ENVIRONMENTAL ASSESSMENT
VOLUME 4

NUECES, KLEBERG, KENEDY, WILLACY, AND CAMERON COUNTIES

CSJ: 1111-07-004

Prepared by:

US Department of Transportation
Federal Highway Administration
Texas Division
And
Texas Department of Transportation
Corpus Christi and Pharr Districts

June 2012

VOL. 4 LIST OF APPENDICES

Appendix B

Agency Coordination

U.S. Department
of Transportation
Federal Highway Administration

Texas Division
300 E. 8th Street, Rm 826
Austin, Texas 78701

July 26, 2007

In Reply Refer To:
HB-TX

Mr. James P. Barta, Jr., P.E.
Director, Project Management Section
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701

Re: Request for Environmental Classification
Nueces, Kleberg, Kenedy, Willacy and Cameron County, Texas
US 77 from I-37 in Corpus Christi to US 83 in Harlingen

Dear Mr. Barta:

The Federal Highway Administration (FHWA) has reviewed the Texas Department of Transportation Environmental Affairs Division (TxDOT ENV) request for environmental classification, dated May 8, 2007, for the proposed US 77 project. The proposed project is located in the TxDOT Corpus Christi (CRP) and Pharr (PHR) Districts in Nueces, Kleberg, Kenedy, Willacy and Cameron Counties.

The project area is approximately 129 miles long, and the area of construction is approximately 99 miles long. The anticipated construction area would be along US 77 from south of State Highway 44 near Robstown to SH 186 near Raymondville, through Nueces, Kleberg, Kenedy, and Willacy Counties. The proposed project involves the completion of upgrading US 77 to Interstate standards, including potentially two highway relocations near the towns of Driscoll and Riviera.

While two of the actions that would normally require an EIS, including new controlled access freeways and highway projects of four or more lanes on a new location, these actions alone do not clearly establish significant impacts (23 CFR 771.115 Classes of Action). Most of the project would be on the existing location. The remaining portion of the project would be connecting to existing roadways, intersections, and access improvements such as frontage roads.

Further, the major reason that the facility would require access control is to accommodate the private ownership of the land on either side of the roadway. Through the National Environmental Policy Act (NEPA) process, potential impacts that will be evaluated include:

- This project would result in the acquisition of an additional 270 acres of right of way. The additional ROW would be for only about 22.4 miles of the proposed 129 mile-long project, to provide the control of access by frontage roads and interchanges. Possible highway relocations could total about 7.4 miles and would require approximately 301 acres of new ROW, primarily from agricultural land. Also, approximately 14 residential homes and four businesses could be displaced.

- Minimal impacts are expected on wildlife and vegetation. A survey for the entire 99 miles for endangered plant species will be conducted. Wildlife would be impacted by the removal of the vegetation/habitat causing potential fragmentation. As a result, critter crossings will be looked at along the corridor. There would still be vegetation in the project area to provide shelter/habitat.

FHWA's confirmation of the decision to classify the US 77 environmental document as an EA is based on the following information provided in the ENV Request for Environmental Classification and discussions between ENV and FHWA, of the proposed project. Further, early coordination between the Corpus Christi and Pharr District has taken place, with none of these entities raising significant environmental concerns. Coordination will be done with the United States Fish and Wildlife Service (USFWS), Texas Parks and Wildlife, the Texas Historical Commission and Texas General Land Office. Overall, there is no significant controversy or opponents to the US 77 project.

Therefore, since the significance of the environmental impact is not clearly established and significant environmental impact is not expected, the preparation of an EIS is not required at this time. This decision, however, is based on what is known to date, and should significant environmental impacts be identified during the environmental process, FHWA will require that an Environmental Impact Statement (EIS) be prepared in accordance with 23 CFR 771.119.

Should you have any questions regarding this determination, please contact Albert Hinojosa at 536-5967. We look forward to working with TxDOT on this proposed project.

Sincerely,

Donald E. Davis
District Engineer

cc: Ms. Diana Noble, P.E., Director, TxDOT Environmental Affairs Division
Mr. Mario Jorge, P.E., District Engineer, TxDOT Pharr District
Mr. Craig Clark, P.E., District Engineer, TxDOT Corpus Christi District

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

August 8, 2007

Doug Booher
Texas Turnpike Authority
125 East 11th St.
Austin, TX 78701-2483

RE: US 77: From IH 37 to US 83
Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties, Texas

Dear Mr. Booher:

Please see the attached letter from the Federal Highway Administration (FHWA) in response to a request for environmental classification for the proposed US 77 project. FHWA has determined that an Environmental Impact Statement (EIS) is not required for the project at this time.

Please do not hesitate to contact David Najvar, ENV Project Manager, at (512) 416-2522 if you have any questions.

Respectfully,

Jenise K. Walton

Jenise K. Walton
Lead Project Manager
Environmental Affairs Division

bcc: Field Section B, JKW

Reference: ENV 850

CORPUS CHRISTI MPO
METROPOLITAN PLANNING ORGANIZATION

February 25, 2008

US 77 – Highway Upgrade
P.O. Box 3706
Corpus Christi, TX 78463-3706

To whom it may concern:

Please be advised that the Transportation Policy Committee of the Corpus Christi Metropolitan Planning Organization passed the attached resolution at their meeting of April 6, 2006 in support of the upgrade of US 77 to interstate standards. We would appreciate this being included in the record of the public meetings being conducted concerning the US 77 – Highway Upgrade.

Sincerely,

Tom Niskala,
Transportation Planning Director

CORPUS CHRISTI METROPOLITAN PLANNING ORGANIZATION

EXTENSION OF I-37 TO THE RIO GRANDE VALLEY OF TEXAS
RESOLUTION

WHEREAS, the Rio Grande Valley of Texas is the only area of the nation with a population of its magnitude with no interstate highway; and

WHEREAS, the residents of the Rio Grande Valley will benefit from the extension of Interstate 37 or TTC- 69 with an enhanced quality of life and increased economic development; and

WHEREAS, the volume of truck traffic, as recorded by TxDOT, on US 77 continues to grow as international trade and commerce continues to grow; and

WHEREAS, the counties of Nueces, Kleberg, Kenedy, Willacy, and Cameron, as well as the cities of Corpus Christi, Robstown, Driscoll, Kingsville, Riviera, Raymondville, Harlingen, San Benito and Brownsville, Port Isabel and South Padre Island and the ports of Corpus Christi, Harlingen and Brownsville, support the elimination of these congestion points; and

WHEREAS, the aforementioned also strongly support the extension of I-37 or I-69 to include the completion of U.S. 83 to interstate standards in the Rio Grande Valley westward to Rio Grande City and then northward on U.S. 281; and

WHEREAS, this route will provide interstate access to all of the international bridges in the Rio Grande Valley, as well as link the deep water ports of Corpus Christi and Brownsville, and will also promote the continued development of highway infrastructure through Mexico and encourage international economic development; and

WHEREAS, according to preliminary Texas Department of Transportation figures, the extension of I-37 or TTC-69 from Corpus Christi to the Rio Grande Valley is the most cost effective alternative at this time.

NOW, THEREFORE, BE IT RESOLVED that the Transportation Policy Committee of the Corpus Christi Metropolitan Planning Organization supports the elimination of the congestion points at Riviera and Driscoll and the extension of I-37 or TTC-69 on U. S. 77 from Corpus Christi to the Rio Grande Valley to include completion of U.S. 83 to interstate standards in the Rio Grande Valley and a connector from US 281 back to U.S. 77.

Witnessed, adopted, and signed into effect on this 6th day of April 2006 by:

Ruben Bonilla, Chairman
Corpus Christi MPO Transportation Policy Committee

The Chamber
Brownsville, Texas

March 4, 2008

VIA US POSTAL SERVICE
US 77 Highway Upgrade
P.O. Box 3706
Corpus Christi, TX 78463-3706

To Whom It May Concern:

The Brownsville Chamber of Commerce, a 501(c) 6 business organization with more 1,000 members from the Rio Grande Valley and northern Mexico strongly supports the proposed upgrade to US 77 to a controlled access facility that meets interstate standards.

Factors such as population growth and infrastructure demand, as well as domestic and foreign policy initiatives relating to international ports of entry and deep water ports have affected traffic patterns and have caused the need for safe and efficient mobility systems.

The Brownsville Chamber of Commerce reiterates the need for an interstate as the Rio Grande Valley is the only area of the nation with a population of its magnitude with no interstate highway.

If there should be any questions please don't hesitate to contact me at 956-542-4341. Thank you in advance for your attention to this matter.

Sincerely,

Angela R. Burton, IOM
President/CEO

March 12, 2008

U.S. 77 Highway Upgrade
P.O. Box 3706
Corpus Christi, TX 78463-3706

Dear TxDOT staff:

Attached, please find an Airport Advisory Board Resolution forwarded in reference to the on-going U.S. 77 Highway Upgrade.

This Resolution is hereby submitted on behalf of the Airport Advisory Board of the Brownsville/South Padre Island International Airport.

If you have questions on these matters, please call me at 956-548-6150 or Larry Brown at 956-542-4373. Thank you for your consideration.

Sincerely,

Mark Lund
MPO Director

xc Larry A. Brown, Director, Aviation Dept.

Brownsville
South Padre Island
International Airport
Well connected

A RESOLUTION
BROWNSVILLE/SOUTH PADRE ISLAND INTERNATIONAL AIRPORT
ADVISORY BOARD

WHEREAS, the Airport Advisory Board of the Brownsville/South Padre Island International Airport has reviewed the TxDOT proposal to upgrade U.S. 77 to a controlled access facility that meets interstate standards; and

WHEREAS, the Airport Advisory Board of the Brownsville/South Padre International Airport finds that this proposed mobility project, upon completion, will promote the general welfare, safety and economic development of the Brownsville/South Padre Island International Airport catchment area and its citizens; and

WHEREAS, given the recent completion of U.S. 77 roadway improvements (to interstate standards) from the U.S. 77:U.S. 83 interchange in Harlingen southward to the Veteran's International Bridge at the Brownsville Port of Entry/Mexico border, as well as the completion of segments in Robstown and pending completion of another segment from S.H. 44 to County Road 36, south of Robstown, the Policy Committee members encourage the Texas Transportation Commission and TxDOT staff to include the aforementioned segments as part of a larger whole, such that U.S. 77 roadway conditions meet interstate standards from the Interstate Highway (IH) 37 in Corpus Christi to Brownsville at the U.S.:Mexico border; and

WHEREAS, the establishment of U.S. 77 as an Interstate Highway will benefit the State of Texas due to subsequent provision of federal (interstate maintenance) funding.

NOW, THEREFORE, BE IT RESOLVED that expansion of the U.S. 77 Upgrade Project (to encompass improvements from Corpus Christi to the Brownsville Port of Entry) is officially endorsed by the Airport Advisory Board of the Brownsville/South Padre Island International Airport.

Signed:

Charles Hamilton, Chair
Airport Advisory Board

Date:

February 26, 2008

March 12, 2008

U.S. 77 Highway Upgrade
P.O. Box 3706
Corpus Christi, TX 78463-3706

Dear TxDOT staff:

Attached, please find an MPO Resolution forwarded in reference to the on-going U.S. 77 Highway Upgrade.

This Resolution is hereby submitted on behalf of the Policy Committee of the Brownsville Metropolitan Organization (MPO).

If you have questions on these matters, please call me at 956-548-6150. Thank you for your consideration.

Sincerely,

Mark Lund
MPO Director

2008-3B

RESOLUTION

BROWNSVILLE MPO POLICY COMMITTEE

WHEREAS, the Policy Committee of the Brownsville Metropolitan Planning Organization (MPO) has reviewed the TxDOT proposal to upgrade U.S. 77 to a controlled access facility that meets interstate standards; and

WHEREAS, the Policy Committee of the Brownsville MPO finds that this proposed mobility project, upon completion, will promote the general welfare, safety and economic development of the Brownsville MPO area and its citizens; and

WHEREAS, given the recent completion of U.S. 77 roadway improvements (to interstate standards) from the U.S. 77:U.S. 83 interchange in Harlingen southward to the Veteran's International Bridge at the Brownsville Port of Entry/Mexico border, the Policy Committee members encourage the Texas Department of Transportation to extend the limits of the U.S. 77 project to include the aforementioned segment. The segment can be identified in the Environmental Document as existing highway meeting interstate standards, with no additional work to be done. This will indicate that U.S. 77, when completed, will meet interstate standards from the Interstate Highway (IH) 37 in Corpus Christi to Brownsville at the U.S.:Mexico border; and

WHEREAS, the establishment of U.S. 77 as an Interstate Highway will benefit the State of Texas due to subsequent provision of federal (interstate maintenance) funding.

NOW, THEREFORE, BE IT RESOLVED that the Brownsville MPO requests that the limits of the U.S. 77 Upgrade Project be amended to include improvements from IH 37 to the Veteran's International Bridge at the Brownsville Port of Entry.

FURTHERMORE, that the expansion of U.S. 77 to interstate standards from IH 37 to Veteran's International Bridge in Brownsville is officially endorsed by the Policy Committee of the Brownsville Metropolitan Planning Organization.

Signed:

Pat M. Ahumada, Jr.
Chairperson
Brownsville MPO Policy Committee

Mario Jorge, P.E.
TxDOT District Engineer
TxDOT Pharr District

Dated: 3-12-2008

OCT 27 2009

United States Department of Agriculture
NRCS
Natural Resources Conservation Service

101 S. Main Street
Temple, TX 76501-6624
Phone: 254-742-9861
FAX: 254-742-9859

October 23, 2009

Blanton & Associates
5 Lakeway Centre Court
Austin, Texas 78734
Attention: Kim Jenkins-Johnson

Subject: Land Use (LNU)-Farmland Protection
Proposed US 77 from IH 37 to US 83 upgrade CSJ 1111-07-004
Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties, Texas

We have reviewed the information provided concerning the proposed US 77 from IH 37 to US 83 upgrade in Nueces, Kleberg, Willacy, and Cameron Counties, Texas, as outlined in your letter dated September 21, 2009. This review is part of the National Environmental Policy Act (NEPA) evaluation for the Texas Department of Transportation and Federal Highway Administration (FHWA). We have evaluated the proposed site as required by the Farmland Protection Policy Act (FPPA).

We did not rate the soils within the existing right-of-way because that land has already been converted from agricultural land. There are Important Farmland Soils in the proposed right-of-way, which is located in Nueces and Kleberg Counties. We have completed the Farmland Conversion Impact Rating form (AD-1006) that you provided. The combined rating of the site is 146. The FPPA states that sites with a rating less than 160 will need no further consideration.

We are enclosing the completed form. Thank you for the resource materials you submitted to evaluate this project.

If you have any questions please call me at (254)-742-9861, Fax (254)-742-9859.

Sincerely,

Laurie Kiniry

Laurie N. Kiniry, Soil Scientist

Enclosure

U.S. DEPARTMENT OF AGRICULTURE **Form AD-1006**

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	1 Date of Land Evaluation Request September 9 2009	2 Sheet 1 of 1
3 Name of Project US 77 from IH 37 to US 83	4 Federal Agency Involved Federal Highway Administration	
5 Proposed Land Use Right-of-way	6 County and State Nueces Kleberg Kenedy Willacy and Cameron Counties, Texas	7 Type of Project Corridor X Other ☐
PART II *(To be completed by NRCS)*	1 Date Request Received by NRCS 9/21/2009	2 Person Completing the NRCS parts of this form L. Kimley
3 Does the site or corridor contain prime, unique, statewide or local important farmland? Yes ☑ No ☐ (If no, the FPPA does not apply - Do not complete additional parts of this form)		4 Acres Irrigated / 5 Average Farm Size
6 Major Crop(s) Cotton	7 Farmable Land in Government Jurisdiction Acres: Kleberg 463,362 72% Nueces 448,865 64%	8 Amount of Farmland As Defined in FPPA Acres: Kleberg 286,225 44% Nueces 380,108 54%
9 Name of Land Evaluation System Used LESA	10 Name of Local Site Assessment System None	11 Date Land Evaluation Returned by NRCS 10/23/09

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A Total Acres To Be Converted Directly	4,780.8			
B Total Acres To Be Converted Indirectly, Or To Receive Services				
C Total Acres in Site	4,780.8			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A Total Acres Prime and Unique Farmland	440.7			
B Total Acres Statewide and Local Important Farmland				
C Percentage of Farmland in County or Local Govt. Unit to be Converted	92 Kleberg 15 Nueces			
D Percentage of Farmland in Govt. Jurisdiction with Same or Higher Relative Value	33 Kleberg 77 Nueces			
PART V *(To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland to be Serviced or Converted (Scale of 0 - 100 Points)*	86			
PART VI *(To be completed by Federal Agency) Corridor or Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b & c))*	Max. Points Corridor / Other			
1 Area in Nonurban Use	15 / 15	15			
2 Perimeter in Nonurban Use	10 / 10	10			
3 Percent of Site Being Farmed	20 / 20	0			
4 Protection Provided by State and Local Government	20 / 20	0			
5 Distance from Urban Built-up area	0 / 15	0			
6 Distance to Urban Support Services	0 / 15	0			
7 Size of Present Farm Unit Compared to Average	10 / 10	10			
8 Creation of Non-Farmable Farmland	25 / 10	0			
9 Availability of Farm Support Services	5 / 5	5			
10 On-Farm Investments	20 / 20	15			
11 Effects of Conversion on Farm Support Services	25 / 10	0			
12 Compatibility with Existing Agricultural Use	10 / 10	5			
TOTAL CORRIDOR OR SITE ASSESSMENT POINTS	160	60			
PART VII *(To be completed by Federal Agency)*					
Relative Value of Farmland (from Part V above)	100	86			
Total Corridor or Site Assessment (From Part VI above or a local site assessment)	160	60			
TOTAL POINTS *(Total of above 2 lines)*	260	146			

PART VIII *(To be completed by Federal Agency after final alternative is chosen)*		
1 Corridor or Site Selected	2 Date of Selection	3 Was A Local Site Assessment Used? Yes ☐ No ☐
4 Reason For Selection		

Signature of person completing the Federal Agency parts of this form	DATE

Wisconsin substitute form AD-1006 6-9-97 Completion instructions: http://www.wi.nrcs.usda.gov/soil/prime/primotes.html

Blanton & Associates, Inc.
ENVIRONMENTAL CONSULTING • PLANNING • PROJECT MANAGEMENT

September 21, 2009

Laurie Kiniry
Soils
USDA Natural Resource Conservation Service
WR Poage Federal Building
101 South Main Street
Temple, Texas 76501-7682

RE: US 77 from IH 37 to US 83
Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties
CSJ 1111-07-004

Dear Ms. Kiniry:

The Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT) propose to upgrade United States Highway 77 (US 77) from an open access highway to a limited access freeway facility that meets interstate standards. The proposed project is approximately 127 miles in length and is defined by its northern logical terminus at the interchange of US 77 and Interstate Highway 37 (IH 37) in Corpus Christi, Texas and its southern project terminus at the interchange of US 77 and US 83 in Harlingen, Texas, as illustrated in **Figure 1**. The following sections of US 77 have recently been upgraded to freeway standards and are therefore excluded from the proposed construction area:

- From IH 37 to State Highway 44 (SH 44) near Robstown
- From US 83 in Harlingen to State Highway 107 (SH 107) just north of Sebastian

Therefore, the proposed construction area is approximately 112 miles in length. The proposed project is located in Nueces, Kleberg, Kenedy, Willacy and Cameron Counties. Proposed construction would occur within the existing right-of-way (ROW) through Kenedy, Willacy, and Cameron Counties and within existing and proposed ROW in Nueces and Kleberg Counties. Proposed new ROW would be located primarily adjacent to the existing US 77 ROW, with the exception of two proposed reliever routes around the towns of Driscoll and Riviera. New ROW would total approximately 676.3 acres, of which 440.7 acres are located on prime farmland soils, and existing ROW within the project limits would total approximately 4,104.5 acres, of which 1,703.2 acres are located on prime farmland soils. As indicated in **Table 1**, the project area is

5 LAKEWAY CENTRE COURT • AUSTIN, TEXAS 78734
PHONE 512.264.1095 • FAX 512.264.1531

Table 1: Prime Farmland Soils within the Project Area

Map Unit Name (Map Unit Symbol)	Prime Farmland
Cameron County	
Hidalgo fine sandy loam, 0 to 1 percent slopes (HGA)	Yes[1]
Hidalgo sandy clay loam (HO)	Yes
Racombes sandy clay loam (RA)	Yes
Raymondville clay loam (RE)	Yes[1]
Rio clay loam (RO)	Yes[2]
Tiocano clay (TC)	Yes[1]
Willacy fine sandy loam, 0 to 1 percent slopes (WAA)	Yes
Willacy fine sandy loam, 1 to 3 percent slopes (WAB)	Yes
Willacy County	
Hidalgo sandy clay loam, 0 to 1 percent slopes (HoA)	Yes[1]
Lozano fine sandy loam (Ln)	Yes[1]
Nueces fine sand (Nu)	No
Porfirio sandy clay loam (Po)	No
Racombes sandy clay loam (Ra)	Yes
Raymondville clay loam (Rd)	Yes
Rio fine sandy loam (Rf)	Yes[2]
Rio sandy clay loam (Rg)	Yes[2]
Rio sandy clay loam, saline (Rs)	No
Tiocano clay (Tc)	Yes[1]
Willacy fine sandy loam, 0 to 1 percent slopes (WaA)	Yes
Willacy fine sandy loam, 1 to 3 percent slopes (WaB)	Yes
Kenedy County	
Bordas loamy fine sand, 0 to 1 percent slopes (BrA)	No
Cayo fine sandy loam, 0 to 1 percent slopes (ChA)	No
Estella fine sand, 0 to 1 percent slopes (EsA)	No
Falfurrias fine sand, 1 to 5 percent slopes (FaC)	No
Falfurrias fine sand, 5 to 15 percent slopes (FaE)	No
Falfurrias-Cayo complex, 0 to 8 percent slopes (FoD)	No
Falfurrias-Topo complex, 0 to 8 percent slopes (FtD)	No
Nueces fine sand, 0 to 5 percent slopes (NfC)	No
Nueces-Sarita complex, 0 to 5 percent slopes (NsC)	No
Padrones fine sand, 0 to 3 percent slopes (PaA)	No
Palobia loamy fine sand, 1 to 3 percent slopes (PbB)	No
Potrero-Lopeno-Noria complex, 0 to 5 percent slopes (PrC)	No
Quiteria fine sand, 0 to 1 percent slopes (QuA)	No
Ramita loamy fine sand, 0 to 2 percent slopes (RaB)	No
Ramita-Bordas complex, 0 to 2 percent slopes (RbB)	No
Sarita fine sand, 0 to 5 percent slopes (SnC)	No
Sarita-Cayo complex, 0 to 5 percent slopes (SrC)	No
Sarita-Topo complex, 0 to 5 percent slopes (SsC)	No
Saucel sandy loam, 0 to 1 percent slopes (SuA)	No
Sauz loamy fine sand, 0 to 1 percent slopes (SyA)	No
Sauz-Saucel complex, 0 to 1 percent slopes, occasionally flooded (SzA)	No
Topo fine sandy loam, 0 to 1 percent slopes (ToA)	No
Yturria fine sandy loam, 1 to 5 percent slopes (YtC)	Yes[1]
Kleberg County	
Banquete clay, 0 to 1 percent slopes (BbA)	Yes[1]
Clareville clay loam, 0 to 1 percent slopes (CkA)	Yes
Colmena fine sandy loam, 0 to 1 percent slopes (CmA)	Yes

Table 1: Prime Farmland Soils within the Project Area

Map Unit Name (Map Unit Symbol)	Prime Farmland
Colmena fine sandy loam, 1 to 3 percent slopes (CmB)	Yes
Cranell sandy clay loam, 0 to 1 percent slopes (CnA)	Yes
Czar fine sandy loam, 0 to 1 percent slopes (CrA)	Yes[1]
Czar sandy clay loam, 0 to 1 percent slopes (CzA)	Yes
Gertrudis fine sandy loam, 0 to 3 percent slopes (GeB)	Yes[1]
Orelia fine sandy loam, 0 to 1 percent slopes (OfA)	Yes
Padrones fine sand, 0 to 3 percent slopes (PaA)	No
Palobia loamy fine sand, 1 to 3 percent slopes (PbB)	No
Palobia fine sandy loam, 0 to 3 percent slopes (PeB)	No
Palobia-Colmena complex, 0 to 1 percent slopes (PfA)	No
Palobia-Colmena 1 to 3 percent slopes (PfB)	No
Papagua fine sandy loam, 0 to 1 percent slopes (PgA)	No
Premont fine sandy loam, 0 to 3 percent slopes (PtB)	Yes[1]
Ramita-Bordas complex, 0 to 2 percent slopes (RbB)	No
Victoria clay, 0 to 1 percent slopes (VcA)	Yes
Victoria clay, 1 to 3 percent slopes (VcB)	Yes
Yturria fine sandy loam, 1 to 5 percent slopes (YtC)	Yes[1]
Nueces County	
Banquete clay (Ba)	No
Raymondville complex, 0 to 1 percent slopes (CcA)	Yes
Clayey alluvial land (CD)	No
Miguel fine sandy loam, 0 to 1 percent slopes (MgA)	Yes[1]
Miguel fine sandy loam, 1 to 3 percent slopes (MgB)	Yes[1]
Orelia fine sandy loam (OF)	No
Victoria clay, 0 to 1 percent slopes (VcA)	Yes
Victoria clay, 1 to 3 percent slopes (VcB)	Yes

[1]Prime farmland if irrigated

[2]Prime farmland if drained

Sources: Soil Survey of Nueces County, Texas; US Department of Agriculture, 1965

Soil Survey of Willacy County, Texas; US Department of Agriculture, 1979

Soil Survey Staff, Natural Resources Conservation Service, US Department of Agriculture. Web Soil Survey (Kleberg, Kenedy, and Cameron Counties). Available online at http://websoilsurvey.nrcs.usda.gov/ accessed 8/4/2009.

underlain by 36 soils that are considered to be prime farmland soils by the National Resource Conservation Service. Of these, 14 are prime farmland soils if irrigated and three are prime farmland soils if drained. Out of a total of 4,780.8 acres of existing and proposed ROW, approximately 2,143.9 acres (44.8 percent) of the ROW occurs over prime farmland soils. The proposed ROW has been scored using Form AD-1006: Farmland Conversion Impact Rating (Corridor Projects). The proposed project scored 60 points under Part VI. *Corridor* or *Site Assessment Criteria*.

Attached is the completed AD-1006 form, a location map, and a set of U.S. Geological Survey maps showing a delineation of prime farmland soils located within the current and proposed ROW for the project. The purpose of this letter is to request your review of the submitted form

for compliance with the Farmland Protection Policy Act. Please contact me if you have any questions.

Sincerely,

Kim Jenkins-Johnson
Blanton & Associates, Inc.

Attachments

cc: John Mack, Jacobs
Doug Booher, TxDOT TTA

U.S. DEPARTMENT OF AGRICULTURE **Form AD-1006**

FARMLAND CONVERSION IMPACT RATING

PART I ***(To be completed by Federal Agency)***	1. Date of Land Evaluation Request September 9, 2009	2. Sheet _1_ of _1__
3. Name of Project US 77 from IH 37 to US 83	4. Federal Agency Involved Federal Highway Administration	
5. Proposed Land Use Right-of-way	6. County and State Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties, Texas	7. Type of Project: Corridor X Other ☐
PART II ***(To be completed by NRCS)***	1. Date Request Received by NRCS	2. Person Completing the NRCS parts of this form
3. Does the site or corridor contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ (If no, the FPPA does not apply - Do not complete additional parts of this form)		4. Acres Irrigated / 5. Average Farm Size
6. Major Crop(s)	7. Farmable Land in Government Jurisdiction Acres: %	8. Amount of Farmland As Defined in FPPA Acres: %
9. Name of Land Evaluation System Used	10. Name of Local Site Assessment System	11. Date Land Evaluation Returned by NRCS

PART III ***(To be completed by Federal Agency)***	**Alternative Site Rating**			
	Site A	**Site B**	**Site C**	**Site D**
A. Total Acres To Be Converted Directly	4,780.8			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres in Site	4,780.8			
PART IV ***(To be completed by NRCS) Land Evaluation Information***				
A. Total Acres Prime and Unique Farmland				
B. Total Acres Statewide and Local Important Farmland				
C. Percentage of Farmland in County or Local Govt. Unit to be Converted				
D. Percentage of Farmland in Govt. Jurisdiction with Same or Higher Relative Value				
PART V ***(To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland to be Serviced or Converted (Scale of 0 - 100 Points)***				

PART VI ***(To be completed by Federal Agency) Corridor or Site Assessment Criteria (These criteria are explained in*** **7 CFR 658.5(b & c))**	**Max. Points Corridor**	**Other**				
1. Area in Nonurban Use	15	15	15			
2. Perimeter in Nonurban Use	10	10	10			
3. Percent of Site Being Farmed	20	20	0			
4. Protection Provided by State and Local Government	20	20	0			
5. Distance from Urban Built-up area	0	15	0			
6. Distance to Urban Support Services	0	15	0			
7. Size of Present Farm Unit Compared to Average	10	10	10			
8. Creation of Non-Farmable Farmland	25	10	0			
9. Availability of Farm Support Services	5	5	5			
10. On-Farm Investments	20	20	15			
11. Effects of Conversion on Farm Support Services	25	10	0			
12. Compatibility with Existing Agricultural Use	10	10	5			
TOTAL CORRIDOR OR SITE ASSESSMENT POINTS	160		60			
PART VII ***(To be completed by Federal Agency)***						
Relative Value of Farmland (from Part V above)	100					
Total Corridor or Site Assessment (From Part VI above or a local site assessment)	160					
TOTAL POINTS ***(Total of above 2 lines)***	260					

PART VIII ***(To be completed by Federal Agency after final alternative is chosen)***

1. Corridor or Site Selected:	2. Date of Selection:	3. Was A Local Site Assessment Used? Yes ☐ No ☐

4. Reason For Selection:

Signature of person completing the Federal Agency parts of this form:	DATE

Wisconsin substitute form AD-1006 6-9-97 Completion instructions: http://www.wi.nrcs.usda.gov/soil/prime/prinotes.html

MEMORANDUM

Texas Department of Transportation

TO: 850 File, US 77 Roadway Improvements in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties: Corpus Christi and Pharr Districts: CSJ: 1111-07-004

re: Denial of Right of Entry

FROM: Jon Budd – TxDOT Staff Archeologist **DATE:** August 9, 2010

SUBJECT: Internal review under the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), as well as the Memorandum of Understanding (MOU) between the Texas Historical Commission and TxDOT.

This undertaking proposes to improve approximately 112 miles of US 77 in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties. Improvement details include upgrading US 77 from an open access, four lane, divided roadway to a restricted access roadway. Frontage roads are proposed at select locations and reliever routes are proposed to be constructed on new locations near the communities of Driscoll in Nueces County and Riviera in Kleberg County. New cross drainage structures are proposed at drainages in the proposed new right of way (ROW). Existing cross drainage structures located within the project termini would be lengthened and safety end treated to match the wider roadways. Approximately 680 acres of new ROW would be required.

The undertaking's area of potential effects (APE) is defined as the 200 to 340 foot wide existing US 77 ROW beginning at SH 107 in Cameron County and extending 112 miles north to State Route 44 in Nueces County. The APE also includes approximately 680 acres of new ROW constituting the Reliever Routes near Driscoll and Riviera as well as multiple instances of 30 to 200 foot wide strips of proposed new ROW located adjacent to the existing ROW (see attached report for more details). Based upon typical highway design, the depth of impacts is estimated to be up to 40 feet below the current ground surface for bridge columns and up to 10 feet below the current ground surface for the remainder of the project.

According to the Texas Archeological Sites Atlas, there are multiple instances of archeological sites previously recorded within 1 kilometer (0.625 miles) of the 112 mile long APE. These sites are listed in the attached archeological report. According to the Geologic Atlas of Texas, the geology underlying the APE is comprised in part of Holocene aged formations possessing potential for the presence of buried intact archeological deposits. Due to the presence of multiple archeological sites as well as potential cultural bearing strata, TxDOT has recommended that an archeological investigation be conducted to confirm the status of any archeological deposits that may be present within the APE.

On behalf of TxDOT, staff archeologists from Blanton and Associates, Inc (BAI) have conducted an archeological investigation of a large portion of the APE. Please note that due to right of entry (ROE) issues, not all of the APE was field assessed. They identified a total of three

archeological sites (41NU119, 41KL96, and 41NU331) during their investigation. 41NU119 and 41KL96 have been recorded as historical aged archeological sites. BAI has recommended that the portions of these two sites located within the APE are insignificant. 41NU119 is a prehistoric lithic scatter.

Due to the lack of ROE for mechanical trenching for the setting, the investigators could not determine the significance of the portion of 41NU119 located within the APE. Additional survey is recommended for 41NU119 when ROE has been obtained. A copy of the BAI survey report is attached for your review.

Based upon the results of the current investigation, TxDOT endorses the following suite of recommendations proposed by the BAI investigators in regard to this undertaking:

- In Cameron, Willacy, and Kleberg Counties, no further investigations are warranted, and the proposed construction should be allowed to proceed as planned in those counties without additional investigations.

- In Kleberg County, no further investigations are warranted within the existing ROW and the portions of proposed ROW where ROE was granted and survey was conducted, and the proposed construction should be allowed to proceed as planned in those areas without additional investigations.

- In Kleberg County, the portions of the proposed ROW where ROE was not granted should be surveyed prior to construction of the proposed improvements. This includes parcels within the Riviera Reliever Route, scattered strips of proposed ROW, and portions of the proposed ROW at Radicha Creek, Ebanito Creek, Jaboncillos Creek, and Santa Gertrudis Creek.

- In Nueces County existing ROW, no further investigations are warranted, and the proposed construction should be allowed to proceed as planned in the existing ROW without additional investigations.

- In Nueces County proposed ROW, no further investigations are warranted where ROE was granted, with the exception of the Petronila Creek crossing. The proposed construction should be allowed to proceed as planned without further investigations in the portions of the proposed ROW where ROE was granted, with the exception of the Petronila Creek crossing.

- At Petronila Creek, when ROE is obtained, deep mechanical trenching is recommended with a geoarcheologist and paleontologist in the APE on the north and south sides of the creek prior to the construction of the Driscoll Reliever Route to determine if (1) 41NU119 possesses a deep component eligible for inclusion to the NRHP or for formal SAL designation and (2) if 41NU114 and 41NU246 possess deep components that extend into the APE that are eligible for inclusion to the NRHP or for formal SAL designation.

- In Nueces County, the portions of the proposed ROW where ROE was not granted should be surveyed prior to construction of the proposed improvements.

Please note that the attached Figures D-14 to D-21 document the areas proposed for additional work. TxDOT recommends that additional work is only required in these designated areas. TxDOT also recommends that no further work and no further consultation is required for the portions of the APE not delineated for additional survey on Figures D-14 to D-21.

Permission to conduct archeological investigations was denied by at least one landowner. Thus, as provided under Stipulation IX.B.3 of the PA, this undertaking may proceed with further project development, including completion of the environmental process and right of way acquisition without the concurrence of the SHPO. After obtaining access to the proposed right of way, TxDOT will complete the inventory on unsurveyed properties and conclude any additional work that may be required under the terms of the PA and MOU.

Approved by Scott Pletka for TxDOT August 10, 2010

Scott Pletka, Ph.D. Date

Attachments

Original for 850: ENV – Vicki Crnich
Cc w/ attachments: ENV – Jon Budd
Cc w/out attachments: None

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

August 11, 2010

RE: CSJ: 1111-07-004: US 77 Roadway Improvements in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties: Corpus Christi and Pharr Districts: Initiation of Section 106/Antiquities Code of Texas Consultation: Blanton and Associates, Inc. Draft Report for Intensive Survey and Request for Conditional Clearance to Proceed with NEPA: 41NU331
Texas Antiquities Permit No. 5036

James E. Bruseth, Ph.D.
Texas Historical Commission, Division of Archeology
P.O. Box 12276
Austin, Texas 78711

Dear Dr. Bruseth:

In accord with the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation (TxDOT), the Texas State Historic Preservation Officer (TSHPO), and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), as well as the Memorandum of Understanding (MOU) between the Texas State Historic Preservation Officer and TxDOT, we are initiating Section 106 and Antiquities Code of Texas consultation for the proposed undertaking.

This undertaking proposes to improve approximately 112 miles of US 77 in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties. Improvement details include upgrading US 77 from an open access, four lane, divided roadway to a restricted access roadway. Frontage roads are proposed at select locations and reliever routes are proposed to be constructed on new locations near the communities of Driscoll in Nueces County and Riviera in Kleberg County. New cross drainage structures are proposed at drainages in the proposed new ROW. Existing cross drainage structures located within the project termini would be lengthened and safety end treated to match the wider roadways. Approximately 680 acres of new right of way (ROW) would be required.

The undertaking's area of potential effects (APE) is defined as the 200 to 340 foot wide existing US 77 ROW beginning at SH 107 in Cameron County and extending 112 miles north to State Route 44 in Nueces County. The APE also includes approximately 680 acres of new ROW constituting the Reliever Routes near Driscoll and Riviera as well as multiple instances of 30 to 200 foot wide strips of proposed new ROW located adjacent to the existing ROW (see attached report for more details). Based upon typical highway design, the depth of impacts is estimated to be up to 40 feet below the current ground surface for bridge columns and up to 10 feet below the current ground surface for the remainder of the project. The APE comprises approximately 5,300 acres.

On behalf of TxDOT, staff archeologists from Blanton and Associates, Inc (BAI) have conducted an intensive archeological investigation of a large portion of the APE under Texas

Antiquities Permit No. 5036.

BAI was able to conduct field assessments for the entire existing ROW associated with this project. No archeological remains were observed in the existing ROW. Therefore, BAI has recommended no further work for the existing ROW. TxDOT agrees with that assessment.

BAI was also able to conduct a field assessment of portions of the proposed ROW where right of entry (ROE) had been obtained. BAI did not conduct the required field assessment in the portions of the proposed new ROW where ROE had not been obtained. The areas of the proposed new ROW that still require assessment are located in Kleberg and Nueces Counties only and are illustrated on the attached set of aerial photographs labeled as Figures D-14 to D-21. In addition, the related parcel numbers for areas requiring additional survey are listed in the following table:

Table 8-2010: Outstanding Parcels that Still Require Assessment Due to Right of Entry Issues. Please refer to the attached aerial photographs labeled as D14 to D 21 for location

Kleberg County	32. 4005407
1. 23749	33. 16786
2. 16899	34. 19554
3. 15154	35. 19765
4. 22196	36. 20280
5. 14581	37. 11506
6. 10955	38. 12691
7. 20512	39. 22995
8. 11863	40. 22312
9. 18929	41. 10621
10. 18556	42. 33335
11. 10064	Nueces County
12. 17774	43. R195332
13. 25351	44. R295430
14. 13438	45. R195340
15. 4001427	46. R195334
16. 4000057	47. R283630
17. 4000058	48. R283575
18. 18007	49. R187211
19. 18242	50. R283611
20. 12315	51. R283597
21. 24452	52. R284316
22. 11044	53. R284316
23. 13674	54. R283305
24. 22713	55. R283295
25. 4003376	56. R283182
26. 22081	57. R283190
27. 12995	58. R283158
28. 11487	59. R283151

29. 12141	60. R359751
30. 21061	61. R293944
31. 21646	62. R293945

TxDOT commits to assessing these areas and coordinating the results of those assessments with your office prior to construction.

BAI identified a total of three archeological sites (41NU119, 41NU331, and 41KL96) during their current investigation. 41NU331 and 41KL96 have been recorded as historical aged archeological sites. 41NU119 is a prehistoric lithic scatter. No other archeological remains were identified by BAI during their current investigation. With the exception of 41NU119, BAI has recommended that no further work is warranted for the portions of the APE that they investigated. With the exception of 41KL96, TxDOT agrees with the BAI recommendations.

Due to the lack of ROE for mechanical trenching for the setting, the investigators could not determine the significance of the portion of 41NU119 located within the APE. Additional survey is recommended for 41NU119 when ROE has been obtained. TxDOT agrees with that recommendation. 41NU119 resides in parcel numbers R283597 and R284316 that are both listed in the above table.

BAI recorded the historical site 41NU331 under the current investigation. 41NU331 consists of a collapsed house structure and related foundation, two cisterns, concrete pads, and possible privy remains. This site also contains asbestos wall tiles, wire nails, milled lumber, machine-made bricks, plywood, clear bottle glass, and tin cans.

BAI interviewed the current owner of the private land parcel containing the recently recorded historical archeological site 41NU331. The landowner confirmed a construction date of 1947 for the residence. The house served as a rental unit until the 1960's. Therefore, the occupational history of the site contains multiple occupants. The 1940's construction date is supported by the presence of wire nails as well as the asbestos tiles.

Due to the relatively late construction date and the very limited potential to confirm the identities of the site's occupants, the investigators have concluded that the portion of the site within the APE is insignificant. TxDOT agrees with that assessment.

BAI also recorded another historical site (41KL96) under the current investigation. 41KL96 consists of two concrete water tanks and sparse scatter of clear, green, and brown glass, white ironstone fragments, an aspirin bottle, a porcelain doorknob, plastic and miscellaneous rusted metal objects. Only one of the concrete water tanks is located within the APE. The vast majority of the artifacts scatter as well as the other tank are located beyond the APE.

BAI interviewed the current Lessee of the private land parcel containing 41KL96. The Lessee has rented this parcel for 40 years. Other than a windmill, the Lessee does not recall any structures in the site vicinity.

BAI has concluded that the portion of site 41KL96 located within the APE is insignificant. This conclusion is based upon observations that the majority of the site is located beyond the APE as well as the investigators' assessment that the related artifacts date from the mid twentieth century. They also cite their field observation of the lack of any structural remains.

It is TxDOT's opinion however that BAI has not provided enough information in order to agree with their recommendations in regard to 41KL96. Since their assessments of the artifacts and features located beyond the APE were made from the APE, it is TxDOT's opinion that any conclusions regarding these remains are tenuous at best. TxDOT recommends that BAI investigators conduct additional archival research in order to confirm the absence of any historical structures associated with this site or a construction date of any related structures. This research would consist of either an analyses of historical maps of the area illustrating the presence or absence of structures or a title search. A copy of the BAI survey report is attached for your review.

