

# **BANGERTER**

9800 SOUTH 

## **STATE ENVIRONMENTAL STUDY**





**BANGERTER HIGHWAY AT 9800 SOUTH  
INTERCHANGE IMPROVEMENTS**

# **STATE ENVIRONMENTAL STUDY**

**PIN: 18808**

**Project Number: S-0154(92)0**

**Prepared For: Utah Department of Transportation**

**Prepared By: Horrocks Engineers**

**Date: March 2022**

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## ENVIRONMENTAL STUDY

Project Name: Bangerter Highway at 9800 South Interchange Improvements  
PIN: 18808  
Project Number: S-0154(92)0  
Prepared by: Samantha Patterson, Horrocks Engineers

For guidance in preparing this environmental study, refer to Chapter 4 of the UDOT Environmental Process Manual of Instruction.

### REQUIRED SIGNATURES STATE FUNDED PROJECTS

As a result of this Environmental Study, UDOT finds that this project will NOT cause significant environmental impacts.

Recommended by Brandon Weston:  Date: 03/09/2022  
UDOT Environmental Services Director

Approved by Ben Huot:  Date: 03/16/2022  
UDOT Program Development Director

### 1. PURPOSE AND NEED FOR ACTION

The Utah Department of Transportation (UDOT) is conducting a State Environmental Study (SES) to analyze improvements at the Bangerter Highway (State Route 154) and 9800 South intersection in South Jordan, Utah. The Wasatch Front Regional Council 2019-2050 Regional Transportation Plan includes the conversion of Bangerter Highway into a freeway system by changing the remaining at-grade intersections to grade-separated conditions.

Currently, this intersection experiences congestion operating at Level of Service (LOS) E (an average of 66-seconds delay per vehicle) during the PM peak hour.

If operational improvements are not made at this intersection, traffic modeling indicates that by 2050 the Bangerter Highway and 9800 South intersection would operate at over a 180-second delay (LOS F) during both AM peak and PM peak hours. No improvements at Bangerter Highway and 9800 South would create extensive queuing and cause adjacent intersections on 9800 South (4000 West and 3200 West) to operate at failing conditions. See *Bangerter Highway & 9800 South Existing and 2050 No Build Traffic Analysis* in Appendix B.

The purpose of the proposed project is to alleviate congestion and improve operations at the Bangerter Highway and 9800 South intersection and to support regional network mobility and operations.

### 2. DESCRIPTION

UDOT is proposing to construct a grade-separated Tight-Diamond Interchange at the existing intersection of Bangerter Highway (SR-154) and 9800 South in South Jordan, Utah. The new interchange would allow unimpeded traffic flow on Bangerter Highway and is projected to operate at LOS C (AM peak hour) and LOS D (PM peak hour) in 2050. See *Bangerter Highway & 9800 South Future Build Conditions Traffic Analysis* in Appendix B. The study area is along Bangerter Highway from milepost (MP) 9.9 on the south and extends to MP 11.0 on the north and along 9800 South between Dunsinane Drive on the west to 3400 West on the east. See *Study Area Map* in Appendix A.

Project work for the Proposed Action includes constructing a grade-separated Tight Diamond Interchange at Bangerter Highway and 9800 South with associated exit and entrance ramps, two southbound and one northbound auxiliary lanes, pavement improvements to tie into previous corridor improvements, existing noise wall replacement, and a new pedestrian structure to replace the previous pedestrian structure over Bangerter Highway. The project also includes modifications to access points along 9800 South, utilities, and storm drainage as well as installation of new pavement, traffic signals, advanced traffic management systems (ATMS) equipment, and roadway signage.

These improvements would improve traffic flow and safety on Bangerter Highway and 9800 South. See *Bangerter Highway Over Option Map* and *Bangerter Highway Under Option Map* in Appendix A.

If funding is available, project work might also include additional improvements identified as needed in 2050. These include pavement improvements on Bangerter Highway mainline from the initial improvement locations to MP 10.0 and to MP 11.05 and construction of a northbound auxiliary lane on the north side of Bangerter Highway and 9800 South.

There are two options for the Proposed Action's grade-separated interchange:

**Bangerter Highway Over Option:** The vertical alignment for 9800 South would stay at the existing grade, and Bangerter Highway would go over 9800 South above the existing grade.

**Bangerter Highway Under Option:** The vertical alignment for 9800 South would be at the existing grade, and Bangerter Highway would go under 9800 South below the existing grade.

The decision regarding which grade-separated interchange is selected will be made at a later date based on funding and coordination with South Jordan City. Once a decision is made, UDOT will communicate this decision using various outreach channels. Potential impacts to environmental resources are discussed separately in this document if there are differences between the over and under options. See *Bangerter Highway at 9800 South Alternatives Memo* in Appendix B for detailed information regarding the process of determining the Proposed Action.

### 3. PUBLIC HEARING/OPPORTUNITY FOR PUBLIC HEARING

- |            |   |
|------------|---|
| <b>Yes</b> | This project could result in public controversy or substantial impacts to adjacent properties, or substantially changes roadway geometry.                                     |
| <b>No</b>  | There are significant social, economic, environmental, or other effects. If YES, a Categorical Exclusion is not applicable. Consult with UDOT Central Environmental Services. |
| <b>Yes</b> | UDOT/FHWA has determined that a public hearing is in the public interest.   |

If the answer to ANY of the above questions is YES, a public hearing or opportunity for a public hearing is required (attach documentation identifying date and location of hearing, summary of comments, and responses to substantial comments, or include certification of opportunity for hearing).

The following types of public involvement have been provided:

- |            |   |
|------------|---|
| <b>Yes</b> | Public Hearing in accordance with state and federal procedures  |
| <b>No</b>  | Opportunity for Public Hearing  |
| <b>Yes</b> | Open House  |
| <b>Yes</b> | Other: Project-specific website, email, hotline, neighborhood and business meetings, and reoccurring meetings with South Jordan City, Jordan School District, and the Jordan Valley Water Conservancy District. |
| <b>Yes</b> | Documentation is attached identifying the date and location of hearing, summary of comments, and responses to substantial comments; or the Certification of Opportunity for a Hearing is attached.              |

**Comments:** Public Scoping Meeting opportunities were held online via Zoom Webinar on July 28, 2021, from 6 to 7 PM and in-person at Elk Ridge Middle School (3659 West 9800 South in South Jordan) on July

29, 2021. A total of 147 comments were received during the comment period. Legal notices were published in accordance with UT Administrative Code R930-2 and the UDOT Environmental Manual of Instruction (MOI). See *Bangerter Highway at 9800 South Public Scoping Report* in Appendix C.

