Federal Highway Administration
Finding of No Significant Impact (FONSI)
US 77 Upgrade Project
From US 83 in Harlingen, Texas to I 37 in Corpus Christi, Texas
Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties
CSJ: 1111-07-004

INTRODUCTION

The Federal Highway Administration (FHWA) has determined, in accordance with 23 Code of Federal Regulations (CFR) 771.119 and 771.121, that the upgrading of United States (US) Highway 77 (US 77) to Interstate highway standards, including two highway relocations around Driscoll and Riviera, extending from Interstate Highway 37 (IH 37) in Corpus Christi, Texas to US 83 in Harlingen, Texas, will not have a significant impact on human or natural environment. This **Finding of No Significant Impact** (FONSI) for the Build Alternative is based on the December 2011 US 77 Upgrade Project Environmental Assessment (EA). The EA was approved by FHWA for public involvement on December 20, 2011. Five public hearings were held; Raymondville, Texas on February 2, 2012, Sarita, Texas February 6, 2012, Riviera, Texas on February 7, 2012, Kingsville, Texas on February 8, 2012 and Driscoll, Texas on February 9, 2012. The Public Hearing Summary (which includes responses to public comments) prepared by TxDOT in April 2012 has been incorporated into the EA.

The April 2012 EA and Public Hearing Summary Report have been independently evaluated by the FHWA and determined to adequately and accurately discuss the need, purpose, alternatives, environmental issues, impacts and appropriate mitigation measures of the US 77 Upgrade Project. These documents provide sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required. Finally, these documents are incorporated by reference into this decisional document.

PROJECT BACKGROUND

The proposed US 77 Upgrade Project area is approximately 122 miles in length and is defined by its northern logical terminus at the interchange of US 77 and IH 37 in Corpus Christi, Texas to the interchange of US 77 and US 83 in Harlingen, Texas at its southern terminus. Between the project termini, the majority of the existing US 77 configuration consists of a four-lane facility divided by a center grassy median except through Driscoll, Ricardo, and Riviera where the facility is four-lane with a center turning lane. The right-of-way (ROW) width varies between 200 and 380 feet. The existing facility consists of two 12-foot lanes in both the northbound and southbound direction for a total of four main lanes. Outside shoulders are eight to 10 foot wide and inside shoulders are four to 10 foot wide. All intersection crossings along this segment of US 77 are at-grade with the exception of the existing overpasses and ramps in the vicinities of Robstown, Kingsville, Bishop, and Raymondville. The at-grade cross-over's generally consist of one 12-foot eastbound lane and one 12-foot westbound lane, with 10-foot wide outside shoulders. The posted speed is 70 miles per hour (mph) along US 77 outside of urban areas.

The **needs** for transportation improvements to US 77 are identified in the EA and include:

- At-grade intersections compromise safety on this high-speed highway facility
- At-grade intersections within the project limits experience higher accident rates
- Projected increases in traffic on US 77 will increase the potential for incidents associated with the numerous at-grade intersections
- System continuity does not meet driver expectations.

The **purpose** of the proposed project is to improve safety, mobility, and continuity within the US 77 Upgrade Project corridor. To achieve this purpose, proposed improvements for the US 77 corridor would address the following objectives to improve:

- Traffic-related safety within communities located on US 77
- Safety for through-traffic
- Traffic mobility
- System continuity

The US 77 Upgrade Project was developed in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, Council on Environmental Quality (CEQ) Regulation for Implementing the Procedural Provisions of the NEPA (40 CFR 1500-1508), FHWA Environmental Impacts and Related Procedures (23 CFR Part 771), TxDOT Environmental Policy (43 Texas Administrative Code (TAC) Chapter 2), and other related federal and state requirements.

REVIEW OF THE ENVIRONMENTAL ASSESSMENT

TxDOT completed the US 77 Upgrade Project EA in December 2011. The EA considered and analyzed the potential social, economic and environmental impacts related to the proposed upgrade of US 77. Specifically, the EA studied the potential impacts associated with the No-Build and Build Alternatives.

The potential impacts studied include direct, indirect and cumulative impacts of the project. Direct impacts are defined by CEQ regulations (40 CFR § 1508) as being "caused by the action and occur at the same time and place." Indirect effects are defined as effects that are "caused by an action and occur later in time or farther removed in distance, but are still reasonably foreseeable," and may "include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate and related effects on air and water and other natural systems, including ecosystem." Cumulative impacts are the incremental impacts that the project's direct or indirect effects have on a resource in the context of the myriad of other past, present and future effects on that resource from unrelated activities.

During the course of the project development, a range of preliminary alternatives, including the Transportation Systems Management (TSM), Transportation Demand Management (TDM), No-Build Alternative, and the Build Alternative were considered.

TSM strategies are relatively low-cost enhancements to the existing transportation network that can greatly improve operational efficiency. These strategies include freeway bottleneck removal, widening of arterials, intersection improvements, traffic signal improvements, signage improvements, traffic management systems and other enhancements that make it easier for traffic to flow through the transportation network. Although implementation of these strategies may ease congestion on existing roadways, they would not fully or adequately address the project's need for transportation safety improvements within the US 77 corridor and were dismissed from further study.

TDM is aimed at reducing the volume of vehicles on the transportation network. These strategies include carpooling and ridesharing to combine person-trips into fewer vehicle-trips. This group of improvements also includes bicycle and pedestrian facility improvements. TDM strategies have the potential to increase the efficiency of existing transportation facilities. These low-to-moderate investment options – as a standalone action – would not fully address the project's need and purpose to improve safety by grade-separating through-traffic and cross-traffic at the major intersections and ranch gates and by separating through-traffic from local traffic turning onto side streets by the use of access roads. Therefore, while many aspects of the TDM options may enhance other alternatives, the TDM strategies in and of themselves do not fully meet the project's need and purpose and were dismissed from further study.

The No-Build Alternative consists of taking no action to improve the existing transportation facilities to address the project needs. The No-Build Alternative includes routine maintenance projects and state and regional projects that are already planned for improvement in the TxDOT STIP such as:

- Convert two frontage roads to one-way frontage roads in Cameron County.
- Completing main lanes from FM 1018 to Farm to Market (FM) 3168 Willacy County.
- Construct overpass in Sarita in Kenedy County.
- Construct Main lanes and overpass at Caesar Ave in Kingsville, Kleberg County.
- Construct main lanes to correct curve in Robstown, Nueces County.

The Build Alternative consists of upgrading the mainlanes of existing US 77 to a controlled access facility that meets Interstate standards, along with new location relief routes around Driscoll and Riviera. The typical section is anticipated to remain a four-lane divided roadway for the entire project length. In select locations, the four main lanes would be supplemented by access roads, overpasses, and interchanges to facilitate local access. The Build Alternative will require the purchase of 689.74 acres of ROW.

In Driscoll and Riviera, relief route options were developed and evaluated to determine which option best meets the need and purpose while minimizing social, economic, cultural, engineering, and natural impacts. A total of five reasonable options were advanced in Driscoll and Riviera. The five options included:

- Through town at-grade option,
- Two through-town elevated options,
- East option, and
- West option.

The East option was identified as the preferred option for both Driscoll and Riviera. The east Driscoll relief route would only require the displacement of one residence, while the options through town would require taking 19 residences and nine businesses. The relief route around Riviera would require the displacement of three residences, while the options through town would require taking six residences and eight businesses. Overall, the East options would meet the project need and purpose and provide the best opportunity to minimize potential adverse impacts.

