



Areas of No Impact Technical Memorandum

Prepared for:	City of Henderson, Nevada	Project Name:	I-215 Beltway Widening Project – Pecos Road to Stephanie Street
Copy to:	Nevada Department of Transportation		
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Date:	October 11, 2023		

1. Introduction

The City of Henderson (City) proposes to widen the Interstate 215 Bruce Woodbury Beltway (I-215) from Pecos Road to Stephanie Street in the City of Henderson, Clark County, Nevada. This section of I-215 freeway is one of the primary east-west freeway corridors in the Las Vegas Valley and connects the City of Henderson to the rest of the Las Vegas Valley. The I-215 Beltway Widening Project (Project) involves widening of I-215, ramp reconstruction, and local road improvements to the interchanges with I-215 at Pecos Road/St. Rose Parkway and Green Valley Parkway. The Project would also reconstruct ramps at the Valle Verde Drive and Stephanie Street interchanges. Figure 1-1 shows the Project location and study area.

The Project is being completed with funding from Clark County. However, because I-215 is within Nevada Department of Transportation (NDOT) right-of-way, an NDOT encroachment permit is required to construct the improvements. The interstate system is under the jurisdiction of the Federal Highway Administration (FHWA) providing a federal nexus to prepare an environmental document to comply with the National Environmental Policy Act of 1969 (NEPA). Thus, in compliance with NEPA, the City is preparing documentation to evaluate the potential environmental impacts of the project. This technical memorandum presents resources that are not in the study area or would not be affected by the Preferred Alternative. Measures to mitigate impacts are not needed because no impacts are anticipated to occur.

2. Project Description

I-215 serves as an important connection between the City of Henderson and the surrounding Las Vegas metropolitan area. The Pecos Road/St. Rose Parkway and Green Valley Parkway interchanges with I-215 provide access to and from the residential and commercial developments at the west edge of the City. Clark County and the City have experienced significant population growth over the last decade. Between 2010 and 2020, Clark County's population grew by over 300,000 residents (an increase of about 20 percent) and the City's population grew by over 60,000 residents (an increase of about 25 percent) (U.S. Census Bureau 2010 and 2020). The regional population is projected to continue to grow.

This segment of I-215 currently experiences congestion due to existing roadway deficiencies and the regional population growth, which has increased current traffic volumes that exceed the roadway's capacity. In addition, existing roadway deficiencies result in increased travel time and contribute to accidents. By 2050, if no improvements are made on I-215 in the Project area, severe congestion with average speeds of less than 15 miles per hour is expected in both the morning and afternoon peak periods in some areas.

The proposed Project would widen I-215 from Pecos Road to Stephanie Street, improve interchanges and ramps, and construct a pedestrian bridge over Green Valley Parkway near Village Walk Drive. The purpose of the Project is to eliminate existing roadway deficiencies and provide transportation improvements to serve existing and future traffic demand.