In-person Business and Neighborhood Meetings were held at Elk Ridge Middle School (3659 West 9800 South in South Jordan) on Jan. 10, 2022, from 5 to 6:30 p.m., and Jan. 12, 2022, from 5 to 6:30 p.m. and from 6:30 to 8 p.m. Invitees included commercial and residential property owners whose properties may become the “new front row” or be potentially impacted by the project to build a grade-separated interchange.

Public Hearing opportunities were held in-person at Elk Ridge Middle School (3659 West 9800 South in South Jordan) on Jan. 26, 2022, from 6 to 7:30 p.m., and online via Zoom Webinar on Jan. 27, 2022, from 6 to 7 p.m. A total of 98 comments were received during the comment period from Jan. 17, 2022 to Feb. 15, 2022. Legal notices were published in accordance with Utah Administrative Code Rule R930-2 and UDOT’s Environmental Manual of Instruction (MOI). See the *Bangerter Highway at 9800 South Public Meeting Report* in Appendix C. A summary of the public hearing documentation and responses to comments are included with this report.

## 4. RIGHT-OF-WAY

**Yes** Acquisition of right-of-way is required.

**No** The right-of-way required is significant because of its size, location, use, or relationship to remaining property and abutting properties. (If the right-of-way required is significant, the project does not qualify as a Categorical Exclusion).

**Comments:** The Proposed Action would require acquiring right-of-way from properties along Bangerter Highway. The amount of right-of-way acquisition required for each option is described below. Potential relocations have been counted as a full acquisition.

Details regarding temporary and permanent right-of-way easements are not included in the descriptions below but have been identified and are shown on the *Bangerter Highway Over Option Map* and *Bangerter Highway Under Option Map* in Appendix A.

**Bangerter Highway Over Option:** The approximate amount of right-of-way acquisition required for the Bangerter Highway Over Option is 11.54 acres, which would affect 42 parcels. This includes 19 partial property acquisitions (14 residential properties, 3 commercial properties, 2 school district properties) and approximately 23 full property acquisitions (19 residential properties and 4 commercial properties).

Right-of-way coordination will be required for four residential parcels with improvements within UDOT’s right-of-way to replace the existing noise wall.

**Bangerter Highway Under Option:** The approximate amount of right-of-way acquisition required for the Bangerter Highway Under Option is 11.95 acres, which would affect 44 parcels. This includes 19 partial property acquisitions (14 residential properties, 3 commercial properties, and 2 school district properties) and approximately 25 full property acquisitions (21 residential properties and 4 commercial properties).

Right-of-way coordination will be required for six residential parcels with improvements within UDOT's right-of-way to replace the existing noise wall.

More information regarding the location of right-of-way acquisitions for each option are found in *Bangerter Highway Over Option Map* and *Bangerter Highway Under Option Map* in Appendix A and the *Right-of-Way Property Impacts* document in Appendix D.

## 5. CULTURAL

According to the UDOT Region NHPA/NEPA Specialist and/or the Architectural Historian, the Finding of Effect for the project is one of the following:

**Yes** No historic properties affected

**N/A** No adverse effect

**N/A** Adverse effect

Project documentation for determination of eligibility and finding of effect consists of one of the following and is attached:

**Yes** Memo from UDOT Region NEPA/NHPA Specialist and/or Architectural Historian stating a finding of No Historic Properties Affected.

**N/A** SHPO concurrence with the Determinations of Eligibility and Finding of Effect AND memo from UDOT Region NEPA/NHPA Specialist and/or Architectural Historian stating a finding of No Adverse Effect or Adverse Effect.

**Yes** Have letters for Native American Consultation been sent? Attach letters.

**No** Have letters for federal and state agencies, CLGs, historical societies, etc., been sent? If so, attach letters.

**No** Do the impacts to historic properties require mitigation?  
If YES, a signed Memorandum of Agreement (MOA) is attached.

**Comments:** Native American consultation was initiated through the Tribal Notification Form sent to the Eastern Shoshone Tribe of the Wind River Reservation, Shoshone-Bannock Tribes of Fort Hall, Northwestern Band of Shoshone Nation, Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation, Skull Valley Band of Goshute Indians, Cedar Band of Paiutes, Shivwits Band of Paiute Indian Tribe of Utah, and Confederated Tribes of the Goshute Reservation (sent September 9, 2021). None of the tribes have responded to the notification to date. See *Tier 1 Screening Form and Tribal Notification Form* in Appendix D.



## 6. PALEONTOLOGICAL

**Yes** This project is one of the 16 types of projects listed in Stipulation III of the Memorandum of Understanding (MOU) with the Utah Geological Survey (UGS) that has no effect on paleontological resources and does not require notification to the UGS. If YES, a memo from the UDOT Region NEPA/NHPA Specialist is attached (can be included in cultural memo).

For all other projects, the UGS has been notified and has responded with the following (attach UGS letter and memo from the UDOT Region NEPA/NHPA Specialist):

**N/A** There are no known paleontological localities in the area of potential effects, and the formations in the project area have a low potential for containing fossil remains (Class 1 or 2).

**N/A** Fossil-bearing formations (Class 3-5) and/or known paleontological localities are present in the area of potential effects, but the UDOT Region NEPA/NHPA Specialist (or paleontologist) has determined that they will not be affected by the project.

**N/A** Fossil-bearing formations (Class 3-5) and/or known paleontological localities are present in the area of potential effects and may be affected by construction activities. A survey and/or monitoring by a qualified paleontologist is required.

**Comments:** See *Utah Geological Survey Letter* in Appendix D.

## 7. THREATENED, ENDANGERED, OR CANDIDATE SPECIES

**For Federally or State Funded Projects:**

**Yes** Project will have **“no effect”** to T&E species, or their critical habitats, protected under the Endangered Species Act. If YES, attach **“no effect”** memo or review/comments (in the case of local government projects) from UDOT’s Wildlife Biologist.

**No** Project **“may affect, but is not likely to adversely affect”** T&E species, or their critical habitats, protected under the Endangered Species Act. If YES, attach BA and “concurrence” from the U.S. Fish and Wildlife Services (USFWS). List all mitigation/conservation measures.

**No** Project **“may affect, and is likely to adversely affect”** threatened and endangered species, or their critical habitats, protected under the Endangered Species Act. If YES, attach BA and USFWS BO. List all mitigation/conservation measures.

**No** The USFWS has issued a **“jeopardy”** opinion regarding this project. If YES, attach BA and BO as above. This project cannot go forward without being reconsidered.