As a result of the public involvement and project development process, TxDOT has recommended the approval of the Build Alternative with east relief route options in Driscoll and Riviera, as the recommended alternative, since it would best achieve the need for and purpose of the project.

Potential impacts, from the Build Alternative, were minimized or avoided to not adversely or disproportionately impact the following resources:

- Community Cohesion,
- Environmental Justice Populations,
- Historic Resources,
- Prime Farmland Soils,
- Public Parkland,
- Section 4(f) resources,
- Migratory Birds,
- Floodplains,
- Coastal Natural Resource Areas,
- Wild and Scenic Rivers, or
- Air Quality.

Impacts and associated mitigation strategies are anticipated for the following resources/topic areas:

- Commercial/Residential Displacements,
- Visual/Aesthetics,
- Vegetation and Wildlife Habitats,
- Federally-listed Threatened and Endangered Species,
- State-listed Threatened and Endangered Species,
- Archeology,
- Water Resources/Water Quality,
- Noise,
- Hazardous Materials,
- Utilities,
- Construction Activities, and
- Traffic Access.

A summary of the specific impact, mitigation strategy, and commitments for these resources/topics are included in the Mitigation/Commitments Section below.

PUBLIC INVOLVEMENT

Public Involvement is an integral and critical component of the NEPA project development process. A comprehensive public involvement effort was implemented for the US 77 Upgrade Project to incorporate all the different types of stakeholders and their needs, from safety to mobility to environmental concerns. The public involvement effort included consultation with the TxDOT Environmental Affairs Division (ENV), FHWA, Cameron, Willacy, Kenedy, Kleberg and Nueces Counties and the Cities of Harlingen, Sebastian, Lyford, Raymondville, Sarita, Riviera, Ricardo, Kingsville, Bishop, Driscoll, Robstown and Corpus Christi.

Stakeholder Involvement

Throughout the project development process interviews were conducted with various stakeholders including local and state government officials, engineers, planners, landowners, economic development organizations, school districts, and resource agencies to gather input on potential impact of the proposed US 77 improvements. Coordination meetings were also held with several agencies including, Texas Historical Commission (THC), U.S. Fish and Wildlife Service (USFWS), Texas Parks and Wildlife Department (TPWD), U.S. Department of Homeland Security, U.S. Border Patrol, and the Texas Department of Public Safety.

Public Information Meetings

Two rounds of public information meetings were held for the US 77 Upgrade Project. The first round was held between March 3, 2008 and March 11, 2008, in Raymondville, Kingsville, Riviera, Driscoll, and Sarita. The second round was held between September 2, 2008 and October 21, 2008, in Riviera, Raymondville, Driscoll, Sarita and Ricardo. Prior to each round of meetings, public official briefings were held. A summary of the meeting notifications, objectives, attendance, presentations, and comments has been incorporated into the EA.

Design Changes due to Public Comment on the US 77 Upgrade Project

As a result of close coordination with stakeholders and the communities, TxDOT was able to identify and address community needs and concerns throughout the project development process. The following is a summary of concerns and the corresponding actions taken by TxDOT:

- Complete interchanges were added at the following two locations in response to comments regarding usage of ranch gates:
    - Four ranches that use the Butler Gate/Hacienda Yturria South and Gate 2/Diamond Ranch Gate, Santa Berta/El Devisadero Road (one complete interchange with two separation structures)
    - Four ranches that utilize the Yturria County Road (CR) gates.
- Comments were also received to consider an interchange at Armstrong Avenue on the north edge of Sarita. There are three residences east of US 77 and two residences west of US 77 at that location. It appeared that an additional interchange was warranted at Armstrong Avenue to provide access to the residences and provide circulation to Sarita. As a result, the interchange was added to the Revised Conceptual Design.

- Four relief route alignment options were developed at Riviera:

    - Through Riviera holding the west edge of the alignment on the existing highway and expanding the typical section to the east to avoid the King Ranch National Historic Landmark (NHL).
    - West of Riviera and within the King Ranch NHL
    - East of Riviera on new alignment
    - Through Riviera holding the west edge of the alignment on the existing highway and expanding the typical section to the east to avoid the King Ranch NHL and including elevation of the main lanes to reduce the amount of ROW required.

- Four relief route alignment options were developed at Driscoll:

    - Through Driscoll holding the west edge of the alignment on the existing railroad tracks and expanding the typical section to the east
    - West of Driscoll on new alignment
    - East of Driscoll on new alignment
    - Elevated through Driscoll holding the west edge of the alignment on the existing railroad tracks and expanding the typical section to the east including elevation to reduce the amount of ROW required.

- A pedestrian underpass was requested for the Ricardo Elementary and Middle School complex. The complex is located on CR 1118/CR 2160 and an underpass is being provided at that location. Therefore, the design was modified to incorporate a safe pedestrian crossing by providing sidewalks and Americans with Disabilities Act (ADA) compliant crossings of the access roads.

- Complete interchanges have been added to the Preliminary Schematic at the following locations in response to comments received during the second round of public information meetings and meetings with the stakeholders.

    - In Nueces County at CR 4.
    - In Kleberg County, north of Sage Road in Kingsville
    - In Kleberg County at CR 2280
    - In Kleberg County at CR 2340

- Requests were received to revise the access road pattern on the Riviera east relief route option. The concern was the relationship of the school bus routes on the north side of Riviera and the lack of access roads in that area. Coordination with the Riviera ISD was conducted and the design was changed to provide access roads that were continuous with an interchange at CR 2280 to maximize effective circulation for the bus routes.

- Texas Department of Public Safety (DPS) requested that the weigh station be moved to the north of Riviera and located off the northbound lanes of US 77 to facilitate access and simplify enforcement. The Preliminary Schematic was revised and a weigh station

location was established between Ranch-to-Market Road (RM) 628 and CR 2230 on the east side of US 77.

- A meeting at Kleberg County resulted in the addition of four direct connectors being added to the Build Alternative for Riviera to improve access to the existing business district.

- The interchange for Sage Road on the north edge of Kingsville was moved approximately 0.75 mile to the south to avoid a field-identified population of an endangered plant species – slender rush-pea (*Hoffmannseggia tenella*).

Public Hearings
As part of the Public Hearing process, five public hearings were held in February 2012 regarding the proposed upgrade of US 77 to a controlled access facility that meets Interstate standards. The Public Hearings were held in Raymondville on February 2, 2012; Sarita on February 6, 2012; Riviera on February 7, 2012; Kingsville on February 8, 2012; and Driscoll on February 9, 2012. A transcript of the Public Hearing, as well as responses to comments that were received as a result of the hearing, have been incorporated into the EA and the Public Hearing Summary.

Media Coordination
Website postings regarding the project were include on the TxDOT's Corpus Christi projects page of TxDOT's website and included a hearing notice, hearing handout, and draft copy of the EA. As well as on the websites for the Metropolitan Planning Organizations of Corpus Christi (www.corpuschristi-mpo.org), Harlingen-San Benito (http://hsbmpo.com), and Brownsville (http://mpo.cob.us). Copies of the EA were also made available to the public at TxDOT' Corpus Christi District Office, Corpus Christi Area Office, Pharr District Office, Raymondville Maintenance Office, City of Driscoll, Robert J. Kleberg Public Library, Kleberg County – Precinct 3 County Commissioner's Office, and Kenedy County Courthouse.

