Director	Utah Division of Wildlife Resources	1594 West North Temple, Suite 2110 - P.O. Box 146301	Salt Lake City	UT	84114	roryreynolds@utah.gov
Kathy	Holder	Floodplain Manager	Utah Division of Emergency Management	1110 State Office Building - P.O. Box 141710	Salt Lake City	UT	84114	kcholder@utah.gov
Sindy	Smith	RDCC Coordinator	Utah Public Lands Policy Coordiantion Office, Resource Development Coordinating Committee	5110 State Office Building - P.O. Box 141107	Salt Lake City	UT	84114	sindysmith@utah.gov
Thom	Carter	Executive Director	Utah Office of Energy Development	P.O. Box 144845	Salt Lake City	UT	84114	thomcarter@utah.gov
Dr. Christopher	Merritt	Deputy SHPO	Utah Division of State History	300 South Rio Grande	Salt Lake City	UT	84101	cmerritt@utah.gov
Chris	Hansen	SHPO Compliance	Utah Division of State History	300 South Rio Grande	Salt Lake City	UT	84101	clhansen@utah.gov
Native American Tribes								
Rupert	Steele	Chairperson	Confederated Tribes of the Goshute Reservation	P.O. Box 6104	Ibapah	UT	84034	rupert.steele@ctgr.us
Dennis	Alex	Chairman	Northwestern Band of the Shoshone Nation	707 North Main Street	Brigham City	UT	84302	ggover@nwbshoshone.com
Tamra	Borchardt-Slayton	Chairperson	Paiute Indian Tribe of Utah	440 North Paiute Drive	Cedar City	UT	84720	tslayton@utahpaiutes.org
Devon	Boyer	Chairman	Shoshone-Bannock Tribes	P.O. Box 306	Fort Hall	ID	83203	dboyer@sbtribes.com
Candace	Bear	Chairperson	Skull Valley Band of Goshute Indians of Utah	P.O. Box 448	Grantsville	UT	84029	candaceb@svgoshutes.com
Luke	Duncan	Chairman	Ute Indian Tribe	P.O. Box 190	Fort Duchesne	UT	84026	luked@utetribe.com
Local Entities								
D. Blair	Camp	Mayor	Murray City	5025 State St.	Murray	UT	84107	mayor@murray.utah.gov
Kristie S.	Overson	Mayor	Taylorsville City	2600 Taylorsville Blvd	Taylorsville	UT	84129	koverson@taylorsvilleut.gov
Ron	Bigelow	Mayor	West Valley City	3600 S Constitution Blvd	West Valley City	UT	84119	ron.bigelow@wvc-ut.gov
Jared	Hall	Planning Division Manager	Murray City	5025 State St.	Murray	UT	84107	jhall@murray.utah.gov
Jim	Spung	Senior Planner	Taylorsville City	2600 Taylorsville Blvd	Taylorsville	UT	84129	jspung@taylorsvilleut.gov
Steve	Pastorik	Planning Director	West Valley City	3600 S Constitution Blvd	West Valley City	UT	84119	steve.pastorik@wvc-ut.gov
Aimee Winder	Newton	District 3 Council	Salt Lake City County	2001 S State Street	Salt Lake City	UT	84190	ANewton@slco.org
Ashley	Sokia	Director	Salt Lake Community College, Redwood Campus	4600 Redwood Road	Salt Lake City	UT	84123	ashley.sokia@slcc.edu
Soren	Simonsen	Executive Director	Jordan River Commission	PO Box 526081	Salt Lake City	UT	84152	sorensimonsen@utah.gov
Robert	Wirthlin Jr.	President	North Jordan Irrigation Company	4701 South 1065 West	Taylorsville	UT	84123	aztecsteel@comcast.net
Andrew	Gruber	Executive Director	Wasatch Front Regional Council	41 N Rio Grande St	Salt Lake City	UT	84101	agruber@wfrc.org

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)

March 3, 2021

Mr. Andrew Gruber
Executive Director
Wasatch Front Regional Council
41 N Rio Grande St
Salt Lake City, UT 84101

Subject: Update on Midvalley Connector Bus Rapid Transit Project

Dear Mr. Gruber,

The Federal Transit Administration (FTA), in coordination with the Utah Transit Authority (UTA), is preparing an Environmental Assessment (EA) for a proposed bus rapid transit (BRT) facility in Salt Lake County, Utah. BRT is a high-quality bus-based transit system that delivers fast, comfortable, and cost-effective services at metro-level capacities. It does this through the provision of dedicated lanes, with busways and iconic stations typically aligned to the center of the road, off-board fare collection, and fast and frequent operations. A BRT system usually features customer amenities like frequent service, traffic signal priority, ticket vending machines, shelters, and benches. The proposed BRT route (referred to as the Midvalley Connector) will run from Murray Central TRAX Station to the Salt Lake Community College (SLCC) Redwood Campus in Taylorsville, then to the West Valley Central Station. The majority of the proposed BRT project operates within the existing roadway right-of-way, with minor exceptions at intersections and proposed station locations primarily along 4700 South. A project location map of the Locally Preferred Alternative (LPA) is attached.