**Comments:** See *UDOT Threatened and Endangered Species and Wildlife Concurrence Memo* in Appendix D.

### 8. WILDLIFE

**No** Project has the potential to affect state-sensitive species, important wildlife habitat, big game migration routes, habitat connectivity, migratory birds, or fish spawning habitat or fish passage.

Memo from UDOT Wildlife Biologist is attached.

**Comments:** See *UDOT Threatened and Endangered Species and Wildlife Concurrence Memo* in Appendix D.

### 9. INVASIVE SPECIES

If the project involves earthwork, grading or landscaping, there is potential to introduce or spread invasive weed species.

**Yes** Based upon location, this project has the potential to introduce or spread invasive species included on the noxious weed list of the State of Utah and the county noxious weed lists.

**Comments:** Noxious weed species, as defined by the Utah Noxious Weed Act (Utah Administrative Code, Rule R68-9), have not been identified growing within the project limits. However, the project includes earthwork which has the potential to introduce noxious weeds. See Mitigation Commitments.

### 10. NOISE

Projects that may affect noise levels to adjacent receptors include changes in roadway alignment, roadway widening, and the addition of traffic lanes.

**Yes** This project has the potential to increase noise to adjacent receptors.

**Yes** A noise study is attached.

**Comments:** The following information can be found in detail in the *Noise Study* in Appendix D. Two options were evaluated as part of this noise study. One option evaluated a grade-separated interchange with Bangerter Highway over 9800 South. The second option evaluated a grade-separated interchange with Bangerter Highway under 9800 South.

**Bangerter Highway Over Option:** Overall, noise levels for the Bangerter Highway Over Option would range from 34 dBA to 80 dBA compared to 33 dBA and 71 dBA for the existing conditions. Of the 345 receptors, 118 would be impacted by Bangerter Highway Over Option noise levels. Ninety-five impacted receptors exhibit noise levels that are greater than 10 dBA above existing levels, with the greatest increase being 21 dBA at two receptors. Seventy impacted receptors exhibit noise levels that exceed the

NAC. Forty-six impacted receptors exhibit both a noise level that exceeds the NAC as well as an increase greater than 10 dBA above existing levels.

Six noise walls, including three walls that were removed as part of the proposed improvements, were evaluated for the Bangerter Highway Over Option. Walls 1–3 are recommended to be replaced “in-kind,” consistent with the UDOT Noise Abatement Policy. Wall 4 was not feasible and reasonable and is not recommended for balloting. Walls 5–6 will remain in place. See *Bangerter Highway Over Option Map* in Appendix A.

**Bangerter Highway Under Option:** Overall, noise levels for the Bangerter Highway Under Option would range from 42 dBA to 80 dBA compared to 33 dBA and 71 dBA for the existing conditions. Of the 345 receptors, 72 would be impacted by Bangerter Highway Under Option noise levels. Sixty-four impacted receptors exhibit noise levels that are greater than 10 dBA above existing levels, with the greatest increase being 21 dBA at one receptor. Forty-five impacted receptors exhibit noise levels that exceed the NAC. Thirty-seven impacted receptors exhibit both a noise level that exceeds the NAC as well as an increase greater than 10 dBA above existing levels.

Four noise walls, including three walls that were removed as part of the proposed improvements, were evaluated for the Bangerter Highway Under Option. Walls 1–3 are recommended to be replaced “in-kind,” consistent with the UDOT Noise Abatement Policy. Wall 4 was not feasible and reasonable and is not recommended for balloting. See *Bangerter Highway Under Option Map* in Appendix A.

## 11. WETLANDS, WATER RESOURCES, STORM WATER, AND FLOODPLAINS

### Wetlands and Water Resources

- |            |   |
|------------|---|
| <b>Yes</b> | The project is a type that does not have the potential to affect or cross Waters of the United States. If YES, no concurrence letter is needed.   |
| <b>No</b>  | Project affects waters of the United States (e.g., wetlands, mudflats, lakes, or perennial or ephemeral streams). If NO, have a UDOT Landscape Architect provide a concurrence letter stating they agree with the determination. In order to indicate “NO” on this question, answers to the following statements must also be “NO”. |
| <b>No</b>  | Project impacts perennial, intermittent, or ephemeral streams that have a riparian vegetation component. If YES, a Programmatic General Permit 40 (PGP40), also known as a Stream Alteration Permit, from the Utah Division of Water Rights will be required.   |
| <b>No</b>  | Project exceeds the impact limitation for streams or washes identified in the PGP40. If YES, both a PGP40 and a separate Department of the Army permit will be required.  |
| <b>No</b>  | Project impacts an ephemeral wash not captured under PGP40 that has an ordinary high-water mark (OHWM) with a connected flow to a downstream  |

Traditional Navigable Water and the impact below the OHWM exceeds 1/10 of an acre per crossing. If YES, a Department of Army permit will be required.

- No** Project impacts a perennial or intermittent stream below the OHWM less than 1/10 of an acre per crossing. If YES, notification to the U.S. Army Corps of Engineers will be required.
- No** Project impacts navigable waters of the United States (Lake Powell, Flaming Gorge Reservoir, Bear Lake, Green River – mouth to 20 miles above Green River Station, Colorado River - mouth of Castle Creek to Cataract Canyon - 4.5 miles below mouth of Green River) below the OHWM. If YES, a Section 10 Department of the Army permit will be required.
- No** Project impacts jurisdictional wetlands. If YES, a Department of Army Nationwide Permit (NWP) will be required for wetland impacts under the 1/2-acre threshold; a Letter of Permission (LOP) will be required for wetland impacts between 1/2 and 1 acre; and an Individual Permit (IP) will be required for impacts greater than 1 acre.
- No** Project impacts non-jurisdictional wetlands. If YES, wetland mitigation may still be required under the federal policy of “no net loss”. Consult UDOT Environmental Section.

### Storm Water Runoff

- Yes** Project disturbs 1 acre or more of ground surface.
- If YES, a UPDES Storm Water Discharge Permit for Construction Activities is required from the Utah Division of Water Quality.

### Floodplains

- No** This project requires new construction or alteration of existing structures within the FEMA-designated 100-year flood plain.
- If YES, a Development Permit is required from the local permit official.

**Comments:** See *Environmental Review of Water Resources and Wetlands, Noxious Weeds, and Visual Aesthetics* in Appendix D.

## 12. HAZARDOUS WASTE

- No** Has a visual inspection of the project area found substances that may be hazardous to human health and/or the environment?
- Yes** This project involves excavation beyond and below the existing roadway footprint.

If YES to either question 1 or 2, then site investigations and coordination with DEQ may be necessary.

