

ENVIRONMENTAL STUDY

Project Name: ANTELOPE FRONTAGE ROADS

PIN: n/a

Project No.: n/a

Job/Proj: n/a

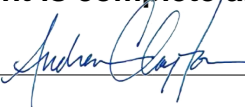
Prepared By: KEVIN KILPATRICK - HDR

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

<http://www.udot.utah.gov/go/environmental>

REQUIRED SIGNATURES

I have reviewed the information presented in this Environmental Study and I hereby attest that the document is complete and the details of the document are correct.

Reviewer (Signature):  Date: September 3, 2020

Reviewer (Printed): Andrea Clayton

Firm/UDOT Region: HDR

STATE FUNDED PROJECTS

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

Approved:  Date: 09/23/2020

UDOT Region Environmental Manager

1. Purpose and Need for Action

Bluff Road currently has an at-grade, stop sign-controlled intersection at Antelope Drive (also known as State Route [S.R.] 127) in Syracuse, Davis County, Utah. The planned West Davis Corridor (WDC) project includes a new WDC single-point urban interchange (SPUI) on Antelope Drive just west of Bluff Road. UDOT also has another project planned to widen Antelope Drive to two lanes in each direction between the WDC and 2000 West with turn lanes from Antelope Drive to the WDC on ramps. The WDC Antelope Drive SPUI and Antelope Drive widening projects have been evaluated in previous UDOT environmental studies. The alignment of both planned improvements are shown on the Study Map in the Appendix.

The WDC and Antelope Drive widening projects assumed that Bluff Road north of Antelope Drive would terminate in a cul-de-sac near 1653 S. Bluff Road; Bluff Road south of Antelope Drive would connect with an at-grade intersection at 2625 West (see Study Area figure in the Appendix).

Through further coordination between UDOT and Syracuse City as part of progressing the WDC and Antelope Drive widening designs a new, independent need has been identified. The planned cul-de-sac on Bluff Road north of Antelope Drive reduces local connectivity between Bluff Road and Antelope Drive on the north side. Residents east of WDC and north of Antelope Drive who want to go east on Antelope Drive must travel north to 3000 West, go south under the WDC on 3000 West, and then turn east on Antelope Drive. This out-of-direction travel would result in delays and additional traffic using the WDC Antelope Drive SPUI. In addition, the planned Antelope Drive/2625 West intersection that would reconnect Bluff Road to the south has limited turning movements (for example, left turns on to Antelope Drive from 2625 West would be prohibited) due to its close proximity with the eastern WDC Antelope SPUI interchange ramp terminal. There is a need to make this an intersection capable of accommodating all turning movements to improve system connectivity.

The purpose of the Antelope Frontage Roads project is to improve connectivity and mobility to the broader transportation network between Bluff Road and Antelope Drive.

2. Description

UDOT would eliminate the previously planned intersection at Antelope Drive and 2625 West and would construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive).

The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 S. Bluff Road and connect to 2500 West at 1624 South 2500 West. The intersection of the north Antelope Drive frontage road and 2500 West would have a stop sign. The north Antelope Drive frontage road would match the cross section of

Bluff Road north of Antelope Drive and would have a total width of 25 feet with one 12.5 foot lane in each direction.

The proposed south Antelope Drive frontage road would connect to Bluff Road near 1800 S. Bluff Road and connect to 2500 West at 1745 South 2500 West. The intersection of the south Antelope Drive frontage road and 2500 West would have a stop sign. The south Antelope Drive frontage road would match the cross section of Bluff Road south of Antelope Drive and have a total width of 35 feet with one 12 foot lane and 5.5 foot shoulders in each direction.

Appendix A includes a figure showing the north and south Antelope Drive frontage roads.

3. Public Hearing/Opportunity for Public Hearing

- YES** This project could result in public controversy or substantial impacts to adjacent properties, or substantially changes roadway geometry.
- NO** There are significant social, economic, environmental or other effects. If YES, a Categorical Exclusion is not applicable. Consult with UDOT Central Environmental Services.
- YES** 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:

- YES** Public Hearing in accordance with state and federal procedures
- NO** Opportunity for Public Hearing
- YES** Open House
- YES** Other: Project specific website, email, and phone number have been provided.
- YES** 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: A 30-day public comment period on this Draft State Environmental Study was held from July 9, 2020 to August 7, 2020. Study documentation, including a virtual open house and online comment submission was available on the WDC website (westdavis.udot.utah.gov) beginning July 9, 2020. An in-person, by appointment only, public hearing was held Wednesday, July 15, 2020 from 4:00 to 7:00 PM at Syracuse City Hall (1979 West 1900 South, Syracuse, UT). There were 13 public comments received during the public comment period. Copies of the comments and responses to the comments are included in Appendix D. Appendix E includes the technical report documenting the evaluation of the other 2500 West/South Frontage Road options requested by several public comments.

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's footprint would require about 5.4 acres of right-of-way and would affect 27 parcels. Of these 27 parcels, UDOT has either purchased or is in the process of purchasing 22 of the parcels for the WDC and Antelope Drive widening projects. UDOT would need to purchase additional right-of-way from five parcels totaling 3.0 acres. The Proposed Action would require full acquisition of four additional residential properties that total about 2.8 acres. The properties impacted by the WDC and Antelope Drive widening projects and the Proposed Action are shown on the Property Impact figure in the Appendix.

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:

NO No historic properties affected

NO No adverse effect

YES Adverse effect

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

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

YES 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.

YES Have letters for federal and state agencies, CLGs, historical societies, etc. been sent? If so attach letters.

YES Do the impacts to historic properties require mitigation?

If YES, a signed Memorandum of Agreement (MOA) is attached.

Comments: Native American consultation letters were sent on July 7, 2020 to the Eastern Shoshone Tribe of the Wind River Reservation, Shoshone-Banock Tribes, Northwestern Band of Shoshone Nation, Uintah and Ouray Ute Tribes, and the Skull Valley Band of Goshute Indians. Notification was also sent on July 7, 2020 to the tribes with whom UDOT has Section 106 Programmatic Agreements: Cedar Band of Paiutes, Shivwits Band of Paiute Indian Tribe, and the Confederated Tribes of the Goshute Reservation. The Utah SHPO concurred with the DOE/FOE on July 13, 2020. The Utah SHPO and UDOT signed the MOA on July 21, 2020. Copies of the Native American consultation letters, the DOE/FOE and the MOA are included in the Appendix.

6. Paleontological

- NO** 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):

- YES** 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).
- NO** 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.
- NO** 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: The project area was reviewed by the UGS as part of the Antelope Drive widening project. The UGS provided a memo on July 1, 2019 for this project. A copy of this memo is attached.

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: Clearance memo from UDOT's Wildlife Biologist is attached.

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: Clearance memo from UDOT's Wildlife Biologist is attached.

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.

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: This project is considered a Type I project that requires a noise study because it would construct new frontage roads. Noise levels in the study area would generally increase by about 1 dBA as a result of the Antelope Drive frontage roads. Of the 93 residential receptors that were modeled for the Antelope Frontage Roads project, 22 residential receptors would have traffic noise impacts as defined in UDOT's Noise Abatement Policy.

None of the five noise walls evaluated for the Antelope Frontage Roads project were determined to be feasible and reasonable pursuant to UDOT's Noise Abatement Policy. No noise walls are recommended.

See the attached Noise Technical Report for more information.

11. Wetlands, Water Resources, Storm Water, and Floodplains

Wetlands and Water Resources

- NO** 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.
- NO** 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".
 - NO** 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.
 - NO** Project exceeds the impact limitations for streams or washes indentified in the PGP40. If YES, both a PGP40 and a separate Department of the Army permit will be required.
 - NO** 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 the 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 OHWN. 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; 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: Clearance memo from UDOT's Senior Landscape Architect is attached.

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 or 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 the Utah Department of Environmental Quality's (UDEQ) Interactive Map (<http://enviro.deq.utah.gov>) and the U.S. Environmental Protection Agency's (EPA) EnviroMapper (<https://enviro.epa.gov/enviro/em4ef.home>) on June 19, 2020, identified no facilities within or near the project area.

If hazardous materials are encountered during work, all work will stop in the area of contamination according to UDOT Standard Specification 01355, and the contractor will consult with UDOT and UDEQ to determine the appropriate remedial measures.

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.

YES 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.

15. Relocations

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

Comments: The Proposed Action would require the full acquisition of four residential parcels (see attached Project Figures with Property Impacts).

-1743 S. Bluff Road

-1686 South 2625 West

-1624 South 2500 West

-1745 South 2500 West

16. Land Use/Urban Policy

NO This project may affect land use or urban policy.

17. Section 4(f) Properties

- 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 an 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, 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:

- NO** Visual
- NO** Social/Economic
- NO** Title VI and/or Environmental Justice
- NO** Natural Resources
- NO** Construction
- 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

CONSTRUCTION		Responsible
Air Quality	Requirements outlined in Standard Specification 01572 titled "Dust Control and Watering" will be followed.	Contractor
Cultural	UDOT Standard Spec 01355, Parts 3.7 and 3.8	Contractor
Hazardous Waste	Requirements in UDOT Standard Specification 01355, Part 3.1 will be followed.	Contractor
Invasive Species	Supplemental Specification 02924S titled "Invasive Weed Control" will be included in the contract documents and outlines BMPs that will be incorporated.	Contractor
PRELIMINARY ENGINEERING		Responsible
Relocations	Property Owners will be compensated according to the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended.	Udot Right Of Way
Water Quality	The project will disturb 1 acre or more of ground surface. Therefore, a storm water pollution prevention plan (SWPPP) must be included in the plans.	Udot Region Environmental
Water Quality 2	UPDES Permit from the Division of Water Quality must be obtained prior to construction.	Contractor

A. Regional Conformity Requirements

YES This project is in a non-attainment or maintenance area for carbon monoxide (CO), particulate matter (PM10 or PM2.5), or ozone (O₃).

If NO, no additional analysis is required.

If YES, the project must be included in a Metropolitan Planning Organization (MPO) conforming Long Range Plan (LRP) and Transportation Improvement Program (TIP). There must be no substantial changes to the project's design and scope since the conformity analysis. For questions, contact the UDOT Air Quality Program Coordinator.

B. Project Level Requirement

I. Carbon Monoxide (CO)

NO The project is in a non-attainment or maintenance area and affects intersections that are at level-of-service D, E or F or those that will change to D, E or F because of increased traffic volumes related to the project.

If NO, a CO Analysis is not required.

If YES, a CO hot-spot analysis of peak emissions is required using CAL3QHC and the EPA "MOVES" model. Attach results of analysis.

___ The CO hot-spot analysis shows compliance with the NAAQS.

___ The CO hot-spot analysis shows that the project will cause or contribute to new localized CO violations of the NAAQS, will increase the frequency or severity of existing violations, or will delay attainment of the NAAQS.

If YES, revise the signal timing data and re-run the analysis. If the NAAQS are still exceeded, compare the Build CO levels with No-Build CO levels for the design year. CO levels for the project must be less than or equal to the No-Build levels for the design year; otherwise the project must be modified.

II. Particulate Matter (PM_{2.5} and PM₁₀)

- NO** The project is in a non-attainment or maintenance area and involves a new or expanded highway and will have a significant number of diesel vehicles or significant increase in the number of diesel vehicles. An example is a facility with more than 125,000 annual average daily traffic (AADT) and 8% (10,000) or more is truck traffic.
- NO** The project is in a non-attainment or maintenance area and affects intersections that are at level-of service D, E or F with a significant number of diesel vehicles or affects intersections that will change to D, E or F because of increased traffic volumes from a significant number of diesel vehicles.

If NO to both of the above, a PM analysis is not required.

If YES to either of the above, a PM hot-spot analysis of peak emissions is required using CAL3QHCR and the EPA "MOVES" model. Attach analysis results.

___ The PM hot-spot analysis shows compliance with the NAAQS.

___ The PM hot-spot analysis shows that the project will cause or contribute to new localized PM violations of the NAAQS, will increase the frequency or severity of existing violations, or will delay attainment of the NAAQS.

If YES, compare the Build PM levels with No-Build PM levels for the design year. PM levels for the project must be less than or equal to the No-Build levels for the design year; otherwise the project must be modified.

Environmental Commitments Signature Page

Project Name: Antelope Frontage Roads

Project Number: N/A PIN: N/A

The purpose of this page is to ensure the environmental commitments that are made while following the environmental process are reasonable and feasible to those divisions they will affect. Frequently, as in maintenance preservation projects, UDOT Standard Specifications will provide the mitigation necessary for potential environmental impacts and only require review by the Environmental Manager. However, if special commitments exist that cannot be mitigated by current UDOT Specifications, then additional review is required from both the Project Manager and District Engineer (or Designee). This signature page is required to be included on all UDOT environmental documents regardless of type.

The environmental commitments in this document can be mitigated by following current UDOT specifications.

Required Signatures:

UDOT Environmental Manager:

Signature Printed Name Date

The environmental commitments in this document require mitigation beyond what is provided by following current UDOT specifications. Special commitments are believed to be designable, financially feasible, constructible, and maintainable.

Required Review and Signatures:

UDOT Project Manager:

Rex Harris Rex Harris 09/22/2020

Signature Printed Name Date

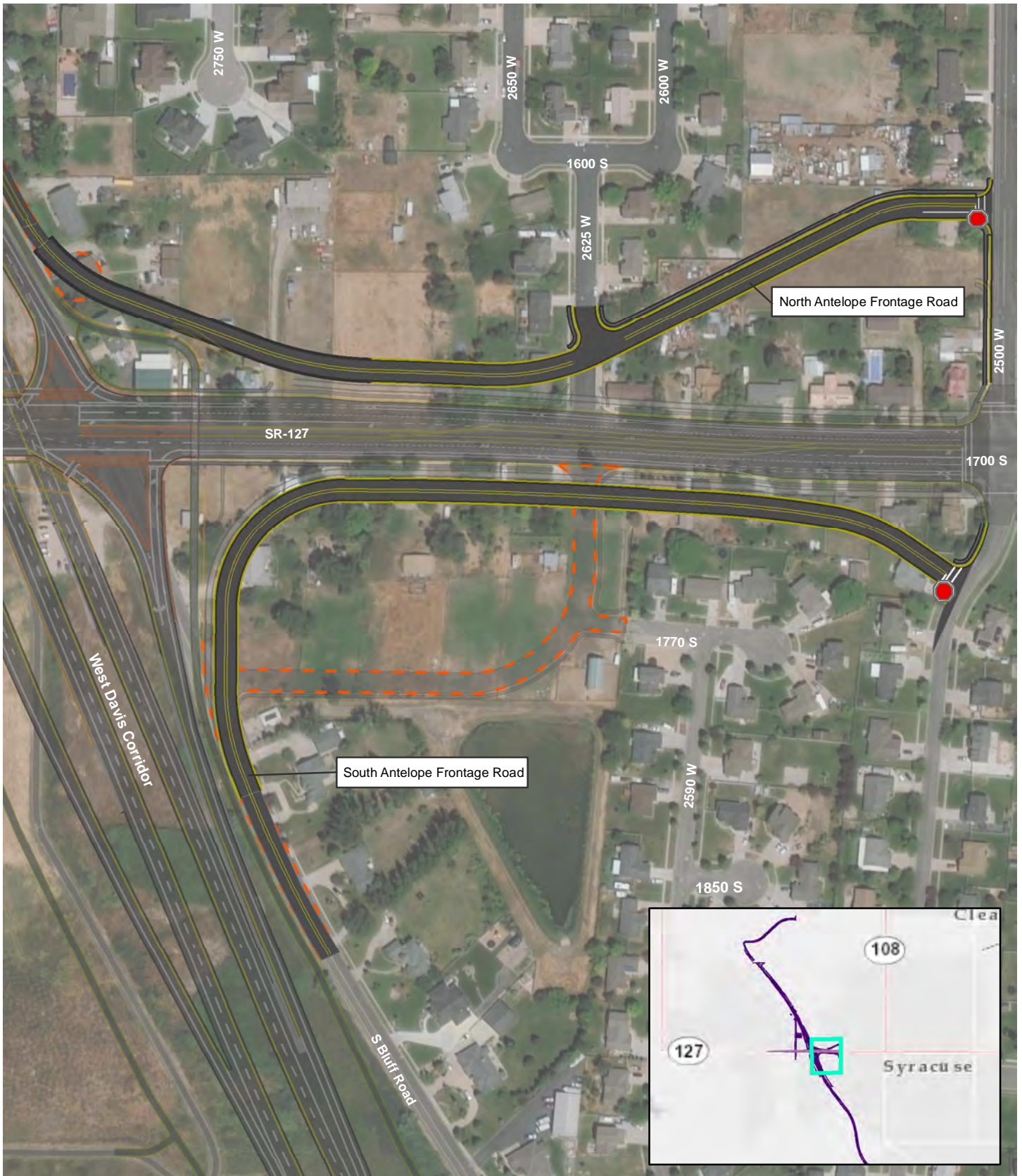
District Engineer or Designee:

Kevin E. Griffin P.E. Kevin Griffin 09/23/2020





Signature Printed Name Date

APPENDIX A

Figures

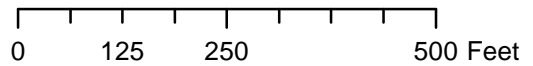


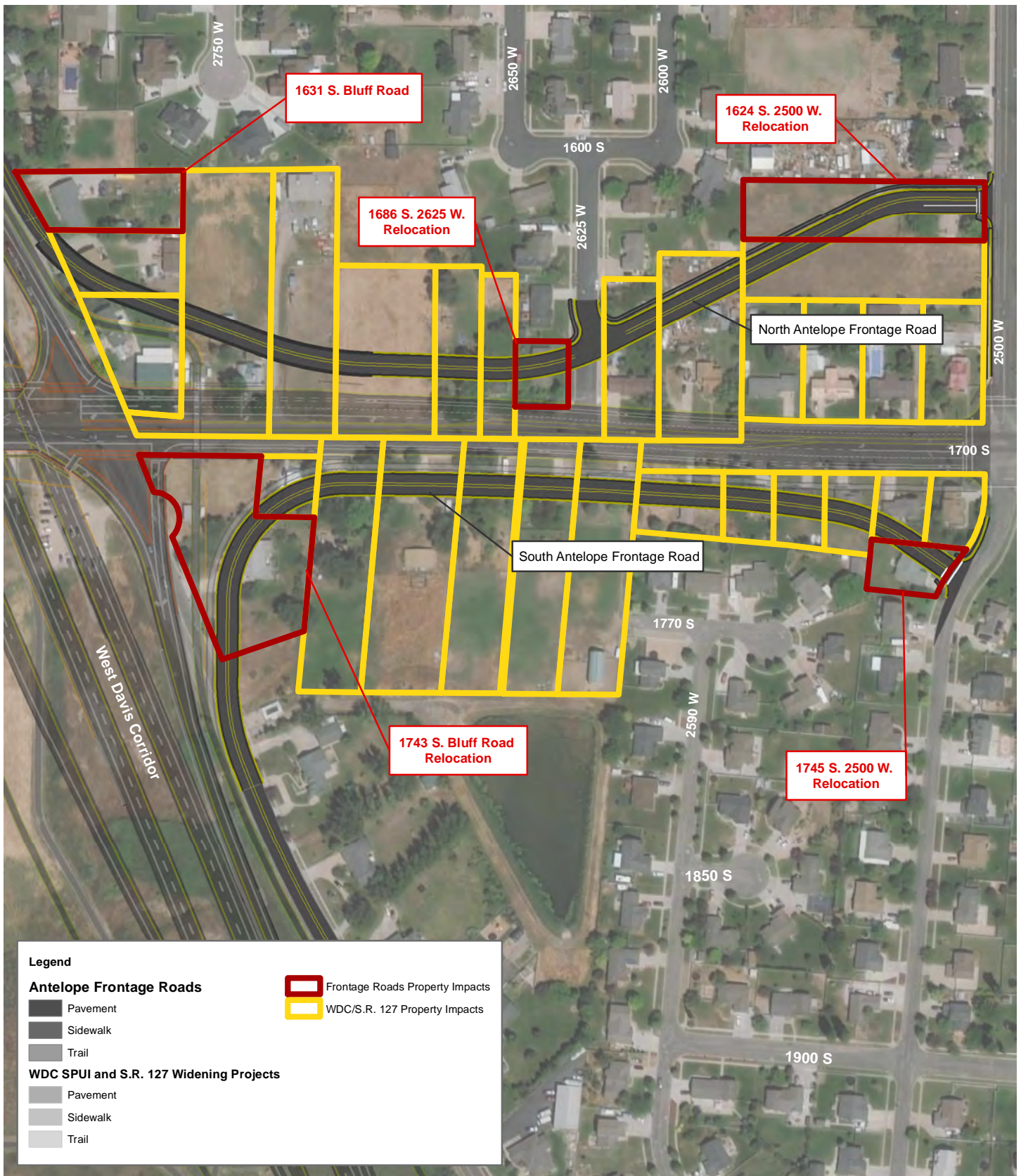
Legend

-  Pavement
-  Sidewalk
-  Trail
-  WDC SPUI Design

Antelope Drive Frontage Roads State Environmental Study

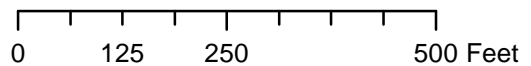
Proposed Improvements





Antelope Drive Frontage Roads State Environmental Study

Property Impacts



APPENDIX B

Clearance Memoranda



Memorandum

Environmental Service

DATE: May 21, 2020
TO: Kevin Kilpatrick, Transportation NEPA Project Manager, HDR
FROM: Matt Howard, Natural Resources Manager
SUBJECT: Antelope Frontage Road SES Non-PIN

Project Description

UDOT plans to remove the previously planned intersection at Antelope Drive and 2625 West and would construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive).

The proposed North Antelope Frontage Road would connect to Bluff Road near 1653 S. Bluff Road and connect to 2500 West at 1624 S. 2500 W. The intersection of the North Antelope Frontage Road and 2500 West would have a stop sign. The North Antelope Frontage Road would match the cross section of Bluff Road north of S.R. 127 and would have a total width of 25' with one 12.5' lane in each direction.

The proposed South Antelope Frontage road would connect to Bluff Road near 17XX S. Bluff Road and connect to 2500 West at 1745 S. 2500 W. The intersection of the South Antelope Frontage Road and 2500 West would have a stop sign. The South Antelope Frontage Road would match the cross section of Bluff Road south of S.R. 127 and have a total width of 35' with one 12' lane and 5.5' shoulders in each direction.

This assessment has been prepared to address potential for occurrence of and impacts to species or habitat listed under the Endangered Species Act (ESA), as well as birds protected by the Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Protection Act (BGEPA). Greater sage-grouse (*Centrocercus urophasianus*), which are protected by Governor's Executive Order EO/2015/002, are also addressed in this memo.

Project Setting

This project takes place in Davis County, UT. Recent (2016-2018) aerial images show land use in the vicinity of the project area consists of residential development and vacant lots. Vegetation consists of landscaping and undeveloped lots. Elevation in the vicinity of the project area is approximately 4,300 ft. amsl.

Determinations

Threatened and Endangered Species

The U.S. Fish and Wildlife Service's Information, Planning and Consultation database was consulted for species considered to have potential to occur in the vicinity of the project area. In addition, Utah Natural Heritage Program records of occurrence were reviewed for documentation of species occurrences within the vicinity of the project. Other sources, including

recent aerial imagery, USFWS Critical Habitat shapefiles, USGS, topographic data and surficial geology shapefiles from the State of Utah were used in the supporting analysis. This project would not result in take of threatened or endangered species.

Migratory Birds, Bald and Golden Eagles

No known raptor nests have been documented within 1 mile of the project area, and little suitable habitat exists. It is unlikely this project would result in direct or indirect take under the BGEPA. The project would not result in direct take under the MBTA and is unlikely to result in indirect take.

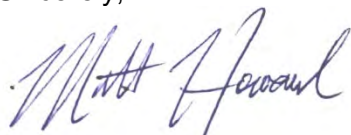
Greater Sage-grouse

A review of recent aerial imagery and Utah Sage-grouse Management Area boundaries shows that the project does not occur within a SGMA. The project also does not occur within mapped sage-grouse habitat. The project would not impact greater sage-grouse.

Summary

This assessment satisfies the UDOT's responsibilities under Section 9 of the ESA, the MBTA (50 CFR § 10.12), the BGEPA (16 USC § 668), and Governor's Executive Order EO/2015/002. If additional information or clarification is needed regarding this assessment, please contact me at mattHoward@utah.gov.

Sincerely,

A handwritten signature in blue ink that reads "Matt Howard". The signature is written in a cursive, flowing style.

Matt Howard
Natural Resource Manager

MEMORANDUM

Date: Monday, August 3, 2020

To: Randy Jefferies
UDOT WDC Project Manager

From: Rod Hess
UDOT Senior Landscape Architect

RE: **ENVIRONMENTAL REVIEW FOR WATER RESOURCES AND WETLANDS**
Antelope Drive Frontage Roads

PROJECT PURPOSE, DESCRIPTION AND SCOPE OF WORK

Bluff Road currently has an at-grade, stop sign-controlled intersection at Antelope Drive (also known as State Route [S.R.] 127) in Syracuse, Davis County, Utah. The planned West Davis Corridor (WDC) project includes a new WDC single-point urban interchange (SPUI) on Antelope Drive just west of Bluff Road. UDOT also has another project planned to widen Antelope Drive to two lanes in each direction between the WDC and 2000 West with turn lanes from Antelope Drive to the WDC on ramps. The WDC Antelope Drive SPUI and Antelope Drive widening projects have been evaluated in previous UDOT environmental studies.

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Through further coordination between UDOT and Syracuse City as part of progressing the WDC and Antelope Drive widening designs a new, independent need has been identified. The planned cul-de-sac on Bluff Road north of Antelope Drive reduces local connectivity between Bluff Road and Antelope Drive on the north side. Residents east of WDC and north of Antelope Drive who want to go east on Antelope Drive must travel north to 3000 West, go south under the WDC on 3000 West, and then turn east on Antelope Drive. This out-of-direction travel would result in delays and additional traffic using the WDC Antelope Drive SPUI. In addition, the planned Antelope Drive/2625 West intersection that would reconnect Bluff Road to the south has limited turning movements (for example, left turns on to Antelope Drive from 2625 West would be prohibited) due to its close proximity with the eastern WDC Antelope SPUI interchange ramp terminal. There is a need to make this an intersection capable of accommodating all turning movements to improve system connectivity.

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UDOT would eliminate the previously planned intersection at Antelope Drive and 2625 West and would construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive).

The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 S. Bluff Road and connect to 2500 West at 1624 South 2500 West. The intersection of the north Antelope Drive frontage road and 2500 West would have a stop sign. The north Antelope Drive frontage road would match the cross section

of Bluff Road north of S.R. 127 and would have a total width of 25 feet with one 12.5-foot lane in each direction.

The proposed south Antelope Drive frontage road would connect to Bluff Road near 1800 S. Bluff Road and connect to 2500 West at 1745 South 2500 West. The intersection of the south Antelope Drive frontage road and 2500 West would have a stop sign. The south Antelope Drive frontage road would match the cross section of Bluff Road south of S.R. 127 and have a total width of 35 feet with one 12-foot lane and 5.5-foot shoulders in each direction.

The above referenced project has been reviewed within the proposed project limits for the following categories of resources identified in the Environmental Document. UDOT provides the following mitigation commitments for the project.

Noxious Weeds:

To reduce the introduction and spread of noxious weed species and to comply with Utah Noxious Weed Act (Utah Administrative Code, Rule R68-9), the project is required to properly clean earthmoving construction equipment before mobilizing onto the project.

Mitigation Commitments:

- 1. Include UDOT Special Provision Section 02924S INVASIVE WEED CONTROL in the contract documents to require proper cleaning of earthmoving construction equipment before mobilizing onto the project. (UDOT)**
- 2. Comply with UDOT Special Provision Section 02924S INVASIVE WEED CONTROL. (Awarded Contractor)**

Water Resources and Wetlands:

The project has been evaluated for waters of the U.S. (WOTUS) including wetlands regulated by U.S. Army Corps of Engineers (Corps), under Section 404 of the Clean Water Act and other waters under the jurisdiction of the State of Utah as part of the State Alteration Permit Program. The proposed project limit has been evaluated in previous UDOT environmental studies.

Based on a review of the project proposed description and previous UDOT environmental studies within the project limits, no WOTUS, including wetlands will be impacted as a result of this project.

Mitigation Commitments:

None

Utah Pollutant Discharge Elimination System (UPDES):

This project will disturb more than one (1) acre of earth and therefore is required to comply with the Utah Pollutant Discharge Elimination System (UPDES) Utah Construction General Permit (CGP).

Mitigation Commitments:

- 1. Comply with CGP, by preparing the Stormwater Pollution Prevention Plan (SWPPP) during project design; provide SWPPP to the project awarded contractor before Notice to Proceed. (UDOT)**

- 2. Comply with CGP, by finalizing the SWPPP before beginning any earth disturbing activities and submit Notice of Intent (NOI); implement and maintain the project SWPPP according to CGP requirements throughout project construction. (Awarded Contractor)**

Federal Emergency Management Agency (FEMA) Floodplains:

No Special Flood Hazard Areas (SFHA) are shown on the FEMA floodplain maps within the project scope of work. The project is not required to obtain a floodplain development permit from the local authority.

Mitigation Commitments:

None



State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

CARLOS M. BRACERAS, P.E.
Executive Director

JASON E. DAVIS, P.E.
Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E.
Deputy Director of Planning and Investment

Tribal Notification Form

The Utah Department of Transportation (UDOT) is preparing to undertake the subject state-aid project. In accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), the UDOT has taken into account the effects of this undertaking on historic properties and seeks consultation with Native American tribes on the undertaking.