The LPA for the Midvalley Connector was developed through collaboration with Taylorsville City, Murray City, West Valley City, Utah Department of Transportation, Salt Lake Community College (SLCC), Salt Lake County, and Wasatch Front Regional Council. The LPA was evaluated in the state-funded Midvalley Connector Environmental Study Report that was released in November 2018 for public comment and finalized in August 2019. UTA issued a Decision Document dated August 2019. The Environmental Study Report and the Decision Document are available on the project website at http://midvalleyconnector.com. Taylorsville City, Murray City, West Valley City, and UTA adopted resolutions in support of the LPA in 2019.

In support of the initial environmental study, UTA initiated a scoping process through letters dated November 16, 2017. The project partners are now pursuing federal funds for the project. Since federal funds may potentially be awarded to UTA to construct the Project, the environmental impacts of the proposed project are being evaluated in compliance with the National Environmental Policy Act (NEPA).

After reviewing initial potential impact results, FTA believes the Project qualifies as an Environmental Assessment (EA) under FTA's NEPA implementing regulations at 23 Code of Federal Regulations (CFR) Part 771, subject to findings resulting from the Section 106, noise and vibration, traffic, and other analyses. The FTA is the lead agency responsible for managing this environmental review process and the preparation of the appropriate environmental documentation for the project.

This letter serves as an update on the project and as a request for input regarding resource considerations of which you may be aware. We will not conduct a formal agency scoping meeting unless requested by you or another agency. We are also available to meet with you individually upon request. A public comment period and a public meeting on the EA are expected to be held in spring/summer 2021. Please submit any resource-related concerns or questions to Kevin Osborn at kevin.osborn@dot.gov. We would appreciate receiving any feedback by April 30, 2021.

Sincerely,

Cindy Terwilliger

Cindy Terwilliger
Regional Administrator

Attachments: Midvalley Connector LPA Map

cc: Kevin Osborn, Federal Transit Administration
Autumn Hu, Utah Transit Authority
Hal Johnson, Utah Transit Authority

Figure 1. Midvalley Connector LPA

From: Christopher Hansen
To: Osborn, Kevin (FTA)
Subject: Re: FTA Request for Resource Considerations and Update for the Midvalley Connector Bus Rapid Transit Project
Date: Friday, March 5, 2021 1:21:17 PM

Thanks for the update, Kevin. I'll add this to the case file. At this point we don't have any new or additional comments on the proposed project.

Regards,

Chris H.

--
Christopher L. Hansen
Utah State Historic Preservation Office
Email: clhansen@utah.gov

On Fri, Mar 5, 2021 at 12:03 PM Osborn, Kevin (FTA) <kevin.osborn@dot.gov> wrote:

> Greetings,
>
> The Federal Transit Administration (FTA), in coordination with the Utah Transit Authority
>
> (UTA), is preparing an Environmental Assessment (EA) for a proposed bus rapid transit (BRT) project
>
> in Salt Lake County, The Midvalley Connector. The BRT locally preferred alternative was developed through collaboration with Taylorsville City, Murray City, West Valley City, Utah Department of Transportation, Salt Lake Community College, Salt Lake County, and Wasatch Front Regional Council.
>
> UTA originally initiated a scoping process through letters dated November 16, 2017. The letter attached serves as an update on the project and as a request for input regarding resource considerations of which you may be aware.
>
> Please provide your input to Kevin Osborn at kevin.osborn@dot.gov by April 30, 2021.
>
> Thank you,

Kevin

Kevin Osborn

Community Planner

Federal Transit Administration – Region VIII

1961 Stout Street, Suite 13301

Denver, CO 80294

303.362.2393

From: Angelia Crowther
To: Osborn, Kevin (FTA)
Cc: Rachel Struhs; Kathy Holder; Jamie Huff
Subject: Fwd: FTA Request for Resource Considerations and Update for the Midvalley Connector Bus Rapid Transit Project
Date: Tuesday, March 9, 2021 6:40:49 PM
Attachments: MidvalleyConnector Agency Scoping Letter_Part22.pdf

Hi Kevin,

Kathy forwarded me your email regarding the Midvalley Connector Project. As the newly promoted Floodplain Manager for Utah, I would recommend ensuring that proper floodplain development permits from the local Floodplain Administrator (FPA) in the community are being requested as needed if in a Special Flood Hazard Area. Also, make ensure compliance with the National Flood Insurance Program (NFIP) and with the local floodplain regulations are followed. Please reach out to the community FPA to ensure this is happening. Even state and federal agencies need to obtain the local floodplain development permits as per the federal regulations 44 CFR 60.3. This may include obtaining a Letter of Map Change (LOMC) from FEMA. As well as any other federal or local permits required to develop in Special Flood Hazard Areas (SFHA). The Community FPA should know what is required in these areas.