Based upon the results of the current BAI investigation, TxDOT seeks TSHPO concurrence for the following recommendations:

1. The portion of 41NU331 overlapping onto the APE does not contribute to the site's eligibility for listing on the National Register and does not warrant designation as a State Archeological Landmark.

2. Additional archival research should be conducted in regard to 41KL96 in order to confirm the absence of any historical structures associated with this site or a construction date of any related structures. This research would consist of either an analyses of historical maps of the area illustrating the presence or absence of structures or a title search.

3. No further work is required for all of the existing ROW associated with this project.

4. With the exception of the areas recommended by BAI for additional survey, no further work is required for the proposed new ROW. The areas recommended for additional survey by BAI are illustrated on the attached set of aerial photographs labeled as Figures D-14 through D-21 and the related parcels are listed in Table 8-2010 provided above. TxDOT commits to assessing these areas and coordinating the results of those assessments with your office prior to construction.

5. TxDOT is in the process of obtaining access to the portions of the proposed ROW where ROE has not yet been obtained in order to conduct the recommended field investigation. TxDOT requests your concurrence that the proposed project may proceed to further development of the NEPA process and acquisition of new ROW prior to completing an archeological survey provided that all necessary consultation with your office is completed before the project is authorized for construction. After obtaining access to the proposed new ROW, we will continue coordination with your office under the terms of the PA and MOU.

Please signify your concurrence by signing on the line provided below. If you have questions or need more information, please contact me at (512) 416-2640.

In the event that archeological materials are discovered during construction, construction in the areas currently recommended for no further work, work in that area shall cease, and the State Historic Preservation Officer will be contacted to initiate accidental discovery procedures in accordance of the terms of the Programmatic Agreement among the Texas Historical Commission, the Federal Highway Administration, and the Texas Department of Transportation. If you have any questions, please contact me at 416-2640. Thank you for your consideration in this matter.

Sincerely,

Jon Budd, TxDOT Staff Archeologist

Concurrence by; _____ Date: 8/13/10
For Mark Wolfe, State Historic Preservation Officer and Executive Director

Attachments
Figures D-14 through D-21
Blanton and Associates, Inc., Draft Report entitled, Intensive Archeological Survey of US 77 from SH107 in the City of Combes to SH 44 in the City of Robstown. Cameron, Willacy, Kenedy, Kleberg, and Nueces Counties, Texas CSJ: 1111-07-004

cc w/o attachments:
ENV – VC, JHB
Texas Toll Road Authority- D. Booher
Pharr District- Robin Gelston
Corpus Christi District- Victor Vourcos

Texas Department of Transportation

DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

September 23, 2010

Mr. Louis Maynahonah, Chairman
Apache Tribe of Oklahoma
P.O. Box 1220
Anadarko, OK 73005

RE: CSJ: 1111-07-004; US 77 Roadway Improvements in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties, Section 106 Continuing Consultation, 10 Additional Acres of Proposed New Right of Way; Corpus Christi and Pharr Districts

Dear Mr. Maynahonah:

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. The purpose of this letter is to contact you in order to continue Section 106 consultation with your Tribe pursuant to stipulations of the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that is of interest to your Tribe.

Section 106 consultation for this undertaking was initiated by correspondence dated January 31, 2008, and continued with additional correspondence and an archeological survey report on August 3, 2010. Since August 3, minor design changes to the project have been proposed. With this letter, TxDOT wants to update you on the addition to the proposed area of potential effects (APE) and provide an opportunity for comment on these changes. Please note that, due to right of entry issues, the archeological investigations are ongoing.

The proposed project would improve approximately 112 miles of US 77 in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties. These improvements would include

upgrading US 77 from an open access, four lane, divided roadway to a restricted access roadway. Frontage roads are proposed at select locations and reliever routes are proposed to be constructed on new locations near the communities of Driscoll in Nueces County and Riviera in Kleberg County. The undertaking would also include new cross drainage structures at drainages in the proposed new ROW. Existing cross drainage structures located within the project termini would be lengthened and safety end treated to match the wider roadways.

The August 3, 2010, consultation letter specified that the undertaking would require approximately 680 acres of new right of way (ROW). Since that letter, the project design has changed to include approximately 10 more acres of new ROW. This addition would increase the total area to 689.74 acres. The location of the new ROW is delineated on the enclosed maps and explained in the enclosed letter dated September 15, 2010, from the Texas Turnpike Authority Division. Please note that the enclosed maps only address the portions of the APE that require additional investigation and not the entire APE. Previous consultation letters described the remainder of the project area. Therefore, the proposed APE has been redefined to require a total of 689.74 acres of proposed new ROW.

Review of the Texas Archeological Sites Atlas shows multiple instances of previously recorded archeological sites within 1.0 kilometer (0.62 mile) of the 112-mile-long APE. Descriptions of these sites as well as their locations were included with the previous consultation letters. According to the Geologic Atlas of Texas, the geology underlying the APE is comprised in part of Holocene age formations that possess potential for the presence of buried intact archeological deposits.

As stated in our letter of August 3, 2010, staff archeologists from Blanton and Associates, Inc (BAI) have conducted an archeological investigation for a large portion of the APE. However, not all of the APE was available for survey. We provided the BAI survey report with the August letter. The BAI survey found no archeological sites that warranted listing in the National Register of Historic Places in the areas surveyed. Additional archeological investigation would still be required for those portions of the APE that are not yet available for survey.

Please note that the attached Figures D-14 to D-21 document the areas proposed for additional work. This includes the additional new ROW discussed in this letter. Additional archeological investigation would be conducted in the areas proposed for survey when rights of entry issues are resolved. Therefore, the following list of

recommendations includes those proposed in the August 3, 2010, letter that address the areas that still require archeological investigation:

1) In Kleberg County, the portions of the proposed ROW where ROE was not granted should be surveyed prior to construction of the proposed improvements. This would include parcels within the Riviera Reliever Route, scattered strips of proposed ROW, and portions of the proposed ROW at Radicha Creek, Ebanito Creek, Jaboncillos Creek, and Santa Gertrudis Creek.

2) In Nueces County, when ROE is obtained, deep mechanical trenching is recommended at Petronila Creek prior to the construction of the Driscoll Reliever Route. The field investigation team should include a geoarcheologist and paleontologist to assess the APE on the north and south sides of the creek to determine if:

    a) site 41NU119 possesses a deep component eligible for listing in the National Register of Historic Places (NRHP) or for formal designation as a State Archeological Landmark (SAL); and

    b) sites 41NU114 and 41NU246 possess deep components that extend into the APE that are eligible for listing in the NRHP or for formal designation as SALs

3) In Nueces County, the portions of the proposed ROW, where ROE is not yet available, should be surveyed prior to construction of the proposed improvements.

4) Additional investigations are only required in the designated areas identified on the enclosed Figures D-14 to D-21

5) No further work and no further consultation would be required for the portions of the APE not specifically identified in these recommendations or not delineated for additional survey on Figures D-14 to D-21

According to our Programmatic Agreement under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed undertaking. Any comments you may have on the TxDOT findings and recommendations should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object that the provided findings and recommendations are appropriate, please sign below to indicate your concurrence.

Thank you for your attention to this matter. If you have questions, please contact Jon Budd (TxDOT Archeologist) at 512/416-2640 (email: Jon.Budd@txdot.gov) or me at 512/416-2631 (email: Scott.Pletka@txdot.gov). When replying to this correspondence, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,

Scott Pletka, Ph.D., Supervisor
Archeological Studies Branch
Environmental Affairs Division

_____ _____

Concurrence by:
Apache Tribe of Oklahoma

Date:

Attachments

cc w/attachments: Theresa Claxton, Environmental Coordinator FHWA; Albert Hinojosa, Area Engineer, FHWA; Joe Krejci, Area Engineer, FHWA; Doug Booher, TxDOT TTA Environmental Manager; Victor Vourcos, TxDOT Corpus Christi District Environmental Coordinator; Robin Gelston, TxDOT Pharr District Environmental Coordinator; Vicki Crnich, ENV-PD TxDOT; Robert Jackson, ENV-PD TxDOT; Jon Budd, ENV-ARCH TxDOT; Al McGraw, ENV-ARCH TxDOT; Christopher Ringstaff, ENV-ARCH TxDOT; ENV-ARCH Project File

cc w/o attachments: ETS Scan

The attached letter was sent to the following tribes on September 23, 2010:

Mr. Louis Maynahonah, Chairman
Apache Tribe of Oklahoma
P.O. Box 1220
Anadarko, OK 73005

Mr. Jimmy Arterberry, THPO
Comanche Nation of Oklahoma
Comanche Nation Office of Historic Preservation
P.O. Box 908
Lawton, OK 73502

Ms. Jame Eskew,
c/o Kiowa Culture Preservation Authority
Kiowa Indian Tribe of Oklahoma
P.O. Box 885
Carnegie, OK 73015

Mr. Carleton Naiche-Palmer, President
c/o Holly Houghten, THPO
Mescalero Apache Tribe
P.O. Box 227
Mescalero, NM 88340

Mr. Don Patterson, President
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Rd
Tonkawa, OK 74653

[sent by email to Miranda Allen]

MEMORANDUM

SCANNED
12/27/10 LD

Texas Department of Transportation

TO: 850 File, US 77 Roadway Improvements in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties: Corpus Christi and Pharr Districts: CSJ: 1111-07-004

re: Denial of Right of Entry

FROM: Jon Budd – TxDOT Staff Archeologist **DATE:** October 15, 2010

SUBJECT: Additional Internal review under the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU), as well as the Memorandum of Understanding (MOU) between the Texas Historical Commission and TxDOT.

Please note that this is the second internal review memo for this undertaking. The original memo dated August 9, 2010, facilitated further project development, including completion of the environmental process and right of way acquisition (see attached). This second memo addresses a change to the project design that has occurred since. This change in design involves the addition of roughly 10 additional acres of proposed new right of way (ROW) that has recently been added to the undertaking's area of potential effects (APE). These additional acres of proposed new ROW are described in the attached letter from the Texas Turn Pike Authority (dated September 15, 2010) and illustrated on the attached maps labeled as D-14b to D-21b.

An intensive archeological survey has been previously conducted within the portions of the APE where right of entry had been obtained. The results of this survey have been coordinated with the Texas State Historic Preservation Officer in a letter dated August 11, 2010 (see attached). Additional survey is still required and shall be conducted once rights of entry issues have been resolved.

This undertaking proposes to improve approximately 112 miles of US 77 in Willacy, Kenedy, Cameron, Kleberg, and Nueces Counties. Improvement details include upgrading US 77 from an open access, four lane, divided roadway to a restricted access roadway. Frontage roads are proposed at select locations and reliever routes are proposed to be constructed on new locations near the communities of Driscoll in Nueces County and Riviera in Kleberg County. New cross drainage structures are proposed at drainages in the proposed new ROW. Existing cross drainage structures located within the project termini would be lengthened and safety end treated to match the wider roadways. The total amount of new ROW required for the undertaking has been revised to 690 acres from the original estimate of 680 acres documented in the previous memo.

The undertaking's area of potential effects (APE) has been redefined based upon the change in the project design. The revised APE is now defined as the 200 to 340 foot wide existing US 77 ROW beginning at SH 107 in Cameron County and extending 112 miles north to State Route 44 in Nueces County. The APE also includes approximately 690 acres of new ROW constituting

the Reliever Routes near Driscoll and Riviera as well as multiple instances of 30 to 200 foot wide strips of proposed new ROW located adjacent to the existing ROW (see attached report for more details). Based upon typical highway design, the depth of impacts is estimated to be up to 40 feet below the current ground surface for bridge columns and up to 10 feet below the current ground surface for the remainder of the project.

The attached previous internal memo dated August 9, 2010 accurately addresses the status of the APE's relation to previous archeological sites, geological and sedimentary contexts, as well as the status of the ongoing archeological investigations being conducted. It also accurately documents the current suite of recommendations for further work. The recent change of design involving the addition of roughly 10 acres of proposed new ROW does not alter any of the recommendations for further work.

Permission to conduct archeological investigations was denied by at least one landowner. Thus, as provided under Stipulation IX.B.3 of the PA, this undertaking may proceed with further project development, including completion of the environmental process and right of way acquisition without the concurrence of the SHPO. After obtaining access to the proposed right of way, TxDOT will complete the inventory on unsurveyed properties and conclude any additional work that may be required under the terms of the PA and MOU.

Approved by Scott Pletka for TxDOT 10/19/10

Scott Pletka, Ph.D. Date

Attachments

Original for 850: ENV – Vicki Crnich
Cc w/out attachments: ENV – Jon Budd
project file

January 13, 2011

Bruce Jensen
Director, Historical Studies Branch
Environmental Affairs Division
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

Re: Project review under Section 106 of the National Historic Preservation Act of 1966, US 77 from IH 37 to US 83, Nueces, Kleberg, Kenedy, Willacy and Cameron Counties (FHWA) TxDOT CSJ # 1111-07-004

Dear Mr. Jensen:

Thank you for your correspondence describing the above-referenced project. This letter serves as a comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission.

THC staff has completed a review of the information submitted by applying state and federal criteria for eligibility and adverse effect. Regarding eligibility, we concur with your determination that the following five resources are eligible for listing in the National Register of Historic Places: the Presbyterian Pan American School, the two 1936 Texas Centennial Markers, the Armstrong Ranch, and the Delta Lake Irrigation District. As identified in your report, the King Ranch, a National Historic Landmark (NHL), is also in the project's Area of Potential Effect (APE). Regarding your determination of eligibility for several of the resources related to ranching, we have the following comments:

First of all, we found the field methodology of this survey to be insufficient. This project is a narrow, linear resource through a number of very large ranches, so we agree that a full inventory of all of the resources on these parcels is outside the scope of this project. However, more information is required to support determinations of eligibility. Other TxDOT projects with no right of entry to large parcels that have been coordinated with our agency in the past have set a model for this project by evaluating the resources on those parcels and analyzing their significance and integrity by comparing historic maps, current and historic aerial photos and other available resources. In some cases for this project, the methodology was somewhat improved. For example, the evaluation of the Armstrong Ranch did provide some basic information to support the determination of eligibility.We did not see the same level of evaluation for resources such as the Yturria Ranch. In addition, while Figure 4 supplied an understanding of the modern subdivision of the Kenedy Ranch and the current boundaries of the King and Armstrong Ranches, there were no similar maps illustrating the historic boundaries of the Driscoll Ranch, Yturria Ranch and Kenedy Ranch or the modern, subdivided boundaries of the Yturria Ranch to support the findings of the report.

One issue identified in the report, difficulty in identifying the parcels that should be included in the survey area, also led to confusion during the review. The report does not provide an adequate description of what is included in the "survey area" (the APE and all intersecting parcels, in their entirety). For example, if the survey area included the Kenedy Trust and Kenedy Foundation Ranches in their entirety, why was there no additional consideration of resources outside the 150' APE? These ranches are very large, but there does not appear to be a large number of associated resources, so the identification of the location and function of clusters of buildings, using historic maps and aerial photos, should not require a substantial amount of research or documentation.

We do not agree that the division of the Kenedy Ranch precludes eligibility for listing in the National Register for the buildings, structures, objects, or sites associated with the ranch. While the Kenedy Ranch no longer functions as a single entity, the land use in the Kenedy Trust Ranch does not appear to have changed and although the main headquarters are no longer under the same ownership, it is still extant, and there is no indication that there has been significant alteration. Changes in land use of the Kenedy Foundation Ranch, as seen on aerial photos of the project area, may indicate that this portion of the historic ranch has lost integrity and can no longer convey significance. On the other hand, the original headquarters, main house and associated buildings, and Kenedy Trust Ranch still may be able to convey significance, regardless of ownership.

We recommend extending the period of significance for US 77 and the railroad to the end of the historic period (50 years old), when they were still being used as major routes for the transportation of goods related to the ranching and farming industries in the project area (the same end date for the period of significance for the ranching activity). For US 77, although there was a state highway in that location as early as the 1920s, this road was not open in Kenedy County because the ranchers blocked it to through traffic. Since it wasn't until 1940 that US 77 (called "the new roadway" on page 54 of the report), was constructed, the period of significance should not end in 1940. However, the later changes from the mid 1960s and 1970s detract from the integrity of the resource, and we concur that US 77 is not individually eligible. Likewise, although the railroad ceased to be the only major transportation route through the project area in 1940, it still continued to be a major transportation route. The report indicated that there are several ranching resources (freight depots, corrals, and pens) that postdate the report's 1940 end-date for the period of significance of the railroad, which only serves to illustrate that it was still an important transportation network at the time. The report identifies loss of integrity of the railroad due to loss of some of the depots and the replacement of materials. We concur that the railroad is not individually eligible. However, the railroad retains its alignment and most materials, while not original (ballast, ties), have been replaced in-kind. Segments of both routes are important circulation networks for a potential rural historic landscape, and the railroad, at least, should be considered contributing to individual historic ranch properties that it falls within or is adjacent to. The same should be applied to any segment of US 77 (or Business 77) in the project area that retains integrity of design, feeling, and association.

Our most immediate concern with the report is that the evaluation of the rural historic landscape is not sufficient for THC to concur that there is no rural historic landscape in the project area. For the most part, it appears that you have only applied the criteria for evaluation to the resources visible from the US 77 project corridor. For example, the report states that the "majority of the resources that could be observed from the US 77 ROW were similar types of resources" and does not evaluate components of rural historic landscapes, such as clusters because of the lack of right of entry. By necessity, the consideration of a rural historic landscape has to be "bigger picture" and extend outside the immediate project area. In the consideration that the documentation level of this survey is a "reconnaissance" survey, applying the general field methodology described

above (using modern and historic maps and aerial photos to evaluate changes to the larger landscape) may have been sufficient. Again, we recognize that the ranches in question are very large, but because of the activity associated with their function, they generally do not have a large number of associated buildings and structures, and a full inventory is not required. It also would have been a good opportunity to discuss the resources on the King Ranch for comparison, since it is a NHL and a rural ranching property in the project area that could establish what would characterize a rural historic landscape in the project area. The King Ranch itself is certainly a rural historic landscape, and if that pattern of ranching can still be seen on the landscape extending through these other historic ranches (Kenedy, Armstrong, Yturria), it is likely that there is a larger associated rural historic landscape. If, on the other hand, TxDOT considers an evaluation of the presence of a rural historic landscape on this scale to be outside the scope of a reconnaissance survey, perhaps an intensive survey is necessary to perform an adequate evaluation. The report references the 2007 *Historic Ranch Study* prepared for TxDOT; it is not clear why this model was not closely followed in the methodology in the consideration of eligibility for both individual ranches and a rural historic landscape.

We concur that the remainder of the resources not associated with the discussion above are not eligible for listing in the National Register of Historic Places.

It is likely that the determination of effects will need to be re-evaluated and therefore we will reserve the opportunity to make comments regarding effects until such time as our concerns regarding eligibility, outlined above, are addressed. However, we wish to ask one question at this time regarding minimizing the potential for adverse effect: is it possible that crossings can be depressed, rather than the highway elevated, to provide limited access to the highway?

Thank you for your participation in this federal review process. If you have any questions concerning this review or if we can be of further assistance, please contact Adrienne Campbell at (512) 936-7403.

Sincerely,

Mark Wolfe

Mark Wolfe
Executive Director, Texas Historical Commission

Texas Department of Transportation
DEWITT C. GREER STATE HIGHWAY BLDG. • 125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • (512) 463-8585

April 8, 2011

SECTION 106: Continued Consultation
Pharr & Corpus Christi Districts
CSJ# 1111-07-004
US 77 from IH 37 to US 83

Ms. Adrienne Campbell
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Ms. Campbell:

In accordance with 36 CFR 800 and the First Amended Programmatic Agreement regarding Implementation of Transportation Undertakings (PA-TU), we are continuing Section 106 consultation for the above referenced project, which will be carried out with federal funding. We request your review of the attached supplemental reporting and maps. These were developed in response to correspondence dated February 22, 1011 and March 3, 2011 wherein we agreed to provide additional documentation supporting our determinations of eligibility and effect for historic properties in the APE. As a result of these additional studies, TxDOT historians reaffirm our previous determinations of eligibility. The project APE contains the following properties for which you requested additional information, more completely detailed on pp 13-33 of the attached March 2011 Reconnaissance Level Historic Resources Survey Supplemental Report:

- Driscoll Ranch
- Kenedy Family Ranches
- Yturria Family Ranches
- Rural Historic Landscape

In accordance with CFR 800.5, TxDOT Historians applied the *Criteria of Adverse Effect* and reaffirmed our determination that the proposed project poses **no adverse effect** to historic properties in the APE. The effects recommendations are discussed in detail starting on page 118 of the November 2010 *Reconnaissance Level Historic Resources Survey, US 77 from IH 37 in Corpus Christi to US 83 in Brownsville* attached to this correspondence. Analysis provided in the current report reinforces our previously stated determinations of effect for historic properties in the APE.

TxDOT also asserts that the proposed undertaking would have no reasonably foreseeable adverse effects that may occur later in time, be farther removed in distance, or be cumulative. Any growth pressures that may or may not exist near the property are already in place. The

widening of the highway facility would not increase the likelihood that their integrity would be diminished because their relationship with the roadway has been and will continue to be essentially unchanged. . The expanded roadway therefore would not pose indirect or cumulative adverse effects to any historic properties in the project's APE.

Pursuant to Stipulation VI "Undertakings with Potential to Cause Effects" of the PA-TU, TxDOT Historians determined that the proposed project would have no adverse effect to historic properties located within the APE.

We request your concurrence with this determination per the terms of our programmatic agreement. Please return a signed copy of this correspondence for our files within 20 days, but please note that we would appreciate expedited review of this additional information. We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2628.

Sincerely,

Bruce Jensen
Historical Studies Supervisor, TxDOT-ENV

CONCUR: NO ADVERSE EFFECT FOR HISTORIC PROPERTIES

NAME: _____ DATE: 4·27·11

for Mark Wolfe, State Historic Preservation Officer

cc: Doug Booher, TTA

THE STATE OF TEXAS

COUNTY OF CAMERON

2012R02010
RESOLUTION

BE IT RESOLVED THAT ON THE 2ND DAY OF FEBRUARY, 2012, THE CAMERON COUNTY COMMISSIONERS' COURT CONVENED IN REGULAR SESSION, AND UPON THE REQUEST OF THE CAMERON COUNTY COMMISSIONERS, THE FOLLOWING ITEM WAS PLACED ON THE AGENDA OF THE SAID COURT FOR SUCH MEETING, PURSUANT TO GOVERNMENT CODE SECTION 551.041 *ET. SEQ.*, VERNON'S TEXAS CIVIL STATUTES (THE TEXAS OPEN MEETING ACT) TO BE CONSIDERED

"CONSIDERATION AND APPROVAL OF RESOLUTION SUPPORTING IMPROVEMENTS TO THE U.S. 77 CORRIDOR FROM BROWNSVILLE, TEXAS TO CORPUS CHRISTI, TEXAS."

WHEREAS, Cameron County is in full support of the proposed improvements to be done to the U.S. 77 Corridor from Brownsville, Texas to Corpus Christi, Texas; and

WHEREAS, Cameron County has authorized its Commissioners Court to execute Resolution No. *2012R02010* supporting the U.S. 77 Corridor Improvements.

NOW, THEREFORE, BE IT RESOLVED that the Cameron County Commissioners Court is on record supporting the U.S. 77 Corridor Improvements.

Passed, Approved and Adopted on this 2nd day of February, 2012.

COMMISSIONERS' COURT OF CAMERON COUNTY, TEXAS

CARLOS H. CASCOS, CPA
COUNTY JUDGE

SOFIA C. BENAVIDES
COMMISSIONER PRECINCT 1

DAVID A. GARZA
COMMISSIONER PRECINCT 3

ERNIE L. HERNANDEZ
COMMISSIONER PRECINCT 2

DAN A. SANCHEZ
COMMISSIONER PRECINCT 4

ATTEST: _____
JOE G. RIVERA, COUNTY CLERK

COMMISSIONERS COURT
CAMERON COUNTY, TEXAS

STATE OF TEXAS §

COUNTY OF CAMERON § RESOLUTION 2012-3

CITY OF SAN BENITO §

RESOLUTION IN SUPPORT OF THE US 77 UPGRADE PROJECT TO INTERSTATE STANDARDS.

WHEREAS, the City of San Benito is in support of the Texas Department of Transportation's (TxDOT) upgrade US 77 Highway Plan and is in support of the US 77 Upgrade Project to Interstate Standards from US 83 in Harlingen to Interstate 37 (I-37) in Corpus Christi.

WHEREAS, the US 77 Upgrade Project improvements are critical to the City of San Benito's future development as this project will accommodate the following needs:

- Improving US 77 to Interstate Standards will augment safety by elimination of at grade crossings, where accidents have occurred.
- Provide a free-flowing trade route which will improve energy efficiency and reduce vehicular emissions by providing relief routes around Driscoll and Riviera.
- Improving US 77 to Interstate Standards will provide controlled access to the corridor for safe, efficient movement of freight from South Texas to the rest of the United States, thus increasing the economic productivity of the region.

WHEREAS, the ***CITY OF SAN BENITO*** finds the accelerated completion of the US 77 Upgrade Project to Interstate Standards will afford improvement that promote both the general welfare and economic development of the ***CITY OF SAN BENITO***

NOW THEREFORE IT BE RESOLVED that the City of San Benito hereby pledges our continued support for the US 77 Upgrade Project to Interstate Standards.

Passed and Approved by the City Commission of the ***CITY OF SAN BENITO***, TEXAS, ***the*** 21st day of February 2012.

CITY OF SAN BENITO

ANTONIO GONZALES, MAYOR PRO TEM

ATTEST:

Lupita Passement, City Secretary

A RESOLUTION IN OPPOSITION OF THE US HWY 77 BYPASS EAST OF RIVIERA, TX

Board of Trustees, Riviera Independent School District

WHEREAS, the use of existing right of way through the town site of Riviera, TX creates a safer environment for the students, faculty and staff of Riviera Independent School District;

WHEREAS, the use of existing right of way through the town site of Riviera, TX has a diminished impact on the economy of Riviera, TX;

WHEREAS, the use of existing right of way through the town site of Riviera, TX has a diminished impact on the natural ecosystem of Riviera, TX;

WHEREAS, the use of existing right of way through the town site of Riviera, TX diminishes the impact on the social environment in Riviera, TX;

THEREFORE, BE IT RESOLVED that the Board of Trustees of the Riviera Independent School District, strongly support the use of the existing right of way through the town site of Riviera, TX.

AND WHEREAS, the proposed bypass at Riviera, TX with the US HWY 77 Upgrade will increase the volume of traffic adjacent to Riviera Independent School district, creating a more imminent safety hazard for the students, faculty and staff.

WHEREAS, the proposed bypass at Riviera, TX with the US HWY 77 Upgrade will have a negative economic impact on the town site;

WHEREAS, the proposed bypass at Riviera, TX with the US HWY 77 Upgrade will have a negative environmental impact by disrupting previously undisturbed farm and ranch land;

WHEREAS, the proposed bypass at Riviera, TX with the US HWY 77 Upgrade will further fragment the town site of Riviera by creating a physical appurtenance previously not experienced;

WHEREAS, the proposed bypass at Riviera, TX with the US HWY 77 Upgrade will have a negative social impact on the residents by creating a larger physical separation between the parts of town;

THEREFORE, BE IT FURTHER RESOLVED that, by unanimous action, the Board of Trustees of the Riviera Independent School District strongly oppose the US HWY 77 Bypass East of the town site of Riviera, TX as proposed by Texas Department of Transportation.

Adopted this _____ day of February 2012.

Jose (Buddy) Naranjo, President

John Beadle, Vice President

Becky Gutierrez, Secretary

Tommy Longoria, Member

Billy Colston III, Member

Wilson Martin, Member

Danny Stubbart, Member

SUMMARY OF THE
FINAL BIOLOGICAL OPINION ON THE EFFECTS TO THE
ENDANGERED OCELOT (*Leopardus pardalis*), AND
THE ENDANGERED GULF COAST JAGUARUNDI (*Herpailurus yagouaroundi cacomitli*),
FROM THE PROPOSED UPGRADE OF U.S. 77 BETWEEN CORPUS CHRISTI, NUECES COUNTY
TEXAS AND HARLINGEN, CAMERON COUNTY, TEXAS.

Consultation No. 21410-2010-F-0119

Date of the Final Biological Opinion: June 22, 2012

Action agency: Federal Highway Administration

Proposed Action: Proposed improvements to US 77 between Farm-to-Market 892 in Robstown (Nueces County) and State Highway (SH) 107 in Combes (Cameron County).

Listed species: Ocelot and Gulf Coast Jaguarundi

Biological Opinion: It is the opinion of the Service that the proposed US 77 improvements are not likely to jeopardize the continued existence of the ocelot or Gulf Coast jaguarundi.

Incidental Take Statement: Two 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.

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.

Conservation Recommendations: If possible, purchase or dedicate tracts and help ensure management of land in large or continuous blocks of ocelot habitat to help achieve the recommended recovery goal to acquire and protect ocelot habitat as outlined in the recovery plan. Fund further surveys to help locate additional endangered cats and partner with the Service and other entities to design and assist in the funding of an ocelot and jaguarundi population assessment study. Fund further restoration research or restoration of cat habitat. Implement practices to minimize human disturbance (ex: institute, as standard highway construction practices, evaluation of need and installation of standardized designs of wildlife crossings).

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
c/o TAMU-CC, Campus Box 338
6300 Ocean Drive
Corpus Christi, Texas 78412

June 22, 2012

Gregory S. Punske, P.E.
District Engineer
US Department of Transportation
Federal Highway Administration
Texas Division
300 E. 8th Street, Rm 826
Austin, Texas 78701

Consultation No. 21410-2010-F-0119

Dear Mr. Punske:

This transmits the U.S. Fish and Wildlife Service's (Service) **Final** Biological Opinion (BO) based on our review of the proposed upgrade of U.S. Highway 77 (US 77) between Corpus Christi and Harlingen, Texas and its effects on endangered ocelots (*Leopardus pardalis*), and endangered Gulf Coast jaguarundi (*Herpailurus yagouaroundi cacomitli*), in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 USC. §1531 et seq.). This biological opinion is based on information provided in the Federal Highway Administration's (FHWA) *Biological Assessment US 77 from IH 37 in Nueces County to US 83 in Cameron County, Nueces, Kleberg, Kenedy, Willacy and Cameron Counties, Texas CSJ 1111-07-004* (BA) dated February 2012.

FHWA's request for initiation of formal consultation was received on March 14, 2012. A complete record of this consultation is on file in the Corpus Christi Ecological Services Field Office (CCESFO) in Corpus Christi, Texas.

Consultation History (See Appendix A)

The FHWA also made effect determinations for other listed species that may occur in Nueces, Kleberg, Kenedy, Willacy and Cameron counties. (**Appendix B and C**).

BIOLOGICAL OPINION

I. Description of the Proposed Action

Purpose of Project
The purpose of the proposed project is to improve safety, mobility and continuity within the US 77 project corridor. The proposed improvements are needed because (1) at-grade intersections compromise safety on this high-speed facility; (2) at-grade intersections within the project limits experience higher

accident rates; (3) projected increases in traffic on US 77 would increase the potential for incidents associated with the numerous at-grade intersections; and (4) system continuity does not meet driver expectations.

Project Description

The proposed project will extend for approximately 122 miles. The project begins at Interstate Highway (IH) 37 in Nueces County and ends at U.S. 83 in Cameron County. The existing US 77 is a four-lane facility, with two 12-foot wide lanes in both the northbound and southbound direction divided by a center grassy median. In the communities of Driscoll, Ricardo, and Riviera, the existing roadway has four lanes with a center turning lane. Outside shoulders are 8 to 10 feet wide, and inside shoulders are 4 to 10 feet wide. The existing right-of-way (ROW) width varies between 200 feet and 380 feet.

A portion of US 77 has been upgraded to a controlled access roadway that meets interstate standards under previous projects; therefore, the construction limits for the proposed action are between Farm-to-Market (FM) 892 in Robstown (Nueces County) and State Highway (SH) 107 in Combes (Cameron County) (**Figure 1**). Under the proposed action, the typical section of US 77 would remain a four-lane divided roadway, although access roads and grade-separated interchanges would be provided in select locations to facilitate local access. New location relief routes would be constructed to the east of the towns of Driscoll (Nueces County) and Riviera (Kleberg County). The proposed action would require approximately 689.74 acres of new ROW; all of which would be located in Nueces and Kleberg counties. No new ROW would be required in Kenedy, Willacy, and Cameron counties.

The proposed project would include the replacement or widening of some existing bridges and culverts as well as the addition of bridges and culverts to accommodate access roads. Within Kenedy County and northern Willacy County where dispersing ocelots and/or jaguarundi would most likely cross US 77, the proposed improvements would remain within the existing ROW and would entail adding ranch access roads on one or both sides of the main lanes at various ranch gates.

The proposed project has been divided into 21 Control Section Job (CSJ) construction phases and those phases are presented in **Figure 1 and Table 1**. Potential phases for construction are outlined in **Table 2**.

Action Area

The action area includes the area within 0.5 mile of the existing and proposed ROW between the proposed construction limits of FM 892 in Robstown, Nueces County to SH 107 in Combes, Cameron County, Texas.

Project Components

Timeline and Sequencing – US 77 upgrade would be phased based on the availability of federal and state funding. The Texas Department of Transportation (TxDOT) has developed a project development plan to complete the US 77 upgrade program. This plan identifies the construction phasing, project costs, and reasonably anticipated funding for the next 25 years (2037).

Construction Access and Staging – These areas are unknown at this time but would be kept within the existing and proposed ROW to the maximum practical extent. If construction access and staging areas are established outside the existing and proposed ROW, these areas will be assessed for threatened and endangered species prior to disturbance and potential habitats would be avoided.

Operations and Maintenance – Once improvements are completed, the roadway would continue operating using current maintenance schedule and practices (e.g., pothole repair, spot overlay, sign maintenance, shoulder maintenance and striping, mowing, herbicide application) as needed.

Conservation Measures

Conservation measures represent actions, pledged in the project description, correspondence and/or meetings, that the action agency will implement to minimize the effects of the proposed action and further the recovery of the species under review. Such measures should be closely related to the action and should be achievable within the authority of the action agency. Since conservation measures are part of the proposed action, their implementation is required under the terms of the consultation. TxDOT and FHWA have incorporated the following conservation measures to minimize impacts on the ocelot and jaguarundi.

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**). 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** 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**. 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**) 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**).

- 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**.

- 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**).

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.

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 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.

II. Status of the Species

Ocelot

In 1982, the ocelot was designated as an endangered species under the Endangered Species Act of 1973, as amended, a status that extended U.S. protections to the species throughout its range in 22 countries, including Texas, Mexico, and Central and South America. Critical habitat has not been designated for the ocelot. Ocelot populations gained greater protections in 1989, when the species was upgraded to Appendix I of the Convention on International Trade in Endangered Species of Flora and Fauna (CITES); a protection that prohibits CITES signatories from permitting any trade in the species or its parts. Two subspecies occur in the U.S.: the Texas ocelot (*L.p. albescens*) and the Sonoran ocelot (*L.p. sonoriensis*). The Texas ocelot is isolated from the Sonoran ocelot by the Sierra Madre highlands in Mexico (Tewes and Schmidly 1987, Service 1990).

Description

The ocelot is a medium-sized cat, measuring up to 3 feet in body length and weighing twice as much as a large domestic cat. It is slender and covered with attractive, irregular-shaped rosettes and spots that run the length of its body. The ocelot's background coloration can range from light yellow, to reddish gray, to gold, to a grayish gold color. They have a white underside. The head has spots, 2 black stripes on the cheeks, 4 to 5 longitudinal black stripes on the neck and their black ears have large white spots on the back. The tail has dark bars or incomplete rings. Though it resembles the margay (*Leopardus wiedii*) the ocelot is approximately twice the size of a margay with a slightly shorter tail (Murray and Gardner 1997, de Oliveira 1998)

Habitat

Tamaulipan brushland is a unique ecosystem in South Texas and northeastern Mexico. Characteristic vegetation of Tamaulipan brushland is dense and thorny. It is estimated approximately 95 percent has been cleared for agriculture, urban development, road developments and expansions, and recreation (Service 1990, Jahrsdoerfer and Leslie 1988). Tewes and Everett (1986) found less than 1 percent of South Texas supported the extremely dense thornscrub used by ocelots.

Tewes and Everett (1986) classified ocelot habitat in Texas according to the amount of foliar canopy. Class A or optimal habitat was 95 percent canopy cover, Class B or suboptimal habitat was 75 percent to 95 percent canopy cover, and Class C, with 75 percent or less canopy cover, was considered inadequate. The most crucial habitat component is probably dense cover near the ground (<3 feet in height). Jackson et al (2005) suggest that the ocelot in Texas prefers closed canopy over other land cover types, but that

areas used by this species tend to consist of more patches with greater edge. The cat is reported to occur along watercourses, and will readily enter the water (Goodwyn 1970 as cited by Service 1990), but it is unclear if this proximity to water is a habitat requisite or simply an indication of where dense cover is most likely to occur.

Species composition of shrubs used by ocelots was quantified in three plant communities, two in Texas and one in Mexico (Shindle and Tewes 1998, Caso 1994). The dominant species were granjeno (*Celtis pallida*), crucita (*Eupatorium odoratum*), Berlandier fiddlewood (*Citharexylum berlandieri*), honey mesquite (*Prosopis glandulosa*), and desert olive (*Forestiera angustifolia*) in and honey mesquite and snake-eyes (*Phaulothamnus spinescens*) in Texas. In Mexico, ocelot habitat use was 97.6 percent mature forest (heavy rain forest to sparse tropical deciduous forest) and 2.4 percent pasture-grassland (Caso 1994).

Life history

The ocelot is primarily nocturnal, although some diurnal activity has been recorded (Navarro-Lopez 1985, Tewes 1986, Tewes and Schmidly 1987, Laack 1991, Caso 1994). Navarro-Lopez (1985) found ocelots in Texas to have two peaks of activity, one at about midnight and the other at daybreak. Ocelots are solitary hunters and eat a wide variety of prey, but mammals, especially rodents, make up the bulk of their diet (Bisbal 1986, Emmons 1987, Service 1990). Other items of prey include birds, armadillos, marsupials, monkeys, rabbits, bats, feral hogs, reptiles, fish and crabs (Emmons 1987, Ludlow and Sunquist 1987, Service 1990).

The reproductive season is year round, with spring or autumn breeding peaks noted in Texas and Mexico. The mating season varies from region to region. In the Yucatan, mating occurs in October and October-January peaks are also reported from Paraguay and northeastern Argentina. Laack (1991) observed first reproduction in wild females between 30 and 45 months-of-age, but Eaton (1977) and Tewes and Schmidly (1987) estimated they may produce young at 18-30 months of age. Ocelots can produce young year round and have a gestation period of 70-80 days (Eaton 1977; Laack 1991). Litters contain 1, 2, and rarely 3 kittens (Eaton 1977, Laack 1991). Laack et al. (2005) reported an average of 1.2 kittens per litter for 16 litters born to 12 ocelots in Texas. Den sites are usually well hidden and include dense, thorny scrub, caves, hollows in trees or logs, and grass tussocks (Laack 1991; Tewes and Schmidly 1987). The mother provides extended parental care to the young because of the time it takes for them to become proficient at capturing prey. Males are believed to contribute little to direct parental care (Tewes 1986, Laack 1991).

Adults of both sexes tend to have home ranges exclusive of other adult individuals of the same sex, but there is considerable home range overlap between the sexes (Emmons 1988, Laack 1991). Adult males have larger home ranges than adult females. The home ranges of subadult males and females tend to be similar in size to the home ranges of adult females until dispersal (Laack 1991). A number of studies have looked at the home range size of ocelots in Texas and Mexico, as determined from monitoring radio-collared individuals. Home range size generally varies from 0.77 to 6.9 square miles (Caso 1994, Ludlow and Sunquist 1987, Konecny 1989, and Dillon 2005). The established adult home ranges of ocelots in Laack's study (1991) of dispersing ocelots did not include semi-isolated patches and transient home ranges were at times farther from the natal range than the animal's eventual home range.

Ocelots live solitary lives except when a female is with kittens or when pairs come together briefly to breed. They disperse from the natal range at approximately two years of age. Young males always disperse from their natal areas, while young females may or may not leave their natal area. Laack (1991)

reported on the dispersal of five male and four female subadult ocelots at Laguna Atascosa National Wildlife Refuge. One ocelot dispersed at 14 months-of-age, another at 20 months-of-age, and 5 at 30-35 months-of-age, but only four lived to establish home ranges. Seven to 9.5 months elapsed between the leaving the natal range and establishing an independent home range. One female moved 1.6 miles (distance between home range centers) and the males moved 4.3 to 5.6 miles. During dispersal the ocelots used narrow (16.4- foot – 328-foot) corridors of brush along resacas and drainage ditches and small scrub patches within agricultural or pasture land. The ocelots tended to avoid areas occupied by adults. According to Laack (1991), none of the dispersing ocelots successfully joined a population outside of Laguna Atascosa National Wildlife Refuge.

Several studies resulted in the estimation of various survival rates. Tewes (1986) reported a survival rate of 71 percent based on four mortalities while monitoring 12 radio-tagged ocelots and Haines et al. (2005b) estimated an annual survival rate at 87 percent for resident adults and 57 percent for transient ocelots. For newborn ocelots Laack et al. (2005) estimated 68 percent annual survival rate.

