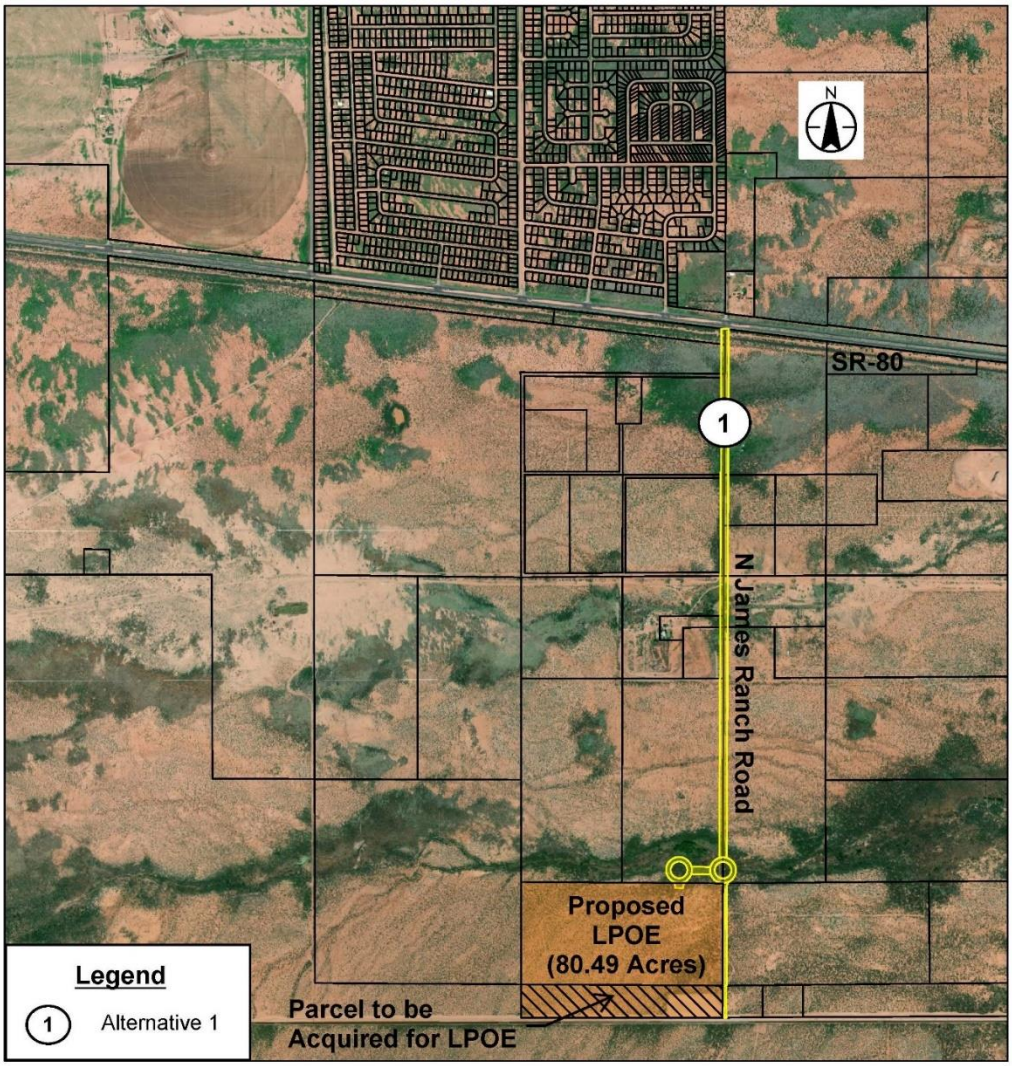
DRAFT ENVIRONMENTAL ASSESSMENT

For City of Douglas New Commercial Land Port of Entry (LPOE) Connector Road Study

Cochise County, Arizona

Federal Project No. 999-A(561)T; ADOT Project No. F0534 01L



October 2024

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Draft Environmental Assessment

For

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Cochise County, Arizona

Lead Agency – Arizona Department of Transportation

Federal Project No. 999-A(561)T

ADOT Project No. F0534 01L

October 2024

Approved by: Signed by: Paul O'Brien 69D3A817999345F... Date: 10/21/2024

Paul O'Brien, PE
Administrator
Environmental Planning

The environmental review, consultation, and other actions required by applicable federal environmental and State of Arizona laws for this project are being, or have been, carried out by the Arizona Department of Transportation (ADOT) pursuant to 23 United States Code (USC) 327 and a Memorandum of Understanding (date June 25, 2024) and executed by the Federal Highway Administration (FHWA) and ADOT.

This Environmental Assessment (EA) has been prepared in accordance with provisions and requirements of Title 23 Code of Federal Regulations Parts 771 and 774, relating to implementation of the National Environmental Policy Act of 1969 [42 U.S.C. 4332(2)(c)].

Comments and questions on the content of the draft EA can be submitted through **December 9, 2024,** in any of the following ways:

- Provide verbal comments at the public hearing
- On-line comment form: https://docs.google.com/forms/d/e/1FAIpQLSclX8F0Su_VC-V-FSHFyYq3bdnfONLBXafdsiKz0-hf5QceRA/viewform
- E-mail: study@SR80DouglasIPOE.info

Pursuant to Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA), and other nondiscrimination laws and authorities, the ADOT does not discriminate on the basis of race, color, national origin, sex, age, or disability.

Persons that require a reasonable accommodation based on language or disability should contact Tara Gibson (tgibson@azdot.gov) ADOT Community Relations. Requests should be made as early as possible to ensure the State has an opportunity to address the accommodation.

De acuerdo con el título VI de la Ley de Derechos Civiles de 1964 y la Ley de Estadounidenses con discapacidades (ADA por sus siglas en inglés) y otras normas y leyes antidiscriminatorias, el Departamento de Transporte de Arizona (ADOT por sus siglas en inglés) no discrimina por raza, color, nacionalidad, edad, género o discapacidad. Personas que requieren asistencia (dentro de lo razonable) ya sea por el idioma o por discapacidad deben ponerse en contacto con Tara Gibson (tgibson@azdot.gov) ADOT Community Relations. Las solicitudes deben hacerse lo más pronto posible paraasegurar que el equipo encargado del proyecto tenga la oportunidad de hacer los arreglos necesarios.

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Glossary of Acronyms and Abbreviations

ACS	American Community Survey
ADA	Americans with Disabilities Act
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
AGFD	Arizona Game and Fish Department
AJD	Approved Jurisdictional Delineation
AMA	Active Management Area
APE	Area of Potential Effects
ARS	Arizona Revised Code
ASM	Arizona State Museum
AZPDES	Arizona Pollutant Discharge Elimination System
BE	Biological Evaluation
BG	Block Group
BLM	Bureau of Land Management
BMP	Best Management Practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CT	Census Tract
CWA	Clean Water Act
dBA	A-weighted Decibels
DCR	Design Concept Report
DEA	Draft Environmental Assessment
DEV	Developing
EB	Eastbound
EA	Environmental Assessment
EIS	Environmental Impact Statement
EJ	Environmental Justice
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FIRM	Federal Insurance Rate Map
FONSI	Finding of No Significant Impact
FUDS	Formerly Used Defense Sites
GHG	Greenhouse Gas
GSA	General Services Administration
IAC	Interagency Consultation Group
IPaC	Information for Planning and Consultation
KOP	Key Observation Point
Leq	Equivalent Noise Level
Lmax	Maximum Noise Level

LOS	Level of Service
LPOE	Land Port of Entry
MBTA	Migratory Bird Treaty Act
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NAR	Noise Abatement Requirements
NAGPRA	Native American Graves Protection and Repatriation Act
NB	Northbound
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRHP	National Register of Historic Places
PISA	Preliminary Initial Site Assessment
POE	Port of Entry
ROD	Record of Decision
ROW	Right-of-Way
SB	Southbound
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SR	State Route
SWPPP	Stormwater Pollution Protection Plan
TI	Traffic Interchange
TNM	Traffic Noise Model
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDHHS	U.S. Department of Health and Human Services
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
VMT	Vehicle Miles Traveled
VRM	Visual Resource Management
Waters	Waters of the United States
WB	Westbound

Standards

ADOT and the contractor shall follow the federal laws, regulations and guidelines and the ADOT standards and specifications listed below to avoid, minimize, and mitigate impacts for all relevant environmental resources.

- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Uniform Relocation Act Amendments of 1987
- Title VI of the Civil Rights Act of 1964
- ADOT's Public Involvement Plan
- ADOT's NEPA EA and EIS Guidance
- ADOT's Right of Way Procedures Manual
- ADOT's Clean Water Act Manual
- ADOT's Temporary Traffic Control Design Guidelines
- ADOT's Erosion and Pollution Control Manual
- ADOT's 2017 Noise Abatement Requirements
- ADOT's Standard Specifications for Road and Bridge Construction
- SAF-6.01 Asbestos Management Policy
- ADOT's Roadside Vegetation Management Guideline

Environmental Mitigation Measures

Environmental mitigation measures are intended to avoid, minimize or mitigate impacts on environmental resources. The mitigation measures discussed in this document do not obligate ADOT to their implementation. ADOT may decide to modify, delete or add to these measures. These mitigation measures would be updated, as required, in the Final Environmental Assessment, at which time they would no longer be subject to change without prior written approval from ADOT.

Southeast District Responsibilities

- If clearing, grubbing, or tree/limb removal will take place during the breeding season (March 1 to August 31), the engineer will contact ADOT Environmental Planning to arrange for a qualified biologist to conduct active nest surveys of vegetation 10 (ten) days prior to removal. During the non-breeding season (September 1 to February 28), clearing, grubbing, or tree/limb removal may proceed without restriction (see Page 73).
- The engineer will contact the ADOT Environmental Planning (602.712.7767) or the Environmental Commitments Coordinator (520.449.1985) to schedule the preconstruction meeting on a mutually agreeable date to ensure a qualified Environmental Planning representative will be available to attend the meeting (see Page 73).

ADOT Roadside Development Requirements

- Protected native plants within the project limits would be impacted by this project; therefore, the ADOT Roadside Development Section would determine if Arizona

Department of Agriculture notification is needed. If notification is needed, the ADOT Roadside Development Section would send the notification at least 60 (sixty) calendar days prior to the start of construction (see Page 73).

- The Arizona Department of Transportation Roadside Development Section would provide special provisions for the control of noxious and invasive plant species during construction that may require treatment and control within the project limits (see Page 73).

Contractor Responsibilities

- No activities shall occur within Waters of the United States until the appropriate Clean Water Act Section 404 Permit and 401 Water Quality Certification have been obtained/issued (see Page 69).
- The contractor shall not conduct any clearing, grubbing, or tree/limb removal from March 1 to August 31 unless a qualified biologist approved by ADOT Environmental Planning has conducted a bird nest search of the affected vegetation and has determined that no active bird nests are present. Vegetation removal may occur if the area has been surveyed within 10 (ten) days prior to removal as long as only inactive bird nests, if any, are present (see Page 73).
- The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal noxious weed and the State invasive species lists in accordance with State and Federal laws and executive orders. The plan and associated treatments shall include all areas within the project right-of-way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the Arizona Department of Transportation Construction Professional Landscape Architect for review and approval prior to implementation by the contractor (see Page 73).
- Prior to the start of ground-disturbing activities and throughout the duration of construction and any landscape establishment period, the contractor shall arrange for and perform the control of noxious and invasive species in the project area (see Page 74).
- To prevent the introduction of invasive species seeds, all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris, including plant parts, soil, and mud, prior to the equipment entering the construction site (see Page 74).
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil, and mud, prior to leaving the construction site (see Page 74).
- Prior to construction, the contractor shall sample stockpiled debris and characterize it for waste profiling purposes and disposed offsite in an appropriate landfill. Soils below the stockpiled trash debris, debris stockpiles, empty above-ground storage tank, empty drums, and former railroad track slag should be observed and possibly sampled to confirm no subsurface soil impacts (see Page 75).

- The contractor will contact the ADOT Environmental Planning (602.712.7767) at least ten (10) working days prior to the commencement of work to ensure compliance with avoidance areas (see Page 49).
- The contractor shall contact the ADOT Environmental Planning Historic Preservation Team project lead or the Environmental Commitments Coordinator (520.449.1985) at least 10 (ten) business days prior to the start of ground-disturbing activities to arrange for a qualified archaeologist to flag avoidance areas (see Page 49).
- Cultural resource sites will be flagged or fenced for avoidance by a qualified archaeologist prior to ground disturbance (see Page 49).
- The contractor shall contact the ADOT Environmental Planning Historic Preservation Team (480.489.9256) or the Environmental Commitments Coordinator (520.449.1985) at least 10 (ten) business days prior to the start of ground-disturbing activities to arrange for qualified personnel to monitor and be present during construction. ADOT's Environmental Planning – Historic Preservation Team will provide contact information on the qualified archaeological consultant to the contractor for their records. ADOT's Environmental Planning – Historic Preservation Team will contact the qualified archaeological consultant regarding the project start date and provide contractor information (see Page 49).
- The contractor shall coordinate via email or phone with the qualified archaeological consultant and communicate the construction schedule for the duration of ground-disturbing work in those areas where monitoring is needed (see Page 50).

Chapter 1. Introduction

Explanation of an Environmental Assessment

This draft environmental assessment (EA) for the City of Douglas New Commercial Land Port of Entry (LPOE) Connector Road Study was prepared in accordance with the National Environmental Policy Act (NEPA), as amended (42 United States Code [USC] 4321 et seq.) and Council on Environmental Quality (CEQ) regulations that implement NEPA (40 Code of Regulations [CFR] 1500–1508). The Arizona Department of Transportation (ADOT) is the lead agency in the planning, preparation, and review of all technical and environmental documents associated with this draft EA.

According to CEQ regulations (40 CFR 1508.1), the basic function of a draft EA is to describe the need for a proposed action, alternatives for implementing or constructing a proposed action, and the environmental impacts of a proposed action and alternatives. The draft EA also provides a list of agencies and persons consulted. This document serves as a tool for ADOT to identify potentially significant impacts on social, economic, natural, and cultural resources and measures to avoid, minimize, and mitigate such impacts.

The environmental review, consultation, and other actions required by applicable federal environmental and State of Arizona laws for this project are being, or have been, carried out by the Arizona Department of Transportation (ADOT) pursuant to 23 U.S.C. 327 and a Memorandum of Understanding (date June 25, 2024) and executed by the Federal Highway Administration (FHWA) and ADOT.

As a recipient of federal funding from the FHWA, the ADOT is required to comply with the Title VI of the Civil Rights Act of 1964 (Title VI), which provides: “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” ADOT complies with these requirements as part of overall agency requirements outlined in 49 CFR 21 Appendix C(a)(2) and Title 23 section 200.7. Though not an assigned responsibility under NEPA Assignment or mentioned directly in NEPA documents, environmental documents by ADOT are developed and associated actions such as right-of-way are acquired in accordance with the Title VI requirements.

Following detailed environmental and engineering studies of three alternatives for a connector road between State Route 80 (SR 80) and the General Service Administration’s (GSA) new commercial Land Port of Entry (LPOE), this draft EA has been prepared to document and present the results of the studies to the public and agency representatives.

Project Area Location

The project is located in unincorporated Cochise County approximately 4.5 miles west of the City of Douglas limits and the existing Raul Hector Castro LPOE in Douglas, AZ (Figure 1). The shaded area in Figure 1 has been analyzed relative to the direct, secondary and cumulative effects of the proposed project. While not in this study area, this analysis incorporates information from GSA's LPOE EIS. The project study area is bounded by State Route (SR) 80 on the north, the international border with Mexico on the south, Brooks Road on the west, and James Ranch Road on the east. The area is predominately undeveloped and consists of mainly commercial and some residential properties. James Ranch Road is an existing two-lane dirt road that extends approximately one mile south of SR 80. The only major infrastructure in the general vicinity is the existing U.S. Customs and Border Patrol Station located south of SR 80 and east of James Ranch Road in the northwest quadrant of Kings Highway and West Puzzi Ranch Road.

Figure 1. Project Vicinity Map

Project Background and Overview

The GSA, in collaboration with the City of Douglas and other stakeholders, completed a feasibility study in 2019 and identified the need to separate commercial and non-commercial traffic flows in the City. GSA subsequently completed its Final Environmental Impact Statement (FEIS) in April 2024 regarding its proposed action. The FEIS can be obtained at Douglas LPOE Environmental Review | GSA.

A new commercial LPOE is planned to be constructed by the GSA in Douglas, Arizona by early 2028 on an 80.49-acre parcel that was donated to the GSA by the City of Douglas, Arizona, in September 2024. The proposed new LPOE will be located approximately 4.5 miles west of the existing Raul Hector Castro IPOE in Douglas, Arizona, on currently undeveloped land. As indicated in its FEIS, GSA preferred this site due to its availability of adequate space, proximity to major highways and transportation routes, and the support of the City of Douglas and Cochise County, as well as binational coordination with the Mexican government.

GSA's construction of the new commercial port of entry will alleviate commercial truck traffic through downtown Douglas, improve overall travel times, and improve pedestrian safety by reducing conflicts between pedestrians or non-commercial vehicles and commercial trucks (GSA FEIS, Chapter 1). Once the new LPOE has been constructed, the existing Raul Hector Castro LPOE will be strictly dedicated to pedestrian, vehicular, and bus traffic, while the new LPOE will manage all commercial truck operations. The port will also provide an opportunity for the City of Douglas and Cochise County to further develop the project area, with plans for a new industrial warehouse and business park zone.

In response to the new LPOE development, ADOT, in partnership with GSA, Cochise County, City of Douglas and other federal, state, tribal, and local agency stakeholders, is conducting an Engineering and Environmental Study which will develop alternatives and evaluate possible locations of a two-lane divided roadway (known as the Connector Road) that will link the new LPOE to the state highway system at SR 80. This study will include the preparation of a Design Concept Report (DCR), 15% design plans, an EA, and related studies and reports in order to define a set of recommendations and a recommended improvement alternative.

Construction of the Connector Road is needed because there is no all-weather, paved roadway that exists between GSA's new Douglas LPOE and SR 80. The primary goal of this project is to recommend a preferred connector road location and roadway typical section that can safely accommodate the commercial truck traffic that will be utilizing the proposed LPOE. Operational efficiency is a priority to the selection and design of a Connector Road alternative in order to facilitate the ingress and egress of commercial vehicles from the LPOE.

In accordance with CEQ regulations implementing NEPA, potential environmental impacts of the Preferred Alternative are compared to a No-Build Alternative in which proposed capacity and operation improvements in the study area would not occur. The No-Build Alternative includes existing transportation services and facilities in addition to improvements currently under construction or committed for funding.

Chapter 2. Purpose and Need

Summary

The purpose and need statement identifies specific and measurable transportation problems (needs) that the proposed project intends to address (purpose). This section discusses why ADOT is taking action to accommodate GSA's needs for a roadway connection between SR 80 and GSA's new commercial LPOE. It also defines the purpose of the project, demonstrates the need for the action, provides the basis for alternatives development, and discusses the proposed project's conformance to regional and local planning efforts.

The purpose and need for the new Douglas commercial LPOE project was prepared in accordance with:

- 23 USC Section 327 – Surface Transportation Project Delivery Program
- 23 CFR Section 450.212 – Transportation Planning Studies and Project Development
- 23 CFR Part 771 – Environmental Impact and Related Procedures
- ADOT NEPA EA and EIS Guidance manual (2019)
- FHWA Technical Advisory T 6640.8A – Guidance for Preparing and Processing Environmental and Section 4(f) Documents (1987)
- FHWA guidance – Elements of Purpose and Need (2018)

Purpose of the Proposed Action

Due to capacity and congestion problems with the intermingling of commercial vehicles, personally owned vehicles, pedestrians, and buses at the existing Raul Hector Castro (RHC) LPOE in downtown Douglas, GSA determined through the completion of a FEIS that a new commercial LPOE is needed west of Douglas to better serve the economic and transportation needs of the area and reduce the safety and security risks to Customs and Border Patrol agents and the general public. The purpose of the ADOT City of Douglas new commercial LPOE Connector Road Study is to support planning by the City of Douglas and GSA by providing a new roadway connection to SR 80, and provide improved access for future economic development.