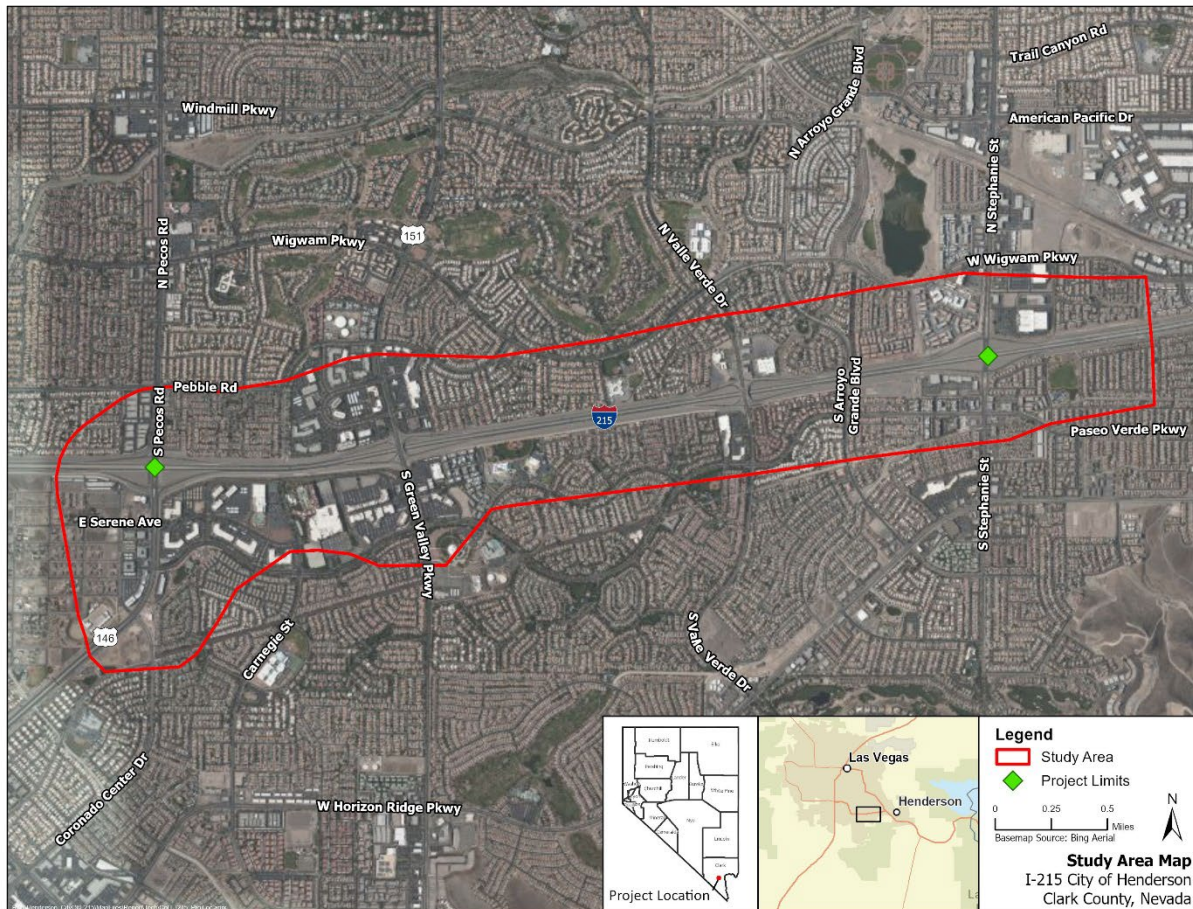


Figure 1-1. Study Area

3. Alternatives Evaluated

Two alternatives were evaluated for impacts, the No Action Alternative and the Preferred Alternative, described in Sections 3.1 and 3.2, respectively.

3.1 No Action Alternative Description

Under the No Action Alternative, none of the improvements included under the Preferred Alternative would be implemented. Only routine maintenance would be performed on I-215. Other planned transportation improvement projects in the area could still move forward. While this alternative would not fulfill the Project's purpose and need, it is included in the analysis as a baseline for comparison.

3.2 Preferred Alternative Description

The Preferred Alternative would widen I-215 with two additional through lanes in each direction (initially four lanes and at ultimate buildout, five lanes in each direction for a total of ten lanes) and an auxiliary lane between each interchange on I-215 from Pecos Road to Stephanie Street. This configuration is consistent with the improvements identified as part of the Henderson (I-11/I-515/I-215) Interchange project located adjacent to the east limit of this study. See Attachment A for a map of the Preferred Alternative.



Other improvements are described as follows:

- Pecos Road/St. Rose Parkway Interchange
 - Eastbound I-215 exit ramp: Construct additional right-turn lane to St. Rose Parkway for a total of two right-turn lanes.
 - Eastbound I-215 entrance ramp: The movement from northbound St. Rose Parkway to the entrance ramp will be free flow. This eastbound entrance ramp will have four receiving lanes: two from the northbound to eastbound movement and two from the southbound to eastbound movement. Eventually, two of the four lanes will drop before merging onto the freeway as a two-lane ramp.
 - Westbound I-215 exit ramp: Widen to two lanes and construct additional left-turn lane, resulting in three left-turn lanes.
 - Along St. Rose Parkway extending to south of the St. Rose Parkway/Paseo Verde Parkway intersection: Extend the northbound outside lane to provide more capacity for vehicles turning right to the I-215 eastbound entrance ramp.
- Green Valley Parkway Interchange
 - Reconstruct interchange as a diverging diamond interchange. Does not require widening of the existing bridge.
 - Reconfigure all ramps to allow for the diverging diamond interchange.
 - Construct one extra approach lane on each exit ramp for a total of two eastbound and two westbound lanes on- and off-ramps.
 - Construct a pedestrian bridge over Green Valley Parkway near Village Walk Drive to remove the east-west at-grade crosswalks (across Green Valley Parkway), enhancing safety for vulnerable road users and improving traffic operations.
- Valle Verde Drive interchange
 - Widen off-ramps from I-215 to two lanes.
- Stephanie Street interchange
 - Widen westbound entrance ramp and eastbound exit ramps to two lanes.

Additionally, the Preferred Alternative would:

- Reconstruct bike trails affected by the Project.
- Reconstruct sound walls and storm drainage facilities, such as storm drain inlets and pipes.
- Construct other ancillary roadway improvements to improve the safety of users of I-215 such as outside shoulders, barrier rails, and retaining walls, as well as pavement markings.
- Install traffic control devices and modify bridge underdeck and ramp lighting.
- Not require any new right-of-way (ROW) along I-215 and all proposed work along I-215 would occur within existing NDOT ROW.¹
- Not convert any existing land uses.

¹ Approximately 1.43 acres of ROW would be required along Green Valley Parkway and up to 0.26 acre of ROW along St. Rose Parkway. These are both City of Henderson streets.



4. Areas of No Impact

The City of Henderson considered all relevant environmental and social issues during its environmental analysis. The City's data collection determined the resources below are not in the study area or would not be affected by the Preferred Alternative. Therefore, the following resources are only discussed in this memorandum and the potential impacts from the Preferred Alternative are not evaluated in detail in a separate memorandum:

- Wetlands
- Floodplains
- Farmland/Rangeland
- Energy Sources and Minerals
- Geology and Soils
- Land Use
- Visual Resources
- Cultural Resources
- Section 4(f)

4.1 Wetlands and Waters of the U.S.

The *National Wetlands Inventory* (NWI) identifies that several drainages cross beneath I-215 through a below-ground drainage system (USFWS 2022). The NWI indicates these drainages may be riverine wetlands. However, the study area is devoid of any vegetation except for landscaped trees and shrubs, such as palm trees, Russian olive, and various ornamental flowers. Furthermore, the soils within the study area are not hydric (NRCS 2023). The conditions within the study area were not indicative of regulated wetlands (i.e., there is no adequate hydrology, hydric soils, or hydrophytic vegetation). Therefore, a wetland delineation was not conducted, and no wetlands were identified in the survey area.

Discharges of dredged or fill material into waters of the United States (WOTUS) are subject to the regulations contained within the federal Clean Water Act (CWA) (33 U.S.C. Section 1251 *et seq.*). Traditional navigable waters (TNW) and wetlands and waterbodies with a surface water connection to a TNW are WOTUS under the jurisdiction of the U.S. Army Corps of Engineers (USACE) for CWA Section 404 permitting. Actions requiring a Section 404 permit also require a CWA Section 401 Water Quality Certification. The Nevada Department of Environmental Protection (NDEP) is responsible for authorizations of Water Quality Certifications in the state on non-tribal lands. There are no waters of the U.S. (WOTUS) within the study area. Accordingly, a Clean Water Act Section 404 permit from USACE and a Section 401 water quality certification from NDEP are not required for this project.

4.2 Section 408

Pursuant to Section 14 of the Rivers and Harbors Act of 1899, a Section 408 permission from USACE is required for any action that may modify, alter, or occupy a public works project granted through USACE's Section 408 program. No USACE public works projects are within the project area. Therefore, this project will not require a Section 408 permission from USACE.