MITIGATION/COMMITMENTS

As a result of the measures undertaken to avoid, minimize and mitigate potential impacts, the proposed US 77 Upgrade Project will not have significant impacts on the quality of the environment. Potential impacts associated with the construction of the Build Alternative were documented in the EA. A summary of the environmental commitments is included in Appendix A of this FONSI. The following outlines the measures to minimize harm on the environment during the design and construction of the US 77 Upgrade Project:

Commercial/Residential Displacements and Right-of-Way Acquisition
The Build Alternative will require the purchase of 689.74 acres of ROW. A total of 18 business and 15 residential displacements are anticipated as a result of the Build Alternative. Acquisition of ROW will be completed in accordance with the TxDOT's Procedures for Purchase of ROW and the provisions of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

TxDOT procedures require that access to properties be maintained through at least one access point to the nearest roadway. Access driveways to residential properties along US 77 will be realigned to accommodate the alignment of the Build Alternative.

Visual/Aesthetics

The Build Alternative will change views and the visual quality within the corridor due to an expanded roadway width and new location roadway in the relief route areas. Vegetation removal in the form of scattered trees and hedges along the new ROW will result in a reduction of vegetative screening, leading to increased impacts from reflective glare from the roadway surface for property owners adjacent to the proposed project. Light impacts will also come from the removal of fences and from illumination, particularly at signalized intersections.

TxDOT will consider including aesthetic treatments in structural components (retaining walls, bridges, signage), architectural details (landscaping, lighting, colors, finishes, etc.) or revegetation, where appropriate. The implementation of some design elements will require participation and cost-sharing to fund the aesthetic improvements from local jurisdictions, property owners, or community-based organizations.

Vegetation/Wildlife Habitats

Within the existing and proposed ROW, there are 3,419.6 acres of vegetation/wildlife habitats that could be impacted as a result of the proposed construction of the US 77 upgrade. Of this, 2,813.5 acres (82.3 percent) consist of maintained vegetation and cropland. The proposed project could impact up to 5.0 acres of riparian vegetation, including 1.0 acre of riparian woodland (Cedar Elm-Hackberry Parks/Woods) along Petronila Creek and 4.0 acres of aquatic/semi-aquatic habitats (herbaceous wetlands) located along several streams and drainage ditches. The proposed project has minimized impacts to the Live Oak Parks/Woods; however, and up to 44.5 acres of Live Oak Parks/Woods could be impacted. While the project would have impacts to the area vegetation/wildlife habitats, consideration was given to minimizing habitat fragmentation by utilizing to the extent possible existing ROW.

The EA impacts assume a complete removal of all vegetation/wildlife habitats within the proposed ROW because specific construction related information such as known clearing areas, bridge and culvert layouts, or Project Specific Locations (PSLs) (i.e. staging areas) are not available.

Based on the avoidance and minimization measures that have occurred during the design of the proposed project, no compensatory mitigation is currently proposed for riparian vegetation, live oak woodlands, or aquatic habitats. However, to further minimize impacts during construction, TxDOT will include notes in the Environmental Permits, Issues and Commitments (EPIC) sheets for the developer/contractor to minimize clearing of and avoiding the placement of PSLs in or adjacent to higher quality habitats such as Live Oak Parks/Woods, mesquite-dominated areas within the Kenedy County sand sheet, and aquatic/semi-aquatic habitats. Additionally, mitigation for aquatic habitats and riparian areas will be re-evaluated during the Section 404 (Clean Water Act) permitting process.

In accordance with the beneficial landscape Executive Memorandum, landscaping included with the Build Alternative will be in compliance with the Executive Memorandum and the guidelines for environmentally and economically beneficial landscape practices. In addition, landscaping will be limited to seeding and replanting the ROW with native species of grasses, shrubs, or trees where applicable in accordance with Executive Order (EO) 13112 on Invasive Species. Soil disturbances will be minimized to limit the potential of invasive species from establishing within the ROW.

A colony of Mexican free-tailed bats (*Tadarida brasiliensis*) resides under the US 77 bridges over Los Olmos Creek. The proposed Build Alternative will widen the existing northbound bridge approximately 10 feet. No improvements to the southbound bridge are proposed. To minimize impacts to bats, the proposed northbound bridge widening will be planned to occur during winter months, when the bats are not present.

Federally-listed Threatened/Endangered Species

Informal coordination with the U.S. Fish and Wildlife Service (Service) was initiated on June 28 2008. In a letter dated June 5, 2011, the USFWS acknowledged that they reviewed the results of the habitat assessments and presence/absence surveys conducted for threatened and endangered species listed under the Endangered Species Act and stated that the project may adversely affect the ocelot and gulf coast jaguarundi and recommended formal Section 7 consultation.

The June 5, 2011 letter also provided USFWS' concurrence with the "may affect, not likely to adversely affect" determination for the brown pelican and piping plover by letter dated June 5, 2011. For the slender rush-pea and the South Texas ambrosia, orange construction fencing will be installed during construction activities to prevent construction equipment from impacting these populations. With the implementation of these conservation measures and the commitment to conduct future survey of areas where right-of-entry was not granted, the USFWS also concurred with the "may affect, not likely to adversely affect" determination for these species.

FHWA initiated formal Section 7 consultation with the USFWS on March 14, 2012 specifically for the ocelot and jaguarundi. The USFWS provided the Biological Opinion (BO) on June 22, 2012. The following outlines the terms and conditions provided in the BO which will be adhered to during project design, construction, and post construction of the project. The following documents the commitments made to fulfill the terms and conditions of the BO.

Measures to be implemented during project design

- TxDOT will design the project to maximize the use of the existing ROW and roadway. The proposed improvements in Kenedy, Willacy, and Cameron counties have been designed to remain within the existing transportation ROW.

- The proposed interchanges and ranch access roads in Kenedy and northern Willacy counties have been designed to minimize clearing of wooded areas.

- After coordinating with the Service, three wildlife crossings will be installed under the proposed highway. These crossings are referred to as the Yturria Crossing, Rudolph

Crossing, and Norias Crossing (**Figure 2, 3, and 4 of BO**). At each crossing, the proposed highway will consist of two roadways for the northbound and southbound lanes, and the crossings will consist of two separate bridges with an open median. The bridges will provide at least 8 feet of clearance and a minimum 20-foot wide earthen floor that will be at a grade to prevent water from collecting. Dense brush will be established and allowed to remain in the median and between the structures and the ROW edges provided that they do not represent a safety hazard to the traveling public. Chain-link fence will be erected in the median to the edges of the bridge abutments, as well as along the ROW for 200 linear feet from each end of the bridges. **Figure 5** of the BO provides a plan and profile of the proposed crossings. The installation of the wildlife crossings will be conducted in accordance with the upgrade outlined in **Table 2** of the BO. Based on the current plan, Sections J, I, and H (where the proposed wildlife crossings will be located) will be let for construction in 2033, 2035, and 2037, respectively.

  - The Yturria Crossing will be installed near the Yturria Ranch ocelot population in Willacy County. Adjacent landowners have been contacted and support a wildlife crossing on US 77 as well as creating and maintaining a habitat corridor on their properties.

  - The Rudolph Crossing will be installed approximately 4.0 miles north of the Willacy/Kenedy County line.

  - The Norias Crossing will be installed approximately 16.1 miles north of the Willacy/Kenedy County line.