Population dynamics

Tewes and Miller (1987) suggested that several factors, including habitat islands saturated with resident ocelots, frustrated dispersal, and offspring that fail to leave parental home ranges, may indicate the possibility of inbreeding. The Service believes the fragmentation of habitat is likely reducing the ability of ocelots to interact freely, which will likely reduce the genetic viability of the species over time, and, because ocelots have to cross areas of little or no habitat to interact, may also be increasing the risk of harm to individual ocelots. Genetic studies to determine genetic differentiation were done on three populations, the Laguna Atascosa National Wildlife Refuge in Cameron County, the Willacy County population and Tamaulipas and Vera Cruz Mexico populations including 3 contiguous ranches; and northern Mexico including 4 private ranches in Tamaulipas and Vera Cruz, Mexico. Low variability was expected within the Texas populations because of range reduction and fragmentation. Inbreeding was not detected among the three populations. The study showed the Willacy and Mexico populations were more closely related genetically than the Laguna Atascosa population was to either. Walker (1997) suggested that Laguna Atascosa National Wildlife Refuge and Willacy populations have lost genetic variation when they became isolated from ocelots in Mexico and from each other. Some habitat is managed for the ocelot, but in general, the quality and quantity of Texas optimal ocelot habitat is on a downward trend and most likely supports a smaller population than that of the 1980's. The continued existence of the ocelot in its northern habitat is critical in stabilizing and reversing ocelot decline in Texas. However, much of the area that could be restored to suitable habitat occurs on private lands. The Lower Rio Grande Valley is rapidly growing and agricultural lands are rapidly being developed (Wilkins et al. 2000). Opportunities for landowners to participate in economic incentive programs and Safe Harbor Agreements may enable the proactive conservation of the ocelot.

Status and distribution

Historically, the ocelot occurred in Arkansas, Arizona, southern California, Texas, Mexico and southward through Central and South America to Peru, Uruguay, and northern Argentina (Navarro-Lopez 1985). Today it ranges from southern Texas and northern Sonora, Mexico to Central America, Ecuador and northern Argentina, but in reduced numbers (Tewes and Everett 1986; Emmons 1990; Murray and Gardner 1997).

Two U.S. breeding populations of ocelot occur in southern Texas (Tewes and Everett 1986). One population occurs in Willacy and Kenedy counties primarily on private lands (Navarro-Lopez 1985) and the other in Cameron County primarily on the Laguna Atascosa National Wildlife Refuge (Laack 1991).

In Texas, over the past 20 years, individual ocelots have only been documented in Cameron, Hidalgo, Willacy, Kenedy and Jim Wells counties (Tewes and Hughes 2001). Laack and Rappole (1986) documented ocelot sightings in Cameron County. Shinn (2002) used camera traps and hair snares on 25 widely scattered tracts managed by the Service's South Texas Refuges Complex (STRC), and did not find evidence of ocelots west of Brownsville on the Rio Grande River. His studies did confirm the presence of the species in extreme southern Cameron County and in extreme western Willacy County.

In Hidalgo County, at the Santa Ana National Wildlife Refuge, at least one ocelot has been radio-tracked from the 1990's and it is believed that they may still occur in the area (Mays 2007). Fischer (1998) trapped, radio-tracked and tagged an adult female from 1992 through 1996 along the Rio Grande River in southeastern Hidalgo County. Out of 8,304 trap-nights he caught 21 bobcats, 300 non-target animals, and no other ocelots.

In 1982, Tewes (1986) trapped 2 ocelots on a private ranch in Willacy County. Five ocelots (3 females, 1 male and 1 of unknown sex) were identified in Willacy County near Raymondville, Texas in December 2002. Based on two photographs on October 11, 2003, one of the females was pregnant; therefore, a sixth resident ocelot may have been born (Sternberg and Chapa 2004). Between October and December 2003, camera traps photographed three cats on another private ranch in Willacy County.

"Occupied habitat" occurring in Jim Wells, Nueces, Live Oak, and Kleberg counties, 50 miles north of the Willacy-Kenedy population is shown in Figure 9 of the recovery plan (Service 1990). It is presumed that ocelots may still occur there because of documented roadkills on US 77 South but no reproducing populations have been found. In 1997 and 1998, Tuovila (1999) did a trapping study in the southern half of Live Oak County and northernmost Jim Wells. He trapped 17 bobcats and 238 non-target animals, but no ocelots. No ocelots were documented at Choke Canyon Reservoir in Live Oak and McMullen counties, Texas during trapping efforts despite a 10-year increase in optimal ocelot cover (Grassman et al. 2006).

Tewes and Everett (1986) based a "crude estimate" of the total ocelot population size in South Texas from 80 to 120 individuals upon an aerial survey of brush habitat and knowledge gained from following the movements of radio-collared ocelots trapped in or near Laguna Atascosa National Wildlife Refuge. Haines et al. (2005a) estimated the number of breeding individuals in the Laguna Atascosa National Wildlife Refuge population was 19 ocelots with a total population of 38 ocelots in Cameron County. He estimated the population by averaging ocelot home range sizes reported by Navarro-Lopez (1985), Tewes (1986), and Laack (1991) and extrapolating this estimate to the amount of available dense thornscrub habitat and assumed adults equaled half of the total population. Today, fewer than 50 individuals may remain in South Texas and the U.S. The Cameron County ocelot population is estimated at 25 individuals (Mays 2007). A much larger population of the Texas ocelot occurs in Tamaulipas, Mexico near San Fernando, approximately 100 miles south of the U.S.-Mexico border (Caso 1994). In forested South America, alone Emmons (1988) noted that even at the lowest density estimates (one animal per 1.9 square miles) there would be approximately 800,000 ocelots, and suggested that true numbers are probably 1.5 to 3 million.

Reason for Listing

Fragmentation of habitat, loss of connectivity, and habitat loss due to brush clearing are primary reasons for ocelot decline. Ocelots rely upon thick vegetation along the Lower Rio Grande and the South Texas

Tamaulipan brush community for foraging, resting, and establishing dens. They require corridors, such as rivers, shorelines, and natural drainages to travel between optimal habitat areas. Destruction and fragmentation of optimal habitat and travel corridors increases threats to the ocelot, such as incidental trapping, competition from feral dogs and cats, and mortality from vehicles. In Mexico, particularly in the northeast, ocelots suffer from habitat loss due to charcoal production, agriculture and livestock ranching. Human population increases and associated urban expansion in lower Rio Grande Valley have resulted in brush clearing and increased pollution (Service 1986). Industrialization has degraded water quality (Service 1986). Brushland habitats have also been converted to rangeland with herbicides (Bontrager et al. 1979), root plowing, and fire (Hanselka 1980).

Pesticides can be incorporated into the food chain and are potentially harmful or fatal to terrestrial and aquatic organisms. Agriculture pesticides are used year-round in the Lower Rio Grande Valley and drift and overspray from aerial applications occur periodically on Service lands. In the Lower Rio Grande Valley, runoff from cultivated fields may concentrate pesticides and herbicides in permanent bodies of water. The types of pesticide chemical compounds and application rates have been extensive and heavy throughout the Lower Rio Grande Valley. As a result, pesticide accumulation in the biota remains a major concern in management of Tamaulipan brushland. Dichlorodiphenyldichloroethylene (DDE), polychlorinated biphenyls (PCBs), and mercury have been detected in ocelot blood and hair samples at low concentrations but are not believed to be a problem at this time (Mora et al. 2000).

Although habitat loss in South Texas is mainly attributable to agricultural and urban expansion, other contributing factors include human modifications of the Rio Grande with dams and reservoirs for flood control and hydroelectric power; floodway systems that remove water from the stream channel during peak flows; water diversions for irrigation, municipal, and industrial usage; and channel restriction and canalization (Coastal Impact Monitoring Program 1995).

As a result of increasing economic integration between the U.S. and Mexico, there is increasing pressure for highways and bridge infrastructure and recently increasing national security concerns increase pressure for border fences and lighting in the Texas/Mexico border region. There are 11 existing and one proposed international bridge (Brownsville Navigation District) along the Rio Grande between Falcon International Reservoir and the Gulf of Mexico. Local population growth and rapid industrialization on the Mexican side of the border have raised Service concerns regarding the placement of road and bridge infrastructure in the Lower Rio Grande Valley. Increased construction of these bridges may impact certain parcels of the Lower Rio Grande Valley National Wildlife Refuge, the Rio Grande floodplain, and the remaining riparian wildlife habitat and disrupt the continuity of the "wildlife corridor."

Importing and exporting skins of many spotted cats became illegal in the U.S. between 1967 and 1973 and the ocelot was added to Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora during 1989. Recommendations were made by Tewes and Everett (1986) for selective methods of predator control and the education of hunters to avoid accidental shooting of ocelots. In 1997, the Service entered into a section 7 consultation with the U.S. Department of Agriculture's Animal Damage Control for the use of leg-hold traps, snares, and M-44s explosive predator baits in South Texas and provided provisions for the protection of ocelots during their practices.

Data is limited regarding disease in the ocelot but several diseases and parasites have been documented. Some include Notoedric mange (*Notoedres cati*) (Pence et al. 1995), Hepatozoon in the blood, Cytauxzoon in their red blood cells, fleas (*Pulex sp.)*, dog ticks (*Dermacentor variabilis*) and Amblyomma ticks (Mercer et al. 1988). The tapeworm (*Taenia taeniaeformis*) (Service 1990) and

helminthes (Pence et al. 2003) were also reported in ocelots.

Ocelot mortality has also been attributed to aggression and predation by other animals. Ocelots can be prey of domestic dogs, coyotes, snakes, alligators and bobcats (Service 1990).

Vehicular collisions are the greatest known cause of ocelot mortality in South Texas accounting for 45 percent of deaths of 80 radio-tagged ocelots monitored by Haines et al. (2005b) between 1983 and 2002. Some underpasses and culverts have been or are to be installed for ocelots in critical areas to be used as travel corridors. The construction or modification of two roads that underwent formal section 7 consultation, SH 48 and FM 106 made provisions for the careful placement, design and maintenance of such culverts. It is anticipated these culverts and underpasses will allow ocelots to disperse between patches of suitable habitat and reduce genetic isolation of the populations.

The construction or proposed construction of approximately 70 miles of border fence in the Rio Grande Valley covering three counties (Cameron, Hidalgo, and Starr County) increase habitat fragmentation, reduce or eliminate connectivity (north-south travel) on and off refuge lands. In Hidalgo County, 22 miles of flood control wall/fence is an impermeable barrier to terrestrial wildlife. The fence proposal (14 miles) in Starr County will be constructed within the flood plain close to the Rio Grande River, the major water source for wildlife, and isolate wildlife from the river. The "wildlife corridor" for the ocelot and jaguarundi along the river riparian are that the Service has been developing since 1979, is severely impacted by the border fence.

Range-wide trend

The current population estimates for the ocelot is fewer than 50 individuals in South Texas. However, the population in Cameron County remains unknown due to lack of surveys conducted in the area and lack of confirmed sightings of the animal. In Cameron County, the last confirmed sighting was in 2010.

Critical Habitat

Critical habitat has not been designated for this species.

Jaguarundi

The jaguarundi was listed as endangered on June 14, 1976 (41FR24064). The jaguarundi is also listed in the CITES Appendix I of the convention which bans international commerce. CITES offers some protection over much of its range. Hunting is prohibited in Argentina, Belize, Bolivia, Columbia, Costa Rica, French Guiana, Guatemala, Honduras, Mexico, Panama, Paraguay, Surinam, Uruguay, United States, and Venezuela. Hunting is regulated in Peru, while no legal protection is offered in Brazil, Nicaragua, Ecuador, El Salvador, and Guyana. No critical habitat is designated for this species.

Description

The jaguarundi has a long slender body, short legs, and sleek un-patterned fur, and looks more like a large weasel than a cat. They are roughly twice the size of a domestic cat, weighing about 7 to 22 lbs., standing 10 to 14 inches at the shoulder, and can be up to 4 feet long from nose to tail tip, with the tail taking up about a third of its length. It has a long and flat head instead of a round one. The ears are short and rounded, and this is one of the few cat species that does not have a contrasting color on the backs of the ears. Their eyes are small and set closely together.

Jaguarundi have two distinct color phases, red and gray, although the latter phase has also been called blue. The phases are so distinct that at one time they were thought to be separate species, the red one

being called *Felis eyra*. A third color phase, black, has also been reported, but apparently does not occur in Texas (Goodwyn 1970). These cats are not known to be closely related to the other small South American cats. Instead of having 36 chromosomes, like the South American cats, it has 38 like the cougar and puma (Tewes and Schmidly 1987).

Habitat

Habitat requirements in Texas are similar to those for the ocelot: thick, dense thorny brushlands or chaparral. Approximately 1.6 percent of the land area in South Texas is this type of habitat (Tewes and Everett 1986). The thickets do not have to be continuous but may be interspersed with cleared areas. Jaguarundi possibly show a preference for habitat near streams (Goodwyn 1970; Davis and Schmidly 1994) and may be more tolerant of open areas than the ocelot. The jaguarundi uses mature forest (i.e., brush) and pasture-grassland (Caso 1994). Jaguarundi habitat use was 53 percent mature forest and 47 percent pasture-grassland. Jaguarundi use open areas for hunting and sometimes resting, but if threatened with a potential danger they will seek cover in brush areas.

In South America, habitat includes high mountain forests, tropical forests, swamp forests, savannahs, overgrown pastures, and thickets (NFWL 1980, Tewes and Schmidly 1987). In Venezuela, it has been most frequently found to occur in tropical dry forest relative to other habitat types. They are rarer and thinly distributed in moist forest types, especially deep rain forest. They have been reported to prefer forest edges and secondary brush communities, but this is where they are most frequently seen. In Belize's Cockscomb Basin Wildlife Sanctuary, jaguarundi are most frequently associated with water and old-field habitats. It appears to be the most flexible cat in its ability to occupy different habitats and having access to dense ground vegetation appears to determine habitat suitability (Nowell and Jackson 1996).

The most common plants occurring in habitats where the jaguarundi is known to occur are huisache (*Acacia farnesiana*), blackbrush acacia (*Acacia rigidula*), prairie baccharis (*Baccharis texana*), chilipiquin (*Capsicum annuum*), lotebush, allthorn goatbush (*Castela texana*), Texas persimmon (*Diospyros texana*), coyotillo (*Karwinskia humboldtiana*), common lantana (*Lantana horrida*), berlandier wolfberry (*Lycium berlandier*), javelinabrush (*Microrhammus ericoides*), Texas pricklypear (*Opuntia lindheimeri*), retama (*Parkinsonia aculeata*), honey mesquite, cedar elm (*Ulmus crassifolia*), and lime pricklyash (*Zanthoxylum fagara*) (Goodwyn 1970).

Life history

Most information gathered on the jaguarundi comes from historical writings and information gained from studying the ocelot in South Texas and in Mexico.

In Belize, jaguarundi are seen quite often and Konecny (1989) found that two males had home ranges of 38.6 and 34 square miles, and one female had a home range of 7.7 square mile. Caso (1994) captured and radio collared jaguarundi in Tamaulipas, Mexico from 1991 to 2005. He found home range sizes averaged 3.8 and 3.22 square miles for males and females, respectively. Both studies captured jaguarundi in undisturbed brush and grasslands with scattered second growth woodlands (Caso 1994). Historical accounts from Mexico suggest that jaguarundi are good swimmers and enter the water freely.

Little is known of jaguarundi reproduction in the wild. Den sites include dense thickets, hollow trees, spaces under fallen logs overgrown with vegetation, and ditches overgrown with shrubs (Tewes and Schmidly 1987; Davis and Schmidly 1994). In Mexico, they are observed as being solitary, except during November and December when they mate. Young have been born in March and August with possibly

two litters per year. Usually two to four young comprise a litter, with litters being either all of one color phase or containing both the red and gray phases. Jaguarundi kittens are spotted at birth, and lose their markings as they mature. Gestation (for captive jaguarundi) varies from 63 to 75 days (Goodwyn 1970; Tewes and Schmidly 1987; Davis and Schmidly 1994). Jaguarundi communicate by calls, of which 13 have been identified in captive animals. The largest repertoire occurs during the mating season (Hulley 1976).

The jaguarundi is primarily diurnal, although some nocturnal activity has been recorded (Konecny 1989, Caso 1994). However, it appears to be less nocturnal than the ocelot. They are excellent climbers although they spend most of the time on the ground. They hunt primarily in the morning and evenings. Prey is largely birds, but bird eggs, rats, mice, rabbits, reptiles and fish are also taken (Goodwyn 1970; Tewes and Schmidly 1987; Davis and Schmidly 1994). In Venezuela, Bisbal (1986) found the diet of jaguarundi to be 46 percent mammals, 26 percent birds, and 29 percent reptiles.

Population dynamics

Habitat loss and alteration due to brush-clearing activities, human encroachment, and human persecution are the main cause for the decline in jaguarundi populations (Service 1995). Tracts of at least 100 or 75 acres of isolated dense brush, brush interconnected with other habitat tracts by brush corridors, or smaller tracts adjacent to larger areas of habitat may be used by
jaguarundi. Roads, narrow water bodies, and rights-of-way are not considered barriers to movements. Brush strips connecting areas of habitat, such as brushy fence lines and water courses, are very important in providing escape and protective cover.

The jaguarundi is generally not exploited for commercial trade and does not experience the harvest pressure that is experienced by the ocelot (Sunquist and Sunquist 2002). In Central and South America, Texas, and Northeastern Mexico, the coat of the jaguarundi is not highly sought after by the skin trade because of its poor quality and lack of spotting. They are difficult to trap but may be caught in traps set for commercially valuable species and may be subject to low intensity hunting pressure around settled areas.

Status and distribution

The jaguarundi historically occurred in southeast Arizona, South Texas, Mexico and Central and South America as far south as northern Argentina. Today this cat has a similar distribution, but in reduced numbers, although it probably no longer occurs in Arizona (Tewes and Schmidly 1987). It may also be extinct in Uruguay. They are reported to occur at Masaya National Park in Nicaragua, Soberania National Park in Panama and El Imposible National Park in El Salvador (Nowell and Jackson 1996). The presence of jaguarundi in Florida is likely the result of human introduction (Nowak and Paradiso 1983).

In Texas, jaguarundi have been known to occur in Cameron and Willacy counties. Tewes and Everett (1986) analyzed the records of a clearinghouse established in 1981 to coordinate reception and filing of reports of jaguarundi (and ocelots) in Texas. Many of the reports were solicited by sending out questionnaires to trappers. Jaguarundi were reported from central Texas and the upper Gulf Coast as well as from South Texas. However, due to lack of any tangible evidence, such as road kills, most of the sightings in the first two areas are believed to have been of black feral house cats. Tewes and Everett (1986) could make no estimate of the jaguarundi population in South Texas, although its population is presumably smaller than that of the ocelot, because confirmed sightings are rare. Goodwyn (1970) reported from interviews he conducted in 1969 that jaguarundi were thought to occur in seven specific areas: Santa Ana National Wildlife Refuge; Laguna Atascosa National Wildlife Refuge "Paso Real", an

area along the lower Arroyo Colorado on the border between Cameron and Willacy counties; the southern part of the El Sauz Ranch in northeast Willacy County; a small area west of Olmito in southern Cameron County; an area east of Villa Nueva; and an area near the Port Isabel airport in Cameron County.

Tewes (1987) and Tewes and Everett (1986) documented several other credible reports of jaguarundi in Cameron, Willacy and Webb counties. One was a road-killed male jaguarundi found near the junction of State Highway 4 and Farm-to-Market Road (FM) 511 (Keller's Corner) in Cameron County on April 21, 1986 (Tewes 1987; Laack and Rappole 1986). Unconfirmed jaguarundi sightings in Hidalgo County include Bentsen Rio Grande State Park, Santa Ana National Wildlife Refuge, Lower Rio Grande Valley National Wildlife Refuge, Laguna Atascosa National Wildlife Refuge, Cimarron Country Club, Wimberley Ranch, and the Anacua Unit of the Texas Parks and Wildlife Department's Las Palomas Wildlife Management Area, and other areas (Prieto 1990; Benn 1997). Unconfirmed sightings of a jaguarundi occurred at the Sabal Palm Grove Sanctuary in Cameron County in 1988 (Anonymous 1989) and at the Santa Ana National Wildlife Refuge in March 1998 (Santa Ana National Wildlife Refuge data). Based upon sighting reports, personnel of the Santa Ana National Wildlife Refuge suspect the presence of jaguarundi on the refuge (Benn 1997). The most recent sighting by an Ecological Service biologist was at Laguna Atascosa National Wildlife Refuge, in Cameron County, on November 22, 2004, when two jaguarundi were sighted approximately 0.75 mile north of FM 106 and Buena Vista Road which is the entrance road to the Refuge (Reyes 2008).

Reason for Listing:
Loss of habitat is one of the main threats to the jaguarundi. Historically, dense mixed brush occurred along dry washes, arroyos, resacas, and the flood plains of the Rio Grande. A majority of shrub land has been converted to agriculture and urban development. Unfortunately for the jaguarundi, the best soil types used for agricultural crops also grow the thickest brush and thus produce the best habitat for the jaguarundi. Less than 5 percent of the original vegetation remains in the Rio Grande Valley.

Range-wide trend
As mentioned, the number of jaguarundi in South Texas is unknown. For Cameron County, there have been no surveys or confirmed sightings in recent years. Unconfirmed jaguarundi sightings in Hidalgo County include Bentsen Rio Grande State Park, Santa Ana National Wildlife Refuge, Lower Rio Grande Valley National Wildlife Refuge, Laguna Atascosa National Wildlife Refuge, Cimarron Country Club, Wimberley Ranch, and the Anacua Unit of the Texas Parks and Wildlife Department's Las Palomas Wildlife Management Area, and other areas (Prieto 1990; Benn 1997).

Critical Habitat
Critical habitat has not been designated for this species.

III. Analysis of the species habitat likely to be affected

Ocelot and Gulf Coast Jaguarundi

The proposed US 77 upgrades are within known endangered cat travel corridors and may harm or harass the species within the action area. Potential effects include removal of dispersal habitat, fragmentation of remaining habitat, possible isolation of individuals, and impeded movements of individuals due to noise, construction and operational activities and mortality due to roadkill. The effects of the proposed action on cats will be considered further in the remaining sections of this opinion.

Environmental Baseline

Under section 7(a)(2) of the Act, when considering the effects of an action on Federally-listed species, the Service is required to take into consideration the environmental baseline. The environmental baseline includes past and ongoing natural factors and the past and present impacts of all Federal, State, or private actions and other human activities in the action area, including Federal projects in the action area that have already undergone section 7 consultation and the impacts of State or private actions which are contemporaneous with the consultation in process (50 CFR 402.02).

Status of the habitat within the action area

The majority of the land along US 77 within the project limits is cropland or undeveloped rangeland, with developed areas mainly limited to scattered communities. The area is broad and relatively flat coastal plain with elevations along the project range from approximately 15 feet above mean sea level (msl) in portions of Kenedy County to approximately 70 feet above msl at the north end of the project in Nueces County. The project area ranges from approximately 4 miles from coastal waters at Riviera in Kleberg County to approximately 26 miles at the south end of the project in Cameron County. Los Olmos Creek is the only tidally influenced stream in the project area and the US 77 crossing in Kenedy County appears to be located near the extent of tidal influence. There is a total of 3,419.6 acres of vegetation/wildlife habitat. Approximately 1,361.3 acres of the vegetation/wildlife habitats in the project area are located within the sand sheet in Kenedy County. This includes approximately 984.5 acres of maintained vegetation, all of the Mesquite-Baccharis Shrub/Parks/Woods (315.7 acres) all of the Live Oak Parks/Woods (44.5 acres) and 16.6 acres of aquatic/semi-aquatic habitats.

Nueces County and Kleberg County – This area consists of cropland transitioning to cleared pastureland and urban communities such as Robstown, Driscoll, Bishop, Kingsville, Ricardo, and Riviera. Soils are loamy and sandy with a number of natural streams and irrigation/drainage ditches. Some of the streams include Petronila, Carreta, San Fernando, Tranquitas, San Gertrudis, Escondido, Jaboncillos, Ebanito, Radicha, Araña, and Los Olmos Creeks. The existing ROW is maintained and dominated by introduced grasses such as buffelgrass (*Pennisetum cilare*), King Ranch bluestem (*Bothriochloa ischaemum* var. *songarica*), Angelton bluestem (*Dichanthium aristatum*), and bermudagrass (*Cynodon datylon*).

Kenedy County and Northern Willacy County – This section of US 77 traverses a large expanse of rangeland associated with large ranches, including the King, Kenedy, Armstrong, and Yturria Ranches. Sarita is the only community within this section. There are sand dunes and wind-blown depressions, or "blowouts", in flat sand sheets covering large areas with an occasional dune. The existing ROW includes a combination of maintained herbaceous vegetation and mesquite and live oak woodlands. Within portions of this segment the median contains mesquite or oak woodlands similar to surrounding properties. The large ranches surrounding this segment are undeveloped and contain mesquite woodlands and savannahs, live oak woodlands, and grasslands. Major drainages are absent from this area. Aquatic habitats are limited to scattered depressions that hold water only temporarily during wet seasons.

Central/Southern Willacy County and Cameron County - This area is dominated by cropland, with urban areas in Raymondville, Lyford, Sebastian, and Combes. Soils in this area are typically sandy and clay loams. The existing ROW consists of maintained herbaceous vegetation dominated by introduced grasses with planted American cotton palms (*Washingtonia filifera*) and strips of oleander (*Nerium oleander*).

Scattered wooded areas are dominated by mesquite and occur in scattered patches, usually associated with large residential properties, and in strips between US 77 and the Union Pacific Railroad. Aquatic habitat within this portion of the project area includes man-made drainages that include the North Floodway, Willacy County Drainage Canal, East Main Drainage and few other small manmade ditches/canals. Scattered excavated ponds and wetland complexes are present in surround properties.

Status of the species within the action area

Ocelots

Two known ocelot populations are located east of US 77 in Willacy and Cameron counties. The nearest is within the Yturria Ranch conservation easements located 7 miles east of the project area. There have been four documented young adult male ocelot road mortalities on US 77 between the project limits: 2.8 miles north of Sarita (October 1997), 4.0 miles south of Sarita (August 1990), 1 mile south of the Kenedy/Willacy County line (December 24, 2010), and 1.0 mile north of Lyford (November 1997) (**Figure 18**). Future plans include translocation of ocelots from Mexico to known populations at Laguna Atascosa National Wildlife Refuge (Cameron County) and Yturria Ranch (Willacy County) to augment those populations.

In Kenedy County and northern Willacy County, scattered patches of mesquite and oak-dominated woods and brush are present in the highway median along the ROW edges in these areas. There are no discrete, heavily vegetated travel corridors that ocelots would use to cross the highway, however, wooded vegetation along the ROW edges and large expanses of undeveloped rangeland that contain mesquite-and oak-dominated woodlands in adjacent ranches may provide temporary refuge for dispersing ocelots that cross US77. In addition, the East Main Drain located approximately 65.5 miles south of the Kenedy/Willacy County line, also provides a potential travel corridor through otherwise cleared agricultural lands.

Jaguarundi

Habitat conditions within the action area are similar to those described above for the ocelot, although jaguarundi are known to use a wider range of habitats, including grasslands. One class II (reliable observation/observer) observation was recorded within 5 miles of US 77 in Kenedy County (NDD 2007, 2009). As with the ocelot the greatest potential for jaguarundi to cross US77 occurs in the undeveloped rangeland in Kenedy and Northern Willacy counties.

Factors affecting species environment within the action area

Land Ownership

The majority of the land in the action area is in private ownership and is primarily agricultural or ranch land. There are multiple private owners along and adjacent to US 77 action area where ocelot roadkills have been documented. Future land use in the project area is expected to be driven by the goals, objectives and mandates of these landowners and may have a direct relationship on the effectiveness of any structural conservation measures.

Habitat Acquisition and Management

The STRC is situated in southernmost Texas, and is made up of three National Wildlife Refuges: Santa Ana National Wildlife Refuge, Laguna Atascosa National Wildlife Refuge, and Lower Rio Grande Valley National Wildlife Refuge.

Wildlife flourishes in a wide array of species and large numbers of individuals due to the extant habitat

diversity resulting in part from warm climate year-round, moderate amounts of precipitation, and the Rio Grande flowing into the Gulf of Mexico. The economics of Rio Grande Valley wildlife and habitat diversity are important to the international border region as approximately 200,000 tourists annually spend approximately $150 million. Because approximately 95 percent of the vegetation in the Lower Rio Grande Valley has been cleared or altered, National Wildlife Refuges, state parks and wildlife areas, properties purchased for conservation by nonprofit organizations, and some private holdings, are important links in the efforts to protect the tremendous biodiversity and related economics of the region. To preserve and manage remnants of these communities and attempt restoration of adjacent disturbed lands, the Service established the STRC.

The STRC is a vital part of the wildlife corridor system in South Texas and in the project area. The Service is acquiring and enhancing native Tamaulipan brushland along the Lower Rio Grande Valley National Wildlife Refuge to promote movements of endangered cats between known and suspected areas of occupation. Consequently, much of the land purchased by the Service has been and continues to be, actively cultivated. To address this, the National Wildlife Refuge has developed an extensive cooperative farming and revegetation program and is replanting between 750 and 1,000 acres of farmland a year to native brush. Since 1993 over 8,000 acres have been revegetated, but this is not enough to keep up with wildlife habitat needs. In 2000, the Lower Rio Grande Valley National Wildlife Refuge managed 30,000 acres of land in need of revegetation. Revegetation continues to be part of the active management plan for the STRC's units.

The resource protection and management strategy consists of five integrated approaches to address complex resource needs. They include: concentration of biotic community needs, maintenance of a wildlife habitat corridor, safeguarding of anchor units of large size, protection of strategically placed management units of smaller size, and the incorporation of about 20 habitat islands into the protection plan. The STRC is protecting and connecting blocks of rare habitat that will undoubtedly serve as a model for future habitat conservation networks. Individual tracts of the Lower Rio Grande Valley National Wildlife Refuge and Laguna Atascosa National Wildlife Refuge serve as both core habitat blocks and corridor links. Directly to the south are ecologically valuable areas such as the Laguna Madre of Tamaulipas, Mexico, and the Sierra Picachos (in Nuevo Leon, Mexico) that are receiving focused conservation attention from the Mexican Government and a number of interested Mexican and US conservation organizations. The Service's Lower Rio Grande/Rio Bravo Binational Ecosystem Group has been working with Mexico to establish a wildlife corridor along the river within the project area and in Tamaulipas to connect these important ecologically valuable areas. To the north lies the Laguna Atascosa National Wildlife Refuge and the great Texas ranch country with their huge blocks of intact habitat.

Wildlife Corridors

Presently, two general types of brush habitats exist in the Lower Rio Grande Valley, riparian and scrub forests, and upland thornscrub and thorn woodland. Riparian and scrub forests associated with the Rio Grande consist of several intergrading habitat types that produce taller vegetation than surrounding areas. This vegetation is important to wildlife as corridors throughout the Lower Rio Grande Valley as are "resacas" which are former streambeds now subject to repeated drying and inundation and often forming a long quiet pond or oxbow (Service 1984 and Crosswhite 1980 as cited by Jahrsdorfer and Leslie 1988). Upland areas are dissected by "arroyos" or riparian strips of dense brush known as "ramaderos". Ramaderos provide important nesting and feeding habitat for various wildlife species as well as access routes to riparian brush along the Rio Grande (Collins 1984). Tamaulipan brushland provides important feeding, nesting and cover habitats for many species including the endangered ocelot and jaguarundi.

A wildlife corridor is a linear habitat, embedded in a dissimilar matrix that is proposed for conservation on the grounds that it will enhance or maintain the viability of specific wildlife populations in the habitat blocks (Beier and Noss 1998). The original landscape in many reserve areas, as in the Lower Rio Grande Valley, was once a series of interconnected natural habitat. Thus, corridors are an attempt to maintain or restore natural landscape connectivity. Increased connectivity along with increased effective habitat area, counteract habitat fragmentation (Noss 1987).

Corridors facilitate gene flow and dispersal of individual animals. Life histories of wide-ranging animals suggest that maintenance or restoration of landscape connectivity is a good management strategy (Noss 1987). Corridors alleviate threats from breeding depression, and a network of refuges connected by corridors may allow persistence of species that need more resources than are found in on refuge.

In summary, the ocelot and jaguarundi are very scarce and their limited habitat is severely fragmented (Tewes and Schmidly 1987). Having to utilize habitat fragments makes them highly vulnerable to vehicle strikes, reduces genetic viability, and minimizes the likelihood of their survival and recovery in the wild. Ideker (1984) concluded the only hope for the continued survival of both cats in Texas lay in the preservation of its rapidly vanishing brush habitat and conversion of cleared connecting habitat back to dense brush.

Vegetation Removal

Clover (1937 as cited by Jahrsdorfer and Leslie 1988) noted that the brushlands of the Lower Rio Grande Valley in Cameron, Willacy, Hidalgo and Starr counties are more luxuriant than the brushlands farther south, and they are characterized by the predominance of several species of plants that decrease in abundance northward. Vegetation of the Lower Rio Grande Valley is unique because plants with western desert, northern, coastal, and tropical affinities are found in a relatively small area.

Many of the past and present activities in the area have had the net result of brush clearing. Collins (1984) remarked that brush clearing was a threat to endangered cats and that the institution of protective measures for brush areas was an immediate concern. The brush area served to support a variety of wildlife and as travel corridors for ocelots and jaguarundi. The Service recognizes Tamaulipan brushland as a unique ecosystem that is found only in the Lower Rio Grande Valley of south Texas in the US and northeastern Mexico. Since the 1920's more than 95 percent of the original native brushland in the Lower Rio Grande Valley has been converted to agriculture or urban use (Service 1980 and Parvin 1988a, b as cited by Jahrsdorfer and Leslie 1988) and 90 percent of the riparian vegetation had been converted to agriculture and urban land use (Service 1988). It is estimated that 98 percent of the lush, subtropical region of the Rio Grande delta has been cleared in the United States (Service 1980 as cited by Jahrsdorfer and Leslie 1988), and a large percentage of similar habitat has been cleared in Mexico (Collins 1984).

Effects of the Action

Under section 7(a)(2) "effects of the action" refers to the direct and indirect effects of an action on a species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action. The effects of the proposed action are added to the environmental baseline to determine the future baseline that serves as the basis for the determination in this biological opinion. The impacts discussed below are the Service's evaluation of the direct and indirect effects of the proposed action. Indirect effects are those caused by the proposed action that occur later in time, but are

still reasonably certain to occur (50 CFR 402.02). The Service has determined that there are no interrelated or interdependent actions apart from the action under consideration.

Direct and indirect effects on cats and their habitat include: (1) vehicular collision, (2) habitat loss, (3) fragmentation and reduced connectivity, (4) noise, and (5) human disturbance.

Vehicle Collisions

Ocelots have been seen to cross paved linear structures such as roads. Data indicates that ocelot vehicle collision is a significant source of mortality, with 44 percent (12 of 27) of known ocelot mortalities from 1982 to 1996 likely being vehicle related (Hewitt et al. 1998) and 45 percent of the total ocelot mortality documented in South Texas between 1983 and 2002 likely being vehicle related (Haines et al., 2005b). Road mortality has occurred in four recorded instances in the project area with the most recent in December 2010. Proposed improvements would increase the overall width of the roadway in several locations increasing the risk of further cat mortalities.

It is anticipated the construction of three wildlife crossings and associated diversion fencing and vegetation will help funnel the cats under the highway, allowing them to pass other areas of habitat thus avoiding or minimizing cat/vehicle collisions.

Direct loss of habitat

The proposed construction of ranch access roads at various locations would result in the removal of mesquite and oak-dominated woodlands from the highway median and along the ROW edges. Grasslands, shrublands, woodlands, and marsh areas within the ROW are potentially ocelot and jaguarundi habitat. Although the amount and type of habitat found along the ROW are not typical habitat, these areas provide temporary refuge for dispersing ocelots that cross US 77.

Minimizing the clearing of wooded areas, revegetating proposed wildlife corridor areas, ensuring EPIC sheets are noted for the developer/contractor to minimize clearing of wooded areas within the existing and proposed ROW and locating construction access and staging areas in areas that will not require clearing of wooded habitat is expected to avoid or minimize impacts associated with the loss of habitat.

Fragmentation and Reduced Connectivity

Along with habitat loss and degradation, most biologists agree that habitat fragmentation is a major cause of reduced biodiversity (Noss et al 2001). Habitat fragmentation is the separation of a landscape into various land uses (development, agriculture, etc...) resulting in numerous small disjointed habitat patches left for use by wildlife. Fragmentation eliminates areas needed for breeding, feeding, and sheltering for species like the ocelot and jaguarundi that require large, unbroken blocks of habitat. Fragmentation can also isolate cats from travel corridors and reduce dispersal for breeding. In a small population, such as the ocelot and jaguarundi in South Texas, inbreeding can reduce fitness of individuals and loss of genetic variability can reduce the ability of an animal to adapt to a changing environment (Lande 1988).

Additionally, the small habitat patches resulting from fragmentation often do not provide the food and cover resources necessary for many species. This can result in an increased risk of death by predation if the animal has to venture beyond the cover of the patch to find new food resources, or result in starvation if the animal remains in the patch. US 77 already fragments area habitat. The proposed wildlife crossing will facilitate connectivity between the habitat patches on both sides of US 77.

Reduction of habitat connectivity within the portions of the wildlife corridor will likely impact ocelot and jaguarundi movement, access to traditional water sources, and potential for gene flow. Impacts on these species relative to habitat connectivity are anticipated to be both short-and long-term, and range from minor to major depending upon the project. The connectivity for cats through the project sites will be reduced during construction and maintenance due to human activity, removal of habitat, time lapse until revegetation occurs and maintenance of US 77 and ranch access roads.

It is anticipated the construction of three wildlife crossings and associated diversion fencing and vegetation will help funnel the cats under the highway, allowing them to pass through to other areas of habitat thus minimizing fragmentation effects.

Noise

Noise can cause stress in animals and the autonomic responses to noise are varied. Geist (1979 as cited by Larkin 1996) believed that there was an energetic cost to animals being disturbed by noise. Others have used heart rate as physiological index of energy expenditure, monitored with telemetry, in wild animals exposed to noise. Still others have used heart rate changes to indicate alarm or excitement of animals exposed to noise (Larkin 1996). Noises vary according to the direction from where they are measured. (Larkin 1996). Responses of wildlife to noise have included a range of responses from no reaction, to alerting, disruption to feeding, and flight (Larkin 1996). There are no known studies that specifically address the effects of noise on ocelot or jaguarundi, in fact, information about the effect of noise on species of felines is lacking. It is reasonable to assume that the cats could display the range of responses to noise; they could have no reaction, become alert, and stop feeding or display a fight or flight response. For the proposed project, the most severe noise likely to be encountered by the cats is that from operation of construction equipment.

Noise created during construction and maintenance will have the potential to affect individual ocelot and jaguarundi that occur within the project area. All project-related noise will be temporary and will only be heard within the action area.

The impacts of noise will include subtle, localized impacts from the overall elevation of ambient noise levels during construction. Noise levels after construction are anticipated to return to close to current ambient levels. Elevated noise levels during construction could result in reduced communication ranges, interference with predator/prey detection, or habitat avoidance in the action area. More intense impacts will include behavioral change, disorientation, or hearing loss. Predictors of wildlife response to noise include noise type (i.e., continuous or intermittent), prior experience with noise, proximity to a noise source, stage in the breeding cycle, activity, and age. Prior experience with noise is the most important factor in the response of wildlife to noise, because wildlife can become accustomed (or habituate) to the noise. The proposed action runs along areas that are developed and it is likely that any ocelot or jaguarundi that inhabits the action area has prior experience with noise. The rate of habituation to short-term construction is not known, but it is anticipated that most ocelots and jaguarundi will be permanently displaced from the areas where the habitat is cleared and will be temporarily dispersed from areas adjacent to the project areas, within and outside the project footprint, during construction periods.

Human disturbance

Although not documented for the ocelot and jaguarundi, several responses to human disturbance can be expected in felines. For example, Florida panthers shifted their habitat use area in response to hunters although no changes related to energy intakes (activity rates, movement rates or predation success) were noted (Janis and Clark 2002). In another study, lynxes were found to have a median tolerance limit to

approaching humans of 164 feet and they tolerated a closer approach by humans when in denser habitats than in more open areas (Sunde et al 1998 as cited by Tempel et al 2006). In general, typical wildlife responses to human disturbance may be fleeing, increased vigilance, and changes in habitat selection (Frid and Dill 2002). These responses can be expected in ocelots or jaguarundi if human disturbance occurs during any phase of this project, including construction, revegetation, and maintenance.

Indirect Effects

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. 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.

Highway improvements usually induce or expedite growth. However, this portion of the highway is bordered by large working ranches whose owners have stated during public involvement activities that they have no desire to develop their lands.

Cumulative Impacts

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA. Past and present federal actions in the vicinity of the proposed action are discussed under the Environmental Baseline section.

Growth of agriculture, cities, and industries, across the Lower Rio Grande Valley, with all their associated infrastructures will continue to diminish the range of alternatives available to recover the ocelot and the jaguarundi as remaining small islands of suitable habitat and the corridor to connect them are developed.

The rapid economic expansion of the large metropolitan areas with the continuing influx of immigrants, retirees, and increased tourism will likely continue to result in the loss of brushlands, and therefore, ocelot and jaguarundi habitat. Road expansions to accommodate the NAFTA and border crossings will likely increase loss and fragmentation of habitat corridors and increased road mortality. Encroachment from urban development and colonias that bring increased noise, light, fencing, and human disturbance will also likely result in the loss of habitat and avoidance of areas or corridors by the endangered ocelot or jaguarundi in the wild, across their listed range.

The Service is continually working with private and state entities to review proposed projects, offer technical assistance and provide recommendations on avoidance/minimization measures and restoration measures to protect the ocelot and jaguarundi, and their habitat. By continued cooperative efforts to replace, secure and improve such habitats and connect optimal habitat that exists on National Wildlife Refuge lands and private lands, the Service does not believe that the cumulative effects are likely to jeopardize the continued existence of the ocelot or jaguarundi.

IV. Conclusion

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.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered or threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of the agency action is not considered to be prohibited taking under the Act, provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be undertaken by the FHWA so that they become binding conditions of the project in order for the exemption in section 7(o)(2) to apply. The FHWA has a continuing duty to regulate the activity covered by this incidental take statement. If the FHWA (1) fails to assume and implement the terms and conditions or (2) fails to require any agent acting on behalf of the FHWA to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to any contracting document, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the FHWA must report the progress of the action and its impacts on the species to the Service as specified in the incidental take statement (50 CFR 402.14(i)(3)).