**Comments:** A review of records from the Utah Department of Environmental Quality (UDEQ) and the Environmental Protection Agency identified a total of 3 sites within proximity to the study area, including: one Toxic Release Inventory (TRI), one used oil facility site, and one Leaking Underground Storage Tank (LUST). See *Hazardous Materials Memo* in Appendix D.

The Proposed Action would not impact any hazardous materials sites, nor would any sites affect the Proposed Action. If hazardous materials are encountered during work, all work will stop in the area of contamination according to UDOT 2022 Standard Specification 01355, and the contractor will consult with UDOT and UDEQ to determine the appropriate remedial measures. See the Mitigation Commitments.

### 13. PRIME, UNIQUE, STATEWIDE, OR LOCALLY IMPORTANT FARMLAND

Projects in areas whose land use maps indicate no current or future farming activities would not usually affect farmlands.

**No** This project MAY affect Prime, Unique, Statewide, or Locally Important Farmlands.

**N/A** The Natural Resource Conservation Service letter and Form AD1006 are attached.

### 14. AIR QUALITY

**Yes** This project has the potential to increase particulate matter due to construction activities.

**No** This project adds or alters roadway capacity or will result in increased traffic volumes at signalized intersections

If YES, the Air Quality Supplement is attached.

**Comments:** An air quality review was completed for this project and concludes that the construction of a grade-separated interchange would improve mobility and reduce congestion, resulting in lower levels of criteria pollutants in the study area when compared to not building the project. Best management practices should be employed in all construction phases in accordance with UDOT 2022 Standard Specifications for Road and Bridge Construction. See Mitigation Commitments and the *Air Quality Summary* in Appendix D.

### 15. RELOCATIONS

**Yes** There may be relocations of residences or businesses as a result of this project.

**Comments:** Relocations would be required from residential and commercial parcels to accommodate the Proposed Action. Relocations and potential relocations differ between the Bangerter Highway Over Option and Bangerter Highway Under Option due to utility and pedestrian bridge placement variances. See *Bangerter Highway Over Option Map* and *Bangerter Highway Under Option Map* in Appendix A.

**Bangerter Highway Over Option:** This option would require 10 residential relocations and the acquisition of three business buildings resulting in 11 business relocations. It would also require nine potential residential relocations and the potential acquisition of one business building resulting in three potential business relocations. It is anticipated that 19 properties would require partial acquisition.

**Bangerter Highway Under Option:** This option requires 10 residential relocations and the acquisition of three business buildings resulting in 11 business relocations. Additionally, it requires approximately 11 potential residential relocations and the potential acquisition of one business building resulting in three potential business relocations. It is anticipated that 19 properties would require partial acquisition.

## 16. LAND USE/URBAN POLICY

**No** This project may affect land use or urban policy.

## 17. SECTION 4(F) PROPERTIES

Projects under the 327 NEPA Assignment MOU and the 326 CE MOU require the implementation of Section 4(f) (DOT Act of 1966). This project does not fall under either MOU categories, meaning it is not applicable. This section remains included to follow the UDOT ePM format.

**N/A** Section 4(f) properties are impacted.

**N/A** An Individual Section 4(f) Evaluation AND written concurrence from UDOT Environmental Services on the Individual Section 4(f) determination is attached.

**N/A** A Programmatic Section 4(f) Evaluation AND written concurrence from UDOT Environmental Services on the Programmatic Section 4(f) determination is attached.

**N/A** The 4(f) property(s) is a historic property, and the impact is considered **de minimis**.

**N/A** SHPO has concurred in writing on UDOT's "**no adverse effect**" determination to historic properties and has been notified of the intent to make a **de minimis** finding. Attach letter to SHPO and **de minimis** agreement letter.

**N/A** The 4(f) property(s) is a park, recreational area, a wildlife or waterfowl refuge and the impact is considered **de minimis**.

**N/A** The official(s) with jurisdiction have concurred, in writing, that the project will "**not adversely affect**" the activities, features, and attributes that

qualify the resource for protection under Section 4(f) and have been notified of the intent to make the **de minimis** impact finding. Letters are attached.

N/A

The project sponsor has provided public notice and opportunity for public review and comment. Describe public involvement efforts in the comments below.

N/A

Written concurrence from UDOT Environmental Services is attached.

## 18. OTHER ENVIRONMENTAL FACTORS CONSIDERED

This project, except as noted and explained in attachments, will have no disproportionate, serious, or lasting effect on the following:

**Yes** Active Transportation

**Comments:** Current active transportation facilities include sidewalks and bike lanes on the north side of 9800 South between 3400 West to approximately Garden Glen Road and between Elk View Drive and Dunsinane Drive. Sidewalks and bike lanes are located on the south side of 9800 South between 3400 South and Dunsinane Drive.

Regional and local active transportation plans propose bike lanes on 9800 South from Dunsinane Drive to Bangerter Highway to connect existing bike lanes west of Dunsinane Drive to east of Bangerter Highway. The city transportation plans also include buffered bike lanes along 9800 South throughout the study area.

**Yes** Visual

**Comments:** Visual changes are expected but are different for the two options.

**Bangerter Highway Over Option:** This option would elevate Bangerter Highway to cross over 9800 South. The visual changes would include the elevated road and structure and would be similar to the Bangerter Highway and 9000 South interchange or the Bangerter Highway and 7800 South interchange locations.

**Bangerter Highway Under Option:** This option would have some visual changes as a structure would be built to accommodate Bangerter Highway going under 9800 South. The visual changes are expected to be minimal and similar to the Bangerter Highway and 11400 South interchange location.

**No** Social/Economic

**No** Title VI and/or Environmental Justice

**No** Natural Resources

**Yes** Construction

**Comments:** Delays and temporary east/west closures of 9800 South are anticipated to last up to 9 to 12 months during the construction of the project.

**No** Energy

**No** Geology/Soils

**No** Wild/Scenic Rivers

**No** Ecology

## 19. CONCLUSION

**No** This project may have substantial controversy or significant impacts.



## Mitigation Commitments

| Preliminary Engineering |  | Responsible |
|-------------------------|--|-------------|
| Invasive Species        | Include UDOT Special Provision Section 02924S Noxious Weed Control in the contract documents to require that earthmoving construction equipment is to be properly cleaned before mobilizing onto the project site. | UDOT        |
| Relocations             | Compensate property owners according to the requirements of the Utah Relocation Assistance Act.  | UDOT        |
| Water Quality           | Comply with Utah Construction General Permit (UCGP) by preparing SWPPP during the design and advertisement; provide SWPPP to the project awarded contractor prior to Notice to Proceed.                            | UDOT        |