UDOT Project: S-R199(229), West Davis Corridor; Antelope Drive Frontage Roads, Syracuse, Davis County, Utah, PIN 11628

Contact Name: Jonathan Dugmore

Date: July 7, 2020

Address: 2010 South 2760 West, Salt Lake City, Utah 84104

Telephone: 385-414-2066

Email: jdugmore@utah.gov

Project Description: To meet the project needs, UDOT would remove the previously planned intersection at Antelope Drive and 2625 West and would construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 S. Bluff Road and connect to 2500 West at 1624 South 2500 West. The intersection of the north Antelope Drive frontage road and 2500 West would have a stop sign. The north Antelope Drive frontage road would match the cross section of Bluff Road north of S.R. 127 and would have a total width of 25 feet with one 12.5-foot lane in each direction. The proposed south Antelope Drive frontage road would connect to Bluff Road near 1800 S. Bluff Road and connect to 2500 West at 1745 South 2500 West. The intersection of the south Antelope Drive frontage road and 2500 West would have a stop sign. The south Antelope Drive frontage road would match the cross section of Bluff Road south of S.R. 127 and have a total width of 35 feet with one 12-foot lane and 5.5-foot shoulders in each direction.

Archaeological Potential (Prehistoric or Historic Sites):

- | | |
|---|--|
| <input type="checkbox"/> Known prehistoric sites in the project area | <input checked="" type="checkbox"/> Unlikely to find prehistoric sites in the project area |
| <input type="checkbox"/> Known historic sites in the project area | <input checked="" type="checkbox"/> Unlikely to find historic sites in the project area |
| <input type="checkbox"/> Likely to find prehistoric sites in the project area | <input type="checkbox"/> No expected ground disturbance |
| <input type="checkbox"/> Likely to find historic sites in the project area | <input type="checkbox"/> Other: |

Additional Information/Comments: The area has been surveyed for archaeological resources by Certus Environmental Solutions. No cultural properties have been identified at this time.

Tribal Information

«AddressBlock»

Copies to: «cc_1»

«cc_2»

«cc_3»

«cc_4»

Comments:

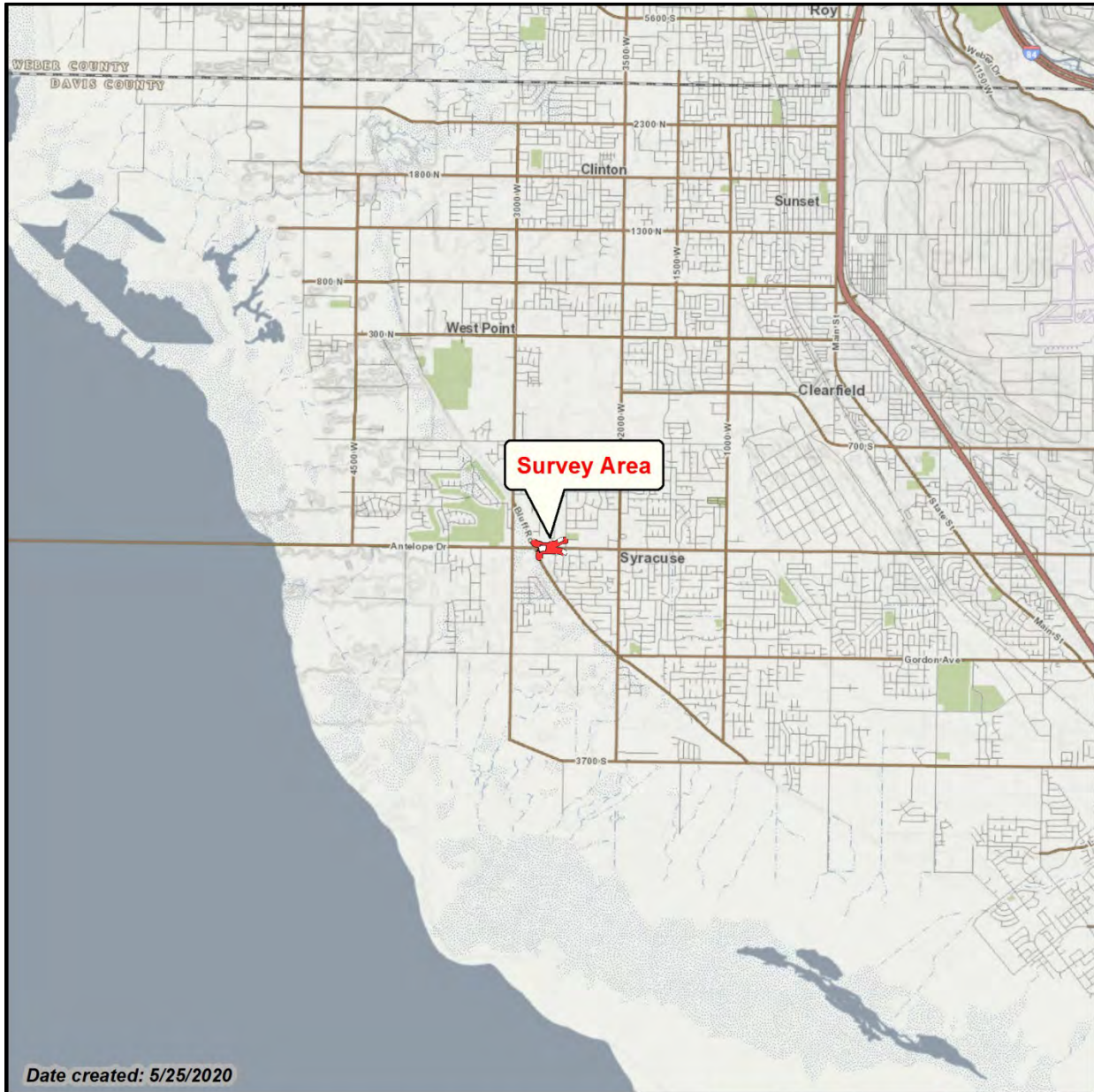
1. Do you wish to be a consulting party on this project? Yes No Not Sure
2. If you do not wish to be a consulting party, do you wish to continue to be involved in the development of this project? Yes No Not Sure
- Note:** If your answer is "Not Sure," UDOT will continue to provide information.
3. Are you aware of any traditional religious or culturally important places in or near the project area? Yes No Not Sure
4. If yes, can you share details about the place (e.g., location and other characteristics) and any concerns you may have? Yes No
5. Is this information sensitive? Yes No

Additional Comments:

Name of person completing this form, if different from above:


Signature:

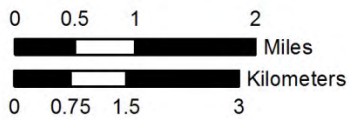
Date:




Date created: 5/25/2020

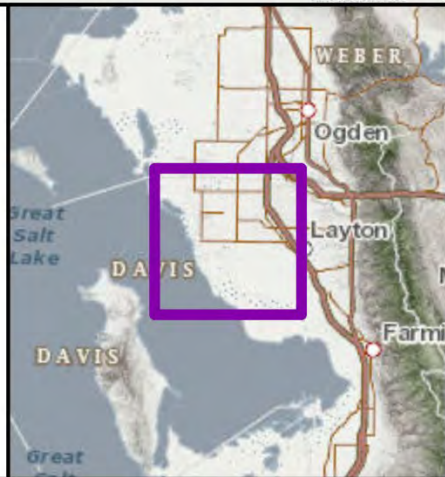
Antelope Drive Frontage Roads Project

 Survey Area




 NAD 1983
UTM Zone 12N
1:100,000

Basemap taken from Utah AGRC
Terrain Imagery





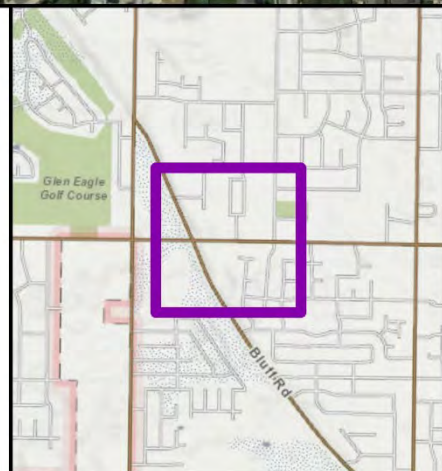
Antelope Drive Frontage Roads Project

 Survey Area



NAD 1983
UTM Zone 12N
1:5,000

Basemap taken from
Google Earth



Identical copies of the Project Notification Form sent to the following recipients:

Original to:	CC to:
Mr. Darwin St. Clair Jr., Chairman Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514	Ms. Glenda Trosper, Director, Cultural Center Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514
	Mr. Joshua Mann, THPO Eastern Shoshone Tribe of the Wind River Reservation P.O. Box 538/15 North Fork Rd Fort Washakie, WY 82514
Mr. Ladd Edmo, Chair Shoshone-Bannock Tribes of Fort Hall P.O. Box 306 Pima Drive Fort Hall, ID 83203	Ms. Carolyn Smith, Cultural Resource Director Shoshone-Bannock Tribes of Fort Hall P.O. Box 306 Pima Drive Fort Hall, ID 83203
Mr. Dennis Alex, Chairman Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302	Ms. Patty Timbimboo-Madsen, Cultural Specialist Northwestern Band of Shoshone Nation 707 North Main Street Brigham City, UT 84302
Mr. Luke Dunkin, Chairperson Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation P.O. Box 190 Fort Duchesne, UT 84026	Ms. Betsy Chapoose, Director, Cultural Rights and Protection Ute Indian Tribe of the Uintah and Ouray Ute Indian Reservation P.O. Box 190 Fort Duchesne, UT 84026
Ms. Candace Bear, Chairwoman Skull Valley Band of Goshute Indians P.O. Box 448 Grantsville, UT 84029	None

Original to:	CC to:	Email to:
Mr. Travis Parashonts, Band Chairman Cedar Band of Paiutes 4655 North Utah Trail Enoch, UT 84720	Mr. Robert Pete, Cultural Resources Representative Cedar Band of Paiutes 533 South 640 West Cedar City, UT 84721	lora.tom@ihs.gov (Lora Tom)
Ms. Carmen Clark, Band Chairwoman Shivwits Band of Paiute Indian Tribe of Utah 6060 West 3650 North Ivins, UT 84738	Ms. Sabrina Redfoot, Cultural Resources Director Shivwits Band of Paiute Indian Tribe of Utah 6060 West 3650 North Ivins, UT 84738	mohave_paiute@yahoo.com
Mr. Rupert Steele, Chairman Confederated Tribes of the Goshute Reservation P.O. BOX 6104 195 Tribal Center Rd. Ibapah, UT 84034	Ms. Mary Pete-Freeman, Cultural Resources Coordinator Confederated Tribes of the Goshute Reservation P.O. BOX 6104 195 Tribal Center Rd. Ibapah, UT 84034	virgilwjohnson@yahoo.com marypete@goshutetribe.com



State of Utah

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Governor

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DEPARTMENT OF TRANSPORTATION

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Executive Director

JASON E. DAVIS, P.E.
Deputy Director of Engineering and Operations

TERIANNE S. NEWELL, P.E.
Deputy Director of Planning and Investment

July 13, 2020

Mr. Cory Jensen
Senior Historic Preservation Specialist
Utah Division of State History
300 Rio Grande
Salt Lake City, UT 84101-1182

RE: UDOT Project No. S-R199(229), Antelope Drive Frontage Roads, Syracuse, Davis County, Utah.
Determination of Eligibility and Finding of Adverse Effect.

Dear Mr. Jensen:

The Utah Department of Transportation (UDOT) is preparing to undertake the subject state-aid project. In accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), the UDOT has taken into account the effects of this undertaking on historic properties and is affording the Utah State Historic Preservation Officer (SHPO) an opportunity to comment on the undertaking.

PROJECT DESCRIPTION

To meet the project needs, UDOT would remove the previously planned intersection at Antelope Drive and 2625 West and would construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 S. Bluff Road and connect to 2500 West at 1624 South 2500 West. The intersection of the north Antelope Drive frontage road and 2500 West would have a stop sign. The north Antelope Drive frontage road would match the cross section of Bluff Road north of S.R. 127 and would have a total width of 25 feet with one 12.5-foot lane in each direction. The proposed south Antelope Drive frontage road would connect to Bluff Road near 1800 S. Bluff Road and connect to 2500 West at 1745 South 2500 West. The intersection of the south Antelope Drive frontage road and 2500 West would have a stop sign. The south Antelope Drive frontage road would match the cross section of Bluff Road south of S.R. 127 and have a total width of 35 feet with one 12-foot lane and 5.5-foot shoulders in each direction.

The area of potential affects (APE) has been defined as both north and south sides of Antelope Drive between Bluff Road and 2500 West. The APE has been surveyed for archaeology by Certus Environmental Solutions, under State Antiquities Project Number U20HY0384, and the results are reported in *An Archaeological Resources Assessment for the Antelope Drive Frontage Roads State Environmental Study, Syracuse, Davis County, Utah, June 2020*. (see enclosed report). An intensive level pedestrian survey was conducted using 15 meter transects to identify archaeological resources. A selective reconnaissance-level survey was conducted to record architectural properties, and the results are reported in *A Selective Reconnaissance-Level Historic Structures Inventory for the Antelope Drive Frontage Roads State Environmental Study, Syracuse, Davis County, Utah, July 2020* (see enclosed report).

The survey has resulted in the identification of 0 archaeological sites and 16 architectural properties. Because UDOT anticipates that the Antelope Drive Frontage Roads project will be undertaken in 2021, only architectural properties built through 1971 were considered in-period. Furthermore, because large portions of the survey area overlap with the survey area for the SR-127 State Environmental Study project completed by Certus in 2019 (U19HY0002) and by HDR Engineering in 2017 for the West Davis Corridor Project, only three of the 16 were newly surveyed for the above-referenced inventory. These are noted with asterisks (***) in Table 1. Of the 16 architectural properties included in the survey area, 7 architectural properties are eligible to the National Register of Historic Places (NRHP). No known traditional cultural properties or paleontological resources are located in the APE. The Determinations of Eligibility and Findings of Effects are provided in Table 1 for architectural properties.

ARCHITECTURAL PROPERTIES

Table 1. Determinations of Eligibility and Findings of Effect for Architectural Properties

Address	Date	Style	NRHP Eligibility/ SHPO Rating	Finding of Effect
1631 S. Bluff Road***	1969	Ranch	Eligible/EC	No Adverse Effect
1653 S. Bluff Road	1971	Contemporary	Eligible/EC	Adverse Effect
1675 S. Bluff Road	1973	Ranch/ Rambler	OP/Out of Period	No Historic Properties Affected
2744 W. 1700 S.	1911	Victorian	Not Eligible/NC	No Historic Properties Affected
2678 W. 1700 S.	1934	Clipped Gable Cottage	Eligible/EC	Adverse Effect
2664 W. 1700 S.	1953	Minimal Traditional	Eligible/EC	Adverse Effect
2622 W. 1700 S,	1938	Early Ranch	Eligible/EC	No Adverse Effect
2596 W. 1700 S.	1902	Period Cottage	Eligible/EC	No Adverse Effect
2578 W. 1700 S.	1958	Ranch/Rambler	Not Eligible/NC	No Historic Properties Affected
1624 S. 2500 W.***	1961	Ranch/Rambler	Eligible/EC	Adverse Effect
1604 S. 2500 W.***	1961	Ranch/Rambler	Not Eligible/NC	No Historic Properties Affected
2727 W. 1700 S,	1954	Ranch/Rambler	Not Eligible/NC	No Historic Properties Affected
2695 W. 1700 S.	1974	Split Level	OP/Out of Period	No Historic Properties Affected
2679 W. 1700 S.	1973	Ranch/Rambler	OP/Out of Period	No Historic Properties Affected
2635 W. 1700 S.	1959	Ranch/Rambler	Not Eligible/NC	No Historic Properties Affected
2597 W, 1700 S.	1930	Clipped Gable Cottage	Not Eligible/NC	No Historic Properties Affected

***Property was documented during the WDC or SR-127 project.

Description of Effects to 1631 S. Bluff Road: This proposed project requires right of way acquisitions of approximately 2,467 square feet from this property eligible to the NRHP. Impacts to this property are limited to the property frontage. The associated construction affects a relatively small portion of this property and will not substantially impact or alter any contributing elements of the property or any of the character-defining features for

which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of No Adverse Effect

Description of Effects to 1653 S. Bluff Road: This proposed project requires full acquisition and demolition of this property listed on the NRHP. This action will completely remove all contributing elements and the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of Adverse Effect for this property.

Description of Effects to 2678 West 1700 South: This proposed project requires full acquisition and demolition of this property listed on the NRHP. This action will completely remove all contributing elements and the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of Adverse Effect for this property.

Description of Effects to 2664 West 1700 South: This proposed project requires full acquisition and demolition of this property listed on the NRHP. This action will completely remove all contributing elements and the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of Adverse Effect for this property.

Description of Effects to 2622 West 1700 South: This proposed project requires right of way acquisitions of approximately 6,969 square feet from this property eligible to the NRHP. The associated construction affects a relatively small portion of this property and will not substantially impact or alter any contributing elements of the property or any of the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of No Adverse Effect

Description of Effects to 2596 West 1700 South: This proposed project requires right of way acquisitions of approximately 10,454 square feet from this property eligible to the NRHP. The associated construction affects a relatively small portion of this property and will not substantially impact or alter any contributing elements of the property or any of the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of No Adverse Effect

Description of Effects to 1624 South 2500 West: This proposed project requires full acquisition and demolition of this property listed on the NRHP. This action will completely remove all contributing elements and the character-defining features for which it was determined eligible for the NRHP. Thus, the proposed project will result in a finding of Adverse Effect for this property.

CONSULTATION EFFORTS

Native American consultation was initiated through letters sent to the Eastern Shoshone Tribe of the Wind River Reservation, Shoshone-Bannock Tribes, Northwestern Band of Shoshone Nation, Uintah and Ouray Ute Tribes, and the Skull Valley Band of Goshute Indians (sent July 7, 2020). In addition, notification was also sent to those tribes with whom UDOT has Section 106 Programmatic Agreements: Cedar Band of Paiutes, Shivwits Band of Paiute Indian Tribe, and the Confederated Tribes of the Goshute Reservation (sent July 7, 2020). To date, none of the tribes have responded to these notifications however consultation is ongoing at this time.

SUMMARY

To summarize, the project will result in a finding of **Adverse Effect** for 4 architectural properties, a finding of **No Adverse Effect** for 3 architectural properties and a finding of **No Historic Properties Affected** for all remaining architectural properties. Therefore, the Finding of Effect for the proposed UDOT Project No. S-R199(229), West Davis Corridor; Antelope Drive Frontage Roads, Syracuse, Davis County, Utah, is **Adverse Effect**.

Please review this document and, providing you agree with the findings contained herein, provide written concurrence. Should you have any questions or need additional information, please feel free to contact Liz Robinson at 801-910-2035 or lizrobinson@utah.gov; or Elizabeth Giraud at 801-965-4917 or egiraud@utah.gov.

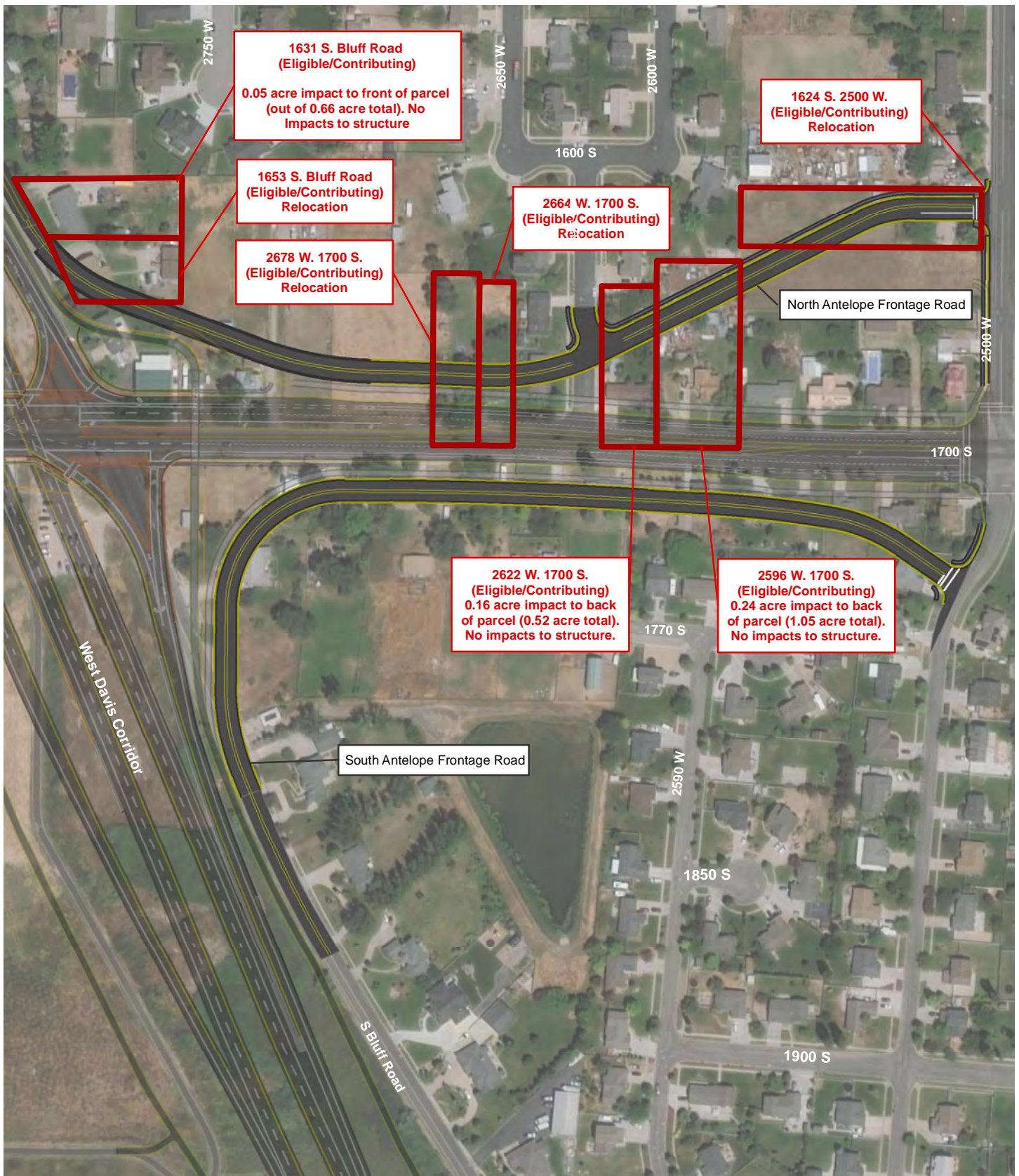
Sincerely,

Liz Robinson

Liz Robinson, M.A., RPA
Cultural Resources Program Manager
UDOT Environmental Services

Elizabeth Giraud

Elizabeth Giraud, AICP
Architectural Historian
UDOT Environmental Services

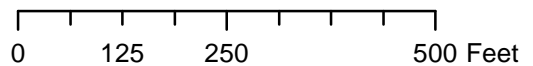


Legend

-  Historic Building
-  Pavement
-  Sidewalk
-  Trail

Antelope Drive Frontage Roads State Environmental Study

Historic Building Impacts



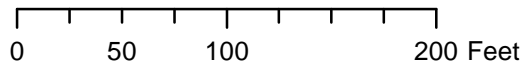


Legend

- Parcels
- Impacted Areas
- Pavement
- Sidewalk
- Trail

Antelope Drive Frontage Roads State Environmental Study

1631 S. Bluff Impacts





1653 S. Bluff Rd.
Eligible/Contributing
Relocation

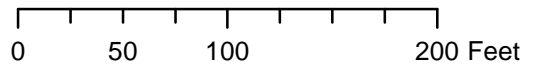
North Antelope Frontage Road

Legend

- Historic Building
- Pavement
- Sidewalk
- Trail

Antelope Drive Frontage Roads State Environmental Study

1653 S. Bluff Impacts





2678 W. 1700 S.
Eligible/Contributing
Relocation

North Antelope Frontage Road

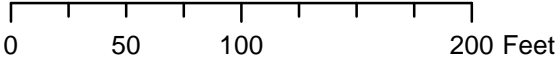
North Antelope Frontage Road

Legend

- Historic Building
- Pavement
- Sidewalk
- Trail

Antelope Drive Frontage Roads State Environmental Study

2678 W. 1700 S.



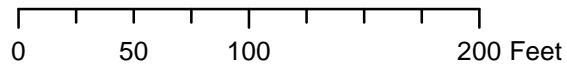


Legend

-  Historic Building
-  Pavement
-  Sidewalk
-  Trail

Antelope Drive Frontage Roads State Environmental Study

2664 W. 1700 S.



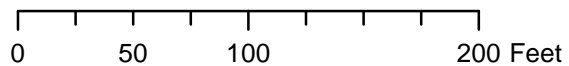


Legend

- Historic Building
- Impacted Areas
- Pavement
- Sidewalk
- Trail






Antelope Drive Frontage Roads State Environmental Study

2622 W. 1700 S.



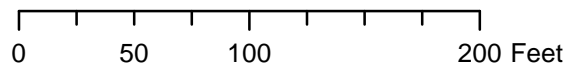


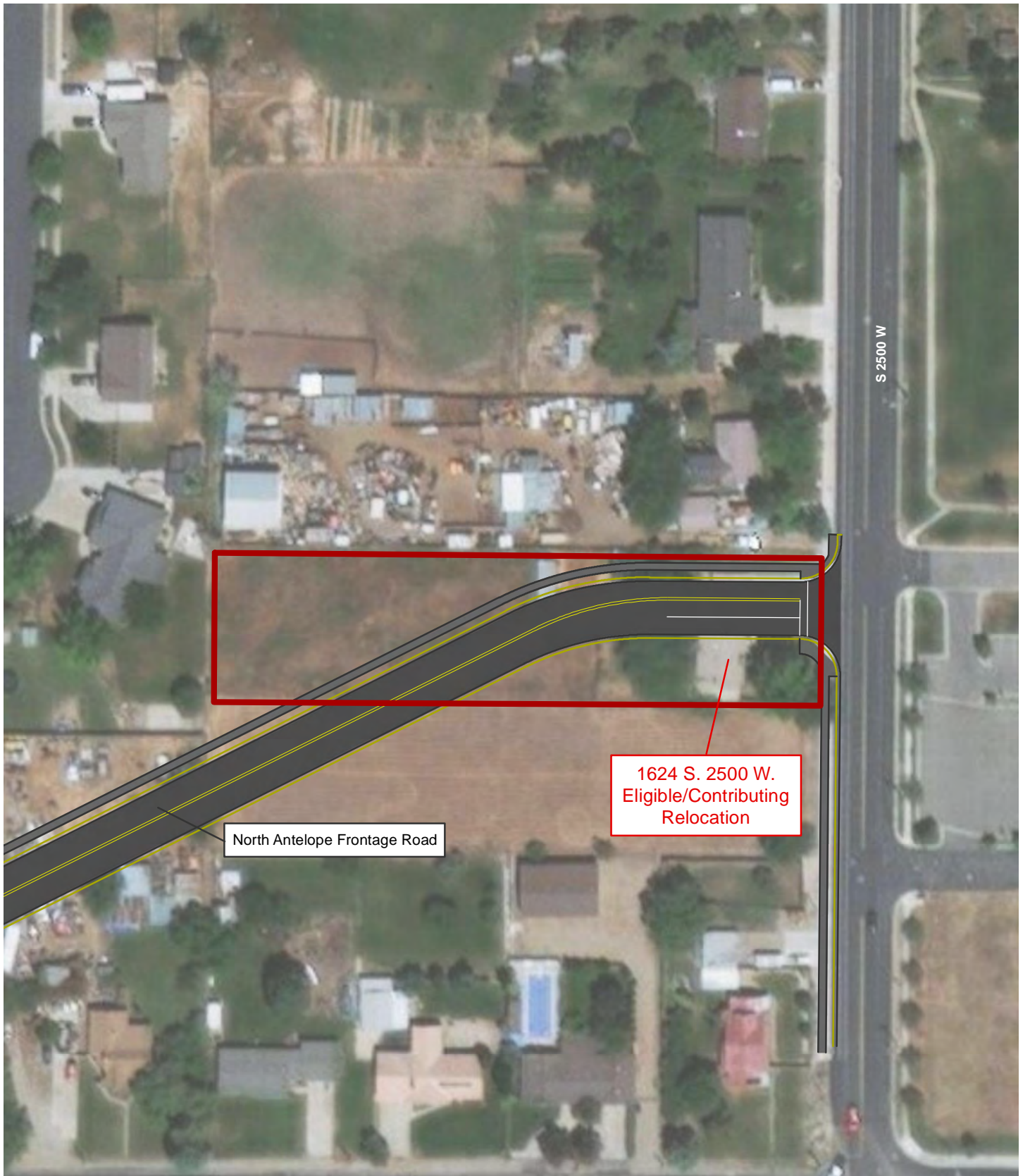
Legend

-  Historic Building
-  Impacted Areas
-  Pavement
-  Sidewalk
-  Trail

Antelope Drive Frontage Roads State Environmental Study

2596 W. 1700 S.



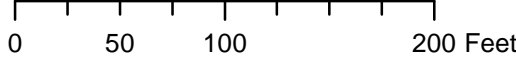


Legend

-  Parcels
-  Pavement
-  Sidewalk
-  Trail

Antelope Drive Frontage Roads State Environmental Study

1624 S. 2500 W. Impacts





GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Jill Remington Love
Executive Director
Department of
Heritage & Arts



Christopher Merritt
State Historic Preservation Officer

Kevin Fayles
Interim Director

July 13, 2020

Liz Robinson
Cultural Resources Program Manager
Utah Dept of Transportation (UDOT)
4501 Constitution Blvd
Salt Lake City, UT 84119

RE: Antelope Drive Frontage Roads, Syracuse_ S-R199(229)

For future correspondence, please reference Case No. 20-2452

Dear Ms Robinson,

The Utah State Historic Preservation Office received your submission and request for our comment on the above-referenced project on July 13, 2020. Based on the information provided to our office, we concur with your determination of eligibility and finding of Adverse 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) 245-7242 or by email at coryjensen@utah.gov.