4.3 Floodplains

Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Numbers 32003C2590F, 32003C2595F, and Letter of Map Revision No. 13-09-0920P (effective October 4, 2013) show that the majority of the study area is located within an unshaded Zone X, described by FEMA as an area determined to be outside the 0.2 percent annual chance floodplain (FEMA 2013 and 2023). However, there are two narrow areas associated with culvert/storm drain crossings identified as FEMA Flood Zone A within the Project limits. FEMA Flood Zone A is defined as an area located within the 100-year floodplain without calculated Base Flood Elevations. The Project does not change the base flood elevations, and as a result, FEMA notification is not required for the Project.

The first FEMA Flood Zone A area is located within the eastbound lanes of I-215 between Green Valley Parkway and Valle Verde Drive, approximately 2,700 feet west of Valle Verde Drive. In the mid to late 1990s, an existing 8-foot by 5-foot reinforced concrete box culvert crossing associated with this FEMA Flood Zone A was extended to



the south of the I-215 Beltway and connected to a storm drain system by a residential and commercial development. The Project proposes improvements to the subject storm drain system to accommodate the I-215 Beltway widening. As a result, the 1 percent annual chance flood discharge will continue to be contained within the storm drain system.

The second FEMA Flood Zone A is located within the westbound lanes of I-215 between Valle Verde Drive and Arroyo Grande Boulevard, approximately 900 feet east of Valle Verde Drive. At this location, a historical culvert crossing associated with that FEMA Flood Zone A was removed in the mid to late 1990s by a previous I-215 beltway improvements project. The historical storm flows from the south were diverted to the east via Clark County Regional Flood Control facilities located on the south side of the I-215 corridor. Currently, no existing or proposed onsite drainage facilities outfall into the historical wash/subject remnant of FEMA Flood Zone A. Therefore, the proposed roadway widening and improvements will not cause adverse impacts to adjacent properties or an increase to the existing 100-year flood water surface elevation.

4.4 Farmland/Rangeland

The Farmland Protection Policy Act (FPPA) protects farmlands that are considered prime or unique (Title 7 *Code of Federal Regulations* [CFR] Part 658). The FPPA is intended to minimize the impact that federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses.

Prime farmlands have been determined to have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and could be cultivated land, pastureland, rangeland, or forestland. Unique farmlands have specific high-value food or fiber crops. In addition to prime and unique farmlands, select lands are classified as being of statewide or local importance. The Nevada Department of Conservation and Natural Resources defines farmland of statewide importance as all farmland with a full or partial irrigation water supply (NRCS 2015).

No prime or unique farmland or rangeland is within or near the study area (NRCS 2023).

4.5 Energy Sources and Minerals

Fuel consumption on roads is primarily affected by the distance vehicles travel, vehicle speeds and traffic operations, vehicle fuel types, and maintenance requirements. The proposed action is not anticipated to affect long-term traffic patterns in the Project vicinity or have a measurable effect on vehicle miles traveled. Fuel consumption is not anticipated to change as a result of the Project because it would not influence vehicle fuel types, and vehicle speeds would experience little or no change compared to existing conditions.

Transportation projects can indirectly contribute to energy consumption by influencing new development, redevelopment, and general population increases in the vicinity of a given project. Increased development can increase demand for energy. Because the proposed action is located within a developed urbanized area, it is not expected to influence the rate or pattern of land development or travel mode choices in the Project vicinity. Therefore, the Project is not anticipated to have indirect impacts on energy consumption.

Construction of the proposed action would involve a temporary increase in the use of fossil fuels associated with construction detours and construction equipment use. These impacts would be short term and would be minimized through best management practices, including use of well-maintained construction equipment, minimizing equipment idling, and encouraging carpooling to and from the construction site by construction workers.

No minerals are present within or near the study area.



4.6 Geology and Soils

The Preferred Alternative would not affect geology and soils.

4.7 Land Use

The City of Henderson regulates land use within the study area. The City has documented its land use policies within the study area in the *Henderson Comprehensive Plan* (City of Henderson 2022). The study area surrounding I-215 is identified in the *Henderson Comprehensive Plan* for a mix of land uses including primarily low- and medium-density residential and commercial (City of Henderson 2022).

