FY 25 BRIDGE INVESTMENT PROGRAM: BRIDGE PROJECT

STATE HIGHWAY 334 BRIDGE BUNDLING PROJECT

The Texas Department of Transportation (TxDOT)

SUPPLEMENTAL NARRATIVE

Submitted to Federal Highway Administration (FHWA), U.S. Department of Transportation (USDOT)

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1. BASIC PROJECT INFORMATION

1.1. Project Description

The Texas Department of Transportation (TxDOT) seeks $26.01 million in FY25 Bridge Investment Program (BIP), Bridge Project Grant funds for the State Highway 334 Bridge Bundling Project (**Project**), to reconstruct two eastbound bridge structures along State Highway (SH) 334 and associated roadway improvements.

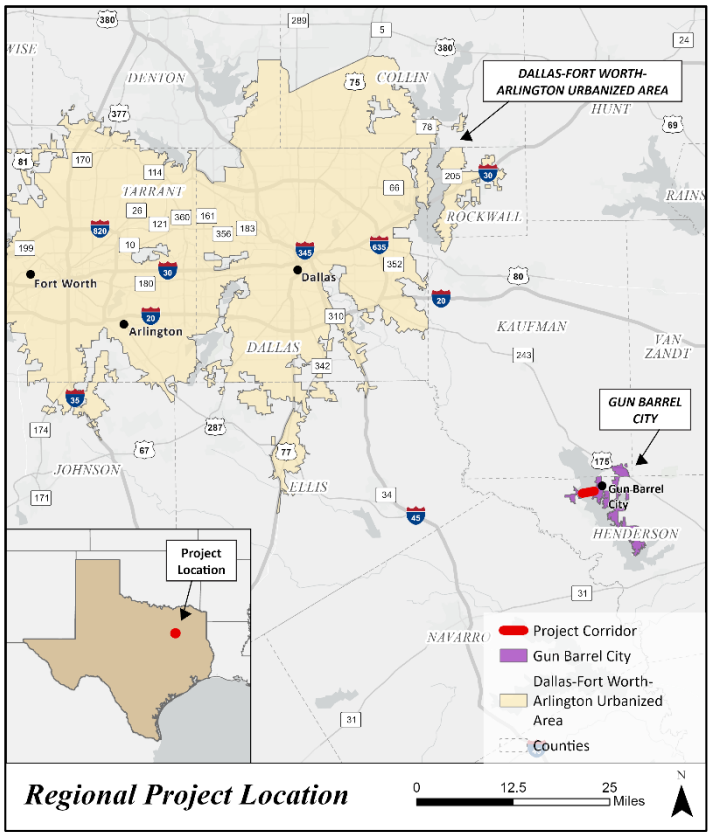

Figure 1. Project Location in Regional Context.

Bridge Numbers 101080069702030 and 101080069702031, originally constructed in 1965 and have never been reconstructed, are currently in Fair Condition and at risk of falling into Poor Condition in the next three years. With an Annual Average Daily Traffic (AADT) of 14,000 vehicles per day and a posted speed limit of 55 miles per hour (MPH), these bridges serve as a crucial connector of the state highway system in Northwest Henderson County, Texas. State Highway 334 (SH 334) is vital for commuters, especially workers in Gun Barrel City, Mabank, Tool, and Seven Points, where the majority of regional employment is concentrated. The efficient operation of these bridges is essential not only for daily commuters and recreational visitors, but also for the economic vitality of the region.

Located over the Cedar Creek Reservoir—a popular recreational destination for the Dallas-Fort Worth Metroplex—these bridges are integral to the regional network (Figure 1). They ensure seamless connectivity and efficient traffic management across major corridors such as SH 198, SH 175, SH 31, and other significant thoroughfares.

Figure 2. Westbound (new) and Eastbound (old) Lanes of State Highway 334 over the Cedar Creek Reservoir.

In 2021, TxDOT completed the construction of a parallel structure north of the Project, now carrying the westbound lanes of SH 334, to address transportation challenges associated with crossing the Cedar Creek Reservoir (Figure 2). The 2.94-mile project included the construction of two new two-lane bridges (0.92 miles), sheet pile walls, new storm sewer and drainage structures, and associated roadways.

The existing structures (bridges 101080069702030 and 101080069702031) now carry two eastbound lanes of SH 334.

As of the last inspection conducted in February 2023, the superstructure for bridge no. 101080069702030 is rated 5, i.e. in Fair condition, however, the AASHTOWare Bridge Management (BrM) deterioration modeling forecasts the bridge to deteriorate to Poor condition as soon as the next inspection. This projection is based on typical bridge deterioration in the area and on the condition of the bridge over the last several decades. This implies that bridge no. 101080069702030 is at risk of falling into Poor condition in the next three years, if not sooner i.e. by the next inspection scheduled to occur in February 2025.

The Project will address critical reliability, structural, geometric, mobility, and safety issues and will provide a multitude of regional benefits by maintaining the reconstructed bridges in a state of good repair.

Current Transportation Challenges

State of Repair and Maintenance Burden:

Figure 3. Deficiencies on the West Abutment of Bridge 101080069702030

The SH 334 eastbound bridges face significant challenges due to their deteriorating condition, thereby, increasing the maintenance burden on TxDOT. Currently rated as "Fair" per the National Bridge Inventory Data (NBI), these aging structures exhibit spalling, cracking, exposed rebar, and significant erosion along the abutments, all of which have led to compromised safety and efficiency of the transportation network. Despite ongoing TxDOT maintenance efforts, the naturally scour-prone environment has accelerated wear on key components as shown in Figure 3, resulting in costly repairs and operational inefficiencies. The bridges also fail to meet current geometric, load, and safety standards, such as AASHTO's MASH 2016 guidelines. Reconstructing both bridges through an investment of the BIP funds is critical to restoring them to a state of good repair, enhancing long-term resilience of the region's transportation network, and reducing future maintenance costs.

Impacts due to Weather Related Events:

Ensuring the resilience of these bridges is crucial for regional mobility, given that they are located in a floodplain. The Project will mitigate air pollution and fuel consumption by preventing detours and potential closures of the SH 334 eastbound bridges due to serious structural problems that may arise if current issues remained unaddressed. The current bridges do not have sufficient vertical clearance to let recreational vehicles pass underneath them. The proposed replacement will raise the bridge height to 20 feet above the water, to better manage water flow and reduce erosion, thereby, protecting communities and surrounding ecosystems from flooding. Temporary closures would disproportionately impact disadvantaged communities in Kaufman and Henderson Counties, exacerbating air pollution and transportation insecurity for vulnerable populations, including a large percentage of residents over the age of 65.

Safety Issues due to Structural Deficiencies:

Currently, both structures do not meet current various engineering standards for bridges. The low sufficiency ratings are partly due to outdated design standards. The bridge railings along both structures of eastbound SH 334 do not meet currently acceptable standards. This can lead to safety issues such as a lack of containment for veering vehicles and lead to further damage in case of collisions. These risks make sufficient and well-maintained bridge rails essential for the safety of motorized and non-motorized users.

Proposed Scope of Work

A major objective of the Project is to maintain a safe connection across the Cedar Creek Reservoir by bringing both the bridges up to current TxDOT bridge design standards and improve access for all modes of transportation. The following scope of work is proposed for the Project:

- Reconstruct existing eastbound SH 334 bridges as new bridges to conform or exceed current TxDOT, AASHTO, and FHWA design standards.
    - Remove existing bridges 101080069702030 and 101080069702031
- Mill and inlay of approximately 2.3 miles of SH 334 within the project corridor to upgrade its geometric design to include standard width lanes, shoulders, and other geometric features for improving overall traffic conditions, reduce delays, and improve safety.
- Provide improved lane configuration and 10-foot-wide outside shoulder to accommodate enhanced multimodal connectivity throughout the project limits.
- Replace and upgrade the bridge railings to meet MASH 2016 standards.
- Replace stormwater infrastructure to minimize potential impacts to receiving waterways under the bridges.
- Adjust utilities (telecommunication, water, and sanitary sewer) along the project corridor,

Alignment with BIP Goals

The Project aligns with the goals of the BIP program as it will improve the safety, efficiency, and reliability of the movement of people and freight in this economically crucial region. Further, the proposed improvements will preserve and strengthen the bridge, thereby restoring its superstructure from Fair to Good condition and bringing it up to standards of load and traffic requirements typical of the region's transportation network. TxDOT has committed $6.5 million in non-Federal contributions for the construction of the Project.