- No construction will occur at the East Main Drain Canal (Willacy County), which provides a potential corridor for dispersing ocelots to travel through otherwise cleared agricultural fields and cross US 77.

- Lighting in rural areas in Kenedy County and northern Willacy County will be limited to the existing lights at the Border Patrol Station and Sarita Rest Area (**Figure 6 and 7** of the BO) and proposed safety lighting at ranch access interchanges. No lighting is proposed at wildlife crossings.

- Proposed improvements have been designed to avoid impacts to two federally listed endangered plants: the slender rush-pea (*Hoffmannseggia tenella*) and South Texas ambrosia (*Ambrosia cheiranthifolia*) populations (**Figure 8 and 9** of the BO).

- Areas of the proposed ROW where right-of-entry are not granted will be surveyed for endangered plants prior to construction. Areas where right-of-entry was not granted are shown on **Figures 10 through 16** of the BO.

- A gravel turnaround will be constructed at Carreta Creek (Nueces County) so the adjacent landowner can move his farm equipment across US 77 without impacting endangered plants. A permanent barrier/fencing will be constructed along the turnaround

to prevent the private landowner from inadvertently running over endangered plants (**Figure 17** of the BO).

Measures to be implemented during project construction

- TxDOT will include notes in the Environmental Permits, Issues, and Commitments (EPIC) sheets for the developer/contractor to minimize clearing of wooded areas within the existing and proposed ROW.

- Construction access and staging areas within the existing and proposed ROW will be located in areas that do not require clearing of wooded habitats in Kenedy County and northern Willacy County.

- Construction activities in Kenedy County and northern Willacy County will be scheduled to occur only during daylight hours.

- No staging areas or other project-specific locations will be allowed in areas containing endangered plants.

- Orange construction fencing will be erected around endangered plants to avoid inadvertent impacts.

- Proposed wildlife crossing areas will be revegetated.

- Removal of native vegetation will provide suitable location for invasive grasses. After completion of construction and installation activities, disturbed areas will be treated with herbicides for control of invasive grasses and reseeded with native grasses to minimize colonization of invasive grasses. Contractor will be directed to utilize special provision 164---006 Seeding for Erosion Control that is specific for the Corpus Christi and Pharr TxDOT Districts. Herbicides will be used according to manufacturer's label and are not expected to be used at levels or frequency that would have any adverse impacts to the cats.

Measures to be implemented during maintenance of the facility

- Maintenance activities will be scheduled to occur only during daylight hours in Kenedy County and northern Willacy County unless it is an emergency situation.

- Mowing will be limited to previously cleared areas (based on 2010 aerial photography), and no additional clearing of wooded areas (other than trimming of overhang or removal for safety reasons) will occur in Kenedy County and northern Willacy County.

- Wildlife crossings will be checked periodically to ensure water is not standing for more than 10 days in the crossings.

- Vegetation within the wildlife crossings will not be mowed so that brush can establish.

- TxDOT-installed chain link fencing at the wildlife crossings will be maintained.

- Scheduled/restricted mowing of the ROW will continue in areas containing endangered plants, which would help prevent the species from being out-competed by introduced grasses.

Incidental Take Agreement

The Service anticipates 2 endangered cats, (in aggregate, ocelots and/or jaguarundi) could be taken in any 5 year period in the form of harm and harassment, due to the improvements, construction, operation and maintenance of US 77 and/or injury or mortality due to a vehicular or maintenance equipment collision within the project area for the life of the project. Life of the project is defined as the completion of the proposed upgrade improvements from IH 37 in Nueces County to US 83 in Cameron County or until such time as FHWA determines that no further upgrades, as described in the project description, will be undertaken on US 77 as a result of changes in policy or regulation. If, during the course of the action, two endangered cats are killed within any 12 month period FHWA, TxDOT, and the Service will meet to discuss further options.

Additionally, in instances where the amount or extent of incidental take is exceeded by a construction or maintenance operation, the operation causing such take must cease pending reinitiating of formal Section 7 Consultation. In instances where the amount or extent of incidental take is exceeded by vehicular mortality, FHWA, TxDOT and the Service will meet to discuss further options

US 77 Program Terms and Conditions

- In the event that activities result in the direct take (killing, harming, or maiming) of an ocelot or jaguarundi, the person(s) responsible for monitoring shall notify the Service's CCESFO (361/994-9005) immediately. A standard methodology for handling dead or injured cats found during the project will be established by the Service. This methodology shall be directed at determining the cause of death and ensuring that all data is recorded. The finder has the responsibility to ensure that evidence intrinsic to the specimen is not disturbed.

- The following terms and conditions are necessary to educate contractors and employees to avoid and minimize impacts during construction, maintenance and operational activities.

    - TxDOT will design and implement an instruction program to instruct any current and new TxDOT field personnel in the project area on their duties and obligations under the ESA to not take federally listed species, including ocelot and jaguarundi. The Service will be consulted in the preparation and implementation of this program.
    - TxDOT will include conditions in contractor's contracts that all PSL's for this

project will be identified and coordinated with the Service to ensure no unnecessary brush is cleared and to protect species habitat.

- TxDOT will coordinate and implement a protocol outlining procedures to notify TxDOT supervisors and the Service of any sightings or occurrences of federally listed species during construction activities. The protocol should include instructions that if TxDOT locates a dead, injured, or sick ocelot or jaguarundi, initial notification must be made to the Service's Law Enforcement Office in McAllen, Texas (telephone: 956-686-8591) or Ecological Service Office at the Santa Ana National Wildlife Refuge (956-784-7560) or CCESFO (361-994-9005) and that to the extent practicable, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

- Annual reports will be submitted to the Field Supervisor, U.S. Fish and Wildlife Service Ecological Services, c/oTAMU-CC, 6300 Ocean Drive, Campus Box 338, Corpus Christi, Texas 78412, by September 30th of each year. Reports should include sightings or road mortalities of cats, the progress on implementation of conservation recommendations and reasonable and prudent measures that have been accomplished during the US77 improvement project and 5 years after construction is complete on all sections.

FHWA and its agents will work within their authorities to further minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to aid in recovery plans, or develop information, as applicable.

According to the BO, after reviewing the current status of the ocelot and jaguarundi, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that FHWA's US 77 improvements and maintenance, as proposed, is not likely to jeopardize the continued existence of the listed ocelot and jaguarundi. There is no critical habitat listed in the state of Texas for these species of cats, therefore none will be affected.

State-listed Threatened/Endangered Species

The US 77 Upgrade Project could potentially impact 24 state listed threatened and endangered species that may utilize habitats in the project area. The proposed project could remove over 3,400 acres of vegetation, although over 2,800 acres (82 percent) consists of existing maintained vegetation and cropland. Up to 44.5 acres of oak woodlands and over 300 acres of mesquite-dominated areas could be removed from the median of the existing ROW in Kenedy County. In addition, nearly 24 acres of aquatic/semi-aquatic habitats could be removed. While these areas provide potential habitats for a number of state listed threatened and endangered species, they are located within an existing transportation corridor, and adjacent properties contain large areas of similar habitats that are more likely to be used by wildlife. To minimize impacts to potential habitats, clearing of wooded areas and impacts to aquatic/semi-aquatic sites will be minimized during construction of the proposed project. Clearing will occur outside the nesting season to the maximum extent practical in order to avoid direct mortality to listed birds. In addition, clearing outside the nesting season will minimize impacts to birds that may nest in the wooded areas of

the ROW, including the cactus ferruginous pygmy-owl, northern beardless-tyrannulet, rose-throated becard, Texas Botteri's sparrow, and tropical parula.

