

Tier II
401 Certification Questionnaire for SH 36 from FM 2218 to SH 35

Introduction

The Texas Department of Transportation (TxDOT) has proposed improvements to State Highway 36 (SH 36) and Spur 10 (Hartledge/Gerken Road). Proposed improvements to SH 36 extend from FM 2218 in Pleak, Fort Bend County, Texas, south to FM 1495 in Freeport, Brazoria County, Texas. Proposed improvements to Spur 10 extend from US 59 in Rosenberg, Fort Bend County, Texas, to SH 36 in Pleak, Fort Bend County, Texas. The total project length is 55 miles. This Tier II 401 Certification Questionnaire will address the second section of the roadway, from FM 2218 in Pleak, Fort Bend County to SH 35 in West Columbia, Brazoria County, Texas. The total length of this section is approximately 28 miles.

The proposed roadway improvements would upgrade the existing two-lane SH 36, a hurricane evacuation route, to increase safety, access and mobility for the transportation of people and commercial goods in coastal areas in emergency situations. This project would also serve the local transportation needs of communities and towns within the project area which include Rosenberg, Pleak, Needville, Guy, Damon, West Columbia, Brazoria, Jones Creek, and Freeport.

The proposed roadway would consist of a four-lane divided roadway facility with a grassy center median in rural sections and a four-lane undivided facility with a continuous center left-turn lane in urban areas.

I. Impacts to surface water in the state, including wetlands, for SH 36 from FM 2218 to SH 35.

A. What is the area of surface water in the state, including wetlands, that will be disturbed, altered or destroyed by the proposed activity?

A total of 10.740 acres of impacts to waters of the United States, including wetlands, could occur along the project route as a result of the design of the proposed roadway improvement project from FM 2218 in Pleak, Fort Bend County to SH 35 in West Columbia, Brazoria County, Texas. Approximately 8.434 acres of jurisdictional wetland areas and 2.306 acres of jurisdictional waters will be filled.

B. Is compensatory mitigation proposed? If yes, submit a copy of the mitigation plan. If no, explain why not.

Yes, compensatory mitigation is proposed; see attached Mitigation Plan.

C. Please complete the attached Alternative Analysis Checklist

See attached Alternative Analysis Checklist.

II. Disposal of waste materials**A. Describe the methods for disposing of materials recovered from the removal or destruction of existing structures.**

Bridge and roadway materials associated with the existing SH 36 roadway will be removed where appropriate or where overlays are not applicable. Removed construction materials will be disposed as specified in the construction contract for this project. Any construction debris or soil material excavated and removed from the project area will be placed in upland areas as specified by the construction contract.

B. Describe the methods for disposing of sewage generated during construction. If the proposed work establishes a business or a subdivision, describe the method for disposing of sewage after completing the project.

Sewage generated during construction will be contained in a portable lavatory and serviced on a regular basis by a certified hauler. There will be no new establishment of businesses or subdivisions as a direct result of this project.

C. For marinas, describe plans for collecting and disposing of sewage from marine sanitation devices. Also, discuss provisions for the disposing of sewage generated from day-to-day activities.

Not applicable.

III. Water quality impacts**A. Describe the methods to minimize the short-term and long-term turbidity and suspended solids in the waters being dredged and/or filled. Also, describe the type of sediment (sand, clay, etc.) that will be dredged or used for fill.**

Side slopes will be shaped and maintained as necessary for unimpeded water flow in drainage areas (e.g., creeks, streams, tributaries, cross drainages, etc.). Following necessary excavation and side slope regrading in these areas for bridge or culvert expansions/replacements, both short-term and long-term water quality activities will include seeding of side slopes to minimize erosion and downstream sedimentation as well as the placement of vegetative filter strips where appropriate. Native soils along these watercourses will be removed, excavated or reshaped, as appropriate.

B. Describe measures that will be used to stabilize disturbed soil areas, including: dredge material mounds, new levees or berms, building sites, and construction work areas. The description should address both short-term (construction related) and long-term (normal operation or maintenance) measures. Typical measures might include containment structures, drainage modifications, sediment fences, or vegetation cover. Special construction techniques intended to minimize soil or sediment disruption should also be described.