- ✓ *Improve the safety, efficiency, and reliability of the movement of people and freight over bridges*
- ✓ *Improve the condition of bridges in the United States*
- ✓ *Provide financial assistance that leverages and encourages non-Federal contributions from sponsors and stakeholders*

Project History

The Cedar Creek Reservoir is a man-made lake completed in 1965 as a water source to Fort Worth and many other local communities in North Texas. The lake is approximately 18 miles long and just over 2 miles wide. The shoreline is just over 220 miles from point to point. Connecting across the lake is SH 334, a 10-mile state highway which was originally designated on September 25, 1939, as a route from Freeport southward to Bryan Beach. SH 334 was redesignated in 1989 as a

renumbering of a portion of FM 85 to serve as a route between Seven Points and Gun Barrel City. The westbound bridges were constructed in 2021; however, not enough funding was available to complete the eastbound bridges.

1.2. Project Location

SH 334 is a 10-mile state highway in the state of Texas. The highway begins at a junction with State Highway 274 (SH 274) in Seven Points and heads east to a junction with U.S. Highway 175 (US 175) in Gun Barrel City. SH 334 begins at a junction with SH 274 in Seven Points. It heads east from this junction across the Cedar Creek Reservoir to an intersection with SH 198 in Gun Barrel City. SH 334 reaches its eastern terminus at US 175 in Gun Barrel City.

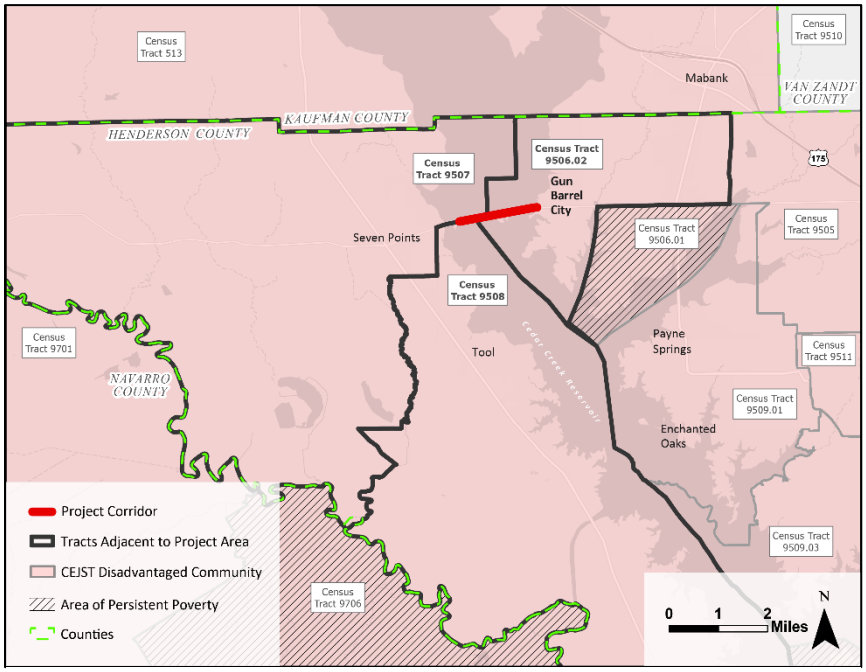

Figure 4. Project Area Census Tracts

The Project is located in a Rural Area within census tracts 9506.02, 9507, and 9508 in Henderson County, TX (Figure 4). As per NOFO definitions, tracts 9506.02, 9507, and 9508 are designated as Historically Disadvantaged Community (HDC) None of these tracts are designated as Areas of Persistent Poverty (APP), however, neighboring tracts 9506.01 and 9706 are designated as APP. The approximate geospatial coordinates of the Project are 32.327860, -96.184062.

The project area is 72.9 percent disadvantaged per the FHWA Screening Tool for Equity Analysis of Projects (STEAP) tool.

1.3. Lead Applicant

The Texas Department of Transportation is a state government agency responsible for construction and maintenance of Texas' immense state highway system and the support of the state's maritime, aviation, rail, and public transportation systems. TxDOT supports 2,862 public transit vehicles, 6,500 traffic signals, 264 general aviation airports, and 78 million tons of cargo through seaports. TxDOT is one of the state's largest departments in terms of the number of subordinate offices – it maintains 25 geographical districts throughout the state. The large number of districts is needed due to the large size of the state, the widely varying climate and soil conditions affecting public roads, and the differing needs of the local populace (urban vs. suburban vs. rural).

There are over 55,000 bridges in Texas listed on the National Bridge Inventory (NBI). Of these, 34,865 are owned and maintained by TxDOT with a total bridge deck area of over 445 million square feet. Nearly 18,000 of the over 55,000 bridges in Texas are on the National Highway System (NHS). TxDOT manages about 90 percent of the NHS bridges and 85 percent of the total NHS bridge deck area. To sustain bridge performance to 2031 and beyond, TxDOT plans to invest $736.4 million in bridges annually. Despite the funding available, it is not sufficient to address all of the bridges falling into Poor condition.

Bridge Performance Targets

Measure	2021 Actual	2022 Target	2022 Adjusted Target	FHWA Minimum Condition Threshold
NHS Bridge				
% Good	49.8%	50.4%	50.4%	
% Poor	0.9%	0.8%	1.5%	10.0%

1.4. Other Public and Private Parties

No private or non-private entity will receive a direct and predictable financial benefit if the Project is selected for an award. However, the Project is strongly supported by state and federal officials as well as regional partners, as evident in the letters of support for this application provided in Appendix C.

1.5. Additional Eligibility Requirements

Maintenance Commitment

The TxDOT Maintenance Division oversees the preservation, upkeep, inspection, evaluation and restoration of more than 200,000 miles of Texas highways and rights of way. The division also coordinates TxDOT's maintenance contracts, manages Safety Rest Areas, various vegetation management programs, the Pits and Quarries Program, and provides support and guidance to TxDOT districts during natural disasters and emergencies. The Maintenance Management Manual includes categories of routine, preventative, and major maintenance. All three maintenance categories may be performed with state forces or by contract; however, most preventive and major maintenance work should be contracted and funded with state funds or federal funds. The maintenance plan is developed in the Maintenance Management System (MMS).

TxDOT's 2022 Transportation Asset Management Plan (TAMP) presents a 10-year strategy for managing the state's pavements and bridges. TxDOT has constructed, maintains, and inspects the largest network of pavements, bridges, and other assets in the country. TxDOT itself owns, maintains and operates some 201,225 lane miles of roads and 34,865 bridges, which carry 185.8 billion vehicle miles annually. TxDOT is responsible for ensuring the safety of the traveling public and the effective long-term operation of infrastructure assets. Effective long-term operation of the infrastructure is regularly achieved through transportation asset management. Transportation asset management (TAM) relies on data-driven decision-making to choose the right improvements at the right time in an asset's lifecycle to sustain a desired level of performance in the most cost-effective way. The TAMP details TxDOT's asset management approach and describes the condition of the transportation system, future investment plans, potential risks to effective operation of the network, the relationship between federal and state condition goals, and TxDOT's success in addressing those goals.

TxDOT is responsible for and commits to maintaining the Project in a State of Good Repair throughout its lifetime. Planned and routine maintenance activities include repairing and sealing joints and waterproofing the deck, estimated to be around $1.8 million in 2022 dollars over 30 years of operations. TxDOT will be utilizing dedicated funds from its annual maintenance budget for maintaining the bridges upon completion of the Project.

Bike and Pedestrian Accommodation

The Project will provide bike and pedestrian accommodations along eastbound SH 334, where none exist currently. The proposed improvements include replacing both bridges and associated roadways with a wider deck/cross-section to accommodate a 10-foot-wide shoulder that would be used by pedestrians and bicyclists. This will facilitate the mobility of non-motorized users between Gun Barrel City and Seven Points. It will also provide a safer bike infrastructure for visitors of the Cedar Creek Reservoir. The Project will include the replacement of the current bridge rails which do not meet current AASHTO MASH Standards, to ensure safe mobility for pedestrians and bicyclists.

2. NBI DATA

All National Bridge Inventory data is in the application template. No supplemental information is required.

3. PROJECT BUDGET

3.1. Sources and Uses of Funds

The future eligible project cost to complete the Project is $32.5 million in year-of-expenditure (YOE) dollars, as shown in Table 1. Costs previously incurred and planned prior to obligation of BIP funds (ineligible costs) include preliminary engineering design for approximately $1.4 million and Construction Management costs of $2.5 million. The funding breakdown presented in **Table 1** includes construction cost for both eastbound SH 334 bridges and associated roadwork, contingency, and inflation costs.