If individuals of the southern yellow bat, black-striped snake, indigo snake, northern cat-eyed snake, Texas horned lizard, Texas scarlet snake, Texas tortoise, black-spotted newt, Mexican tree frog, sheep frog, and South Texas siren are present in the project area during construction, they could be impacted. TxDOT will include notes in the EPIC sheets for the contractor to avoid these and other state listed species that may occur in the project area and, if encountered, to let them leave the project area on their own accord.

The US 77 Upgrade Project could potentially impact 34 rare species listed by the TPWD in the project counties. To minimize impacts to rare species, clearing outside the nesting season will be recommended as well as minimizing clearing and impacts to aquatic sites. In addition, disturbed areas will be re-seeded with a native seed mix, where possible.

Up to 44.5 acres of live oak woodlands that contain Bailey's ballmoss could be permanently removed by the Build Alternative. The removal of Bailey's ballmoss will be unavoidable, but has been minimized by designing the improvements to stay within the existing ROW through areas containing live oak woodlands. To minimize impacts, clearing of live oak woodlands will be minimized during construction.

Archeological Resources

Archeological resources that may potentially be affected by the proposed project were identified by reviewing the records at the Texas Archeological Research Laboratory (TARL) and data available on the THC's online Texas Archeological Sites Atlas (TASA), followed by an intensive pedestrian archeological survey with subsurface investigations. Due to the size of APE for archeology (existing and proposed ROW), a probability model was developed, in consultation with TxDOT archeologists, which stratified the APE for archeology into areas with high, moderate, and low probability for containing prehistoric and historic archeological resources. Systematic shovel testing was conducted in high-probability areas, while judgmental shovel testing was conducted where necessary in moderate- and low-probability areas based on field conditions. In the low-probability areas, a windshield survey was conducted, followed by an intensive pedestrian survey of a 20-percent sample that, based on the windshield survey, appeared the most conducive to containing archeological properties or sites. Survey of all proposed ROW in Nueces and Kleberg Counties was not possible due to right-of-entry denial on some properties. There are a total of 60 parcels with proposed ROW where access was not possible.

To date, no archeological resources are known within the APE that will be afforded further consideration under cultural resource laws or will be adversely affected. However, further work in the form of survey-level backhoe trenching and deep testing within the proposed Driscoll relief route on the north and south banks of Petronila Creek is recommended. In addition, 60 parcels with proposed ROW have not been surveyed because of right-of-entry denial. Once access to these areas has been obtained, TxDOT will complete all required investigations and consultation. The Texas SHPO concurred with TxDOT's eligibility determinations and recommendations for further work on August 13, 2010 and on February 17, 2012.

After obtaining access to the proposed ROW, TxDOT will complete the archeological inventory on unsurveyed properties and conclude any additional work that may be required under the terms of the PA and MOU.

In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the PA-TU and MOU.

Water Resources/Water Quality

Wetlands and Waters of the U.S.

There are 10 jurisdictional waters (Los Olmos Creek, Unnamed Tributary to Escondido Creek, Escondido Creek, Santa Gertrudis Creek, Tranquitas Creek, San Fernando Creek, Unnamed Tributary to Carreta Creek, Carreta Creek, Unnamed Tributary to Carreta Creek, and Petronila Creek) crossed by the Build Alternative. Two of these crossing will not require construction within waters of the US (Tranquitas Creek and Unnamed Tributary to Carreta Creek). The remaining eight crossing will have a potential permanent fill impact of nearly 2.30 acres and a potential temporary fill impact of nearly 2.42 acres. Separate USACE Nationwide Permits (NWP) #14 will be utilized at each of the eight crossings as none of the impacts are anticipated to exceed 0.5 acres. A Pre-Construction Notification (PCN) will be submitted to the USACE for each crossing because the loss of waters of the US exceeds 0.1 acre or there is a discharge into a special aquatic site, including wetlands. If changes to the design cause the crossing to exceed the thresholds of NWP 14, a Section 404 Individual Permit will be required. To minimize impacts to wetlands and other waters of the US, TxDOT will include notes in the EPIC sheets for the developer/contractor to minimize permanent and temporary impacts to these areas.

Additionally, coordination with the USACE will be conducted to receive concurrence that the other water features identified in the EA are non-jurisdictional. If the USACE determines that any of the water features are jurisdictional waters of the US, TxDOT will prepare the additional Section 404 permits (i.e., NWP 14 or Individual Permit) as required.

Water Quality

Runoff from a portion of the proposed project will discharge directly into Segment 2492A (San Fernando Creek), which is listed as threatened/impaired for bacteria on the 2008 303(d) list. In addition, runoff from a portion of the project will discharge directly into Segment 2204 (Petronila Creek Above Tidal), which has an approved total maximum daily load (TMDL) for chloride, sulfate, and total dissolved solids. The implementation of approved best management practices (BMPs) from the TCEQ's *401 Water Quality Certification Conditions for Nationwide Permits* will be used to control constituents of concern for these locations. The BMPs will be outlined in the Storm Water Pollution Prevention Plan (SW3P) prepared for the project and will be implemented during and after construction. Additionally, coordination with the TCEQ will be conducted.

The US 77 Upgrade Project will include five or more acres of earth disturbance. Therefore, TxDOT will comply with the TCEQ's TPDES Construction General Permit (CGP). A SW3P

will be implemented, and a construction site notice will be posted on the construction site. A Notice of Intent (NOI) will also be prepared.

Navigable Waters

Los Olmos Creek appears to be tidally influenced; therefore, it is expected to be considered Section 10 navigable water. TxDOT will coordinate with the USACE to verify this determination and obtain the appropriate permit.

Los Olmos Creek is not expected to be regulated by the USCG under Section 9 of the Rivers and Harbors Act or the General Bridge Act of 1946. TxDOT will coordinate with the USCG to confirm this determination.

Waters Regulated by the International Boundary and Water Commission

Although no impact to the North Floodway levee is anticipated as a result of the proposed reconfiguration of a northbound exit ramp and access driveway improvements to the north levee road, should design changes occur coordination with the International Boundary and Water Commission will be conducted.

Essential Fish Habitat

The proposed Build Alternative will widen the existing northbound bridge over Los Olmos Creek by approximately 10 feet. Based on the location of existing bridge columns within the Los Olmos Creek channel, the proposed bridge widening will require the placement of additional columns in the channel, which is expected to have a minor impact to EFH. An EFH assessment will be coordinated with NMFS.

Noise

The noise analysis identified that noise impacts will occur along the proposed project in Nueces, Kleberg, Kenedy, and Willacy Counties. Consideration of abatement measures for the traffic noise impacts was conducted to identify areas that noise barriers will be feasible and reasonable. The noise barrier analysis identified only four locations along the proposed project were barriers were both feasible and reasonable for the proposed US 77 Upgrade Project. The estimated cost for the four noise barriers totals $304,902. In Kleberg County, the noise barrier will consist of one noise barrier with five sections and an estimated cost of $250,794. In Willacy County, three noise barriers are proposed for traffic noise impacts with an estimated cost $54,108.