Sincerely,

Cory Jensen
National Register & Survey Coordinator

**MEMORANDUM OF AGREEMENT
AMONG
THE UTAH DEPARTMENT OF TRANSPORTATION
AND THE UTAH STATE HISTORIC PRESERVATION OFFICER**

REGARDING

**PROJECT #: S-R199(229);
Antelope Drive Frontage Roads, Davis County, Utah**

WHEREAS, the Utah Department of Transportation (UDOT) propose to use state funds to undertake **PROJECT #: S-R199(229), Antelope Drive Frontage Roads; Davis County, Utah**, which proposes to construct two new frontage roads between Bluff Road and 2500 West on either side of Antelope Drive; and

WHEREAS, in accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), the UDOT has taken into account the effects of **PROJECT #: S-R199(229), Antelope Drive Frontage Roads; Davis County, Utah**, on historic properties and has determined that this undertaking will have an adverse effect on four architectural properties eligible for inclusion in the National Register of Historic Places. UDOT has consulted with the Utah State Historic Preservation Officer (SHPO) pursuant to U.C.A. 9-8-404 to resolve the adverse effects; and

WHEREAS, the UDOT has consulted with the Eastern Shoshone Tribe of the Wind River Reservation, the Shoshone-Bannock Tribes of Fort Hall, the Skull Valley Band of Goshute Indians the Northwestern Band of the Shoshone Nation, the Uintah and Ouray Ute Indian Reservation, the Cedar Band of the Paiutes, the Shivwits Band of Paiute Indian Tribe of Utah, and the confederated Tribes of the Goshute Reservation; and the Tribes have been afforded an opportunity to review the project and have not responded with objections; and

NOW, THEREFORE, the UDOT and the Utah SHPO agree that upon UDOT's decision to proceed with the undertaking, UDOT shall ensure that the following stipulations are implemented in order to take into account the effects of the undertaking on historic properties, and the stipulations shall govern the undertaking and all of its parts until this MOA expires or is terminated.

STIPULATIONS

The UDOT shall ensure that the following measures are carried out:

I. MITIGATION OF HISTORIC BUILDINGS

UDOT shall be responsible for the documentation of the following buildings:

1653 South Bluff Road
2678 West 1700 South
2664 West 1700 South
1624 South 2500 West

The buildings will be documented according to the Utah State Intensive Level Survey Standards (ILS) as required by SHPO. Documentation will include a completed ILS Historic Site Forms, which will be based partly on title searches and obituary research, photographs of the exterior of the buildings, a sketch map of the property layout, aerial photograph maps indicating the location of the buildings, and a U.S. Geological Survey map (scale: 1:24,000) indicating the location of the buildings.

- A. The UDOT shall implement the treatment measures specific to 2678 West 1700 South and 2664 West 1700 South as included in the *Memorandum Of Agreement Among The Utah Department Of Transportation And The Utah State Historic Preservation Officer Regarding Project #: S.R. 127 (Antelope Drive) 4500 West to 2000 West, Weber County, Utah*, executed on January 23, 2020, and included as Attachment 1 to this MOA. These efforts will not be duplicated as part of this agreement.
- B. *The UDOT shall implement the treatment measures specific to 1653 South Bluff Road as included in the Programmatic Agreement Among The Federal Highway Administration, The Utah State Historic Preservation Officer And The Utah Department Of Transportation Regarding Project #: Sp-0067(14)0; West Davis Corridor Project, Davis And Weber Counties, Utah* executed on June 21, 2017, and included as Attachment 2 to this MOA. These efforts will not be duplicated as part of this agreement.

II. REPORTING: The UDOT shall ensure that any/all reports on activities carried out pursuant to this agreement are provided to the SHPO, the Council, the signatories to this MOA, and upon request, to any other interested parties.

III. PERSONNEL QUALIFICATIONS: The UDOT shall ensure that all historic work carried out pursuant to this agreement is completed by or under the direct supervision of a person or persons meeting or exceeding the Secretary of the Interior's Historic Preservation Professional Qualification Standards for History (36 CFR 61 Appendix A).

IV. DURATION: This agreement will be null and void if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the UDOT may consult with the other signatories to reconsider the terms of the agreement and amend it in accordance with Stipulation VII below.

V. DISPUTE RESOLUTION: Should any party to this agreement object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the UDOT shall consult with the objecting parties to resolve the objection. If the UDOT determines, within 30 days, that the objection(s) cannot be resolved, the UDOT will:

- A. The UDOT may render a decision regarding the dispute. In reaching its decision, the UDOT will take into account all comments regarding the dispute from the parties to the MOA.
- B. The UDOT's responsibilities to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged. The UDOT will notify all parties of its decision in writing before implementing that portion of the undertaking subject to dispute under this stipulation. The UDOT's decision will be final.
- C. Further, at any time during implementation of the measures stipulated in this agreement should an objection to any such measure be raised by a member of the public, the UDOT shall take the objections into account and consult as needed with the objecting party or the SHPO to resolve the objection.

VI. AMENDMENTS AND NONCOMPLIANCE: If any signatory to this MOA, including any invited signatory, determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other parties to develop an amendment to this MOA. The amendment will be effective on the date a copy signed by all of the original signatories is filed with the SHPO. If the signatories cannot agree to appropriate terms to amend the MOA, any signatory may terminate the agreement in accordance with Stipulation VII, below.

VII. TERMINATION: If an MOA is not amended following the consultation set out in Stipulation VI and Stipulation VII, it may be terminated by any signatory or invited signatory. Within 30 days following termination, the UDOT shall notify the signatories if it will initiate consultation to execute an MOA with the signatories and proceed accordingly.

VIII. EXECUTION: Execution of this Memorandum of Agreement by the UDOT and the Utah SHPO and the submission of documentation and filing of this Memorandum of Agreement with the Utah SHPO in accordance with U.C.A. 9-8-404 prior to UDOT's approval of this undertaking, and implementation of its terms, evidence that the UDOT has taken into account the effects of this undertaking on historic properties, and has afforded the State Historic Preservation Office an opportunity to comment on **PROJECT #: S-R199(229), Antelope Drive Frontage Roads; Davis County, Utah.**

SIGNATORIES:

UTAH DEPARTMENT OF TRANSPORTATION



07/21/2020

Lisa Wilson, UDOT Region Director

Date

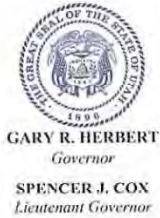
UTAH STATE HISTORIC PRESERVATION OFFICE



07/21/2020

Chris Merritt, Utah SHPO

Date



State of Utah
DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Utah Geological Survey
R. William Keach II
State Geologist/Division Director

July 1, 2019

Sheri Murray Ellis
CERTUS Environmental Solutions, LLC
655 7th Avenue
Salt Lake City UT 84103

RE: Paleontological File Search and Recommendations for UDOT Project S-0127(7)2; PIN 16717; SR-127 State Environmental Study, Syracuse, Davis County, Utah U.C.A. 79-3-508 (Paleontological) Compliance; Request for Confirmation of Literature Search according to the UDOT/UGS Memorandum of Understanding.

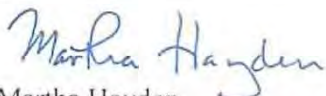
Dear Sheri:

I have conducted a paleontological file search for the SR-127 State Environmental Study Project in response to your letter of June 27, 2019. This project qualifies for treatment under the UDOT/UGS executed Memorandum of Understanding.

There are no paleontological localities recorded in our files within this project area. Quaternary and Recent alluvial and lacustrine deposits that are exposed along this project right-of-way have a low potential for yielding significant fossil localities (PFYC 2). Unless fossils are discovered as a result of construction activities, this project should have no impact on paleontological resources.

If you have any questions, please call me at (801) 537-3311.

Sincerely,


Martha Hayden
Paleontological Assistant



APPENDIX C

Noise Report

Noise Technical Report

Antelope Frontage Roads
State Environmental Study

July 2020



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Acronyms and Abbreviations

CFR	Code of Federal Regulations
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
L_{eq}	equivalent noise level
LOS	level of service
ML	monitoring location
mph	miles per hour
NA	not applicable
NAC	noise-abatement criteria
SES	State Environmental Study
S.R.	State Route
UDOT	Utah Department of Transportation
WDC	West Davis Corridor



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1 Introduction

The purpose of this technical report is to evaluate the expected noise impacts and potential noise mitigation measures for the Antelope Frontage Roads State Environmental Study (SES) project in Syracuse, Davis County, Utah.

The Antelope Frontage Roads project area is located on Antelope Drive (also known as State Route [S.R.] 127) between Bluff Road (about 2800 West) and 2500 West in Syracuse.

Noise impacts in this area have been previously evaluated as part of the West Davis Corridor (WDC) project in the WDC Final Environmental Impact Statement (EIS) in 2017 and the WDC/Antelope Single-point Urban Interchange Re-evaluation (WDC Re-evaluation #4) that was approved in March 2020. Noise impacts and potential noise mitigation measures from widening S.R. 127 between the WDC and 2000 West were evaluated in 2020 as part of the S.R. 127 SES that was approved in March 2020.

After the completion of WDC Re-evaluation #4 and the S.R. 127 SES, UDOT and Syracuse City made changes to the frontage road connections on the north and south sides of Antelope Drive between Bluff Road and 2500 West. This report evaluates the traffic-generated noise impacts from this change. More details about this change are described in Section 2, Project Description, of this report.

This noise analysis was prepared in accordance with the Utah Department of Transportation's (UDOT) Noise Abatement Policy, last revised May 28, 2020, which is consistent with federal regulation 23 Code of Federal Regulations (CFR) Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, and Utah Administrative Code Rule R930-3, *Highway Noise Abatement*.

What is the Antelope Frontage Roads project?

The Antelope Frontage Roads project would build new frontage roads north and south of Antelope Drive in Syracuse, Utah, between Bluff Road (about 2800 West) and 2500 West.

2 Project Description

The project area for this report is the area along Antelope Drive from Bluff Road (about 2800 West) to 2500 West in Syracuse.

After the completion of WDC Re-evaluation #4 and the S.R. 127 SES, UDOT and Syracuse City made changes to improve safety on Antelope Drive east of the WDC/Antelope Drive single-point urban interchange (SPUI) by removing the Antelope Drive 2625 West intersection and improving system connectivity by providing a new frontage road connection between Bluff Road and 2500 West on the north side of Antelope Drive. Additionally, UDOT and Syracuse City also realigned the frontage road on the south side of Antelope Drive so that it was closer to Antelope Drive and did not leave unused property between the two roads. The south frontage road was also extended to 2500 West. With the WDC Re-evaluation #4 and S.R. 127 SES projects, the south frontage road was assumed to extend westward only to 2625 West.

Applicability

The Antelope Frontage Roads project includes constructing new travel lanes. Therefore, this project is a Type 1 project that requires considering noise-abatement measures.

UDOT evaluated noise impacts using noise models and methodologies approved by the Federal Highway Administration (FHWA) and UDOT (Policy 08A2-01, *Noise Abatement*, revised May 28, 2020). Noise impacts were identified and evaluated at residential receptors within about 500 feet from the nearest travel lane between Bluff Road and 2500 West using traffic volumes at a level of service (LOS) C to represent the worst-case noise conditions while traffic is operating at uncongested, free-flow speeds of 35 miles per hour (mph) on the frontage roads, 65 mph on the WDC, 45 mph on the on and off ramps to and from the WDC, and 45 mph on Antelope Drive.

What is a Type 1 project?

According to UDOT's Noise Abatement Policy, a Type 1 project is a project that alters the horizontal or vertical alignment of a road or increases the number of through travel lanes.

3 Characteristics of Noise

Sound travels through the air as waves of minute air-pressure fluctuations caused by vibration. In general, sound waves travel away from the noise source as an expanding spherical surface. As a result, the energy contained in a sound wave is spread over an increasing area as it travels away from the source. This results in a decrease in loudness at greater distances from the noise source.

Sound-level meters measure the actual pressure fluctuations caused by sound waves and record separate measurements for different sound frequency ranges. The decibel (dB) scale used to describe sound is a logarithmic scale that accounts for the large range of sound-pressure levels in the environment. Most sounds consist of a broad range of sound frequencies. Several frequency-weighting schemes have been used to develop composite decibel scales that approximate the way the human ear responds to sound levels. The A-weighted decibel (dBA) scale most closely approximates the way the human ear hears sounds and is the most widely used scale in assessing traffic-related noise impacts. Typical A-weighted noise levels for various types of sound sources are summarized in Table 1.

Varying noise levels are often described in terms of the equivalent noise level (L_{eq}). Equivalent noise levels are used to develop single-value descriptions of average noise exposure over stated periods of time (for example, 1 hour) and are generally based on A-weighted sound-level measurements.

The logarithmic nature of decibel scales is such that individual decibel ratings for different noise sources cannot be added directly to give the noise level for the combined noise source. For example, two noise sources that produce equal decibel ratings at a given location will produce a combined noise level that is 3 dBA greater than either sound alone. When two noise sources differ by 10 dBA, the combined noise level will be 0.4 dBA greater than the louder source alone.



People generally perceive a 10-dBA increase in a noise source as a doubling of loudness. For example, a 70-dBA sound will be perceived by an average person as twice as loud as a 60-dBA sound. People generally cannot detect a 1-to-2-dBA increase in noise levels. Under ideal listening conditions, differences of 2 or 3 dBA can be detected by some people. A 5-dBA change would probably be perceived by most people under normal listening conditions.

When distance is the only factor considered, sound levels from isolated point sources of noise typically decrease by about 6 dBA for every doubling of distance from the noise source. When the noise source is a continuous line (for example, vehicle traffic on a highway), noise levels decrease by about 3 dBA for every doubling of distance away from the source.

Table 1. Weighted Noise Levels and Human Response

Sound Source	dBA ^a	Response Descriptor
Carrier deck jet operation	140	Limit of amplified speech
	130	Painfully loud
Jet takeoff (200 feet) Auto horn (3 feet)	120	Threshold of feeling and pain
Riveting machine Jet takeoff (2,000 feet)	110	
Shout (0.5 foot) New York subway station	100	Very annoying
Heavy truck (50 feet) Pneumatic drill (50 feet)	90	Hearing damage (8-hour exposure)
Passenger train (100 feet) Helicopter (in-flight, 500 feet) Freight train (50 feet)	80	Annoying
Freeway traffic (50 feet)	70	Intrusive
Air conditioning unit (20 feet) Light auto traffic (50 feet)	60	
Normal speech (15 feet)	50	Quiet
Living room, bedroom, library	40	
Soft whisper (15 feet)	30	Very quiet
Broadcasting studio	20	
	10	Just audible
	0	Threshold of hearing

Source: CEQ 1970

^a Typical A-weighted noise levels taken with a sound-level meter and expressed as decibels on the “A” scale. The “A” scale approximates the frequency response of the human ear.

Noise levels at different distances can also be affected by factors other than the distance from the noise source. Topographic features and structural barriers that absorb, reflect, or scatter sound waves can increase or decrease noise levels. Atmospheric conditions

(wind speed and direction, humidity levels, and temperatures) can also affect the degree to which sound is attenuated over distance.

4 Regulatory Setting

The federal regulation that FHWA uses to assess noise impacts is 23 CFR Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. This regulation was most recently updated on July 13, 2010. Utah Administrative Code Rule R930-3, *Highway Noise Abatement*, and UDOT Policy 08A2-01, *Noise Abatement*, revised May 28, 2020, establish UDOT’s noise impact and abatement policies and procedures, which are compliant with 23 CFR Part 772.

Noise-abatement criteria (NAC) are used to define the noise levels that are considered an impact (in hourly A-weighted sound-level decibels) for each land use activity category. UDOT’s Noise Abatement Policy states that a traffic noise impact occurs when either (1) the future worst-case noise level is equal to or greater than the UDOT NAC for specified land use activity categories or (2) the future worst-case noise level is greater than or equal to an increase of 10 dBA over the existing noise level (substantial increase).

The UDOT NAC are summarized in Table 2.

Table 2. UDOT’s Noise-abatement Criteria

Activity Category	L _{eq} Noise Levels (dBA)	Description of Activity Category
A	56 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	66 (exterior)	Residential.
C	66 (exterior)	Active sports areas, amphitheatres, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	51 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting room, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	71 (exterior)	Hotels, motels, offices, restaurants/bars, and other undeveloped lands, properties, or activities not included in categories A–D or F.
F	—	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	—	Undeveloped lands that are not permitted.

Source: UDOT 2020

5 Affected Environment

The noise study area (Figure 1) includes parts of Syracuse, Utah, within a 500-foot buffer from the farthest-north travel lane of the north Antelope Drive frontage road and the farthest-south travel lane of the south Antelope Drive frontage road from Bluff Road (about 2800 West to 2500 West in Syracuse).

The project corridor is primarily residential developments. Because the existing noise conditions assume that the WDC and Antelope Drive widening projects will be completed, the predominant source of existing noise in the noise study area is the automobile and truck traffic that will be on the WDC and Antelope Drive.

5.1 Existing Noise Levels

The primary source of existing noise in the noise study area is automobile and truck traffic on the WDC and Antelope Drive.

Traffic-related noise with the existing conditions scenario were estimated with FHWA's Traffic Noise Model version 2.5 based on the proposed roadway design as shown in Figure 1. The modeled roadway for the existing condition included the planned WDC, the WDC/Antelope Drive SPUI, and a five-lane Antelope Drive (two travel lanes in each direction) from the WDC to 2000 West.

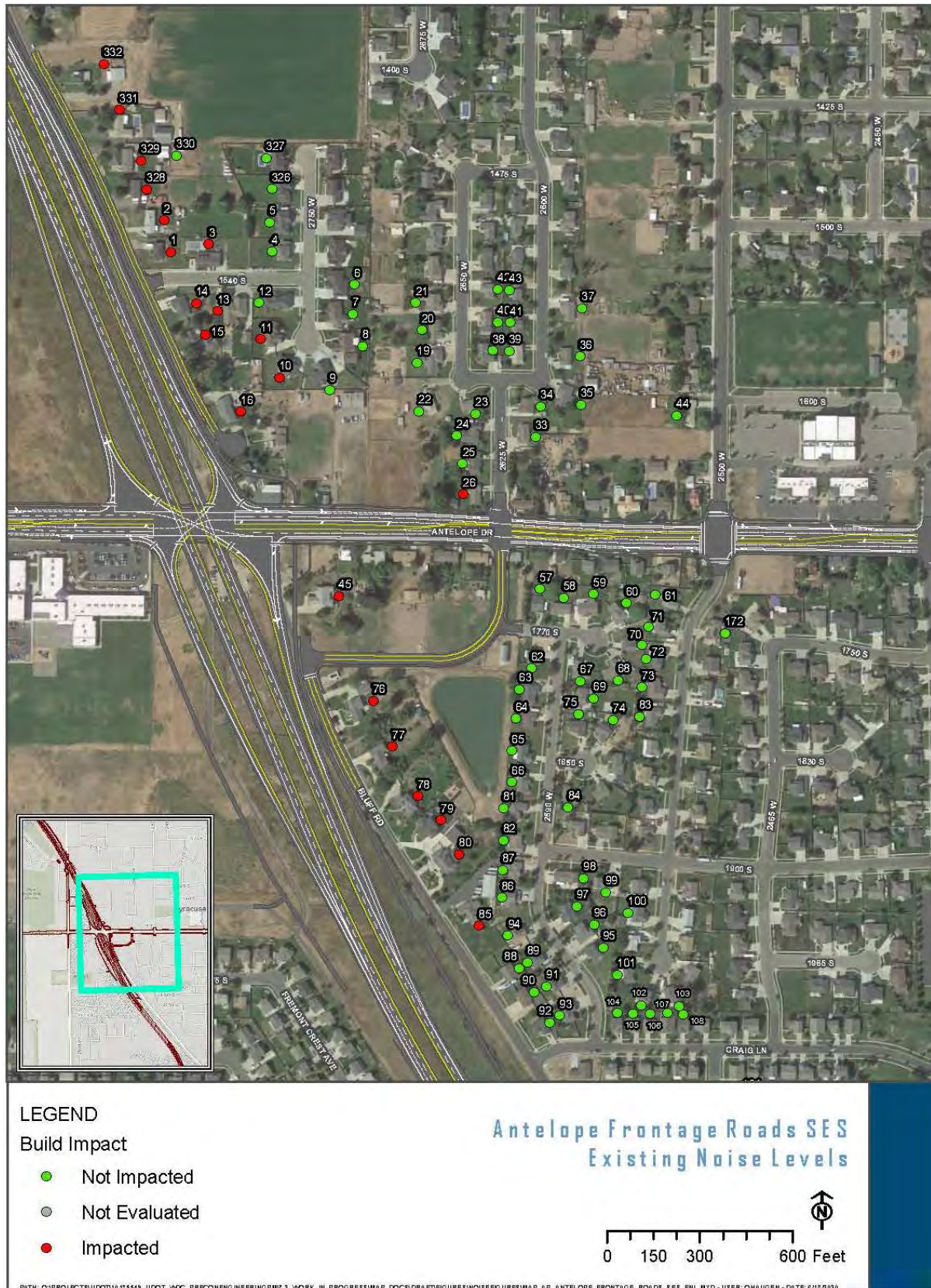
Roadway links were modeled in 100-foot increments to provide a high degree of accuracy in the model output. Traffic volumes used in the model were based on LOS C volumes for the WDC and Antelope Drive, with traffic on the WDC operating at 65 mph and traffic on Antelope Drive operating at 45 mph.

The noise model developed for the existing conditions scenario included 97 residential receptors (Activity Category B receptors) throughout the noise study area. Under existing conditions, 21 receptors exceeded the NAC of 66 dBA. The locations of the receptors modeled for existing conditions are shown in Figure 1.

Properties that will be acquired by UDOT for the WDC project and the S.R. 127 widening project were not included as receptors in the noise analysis for the existing conditions or the Antelope Frontage Roads project's build scenario.

Overall, noise levels with the existing conditions would range from 56 to 70 dBA.

Figure 1. Existing Noise Receptor Map



6 Expected Impacts with the Antelope Frontage Roads Project

Traffic-related noise impacts with the Antelope Frontage Roads project were estimated with FHWA's Traffic Noise Model version 2.5 based on the proposed roadway design as shown in Figure 2, Build Scenario Noise Receptor Map, on page 11. The modeled roadway included the proposed north and south Antelope Drive frontage road improvements between Bluff Road (about 2800 West) and 2500 West in Syracuse. The modeled roadway for the build condition also included the planned WDC, the WDC/Antelope Drive SPUI, and a five-lane Antelope Drive (two travel lanes in each direction) from the WDC to 2000 West.

Roadway links were modeled in 100-foot increments to provide a high degree of accuracy in the model output. Traffic volumes used in the model were based on LOS C volumes for the Antelope Drive frontage roads, the WDC, and Antelope Drive, with traffic on the Antelope Drive frontage roads operating at 35 mph, on the WDC operating at 65 mph, and on Antelope Drive operating at 45 mph.

Overall, noise levels with the Antelope Frontage Roads project would range from 57 to 71 dBA compared to the existing conditions of 56 to 70 dBA. The Antelope Frontage Roads project would generally increase noise levels by about 1 dBA throughout the noise study area.

The noise model developed for the Antelope Frontage Roads build conditions included 93 residential receptors (Activity Category B receptors) throughout the noise study area. With the Antelope Frontage Roads project, 22 residential receptors would have traffic noise impacts; that is, they would approach or exceed the NAC as defined above in Table 2. None of the receptors would have noise levels that substantially exceed the existing noise levels (≥ 10 -dBA increase over existing noise levels).

With the Antelope Frontage Roads project, UDOT would acquire four residential properties (1743 S. Bluff Road, 1686 South 2625 West, 1624 South 2500 West, and 1745 South 2500 West). These acquired properties would be demolished and were not included as receptors in the noise analysis for the Antelope Frontage Roads' build scenario. The locations of the receptors that would approach, exceed, or substantially exceed the NAC are shown in Figure 2, Build Scenario Noise Receptor Map, on page 11.

7 Summary of Existing and Expected Noise Levels

Table 3 summarizes the modeled existing noise levels and the predicted noise levels with the Antelope Frontage Roads build scenario at receptors in the noise study area. Shaded cells indicate impacts with the Antelope Frontage Roads project. For receptor locations, refer to Figure 1, Existing Noise Receptor Map, and Figure 2, Build Scenario Noise Receptor Map.

Table 3. Modeled Existing Noise Levels and Predicted Noise Levels with the Antelope Frontage Roads Project in the Noise Study Area

Receptor	Activity Category	UDOT NAC L _{eq} (h) (dBA)	Existing (with WDC and widened Antelope Drive)		With Antelope Frontage Roads Project		
			Existing Noise Level (dBA)	Existing Impact?	Build Noise Level (dBA)	≥ UDOT NAC?	≥ 10 dBA Increase over Existing Noise Level?
N1	B	66	68	Yes	70	Yes	No
N2	B	66	68	Yes	69	Yes	No
N3	B	66	66	Yes	67	Yes	No
N4	B	66	63	No	64	No	No
N5	B	66	63	No	64	No	No
N6	B	66	61	No	62	No	No
N7	B	66	62	No	63	No	No
N8	B	66	62	No	63	No	No
N9	B	66	65	No	65	No	No
N10	B	66	67	Yes	67	Yes	No
N11	B	66	66	Yes	67	Yes	No
N12	B	66	65	No	66	Yes	No
N13	B	66	68	Yes	69	Yes	No
N14	B	66	69	Yes	71	Yes	No
N15	B	66	69	Yes	70	Yes	No
N16	B	66	70	Yes	71	Yes	No
N19	B	66	61	No	62	No	No
N20	B	66	60	No	61	No	No
N21	B	66	60	No	61	No	No
N22	B	66	62	No	63	No	No
N23	B	66	60	No	61	No	No
N24	B	66	62	No	63	No	No
N25	B	66	63	No	64	No	No
N26	B	66	67	Yes	NA ^a	NA ^a	NA ^a
N33	B	66	60	No	63	No	No
N34	B	66	58	No	61	No	No
N35	B	66	59	No	62	No	No
N36	B	66	57	No	59	No	No
N37	B	66	56	No	57	No	No
N38	B	66	59	No	60	No	No

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Table 3. Modeled Existing Noise Levels and Predicted Noise Levels with the Antelope Frontage Roads Project in the Noise Study Area

Receptor	Activity Category	UDOT NAC L _{eq} (h) (dBA)	Existing (with WDC and widened Antelope Drive)		With Antelope Frontage Roads Project		
			Existing Noise Level (dBA)	Existing Impact?	Build Noise Level (dBA)	≥ UDOT NAC?	≥ 10 dBA Increase over Existing Noise Level?
N39	B	66	58	No	59	No	No
N40	B	66	58	No	59	No	No
N41	B	66	58	No	59	No	No
N42	B	66	57	No	58	No	No
N43	B	66	57	No	58	No	No
N44	B	66	61	No	NA ^a	NA ^a	NA ^a
N45	B	66	69	Yes	NA ^a	NA ^a	NA ^a
N57	B	66	64	No	66	Yes	No
N58	B	66	63	No	65	No	No
N59	B	66	64	No	66	Yes	No
N60	B	66	63	No	65	No	No
N61	B	66	65	No	NA ^a	NA ^a	NA ^a
N62	B	66	61	No	62	No	No
N63	B	66	61	No	62	No	No
N64	B	66	61	No	62	No	No
N65	B	66	61	No	62	No	No
N66	B	66	61	No	62	No	No
N67	B	66	59	No	60	No	No
N68	B	66	58	No	59	No	No
N69	B	66	59	No	60	No	No
N70	B	66	59	No	60	No	No
N71	B	66	60	No	62	No	No
N72	B	66	58	No	59	No	No
N73	B	66	58	No	59	No	No
N74	B	66	58	No	59	No	No
N75	B	66	59	No	60	No	No
N76	B	66	68	Yes	69	Yes	No
N77	B	66	68	Yes	69	Yes	No
N78	B	66	67	Yes	68	Yes	No
N79	B	66	66	Yes	66	Yes	No
N80	B	66	66	Yes	66	Yes	No
N81	B	66	62	No	63	No	No
N82	B	66	63	No	63	No	No
N83	B	66	58	No	59	No	No
N84	B	66	59	No	60	No	No
N85	B	66	67	Yes	67	Yes	No
N86	B	66	64	No	64	No	No
N87	B	66	63	No	64	No	No
N88	B	66	63	No	63	No	No
N89	B	66	63	No	63	No	No
N90	B	66	62	No	63	No	No

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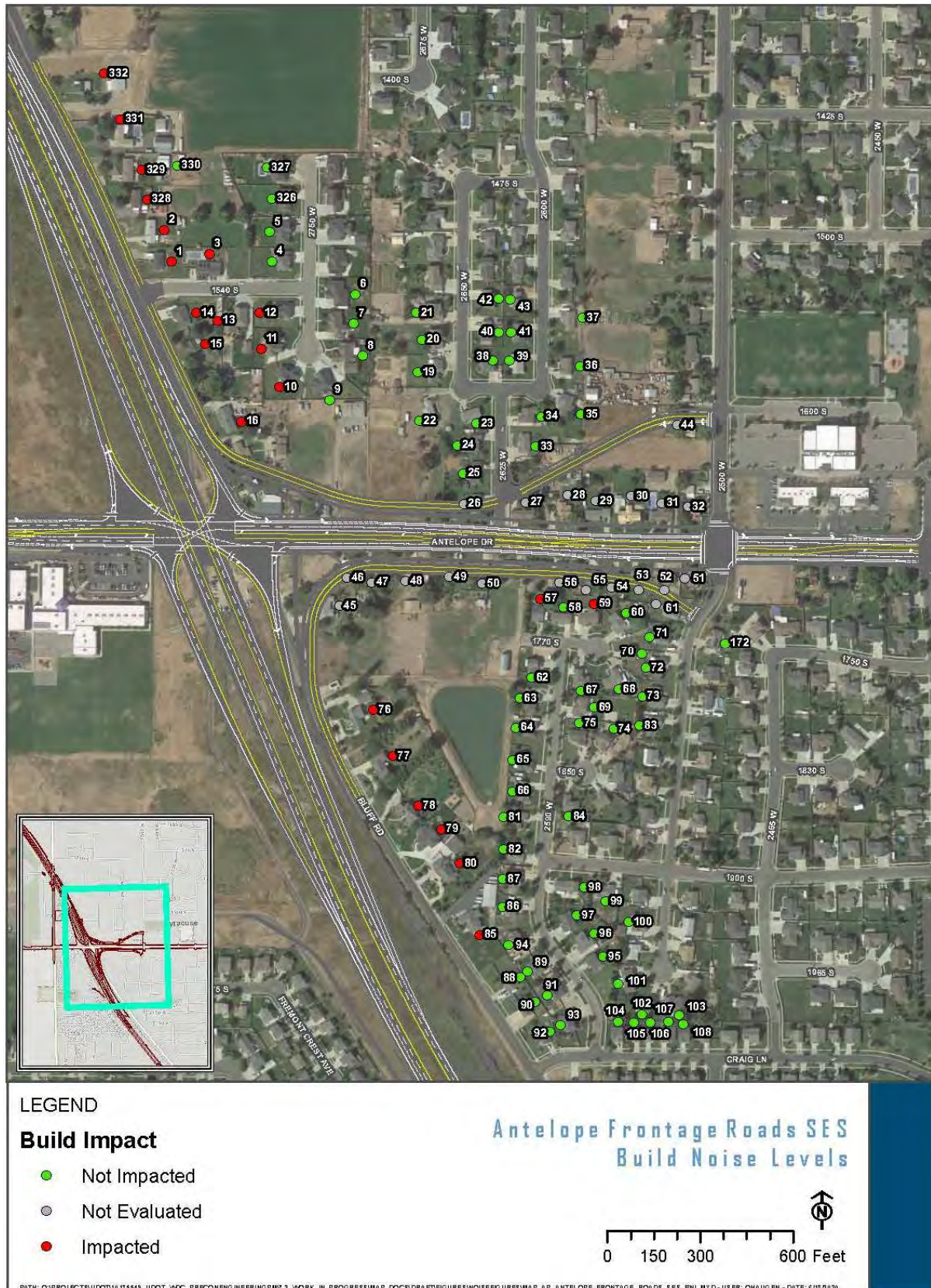
Table 3. Modeled Existing Noise Levels and Predicted Noise Levels with the Antelope Frontage Roads Project in the Noise Study Area

Receptor	Activity Category	UDOT NAC L _{eq} (h) (dBA)	Existing (with WDC and widened Antelope Drive)		With Antelope Frontage Roads Project		
			Existing Noise Level (dBA)	Existing Impact?	Build Noise Level (dBA)	≥ UDOT NAC?	≥ 10 dBA Increase over Existing Noise Level?
N91	B	66	64	No	64	No	No
N92	B	66	63	No	63	No	No
N93	B	66	64	No	64	No	No
N94	B	66	64	No	65	No	No
N95	B	66	60	No	60	No	No
N96	B	66	60	No	60	No	No
N97	B	66	60	No	61	No	No
N98	B	66	59	No	60	No	No
N99	B	66	59	No	59	No	No
N100	B	66	58	No	59	No	No
N101	B	66	60	No	60	No	No
N102	B	66	59	No	60	No	No
N103	B	66	58	No	58	No	No
N104	B	66	60	No	61	No	No
N105	B	66	60	No	60	No	No
N106	B	66	59	No	59	No	No
N107	B	66	59	No	59	No	No
N108	B	66	58	No	59	No	No
N172	B	66	59	No	60	No	No
N326	B	66	62	No	63	No	No
N327	B	66	61	No	62	No	No
N328	B	66	68	Yes	68	Yes	No
N329	B	66	68	Yes	68	Yes	No
N330	B	66	65	No	65	No	No
N331	B	66	68	Yes	68	Yes	No
N332	B	66	68	Yes	68	Yes	No

Gray shaded cells indicate impacts with the Antelope Frontage Roads project.