During construction, short-term measures to stabilize disturbed soil areas will be conducted through the use of sediment fences on drainageway side slopes and other Best Management Practices (BMPs) with respect to concrete culvert placement. Short-

term erosion control measures may also include diversion dikes around construction or disturbed soil areas, as appropriate. Long-term erosion measures will include vegetated side slope cover or vegetative filter strips, as appropriate. See also A above.

- C. Discuss how hydraulically dredged materials will be handled to ensure maximum settling of solids before discharging the decant water. Plans should include a calculation of minimum settling times with support data (Reference: Technical Report, DS-7810, Dredge Material Research Program, Guidelines for Designing, Operating, and Maintaining Dredged Material Containment Areas). If future maintenance dredging will be required, the disposal site should be designed to accommodate additional dredged materials. If not, please include plans for periodically removing the dried sediments from the disposal area.**

Excavated soils below the plane of ordinary high water will be placed in upland areas to be specified in the construction contract. The hydraulic dredging of soils is not anticipated at this time.

- D. Describe any methods used to test the sediments for contamination, especially when dredging in an area known or likely to be contaminated, such as downstream of municipal or industrial wastewater discharges.**

Any testing of sediments for contamination will be done on a case-by-case basis at the discretion of the construction contractor. Given the rural nature of the project area, the testing of excavated sediments for contamination is not anticipated at this time.

Tier II
Alternatives Analysis Checklist for SH 36 from FM 2218 to SH 35

I. Alternatives**Introduction to the Existing Roadways and Proposed Roadway Alternatives****Existing Roadways**

The existing roadway is generally an undivided two-lane roadway with open ditches. The existing ROW width varies from 80 feet to 325 feet along the project route. Within the project limits, SH 36 currently consists of an at-grade undivided two-lane roadway with shoulders and roadside ditches. SH 36 passes through several small towns where the typical sections of the roadway consist of four lanes. **Table 1** lists the existing facility specifics of the entire project roadway.

Table 1: Existing Type of Facility

SECTION	ROW (in feet)	LANES	SHOULDERS	MEDIAN	DITCH/ C&G	SIDEWALK
SPUR 10						
Hartledge/Gerken Rd.	100	Two 12'	None	None	Ditch	No
SH 36						
From FM 2218 to Old Needville-Fairchilds Rd.	100	Two 12'	Two 10'-outside	None	Ditch	No
From Old Needville Fairchilds Rd. to FM 360	80	Two 12'	Two 10'-outside	None	Ditch	No
From FM 360 to SH 35	100	Two 12'	Two 10'-outside	None	Ditch	No
From SH 35 to FM 522	100-200	Four 12'	Two 12'-outside	14' flush	Ditch	No
From FM 522 to CR 490	100-270	Four 12'	Two 10'-outside	None	Ditch	No
From CR 490 to Elm St.	100	Four 11'	Two 9'-outside	None	Ditch	No
From Elm St. to Centre St.	80	Four 12'	Two 9'-outside/parking	14' flush	C&G	Yes
From Centre St. to Live Oak St.	100-200	Two 12'	Two 10'-outside	None	Ditch	No
From Live Oak St. to Peach Point Rd.	100	Two 11'	None	None	Ditch	No
From Peach Point Rd. to CR 330	140-240	Two 12'	Two 10'-outside	None	Ditch	No
From CR 330 to Old SH 36	180-240	Four 12'	Two 8'-outside	None	Ditch	No
From Old SH 36 to the Brazos River Diversion Channel Bridge	225	Two 12'	Two 8'-outside	None	Ditch	No
Brazos River Diversion Channel Bridge	325	Four 12'	Two 10'-outside	None	None	No

SECTION	ROW (in feet)	LANES	SHOULDERS	MEDIAN	DITCH/ C&G	SIDEWALK
From the Brazos River Diversion Channel Bridge to FM 1495 (end of project)	325	Two 12'	Two 10'- outside	None	Ditch	No

Note: C & G = Curb and Gutter

Proposed Roadways

The proposed facility type for SH 36 and Spur 10 is a rural four-lane divided roadway with a grassy center median and an undivided facility with a center left-turn lane in more urban areas. The majority of the project is functionally classified as either a rural principal arterial facility, urban facility connecting links to rural arterials, or other urban principal arterial facilities.