Need for the Project

Need Based on Future System Linkages

Within the study area, SR 80 is a four-lane divided highway oriented in the east-west direction and is owned and maintained by ADOT. James Ranch Road is currently an unpaved rural local roadway which is privately owned and maintained. It runs north south and connects with SR 80, providing access to two privately owned properties along the roadway, and terminates 0.5

miles between SR 80 and the U.S./Mexico border. The GSA, in collaboration with the City of Douglas and community stakeholders, completed a regional feasibility study in 2019 to evaluate the condition of the RHC LPOE and evaluate needs for future modernization efforts. Following the completion of the feasibility study, the GSA completed a FEIS and Record of Decision (ROD) (2024). The GSA FEIS and ROD identified the selection of the Preferred Alternative that includes construction of a new commercial LPOE and modernization of the existing RHC LPOE.

GSA's new commercial LPOE will be located south of the current terminus of James Ranch Road, and therefore commercial vehicles entering into the new commercial LPOE and employees of GSA will require an access road to SR80 and I-10 to the north.

Improvements are needed in the existing study area in order connect the new LPOE to the existing transportation system because there is currently no all-weather, paved roadway facility that exists between GSA's new commercial LPOE and SR 80.

Need Based on Future Planning and Development

The study area for this project and plans for the City Douglas downtown have been studied for many years by the City of Douglas and Cochise County. In 2000, the City of Douglas purchased land in the current study area as part of a planning process with Cochise County to develop the area and facilitate the development of future planning that would move commercial traffic away from historic downtown Douglas at the current RHC LPOE and revitalize the downtown area be a more pedestrian-oriented community (City of Douglas et al. 2021). In 2019 the GSA, in collaboration with the City of Douglas and community stakeholders, completed a regional feasibility study to evaluate the condition of the existing RHC LPOE in downtown Douglas and evaluate needs for future modernization efforts and alternatives for alleviating congestion and increasing safety. The GSA FEIS (2024) Preferred Alternative identified the construction of a new commercial LPOE that will serve commercial truck traffic. The construction of a new commercial LPOE will separate commercial truck traffic from automobile, bicycle and pedestrian traffic at the existing RHC LPOE. As a result, truck traffic in downtown Douglas will be alleviated, overall travel times will be improved, and pedestrian safety will be improved by reducing conflicts between pedestrians or non-commercial vehicles and commercial trucks (GSA FEIS, Chapter 1 Purpose and Need).

In 2022, Cochise County amended the land use designations for 45 acres within the study area from Rural to Developing (Category B Community Growth Area), which is a flexible zoning designation that would accommodate future development with plans for a new industrial warehouse and business park zone to bring construction, manufacturing, and business jobs to the study area and larger region. Improvements are needed in the study area for this project to facilitate the completion of the LPOE and thus provide the transportation access needed for future development within the region that is planned by the City of Douglas and Cochise County.

Conformance with Regulations, Land Use Plans and Other Plans

The proposed connector road project to provide system linkages needed and improve access for economic development has been developed in partnership with GSA, Cochise County, City of Douglas, and other federal and state agencies in accordance with all federal, state, and local regulations in response to local planning identified below.

- City of Douglas General Plan (2024)
- Cochise County Long Range Transportation Plan (2015)
- GSA Expansion and Modernization of the Raul Hector Castro Land Port of Entry and Proposed Commercial Land Port of Entry Final Environmental Impact Statement (2024)
- ADOT 5-Year Transportation Facilities Construction Program (2025-2029)
- Cochise County - City of Douglas Infrastructure Project

Chapter 3. Alternatives

Introduction

The requirements for identifying, evaluating, screening, and selecting a preferred alternative is based on CEQ NEPA regulations (40 CFR 1500 to 1508), FHWA NEPA regulations (23 CFR 771), and associated guidance. The requirements state the process should analyze all reasonable alternatives, support the iterative nature of the NEPA process, provide a summary of the investigation and selection process, and determine the optimal alignment alternatives subject to the project constraints, including environmental, engineering, social, and economic evaluations. Input received from agencies and the public at scoping and public information meetings was also factored into the analysis.

Alternative Evaluation Screening Process

All alternatives were evaluated by the following eight criteria. These screening criteria were identified in ADOT's Project Scoping Document [project-scoping-document-guidelines.pdf (azdot.gov)] and applied based upon project goals and issues. The evaluation criteria are briefly described below, and the results of the evaluation are summarized in Table 1.

Meeting Purpose and Need – This criterion evaluates whether an alternative meets the project Purpose and Need as discussed in Chapter 2 above.

Environmental Concerns – This criterion evaluates the effects on land ownership/land use, biological resources, wetland and riparian areas, floodplains, Section 404 and 401 of the Clean Water Act, noise, and air quality.

Agency/Public Feedback – This criterion evaluates opinions obtained from scoping and public information meetings.

Level of Service (LOS) – This criterion evaluates the connector roadway and SR 80 intersection LOS for projected 2028 and 2050 volumes.

Drainage Impacts – This criterion identifies adverse drainage impacts created as a result of constructing each alternative.

Utility Impacts – This criterion evaluates each alternative on the basis of utility adjustments or relocations required.

Right-of-Way Requirements – This criterion estimates the amount of right-of-way and drainage easements required for each alternative.

Construction Cost – This criterion rates each alternative based on estimated construction costs.

Alternatives Evaluated

Build Alternatives:

The proposed build alternatives are consistent with the stated requirements and are described below and shown in Figure 2.

Alternative 1 would consist of constructing a new at-grade roadway along the James Ranch Road alignment. This alignment would provide a straight connection from SR 80 to the new LPOE, with access to the new LPOE being provided on the northern boundary of the new LPOE's 80-acre parcel. A roundabout would be provided for commercial truck traffic at the LPOE entrance to facilitate commercial traffic entering and leaving the port. A second roundabout would be provided at the intersection of the northern boundary road and James Ranch Road to separate commercial truck traffic from employee traffic. Additionally, a two-lane undivided access roadway with shoulders on each side will be provided along the eastern boundary of the LPOE for employee access into the facility. The completed traffic analysis for the study identified a traffic signal as a viable traffic control option at the intersection of SR 80 and Alternative 1 for the new LPOE 2028 and 2050.

Alternative 2 consists of constructing a new at-grade roadway from SR 80 along the James Ranch Road alignment for approximately a half mile, then west on the Puzzi Ranch Road alignment for a quarter mile, then south to the edge of the new LPOE, with access to the new LPOE being provided near the eastern end of the new LPOE's 80-acre parcel. Like Alternative 1, an access road for GSA employees will be provided along the eastern boundary of the LPOE. The connection of the Connector Road to the access roadway along the eastern boundary would include a roundabout similar to the design explained in Alternative 1. This roundabout could provide access to future development east of the LPOE. A second roundabout would be provided at the LPOE entrance to facilitate commercial traffic entering and leaving the port. The completed traffic analysis for the study identified a traffic signal as viable traffic control option at the intersection of SR 80 and Alternative 2 for the new LPOE in 2028 and 2050.

Alternative 3 consists of constructing a new at-grade roadway along the Brooks Road alignment, then east along the northern edge of the new LPOE, with access to the new LPOE being provided near the eastern end of the new LPOE's 80-acre parcel. Like Alternative 1, an access road for GSA employees will be provided along the eastern boundary of the LPOE. The connection of the Connector Road to the access roadway along the eastern boundary would include a roundabout similar to the design explained in Alternative 1. This roundabout could provide access to future development east of the LPOE. A second roundabout would be provided at the LPOE entrance to facilitate commercial traffic entering and leaving the port. The completed traffic analysis for the study identified a traffic signal as viable traffic control option at the intersection of SR 80 and Alternative 3 for the new LPOE in 2028 and 2050.

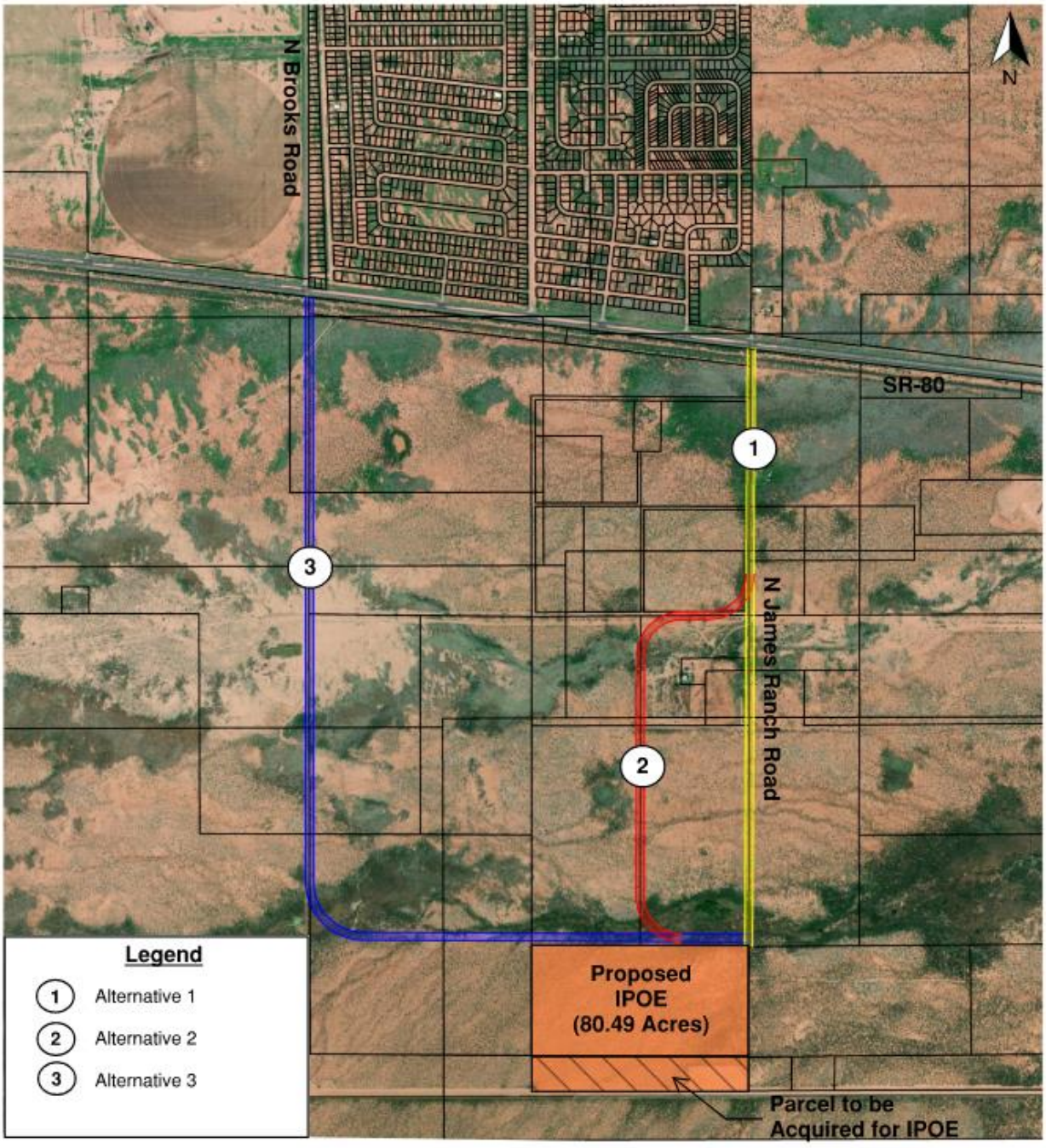

Figure 2. Proposed Alternative Alignments

No-Build Alternative:

The No-Build Alternative is required as part of the NEPA process for comparison with the potential impacts of the build alternative. With the new LPOE dependent on a new connector roadway to access the existing roadway network at SR 80, the No-Build alternative would effectively result in the new LPOE not being built and the current configuration at the Raul Hector Castro LPOE remaining as-is. Thus, it would not meet the project's or GSA's purpose and need.

This alternative would not accommodate the City of Douglas' utility infrastructure project intended to provide water/sewer and broadband services adjacent to SR 80 out to Cochise College, with southerly extensions along Jamea Ranch Road to GSA's planned LPOE near the Mexican border.

Alternatives Evaluated but Eliminated from Further Study

The results of the screening evaluation (Table 1) indicated that two build alternatives would satisfy the project's purpose and need but would result in greater ROW requirements and cost, increased construction costs, and greater impacts to local drainages. Thus, Alternatives 2 and 3 have been eliminated from further consideration.

Table 1. Alternative Evaluation Screening Matrix

CRITERIA	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
Meeting Purpose and Need	Meets Purpose and Need	Meets Purpose and Need	Meets Purpose and Need
Environmental Concerns	Least amount of wildlife habitat disruption	Moderate amount of wildlife habitat disruption	Greatest amount of wildlife habitat disruption
Agency/Public Input	Supported Alternative 1 most because it's the most direct route to the LPOE with least impact	Did not see the need for a slight route deviation for access to the LPOE	No support for the longest route to the new LPOE
Level of Service	SR 80/Connector Road Intersection in 2028 operates at LOS B and in 2050 operates at LOS D	SR 80/Connector Road Intersection in 2028 operates at LOS B and in 2050 operates at LOS D	SR 80/Connector Road Intersection in 2028 operates at LOS B and in 2050 operates at LOS D
Drainage Impacts	34-10'x5' CBC barrels are recommended along 3 washes that are crossed	41-10'x5' CBC barrels and 3-36" RCP barrels are recommended along 3 washes and 2 diverted flows that are crossed	36-10'x5' barrels are recommended along 3 washes, 2 diverted flows and 2 tributaries that are crossed
Utility Impacts	Minor impacts along SR80 identified	Minor impacts along SR80 identified	Minor impacts along SR80 identified
Right-of-Way Requirements	40.4 Acres – ROW; 1 residential relocation 180.0 Acres – Drainage Easements	44.4 Acres – ROW; no relocations 180.0 Acres – Drainage Easements	61.6 Acres – ROW; no relocations 180.0 Acres – Drainage Easements
Construction Costs	$53.0 M	$62.5 M	$70.0 M

Alternatives under Consideration

Preferred Alternative

Alternative 1 has been identified as preferred because it will provide the most direct route between SR 80 and the new LPOE near the Mexican border. This results in less right-of-way acquisition, less disturbance to the overall project area from temporary construction and drainage easements because it is the shortest route, less construction costs, and the most direct north south traffic movements along a linear roadway into the proposed LPOE.

Most of the construction of the Preferred Alternative will be completed on land that is currently privately owned and undeveloped. Right-of-Way will be acquired from these properties, and a residential property may need to be acquired. In addition, drainage easements and temporary easements will be needed to construct the recommended improvements. At the time of this report, only three properties within the study area have dwellings, but one of the properties appears to be abandoned. Access to any inhabited properties to remain within the improvement area will need to be maintained throughout construction.

The estimated project costs for all build alternatives are presented in Table 1. Because the overall cost for the Preferred Alternative is $53 million, a phased construction approach is recommended to stay within existing funding levels. Phased improvements include constructing an Interim, two-lane divided connector roadway and, depending upon funding, separating the SR 80 improvements from the Connector Roadway Project. The ultimate improvements consisting of a four-lane divided connector roadway and two roundabouts would be constructed based on traffic demand and the need to provide a level-of-service (LOS) D in the future.

Any work completed on SR 80 will be managed through detailed traffic control plans and by procedures and guidelines specified in the Manual of Uniform Traffic Control Devices (MUTCD). Any SR 80 work will be phased to allow for traffic to be shifted to maintain one lane of eastbound and westbound traffic throughout the construction process. Access to properties along SR 80 will be maintained at all times. The final construction phasing and traffic control plans will be developed during final design.

The Interim Condition of the Preferred Alternative will be constructed initially to connect the new Commercial LPOE with SR 80 for the project's opening year of 2028. The typical section of the Interim Condition will be a two-lane divided roadway with 8-foot-wide shoulders on both sides (Figure 3). Additionally, the two roundabouts originally proposed will be constructed as T-intersections in the Interim Condition. A two-lane undivided roadway with shoulders on both sides will be constructed on the east side of the LPOE for employee access to the GSA site (Figure 4).

It is anticipated that the Interim Condition of the Connector Roadway will provide a LOS D or better until approximately 80 percent of the traffic from the proposed surrounding developments is realized. At that point, it is recommended that the Connector Roadway is improved to the Ultimate Condition consisting of a four-lane divided roadway with a raised median, shoulders, and two roundabouts (Figure 5). Based on an interpolation of the projected volumes between the 2028 opening year and the 2050 horizon year, it is currently estimated that the ultimate improvements will be required in year 2044.