Table 1. Project Funding Breakdown

Category	Estimate (YOE)	Percent
Total Project Cost ("Ineligible" + "Future Eligible")	$36,414,187	
Ineligible Project Costs	$3,900,000	
Future Eligible Project Cost	**$32,514,187**	**100%**
BIP Funding Request Amount	$26,011,349	80%
Estimated Other Federal Funding (excluding BIP request)	$0	0%
Estimated Total of Non-Federal Funding	$6,502,838	20%

The project budget is based on updated estimates prepared in October 2024, to validate the accuracy and reasonableness of earlier estimates. The estimates account for four percent inflation per year until the mid-point of construction (December 2028). In consideration of unanticipated cost increases, the project budget includes a contingency of 10 percent of the construction cost or eight percent of the total future eligible cost. Any additional costs incurred above the allocated

contingency for the project will be borne by TxDOT. The estimate is based on preliminary engineering and design.

The BIP federal request is $26.01 million and TxDOT commits to providing $6.5 million in matching funds. The SF424C included in this application package provides more detail for this Design-Bid-Build contract.

3.2. Non-Federal Matching Funds

TxDOT commits to providing $6.5 million in state funds as a non-federal match, equal to 20 percent of the future eligible costs. The matching funds will be provided by TxDOT's district discretionary state funds. There are no restrictions on the matching funds. See Funding Commitment Documentation (Appendix C) for confirmed funding sources.

3.3. Bundled Projects

The Project will bundle the reconstruction of the two eastbound SH 334 bridges as described under the Project Description section, Proposed Scope of Work subsection. The Project will utilize efficiencies in construction, cost, and schedule, thereby reducing the associated disruption of traffic in the region due to two separate construction projects.

Bundling the bridges reduces the construction schedule and provides a cost savings of $12.2 million. If unbundled, the Project would be let as two separate contracts, one each associated with the 101080069702030 and 101080069702031 bridges, sequentially between 2028 and 2036. Unbundling increases the construction timeline, leads to increased project costs due to inflation, and prolongs the inconvenience to local communities during construction.

4. MERIT CRITERIA

4.1. State of Good Repair

The Project will reconstruct two eastbound SH 334 bridges and associated roadway improvements over the Cedar Creek Reservoir, bringing them into a state of good repair. These core assets will enhance the system's safety, resiliency, and reduce future maintenance and emergency repair costs for TxDOT. According to the most recent inspection conducted in February 2023, both bridges are rated as 'Fair' (Table 2). However, it is projected that the superstructure of one of the two bridges will be downgraded to 'Poor' as soon as the next inspection. Both bridges were constructed in 1965, reaching the 60-year benchmark in 2025, and have never been reconstructed.

Table 2. NBI Condition Data

Bridge ID	Condition Rating	Deck	Super-structure	Sub-structure	Guard Rail	Navigation Vertical Clearance	Design Load
101080069702030	Fair	5	5	5	0	0	H20
101080069702031	Fair	6	6	5	0	0	H20

Bridge Condition

The SH 334 eastbound bridges exhibit moderate spalling and cracking on the deck surface, with some areas showing missing or damaged joint seals. Both bridge structures suffer from moderate to severe spalling, with exposed stirrups and corroded longitudinal rebar in the superstructure and substructure. The channel protection is in compromised condition, as evidenced by the moderate to advanced scour along the abutments, which has exposed piles up to 36 inches deep and extending at least 36 inches back from the cap face under the west abutment cap. Cement-stabilized repairs meant to address erosion have broken into segments, with portions washed away (Figure 5). The west approach pavement shows moderate transverse cracking and slight settlement at the west end of the bridge deck (101080069702030) due to erosion under the west abutment cap.

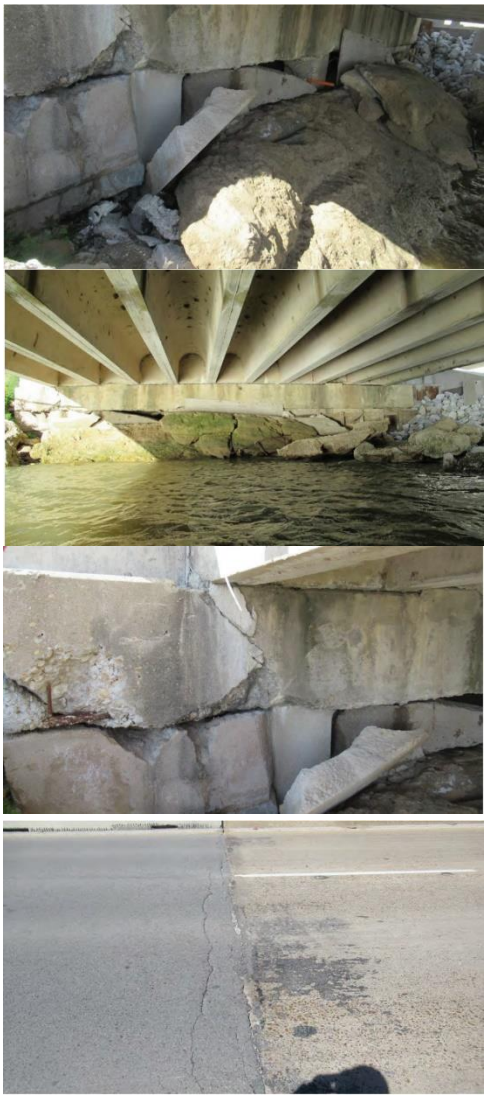

Figure 5. Structurally Deficient Bridge Components.

Spalls are evident on caps below expansion joints, including a joint open 2.75 inches, and 6-inch long by 4-foot-wide spall in Span 44 deck. Scaling of columns has extended 2 feet above the water surface. Some of the north column has been wrapped in carbon fiber up to the level of steel collars due to structural deterioration, and some cap flexural cracks have been sealed. The bridges also present moderate collision damage in the north and south railings.

Although the NBI rates the structures are in Fair condition, these bridges are at an inflection point in their condition lifecycle and are at risk of further damage from storm, scour, and pre-existing wear, which will lead to a Poor condition rating within the next three years. Specifically, the AASHTO BrM deterioration model has forecasted a 'Poor' rating for the superstructure of the bridge 101080069702030 as soon as the next inspection, scheduled to occur in February 2025.

This model is based on research sponsored by TxDOT and conducted at University of Texas at San Antonio (UTSA) and Texas A&M University. The research analyzed the historic performance of bridges in Texas, creating deterioration profiles that reflect the typical performance of bridges across different climate zones in the state. The BIP tool, which incorporates data from multiple states, represents national deterioration trends. However, data from TxDOT's agency-specific models is representative of deterioration under regional climatic conditions.

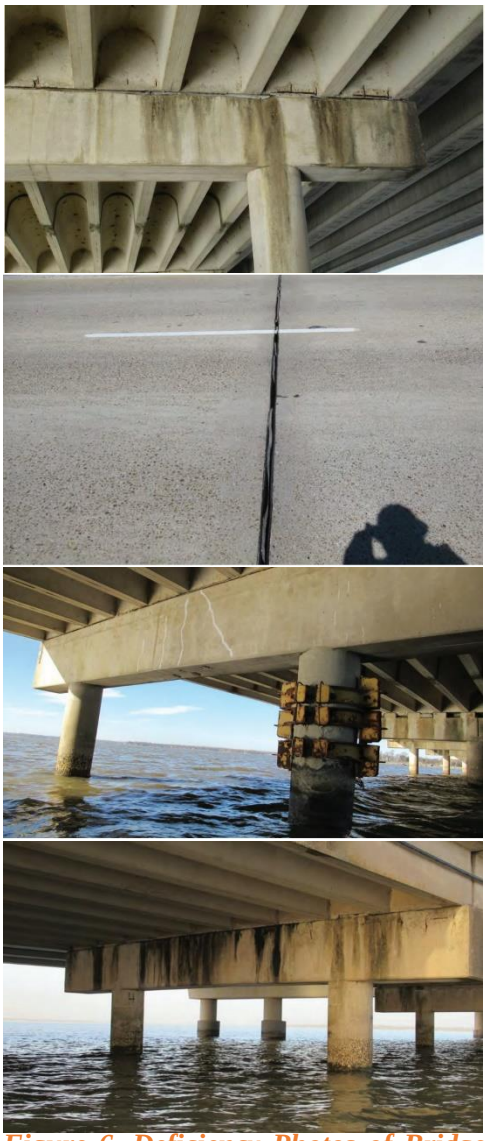

Figure 6. Deficiency Photos of Bridge Components.

While TxDOT has consistently maintained these structures, ongoing repairs to the deck, superstructure, and substructure impacts the reliability and operational efficiency of the region's transportation network. Full replacement of both bridges is essential to ensure safety and efficient traffic operations along SH 334. Despite regular maintenance, the bridges are expected to further deteriorate, particularly due to the naturally scour-prone environment that accelerates wear on the abutments, leading to increasingly costly repairs.

The Project will strengthen protection and significantly enhance the long-term resilience of the bridges. Notably, the new bridges will be designed to match the height of the adjacent westbound structures, providing a 20-foot vertical clearance for navigation.