Hazardous Materials

A preliminary investigation was conducted to identify sites within the project study area that are at "risk" of environmental contamination by hazardous wastes or substances. This initial investigation was conducted to identify areas of potential concern for further investigation or precautionary actions. A database search reviewed 59 environmental regulatory databases and identified 189 sites within ASTM search distances from the project corridor. Considering the type of incident and activity reported within the regulatory databases, status of the corrective action or resolution, distance from the proposed project, general topography, and field observations, 24 sites are considered of medium or high risk to the proposed project. Nine of those sites are considered to have high potential to impact the Build Alternative. The sites considered high and medium risk to the proposed project will be further assessed by TxDOT prior to or during ROW acquisition to determine the likelihood of encountering contaminated

soils and groundwater during construction activities. These assessments may include sampling of soil or groundwater in the vicinity of proposed excavations. If warranted, remediation activities will then be completed prior to construction to address contaminated soil/groundwater impacting the construction zone. Waste management plans will be in-place to address contamination during construction activities, if remediation is not complete prior to construction.

Information obtained from the RRC identified 307 petroleum wells within 1,500 feet from the proposed project, with 244 of those wells occurring in Nueces County. None of the petroleum wells were reported as radioactive by data from the RRC. Petroleum pipelines were identified in the study area with the majority of the lines also occurring in Nueces County. The pipelines appear to carry crude oil, natural gas, and highly volatile liquids.

Water well information from the TWDB identified 55 water wells within 1,500 feet from the proposed project. Abandoned water wells are regulated by the Texas Department of Licensing and Registration (TDLR) and local Groundwater Conservation Districts through Texas Occupations Code, Sections 1901.255 and 1901.256. TxDOT will properly plug and abandon identified water wells within the proposed ROW to prevent potential contamination of groundwater resources. No evidence of water wells, such as any true or active groundwater wells, domestic wells, or water supply wells, were noted within the proposed project corridor during field surveys. Before any planned construction, a more detailed search may be required to supplement this database.

Structures, such as tanks, buildings, and bridges, are located within the proposed ROW and will be demolished or renovated as part of construction activities. The structures will be surveyed for ACM and abated, if asbestos is present, by properly trained and licensed individuals prior to renovation or demolition. The proposed project will require displacements of seven residential properties and five businesses. One business will need to relocate a structure on their property. An assessment for asbestos containing materials will be advised for evaluating potential releases within the project corridor and will be addressed during ROW acquisition.

Paint on structures may contain hazardous concentrations of heavy metals, specifically lead. TxDOT will test paint on structures to be renovated or demolished, and if the analytical testing determines that hazardous concentrations of heavy metals are present, TxDOT will abate the paint prior to construction activities. When hazardous concentrations of lead are found on exterior paint, the surrounding soil will be evaluated for the occurrence of lead-impacted soil exhibiting a toxicity characteristic for leachate, indicating the soil must be managed in accordance with RCRA Subtitle C requirements.

During any construction project, there exists the potential to encounter contaminated soil or water. Included in the contract will be the TxDOT standard specifications for construction that require the contractor to be familiar with and comply with all federal, state, and local laws, ordinances, and regulations related to the treatment and disposal of hazardous materials. Should hazardous materials/substances be encountered, the TxDOT Corpus Christi or Pharr District Office (dependent on location within the project area) will be notified and steps will be taken to protect personnel and the environment.

The contractor will respond appropriately to prevent, minimize, and control the spill of hazardous materials in the construction staging area. The use of construction equipment, particularly the storage of fuels and chemicals, within sensitive areas, including water resources such as floodplains and streams, will be minimized or eliminated. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction will be handled according to applicable federal, state, and local regulations per *TxDOT Standard Specifications*. All construction materials used for this project will be removed as soon as work schedules permit.

Utilities

Utilities such as water lines, sewer lines, gas lines, telephone cables, electrical lines, and other subterranean and aerial utilities will require adjustment. Aerial and/or underground utility construction will be adjusted and the required adjustments may or may not be provided for by the affected utility. The extent of utility adjustments is not known at this time and will be determined during final design. Coordination of any utility adjustments will take place during the design phase or before construction begins. All utility adjustments will be in accordance with TxDOT policies. The adjustment and relocation of any utilities will be handled so that no substantial interruptions in service will occur while these adjustments are being made.

Construction Impacts

Throughout the project development, construction impacts have been noted and recorded. Potential construction impacts include items such as construction phasing/schedule/work hours, noise, air quality (dust), and construction related traffic disruption that may result from the US 77 Upgrade Project. As the proposed project will result in construction along US 77, this was expected to be a notable discussion point with the public during all public meetings, public official meetings, and stakeholder meetings. Construction related impacts were considered in the evaluation of the alternatives.

The Build Alternative will entail limited disruption to traffic and will include various construction activities over the build-out period. To alleviate this disruption, the proposed project will be constructed in phases, and a detailed traffic control plan will be developed and implemented for each of the construction phases.

Disruptions will be minimized to the extent possible by the timely notification of affected residents and business owners through posted notices, personal contact, or other notification procedures. These procedures will include rerouting the traffic, barricading, using traffic cones, variable message signs or any other measures deemed necessary and prudent by TxDOT and the construction contractor to comply with all local, state, and federal traffic and safety regulations. Ingress and egress to any affected private, governmental, commercial, or retail establishments will be maintained throughout the construction period. Every effort will be made to preserve as much vegetation as possible within the ROW. During project development, TxDOT will design, use, and promote construction practices that minimize adverse effects on both regulated and unregulated wildlife habitat. Existing vegetation, especially native trees, will be avoided and preserved wherever practicable.

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receivers are expected to be exposed to construction noise for long durations; therefore, any extended disruption of normal activities is not expected. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems.

Construction may temporarily cause an increase in dust and exhaust gases associated with construction equipment. Measures to control dust will be considered and incorporated into the final design and construction specifications.

Reasonable measures will be taken to minimize the inconvenience to vehicles using the roadway during the construction phase. Residential and business properties will be accessible during and after construction, and visibility to businesses will be unchanged.

Monitoring or Enforcement

TxDOT is hereby required to ensure completion of all mitigation outlined above and described specifically in the April 2012 EA. TxDOT is also required to ensure that any and all local, state, or federal permit requirements and conditions are met and otherwise complied with.

All commitments and conditions of approval stated in the EA will be monitored by TxDOT and other appropriate state, federal, and local agencies to ensure compliance.

FHWA DECISION

FHWA has reviewed all of the relevant documentation and materials. Based upon our own independent review and analysis, we find that the April 2012, US 77 Upgrade Project Environmental Assessment analyzed and considered all the relevant potential environmental impacts and issues. FHWA concurs with the findings made in the EA in that:

- The Build Alternative is the recommended alternative for the project.
- The Build Alternative best meets the need and purpose of the project with the least amount of impacts to the resources in the area.
- The proposed project will have no significant impacts on the quality of the human or natural environment under NEPA.

Based upon our own agency review and consideration of the analysis and the evaluation contained in the EA for this project, and after further consideration of all social, economic, and environmental factors, including input from the public involvement process, FHWA hereby issues a **FONSI** for the US 77 Upgrade Project. FHWA further approves the Build Alternative as the recommended alternative for selection as the proposed action for this project. The Build Alternative will best fulfill the need and purpose for the project and meet the goals for the US 77 Upgrade Project.

Those construction sections that are scheduled to be built within the next four years are consistent with the financially constrained 2035 MTP and 2011-2014 TIP of the Corpus Christi MPO and the HSBMPO, and the fiscally constrained TIP/STIP in the 2012 update, as appropriate.