A summary of existing land use throughout the study area is provided below.

- **Western Terminus to Green Valley Parkway:** Existing land use within the study area from the western study area limits to Green Valley Parkway north of I-215 consists of single-family homes, the Green Valley Corporate Center (an office park), restaurants, and a grocery store. This area is zoned for low-density residential, neighborhood commercial, and community commercial uses (City of Henderson 2023). South of I-215 from the western study area limits to Green Valley Parkway features Paseo Vista Park, another office park, the Life Time Living Green Valley apartment complex, the Green Valley Ranch Resort Spa and Casino (a hotel), as well as the District at Green Valley Ranch. The District at Green Valley Ranch is a mixed-use development complex that offers retail stores, restaurant, office space, and residential space. This area is zoned for community commercial, tourist commercial, and corridor/community mixed uses (City of Henderson 2023).
- **Green Valley Parkway to Valle Verde Drive:** Existing land use within the study area from Green Valley Parkway to Valle Verde Drive north of I-215 consists of single-family homes, an apartment complex, Mountain View Park, and a synagogue. This area is zoned for low-density single-family residential, medium-density residential, public and semipublic, and community commercial uses (City of Henderson 2023). South of I-215 from Green Valley Parkway to Valle Verde Drive, the land use consists of two adjacent elementary schools (John C. Vanderburg Elementary School and Neil C. Twitchell Elementary School), the Dos Escuelas Park, Paseo Verde Park, single-family homes, a grocery store, and other restaurants and stores. This area is zoned for public and semipublic, low-density single-family residential, medium-density residential, and neighborhood commercial uses (City of Henderson 2023).
- **Valle Verde Drive to Eastern Terminus:** Existing land use within the study area from Valle Verde Drive to the eastern study area limits north of I-215 consists of single-family homes, Villa Azure Condominiums, Castile Apartments, the Revel Nevada retirement community, Traverse Point Condominiums, Sin City Church, the Somerset Academy Stephanie Campus (a charter school), retail stores, and restaurants. This area is zoned for community commercial, low-density single-family residential, medium-density residential, and high-density multifamily residential (City of Henderson 2023). South of I-215 from Valle Verde Drive to the eastern study area limits consists of single-family homes, the Aspire at Paseo Apartments, hotels (SpringHill Suites by Marriott Las Vegas Henderson and TownePlace Suites by Marriott Las Vegas Henderson), Hannah Marie Brown Elementary School, the Reunion Trails Park and Amargosa Trailhead, offices, restaurants, and retail stores. This area is zoned for low-density single-family residential, medium-density residential, high-density multi-family residential, public and semipublic, community commercial, and office commercial uses (City of Henderson 2023).

The Preferred Alternative would not require any new right-of-way (ROW) and all proposed work would occur within existing NDOT ROW. Therefore, the Preferred Alternative would not convert any existing land uses to a transportation use. The Preferred Alternative is consistent with land use plans and would not result in unplanned growth that would alter surrounding land uses within the study area. The Preferred Alternative is responding to, not driving, development in and adjacent to the study area. Therefore, the Preferred Alternative would not induce residential or commercial growth in the study area. Thus, the Preferred Alternative would not impact existing land use.



4.8 Visual Resources

The study area is in a developed urban setting surrounded by distant mountains. Sensitive viewers of I-215 (i.e., people who can see the roadway) are found in the adjacent residential areas. Traffic noise walls are located along banks of the freeway ROW throughout the corridor. The traffic noise walls along the freeway are concrete panels that have an earth-tone brown color. The noise walls are constructed atop a gravel-lined embankment throughout most of the study area. The study area is almost completely devoid of any vegetation. The noise walls block views from the adjacent residences of I-215 and passing vehicles. The immediate view for users of I-215 in most of the study area are of traffic noise walls and the gravel-lined embankment. In some locations, adjacent businesses are visible from users of the freeway.