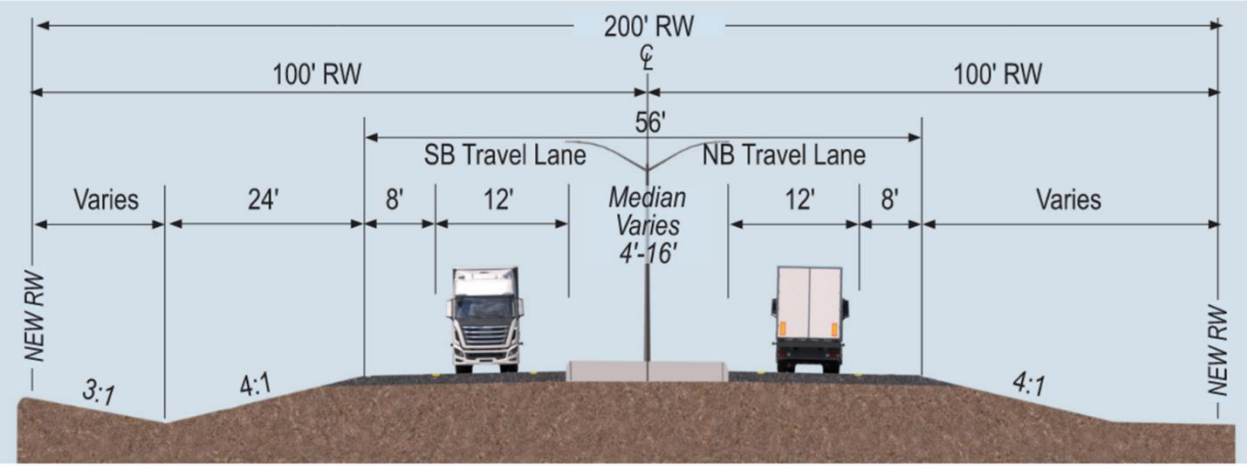

Figure 3. Interim Project Typical Section

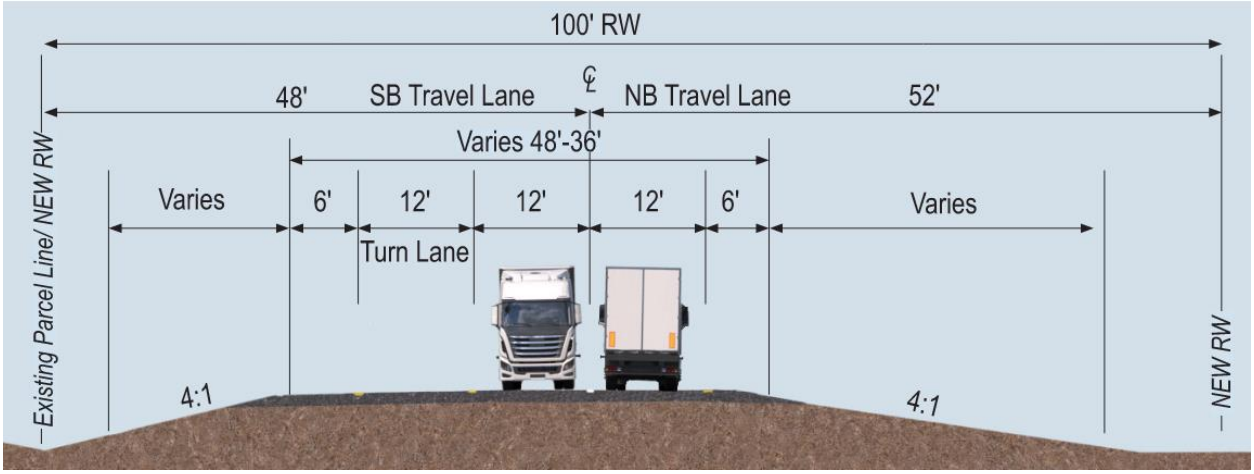

Figure 4. Typical Section for Employee Access Road

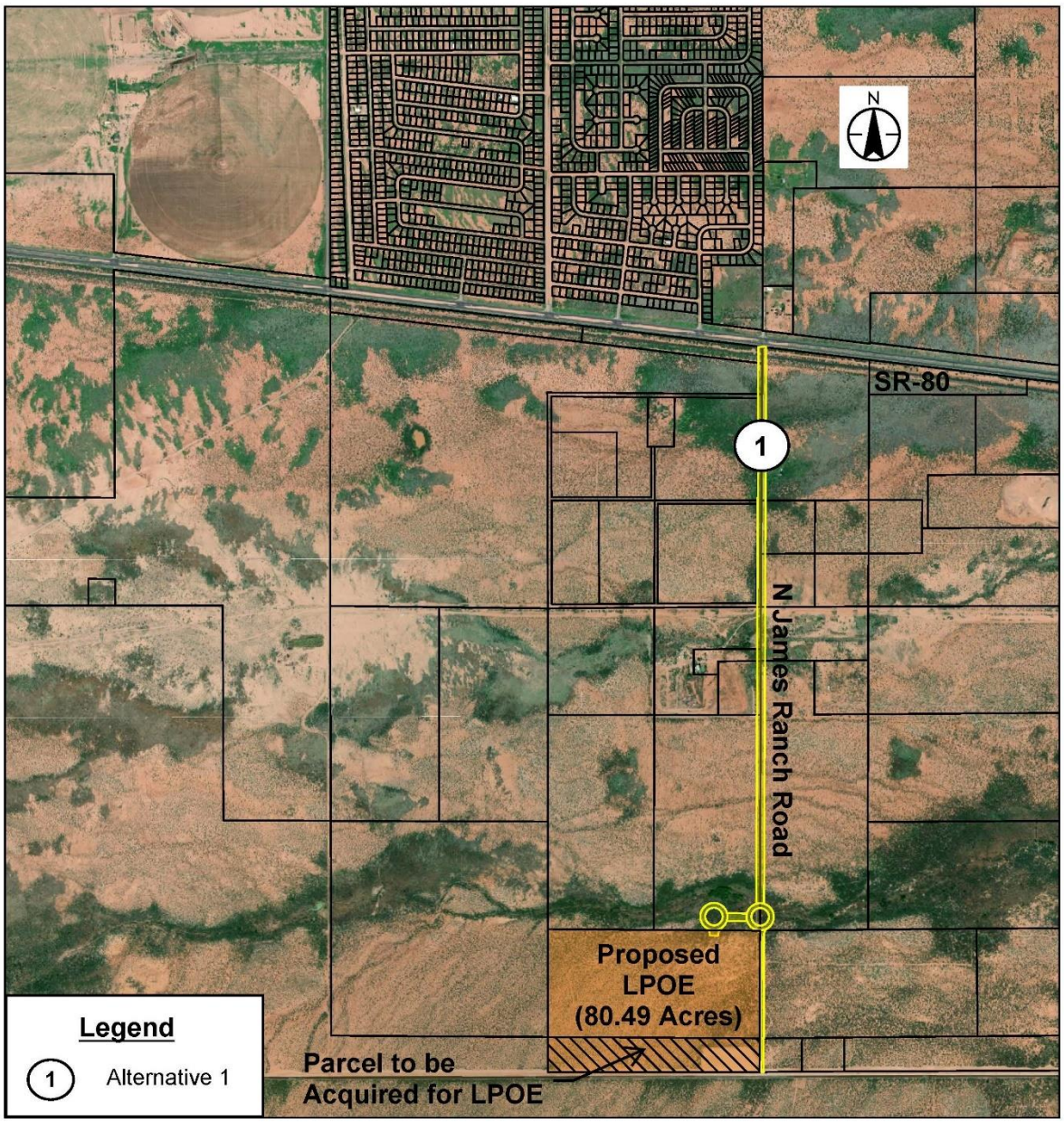

Figure 5. Proposed Roundabout Locations at LPOE

At this point in the study, horizontal design criteria have been established, while the vertical design criteria will be further refined and explained in the DCR and used in the development of the preliminary roadway plans. Based on projected traffic volumes, the ultimate roadway typical section will consist of two 12-foot travel lanes in each direction, with 10-foot paved shoulders on the outside and 4-foot paved shoulders on the inside of the roadway. Directional traffic will be separated by a 20-foot-wide raised median. The proposed right-of-way for each alternative is 200-foot wide. Utility corridors are planned on the exterior of the roadway

section, with street lighting included within the median. Please refer to Figure 6 for the recommended connector road typical section.

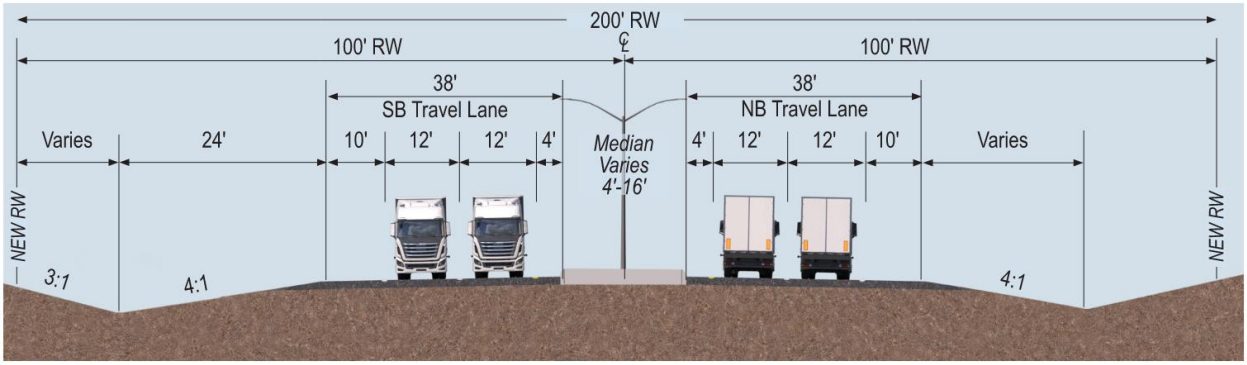

Figure 6. Connector Road Ultimate Typical Section

No-Build Alternative:

The No-Build alternative assumes the existing roadway configurations in the study area would be maintained, meaning that the proposed new commercial LPOE would have no connectivity to the existing roadway system in the area. The No-Build alternative would effectively result in the new LPOE not being built and the current configuration at the Raul Hector Castro LPOE remaining as-is. Thus, it would not meet the project's or the GSA project's purpose and need. The City of Douglas has plans to realign Chino Road, which is just east of the SR80/US191 intersection, to tie into this intersection to create an operable four-legged intersection.

General Project Schedule

The Connector Road Study was initiated with a Notice to Proceed on January 4, 2023, followed by an internal project kickoff meeting on January 13, 2023. If the Final EA/FONSI is completed, final design will begin in early 2025 and will produce construction plans and specifications for the connector road. Construction is currently scheduled to begin in 2026 and end in 2028 concurrent with GSA's opening of its LPOE.

Chapter 4. Affected Environment, Environmental Consequences and Mitigation/Commitments

This chapter of the draft EA discusses environmental resources that may be affected by the proposed project. The existing conditions for each resource, potential adverse impacts resulting from the Preferred Alternative and the No-Build Alternative, and potential mitigation measures to address adverse impacts are presented.

In this document, the term "study area" is used to reference lands that encompass all three alternatives. Existing information and field data were collected for the study area to identify all known resources in the affected environment. The study area was defined early in the DCR effort, and the limits of which are depicted in Figure 1.

Issues Eliminated from Detailed Study

Based on early coordination and a review of the study area, the proposed project would have no impact on Section 4(f) or 6(f) resources, wild and scenic rivers, sole source aquifers, national natural landmarks, wilderness areas, 303(d) impaired waters, outstanding waters, wells, prime and unique farmland, and scenic roads and parkways because these resources do not exist in the study area, or the proposed project has no potential to impact them.

Land Ownership, Jurisdiction, and Land Use

This section describes land ownership, jurisdiction, and land uses in the study area. "Land ownership" identifies public and private ownership; "jurisdiction" implies the authority that regulates land uses; and "land use" describes the existing occupation or physical use of the land. Figure 7 depicts land jurisdiction in the study area and surrounding area.

Land ownership and land use policies influence the rate and form of transportation and infrastructure development for a given area. Understanding land use types and jurisdiction are paramount in analyzing compatibility of the project to current and future land use plans. Transportation projects may require the partial or full conversion of previously owned lands to transportation use. Land ownership is discussed to quantify the parcels required to accommodate the construction of the project.

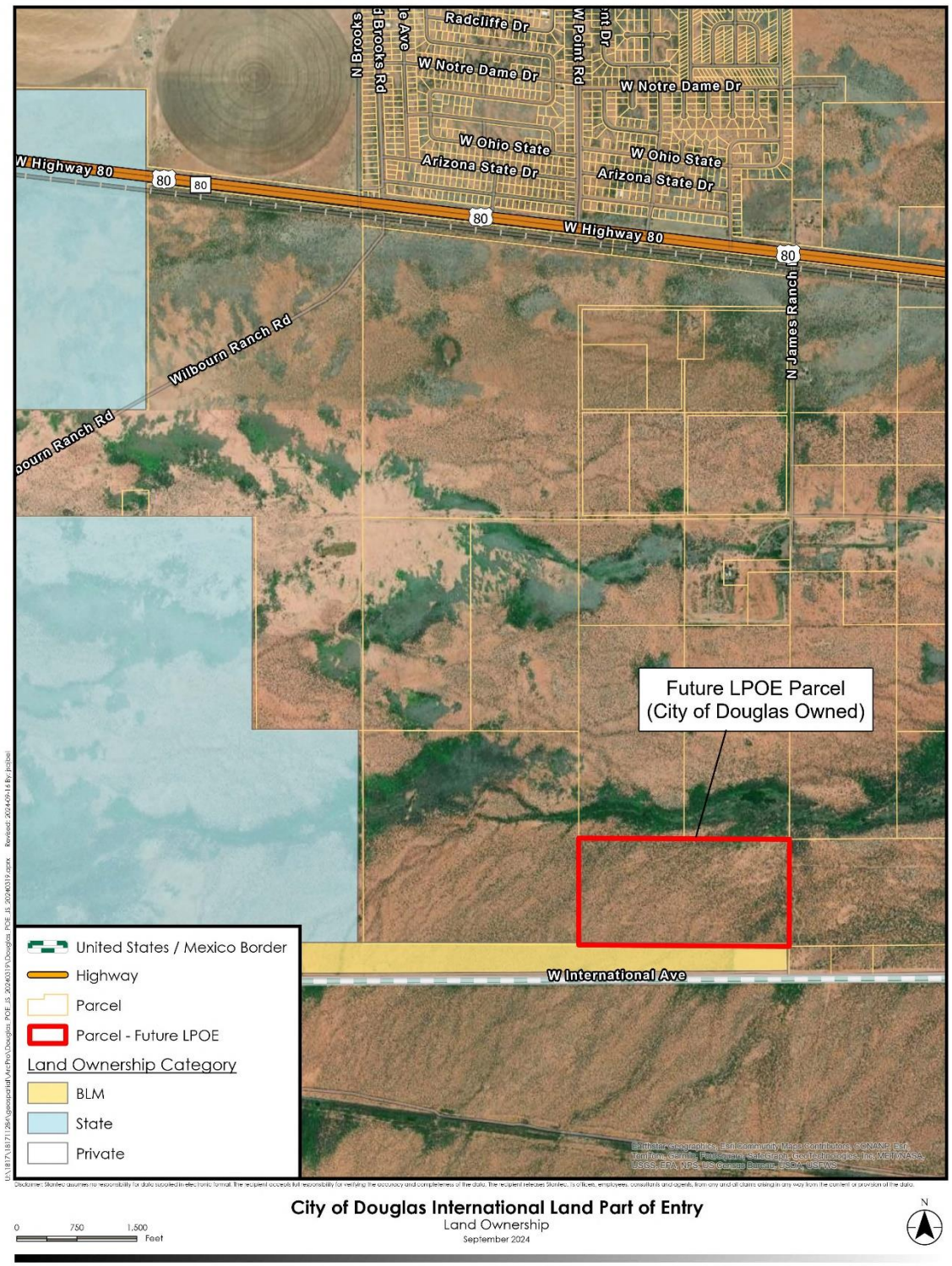

Figure 7. Existing Land Ownership and Use
(Refer to Figure 8 for Study Area)

Affected Environment

Existing Land Ownership/Jurisdiction

The study area is within an unincorporated area and under the jurisdiction of Cochise County and the City of Douglas. Lands within the study area are privately owned. SR 80 is a state highway and under the jurisdiction of ADOT. The City of Douglas is approximately 4.5 miles to the east; the town of Bisbee is approximately 15 miles to the west. Lands under the jurisdiction of the BLM are located along the international border (Figure 7) and will not be affected by this project. The International Border is immediately south of the project area as is the proposed new LPOE.

Land Uses

Land use planning within the study area is directed by the Cochise County Comprehensive Plan, as amended in 2015. This plan, in conjunction with the Cochise County GIS Interactive Maps, were used to determine existing land ownership, existing land use, and future land use within and adjacent to the study area (Figure 8).

Figure 8. Existing Study Area

Lands within the SR 80 right-of-way are managed for transportation purposes. Lands within the remaining study area are primarily undeveloped or support rural development. There are two residences located within the study area. Parcel sizes range from 4 acres to 272 acres. There are no commercial uses within the study area.

The Comprehensive Plan categorizes the entirety of Cochise County, with the exception of incorporated cities, into four (4) categories. Categories are based on each area's existing or foreseeable infrastructure, character, and capacity for growth. The study area is designated *Category C–Rural Community Areas*. This category includes less populated rural communities that are characterized by a slow rate of growth and the desire to maintain the existing neighborhood or rural atmosphere. The Comprehensive Plan further defines plan designations within each of the Growth Categories. There are seven potential plan designations. These designations more specifically identify the existing character of smaller

areas within each Growth Area. The study area is within a Developing (DEV) plan designation. Per the Comprehensive Plan "The DEV plan designation is used to describe areas experiencing non-rural growth rates that are developed with scattered, mixed residential, business, or industrial and agriculture-related uses and that ultimately will accommodate future growth as the more populated areas reach build-out. Since these areas are assumed to be in transition, the Planning Department will periodically re-evaluate these areas to determine if the rate of new development warrants a new designation or growth area that is either more or less intense."

Future Development Plans

Future plans for the private lands north of SR 80 involve additional residential development. The County and City have ongoing discussions with the public regarding what they would like to see happen in the area around James Ranch Road relative to an industrial and warehouse district. This area is currently designated as "developing" in the Cochise County Comprehensive Plan.

Environmental Consequences – Preferred Alternative

Land Ownership/Jurisdiction

New ROW and permanent easements would be needed to accommodate the new connector road which would constitute a change in land ownership. These lands are currently privately owned. ROW for the Preferred Alternative would be acquired by others (not ADOT). The acquisition process would occur during final design when ROW needs per parcels and acreages would be refined as engineering design is advanced. The need for temporary construction easements or drainage easements is not known at this time but would be identified during final design activities. No changes in jurisdictional boundaries would occur because of the Preferred Alternative. No changes to landownership would result from any improvements to SR 80.

The Preferred Alternative would require the total acquisition of 220.4 acres (40.4 acres for new ROW and 180.0 acres for drainage easements) and the displacement of one residence.

ADOT and the contractor would follow the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, Uniform Relocation Act Amendments of 1987, ADOT's Right of Way Procedures Manual (ADOT 2023d), Title VI of the Civil Rights Act of 1964, and ADOT's Public Involvement Plan (ADOT 2023c).

Land Use

Lands within the study area are rural and primarily undeveloped. Construction of a road connecting SR 80 to the new LPOE would likely result in ancillary developments along the roadway. Potentially commercial and industrial uses would be proposed. The acquisition of land from private parties would remove taxable land from Cochise County. This impact would be considered mild and negative in the short term, but in the long-term, the Preferred Alternative would likely spur commercial and industrial developments adjacent to the

roadway, increasing the County's tax base. In the long-term, the Preferred Alternative would improve international traffic flows across the Douglas IPOE by requiring truck traffic to use the proposed LPOE and would benefit future growth and development.

The proposed project is consistent with planning designations by Cochise County and is supported by the State of Arizona and the City of Douglas as an important new north-south connection between SR 80 and the International Border.

Environmental Consequences – No-Build Alternative

Under the No Build Alternative, the road connecting SR 80 to the proposed LPOE would not be constructed. Landownership and uses would not change; ancillary future developments associated with access to the International Border would not occur as anticipated. Potential development along James Ranch Road and within the general study area would occur at a much slower rate, according to Cochise County officials, because no improvements would occur along James Ranch Road.

Socioeconomic Considerations and Environmental Justice

This section describes the potential social and economic impacts of the Preferred Alternative on the local and surrounding population, including populations of environmental justice concern.

Socioeconomics

Affected Environment

Socioeconomic analysis includes how a proposed project could affect the overall social and economic character, the well-being of current and future residents of the affected community, and the future cohesion of the community once a project has been implemented. Lands within the project area are rural and primarily undeveloped. There are only two residences south of SR 80 in the project area. The two residences are adjacent to James Ranch Road. A residential development is present north of SR 80 and west of James Ranch Road. There are no community elements (i.e., parks, schools, or businesses), disabled or elderly, or female heads of household present in the project area.

Environmental Consequences

Preferred Alternative

The project area is rural and there are no community resources or character. Therefore, the Preferred Alternative would have no direct, indirect, or cumulative impacts on socioeconomics.

No-Build Alternative

The no action alternative would not have an impact on community resources or character and would have no effect on socioeconomics in the project area.

Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, directs that federal programs, policies, and activities not have disproportionately high and adverse human health and environmental effects on minority and low-income populations.

An adverse effect is a significant individual or cumulative human health or environmental effects (e.g., the displacement of a household structure or business as a requirement to build a project). A disproportionately high and adverse effect on minority and low-income populations is an adverse effect that:

- Is predominantly borne by a minority population and/or a low-income population or
- Will be suffered by the minority populations and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

This section presents a summary of the environmental justice analysis for the project.

Identification of Protected Populations

The project limits are within an unincorporated rural, mostly undeveloped, area in southeastern Arizona. There are no commercial businesses within the project limits; there are two residences within or immediately adjacent to the project limits.

Data used in the Draft EA for the EJ analyses were taken from the 2021 American Community Survey (ACS) 5-Year Estimate provided by the U.S. Census Bureau. The ACS uses a random sample design to collect data representative of the overall population in an area. Data used for the EA are from the most recent five-year running average. Block Group (BG) data and data from Cochise County were reviewed. A 2-mile buffer of the project area occurs entirely within one BG (Figure 9). To provide a full context of the demographics in the region, data from a second BG has been included in the analysis.

In the context of EJ, an adverse effect is a significant individual or cumulative human health or environmental effect (e.g., the displacement of a household structure or business, disruptions to transit access, excessive dust in areas where people are likely to work or recreate). A disproportionately high and adverse effect on minority and low-income populations is an adverse effect that:

- is predominately borne by a minority population and/or a low-income population or
- would be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the nonminority population and/or non-low-income population.

Total Minority (Racial Minorities, Hispanic, and Latino Concentrations)

The U.S. Department of Transportation and the FHWA define five minority groups, as follows:

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

Selected population areas (Census Tracts [CTs]) showing racial minorities, Hispanic or Latino origin, or total minority populations are considered “protected populations” for the purposes of this EJ evaluation.

Data from the 2022 ACS 5-Year Estimate indicate that racial minorities reside in CT6 BG1 and BG2 (Table 2). Within CT6 BG1, data indicate that the percentage of the population

identifying as Hispanic or Latino is 68% (Table 3). The population within CT6 and BG1, and presumably the project area, is considered a protected population on the basis of its Hispanic or Latino composition.