Geometric and Load Standards

The structures do not meet various current engineering standards for bridges. The low sufficiency ratings are partly due to outdated design standards. For instance, the bridge railings do not comply with the AASHTO's MASH 2016, which set current safety standards. Upgrading the safety railing infrastructure will help mitigate the severity of crashes. The bridges also lack shoulders, which are essential to safe conditions for stopped vehicles, emergency parking, and giving drivers a sense of a safe and open roadway. According to the Geometric Design Criteria of the TxDOT Roadway Design Manual, the desirable shoulder width is 10 feet. The bridges were designed using H20 load ratings. However, since 1995, all Inventory and Operating Ratings are expressed in terms of an equivalent HS-truck, which considers different load configurations and axle distributions. Designing bridges to the HS20 standard provides a more realistic approach to accommodating modern vehicles and extends the bridges' lifespan while aligning with current AASHTO standards.

Repairing the existing bridges to meet current standards would require a detailed structural analysis, reinforcement, and enhancement of bridge components, as well as more frequent inspections. Consequently, replacing the current bridges will be much more cost-effective than retrofitting them. **The Project will provide up-to-date infrastructure to accommodate modern traffic demands and meet current standards, ultimately resulting in safer and more durable bridges.**

Maintenance Costs

The project will minimize repairs and future costs to maintain the bridge in Fair condition. Over the expected 30-year analysis period, the cost savings from reduction in repair, operations, and maintenance costs is an estimated $8.6 million (undiscounted 2024 dollars). Refer to the Benefit-Cost Analysis Technical Memorandum for more details. TxDOT will oversee all maintenance needs along the project corridor.

Consistent with Objectives of an Asset Management Plan

The Texas Transportation Commission has set asset management goals for TxDOT, targeting 90 percent of roads and bridges to be in Good or Very Good condition. The Project will align future bridge maintenance with the objectives of the 2022 Transportation Asset Management Plan (TAMP), a 10-year strategy for managing the state's pavements and bridges.

The TAMP prioritizes preventive maintenance to protect infrastructure and keep assets in a State of Good Repair. Using data-driven decision-making, it ensures timely, cost-effective improvements throughout an asset's lifecycle. The Project aligns with these objectives, ensuring bridge safety, reliability, and operational efficiency. By investing $736.4 million annually in bridges (TAMP 2022), TxDOT will ensure long-term performance through the Bridge Preventive Maintenance Program (BPM) and the Bridge System Safety Program (BSSP). These initiatives aim to enhance safety, prevent deterioration, and reduce future maintenance costs, aligning with TAMP's goals of maintaining reliable and safe bridges into 2031 and beyond.

4.2. Safety and Mobility

Current Safety Issues in the Project Corridor

SAFETY & MOBILITY
crash cost savings
of $4.3 million

A safety analysis of crashes along SH 334 was conducted between 2019 and 2023 (Tables 3 and 4). The Project corridor experienced a total of 54 crashes between the analysis years that included one serious injury and 18 crashes that resulted in minor or possible injuries. A high number of crashes (17) occurred in 2020 followed by the second highest (16 crashes) in 2019. Since the construction and separation of westbound SH 334 in 2021, the number of crashes per year along eastbound SH 334 have decreased.

Table 3. Total Crashes by Severity in the Project Corridor (2019-2023)

Fatal Injury (K)	Serious Injury (A)	Minor Injury (B)	Possible/Unknown Injury (C)	Property Damage Only (PDO)
0	1	8	10	35

Table 4. Total Crashes per Year in the Project Corridor (2019-2023)

2019	2020	2021	2022	2023
16	17	6	7	8

It was observed that rear end crashes, including one stopped-one going straight and both going straight, contribute to 44 percent of total crashes on the bridge while 20 percent of the crashes were single vehicle crashes.

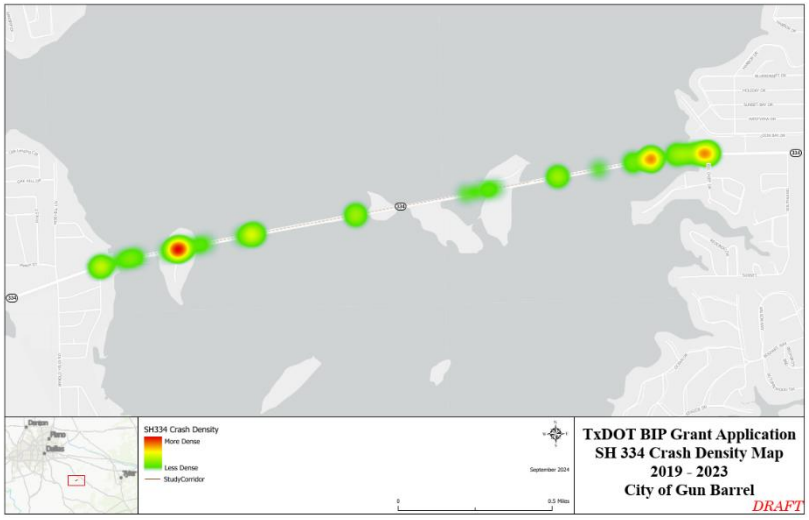

Figure 7. Crash Density along the Project Corridor (2019-2023).

Nine crashes were attributed to fixed objects, of which four crashes hit the guard rails, two crashes hit the side of the bridge (bridge rails), and one crash hit the median barrier. Thirty-four crashes occurred within the construction zone and 12 crashes occurred during dark conditions without light. Six crashes were attributed to wet conditions while two crashes were attributed to icy conditions. Drivers' inattention was the contributing factor or one of the contributing factors in 39 percent of all crashes while speed contributed to 44 percent of the crashes. The analysis also noted one crash attributed to a motorcycle.

Future Projected Crashes and Injuries

Based on the BCA analysis, the Project is forecasted to prevent 101.8 crashes between 2030 and 2059 due to safety improvements (66.0 property damage only crashes, 18.8 possible injury crashes, 15.12 non-incapacitating injury crashes, incapacitating injury crashes). Without replacing the eastbound bridges, the westbound bridges will have to handle both directions of traffic starting year 2054. This would create a dangerous situation with a projected 89 percent increase in crashes, jeopardizing the safety of all drivers.[1] Lastly, resurfacing the pavement can also decrease crashes on the bridges by approximately 21 percent based on the crash modification factor for resurfacing pavement (CMF ID: 10280). The total crash cost saving resulting from the Project, over its lifecycle, is $4.3 million (2022 dollars), discounted at a rate of 3.1 percent. Further details of this analysis are included in the BCA memo.

Protect Motorized and Non-motorized Travelers and Communities

The Project will resolve the existing safety challenges along the corridor by implementing a context-sensitive design that will improve safety for all modes of travel. It will also improve traffic operations, travel time reliability, and build a community desired active transportation infrastructure that will provide safer movement of all users including non-motorized users. The 10-foot-wide shoulder lane will provide safe access to travel along eastbound lanes of SH 334 for nonmotorized travelers.

[1] Based on a crash modification factor (CMF) for converting from two-way to one-way traffic (CMF ID: 52.34). Inverse of the CMF was taken to estimate the impacts of converting one-way traffic to two-way. The BCA conservatively did not monetize this benefit.

4.3. Economic Competitiveness and Opportunity

Job Creation and Training

The Federal On-the-Job Training (OJT) Program has been established in accordance with U.S. DOT regulations 23 CFR Part 230, Subpart A, Equal Employment Opportunity on Federal and Federal-aid Construction Contracts. The Federal OJT program targets women, minorities, and disadvantaged individuals for entry into journey-level positions to ensure that a competent workforce is available to meet highway construction needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

Training goals are assigned by TxDOT through the administration of two types of OJT programs:

- Contractor-based.
- Project-specific.

Contractor-based training goals

Contractor-based goals are calendar year goals based on the previous year's construction letting. It offers contractors flexibility in selecting projects on which trainees can be placed, as long as training begins on a federally funded project.

Project-specific training goals

Project-specific goals are assigned to major projects such as Design Build and Comprehensive Development Agreements. Goals are specified in the training special provision included in the contract. All training must be completed on the project.

Use of Disadvantaged Business Enterprises

Disadvantaged Business Enterprise (DBE) Program participation goals are set on all federally funded projects to encourage contracting with DBE-certified small businesses. Contracting with DBE-certified firms on a project with a DBE participation goal will count as participation toward that goal. All prime contractors awarded a contract with a DBE participation goal are required to meet the goal or document evidence of good faith efforts. The most recently FHWA-approved DBE methodology has a DBE goal of 14.4 percent.