^a Not applicable because these receptors would be purchased and demolished with the Antelope Frontage Roads project. These properties are discussed in the last paragraph of Section 6, Expected Impacts with the Antelope Frontage Roads Project.

Figure 2. Build Scenario Noise Receptor Map



8 Noise Abatement Methodology

This section discusses UDOT's methodology for evaluating noise-abatement mitigation measures for the traffic noise impacts identified in Section 6, Expected Impacts with the Antelope Frontage Roads Project.

For a noise wall to be effective, it must be high enough and long enough to block the view of the noise source (that is, traffic on the roadway) from the receptor's line of sight. FHWA's *Highway Traffic Noise: Analysis and Abatement Guidance* (FHWA 2011) states that, as a general rule of thumb, the noise barrier should extend 4 times as far in each direction as the distance from the receptor to the barrier. For example, if the receptor is 50 feet from the proposed noise barrier, the barrier needs to extend at least 200 feet on either side of the receptor in order to shield the receptor from noise traveling past the ends of the barrier.

Gaps in a noise wall cause "noise leaks," which reduce the effectiveness of the wall at homes near the gap. In addition, the effectiveness of noise walls decreases with increasing distance from the wall. For example, a residence that is 300 feet from a noise wall might experience noise levels that exceed the residential NAC. However, the noise wall might be ineffective in reducing noise levels by 7 dBA or more at that distance, and, therefore, a noise barrier might not be warranted according to UDOT's Noise Abatement Policy. The goal of noise abatement is to substantially reduce noise, which might or might not result in noise levels below the residential NAC.

The two primary criteria to consider when evaluating noise-abatement measures are feasibility and reasonableness. Noise abatement would be provided by UDOT only if UDOT determines that noise-abatement measures are *both* feasible and reasonable.

8.1 Feasibility and Reasonableness Factors

8.1.1 Feasibility Factors

Under UDOT's noise-abatement policy, a noise barrier must be considered "acoustically feasible"—that is, the barrier must reduce noise by at least 5 dBA for at least 50% of front-row receptors. The feasibility of noise-abatement measures also deals with construction and engineering considerations such as safety, location of cross streets, sight distance, and access to adjacent properties.

If a noise-abatement measure is determined by UDOT to be acoustically feasible, then the abatement measure will be evaluated to determine whether its construction is reasonable. If a noise-abatement measure is determined by UDOT to be not feasible, it will not be considered any further.

8.1.2 Reasonableness Factors

Under UDOT’s noise-abatement policy, reasonableness factors must be collectively achieved in order for a noise-abatement measure to be considered “reasonable.” All three reasonableness factors described below must be met in order for a noise barrier to be considered reasonable.

What are reasonableness factors?

Reasonableness factors are the noise-abatement design goal, cost-effectiveness, and the viewpoints of property owners and residents.

- **Noise-abatement Design Goal.** Every reasonable effort should be made to achieve substantial reductions in noise. UDOT defines the minimum noise reduction (design goal) from proposed abatement measures to be 7 dBA or greater for at least 35% of front-row receptors. No abatement measure will be considered reasonable if the noise-abatement design goal cannot be achieved.
- **Cost-effectiveness.** The cost of a noise-abatement measure must be considered reasonable in order for it to be included in a project. Noise-abatement costs are determined by multiplying a fixed unit cost per square foot by the height and length of the barrier.

For residential receptors, cost-effectiveness is based on the cost of the abatement measure (for example, a noise wall) divided by the number of benefited receptors (the total number of dwelling units at which noise is reduced by a minimum of 5 dBA as a result of the abatement measure).

Currently, the maximum cost used to determine the reasonableness of a noise-abatement measure is \$30,000 per benefiting residence (Activity Category B) based on a unit cost of \$20 per square foot of barrier, and \$360 per lineal foot for Activity Categories A, C, D, or E.

- **Viewpoints of Property Owners and Residents.** If a noise-abatement measure is both feasible and cost-effective, UDOT will also consider the viewpoints of property owners and residents to determine whether the noise-abatement measures are desired. Balloting will be conducted for those noise-abatement measures that both meet the noise-abatement design goal and are cost-effective consistent with the procedures described in UDOT’s noise-abatement policy.

The noise walls considered for the Antelope Frontage Roads project are discussed below. UDOT evaluated a total of five noise walls where noise impacts would occur with the Antelope Frontage Roads project. **None of the five noise walls evaluated in this noise study area was determined to be feasible and reasonable pursuant to UDOT’s noise-abatement policy.**

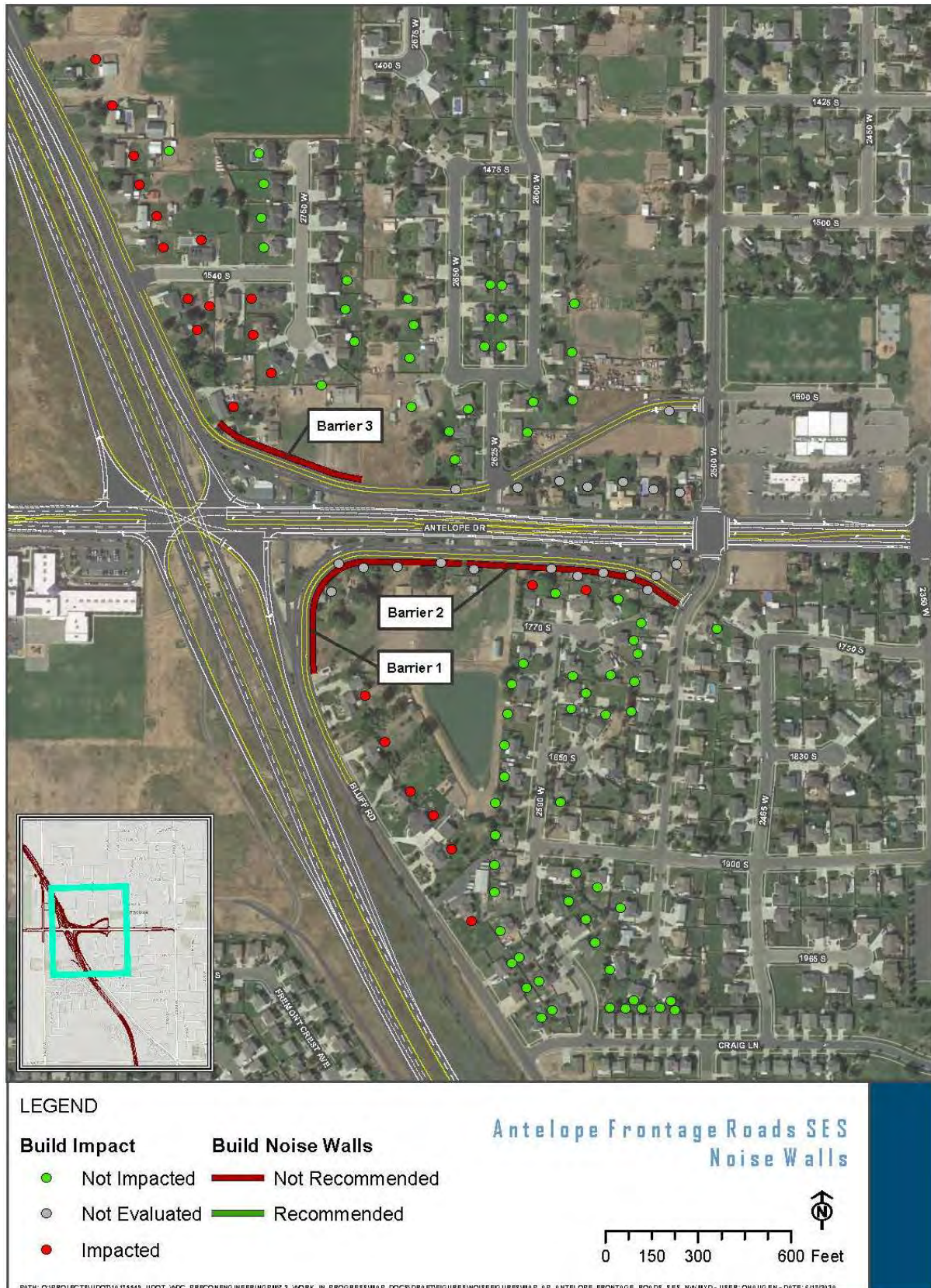
UDOT did not consider noise walls for the impacted receptors that are north of 1653 S. Bluff Road or south of 1743 S. Bluff Road. Impacted receptors north of 1653 S. Bluff Road and south of 1743 S. Bluff Road are impacted primarily by noise from the WDC. Because the driveways for the impacted properties north of 1653 S. Bluff Road and south of 1743 S. Bluff Road all have access on the east side of Bluff Road, it would not be feasible to have a continuous noise wall with no gaps on the east side of Bluff Road in these locations.

8.1.3 Noise Wall Evaluations

In this section, noise walls evaluations are summarized for locations where there would be impacts to noise receptors as defined in Sections 6 and 7.

The locations of the evaluated noise walls are shown in Figure 3.

Figure 3. Build Scenario Noise Walls



Barrier 1

A noise wall from about 1780 S. Bluff Road to 2650 West on the south side of the south Antelope Drive frontage road was evaluated where noise impacts are expected to a total of five residential receptors (76 to 80). All receptors are Activity Category B. There is one front-row receptor in this area (N76). The noise wall would be located near the right-of-way line on the south side of the south Antelope Drive frontage road and would be about 765 feet long (see Figure 3, Build Scenario Noise Walls, above).

As summarized in Table 4, UDOT evaluated a wall 17 feet high (for detailed information, see Appendix A, Noise Wall Analysis).

Table 4. Noise-abatement Analysis for Barrier 1

Barrier Height (feet)	Feasibility		Reasonable					Is Barrier Feasible and Reasonable?
	% Front-row with 5-dBA Reduction	Acoustically Feasible? ^a	% Front-row with 7-dBA Reduction	Noise Abatement Design Goal? ^b	Anticipated Cost	Allowable Cost	Cost-effective? ^c	
17	0%	No	NA	NA	NA	NA	NA	No

^a 5-dBA reduction for at least 50% of front-row receptors.

^b 7-dBA reduction for at least 35% of front-row receptors.

^c Anticipated cost is less than allowable cost.

The evaluated wall is not feasible; therefore, a wall at this location is not recommended.

Barrier 2

A noise wall from about 2650 West to 2500 West on the south side of the south Antelope Drive frontage road was evaluated where noise impacts are expected to a total of two residential receptors (N57 and N59). All receptors are Activity Category B. There are five front-row receptors in this area (N57 to N60, N71). The noise wall would be located near the right-of-way line on the south side of the south Antelope Drive frontage road and would be about 703 feet long (see Figure 3, Build Scenario Noise Walls, above).

As summarized in Table 5, UDOT evaluated walls between 11 and 17 feet high (for detailed information, see Appendix A, Noise Wall Analysis).

Table 5. Noise-abatement Analysis for Barrier 2

Barrier Height (feet)	Feasibility		Reasonable					Is Barrier Feasible and Reasonable?
	% Front-row with 5-dBA Reduction	Acoustically Feasible? ^a	% Front-row with 7-dBA Reduction	Noise Abatement Design Goal? ^b	Anticipated Cost	Allowable Cost	Cost-effective? ^c	
11	80%	Yes	20%	No	NA	NA	NA	No
12	80%	Yes	40%	Yes	\$168,720	\$120,000	No	No
13	80%	Yes	40%	Yes	\$182,780	\$120,000	No	No
14	100%	Yes	40%	Yes	\$196,840	\$150,000	No	No
15	100%	Yes	40%	Yes	\$210,900	\$150,000	No	No
16	100%	Yes	60%	Yes	\$224,960	\$150,000	No	No
17	100%	Yes	60%	Yes	\$239,020	\$150,000	No	No

^a 5-dBA reduction for at least 50% of front-row receptors.

^b 7-dBA reduction for at least 35% of front-row receptors.

^c Anticipated cost is less than allowable cost.

The evaluated wall is feasible at all evaluated heights, but the 11-foot-tall wall does not meet UDOT’s reasonable design-goal criteria, and the 12-foot-tall to 17-foot-tall walls do not meet UDOT’s reasonable cost-effectiveness criteria; therefore, a wall at this location is not recommended.

Because Barrier 2 was close to passing the reasonable test at the full length of 703 feet, two reduced-length versions of Barrier 2 were also evaluated. A modified version of Barrier 2 that was shortened in length from the west (total length of 550 feet) and a modified version of Barrier 2 that was shortened in length from the east (total length of 553 feet) were both modeled. The impacted receptors and front-row receptors are the same as those described for Barrier 2 above. The results for these two modified versions of Barrier 2 are shown in the next two tables.

Table 6. Noise-abatement Analysis for Barrier 2 (550 feet in length, shortened length from the west)

Barrier Height (feet)	Feasibility		Reasonable					Is Barrier Feasible and Reasonable?
	% Front-row with 5-dBA Reduction	Acoustically Feasible? ^a	% Front-row with 7-dBA Reduction	Noise Abatement Design Goal? ^b	Anticipated Cost	Allowable Cost	Cost-effective? ^c	
12	60%	Yes	20%	No	NA	NA	NA	No
13	60%	Yes	40%	Yes	\$143,000	\$90,000	No	No
14	60%	Yes	40%	Yes	\$154,000	\$90,000	No	No
15	60%	Yes	40%	Yes	\$165,000	\$90,000	No	No
16	80%	Yes	40%	Yes	\$176,000	\$120,000	No	No
17	80%	Yes	40%	Yes	\$187,000	\$120,000	No	No

^a 5-dBA reduction for at least 50% of front-row receptors.

^b 7-dBA reduction for at least 35% of front-row receptors.

^c Anticipated cost is less than allowable cost.

The modified version of Barrier 2 with a shortened length from the west (shown in Table 6) is feasible at all evaluated heights, but the 12-foot-tall wall does not meet UDOT’s reasonable design-goal criteria, and the 13-foot-tall to 17-foot-tall walls do not meet UDOT’s reasonable cost-effectiveness criteria; therefore, a wall at this location is not recommended.

Table 7. Noise-abatement Analysis for Barrier 2 (553 feet in length, shortened length from the east)

Barrier Height (feet)	Feasibility		Reasonable					Is Barrier Feasible and Reasonable?
	% Front-row with 5-dBA Reduction	Acoustically Feasible? ^a	% Front-row with 7-dBA Reduction	Noise Abatement Design Goal? ^b	Anticipated Cost	Allowable Cost	Cost-effective? ^c	
15	80%	Yes	20%	No	NA	NA	No	No
16	80%	Yes	40%	Yes	\$176,960	\$120,000	No	No
17	80%	Yes	40%	Yes	\$188,020	\$120,000	No	No

^a 5-dBA reduction for at least 50% of front-row receptors.

^b 7-dBA reduction for at least 35% of front-row receptors.

^c Anticipated cost is less than allowable cost.

The modified version of Barrier 2 with a shortened length from the east (shown in Table 7) is feasible at all evaluated heights, but the 15-foot-tall wall does not meet UDOT’s reasonable design-goal criteria, and the 16-foot-tall and 17-foot-tall walls do not meet UDOT’s reasonable cost-effectiveness criteria; therefore, a wall at this location is not recommended.

Barrier 3

A noise wall from about 1650 S. Bluff Road to 2700 West on the north side of the north Antelope Drive frontage road was evaluated where noise impacts are expected to a total of seven residential receptors (N10 to N16). All receptors are Activity Category B. There are three front-row receptors in this area (N9, N10, and N16). The noise wall would be located near the right-of-way line on the north side of the north Antelope Drive frontage road and would be about 497 feet long (see Figure 3, Build Scenario Noise Walls, above).

As summarized in Table 8, UDOT evaluated a wall 17 feet high (for detailed information, see Appendix A, Noise Wall Analysis).

Table 8. Noise-abatement Analysis for Barrier 3

Barrier Height (feet)	Feasibility		Reasonable					Is Barrier Feasible and Reasonable?
	% Front-row with 5-dBA Reduction	Acoustically Feasible? ^a	% Front-row with 7-dBA Reduction	Noise Abatement Design Goal? ^b	Anticipated Cost	Allowable Cost	Cost-effective? ^c	
17	0%	No	NA	NA	NA	NA	NA	No

^a 5-dBA reduction for at least 50% of front-row receptors.

^b 7-dBA reduction for at least 35% of front-row receptors.

^c Anticipated cost is less than allowable cost.

The evaluated wall is not feasible; therefore, a wall at this location is not recommended.

9 Construction Noise

9.1 Construction Noise Activities

Table 9 shows the noise levels produced by various types of construction equipment. Properly maintained equipment will produce noise levels near the middle of the indicated ranges. The types of construction equipment used for this project will typically generate noise levels of 80 dBA to 90 dBA at a distance of 50 feet while the equipment is operating (EPA 1971; Gharabegian and others 1985; Toth 1979).

Construction equipment operations can vary from intermittent to fairly continuous with multiple pieces of equipment operating concurrently. Assuming that a bulldozer (85 dBA), backhoe (90 dBA), grader (90 dBA), and front-end loader (82 dBA) are operating concurrently in the same area, peak construction-period noise would generally be about 94 dBA at 50 feet from the construction site. Table 9 summarizes noise levels expected near an active construction site with the above equipment operating.

Table 9. Typical Noise Levels for Construction Equipment

Type of Equipment	Noise Level (dBA) at 50 feet
Bulldozer	85
Front loader	72 – 84
Jack hammer or rock drill	81 – 98
Crane with headache ball	75 – 87
Backhoe	72 – 93
Scraper and grader	80 – 93
Electrical generator	71 – 82
Concrete pump	81 – 83
Concrete vibrator	76
Concrete and dump trucks	83 – 90
Air compressor	74 – 87
Pile drivers (peaks)	95 – 106
Pneumatic tools	81 – 98
Roller (compactor)	73 – 75
Saws	73 – 82

Source: EPA 1971

Locations within about 1,900 feet of a construction site will experience occasional episodes of noise levels greater than 60 dBA. Areas within about 750 feet of a construction site will experience episodes of noise levels greater than 70 dBA. Such episodes of high noise levels associated with the proposed construction would not be continuous throughout the day and would generally be restricted to daytime hours.

Most construction activities associated with the Antelope Frontage Roads project would occur during daylight hours, which would minimize the number of noise impacts. Noise impacts could occur when construction directly adjacent to residential, park, or recreational areas is necessary.

9.2 Construction Noise Mitigation

To reduce temporary noise impacts associated with construction, contractors will comply with all state and local regulations relating to construction noise.

The contractor will be required to follow UDOT Special Provision Section 00555M, *Prosecution and Progress*. The contractor will be required to conform to this specification to reduce the impact of construction noise on the surrounding community.

10 Information for Local Officials

Activity Categories F and G include lands that are not sensitive to traffic noise. There are no impact criteria for these land use types, so noise abatement is not required. However, for Activity Category G, an estimate of the distance to the approach criteria must be provided to local governments.

There are no Activity Category F or G lands in the project area. Some of the Activity Category B parcels could be subdivided or have new development. The modeled noise levels for the receptors listed in Section 7, Summary of Existing and Expected Noise Levels, provide estimates of expected future noise levels to adjacent residential properties with the Antelope Frontage Roads project.

In general, noise levels between 66 and 70 dBA are expected on the west end of the Antelope Drive frontage roads near the existing Bluff Road. Properties adjacent to the frontage roads east of Bluff Road are expected to have noise levels approaching 66 dBA (similar to receptors N57 to N60). These modeled noise levels will help local government officials promote compatibility between land development and the Antelope Drive frontage roads. Syracuse City is the local government that has land use jurisdiction in the noise study area.

11 Conclusions

The Antelope Frontage Roads project would generally increase noise levels by 1 dBA throughout the noise study area compared to existing conditions. Of the 93 receptors that were modeled for the Antelope Frontage Roads build condition, 22 would have traffic noise impacts from the Antelope Frontage Roads project.

None of the five noise walls evaluated in the noise study area were determined to be feasible and reasonable pursuant to UDOT's noise-abatement policy.

12 References

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- 1970 Environmental Quality: The First Annual Report of the Council on Environmental Quality. U.S. Government Printing Office, Washington, DC.

[EPA] U.S. Environmental Protection Agency

- 1971 Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. NTID300.1. Prepared by Bolt, Beranek, & Newman, Boston, Mass. U.S. Government Printing Office, Washington, DC.

[FHWA] Federal Highway Administration

- 2011 Highway Traffic Noise: Analysis and Abatement Guidance. FHWA-HEP-10-025. https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf. December.

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[UDOT] Utah Department of Transportation

- 2020 Noise Abatement. UDOT Policy 08A2-1. Effective November 6, 1987. Revised May 28, 2020. <https://www.udot.utah.gov/main/uconowner.gf?n=10496602977480171>.



Appendix A. Noise Wall Analysis

Antelope Frontage - Barrier 1

17

Wall Length: ft 765 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 1

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N57	1			0	66	66	0	No	No	No	No
N58	1			0	65	65	0	No	No	No	No
N59	1			0	66	66	0	No	No	No	No
N60	1			0	65	65	0	No	No	No	No
N62	1			0	62	62	0	No	No	No	No
N63	1			0	62	62	0	No	No	No	No
N64	1			0	62	62	0	No	No	No	No
N65	1			0	62	62	0	No	No	No	No
N66	1			0	62	62	0	No	No	No	No
N67	1			0	60	60	0	No	No	No	No
N68	1			0	59	59	0	No	No	No	No
N69	1			0	60	60	0	No	No	No	No
N70	1			0	60	60	0	No	No	No	No
N71	1			0	62	62	0	No	No	No	No
N72	1			0	59	59	0	No	No	No	No
N73	1			0	59	59	0	No	No	No	No
N74	1			0	59	59	0	No	No	No	No
N75	1			0	60	60	0	No	No	No	No
N76	1		Yes	1	69	68	1	No	No	No	No
N77	1			0	69	69	0	No	No	No	No
N78	1			0	68	68	0	No	No	No	No
N79	1			0	66	66	0	No	No	No	No
N80	1			0	66	66	0	No	No	No	No
N81	1			0	63	63	0	No	No	No	No
N82	1			0	63	63	0	No	No	No	No
N83	1			0	59	59	0	No	No	No	No
N84	1			0	60	60	0	No	No	No	No
N85	1			0	67	67	0	No	No	No	No
N86	1			0	64	64	0	No	No	No	No
N87	1			0	64	64	0	No	No	No	No
N88	1			0	63	63	0	No	No	No	No
N89	1			0	63	63	0	No	No	No	No
N90	1			0	63	63	0	No	No	No	No
N91	1			0	64	64	0	No	No	No	No
N92	1			0	63	63	0	No	No	No	No
N93	1			0	64	64	0	No	No	No	No
N94	1			0	65	65	0	No	No	No	No
N95	1			0	60	60	0	No	No	No	No
N96	1			0	60	60	0	No	No	No	No
N97	1			0	61	61	0	No	No	No	No
N98	1			0	60	60	0	No	No	No	No
N99	1			0	59	59	0	No	No	No	No
N100	1			0	59	59	0	No	No	No	No
N101	1			0	60	60	0	No	No	No	No
N102	1			0	60	60	0	No	No	No	No
N103	1			0	58	58	0	No	No	No	No
N104	1			0	61	60	1	No	No	No	No
N105	1			0	60	60	0	No	No	No	No

Antelope Frontage - Barrier 1

17

Wall Length: ft 765 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 1

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N106	1			0	59	59	0	No	No	No	No
N107	1			0	59	59	0	No	No	No	No
N108	1			0	59	59	0	No	No	No	No
N172	1			0	60	60	0	No	No	No	No

Feasibility Factors:

of First-Row 5 dBA Reduction: 0

% of First-Row 5 dBA Reduction: 0%

Acoustic Feasibility (5 dBA reduction for 50% of front-row): No

Reasonableness Factors:

of First-Row Design Goal: 0

% of First-Row Design Goal: 0%

Noise Abatement Design Goal (7 dBA reduction for 35% of front-row): No

of Benefited: 0

Cost of Noise Wall (Length x Height x \$20/sq ft): \$260,100

Cost of any other items critical to safety: 0

Anticipated Cost of Noise Abatement: \$260,100

Allowable Cost (\$30,000 per benefited receptor): \$0

Cost Effective (Anticipated Cost < Allowable Cost): No

Feasible and Reasonable: No

Antelope Frontage - Barrier 2

Wall Length: ft 11 703 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 5

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	11-ft Noise Level	11-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	12-ft Noise Level	12-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	13-ft Noise Level	13-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	14-ft Noise Level	14-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N57	1		Yes	1	66	61	5	No	Yes	No	Yes	61	5	No	Yes	No	Yes	61	5	No	Yes	No	Yes	60	6	No	Yes	No	Yes
N58	1		Yes	1	65	60	5	No	Yes	No	Yes	59	6	No	Yes	No	Yes	59	6	No	Yes	No	Yes	59	6	No	Yes	No	Yes
N59	1		Yes	1	66	60	6	No	Yes	No	Yes	59	7	Yes	Yes	Yes	Yes	59	7	Yes	Yes	Yes	Yes	59	7	Yes	Yes	Yes	Yes
N60	1		Yes	1	65	58	7	Yes	Yes	Yes	Yes	58	7	Yes	Yes	Yes	Yes	57	8	Yes	Yes	Yes	Yes	57	8	Yes	Yes	Yes	Yes
N62	1			0	62	62	0	No	No	No	No	61	1	No	No	No	No	61	1	No	No	No	No	61	1	No	No	No	No
N63	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N64	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N65	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N66	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N67	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N68	1			0	59	59	0	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N69	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N70	1			0	60	58	2	No	No	No	No	57	3	No	No	No	No	57	3	No	No	No	No	57	3	No	No	No	No
N71	1		Yes	1	62	58	4	No	No	No	No	58	4	No	No	No	No	58	4	No	No	No	No	57	5	No	Yes	No	Yes
N72	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N73	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N74	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	58	1	No	No	No	No
N75	1			0	60	60	0	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N76	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N77	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N78	1			0	68	68	0	No	No	No	No	68	0	No	No	No	No	68	0	No	No	No	No	68	0	No	No	No	No
N79	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N80	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N81	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N82	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N83	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N84	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N85	1			0	67	67	0	No	No	No	No	67	0	No	No	No	No	67	0	No	No	No	No	67	0	No	No	No	No
N86	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N87	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N88	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N89	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N90	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N91	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N92	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N93	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N94	1			0	65	65	0	No	No	No	No	65	0	No	No	No	No	65	0	No	No	No	No	65	0	No	No	No	No
N95	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N96	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N97	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N98	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N99	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N100	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N101	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N102	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N103	1			0	58	58	0	No	No	No	No	58	0	No	No	No	No	58	0	No	No	No	No	58	0	No	No	No	No
N104	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N105	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N106	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N107	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N108	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N172	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No