The proposed roadway for rural areas would consist generally of an open ditch section with four 12-foot lanes, two 10-foot outside shoulders, two 8-foot inside shoulders and a 68 to 81-foot depressed grassy center median. For urban areas, the roadway would generally consist of four 12-foot lanes, a 14 to 16-foot flush median (center left-turn lane) with either ditches or a curb and gutter design. The 55-mile roadway project would be divided into sections during construction, and these sections may be further divided into phases where overpasses would be constructed. Frontage roads may be constructed first at these overpasses to allow for uninterrupted traffic flow while the main lanes are under construction.

The proposed project would generally follow the existing vertical and horizontal alignment except in areas where changes are required for design and safety standards or engineering/environmental constraints. Flush medians would allow for continuous left turning movements in urban areas. Turn lanes and crossovers would allow for turning movements throughout the divided rural roadway areas of SH 36. Intersections of SH 36 and Spur 10, FM 1301 and FM 2004 would be redesigned above-grade, either in the current construction project or in future designs, and the intersection with SH 35 will be a grade separation, while all other intersections would remain at grade. **Table 2** shows the proposed type of facility.

Table 2: Proposed Type of Facility

SECTION	ROW (in feet)	LANES	SHOULDERS	MEDIAN	DITCH/ C&G	SIDE- WALK
SPUR 10						
From US 59 Frontage Rd. to Coon Creek	220	Four 12'	Two 10'-outside	14' flush	Ditch	No
From Coon Creek to Horseshoe Rd.	220	Four 12'	Two 10'-outside Two 8'-inside	76' depressed	Ditch	No
From Horseshoe Rd. to SH 36	220	Four 12'	Two 10'-outside	14' flush	Ditch	No
SH 36						
From FM 2218 to Trinity Rd.	150	Four 12'	Two 10'-outside	16' flush	Ditch	No
From Trinity Rd. to Kamas Ln. (Spur 10/SH 36 intersection)	554	Four 12'	Two 10'-outside	76' depressed	Ditch	No
From Kamas Ln. to north of Needville City Limits	220	Four 12'	Two 10'-outside Two 8'-inside	76' depressed	Ditch	No
From north of Needville City Limits to FM 1236 (through Needville)	120	Four 12'	Two 2'-curb offsets	14' flush	C&G	Yes
From FM 1236 to Needville/Fairchilds Rd.	95	Four 12'	Two 2'-curb offsets	14' flush	C&G	Yes
From Needville/Fairchilds	120	Four 12'	Two 10'-	16' flush	C&G	Yes

SECTION	ROW (in feet)	LANES	SHOULDERS	MEDIAN	DITCH/ C&G	SIDE- WALK
Rd. to Needville Southern City Limits			outside			
From Needville Southern City Limits to south of FM 1994 (through Guy)	150	Four 12'	Two 10'-outside	16' flush	Ditch	No
From south of FM 1994 to Fort Bend/Brazoria county line	260	Four 12'	Two 10'-outside Two 8'-inside	76' depressed	Ditch	No
From Fort Bend/Brazoria county line to FM 1462	220	Four 12'	Two 10'-outside Two 8'-inside	81' depressed	Ditch	No
From FM 1462 to CR 18 (through Damon)	150	Four 12'	Two 10'-outside	14' flush	Ditch	No
From south of CR 18 to CR 467	220	Four 12'	Two 10'-outside Two 8'-inside	87' depressed	Ditch	No
From CR 467 to Dance St. (through West Columbia)	130-150+	Four 12'	Two 2' curb offsets	14' flush	C&G	Yes
From Dance St. to FM 522 (through West Columbia)	130-150+	Four 12'	Two 2' curb offsets	14' flush	C&G	Yes
From FM 522 to CR 490	220-300	Four 12'	Two 10'-outside Two 4'-inside	40 to 68' depressed	Ditch	No
From CR 490 to Elm St.	100	Four 11'	Two 9'-outside	None	Ditch	No
From Elm St. to Mulberry St. (through Brazoria)	80	Two 11'	Two-1' parking Two 1' curb offsets	14' flush	C&G	Yes
From Mulberry St. to south of Primrose St.	220-270	Four 12'	Two 10'-outside Two 4'-inside	68' depressed	Ditch	No
From south of Primrose St. to Peach Point Rd. (through Jones Creek)	100	Four 12'	Two 2' curb offsets	16' flush	C&G	Yes
From Peach Point Rd. to FM 1495 (end of project)	150-325 (existing)	Four 12'	Two 10'-outside	16' flush	Ditch	No

A. How could you satisfy your needs in ways which do not affect surface water in the state?

Since the SH 36 project represents an expansion of an existing roadway for hurricane evacuation and local mobility needs, the purpose of this project could not be satisfied in ways which do not affect surface water in any way. Surface waters would be impacted by this proposed project even if all construction activities were proposed within the existing roadway rights-of-way. Avoidance and minimization of surface water impacts have been practiced throughout the preliminary design of this project in that engineering design and environmental constraints were considered simultaneously during the project development process.