Different than DBE goals, Historically Underutilized Business (HUB) Program goals are implemented statewide, and there is an individual goal for each spending category that TxDOT must meet on a yearly basis: heavy construction, building construction, special trade construction contracts, professional services contracts, other services contracts, and commodities contracts. Any contracts or purchases with businesses actively certified as a HUB will count towards the goal for the appropriate spending category.

The State of Texas offers many opportunities for vendors, including minority and women-owned businesses. The Centralized Master Bidders List (CMBL) & HUB Search will locate certified HUBs. The Texas Unified Certification Program (TUCP) helps locate certified DBEs needed for highway construction contracts in Texas. The TUCP consolidates all DBE firms certified by six different agencies into one centralized directory. The information within the directory is not a guarantee of the DBE's capacity and ability to perform work.

The HUB program was created to promote full and equal procurement opportunities for small, minority- and women-owned businesses. Companies interested in doing business with the state are encouraged to become HUB certified.

This is accomplished by completing an application and submitting it to the Texas Comptroller of Public Accounts. Once approved, the company is considered "certified" and agencies using them on contracts receive credit toward meeting established HUB goals. The HUB Program is a state level program required by law and managed by the Texas Comptroller of Public Accounts (CPA).

The Small Business Enterprise Program offers small businesses another avenue to maximize their opportunities of doing business with TxDOT. The program applies to highway construction and maintenance projects that are funded entirely by state or local funds. The SBE Program is a TxDOT program authorized by 43 Texas Administrative Code §9.300.

Movement of Freight and People

Henderson County serves a total of 2,538 businesses. As demonstrated in Figure 8, the majority of the jobs are located in Gun Barrel City and people commute from Seven Points to Gun Barrel City for work. In 2023, the leading industries in Henderson County were retail, health care and social services, education, and accommodation and food services. According to the Henderson County Economic Overview 2024, the largest major occupation group in the County is management, employing 2,416 workers. The next-largest occupation groups in the region are office and administrative support (2,409 workers), followed by food preparation and serving related (2,368). Over the next year, the fastest growing occupation group in the County is expected to be health care support with a +2.8 percent year-over-year rate of growth. Public transportation in the region is lacking with an estimate of less than 600 people in 2017 who commuted to work regularly using public transportation. In East Texas, not having a vehicle is a barrier to employment, and ensuring suitable and safe facilities for commuting is therefore essential.

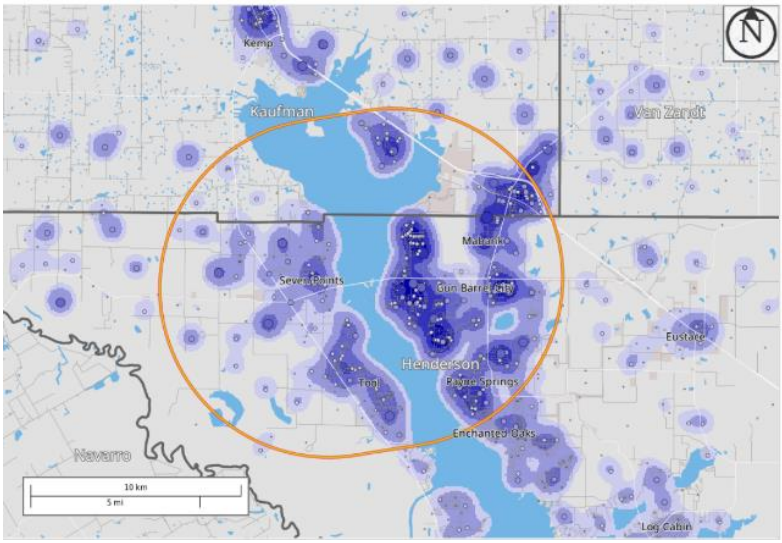

Figure 8. Concentration of Jobs in the Project Corridor.

Without this project, the westbound bridges would become overloaded with both directions of traffic, causing significant delays. The project's improvements to the eastbound bridges will prevent this, saving an estimated 19.7 million person-hours for passenger cars and 364,700 person-hours for trucks between 2054 and 2059.

Table 5. Modes of Commuting to Work

Car, Truck, or Van	**93.6%**
Drove Alone	*89.6%*
Carpooled	*10.4%*
Public Transportation (excluding taxicab)	**0.2%**
Walked	**1.2%**
Bicycle	**0.1%**
Taxicab, Motorcycle, or other means	**1.3%**
Worked at Home	**3.6%**

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates (S0801: Commuting Characteristics by Sex)

4.4. Climate Change, Sustainability, Resilience, and the Environment

Climate Change

The Project will reduce additional air pollution and decrease fuel consumption by preventing detours, lane restrictions, and closure of the bridge due to serious structural problems that may arise if current issues remain unaddressed. Should the bridge deck, superstructure, and substructure deteriorate without the proposed improvements, the SH 334 eastbound bridges would require emergency repairs that may entail lane and/or full bridge closures. The net detour length for all vehicles, according to the NBI database, is 19.9 miles with an average speed of 55 mph. Figure 9 shows the anticipated detour route. For a projected AADT of 15,520[2] by 2033, this would result in more than 300K additional miles traveled per day. The increased vehicle miles traveled for these vehicles poses a threat as they will emit a higher amount of greenhouse gases (GHGs) into the atmosphere due to longer detour route and increased congestion on alternative routes. The BCA conservatively estimates that the Project will reduce CO2 emissions by 62,337 metric tons by reducing idling or vehicle delays between 2054-2059. Without replacing the eastbound bridges, the westbound bridges will have to handle both directions of traffic starting year 2054. Some traffic will likely be detoured due to expected delays on westbound bridges which will result in significantly higher emissions.

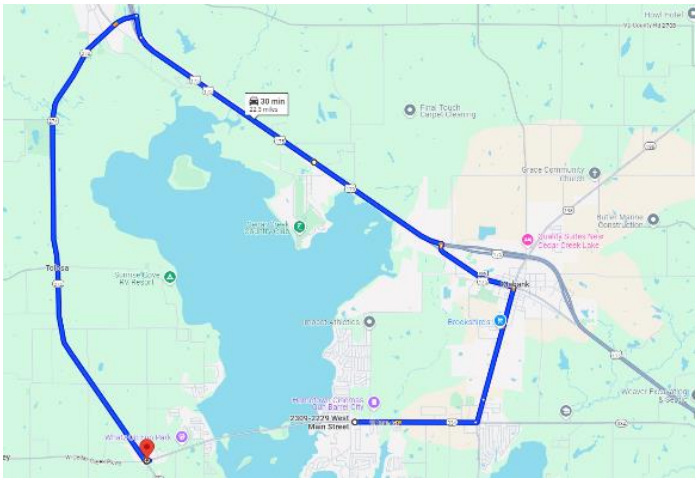

Figure 9. Detour Route in case of Bridge Closure.

[2] Future Average Daily Traffic by 2033. NBI Report, 2023.

Resiliency

As a critical point of connection in Northwest Henderson County and a vital commuting corridor for regional mobility, ensuring the resilience of SH 334 is fundamental to supporting the region. The proposed improvements include replacing two eastbound bridges in Fair and at a risk of falling into Poor condition and that have an insufficient vertical clearance. The SH 334 bridges are a crucial component of the regional transportation network, ensuring seamless connectivity, and efficient traffic management across major corridors such as SH 198, SH 175, SH 31, and other significant regional thoroughfares.

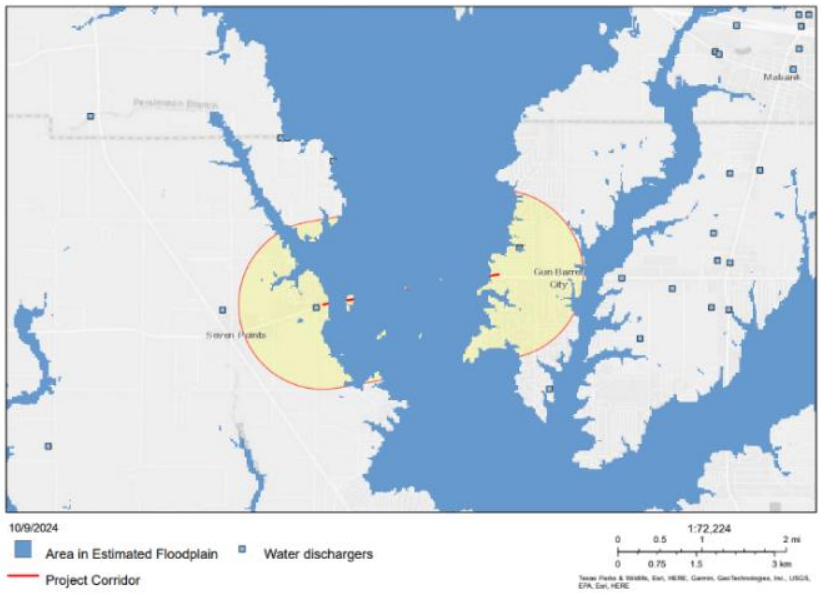

Figure 10. Floodplains in the Project Corridor.