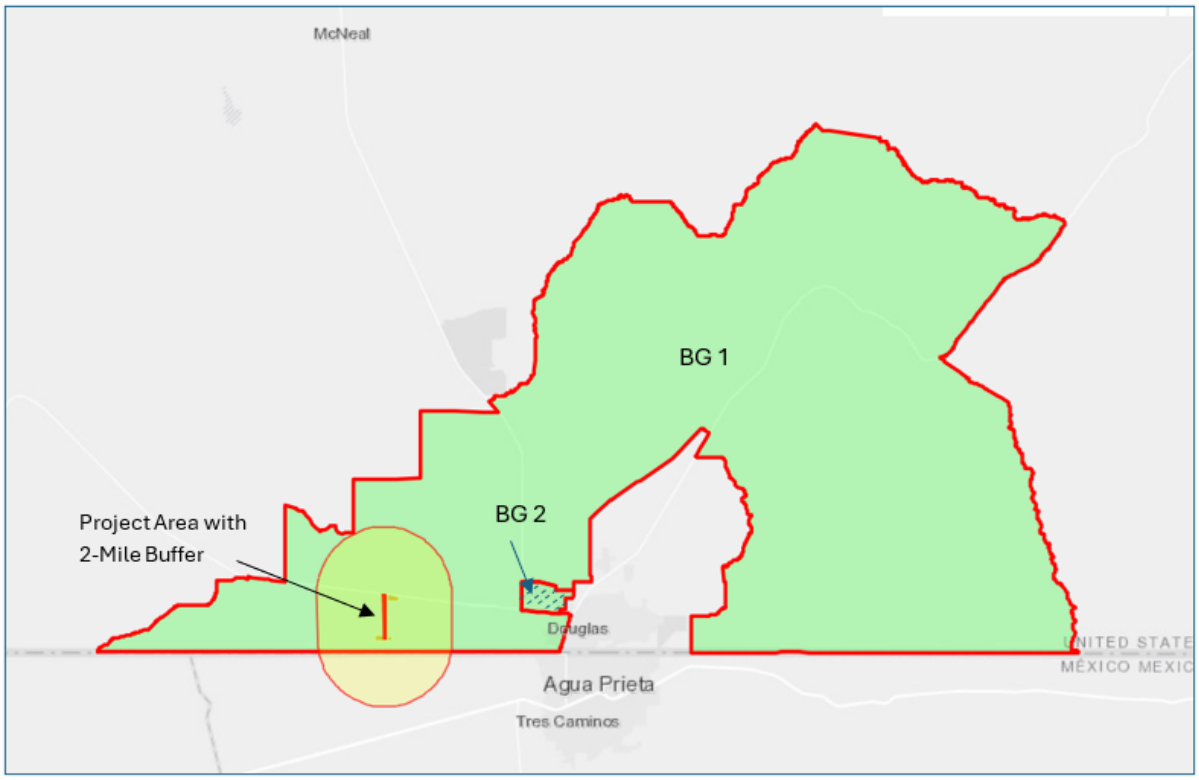

Figure 9. Project Area Depicted with 2-Mile Buffer and Block Groups

Table 2. 2022 American Community Survey 5-Year Estimate: Racial and Ethnic Demographics (US Census Bureau)

Population	Cochise County		CT6 BG1[a], Cochise County, Arizona		CT6 BG2, Cochise County, Arizona	
	No.	%	No.	%	No.	%
White alone	89,661	71	1237	75	922	72
Black or African American alone	5,001	4	30	2	0	0
American Indian and Alaska Native alone	1,170	1	95	6	0	0
Asian American	2,435	2	125	8	0	0

Population	Cochise County		CT6 BG1[a], Cochise County, Arizona		CT6 BG2, Cochise County, Arizona	
	No.	%	No.	%	No.	%
Native Hawaiian and Other Pacific Islander alone	415	0	0	0	0	0
Some other race alone	5341	4	55	3	31	2
Two or more races	21481	17	141	9	336	26

[a] Project area occurs entirely within BG1.

Table 3. Total Racial Minority and Total Hispanic or Latino Origin (US Census Bureau)

Total Population		Total Racial Minority[a]		Total Hispanic or Latino Origin[b]		Total Minority (Racial and Hispanic or Latino Origin)[c]	
		No.	%	No.	%	No.	%
CT6 BG1	1,653	416	25	1,130	68	1,347	81
CT6 BG2	1,289	367	28	1,289	100	1,289	100
Cochise County	125,504	35843	29	44,809	36	58,136	46

[a] Percentage of residents who identify themselves as any race other than White: Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and other Pacific Islander, some other race, and two or more races.

[b] In addition to race, residents were asked to categorize themselves by one of two ethnicities: Hispanic or Latino and Not Hispanic or Latino.

[c] Total minority is composed of all people who consider themselves Non-White racially, plus those who consider themselves White racially and Hispanic or Latino.

Low Income

A low-income population is defined as a population whose median household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines for a family of four. For 2023, the guideline is $30,500. Table 4 depicts the median household income for CT6 BG1 and Cochise County. Median household incomes for each are greater than the HHS defined low-income guidelines for 2023.

Table 4. 2022 American Community Survey 5-Year Estimate: Median Household Income in the Past 12 Months (US Census Bureau)

Area	Median Household Income in the Past 12 Months
CT6 BG1	$36,331
CT6 BG2	$55,208
Cochise County	$58,421

Limited English Proficiency

Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (LEP), requires recipients of Federal financial assistance to provide language services (oral or written) to ensure meaningful access for any language, upon request. Identification of LEP persons is required for the purpose of devising appropriate strategies for meaningful public involvement and ensuring access pursuant to this executive order. LEP persons are individuals over five years of age who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English.

Title VI and Executive Order 13166 prohibit recipients of Federal financial assistance from discrimination based on national origin. In accordance with Title VI and Executive Order 13166, ADOT developed an LEP Language Access Plan. Table 5 identifies the languages spoken at home for the population 5 years old and older within CT6 and Cochise County. Data was not available to the BG level. Of the those who speak Spanish, 23% of those residing in CT6 indicated that they speak English less than "very well" and 29% of Cochise County identified the same.

Table 5. 2021 American Community Survey 5-Year Estimate: Language Spoken at Home for the Population 5 Years and Over (US Census Bureau)

Language	Cochise County, Arizona		CT6, Cochise County, Arizona	
	No.	%	No.	%
Total	118,133		3,287	
Speak only English	85,834	73	768	23
Spanish	27,881	24	2,354	72
French, Haitian, or Cajun	450	0	1	0
German or other West Germanic languages	1,136	1	3	0
Russian, Polish, or other Slavic languages	200	0	13	0
Other Indo-European languages	430	0	12	0
Korean	611	152	0	0

Language	Cochise County, Arizona		CT6, Cochise County, Arizona	
	No.	%	No.	%
Chinese (including Mandarin, Cantonese)	119	0	0	0
Vietnamese	324	0	126	4
Tagalog (including Filipino)	329	0	0	0
Other Asian and Pacific Island languages	363	0	0	0
Arabic	20	0	0	0
Other and unspecified languages	436	0	10	0

Environmental Consequences

Preferred Alternative

The following section assesses whether the Preferred Alternative of the LPOE Connector Road would have disproportionately high and adverse human health and environmental effects on the identified protected minority and low-income populations. Disproportionately high and adverse refers to an adverse effect that would be predominately borne by a minority population and/or a low-income population or would be suffered by a minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that would be suffered by the nonminority population and/or non-low-income population. For transportation projects, negative impacts on resident communities must be balanced with the overall benefit of a transportation improvement.

There are two residences within the project area; one would be relocated as a result of selecting the Preferred Alternative. There would be minor overall impacts, but they would not constitute overall disproportionate impacts to EJ populations.

Temporary Construction-Related Impacts

Area residents and motorists using SR 80 could be temporarily affected by construction-related activities. The anticipated impacts include an increase in noise, generation of dust from the operation of construction equipment, and traffic congestion and delays. Access to residential properties would remain open throughout construction. SR 80 would remain open throughout construction, and no traffic detours would be required. The construction noise and dust and the construction-related traffic congestion and delays would be temporary and would cease following the completion of construction. Air quality during construction may temporarily be impacted by fugitive dust clouds. Dust would be controlled through the extent possible through the implementation of Best Management Practices. Impacts to air quality would be temporary and would cease following the completion of construction. For these reasons, temporary construction-related impacts on protected populations would not be disproportionately high and adverse.

Long-Term Changes in Access and Congestion

The construction of a new connector road from SR 80 to the LPOE would result in long-term changes in access and circulation. Through traffic from SR 80 to the LPOE would result in long-term negative impacts to the remaining adjacent resident if the Preferred Alternative were selected resulting in a 200-foot-wide four-lane roadway directly adjacent to their property. Future commercial development is likely, although none is currently planned, to occur on lands adjacent the new roadway. Traffic from the LPOE would increase local traffic and congestion for residents along James Ranch Road. Access change to SR 80 would impact area residents during construction and may include temporary detours or lane closures. These changes are not anticipated to negatively impact area residents north of SR 80.

Employment

The completion of the Preferred Alternative would have no direct impact to local employment. However, there could be an indirect positive impact on employment in the project area and within the region if future commercial development were to occur adjacent to the roadway. New commercial developments would result in a long-term positive impact on employment opportunities.

Conclusion

As stated above, in the context of EJ, an adverse effect is a significant individual or cumulative human health or environmental effect (e.g., the displacement of household structures or businesses, disruptions to transit access, excessive dust in areas where people are likely to work or recreate). However, the Preferred Alternative would not result in overall disproportionate impacts to EJ populations.

The development of Preferred Alternative would be beneficial to the regional community by opening up mostly undeveloped lands to commercial developments; and by alleviating congestion at the existing POE by redirecting commercial vehicle away from downtown Douglas. While EJ populations may be affected, none of the above impacts are anticipated to be disproportionately high and adverse; and overall long-term, minor beneficial to EJ populations are anticipated.

ADOT would follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 regarding ROW acquisition for this project. The Preferred Alternative would require approximately 51 acres of land.

No-Build Alternative

Under this alternative, ADOT would not construct a road connecting SR 80 to the new LPOE. Therefore, no impacts on EJ populations would occur. Potential beneficial impacts to EJ populations from increased job opportunities would not occur.

Visual Resources

Introduction

The visual assessment methodology utilized for this study is based on a blend of the Bureau of Land Management's (BLM) Visual Resource Management (VRM) classification system (BLM Manual 8410) and the FHWA Guidelines for Visual Impact Assessment of Highway Projects. The BLM methodology focuses on the visual contrast of the proposed change on natural settings. The BLM manages a parcel of land adjacent to, but immediately south and west of the project study area that is similar in scenic quality to the undeveloped lands studied in this report. The FHWA Guidelines serves as a framework for assessing roadways and their secondary and cumulative impacts. Therefore, utilizing portions of both methodologies was selected to be used herein while relying on processes built on the BLM's VRM system. The VRM is used to assess scenic values and determine the visual impacts of development on the scenery. It is used by the BLM as a management tool to maintain scenic value. In addition to field observation and documentation, the VRM process involves the following stages:

Visual Resource Inventory

The inventory stage is used to determine visual resource values and consists of:

- A scenic quality evaluation that measures the visual quality of scenic resources (i.e., highly distinctive, moderately distinctive, or indistinctive).
- A sensitivity level analysis that measures viewer/user concern for scenic quality (i.e., low, medium, or high, depending on various indicators such as type of user, amount of use, adjacent land use, and public interest).
- The delineation of distance zones that divide the landscape relative to observer visibility from travel routes or key observation points (KOP).

The distance zones applied to the inventory are:

- Foreground: 0- to 1/2-mile
- Middle ground: 1/2-mile to 5-miles
- Background: beyond 5-miles (8- to 15-miles for practical purposes due to earth's curvature and area topography)

VRM Classes and Objectives Analysis

Using the modified VRM methodology, lands are assigned to one of four visual resource identifications. The VRM class and objectives are in Figure 10 below as modified for use of roadway application. The classes are assigned to specific landscape units and describe acceptable levels of visual intrusion within each class.

TABLE 5: MODIFIED VRM CLASSES	
CLASS	DESCRIPTION
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes the level of with limited development and requires high levels of mitigation. Suitable for natural and passive recreation sites.
III	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Development activities may be seen but should not attract the attention of the casual observer. Suitable for natural and passive recreation sites.
III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Development activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape, or use mitigation measures to buffer development.
IV	The objective of this class is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These development activities may dominate the view and be the major focus of viewer attention. However, attempts should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Figure 10. Modified VRM Classes

Objectives for compliance using the modified VRM classes for this project fall within Class III and IV due to the overall project goal to facilitate the access to the LPOE south of the project study area to SR 80. A new road in undeveloped lands constitutes a change that will be moderate to dominant. These modified VRM classes are also consistent with the private and city ownership of the parcels within the project study area.

KOP Selection

KOPs were chosen to provide analysis of the project study area from proposed alternative and off-site looking onto the improvements. The selected locations were identified as key decision points where areas of significant changes in the visual character in the project study area such as intersections of existing roadways with the proposed alternative improvements and directional changes in the proposed alternatives were identified as key decision points, where the internal viewers would observe the visual qualities of the study area most significantly. These same locations would require the most noticeable changes to the existing conditions. Vertical improvements such as lighting and signage would be visible more prominently and from farther away from the project study area.

Field Observation and Documentation

Each KOP was visited and analyzed to record and document the character of the landscape

Figure 11. KOP 1 – Southbound view facing the intersection of James Ranch Rd and Highway 80

Figure 12. Eastbound view from the United States/Mexico Border

visible from and to each KOP and the proposed activity description anticipated to be visible to and from the same KOP. Their analyses used basic design elements of form, line, color, and texture to describe the existing and proposed improvements.

Existing Conditions-Visual Characteristics

This project study area has several existing elements of similarity throughout. They are characterized and understood to be uniformly applied to all KOPs in the project study area due to the similarities of existing and proposed features.

Existing Consistent Features

- Vegetative matrix of desert scrub creates a uniform blanket of vegetation across the foreground.
- The color and texture of the foreground landscape reinforces the uniformity of the foreground views with its sameness.
- Mountainous terrain in the background creates a strong background silhouette against the skyline. The mountains contrast with built structures while diminishing the built structures impacts by the large scale of their natural rugged features
- Inability to see the middle ground in all directions due to foreground vegetation height. Views are obscured due to the topography and vegetation present in the flatlands.
- Rural setting with primarily undeveloped lands and scattered residential has little structural interest in the viewsheds. There are minimal viewers from static points outside of the project study area.

Proposed Consistent Features

- 4-lane divided highway connector road between SR 80 and the proposed LPOE, consistent cross section of the roadway.

- Proposed 80-Ac IPOE location at the NW corner of the James Ranch Road alignment and the International Border maintenance and patrol road.
- Vertical pole lighting and traffic signage as necessary improvements with the 4-lane divided highway will create the most vertical change for all KOPs.
- Viewshed focus will be concentrated at changes of direction or intersections.

The result of these consistencies indicate there are tendencies of the Preferred Alternative to incur similar impacts within the project study area on the surrounding viewers and on the viewers within it.

Environmental Consequences

Preferred Alternative

The proposed roadway development would have an effect on the character of the immediate foreground and middle ground areas. The Preferred Alternative will have an impact on the colors and textures of adjacent land. Generally, all areas of developed roadway would create an overall change to the visual environment due to the introduction of roadway construction and vertical elements to this area. In areas near the scattered residential buildings, and particularly connecting to SR 80, the large expanse of pavement in the foreground will be visible. This developed pavement section would affect the character by creating contrasting line, color, and texture elements against the natural landscape and vegetation.

Spectacular views of the Huachuca Mountains, Perilla Mountains, and Canelo Hills are visible in the distance for viewers in the project study area. The mountains are prominent along the stretches of SR 80 leading up to and away from the proposed site. The background views of the mountains will not be greatly impacted by the roadway development. The greater vegetation coverage near the ephemeral stream located within the project site will be affected by Preferred Alternative.

Structure Impacts

Proposed structure development would attract the attention of SR 80 travelers and the sparsely distributed residents in the area. Added structures such as roadways, drainage crossings, and overhead utilities would create artificial edges in the adjacent natural landscape and create contrasting forms, lines, colors, and textures. Bridge/drainage structures required would not be visually prominent from middle and background viewers. It would not be seen from surrounding areas due to the vegetative coverage.

Secondary Impacts

Secondary impacts are effects that are induced by the initial action. The introduction of the new roadway creates the possibility of neighboring properties increasing in value. Possible construction and development of industrial uses can be expected with the addition of this new roadway. Increased noise and light impacts from traffic should be expected with

roadway improvements. Existing residential buildings in this area may relocate or experience increasing urbanization in an otherwise rural setting.

Cumulative Impacts

Cumulative impacts occur when a proposed project incrementally adds adverse visual impacts to a particular landscape or viewshed sufficient enough to cause a significant overall impact. The project goal to connect the proposed LPOE to SR 80 will increase potential for the adjacent lands to be developed. All alternatives will cause cumulative impacts, they will increase access for undeveloped parcels to be developed. Preferred Alternative is anticipated to cause the least number of cumulative impacts due to its linear nature and shortest distance to connect the LPOE to SR 80. While improvements for the Preferred Alternative would increase the potential for increased density of development in a relatively narrow view corridor; impacts would be compatible with the existing character of the SR 80 bordering the north of the study area.

Temporary Impacts

Roadway development may result in temporary visual impacts to various combinations of views. The magnitude and duration of construction activity associated with building the roadway improvements will cause visual impacts. This environment is predominantly rural and in the Chihuahuan Desert landscape, which does not provide dense screening vegetation. Therefore, viewer awareness of the construction activity is anticipated to be moderate to high in all areas of the project study area.

The type of construction visual impacts that would be anticipated include large heavy equipment, including cranes that introduce a tall vertical element, mounds of temporary material stockpiles, dust, traffic control barriers and an increased perception of color and motion from crew vehicles and equipment.

No Build Alternative

Under this alternative, ADOT would not construct a roadway connection between SR 80 and GSA's new commercial LPOE. Thus, the landscape features that currently exist in the project area would not be disturbed.

Summary

The proposed connector road project and GSA LPOE would alter the character of the existing landscape by removing vegetation within the footprints of both facilities. This developed pavement section would affect the character by creating contrasting line, color, and texture elements against the natural landscape and vegetation. The Preferred Alternative will have minimal cumulative effects due to its linear nature and short distance between the LPOE and SR 80. impacts would be compatible with the existing character of the SR 80 bordering the north of the study area.

Cultural Resources

The proposed project would be a federal action and, as such, constitutes a federal undertaking requiring compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and recodified (54 USC § 300101 et seq.). Section 106 of the NHPA requires federal agencies to consider the effects of their activities and programs on cultural resources determined eligible for inclusion in the National Register of Historic Places (NRHP) (historic properties). Regulations for Protection of Historic Properties (36 CFR 800), which implement Section 106, were most recently amended in 2004.

Historic context, historic significance, and historic integrity are the three interrelated concepts on which NRHP eligibility is based. “Historic,” in this sense, applies to both prehistoric and historic-period cultural resources. The significance of a cultural resource (historic property) depends on its association with an important historic context and its retention of enough integrity to convey its significance. Historic contexts are defined as the “patterns, themes, or trends in history by which a specific occurrence or property is understood and its meaning (and ultimately its significance) within history is made clear” (NRHP 1998:7).

For a historic property to be listed in the NRHP, it is typically at least 50 years old and must meet at least one of four eligibility criteria:

1. Associated with events that have made a significant contribution to the broad pattern of our history.
2. Associated with the lives of persons significant in our past.
3. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.
4. Yielded, or may be likely to yield, information important to prehistory or history.

The NRHP guidelines also identify seven aspects of integrity. All historic properties must have the ability to communicate historical significance and meet at least one aspect of the historic integrity requirements: location, design, setting, materials, workmanship, feeling, and/or association.

Affected Environment

A cultural resources investigation was conducted in the study area (Tierra 2023). The area of potential effects (APE) is defined as the geographic area where an undertaking may directly or indirectly alter the character or use of historic properties. The APE for the project has been defined to consist of 12.83 km (7.97 miles) of the three combined alternatives between SR 80 and the International Border and a portion of the SR 80 ROW, with a total survey area of 127.7 ha (315.6 acres). Additional acreage was later added to the project area near the southeast corner of the project area that included 9.71 ha (24 acres). The APE includes three

61-m-wide (200-foot-wide) alignment alternatives being considered for the proposed connector road west of U.S. Route 191 (U.S. 191), two of which intersect SR 80 at James Ranch Road and one of which intersects SR 80 at Brooks Road. Also included in the APE, along SR 80, is a 122-m-wide (400-foot-wide) alignment. In addition, an abandoned 100-foot-wide Union Pacific Railroad embankment parallels the south side of SR 80, the ownership of which has reverted back to adjacent landowners.

The APE has been thoroughly investigated. Previous archaeological research was compiled for the study area and a surrounding half-mile radius compiled from AZSITE and additional sources, including the ADOT Historic Preservation Team Portal and records held at the Arizona State Museum (ASM) Archaeological Records Office.