B. How could the project be re-designed to fit the site without affecting surface water in the state?

The SH 36 project could not be re-designed to fit the site (e.g., existing right-of way) without affecting surface water in the state (see A above). Alternatives other than the Preferred Alternative resulted in greater surface water impacts. The only alternative to this project which would not affect surface waters would be the “no build” or “no action” alternative. The “no build” alternative would not provide relief in the event of hurricane evacuation needs in the coastal or low-lying areas of the project.

C. How could the project be made smaller and still meet your needs?

Expanding the existing SH 36 roadway from two-lanes to four-lanes currently represents the minimum needs of this hurricane evacuation project. See the two tables above for a representation of the existing and proposed types of roadway facilities currently proposed for this hurricane evacuation project.

D. What other sites were considered?**1. What geographical area was searched for alternative sites?**

The proposed project will take place within existing right-of-way areas. Since this project represents an expansion or up-grade of an existing roadway facility to increase mobility during hurricanes, tropical storms or other coastal flooding events, no new location alternatives were reviewed. There were no other geographical areas searched for this project.

2. How did you determine whether other non-wetland sites are available for development in the area?

Both uplands and wetlands exist along the SH 36 alignment. Due to a need for an improved hurricane evacuation route from Freeport to Rosenberg, Texas, no other feasible alternative exists which would meet the needs for this project. All reasonable and feasible alternatives would impact waters of the U.S. and wetlands.

3. In recent years, have you sold or leased any lands located within the vicinity of the project? If so, why were they unsuitable for the project?

No lands have been leased or sold by TxDOT within the vicinity of the SH 36 project which would provide any viable alternatives to the proposed project.

E. What are the consequences of not building the project?

If this project is not constructed, then the evacuation of low-lying coastal areas will be delayed. Time saved in moving people away from the coastal areas during hurricanes or other storm events can be directly related to the preservation of lives and property. In addition, the existing roadway would not be able to accommodate the anticipated population growth and associated increase in traffic loads.

II. Comparison of Alternatives**Introduction to Alternatives**

Several alternative alignments were investigated for the SH 36 roadway improvements. These alternatives were evaluated along the existing alignment including an east, west, and center alignment to accommodate the roadway widening. The No-Build alternative was also considered for SH 36. Both design and environmental constraints were evaluated in determining the preferred alignment.

State Highway 36 – Rural Areas

The preferred facility consists of a four-lane divided facility with a generally 76-foot wide depressed center grassy median and open ditches. **Table 2**, Proposed Type of Facility, shows a brief description of the proposed facilities throughout the length of the project.

1. Alternative 1 (preferred)

This alternative is a combination characteristics of Alternatives 2, 3 and 4 described below (i.e. the ROW meandered and was not restricted to a particular alignment in relationship to the existing alignment). The alignment of this facility, based on the side of the road to acquire new ROW, varied throughout the project limits. The variation in design, however, was based on current design and safety standards and impact analyses to the surrounding communities, travelling public and the environment. A concerted effort was made during the design phase to avoid numerous curves in the road, and at the same time, avoid numerous impacts to adjacent commercial and residential structures and various environmental constraints. Additionally, while the overall project has not changed since the previous permit was issued, design changes were made that reduced the overall stream impacts. For example, Waters 2, 3, 4, 5, 6, 7, 10, 11, 12, and 13, which were previously culverted and for which culvert expansions were being proposed, are now being bridged. Avoidance of jurisdictional waters in project design would be accomplished primarily by bridging, with 120-foot spans between columns to minimize disturbances to aquatic and wetland functions and habitats. The project is a widening project and all streams were previously cleared, maintained, channelized, and culverted. Widening at this location is preferable to constructing another road that might result in greater impacts to these crossings or other wetlands. In areas where impacts were unavoidable, project design would minimize these impacts by specifying retaining walls rather than side slopes, where practicable. Since initial issuance of this permit, an additional nine bridges area included in areas where culverts previously existed and were proposed to be extended. This additional avoidance not only reduces the overall impacts, but also serves to improve the post project condition

2. Alternative 2

This facility would center the alignment down the existing SH 36 facility thus dividing the additional ROW needs from both the west and east sides of the roadway. This alternative alone was not preferred due to environmental impacts, floodplain issues, displacements and design constraints.