The bridges are in a floodplain, as shown in Figure 10 (EJScreen). As the frequency and intensity of storms and flooding have increased in recent years, ensuring that the bridges remain functional during extreme weather events helps local communities adapt to these changes and prevents the disruption of emergency services. Currently, the eastbound bridges have a significant level of erosion of the substructure. The replacement will increase the vertical clearance to 20-feet above the waterways, to meet TxDOT standards and match the conditions of the westbound bridges, thereby reducing the impact of 100-year floods. The updated design will help manage water flow and reduce erosion, protecting surrounding ecosystems from the adverse effect of flooding.

Wildlife and Habitat

The Texas Parks and Wildlife Department maintains three islands in Cedar Creek Lake, totaling 160 acres, as a wildlife management area for aquatic birds. SH 334 crosses the lake which is owned by the Tarrant Regional Water District and supplies water to Fort Worth and other cities and water districts in Tarrant and Johnson Counties. Cedar Creek Lake is a fourth water source for the Tarrant Regional Water District's water supply. Through the permitting process, TxDOT will ensure minimal wildlife are disturbed or displaced in coordination with Texas Parks and Wildlife and Tarrant Regional Water District while the Project is under construction.

Avoiding Negative Impacts to Disadvantaged Communities

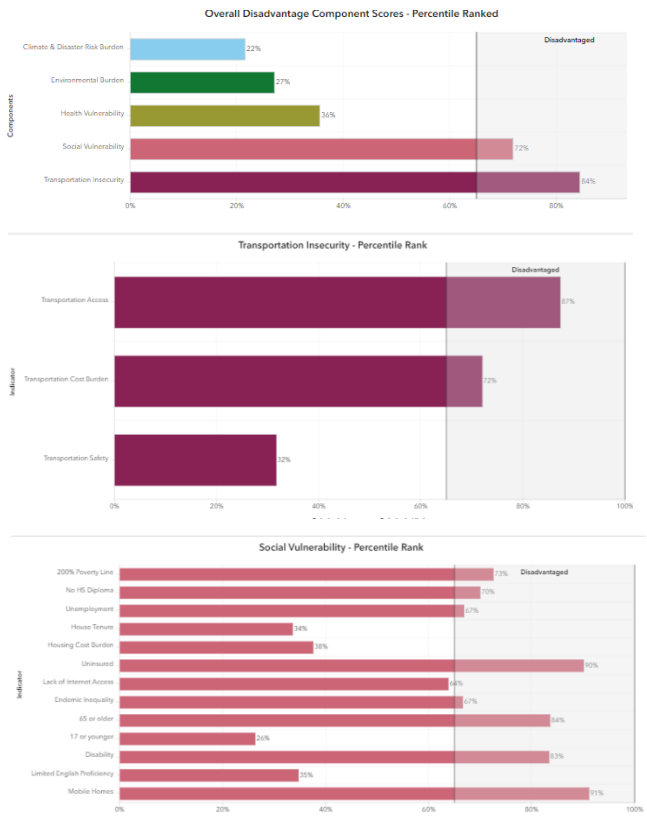

Figure 11 ETC Explorer for the project area.

In the event that the SH 334 bridges need to close temporarily for repairs, rerouting traffic would increase idling and greenhouse gas emissions. The project is surrounded by historically disadvantaged communities in Henderson County (census tracts 9506.02, 9507, and 9508). Detouring the traffic to the westbound bridge, with one lane in each direction, leads to higher traffic and pollution in these vulnerable areas. The SH 334 bridges are in an area that ranks in the 68th percentile for PM 2.5 pollution in the U.S. (ETC Explorer). They are also in the 65th percentile for risk management site proximity (ETC Explorer). Given preexisting air quality in the local area and region, a significant increase in idling would exacerbate this challenge for a more vulnerable population.

As per the USDOT Equitable Transportation Community (ETC) Explorer, and as shown in Figure 11, the population in the project area has very high levels of social vulnerability and transportation challenges, with a tract in the project area in the 72nd and 84th percentiles, respectively. These factors indicate that traffic congestion resulting from a bridge closure would cause undue burden on already disadvantaged communities.

Residents in the Project Corridor fall in the 75th percentile for poverty and are in the 87th percentile for transportation access, meaning they may already experience longer commute times and difficulty traveling by car, walking, or transit. Similarly, communities at both ends of the bridges are in the 72nd percentile for transportation cost burden, indicating that a significant portion of their household income is spent on transportation, leaving less money for housing, medical care, and food. The negative impact of higher burning fossil fuels, vehicle emissions, and road dust due to detours disproportionately affect residents over the age of 65, who are represented in the 84th percentile in the project area. The Project will include a space for active transportation, providing more accessible transportation alternatives for disadvantaged populations who lack the means to purchase a personal vehicle. This initiative aims to enhance mobility and improve the quality of life for these communities.

Since the Project is within TxDOT's existing right-of-way and does not require any further acquisition of property, the Project will avoid disproportionate impacts to the disadvantaged communities in and around the Project Corridor.

4.5. Equity and Quality of Life

Community Outreach and Engagement

To ensure the Project addresses the needs of all community members, particularly vulnerable populations, a comprehensive outreach and engagement plan will be implemented. This plan will focus on the most recent local census tracts 9507, 9508.01, 9506.01, 9506.03, and 9506.04 where a significant portion of the population faces economic disadvantages. For example, 23 percent of the population in tract 9506.04 and 18 percent in tract 9506.01 are economically disadvantaged. Using this demographic data, key vulnerable populations were identified, including a large number of residents under the age of 18, those over 65, and individuals living below the poverty line. Additionally, 20 percent of the population in tract 9506.04 and 18 percent in tract 9507, respectively, identify as ethnic or racial minorities, including Hispanic and Black residents, as well as those who are multi-racial. Recognizing these demographics, outreach efforts will be tailored to ensure inclusivity and broad community participation.

***Table 6**. Demographics within Project Corridor's core zip codes, Source: censusreporter.org and data.census.gov (2022 data)*

EJ Group	9507		9508		9506.03		9506.04	
Census Data								
Under 18	1241 (26%)		358 (15%)		323 (15%)		759 (24%)	
65 and over	892 (19%)		607 (26%)		571 (26%)		766 (24%)	
Race and Ethnicity	White NH	3861 (82%)	White NH	1,979 (84%)	White NH	2,064 (95%)	White NH	2,531 (80%)
	Black NH	0 (0%)	Black NH	1 (0%)	Black NH	0 (0%)	Black NH	5 (0%)
	Native NH	0 (0%)	Native NH	8 (0%)	Native NH	20 (1%)	Native NH	0 (0%)
	Asian NH	0 (0%)	Asian NH	0 (0%)	Asian NH	0 (0%)	Asian NH	88 (3%)
	Islander NH	0 (0%)	Islander NH	0 (0%)	Islander NH	0 (0%)	Islander NH	0 (0%)
	Other NH	0 (0%)	Other NH	0 (0%)	Other NH	0 (0%)	Other NH	0 (0%)
	Two or more Races NH	52 (1%)	Two or more Races NH	151 (6%)	Two or more Races NH	0 (0%)	Two or more Races NH	48 (2%)
	Hispanic	802 (17%)	Hispanic	207 (9%)	Hispanic	88 (4%)	Hispanic	478 (15%)
Persons below poverty line	801 (17%)		225 (10%)		335 (15%)		712 (23%)	
Means of transportation to work	Drove alone	1272 (73%)	Drove alone	719 (68%)	Drove alone	761 (87%)	Drove alone	930 (81%)
	Carpooled	351 (20%)	Carpooled	170 (16%)	Carpooled	7 (1%)	Carpooled	176 (15%)
	Public Transit	0 (0%)	Public Transit	0 (0%)	Public Transit	0 (0%)	Public Transit	0 (0%)
	Bicycle	0 (0%)	Bicycle	0 (0%)	Bicycle	0 (0%)	Bicycle	0 (0%)

	Walked	0 (0%)	Walked	0 (0%)	Walked	0 (0%)	Walked	0 (0%)
	Other	0 (0%)	Other	0 (0%)	Other	0 (0%)	Other	0 (0%)
	Worked at Home	123 (7%)	Worked at Home	173 (16%)	Worked at Home	108 (12%)	Worked at Home	50 (4%)
Owner vs renter occupied	1396 (79%) / 380 (21%)		819 (82%) / 180 (18%)		786 (78%) / 224 (22%)		950 (71%) / 395 (29%)	
Disabled Population	1,175 (25%)		1,020 (21%)		1,100 (22%)		1,050 (21%)	

Outreach strategies will include holding public meetings in accessible locations like local schools and community centers, scheduled at various times to accommodate different schedules. Surveys will be distributed both online and in paper form, available in multiple languages to gather input from a wide range of residents. Collaborating with local organizations, such as the Cedar Creek Lake Area Chamber of Commerce and local schools, will help us reach a broader audience and ensure diverse community representation.