The archaeological records collected for the project identified nine previous surveys that were partially within the APE (Table 6). Six sites have been previously recorded within the 0.8-km (0.5-mile) buffer (Table 7). Four previously recorded sites (AZ FF:9:17[ASM], AZ FF:10:33[ASM], AZ FF:10:34[ASM], and AZ FF:10:35[ASM]) were identified within the APE, and one previously recorded site (AZ FF:10:40[ASM]) has been recorded adjacent to the project area (Table 8).

Table 6. Previous Surveys Conducted that Intersect the Study Area.

Project No.	**Project Name**	**Reference**
1982-196.ASM	Pacific West Exploration Company, Geophysical Survey	Unknown
1991-307.ASM	JTF6 Douglas Naco	Martynec et al. 1994
1995-303.ASM	Kyle Railroad	Stone and Harmon 1995
1998-557.ASM	EPNG Willcox to Mexico Survey Project	Crary 2000
1999-9.BLM	none	Thiel 1999
2001-298.ASM	Cochise Junior College - Kings Highway	Brodbeck 2001
2012-127.ASM	Border Job	Rieder and Slawson 2002
2012-636.ASM	Wilcox Loop Pipeline Environmental Services	Hesse and Barr 2013
SHPO-2001-2283	Section 106 Review: American Tower Corporation Project Number 41957 - Cochise College Douglas, A	Giacobbe and Geller 2001

Table 7. Previously Recorded Archaeological Sites within a Half-Mile (0.8-Km) Buffer of the Study Area.

Site No.	Affiliation	Site Type	NRHP Eligibility	Reference
AZ FF:9:17(ASM)	Euro-American	Road trail	Eligible (SHPO)	Klebacha 2016
Redacted	Prehistoric Archaeological Culture	Redacted	Eligible (recorder)	Martynec et al. 1994
AZ FF:10:33(ASM)	Euro-American	Railroad bed	Eligible (SHPO)	Rieder and Slawson 2002
AZ FF:10:34(ASM)	Euro-American	Railroad bed	Not Eligible (SHPO)	Baker 2007
AZ FF:10:35(ASM)	Euro-American	Utility	Unevaluated	Stone and Harmon 1995
Redacted	Prehistoric Archaeological Culture	Redacted	Eligible (recorder)	Chenault 2000

Key: SHPO = State Historic Preservation Office.

During fieldwork, four new archaeological sites and five isolated occurrences were discovered and recorded, with three of the new sites (AZ FF:10:89[ASM], AZ FF:10:90[ASM], and AZ FF:10:91[ASM]) encountered during the initial survey, and one additional site [AZ FF:10:92 (ASM)] encountered later in the year with the additional survey. Three previously recorded sites were located and updated as a single site (AZ FF:10:33[ASM] due to their proximity to one another. Two additional sites had been previously recorded near the project area along the western corridor but were not re-located within the project area. AZ FF:10:36(ASM) is a previously recorded site plotted near the westernmost corridor but outside of the project area. The APE nearest to the site was inspected for artifacts and features, but no cultural deposits were encountered. The site is likely farther east on private land, outside the scope of this project.

Table 8. Site Summary of Archaeological Sites Recorded within the Study Area.

Land Jurisdiction	Identification Status	Site Number	Site Description	Alternative	Recommended Treatment
Private	Newly recorded	AZ FF:10:89 (ASM)	Homestead	1	No recommendation
Private	Newly recorded	AZ FF:10:90 (ASM)	Staging area	2	No recommendation
Private	Newly recorded	AZ FF:10:91 (ASM)	Homestead	1 & 2	Avoidance
SR 80 Right-of-Way	Previously recorded	AZ FF:10:33(ASM)	Railroad bed, utility line	SR 80 ROW	Avoidance
Private	Newly recorded	AZ FF:10:92 (ASM)	Homestead	N/A	No treatment necessary

Environmental Consequences–Preferred Alternative

Section 106 consultation with the State Historic Preservation Office (SHPO) has not yet been initiated and would be required for any alternative selected. Final determinations and recommendations are contingent upon the conclusion of consultation.

Five sites were identified within the limits of the Preferred Alternative, only one [AZ FF:10:33 (ASM)] was recommended eligible for inclusion on the NRHP under Criterion D. Avoidance of this site was recommended in the cultural report (ADOT 2023a). If avoidance is not possible, then a phased data recovery program should be put into place, including the preparation of a Historic Properties Treatment Plan. The remaining four sites were recommended as Not Eligible for inclusion in the NRHP and do not require further archaeological work.

AZ FF:10:91 (ASM) was recommended eligible for inclusion in the NRHP under Criterion D. Avoidance of this site was recommended in the cultural report (Tierra 2024). If avoidance is not possible, then a phased data recovery program should be put into place, including the preparation of a Historic Properties Treatment Plan.

The selection of the Preferred Alternative would have no adverse impact to cultural resources if AZ FF:10:91 (ASM) is either avoided or a SHPO approved Historic Properties Treatment Plan were implemented.

Environmental Consequences–No-Build Alternative

Under the No-Build Alternative, no construction would occur. The No Build Alternative would not have any direct or indirect effects on cultural resources.

Environmental Commitments and/or Mitigation Measures

- The contractor shall contact the ADOT Environmental Planning Historic Preservation Team project lead or the Environmental Commitments Coordinator (520.449.1985) at least 10 (ten) business days prior to the start of ground-disturbing activities to arrange for a qualified archaeologist to flag avoidance areas.
- The contractor will contact the ADOT Environmental Planning (602.712.7767) at least ten (10) working days prior to the commencement of work to ensure compliance with avoidance areas.
- Cultural resource sites will be flagged or fenced for avoidance by a qualified archaeologist prior to ground disturbance.
- The contractor shall contact the ADOT Environmental Planning Historic Preservation Team (480.489.9256) or the Environmental Commitments Coordinator (520.449.1985) at least 10 (ten) business days prior to the start of ground-disturbing activities to arrange for qualified personnel to monitor and be present during construction. ADOT's Environmental Planning – Historic Preservation Team will provide contact information on the qualified archaeological consultant to the contractor for their records. ADOT's Environmental Planning – Historic Preservation

Team will contact the qualified archaeological consultant regarding the project start date and provide contractor information.

- The contractor shall coordinate via email or phone with the qualified archaeological consultant and communicate the construction schedule for the duration of ground-disturbing work in those areas where monitoring is needed.

Air Quality

Affected Environment

The study area lies within the Paul Spur/Douglas nonattainment area for large particulates, otherwise known as PM10. This area was designated as a moderate nonattainment area on October 31, 1990 (55 FR 45799). The Paul Spur/Douglas PM10 nonattainment area is located along the Mexico-United States boarder in Cochise County. The Arizona Department of Environmental Quality (ADEQ) maintains two active air quality monitoring stations in the Paul Spur/Douglas PM10 nonattainment area:

- AQS Site ID 04-003-0011 – Paul Spur Chemical Lime Plant
- AQS Site ID 04-003-1005 – Douglas Red Cross

The Paul Spur/Douglas PM10 nonattainment area and the locations of the two PM10 monitoring stations are shown in Figure 13. Table 9 shows the 24-hour PM10 monitoring data for the last three full years for 2021 through 2023.

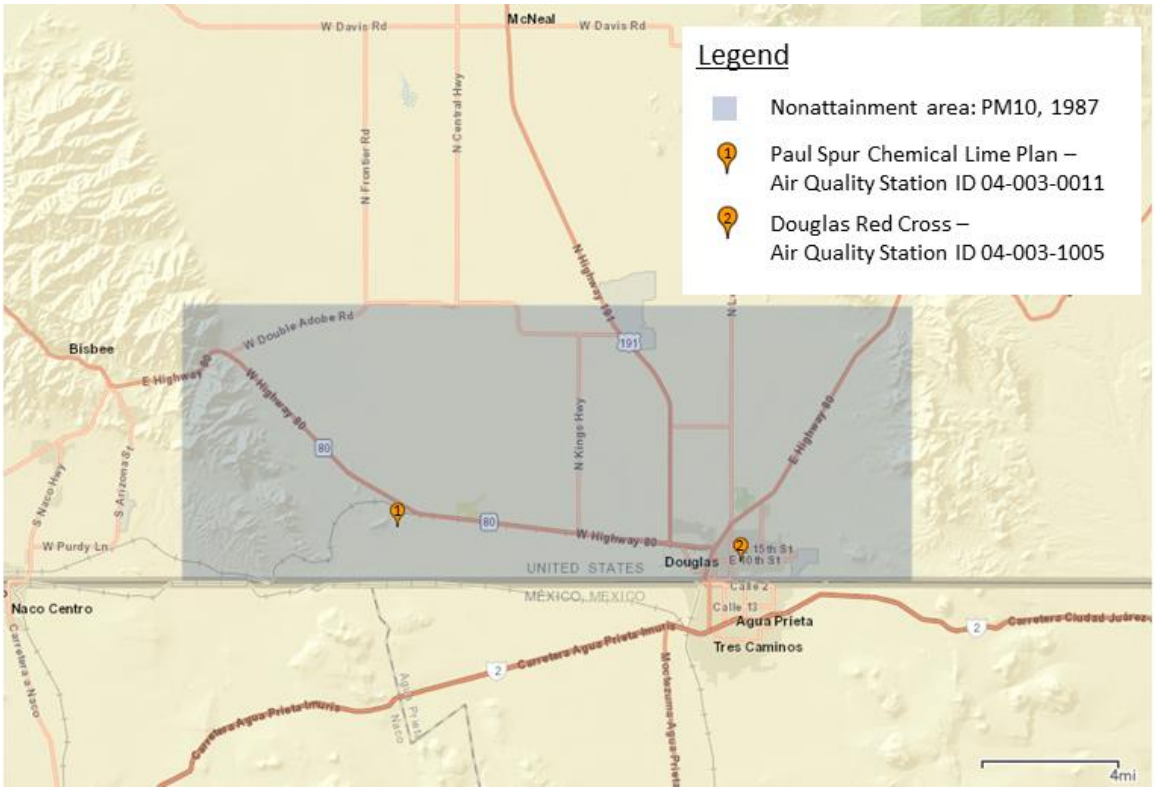

Figure 13. Paul Spur/Douglas PM10 Nonattainment Area

Table 9. Paul Spur/Douglas PM10 Monitoring Data (2020-2023)

Year	PM10 Annual Mean Concentration (ug/m^3)		PM10 Maximum Concentration (ug/m^3)		Number of Days Exceeding NAAQS	
	Paul Spur	Douglas	Paul Spur	Douglas	Paul Spur	Douglas
2021	21.3	31.9	161	107	1	0
2022	18.8	26.3	91	130	0	0
2023	20.1	28.0	99	155	0	1

Source: https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors

Annual mean PM10 concentrations for both the Paul Spur Chemical Lime Plant (ID 04-003-0011) and the Douglas Red Cross (ID 04-003-1005) monitoring stations have followed a similar trend with concentrations decreasing from 2021 to 2022 and then increasing slightly from 2022 to 2023. Each monitoring station had one day of exceedance of the National Ambient Air Quality Standards (NAAQS) for PM10 over the three-year period with max concentrations of 161 ug/m^3 at the Paul Spur station in 2021 and 155 ug/m^3 at the Douglas Red Cross station in 2023.

Conformity Determination

Regional Conformity

The 1990 Clean Air Act Amendments and the Arizona Transportation Conformity Rules require transportation plans, transportation improvement programs, and projects to conform to the purpose of the Arizona State Implementation Plan (SIP). Conformity to a SIP means that planned transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. As an isolated rural nonattainment area, the Paul Spur/Douglas planning area is subject to a regional air quality conformity process. The planned Douglas Commercial Land Port of Entry Connector Road is likely to be classified as regionally significant and is not within a conforming SIP. As such, a PM10 regional air quality conformity analysis was required for completion of this Draft EA. ADOT coordinated its activities for this conformity determination with an Interagency Consultation (IAC) group, composed of numerous stakeholders and review agencies, including ADEQ, FHWA, EPA, local jurisdictions, and other necessary agencies. ADOT held teleconference calls and email correspondence to discuss the issues pertinent to the Paul Spur/Douglas Regional Conformity Demonstration, such as use of the latest planning assumptions.

Emissions from all processes were combined to estimate the overall impact of on-road mobile sources on PM10 levels in the Paul Spur/Douglas nonattainment area. Table 10 and Figure 14. Interim PM10 Emissions Test show these emissions for all analysis years, along with the values used to calculate paved road dust emissions.

Table 10. Paul Spur/Douglas Particulate Matter (PM10) Conformity Analysis

Source	1990	2028	2035	2040	2050
	(Tons/Year)				
Unpaved Road Dust	347.94	216.04	248.16	273.99	334.00
Paved Road Dust	71.89	30.51	35.05	38.69	47.17
On-Road Emissions (exhaust, brake, and tire wear included)	22.49	10.30	11.67	12.74	16.02
Total	**442.33**	**256.85**	**294.89**	**325.43**	**397.18**

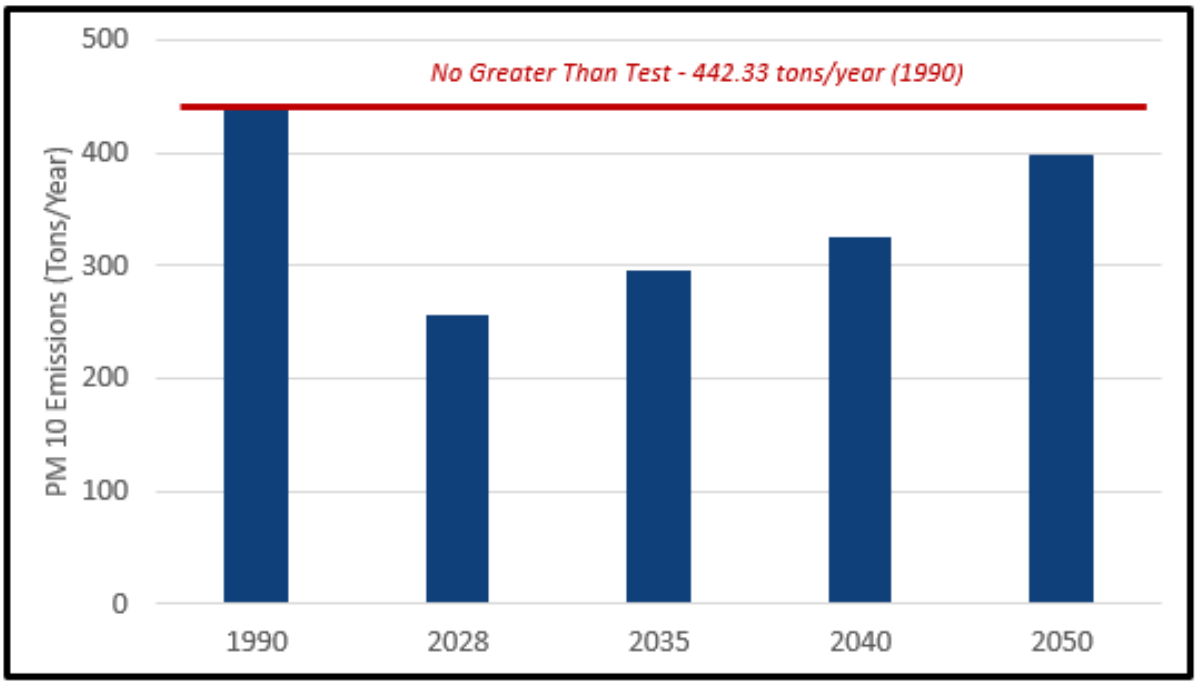

Figure 14. Interim PM10 Emissions Test

The regional conformity analysis indicates that the projected emissions levels for the Paul Spur/Douglas nonattainment area meet the applicable conformity tests with the planned Douglas Commercial LPOE Connector Road project. Therefore, it is the determination of this analysis that this plan conforms under the 24-hour PM10 NAAQS. The full regional conformity report (April 2024) is included in the Appendix A.

Project-Level Conformity

ADOT provided a copy of the Project Level PM10 Quantitative Hot-Spot Analysis – Project of Air Quality Concern Questionnaire to the IAC group in March 2024. Following the review of and concurrence on the project determination contained within the questionnaire, ADOT notified the interagency group that this project does require a quantitative PM10 hot-spot analysis under 40 CFR Section 93.123(b). Through consultation with the interagency group, the intersection of James Ranch Road and SR 80 was chosen for the purpose of demonstrating conformity. This intersection represents the location with the largest traffic volumes, lowest speeds due to the installation of a traffic signal, and most overall delay along the project.

The background PM10 concentration for the analysis was determined by taking the fourth highest concentration at the Douglas Red Cross monitor during the three-year period from 2021-2023, which was 107 µg/m^3. Receptors were placed at all possible locations along the Connector Road to determine the location with the highest concentration in the study area. The modeled concentrations were added to the background concentration and compared to the PM_{10} NAAQS of 150 µg/m^3. Receptor concentrations are shown in Figure 15 with the highest concentration denoted by a star and the results are displayed in Table 11.

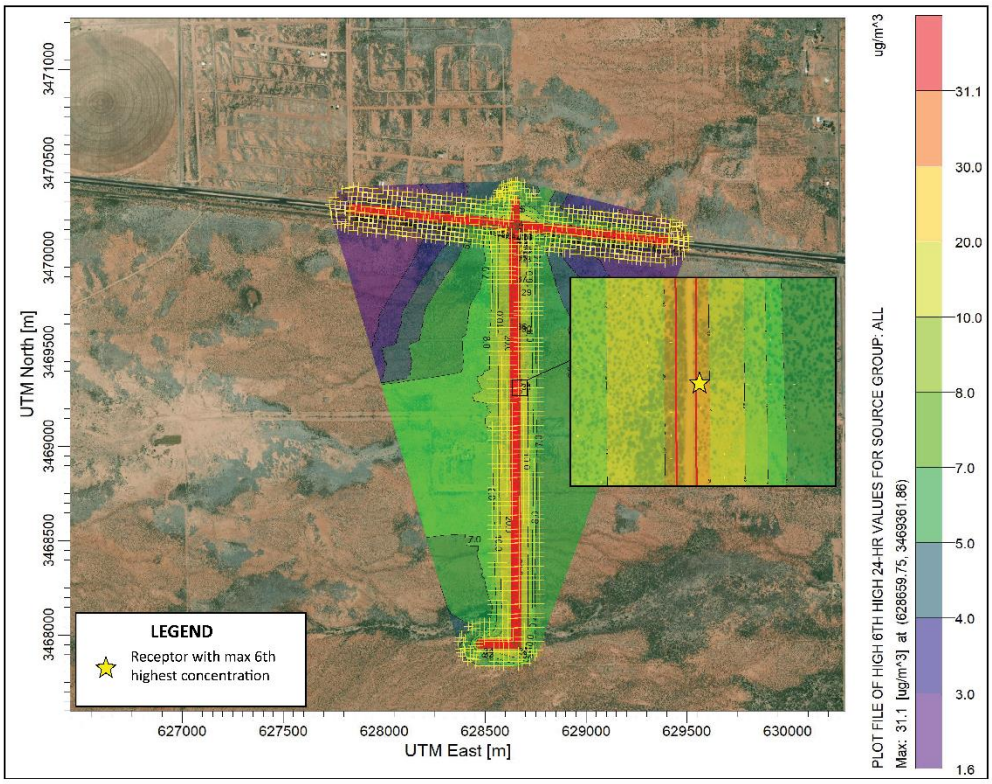

Figure 15: PM10 Modeled Concentration Results

Table 11: PM10 Hot-Spot Analysis Results

Modeled Group	6th Highest PM_{10} Value ($\mu g/m^3$)	Background PM_{10} Value ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	Total Concentration Rounded to the nearest 10 $\mu g/m^3$	PM_{10} NAAQS ($\mu g/m^3$)
All Project Level Links	31.06	107	138.06	140	150

The PM10 hot-spot analysis indicates that the projected emissions concentrations for the planned Douglas Commercial LPOE Connector Road project do not exceed the 24-hour PM10 NAAQS when rounded to the nearest 10 $\mu g/m^3$. Therefore, it is the determination of this analysis that the project conforms under the 24-hour PM10 NAAQS. The full PM10 hot-spot analysis is included in Appendix A.

Environmental Consequences

Preferred Alternative

The analysis of potential air quality impacts resulting from the proposed Douglas Connector Road involved an evaluation of PM10 and mobile source air toxics (MSAT).

Mobile Source Air Toxics

Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. In particular, the tools and techniques for assessing project-specific health outcomes as a result of lifetime MSAT exposure remain limited. These limitations impede the ability to evaluate how potential public health risks posed by MSAT exposure should be factored into project-level decision-making within the context of the NEPA.