Although the Preferred Alternative proposes a wider freeway and additional noise walls, the additional noise walls would not alter existing views of the freeway or from the freeway as most of the study area already contains noise walls that block views of and from I-215. Traffic noise walls and the gravel-lined embankment would continue to dominate views from I-215, along with views of the distant mountains and adjacent businesses. The Preferred Alternative would not result in notable differences to the views of or from I-215.

4.9 Cultural Resources

An architectural and archaeological area of potential effects (APE) was developed to analyze the potential impacts of the Preferred Alternative on cultural resources. The architectural APE includes all areas where the Preferred Alternative may be visible, while the archaeological APE includes the maximum extent of ground disturbance for construction of the Preferred Alternative. Based on a desktop review of historical and current aerial imagery, as well as Clark County Assessor's Office data, no buildings or structures within the architectural APE are older than 45 years old.

A review of the Nevada Cultural Resource Information System (NVCRIS), as well as information available from local historical societies, University of Nevada Las Vegas, National Park Service, and the Nevada State Historic Preservation Office for archaeological and architectural resources, was also completed. Based on this review, no previously recorded cultural resources (architectural or archaeological) were identified within the APE. One previously recorded cultural resource was identified within a 0.25-mile radius (CK3518). This site was recorded in 1985 and is 0.22 mile from the APE. The site consists of three precontact depressions overlooking a wash on a desert pavement terrace. No artifacts were observed in conjunction with the depressions. Surficial evidence likely no longer exists due to development based on a review of historical and current aerial imagery. Fourteen previously conducted cultural resources investigations have been completed within a 0.25-mile buffer of the APE, ten of which are within the APE. The investigations were completed between 1983 and 2017 and cover approximately 60 percent of the APE.

In a memorandum dated July 21, 2011, the Federal Highway Administration delegated NDOT the authority to determine if a project has no potential to cause effect under 36 CFR 800.3(a)(1). NDOT Cultural Resources Section reviewed this project and determined the project qualifies as an action resulting in "No Potential to Cause Effect" under Part I, condition numbers 2 and 4 of the 2011 memorandum because no cultural resources were identified within the APE. Therefore, the Preferred Alternative would not affect any cultural resources.

4.10 Section 4(f)

According to 23 CFR 774.17, a property afforded protection under Section 4(f) is defined as "publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance." The Federal Highway Administration has adopted regulations to ensure its compliance with Section 4(f) (23 CFR 774). When protected recreational and wildlife resources or cultural sites are incorporated into a transportation facility or adversely affected by the project, it is considered a "use" of the Section 4(f) resource. "Use," as defined in 23 CFR 774.17, occurs when:



- Land is permanently incorporated into a transportation facility (direct use); or
- There is a temporary occupancy of land that is adverse in terms of the statute’s preservation purpose; or
- There is a “constructive use” of a Section 4(f) property.

No wildlife or waterfowl refuges occur within the study area. Further, based on the cultural resources review conducted for the Project, no cultural sites afforded protection by Section 4(f) occur within or adjacent to the study area.

The study area includes five publicly owned parks operated and maintained by the City of Henderson: Paseo Vista Park, Dos Escuelas Park, Mountain View Park, Paseo Verde Park, and the Reunion Trails Park and Amargosa Trailhead. The Preferred Alternative would not prohibit or restrict access or use of any of these parks. Therefore, no use of any of the parks in the study area under Section 4(f) would occur as a result of the Preferred Alternative.

4.11 Indirect and Cumulative Effects

Indirect effects are defined by induced growth impacts that would occur after construction is completed and would be located outside the project’s construction footprint. Cumulative effects are, “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period” (40 CFR 1508.7). The analysis of cumulative effects identifies direct and indirect impacts that may be minimal when examined within the context of the project, but that may accumulate and become significant when considered with other planned actions in the study area. Indirect effects and cumulative impacts are less defined than direct impacts, and by definition, cumulative impacts are incremental in nature and usually are less defined than indirect effects.

The proposed project would have negligible direct impacts to the surrounding areas and therefore would not contribute to cumulative impacts. Likewise, because the proposed project would have negligible direct impacts, it also would not result in induced growth.