3. Alternative 3

This facility would require additional ROW from the west side of the existing SH 36. This alternative alone was not warranted for the same reasons listed above in Alternative 2.

4. Alternative 4

This facility would require additional ROW needs from the east side of the existing SH 36. This alternative alone was not warranted for the same reasons listed above in Alternative 2.

Table 3 shows the proposed ROW alignment and the associated width of the preferred alternative.

Table 3: Proposed ROW Alignment

SECTION	ROW WIDTH (in feet)
Spur 10: Hartledge Rd./ Gerken Rd.	220 (N)
SH 36: from FM 2218 to Foster School Rd.	Varies 150-220 (W)
SH 36: from Foster School Rd. to N of School St.	220 (E)
SH 36: from N of School St. to Old Needville/Fairchilds Rd.	120 (W)
SH 36: from Old Needville/Fairchilds Rd. to Buffalo Creek	95 (W)
From Buffalo Creek to FM 442	Varies 120-150 (E)
SH 36: FM 442 to Walcik Rd.	150 (W)
SH 36: from Walcik Rd. to Vrilla Rd./FM 1994	150 (E)
SH 36: from Vrilla Rd./FM 1994 south for approx. 0.4 miles; through Guy, TX	150 (W)
SH 36: from Approx. 0.4 miles south of Vrilla Rd. to Richmond Rd./FM 1462	220-260 (E)
SH 36: from Richmond Rd./FM 1462 through Damon, TX	150 (W)
SH 36: South of Damon to CR 467/Hogg Ranch Rd.	240 (W)
SH 36: from CR 467/Hogg Ranch Rd. to FM 522	Varies 130-150 (C)
SH 36: from FM 522 to CR 490/ Bernard St.	Varies 220-310 (E)
SH 36: from CR 490/Bernard St. through Brazoria, TX	Existing
SH 36: from South of Brazoria to FM 2004/FM 2611	Varies 220-270 (W)
SH 36: from FM 2004/FM 2611 to Live Oak Rd.	Varies 220-250 (E)
SH 36: from Live Oak Rd. in Jones Creek to FM 1495	Existing

Note: N = Additional ROW taken from the north side of the existing road
 E = Additional ROW taken from the east side of the existing road
 W = Additional ROW taken from the west side of the existing road
 C = Additional ROW taken from both the east and west sides of the road
 Existing = No additional ROW taken

State Highway 36 – Urban Areas

Alternatives within the urban areas along the project initially considered the east, west and center alignments and then further considered design alternatives to minimize impacts. Exhibit 4, Schematics, shows the proposed preferred roadway alignments within the project limits.

1. Needville

The alignment through Needville would consist of a combination of east and west additional ROW based on the impact analyses. The preferred alternative for the town of Needville consists of a curb and gutter section. This alternative was selected because it imposed the least amount of impacts to the town while accommodating the drainage needs resulting from the roadway improvements. An open-ditch section was not warranted because the location of the businesses and residences along the existing roadway were too close to accommodate the additional ROW needs for this type of design. However, they were not so close that the road could not be expanded by a curb and gutter design.

2. Guy

The preferred alignment for the town of Guy would acquire new ROW from the west side of the road. The town of Guy consists of less than one mile of frontage along SH 36. Within this town there is a gas station and a post office located on the east side of the road. Due to these constraints and their proximity to the existing roadway, taking additional ROW from the west side of the road resulted in the least amount of impact to this area.

3. Damon

The preferred alternative for the town of Damon consists of an open ditch section with additional ROW acquisition from the west side of the existing roadway. Due to the proximity of the residences and businesses through this town, ROW acquisition to the west side created the least amount of impacts. The impact analyses show, in building displacements alone, the west ROW acquisition alignment displaced two residences and three commercial structures, while the center and east ROW alignments displaced three residences and seven commercial structures each.