In addition, a *US 77 from IH 37 to US 83 Project Development Plan* has been prepared, in coordination with the FHWA, to document the approach TxDOT is taking to fully fund these remaining construction sections.

DETERMINATION

The FHWA has determined that the Build Alternative will have no significant impacts on the human or natural environment. This Finding of No Significant Impact is based on the EA which has been independently evaluated by FHWA and determined to adequately and accurately discuss the need, potential environmental issues and impacts of the proposed project and all appropriate mitigation measures that will be implemented as a part of this approval. The EA provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required.

For Federal Highway Administration

July 10, 2012
Date

Appendix A

US 77 Upgrade Project
From US 83 in Harlingen, Texas to I 37 in Corpus Christi, Texas
Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties
CSJ: 1111-07-004

Environmental Permits, Issues, and Commitments Sheet Summary

Resource/Topic	Environmental Commitment
Relocation and Right-of-way acquisition	• Complete acquisition of ROW in accordance with the TxDOT's Procedures for Purchase of ROW and the provisions of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. • Maintain property access through at least one access point to the nearest roadway. Access driveways to residential properties along US 77 will be realigned to accommodate the proposed project.
Visual/Aesthetics	• Consider aesthetic treatments in structural components (retaining walls, bridges, signage), architectural details (landscaping, lighting, colors, finishes, etc.) or revegetation, where appropriate. These design elements will require participation and cost-sharing to fund the aesthetic improvements from local jurisdictions, property owners, or community-based organizations.
Vegetation/Wildlife Habitats	• Include notes in the Environmental Permits, Issues and Commitments (EPIC) sheets for the developer/contractor to minimize clearing of and avoiding the placement of PSLs in or adjacent to higher quality habitats such as Live Oak Parks/Woods, mesquite-dominated areas within the Kenedy County sand sheet, and aquatic/semi-aquatic habitats. • Re-evaluate need for aquatic habitats and riparian area mitigation during the Section 404 (Clean Water Act) permitting process. • Limit landscaping seeding and replanting in the ROW to native species of grasses, shrubs, or trees in accordance with Executive Order (EO) 13112 on Invasive Species. Treat disturbed areas with herbicides for control of invasive grasses. • Direct contractor to utilize special provision 164---006 Seeding for Erosion Control that is specific for the Corpus Christi and Pharr TxDOT Districts. • Minimize soil disturbances within the ROW to limit the potential of invasive species from establishing.
Federally-listed Threatened and Endangered Species	• Design the project to maximize the use of the existing ROW and roadway. The proposed improvements in Kenedy, Willacy, and Cameron counties have been designed to remain within the existing transportation ROW. • Design the proposed interchanges and ranch access roads in Kenedy and northern Willacy counties to minimize clearing of wooded areas. • Install three wildlife crossings. The Yturria Crossing will be installed near

Resource/Topic	Environmental Commitment
	the Yturria Ranch ocelot population in Willacy County. The Rudolph Crossing will be installed approximately 4.0 miles north of the Willacy/Kenedy County line. The Norias Crossing will be installed approximately 16.1 miles north of the Willacy/Kenedy County line. The crossings are identified in **Figure 2, 3, and 4** of BO. The typical section for the proposed crossing consists of two roadways for the northbound and southbound lanes on two separate bridges with an open median. The bridges will provide at least 8 feet of clearance and a minimum 20-foot wide earthen floor that will be at a grade to prevent water from collecting. Establish and allowed dense brush to remain in the median, between the structures, and the ROW edges provided that they do not represent a safety hazard to the traveling public. Erect chain-link fence in the median to the edges of the bridge abutments, as well as along the ROW for 200 linear feet from each end of the bridges. **Figure 5** of the BO provides a plan and profile of the proposed crossings. • Install the wildlife crossings in accordance with the US 77 Program Development Plan. Based on the current plan, Sections J, I, and H (where the proposed wildlife crossings will be located) are proposed to be let in the years 2033, 2035, and 2037, respectively. • Allow no construction at the East Main Drain Canal (Willacy County), which provides a potential corridor for dispersing ocelots to travel through otherwise cleared agricultural fields and cross US 77. • Limit lighting in rural areas in Kenedy County and northern Willacy County to the existing lights at the Border Patrol Station and Sarita Rest Area (**Figure 6 and 7** of the BO) and proposed safety lighting at ranch access interchanges. No lighting is proposed at wildlife crossings. • Avoid impacts through design initiatives to two federally listed endangered plants: the slender rush-pea (*Hoffmannseggia tenella*) and South Texas ambrosia (*Ambrosia cheiranthifolia*) populations (**Figure 8 and 9** of the BO). • Prohibit staging areas or other project-specific locations from being located in areas containing endangered plants. • Confirm location and extent of endangered plants during PS&E activities to identify fence locations. • Erect orange construction fencing around endangered plants to avoid inadvertent impacts. • Survey areas of the proposed ROW where right-of-entry are not granted for endangered plants prior to construction. Areas where right-of-entry was not granted are shown on **Figures 10 through 16** of the BO. • Construct a gravel turnaround at Carreta Creek (Nueces County) so the adjacent landowner can move his farm equipment across US 77 without impacting endangered plants. Include a permanent barrier/fencing along the turnaround to prevent the private landowner from inadvertently running over endangered plants (**Figure 17** of the BO). • Include notes in the Environmental Permits, Issues, and Commitments

Resource/Topic	Environmental Commitment
	(EPIC) sheets for the developer/contractor to minimize clearing of wooded areas within the existing and proposed ROW. • Locate construction access and staging areas within the existing and proposed ROW will be located in areas that do not require clearing of wooded habitats in Kenedy County and northern Willacy County. • Schedule construction activities in Kenedy County and northern Willacy County to occur only during daylight hours. • Revegetate proposed wildlife crossing areas. • Treat disturbed areas with herbicides for control of invasive grasses and reseed with native grasses to minimize colonization of invasive grasses. Herbicides will be used according to manufacturer's label and are not expected to be used at levels or frequency that would have any adverse impacts to the cats. • Direct contractor to utilize special provision 164---006 Seeding for Erosion Control that is specific for the Corpus Christi and Pharr TxDOT Districts. • Schedule maintenance activities to occur only during daylight hours in Kenedy County and northern Willacy County unless it is an emergency situation. • Limit mowing to previously cleared areas (based on 2010 aerial photography), and additional clearing of wooded areas (other than trimming of overhang or removal for safety reasons) in Kenedy County and northern Willacy County. • Check wildlife crossings periodically to ensure water is not standing for more than 10 days' time in the crossings. • Maintain chain link fencing at the wildlife crossings. • Schedule/restrict mowing of the ROW will continue in areas containing endangered plants, which would help prevent the species from being out-competed by introduced grasses. • Cease construction or maintenance operation in instances where the amount or extent of incidental take is exceeded by the operation causing such take and proceed with reinitiation. • Discuss further options with the Service, FHWA and TxDOT if during the course of the action, two endangered cats are killed within any 12 month period. • Notify the Service in the event that activities result in the direct take (killing, harming, or maiming) of an ocelot or jaguarondi. The person(s) responsible for monitoring shall notify the Service's CCESFO at 361/994-9005 immediately. A standard methodology for handling dead or injured cats found during the project will be established by the Service. This methodology shall be directed at determining the cause of death and ensuring that all data is recorded. • Ensure that evidence intrinsic to the specimen is not disturbed. • Design and implement an instruction program to instruct any current and