Nonetheless, air toxics concerns continue to arise on highway projects during the NEPA process. Even as the science emerges, the public and other agencies expect MSAT impacts to be addressed in environmental documents. FHWA, EPA, the Health Effects Institute, and others have funded and conducted research studies to more clearly define potential risks from MSAT emissions associated with highway projects. FHWA will continue to monitor the developing research in this field.

NEPA requires, to the fullest extent possible, that the policies, regulations, and laws of the federal government be interpreted and administered in accordance with its environmental protection goals, and that federal agencies use an interdisciplinary approach in planning and decision-making for any action that adversely impacts the environment (42 U.S.C. 4332). In addition to evaluating the potential environmental effects, FHWA must also consider the need for safe and efficient transportation in reaching a decision that is in the best overall public interest (23 U.S.C. 109(h)). FHWA policies and procedures for implementing NEPA are contained in regulation at 23 CFR Part 771.

FHWA developed a tiered approach with three categories for analyzing MSAT in NEPA documents, depending on specific project circumstances:

1. No analysis for projects with no potential for meaningful MSAT effects
2. Qualitative analysis for projects with low potential MSAT effects; or
3. Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

For projects warranting MSAT analysis, all nine priority MSAT should be considered.

Projects with “Low Potential MSAT Effects” are those that serve to improve operations of highway, transit, or freight without adding new capacity or without creating a facility that is likely to meaningfully increase MSAT emissions. This category covers a broad range of projects. Most highway projects that need an MSAT assessment will fall into this category. Examples of these types of projects are minor widening projects; new interchanges; replacing a signalized intersection on a surface street; and projects where design year traffic is projected to be less than 140,000 to 150,000 annual average daily traffic.

For the Preferred Alternative in the draft EA, the amount of MSAT emitted would be proportional to the vehicle miles traveled (VMT), assuming that other variables such as fleet

mix are the same for each alternative. The VMT estimated for the 2050 Build Alternative is higher than for the 2050 No-Build Alternative. The VMT increase can be attributed to a small increase in traffic volume with the Preferred Alternative when compared with the No-Build Alternative. It is expected for emissions to be lower than present levels in the 2050 design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 76 percent from 2020 to 2060 (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, January 18, 2023). Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

There may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the roadway sections closest to the development that is experiencing the greatest increases in VMT. However, the Preferred Alternative runs through a rural area that is not proximate to uses such as schools, playgrounds, healthcare facilities, or civic uses, while the No-Build Alternative is located in an urban area close to all of these facility types. If localized MSAT emission increases do occur, they too will be reduced in the future due to implementation of EPA's vehicle and fuel regulations.

In sum, MSAT emissions are anticipated to decrease over time due to EPA's MSAT reduction programs.

Greenhouse Gases

There are no national standards for greenhouse gases (GHG). These emissions are different from criteria air pollutants since their effects in the atmosphere are global rather than localized, and since they remain in the atmosphere for decades to centuries depending on the pollutant type. GHG emissions from vehicles using roadways are a function of distance traveled expressed as VMT, vehicle speed, and road grade. GHG emissions are also generated during roadway construction and maintenance activities.

Detailed environmental analysis for NEPA is intended to focus on those issues that are both significant and meaningful to project decision-making. Greenhouse gases related to this project do not pose a reasonably foreseeable significant adverse effect on the human environment (40 CFR Section 1502.21); therefore, they are not considered at a project-level as a part of this draft EA.

No-Build Alternative

Under the no-build condition, the LPOE location would remain unchanged, as would the routing of the commercial traffic. The existing LPOE accommodates both commercial and passenger traffic. Trucks entering or exiting the existing LPOE must travel through the City of

Douglas on U.S. 191. The current route has numerous schools, playgrounds, healthcare facilities, and civic uses within a one-mile radius. Traffic volumes are expected to increase from existing levels. However, as stated above emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions. The magnitude of the EPA-projected reductions is so great that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Mitigation Strategies

The following construction and operational mitigation strategies have been identified for the proposed Douglas Connector Road. ADOT may choose to modify, add, or remove measures as appropriate during the construction and operation of this project.

Construction Mitigation

Fugitive dust resulting from construction activities will be controlled according to the ADOT Standard Specifications for Road and Bridge Construction, Section 104.08 (2021 edition), as well as other pertinent local ordinances or provisions.

Operational Mitigation

The Preferred Alternative will use a portion of James Ranch Road that is currently unpaved. If this alternative is selected for implementation, ADOT will pave the existing unpaved section of James Ranch Road. This will reduce fugitive dust from the traffic expected to use the roadway.

Noise

Introduction

This section describes and summarizes the existing noise conditions in the noise evaluation area and the expected noise impacts of the project alternatives. Traffic noise impacts are evaluated using the Traffic Noise Model (TNM version 2.5) and methodologies approved by FHWA and ADOT (FHWA 2011; ADOT 2017). Where appropriate, noise barriers or other abatement measures are evaluated to mitigate noise impacts, and recommendations are made for noise abatement measures consistent with the ADOT Noise Abatement Requirements (NAR, May 2017).

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. 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 is most widely used for this purpose.

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. 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.

Noise Abatement Criteria

FHWA has established noise abatement criteria (NAC) for several categories of land use activities (Table 122). FHWA's NAC are based on sound levels that are considered to be an impact to nearby noise-sensitive areas, also known as receivers.

For each land use category, ADOT's noise abatement criterion is the A-weighted noise decibel (dBA) value reflecting the approach criterion of 1 dBA below the noise abatement criterion value listed in Table 12. FHWA Noise Abatement Criteria for that land use category (for example, a residential Category B noise impact would result from a noise level of 66 dBA).

ADOT's NAR states that a traffic noise impact occurs when either (1) the future worst-case noise level is equal to or greater than the noise abatement criterion for a specified land use category or (2) the future worst-case noise level is greater than or equal to an increase of 15 dBA over the existing noise level.

Noise impact and abatement analyses are required within land use activity categories A, B, C, D, and E. Activity categories F and G include lands that are not sensitive to traffic noise. There are no impact criteria for these land use types, and an analysis of noise impacts is not required.

Table 12. FHWA Noise Abatement Criteria

Land Use Activity Category	dBA, LAeq1h	Activity Description
A	57 (exterior)	Land 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	67 (exterior)	Residential

Land Use Activity Category	dBA, LAeq1h	Activity Description
C	67 (exterior)	Active sports areas, amphitheaters, 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	52 (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio structures, recording studios, schools, and television studios
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed 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: FHWA (2010); 23 CFR 772

Existing Noise Conditions

Land uses in the study area of the proposed LPOE consist of undeveloped land (Category G for which there is no NAC), an isolated residence west of James Ranch Road, and a proposed residential development adjacent to the north side of SR 80 between Brooks Road and James Ranch Road (Figure 166).

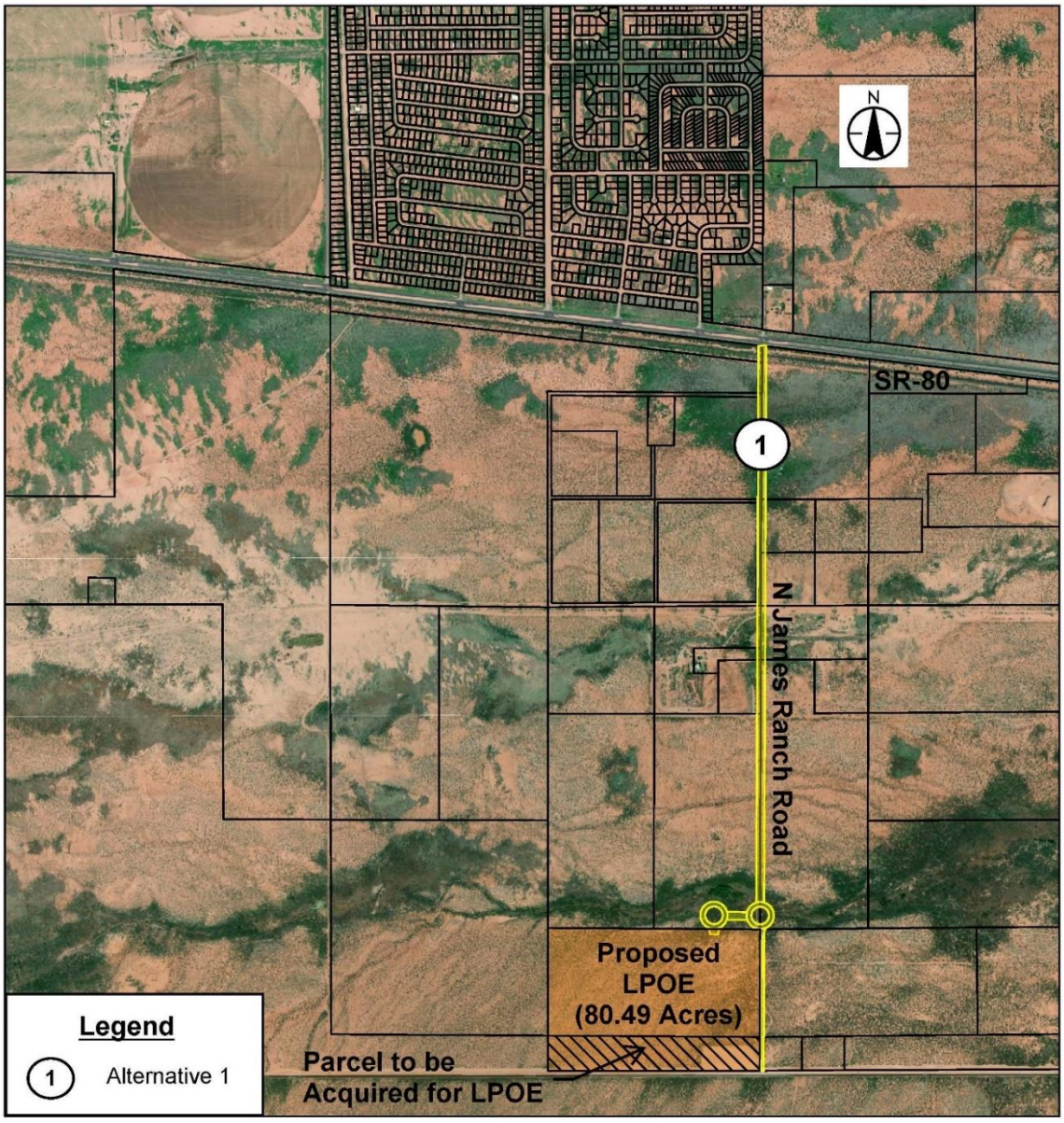

Figure 16. Preferred Alternative

Short-term noise level monitoring was conducted in the project area on June 15, 2023, during the afternoon peak traffic hour. Two measurement locations were selected in the proposed residential development adjacent to SR 80 to represent noise-sensitive receptors (Figure 14 and Figure 15 at the end of this section show measurement and modeled receiver locations). Three 10-minute interval equivalent noise level measurements (Leq) were conducted at each monitoring location. The measured noise levels ranged from 47 dBA to 56 dBA and were below the residential NAC of 66 dBA.

Environmental Consequences

Truck traffic exiting the LPOE will intersect SR 80 and proceed east to the ADOT Commercial Inspection Facility at the intersection of SR 80 and U.S. 191 for additional processing. Table 13 shows the 2050 No-Build and three Build Alternative modeled noise levels at the three alignments under consideration. A total of 29 Category B receivers were modeled to represent 90 receptors adjacent to the proposed residential development on SR 80 between Brooks Road and James Ranch Road.

As shown in Figure 16, the connector road under the Preferred Alternative intersects SR 80 from James Ranch Road east of the residential development adjacent to SR 80. Truck traffic entering or exiting the connector road from James Ranch Road would not result in substantial truck traffic increases on SR 80 adjacent to the proposed residential development.

Table 13. Modeled Noise Levels Port of Entry Connector Road

Receiver ID	NAC Category	No of Dwelling Units	Description of Receiver	2050 No-Build (dBA)	2050 Build Preferred Alternative (dBA)
R5	B	1	Residential	57	63
R6	B	1	Residential	59	62
R7	B	3	Residential	60	63
R8	B	2	Residential	53	57
R9	B	2	Residential	50	55
R10	B	3	Residential	54	57
R11	B	3	Residential	51	56
R12	B	3	Residential	55	59
R13	B	3	Residential	56	60
R14	B	3	Residential	52	55
R15	B	3	Residential	56	60
R16	B	4	Residential	56	59
R17	B	3	Residential	53	56
R18	B	3	Residential	54	57
R19	B	3	Residential	52	55
R20	B	5	Residential	61	64
R21	B	4	Residential	55	57
R22	B	4	Residential	61	63
R23	B	4	Residential	61	63
R24	B	4	Residential	54	57
R25	B	4	Residential	61	63
R26	B	4	Residential	55	57
R27	B	5	Residential	61	63
R28	B	4	Residential	61	63

Receiver ID	NAC Category	No of Dwelling Units	Description of Receiver	2050 No-Build (dBA)	2050 Build Preferred Alternative (dBA)
R29	B	4	Residential	55	58
R30	B	1	Residential	60	63
R31	B	3	Residential	57	60
R32	B	3	Residential	52	55
R35	B	1	Residential	37	56

Preferred Alternative

Under the Preferred Alternative, modeled noise levels range from 55 dBA to 64 dBA at Category B residential land uses. There would be no exceedances of the 66 dBA NAC for residential (Category B) land uses. One isolated receptor (R35 in Table 133) would experience a substantial noise increase (a greater than 15 dBA increase over existing noise levels).

No-Build Alternative

Under the No-Build Alternative, the project would not be built. According to FHWA regulations and ADOT requirements, noise mitigation can be provided only as part of a "Type I" construction project, which adds a transportation facility on a new alignment, increases the capacity of an existing transportation facility, or results in substantial vertical or horizontal alterations. Consequently, under the No-Build Alternative, noise mitigation measures would not be provided for any of the receivers.

Mitigation Analysis

The ADOT NAR provides guidelines for noise abatement analysis. These guidelines have two components, feasibility, and reasonableness. The feasibility components consist of the engineering and acoustic features which address safety, barrier height, topography, drainage, utilities, maintenance requirements, property access and overall project purpose, and encompasses the constructability of the noise abatement. To be acoustically feasible, the noise abatement must achieve at least a 5 dBA reduction at 50 percent of the noise impacted receptors.

Reasonableness factors include soliciting the preferences of affected property owners and residents through a balloting procedure. A second reasonableness factor is based on the proposed mitigation measure meeting a noise reduction design goal; the ADOT NAR states that the noise barrier should be designed to reduce noise levels by at least 7 dBA for 50 percent of the benefited receptors closest to the transportation facility. The final reasonableness factor is based on the cost-effectiveness of the noise abatement measure. The maximum reasonable cost of abatement is $49,000 per benefited receptor with barrier costs calculated at $35 per square foot.

The ADOT NAR defines a benefited receptor as the recipient of an abatement measure that receives a noise reduction of at least 5 dBA. This will allow a receptor that is not impacted to be considered as benefited if it receives a noise reduction of at least 5 dBA from the noise abatement measure.

Environmental Consequences – Preferred Alternative

With the Preferred Alternative, there is a substantial noise increase at one isolated receptor north of the proposed LPOE and west of James Ranch Road. A noise barrier modeled at this location would not be feasible or reasonable and was not recommended because it would not achieve a 5dBA reduction at the receptor, and it would exceed ADOT's maximum reasonable cost of $49,000 per benefited receptor.

Construction Noise and Vibration

Construction noise is anticipated for roadway improvement projects and lasts for the duration of the construction. Construction activities are generally of a short-term nature. Depending on the nature of construction operations, the duration of the noise could last from seconds (e.g., a truck passing a residence) to months (e.g., constructing a bridge). Construction noise is also intermittent and depends on the type of operation, location, and function of the equipment and the equipment usage cycle. Table 14 shows the overall expected maximum noise level (L_{max}) of the construction equipment at 50 feet for different phases of roadway construction.

Table 14. Construction Equipment Noise

CONSTRUCTION EQUIPMENT NOISE[1]		
Phase	**Equipment**	**Noise Limit (L_{max}) At 50 feet, dBA**
Site Clearing	Dozer	85
	Concrete saw	90
	Chainsaw	85
	Excavator	85
Grading & Earthwork	Scraper	85
	Bobcat	85
	Grader	85
Foundation	Backhoe	80
	Front End Loader	80
	Crane	85
Base Preparation	Post Pounder	85
	Trucks (concrete, fuel, haul, water, bucket, dump)	85
1. Source- FHWA Highway Construction Noise Handbook; August 2006		

ADOT has set forth guidelines for construction noise in the Standard Specifications for Road and Bridge Construction, 2008 that would be complied with during construction of the project.

Ground vibration and ground-borne noise can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Pile driving, demolition activity, blasting, and crack-and-seat operations are the primary sources of vibration, while the impact pile driving can be the most significant source of vibration at construction sites. Vibration-inducing impacts are not expected with the proposed project.

Water Resources – Clean Water Act, Floodplains, and Groundwater

Introduction

Clean Water Act

The Clean Water Act (CWA) is the primary federal statute governing discharge of pollutants into jurisdictional Waters of the United States (Waters), which, in Arizona, include perennial and ephemeral watercourses and their tributaries and adjacent wetlands. The principal goal of the CWA is to establish water quality standards to restore and maintain the chemical, physical, and biological integrity of the nation's Waters by preventing point (concentrated output) and nonpoint (widely scattered output) pollution sources. The CWA program regulates the placement of fill or dredged material into Waters.

Section 404 of the CWA "requires authorization from the Secretary of the Army, acting through the U.S. Army Corps of Engineers (Corps), for the discharge of dredged or fill material into all Waters, including wetlands, as defined in the current CWA 404 regulations [2023 *Revised Definition of 'Waters of the United States'*; Conforming" 88 FR 61964 (September 8, 2023) https://www.epa.gov/wotus]. For example, the current regulation removed the significant nexus standard relative to tributaries, adjacent wetlands, and additional waters.

Discharges of fill material generally include placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other materials for its construction; causeways or road fills; dams and dikes; artificial islands; property protection or reclamation devices such as riprap, groins, seawalls, breakwaters and revetments; beach nourishment; levees; fill for intake and outfall pipes and subaqueous utility lines; fill associated with the creation of ponds; and any other work involving the discharge of fill or dredged material (Corps 2020a).

Section 401 of the CWA requires any applicant requesting a federal permit or license for activities that may result in discharges into Waters to first obtain a Section 401 certification from the state in which the discharge originates. The Section 401 certification verifies that the prospective permits comply with the state's applicable effluent limitations and water quality standards. For this project, the ADEQ is the agency responsible for Section 401 certification. If a project meets criteria for conditional Section 401 certification, notification to the ADEQ is not required. However, if a project does not meet criteria for conditional certification, such as projects occurring within 0.25 mile of unique or impaired waters, an individual Section 401 certification application to the ADEQ is required.

Section 402 of the CWA formed the National Pollutant Discharge Elimination System (NPDES), which regulates pollutant discharges, including stormwater, into Waters. A NPDES permit sets specific discharge limits for point-source pollutants into Waters and outlines special conditions and requirements for a particular project to reduce impacts to water quality. In 2002, the EPA authorized the ADEQ to administer the NPDES program at the state level, called the Arizona

Pollutant Discharge Elimination System (AZPDES). AZPDES permits require that the project be designed to protect Waters, erosion control BMPs be implemented, and a Stormwater Pollution Prevention Plan (SWPPP) be prepared for construction activities with one or more acres of ground disturbance. Municipal Separate Storm Sewer Systems (MS4s) convey stormwater runoff through drains, streets, and open channels, directly discharging untreated stormwater into retention basins, washes, rivers, or lakes. Municipalities operating MS4s within local urbanized areas designated by the EPA or the ADEQ are required to obtain individual discharge permits under NPDES or AZPDES authority. ADOT, Cochise County are MS4s and implement individual permits in the study area.

The ADOT MS4 permit authorizes discharges of stormwater and other discharges to Waters for activities associated with the MS4 operated by ADOT; this includes Statewide Stormwater Management Programs, BMPs, and monitoring of outfalls following storm events.

Cochise County has a similar MS4 permit specific to their facilities and operations. The current MS4 general permit number AZG2016-002 was issued to Cochise County by ADEQ for the discharge of storm water within the required regions located inside the unincorporated areas of Sierra Vista, Douglas and Bisbee, Arizona. These regions are the urbanized fringes outside the cities.