5. References

City of Henderson. 2022. *Henderson Comprehensive Plan*. October.

<https://www.cityofhenderson.com/home/showpublisheddocument/1190/638029121024670000>.

City of Henderson. 2023. Zoning and Planned Land Use Interactive Map. Accessed April 2023.

<https://maps.cityofhenderson.com/public/myneighborhood/myneighborhood.html?view=zoning>

Federal Emergency Management Agency (FEMA). 2013. Letter of Map Revision 13-09-0920P. October 4.

https://gustfront.ccrfcd.org/pdf_arch1/lomr/13-09-0920P.pdf.

Federal Emergency Management Agency (FEMA). 2023. Flood Maps. Accessed April 2023.

<https://msc.fema.gov/portal/home>.

Natural Resources Conservation Service (NRCS). 2015. *Nevada Agricultural Land Conservation Easement Program (ACEP) Plan*. Draft.

Natural Resources Conservation Service (NRCS). 2023. *Web Soil Survey*. United States Department of Agriculture.

Accessed April 2023. <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>.



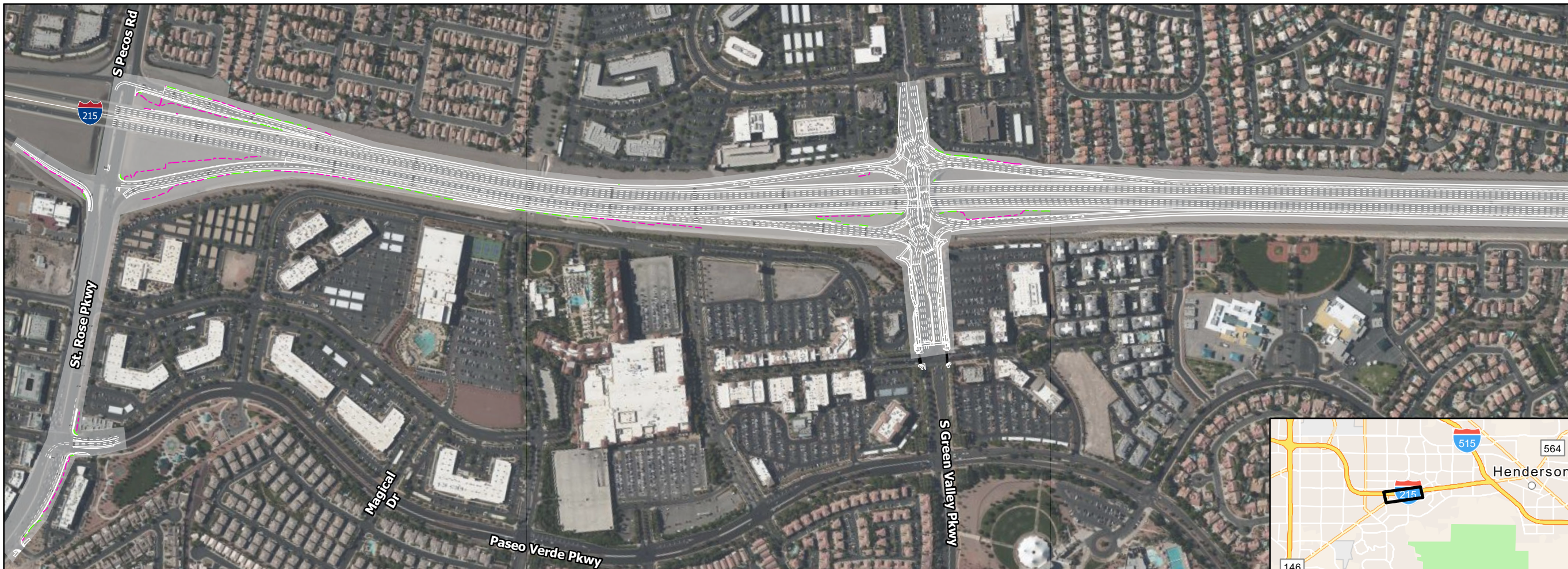
U.S. Census Bureau. 2010. Decennial Census of Population and Housing. <https://www.census.gov/programs-surveys/decennial-census/decade.2010.html>.