If there are questions as feel free to contact me.

Angelia Crowther

Utah State Floodplain Manager

Department of Public Safety

Division of Emergency Management

801-664-5861, acrowther@utah.gov

https://dem.utah.gov/

---------- Forwarded message ---------
From: **Osborn, Kevin (FTA)** <kevin.osborn@dot.gov>
Date: Fri, Mar 5, 2021 at 11:46 AM
Subject: FTA Request for Resource Considerations and Update for the Midvalley Connector Bus Rapid Transit Project
To: kcholder@utah.gov <kcholder@utah.gov>

Greetings,

The Federal Transit Administration (FTA), in coordination with the Utah Transit Authority

(UTA), is preparing an Environmental Assessment (EA) for a proposed bus rapid transit (BRT) project

in Salt Lake County, The Midvalley Connector. The BRT locally preferred alternative was developed through collaboration with Taylorsville City, Murray City, West Valley City, Utah Department of Transportation, Salt Lake Community College, Salt Lake County, and Wasatch Front Regional Council.

UTA originally initiated a scoping process through letters dated November 16, 2017. The letter attached serves as an update on the project and as a request for input regarding resource considerations of which you may be aware.

Please provide your input to Kevin Osborn at kevin.osborn@dot.gov by April 30, 2021.

Thank you,

Kevin

Kevin Osborn

Community Planner

Federal Transit Administration – Region VIII

1961 Stout Street, Suite 13301

Denver, CO 80294

303.362.2393

SALT LAKE COUNTY COUNCIL

Aimee Winder Newton
Councilmember, District 3
ANewton@slco.org

Kyle M. Palmer
Senior Policy Advisor
KMPalmer@slco.org
(385) 977-2080

April 26, 2021

Cindy Terwilliger
Regional Administrator
U.S. Department of Transportation
Federal Transit Administration
1961 Stout Street
Suite 13301
Denver, Colorado 80294

Re: Midvalley Connector Bus Rapid Transit Project

Dear Ms. Terwilliger:

I am responding to your letter dated March 3, 2021 providing me a project update for the Midvalley Connector Bus Rapid Transit Project. Thank you for the update and the map of the Locally Preferred Alternative (LPA). I reviewed the project website including the Environmental Study Report (2019) and the Decision Document (2019). I have an appreciation for all the work that has been completed by UTA and the consultant team that resulted in Taylorsville, Murray, West Valley, City and UTA adopting resolutions in support of the LPA.

I understand that the project partners are now pursuing federal funds for the project that will result in the environmental impacts of the proposed project being evaluated in compliance with the National Environmental Policy Act (NEPA). You have requested, from me, any input regarding resource considerations of which I may be aware for this proposed project. At this time, I do not have resource considerations to bring to your attention for further investigation that might be outside of what is normally covered through the NEPA process.

Please let me know if you have any questions or need further information. I can be reached at anewton@slco.org or (385) 468-7456.

Sincerely,

Aimee Winder Newton
District 3

cc: Kevin Osborn, FTA kevin.osborn@dot.gov
Autumn Hu, UTA ahu@rideuta.com
Hal Johnson, UTA hjohnson@rideuta.com

Hu, Autumn (NEPA Project Administrator)

From: David Bird <dgbird@utah.gov>
Sent: Thursday, April 29, 2021 1:33 PM
To: kevin.osborn@dot.gov
Cc: Bill Rees; Brent Everett; Hans Millican; Hu, Autumn (NEPA Project Administrator)
Subject: FTA Request for Resource Considerations and Update for the Midvalley Connector Bus Rapid Transit Project

Kevin Osborn
Community Planner
Federal Transit Administration – Region VIII
1961 Stout Street, Suite 13301
Denver, CO 80294

Re: Update on Midvalley Connector Bus Rapid Transit Project, Salt Lake County, Utah

Dear Mr. Osborn:

The Utah Department of Environmental Quality, Division of Environmental Response and Remediation (DERR) has received your request of March 3, 2021 for input regarding the preparation of an Environmental Assessment for the above referenced project.

We encourage you to review the DERR interactive map, as one source of data, prior to finalizing the Environmental Assessment to ensure you are informed of potential contamination. The interactive map is located at: http://enviro.deq.utah.gov You are also encouraged to speak to the Division of Waste Management and Radiation Control at (801) 536-0200 and the Division of Water Quality at (801) 536-4300.

It is possible that future construction activities associated with this project will encounter hazardous substances. These materials must be managed and disposed of properly. If impacted materials are encountered during construction, please notify the DERR.

If you have any questions regarding this letter, please feel free to contact me at (801) 536-4100.

David Bird, Environmental Engineer
Division of Environmental Response and Remediation

--

David Bird | Project Manager | VCP/Brownfields Section

801.536.4219 (office) | 801.359.8853 (fax)

195 North 1950 West, Salt Lake City, UT 84116