Floodplains

Executive Order 11988, Floodplain Management, requires that impacts to floodplains be evaluated for all federal actions and directs agencies to reduce impacts to floodplains, minimize flood risks on human safety and well-being, and restore and preserve floodplain values. Floodplains are delineated and managed by the Federal Emergency Management Agency (FEMA). A floodplain is land subject to periodic flooding from an adjacent body of water. National Flood Insurance Program Regulations (44 CFR 65.12) require compliance with community floodplain ordinances.

A 100-year flood is a storm having a 1% chance of being exceeded in magnitude in any given year. The 100-year floodplain includes areas adjoining a water body that are inundated by water during a 100-year flood. The floodway is the area within the floodplain where the water is likely to be the deepest and fastest; this area should be kept free of obstructions to allow 100-year floodwaters to move downstream without increasing the water surface elevation more than 1 foot. FEMA Flood Insurance Rate Maps depict the delineated 100-year floodplain. The 100-year floodplain is divided into flood zones including:

- Zone A: areas subject to inundation by 100-year floods that have been identified through qualitative methodologies; no base flood elevations have been determined.
- Zone AE: areas subject to inundation by 100-year floods that have been identified through quantitative methodologies; base flood elevations have been determined.

- Zone AH: areas subject to inundation by 100-year shallow floods where ponding occurs, and flood depths are between 1 and 3 feet deep; base flood elevations have been determined.
- Zone AO: areas subject to inundation by 100-year shallow floods typified by sheet flow on sloping terrain with flood depths of between 1 and 3 feet; base flood elevations have been determined.
- Zone X: areas of 500-year flood, areas of 100-year flood with average depths of less than 1 foot.

Groundwater

Active Management Areas, or AMAs, are areas within the state that are subject to certain statutory and administrative regulations regarding the withdrawal and use of groundwater, or in the case of the Santa Cruz AMA, the withdrawal and use of any water, other than stored water, withdrawn from a well. Currently, there are six AMAs in Arizona – Prescott, Phoenix, Pinal, Tucson, Santa Cruz, and Douglas. All but the Douglas AMA were designated by statute. The Douglas AMA was designated through a petition by residents of Cochise County and subsequent election.

Affected Environment

CWA

Aerial photography and field observations were used to determine the potential presence of jurisdictional Waters within the footprint of the Preferred Alternative. Within the 200-foot-wide survey area along James Ranch Road, one drainage, a tributary to Whitewater Draw, has been identified as potential Waters; i.e., 0.975 acres. Overland flow originates from within Mexico and is oriented in a direction of southwest to northeast until encountering the International Border. Once across the International Border, the direction of overland flow is from west to east. There are no designated impaired waters in the study area and no wetlands were identified. An Approved Jurisdictional Delineation (AJD) for the Preferred Alternative will be submitted for the Corps' review in November 2024.

ADOT and Cochise County are MS4s and implement individual permits in the study area. The ADOT MS4 permit authorizes discharges of stormwater and other discharges to Waters for activities associated with the MS4 operated by ADOT; this includes Statewide Stormwater Management Programs, BMPs, and monitoring of outfalls following storm events. The Cochise County MS4 outfall is located at Palm Grove Wash near Washington Ave between 27th and 24th streets in northeast Douglas. Drainage from the outfall does not flow to the study area.

Floodplains

Based on review of the Flood Insurance Rate Maps available within Cochise County, only one approximate floodplain zone (i.e., Zone A) occurs within the study area. Coordination would be initiated with the county floodplain manager.

Groundwater

The study area is located within the San Pedro / Willcox / Rio Yaqui Watershed and the Whitewater Draw sub-watershed. The entire watershed is within the boundaries of the Douglas AMA. Areas of land subsidence have been mapped in the northern portion of the AMA but have not been recorded within the study area.

Environmental Consequences – Preferred Alternative

CWA

Impacts to Waters will be determined during final design. A Final Drainage Report has been prepared (May 2024) and indicated permanent impacts to potential waters will occur due to the installation of multiple culverts under the planned LPOE connector road. The recommended sizing of culverts and drainage structures to accommodate the sizing of culverts and drainage structures at the roadway wash crossings are included in the DCR. Within the ordinary high-water mark of the Whitewater Draw tributary, permanent impacts to potential Waters include impacts from three bridge columns. Due to the project duration of approximately nine months, extended temporary impacts to Waters include equipment maneuvering and access. The project is anticipated to be administered by ADOT during construction.

Construction activities such as clearing, grading, trenching, and excavating would disturb soils and sediment. If not managed properly, disturbed soils and sediments could be washed into nearby drainages and impact water quality. To control construction-related pollutant discharges into Waters, ADOT would prepare and implement erosion and sediment control plans, details, and specifications using BMPs from the ADOT *Erosion and Pollutant Control Manual for Highway Design and Construction* (ADOT 2020). In addition, ADOT would follow the ADOT *Post-Construction Best Management Practices Manual for Water Quality* (ADOT 2016). These design and construction activities would be documented in a SWPPP. No activities shall occur within Waters of the United States until the appropriate Clean Water Act Section 404 Permit and 401 Water Quality Certification have been obtained/issued.

Floodplain

Impacts to floodplains and surface water movements would be temporary, minor and negative. Any alterations to the floodplain would be mitigated through the design phase to reduce impacts.

Groundwater

The operation and maintenance of the Preferred Alternative would not impact groundwater levels or water quality. Construction activities may have short-term, negative, minor impacts to groundwater as some water usage will be required.

Environmental Consequences – No-Build Alternative

CWA

This alternative would not result in the construction of the proposed Douglas LPOE connector road between GSA's new commercial LPOE and SR 80. Ground disturbances within the identified Waters of a tributary to Whitewater Draw would also not occur. Thus, impacts to Waters would be avoided.

Floodplain

Impacts to floodplains and surface water movements would not occur with the No-Build Alternative. Surface water would continue to follow existing drainage courses through the project area.

Groundwater

Because the No-Build Alternative does not include construction of any transportation facility, existing groundwater levels or water quality would not be affected.

Environmental Commitments and Mitigation Measures

Contractor Responsibilities

No activities shall occur within Waters of the United States until the appropriate Clean Water Act Section 404 Permit and 401 Water Quality Certification have been obtained/issued.

Biological Resources

Biological resources include native plants, habitat, and protected plant and animal species. These resources are regulated under various state and federal laws or regulations:

- Endangered Species Act (ESA) of 1973
- Migratory Bird Treaty Act (50 CFR 10.13)
- Bald and Golden Eagle Protection Act
- Fish and Wildlife Coordination Act
- Arizona Native Plant Act (Arizona Revised Statutes, Title 3, Chapter 7)

A Biological Evaluation (BE) was prepared for the study area (Appendix B) and approved by ADOT on January 10, 2024 (Tierra 2023b). A BE Update Memorandum (Appendix B) was prepared and approved by ADOT on July 9, 2024, because additional drainage easements east and west of the Preferred Alternative were added to the project scope based on input from the Cochise County Flood Control District. These documents evaluate the potential effects of the proposed transportation project on species that are federally listed under the ESA.

Affected Environment

General Wildlife Habitat and Vegetation

The study area contains disclimax Chihuahua desertscrub communities (Brown 1994) modified from historic heavy grazing. Natural areas within the project footprint are not diverse. Whitethorn acacia *(Vachellia constricta),* and creosote bush *(Larrea tridentata)* are ubiquitous. Less common plants in the uplands include catclaw acacia *(Senegalia greggii)*, desert broom *(Baccharis sarothroides),* Anderson's wolfberry *(Lycium andersonii),* broom snakeweed *(Gutierrezia sarothrae),* silverleaf nightshade *(Solanum elaeagnifolium),* soaptree yucca *(Yucca elata),* sotol *(Dasylirion wrightii),* staghorn cholla *(Cylindropuntia versicolor),* dwarf desertpeony *(Acourtia nana),* desert unicorn-plant *(Proboscidea althaeifolia),* James' galleta *(Pleuraphis jamesii),* tobosa grass *(Pleuraphis mutica),* and low woollygrass *(Dasyochloa pulchella).* Soils are chiefly gravelly sandy loams.

The study area supports a variety of wildlife species. Wildlife seen during the field visit included black-tailed jackrabbit (*Lepus californicus*), javelina (*Tayassu tajacu*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), curve-billed thrasher (*Toxostoma curvirostre*), and northern mockingbird (*Mimus polyglottos*). Wildlife sign observed included coyote (*Canis latrans*) scat, mule deer (*Odocoileus hemionus*) scat, cactus wren *(Campylorhynchus brunneicapillus)* nests, and a verdin *(Auriparus flaviceps)* nest.

Threatened, Endangered and Sensitive Species

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system was accessed on May 24, 2023 (Project Code: 2023-0043299) and the Arizona Game and Fish Department (AGFD) Arizona Environmental Online Review Tool (Online Review Tool) was accessed on May 24, 2023 (HGIS-18349; results of both are included in the BE). The ESA

species list from the IPaC receipt was reviewed by a qualified biologist (Bruce Pavlick, Biology Manager, Tierra Right of Way Services, Ltd.), and the species are listed in the BE. The IPaC and the AGFD Online Review Tool results were reviewed for the presence of critical habitat within the action area; however, neither identified critical habitat within the search area for the project. No suitable habitat for threatened or endangered species was identified in the study area; therefore, no species were analyzed in detail in the BE.

Migratory Bird Treaty Act (MBTA)

The MBTA makes it unlawful to pursue, hunt, take, capture, kill, or sell birds listed therein. The statute does not discriminate between live or dead birds and grants full protection to feathers, eggs, and nests. A take does not include habitat destruction or alteration as long as there is not a direct taking of birds, nests, eggs, or parts thereof. Birds protected under the Act include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, and swallows. Feathers, plumes, nests, and eggs are also protected. A complete list of protected species is found in 50 CFR 10.13.

The AGFD Online Review Tool did not list any records of special status avian species occurring within three miles of the study area. However, other non–special status bird species were noted and are likely found within the study area. Three possibly active nests were observed during the site visit in the Alternative 3 area. They include two cactus wren *(Campylorhynchus brunneicapillus)* nests and a verdin *(Auriparus flaviceps)* nest.

Bald and Golden Eagle Protection Act

The construction footprint and surrounding ROW was evaluated by Bruce Pavlick. It is not located in the range or suitable habitat for bald and/or golden eagles.

Fish and Wildlife Coordination Act

This project is a federal action, but it would not impound, divert, deepen the channel, or otherwise control or modify any stream or other body of water. The Fish and Wildlife Coordination Act does not apply.

Arizona Native Plant Law Species

Plants protected by the State of Arizona found within the construction footprint are included in Table 15.

Table 15. Protected Plants Seen within the Construction Footprint

Plant Form	Species Name	Status
Trees	Velvet mesquite (*Prosopis velutina)*	Salvage Assessed / Harvest Restricted
Succulents	Sotol (*Dasylirion wrightii)*	Salvage Restricted
	Soaptree yucca (*Yucca elata)*	Salvage Restricted
Cacti	Staghorn cholla (*Cylindropuntia versicolor)*	Salvage Restricted

Note: Nomenclature follows U.S. Department of Agriculture plants database (https://plants.usda.gov/).

Noxious and Invasive Plant Species

The construction footprint and surrounding ROW were surveyed for the presence of noxious and invasive plants on April 10–12, 2023, by windshield and pedestrian survey. No noxious and/or invasive plants were reported within the construction footprint and surrounding ROW.

Environmental Consequences – Preferred Alternative

Threatened, Endangered and Sensitive Species

No suitable habitat for threatened or endangered species was identified in the study area; therefore, implementation of the Preferred Alternative would have no impact on Threatened, Endangered and Sensitive Species.

MBTA

The study area could provide suitable nesting structures for a variety of bird species, including species that typically nest on the ground. Environmental commitments have been included as part of the project design to reduce the potential effects to nesting migratory birds from the implementation of the Preferred Alternative to negligible.

Bald and Golden Eagle Protection Act

The construction footprint and surrounding ROW was evaluated by Bruce Pavlick. It is not located in the range or suitable habitat for bald and/or golden eagles. The project would not disturb or result in take of bald or golden eagles; therefore, implementation of the Preferred Alternative would have no effect to species protected under this Act.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act does not apply; therefore, implementation of the Preferred Alternative would have no effect to species protected under this Act.

Arizona Native Plant Law Species

Species protected under the Arizona Native Plant Law were found throughout the study area. Applicable environmental commitments have been included as part of the project design to reduce the potential effects to protected native plants from the implementation of the Preferred Alternative to negligible.

Noxious and Invasive Plant Species

Although no noxious and/or invasive plants were reported within the construction footprint and surrounding ROW, standard BMPs related to preventing the introduction of these species should be adhered-to. Applicable environmental commitments have been included as part of the project design to reduce the potential effects to the introduction of noxious and invasive plant species from the implementation of the Preferred Alternative to negligible.

Environmental Consequences–Preferred Alternative

The study area is not without previous or current human impacts. The 40.4 acres that would be impacted by the implementation of the Preferred Alternative do not represent pristine native

vegetation or highly diverse habitats. Selection of this alternative would have a minor, negative impact to general vegetation and wildlife resources found within the study area.

Environmental Impacts – No-Build Alternative

Under the No-Build Alternative, no impacts to vegetation, habitat, or wildlife would occur.

Environmental Commitments and Mitigation Measures

Southeast District Responsibility

If clearing, grubbing, or tree/limb removal will take place during the breeding season (March 1 to August 31), the engineer will contact ADOT Environmental Planning to arrange for a qualified biologist to conduct active nest surveys of vegetation 10 (ten) days prior to removal. During the non-breeding season (September 1 to February 28), clearing, grubbing, or tree/limb removal may proceed without restriction.

The engineer will contact the ADOT biologist (602.712.7767) or the Environmental Commitments Coordinator (520.449.1985) to schedule a preconstruction meeting on a mutually agreeable date to ensure a qualified Environmental Planning representative will be available to attend the meeting.

ADOT Roadside Development Requirement

Protected native plants within the project limits would be impacted by this project; therefore, the ADOT Roadside Development Section would determine if Arizona Department of Agriculture notification is needed. If notification is needed, the ADOT Roadside Development Section would send the notification at least 60 (sixty) calendar days prior to the start of construction

The ADOT Roadside Development Section would provide special provisions for the control of noxious and invasive plant species during construction that may require treatment and control within the project limits.

Contractor Responsibility

The contractor shall not conduct any clearing, grubbing, or tree/limb removal from March 1 to August 31 unless a qualified biologist approved by ADOT Environmental Planning has conducted a bird nest search of the affected vegetation and has determined that no active bird nests are present. Vegetation removal may occur if the area has been surveyed within 10 (ten) days prior to removal as long as only inactive bird nests, if any, are present.

The contractor shall develop a Noxious and Invasive Plant Species Treatment and Control Plan in accordance with the requirements in the contract documents. Plants to be controlled shall include those listed in the State and Federal noxious weed and the State invasive species lists in accordance with State and Federal laws and executive orders. The plan and associated treatments shall include all areas within the project right-of-way and easements as shown on the project plans. The treatment and control plan shall be submitted to the Engineer for the

Arizona Department of Transportation Construction Professional Landscape Architect for review and approval prior to implementation by the contractor.

Prior to the start of ground-disturbing activities and throughout the duration of construction and any landscape establishment period, the contractor shall arrange for and perform the control of noxious and invasive species in the project area.

To prevent the introduction of invasive species seeds, , all earthmoving and hauling equipment shall be washed prior to entering the construction site and the contractor shall inspect all construction equipment and remove all attached debris , including plant parts, soil, and mud, prior to the equipment entering the construction site.

To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction and hauling equipment and remove all debris, including plant parts, soil, and mud, prior to leaving the construction site.

Hazardous Materials

Affected Environment

A Preliminary Initial Site Assessment (PISA) was prepared for the study area to determine whether hazardous materials are present (Ninyo and Moore 2023). The PISA was approved by ADOT on July 10, 2023. The investigation consists of a regulatory records search, site reconnaissance by an environmental professional, and a historical aerial photograph review.

A search of federal, state, and local environmental databases was conducted for the study area and adjacent properties. A reconnaissance visit was conducted to the study area on April 4, 2023. The site visit was only conducted on parcels where a right of entry was granted by the landowner. For parcels without an authorized access, the site was viewed from the property line. The following presents a summary of findings associated with the PISA performed for the study area:

The Formerly Used Defense Sites (FUDS) lists properties where the U.S. Army Corps of Engineers is actively working or will take necessary cleanup actions. Two facilities listed on the FUDS were identified through the databases search: Douglas AAF Radio Range and the Forrest Auxiliary Field #2. These facilities were not listed on the National Priorities List (NPL). The NPL is intended to guide the EPA in determining which sites warrant further investigation. No violations, outstanding enforcement actions, or known releases were listed in the database report for the facilities.

Pole-mounted transformers were observed on and adjoining the study area at the time of the reconnaissance. No indications of spills or leaks from these transformers, such as stains, distressed vegetation, or unusual odors were observed.

A former railroad track area was observed south and parallel of SR 80 and appeared to be utilized as a vehicle roadway. The former railroad track line appeared to have been covered with slag.

Debris piles including construction debris and general household trash waste were observed on and east of North James Ranch Road. An empty above-ground storage tank, a few rusted drums and two abandoned trailers were observed southeast of the intersection of James Ranch Road and Alternative 2. No staining or labeling were observed at the empty above-ground storage tanks and empty drums.

Stormwater culverts were observed along SR 80 within the study area at the time of the reconnaissance.

Above- and below-ground utilities, utility hubs, high-voltage transmission lines, a high-pressure natural gas line, stormwater culverts, and utility vaults were observed on the study area at the time of the reconnaissance.

No hazardous materials or staining were observed within the study area. No pits, ponds, and/or lagoons were observed on or adjoining to the study area. No evidence of underground storage tanks on the study area were observed.

Environmental Consequences – Preferred Alternative

Based on the results of this PISA, no elevated risks associated with the study area were identified and the report does not recommend further environmental investigation of the study area relative to soil disturbances associated with the planned scope of work for the project.

Environmental Commitments and/or Mitigation Measures

The PISA recommends that prior to construction, stockpiled debris should be sampled and characterized for waste profiling purposes and disposed offsite in an appropriate landfill. Soils below the stockpiled trash debris, debris stockpiles, empty above-ground storage tank, empty drums, and former railroad track slag should be observed and possibly sampled to confirm no subsurface soil impacts.

Prior to the acquisition of right-of-way, a Phase I Environmental Site Assessment will need to be completed.

Secondary Impacts

In the context of NEPA, secondary impacts, or indirect effects, are defined by the Council on Environmental Quality (CEQ) as impacts that are “caused by an action and are later in time or farther removed in distance but are still reasonably foreseeable.” Actions that may induce secondary (or indirect) impacts can be less obvious than those identified as direct impacts. They are more difficult to quantify, additive in nature, or long-term in occurrence and effect. This section identifies the likely, foreseeable secondary impacts that would result from the

construction of the proposed roadway (cumulative impacts are addressed in a subsequent section).

The FHWA is required to implement NEPA and the CEQ guidelines under 23 CFR 771. The FHWA has developed interim guidance on the analysis of indirect and cumulative impacts, which supplements the CEQ guidance. Combined, these documents provide the primary basis for analysis. The classification of secondary and cumulative impacts, in accordance with FHWA guidance, is the same (Table 16), but the discussions of each are presented separately below.

Table 16. Secondary and Cumulative Impact Classifications

Impact Category	**Impact Classification**	**Description**
Type	Neutral, positive, or negative	Compares the final condition of a given resource with its existing condition (assumes that the expected impact occurs); impacts on personal property are considered negative
Severity	Minor, moderate, or substantial	Considers the relative contribution of the proposed project to a given impact
Duration	Temporary or permanent	Assumes “permanent” unless otherwise specified

Resources that are likely to incur secondary impacts are identified in Table 17 and summarized below.

Table 17. Secondary Impacts by Resource Category

Resource	**Secondary Impact**
Land Use	Enhanced development potential adjacent to connector road
Socioeconomics	Future development & employment opportunities
Environmental Justice	Air quality & congestion
Visual Character	Future commercial development
Cultural Resources	Resources on undeveloped lands could be impacted
Air Quality	Additional development could add to AQ pollutant levels
Water Resources	Minor/moderate impacts from additional development
Biological Resources	Impacts to migratory birds, native plants
Hazardous Materials	Future development could uncover potential sites

Land Use

It is expected that the Preferred Alternative would enhance the development potential of the study area by providing access and infrastructure improvements to an otherwise undeveloped area. Therefore, this alternative has the potential to induce permanent, neutral changes in land use through the introduction of commercial or industrial developments.