Amount or Extent of Take Anticipated

The Service anticipates incidental take of an ocelot or jaguarundi in the form of harm and harassment will be difficult to detect because 1) the species is wide-ranging, 2) elusive 3) nocturnal and 4) finding a dead or impaired specimen that has resulted from impaired essential behavioral patterns like breeding, feeding or sheltering is unlikely. The take of an ocelot or jaguarundi, however, can be reasonably anticipated by increased risk by road mortality and/or by prevented dispersal of cats into otherwise suitable habitat.

Therefore, 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.

Effect of the take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to either species in the wild across their range. There is no critical habitat designated for the ocelot or jaguarundi.

REASONABLE AND PRUDENT MEASURES

As part of the project description, FHWA has agreed on voluntary measures to avoid and minimize impacts to the ocelot and jaguarundi. The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the impact of incidental take on these species and assist the Service in improving methods to minimize impacts of incidental take on the ocelot and jaguarundi.

1. Establish a protocol to notify the Service of direct take of an ocelot or jaguarundi.
2. Educate contractors, their employees and TxDOT employees on the importance of protecting threatened and endangered species and their habitats.
3. Annual reports shall be submitted to the Service.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, FHWA must comply with the following terms and conditions, which implement the reasonable and prudent measures, described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1) 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.

2) The following terms and conditions are necessary to educate contractors and employees to avoid and minimize impacts during construction, maintenance and operational activities.
    a. 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.
    b. 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.
    c. 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.

3) 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.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal action agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or develop information.

For the benefit of ocelot and jaguarundi, the Service recommends the following:

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. If possible, purchase or dedicate tracts and help ensure management of land in large or continuous blocks of ocelot habitat to help achieve the recommended recovery goal to acquire and protect ocelot habitat as outlined in the recovery plan. (Tasks 131, 132)

2. Fund further surveys to help locate additional endangered cats and partner with the Service and other entities to design and assist in the funding of an ocelot and jaguarundi population assessment study. (Tasks 112, 312)

3. Fund further restoration research or restoration of cat habitat. (Task 343)

4. Implement practices to minimize human disturbance (ex: institute, as standard highway construction practices, evaluation of need and installation of standardized designs of wildlife crossings). (Task 133)

REINITIATION NOTICE

This concludes formal consultation on the actions outlined in the request. As provided in 50 CFR '402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; (4) a new species is listed or critical habitat designated that may be affected by the action. 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 reinitiation. 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.

If you or your staffs have any questions concerning this opinion, please contact Mary Orms at (361) 994-9005 or via email at mary_orms@fws.gov.

Sincerely yours,

E. Dawn Whitehead

Allan M. Strand
Field Supervisor

cc: Texas State Administrator, Service, Austin, TX
Regional Director, ATTN: Assistant Regional Director, Ecological Services, Albuquerque, NM

LITERATURE CITED

Anonymous. 1989. Update on jaguarundi sightings. Horizons 14(1):8.

Beier, P. and R.F. Noss. 1998. Do habitat corridors really provide connectivity? Conservation Biology.

Benn, S. 1997. Endangered feline population and habitat enhancement. Final Report, Federal Aid Grant No. 12. Texas Parks and Wildlife Department, Austin, Texas. 30 September 1997.

Bontrager, O.E., C.J. Scifres, and D.L. Drawe. 1979. Huisache control by power grubbing. J. Range Manage. 32.

Bisbal, F.J. 1986. Food habits of some Neotropical carnivores in Venezuela. Mammalia 50.

Caso, A. 1994. Home range and habitat use of three neotropical carnivores in northeast Mexico. Unpublished M.S. thesis, Texas A&M University, Kingsville, Texas.

Coastal Impact Monitoring Program. 1995. Report of Literature Review on Discharges from the Rio Grande and Arroyo Colorado and their Impacts. Texas General Land Office, Austin, Texas. GLO - 9/95.

Collins, K. 1984. Status and management of native south Texas brushland. US Fish and Wildlife Service, Ecological Services, Corpus Christi, Texas.

Davis, W.B. and D.J. Schmidly. 1994. *The Mammals of Texas*. Texas Parks and Wildlife Press. Austin, Texas.

de Oliveria, T.G. 1998. Leopardus wiedii. Mammalian Species No. 579.

Dillon, A. 2005. Ocelot home range and density in Belize, Central America: camera trapping and radio telemetry. M.S. thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Eaton, R. 1977. Breeding biology and propagation of the ocelot (*Leopardus* [Felis] *pardalis*). Zool. Garten Jena 47.

Emmons, L.H. 1987. Comparative feeding ecology of felids in a neotropical forest. Behavioral Ecology and Sociobiology 20.

Emmons, L.H. 1988. A field study of ocelots (*Felis pardalis*) in Peru. Review of Ecology (*Terre Vie*) 43.

Emmons, L.H. 1990. Neotropical rainforest mammals: a field guide. University of Chicago Press, Chicago and London.

Fischer, C.V. 1998. Habitat use by free-ranging felids in an agroecosystem. M.S. thesis, Texas A & M University, Kingsville, Texas.

Frid, A. and L.M. Dill. 2002. Human-caused disturbance stimulias a form of predation risk. Conservation Ecology. 6 (1).

Goodwyn, F. 1970. Behavior, life history and present status of the jaguarundi, Felis yagouaroundi (Lacepede), in South Texas. M.S. thesis, Texas A&I University, Kingsville, Texas.

Grassman, L.I., M.E. Tewes, and A. Haines. 2006. Ocelot and jaguarundi survey on perimeter lands of Choke Canyon Reservoir. Final report (Cooperative agreement no. 201814J852) to the US Fish and Wildlife Service. Texas A & M University, Kingsville, Texas.

Haines, A. M., M. E. Tewes, L. L. Laack, W. E. Grant and J. Young. 2005a. Evaluating recovery strategies for an ocelot population in southern Texas. Biological Conservation 126.

Haines, A. M., M. E. Tewes, and L. L. Laack. 2005b. Survival and sources of mortality in ocelots. Journal of Wildlife Management 69.

Hanselka, C.W. 1980. The historical role of fire on South Texas rangelands. Pages 2-18in C.W. Hanselka, ed. Prescribed range burning in the Coastal Prairie and eastern Rio Grande Plains of Texas. Tex. Agric. Exp. Stn. Contr. No. TA 16277.

Hewitt, D.G., A. Cain, V. Tuovila, D.B. Shindle, and M.E. Tewes. 1998. Impacts of an expanded highway on ocelots and bobcats in southern Texas and their preferences for highway crossings. Pages 126-134 *in* G.L. Evink, P. Garrett, D. Zeigler, and J. Berry, editors. Proceedings of the International Conference on Wildlife Ecology and Transportation. FL-ER-69-98, Florida Department of Transportation, Tallahassee, Florida.

Hulley, J.T. 1976. Maintenance and breeding of captive jaguarundi (*Felis yagouaroundi*) at Chester Zoo and Toronto. Int. Zoo. Yearb. 16.

Ideker, J. 1984. Documentation of the status of neotropical felids along the Lower Rio Grande Valley wildlife corridor in South Texas: 10 October 1984 - 30 September 1985. Santa Anna/Rio Grande Valley National Wildlife Refuge Complex, Alamo, TX.

Jackson, V.L., L.L. Laack, and E.G. Zimmerman. 2005. Landscape metrics associated with habitat use by ocelots in South Texas. Journal of Wildlife Management 69.

Jahrsdorfer, S.E. and D.M. Leslie, Jr. 1988. Tamaulipan brushland of the lower Rio Grande Valley of South Texas: description, human impacts, and management options. US Fish and Wildlife Service, Oklahoma Cooperative Fish and Wildlife Research Unit, Stillwater, Oklahoma.

Janis, M.W. and Clark, J.D. 2002. Responses of Florida panthers to recreational deer and hog hunting. The Journal of Wildlife Management 66(3).

Konecny, M.J. 1989. Movement patterns and food habits of four sympatric carnivore species in Belize, Central America. Pages 243-264 *in* K.H. Redford and J.F. Eisenberg, editors. Advances in neotropical mammalogy. Sandhill Crane Press, Gainesville, Florida.

Laack, L.L. 1991. Ecology of the ocelot (*Felis pardalis*) in South Texas. M.S. thesis, Texas A&I University, Kingsville, Texas.

Laack, L. L., M. E. Tewes, A. H. Haines, J. H. Rappole. 2005. Reproductive ecology of ocelot (*Leopardus pardalis*) in southern Texas. Acta Theriologica 50.

Laack, L. and J.H. Rappole. 1986. Investigation into the basic ecology of the ocelot in South Texas. Final Report (October1, 1985-September 30, 1986), contract #14-16-0002-81-229. Caesar Kleburg Wildlife Research Institute, Texas A&I University, Kingsville, Texas.

Lande, R. 1988. Genetic and demography in biologica; conservation. Science 241(4872).

Larkin, R.P. 1996. Effects of military noise on wildlife: a literature review. Center for Wildlife Ecology, Illinois Natural History Survey. http://nhsbig.inhs.uiuc.edu/bioacoustics/noise_and_wildlife.pdf Last accessed June 23, 2008.

Ludlow, M. E., and M. E. Sunquist. 1987. Ecology and behavior of ocelots in Venezuela. National Geographic Research and Exploration 3.

Mays, J. 2007. Laguna Atascosa National Wildlife Refuge, USFWS. Personal communication

Mercer, S.H., L.P. Jones, J.H. Rappole, D. Twedt, L.L. Laack, and T.M. Craig. 1988. Hepatozoon sp. in wild carnivores in Texas. Journal of Wildlife Diseases 24.

Mora, M.A., Laack, L.L., Lee, M.C., Sericano, J., Presley, R., Gardinali, P.R., Gamble, L.R., Robertson, S., and D. Frank. 2000. Environmental contaminants in blood, hair, and tissues of ocelots from the Lower Rio Grande Valley, Texas, 1986-1997. Environmental Monitoring and Assessment 64.

Murray, J. L. and G. L. Gardner. 1997. *Leopardus pardalis*. Mammalian Species No. 548.

Navarro-Lopez, D. 1985. Status and distribution of the ocelot in South Texas. Unpublished M.S. thesis, Texas A & I University, Kingsville, Texas.

NFWL. 1980. Selected vertebrate endangered species of the seacoast of the United States-the jaguarundi. US Fish and Wildlife Service, Biological Services Program, Washington, D.C. FWS/OBS-80/01.45.

Noss, R, F, 1987. Corridors in real landscapes: a reply to Simberloff and Cox. Conservation Biology 1.

Noss, R.F., E.T. LaRoe, J.M. Scott. 2001. Endangered ecosystems of the United States: A preliminary assessment of loss and degradation. National Biology Service Report. 74 pages. http://biology.usgs.gov/pubs/ecosys.htm Last accessed June 30, 2008.

Nowak, R. and J.L. Paradiso. 1983. Walker's mammals of the world. Vol. 2. John Hopkins Univ. Press, Baltimore.

Nowell, K., and P. Jackson. 1996. Wild cats, status survey and conservation action plan. IUCN/SSC cat Specialist Group.

Pence, D.B., M.E. Tewes, D.B. Shindle, and D.M. Dunn. 1995. Notoedric mange in an ocelot (*Felis pardalis*) from southern Texas. Journal of Wildlife Diseases 31(4).

Pence, D.B., M.E. Tewes, and L.L. Laack. 2003. Helminths of the ocelot from southern Texas. Journal of Wildlife Diseases 39.

Prieto, F.G. 1990. Endangered feline population and habitat enhancement. Performance Report, Federal Aid Project No. W-125-R-1 and ESEC 6-1, Job No. 12. Texas Parks and Wildlife Department, Austin, TX. 29 October 1990.

Reyes, E. 2008. Personal communication via email from E. Reyes, Ecological Services, Alamo Sub Office to Corpus Christi Ecological Services Field Office, US Fish and Wildlife Service, July 16, 2008.

Shindle, D.B., and M.E. Tewes. 1998. Woody species composition of habitats used by ocelots (*Leopardus pardalis*) in the Tamaulipan Biotic Province. The Southwestern Naturalist 43.

Shinn, K.J. 2002. Ocelot distribution in the Lower Rio Grande Valley National Wildlife Refuge. Unpublished M.S. thesis, University of Texas-Pan American.

Sternberg, M. and A. G. Chapa. 2004 Working Draft. Monitoring ocelots at El Jardin and San Perlita conservation easements on the San Francisco Ranch, Texas.

Sunquist, M., and F. Sunquist. 2002. Wild cats of the world. University of Chicago Press, Chicago, Illinois.

Tempel, D., V. Wright, J. Neilson and T. Mildenstein. 2006. Volume 5- Backcountry recreation impacts to terrestrial wildlife. V. Wright (ed.). Linking Wilderness Research and Management. Aldo Leopold Wilderness Research Institute, Missoula, Montana, pages 1-108. http://www.leopold.wilderness.net/resapp/pdfs/vol5.pdf

Tewes, M. E. 1986. Ecological and behavioral correlates of ocelot spatial patterns. Unpublished Ph.D. dissertation, University of Idaho, Moscow, Idaho.

Tewes, M. E. 1987. Potential effects of the Playa del Rio Project on the endangered ocelot and jaguarundi. Report to US Army Corps of Engineers, Galveston, Texas. 21 June 1987.

Tewes, M.E., and D.D. Everett. 1986. Status and distribution of the endangered ocelot and jaguarundi in Texas. Pages 147-158 *in* S.D. Miller and D.D. Everett, editors. Cats of the world: biology, conservation, and management. National Wildlife Federation,Washington, D.C.

Tewes, M.E., and D.J. Schmidly. 1987. The neotropical felids: jaguar, ocelot, margay, and jaguarundi. Pp 697-711 *in* M. Novak, J.A. Baker, M.E. Obbard, and B. Malloch, editors. Wild furbearer management and conservation in North America. Ministry of Natural Resources, Ontario, Canada.

Tewes, M.E., and S.D. Miller. 1987. Future research for the endangered ocelot population of the United States. Pages 164-166 *in* R.R. Odom, K.A. Riddleberger, and J.C. Ozier, editors. Proceedings of the Third Southeastern Nongame and Endangered Wildlife Symposium. Georgia Department of Natural Resources, Athens, Georgia.

Tewes, M.E., and R.W. Hughes. 2001. Ocelot management and conservation along transportation corridors in southern Texas. *in* Proceedings of the International Conference on Ecology and Transportation, Keystone, Colorado.

Tuovila, V.R. 1999. Bobcat movements and survival near US highway 281 in southern Texas. Unpublished M.S. thesis, Texas A&M University, Kingsville, Texas.

US Fish and Wildlife Service (Service). 1986. Preliminary survey of contaminant issues of concern on National Wildlife Refuges. Division of Refuge Management, Washington, D.C.

US Fish and Wildlife Service (Service). 1988. Johnston's Frankenia (*Frankenia johnstonii*) Recovery Plan.). US Fish and Wildlife Service, Albuquerque, New Mexico.

U.S. Fish and Wildlife Service (Service). 2011. *Endangered Species Lists, Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties*. http://www.fws.gov/southwest/es/EndangeredSpecies/lists/ Accessed July 2009.

US Fish and Wildlife Service. 1990. Listed cats of Texas and Arizona recovery plan (with emphasis on the ocelot). US Fish and Wildlife Service, Albuquerque, New Mexico.

US Fish Wildlife Service. 1995. Threatened and endangered species of Texas. Austin, Texas. June 1995.

Walker, C.W. 1997. Patterns of genetic variation in ocelot (*Leopardus pardalis*) populations for South Texas and northern Mexico. Ph.D. dissertation, Texas A & M University- Kingsville, Kingsville, Texas.

Wilkins, R.N., R.D. Brown, R.J. Conner, J. Engle, C. Gilliland, A. Hays, R.D. Slack, and D.W. Steinbach. 2000. Fragmented lands: changing land ownership in Texas. The Agriculture Program, Texas A & M University, College Station, Texas.

FIGURES

TABLES

Table 1. US 77 Project Sections

Section	CSJ	Limits	Description	Total Year of Expenditure Project Cost Estimate	Estimated Let Date	Funding Status
A	**Section Currently at Interstate Standards**					
B	0039-07-230	SH 107/FM 508 interchange in Combes, TX to 3.7 miles north of SH 107/FM 508 interchange	Conversion of 2-way frontage road to 1-way frontage roads with ramp reconfiguration	$1,769,040.00	Aug 2012	Funded
C	0327-08-083	3.7 miles north of SH 107/FM 508 interchange to Cameron/Willacy county line	Conversion of 2-way frontage road to 1-way frontage roads with ramp reconfiguration	$2,558,790.00	Aug 2012	Funded
D	**Section Currently at Interstate Standards**					
E	0327-10-053	FM 1018 to 0.3 miles north of FM 498	Construct main lanes	$13,977,857.57	Jul 2011	Funded
F	0327-10-054	0.3 miles north of FM 498 to FM 3168	Construct overpass and main lanes	$19,055,494.77	Jul 2011	Funded
G	**Section Currently at Interstate Standards**					
H	0327-10-901 *(0327-10-057)	Business 77 to Willacy/Kenedy county line	Construct main lanes and overpass	$87,483,986.60	Jan-2037	Included in Development Plan
I	0327-05-900 *(0327-05-041)	Willacy/Kenedy county line north to Norias Road	Construct main lanes and overpasses	$139,772,567.95	Jan-2035	Included in Development Plan
J	0327-04-902 *(0327-04-036)	Norias Road north 9.6 miles (Armstrong Ranch Gate)	Construct main lanes and overpasses	$93,376,821.25	Jan 2033	Included in Development Plan
K	0327-03-902 *(0327-03-045)	9.6 miles north of Norias Road to 8 miles south of La Parra Ave.	Construct main lanes and overpasses	$148,210,302.67	Jan-2031	Included in Development Plan
L	0327-02-902 *(0327-02-055)	8 miles south of La Parra Ave. to Kenedy/Kleberg county line	Construct main lanes and overpasses	$94,964,057.25	Jan-2029	Included in Development Plan
M	0327-02-050	0.87 miles south of La Parra Ave. to 0.71 miles north of La Parra Ave.	Construct overpass in Sarita	$11,319,740.00	Aug 2012	Funded
N	0327-01-030	Kenedy/Kleberg county line to SH 285	Construct relief route around Riviera	$43,669,769.98	Sep 2025	Included in Development Plan
O	0102-04-098	SH 285 to 1.5 miles north of SH 285	Construct relief route around Riviera	$69,662,884.79	Sep 2025	Included in Development Plan

Table 1. US 77 Project Sections

Section	CSJ	Limits	Description	Total Year of Expenditure Project Cost Estimate	Estimated Let Date	Funding Status
P	0102-04-097	1.5 miles north of SH 285 to County Road 2130	Construct main lanes, frontage roads and structures	$112,617,332.69	Feb 2023	Partially Funded
Q	0102-04-099	County Road 2130 to FM 1356	Construct main lanes, frontage roads and structures	$41,056,118.32	Feb 2017	Included in Development Plan
R	**Section Currently at Interstate Standards**					
S	0102-04-095	FM 425 to SH 141	Construct main lanes and overpass at Caesar Ave	$16,516,500.00	Feb 2012	Funded
T	**Section Currently at Interstate Standards**					
U	0102-04-096	FM 1898 to Kleberg/Nueces county line	Construct main lanes and partial frontage roads	$12,849,580.20	Feb 2015	Partially Funded
V	0102-03-081	Kleberg/Nueces county line to FM 70	Construct main lanes and overpasses	$35,470,819.14	Sep 2019	Partially Funded
W	0102-03-082	FM 70 to County Road 16	Construct main lanes and overpasses	$39,513,086.26	Feb 2015	Included in Development Plan
X	0102-03-083	County Road 16 to south of County Road 28	Construct relief route around Driscoll	$103,031,478.65	Sep 2021	Included in Development Plan
Y	0102-02-096	South of County Road 28 to FM 892	Construct main lanes and overpasses	$40,829,092.00	Jul 2013	Partially Funded
Z	0102-02-095	FM 892 to SH 44	Construct main lanes (to correct curve in Robstown)	$14,454,000.00	Jul 2012	Funded
AA	**Section Currently at Interstate Standards**					

*CSJ numbers recently updated

Table 2. Potential Phases for Construction

County	Section/ Phase*	Limits	Description	Estimated Let Date	Funding Status
Cameron	B	SH 107/FM 508 interchange in Combes, TX to 3.7 miles north of SH 107/FM 508 interchange	Conversion of 2-way frontage road to 1-way frontage roads with ramp reconfiguration	Aug 2012	Funded
Cameron	C	3.7 miles north of SH 107/FM 508 interchange to Cameron/Willacy county line	Conversion of 2-way frontage road to 1-way frontage roads with ramp reconfiguration	Aug 2012	Funded
Nueces	Y	South of County Road 28 to FM 892	Construct main lanes and overpasses	Jul 2013	Partially Funded
Nueces	W	FM 70 to County Road 16	Construct main lanes and overpasses	Feb 2015	Included in Development Plan
Kleberg	U	FM 1898 to Kleberg/Nueces county line	Construct main lanes and partial frontage roads	Feb 2015	Partially Funded
Kleberg	Q	County Road 2130 to FM 1356	Construct main lanes, frontage roads and structures	Feb 2017	Included in Development Plan
Nueces	V	Kleberg/Nueces county line to FM 70	Construct main lanes and overpasses	Sep 2019	Partially Funded
Nueces	X	County Road 16 to south of County Road 28	Construct relief route around Driscoll	Sep 2021	Included in Development Plan
Kleberg	P	1.5 miles north of SH 285 to County Road 2130	Construct main lanes, frontage roads and structures	Feb 2023	Partially Funded
Kleberg	N	Kenedy/Kleberg county line to SH 285	Construct relief route around Riviera	Sep 2025	Included in Development Plan
Kleberg	O	SH 285 to 1.5 miles north of SH 285	Construct relief route around Riviera	Sep 2025	Included in Development Plan
Kenedy	L	8 miles south of La Parra Ave. to Kenedy/Kleberg county line	Construct main lanes and overpasses	Jan 2029	Included in Development Plan
Kenedy	K	9.6 miles north of Norias Road to 8 miles south of La Parra Ave.	Construct main lanes and overpasses	Jan 2031	Included in Development Plan
Kenedy	J	Norias Road north 9.6 miles (Armstrong Ranch Gate)	Construct main lanes and overpasses	Jan 2033	Included in Development Plan
Kenedy	I	Willacy/Kenedy county line north to Norias Road	Construct main lanes and overpasses	Jan 2035	Included in Development Plan
Willacy	H	Business 77 to Willacy/Kenedy county line	Construct main lanes and overpass	Jan 2037	Included in Development Plan

Source: TxDOT, Design and Construction Information System, November 2011.
*Note: CSJ numbers for cross-referencing are provided in **Table 1**.

APPENDIX A:

Consultation History

June 25, 2008	Meeting with representatives from the Service's CCESFO and the Texas Parks and Wildlife Department (TPWD) to introduce the proposed project and request input on potential threatened and endangered species concerns. The species that was most discussed during this meeting was the ocelot. The Service indicated that, even though the proposed project would not increase the number of mainlanes or traffic volumes, measures such as a wildlife crossing(s) may be needed to minimize the potential for road mortality.
October 27, 2009	Meeting with representatives from the Service's CCESFO to provide an update on the project and anticipated schedule, to present the results of habitat assessments and presence-absence surveys, and to discuss potential impacts of the project to federally listed species. TxDOT also gave the Service a review copy of a technical report titled *Technical Report on Federally Listed Threatened and Endangered Species, US 77 Upgrade, IH 37 to US 83, Nueces, Kleberg, Kenedy, Willacy, and Cameron Counties, Texas, CSJ: 1111-07-004* (October 2009), which describes the results of the habitat assessments, species surveys, and impact evaluations. This meeting focused on the ocelot, slender rush-pea, and South Texas ambrosia. TxDOT representatives identified that the proposed highway upgrades were designed to avoid endangered plant populations located in the project area. TxDOT presented a preliminary location for one proposed wildlife crossing and noted that no work would occur at the East Main Drain, which provides a potential corridor for dispersing ocelots. The Service referred the project team to Kelly McDowell, Lower Rio Grande Valley National Wildlife Refuge Project Leader for the proposed ocelot translocation plan, to coordinate the location and design of the wildlife crossing. Other listed species that were briefly discussed during this meeting included the northern aplomado falcon (*Falco femoralis septentrionalis*), brown pelican, piping plover, and jaguarundi. The Service indicated that none of these species were of major concern in the project area.
November19, 2009	Telephone conversation between Blanton & Associates, Inc., and Kelly McDowell discussed the potential effects to the ocelot and the potential need for wildlife crossing(s). Mr. McDowell indicated that he was going out with members of the ocelot recovery team to look at potential easements for establishing a brush corridor for the ocelot along US 77. TxDOT representatives also sent the threatened and endangered species technical report to Mr. McDowell.
January 4 and 28, 2010	Emails to Kelly McDowell requesting an update on his November 2009 field visit and review of the technical report in order to revise the report if necessary and

resubmit it to the CCESFO.

January 29, 2010 — Email from Kelly McDowell stating that the Service agreed with the general location (within a mile) of the one proposed wildlife crossing identified in the technical report but wanted to wait to finalize the location until after meeting with adjacent landowners. He also requested a meeting with project engineers to discuss the project design and the incorporation of wildlife crossing elements into the design.

February 2, 2010 — Telephone conversation with Mary Orms, who stated that TxDOT should meet with Kelly McDowell to discuss plans for a wildlife crossing(s).

February 25, 2010 — Meeting with Service refuge staff (Kelly McDowell, Mitch Sternberg, and Ernesto Reyes) to discuss the potential effects on the ocelot and the location and design of wildlife crossing(s). Mr. McDowell reiterated that he agreed with the general location of the one proposed crossing location but the exact location should be adjusted based on the Services' preliminary plan to create a future travel corridor from the Yturria population eastward to areas of suitable habitat west of US 77. Mr. McDowell indicated he would be meeting with landowners during the coming months.

Mr. McDowell recommended an open bridge design at least 8 feet tall with at least a 20-foot wide earthen floor. The ground surface should be at a grade that would prevent water from collecting in the crossing, and dense brush should be established and allowed to remain in the median and up to the edges of the ROW. Fencing should be erected in the median and to the ROW edges, as well as along the ROW for some distance from either end of the bridges. Since the Services' conceptual habitat corridor would be 300 feet wide, Mr. McDowell felt that 200 feet of chain-link fencing constructed in each direction from the bridges would be sufficient. The height of the fence should follow standard specifications (such as that used for SH 48 in Cameron County), but he indicated that a reinforced fence may be necessary across the bridge opening to prevent crossing nilgai from destroying the landowners' fences.

May 7, 2010 — Email to Kelly McDowell transmitting a preliminary plan and profile for the one proposed wildlife crossing at a location with two roads (northbound and southbound lanes) and a location with three roads (northbound lanes, southbound lanes, and a ranch access road).

June 24, 2010 — Email from Kelly McDowell stating that he had two landowners who are interested in creating and maintaining a potential ocelot travel corridor on their properties, and based on this information, the proposed wildlife crossing on US 77 should be placed between stations 2895+00 and 2920+00. Regarding the need for reinforced fencing, Mr. McDowell stated that he was comfortable with the standard fencing design used for crossings in other areas.

August 26, 2010 — TxDOT sent CCESFO a memorandum providing a project update, requesting review of the attached technical report dated August 2010, and asking for

	concurrence on effect determinations. This memorandum and technical report provided a commitment to construct one wildlife crossing.
October 19, 2010	Telephone conversation with Dawn Whitehead requesting a status of the Services' review of the memorandum and technical report. Ms. Whitehead mentioned that she did not receive the memorandum and technical report.
October 20, 2010	TxDOT re-sent memorandum and technical report to Service.
January 18, 2011	Telephone conversation with Dawn Whitehead requesting a status of the Service's review of the memorandum and technical report. Ms. Whitehead mentioned that the report had been sent to Ernesto Reyes and Mary Orms for review.
February 15, 2011	Telephone conversation with Ernesto Reyes requesting a status of his review of the memorandum and technical report. Mr. Reyes said he did not have the information and would not be able to review it until March.
February 16, 2011	TxDOT re-sent memorandum and technical report directly to Ernesto Reyes.
February 24, 2011	Telephone conversation with Mary Orms requesting a status of her review of the memorandum and technical report. Ms. Orms said she did not have the entire memorandum and would coordinate a response with Ernesto Reyes.
February 25, 2011	TxDOT re-sent memorandum and technical report directly to Mary Orms.
April 14, 2011	Telephone conversation with Mary Orms requesting a status of her review of the memorandum and technical report. She said she expected to send a response in the next couple of weeks.
June 7, 2011	Letter from the Service transmitting their response to the memorandum and technical report. In this letter, the Service indicated that multiple wildlife crossings may be necessary along US 77 to minimize impacts to cats and other wildlife.
June 20, 2011	TxDOT met with CCESFO staff to discuss their June 5, 2011 letter response. During this meeting, TxDOT committed to installing two wildlife crossings (the one crossing previously proposed in the October 2010 memorandum and technical report and one additional crossing) to minimize impacts to ocelots.
January 24, 2012	Meeting with the Service to discuss/finalize potential wildlife crossing locations. During this meeting, TxDOT and the Service discussed installing crossings in the Yturria, Rudolph, and Norias areas. A crossing near Sarita was considered less preferable due to engineering constraints and lighting issues.
January 27, 2012	Email to Mitch Sternberg transmitting maps and requesting the Service review of the proposed locations for wildlife crossings at Rudolph and Norias.

January 31, 2012	Email from Mitch Sternberg stating that the proposed locations for the Rudolph and Norias wildlife crossings are acceptable given the engineering constraints.
March 14, 2012	FHWA submitted *Biological Assessment US 77 from IH 37 in Nueces County to US 83 in Cameron County, Nueces, Kleberg, Kenedy, Willacy and Cameron Counties, Texas CSJ 1111-07-004* (BA) dated February 2012 and requested initiation of formal consultation.
April 16, 2012	The Service initiated formal consultation.
June 12, 2012	The Service issued a Draft BO to FHWA and TxDOT for review and comment.
June 21, 2012	The Service received comments on the Draft BO from FHWA and all comments were incorporated.
June 22, 2012	The Service met with FHWA to discuss comments. The Final BO was issued.

APPENDIX B:

CONCURRENCES

Species listed under the Act for Nueces, Kleberg, Kenedy, Willacy, and Cameron counties that FHWA/TxDOT has determined "may affect, but is not likely to adversely affect" and the Service has concurred on that determination.

Species	Scientific Name	Status	Listed Project Counties	Effect Determination	Anticipated Effects and Proposed Conservation Measures
Brown Pelican	*Pelicanus occidentalis*	DM	All	May affect, but is not likely to adversely affect	Anticipated impacts are limited to minor impacts to potential (marginal) habitat and temporary disturbance from widening the northbound bridge over Los Olmos Creek by 10 feet. Proposed conservation measures include minimizing permanent and temporary impacts to potential habitat during design and construction of the proposed bridge widening.
Piping Plover	*Charadrius melodus*	T	All	May affect, but is not likely to adversely affect	Anticipated impacts are limited to minor impacts to potential (marginal) habitat and temporary disturbance from widening the northbound bridge over Los Olmos Creek by 10 feet. Proposed conservation measures include minimizing permanent and temporary impacts to potential habitat during design and construction of the proposed bridge widening.
Slender Rush-pea	*Hoffmannseggia tenella*	E	Nueces, Kleberg	May affect, but is not likely to adversely affect	Effects to species are not anticipated with the implementation of conservation measures. Proposed conservation measure include designing the proposed improvements to avoid plants at five locations, erecting orange construction fencing around populations during construction, and continuing scheduled mowing to help prevent the species from being out-competed by introduced grasses. No construction is planned at these locations and no staging areas or other PSL's will be allowed in areas containing plants. Areas of the proposed ROW where right-of-entry was not granted will be surveyed for plants prior to construction.
South Texas Ambrosia	*Ambrosia cheiranthifolia*	E	Nueces, Kleberg, Kenedy, Cameron	May affect, but is not likely to adversely affect	Effects to species are not anticipated with the implementation of conservation measures. Proposed conservation measure include designing the proposed improvements to avoid plants, erecting orange construction fencing around populations during construction, erecting permanent barriers at STA-C to prevent landowner access from impacting plants, and continuing scheduled mowing to help prevent the species from being out-competed by introduced grasses. No construction is planned at these locations and no staging areas or other PSL's will be allowed in areas containing plants. Areas of the proposed ROW where right-of-entry was not granted will be surveyed for plants prior to construction. A gravel turnaround would be constructed at Carreta Creek so the adjacent landowner can move his farm equipment across US 77 without impacting plants. A permanent barrier/fencing would be constructed along the turnaround to prevent the private landowner from inadvertently running over plants.

[1] E = Endangered; T = Threatened; DM = Delisted Taxon, Recovered, Being Monitored First Five Years
Source: Service 2011

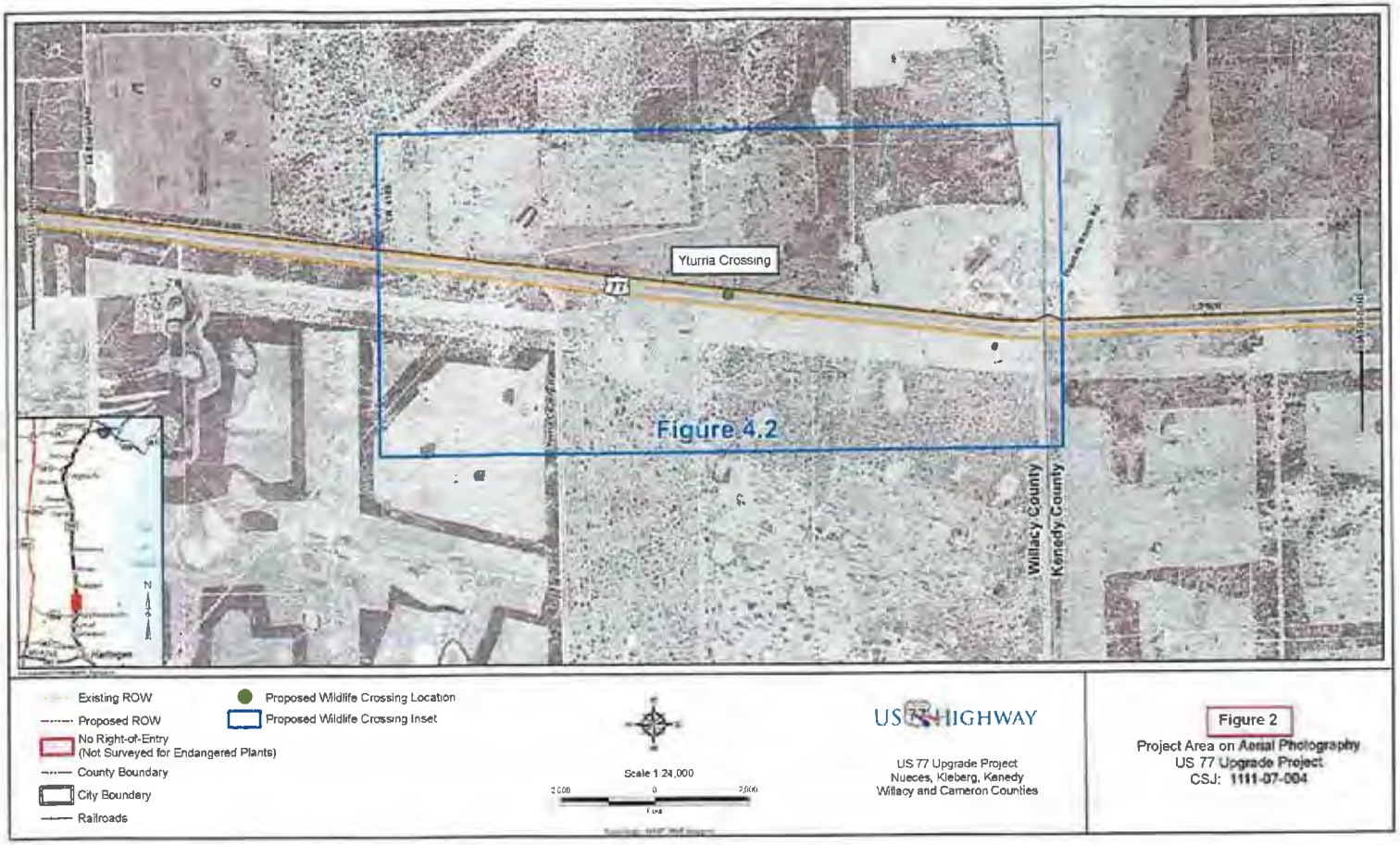
APPENDIX C.

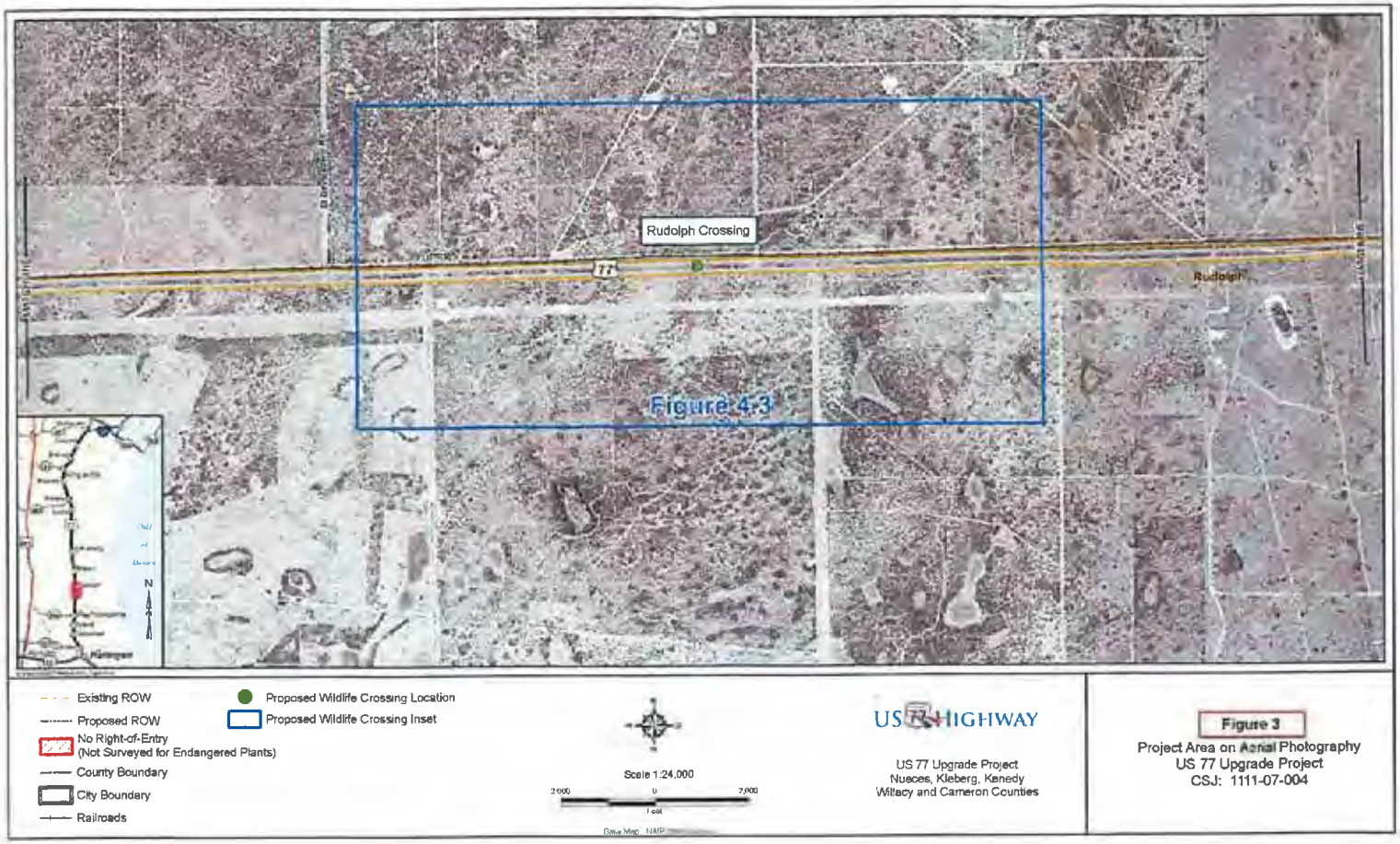
Species listed under the Act for Nueces, Kleberg, Kenedy, Willacy, and Cameron counties that FHWA/TxDOT has determined will have No Affect. The Service does not provide concurrences with "no effect" determinations.