Feasibility Factors:

of First-Row 5 dBA Reduction: 4 4 4 5

% of First-Row 5 dBA Reduction: 80% 80% 80% 100%

Acoustic Feasibility (5 dBA reduction for 50% of front-row): Yes Yes Yes Yes

Reasonableness Factors:

of First-Row Design Goal: 1 2 2 2

% of First-Row Design Goal: 20% 40% 40% 40%

Noise Abatement Design Goal (7 dBA reduction for 35% of front-row): No Yes Yes Yes

of Benefited: 4 4 4 5

Cost of Noise Wall (Length x Height x \$20/sq ft): \$154,660 \$168,720 \$182,780 \$196,840

Cost of any other items critical to safety: 0 0 0 0

Anticipated Cost of Noise Abatement: \$154,660 \$168,720 \$182,780 \$196,840

Allowable Cost (\$30,000 per benefited receptor): \$120,000 \$120,000 \$120,000 \$150,000

Cost Effective (Anticipated Cost < Allowable Cost): No No No No

Feasible and Reasonable: No No No No

Antelope Frontage - Barrier 2

Wall Length: 15 ft 703 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 5

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	15-ft Noise Level	15-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	16-ft Noise Level	16-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N57	1		Yes	1	66	60	6	No	Yes	No	Yes	60	6	No	Yes	No	Yes	60	6	No	Yes	No	Yes
N58	1		Yes	1	65	59	6	No	Yes	No	Yes	58	7	Yes	Yes	Yes	Yes	58	7	Yes	Yes	Yes	Yes
N59	1		Yes	1	66	58	8	Yes	Yes	Yes	Yes	58	8	Yes	Yes	Yes	Yes	58	8	Yes	Yes	Yes	Yes
N60	1		Yes	1	65	57	8	Yes	Yes	Yes	Yes	57	8	Yes	Yes	Yes	Yes	56	9	Yes	Yes	Yes	Yes
N62	1			0	62	61	1	No	No	No	No	61	1	No	No	No	No	61	1	No	No	No	No
N63	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N64	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N65	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N66	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N67	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N68	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N69	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N70	1			0	60	57	3	No	No	No	No	57	3	No	No	No	No	57	3	No	No	No	No
N71	1		Yes	1	62	57	5	No	Yes	No	Yes	57	5	No	Yes	No	Yes	57	5	No	Yes	No	Yes
N72	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N73	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N74	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N75	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N76	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N77	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N78	1			0	68	68	0	No	No	No	No	68	0	No	No	No	No	68	0	No	No	No	No
N79	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N80	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N81	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N82	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N83	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N84	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N85	1			0	67	67	0	No	No	No	No	67	0	No	No	No	No	67	0	No	No	No	No
N86	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N87	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N88	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N89	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N90	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N91	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N92	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N93	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N94	1			0	65	65	0	No	No	No	No	65	0	No	No	No	No	65	0	No	No	No	No
N95	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N96	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N97	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N98	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N99	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N100	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N101	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N102	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N103	1			0	58	58	0	No	No	No	No	58	0	No	No	No	No	58	0	No	No	No	No
N104	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N105	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N106	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N107	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N108	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N172	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No

Feasibility Factors:

# of First-Row 5 dBA Reduction:	5	5	5
% of First-Row 5 dBA Reduction:	100%	100%	100%
Acoustic Feasibility (5 dBA reduction for 50% of front-row):	Yes	Yes	Yes

Reasonableness Factors:

# of First-Row Design Goal:	2	3	3
% of First-Row Design Goal:	40%	60%	60%
Noise Abatement Design Goal (7 dBA reduction for 35% of front-row):	Yes	Yes	Yes

# of Benefited:	5	5	5
Cost of Noise Wall (Length x Height x \$20/sq ft):	\$210,900	\$224,960	\$239,020
Cost of any other items critical to safety:	0	0	0
Anticipated Cost of Noise Abatement:	\$210,900	\$224,960	\$239,020
Allowable Cost (\$30,000 per benefited receptor):	\$150,000	\$150,000	\$150,000
Cost Effective (Anticipated Cost < Allowable Cost):	No	No	No

Feasible and Reasonable: No No No

Antelope Frontage - Barrier 2ShortW

16

17

Wall Length: ft

550 ft

550 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 5

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	16-ft Noise Level	16-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N57	1		Yes	1	66	62	4	No	No	No	No	62	4	No	No	No	No
N58	1		Yes	1	65	60	5	No	Yes	No	Yes	59	6	No	Yes	No	Yes
N59	1		Yes	1	66	59	7	Yes	Yes	Yes	Yes	58	8	Yes	Yes	Yes	Yes
N60	1		Yes	1	65	57	8	Yes	Yes	Yes	Yes	57	8	Yes	Yes	Yes	Yes
N62	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No
N63	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No
N64	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No
N65	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No
N66	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No
N67	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N68	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No
N69	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No
N70	1			0	60	57	3	No	No	No	No	57	3	No	No	No	No
N71	1		Yes	1	62	57	5	No	Yes	No	Yes	57	5	No	Yes	No	Yes
N72	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No
N73	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No
N74	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N75	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No
N76	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No
N77	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No
N78	1			0	68	68	0	No	No	No	No	68	0	No	No	No	No
N79	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No
N80	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No
N81	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N82	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N83	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No
N84	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N85	1			0	67	67	0	No	No	No	No	67	0	No	No	No	No
N86	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No
N87	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No
N88	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N89	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N90	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N91	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No
N92	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No
N93	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No
N94	1			0	65	65	0	No	No	No	No	65	0	No	No	No	No
N95	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N96	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N97	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No
N98	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N99	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N100	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N101	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N102	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N103	1			0	58	58	0	No	No	No	No	58	0	No	No	No	No
N104	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No
N105	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No
N106	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N107	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N108	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No
N172	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No

Feasibility Factors:

of First-Row 5 dBA Reduction: 4 4
 % of First-Row 5 dBA Reduction: 80% 80%

Acoustic Feasibility (5 dBA reduction for 50% of front-row): Yes Yes

Reasonableness Factors:

of First-Row Design Goal: 2 2
 % of First-Row Design Goal: 40% 40%

Noise Abatement Design Goal (7 dBA reduction for 35% of front-row): Yes Yes

of Benefited: 4 4

Cost of Noise Wall (Length x Height x \$20/sq ft): \$176,000 \$187,000

Cost of any other items critical to safety: 0 0

Anticipated Cost of Noise Abatement: \$176,000 \$187,000

Allowable Cost (\$30,000 per benefited receptor): \$120,000 \$120,000

Cost Effective (Anticipated Cost < Allowable Cost): No No

Feasible and Reasonable: No No

Antelope Frontage - Barrier 2ShortE

Wall Length: ft 15 553 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 5

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	15-ft Noise Level	15-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	16-ft Noise Level	16-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N57	1		Yes	1	66	60	6	No	Yes	No	Yes	60	6	No	Yes	No	Yes	60	6	No	Yes	No	Yes
N58	1		Yes	1	65	59	6	No	Yes	No	Yes	58	7	Yes	Yes	Yes	Yes	58	7	Yes	Yes	Yes	Yes
N59	1		Yes	1	66	59	7	Yes	Yes	Yes	Yes	59	7	Yes	Yes	Yes	Yes	58	8	Yes	Yes	Yes	Yes
N60	1		Yes	1	65	59	6	No	Yes	No	Yes	59	6	No	Yes	No	Yes	59	6	No	Yes	No	Yes
N62	1			0	62	61	1	No	No	No	No	61	1	No	No	No	No	61	1	No	No	No	No
N63	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N64	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N65	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N66	1			0	62	62	0	No	No	No	No	62	0	No	No	No	No	62	0	No	No	No	No
N67	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N68	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N69	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N70	1			0	60	59	1	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N71	1		Yes	1	62	61	1	No	No	No	No	61	1	No	No	No	No	61	1	No	No	No	No
N72	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N73	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	58	1	No	No	No	No
N74	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N75	1			0	60	60	0	No	No	No	No	59	1	No	No	No	No	59	1	No	No	No	No
N76	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N77	1			0	69	69	0	No	No	No	No	69	0	No	No	No	No	69	0	No	No	No	No
N78	1			0	68	68	0	No	No	No	No	68	0	No	No	No	No	68	0	No	No	No	No
N79	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N80	1			0	66	66	0	No	No	No	No	66	0	No	No	No	No	66	0	No	No	No	No
N81	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N82	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N83	1			0	59	58	1	No	No	No	No	58	1	No	No	No	No	58	1	No	No	No	No
N84	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N85	1			0	67	67	0	No	No	No	No	67	0	No	No	No	No	67	0	No	No	No	No
N86	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N87	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N88	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N89	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N90	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N91	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N92	1			0	63	63	0	No	No	No	No	63	0	No	No	No	No	63	0	No	No	No	No
N93	1			0	64	64	0	No	No	No	No	64	0	No	No	No	No	64	0	No	No	No	No
N94	1			0	65	65	0	No	No	No	No	65	0	No	No	No	No	65	0	No	No	No	No
N95	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N96	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N97	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N98	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N99	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N100	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N101	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N102	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N103	1			0	58	58	0	No	No	No	No	58	0	No	No	No	No	58	0	No	No	No	No
N104	1			0	61	61	0	No	No	No	No	61	0	No	No	No	No	61	0	No	No	No	No
N105	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No
N106	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N107	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N108	1			0	59	59	0	No	No	No	No	59	0	No	No	No	No	59	0	No	No	No	No
N172	1			0	60	60	0	No	No	No	No	60	0	No	No	No	No	60	0	No	No	No	No

Feasibility Factors:

# of First-Row 5 dBA Reduction:	4	4	4
% of First-Row 5 dBA Reduction:	80%	80%	80%
Acoustic Feasibility (5 dBA reduction for 50% of front-row):	Yes	Yes	Yes

Reasonableness Factors:

# of First-Row Design Goal:	1	2	2
% of First-Row Design Goal:	20%	40%	40%
Noise Abatement Design Goal (7 dBA reduction for 35% of front-row):	No	Yes	Yes

# of Benefited:	4	4	4
Cost of Noise Wall (Length x Height x \$20/sq ft):	\$165,900	\$176,960	\$188,020
Cost of any other items critical to safety:	0	0	0
Anticipated Cost of Noise Abatement:	\$165,900	\$176,960	\$188,020
Allowable Cost (\$30,000 per benefited receptor):	\$120,000	\$120,000	\$120,000
Cost Effective (Anticipated Cost < Allowable Cost):	No	No	No
Feasible and Reasonable:	No	No	No

Antelope Frontage - Barrier 3

17

Wall Length: ft 497 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 3

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N1	1			0	70	70	0	No	No	No	No
N2	1			0	69	69	0	No	No	No	No
N3	1			0	67	67	0	No	No	No	No
N4	1			0	64	64	0	No	No	No	No
N5	1			0	64	64	0	No	No	No	No
N6	1			0	62	62	0	No	No	No	No
N7	1			0	63	62	1	No	No	No	No
N8	1			0	63	62	1	No	No	No	No
N9	1		Yes	1	65	64	1	No	No	No	No
N10	1		Yes	1	67	66	1	No	No	No	No
N11	1			0	67	67	0	No	No	No	No
N12	1			0	66	66	0	No	No	No	No
N13	1			0	69	69	0	No	No	No	No
N14	1			0	71	71	0	No	No	No	No
N15	1			0	70	70	0	No	No	No	No
N16	1		Yes	1	71	69	2	No	No	No	No
N19	1			0	62	61	1	No	No	No	No
N20	1			0	61	60	1	No	No	No	No
N21	1			0	61	60	1	No	No	No	No
N22	1			0	63	62	1	No	No	No	No
N23	1			0	61	61	0	No	No	No	No
N24	1			0	63	62	1	No	No	No	No
N25	1			0	64	64	0	No	No	No	No
N33	1			0	63	62	1	No	No	No	No
N34	1			0	61	60	1	No	No	No	No
N35	1			0	62	62	0	No	No	No	No
N36	1			0	59	59	0	No	No	No	No
N37	1			0	57	57	0	No	No	No	No
N38	1			0	60	59	1	No	No	No	No
N39	1			0	59	59	0	No	No	No	No
N40	1			0	59	59	0	No	No	No	No
N41	1			0	59	58	1	No	No	No	No
N42	1			0	58	58	0	No	No	No	No
N43	1			0	58	58	0	No	No	No	No
N326	1			0	63	62	1	No	No	No	No
N327	1			0	62	62	0	No	No	No	No
N328	1			0	68	68	0	No	No	No	No
N329	1			0	68	68	0	No	No	No	No
N330	1			0	65	65	0	No	No	No	No

Antelope Frontage - Barrier 3

17

Wall Length: ft 497 ft

Wall Cost per sq ft: \$20

Cost of items critical to safety:

of First Row Receivers: 3

Name	# of DU	Relocation	1st Row	# of 1st Row	Baseline Noise Level	17-ft Noise Level	17-ft Noise Reduction	Design Goal	Benefited	1st Row Design Goal	1st Row 5 dBA Reduction
N331	1			0	68	68	0	No	No	No	No
N332	1			0	68	68	0	No	No	No	No

Feasibility Factors:

of First-Row 5 dBA Reduction: 0

% of First-Row 5 dBA Reduction: 0%

Acoustic Feasibility (5 dBA reduction for 50% of front-row): No

Reasonableness Factors:

of First-Row Design Goal: 0

% of First-Row Design Goal: 0%

Noise Abatement Design Goal (7 dBA reduction for 35% of front-row): No

of Benefited: 0

Cost of Noise Wall (Length x Height x \$20/sq ft): \$168,980

Cost of any other items critical to safety: 0

Anticipated Cost of Noise Abatement: \$168,980

Allowable Cost (\$30,000 per benefited receptor): \$0

Cost Effective (Anticipated Cost < Allowable Cost): No

Feasible and Reasonable: No

APPENDIX D

Public Involvement Information

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
David Ackerman	1	<p>The proposed map only shows the road, which does not go with the meeting we had with UDOT, at our residence.</p> <p>We would like to know if a sound wall will be put up since a road will now be going right behind our property 2608 west 1770 south.</p> <p>When will the state start care of the properties they have purchased. The weeds are starting to become a eye sore and not within city code. Due to the dry conditions it has potential of becoming a fire hazard.</p> <p>Could you please provide the new study numbers for our residence impact.</p> <p>Thank you for your time and efforts that impact our lives. We look forward to your write response.</p> <p>David and Candi Ackerman XXXX XXXX Syracuse UT 84075</p>	<p>Maps showing the proposed Antelope Drive frontage roads and the results of the noise study are included with the State Environmental Study on the project website at https://westdavis.udot.utah.gov/wp-content/uploads/2020/07/Draft_SES_Antelope-Frontage-Roads_July2020.pdf.</p> <p>Pages 30 through 65 are the noise study, and specific results for your neighborhood are shown on page 50. As described in the noise study, none of the five noise walls evaluated for the project was determined to be feasible and reasonable pursuant to UDOT's Noise Abatement Policy. No new noise walls are proposed as part of the Antelope Frontage Roads project.</p> <p>Your concern about property maintenance has been forwarded to UDOT's surplus property division. The commenter has been provided contact information for the UDOT surplus property manager.</p>

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

<p>Jen and Derek Beckstrand</p>	<p style="text-align: center;">2</p>	<p>This email is in regards to the proposed Antelope Drive Frontage Road that runs from Bluff Road south of Antelope in Syracuse, swings east, and ends at 2500 W.</p> <p>To be blunt, we hate everything about this plan. Many changes are happening due to the WDC and the widening of Antelope, and many people's lives have already been completely displaced. But arguably worse than being the family displaced is the family left behind to deal with all the changes. One of those changes will make the sales of their homes in the future virtually impossible because no one will want to buy those homes, and another is that those stuck there are going to be dealing with a considerable increase in traffic and all that comes with that.</p> <p>With the proposed Frontage Road, any and all traffic from Bluff will be spit out at 2500 W. This road is already going to be much more congested thanks to the light going up at that intersection. I live on 2350 W just south of Antelope, and even though we live just 2 houses in from Antelope, we are already planning on using the light at 2500 W to get onto Antelope...as are most of our surrounding neighbors. We all hate turning onto Antelope (especially left!) already. Once the added traffic comes, there's no way we'll be able to get onto Antelope without a light.</p> <p>Unfortunately, 2500 W is a horrible street. It's so narrow that 2 cars can't even drive down the road at the same time without hugging the curb to let the other pass. And when cars are parked on the road (which is</p>	<p>Thank you for the review and comment.</p> <p>UDOT acknowledges that there are many changes to the transportation system and adjacent residential neighborhoods in this area of Syracuse due to the West Davis Corridor project and the widening of Antelope Drive.</p> <p>As described in the State Environmental Study (SES), the purpose of the Antelope Frontage Roads project is to improve connectivity and mobility to the broader transportation network between Bluff Road and Antelope Drive.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p> <p>The 2020 traffic volumes on Bluff Road are predicted to stay about the same in 2050 with the proposed frontage roads because most of the community-to-community traffic that it now serves will in the future be using the West Davis Corridor, and the frontage road will serve more as a local collector to Antelope Drive.</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

	<p>always), you feel like you're playing Mario Kart and dodging all the cars around you. At the risk of sounding incredibly rude, have any of you actually driven 2500 W south of Antelope? If you have, you'd know that even a small increase in traffic is going to be just awful!!</p> <p>Now, if you add traffic from the proposed Frontage Road, it's going to be even worse! You'll be displacing yet another family, and you'll even be taking property from a family who literally just bought their home there. Many children live on that road, and I can only imagine how unsafe more traffic will be for them. Already I see SO MANY people zip off of Antelope onto my street, flying down 2350 W. They take no heed for my children or the others on the street because they're so used to driving 45 mph, they think they can just keep flying. 2500 W will be just as bad...and even worse if additional traffic is added.</p> <p>And can we talk about how unsafe that whole area of road is going to be? A stop sign just feet away from what will be a busy intersection? I can already see people stopped at the stop sign, seeing the coast is clear, then turning left onto 2500 W so they can get onto Antelope. Then, just like they do on my street, some westbound car will zip off Antelope turning left onto 2500 W and smash into the first car while it's turning. It's literally a disaster waiting to happen...over and over again.</p> <p>Please, we're begging you...do NOT go through with the frontage road. Please do</p>	<p>Traffic modeling for the proposed frontage roads T-intersection at 2500 West also showed that the spacing is adequate to account for the predicted traffic volumes at the Antelope Drive/2500 West intersection and that the Antelope Drive/2500 West signalized intersection would operate at a level of service (LOS) B in 2050.</p> <p>Traffic modeling showed that the morning and afternoon peak-hour traffic volumes on 2500 West are predicted to increase between 2020 and 2050, but would still be 100 vehicles per hour or fewer for all movements. However, the traffic volumes in 2050 on 2500 West are expected to be slightly less with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West.</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
		<p>NOT disrupt more families while making a completely unsafe and unrealistic addition to 2500 W. We (and our neighbors) feel like the original proposal was just fine....not perfect, but much better than the frontage road proposal by a long shot!</p> <p>Thank you for your time in reading our thoughts.</p> <p>Sincerely, Jen and Derek Beckstrand</p>	
Rob Schofield	3	I-15 needs to be widened simple has that	Thank you for your comment. Various sections of I-15 are identified for improvements in the Wasatch Front Regional Council's <i>Wasatch Front Regional Transportation Plan</i> for 2019 to 2050. These needs are independent from the need for the Antelope Frontage Roads project.
Paul and Patti Branch	4	We appreciate the thoughtful planning and look forward to this Highway. Paul and Patti Branch	Thank you for your comment and interest in the project.
Tyler Lloyd	5	It looks like between the WDC highway and 2500 W. there will be a trail instead of sidewalks. Will this area, including the areas between the roads and the trail be landscaped? Looks like it has the potential to be a weed-strewn eyesore unless it is landscaped and maintained.	Landscaping is an important component of the project. Syracuse City will be provided a percentage of construction funds to go toward aesthetics and landscaping. The City will determine how and where those funds are spent. Syracuse City has noted in its planning documents that Antelope Drive is an important gateway to the community, and the City wants to make and keep it attractive. Currently, there are plans to add stamped concrete along Antelope Drive between roadway curbing and trails. Sidewalks are also planned along the proposed Antelope Drive frontage roads, although some of the sidewalks will be constructed at a later date when development occurs.

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

<p>Mike Norton</p>	<p>6</p>	<p>Can you please elaborate on the findings for the newest proposed connection of Bluff to 2500 by explaining what was uncovered in the noise impact study?</p> <p>I personally like the new plan at first glance, assuming that those homes would already be impacted by the widening effort would not change and that the 4 home owners are willing to give up their homes for the effort.</p> <p>Also, in the newest design, how will UDOT avoid the traffic impact of vehicles trying to turn on to the new Bluff connections to 2500? They seem too close to Antelope to avoid traffic backups during busy times.</p> <p>Thanks and I await your response. Mike Norton XXXX XXXX, Syracuse, UT XXX-XXX-XXXX ----- ----- Thanks for the response Andy.</p> <p>So last question to ask is if feedback received during this period will actually sway UDOT's decision is or if this is a step in the process that will continue with what is proposed regardless of input?</p> <p>A candid response is appreciated,</p> <p>Thanks Mike Norton ----- -----</p>	<p>Results of the noise analysis can be found in the State Environmental Study (https://westdavis.udot.utah.gov/wp-content/uploads/2020/07/Draft_SES_Antelope-Frontage-Roads_July2020.pdf) beginning on page 30. As described in the noise study, none of the five noise walls evaluated for the project was determined to be feasible and reasonable pursuant to UDOT's Noise Abatement Policy. No new noise walls are proposed as part of the Antelope Frontage Roads project.</p> <p>Thank you for your feedback on the project. UDOT has been working with the directly impacted property owners as part of the right-of-way acquisition process for the Antelope Drive widening project.</p> <p>The 2020 traffic volumes on Bluff Road are predicted to stay about the same in 2050 with the proposed frontage roads because most of the community-to-community traffic that it now serves will in the future be using the West Davis Corridor, and the frontage road will serve more as a local collector to Antelope Drive.</p> <p>Traffic modeling for the proposed frontage roads T-intersection at 2500 West also showed that the spacing is adequate to account for the predicted traffic volumes at the Antelope Drive/2500 West intersection and that the Antelope Drive/2500 West signalized intersection would operate at a level of service (LOS) B in 2050.</p> <p>-----</p> <p>UDOT is committed to designing a project that addresses the transportation need and that is safe and functional while minimizing impacts as much as possible to affected property owners. Public involvement is a key component of the process. The project team has reviewed and responded to all comments received and had additional coordination with Syracuse City to review the public comments on the Antelope Frontage Roads project. As in all transportation projects, there are many needs that must be balanced, and there will need to be some give and take to create a project that is an asset to the community.</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
		<p>Sounds good Andy. Love to know what the city staff and residents group discussed (not sure if it was recorded for review).</p> <p>Much appreciated! Mike</p> <p>-----</p> <p>-----</p> <p>Hey Andy,</p> <p>We happened to be at the park on the north side looking at this with a few neighbors. The idea for the south side of Antelope that you show below: 2500 connecting into the Bluff-S, with the latter connecting to Antelope. We think it is a really good idea.</p> <p>One question that came up on the North side of Antelope with 2500 W: Will there be a left turn lane with a right/thru lane at that intersection? The gis maps doesn't really show that or it is correct and there is only one lane. Let me know.</p> <p>If it has two lanes, or even two left EB turn lanes, I think that relieves the pressure that I think will build up on 2500 that, having lived here for 20 years, is likely to happen.</p> <p>Thanks for all the quick and personal feedback. Much appreciated! Mike Norton XXX-XXX-XXXX</p>	<p>-----</p> <p>The public hearing was in person, so there is no recording, but the essence of the suggestion is to modify intersection geometrics at the Bluff Road frontage road/2500 West/Antelope Drive convergence to have Bluff Road be the uncontrolled movement and continue Bluff Road through to Antelope in more of an S-curve fashion and then tee 2500 West into Bluff Road with a stop sign for northbound 2500 West.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p> <p>-----</p> <p>The proposed frontage/2500 West connection on the north side of Antelope Drive would have left- and right-turn lanes from the frontage road to 2500 West, but no turn lanes would be added on 2500 West. Syracuse City has jurisdiction over 2500 West and could choose to widen and add turn lanes in the future, but this is not within the scope of the UDOT project. Your suggestion regarding adding turn lanes to aid traffic flow to the park has been relayed to Syracuse City.</p>

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
Todd and Kristen Hewlett	7	<p>Hi UDOT,</p> <p>We would like to setup an in person appointment to discuss our property that is being impacted by the Antelope Drive Frontage Road. Please let me know.</p> <p>Thanks,</p> <p>Todd Hewlett XXX-XXX-XXXX</p> <p>As new plans have come out over where this road will be built, my husband and I noticed that it is proposed to be right at our backyard line. We are very unhappy and concerned about this! Not only will it be a problem during construction, but the value of our home will be diminished. We were in hopes that if this is the set plan, that you would just want to take our home! We will be happy to move! If that is negotiable we would appreciate that! We would never be able to sell our home once this gets started. We are at XXX west XXX south Syracuse Utah Kristen Hewlett</p>	<p>This commenter was provided a direct response during the public comment period, and an offer was extended to meet in person.</p> <p>UDOT cannot purchase the commenter's home because the proposed frontage road alignment does not encroach on the property and the property is not needed to construct the frontage road. Without direct impacts, there is no mechanism within UDOT's policy to justify the purchase. Other neighbors in this community are also interested in being bought out, but it would be cost-prohibitive for UDOT to purchase property from everyone who wants to be bought out. That is why UDOT's policy does not permit acquisition without direct property impacts. Unfortunately, there is no mechanism to compensate property owners for loss in property values.</p> <p>The 2020 traffic volumes on Bluff Road are expected to remain at similar levels in 2050 with the proposed Antelope Drive frontage roads. An increase in Bluff Road traffic volumes is not anticipated because most of the community-to-community traffic that it now serves will in the future be using the West Davis Corridor, and the frontage road will serve more as a local collector to Antelope Drive. The frontage road provides safer and better access to Antelope Drive compared to the connection of Bluff Road to Antelope Drive at 2625 West that was proposed as part of the West Davis Corridor Final Environmental Impact Statement. This design would not permit a traffic signal to be built at 2625 West due to spacing issues with the interchange on Antelope Drive.</p>

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
Paul McLean	8	<p>To whom it may concern,</p> <p>I would like to add my voice that I am NOT in favor of a possible roadway constructed so close to my house. I live on Lake Mesa Drive in Syracuse, two streets over from the proposed road, and I quite enjoy my quiet neighborhood as is. That is one of the reasons my family moved out this way is to escape busy traffic and reduced noise. Along with that, I do not want the trail, wildlife, and my property value impacted by a road in my backyard. I understand the potential need for new roads and infrastructure. By why can't that be done by advancing and widening Antelope Drive? Restructuring something that is already existent rather than trampling over areas that people love and enjoy.</p> <p>Consider my voice a disapproving one. Please reconsider and develop a better plan.</p> <p>-McLean Paul</p>	<p>Thank you for your comments.</p> <p>UDOT acknowledges that there are many changes to the transportation system and adjacent residential neighborhoods in this area of Syracuse due to the West Davis Corridor (WDC) project and the widening of Antelope Drive. The WDC, which will be located closer to your neighborhood, is needed to meet the long-term transportation needs of western Davis County.</p> <p>As described in the State Environmental Study, the purpose of the Antelope Frontage Roads project is to improve connectivity and mobility to the broader transportation network between Bluff Road and Antelope Drive on the east side of the WDC.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p>

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Doug McGee	9	<p>My primary concern is putting frontage road traffic into a residential subdivision. There are multiple ways they could eliminate doing that. But, again, as I said, you know, one way would be to take two more houses and make that frontage road a frontage that does not connect to 2500 South -- or, 2500 West to the south. You'd have to make a connector out of the neighborhood some other way. But they've done that before, like they did with Allison Way. They can do the same thing with 2500 West there. Concerns are with six little grandkids playing there. You see people driving through houses all the time. Well, mine is a prime target now.</p> <p>----- -----</p> <p>Hi,</p> <p>I live on the SE corner of Antelope Drive and 2500 West. My name is Doug McGee.</p> <p>We received a letter last year indicating our property had been identified for a partial purchase to support the Antelope Drive project.</p> <p>We attended the open house at Syracuse Arts Academy and were told someone would contact us. To date, no one has made any contact.</p> <p>Then, a couple of weeks ago, we got another surprise. The plan to take Bluff Road out at about 2625 West to Antelope Drive was changing and the new proposal would now take the Matt Morris home, right across the street from me, and would result in a T of Bluff and 2500 West. We attended the open</p>	<p>Traffic modeling showed that the morning and afternoon peak-hour traffic volumes on 2500 West are predicted to increase between 2020 and 2050, but would still be 100 vehicles per hour or fewer for all movements. However, the traffic volumes in 2050 on 2500 West are expected to be slightly less with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West.</p> <p>The 2020 traffic volumes on Bluff Road are predicted to stay about the same in 2050 with the proposed frontage roads because most of the community-to-community traffic that it now serves will in the future be using the West Davis Corridor, and the frontage road will serve more as a local collector to Antelope Drive.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p> <p>UDOT apologizes for the delay in contacting this property owner. UDOT can confirm that we will need to purchase a section of the commenter's property near Antelope Drive. UDOT right-of-way representatives have not contacted the commenter because the final design has not been completed for the area that will impact the</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