Socioeconomics

The commercial or industrial enterprises would create employment opportunities. Therefore, the Preferred Alternative would result in a permanent, positive, and moderate to substantial secondary impact to socioeconomic conditions in the study area and the overall region. It would also have a positive impact by reducing congestion in downtown Douglas because commercial vehicles and over-sized loads would be rerouted from the existing RHC LPOE to the new commercial LPOE on James Ranch Road (Douglas LPOE Environmental Review | GSA).

Environmental Justice

Low-income and minority populations in the general study area would experience minor, short term disproportionate air quality impacts from construction vehicle traffic during construction. However, these impacts would be temporary and would end with project completion. Congestion during construction of ADOT's connector road and GSA's LPOE will occur and could have a temporary effect on the provision of emergency services, but the likelihood is low. Beneficial impacts to low-income and minority populations in the study area would likely occur through job creation and increased income, resulting in beneficial health outcomes; i.e., increased life expectancy and improved child health status (GSA FEIS, Section 3.12.2.3).

Visual Character

Increased noise and light impacts from traffic would be minor and negative relative to the current rural nature of the area and future development along James Ranch Road. These impacts would be secondary to the roadway and LPOE improvements.

Cultural Resources

By providing improved access to previously undeveloped lands, the Preferred Alternative could enhance access to undisturbed lands that have not been subject to cultural resource inventories. Unknown cultural resources could be inadvertently impacted by increased ease of access to undisturbed areas adjacent to the study area. Therefore, the Preferred Alternative could result in negative, minor permanent secondary impacts to cultural resources.

Air Quality

Temporary secondary impacts to air quality would be negative and minor stemming from the potential for additional development adjacent to the Preferred Alternative. In addition, routing truck traffic away from the city of Douglas would reduce congestion and air pollution exposure to city residents (GSA FEIS 2024). Private developments would be subject to local and state requirements for maintaining air quality.

Noise

Secondary noise levels in downtown Douglas would be less than currently exist as a result of moving the commercial truck traffic to the new LPOE by the Preferred Alternative. Thus, the impact would be positive and permanent. Some minor negative impacts would occur in the project area resulting from the commercial truck traffic (GSA FEIS Section 4.10).

Water Resources

Temporary secondary impacts to water resources would be negative and minor to moderate depending on the extent of commercial or industrial development. Impacts could be both temporary (e.g., during construction) and permanent (e.g., water flows altered across impervious surfaces). Any future developments within the study area or vicinity must comply with state and local zoning and floodplain ordinances and well as the Federal CWA.

Biological Resources—Migratory Birds, Native Plants, Noxious and Invasive Species

The Preferred Alternative would likely facilitate the conversion of undeveloped lands to commercial or industrial developments. Secondary impacts to species protected under the ESA, Bald and Golden Eagle Protection Act, or the Fish and Wildlife Coordination Act are not expected, as resources protected under these Acts are not present. Secondary impacts to migratory birds, native plants, and noxious and invasive species are expected to be negative, minor to moderate and temporary.

Hazardous Materials

Potential hazardous situations identified during the analysis conducted for this EA would be mitigated during construction. Future developments, as a result of the Preferred Alternative, could uncover other potentially hazardous conditions. State and local regulations would require these sites to be mitigated during construction. Vehicle accidents along the proposed roadway could cause minor, localized, and temporary hazardous material exposures in the form of oil and gas spills and other vehicular debris. These incidences would be contained and cleaned up by responding agencies. Therefore, secondary impacts are expected to be temporary, neutral to negative, and minor.

Cumulative Impacts

Within the context of NEPA, cumulative effects are defined as “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.” Cumulative impacts include the direct and indirect impacts of a project together with the impacts of all other past, present, and reasonably foreseeable future actions in the area, including those of others. This analysis of cumulative impacts concentrates on current and future actions that could contribute to cumulative impacts on key social, economic, and environmental resources.

A connected action is one that is closely related to the Proposed Action and cannot or would not proceed but for the first action.

Past, present, and reasonably foreseeable future actions considered in this analysis include projects/development by the City of Douglas, Cochise County, SEAG, GSA, and private developers. For this cumulative impacts assessment, past, present, and reasonably foreseeable

future transportation projects and non-transportation-related projects are considered. This draft EA assumes that the local municipalities and county comprehensive and general plans direct the type of development in the study area. Coordination with the Cochise County and City of Douglas planning departments indicated this development would likely occur eventually regardless of whether the Preferred Alternative is implemented.

Past Actions/Completed Projects

Past actions in the general study area include:

- Construction and operation of ADOT's commercial vehicle inspection station in the northeast quadrant of the SR 80/US 191 intersection east of James Ranch Road.
- Construction and operation of the U.S. Customs and Border Protection facility on Kings Highway, approximately one mile east of the Preferred Alternative.
- Planning and NEPA documentation for GSA's new commercial LPOE at the U.S./Mexico border.

Connected Actions

A new commercial LPOE is planned to be constructed by the GSA in Douglas, Arizona by early 2028 on an 80.49-acre parcel that was donated to the GSA by the City of Douglas. The new LPOE would process all commercial truck operations. The Proposed Action analyzed in this draft EA is directly connected to the new LPOE. GSA's LPOE project has been addressed in its own NEPA analysis through preparation of a Final EIS (May 2024).

Per GSA's FEIS, implementation of ADOT's roadway connection to GSA's new commercial LPOE will result in the following cumulative effects:

- Traffic patterns in the study area will change by diverting commercial trucks from the existing LPOE in downtown Douglas to the new facility on James Ranch Road.
- Future development adjacent to James Ranch Road (Preferred Alternative) could hinder downtown Douglas revitalization and attract infill on properties previously occupied by commercial and industrial development.
- GSA partnered with EPA to provide planning assistance and technical support that helped the City in developing its Douglas Infill and Downtown Revitalization Strategy for leveraging LPOE projects for economic development consistent with the city's vision for future growth.

Reasonably Foreseeable Future Actions

Future projects that are either planned or projected are identified in the following table.

Table 18. Foreseeable Future Actions

Jurisdiction	Project
ADOT	Expand Preferred Alternative to a 4-lane-divided roadway when future traffic volumes to/from the LPOE warrant increased capacity.

City of Douglas	Extend wastewater/water conveyance/broadband infrastructure along SR 80 to Cochise College and Preferred Alternative to GSA's LPOE.
	Realign Chino Road, east of the Preferred Alternative, to tie into the SR 80/US 191 intersection to create an operable four-legged intersection.
Cochise County	Participation in City's utility infrastructure extensions.

ADOT would design the LPOE connector road to accommodate future utility installation. The City plans to use the new ADOT ROW for the placement of the utilities from SR80 south to the new LPOE. The project would receive federal funds through the Border Environment Infrastructure Fund, as administered the U.S. Environmental Protection Agency (EPA) and would be subject to the same NEPA regulations as the Preferred Alternative. A separate environmental document for the utility project was prepared for review by the North American Development Bank prior to submittal to EPA for review and approval.

In addition, ADOT's design of the connector road would include a roundabout at the intersection of the LPOE northern boundary road and James Ranch Road. This roundabout could provide access to future development east of the LPOE.

The City's utility improvements project would be constructed within the ROW of the Preferred Alternative. The project would have a beneficial moderate impact to the surrounding areas in Cochise County and City of Douglas by providing reliable broadband infrastructure, water and sewer service to future developments adjacent to SR 80 and the Preferred Alternative.

Resources that are likely to incur cumulative impacts are identified in Table 19 and summarized below.

Table 19. Cumulative Impacts by Resource Category

Resource	**Cumulative Impact**
Land Use	Enhanced development potential adjacent to connector road
Socioeconomics	Future development & employment opportunities
Environmental Justice	Construction impacts
Visual Character	Future commercial development would alter character
Cultural Resources	Resources on undeveloped lands could be impacted
Air Quality	Idling vehicles in LPOE could minimally add to MSAT levels
Water Resources	Minor/moderate impacts from additional development
Biological Resources	Habitat displacement from future development
Hazardous Materials	Future development could uncover potential sites

Environmental Consequences – Preferred Alternative

Land Use

Construction of the Preferred Alternative would likely encourage development of available land east and west of the LPOE connector road. As part of its downtown redevelopment plan, the City of Douglas is envisioning the relocation of some industrial and warehousing businesses to this particular area. In the long-term, the City's infrastructure project, along with the Preferred Alternative and GSA's LPOE project, would result in permanent, beneficial impacts as these projects would be consistent with the region's vision of creating a commercial and industrial hub on SR-80 and be consistent with the City of Douglas's long-term vision of revitalizing its downtown district and creating a pedestrian-friendly city.

Socioeconomics

Positive socioeconomic benefits will result from increased employment opportunities near the new LPOE as development occurs along the Preferred Alternative, as well as with the redevelopment in downtown Douglas as industrial and warehouse facilities are relocated. There would be short-term, moderate to significant beneficial impacts from increasing jobs, local spending in the community, and associated tax revenue during the construction phase. During operations of GSA's LPOE and ADOT's connector road, long-term, moderate to significant beneficial impacts from increased job opportunities and revenue for the region could occur, while long-term, minor adverse impacts could result from induced increases in population, leading to increased demand and need for services (GSA FEIS, Section 4.12).

Environmental Justice

With ADOT's connector road Preferred Alternative and GSA's LPOE, there would be disproportionate impacts to low-income and minority populations and child populations from increased air pollutants, traffic congestion, and noise both from construction and operation; however, no impacts would be disproportionately high and adverse. There would be negligible to moderate beneficial impacts to low-income and minority populations from increased job opportunities. Cumulatively, these projects have the potential to support future development and permanent job creation, which would result in long-term, beneficial cumulative impacts. Additionally, the City of Douglas and Cochise County would have increased capacity to support existing and additional demand on utilities and infrastructure, which could have long-term, beneficial cumulative impacts on quality of life for residents (GSA FEIS, Sections 4.12/4.13).

Visual Character

As development occurs following construction of the Preferred Alternative, the existing visual character of the project area will be negatively affected long term as the density of buildings increases. The introduction of lighting needed for local streets and office/warehousing spaces will further detract from the current undisturbed character of the project area.

Cultural Resources

Currently unidentified resources on undeveloped lands in the general project area could be negatively and permanently impacted following completion of the Preferred Alternative and the GSA LPOE.

Air Quality

Long-term positive air quality impacts will occur for the larger study area and the City of Douglas by diverting commercial vehicles from the existing LPOE in downtown Douglas, thereby reducing overall vehicular emissions in the city. Minor, negative cumulative effects are anticipated with implementation of the Preferred Alternative due to emissions resulting from commercial vehicle operations on James Ranch Road and idling vehicles within GSA's LPOE.

Water Resources

Minor, negative cumulative effects from the Preferred Alternative on water resources are not anticipated because stormwater flows will not be impeded and will continue to pass through drainage structures under James Ranch Road. In addition, wetlands do not exist in the study area. There would be the potential for short-term, minor adverse impacts to water resources during construction and long-term, minor adverse impacts under operations of the connector road and GSA's LPOE. During construction adverse impacts to water quality could occur from soil erosion or contaminated runoff; however, adherence to AZPDES permit requirements, including the development of a SWPPP, would minimize these impacts.

Biological Resources

Minor, negative cumulative effects are anticipated subsequent to implementation of the Preferred Alternative due to disturbances to biological resources associated with development near the connector road and adjacent to GSA's LPOE. With the ADOT and GSA projects, there would be long-term and permanent, negligible to moderate adverse impacts to biological resources. This includes direct, moderate adverse impacts from vegetation loss, habitat disturbance, and potential mortality from vehicle encounters. In addition, minor, adverse, and indirect impacts from noise and increased human activity could result in wildlife avoidance.

Hazardous Materials

Currently, no hazardous materials issues have been identified within the footprint of the Preferred Alternative. However, future development could uncover potential sites on unsurveyed lands that might have minor, negative cumulative effects.

Environmental Consequences – No-Build Alternative

Cumulative impacts associated with the No-Build Alternative would be moderate, negative and permanent relative to air quality because congestion in downtown Douglas would get worse with more commercial vehicles using the existing LPOE and longer idling times (GSA FEIS 2024). Impacts to biological, cultural, and water resources would be neutral (nonexistent) without construction of the Preferred Alternative.

Conclusion

The Preferred Alternative will offer the most positive overall benefit to the Douglas study area consistent with GSA and local government planning related to future development. However, some minor, long-term impacts will occur but can be reduced through implementing the mitigation measures identified earlier in this document.

Chapter 5 – Public Involvement and Agency Coordination

Introduction

Most public involvement activities occur during a project's environmental review process (NEPA). The study team, with support from ADOT Communications, prepared a Public Involvement Plan (PIP) to guide the outreach effort designed specifically for the Douglas LPOE project. This project-specific PIP is consistent with ADOT's *Public Involvement Plan* for transportation projects in Arizona and was developed to ensure that residents, business owners, and all interested parties in the study area have ample opportunities to provide input into project development. As a result, ADOT and the study team have implemented an appropriate public involvement program within the project NEPA process, consistent with FHWA regulations.

Public Involvement

A public scoping meeting was conducted on April 27, 2023, at the Douglas Visitors Center to identify specific concerns of local residents and business owners about the proposed connector road project. A subsequent public information meeting was conducted on August 3, 2023, at the same location to describe the alternatives being evaluated and present preliminary results of the engineering and environmental analyses. Information meeting notices were published on three consecutive weeks prior to each meeting in the Douglas Herald Newspaper. Notices were also posted on ADOT's project website. All notices were presented in English and Spanish, as were handouts at each meeting. Spanish speaking team members were also available to converse with members of the public, as needed.

Copies of the public meeting notices are provided in Appendix C. Comments received at the April 27 and August 3, 2023, meetings and associated responses are provided in Appendix D.

This Draft EA was distributed for public comment on October 23, 2024. A public hearing will be conducted on November 19, 2024, at the Douglas Visitors Center at 5 pm to advise all individuals and agency representatives about the recommended alternative and its potential impacts.

Comments and questions on the content of the draft EA can be submitted through **December 9, 2024,** in any of the following ways:

- Provide verbal comments at the public hearing
- On-line comment form: https://docs.google.com/forms/d/e/1FAIpQLSclX8F0Su_VC-V-FSHFyYq3bdnfONLBXafdsiKz0-hf5QceRA/viewform
- E-mail: study@SR80DouglasIPOE.info

Agency Coordination

An Interagency Consultation (IAC) Group was established to guide the development of the regional air quality conformance analysis process as well as the local project conformity. Agency representation in this group included:

- ADOT
- FHWA
- EPA
- ADEQ
- Southeastern Arizona Governments Organization
- City of Douglas
- Cochise County

In addition, close coordination has been maintained throughout the study process with representatives from Cochise County, City of Douglas, Cochise College, and local utilities.

The ADOT study team has also coordinated with the GSA regarding the connector road alternatives and how they would provide access to its new commercial LPOE. Additional discussions have occurred regarding the design of the future LPOE and connector road.

An agency scoping meeting was conducted at the Douglas Visitors Center on April 27, 2023, to inform attendees of the study's purpose and need, as well as to identify any concerns or issues of those in attendance that should be addressed as the study progressed. Monthly meetings have been held to keep all interested and affected parties apprised of progress on the engineering and environmental discipline tasks. A second agency meeting was conducted on August 3, 2023, at 1:00 p.m. to discuss the presentation on alternatives under consideration that would be made at a public meeting later that day.

The April agency scoping meeting was attended by representatives of Cochise County, City of Douglas, Cochise College, and ADOT. The purpose and scope of the study were explained. A second agency meeting was conducted on August 3, 2023, during which a PowerPoint presentation was made to outline the study overview, alternatives under study, and the preliminary evaluation of alternatives. The following comments/concerns were expressed in these meetings.

Table 20. Agency Scoping Meeting Comments

Agency	Concern	Response
Cochise County	Storm Flows if old RR berm is impacted. Utility locations under road or in ROW. ROW acquisition talks with landowners. Alternatives development process.	Final design will evaluate. In connector road ROW only. Not until NEPA is completed. Goal: avoid buildings; most direct route to LPOE.
City of Douglas	Congestion at SR 80/JRR intersection. Access to adjacent land from connector road. Consideration of frontage roads. Will connector road be extended to border Detention basin consideration to control storm flows.	Potential road expansion is evaluated in DCR. To be evaluated further in final design. Yes, to provide GSA employee access to parking. Evaluated but eliminated.
Cochise College	Rush hour traffic at college entrance due to commercial truck volumes.	Alternative 1 traffic should go east to the inspection station at SR 80/US 191 intersection & avoid the college.
Douglas PD	Easement may be needed if RR bed is disturbed by construction.	ADOT ROW will investigate.

Chapter 6 – Bibliography

ADOT (Arizona Department of Transportation)

2016 *Post-construction Best Management Practices Manual for Water Quality.* January.

2017 *Noise Abatement Requirements.* May.

2020 *Erosion and Pollutant Control Manual for Highway Design and Construction.*

2021 *Standard Specifications for Road and Bridge Construction, Section 104.08.*

2023a *A Class III Cultural Resources Inventory of Approximately 127.7 Ha (315.6 Acres) for the City of Douglas International Port of Entry Connector Road in Cochise County, Arizona.* Prepared by Tierra Right of Way Services, Ltd., Tucson.

2023b *Biological Evaluation: City of Douglas International Port of Entry Connector Road Study.* Prepared by Tierra Right of Way Services, Ltd., Tucson.

2023c *Preliminary Initial Site Assessment: City of Douglas International Port of Entry (POE) Connector Road Study.* Prepared by Ninyo & Moore, Tucson.

Baker, Jeffrey L.

2007 *A Cultural Resource Survey for the Douglas Maintenance Yard.* Cultural Resource Survey Report No 04-712:60. EcoPlan Associates, Inc., Tucson.

Brown, David E. (editor)

1994 *Biotic Communities: Southwestern United States and Northwestern Mexico.* University of Utah Press, Salt Lake City.

Chenault, Mark L. (editor)

2000 *An Archaeological Assessment of the Proposed El Paso Natural Gas Willcox to Mexico Pipeline Right of Way, Cochise, County, Arizona.* SWCA Cultural Resource Report No. 99-71. SWCA Environmental Consultants, Inc., Tucson.

Cochise County

2015 *Comprehensive Plan.* Available at: https://www.cochise.az.gov/DocumentCenter/View/136/Cochise-County-Comprehensive-Plan-PDF. Accessed November 2023.

Corps (U.S. Army Corps of Engineers)

2020a Section 404 of the Clean Water Act. https://www.spl.usace.army.mil/Missions/Regulatory/Jurisdictional-Determination/Section-404-of-the-Clean-Water-Act/. Accessed December 2020.

FHWA (Federal Highway Administration)
2006 Highway Construction Noise Handbook. August.

2011 Title 23, Highways—Part 772 Procedure for Abatement of Highway Traffic Noise and Construction Noise.

2023 Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents.

GSA (General Services Administration)
2024 *Final Environmental Impact Statement for the Expansion and Modernization of the Raul Hector Castro Land Port of Entry and Proposed Commercial Land Port of Entry in Douglas, Arizona*

Klebacha, Caroline
2016 *Cultural Resource Survey, Glance Creek Bridge, ADOT Structure #237, Cochise County, Arizona.* Technical Report No. 13-467016. EcoPlan Associates, Inc., Tucson.

Martynec, Richard J., Duane E. Peter, Sandra Martynec, Chris Hardaker
1994 *Cultural Resources Survey and Monitoring of the Douglas-Naco, Arizona Sector of the U.S.-Mexican Border.* Geo-Marine, Inc., Plano, Texas.

Rieder, Morgan, and Laurie V. Slawson
2002 *Cultural Resources Survey of 58.4 Miles along the United States-Mexico International Border in the Vicinity of Douglas and Naco, Cochise County, Arizona.* Archaeological Series No. 10. Aztlan Archaeology, Tucson.

Stone, Bradford W., and Elizabeth H. Harmon
1995 *Cultural Resources Survey of a 17.31-Mile-Long Segment of the Southern Pacific Railroad between Bisbee Junction and Bisbee, and between Paul Spur and Douglas, South-Central Cochise County, Arizona.* Project Report No. 95:60. Archaeological Research Services, Inc., Tempe, Arizona.