Resource/Topic	Environmental Commitment
	new TxDOT field personnel in the project area on their duties and obligations under the ESA to not take federally listed species, including ocelot and jaguarundi. Consult with the Service in the preparation and implementation of this program. • Include conditions in contractor's contracts that all PSL's for this project will be identified and coordinated with the Service to ensure no unnecessary brush is cleared and to protect species habitat. • Coordinate and implement a protocol outlining procedures to notify TxDOT supervisors and the Service of any sightings or occurrences of federally listed species during construction activities. The protocol should include instructions that if TxDOT locates a dead, injured, or sick ocelot or jaguarundi, initial notification must be made to the Service's Law Enforcement Office in McAllen, Texas (telephone: 956-686-8591) or Ecological Service Office at the Santa Ana National Wildlife Refuge (956-784-7560) or CCESFO (361-994-9005) and that to the extent practicable, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed. • Prepare and submit annual reports to the Field Supervisor, U.S. Fish and Wildlife Service Ecological Services, c/oTAMU-CC, 6300 Ocean Drive, Campus Box 338, Corpus Christi, Texas 78412, by September 30th of each year. Reports should include sightings or road mortalities of cats, the progress on implementation of conservation recommendations and reasonable and prudent measures that have been accomplished during the US77 improvement project and 5 years after construction is complete on all sections. • Work within the FHWA/TxDOTs authorities to further minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to aid in recovery plans, or develop information, as applicable.
State-listed Threatened/Endangered Species	• Minimize clearing of wooded areas and impacts to aquatic/semi-aquatic sites during construction of the proposed project. • Conduct necessary tree and shrub clearing outside the bird nesting season to the maximum extent practical in order to avoid direct mortality to listed birds. • Note in the EPIC sheets for the contractor to avoid impacting state listed species that may occur in the project area and, if encountered, to let them leave the project area on their own accord. • Reseed disturbed areas with native see mixes (Special Provision 164---006 Seeding for Erosion Control). • Minimize impacts, to live oak woodlands during construction.
Archeological Resources	• Recommend further survey-level backhoe trenching and deep testing within the proposed Driscoll relief route on the north and south banks of Petronila Creek. • Complete the archeological inventory on unsurveyed properties after obtaining access to the proposed ROW. • Conclude any additional work that may be required under the terms of the

Resource/Topic	Environmental Commitment
	PA and MOU. • Contact TxDOT archeological staff to initiate post-review discovery procedures under the provisions of the PA-TU and MOU and cease work in the immediate area in the event that unanticipated archeological deposits are encountered during construction.
Wetlands and Waters of the U.S.	• Prepare separate USACE Nationwide Permits (NWP) #14 for the eight crossings as none of the impacts are anticipated to exceed 0.5 acres. • Submit a Pre-Construction Notification (PCN) to the USACE for each crossing because the loss of waters of the US exceeds 0.1 acre or there is a discharge into a special aquatic site, including wetlands. • Prepare a Section 404 Individual Permit if changes to the design cause the crossing to exceed the thresholds of NWP 14. • Note in the EPIC sheets for the developer/contractor to minimize permanent and temporary impacts to wetlands and other waters of the U.S. • Coordinate with USACE to receive concurrence on identified non-jurisdictional waters features. If the USACE determines that any of the water features are jurisdictional waters of the US, TxDOT will prepare the additional Section 404 permits, as required.
Water Quality	• Prepare a Storm Water Pollution Prevention Plan (SW3P) for the project that includes approved best management practices (BMPs) from the TCEQ's *401 Water Quality Certification Conditions for Nationwide Permits* to control constituents of concern.
	• Comply with the TCEQ's TPDES Construction General Permit (CGP). Post a construction site notice on the construction site. • Prepare a Notice of Intent (NOI). • Coordinate with the TCEQ
Navigable Waters	• Coordinate with the USACE to verify that Los Olmos Creek is Section 10 navigable water and obtain the appropriate permit. Coordinate with the USCG to confirm that Los Olmos Creek is not regulated by the USCG under Section 9 of the Rivers and Harbors Act or the General Bridge Act of 1946.
Waters Regulated by the International Boundary and Water Commission	• Coordinate with the International Boundary and Water Commission regarding the work near the North Floodway levee.
Essential Fish Habitat	• Coordinate with NMFS the EFH assessment for the proposed bridge widening at Los Olmos Creek which will require the placement of additional columns in the channel.
Noise	• Locate noise barrier in Kleberg County that could consists of one noise barrier with five sections and an estimated cost of $250,794. • Locate three noise barriers in Willacy County, at an estimated cost of $54,108.
Hazardous Materials	• Assess the nine sites considered to have high potential impact on the Build Alternative. Further assessed the sites considered high and medium risk to the proposed project prior to or during ROW acquisition to determine

Resource/Topic	Environmental Commitment
	the likelihood of encountering contaminated soils and groundwater during construction activities. • Remediate sites, if warranted, prior to construction to address contaminated soil/groundwater impacting the construction zone. • Prepare waste management plans to address contamination during construction activities, if remediation is not complete prior to construction. • Properly plug and abandon identified water wells within the proposed ROW to prevent potential contamination of groundwater resources. • Consider conducting a more detailed search for wells before any planned construction. • Test paint on structures to be renovated or demolished for heavy metals and if the analytical testing determines that hazardous concentrations of heavy metals are present, abate the paint prior to construction activities. • When hazardous concentrations of lead are found on exterior paint, the surrounding soil will be evaluated for the occurrence of lead-impacted soil exhibiting a toxicity characteristic for leachate, indicating the soil must be managed in accordance with RCRA Subtitle C requirements. • Survey structures to be renovated or demolished for ACM and abated, if asbestos is present, by properly trained and licensed individuals prior to renovation or demolition. • During any construction project, there exists the potential to encounter contaminated soil or water. Included in the contract will be the TxDOT standard specifications for construction that require the contractor to be familiar with and comply with all federal, state, and local laws, ordinances, and regulations related to the treatment and disposal of hazardous materials. Should hazardous materials/substances be encountered, the TxDOT Corpus Christi or Pharr District Office (dependent on location within the project area) will be notified and steps will be taken to protect personnel and the environment.
Utilities	• Coordinate any utility adjustments during the design phase before construction begins. • Conduct all utility adjustments in accordance with TxDOT policies. • Handle the adjustment and relocation of any utilities so that no substantial interruptions in service will occur while these adjustments are being made.
Construction	• Construct project in phases to alleviate disruption of traffic and prepare a detailed traffic control plan to be implemented for each construction phase. • Notify affected residents and business owners through posted notices, personal contact, or other notification procedures of upcoming traffic disruptions. • Maintain ingress and egress to any affected private, governmental, commercial, or retail establishments throughout the construction period. • Preserve as much vegetation as possible within the ROW.

Resource/Topic	Environmental Commitment
	• Design, use, and promote construction practices that minimize adverse effects on both regulated and unregulated wildlife habitat. • Avoid and preserve, wherever practicable, existing vegetation, especially native trees. • Make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems. • Take measures to control dust. • Take reasonable measures to minimize the inconvenience to vehicles using the roadway during the construction phase.
Monitoring/Enforcement	• Monitor all commitments and conditions of approval stated in the EA to ensure compliance.