U.S. Census Bureau. 2020. 2016-2020 American Community Survey 5-Year Estimates. https://data.census.gov/table?q=demographics&g=0500000US32003_1600000US3231900&tid=ACSDP5Y2020.DP05.

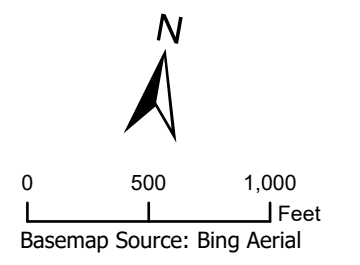
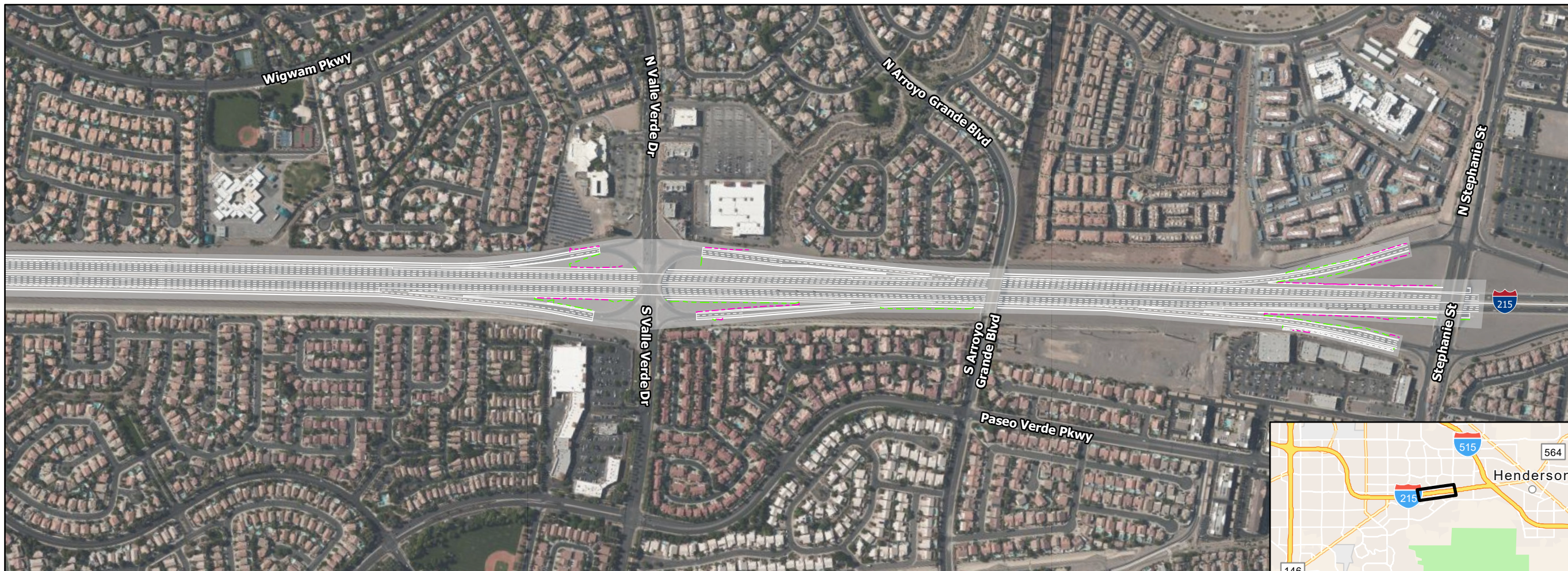
U.S. Fish and Wildlife Service (USFWS). 2022. *National Wetlands Inventory*. October. <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>.



Attachment A
Map of Preferred Alternative



- Legend**
- Proposed Roadway
 - - - Proposed Cut
 - - - Proposed Fill



Preferred Alternative
 I-215 City of Henderson
 Clark County, Nevada