	<p>house, once again, and voice our concerns at that time.</p> <p>Again, no communication at all has taken place with any of the potential impactees of this new proposal.</p> <p>This is the biggest fault of this whole mess. Nobody is communicating with those who are potentially being impacted.</p> <p>I need to know if my property is still identified as being a partial purchase as was noted last year. Also, with the new proposal dumping all the Bluff Road traffic onto 2500 West, what homes are now going to be impacted? Will my home and property be more impacted by the new Bluff Road proposal? If so, how much more impact? Should I start looking for another home? Or will I still just lose part of my property adjacent to Antelope Drive? And if so, how much are you planning on taking?</p> <p>I really need to hear from someone! Soon!!!!</p> <p>You people come in and bulldoze people's lives over with your notices but never communicate to give people time to plan. Come on! Have someone call. Or send an email (you now have my phone number(s) and my email address (see my signature block below).</p> <p>Silence is NOT golden!</p> <p>--</p>	<p>commenter's property. UDOT right-of-way representatives will contact the commenter once the necessary final design information is available.</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
		Doug ----- Name: Doug McGee XXX XXX Syracuse, UT 84075 E-mail: <u>XXX</u> Home: XXX-XXX-XXX Cell: XXX-XXX-XXXX Wife Karen: XXX-XXX-XXXX	

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

<p>Elizabeth and Thomas Dixon</p>	<p>10</p>	<p>So our concerns are that our property is the 1761 South property that would be bordering this proposal. We're concerned because we just bought the house and it would be becoming a corner lot. I'm concerned about property values and how those would be affected, and also just the safety there because it is just such a narrow street, just how that would affect traffic going southbound, if they would turn into the neighborhood and miss the turn to go to the left.</p> <p>----- -----</p> <p>As we've spoken with several neighbors about the changes coming to the neighborhood, including the proposal to move the exit of Bluff from it's original plan as shown on the map, a few things have occurred to us. The neighbors bordering Antelope are not happy with the increase of noise the widening of Antelope will bring, nor the connecting of Bluff to the neighborhood at 2500 w. We realize if there are 2 lights, as in the original plan it will slow traffic on Antelope - this may be the solution the neighborhood is looking for! 2 lights (1 at 2500 w and 1 on the formerly Anderson property) will separate the frontage road from the neighborhood, slow traffic and create less noise from Antelope and eliminate the need to take more homes. Our neighborhood has been severely impacted from these road projects. Many of the people have been here for more than 15 years, have much invested in their home and have put down roots. This may be a good solution to keep the same quiet feel the neighbors moved here for. Just a thought that may</p>	<p>After the initial comment, UDOT confirmed with the commenter that the "formerly Anderson property" is the property located at 2653 W. Antelope Drive. This is the location where the West Davis Corridor (WDC) Final Environmental Impact Statement (EIS) design had proposed to connect Bluff Road to Antelope Drive. The WDC Final EIS design assumed that Antelope Drive would be its current width and not widened east of 2625 West. The Final EIS stated that the 2625 West/Antelope Drive intersection could potentially warrant a traffic signal, but this would need to be determined during final design with more traffic modeling.</p> <p>The WDC Final EIS design and the Antelope Drive widening project designs did not propose a traffic signal at the 2625 West/Antelope Drive intersection due to its close proximity to the WDC/Antelope Drive interchange ramps. The WDC Final EIS design and the Antelope Drive widening project designs at the 2625 West/Antelope Drive intersection assumed stop signs for 2625 West with right-in/right-out movements on both the north and south sides of Antelope Drive.</p> <p>UDOT and Federal Highway Administration roadway design standards recommend that traffic signals not be placed less than a quarter-mile apart as doing so leads to increased traffic congestion. This prohibits a signal from being placed at the 2625 West/Antelope Drive intersection. The proposed Antelope Drive frontage roads are needed to provide a connection to 2500 West where drivers could access both eastbound and westbound Antelope Drive from the traffic signal and still be far enough away from the WDC/Antelope Drive interchange traffic signal to facilitate efficient traffic flow.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

	<p>make the majority of the neighbors happy! Thank you</p> <p>-----</p> <p>-----</p> <p>Thank you for the clarification. Many of us neighbors were under the impression that there would be a light at 2625 w., originally. At the meeting, it was proposed to take my neighbor's house with the new proposal (someone from UDOT has already called them to let them know this would most likely be happening) and possibly our home as well. We are still waiting to hear if that is serious or not. My home is located at 1761 s 2500 w. We just purchased it at the end of June. Could you tell me anything about that? Thank you for your response!</p> <p>Thank you for the additional information. There have been many aspects of this project which have been unclear to us. Our previous home was just purchased by UDOT at 2533 w 1700 s. (Antelope). We purchased the property at 1761 s 2500 w not knowing that there was a plan to take our neighbor's home to the north, putting us in close proximity to the frontage road. We are concerned because we know the busy road will affect property value - because our property value at our previous home on Antelope was affected by being next to a busy road. We were told this specifically by UDOT.</p> <p>I spoke with Rex Harris at the 5:00 meeting I attended (July 15th) and he said there was a possibility our home would be acquired, especially since we are unhappy that plans have changed from the information we were</p>	<p>volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p> <p>-----</p> <p>The proposed Antelope Frontage Roads would not have any direct impact on your property. UDOT cannot purchase your home because the proposed frontage road alignment does not encroach on the property, and the property is not needed to construct it. Without direct impacts, there is no mechanism within UDOT's policy to justify the purchase. Other neighbors in this community are also interested in being bought out, but it would be cost-prohibitive for UDOT to purchase property from everyone who wants to be bought out. That is why UDOT's policy does not permit acquisition without direct property impacts. Unfortunately, there is no mechanism to compensate property owners for loss in property values.</p> <p>The home north of your home would need to be purchased by UDOT for the proposed frontage roads. As you mentioned, UDOT has spoken with that property owner. Information presented at the hearing is available here: https://westdavis.udot.utah.gov/antelope-drive-frontage-roads-state-environmental-study/.</p> <p>-----</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
		<p>originally given to make a home purchase off of when our previous home was acquired. Is there a specific person we need to talk to about this possibility and our situation?</p> <p>Thank you for your time,</p> <p>Thomas and Elizabeth Dixon XXX-XXX-XXXX</p>	

Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

<p>Michael McBride</p>	<p>11</p>	<p>I'm the principal owner of Glen Eagle Golf Club and Sun Quest Development, which is the property that UDOT is going to impact on 3000 West and Antelope Drive. So my concern is that the traffic on Antelope Drive currently is very heavy. It's very difficult to actually make left turns onto Antelope from the side roads, especially from Doral Drive or any of those others. And what UDOT is saying is that there's 9,000 new cars that are going to be on Antelope going west for this interchange in the future when this highway opens. And they're not going to widen Antelope or put turn lanes or anything in on Antelope beyond the Glen Eagle Golf Club parking lot. So all of those intersections west of that, including the one that is at the Buffalo Point intersection, which is Doral Drive, and there are two more east of that, are very difficult during heavy times of the day, like in the morning at rush hour, in the afternoon at rush hour, when the kids are going to and from school to actually get on to Antelope drive. When they add another 9,000 cars a day, it's going to make it almost impossible. So my suggestion would be that they look at widening Antelope further west than they are currently looking, at least down through Doral, to where that elementary school intersection is, so that they can put a turn lane, at least a turn lane, left turn lane in on Antelope. I think they can do that without actually expanding the right-of-way. I think it would accommodate at least three lanes. So they could put a turn lane there and let all of those left turns get out of the way. And they need to put a traffic light on Doral Drive and Antelope, for when the school is in session. The traffic going to and from the school</p>	<p>Thank you for the comment and interest in the project.</p> <p>There are not currently any projects included in the Wasatch Front Regional Council's 2019 to 2050 <i>Wasatch Front Regional Transportation Plan</i> to widen Antelope Drive west of the West Davis Corridor (WDC)/Antelope Drive interchange. Phase 3 of the <i>Regional Transportation Plan</i> does include an operational project for the segment of Antelope Drive between the WDC and 4500 West. The operational project could include activities such as adding signals or turn lanes.</p> <p>Traffic modeling for the UDOT Antelope Widening project showed that Antelope Drive west of 3000 West would operate at an acceptable level of service (LOS D or better) in 2050 during both the morning and evening peak periods. Because the level of service in 2050 would be acceptable, there is not currently a need to widen Antelope Drive west of 3000 West.</p>
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Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
		<p>across Antelope right there, and the kids can all cross Antelope Drive at that point with crossing guards that are being safe with traffic.</p>	
Jamie Lidelle	12	<p>Jamie called Andy on July 15 to submit comments on the Antelope Drive Frontage Road SES. As a former resident on 2500 W., she has concerns about realigning the frontage road to 2500 W. She feels it is too narrow and unsafe to accommodate additional traffic. There are also young children in the area and she is concerned for their safety with increased traffic.</p>	<p>Traffic modeling showed that the morning and afternoon peak-hour traffic volumes on 2500 West are predicted to increase between 2020 and 2050, but would still be 100 vehicles per hour or fewer for all movements. However, the traffic volumes in 2050 on 2500 West are expected to be slightly less with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West.</p> <p>UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p>

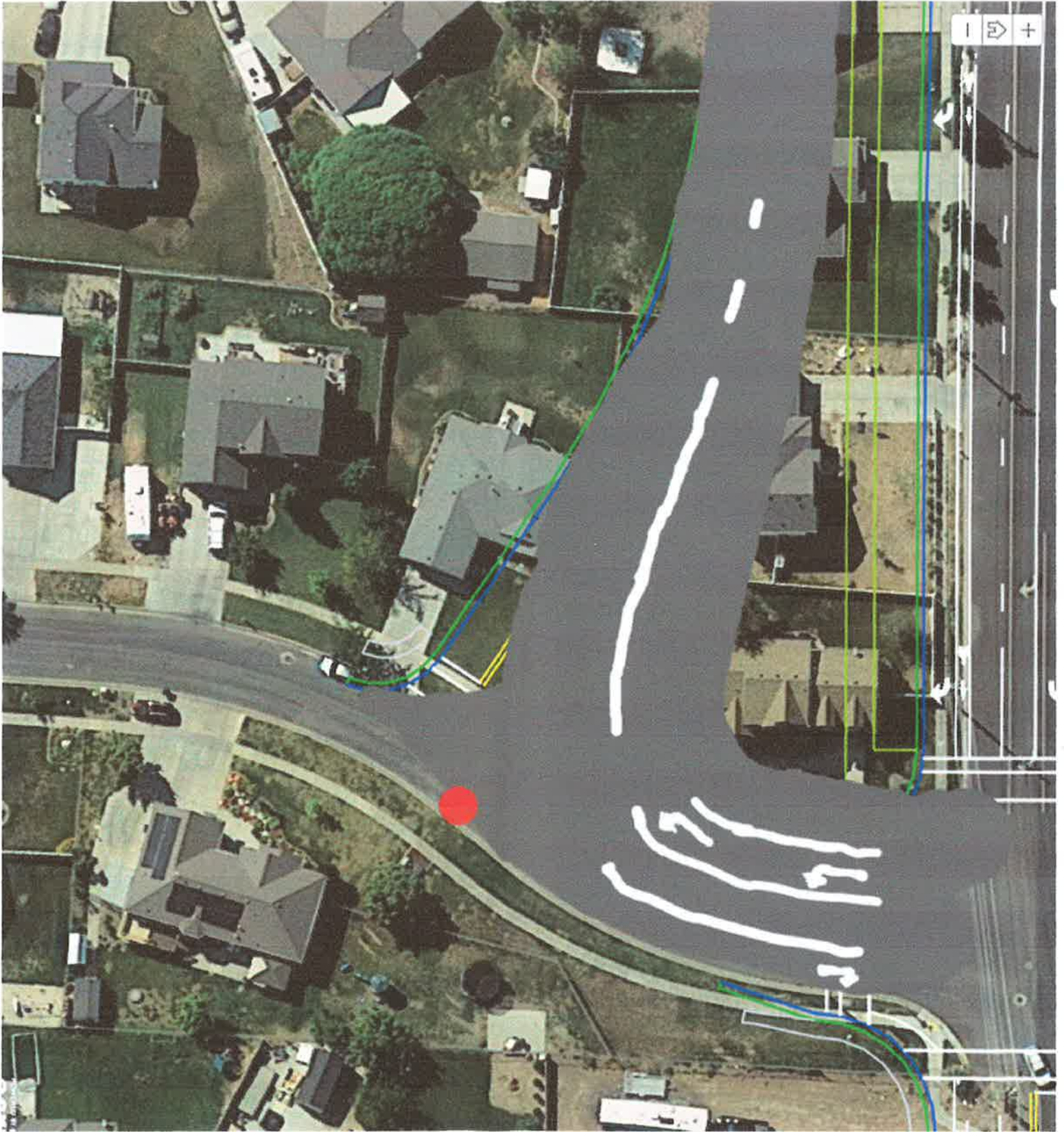
Public Comments on Antelope Drive Frontage Roads SES

July 9 to August 7, 2020

Name	Number	Comment	Response
Patrick Carroll	13	<p>I'm concerned about the traffic on 2500 W. going south not making the right turn onto Bluff Road. 2500 W. is narrow with many children. Cars on Bluff will also cut through the subdivision increasing traffic.</p> <p>My solution is to take Bluff Road all the way to the light and bring 2500 W. to a tee. This can be done with options as pictured below.</p> <p>Attachments <intersection diagram> <two pictures included></p>	<p>Traffic modeling showed that the morning and afternoon peak-hour traffic volumes on 2500 West are predicted to increase between 2020 and 2050, but would still be 100 vehicles per hour or fewer for all movements. However, the traffic volumes in 2050 on 2500 West are expected to be slightly less with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West.</p> <p>In response to comments provided by the public as part of the Antelope Frontage Roads project public comment period, UDOT evaluated two additional options for the connection from Bluff Road to 2500 West on the south side of Antelope Drive. Based on this evaluation, UDOT determined that the Draft SES design with a T-intersection with a stop sign on the eastbound frontage road was the preferred option. This conclusion was determined based on the traffic analysis summarized in Appendix E: 2500 W./ South Frontage Road Options Technical Report, which showed that the traffic volume on 2500 West in 2050 with the frontage road connection to 2500 West is not expected to increase compared to the traffic volume in 2050 on 2500 West without the frontage road connection. Additionally, the conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way. More details are included in Appendix E: 2500 W./ South Frontage Road Options Technical Report.</p>



1



202

Antelope Frontage Roads State Environmental Study Public Hearing and Comment Summary July – August 2020

- In-Person Public Hearing (by appointment only) held July 15, 2020 from 4 p.m. to 7 p.m. at Syracuse City Hall (1979 West 1900 South, Syracuse, UT)
- Attendance: 10
 - 8 residents on 2500 West and close vicinity
 - 2 reps from Glen Eagle Golf Course
 - (2 city council members)
- Comments (13)
 - Hearing Written: 1
 - Hearing Court Reporter: 3
 - Phone: 1
 - Email: 8
- Comment Themes
 - Safety
 - Traffic Operations
 - Property Impacts/Values
 - Noise
 - Sidewalks/Landscaping
 - Trail Access
- Public Comment Period: July 9, 2020 – August 7, 2020
- Virtual Public Open House available online had 559 hits during the comment period.

**NOTICE OF PUBLIC HEARING FOR THE
ANTELOPE DRIVE (SR-127) FRONTAGE ROADS STATE ENVIRONMENTAL STUDY**

The Utah Department of Transportation (UDOT) is planning to construct the West Davis Corridor (WDC) project to include a single-point urban interchange (SPUI) on Antelope Drive just west of Bluff Road. UDOT has another project to widen Antelope Drive to two lanes in each direction between the WDC and 2000 West. The WDC Antelope Drive SPUI and Antelope Drive widening projects were evaluated in previous UDOT environmental studies. To meet additional needs around Antelope Drive, UDOT has prepared a separate State Environmental Study (SES) to consider the removal of the previously planned intersection at Antelope Drive and 2625 West and is proposing to construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 South Bluff Road and connect to 2500 West at 1624 South 2500 West. A public comment period has been established from July 9 through August 7, 2020 to collect public feedback on this proposal. Further, in accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), UDOT is providing an opportunity for the public to comment on the finding of Adverse Effect to historic properties for the subject project. Environmental Study documentation, including an online open house and online comment submission will be available on the WDC website (westdavis.udot.utah.gov) beginning July 9, 2020. An in-person, by appointment only, public hearing will be held Wednesday, July 15, 2020 from 4:00 – 7:00 PM at Syracuse City Hall (1979 West 1900 South, Syracuse, UT). To schedule an in-person appointment, contact the Public Information Team at 877-298-1991 or westdavis@utah.gov. Public comments can also be submitted via email to westdavis@utah.gov or postal mail to the WDC Project Office - 801 North 500 West, 3rd Floor Bountiful, UT 84010.

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START 07/01/2020 END 07/08/2020

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West Davis Corridor

CAPTION

NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE RC

SIZE

46 LINES 2 COLUMN(S)

TIMES

6

TOTAL COST

314.12

NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE ROADS STATE ENVIRONMENTAL STUDY
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AS NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE ROADS STATE ENVIRONMENTAL STUDY The Utah Department of Transportation (UDOT) is planning to FOR PENNA POWERS, WAS PUBLISHED BY THE NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP, AGENT FOR DESERET NEWS AND THE SALT LAKE TRIBUNE, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINITELY. COMPLIES WITH UTAH DIGITAL SIGNATURE ACT UTAH CODE 46-2-101; 46-3-104.

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DATE 7/8/2020

SIGNATURE

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BY LENEA TAPUSOA



NOTARY PUBLIC SIGNATURE

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West Davis Corridor

CAPTION

NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE RC

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46 LINES 2 COLUMN(S)

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AFFIDAVIT OF PUBLICATION

AS NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP LEGAL BOOKER, I CERTIFY THAT THE ATTACHED ADVERTISEMENT OF **NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE ROADS STATE ENVIRONMENTAL STUDY** The Utah Department of Transportation (UDOT) is planning to FOR **PENNA POWERS**, WAS PUBLISHED BY THE NEWSPAPER AGENCY COMPANY, LLC dba UTAH MEDIA GROUP, AGENT FOR DESERET NEWS AND THE SALT LAKE TRIBUNE, DAILY NEWSPAPERS PRINTED IN THE ENGLISH LANGUAGE WITH GENERAL CIRCULATION IN UTAH, AND PUBLISHED IN SALT LAKE CITY, SALT LAKE COUNTY IN THE STATE OF UTAH. NOTICE IS ALSO POSTED ON UTAHLEGALS.COM ON THE SAME DAY AS THE FIRST NEWSPAPER PUBLICATION DATE AND REMAINS ON UTAHLEGALS.COM INDEFINITELY. COMPLIES WITH UTAH DIGITAL SIGNATURE ACT UTAH CODE 46-2-101; 46-3-104.

PUBLISHED ON Start 07/01/2020 End 07/08/2020

DATE 7/8/2020

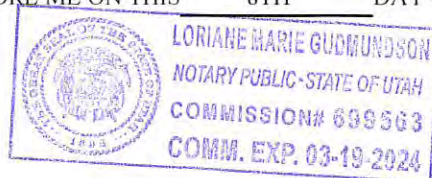
SIGNATURE

STATE OF UTAH)

COUNTY OF SALT LAKE)

SUBSCRIBED AND SWORN TO BEFORE ME ON THIS 8TH DAY OF JULY IN THE YEAR 2020

BY LENEA TAPUSOA



NOTARY PUBLIC SIGNATURE

LEGAL NOTICES

ANNOUNCEMENT OF APPOINTMENT AND NOTICE TO CREDITORS

In the Matter of the Estate of Holly Hansen, Deceased. Probate No. 203700265

Adele Hansen, whose address is c/o Jonathan Miller, 10 Exchange Place 11th Floor, Salt Lake City, UT 84111, has been appointed Personal Representative of the above-entitled estate. Creditors of the estate are hereby notified to (1) deliver or mail their written claims to the Personal Representative or her attorney of record at the address above; or (2) file their written claims with the Clerk of the District Court in Davis County, or otherwise present their claims as required by Utah law within three months after the date of the first publication of this notice or be forever barred.

Date of first publication: June 26, 2020.

Jonathan Miller
10 Exchange Place, 11th Floor
Salt Lake City, Utah 84111
Email: jgm@scmlaw.com
C-5143 6/26-7/10

NOTICE OF PUBLIC HEARING AND BONDS TO BE ISSUED

PUBLIC NOTICE IS HEREBY GIVEN pursuant to the provisions of the Local Building Authority Act, Title 17D, Chapter 2, Utah Code Annotated 1953, as amended (the "Utah Code"), the Local Government Bonding Act, Title 11, Chapter 14, Utah Code, and the Utah Refunding Bond Act, Title 11, Chapter 27, Utah Code, that on June 16, 2020, the Municipal Building Authority (the "Authority") of Davis County, Utah (the "County") adopted a resolution (the "Resolution") declaring its intention to authorize the issuance of its Lease Revenue and Refunding Bonds, Series 2020 (to be issued in one or more series and with any designated title(s) determined by the Authority, collectively, the "Bonds"), and calling a public hearing to receive input from the public with respect to the issuance of the Bonds.

TIME, PLACE AND LOCATION OF PUBLIC HEARING

The Authority shall hold a public hearing on Tuesday, July 21, 2020, at the hour of 4:00 p.m. The location of the public hearing is at the County offices located at 61 South Main Street, Utah, but may be held electronically. Please call 801-451-3200 prior to the meeting to determine whether the meeting will be electronic and, if so, instructions on how to participate. The purpose of the hearing is to receive input from the public with respect to: (a) the proposed Bonds, and (b) any potential economic impact that the improvements, facility or property financed in whole or in part with the proceeds of the Bonds may have on the private sector. All members of the public are invited to attend and participate.

PURPOSE FOR ISSUING BONDS

The Authority intends to issue the Bonds to provide funds to finance all or a portion of the renovation of the County courthouse (the "Project") for lease to the County, refund outstanding lease revenue bonds of the Authority (the "Refunded Bonds"), (c) fund any required debt service reserve fund, if necessary, and (d) pay costs associated with the issuance of the Bonds.

PARAMETERS OF THE BONDS

The Authority intends to issue the Bonds in the principal amount of not to exceed Twenty-Four Million Three Hundred Thousand Dollars (\$24,300,000) (with approximately \$7,500,000 for the Project and approximately \$16,800,000 for the refunding of the Refunded Bonds), to bear interest at a rate or rates of not to exceed five and one-half percent (5.50%) per annum, to mature in not more than twenty-five (25) years from their date or dates, and to be sold at a price not less than ninety-eight percent (98%) of the total principal amount thereof, plus accrued interest to the date of delivery.

The Bonds are to be issued and sold by the Authority pursuant to the Resolution, including as attachments to said Resolution a form of a General Indenture of Trust and a Supplemental Indenture of Trust (collectively, the "Indenture") and a form of a Master Lease Agreement (the "Lease"), which were before the Authority at the time of the adoption of the Resolution. The Indenture and the Lease are to be executed by the Authority and/or the County with such terms and provisions and any changes thereto as shall be approved by the Authority and the County at the time of adoption of final bond resolutions.

SECURITY FOR THE BONDS

The Bonds are payable solely from the rents, revenues and other income received by the Authority from the leasing of the Project to the County on an annually renewable basis (the "Lease Revenues").

OUTSTANDING BONDS SECURED BY LEASE REVENUES

LEGAL NOTICES

The Authority does not currently have any bonds outstanding secured by the Lease Revenues for this Project; however the Authority has lease revenues bonds currently outstanding in the principal amount of \$16,380,000 for various projects that the Authority has leased to the County.

OTHER OUTSTANDING BONDS OF THE AUTHORITY

Information regarding all of the Authority's outstanding bonds may be found in the Authority's audited financial report (the "Financial Report") at: <http://secure.utah.gov/auditor-search/>. For additional information, including any information more recent than as of the date of the Financial Report, please contact the County Clerk/Auditor at (801) 451-3213.

TOTAL ESTIMATED COST

Based on an estimate of the current interest rate and financing plan, the estimated total debt service cost of the Bonds related to the Project, if held until maturity is \$8,850,525.

A copy of the Resolution and the forms of Indenture and the Lease are on file in the office of the County Clerk/Auditor, at 61 South Main Street, in Farmington, Utah, where they may be examined during regular business hours from 8:00 a.m. to 5:00 p.m. for a period of at least thirty (30) days from and after the last date of publication of this notice.

NOTICE IS FURTHER GIVEN that a period of thirty (30) days from and after the date of the publication of this notice is provided by law during which (i) any person in interest shall have the right to contest the legality of the Resolution, the Indenture (only as it pertains to the Bonds), the Lease, or the Bonds, or any provision made for the security and payment of the Bonds, and that after such time, no one shall have any cause of action to contest the regularity, formality, or legality thereof for any cause whatsoever and (ii) registered voters within Davis County, Utah may sign a written petition requesting an election to authorize the issuance of the Bonds. If written petitions which have been signed by at least 20% of the registered voters of Davis County, Utah are filed with the Issuer during said 30-day period, the Issuer shall be required to hold an election to obtain voter authorization prior to the issuance of the Bonds. If fewer than 20% of the registered voters of Davis County, Utah file a written petition during said 30-day period, the Issuer may proceed to issue the Bonds without an election.

DATED this June 16, 2020.

/s/ Curtis Koch

Secretary of the Municipal
Building Authority of Davis County, Utah
C-5135 6/26-7/3

NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE ROADS STATE ENVIRONMENTAL STUDY

The Utah Department of Transportation (UDOT) is planning to construct the West Davis Corridor (WDC) project to include a single-point urban interchange (SPUI) on Antelope Drive just west of Bluff Road. UDOT has another project to widen Antelope Drive to two lanes in each direction between the WDC and 2000 West. The WDC Antelope Drive SPUI and Antelope Drive widening projects were evaluated in previous UDOT environmental studies. To meet additional needs around Antelope Drive, UDOT has prepared a separate State Environmental Study (SES) to consider the removal of the previously planned intersection at Antelope Drive and 2625 West and is proposing to construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 South Bluff Road and connect to 2500 West at 1624 South 2500 West. A public comment period has been established from July 9 through August 7, 2020 to collect public feedback on this proposal. Further, in accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), UDOT is providing an opportunity for the public to comment on the finding of Adverse Effect to historic properties for the subject project. Environmental Study documentation, including an online open house and online comment submission will be available on the WDC website (westdavis.udot.utah.gov) beginning July 9, 2020. An in-person, by appointment only, public hearing will be held Wednesday, July 15, 2020 from 4:00 – 7:00 PM at Syracuse City Hall (1979 West 1900 South, Syracuse, UT). To schedule an in-person appointment, contact the Public Information Team at 877-298-1991 or westdavis@utah.gov. Public comments can also be submitted via email to westdavis@utah.gov or postal

LEGAL NOTICES

mail to the WDC Project Office - 801 North 500 West, 3rd Floor Bountiful, UT 84010. C-5153 7/3-10

NOTICE TO WATER USERS

The applications below were filed with the Division of Water Rights in Davis County. These are informal proceedings per Rule 655-6-2. Protests concerning an application must be legibly written or typed, contain the name and mailing address of the protesting party, STATE THE APPLICATION NUMBER PROTESTED, CITE REASONS FOR THE PROTEST, and REQUEST A HEARING, if desired. Also, A \$15 FEE MUST BE INCLUDED FOR EACH APPLICATION PROTESTED. Protests must be filed with the Division of Water Rights on or before Jul. 23, 2020 either electronically using the Division's on-line Protest of Application form, by hand delivery to a Division office, or by mail at PO Box 146300, Salt Lake City, UT 84114-6300. Please visit waterrights.utah.gov or call (801)538-7240 for additional information. NONUSE APPLICATION(S)

31-5102 (A67043): Joseph K. Peterson is/are seeking a nonuse period for 1.4 ac-ft. from groundwater (West Farmington) for STOCKWATERING.

Teresa Wilhelmsen, P.E., State Engineer
C-5133 6/26-7/3

KAYSVILLE CITY CORPORATION ADVERTISEMENT FOR BID PEDESTRIAN BRIDGE – EAST MOUNTAIN WILDERNESS PARK RFB 06-20

Date: June 22, 2020

Contact Information: Cole R. Stephens, Parks & Recreation Director – Kaysville Parks and Recreation
85 North 100 East, Kaysville, UT 84037
office phone 801-546-4046, cell phone 801-430-2869, email cstephens@kaysvillecity.com

Bid Packets: Bid documents can be picked up at Kaysville Parks and Recreation 85 N 100 E., M-Th 9:00am to 5:00pm F 9:00am to 1:00pm. Online at BidSync or <http://www.kaysvillecity.com/departments-services/administration-finance/contracts/bids>

Bid Due: Bids will be received at the Kaysville City Parks and Recreation, located at 85 North 100 East Center Street, until **July 21, 2020 at 2:00 PM**, local time.

Bid Opening: **July 21, 2020 at 2:00pm**, local time. Locations: Kaysville Parks and Recreation 85 N 100 E.

Pre-Bid Meeting: Kaysville City invites you to attend a pre bid meeting on **July 8, 2020 at 2:00pm**. The location of this meeting will be East Mountain Wilderness Park (parking lot) 1625 E. 650 N. Kaysville, UT 84037.

Bid Awarded: Anticipated August 6, 2020

Construction Timeline: Late summer/fall 2020

For any additional questions or comments please contact me at the information listed above. C-5150 7/3

Announcement of Appointment and Notice to Creditors

Estate of Adam Hogan Olson.

Case Number 203700273

Jan Olson, has been appointed personal representative of this estate. All persons having claims against the decedent must present their claims in writing within three months after the date of the first publication of this notice or the claims will be forever barred. Written claims may be: Delivered or mailed to the personal representative or their attorney at the address below, or Filed with the Clerk of the District Court in Davis County.
Date of first publication: July 3, 2020.