To effectively engage with the community, multiple channels will be used, including local newspapers, radio stations, social media, and community bulletin boards. Additionally, informational flyers and invitations to public meetings will be sent directly to residents' homes, particularly targeting areas with high concentrations of vulnerable populations.

Inclusive engagement will include providing translation services at public meetings and ensuring all written materials are available in multiple languages. All outreach events will be accessible to people with disabilities, including providing sign language interpreters and ensuring wheelchair-accessible venues. To encourage participation from parents and guardians, childcare services will be offered during public meetings.

A transparent process will be ensured by clearly communicating how community feedback will be incorporated into the project planning and decision-making process. Regular updates will keep the community informed about the project's progress and how their input has influenced decisions. Follow-up outreach will share how feedback has been incorporated and additional input will be solicited as needed.

Increasing Affordable Transportation Choices

The Project presents an opportunity to enhance alternative transportation services for the growing area. The original two-lane, bidirectional SH 334 bridge was converted in 2021 to a unidirectional bridge that carries two lanes of eastbound traffic, when a two-lane bridge with a ten-foot-wide shoulder was constructed parallel to the existing bridge to carry westbound SH 334 traffic. In this Project, a ten-foot shoulder will be added to the eastbound bridges, giving it an identical cross-section to the new westbound bridges. Once the Project is complete, pedestrians and bicyclists can travel the entire span between Seven Points and Gun Barrel City, regardless of whether they are traveling westbound or eastbound. This improvement will encourage more residents to choose walking or biking as viable transportation options, promoting healthier and more affordable modes of travel.

Additionally, the local transit provider, GoBus, offers demand-response rural transit services within Henderson County and throughout East Texas. Enhancements to the bridge infrastructure could support more reliable and timely public transit services.

Economic Development

Investing in a safe, resilient, and efficient transportation network in Henderson County will have significant economic benefits for the surrounding communities. According to local data, the Project would support:

Local Businesses: Over 200 businesses in the zip codes 75156, 75143, and 75124 depend on SH 334 bridges for the transportation of goods and services. The Project would result in improved access and mobility for vehicles, including freight vehicles, traveling between Seven Points and Gun Barrel cities. This could result in a larger number of goods being transported across each of the cities and onto the Texas Highway Freight Network through US 175. This increase in the movement of goods and people would contribute to the vitality of the local economy.

Tourism: The Cedar Creek Lake attracts thousands of visitors annually, contributing to the local economy. Improved bridge infrastructure will enhance access to recreational areas and boost tourism. The Project is expected to create construction jobs and additional long-term positions in maintenance and operations.

Another catalytic project in the area is the Pier 334 development project in Gun Barrel City. This waterfront project includes a high-end hotel, dining, shopping, and entertainment venues. The Project will enhance access to this development, creating synergies that boost local tourism and leverage economic activity. By facilitating better transportation between Seven Points and Gun Barrel City, the Project will support the growth of businesses and attract more visitors to the area.

Housing and Community Development

State Highway 334 serves as a crucial connector in Northwest Henderson County, accommodating over 14,000 vehicles daily in 2023. This highway is essential for commuting, as most regional jobs are concentrated in Gun Barrel City, Mabank, and Tool City. Many workers in Gun Barrel City, Mabank, Tool, and Seven Points depend on SH 334 for daily travel, highlighting its importance to regional mobility.

Gun Barrel City is experiencing significant development, including a new tourist destination near the reservoir. This development features a hotel, lakeside restaurants, a kids splash park, and more amenities, which are expected to attract visitors and boost the local economy.

In the City of Mabank, Harp Homes is developing a 60-acre property southeast of SH 198 and FM 3080. This development will provide much-needed housing and support the growing population.

The ongoing and planned developments in these cities are expected to increase traffic volumes, highlighting the need for infrastructure improvements such as bridge repairs and replacements. Key cities within and around the study area, including Gun Barrel City, Mabank, Tool, and Seven Points, are experiencing steady population growth and development. This growth is driving changes in land use and increasing traffic flow, necessitating strategic planning and infrastructure investments.

The SH 334 eastbound bridge is a critical component of this network. It ensures seamless connectivity and efficient traffic management across major corridors such as SH 198, SH 175, and

SH 31. Improving this bridge will support ongoing housing and community development efforts, enhance regional mobility, and accommodate increasing traffic demands.

4.6. Innovation

Efficient and effective environmental permitting and review: The environmental permitting will take an integrated, community outreach focused approach to identify key issues and solicit input from project stakeholders prior to completion of National Environmental Policy Act (NEPA), including disadvantaged communities. The information gathered will allow the NEPA studies to progress through a seamless decision-making process. TxDOT anticipates Categorical Exclusion (CE) as the NEPA class of action for the Project and completion of the environmental documentation in-house prior to obligation of grant funds.

Construction Technique: The bridge bundling approach will achieve economy of scale and management / administrative cost savings. According to the FHWA Bridge Bundling Guidebook, DOTs have reported design savings in the range of 25-50 percent and construction savings in the range of 5-15 percent on bridge bundling projects. TxDOT will standardize the bridge performance requirements for this project to maximize the efficiencies that bridge bundling can achieve. Bundling the bridges into a single let contract will result in savings of approximately $12.2 million.

Accelerated Bridge Construction (ABC) Methodology: TxDOT will develop a Maintenance of Traffic (MOT) Optimization Strategy with multiple, feasible alternatives. TxDOT will leverage innovative ABC solutions to expedite the schedule and limit construction impacts to the corridor. The Project will utilize precast caps and precast panels for the deck as well as prestressed concrete, which will result in time savings instead of using traditional cast-in-place. Construction time savings from utilizing these solutions will result in approximately five (5) days per panel. The current bridge will remain open to the public and freight until the completion of the replacement bridge.

5. BENEFIT-COST ANALYSIS

A benefit-cost analysis (BCA) was conducted for the State Highway 334 Bridge bundling Project (the Project) by TxDOT for submission to U.S. DOT as required for the BIP grant program application. The BCA monetized the expected benefits generated by the future project that align with the BIP Notice of Funding Opportunity (NOFO) merit criteria. The BCA was conducted using FHWA's Bridge Investment Program Benefit-Cost Analysis Tool (BIP BCA Tool) updated in December 2023. As described in the BCA Memo (Appendix A), the project will produce $139.4 million in total discounted benefits and generate significant benefits to society with a benefit-cost ratio of 5.45. In other words, for each dollar spent in project costs, approximately $5.45 worth of benefits will be generated by the improvements. Summary of BCA results is presented in **Table** 7.

Table 7: BCA Summary, Discounted Millions of 2022 Dollars (unless specified)

BCA Metric	Unit	Value
Total Benefits	millions of 2022 dollars	$139.4
Total Costs	millions of 2022 dollars	$25.6
Net Present Value	millions of 2022 dollars	$113.8
Benefit-Cost Ratio	ratio	5.45

Safety features of the Project will prevent 101.8 crashes over 30-year analysis, resulting in $4.3 million in discounted safety benefits. A new set of bridges will require less maintenance resulting in $6.7 million in discounted savings. Without replacing the eastbound bridges, the westbound bridges will have to handle both directions of traffic starting year 2054. Thus, the Project is expected to save approximately 20 million in person-hours or $128.4 million in discounted travel time savings by keeping the eastbound bridges reliable.

6. PROJECT READINESS AND ENVIRONMENTAL RISK

6.1. Technical Feasibility and Technical Competency

TxDOT is well versed in successfully managing federal funds and received $5.58 billion in federal transportation funding in FY 2024. TxDOT also receives funding from fuel tax, vehicle registration fees, and voter-approved Proposition 1 (2014) and Proposition 7 (2015). TxDOT's federal grant program brings federal dollars to Texas to support critical transportation projects throughout the state. Since the passage of the Infrastructure Investment and Jobs Act (IIJA), TxDOT has helped secure millions in federal funding for Texas by successfully applying for grants and supporting our local partners. These funds have enabled a wide variety of projects that advance safety and innovation across the state, including in bridge infrastructure, trail networks, and smart technology.