4. West Columbia

The preferred alternative for the town of West Columbia consists of a curb and gutter section with additional ROW needs for this alternative coming from the east side of the road where there would be the least amount of impacts to businesses and residences for the new alignment. The environmental impacts are also the least on this side of the road because the woodlands and wetlands associated with Bell Creek are located on the west side of the road.

5. Brazoria

The preferred alternative for the town of Brazoria consists of a no-build interim alignment. The no-build was chosen through this area because the location of the businesses and residences in this historic town are located immediately adjacent to the road. The roadway, however, would be repaved. Many of the businesses use the SH 36 shoulders as parking and to widen the road would impact every structure on both sides of the roadway. In the interim, the no-build option

through the town would be elected until further corridor studies can be performed on the location of a new alignment bypass.

6. Jones Creek

The preferred alternative for the town of Jones Creek is to widen within existing ROW and construct a curb and gutter facility. This alternative was selected because it imposed the least amount of impacts to the town while accommodating the drainage needs resulting from the roadway improvements. An open-ditch section was not warranted because the location of the businesses and residences along the existing roadway were too close to accommodate the additional ROW needs for this type of design. The impact analyses showed that the ROW required for an open ditch section would displace between 23 and 37 residences, between 3 to 7 businesses, and up to 2 churches. Additionally, the environmental impacts to wetlands, historical structures, parklands, and forested areas were not feasible for the acquisition of new ROW in this area. Existing ROW was adequate to accommodate the undivided four-lane facility with a curb and gutter design.

No-Build Alternative

The no-build alternative would not improve the future safety and mobility needs of these areas of Fort Bend and Brazoria Counties. SH 36 and future Spur 10 would serve as a hurricane evacuation route, evacuating citizens from the low-lying coastline in Freeport to US 59 in Fort Bend County. Due to current and future increases in population, a no-build alternative would not provide the safety standards for a roadway needed to evacuate the populations of these areas in the event of a major hurricane. In addition, the no-build alternative would not accommodate the mobility needs of the public resulting from increased growth of the Port of Freeport and towns along SH 36 within the project limits.

A. How do the costs compare for the alternatives considered above?

The no-build alternative would certainly not be as costly as improving the existing facility, but as stated above would not improve the future safety and mobility needs for the area. All of the Alternatives would require costly acquisition of ROW. The least costly alternative that meets the needs of the project is the preferred alternative. Costs are lowered by minimizing right-of-way widths and keeping the project within existing ROW to the extent practical.

B. Are there logistical (location, access, transportation, etc.) reasons that limit the alternatives considered?

For SH 36, replacement of the road must be based on current design and safety standards and impact analyses to the surrounding communities. Alternative 1 meets the proposed purpose of the project and takes into account the current standards and needs of the surrounding communities.

C. Are there technological limitations for the alternatives considered?

There are no technological limitations or engineering constraints identified for the alternatives considered.

D. Are there other reasons certain alternatives are not feasible?

Replacement of the road is not feasible unless it is based on current design and safety standards and considers the impact analyses to the surrounding communities. Alternative 1 satisfies the purpose and need and accomplishes the design upgrades.

III. If you have not chosen an alternative which would avoid impacts to surface water in the state, explain:

A. Why your alternative(s) was selected.

The preferred alternative selected met the requirements necessary for improving SH 36 to the standards necessary for a hurricane evacuation route while minimizing impacts to the human and natural environment.

B. What you plan to do to minimize adverse effects on the surface water in the state impacted.

Following an analysis of numerous roadway build alternatives for SH 36, the preferred alternative had the least adverse effects on the surface water of the state. Construction fencing and signage will be posted throughout the project area to keep construction equipment out of wetland areas which are not proposed to be impacted.

IV. Please provide a comparison of each criteria (from Part II) for each site evaluation in the alternatives analysis.

The Preferred Alternative was chosen because it best met the criteria of limiting costs and environmental impacts. Right-of-way widths were minimized to the extent possible to still achieve the goals of the improvement of this hurricane evacuation corridor between Freeport and Rosenberg, Texas to minimize project costs. In addition, limited right-of-way acquisitions minimized the environmental impacts along the roadway. The preferred alternatives selected were the only feasible alternatives which met the requirements necessary for improving SH 36 to the standards necessary for a hurricane evacuation route while minimizing impacts to the human and natural environment.