| Construction                |  | Responsible |
|-----------------------------|--|-------------|
| Air Quality                 | Follow requirements in UDOT Standard Specification 01572 titled "Dust Control and Watering" and UDOT 2022 Standard Specifications 01355 1.11 Part A, B, and C.   | Contractor  |
| Environmental               | Comply with UDOT 2022 Standard Specifications 01355.   | Contractor  |
| Hazardous Waste             | Comply with UDOT 2022 Standard Specification 01355 regarding the treatment and disposal of hazardous materials, if encountered.  | Contractor  |
| Invasive Species            | Comply with UDOT Special Provision Section 02924S NOXIOUS WEED CONTROL requirements by properly cleaning all earthmoving construction equipment before mobilizing onto the project site and avoiding unnecessary earth disturbances. | Contractor  |
| Nighttime Construction Work | Comply with UDOT 2022 Standard Specifications 00555 for nighttime construction work including notification, lighting, and temporary noise permits.   | Contractor  |
| Visual                      | Reclaim all disturbed areas per UDOT standard specifications.  | Contractor  |
| Water Quality               | Comply with UCGP by finalizing the SWPPP prior to beginning earth disturbing activities; implementing and maintaining the project SWPPP throughout project construction.   | Contractor  |

# Appendix

## **Appendix A: Project Figures**

- Study Area Map
- Bangerter Highway Over Option Map
- Bangerter Highway Under Option Map

## **Appendix B: Traffic and Design**

- Bangerter Highway & 9800 South Existing and 2050 No Build Traffic Analysis
- Bangerter Highway & 9800 South Future Build Conditions Traffic Analysis
- Bangerter Highway at 9800 South Alternatives Memo

## **Appendix C: Public Involvement**

- Bangerter Highway at 9800 South Public Scoping Report
- Correspondence and Coordination
- Bangerter Highway at 9800 South Public Meeting Report

## **Appendix D: Environmental Resources**

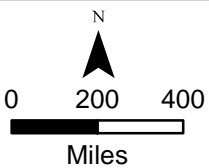
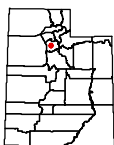
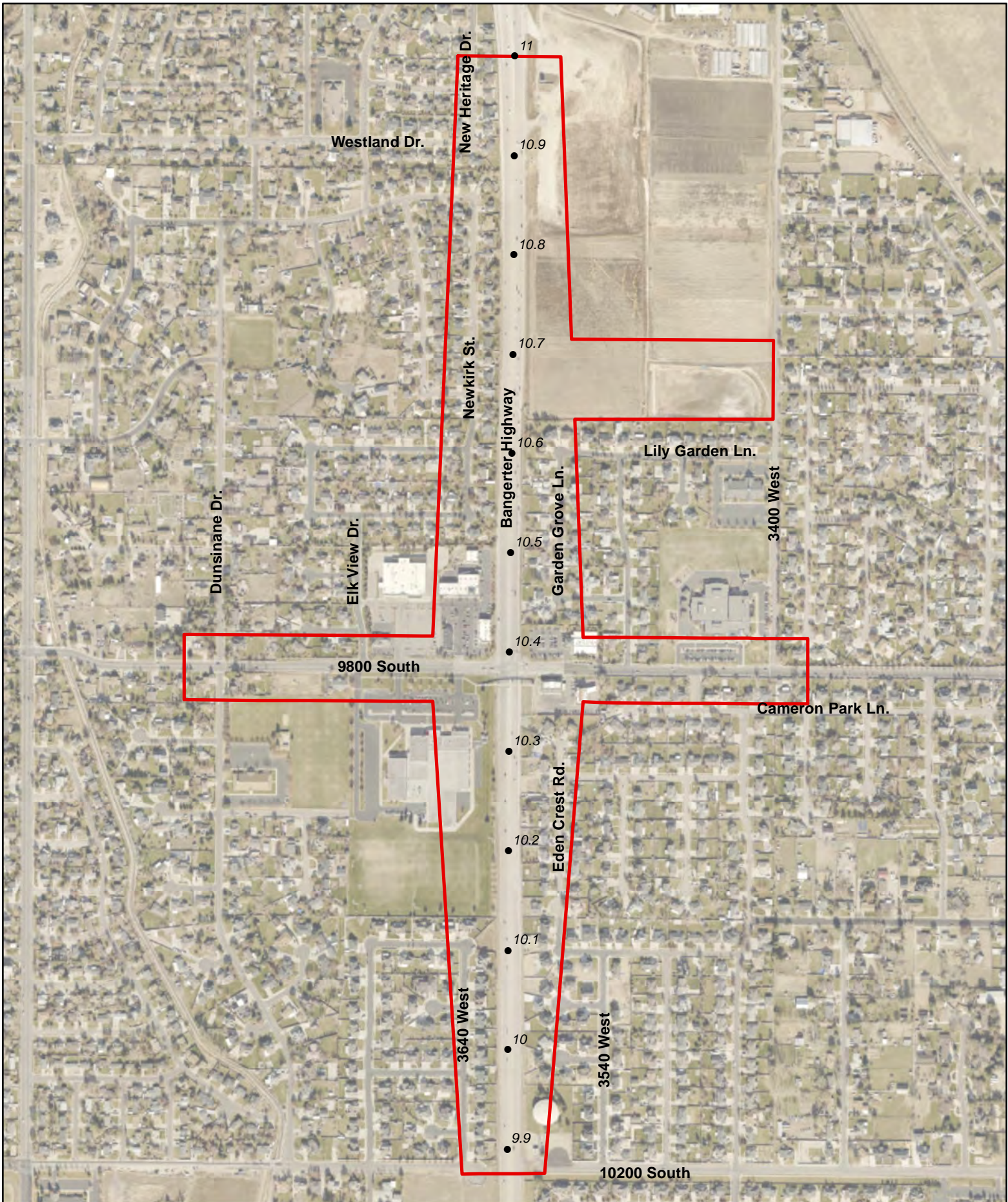
- Right-of-Way Property Impacts
- Tier 1 Screening Form and Tribal Notification Form
- Utah Geological Survey Letter
- UDOT Threatened and Endangered Species and Wildlife Concurrence Memo
- Environmental Review of Water Resources and Wetlands, Noxious Weeds, and Visual Aesthetics
- Noise Study
- Hazardous Materials Memo
- Air Quality Summary