TxDOT has successfully delivered several large-scale projects completed through the National Environmental Policy Act (NEPA) review process. The Project team anticipates the NEPA class of action to be Categorical Exclusion (CE) and will be preparing it in-house. The preparation of Plan, Specifications, & Estimates (PS&E) and related documents was initiated in August 2024. Project letting is scheduled for September 2027. The construction is scheduled to begin in January 2028 and will conform to all current TxDOT and AASHTO standards for bridge and roadway design. The Project can advance to construction well within USDOT's obligation deadline.

The cost estimate presented in the application is based on the engineer's estimate based on preliminary engineering and inclusive of 10 percent (approximately $2.6 million) of the total construction cost as contingency to cover any unforeseen costs. The cost estimate is presented in Year-of-Expenditure dollars and accounts for appropriate inflation levels to the mid-point of construction. TxDOT does not anticipate any of the identified risks to significantly alter the schedule or costs. The contingency will be provided by TxDOT state funds. TxDOT will also cover any cost overruns in addition to the contingency amounts as stated, if required. This lowers uncertainty in the presented project schedule and costs.

The scope, schedule, and budget risk-mitigation measures presented in the application were developed and refined based on the information derived from preliminary design of this Project and of the westbound SH 334 bridges actual construction costs. The Project footprint is within TxDOT right of way and no additional parcels have been identified. Please see the Scope of Work section for the detailed scope of work. The Project is anticipated to be delivered via design-bid-build-delivery. The start date for construction is anticipated to be January 2028 with an expected completion date of December 2029.

6.2. Project Schedule

The Project is currently in preliminary design which is expected to be completed in February 2026. The environmental documentation will be initiated soon after and is expected to be completed by December 2027. The final design is expected to be completed by June 2027. The Project will be let in September 2027 and construction will begin early 2028. The Project does

not require any further right-of-way acquisition. If awarded, the BIP funding is expected to be obligated by Spring 2026, well before the obligation deadline. The Project is not currently in the State Transportation Improvement Program (STIP) and will be added upon award announcement. Figure 12 shows the project schedule with major milestones.

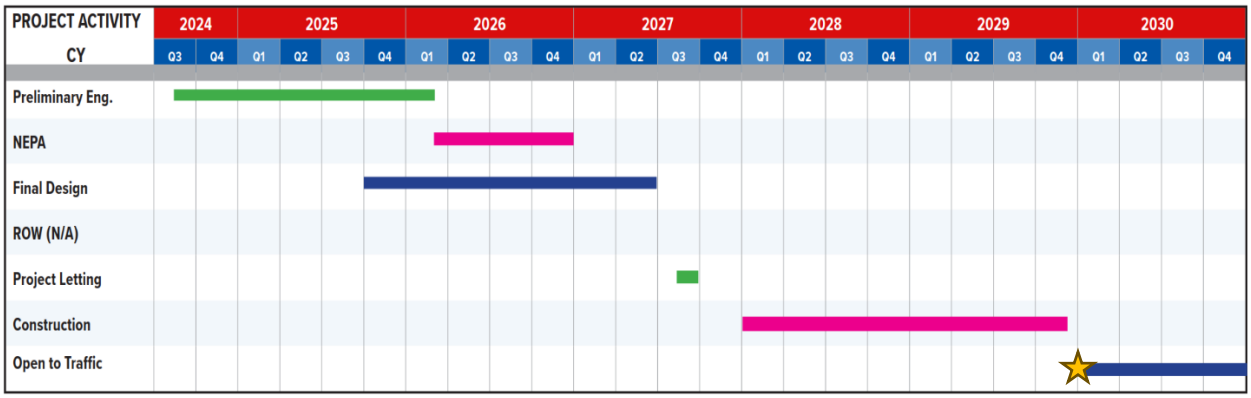

Figure 12. Project Schedule

6.3. Required Approvals

Environmental Permits and Reviews

Environmental permits have been reviewed and coordination and discussions will be held with the U.S. Army Corp of Engineers and Tarrant Regional Water District (TRWD). No right-of-way acquisition is required for permitting. The public will be engaged throughout the NEPA process and local stakeholder coordination will involve officials from Gun Barrel City and Seven Points. TxDOT has a statewide project tracker for projects funded over the next 10 years which is publicly posted.

State and Local Approvals

The Project is strongly supported by state and federal officials as well as several regional partners, as evident in the letters of support for this application provided in Appendix C. The Project also has broad public support, including support from local businesses and residential communities. All applicable state and local approvals, such as permits from U.S. Army Corp of Engineers and TRWD, will be obtained as per the project schedule.

Federal Transportation Requirements Affecting State and Local Planning

The Project is not currently in the State Transportation Improvement Program (STIP) and will be added to relevant state and local planning documents upon award announcement.

Assessment of Project Risks and Mitigation Strategies

The Project Management Team (PMT) has developed and implemented a Risk Management Process with risk assessment and management goals established and systemized to support stakeholders throughout the duration of the Project. Project risk information and status is maintained and monitored using a Project Risk Register and key risk information is addressed in the Project's progress reporting structure. The risk mitigation strategy evaluates options and identifies and assigns actions that:

- Reduce the uncertainties associated with risk.

- Avoid risk where possible.
- Reduce the likelihood and impact of risks that cannot be avoided.
- Maximize the impact and likelihood of opportunities.
- Provide a risk monitoring and reporting structure with relevant information on risk profiles, prioritizations, and trends that support project management in decision-making, contingency assessment, and resource allocation.

The Risk Manager maintains the Risk Register, implements mitigation efforts, and provides updates to management. The following are potential identified risks and mitigation measures:

Table 8. Potential Risks and Mitigation Strategies

Risk	Mitigation
Project Funding	TxDOT has a consistent track record of honoring funding commitments and utilizing innovative funding strategies to meet transportation needs. If additional funds are needed, state funds will cover overruns. A 10 percent construction contingency is included in the cost estimate.
Schedule delays and cost increases	The PMT has been heavily involved in the reconstruction of a similar project for the westbound lanes of SH 334, completed in 2021. As a result, this Project is based upon realistic estimates of schedule and estimated costs. Additionally, the PMT is well-versed with potential technical challenges, and appropriate mitigation strategies, that can occur during the construction of this Project due to their extensive experience with the westbound SH 334 Bridges reconstruction project. Both factors will help mitigate schedule and cost overruns.
Maintenance of Traffic (MOT) to minimally disrupt freight and the traveling public	TxDOT will develop a MOT Optimization Strategy with multiple, feasible alternatives. TxDOT will leverage innovative ABC solutions to expedite the schedule and limit construction impacts to the corridor. Construction of the Project would result in temporary effects (less than 24 months) and the adjacent westbound bridges will accommodate one traffic lane in each direction while construction on the Project is underway. Additionally, access to businesses in the area will be maintained throughout the construction phase.
Right-of-Way (ROW) Impacts	The Project is within TxDOT's existing right-of-way and would be compatible with surrounding land uses.

7. ADMINISTRATION PRIORITIES & DEPARTMENTAL STRATEGIC PLAN GOALS

Improving the safety, efficiency, and reliability of the movement of people and freight over the bridge.

The Project will construct travel and shoulder lanes with standard width, bicycle and pedestrian infrastructure to improve the safety, efficiency, and reliability of movement of motorized and non-motorized travelers in the Project corridor.

Improving the condition of a bridge in the United States by reducing the number of bridges and total person miles traveled over bridges that do not meet current geometric design standards.

The Project will replace the existing bridge that does not meet current design standards, reduce the number of bridges, and reduce the total person miles traveled over bridges in the United States that do not meet current geometric design standards through construction of standard width lanes and at-grade intersections. The Project will reduce the number of bridges in Fair condition by maintaining the new bridge in a State of Good Repair.

Leveraging and encouraging non-Federal contributions from sponsors and stakeholders involved in the planning, design, and construction of the Project.

TxDOT has committed over $6.5 million in non-Federal contributions towards construction of the Project. Additionally, TxDOT has already invested and committed another $3.9 million (BIP ineligible costs) in non-Federal funds towards advancing the planning and preliminary design of the Project as well as covering the Construction Management costs.

8. DOT PRIORITY CONSIDERATIONS

The Project is currently rated Fair on the NBI scale and is projected to fall into Poor condition within the next three years. Without the BIP grant, TxDOT will not be able to complete the Project. The Project will continue to be deferred year over year, until funding is secured.

The Project meets DOT Priority Considerations through the following:

1. TxDOT is not a federal land management agency.
2. The Project will be ready to proceed to the next stage of project delivery within 12 months of a CE Determination.
3. The Project includes accommodation for multi-modal transportation such as pedestrian/bicycle facilities.
4. The Project supports job creation through apprenticeships and trainees. TxDOT is committed to a Civil Rights Program that promotes participation of Disadvantaged Business Enterprises in TxDOT's contracting opportunities, in accordance with federal law and regulations.
5. Without the BIP funding, construction of the Project will not commence before September 30, 2028.