Jan Olson

Personal Representative
14075 South Bangerter Parkway, #420
Draper, Utah 84020
Jano8166@gmail.com
801-502-1456
Dated: June 12, 2020
C-5152 7/3-17

NOTICE OF AUCTION

In accordance with section 38-8-3 of the Utah state code, Cubes Self Storage will have an auction on July 25th 2020 at 9:30 a.m. at storagetreasures.com for said property that has been stored at 620 S 200 W Bountiful UT 84010 in Davis County.
Unit # 2306: James Murphy: 944 E 5014 S Salt Lake City UT 84117. Unit # 3310 Andrea Kerr: 562 S 850 E Centerville UT 84014. C-5151 7/3

Services

SEAMLESS ALUMINUM RAIN GUTTERS Siding, painting, deck and fence repairs, tile, drywall repair. Lic/Ins. Call Jason 801-808-7056 www.go2jasonhansen.com

CONCRETE

Patios, driveways, RV Pads, walks. Lic/Ins. Small jobs okay. References, Senior discount. Call Dan 801-518-7265

MILITARY PLUMBER 30 years of experience. Will fix replace or install toilets, sinks, faucets, dishwashers, water heaters Call 801-598-0700 for free estimate.

550 Condo for Rent

NICE BNTFL Townhome, 3bd, 2bth, Near Rec. Center. 1910sqft, 2/family rooms, 1/car garage. \$1300/mo, No Pets/Smokers. Call 801-809-5997.

Yard Work

SPRING IS COMING! LET US CLEAN YOUR YARD, MOW YOUR LAWN. CALL US TODAY! 801-755-7706 or 801-295-8095.

PRO LANDSCAPING

General cleanup. Flower beds, shrub removal, weeding, complete tree service. clean and haul. **WE DO IT ALL!!!** Free estimates. 801-888-1883

FISO & SON LANDSCAPING

Small business in Davis County with their priority to make your yard look the best. Weekly mowing, edging, weeding, shrubs and junk removal, tree cutting and trimming! Call or text Ephraim for a free bid. 801-725-5268.

MIKA LANDSCAPE

All Kinds of landscaping, clean up, trees, sprinklers system, sod. All kinds of concrete. Free est. 801-708-9965.

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AKA Peartfection, Lawn Mowing, Tilling, Aeration. **Never Too Early to Aerate.** Call Kerry 801-231-7364 Serving since 1986

GENERAL CLEAN UP!

South Davis Area. TREES, SHRUBS, MOWING, hedges, flower beds, railroad ties, sod, landscape rocks, tree trimming/removal, garage and shed clean-up, hauling, concrete flat work. Affordable rates, references. Senior Discount. Dan 801-518-7365.

Yard Work

YARD CARE Services! We would love to take care of your yard for you. We do aeration, lawn maintenance, weeding, gardening, sprinkler work & repair, landscaping. Call today for a Free estimate. 801-755-7706 or 801-295-8095.

TREE TRIMMING & Removal

Affordable Service South Davis Area. Trees, shrubs and hedges, Mowing Summer Cleanup, Hauling, Concrete Flat Work. References, Senior Discount. Call Dan 801-518-7365

JAMES & BILL'S LANDSCAPING

General clean-up, Trees trimming & removal, shrubs, hedges, mowing, hauling, sod, sprinkling system, concrete, flat work. 385-299-2566 or 801-472-6743. putenister@gmail.com

AFFORDABLE LANDSCAPING & Tree Service. Edging, trimming, pruning tree, trim hedges, stump removal, Landscape, Haul away. Concrete work, block wall, driveways. 25% discount. Tin 801-502-1919.



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- **Flower beds, shrub removal & weeding**
- **Complete tree services**

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385-444-8720

LEGAL NOTICES

Announcement of Appointment and Notice to Creditors
Estate of Adam Hogan Olson.
Case Number 203700273

Jan Olson, has been appointed personal representative of this estate. All persons having claims against the decedent must present their claims in writing within three months after the date of the first publication of this notice or the claims will be forever barred. Written claims may be: Delivered or mailed to the personal representative or their attorney at the address below, or Filed with the Clerk of the District Court in Davis County.
Date of first publication: July 3, 2020.

Jan Olson

Personal Representative
14075 South Bangerter Parkway, #420
Draper, Utah 84020
Jano8166@gmail.com
801-502-1456
Dated: June 12, 2020
C-5152 7/3-17

ANNOUNCEMENT OF APPOINTMENT AND NOTICE TO CREDITORS

Probate No. 203700256 State of Utah SECOND JUDICIAL DISTRICT COURT DAVIS COUNTY

In the matter of the Estate of Ronald Gene Phillips Chad B. Phillips whose address is 1627 South 35 East, Bountiful, Utah 84010 has been appointed Personal Representative of the above estate. Creditors of the estate are hereby notified to deliver or mail their written claims to the Personal Representative at the address above or to his attorney of record, Kenneth L. Reich, 8 East Broadway Suite 410, Salt Lake City, UT 84111 or file their written claims with the Clerk of the Second District Court at 800 West State Street, P. O. Box 769, Farmington, UT 84025, or otherwise present their claims as required by Utah law within three months after the date of the first publication of this notice or be forever barred. Dated this July 10, 2020.

/s/ **Chad B. Phillips**
/s/ **Kenneth L. Reich**
C-5158 7/10-24

SUMMONS BY PUBLICATION

Civil No. 190701071
Judge Thomas L. Kay
Tier 1 Discovery

IN THE SECOND JUDICIAL DISTRICT COURT, STATE OF UTAH

DAVIS COUNTY, FARMINGTON DEPARTMENT

HORIZON CREDIT UNION,
Plaintiff,

v.
CARLOS H. CONTRERAS,
Defendant.

THE STATE OF UTAH TO DEFENDANT CARLOS H. CONTRERAS:

You are hereby summoned and required to file an answer in writing to the Complaint in the above-captioned case. Your answer must be filed with the Clerk of the Second Judicial District Court of Davis County, State of Utah, located at 800 West State Street, P.O. Box 769, Farmington, Utah 84025, within twenty-one (21) days after final publication of this Summons. Within that same period of time, you must also serve or mail a copy of the answer to Richard C. Terry, attorney for Plaintiff, at 311 South State Street, Suite 450, Salt Lake City, Utah 84111. If you fail so to do, judgment by default will be taken against you for the relief

LEGAL NOTICES

demand in said Complaint, which has been filed with the Clerk of the above-captioned court.

The causes of action alleged against you in the Complaint is breach and unjust enrichment of loan agreement in the total amount of \$12,273.09 as of September 30, 2019, plus after accruing interest at the contract rate, fees and costs until paid in full. The Clerk of the above-described Court is holding copies of the Complaint, this Summons, and the Court's Order for Service of Process by Publication and Mailing in the Court's file for delivery to you should you request the same, and you may obtain a copy of these items by requesting them from the Clerk. DATED this 16th day of June, 2020.

TERRY JESSOP & BITNER

Attorneys for Plaintiff
By: /s/ Richard C. Terry
C-5134 6/26-7/17

NOTICE OF PUBLIC HEARING FOR THE ANTELOPE DRIVE (SR-127) FRONTAGE ROAD STATE ENVIRONMENTAL STUDY

The Utah Department of Transportation (UDOT) is planning to construct the West Davis Corridor (WDC) project to include a single-point urban interchange (SPUI) on Antelope Drive just west of Bluff Road. UDOT has another project to widen Antelope Drive to two lanes in each direction between the WDC and 2000 West. The WDC Antelope Drive SPUI and Antelope Drive widening projects were evaluated in previous UDOT environmental studies. To meet additional needs around Antelope Drive, UDOT has prepared a separate State Environmental Study (SES) to consider the removal of the previously planned intersection at Antelope Drive and 2625 West and is proposing to construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 South Bluff Road and connect to 2500 West at 1624 South 2500 West. A public comment period has been established from July 9 through August 7, 2020 to collect public feedback on this proposal. Further, in accordance with the *Programmatic Agreement between the UDOT and the Utah State Historic Preservation Officer Regarding Implementation of U.C.A. 9-8-404 for State Funded Transportation Projects in Utah* (renewed January 22, 2018), UDOT is providing an opportunity for the public to comment on the finding of Adverse Effect to historic properties for the subject project. Environmental Study documentation, including an online open house and online comment submission will be available on the WDC website (westdavis.udot.utah.gov) beginning July 9, 2020. An in-person, by appointment only, public hearing will be held Wednesday, July 15, 2020 from 4:00 – 7:00 PM at Syracuse City Hall (1979 West 1900 South, Syracuse, UT). To schedule an in-person appointment, contact the Public Information Team at 877-298-1991 or westdavis@utah.gov. Public comments can also be submitted via email to westdavis@utah.gov or postal mail to the WDC Project Office - 801 North 500 West, 3rd Floor Bountiful, UT 84010. C-5160 7/10

SUMMONS FOR PUBLICATION

Case Number 203700193
Judge Edwards
VALERIE PEREZ, Petitioner

v.
BRENDA MENDEZ, Respondent

The State of Utah to: Brenda Mendez

A lawsuit has been started against you. You must respond in writing for the court to consider your side. You can find an Answer form on the court's website: www.utcourts.gov/howto/answer/. You must file your Answer with this court: 2nd Judicial District Davis County, 28 E. State Street, Farmington, Utah 84025. You must also email, mail or hand deliver a copy of your Answer to the other party or their attorney: Valerie Perez, 679 Percival Street, North Salt Lake City, Utah 84054. Your response must be filed with the court and served on the other party within 30 days of the last day of this publication, which is July 31, 2020. If you do not file and serve an Answer by the deadline, the other party can ask the court for a default judgment. A default judgment means the other party wins, and you do not get the chance to tell your side of the story. Read the complaint or petition carefully. It explains what the other party is asking for. You are being sued for guardianship of Mariana Alotaya and Santino Alotaya. C-5159 7/10-31

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CLASSIFIED DEADLINE MON, 4 P.M.

LEGAL DEADLINE MON, 4 P.M.





ANTELOPE DRIVE FRONTAGE ROADS STATE ENVIRONMENTAL STUDY

WE WANT TO HEAR FROM YOU

Over the last year, UDOT has been working on pre-design for the construction of the West Davis Corridor project, to begin Spring 2021. During this time, UDOT has been studying a potential change to the Bluff Road connections to Antelope Drive in Syracuse.

We invite you to review the proposed alignment changes, draft environmental state study and provide your official comments by participating in a virtual open house available now on the project website: westdavis.udot.utah.gov.

Comments can be submitted via the following:

-  **Project website:** westdavis.udot.utah.gov
-  **Email:** westdavis@utah.gov
-  **Postal mail:** 801 North 500 West, 3rd Floor
Bountiful, UT 84010
-  **In-person by appointment:** see more info on next page



VIRTUAL OPEN HOUSE

A virtual open house has been set up to learn more about this proposed change to the alignment design, to access environmental study documentation and to submit your comments online. Access the virtual open house anytime via the project website: westdavis.udot.utah.gov.

IN PERSON PUBLIC HEARINGS

A limited in-person public comment opportunity will be available on Wednesday, July 15, 2020 from 4:00–7:00 p.m. at Syracuse City Hall. Those who prefer to leave their comments in person with a court reporter, may do so by calling or emailing the project information team and making an appointment. To maintain social distancing suggestions by the State of Utah, 30-minute time slots between 4:00–7:00 p.m. will be capped at 20 people. The use of face masks is highly encouraged. To schedule an in-person public comment, contact the public information team at 877-298-1991 or westdavis@utah.gov.

// WEST DAVIS
A UDOT Project



801 North 500 West, 3rd Floor
Bountiful, UT 84010



Antelope Drive Frontage Roads State Environmental Study

Antelope Drive

Since the completion of the West Davis Corridor EIS in 2017, UDOT has been working on pre-design, right-of-way acquisition, and bidding process for the selection of a Design-Build contractor.

As part of this pre-design phase, UDOT has worked with the various municipalities throughout the corridor to make sure local roadway functionality will continue to be maintained when West Davis is constructed.

One particular area that has required additional study and design has been along Antelope Drive in Syracuse. UDOT, in collaboration with Syracuse City and other local stakeholders, has worked over the last few months on an improvement to the existing West Davis alignment and local connector roads in this area. The effort to study this area has concluded with a new frontage road system being proposed by UDOT.

We invite you to review the proposed Antelope Drive Frontage Road alignment changes, draft state environmental study, and provide your comments.

[Virtual Open House](#)[Draft State Environmental Study Report](#)[Proposed Antelope Drive Frontage Roads Map](#)

Public Comment Period

A 30-day public comment period will take place July 9 – August 7, 2020.

[Submit Your Public Comment](#)

Comments can also be submitted via the following:

- Email: westdavis@utah.gov
- Postal mail: 801 North 500 West, 3rd Floor – Bountiful, UT 84010
- In-person by appointment: [see more info below](#)

In-Person Public Comments

A limited in-person public comment opportunity will be available on Wednesday, July 15, 2020 from 4:00 – 7:00 p.m. at Syracuse City Hall. Those who prefer to leave their comments in person with a court reporter, may do so by calling or emailing the project information team and making an appointment. To maintain social distancing suggestions by the State of Utah, 30-minute time slots between 4:00 – 7:00 p.m. will be capped at 20 people. The use of face masks is highly encouraged.

To schedule an in-person public comment, contact the public information team at [877-298-1991](tel:877-298-1991) or westdavis@utah.gov.

Antelope Drive Frontage Roads State Environmental Study (SES)

July 9, 2020

Antelope Drive Frontage Roads SES

In 2017, UDOT completed an extensive nine-year Environmental Impact Statement to study transportation solutions in western Davis County. Since the completion of the EIS, UDOT has been working on pre-design, right-of-way acquisition, and bidding process for the selection of a Design-Build contractor.

As part of this pre-design phase, UDOT has worked with the various municipalities throughout the corridor to make sure local roadway functionality will continue to be maintained when West Davis is constructed.

Environmental State Study

One particular area that has required additional study and design has been along Antelope Drive in Syracuse. UDOT, in collaboration with Syracuse City and other local stakeholders, has worked over the last few months on an improvement to the existing West Davis alignment and local connector roads in this area. The effort to study this area has concluded with a new frontage road system being proposed by UDOT.

The purpose of this virtual open house is to present the state study findings, explain the next steps in the process and collect public comment.

Antelope Drive Frontage Roads & Bluff Road Reconnections

To help better maintain local connections between Bluff Road and Antelope Drive, the addition of a frontage road system has been studied and proposed. The new frontage roads would utilize residential property to be acquired by the Antelope Drive Widening project, which recently received environmental clearance and is expected to be constructed in congruence with West Davis. Under the proposal, Bluff Road, which was previously shown to be cul-de-sac'd on the north side of Antelope and connected to 2625 West on the south side of Antelope, would be rerouted to connect to 2500 West on both sides. This frontage road system would require four additional property impacts.



Antelope Drive Frontage Roads & Bluff Road Reconnections

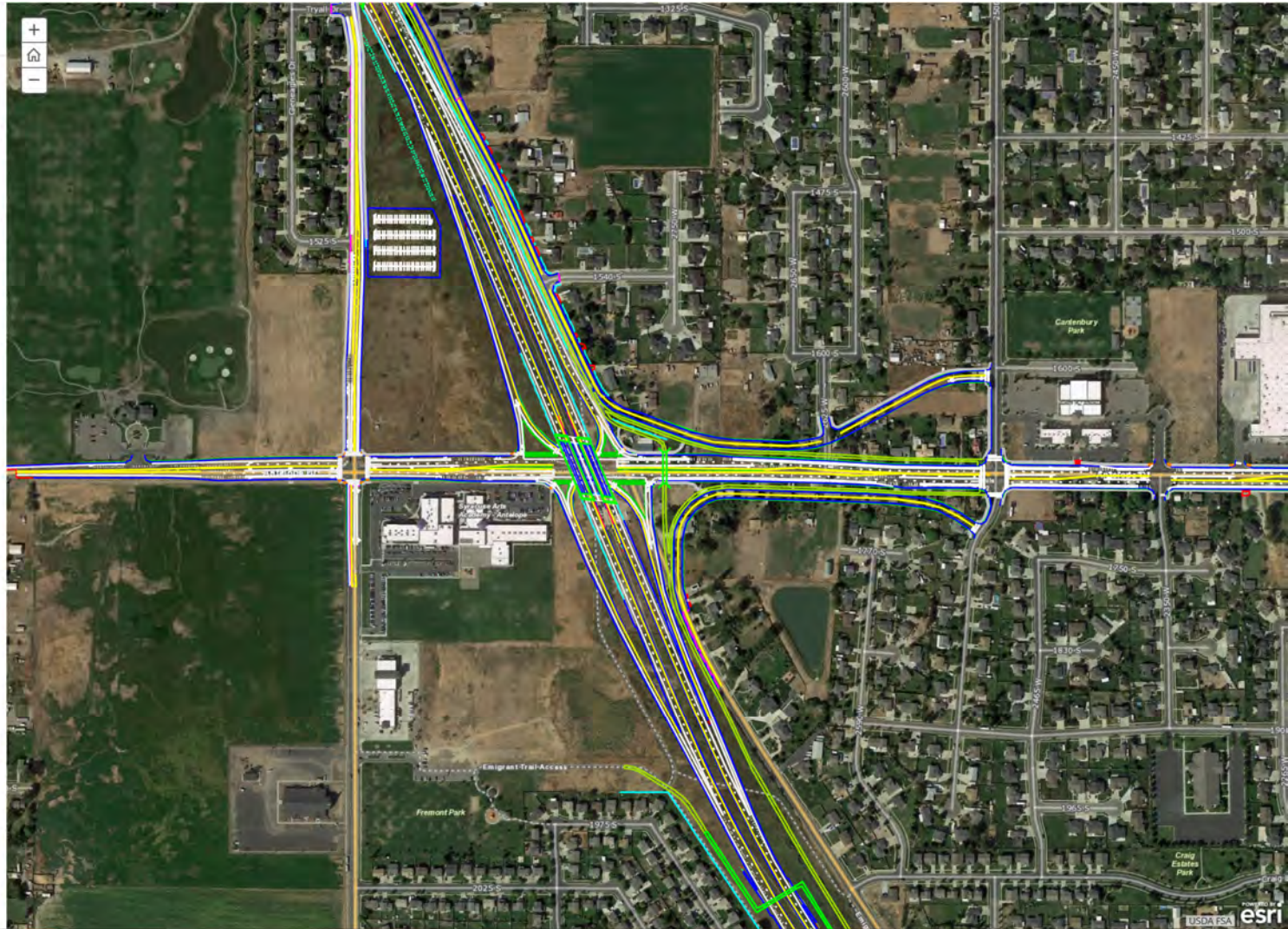
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What has changed?

The Antelope Drive Frontage Roads SIS is considering the removal of the previously planned intersection at Antelope Drive and 2525 West and is proposing to construct five new frontage roads between Bluff Road and 2500 West (on the north side of Antelope Drive and one on the south side of Antelope Drive). This proposed north Antelope Drive frontage road would connect to Bluff Road near 1623 South Birch Road and connect to 2500 West at 1623 South 2500 West.

The map to the right shows the previously existing Antelope Drive and Bluff Road design. Move the slider to the left to see the newly proposed Antelope Drive Frontage Road design with new Bluff Road assignment.

What was studied?



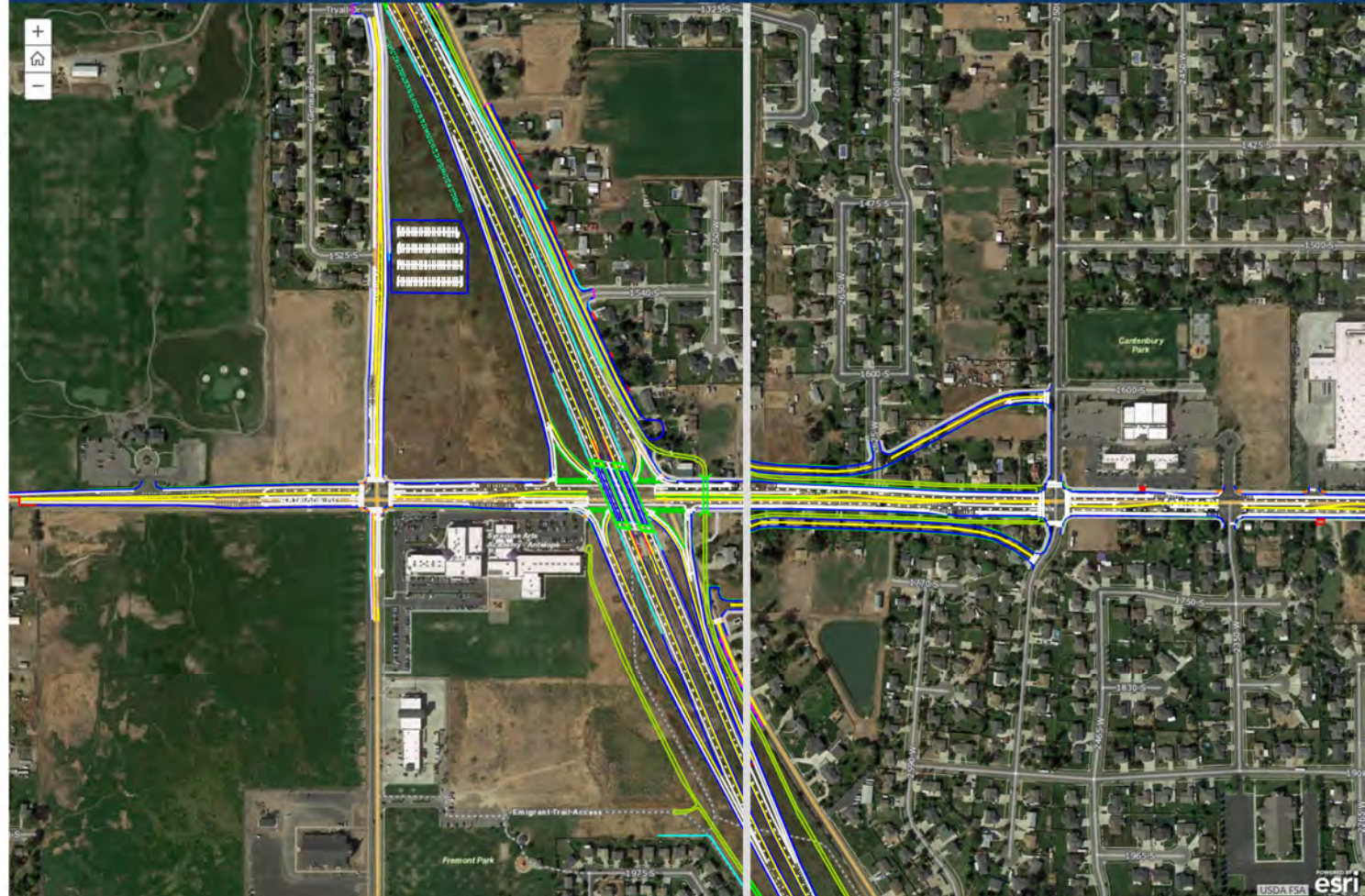
Previous Concept on the LEFT — Current Concept on the RIGHT

What has changed?

The Antelope Drive Frontage Roads SES is considering the removal of the previously planned intersection at Antelope Drive and 2625 West and is proposing to construct two new frontage roads between Bluff Road and 2500 West (one on the north side of Antelope Drive and one on the south side of Antelope Drive). The proposed north Antelope Drive frontage road would connect to Bluff Road near 1653 South Bluff Road and connect to 2500 West at 1624 South 2500 West.

The map to the right shows the previously existing Antelope Drive and Bluff Road design. Move the slider to the see the newly proposed Antelope Drive Frontage Road design with new Bluff Road realignment.

What was studied?



What was studied?

This state study of the Antelope Drive Frontage Roads has included analyzing roadway design elements, noise impacts, wetland impacts, property impacts, trail crossings, local road connections, etc. In addition, UDOT worked closely with Syracuse City, Syracuse Arts Academy, and individual property owners and stakeholders throughout the study process to ensure a thorough understanding of local roadway and trail connections, property uses and impacts, and other stakeholder interests and concerns.

How does this study relate to the Antelope Drive Widening State Environmental Study (SES)?

In addition to this additional study on the Antelope Drive Frontage Roads as part of the West Davis project, UDOT has also recently concluded a separate State Environmental Study (SES) on the widening of Antelope Drive from 2000 West to 3000 West in Syracuse. While the Antelope Drive Widening SES is an independent project from West Davis, the projects are anticipated to be built concurrently.

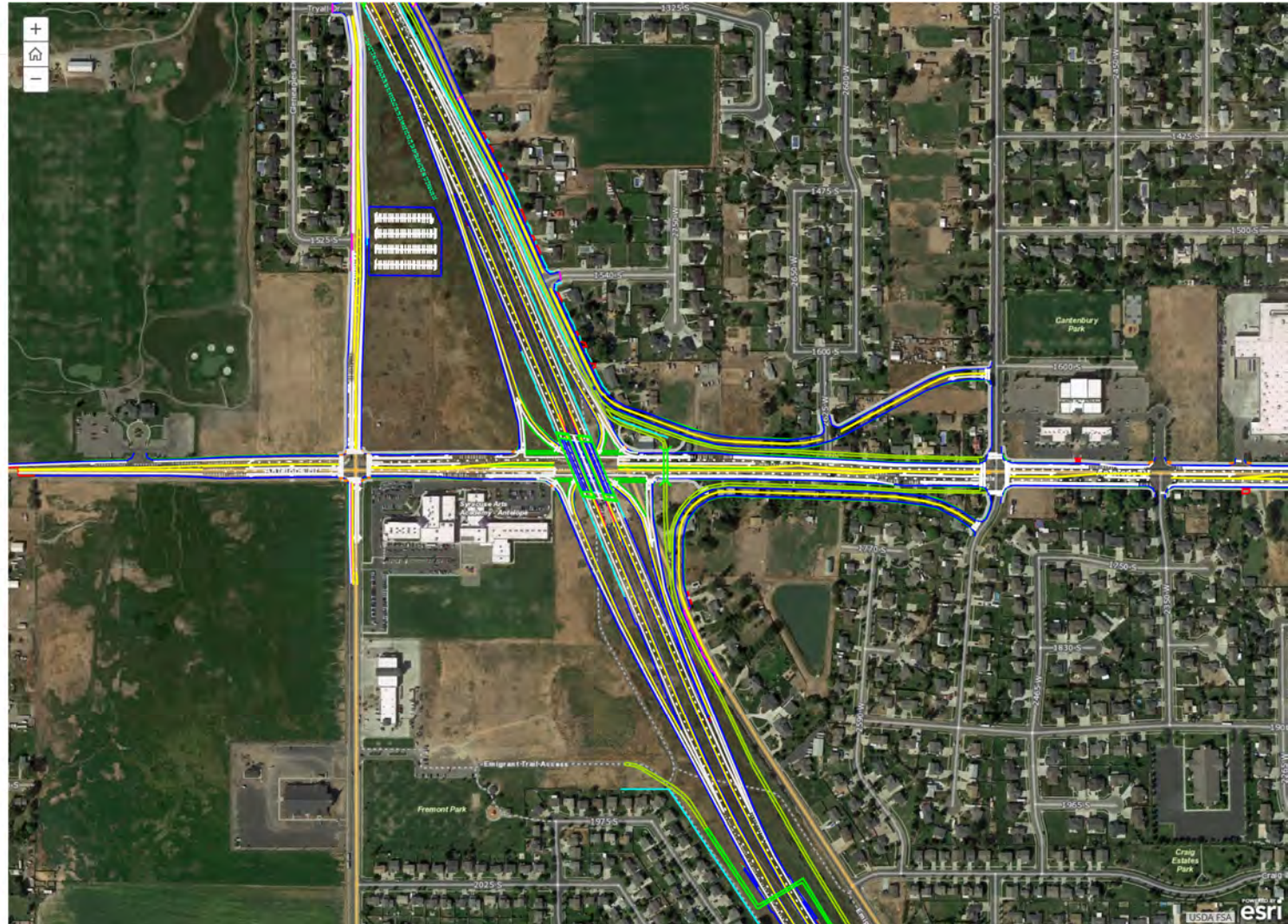
Next Steps

UDOT has opened a 30-day comment period to gather public comments on the findings and conclusions of the Antelope Drive Frontage Roads study. Upon the completion of the comment period, UDOT will finalize its study report and submit it for approval. UDOT is also planning to select a West Davis Design-Build contractor later this summer. Once a contractor is selected, some preliminary utility work and construction preparations are expected to begin in fall 2020. Full construction is anticipated to start in spring 2021. More information on construction schedule and impacts will be available later this fall.

How to Submit a Comment

- A 30-day public comment period will take place between July 9th - August 7th, 2020.
- Comments may be submitted via email, mail or in person (if necessary).
 - Email: westdavis@utah.gov
 - Mail: 301 North 500 West, 3rd Floor Bountiful, UT 84010
- In order to adhere to state social distancing guidelines, those wishing to make an in-person public comment must sign-up and make an appointment. To make an in-person public comment appointment, please contact the Public Involvement Team at 327-226-1981 or westdavis@utah.gov.

Stay Informed



How does this study relate to the Antelope Drive Widening State Environmental Study (SES)?

In addition to this additional study on the Antelope Drive Frontage Roads as part of the West Davis project, UDOT has also recently concluded a separate State Environmental Study (SES) on the widening of Antelope Drive from 2000 West to 3000 West in Syracuse. While the Antelope Drive Widening SES is an independent project from West Davis, the projects are anticipated to be built congruently.

Next Steps

UDOT has opened a 30-day comment period to gather public comments on the findings and conclusions of the Antelope Drive Frontage Road Study. Upon the completion of the comment period, UDOT will finalize its study report and submit it for approval. UDOT is also planning to select a West Davis Design-Build contractor later this summer. Once a contractor is selected, some preliminary utility work and construction preparations are expected to begin in Fall 2021. Full construction is anticipated to start in Spring 2021. More information on construction schedule and impacts will be available later this fall.