## Appendix A: Project Figures

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Study Area Map



- Tenth Milepost
- Study Area

**18808: Bangerter Environmental - 9800 South Study Area**

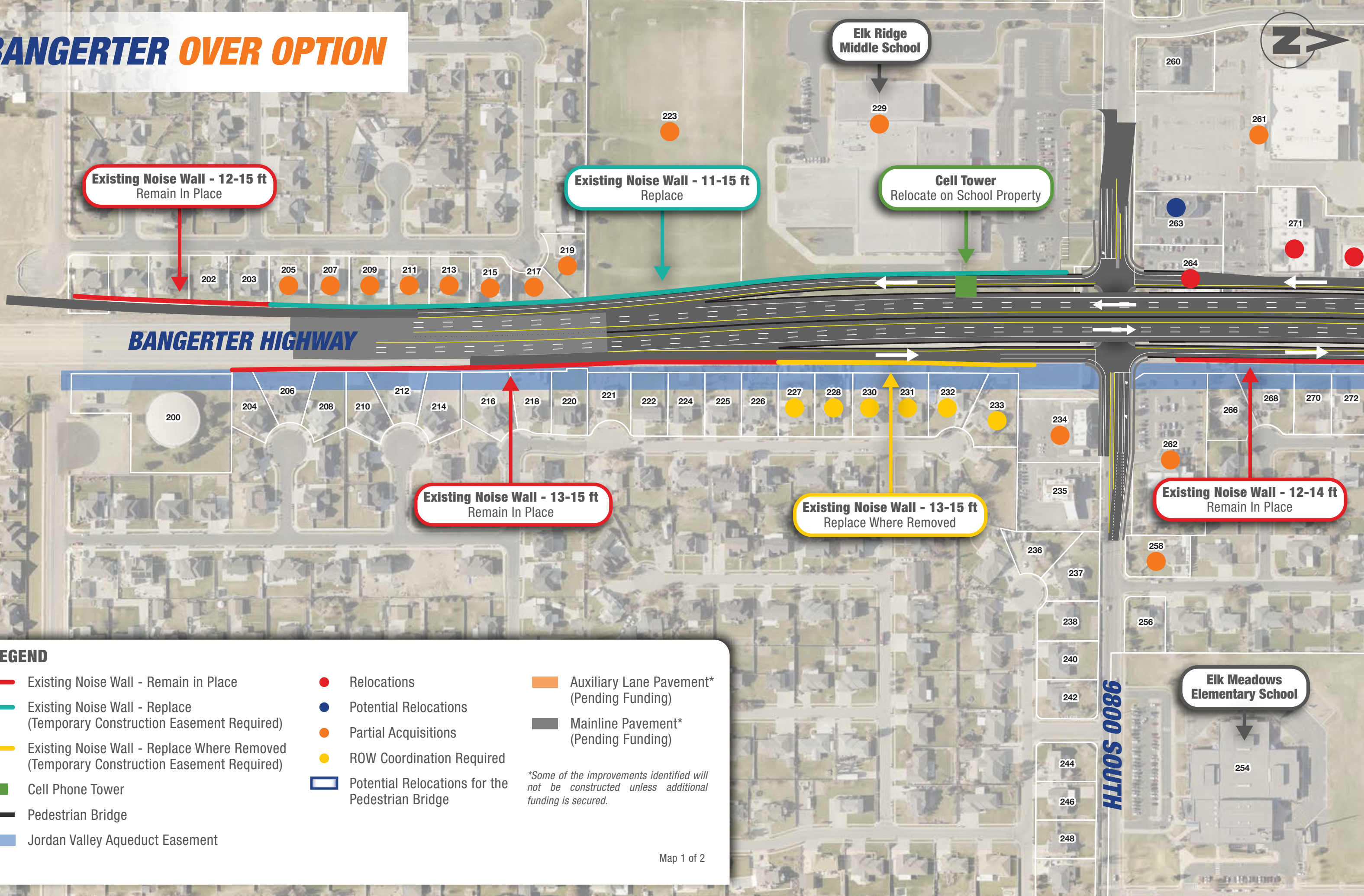


## Appendix A: Project Figures

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Bangerter Highway Over Option Map