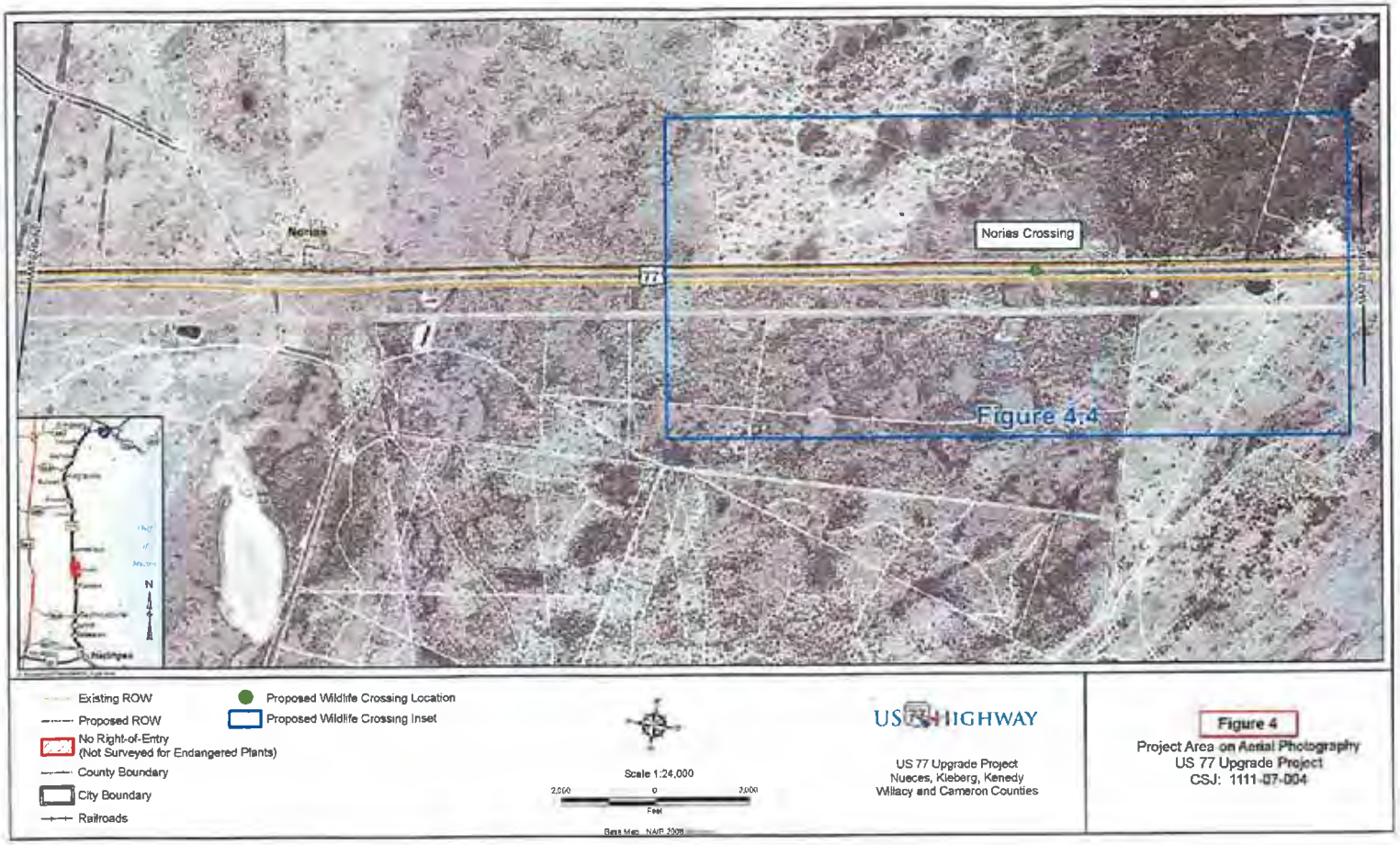
Species	Scientific Name	Status	Listed Project Counties	Effect Determination	Anticipated Effects and Proposed Conservation Measures
West Indian Manatee	*Trichechus manatus*	E	All	No Effect	No suitable habitat is present in the project area.
Northern Aplomado Falcon	*Falco femoralis septentrionalis*	E	Kleberg, Kenedy, Willacy, Cameron	No Effect	Potential habitat is present in the Kenedy County portion of project area, but no aplomado falcons are known to exist in the project vicinity.
Whooping Crane	*Grus americanus*	E	Nueces	No Effect	The project is 42 miles southwest of wintering grounds. No suitable habitat is present in project area; however, Nueces County is within the whooping crane migratory corridor. If work occurs during migration (late March to early May and mid-September to mid-November, respectively) equipment above 15 feet will be marked and/or laid down during night time hours and periods of low visibility.
Atlantic Hawksbill Sea Turtle	*Eretmochelys imbricata*	E	All	No Effect	No suitable habitat is present in the project area.
Green Sea Turtle	*Chelonia mydas*	T	All	No Effect	No suitable habitat is present in the project area.
Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	E	All	No Effect	No suitable habitat is present in the project area.
Leatherback Sea Turtle	*Dermochelys coriacea*	E	All	No Effect	No suitable habitat is present in the project area.
Loggerhead Sea Turtle	*Caretta caretta*	T	All	No Effect	No suitable habitat is present in the project area.
Black Lace Cactus	*Echinocereus reichenbachii* var. *albertii*	E	Kleberg	No Effect	Species was not observed during presence-absence surveys.
Texas Ayenia	*Ayenia limitaris*	E	Willacy, Cameron	No Effect	Species was not observed during presence-absence surveys

[1] E = Endangered; T = Threatened; DM = Delisted Taxon, Recovered, Being Monitored First Five Years
Source: Service 2011


Northern Logical Terminus
Portland
Northern Construction Limit
US 77 Upgrade Project
Section AA
Section Z
Section Y
Section X
Section W
Section V
Section U
Section T
Section S
Section R
Section Q
Section P
Section O
Section N
Section M
Section L
Section K
Section J
Section I
Section H
Section G
Section F
Section E
Section D
Section C
Section B
Section A
Duval County
Jim Wells County
Kleberg County
Nueces County
Kenedy County
Brooks County
Hidalgo County
Willacy County
Cameron County
Driscoll
Bishop
Kingsville
Riviera
Sarita
Armstrong
Norias
Yturria
Raymondville
Lyford
Combes
Harlingen
Port Mansfield
Corpus Christi
Southern Construction Limit
US 77 Upgrade Project
Southern Logical Terminus
Funded Project Point
Funded Projects
Future Projects
Meets Interstate Highway Standards
Under Construction
Construction Sections
County Boundary
Town/Community
CSJ Numbers Recently Updated
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy,
Willacy and Cameron Counties
Figure 1
Project Location
US 77 Upgrade Project
CSJ: 1111-07-004


Yturria Crossing
77
Figure 4.2
Willacy County
Kenedy County
N
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Endangered Plants)
County Boundary
City Boundary
Railroads
Proposed Wildlife Crossing Location
Proposed Wildlife Crossing Inset
Scale 1:24,000
2,000
0
2,000
Feet
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 2
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Rudolph Crossing
77
Rudolph
Figure 4.3
N
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Endangered Plants)
County Boundary
City Boundary
Railroads
Proposed Wildlife Crossing Location
Proposed Wildlife Crossing Inset
Scale 1:24,000
2,000
0
2,000
Feet
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 3
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Norias
Norias Crossing
77
Figure 4.4
N
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Endangered Plants)
County Boundary
City Boundary
Railroads
Proposed Wildlife Crossing Location
Proposed Wildlife Crossing Inset
Scale 1:24,000
2,000
0
2,000
Feet
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 4
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

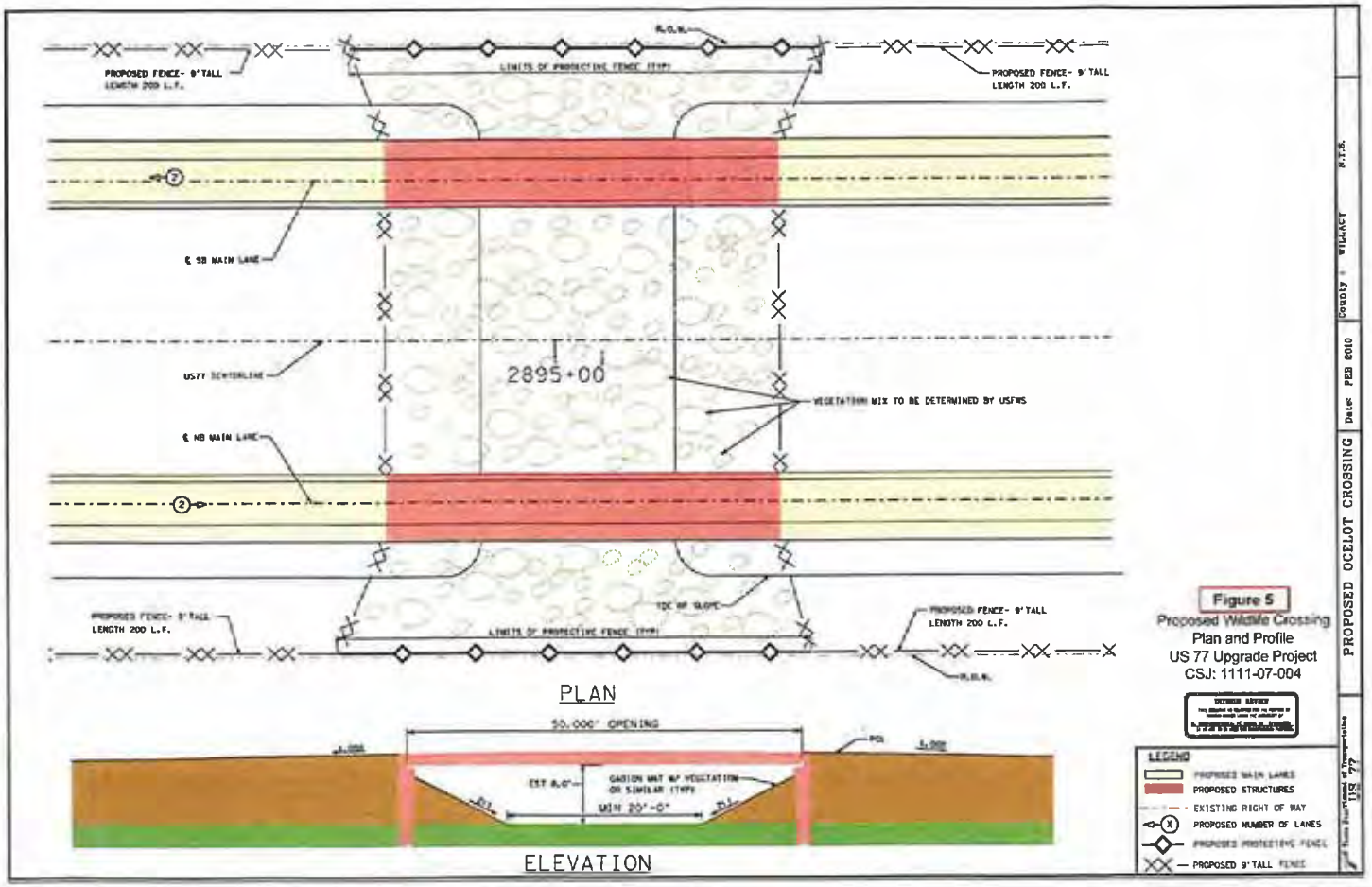


Figure 5
Proposed Wildlife Crossing
Plan and Profile
US 77 Upgrade Project
CSJ: 1111-07-004


77
U.S. Border Patrol Station
N
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Endangered Plants)
County Boundary
City Boundary
Railroads
Proposed Wildlife Crossing Location
Proposed Wildlife Crossing Inset
Scale 1:24,000
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 6
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

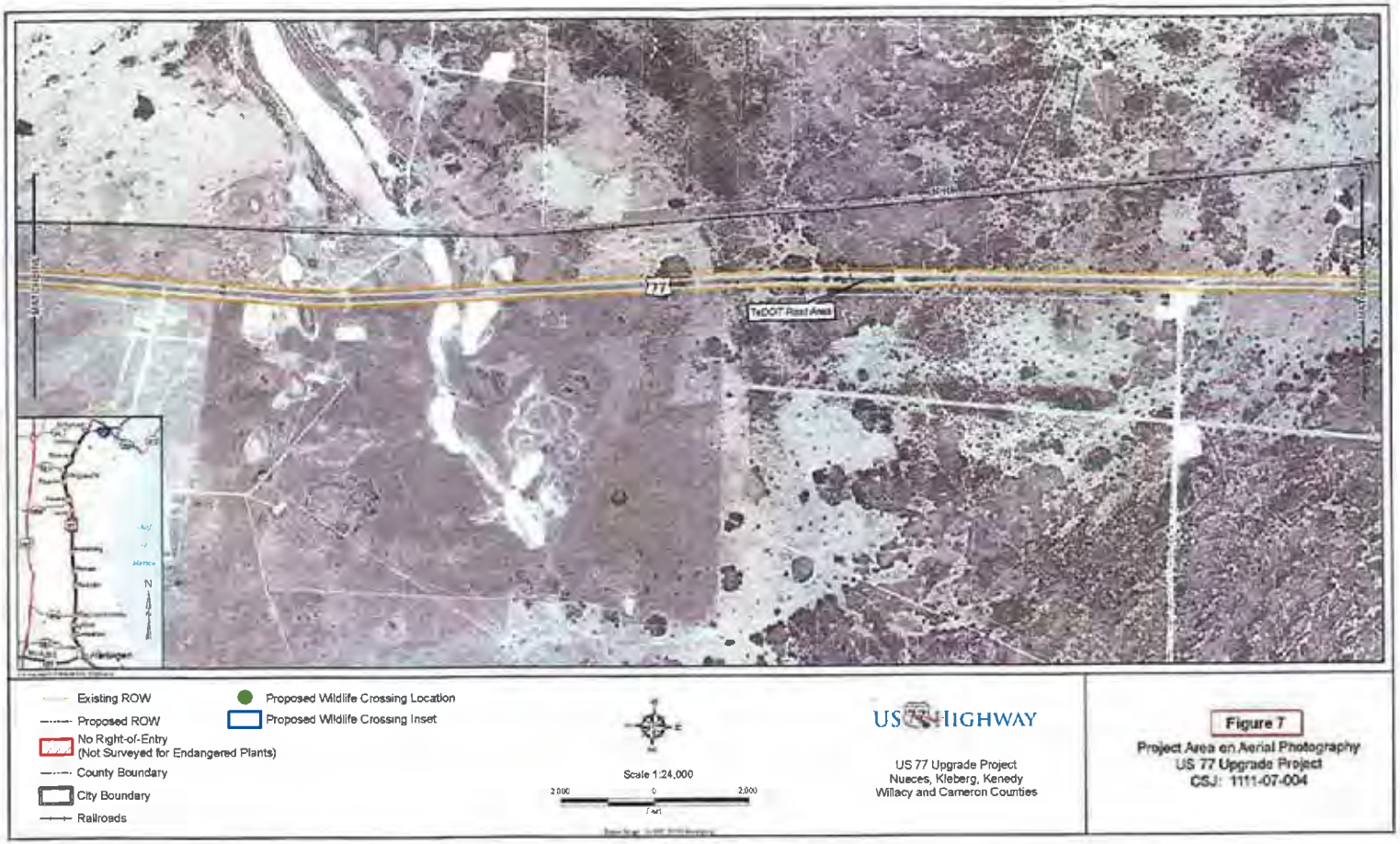
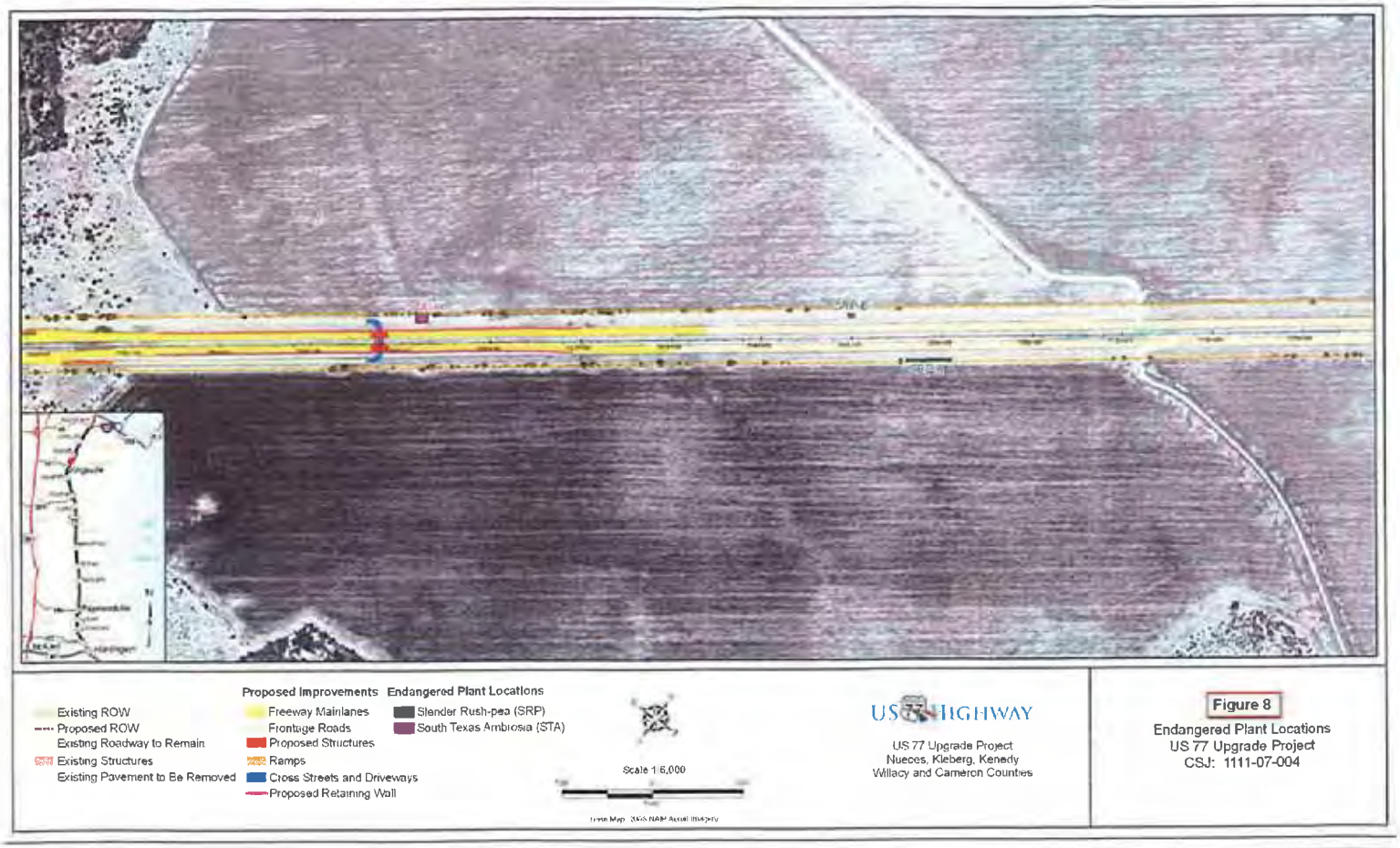
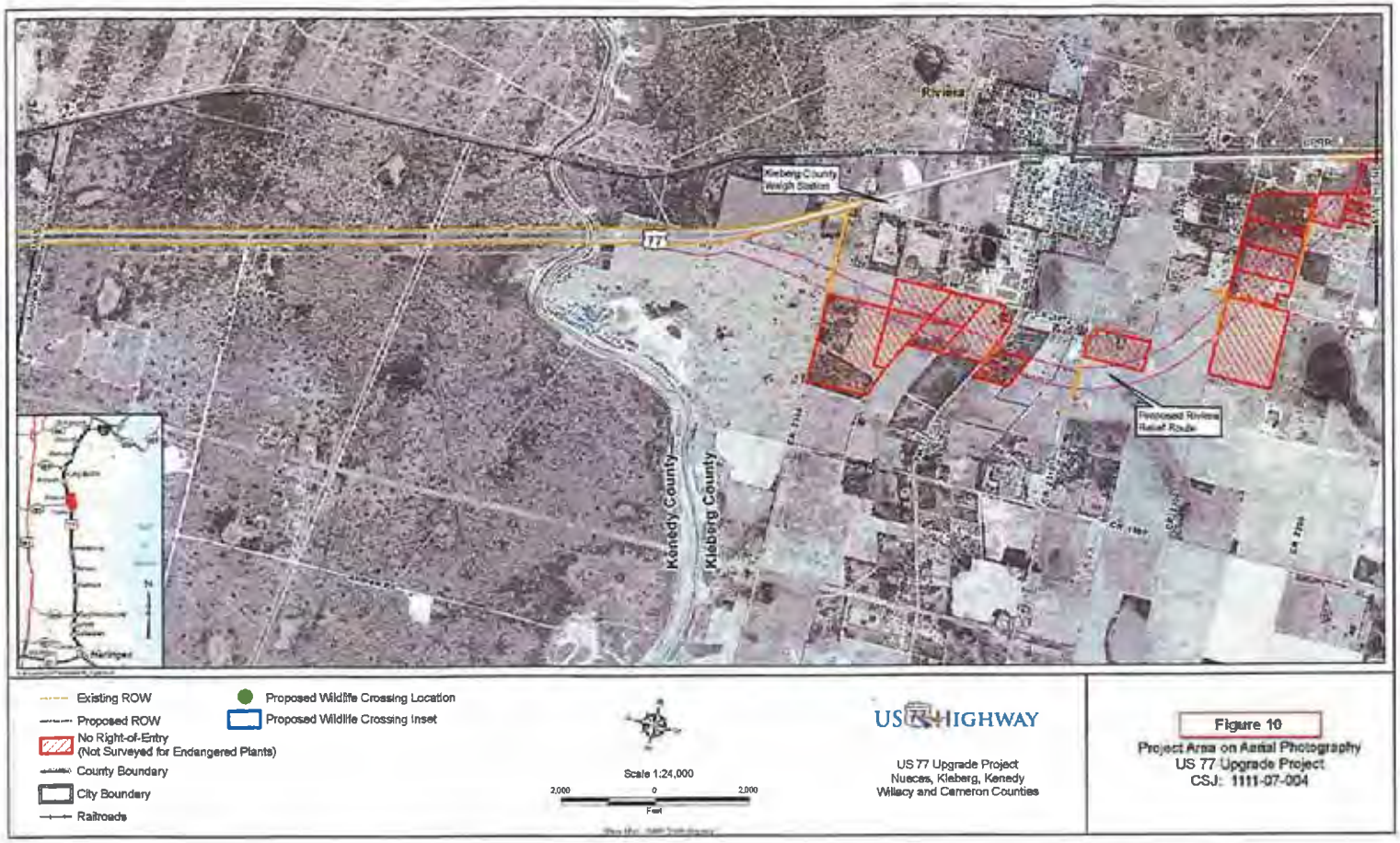


Figure 7
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Existing ROW
Proposed ROW
Existing Roadway to Remain
Existing Structures
Existing Pavement to Be Removed
Proposed Improvements
Freeway Mainlanes
Frontage Roads
Proposed Structures
Ramps
Cross Streets and Driveways
Proposed Retaining Wall
Endangered Plant Locations
Slender Rush-pea (SRP)
South Texas Ambrosia (STA)
Scale 1:6,000
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 8
Endangered Plant Locations
US 77 Upgrade Project
CSJ: 1111-07-004


Existing ROW
Proposed ROW
Existing Roadway to Remain
Existing Structures
Existing Pavement to Be Removed
Proposed Improvements
Freeway Mainlanes
Frontage Roads
Proposed Structures
Ramps
Cross Streets and Driveways
Proposed Retaining Wall
Endangered Plant Locations
Slender Rush-pea (SRP)
South Texas Ambrosia (STA)
Scale 1:6,000
500
0
500
Feet
Base Map: 2008 NAIP Aerial Imagery
US 77 HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 9
Endangered Plant Locations
US 77 Upgrade Project
CSJ: 1111-07-004


Riviera
Kleberg County Weigh Station
77
Kenedy County
Kleberg County
Proposed Riviera Relief Route
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Endangered Plants)
County Boundary
City Boundary
Railroads
Proposed Wildlife Crossing Location
Proposed Wildlife Crossing Inset
Scale 1:24,000
2,000
0
2,000
Feet
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 10
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

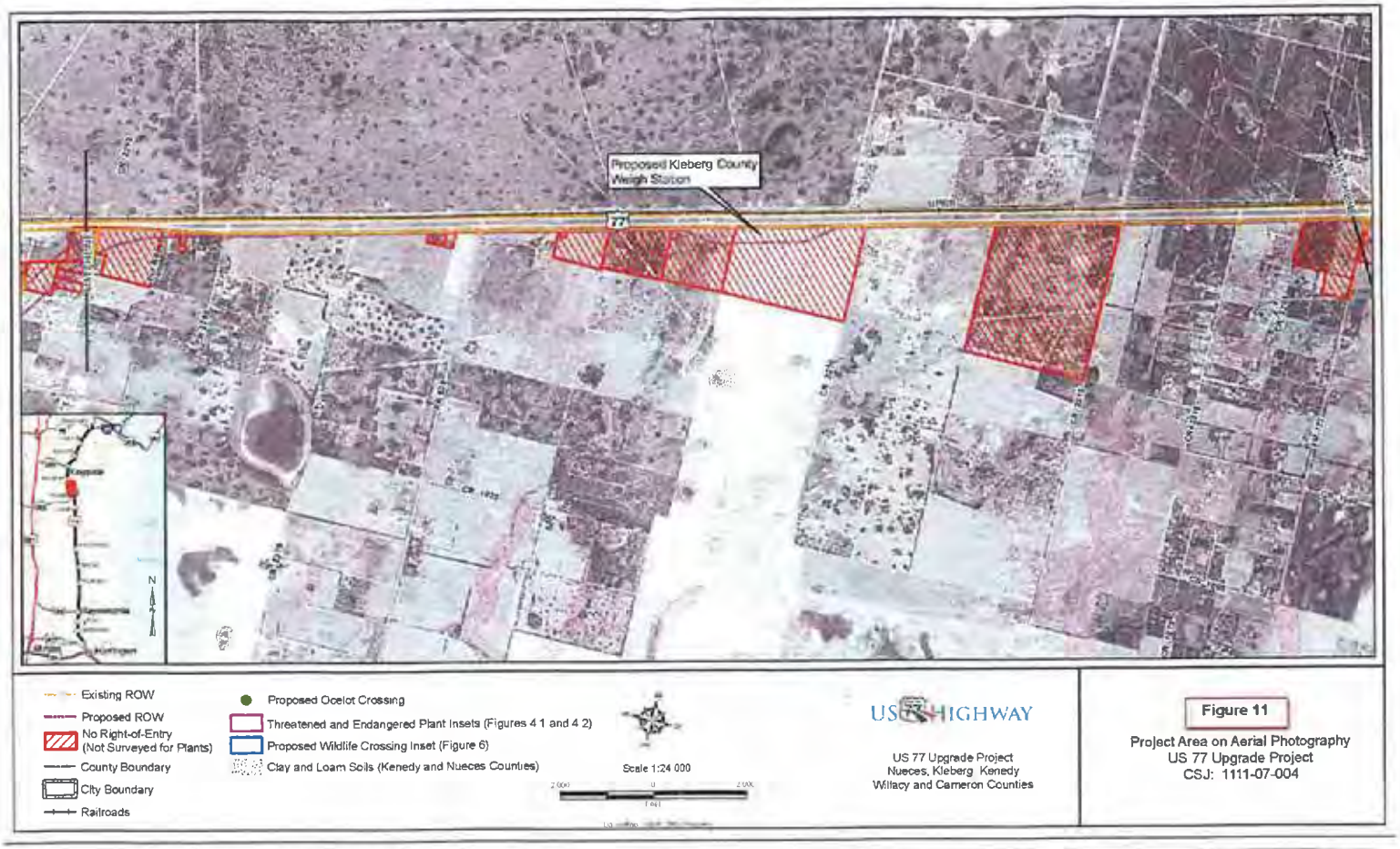
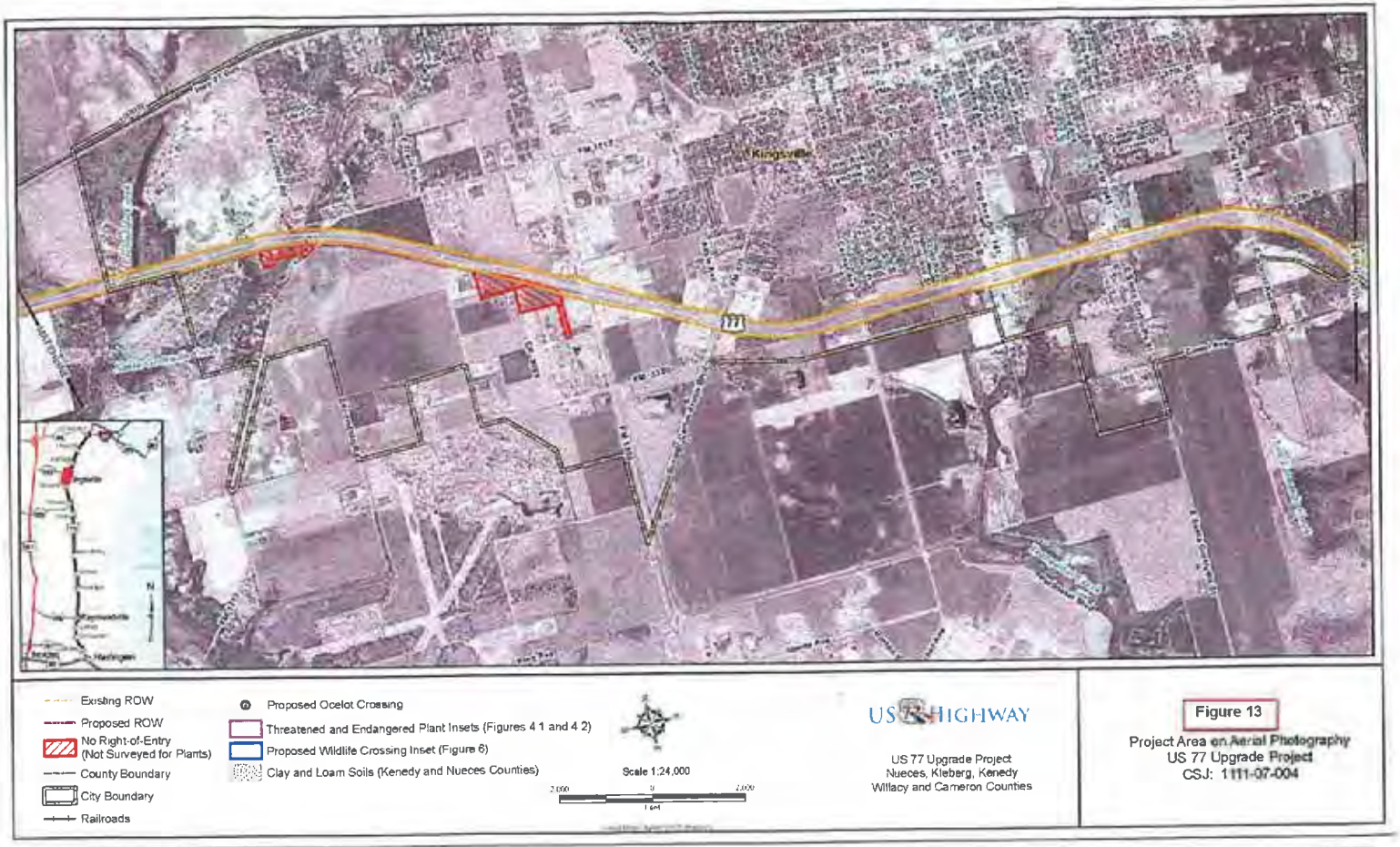
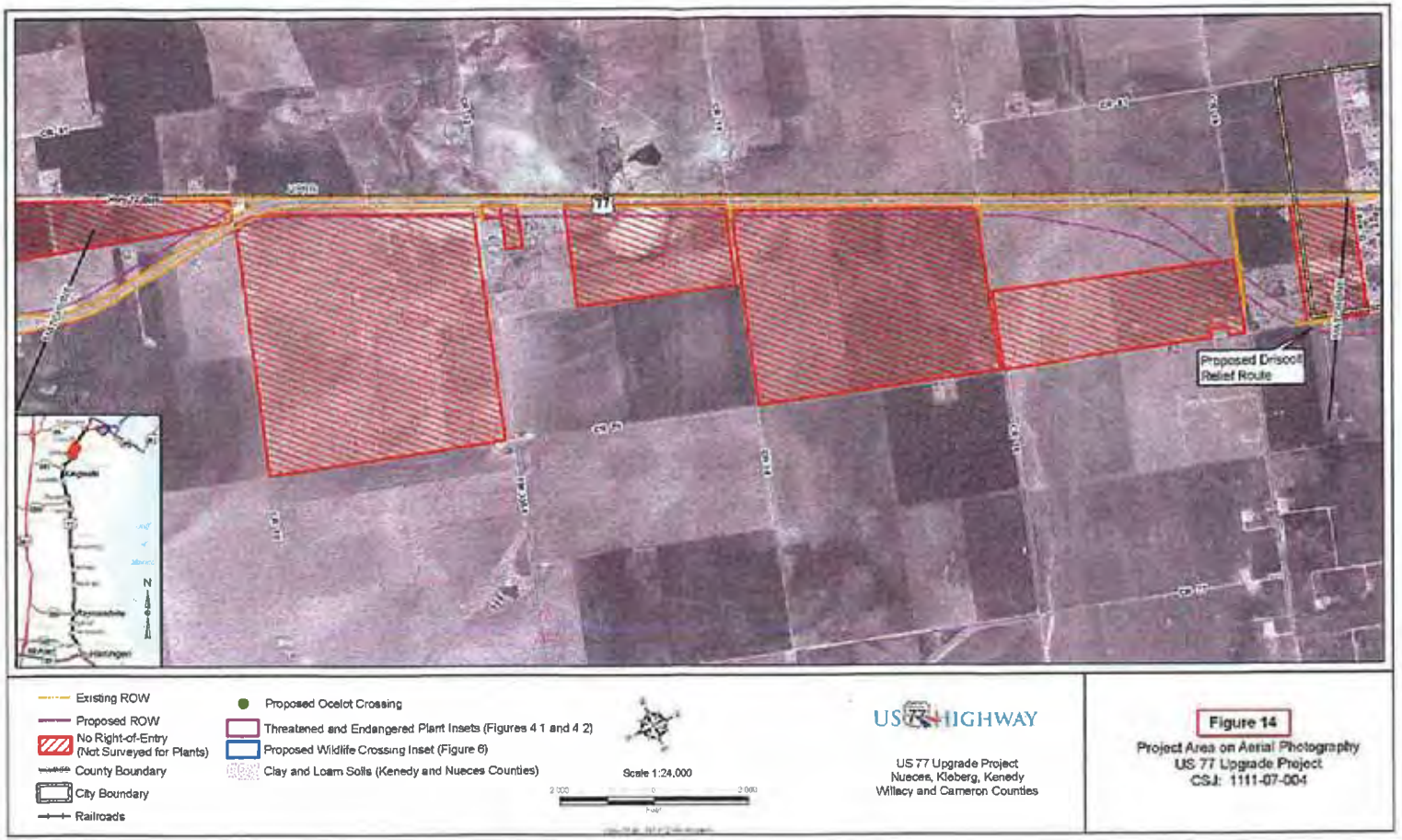


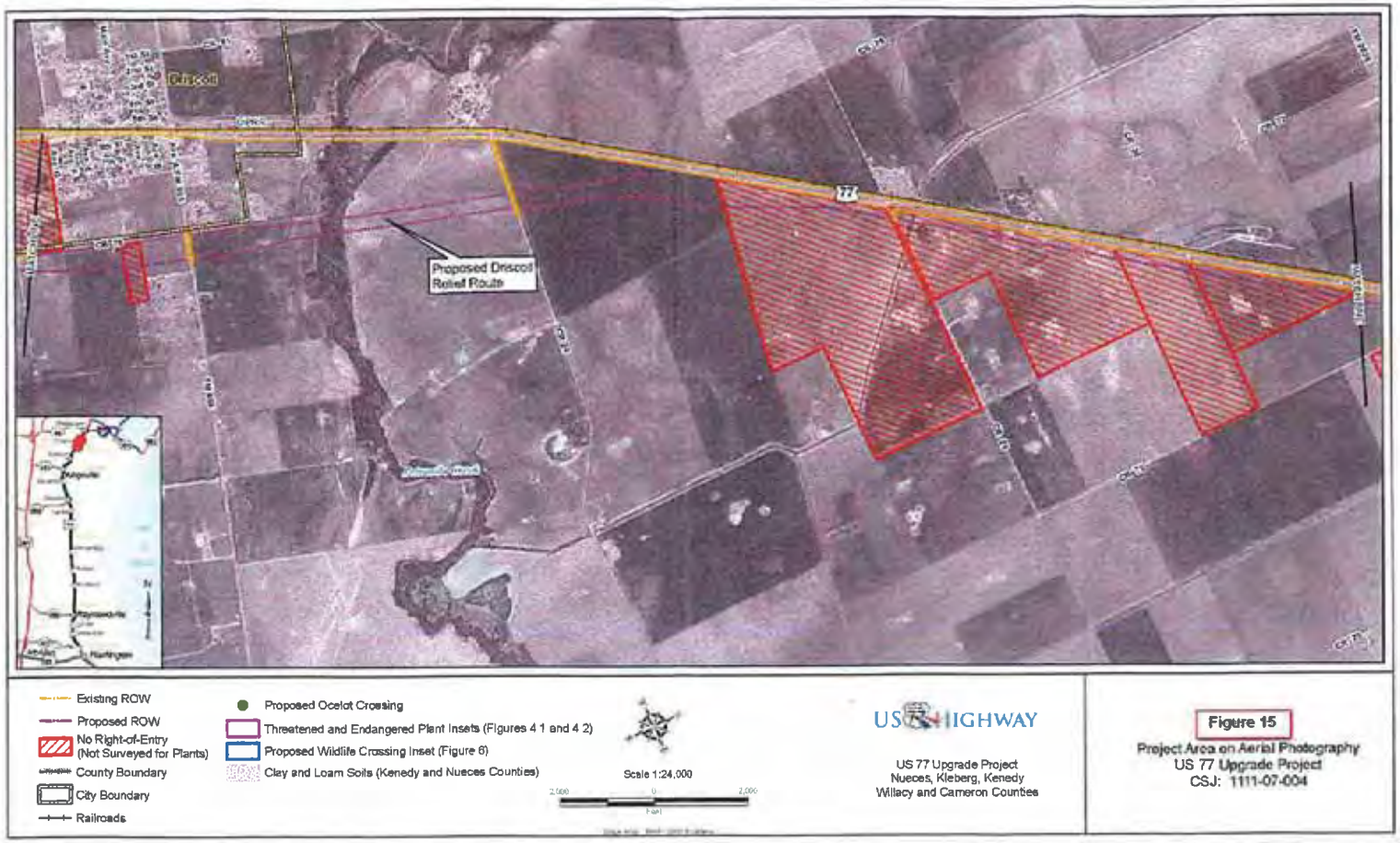
Figure 11

Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

Figure 12
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Kingsville
77
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Plants)
County Boundary
City Boundary
Railroads
Proposed Ocelot Crossing
Threatened and Endangered Plant Insets (Figures 4 1 and 4 2)
Proposed Wildlife Crossing Inset (Figure 6)
Clay and Loam Soils (Kenedy and Nueces Counties)
Scale 1:24,000
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 13
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Proposed Driscoll Relief Route
N
Existing ROW
Proposed ROW
No Right-of-Entry (Not Surveyed for Plants)
County Boundary
City Boundary
Railroads
Proposed Ocelot Crossing
Threatened and Endangered Plant Insets (Figures 4 1 and 4 2)
Proposed Wildlife Crossing Inset (Figure 6)
Clay and Loam Soils (Kenedy and Nueces Counties)
Scale 1:24,000
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 14
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Driscoll
Proposed Driscoll Relief Route
77
Existing ROW
Proposed ROW
No Right-of-Entry (Not Surveyed for Plants)
County Boundary
City Boundary
Railroads
Proposed Ocelot Crossing
Threatened and Endangered Plant Insets (Figures 4 1 and 4 2)
Proposed Wildlife Crossing Inset (Figure 6)
Clay and Loam Soils (Kenedy and Nueces Counties)
Scale 1:24,000
US HIGHWAY
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 15
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004


Northern Construction Limit
US 77 Upgrade Project
Existing ROW
Proposed ROW
No Right-of-Entry
(Not Surveyed for Plants)
County Boundary
City Boundary
Railroads
Proposed Ocelot Crossing
Threatened and Endangered Plant Insets (Figures 4 1 and 4 2)
Proposed Wildlife Crossing Inset (Figure 6)
Clay and Loam Soils (Kenedy and Nueces Counties)
Scale 1:24,000
US 77 Upgrade Project
Nueces, Kleberg, Kenedy
Willacy and Cameron Counties
Figure 16
Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

Figure 17

Project Area on Aerial Photography
US 77 Upgrade Project
CSJ: 1111-07-004

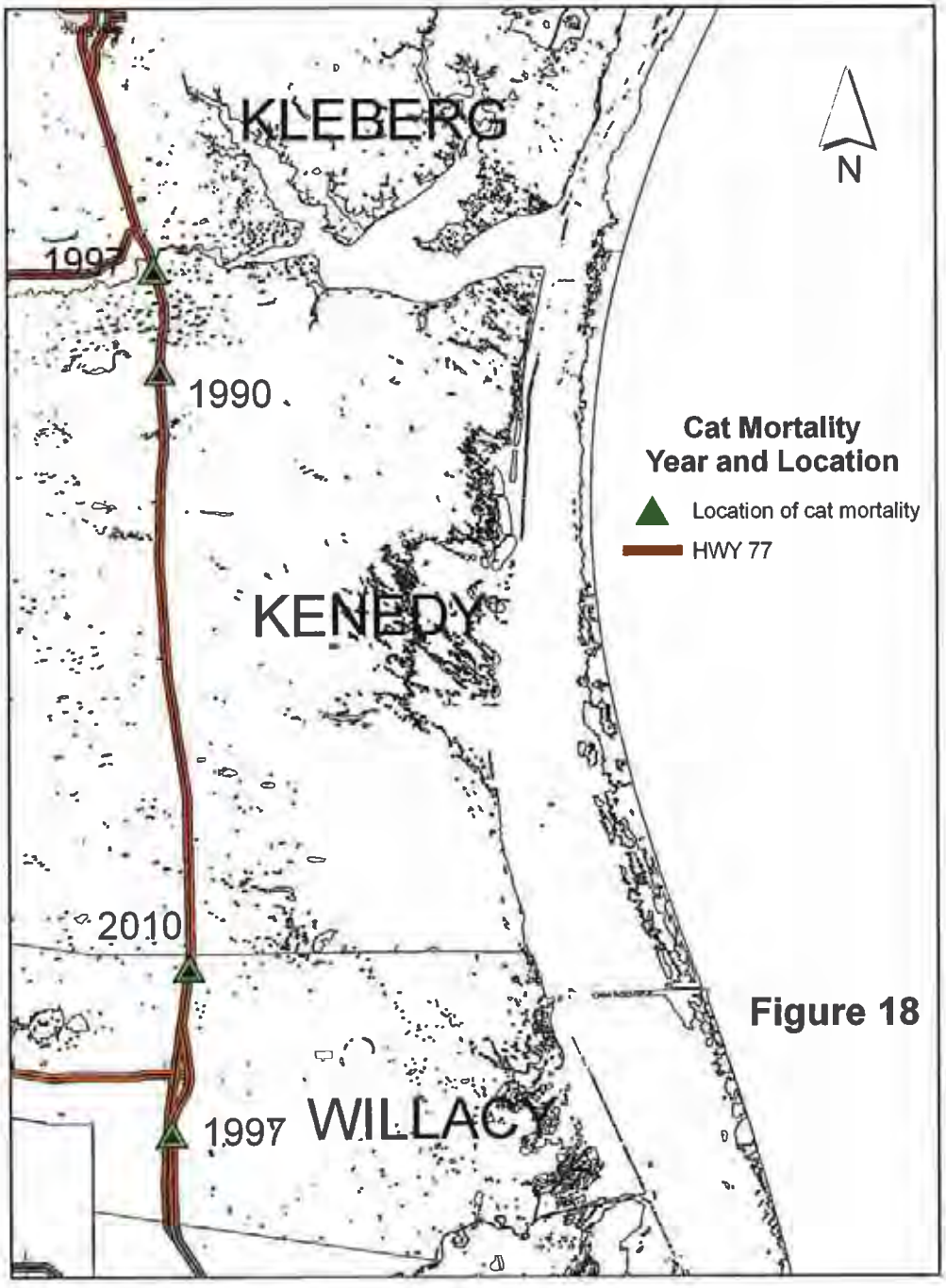

KLEBERG
N
1997
1990
Cat Mortality
Year and Location
Location of cat mortality
HWY 77
KENEDY
2010
1997
WILLACY