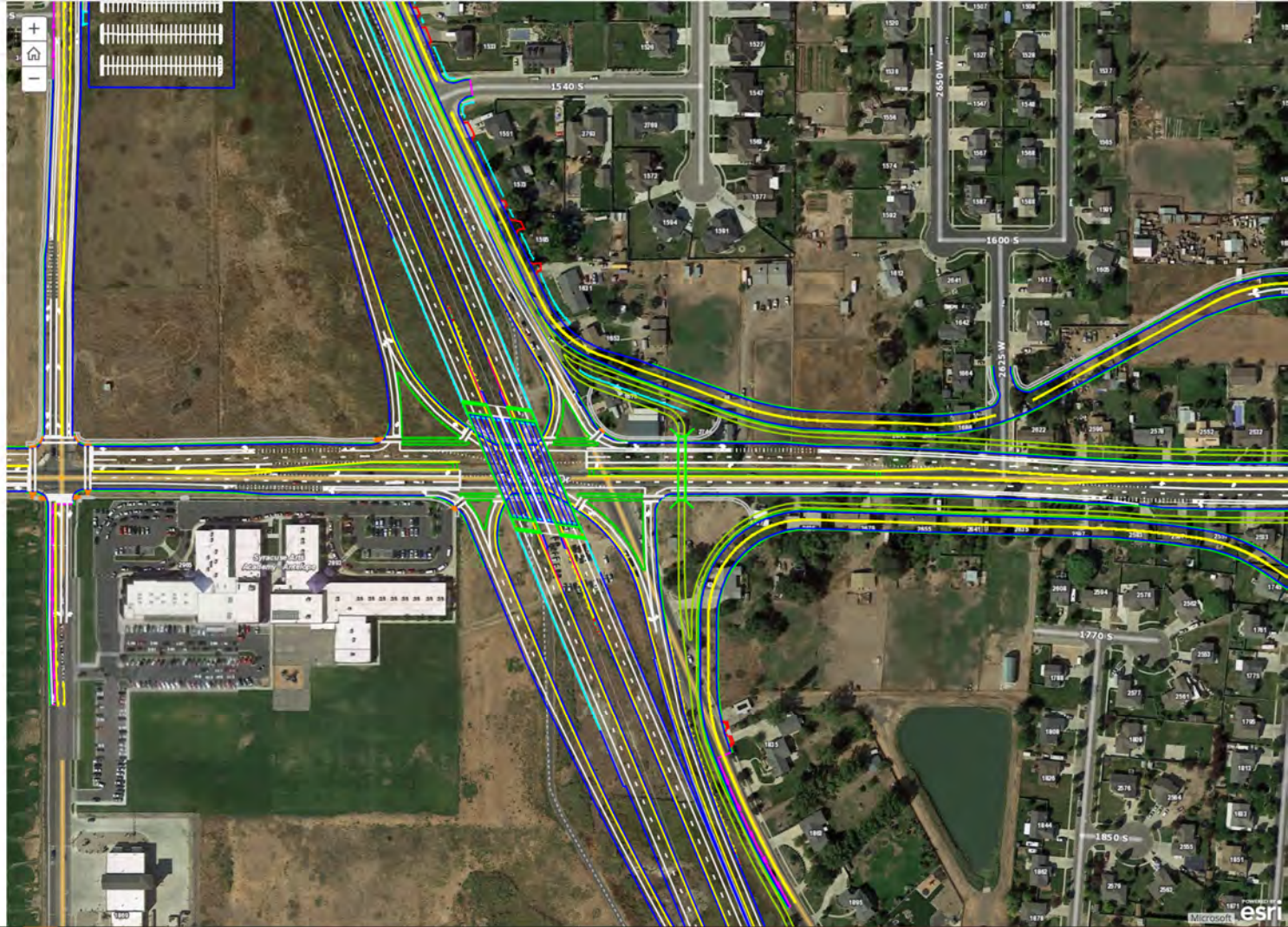
How to Submit a Comment

- A 30-day public comment period will take place between July 1st - August 7th, 2021
- Comments may be submitted via email, mail or in person (if necessary)
 - Email: westdavis@utah.gov
 - Mail: 801 North 500 West, 3rd Floor Room 301, UT 84010
- in order to adhere to state social distancing guidelines, those wishing to make an in-person public comment must sign-up and make an appointment. To make an in-person public comment appointment, please contact the Public Involvement Team at [877-298-1991](tel:877-298-1991) or westdavis@utah.gov.

Stay Informed

We invite you to continue to stay engaged in the West Davis Corridor project. We look forward to continue to share updated project information as it becomes available and receive your feedback as the project progresses. For questions or concerns, or to join our email update list, contact the Public Involvement Team:

- Westdavis@utah.gov
- [877-298-1991](tel:877-298-1991)



... (some impacts), and other stakeholders (presses and concerns).

How does this study relate to the Antelope Drive Widening State Environmental Study (SES)?

In addition to this additional study on the Antelope Drive Frontage Roads as part of the West Davis project, UDOT has also recently concluded a separate State Environmental Study (SES) on the widening of Antelope Drive from 2000 West to 3000 West in the same White Pine Antelope Drive Widening SES is an independent project from West Davis. The projects are anticipated to be built concurrently.

Next Steps

UDOT has opened a 30-day comment period to gather public comments on the findings and conclusions of the Antelope Drive Frontage Roads study. Upon the completion of the comment period, UDOT will finalize its study report and submit it for approval. UDOT is also planning to select a West Davis Design-Build contractor later this summer. Once a contractor is selected, some preliminary utility work and construction preparations are expected to begin in fall 2020. Full construction is anticipated to start in Spring 2021. More information on construction schedule and impacts will be available later this fall.

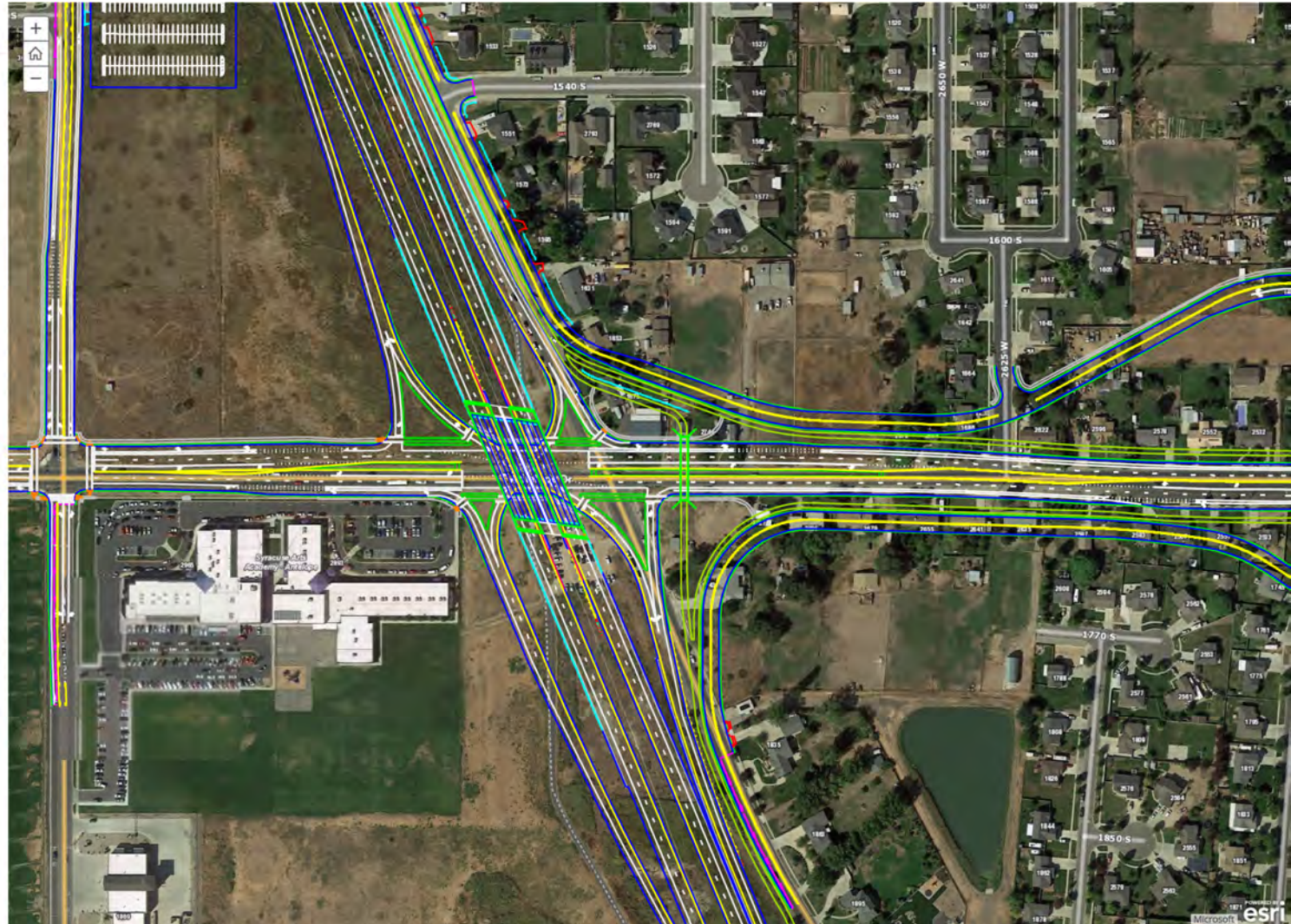
How to Submit a Comment

- A 30-day public comment period will take place between July 29th - August 27th, 2020.
- Comments may be submitted via email, mail or in person (if necessary):
 - Email: WestDavis@utah.gov
 - Mail: 901 North 500 West, 3rd Floor (south of 117 #407)
- In order to adhere to state social distancing guidelines, those wishing to make an in-person public comment must sign-up and make an appointment to make an in-person public comment appointment, please contact the Public Involvement Team at [801-224-1991](tel:801-224-1991) or WestDavis@utah.gov.

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- [877-298-1991](tel:877-298-1991)



...and impacts, and other stakeholders' views and concerns.

How does this study relate to the Antelope Drive Widening State Environmental Study (SES)?

In addition to the ongoing study of the Antelope Drive Frontage Road widening on the West Davis project, UDOT has also recently completed a separate State Environmental Study (SES) for the widening of Antelope Drive from 2000 West to 2000 West. The widening of Antelope Drive Widening 2000 is an independent project. However, the projects are interconnected and will bring change.

Next Steps

UDOT has opened a 30-day comment period to gather public comments on the findings and conclusions of the Antelope Drive Frontage Road study. (You may also comment on the comment period UDOT will release its study report and submit RFP proposals. UDOT is also planning to host a West Davis Design Roundtable. If that is not possible, a contract is still in place for community advisory board participation. Meetings are expected to begin in 2020. Full details of the project are available on the UDOT website. Please do not hesitate to contact us to ensure that projects will be available later this year.

How to Submit a Comment

- A 30-day public comment period will take place between July 9th - August 7th, 2020.
- Comments may be submitted via email, mail or in person (if necessary).
 - Email: westdavis@utah.gov
 - Mail: 801 North 500 West, 3rd Floor Bountiful, UT 84010
- In order to adhere to state social distancing guidelines, those wishing to make an in-person public comment must sign-up and make an appointment. To make an in-person public comment appointment, please contact the Public Involvement Team at [877-298-1991](tel:877-298-1991) or westdavis@utah.gov.

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- Westdavis@utah.gov
- [877-298-1991](tel:877-298-1991)



HOW TO MAKE A PUBLIC COMMENT



westdavis@utah.gov



westdavis.udot.utah.gov



800 North 500 West
3rd Floor
Bountiful, UT 84010



Public Hearing - By Appointment Only
Wednesday, July 15

How does this study relate to the Antelope Drive Widening State Environmental Study (SES)?

In addition to this additional study on the Antelope Drive Frontage Roads as part of the West Davis project, UDOT has also recently concluded a separate State Environmental Study (SES) on the widening of Antelope Drive from 2000 West to 3000 West in Draper. While the Antelope Drive Widening SES is an independent project from West Davis, the projects are anticipated to be built concurrently.

Next Steps

UDOT has opened a 30-day comment period to gather public comments on the findings and conclusions of the Antelope Drive Frontage Roads study. Upon the completion of the comment period, UDOT will finalize its study report and submit it for approval. UDOT is also planning to select a West Davis Design-Build contractor later this summer. Once a contractor is selected, some preliminary utility work and construction preparations are expected to begin in fall 2020. Full construction is anticipated to start in Spring 2021. More information on construction schedule and impacts will be available later this fall.

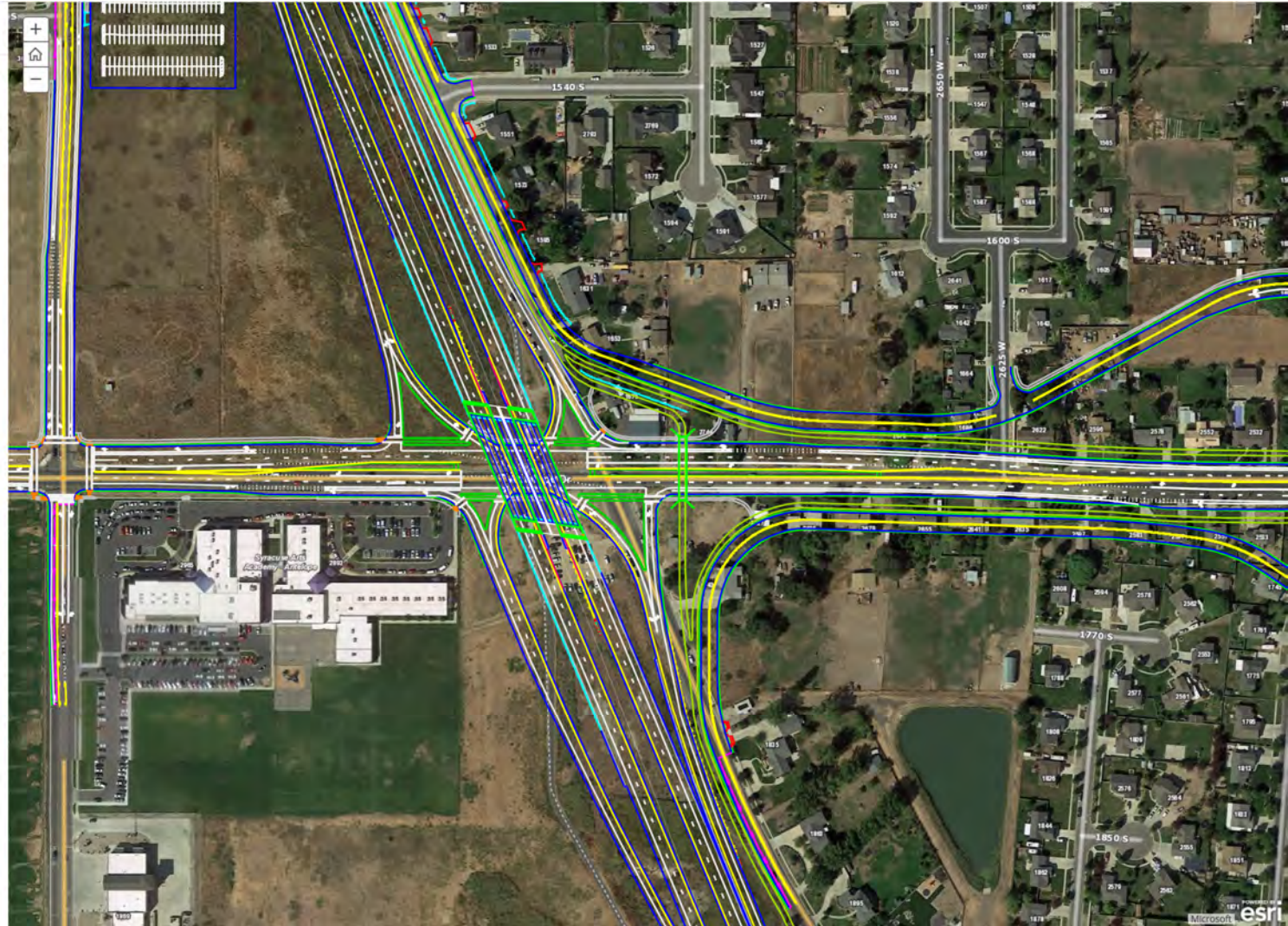
How to Submit a Comment

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- Comments may be submitted via email, mail or in person (if necessary).
 Email: westdavis@utah.gov
 Mail: 801 North 500 West, 3rd Floor, Salt Lake, UT 84010
- In order to adhere to state social distancing guidelines, those wishing to make an in-person public comment must sign-up and make an appointment. To make an in-person public comment appointment, please contact the Public Involvement Team at 877-298-1991 or westdavis@utah.gov.

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- Westdavis@utah.gov
- 877-298-1991



APPENDIX E

2500 W/South Frontage Road Options Technical Report

2500 West/South Frontage Road Options Technical Report

Antelope Frontage Roads
State Environmental Study

September 2020

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1 Introduction

The Antelope Frontage Roads project area is located on Antelope Drive (also known as State Route 127) between Bluff Road (about 2800 West) and 2500 West in Syracuse in Davis County, Utah.

The Antelope Drive Frontage Roads Draft State Environmental Study (SES) that was released for public review in July 2020 included a stop sign–controlled T-intersection for the 2500 West and south frontage road intersection (Figure 1). The south frontage road connects Bluff Road to 2500 West. The design of the Draft SES T-intersection would have a stop sign for traffic going east on the south frontage road. The design would have 2500 West be the straight or uncontrolled movement in this intersection. Traffic going from Antelope Drive to the south frontage road would be required to make a right turn from 2500 West to the south frontage road. The Draft SES design also included a signalized intersection at Antelope Drive and 2500 West, about 180 feet north of the T-intersection at 2500 West and the south frontage road.

In July 2020, during the public comment period for the Antelope Frontage Roads SES, UDOT received several public comments asking whether the roadway design of the 2500 West and south frontage road intersection on the south side of Antelope Drive could be modified to make the movement to the south frontage road be the uncontrolled movement instead of 2500 West. The public comments expressed concerns that there could be an increase in traffic and decrease in safety on 2500 West due to the Draft SES design that included the T-intersection with the south frontage road. In response to these comments, UDOT developed and evaluated two additional options for the 2500 West and south frontage road intersection:

1. An option with a T-intersection that would have the south frontage road/Bluff Road be the uncontrolled movement with a stop sign for traffic going north on 2500 West (Figure 2)
2. A roundabout option (Figure 3)

The purpose of this technical report is to document the evaluation of the two new options developed for the 2500 West and south frontage road intersection in response to the public comments received during the public comment period for the Antelope Frontage Roads SES.

What is the Antelope Frontage Roads project?

The Antelope Frontage Roads project would build new frontage roads north and south of Antelope Drive in Syracuse, Utah, between Bluff Road (about 2800 West) and 2500 West.

Figure 1. South Frontage Road Stop Sign Intersection at 2500 West (Preferred Option)



Figure 2. South Frontage Road/Bluff Road Uncontrolled Movement Option

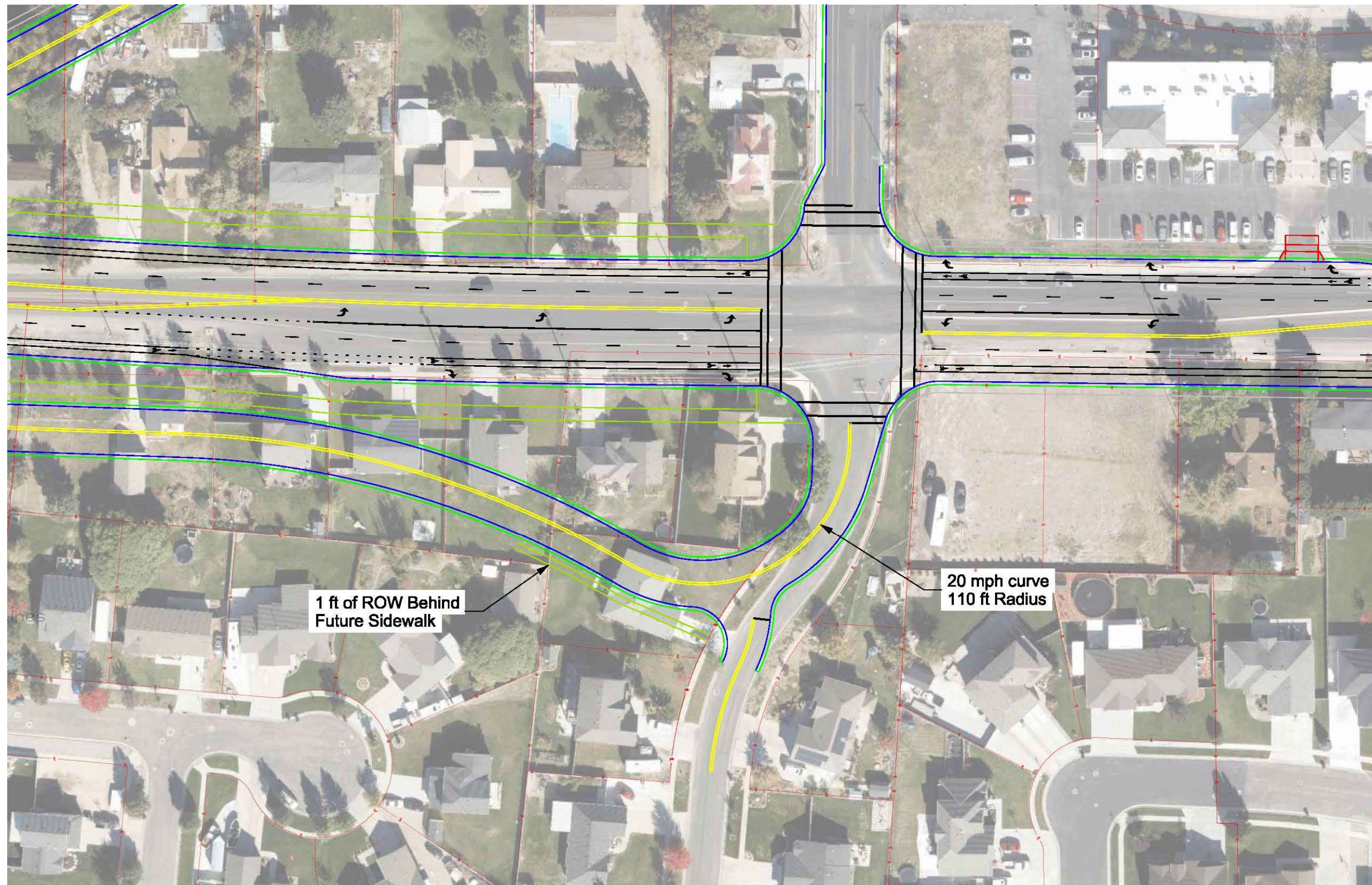
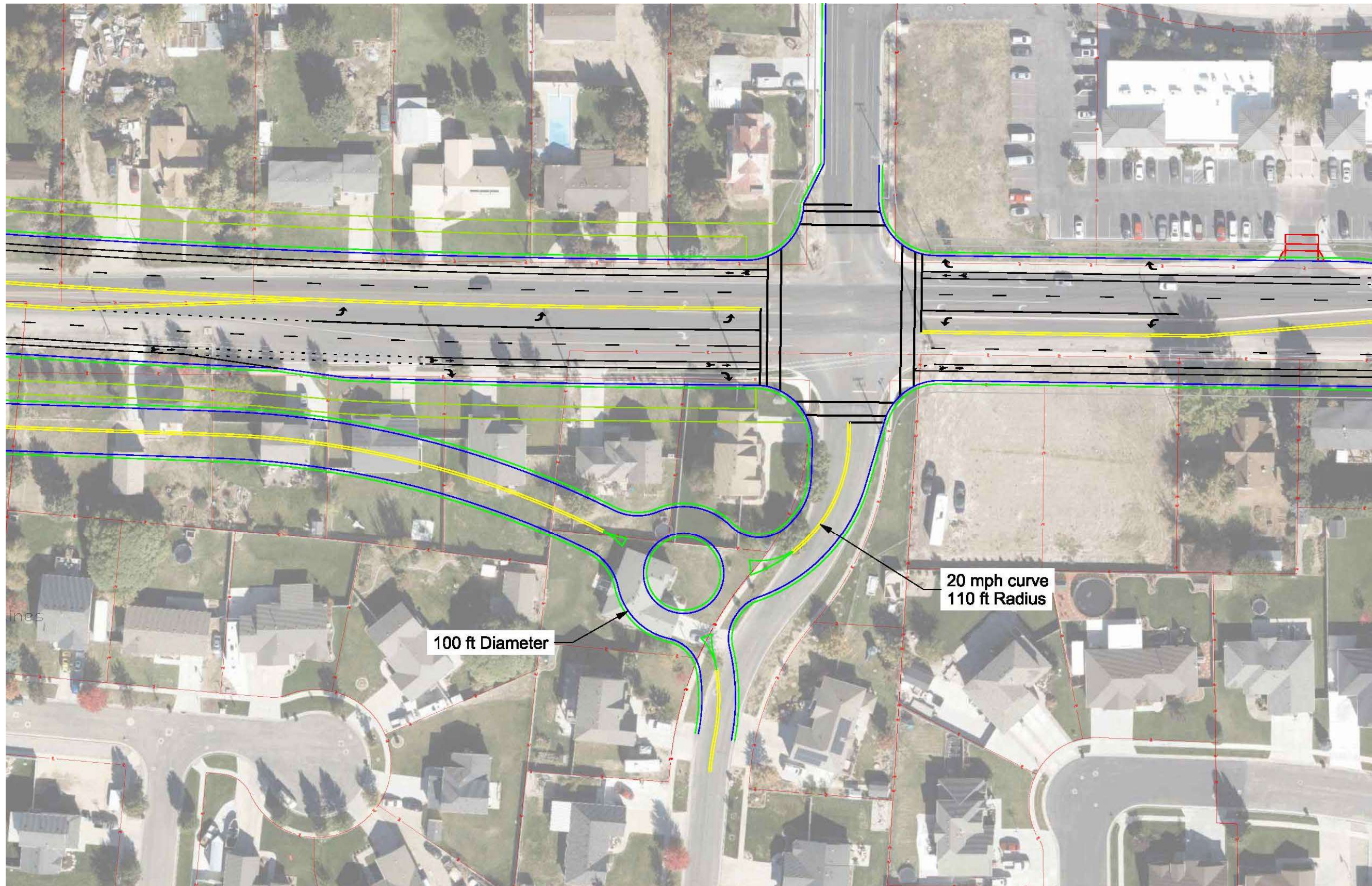


Figure 3. Roundabout Option





2 Traffic Analysis at the Antelope Drive/2500 West Signalized Intersection

UDOT used a Synchro traffic model to evaluate the level of service (LOS) for the three options at 2500 West. The Synchro traffic analysis showed that all three options (the SES design with a T-intersection with 2500 West as the uncontrolled movement, a T-intersection with the south frontage road/Bluff Road as the uncontrolled movement, and the roundabout) would have similar traffic operations at the Antelope Drive/2500 West signalized intersection. All three options would function at an acceptable level of service (LOS A or B) in 2050. The roundabout option was determined to be more risky from a queuing standpoint since vehicles could potentially queue back into the signalized intersection at 2500 West and Antelope Drive.

3 Traffic Analysis for 2500 West and the South Frontage Road/Bluff Road South of Antelope Drive

Table 1 summarizes the traffic volumes on 2500 West and the south frontage road or Bluff Road in 2020 and 2050. The traffic volumes in 2050 were estimated using the latest version (Version 8.3.1) of the Wasatch Front Regional Council's Travel Demand Model.

Table 1. AM and PM Peak 1-hour Traffic Volumes on 2500 West and Bluff Road

Road and Direction	2020		2050			
			Frontage Road Connection to 2500 West		No Frontage Road Connection to 2500 West	
	AM	PM	AM	PM	AM	PM
2500 W. northbound	20	30	50	60	50	80
2500 W. southbound	10	40	60	100	70	100
Bluff Rd. northbound	100 ^a	240 ^a	100 ^b	240 ^b	70 ^c	150 ^c
Bluff Rd. southbound	60 ^a	90 ^a	70 ^b	100 ^b	70 ^c	150 ^c

^a In 2020, Bluff Road connects to Antelope Drive near 2800 West.

^b Bluff Road would connect to 2500 West with the south frontage road. These traffic volumes would be the same with any of the three options evaluated for 2500 West and the south frontage road.

^c Bluff Road would connect to Antelope Drive at 2625 West.

As shown above in Table 1, the AM and PM peak-hour traffic volumes on 2500 West are predicted to increase between 2020 and 2050 but would still be 100 vehicles per hour or fewer for all movements. However, the traffic volumes in 2050 on 2500 West are expected to be the same or slightly less with the frontage road connection to 2500 West than with no frontage road connection to 2500 West.

As shown above in Table 1, the AM and PM peak-hour traffic volumes on Bluff Road are predicted to have small changes between 2020 and 2050. The northbound traffic volumes in 2050 with the frontage road connection to 2500 West are predicted to be the same as the 2020 traffic volumes on Bluff Road. The northbound traffic volumes in 2050 without the frontage road connection to 2500 West are expected to decrease compared to 2020 traffic volumes on Bluff Road. The southbound traffic volumes in 2050 with the frontage road connection to 2500 West are predicted to increase by 10 vehicles in the peak hour compared to the 2020 traffic volumes on Bluff Road. The southbound traffic volumes in 2050 without the frontage road connection to 2500 West are expected to increase compared to 2020 traffic volumes on Bluff Road.

The traffic volumes in 2050 on northbound Bluff Road are expected to increase with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West. The peak-hour traffic volumes in 2050 on southbound Bluff Road are expected to be the same in the morning peak-hour period and decrease in the afternoon peak-hour period with the frontage road connection to 2500 West compared to the traffic volumes in 2050 with no frontage road connection to 2500 West.

4 Evaluation and Conclusion

The Draft SES design with a T-intersection with a stop sign on the eastbound south frontage road at the 2500 West intersection was determined to be the preferred option. This conclusion was determined based on the traffic analysis, summarized in this technical report, showing that the peak-hour traffic volumes on 2500 West in 2050 with the frontage road connection to 2500 West are not expected to increase compared to the peak-hour traffic volumes on 2500 West in 2050 without the frontage road connection.

Additionally, this conclusion was based on feedback from Syracuse City that the City prefers to keep the access and alignment of 2500 West the same and not introduce a new curve and turning movement for vehicles using 2500 West. The Draft SES design also minimizes impacts to the existing 2500 West and utilities located in the 2500 West right-of-way.