# BANGERTER OVER OPTION



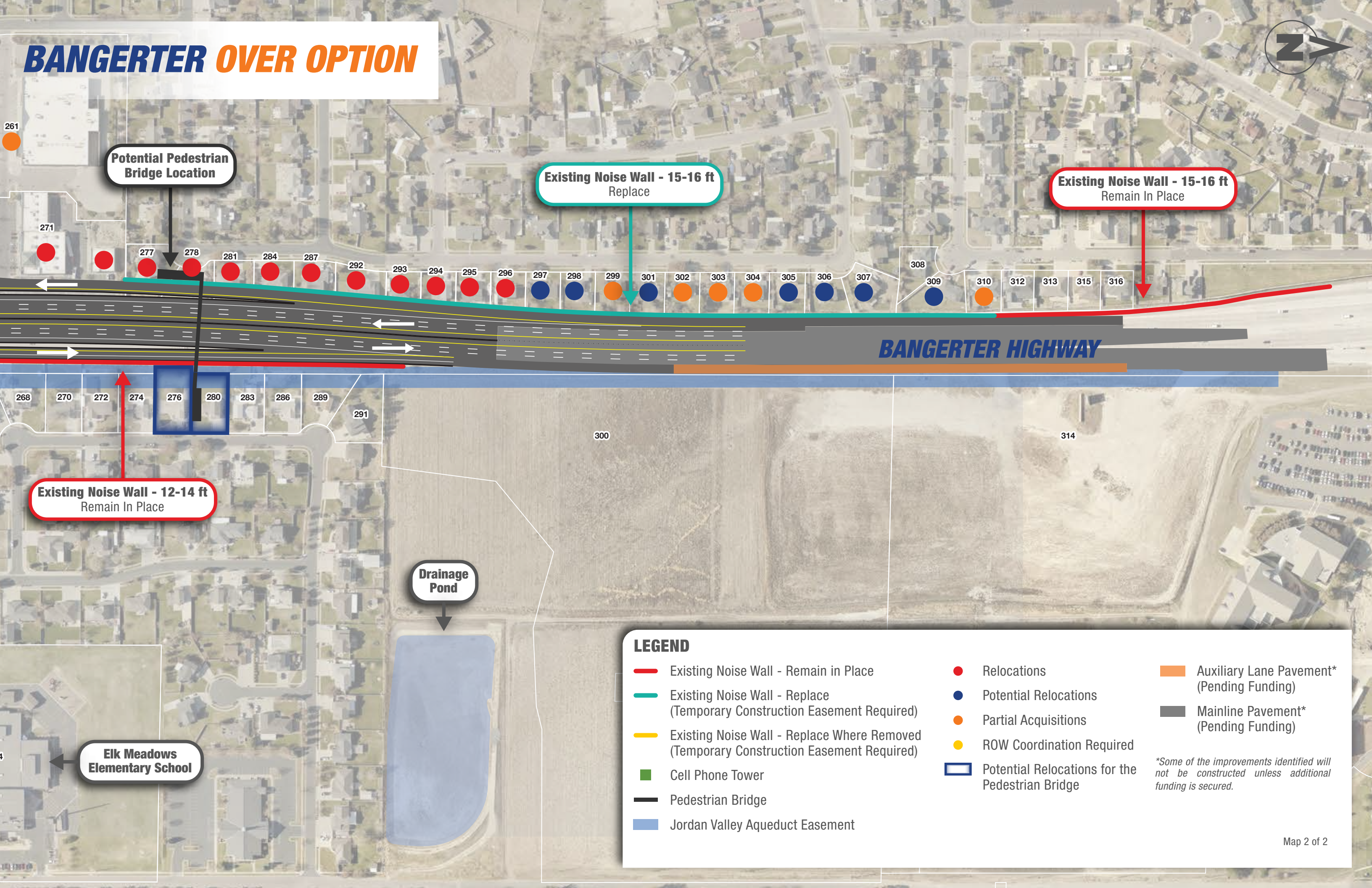
**LEGEND**

|  |   |  |                           |  |  |
|--|---|--|---------------------------|--|--|
|  | Existing Noise Wall - Remain in Place   |  | Relocations               |  | Auxiliary Lane Pavement*<br>(Pending Funding)      |
|  | Existing Noise Wall - Replace<br>(Temporary Construction Easement Required)               |  | Potential Relocations     |  | Mainline Pavement*<br>(Pending Funding)            |
|  | Existing Noise Wall - Replace Where Removed<br>(Temporary Construction Easement Required) |  | Partial Acquisitions      |  | Potential Relocations for the<br>Pedestrian Bridge |
|  | Cell Phone Tower  |  | ROW Coordination Required |  |  |
|  | Pedestrian Bridge   |  |                           |  |  |
|  | Jordan Valley Aqueduct Easement   |  |                           |  |  |

\*Some of the improvements identified will not be constructed unless additional funding is secured.

9800 SOUTH

# BANGERTER OVER OPTION



Potential Pedestrian Bridge Location

Existing Noise Wall - 15-16 ft Replace

Existing Noise Wall - 15-16 ft Remain In Place

Existing Noise Wall - 12-14 ft Remain In Place

BANGERTER HIGHWAY

Elk Meadows Elementary School

Drainage Pond

**LEGEND**

|  |  |  |                           |  |   |
|--|--|--|---------------------------|--|---|
|  | Existing Noise Wall - Remain in Place  |  | Relocations               |  | Auxiliary Lane Pavement* (Pending Funding)      |
|  | Existing Noise Wall - Replace (Temporary Construction Easement Required)               |  | Potential Relocations     |  | Mainline Pavement* (Pending Funding)            |
|  | Existing Noise Wall - Replace Where Removed (Temporary Construction Easement Required) |  | Partial Acquisitions      |  | Potential Relocations for the Pedestrian Bridge |
|  | Cell Phone Tower   |  | ROW Coordination Required |  |   |
|  | Pedestrian Bridge  |  |                           |  |   |
|  | Jordan Valley Aqueduct Easement  |  |                           |  |   |

*\*Some of the improvements identified will not be constructed unless additional funding is secured.*



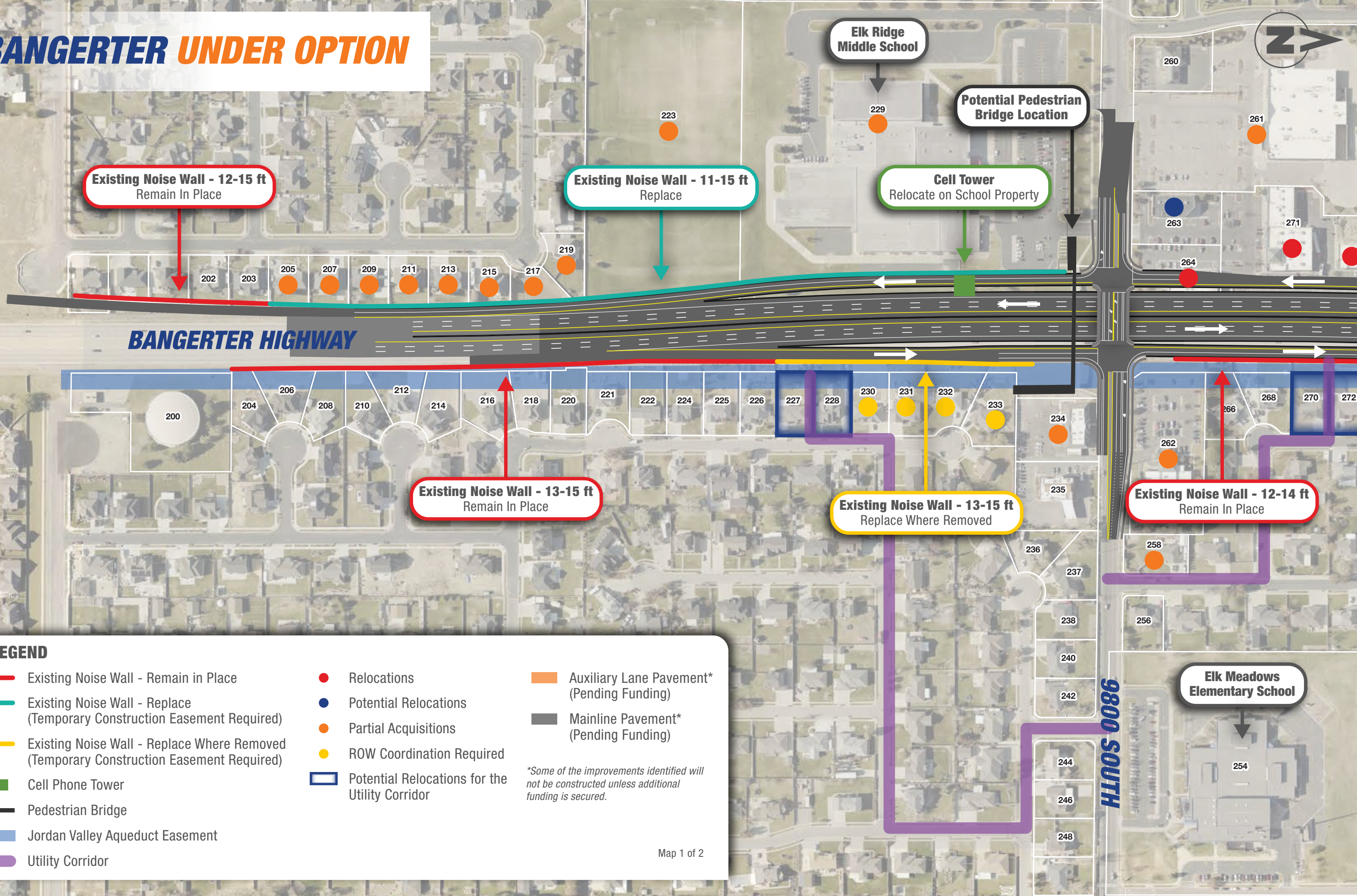
## Appendix A: Project Figures

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Bangerter Highway Under Option Map