Figure 18

Appendix C

Section 4 Additional Tables

Table 4.1-1 Right-of-Way Acquisitions - Nueces County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
1	A.4.1-1	648900302805	YEPEZ DAVID	944 GARCIA ST ROBSTOWN, TX 78380)	0.002499	PAUL G H 5.046 ACS OUT OF SEC 30	Residential	$16,486
2	A.4.1-1	743700000010	CONCRETE PIPE & PRODUCT C	1610 U.S. HWY 77 S ROBSTOWN, TX 78380	0.041193	ROBSTOWN FARM TRS TR 1, 3.97 ACS	Industrial	$951,220
3	A.4.1-1	743700000020	CONCRETE PIPE & PRODUCT C	1610 U.S. HWY 77 S ROBSTOWN, TX 78380	0.076699	ROBSTOWN FARM TRS TR 2, 4.81 ACS	Industrial	$48,100
4	A.4.1-1	743700000030	SMITH, DAVID LEE	U S HWY 77 S (RBST)	0.249391	ROBSTOWN FARM TRS TR 3, 2.81 ACS	Industrial	$33,720
5	A.4.1-1	743700000040	SMITH DAVID	U S HWY 77 S (RBST)	0.145151	ROBSTOWN FARM TRS TR 4, 3.5 ACS	Industrial	$124,515
6	A.4.1-1	743700000052	GOMEZ, FRANK, Jr.	3968 U.S. HWY 77 S ROBSTOWN, TX 78380	0.120372	ROBSTOWN FARM TRS LT 5-B	Industrial	$41,678
7	A.4.1-1	743700000051	ITHACA INVESTMENTS LMTD	U S HWY 77 S (RBST) @ CR	0.132269	ROBSTOWN FARM TRS LT 5-A	Industrial	$26,220
8	A.4.1-1	648900290801	KOSAREK DALLARS S	U S HWY 77 S (RBST) @ CR	0.514691	PAUL G H 21.551 ACS OUT W/2 OF W/2 OF NE/4 SEC 29, ICL	Farmland	$7,866
9	A.4.1-1	450200010015	ATLAS TUBULAR LP	1710 U.S. HWY 77 S (RBST) @ CR 36	2.957891	LITE-FLITE-RBST 11 ACS OUT POR OF LT 1	Industrial /Farmland	$173,936
10	A.4.1-1	450200010025	ATLAS TUBULAR LP	1710 U.S. HWY 77 S (RBST) @ CR 36	2.977395	LITE-FLITE-RBST 16.69 ACS OUT POR OF LT 2	Industrial /Farmland	$266,051
11	A.4.1-1	648900290400	ATLAS TUBULAR LP (O574901)	U S HWY 77 S (RBST)	0.819534	PAUL G H 1.464 ACS OUT OF S POR OF NW/4 SEC 29	Vacant	$36,925
12	A.4.1-1	648900290010	STATE OF TEXAS	U S HWY 77 S (RBST) (ROW	0.755429	PAUL G H 5 ACS OUT S/2 SEC 29	Public	$40,000
13	A.4.1-1	648900290200	MCBURNETT MARK AND	U S HWY 77 S & FM RD 892	3.629499	PAUL G H 142.547 ACS OUT N/2 OF S/2 SEC 29	Farmland	$52,030
14	A.4.1-1	648900281200	WRIGHT CECIL	COUNTY RD 73 @ CR 34	0.021528	PAUL G H UNDIV INT IN 1 AC OUT W/2 OF NW/4 SEC 28	Farmland	$24,182
15	A.4.1-1	648900340200	MASSEY JAMES LUTHER III,	U.S. HWY 77 S (RBST) @ CR 34	6.914628	PAUL G H 1 AC OUT OF SE/4 OF SE/4 E OF RR SEC 34	Farmland/ Vacant	$938
16	A.4.1-1	648900350200	MASSEY J L	U S HWY 77 S (BYPASS) RB	29.428563	PAUL G H 1 AC OUT OF POR OF NE/4 POR OF SW/4 & ALL OF SE/4 SEC 35 E OF RR	Farmland	$25,500
17	A.4.1-1	648900360600	DUGGER RICHARD & BRUCE	U.S. HWY 77 S (RBST) @ FM RD 2826 (CR 32)	3.355251	PAUL G H 79.441 ACS OUT OF W/2 OF NW/4 SEC 36	Farmland	$28,441
18	A.4.1-1	648900450000	BRADSHAW BETTY SEALS	U.S. HWY 77 S (RBST) @ CR 75	10.000386	PAUL G H 84.5 ACS OUT OF SE/4 & NE/4 SEC 45	Farmland /Industrial	$30,903
19	A.4.1-2	648900450600	DUGGER BRUCE LEE ET UX	U S HWY 77 S (RBST)	16.018616	PAUL G H 82 ACS OUT OF SW/4 & W/2 OF SE/4 SEC 45	Farmland	$29,930
20	A.4.1-2	648900441000	DUGGER RICHARD L ET UX	U S HWY 77 S (RBST)	7.359003	PAUL G H 115.546 ACS OUT OF N/2 OF N/2 SEC 44	Farmland	$41,364
21	A.4.1-2	648900550200	BERNSEN LEON R ET UX	U S HWY 77 S (RBST)	22.202487	PAUL G H 164.96 ACS OUT OF W/2 SEC 44 & SE/4 SEC 55	Farmland	$60,210
22	A.4.1-2	648900560400	HOWZE PARTNERSHIP	U.S. HWY 77 S (RBST) @ CR 28 (DIRT)	28.039934	PAUL G H 410.3 ACS OUT OF NW/4 SEC 43 SEC 43 & FRC SEC 56 E OF STATE HWY 77	Farmland	$149,760
23	A.4.1-2	661501180171	DRISCOLL FOUNDATION	U.S. HWY 77 S (RBST) ALONG PETRONILLA CREEK	49.911107	PETRONILLA GRANT 76.37 ACS OUT OF ABS 118 GAMBLE SUR PARCEL NO 17	Farmland	$21,888
24	A.4.1-2/3	661501180140	DRISCOLL FOUNDATION	U.S. HWY 77 S (RBST) ALONG PETRONILLA CREEK	27.871919	PETRONILLA GRANT 117.8 ACS OUT OF ABS 118 GAMBLE SUR PARCEL NO 14	Farmland/ Vacant	$40,124
25	A.4.1-2/3	648901090000	REA JAY BRADFORD	FM RD 665 (DRISCOLL) TX, TX 78351	27.987229	PAUL G H 86.38 ACS OUT OF W/2 OF W/2 SEC 109	Farmland/ Vacant/Utility/ Commercial	$31,529
26	A.4.1-3	648901100750	DENTON STEVEN B	FM RD 665 (DRISCOLL) @ CR 79 DRISCOLL, TX 78351	10.903043	PAUL G H 18.299 ACS OUT OF NW/4 OF NW/4 SEC 110	Farmland	$6,679
27	A.4.1-3	648901100600	VETERANS LAND BOARD	4927 COUNTY RD 79 DRISCOLL, TX 78351	4.439657	PAUL G H 9.393 ACS OUT OF NW/4 OF NW/4 OF SEC 110	Farmland /Residential	$3,428
28	A.4.1-3	648901100400	LITTLE ROBERT C EST	COUNTY RD 18 BTWN CR 77 & CR 79	20.40882	PAUL G H 40 ACS OUT OF SE/4 OF SW/4 SEC 110	Farmland /Residential	$14,600
29	A.4.1-3	035600000040	MUMFORD E J ET UX	U S HWY 77 S (D) @ AVE G	1.130355	BAHN-DRISCOLL LT 4	Vacant /Residential	Info not provided
30	A.4.1-3	648901070600	KNAUS JANNESE COTTEN, TRU	COUNTY RD 79	6.300231	PAUL G H DRISCOLL RANCH 20 ACS OUT OF E/2 OF SE/4 SEC 107	Vacant	$1,720

Table 4.1-2 Right-of-Way Acquisitions - Kleberg County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
60	A.4.1-5	12115	BOYD BILLY FAMILY TRUST THE	--	0.938723	K T & I CO, BLOCK 31, LOT PT 4, 5, PT 6, ACRES 85.69	Ranch/ Residential	$74,330
61	A.4.1-5	11450	BOYD BILLY FAMILY TRUST THE	--	1.125146	K T & I CO, BLOCK 31, LOT 11, 14, PT 12, 13, ACRES 119.213	Ranch/ Residential	$88,470
62	A.4.1-5	29250	SAUL BILLY	--	0.486274	K T & I CO, BLOCK 31, LOT PT 13, ACRES 10.466	Ranch	$16,750
63	A.4.1-5	30593	SAUL BILLY	--	0.27185	K T & I CO, BLOCK 31, LOT PT 13 & 14, ACRES 12.3607	Ranch	$21,000
64	A.4.1-5	20124	JONES GENE M	--	0.54697	K T & I CO, BLOCK 33, LOT N PT 1 & 2, 50% UNDIVIDED INTEREST, (DAC: 23.135), ACRES 46.27	Ranch	$37,015
65	A.4.1-5	19231	DODGE ALLEN E	--	1.532784	K T & I CO, BLOCK 34, LOT W/3 3, N PT 4, ACRES 40.66	Farmland	$60,390
66	A.4.1-5	4004844	HUFF LEONARD JR EST	--	0.767306	K T & I CO, BLOCK 34, LOT S PT 4, ACRES 6.01	Farmland	$27,220
67	A.4.1-5	11506	JONES GENE M	--	0.599019	K T & I CO, BLOCK 34, LOT 5, 50% UNDIVIDED INTEREST, (DAC: 20.00), ACRES 40.	Farmland	$29,705
68	A.4.1-5	20280	JONES GENE M	--	3.462652	K T & I CO, BLOCK 33, LOT E PT 3, 50% UNDIVIDED INTEREST, (DAC: 3.25), ACRES 6.5	Farmland	$4,830
69	A.4.1-5	31204	CANTU SANTIAGO	HWY 77	0.333346	K T & I CO, BLOCK 33, LOT PT 3, ACRES 1.62	Farmland	$2,590
70	A.4.1-5/6	20760	CANTU SANTIAGO	--	5.216832	K T & I CO, BLOCK 33, LOT S PT 1 & 2, W PT 3, ACRES 49.33	Farmland	$78,930
71	A.4.1-5/6	18952	KUESTER ANN	--	4.616798	K T & I CO, BLOCK 33, LOT PT 4 & 6, 50% UNDIVIDED INTEREST, (DAC: 22.675), ACRES 45.35	Farmland	$28,140
72	A.4.1-5/6	20100387	KUESTER ANN	--	3.288527	K T & I CO, BLOCK 33, LOT PT 4, 50% UNDIVIDED INTEREST, (DAC: 6.00), ACRES 12.0	Farmland	$9,600
73	A.4.1-6	22075	ANDREWS HERBERT JR	CO RD 2130	1.0603226	K T & I CO, BLOCK 44, LOT PT 4, 5, ACRES 47.75	Farmland	$191,220
74	A.4.1-6	24245	DAHLMAN T W	--	0.954646	K T & I CO, BLOCK 44, LOT PT 8, 9, 10, 15, 16, 21, 22, ACRES 222.9, 50% UNDIVIDED INTEREST, (DAC: 111.45)	Ranch/Vacant /Residential	$138,310
75	A.4.1-6	21591	KUESTER ANN	--	2.017786	K T & I CO, BLOCK 44, LOT PT 8, 9, 10, 15, 16, 21, 22, ACRES 222.9, 50% UNDIVIDED INTEREST, (DAC: 111.45)	Farmland/ Vacant	$138,310
76	A.4.1-6	16288	RADFORD JANE F TRUST	HWY 77	0.275219	ALTO LOMO, LOT 3, ACRES 2.5, 50% UNDIVIDED INTEREST	Farmland/ Vacant/ Residential	$6,175
77	A.4.1-6	19765	RADFORD JANE F TRUST	HWY 77	0.57332	RICARDO OUT LTS, LOT G,H,I,K,L,M,N,O, ACRES 30.97, 50% UNDIVIDED INTEREST, (DAC: 15.485)	Ranch	$70,490
78	A.4.1-6	19654	RADFORD W F	HWY 77	1.286994	K T & I CO, BLOCK 45, LOT PT 24, PT 25, 50% UNDIVIDED INTEREST, (DAC: 30.90), ACRES 61.8	Ranch	$38,345
79	A.4.1-6	16786	WILLIAMS ANN		1.97494	K T & I CO, BLOCK 59, LOT PT 2, 3, 12, 13, 14, ACRES 110.56	Ranch	$137,210
80	A.4.1-6	20782	PATTILLO FRANKIE LOU	HWY 77	0.489618	K T & I CO, BLOCK 59, LOT PT 12, 14, ACRES 22.2, (ROCKING CROSS RV PARK)	Ranch/ Residential	$44,400
81	A.4.1-6/7	10971	PATTILLO FRANKIE LOU	HWY 77 & CO RD 2180	0.363719	K T & I CO, BLOCK 59, LOT .50 AC OUT OF LOT 12, (MH 14X76/FULTON), ACRES .5, S1# N/A; L1# N/A TITLE # N/A	Ranch/ Residential	$13,370
82	A.4.1-7	18676	VAN FLEET DAVID R	HWY 77	2.943255	A GUTIERREZ, LOT PT 119, ACRES 104.13	Residential	$136,550
83	A.4.1-7	4005407	VAN FLEET JODY	HWY 77	0.503031	A GUTIERREZ, LOT PT 119, ACRES 32.95	Farmland/ Residential	$40,490
84	A.4.1-7	21646	VAN FLEET JOE MICHAEL	FM RD 772	0.439721	VAN FLEET ADDN, LOT 1, ACRES 5.62	Farmland/ Residential	$255,660
85	A.4.1-7	21061	BENNETT ROBERT J		0.944135	KING ADDN 2, BLOCK A, LOT PT 1, 2, 3, 5, ACRES 42.86	Farmland/ Residential	$63,650
86	A.4.1-7	20096	ORTIZ GILBERT	HWY 77	0.227696	COUNTRY MEADOWS, LOT 8, ACRES 1.98	Ranch	$10,430
87	A.4.1-7	11589	VELA ERNESTINA G	CO RD 2205	0.239732	COUNTRY MEADOWS, LOT 7, ACRES 2.09	Residential	$10,330
88	A.4.1-7	12393	ORTIZ GILBERT	HWY 77	0.221369	COUNTRY MEADOWS, LOT 9, ACRES 3.87	Residential	$4,800
89	A.4.1-7	20883	ORTIZ GILBERT	CO RD 2210	0.242398	COUNTRY MEADOWS, LOT 10, ACRES 3.26	Residential	$4,050
90	A.4.1-7	11720	ANDREWS HERBERT JR	--	0.620835	MRS KINGS 4TH SUB, BLOCK 66, LOT PT 1, ACRES 28.2	Residential	$40,860
91	A.4.1-7	29873	CAPROCK COMMUNICATIONS CORP	--	0.137294	CAPROCK SUB, LOT TRACT 1, ACRES 1	Residential	$10,890
92	A.4.1-7	19058	COOPER BOBBY L	--	0.955	MRS KINGS 4TH SUB, BLOCK 66, LOT 4-6, ACRES 114.67	Residential	$142,310
93	A.4.1-7	12141	RADFORD W F	--	1.781691	MRS KINGS 4TH SUB, BLOCK 66, LOT 7-12, ACRES 205.31, 50% UNDIVIDED	Ranch/	$115,510

Table 4.1-1 Right-of-Way Acquisitions - Nueces County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
31	A.4.1-3	648901071000	TREVINO JAIME J ET UX	AVE G EAST	4.45203	PAUL G H DRISCOLL RANCH 20 ACS OUT OF W/2 OF SE/4 OF SE/4 SEC 107	Vacant	$1,720
32	A.4.1-3	648901070200	DOUGLASS RANSOM/MARTHA	U.S. HWY 77 S SE DRISCOLL, TX 78351	0.00033	PAUL G H DRISCOLL RANCH 1 AC OUT OF SW/4 & SE/4 SEC 107	Residential	$52,455
33	A.4.1-3	648901060200	FELDER GENE ET UX	COUNTY RD 18 @ CR 79 DRISCOLL, TX 78351	7.741053	PAUL G H 198 ACS OUT OF SEC 106 E OF RR	Farmland/ Residential/ Vacant	$71,655
34	A.4.1-3	648901060000	JOHNSTON BUSINESS PARTNER	U.S. HWY 77 S (DRISCOLL) SE @ CR 16	47.593364	PAUL G H 182.01 ACS OUT OF SEC 106 E OF RR	Farmland	$66,434
35	A.4.1-3/4	648901120010	MALONE, JASON RYAN (O0060954)	1796 COUNTY RD 79	24.2160790	PAUL G H 2.5 ACS OUT OF NW/4 SEC 112	Farmland	$28,710
36	A.4.1-4	070601040000	ANDERSON GLYNDA B MRS & BROWN WARD DR	U.S. HWY 77 S (BISHOP) N OF BISHOP, TX 78343	15.978328	BISHOP F Z UNDIV/2 INT IN 151.369 ACS OUT NW/4 AND FRC N PART SW/4 SEC 104	Farmland	$18,125
37	A.4.1-4	070601040309	VETERANS LAND BOARD OF STATE OF TEXAS	1514 U.S. HWY 77 S (BISHOP) N OF BISHOP, TX 78343	1.020605	BISHOP F Z 10.5 ACS OUT OF S PT SW/4 SEC 104	Farmland	$58,844
38	A.4.1-4	070601040303	MARTINEZ ANTONIO F ET UX	1496 U.S. HWY 77 S (BISHOP) N OF BISHOP, TX 78343	1.956435	BISHOP F Z 20.39 ACS OUT S PT SW/4 SEC 104	Residential /Commercial	$3,262
39	A.4.1-4	070601040400	GUTIERREZ RAMIRO ET UX	1474 U.S. HWY 77 S (BISHOP) N OF BISHOP, TX 78343	1.717314	BISHOP F Z 7 ACS OUT OF S PT SW/4 SEC 104	Residential	$87,506
40	A.4.1-4	070601040300	PORTALES SARA H	1454 U.S. HWY 77 S (BISHOP) N OF BISHOP, TX 78343	1.570309	BISHOP F Z 7 ACS OUT OF S PT SW/4 OF SEC 104	Residential /Commercial	$96,711
41	A.4.1-4	758000010010	RAMIREZ OSCAR	1442 U.S. HWY 77 S BYPASS BISHOP, TX 78343	1.960145	SAL RANCH S/D LT 1 BLK 1	Residential	$88,192
42	A.4.1-4	070601030100	PASCHAL RALPH R ET UX	U.S. HWY 77 S BYPASS BISHOP, TX 78343	21.965772	BISHOP F Z 104.62 ACS OUT OF SEC 103	Farmland /Residential	$38,186
43	A.4.1-4	070601020100	CUEVAS, ROEL R AND LAURA	1184 U.S. HWY 77 S BYPASS BISHOP, TX 78343	2.104936	BISHOP F Z 1.92 ACS OUT N/2 OF NW/4 SEC 102	Farmland /Residential	$113,975
44	A.4.1-4	070600970100	PLOCEK GEORGE NEAL	U.S. HWY 77 S BYPASS BISHOP, TX 78380	2.032077	BISHOP F Z 1 AC OUT OF E/2 SEC 97	Farmland /Residential	$61,894
45	A.4.1-5	070601020500	NEIL, LEON C AND (O0060864)	1121 U.S. HWY 77 S BYPASS BISHOP, TX 78343	17.583639	BISHOP F Z 3.51 ACS OUT OF S/2 OF NW/4 SEC 102	Farmland /Residential	$201,422

Source: US Census Bureau, 2000

Table 4.1-2 Right-of-Way Acquisitions - Kleberg County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
46	A.4.1-5	33335	HENNESSEY KINGSVILLE INVESTMENT LLC	--	0.16087	K T & I CO, BLOCK 22, LOT PT 1, PT 2, ACRES 12.816	Farmland/ Residential/ Commercial	$176,810
47	A.4.1-5	10621	WEST PAUL M	GEN CAVAZOS	0.279572	K T & I CO, BLOCK 22, LOT PT 3, 4, ACRES 31.061	Farmland	$309,100
48	A.4.1-5	22312	J L BARTH COMPANY	--	0.563722	K T & I CO, BLOCK 22, LOT 7.24 ACS OF PT 6, ACRES 7.24	Farmland/ Commercial	$185,410
49	A.4.1-5	12480	KLEBERG HOLDINGS INC	HWY 77	0.22252	ABINCO IND PARK 1, LOT PT 1, PT 2, ACRES 6.4711, (HWY 77 ONE STOP)	Commercial	$974,890
50	A.4.1-5	4001822	KLEBERG HOLDINGS INC	--	0.290743	ABINCO IND PARK 1, LOT PT 1, PT 2, (RODEWAY INN)	Commercial	$1,162,010
51	A.4.1-5	13841	TAYLOR CLARA	--	0.004096	K T & I CO, BLOCK 22, LOT PT 12, 13, ACRES 26.46	Ranch	$533,920
52	A.4.1-5	21463	CUMBERLAND W E TRUST	--	0.577804	K T & I CO, BLOCK 22, LOT W50.33 11 & 14, ACRES 50.33	Farmland	$159,970
53	A.4.1-5	17015	HAUNSCHILD KENNETH M EST	--	2.264793	K T & I CO, BLOCK 22, LOT PT 12, 13 , ACRES 26.64	Vacant	$435,540
54	A.4.1-5	22995	SCOGGINS JILL	FM RD 1717	0.29708	K T & I CO, BLOCK 22, LOT SE/4 13, ACRES 1.25	Ranch/ Farmland	$179,320
55	A.4.1-5	12691	STATE OF TEXAS	--	0.279882	HILLS & DALES, LOT 1-3, PT 4, (E X E M P T), ACRES 6.95	Residential/ Ranch	Info not provided
56	A.4.1-5	12691	STATE OF TEXAS	--	0.135877	HILLS & DALES, LOT 1-3, PT 4, (E X E M P T), ACRES 6.95	Ranch/ Residential	Info not provided
57	A.4.1-5	12691	STATE OF TEXAS	--	0.137794	HILLS & DALES, LOT 1-3, PT 4, (E X E M P T), ACRES 6.95	Ranch	Info not provided
58	A.4.1-5	13362	BOYD BILLY FAMILY TRUST THE	--	0.137414	HILLS & DALES, LOT PT 4, 18, 19 & CLOSED ROAD, ACRES 4.16	Ranch	$21,920
59	A.4.1-5	12115	BOYD BILLY FAMILY TRUST THE	--	0.175954	K T & I CO, BLOCK 31, LOT PT 4, 5, PT 6, ACRES 85.69	Ranch	$74,330

Table 4.1-2 Right-of-Way Acquisitions - Kleberg County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
						INTEREST (DAC: 102.655)	Residential	
94	A.4.1-7	10566	COLSTON BILL C JR	--	1.848552	MRS KINGS 4TH SUB, BLOCK 65, LOT PT 1-4, ACRES 149	Ranch	$184,910
95	A.4.1-7/8	11487	BROOKSHIRE T C	--	14.189681	MRS KINGS 4TH SUB, BLOCK 65, LOT 5-8, ACRES 109.35	Ranch/ Residential	$135,350
96	A.4.1-7/8	12995	LEESON CLAUDE RAYMOND JR	--	6.313862	MRS KINGS 1ST SUB, BLOCK 48, LOT 1, ACRES 45.07	Farmland	$55,760
97	A.4.1-8	22081	CHRISTENSEN BARRY LEE	--	0.869884	MRS KINGS 1ST SUB, BLOCK 48, LOT PT 2, ACRES 28.04	Ranch/ Residential	$34,020
98	A.4.1-8	4003376	CHRISTENSEN BARRY LEE	--	1.701518	MRS KINGS 1ST SUB, BLOCK 48, LOT PT 3, ACRES 16.28	Ranch	$20,200
99	A.4.1-8	22713	CHRISTENSEN BARRY LEE	S HWY 77	0.082775	MRS KINGS 1ST SUB, BLOCK 48, LOT PT 3, (100 X 125), ACRES .29	Ranch/ Residential	$64,880
100	A.4.1-8	4002992	HICKEY DANA FAYE CHRISTENSEN	--	1.110213	MRS KINGS 1ST SUB, BLOCK 48, LOT PT 3, ALL OF 4, ACRES 13.55	Residential	$16,820
101	A.4.1-8	12355	WARE ALLEN RANDOLPH	--	0.149562	KOCH SUB 2, BLOCK 29, LOT 1 AC OUT OF N/W PT 1, ACRES 1.	Ranch/ Residential	$30,110
102	A.4.1-8	11703	WARE ALLEN RANDOLPH	HWY 77	0.194169	KOCH SUB 2, BLOCK 29, LOT OUT OF NW PT 1 , ACRES 15.3	Ranch	$30,310
103	A.4.1-8	13674	LOPEZ ARMANDO G	HWY 77	0.131236	KOCH SUB 2, BLOCK 29, LOT OUT OF W PT 1, ACRES 1.0	Ranch/ Residential	$32,840
104	A.4.1-8	11044	LOPEZ ARMANDO G	S HWY 77	0.252575	KOCH SUB 2, BLOCK 29, LOT OUT W PT 1, "OA TAX DEFERRAL 2005", ACRES 2.67	Residential	$52,600
105	A.4.1-8	11831	BULL BURT	--	0.19509	KOCH SUB 2, BLOCK 29, LOT OUT OF 1 , ACRES 52.01	Residential	$64,540
106	A.4.1-8	20349	BULL BURT	--	0.907412	KOCH SUB 2, BLOCK 29, LOT W/2 4, PT 1, 3, ACRES 113.92	Ranch/ Residential	$140,720
107	A.4.1-8	20349	BULL BURT	--	0.896552	KOCH SUB 2, BLOCK 29, LOT W/2 4, PT 1, 3, ACRES 113.92	Ranch	$140,720
108	A.4.1-8	24301	BULL BURT	S HWY 77	1.701352	KOCH SUB 1, BLOCK 1, LOT PT 1, W 20 AC OF 2, ACRES 36.9	Ranch	$45,790
109	A.4.1-8/9	12948	RIVERA MARY T	CO RD 2280	0.346684	KOCH SUB 1, BLOCK 1, LOT OUT OF 7, ACRES 2.	Ranch	$45,230
110	A.4.1-8/9	25821	MURPHY JOHN T	--	0.56699	KOCH SUB 1, BLOCK 1, LOT N PT 7, ACRES 29.775	Residential	$49,240
111	A.4.1-8/9	25073	BIEDERMANN DAVID N	HWY 77	0.517011	KOCH SUB 1, BLOCK 1, LOT W PT 7, ACRES 1.86	Ranch/ Residential	$72,320
112	A.4.1-8/9	24452	MURPHY PAT AND JOYCE ARLENE MURPHY	HWY 77	0.27818	KOCH SUB 1, BLOCK 1, LOT PT 7, ACRES .91	Residential	$41,790
112A	A.4.1-8/9	Unknown	Unknown	HWY 77	0.267575	KOCH SUB 1, BLOCK 1	Residential	Unknown
113	A.4.1-8/9	12315	MARTINEZ RAMON JR	--	0.277532	KOCH SUB 1, BLOCK 1, LOT N PT 7, ACRES 0.544	Residential	$8,240
114	A.4.1-8/9	23443	MOYA ANNA MARIE	--	0.007675	REED AC, LOT 1, ACRES 0.63	Residential	$47,060
115	A.4.1-8/9	28417	BRIEGER HARLAN	--	0.530028	REED AC, LOT E/2 2, ACRES .46	Residential	$48,020
116	A.4.1-8/9	18242	RILEY JOHN L III	--	9.070812	KOCH SUB 1, BLOCK 1, LOT PT 8, (D E L E T E 2007), ACRES 32.209	Residential	Info not provided
117	A.4.1-8/9	17616	RILEY JOHN L III	--	0.022217	KOCH SUB 1, BLOCK 1, LOT 8, ACRES 33.209	Ranch/ Residential	$115,120
118	A.4.1-8/9	18007	KRAATZ BRUCE A	HWY 77	5.609505	LA GATA, BLOCK 1, LOT 4, 5, (KRAATZ CACTUS NURSERY), ACRES 8.26	Residential	$40,820
119	A.4.1-8/9	4000058	HERNANDEZ TERESA P	CO RD 2290	2.005487	LA GATA #2, LOT 4, ACRES 2.9	Ranch/ Commercial	$14,330
120	A.4.1-8/9	4000057	NARANJO JOSE G III	CO RD 2290	0.144687	LA GATA #2, LOT 3, ACRES 2.91	Ranch/ Residential	$73,760
121	A.4.1-8/9	4001427	CUELLAR RAUL P	--	0.002728	LA GATA #2, LOT 1, 2, ACRES 4.91	Ranch/ Residential	$24,260
122	A.4.1-8/9	13438	CORE GEORGE M	--	6.480211	LA GATA, BLOCK 1, LOT 13, ACRES 9.38	Ranch/ Residential	$37,440
123	A.4.1-8/9	10168	LA GATA INC % VELA UVALDO	HWY 77	2.545448	LA GATA, BLOCK 1, LOT 3, ACRES 4.13	Ranch/ Commercial	$20,410
124	A.4.1-8/9	17253	PROAM TEXAS INC	HWY 77	0.060618	LA GATA, BLOCK 1, LOT 2, ACRES 4.13	Ranch/ Commercial	$20,410
125	A.4.1-8/9	21120	TOUCHSTONE JENDY L	--	3.998374	LA GATA, BLOCK 1, LOT 12, ACRES 9.6	Ranch/ Commercial	$16,510
126	A.4.1-8/9	12639	CABALLERO AMADOR	--	0.053205	LA GATA, BLOCK 1, LOT 11, ACRES 9.6	Ranch/ Residential	$39,900

Table 4.1-2 Right-of-Way Acquisitions - Kleberg County

ID#	Figure #	Parcel/Tax ID	Property Name	Property Address	Acres Impacted	Legal Description	Land use	Appraised Value
127	A.4.1-8/9	25351	SERNA FELIX	--	0.353126	LA GATA, BLOCK 2, LOT PT OF 6, ACRES 20.16	Ranch/ Residential	$34,040
128	A.4.1-8/9	17774	SERNA FELIX	--	4.252396	LA GATA, BLOCK 2, LOT 7, ACRES 16.55	Ranch/ Commercial	$32,780
129	A.4.1-8/9	10064	POLLY ROGER E	--	6.632271	LA GATA, BLOCK 2, LOT 8, ACRES 16.55	Ranch	$32,780
130	A.4.1-8/9	18556	POLLY ROGER E	--	6.591491	LA GATA, BLOCK 2, LOT PT OF 9, ACRES 15.55	Ranch	$72,680
131	A.4.1-8/9	18929	BROMLEY CAROLYN MAY	--	4.271955	KOCH SUB 1, BLOCK 2, LOT 17, W/4 18, ACRES 50.	Ranch	$62,050
132	A.4.1-8/9	18944	GARZA NICOLAS G	CO RD 2300	0.226637	LA GATA, BLOCK 3, LOT PT 12, ACRES 4.12	Ranch	$20,360
133	A.4.1-8/9	22372	UNDERBRINK M F	CO RD 2300	0.597949	M & L AC 2, LOT 3, ACRES 2.5	Farmland	$12,350
134	A.4.1-8/9	21607	UNDERBRINK M F	CO RD 2300	0.597949	M & L AC 2, LOT 1, ACRES 2.5	Farmland	$12,350
135	A.4.1-8/9	13971	UNDERBRINK M F	CO RD 2300	2.066671	M & L AC 2, LOT 2, ACRES 2.5	Farmland	$12,350
136	A.4.1-8/9	16509	UNDERBRINK M F	CO RD 1070	1.756856	KOCH SUB 1, BLOCK 17, LOT W 15 AC OF 1 LESS 7.5 AC, W 15 AC OF 2 , ACRES 21.5	Farmland	$36,530
137	A.4.1-8/9	17391	MALIN JERRY D	CO RD 2300	13.720311	KOCH SUB 1, BLOCK 17, LOT E25 AC OF 1, E25 AC 2 , ACRES 50.	Farmland	$62,050
138	A.4.1-8/9	11863	PATRICK A RISKENT RANCH TRUST	CO RD 2310	2.090395	KOCH SUB 1, BLOCK 17, LOT PT 10 , ACRES 19.	Farmland	$37,640
139	A.4.1-8/9	25765	BROWN T J	CO RD 2310	12.761239	KOCH SUB 1, BLOCK 17, LOT 8, 9 , ACRES 40.	Farmland	$57,570
140	A.4.1-8/9	29510	KLEBERG COUNTY	SS 2310 EAST	0.773571	KOCH SUB 1, BLOCK 17, LOT PT 15, PT 16, ABANDONDED CR 2320, ACRES 5.80, (E X E M P T)	Farmland/ Residential	$26,270
141	A.4.1-8/9	17383	MALIN JERRY D	CO RD 2310	9.857433	KOCH SUB 1, BLOCK 17, LOT PT 24, PT 15, PT 16, PT 17, PT 18, ACRES 46.81	Farmland/ Residential	$58,100
142	A.4.1-9	11976	CORDAWAY J E EST	FM RD	1.224285	KOCH SUB 1, BLOCK 17, LOT PT 31, ACRES 4.65	Industrial/ Ranch	$16,820
143	A.4.1-9	11313	CORDAWAY J E EST	FM RD 771	0.00905	KOCH SUB 1, BLOCK 17, LOT PT 31, ACRES 1.0	Ranch	$43,890
144	A.4.1-9	20512	WALKER MARCUS	FM RD	5.000261	KOCH SUB 1, BLOCK 17, LOT PT 32, PT 33, ACRES 9.26	Vacant/ Residential	$28,280
145	A.4.1-9	10955	DOUGLAS PATIENCE E	FM RD	0.046422	WALKER ESTATES, LOT 1, (MH 16X76 - FESTIVAL LIMITED), ACRES 2.0, S1# TXFLV12A53578FD21; L1# RAD0991098 TITLE # 00927201	Residential	$30,530
146	A.4.1-9	15154	MARTIN LAURIE D	FM RD	7.901892	KOCH SUB 1, BLOCK 20, LOT PT 5, 6-8, 20, 27 & BLVD STRIP N LOTS 5-8, (D E L E T E 2007), ACRES 52.45	Vacant/ Residential	Info not provided
147	A.4.1-9	22196	MARTIN LAURIE D	--	6.089831	KOCH SUB 1, BLOCK 20, LOT 21, (D E L E T E 2007), ACRES 11.	Residential	Info not provided
148	A.4.1-9	14581	MARTIN LAURIE D	--	0.660389	KOCH SUB 1, BLOCK 20, LOT 22, (D E L E T E 2007), ACRES 11.06	Ranch	Info not provided
149	A.4.1-9	15154	MARTIN LAURIE D	FM RD	3.721799	KOCH SUB 1, BLOCK 20, LOT PT 5, 6-8, 20, 27 & BLVD STRIP N LOTS 5-8, (D E L E T E 2007), ACRES 52.45	Ranch	Info not provided
150	A.4.1-9	16899	MARTIN LAURIE D	--	4.446996	KOCH SUB 1, BLOCK 20, LOT 28, 33, N/2 31, (D E L E T E 2007), ACRES 36.67	Ranch	Info not provided
151	A.4.1-9	16167	ELROD DALE	--	11.24804	KOCH SUB 1, BLOCK 20, LOT W/2 30, ACRES 20	Ranch	$33,980
152	A.4.1-9	24233	ELROD DALE	S/HWY 77	0.288374	KOCH SUB 1, BLOCK 20, LOT S/2 29, (D E L E T E 2008), ACRES 19.0	Ranch	Info not provided
153	A.4.1-9	23749	MARTIN LAURIE D	CO RD	1.905154	KOCH SUB 1, BLOCK 20, LOT E/2 30, S PT 31, 32, (D E L E T E 2007), ACRES 57.06	Ranch	Info not provided
154	A.4.1-9	18691	TORRENCE SOPHRONIA MARTIN	--	13.015856	KOCH SUB 1, BLOCK 20, LOT 37, ACRES 40.00		$47,650
155	A.4.1-9	25512	TORRENCE SOPHRONIA MARTIN	SIDE HWY 77	0.214031	KOCH SUB 1, BLOCK 20, LOT PT 38-39 EXC 3 AC NW COR OF 38, ACRES 23.86	Ranch	$29,610
156	A.4.1-9	10230	TORRENCE SOPHRONIA MARTIN	--	9.19972	KOCH SUB 1, BLOCK 20, LOT 40, ACRES 40.	Ranch	$49,640
157	A.4.1-9	17277	TORRENCE SOPHRONIA MARTIN	--	5.452873	KOCH SUB 1, BLOCK 28, LOT PT 2, ACRES 61.46	Ranch	$76,270

Source: US Census Bureau, 2000

Table 4.1-3 Potential Displacements and Relocations

Figure #	Map ID	Parcel Number (TX ID)	Property Name	Property Address	Acres Impacted	Number of Structures Displaced	Partial/Full Taking	Square foot	Description of displacements to include parking lots, storage facilities, mobile structures (waste tanks, trailers, offices, homes) etc.	Appraised Value
A.4.1-10	4	743700000030	**Hanson Pipe Precast, Inc**. (SMITH, DAVID LEE	1610 S. Highway 77 Robstown, Texas 78380 Nueces County	0.249391	0	Partial	Info not provided	**Industrial:** Majority of the parcel is used for storing precasted piping, which will require relocation.	$33,720
A.4.1-10	5	743700000040	**Hanson Pipe Precast, Inc.** (SMITH, DAVID LEE	1610 S. Highway 77 Robstown, Texas 78380 Nueces County	0.145151	3	Partial	Canopy – 600 sq ft Warehouse – 4,450 sq ft Asphalt lot – 15,000 sq ft Office – 960 sq ft Shed – 900 sq ft	**Industrial:** This parcel is a part of ID # 1 (See ID #1). This parcel consists of a canopy, a warehouse, an office, a shed, a storage yard and parking lot. The parcel also consist of various tanks (uses are unknown .	$124,515
A.4.1-10	6	743700000052	**Property Name Unknown** Gomez, Frank, Jr.	US Hwy 77S Robstown, Texas 78380 Nueces County	0.120372	2	Partial	Office – 275 sq ft Warehouse – 1,475 sq ft Carport – 1,000 sq ft	**Industrial**: This parcel consists of one office building with carport, and a warehouse. This parcel also consists of a storage yard. In addition, one sign was noted in front of parcel specifying the sale/rent of dumpsters 361.241.3153 .	$41,678
A.4.1-10	9	450200010015	**Atlas tubular Inc.** (ATLAS TUBULAR LP	1710 S. Highway 77 Robstown, Texas 78380 Nueces County	2.957891	6	Partial	Office – 700 sq ft Warehouse – 7,200 sq ft Warehouse – 600 sq ft Warehouse – 400 sq ft Building – 240 sq ft Shed – 216 sq ft	**Industrial/Farmland:** This parcel consists of an office, 3 warehouses, a shed, an additional building (use unknown), a storage yard, and parking lot.	$173,936
A.4.1-10	10	450200010025	**Atlas tubular Inc.** (ATLAS TUBULAR LP	1710 S. Highway 77 Robstown, Texas 78380 Nueces County	2.977395	3	Partial	Office – 3,000 sq ft Building 160 sq ft Open Porch – 100 sq ft Asphalt – 4,000 sq ft Building – 160 sq ft Storage 848 sq ft.	**Industrial/Farmland:** This parcel is a part of ID #4 (See ID #4). This parcel consists of an office, 2 buildings (uses known) and a storage yard.	$266,051
A.4.1-10	12	648900290010	**Texas Department of Transportation** STATE OF TEXAS	1750 US Highway 77 Robstown, Texas 78380 Nueces County	0.755429	1	Partial	Info not provided	**Public:** Only 1 structure appears to be in close proximity to the proposed ROW with the potential of being displaced as a result of it's location to the proposed ROW line.	$40,000
A.4.1-11	16	648900350200	MASSEY J L	Sheds are actually located on FM 2826 just east of the US 77/FM 2826 intersection - US Hwy 77S (BYPASS Robstown, Texas 78380, Nueces County	29.428563	3	Partial	Shed – 5,000 sq ft Shed – 2,500 sq ft Shed – 2,570 sq ft	**Farmland**: 3 sheds, located on site, will be displaced. 1 residence is also located on this parcel site but will not be displaced.	$25,500
A.4.1-12	40	70601040300	**Pops Jerky Store** (PORTALES SARA H	1454 US Highway 77 S North of Bishop, Texas, 78343 Nueces County	1.570309	2	Partial	Main Area – 1,344 sq ft Storage – 704 sq ft Storage – 100 sq ft Building – 2,400 sq ft Add Main Area – 60 sq ft	**Residential/Commercial**: 1 structure appears to be a converted single-story house used for business.	$85,734
A.4.1-12	41	758000010010	**Residence and Business** RAMIREZ OSCAR)	1442 US Highway 77 S Bypass Bishop, Texas 78343 Nueces County	1.960145	2	Full	Residence #1 -1,360 sq ft Canopy – 1,440 sq ft Residence #2 - 2256 sq ft Carport – 648 sq ft	**Residential**: 2 structures located onsite: one is a single-story residence, and the other appears to be a converted single-story house used for business.	$89,507
A.4.1-13	43	70601020100	CUEVAS, ROEL R AND LAURA	US HWY 77 S BYPASS (BISHOP Nueces County	2.104936	1	Partial	Info not provided	**Residential/Farmland**: 1 single-story structure to include a parking lot located on site.	$113,975
A.4.1-13	45	70601020500	CAPUZZI, JANET T	1121 US Highway 77 S Bypass Bishop, Texas 78343 Nueces County	17.583639	3	Partial	Residence - 3,264 sq ft Barn – 1,455 sq ft Detached Garage Frame – 1,455 sq ft	**Residential/Farmland**: This parcel consists of 3 structures: residence, barn, and detached garage frame.	$142,475
A.4.1-14	49	12480	**Roadway Inn/Valero** KLEBERG HOLDINGS INC	3430 US Highway 77 S Bypass Kingsville, Texas 78363 Kleberg County	0.22252	1	Partial	12,994 sq ft	**Commercial**: Roadway Inn and Valero station are located on this parcel. The Valero station will be displaced.	$974,890
A.4.1-15	91	29873	**Caprock Communications Corp**	5561 US Highway 77 Kingsville, Texas 78363 Kleberg County	0.137294	2	Partial	Info not provided	**Commercial:** A remote satellite communication company.	$10,890
A.4.1-16	99	22713	CHRISTEMSEN BARRY LEE	5711 US Highway 77 Riviera, Texas 78379 Kleberg County	0.082775	1	Partial	1,803 sq ft	**Residential**: Only one structure appears to be in close proximity to the proposed ROW.	$64,880
A.4.1-16	103	13674	LOPEZ ARMANDO G	6010 US Highway 77 Riviera, Texas 78379 Kleberg County	0.131236	3	Partial	4,536 sq ft	**Residential**: 1 two-story house located on site. Two additional structures also noted.	$32,840
A.4.1-17	109	12948	RIVERA MARY T	301 County Road 2280 Riviera, Texas 78379 Kleberg, County	0.346684	2	Partial	3,384 sq ft	**Residential**: 1 single-story house with detached garage located on site.	$45,230
A.4.1-17	110	25821	MURPHY JOHN T	Info not provided	0.56699	Info not provided	Partial	Info not provided	**Ranch/Residential property**: Info not provided	$49,240
A.4.1-17	111	25073	BIEDERMANN DAVID N	5795 US Highway 77 Riviera, Texas 78379 Kleberg County	0.517011	1	Partial	2,016 sq ft	**Residential**: 1 single-story house located on site.	$72,320