# BANGERTER UNDER OPTION



**Existing Noise Wall - 12-15 ft**  
Remain In Place

**Existing Noise Wall - 11-15 ft**  
Replace

**Cell Tower**  
Relocate on School Property

**Potential Pedestrian Bridge Location**

## BANGERTER HIGHWAY

**Existing Noise Wall - 13-15 ft**  
Remain In Place

**Existing Noise Wall - 13-15 ft**  
Replace Where Removed

**Existing Noise Wall - 12-14 ft**  
Remain In Place

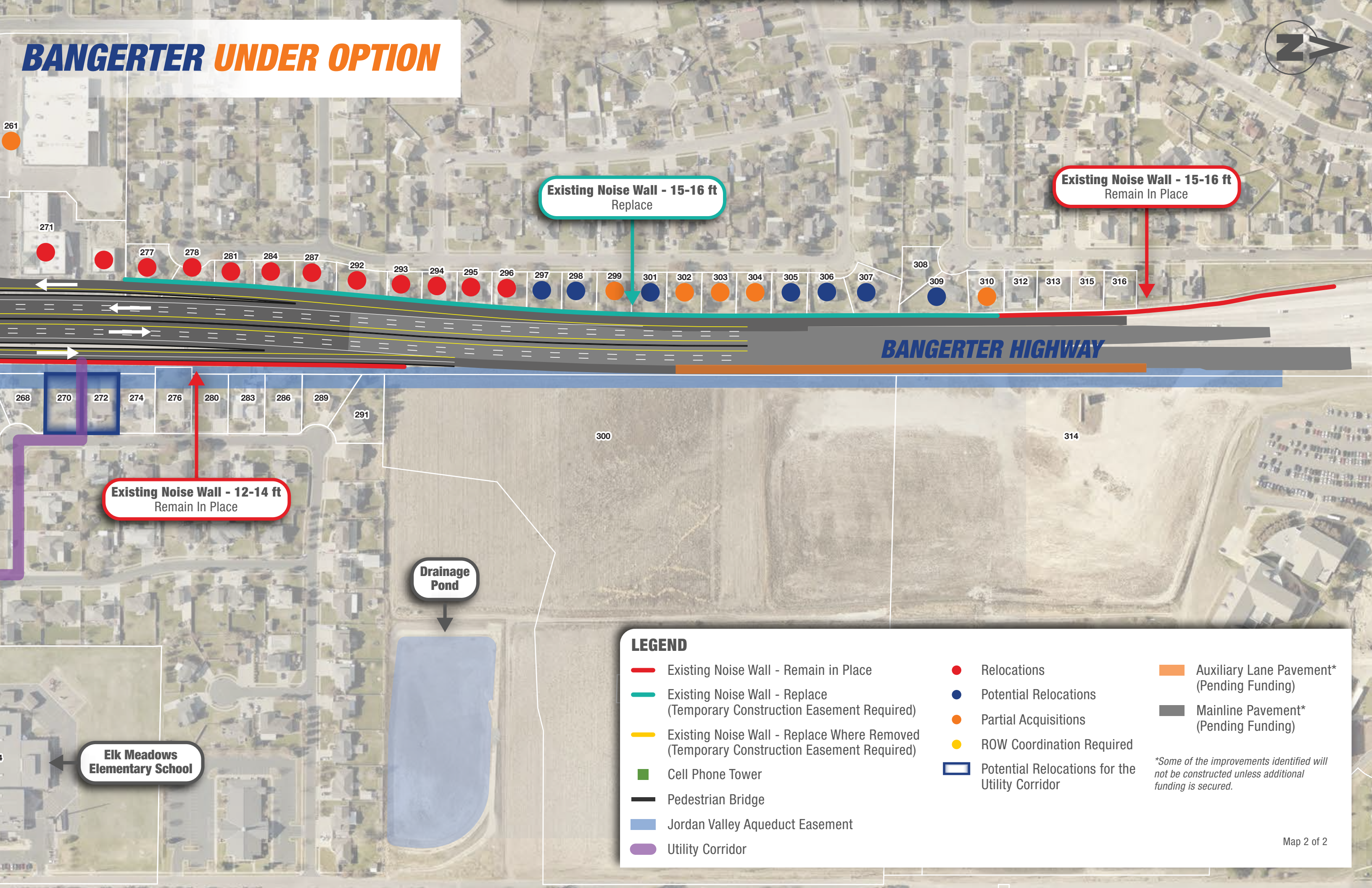
**LEGEND**

- Existing Noise Wall - Remain in Place
- Existing Noise Wall - Replace (Temporary Construction Easement Required)
- Existing Noise Wall - Replace Where Removed (Temporary Construction Easement Required)
- Cell Phone Tower
- Pedestrian Bridge
- Jordan Valley Aqueduct Easement
- Utility Corridor
- Relocations
- Potential Relocations
- Partial Acquisitions
- ROW Coordination Required
- Potential Relocations for the Utility Corridor
- Auxiliary Lane Pavement\* (Pending Funding)
- Mainline Pavement\* (Pending Funding)

*\*Some of the improvements identified will not be constructed unless additional funding is secured.*

**9800 SOUTH**

# BANGERTER UNDER OPTION



Existing Noise Wall - 15-16 ft  
Replace

Existing Noise Wall - 15-16 ft  
Remain In Place

Existing Noise Wall - 12-14 ft  
Remain In Place

Elk Meadows  
Elementary School

Drainage  
Pond

**BANGERTER HIGHWAY**

## LEGEND

- Existing Noise Wall - Remain in Place
- Existing Noise Wall - Replace (Temporary Construction Easement Required)
- Existing Noise Wall - Replace Where Removed (Temporary Construction Easement Required)
- Cell Phone Tower
- Pedestrian Bridge
- Jordan Valley Aqueduct Easement
- Utility Corridor
- Relocations
- Potential Relocations
- Partial Acquisitions
- ROW Coordination Required
- Potential Relocations for the Utility Corridor
- Auxiliary Lane Pavement\* (Pending Funding)
- Mainline Pavement\* (Pending Funding)

*\*Some of the improvements identified will not be constructed unless additional funding is secured.*