Table 4.1-3 Potential Displacements and Relocations

Figure #	Map ID	Parcel Number (TX ID)	Property Name	Property Address	Acres Impacted	Number of Structures Displaced	Partial/Full Taking	Square foot	Description of displacements to include parking lots, storage facilities, mobile structures (waste tanks, trailers, offices, homes) etc.	Appraised Value
A.4.1-17	112	24452	MURPHY PAT AND JOYCE ARLENE MURPHY	5794 US Highway 77 Riviera, Texas 78379 Kleberg County	0.27818	1	Partial	1,323 sq ft	**Residential**: 1 single-story house located on site.	$41,790
A.4.1-17	113	12315	MARTINEZ RAMON JR	5796 US Highway 77 Riviera, Texas 78379 Kleberg County	0.277532	1	Full	1,008 sq ft	**Residential**: 1 single-story house with detached garage located on site.	$8,240
A.4.1-17	114	23443	MOYA ANNA MARIE	US Highway 77 Riviera, Texas 78379 Kleberg County	0.007675	1	Full	1,008 sq ft	**Residential**: 1 single-story house located on site.	$47,060
A.4.1-18	118	18007	KRAATZ BRUCE A	HWY 77 Riviera, Texas 78379 Kleberg County	5.609505	1	Partial	Info not provided	**Ranch/Commercial**: 1 single-story house located on site.	$40,820
A.4.1-19	142	11976	CORNAWAY J E EST	FM RD 771 Riviera, Texas 78379 Kleberg County	1.224285	1	Partial	Info not provided	**Vacant/Commercial**: 1 single-story building located on site.	$16,820
A.4.1-19	144	20512	WALKER MARCUS	FM RD 771 Riviera, Texas 78379 Kleberg County	5.000261	1	Partial	864 sq ft	**Residential**: 1 mobile home is located on this parcel.	$28,280
A.4.1-19	145	10955	DOUGLAS PATIENCE	FM RD 771 Riviera, Texas 78379 Kleberg County	0.046422	1	Partial	1,216 sq ft	**Residential property**: 1 single-story house located on site.	$30,530

Source: US Census Bureau, 2000

Table 4.3-1 Population, Race, and Ethnicity – Census Tracts and Block Groups

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Cameron County	335,227 (100%)	48,679 (14.5%)	909 (0.3%)	334 (0.1%)	1,522 (0.5%)	41 (0.0%)	118 (0.0%)	888 (0.3%)	282,736 (84.3%)
Kenedy County	414 (100.0%)	84 (20.3%)	0 (0.0%)	1 (0.2%)	2 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	327 (79.0%)
Kleberg County	31,549 (100%)	8,997 (29%)	1,091 (03%)	97 (00%)	444 (01%)	26 (00%)	21 (00%)	238 (01%)	20,635 (65%)
Nueces County	313,645 (100%)	118,178 (38%)	12,718 (04%)	933 (00%)	3,458 (01%)	136 (00%)	308 (00%)	2,963 (01%)	174,951 (56%)
Willacy County	20,082 (100%)	2,350 (12%)	401 (02%)	24 (00%)	21 (00%)	0 (00%)	14 (00%)	63 (00%)	17,209 (86%)
Census Tracts									
Tract 102.01	1,971 (100.0%)	274 (13.9%)	5 (0.3%)	9 (0.5%)	6 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	1,676 (85.0%)
Tract 102.02	6,589 (100.0%)	2,077 (31.5%)	40 (0.6%)	14 (0.2%)	36 (0.5%)	0 (0.0%)	4 (0.1%)	47 (0.7%)	3,459 (52.5%)
Tract 103	9,966 (100.0%)	1,848 (18.5%)	21 (0.2%)	11 (0.1%)	15 (0.2%)	2 (0.0%)	0 (0.0%)	42 (0.4%)	8,027 (80.5%)
Tract 104.01	4,605 (100.0%)	786 (17.1%)	11 (0.2%)	1 (0.0%)	1 (0.0%)	0 (0.0%)	1 (0.0%)	16 (0.3%)	3,789 (82.3%)
Tract 104.02	5,566 (100.0%)	2,397 (43.1%)	21 (0.4%)	2 (0.0%)	22 (0.4%)	2 (0.0%)	2 (0.0%)	20 (0.4%)	3,100 (55.7%)
Tract 105	2,996 (100.0%)	93 (3.1%)	21 (0.7%)	2 (0.1%)	0 (0.0%)	0 (0.0%)	1 (0.0%)	9 (0.3%)	2,870 (95.8%)
Tract 106.01	7,686 (100.0%)	1,281 (16.7%)	46 (0.6%)	8 (0.1%)	10 (0.1%)	3 (0.0%)	8 (0.1%)	16 (0.2%)	6314 (82.1%)
Tract 110	3,802 (100.0%)	74 (1.9%)	41 (1.1%)	13 (0.3%)	8 (0.2%)	0 (0.0%)	0 (0.0%)	2 (0.1%)	3,664 (96.4%)
Tract 9501	414 (100.0%)	84 (20.3%)	0 (0.0%)	1 (0.2%)	2 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	327 (79.0%)
Tract 201	5,400 (100.0%)	2,097 (38.8%)	39 (0.7%)	25 (0.5%)	16 (0.3%)	14 (0.3%)	6 (0.1%)	45 (0.8%)	3,158 (58.5%)
Tract 202	6,252 (100.0%)	471 (7.5%)	50 (0.8%)	17 (0.3%)	34 (0.5%)	2 (0.0%)	2 (0.0%)	25 (0.4%)	5,651 (90.4%)
Tract 204	6,727 (100.0%)	2,351 (34.9%)	460 (6.8%)	8 (0.1%)	111 (1.7%)	1 (0.0%)	0 (0.0%)	55 (0.8%)	3741 (55.6%)
Tract 205	6,097 (100.0%)	2,190 (35.9%)	223 (3.7%)	9 (0.1%)	74 (1.2%)	1 (0.0%)	4 (0.1%)	48 (0.8%)	3,458 (56.7%)
Tract 56.02	7,068 (100.0%)	199 (2.8%)	8 (0.1%)	17 (0.2%)	14 (0.2%)	0 (0.0%)	0 (0.0%)	23 (0.3%)	6,807 (96.3%)
Tract 59	2,946 (100.0%)	495 (16.8%)	14 (0.5%)	6 (0.2%)	1 (0.0%)	1 (0.0%)	0 (0.0%)	8 (0.3%)	2,421 (82.2%)
Tract 60	2,729 (100.0%)	640 (23.5%)	8 (0.3%)	1 (0.0%)	1 (0.0%)	1 (0.0%)	0 (0.0%)	17 (0.6%)	2,061 (75.5%)
Tract 61	3,607 (100.0%)	1,336 (37.0%)	49 (1.4%)	14 (0.4%)	3 (0.1%)	2 (0.1%)	1 (0.0%)	16 (0.4%)	2,186 (60.6%)
Tract 9504	5,896 (100.0%)	783 (13.3%)	347 (5.9%)	1 (0.0%)	16 (0.3%)	0 (0.0%)	11 (0.2%)	13 (0.2%)	4,725 (80.1%)
Tract 9505	3,275 (100.0%)	325 (9.9%)	4 (0.1%)	2 (0.1%)	0 (0.0%)	0 (0.0%)	1 (0.0%)	19 (0.6%)	2,924 (89.3%)
Tract 9506	2,421 (100.0%)	193 (8.0%)	4 (0.2%)	1 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.1%)	2,212 (91.4%)
Tract 9507	2,858 (100.0%)	596 (20.9%)	17 (0.6%)	10 (0.3%)	5 (0.2%)	0 (0.0%)	2 (0.1%)	12 (0.4%)	2,216 (77.5%)

Table 4.3-1 Population, Race, and Ethnicity – Census Tracts and Block Groups

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Total	99,681 (100%)	20,590 (20.6 %)	1,429 (1.4%)	172 (0.2%)	375 (0.4%)	29 (0.03%)	43 (0.04%)	436 (0.4%)	75,788 (76%)
Block Groups									
T 102.01 Block Group 1	1,971 (100.0%)	274 (13.9%)	5 (0.3%)	9 (0.5%)	6 (0.3%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	1,676 (85.0%)
T 102.02 Block Group 1	2,442 (100.0%)	988 (40.5%)	8 (0.3%)	3 (0.1%)	3 (0.1%)	0 (0.0%)	1 (0.0%)	16 (0.7%)	1,423 (58.3%)
T 103 Block Group 1	2,311 (100.0%)	198 (8.6%)	198 (8.6%)	6 (0.3%)	4 (0.2%)	3 (0.1%)	0 (0.0%)	0 (0.0%)	2,095 (90.7%)
T 104.01 Block Group 1	1,842 (100.0%)	168 (9.1%)	2 (0.1%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	5 (0.3%)	1,666 (90.4%)
T 104.02 Block Group 3	1,865 (100.0%)	598 (32.1%)	2 (0.1%)	0 (0.0%)	4 (0.2%)	0 (0.0%)	0 (0.0%)	2 (0.1%)	1,259 (67.5%)
T 105 Block Group 2	727 (100.0%)	21 (2.9%)	3 (0.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	9 (1.2%)	693 (95.3%)
T 105 Block Group 3	1102 (100.0%)	33 (3.0%)	18 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1,051 (95.4%)
T 9501 Block Group 1	414 (100.0%)	84 (20.3%)	0 (0.0%)	1 (0.2%)	2 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	327 (79.0%)
T 201 Block Group 1	5,400 (100.0%)	2,097 (38.8%)	39 (0.7%)	25 (0.5%)	16 (0.3%)	14 (0.3%)	6 (0.1%)	45 (0.8%)	3,158 (58.5%)
T 202 Block Group 3	1,534 (100.0%)	93 (6.1%)	19 (1.2%)	6 (0.4%)	2 (0.1%)	0 (0.0%)	2 (0.1%)	2 (0.1%)	1,410 (91.9%)
T 202 Block Group 4	1,427 (100.0%)	136 (9.5%)	8 (0.6%)	1 (0.1%)	7 (0.5%)	0 (0.0%)	0 (0.0%)	10 (0.7%)	1,265 (88.6%)
T 202 Block Group 5	1,056 (100.0%)	151 (14.3%)	19 (1.8%)	1 (0.1%)	22 (2.1%)	0 (0.0%)	0 (0.0%)	9 (0.9%)	583 (55.2%)
T 204 Block Group 5	2,836 (100.0%)	1,138 (40.1%)	117 (4.1%)	1 (0.0%)	73 (2.6%)	0 (0.0%)	0 (0.0%)	26 (0.9%)	1,481 (52.2%)
T 205 Block Group 1	1,759 (100.0%)	537 (30.5%)	45 (2.6%)	1 (0.1%)	24 (1.4%)	0 (0.0%)	0 (0.0%)	10 (0.6%)	1,142 (64.9%)
T 205 Block Group 4	2,120 (100.0%)	1,149 (54.2%)	98 (4.6%)	4 (0.2%)	40 (1.9%)	1 (0.0%)	4 (0.2%)	26 (1.2%)	798 (37.6%)
T 56.01 Block Group 5	1,454 (100.0%)	112 (7.7%)	130 (8.9%)	1 (0.1%)	0 (0.0%)	3 (0.2%)	0 (0.0%)	0 (0.0%)	1,208 (83.1%)
T 56.02 Block Group 5	1,836 (100.0%)	56 (3.1%)	6 (0.3%)	6 (0.3%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	1,766 (96.2%)
T 56.02 Block Group 6	1,314 (100.0%)	20 (1.5%)	2 (0.2%)	5 (0.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (0.4%)	1,282 (97.6%)
T 56.02 Block Group 7	663 (100.0%)	69 (10.4%)	0 (0.0%)	4 (0.6%)	13 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	588 (88.7%)
T 58.02 Block Group 3	1,972 (100.0%)	954 (48.4%)	10 (0.5%)	5 (0.3%)	1 (0.1%)	0 (0.0%)	2 (0.1%)	16 (0.8%)	984 (49.9%)
T 59 Block Group 1	1,942 (100.0%)	354 (18.2%)	14 (0.7%)	2 (0.1%)	1 (0.1%)	1 (0.1%)	0 (0.0%)	7 (0.4%)	1,563 (80.5%)
T 60 Block Group 1	837 (100.0%)	133 (15.9%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	4 (0.5%)	699 (83.5%)

Table 4.3-1 Population, Race, and Ethnicity – Census Tracts and Block Groups

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
T 60 Block Group 2	1,892 (100.0%)	507 (26.8%)	8 (0.4%)	1 (0.1%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	13 (0.7%)	1,362 (72.0%)
T 61 Block Group 2	1,325 (100.0%)	471 (35.5%)	12 (0.9%)	6 (0.5%)	1 (0.1%)	1 (0.1%)	1 (0.1%)	8 (0.6%)	825 (62.3%)
T 61 Block Group 3	1,214 (100.0%)	785 (64.7%)	3 (0.2%)	4 (0.3%)	1 (0.1%)	1 (0.1%)	0 (0.0%)	3 (0.2%)	417 (34.3%)
T 9504 Block Group 1	2,114 (100.0%)	428 (20.2%)	337 (15.9%)	0 (0.0%)	7 (0.3%)	0 (0.0%)	4 (0.2%)	5 (0.2%)	1333 (63.1%)
T 9504 Block Group 2	1,012 (100.0%)	32 (3.2%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	3 (0.3%)	4 (0.4%)	972 (96.0%)
T 9504 Block Group 3	932 (100.0%)	34 (3.6%)	2 (0.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	895 (96.0%)
T 9504 Block Group 4	1,055 (100.0%)	73 (6.9%)	8 (0.8%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	2 (0.2%)	971 (92.0%)
T 9504 Block Group 5	783 (100.0%)	216 (27.6%)	0 (0.0%)	1 (0.1%)	7 (0.9%)	0 (0.0%)	4 (0.5%)	1 (0.1%)	554 (70.8%)
T 9505 Block Group 2	1,513 (100.0%)	198 (13.1%)	4 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	7 (0.5%)	1,303 (86.1%)
T 9506 Block Group 1	945 (100.0%)	109 (11.5%)	1 (0.1%)	1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.2%)	832 (88.0%)
T 9507 Block Group 1	1,415 (100.0%)	487 (34.4%)	9 (0.6%)	5 (0.4%)	0 (0.0%)	0 (0.0%)	1 (0.1%)	9 (0.6%)	904 (63.9%)
T 9507 Block Group 2	1,443 (100.0%)	109 (7.6%)	8 (0.6%)	5 (0.3%)	5 (0.3%)	0 (0.0%)	1 (0.1%)	3 (0.2%)	1,312 (90.9%)
Total	54,467 (100%)	12,812 (23.5 %)	1,135 (2.0%)	104 (0.2%)	244 (0.5%)	25 (0.05%)	31 (0.05%)	252 (0.5%)	39,797 (73.1%)

Source: US Census Bureau, 2000

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 102.01 BG 1 Block 1015	5 (100.0%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1016	6 (100.0%)	3 (50.0%)	0 (0.0%)	0 (0.0%)	1 (16.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (33.3%)
T 102.01 BG 1 Block 1017	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1025	13 (100.0%)	2 (15.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (84.6%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 102.01 BG 1 Block 1026	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1027	9 (100.0%)	5 (55.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (44.4%)
T 102.01 BG 1 Block 1028	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1029	37 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	37 (100.0%)
T 102.01 BG 1 Block 1053	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1054	17 (100.0%)	2 (11.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (88.2%)
T 102.01 BG 1 Block 1055	41 (100.0%)	6 (14.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	35 (85.4%)
T 102.01 BG 1 Block 1056	105 (100.0%)	3 (2.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	102 (97.1%)
T 102.01 BG 1 Block 1057	18 (100.0%)	4 (22.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	14 (77.8%)
T 102.01 BG 1 Block 1058	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1059	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.01 BG 1 Block 1060	15 (100.0%)	4 (26.7%)	0 (0.0%)	1 (6.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (66.7%)
T 102.01 BG 1 Block 1115	14 (100.0%)	2 (14.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (85.7%)
T 102.01 BG 1 Block 1116	50 (100.0%)	5 (10.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	45 (90.0%)
T 102.01 BG 1 Block 1120	42 (100.0%)	2 (4.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	40 (95.2%)
T 102.01 BG 1 Block 1121	12 (100.0%)	1 (8.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (91.7%)
T 102.01 BG 1 Block 1122	32 (100.0%)	3 (9.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	29 (90.6%)
T 102.01 BG 1 Block 1129	31 (100.0%)	19 (61.3%)	1 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (35.5%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 102.02 BG 1 Block 1009	7 (100.0%)	4 (57.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (42.9%)
T 102.02 BG 1 Block 1025	41 (100.0%)	35 (85.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (4.9%)	4 (9.8%)
T 102.02 BG 1 Block 1026	356 (100.0%)	182 (51.1%)	1 (0.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	173 (48.6%)
T 102.02 BG 1 Block 1028	14 (100.0%)	6 (42.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (57.1%)
T 102.02 BG 1 Block 1029	23 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (8.7%)	21 (91.3%)
T 102.02 BG 1 Block 1030	39 (100.0%)	10 (25.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	29 (74.4%)
T 102.02 BG 1 Block 1035	97 (100.0%)	20 (20.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	77 (79.4%)
T 102.02 BG 1 Block 1036	45 (100.0%)	2 (4.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	43 (95.6%)
T 102.02 BG 1 Block 1046	198 (100.0%)	73 (36.9%)	7 (3.5%)	0 (0.0%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	6 (3.0%)	111 (56.1%)
T 102.02 BG 1 Block 1047	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.02 BG 1 Block 1073	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 102.02 BG 1 Block 1074	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1001	2 (100.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1002	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
T 103 BG 1 Block 1017	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1018	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1019	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 103 BG 1 Block 1020	6 (100.0%)	2 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (66.7%)
T 103 BG 1 Block 1021	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0.00% (0.0%)	0 (0.0%)	0.0% (0.0%)	0 (0.0%)	0.0% (0.0%)
T 103 BG 1 Block 1022	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1023	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1024	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1025	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1027	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1067	1 (100.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1068	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1069	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1070	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1071	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 103 BG 1 Block 1072	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.01 BG 1 Block 1018	16 (100.0%)	3 (18.8%)	1 (6.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (75.0%)
T 104.01 BG 1 Block 1019	67 (100.0%)	8 (11.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	59 (88.1%)
T 104.01 BG 1 Block 1021	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.01 BG 1 Block 1022	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.01 BG 1 Block 1023	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 104.01 BG 1 Block 1024	12 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (100.0%)
T 104.01 BG 2 Block 2000	311 (100.0%)	306 (98.4%)	0 (0.0%)	0 (0.0%)	0.00% (0.0%)	0 (0.0%)	100.0% (0.3%)	4 (1.3%)	0.0% (0.0%)
T 104.01 BG 2 Block 2001	114 (100.0%)	18 (15.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	96 (84.2%)
T 104.01 BG 2 Block 2045	10 (100.0%)	9 (90.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (10.0%)
T 104.01 BG 2 Block 2046	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.01 BG 2 Block 2047	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.01 BG 2 Block 2048	45 (100.0%)	8 (17.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	37 (82.2%)
T 104.02 BG 3 Block 3000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3001	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3002	17 (100.0%)	5 (29.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (70.6%)
T 104.02 BG 3 Block 3003	25 (100.0%)	1 (4.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	24 (96.0%)
T 104.02 BG 3 Block 3005	120 (100.0%)	30 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	90 (75.0%)
T 104.02 BG 3 Block 3007	20 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	20 (100.0%)
T 104.02 BG 3 Block 3008	22 (100.0%)	22 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3009	9 (100.0%)	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3018	78 (100.0%)	75 (96.2%)	2 (2.6%)	0 (0.0%)	1 (1.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3019	29 (100.0%)	28 (96.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (3.4%)
T 104.02 BG 3 Block 3020	64 (100.0%)	64 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 104.02 BG 3 Block 3022	116 (100.0%)	107 (92.2%)	0 (0.0%)	0 (0.0%)	1 (0.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (6.9%)
T 104.02 BG 3 Block 3039	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3040	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3041	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3042	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3044	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3045	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3046	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3064	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 104.02 BG 3 Block 3065	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 2 Block 2009	123 (100.0%)	2 (1.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	121 (98.4%)
T 105 BG 2 Block 2010	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 2 Block 2011	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 2 Block 2012	24 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	24 (100.0%)
T 105 BG 2 Block 2013	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3001	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3002	11 (100.0%)	5 (45.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (54.5%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 105 BG 3 Block 3003	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3007	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3008	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3009	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 105 BG 3 Block 3029	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (100.0%)
T 106.01 BG 1 Block 1003	115 (100.0%)	1 (0.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	114 (99.1%)
T 110 BG 3 Block 3002	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 110 BG 3 Block 3003	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1017	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1021	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 9501 BG 1 Block 1022	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1023	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1024	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1025	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1026	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1027	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1068	3 (100.0%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1071	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9501 BG 1 Block 1072	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1073	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
T 9501 BG 1 Block 1074	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1075	4 (100.0%)	2 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (50.0%)
T 9501 BG 1 Block 1078	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1079	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1081	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1082	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1102	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1103	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1104	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1105	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1140	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1141	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1142	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1150	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1151	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1152	8 (100.0%)	4 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (50.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9501 BG 1 Block 1156	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1160	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1166	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1167	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1168	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1171	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1174	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1175	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1183	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1241	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1242	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1247	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1248	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1249	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1250	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1251	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 9501 BG 1 Block 1255	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1256	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9501 BG 1 Block 1257	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1260	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)
T 9501 BG 1 Block 1264	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
T 9501 BG 1 Block 1270	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1271	8 (100.0%)	8 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1316	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1317	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1337	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1338	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1339	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1362	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1365	7 (100.0%)	3 (42.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (57.1%)
T 9501 BG 1 Block 1366	31 (100.0%)	14 (45.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	17 (54.8%)
T 9501 BG 1 Block 1504	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1505	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1506	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1507	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1508	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9501 BG 1 Block 1509	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1510	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1511	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (100.0%)
T 9501 BG 1 Block 1759	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1884	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1885	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1909	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1910	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1911	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1912	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1913	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9501 BG 1 Block 1914	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1034	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1129	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1155	20 (100.0%)	11 (55.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (5.0%)	8 (40.0%)
T 201 BG 1 Block 1156	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1157	23 (100.0%)	6 (26.1%)	2 (8.7%)	0 (0.0%)	1 (4.3%)	0 (0.0%)	0 (0.0%)	2 (8.7%)	12 (52.2%)
T 201 BG 1 Block 1249	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 201 BG 1 Block 1250	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1251	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1266	3 (100.0%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1267	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1268	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1280	34 (100.0%)	24 (70.6%)	0 (0.0%)	1 (2.9%)	2 (5.9%)	0 (0.0%)	0 (0.0%)	1 (2.9%)	6 (17.6%)
T 201 BG 1 Block 1281	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1282	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1283	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1285	12 (100.0%)	6 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (50.0%)
T 201 BG 1 Block 1286	33 (100.0%)	2 (6.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	31 (93.9%)
T 201 BG 1 Block 1291	54 (100.0%)	24 (44.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	30 (55.6%)
T 201 BG 1 Block 1292	17 (100.0%)	1 (5.9%)	0 (0.0%)	0 (0.0%)	1 (5.9%)	0 (0.0%)	0 (0.0%)	1 (5.9%)	14 (82.4%)
T 201 BG 1 Block 1293	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1294	163 (100.0%)	42 (25.8%)	0 (0.0%)	1 (0.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	120 (73.6%)
T 201 BG 1 Block 1305	218 (100.0%)	42 (19.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.5%)	175 (80.3%)
T 201 BG 1 Block 1306	7 (100.0%)	2 (28.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (71.4%)
T 201 BG 1 Block 1307	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (100.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 201 BG 1 Block 1308	39 (100.0%)	6 (15.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	33 (84.6%)
T 201 BG 1 Block 1310	258 (100.0%)	21 (8.1%)	3 (1.2%)	0 (0.0%)	0 (0.0%)	10 (3.9%)	1 (0.4%)	2 (0.8%)	221 (85.7%)
T 201 BG 1 Block 1315	124 (100.0%)	42 (33.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (3.2%)	78 (62.9%)
T 201 BG 1 Block 1319	138 (100.0%)	37 (26.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	101 (73.2%)
T 201 BG 1 Block 1607	8 (100.0%)	5 (62.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (37.5%)
T 201 BG 1 Block 1610	5 (100.0%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1611	76 (100.0%)	12 (15.8%)	0 (0.0%)	4 (5.3%)	1 (1.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	59 (77.6%)
T 201 BG 1 Block 1613	128 (100.0%)	49 (38.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	79 (61.7%)
T 201 BG 1 Block 1644	6 (100.0%)	2 (33.3%)	0 (0.0%)	4 (66.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1645	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1648	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1694	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
T 201 BG 1 Block 1695	96 (100.0%)	30 (31.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	66 (68.8%)
T 201 BG 1 Block 1696	16 (100.0%)	16 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1711	24 (100.0%)	11 (45.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (54.2%)
T 201 BG 1 Block 1712	57 (100.0%)	6 (10.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	51 (89.5%)
T 201 BG 1 Block 1713	11 (100.0%)	11 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1714	9 (100.0%)	5 (55.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (44.4%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 201 BG 1 Block 1797	33 (100.0%)	14 (42.4%)	0 (0.0%)	2 (6.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	17 (51.5%)
T 201 BG 1 Block 1868	9 (100.0%)	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1869	23 (100.0%)	13 (56.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (43.5%)
T 201 BG 1 Block 1870	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 201 BG 1 Block 1892	18 (100.0%)	2 (11.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	16 (88.9%)
T 201 BG 1 Block 1904	14 (100.0%)	7 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (50.0%)
T 202 BG 3 Block 3000	9 (100.0%)	3 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (22.2%)	0 (0.0%)	4 (44.4%)
T 202 BG 3 Block 3001	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 202 BG 3 Block 3002	90 (100.0%)	3 (3.3%)	0 (0.0%)	0 (0.0%)	1 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	86 (95.6%)
T 202 BG 3 Block 3012	335 (100.0%)	23 (6.9%)	8 (2.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	304 (90.7%)
T 202 BG 3 Block 3013	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
T 202 BG 4 Block 4002	129 (100.0%)	60 (46.5%)	1 (0.8%)	1 (0.8%)	4 (3.1%)	0 (0.0%)	0 (0.0%)	3 (2.3%)	60 (46.5%)
T 202 BG 4 Block 4003	7 (100.0%)	6 (85.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (14.3%)
T 202 BG 4 Block 4006	323 (100.0%)	37 (11.5%)	7 (2.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (0.6%)	277 (85.8%)
T 202 BG 5 Block 5000	79 (100.0%)	4 (5.1%)	5 (6.3%)	0 (0.0%)	9 (11.4%)	0 (0.0%)	0 (0.0%)	4 (5.1%)	57 (72.2%)
T 202 BG 5 Block 5020	32 (100.0%)	3 (9.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	29 (90.6%)
T 202 BG 5 Block 5021	19 (100.0%)	7 (36.8%)	2 (10.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (52.6%)
T 202 BG 5 Block 5022	62 (100.0%)	19 (30.6%)	3 (4.8%)	0 (0.0%)	5 (8.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	35 (56.5%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 202 BG 5 Block 5023	48 (100.0%)	8 (16.7%)	0 (0.0%)	0 (0.0%)	2 (4.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	38 (79.2%)
T 204 BG 5 Block 5023	48 (100.0%)	8 (16.7%)	0 (0.0%)	0 (0.0%)	2 (4.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	38 (79.2%)
T 204 BG 5 Block 5024	40 (100.0%)	22 (55.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (45.0%)
T 204 BG 5 Block 5025	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 204 BG 5 Block 5026	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 1 Block 1001	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 205 BG 1 Block 1002	29 (100.0%)	6 (20.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	23 (79.3%)
T 205 BG 1 Block 1005	96 (100.0%)	42 (43.8%)	3 (3.1%)	1 (1.0%)	2 (2.1%)	0 (0.0%)	0 (0.0%)	2 (2.1%)	46 (47.9%)
T 205 BG 4 Block 4002	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 4 Block 4003	172 (100.0%)	129 (75.0%)	0 (0.0%)	0 (0.0%)	1 (0.6%)	1 (0.6%)	0 (0.0%)	3 (1.7%)	38 (22.1%)
T 205 BG 4 Block 4024	126 (100.0%)	58 (46.0%)	0 (0.0%)	0 (0.0%)	4 (3.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	64 (50.8%)
T 205 BG 4 Block 4029	83 (100.0%)	26 (31.3%)	6 (7.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	51 (61.4%)
T 205 BG 4 Block 4030	11 (100.0%)	7 (63.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (36.4%)
T 205 BG 4 Block 4031	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 4 Block 4032	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 4 Block 4034	15 (100.0%)	7 (46.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (53.3%)
T 205 BG 4 Block 4049	3 (100.0%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 4 Block 4050	6 (100.0%)	4 (66.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (33.3%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 205 BG 4 Block 4055	11 (100.0%)	2 (18.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (81.8%)
T 205 BG 4 Block 4056	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 205 BG 4 Block 4057	41 (100.0%)	19 (46.3%)	0 (0.0%)	0 (0.0%)	2 (4.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	20 (48.8%)
T 56.02 BG 6 Block 6000	189 (100.0%)	3 (1.6%)	1 (0.5%)	1 (0.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	184 (97.4%)
T 56.02 BG 6 Block 6019	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 56.02 BG 6 Block 6020	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (100.0%)
T 56.02 BG 6 Block 6021	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 56.02 BG 6 Block 6022	9 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (100.0%)
T 56.02 BG 7 Block 7020	75 (100.0%)	9 (12.0%)	0 (0.0%)	0 (0.0%)	9 (12.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	57 (76.0%)
T 56.02 BG 7 Block 7035	104 (100.0%)	23 (22.1%)	0 (0.0%)	0 (0.0%)	4 (3.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	77 (74.0%)
T 56.02 BG 7 Block 7036	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1027	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1028	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1029	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1030	2 (100.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1032	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1033	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1034	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 59 BG 1 Block 1035	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1036	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1037	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1038	7 (100.0%)	6 (85.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (14.3%)
T 59 BG 1 Block 1101	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1102	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1140	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 59 BG 1 Block 1141	15 (100.0%)	8 (53.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (46.7%)
T 59 BG 1 Block 1166	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1167	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1168	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 59 BG 1 Block 1169	23 (100.0%)	14 (60.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (4.3%)	8 (34.8%)
T 60 BG 1 Block 1000	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)
T 60 BG 1 Block 1001	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 1 Block 1002	36 (100.0%)	15 (41.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (2.8%)	20 (55.6%)
T 60 BG 1 Block 1049	48 (100.0%)	5 (10.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	43 (89.6%)
T 60 BG 1 Block 1050	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 1 Block 1051	17 (100.0%)	5 (29.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (70.6%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 60 BG 1 Block 1052	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 1 Block 1053	3 (100.0%)	1 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (66.7%)
T 60 BG 1 Block 1054	27 (100.0%)	9 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (66.7%)
T 60 BG 2 Block 2004	26 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	26 (100.0%)
T 60 BG 2 Block 2005	60 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	60 (100.0%)
T 60 BG 2 Block 2015	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2016	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
T 60 BG 2 Block 2017	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2018	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2019	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2034	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)
T 60 BG 2 Block 2035	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2036	7 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (100.0%)
T 60 BG 2 Block 2112	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2128	4 (100.0%)	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2129	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2140	38 (100.0%)	10 (26.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	28 (73.7%)
T 60 BG 2 Block 2141	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 60 BG 2 Block 2154	5 (100.0%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2155	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 60 BG 2 Block 2156	4 (100.0%)	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2157	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2158	5 (100.0%)	3 (60.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (40.0%)
T 60 BG 2 Block 2185	117 (100.0%)	45 (38.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	72 (61.5%)
T 60 BG 2 Block 2187	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 60 BG 2 Block 2188	8 (100.0%)	5 (62.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (37.5%)
T 60 BG 2 Block 2189	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block 2000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block 2001	13 (100.0%)	13 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block 2020	17 (100.0%)	4 (23.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (76.5%)
T 61 BG 2 Block 2021	82 (100.0%)	14 (17.1%)	3 (3.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.2%)	64 (78.0%)
T 61 BG 2 Block 2022	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
T 61 BG 2 Block 2023	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block 2024	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block 2025	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 61 BG 2 Block2026	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 61 BG 2 Block2046	8 (100.0%)	5 (62.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (37.5%)
T 61 BG 3 Block 3000	8 (100.0%)	5 (62.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (37.5%)
T 61 BG 3 Block 3001	22 (100.0%)	4 (18.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (81.8%)
T 61 BG 3 Block3002	51 (100.0%)	26 (51.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	25 (49.0%)
T 61 BG 3 Block 3033	110 (100.0%)	64 (58.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.9%)	45 (40.9%)
T 61 BG 3 Block 3039	47 (100.0%)	39 (83.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (17.0%)
T 61 BG 3 Block 3040	10 (100.0%)	5 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (50.0%)
T 9504 BG 1 Block 1020	18 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	18 (100.0%)
T 9504 BG 1 Block 1021	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1022	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1023	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1024	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1025	6 (100.0%)	2 (33.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (66.7%)
T 9504 BG 1 Block 1029	17 (100.0%)	8 (47.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	9 (52.9%)
T 9504 BG 1 Block1030	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1031	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1032	8 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	8 (100.0%)
T 9504 BG 1 Block1055	30 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	30 (100.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9504 BG 1 Block 1056	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1057	15 (100.0%)	3 (20.0%)	1 (6.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	11 (73.3%)
T 9504 BG 1 Block1062	24 (100.0%)	9 (37.5%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (62.5%)
T 9504 BG 1 Block 1063	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1064	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1067	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1068	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1069	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1070	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1079	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1080	4 (100.0%)	1 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (75.0%)
T 9504 BG 1 Block1081	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (100.0%)
T 9504 BG 1 Block 1120	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1121	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1122	1023 (100.0%)	235 (23.0%)	322 (31.5%)	0 (0.0%)	1 (0.1%)	0 (0.0%)	1 (0.1%)	2 (0.2%)	462 (45.2%)
T 9504 BG 1 Block1123	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1124	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1125	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9504 BG 1 Block1126	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1127	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1128	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1129	100 (100.0%)	10 (10.0%)	2 (2.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (1.0%)	0 (0.0%)	87 (87.0%)
T 9504 BG 1 Block1132	27 (100.0%)	17 (63.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (37.0%)
T 9504 BG 1 Block1133	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1134	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1135	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1136	11 (100.0%)	11 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1140	4 (100.0%)	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block 1141	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1142	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1143	398 (100.0%)	15 (3.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	383 (96.2%)
T 9504 BG 1 Block1152	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1153	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1154	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 1 Block1159	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 2 Block2000	66 (100.0%)	10 (15.2%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	56 (84.8%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9504 BG 3 Block3000	10 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (100.0%)
T 9504 BG 4 Block4000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9504 BG 5 Block5000	138 (100.0%)	34 (24.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	103 (74.6%)
T 9505 BG 2 Block2011	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2012	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2013	78 (100.0%)	17 (21.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	61 (78.2%)
T 9505 BG 2 Block2014	34 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	34 (100.0%)
T 9505 BG 2 Block2015	47 (100.0%)	1 (2.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	46 (97.9%)
T 9505 BG 2 Block2016	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2017	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2032	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2033	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2034	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2035	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2036	88 (100.0%)	1 (1.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	87 (98.9%)
T 9505 BG 2 Block2037	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2038	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2039	14 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	14 (100.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9505 BG 2 Block2040	60 (100.0%)	6 (10.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	54 (90.0%)
T 9505 BG 2 Block2041	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2042	41 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	41 (100.0%)
T 9505 BG 2 Block2043	42 (100.0%)	3 (7.1%)	3 (7.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (9.5%)	32 (76.2%)
T 9505 BG 2 Block2054	9 (100.0%)	4 (44.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (55.6%)
T 9505 BG 2 Block2055	2 (100.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2056	32 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	32 (100.0%)
T 9505 BG 2 Block2057	23 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	23 (100.0%)
T 9505 BG 2 Block2105	4 (100.0%)	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2106	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (100.0%)
T 9505 BG 2 Block 2107	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2109	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2111	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2112	17 (100.0%)	2 (11.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (17.6%)	12 (70.6%)
T 9505 BG 2 Block 2123	78 (100.0%)	2 (2.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	76 (97.4%)
T 9505 BG 2 Block 2124	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (100.0%)
T 9505 BG 2 Block 2125	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2126	48 (100.0%)	8 (16.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	40 (83.3%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9505 BG 2 Block 2127	3 (100.0%)	2 (66.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
T 9505 BG 2 Block2128	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block2129	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2136	50 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	50 (100.0%)
T 9505 BG 2 Block 2137	57 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	57 (100.0%)
T 9505 BG 2 Block 2138	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2139	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2140	12 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (100.0%)
T 9505 BG 2 Block 2141	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2142	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9505 BG 2 Block 2143	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1023	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 9506 BG 1 Block 1024	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1025	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1026	4 (100.0%)	1 (25.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (75.0%)
T 9506 BG 1 Block 1027	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1028	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)
T 9506 BG 1 Block 1083	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9506 BG 1 Block 1084	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1085	34 (100.0%)	1 (2.9%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	33 (97.1%)
T 9506 BG 1 Block 1087	7 (100.0%)	2 (28.6%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	5 (71.4%)
T 9506 BG 1 Block 1088	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1089	1 (100.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1102	32 (100.0%)	1 (3.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	31 (96.9%)
T 9506 BG 1 Block1103	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1104	144 (100.0%)	14 (9.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (0.7%)	129 (89.6%)
T 9506 BG 1 Block 1105	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1106	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1107	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9506 BG 1 Block 1111	94 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	94 (100.0%)
T 9507 BG 1 Block 1092	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)
T 9507 BG 1 Block 1103	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)
T 9507 BG 1 Block 1109	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)
T 9507 BG 1 Block 1110	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 1 Block 1111	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2000	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Table 4.3-2 Population, Race and Ethnicity - Blocks

Geographic Area	Total 2000 Population	Not Hispanic or Latino							Hispanic or Latino (of any race)
		White	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	
Blocks									
T 9507 BG 2 Block 2001	5 (100.0%)	4 (80.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (20.0%)
T 9507 BG 2 Block 2002	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2093	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2095	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2096	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	6 (100.0%)
T 9507 BG 2 Block 2097	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2098	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
T 9507 BG 2 Block 2175	30 (100.0%)	7 (23.3%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	23 (76.7%)
T 9507 BG 2 Block 2176	2 (100.0%)	2 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total	10,578 (100%)	2,912 (27.5%)	396 (3.7%)	16 (0.1%)	58 (0.6%)	11 (0.1%)	6 (0.05%)	55 (0.5%)	7,124 (67.3%)

Source: US Census Bureau, 2000

Appendix D

Project Area Photographs

Photo 1 Typical Maintained Vegetation in Cameron and Willacy Counties

Photo 2 Typical Maintained Vegetation and Adjacent Grassland Habitat in Sand Sheet of Kenedy County

Photo 3 Typical Maintained Vegetation in Nueces and Kleberg Counties

Photo 4 Crops in Nueces County Portion of Proposed ROW

Photo 5 Mesquite-Baccharis Shrub/Parks/Woods

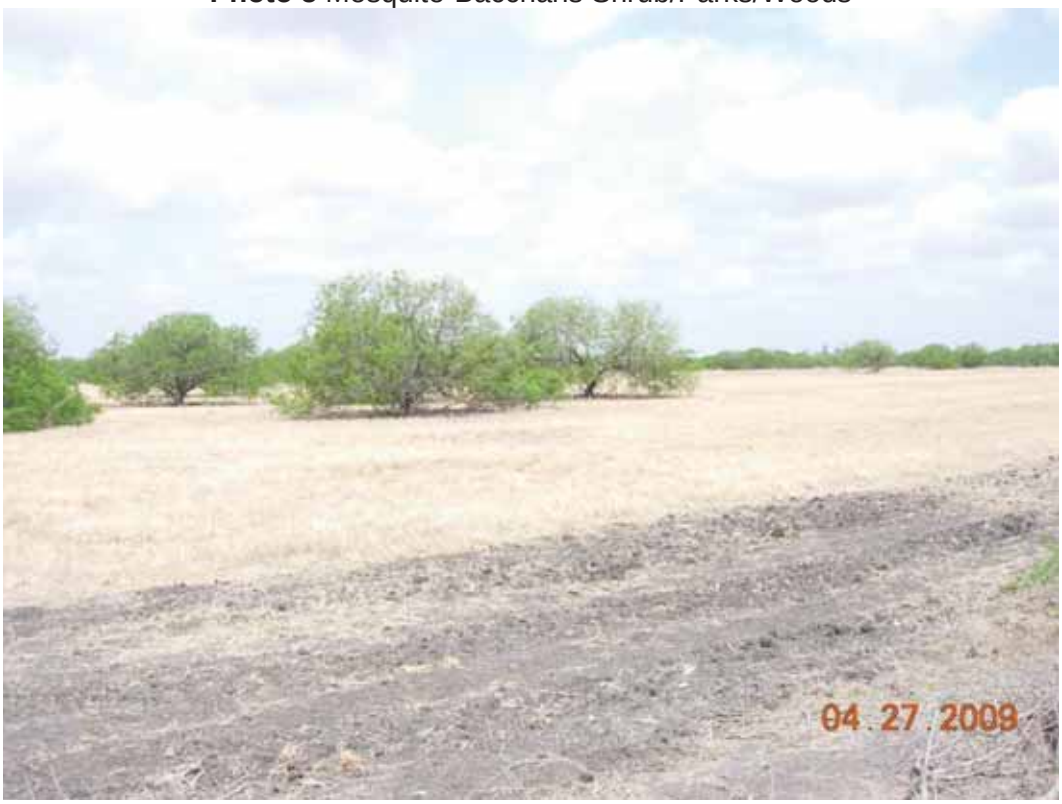


Photo 6 Pasture

Photo 7 Live Oak Parks/Woods

Photo 8 Mesquite Parks/Woods

Photo 9 Mesquite Shrub

Photo 10 Huisache Shrub/Brush in Proposed ROW

Photo 11 Mixed Shrub/Brush

Photo 12 Cedar Elm-Hackberry Parks/Woods at Petronila Creek

Photo 13 Aquatic Habitat in the East Main Drain in Willacy County

Photo 14 Typical Saline Depression in Kenedy County

Photo 15 Aquatic Habitat in Petronila Creek in Nueces County

Photo 16 Approximate 500-gallon AST at Atlas Tubular Inc. (Map ID 6 – Figure A.4.13-1) within proposed ROW (December 2008).

Photo 17 Abandoned tank battery (Map ID 8 – Figure A.4.13-2) with empty ASTs within proposed ROW (December 2008).

Photo 18 Potential petroleum well site (Map ID 8 – Figure A.4.13-2) near abandoned tank battery within proposed ROW (December 2008).

Photo 19 Potential petroleum well site (Map ID 10 – Figure A.4.13-2) within proposed ROW (December 2008).

Photo 20 Water storage tank (Map ID 12 – Figure A.4.13-4) within proposed ROW (December 2008).

Photo 21 Light-industrial building (Map ID 13 – Figure A.4.13-4) within proposed ROW (December 2008).

Photo 22 Abandoned La Bodega gas station (Map ID 14 – Figure A.4.13-4) with USTs within proposed ROW (December 2008).

Photo 23 Abandoned structure (Map ID 19 – Figure A.4.13-8) within proposed ROW (December 2008).

Photo 24 Water well (Map ID 19 – Figure A.4.13-8) within proposed ROW (December 2008).

Photo 25 Kleberg County Maintenance Yard (Map ID 20 – Figure A.4.13-9) adjacent to proposed ROW (February 2009).

Photo 26 Abandoned B&E gas station (Map ID 21 – Figure A.4.13-10) adjacent to ROW. UST stick-up vents on right side of photograph (December 2008).

Appendix E

TPWD's Annotated County Lists of Rare Species and USFWS's Endangered Species List

NUECES COUNTY

AMPHIBIANS

		Federal Status	State Status
Black-spotted newt	*Notophthalmus meridionalis*		T

can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River

Sheep frog	*Hypopachus variolosus*		T

predominantly grassland and savanna; moist sites in arid areas

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Brown Pelican	*Pelecanus occidentalis*	DL	E

largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Eskimo Curlew	*Numenius borealis*	LE	E

historic; nonbreeding: grasslands, pastures, plowed fields, and less frequently, marshes and mudflats

Mountain Plover	*Charadrius montanus*		

breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Northern Aplomado Falcon	*Falco femoralis septentrionalis*	LE	E

open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species

Peregrine Falcon	*Falco peregrinus*	DL	T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Piping Plover	*Charadrius melodus*	LT	T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

NUECES COUNTY

BIRDS

		Federal Status	State Status
Reddish Egret	*Egretta rufescens*		T

resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear

Sennett's Hooded Oriole *Icterus cucullatus sennetti*

often builds nests in and of Spanish moss (Tillandsia unioides); feeds on invertebrates, fruit, and nectar; breeding March to August

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Sooty Tern *Sterna fuscata* T

predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

Sprague's Pipit *Anthus spragueii* C

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Texas Botteri's Sparrow *Aimophila botterii texana* T

grassland and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yucca; nests on ground of low clump of grasses

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover *Charadrius alexandrinus nivosus*

uncommon breeder in the Panhandle; potential migrant; winter along coast

White-faced Ibis *Plegadis chihi* T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk *Buteo albicaudatus* T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Whooping Crane *Grus americana* LE E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

Wood Stork *Mycteria americana* T

NUECES COUNTY

BIRDS

Federal Status State Status

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

FISHES

Federal Status State Status

American eel *Anguilla rostrata*

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

Opossum pipefish *Microphis brachyurus* T

brooding adults found in fresh or low salinity waters and young move or are carried into more saline waters after birth; southern coastal areas

Smalltooth sawfish *Pristis pectinata* LE E

different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans

Texas pipefish *Syngnathus affinis*

Corpus Christi Bay; seagrass beds

INSECTS

Federal Status State Status

Manfreda giant-skipper *Stallingsia maculosus*

most skippers are small and stout-bodied; name derives from fast, erratic flight; at rest most skippers hold front and hind wings at different angles; skipper larvae are smooth, with the head and neck constricted; skipper larvae usually feed inside a leaf shelter and pupate in a cocoon made of leaves fastened together with silk

MAMMALS

Federal Status State Status

Maritime pocket gopher *Geomys personatus maritimus*

fossorial, in deep sandy soils; feeds mostly from within burrow on roots and other plant parts, especially grasses; ecologically important as prey species and in influencing soils, microtopography, habitat heterogeneity, and plant diversity

Ocelot *Leopardus pardalis* LE E

NUECES COUNTY

MAMMALS

		Federal Status	State Status

dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Red wolf *Canis rufus* LE E

extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies

Southern yellow bat *Lasiurus ega* T

associated with trees, such as palm trees (Sabal mexicana) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter

West Indian manatee *Trichechus manatus* LE E

Gulf and bay system; opportunistic, aquatic herbivore

White-nosed coati *Nasua narica* T

woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade

REPTILES

		Federal Status	State Status

Atlantic hawksbill sea turtle *Eretmochelys imbricata* LE E

Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November

Green sea turtle *Chelonia mydas* LT T

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Gulf Saltmarsh snake *Nerodia clarkii*

saline flats, coastal bays, and brackish river mouthss

Keeled earless lizard *Holbrookia propinqua*

coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; eggs laid underground March-September (most May-August)

Kemp's Ridley sea turtle *Lepidochelys kempii* LE E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

NUECES COUNTY

REPTILES

		Federal Status	State Status
Leatherback sea turtle	*Dermochelys coriacea*	LE	E

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle	*Caretta caretta*	LT	T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Spot-tailed earless lizard *Holbrookia lacerata*

central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground

Texas diamondback terrapin *Malaclemys terrapin littoralis*

coastal marshes, tidal flats, coves, estuaries, and lagoons behind barrier beaches; brackish and salt water; burrows into mud when inactive; may venture into lowlands at high tide

Texas horned lizard	*Phrynosoma cornutum*	T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Texas indigo snake	*Drymarchon melanurus erebennus*	T

Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter

Texas scarlet snake	*Cemophora coccinea lineri*	T

mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September

Texas tortoise	*Gopherus berlandieri*	T

open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November

PLANTS

		Federal Status	State Status
Elmendorf's onion	*Allium elmendorfii*		

Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May

Lila de los llanos *Echeandia chandleri*

NUECES COUNTY

PLANTS

Federal Status State Status

most commonly encountered among shrubs or in grassy openings in subtropical thorn shrublands on somewhat saline clays of lomas along Gulf Coast near mouth of Rio Grande; also observed in a few upland coastal prairie remnants on clay soils over the Beaumont Formation at inland sites well to the north and along railroad right-of-ways and cemeteries; flowering (May-) September-December, fruiting October-December

Mexican mud-plantain *Heteranthera mexicana*

wet clayey soils of resacas and ephemeral wetlands in South Texas and along margins of playas in the Panhandle; flowering June-December, only after sufficient rainfall

Plains gumweed *Grindelia oolepis*

coastal prairies on heavy clay (blackland) soils, often in depressional areas, sometimes persisting in areas where management (mowing) may maintain or mimic natural prairie disturbance regimes; 'crawfish lands'; on nearly level Victoria clay, Edroy clay, claypan, possibly Greta within Orelia fine sandy loam over the Beaumont Formation, and Harlingen clay; roadsides, railroad rights-of-ways, vacant lots in urban areas, cemeteries; flowering April-December

Slender rushpea *Hoffmannseggia tenella* LE E

Texas endemic; coastal prairie grasslands on level uplands and on gentle slopes along drainages, usually in areas of shorter or sparse vegetation; soils often described as Blackland clay, but at some of these sites soils are coarser textured and lighter in color than the typical heavy clay of the coastal prairies; flowering April-November

South Texas ambrosia *Ambrosia cheiranthifolia* LE E

grasslands and mesquite-dominated shrublands on various soils ranging from heavy clays to lighter textured sandy loams, mostly over the Beaumont Formation on the Coastal Plain; in modified unplowed sites such as railroad and highway right-of-ways, cemeteries, mowed fields, erosional areas along small creeks; flowering July-November

Texas windmill-grass *Chloris texensis*

Texas endemic; sandy to sandy loam soils in relatively bare areas in coastal prairie grassland remnants, often on roadsides where regular mowing may mimic natural prairie fire regimes; flowering in fall

Welder machaeranthera *Psilactis heterocarpa*

Texas endemic; grasslands , varying from midgrass coastal prairies, and open mesquite-huisache woodlands on nearly level, gray to dark gray clayey to silty soils; known locations mapped on Victoria clay, Edroy clay, Dacosta sandy clay loam over Beaumont and Lissie formations; flowering September-November

Last Revision: 12/15/2011 10:38:00 AM

KLEBERG COUNTY

AMPHIBIANS		Federal Status	State Status
Black-spotted newt	*Notophthalmus meridionalis*		T

can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River

Sheep frog	*Hypopachus variolosus*		T

predominantly grassland and savanna; moist sites in arid areas

South Texas siren (large form)	*Siren sp 1*		T

wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain; southern Texas south of Balcones Escarpment; breeds February-June

BIRDS		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Audubon's Oriole	*Icterus graduacauda audubonii*		

scrub, mesquite; nests in dense trees, or thickets, usually along water courses

Brown Pelican	*Pelecanus occidentalis*	DL	E

largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Eskimo Curlew	*Numenius borealis*	LE	E

historic; nonbreeding: grasslands, pastures, plowed fields, and less frequently, marshes and mudflats

Mountain Plover	*Charadrius montanus*		

breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Northern Aplomado Falcon	*Falco femoralis septentrionalis*	LE	E

open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species

Northern Beardless-Tyrannulet	*Camptostoma imberbe*		T

KLEBERG COUNTY

BIRDS

		Federal Status	State Status

mesquite woodlands; near Rio Grande frequents cottonwood, willow, elm, and great leadtree; breeding April to July

Peregrine Falcon *Falco peregrinus* DL T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Piping Plover *Charadrius melodus* LT T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

Reddish Egret *Egretta rufescens* T

resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear

Sennett's Hooded Oriole *Icterus cucullatus sennetti*

often builds nests in and of Spanish moss (Tillandsia unioides); feeds on invertebrates, fruit, and nectar; breeding March to August

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Sooty Tern *Sterna fuscata* T

predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

Sprague's Pipit *Anthus spragueii* C

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Texas Botteri's Sparrow *Aimophila botterii texana* T

grassland and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yucca; nests on ground of low clump of grasses

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover *Charadrius alexandrinus nivosus*

uncommon breeder in the Panhandle; potential migrant; winter along coast

White-faced Ibis *Plegadis chihi* T

KLEBERG COUNTY

BIRDS

Federal Status State Status

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk *Buteo albicaudatus* T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Whooping Crane *Grus americana* LE E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

Wood Stork *Mycteria americana* T

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

FISHES

Federal Status State Status

American eel *Anguilla rostrata*

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

Opossum pipefish *Microphis brachyurus* T

brooding adults found in fresh or low salinity waters and young move or are carried into more saline waters after birth; southern coastal areas

Smalltooth sawfish *Pristis pectinata* LE E

different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans

INSECTS

Federal Status State Status

Rawson's metalmark *Calephelis rawsoni*

moist areas in shaded limestone outcrops in central Texas, desert scrub or oak woodland in foothills, or along rivers elsehwere; larval hosts are Eupatorium havanense, E. greggii.

Tibial scarab *Anomala tibialis*

sandy soils

KLEBERG COUNTY

MAMMALS

		Federal Status	State Status
Jaguar	*Panthera onca*	LE	E

extirpated; dense chaparral; no reliable TX sightings since 1952

Jaguarundi	*Herpailurus yaguarondi*	LE	E

thick brushlands, near water favored; 60 to 75 day gestation, young born sometimes twice per year in March and August, elsewhere the beginning of the rainy season and end of the dry season

Maritime pocket gopher *Geomys personatus maritimus*

fossorial, in deep sandy soils; feeds mostly from within burrow on roots and other plant parts, especially grasses; ecologically important as prey species and in influencing soils, microtopography, habitat heterogeneity, and plant diversity

Ocelot	*Leopardus pardalis*	LE	E

dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Red wolf	*Canis rufus*	LE	E

extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies

Southern yellow bat	*Lasiurus ega*		T

associated with trees, such as palm trees (Sabal mexicana) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter

West Indian manatee	*Trichechus manatus*	LE	E

Gulf and bay system; opportunistic, aquatic herbivore

White-nosed coati	*Nasua narica*		T

woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade

REPTILES

		Federal Status	State Status
Atlantic hawksbill sea turtle	*Eretmochelys imbricata*	LE	E

Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November

Green sea turtle	*Chelonia mydas*	LT	T

KLEBERG COUNTY

REPTILES

		Federal Status	State Status

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Keeled earless lizard *Holbrookia propinqua*

coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; eggs laid underground March-September (most May-August)

Kemp's Ridley sea turtle *Lepidochelys kempii* LE E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

Leatherback sea turtle *Dermochelys coriacea* LE E

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle *Caretta caretta* LT T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Mexican blackhead snake *Tantilla atriceps*

southern Texas and northeastern Mexico; shrubland savanna; nocturnal; lays clutch of probably 1-3 eggs

Northern cat-eyed snake *Leptodeira septentrionalis septentrionalis* T

Gulf Coastal Plain south of the Nueces River; thorn brush woodland; dense thickets bordering ponds and streams; semi-arboreal; nocturnal

Spot-tailed earless lizard *Holbrookia lacerata*

central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground

Texas horned lizard *Phrynosoma cornutum* T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Texas indigo snake *Drymarchon melanurus erebennus* T

Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter

Texas scarlet snake *Cemophora coccinea lineri* T

mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September

Texas tortoise *Gopherus berlandieri* T

KLEBERG COUNTY

REPTILES

Federal Status State Status

open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November

PLANTS

Federal Status State Status

Bailey's ballmoss *Tillandsia baileyi*

epiphytic on various trees and tall shrubs, perhaps most common in mottes of Live oak on vegtated dunes and flats in coastal portions of the South Texas Sand Sheet, but also on evergreen sub-tropical woodlands along resacas in the Lower Rio Grande Valley; flowering (February-)April-May, but conspicuous throughout the year

Black lace cactus *Echinocereus reichenbachii var albertii* LE E

Texas endemic; grasslands, thorn shrublands, mesquite woodlands on sandy, somewhat saline soils on coastal prairie, most frequently in naturally open areas sparsely covered with brush of a low stature not resulting from disturbance or along creeks in ecotonal areas between this upland type and lower areas dominated by halophytic grasses and forbs; flowering April-June

Kleberg saltbush *Atriplex klebergorum*

Texas endemic; usually occurs in sparsely vegetated saline areas, including flats and draws; in light sandy or clayey loam soils with other halophytes; occasionally observed on scraped oil pad sites; observed flowering in late August-early September, but may vary with rainfall, fruits are usually present in fall; because of its annual nature, populations fluctuate widely from year to year

Lila de los llanos *Echeandia chandleri*

most commonly encountered among shrubs or in grassy openings in subtropical thorn shrublands on somewhat saline clays of lomas along Gulf Coast near mouth of Rio Grande; also observed in a few upland coastal prairie remnants on clay soils over the Beaumont Formation at inland sites well to the north and along railroad right-of-ways and cemeteries; flowering (May-) September-December, fruiting October-December

Slender rushpea *Hoffmannseggia tenella* LE E

Texas endemic; coastal prairie grasslands on level uplands and on gentle slopes along drainages, usually in areas of shorter or sparse vegetation; soils often described as Blackland clay, but at some of these sites soils are coarser textured and lighter in color than the typical heavy clay of the coastal prairies; flowering April-November

South Texas ambrosia *Ambrosia cheiranthifolia* LE E

grasslands and mesquite-dominated shrublands on various soils ranging from heavy clays to lighter textured sandy loams, mostly over the Beaumont Formation on the Coastal Plain; in modified unplowed sites such as railroad and highway right-of-ways, cemeteries, mowed fields, erosional areas along small creeks; flowering July-November

Welder machaeranthera *Psilactis heterocarpa*

KLEBERG COUNTY

PLANTS

Federal Status State Status

Texas endemic; grasslands , varying from midgrass coastal prairies, and open mesquite-huisache woodlands on nearly level, gray to dark gray clayey to silty soils; known locations mapped on Victoria clay, Edroy clay, Dacosta sandy clay loam over Beaumont and Lissie formations; flowering September-November

KENEDY COUNTY

AMPHIBIANS

		Federal Status	State Status
Black-spotted newt	*Notophthalmus meridionalis*		T

can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River

Mexican treefrog	*Smilisca baudinii*		T

subtropical region of extreme southern Texas; breeds May-October coinciding with rainfall, eggs laid in temporary rain pools

Sheep frog	*Hypopachus variolosus*		T

predominantly grassland and savanna; moist sites in arid areas

South Texas siren (large form)	*Siren sp 1*		T

wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain; southern Texas south of Balcones Escarpment; breeds February-June

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Audubon's Oriole	*Icterus graduacauda audubonii*		

scrub, mesquite; nests in dense trees, or thickets, usually along water courses

Brown Pelican	*Pelecanus occidentalis*	DL	E

largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Cactus Ferruginous Pygmy-Owl	*Glaucidium brasilianum cactorum*		T

riparian trees, brush, palm, and mesquite thickets; during day also roosts in small caves and recesses on slopes of low hills; breeding April to June

Eskimo Curlew	*Numenius borealis*	LE	E

historic; nonbreeding: grasslands, pastures, plowed fields, and less frequently, marshes and mudflats

Mountain Plover	*Charadrius montanus*		

KENEDY COUNTY

BIRDS

Federal Status State Status

breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Northern Aplomado Falcon *Falco femoralis septentrionalis* LE E

open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species

Northern Beardless-Tyrannulet *Camptostoma imberbe* T

mesquite woodlands; near Rio Grande frequents cottonwood, willow, elm, and great leadtree; breeding April to July

Peregrine Falcon *Falco peregrinus* DL T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Piping Plover *Charadrius melodus* LT T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

Reddish Egret *Egretta rufescens* T

resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear

Rose-throated Becard *Pachyramphus aglaiae* T

riparian trees, woodlands, open forest, scrub, and mangroves; breeding April to July

Sennett's Hooded Oriole *Icterus cucullatus sennetti*

often builds nests in and of Spanish moss (Tillandsia unioides); feeds on invertebrates, fruit, and nectar; breeding March to August

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Sooty Tern *Sterna fuscata* T

predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

Sprague's Pipit *Anthus spragueii* C

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

KENEDY COUNTY

BIRDS

		Federal Status	State Status
Texas Botteri's Sparrow	*Aimophila botterii texana*		T

grassland and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yucca; nests on ground of low clump of grasses

Tropical Parula	*Parula pitiayumi*		T

dense or open woods, undergrowth, brush, and trees along edges of rivers and resacas; breeding April to July

Western Burrowing Owl	*Athene cunicularia hypugaea*		

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover	*Charadrius alexandrinus nivosus*		

uncommon breeder in the Panhandle; potential migrant; winter along coast

White-faced Ibis	*Plegadis chihi*		T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk	*Buteo albicaudatus*		T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Whooping Crane	*Grus americana*	LE	E

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

Wood Stork	*Mycteria americana*		T

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

Zone-tailed Hawk	*Buteo albonotatus*		T

arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions

FISHES

		Federal Status	State Status
American eel	*Anguilla rostrata*		

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

KENEDY COUNTY

FISHES

		Federal Status	State Status
Opossum pipefish	*Microphis brachyurus*		T

brooding adults found in fresh or low salinity waters and young move or are carried into more saline waters after birth; southern coastal areas

Smalltooth sawfish	*Pristis pectinata*	LE	E

different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans

INSECTS

		Federal Status	State Status
Los Olmos tiger beetle	*Cicindela nevadica olmosa*		

most tiger beetles are active, usually brightly colored, and found in open, sunny areas; adult tiger beetles are predaceous and feed on a variety of small insects; larvae of tiger beetles are also predaceous and live in vertical burrows in soil of dry paths, fields, or sandy beaches

Superb grasshopper	*Eximacris superbum*		

collected in south Texas, but repeated efforts to collect not successful; may over-winter in adult stage

Texas asaphomyian tabanid fly	*Asaphomyia texensis*		

globally historic; adults of tabanid spp. found near slow-moving water; eggs laid in masses on leaves or other objects near or over water; larvae are aquatic and predaceous; females of tabanid spp. bite, while males chiefly feed on pollen and nectar; using sight, carbon dioxide, and odor for selection, tabanid spp. lie in wait in shady areas under bushes and trees for a host to happen by

MAMMALS

		Federal Status	State Status
Coues' rice rat	*Oryzomys couesi*		T

cattail-bulrush marsh with shallower zone of aquatic grasses near the shoreline; shade trees around the shoreline are important features; prefers salt and freshwater, as well as grassy areas near water; breeds April -August

Jaguar	*Panthera onca*	LE	E

extirpated; dense chaparral; no reliable TX sightings since 1952

Jaguarundi	*Herpailurus yaguarondi*	LE	E

thick brushlands, near water favored; 60 to 75 day gestation, young born sometimes twice per year in March and August, elsewhere the beginning of the rainy season and end of the dry season

Ocelot	*Leopardus pardalis*	LE	E

dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November

KENEDY COUNTY

MAMMALS

		Federal Status	State Status
Plains spotted skunk	*Spilogale putorius interrupta*		

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Red wolf	*Canis rufus*	LE	E

extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies

Southern yellow bat	*Lasiurus ega*		T

associated with trees, such as palm trees (Sabal mexicana) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter

West Indian manatee	*Trichechus manatus*	LE	E

Gulf and bay system; opportunistic, aquatic herbivore

White-nosed coati	*Nasua narica*		T

woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade

REPTILES

		Federal Status	State Status
Atlantic hawksbill sea turtle	*Eretmochelys imbricata*	LE	E

Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November

Black-striped snake	*Coniophanes imperialis*		T

extreme south Texas; semi-arid coastal plain, warm, moist micro-habitats and sandy soils; proficient burrower; eggs laid April-June

Green sea turtle	*Chelonia mydas*	LT	T

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Keeled earless lizard	*Holbrookia propinqua*		

coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; eggs laid underground March-September (most May-August)

Kemp's Ridley sea turtle	*Lepidochelys kempii*	LE	E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

Leatherback sea turtle	*Dermochelys coriacea*	LE	E

KENEDY COUNTY

REPTILES

		Federal Status	State Status

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle *Caretta caretta* LT T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Northern cat-eyed snake *Leptodeira septentrionalis septentrionalis* T

Gulf Coastal Plain south of the Nueces River; thorn brush woodland; dense thickets bordering ponds and streams; semi-arboreal; nocturnal

Spot-tailed earless lizard *Holbrookia lacerata*

central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground

Texas horned lizard *Phrynosoma cornutum* T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Texas indigo snake *Drymarchon melanurus erebennus* T

Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter

Texas scarlet snake *Cemophora coccinea lineri* T

mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September

Texas tortoise *Gopherus berlandieri* T

open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November

PLANTS

		Federal Status	State Status

Bailey's ballmoss *Tillandsia baileyi*

epiphytic on various trees and tall shrubs, perhaps most common in mottes of Live oak on vegtated dunes and flats in coastal portions of the South Texas Sand Sheet, but also on evergreen sub-tropical woodlands along resacas in the Lower Rio Grande Valley; flowering (February-)April-May, but conspicuous throughout the year

Elmendorf's onion *Allium elmendorfii*

KENEDY COUNTY

PLANTS

Federal Status State Status

Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May

Roughseed sea-purslane *Sesuvium trianthemoides*

Texas endemic; dunes and perhaps in saline clay of tidal flats or ephemeral ponds within a dune landscape; likely flowering June-August

Last Revision: 12/15/2011 10:14:00 AM

WILLACY COUNTY

AMPHIBIANS		Federal Status	State Status
Black-spotted newt	*Notophthalmus meridionalis*		T

can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River

Mexican treefrog	*Smilisca baudinii*		T

subtropical region of extreme southern Texas; breeds May-October coinciding with rainfall, eggs laid in temporary rain pools

Sheep frog	*Hypopachus variolosus*		T

predominantly grassland and savanna; moist sites in arid areas

South Texas siren (large form)	*Siren sp 1*		T

wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain; southern Texas south of Balcones Escarpment; breeds February-June

BIRDS		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Audubon's Oriole	*Icterus graduacauda audubonii*		

scrub, mesquite; nests in dense trees, or thickets, usually along water courses

Brown Pelican	*Pelecanus occidentalis*	DL	E

largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Cactus Ferruginous Pygmy-Owl	*Glaucidium brasilianum cactorum*		T

riparian trees, brush, palm, and mesquite thickets; during day also roosts in small caves and recesses on slopes of low hills; breeding April to June

Common Black-Hawk	*Buteogallus anthracinus*		T

cottonwood-lined rivers and streams; willow tree groves on the lower Rio Grande floodplain; formerly bred in south Texas

WILLACY COUNTY

BIRDS

		Federal Status	State Status
Eskimo Curlew	*Numenius borealis*	LE	E

historic; nonbreeding: grasslands, pastures, plowed fields, and less frequently, marshes and mudflats

Mountain Plover *Charadrius montanus*

breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Northern Aplomado Falcon	*Falco femoralis septentrionalis*	LE	E

open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species

Northern Beardless-Tyrannulet	*Camptostoma imberbe*		T

mesquite woodlands; near Rio Grande frequents cottonwood, willow, elm, and great leadtree; breeding April to July

Peregrine Falcon	*Falco peregrinus*	DL	T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Piping Plover	*Charadrius melodus*	LT	T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

Reddish Egret	*Egretta rufescens*		T

resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear

Rose-throated Becard	*Pachyramphus aglaiae*		T

riparian trees, woodlands, open forest, scrub, and mangroves; breeding April to July

Sennett's Hooded Oriole *Icterus cucullatus sennetti*

often builds nests in and of Spanish moss (Tillandsia unioides); feeds on invertebrates, fruit, and nectar; breeding March to August

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Sooty Tern	*Sterna fuscata*		T

predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

Sprague's Pipit	*Anthus spragueii*	C	

WILLACY COUNTY

BIRDS

Federal Status State Status

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Texas Botteri's Sparrow *Aimophila botterii texana* T

grassland and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yucca; nests on ground of low clump of grasses

Tropical Parula *Parula pitiayumi* T

dense or open woods, undergrowth, brush, and trees along edges of rivers and resacas; breeding April to July

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover *Charadrius alexandrinus nivosus*

uncommon breeder in the Panhandle; potential migrant; winter along coast

White-faced Ibis *Plegadis chihi* T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk *Buteo albicaudatus* T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Wood Stork *Mycteria americana* T

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

Zone-tailed Hawk *Buteo albonotatus* T

arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions

FISHES

Federal Status State Status

American eel *Anguilla rostrata*

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

WILLACY COUNTY

FISHES

		Federal Status	State Status
Opossum pipefish	*Microphis brachyurus*		T

brooding adults found in fresh or low salinity waters and young move or are carried into more saline waters after birth; southern coastal areas

		Federal Status	State Status
Smalltooth sawfish	*Pristis pectinata*	LE	E

different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans

INSECTS

		Federal Status	State Status
A tiger beetle	*Tetracha affinis angustata*		

most tiger beetles diurnal, open sandy areas, beaches, open paths or lanes, or on mudflats; larvae in hard-packed ground in vertical burrows

Los Olmos tiger beetle *Cicindela nevadica olmosa*

most tiger beetles are active, usually brightly colored, and found in open, sunny areas; adult tiger beetles are predaceous and feed on a variety of small insects; larvae of tiger beetles are also predaceous and live in vertical burrows in soil of dry paths, fields, or sandy beaches

Rawson's metalmark *Calephelis rawsoni*

moist areas in shaded limestone outcrops in central Texas, desert scrub or oak woodland in foothills, or along rivers elsehwere; larval hosts are Eupatorium havanense, E. greggii.

Superb grasshopper *Eximacris superbum*

collected in south Texas, but repeated efforts to collect not successful; may over-winter in adult stage

MAMMALS

		Federal Status	State Status
Coues' rice rat	*Oryzomys couesi*		T

cattail-bulrush marsh with shallower zone of aquatic grasses near the shoreline; shade trees around the shoreline are important features; prefers salt and freshwater, as well as grassy areas near water; breeds April -August

Ghost-faced bat *Mormoops megalophylla*

colonially roosts in caves, crevices, abandoned mines, and buildings; insectivorous; breeds late winter-early spring; single offspring born per year

		Federal Status	State Status
Jaguar	*Panthera onca*	LE	E

extirpated; dense chaparral; no reliable TX sightings since 1952

		Federal Status	State Status
Jaguarundi	*Herpailurus yaguarondi*	LE	E

WILLACY COUNTY

MAMMALS

Federal Status State Status

thick brushlands, near water favored; 60 to 75 day gestation, young born sometimes twice per year in March and August, elsewhere the beginning of the rainy season and end of the dry season

Mexican long-tongued bat *Choeronycteris mexicana*

deep canyons where uses caves and mine tunnels as day roosts; also found in buildings and often associated with big-eared bats (Plecotus spp.); single TX record from Santa Ana NWR

Ocelot *Leopardus pardalis* LE E

dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Southern yellow bat *Lasiurus ega* T

associated with trees, such as palm trees (Sabal mexicana) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter

West Indian manatee *Trichechus manatus* LE E

Gulf and bay system; opportunistic, aquatic herbivore

White-nosed coati *Nasua narica* T

woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade

REPTILES

Federal Status State Status

Atlantic hawksbill sea turtle *Eretmochelys imbricata* LE E

Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November

Black-striped snake *Coniophanes imperialis* T

extreme south Texas; semi-arid coastal plain, warm, moist micro-habitats and sandy soils; proficient burrower; eggs laid April-June

Green sea turtle *Chelonia mydas* LT T

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Keeled earless lizard *Holbrookia propinqua*

coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; eggs laid underground March-September (most May-August)

WILLACY COUNTY

REPTILES

		Federal Status	State Status
Kemp's Ridley sea turtle	*Lepidochelys kempii*	LE	E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

Leatherback sea turtle	*Dermochelys coriacea*	LE	E

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle	*Caretta caretta*	LT	T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Northern cat-eyed snake	*Leptodeira septentrionalis septentrionalis*		T

Gulf Coastal Plain south of the Nueces River; thorn brush woodland; dense thickets bordering ponds and streams; semi-arboreal; nocturnal

Speckled racer	*Drymobius margaritiferus*	T

extreme south Texas; dense thickets near water, Texas palm groves, riparian woodlands; often in areas with much vegetation litter on ground; breeds April-August

Spot-tailed earless lizard	*Holbrookia lacerata*

central and southern Texas and adjacent Mexico; moderately open prairie-brushland; fairly flat areas free of vegetation or other obstructions, including disturbed areas; eats small invertebrates; eggs laid underground

Texas horned lizard	*Phrynosoma cornutum*	T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Texas indigo snake	*Drymarchon melanurus erebennus*	T

Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter

Texas scarlet snake	*Cemophora coccinea lineri*	T

mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September

Texas tortoise	*Gopherus berlandieri*	T

open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November

PLANTS

		Federal Status	State Status
Bailey's ballmoss	*Tillandsia baileyi*		

WILLACY COUNTY

PLANTS

Federal Status State Status

epiphytic on various trees and tall shrubs, perhaps most common in mottes of Live oak on vegtated dunes and flats in coastal portions of the South Texas Sand Sheet, but also on evergreen sub-tropical woodlands along resacas in the Lower Rio Grande Valley; flowering (February-)April-May, but conspicuous throughout the year

Runyon's water-willow *Justicia runyonii*

margins of and openings within subtropical woodlands or thorn shrublands on calcareous, alluvial, silty or clayey soils derived from Holocene silt and sand floodplain deposits of the Rio Grande Delta; can be common in narow openings such as those provided by trails through dense ebony woodlands and is sometimes restricted to microdepressions; flowering (July-) September-November

Texas ayenia *Ayenia limitaris* LE E

Subtropical thorn woodland or tall shrubland on loamy soils of the Rio Grande Delta; known site soils include well-drained, calcareous, sandy clay loam (Hidalgo Series) and neutral to moderately alkaline, fine sandy loam (Willacy Series); also under or among taller shrubs in thorn woodland/thorn shrubland; flowering throughout the year with sufficient rainfall

CAMERON COUNTY

AMPHIBIANS

		Federal Status	State Status
Black-spotted newt	*Notophthalmus meridionalis*		T

can be found in wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods; Gulf Coastal Plain south of the San Antonio River

Mexican treefrog	*Smilisca baudinii*		T

subtropical region of extreme southern Texas; breeds May-October coinciding with rainfall, eggs laid in temporary rain pools

Sheep frog	*Hypopachus variolosus*		T

predominantly grassland and savanna; moist sites in arid areas

South Texas siren (large form)	*Siren sp 1*		T

wet or sometimes wet areas, such as arroyos, canals, ditches, or even shallow depressions; aestivates in the ground during dry periods, but does require some moisture to remain; southern Texas south of Balcones Escarpment; breeds February-June

White-lipped frog	*Leptodactylus fragilis*		T

grasslands, cultivated fields, roadside ditches, and a wide variety of other habitats; often hides under rocks or in burrows under clumps of grass; species requirements incompatible with widespread habitat alteration and pesticide use in south Texas

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	T

year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.

Audubon's Oriole	*Icterus graduacauda audubonii*		

scrub, mesquite; nests in dense trees, or thickets, usually along water courses

Brown Pelican	*Pelecanus occidentalis*	DL	E

largely coastal and near shore areas, where it roosts and nests on islands and spoil banks

Brownsville Common Yellowthroat	*Geothlypis trichas insperata*		

tall grasses and bushes near ponds, marshes, and swamps; breeding April to July

CAMERON COUNTY

BIRDS

		Federal Status	State Status
Cactus Ferruginous Pygmy-Owl	*Glaucidium brasilianum cactorum*		T

riparian trees, brush, palm, and mesquite thickets; during day also roosts in small caves and recesses on slopes of low hills; breeding April to June

Common Black-Hawk	*Buteogallus anthracinus*		T

cottonwood-lined rivers and streams; willow tree groves on the lower Rio Grande floodplain; formerly bred in south Texas

Eskimo Curlew	*Numenius borealis*	LE	E

historic; nonbreeding: grasslands, pastures, plowed fields, and less frequently, marshes and mudflats

Gray Hawk	*Asturina nitida*		T

locally and irregularly along U.S.-Mexico border; mature riparian woodlands and nearby semiarid mesquite and scrub grasslands; breeding range formerly extended north to southernmost Rio Grande floodplain of Texas

Interior Least Tern	*Sterna antillarum athalassos*	LE	E

subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Northern Aplomado Falcon	*Falco femoralis septentrionalis*	LE	E

open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species

Northern Beardless-Tyrannulet	*Camptostoma imberbe*		T

mesquite woodlands; near Rio Grande frequents cottonwood, willow, elm, and great leadtree; breeding April to July

Peregrine Falcon	*Falco peregrinus*	DL	T

both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.

Piping Plover	*Charadrius melodus*	LT	T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

Reddish Egret	*Egretta rufescens*		T

resident of the Texas Gulf Coast; brackish marshes and shallow salt ponds and tidal flats; nests on ground or in trees or bushes, on dry coastal islands in brushy thickets of yucca and prickly pear

Rose-throated Becard	*Pachyramphus aglaiae*		T

CAMERON COUNTY

BIRDS

Federal Status State Status

riparian trees, woodlands, open forest, scrub, and mangroves; breeding April to July

Sennett's Hooded Oriole *Icterus cucullatus sennetti*

often builds nests in and of Spanish moss (Tillandsia unioides); feeds on invertebrates, fruit, and nectar; breeding March to August

Snowy Plover *Charadrius alexandrinus*

formerly an uncommon breeder in the Panhandle; potential migrant; winter along coast

Sooty Tern *Sterna fuscata* T

predominately 'on the wing'; does not dive, but snatches small fish and squid with bill as it flies or hovers over water; breeding April-July

Southeastern Snowy Plover *Charadrius alexandrinus tenuirostris*

wintering migrant along the Texas Gulf Coast beaches and bayside mud or salt flats

Sprague's Pipit *Anthus spragueii* C

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

Texas Botteri's Sparrow *Aimophila botterii texana* T

grassland and short-grass plains with scattered bushes or shrubs, sagebrush, mesquite, or yucca; nests on ground of low clump of grasses

Tropical Parula *Parula pitiayumi* T

dense or open woods, undergrowth, brush, and trees along edges of rivers and resacas; breeding April to July

Western Burrowing Owl *Athene cunicularia hypugaea*

open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Western Snowy Plover *Charadrius alexandrinus nivosus*

uncommon breeder in the Panhandle; potential migrant; winter along coast

White-faced Ibis *Plegadis chihi* T

prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats

White-tailed Hawk *Buteo albicaudatus* T

near coast on prairies, cordgrass flats, and scrub-live oak; further inland on prairies, mesquite and oak savannas, and mixed savanna-chaparral; breeding March-May

Wood Stork *Mycteria americana* T

CAMERON COUNTY

BIRDS

		Federal Status	State Status

forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

Zone-tailed Hawk *Buteo albonotatus* T

arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions

FISHES

		Federal Status	State Status

American eel *Anguilla rostrata*

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

Mexican goby *Ctenogobius claytonii* T

Southern coastal area; brackish and freshwater coastal streams

Opossum pipefish *Microphis brachyurus* T

brooding adults found in fresh or low salinity waters and young move or are carried into more saline waters after birth; southern coastal areas

Rio Grande shiner *Notropis jemezanus*

Rio Grande and upper Pecos River basins; large, open, weedless rivers or large creeks with bottom of rubble, gravel and sand, often overlain with silt

Rio Grande silvery minnow *Hybognathus amarus* LE E

extirpated; historically Rio Grande and Pecos River systems and canals; reintroduced in Big Bend area; pools and backwaters of medium to large streams with low or moderate gradient in mud, sand, or gravel bottom; ingests mud and bottom ooze for algae and other organic matter; probably spawns on silt substrates of quiet coves

River goby *Awaous banana* T

Southern coastal waters; clear water with slow to moderate current, sandy or hard bottom, and little or no vegetation; also enters brackish and ocean waters

Smalltooth sawfish *Pristis pectinata* LE E

CAMERON COUNTY

FISHES

Federal Status State Status

different life history stages have different patterns of habitat use; young found very close to shore in muddy and sandy bottoms, seldom descending to depths greater than 32 ft (10 m); in sheltered bays, on shallow banks, and in estuaries or river mouths; adult sawfish are encountered in various habitat types (mangrove, reef, seagrass, and coral), in varying salinity regimes and temperatures, and at various water depths, feed on a variety of fish species and crustaceans

INSECTS

Federal Status State Status

A Royal moth *Sphingicampa blanchardi*

woodland - hardwood; Tamaulipan thornscrub with caterpillar's host plant, Texas Ebony (Pitheocellobium flexicaule) an important element

Manfreda giant-skipper *Stallingsia maculosus*

most skippers are small and stout-bodied; name derives from fast, erratic flight; at rest most skippers hold front and hind wings at different angles; skipper larvae are smooth, with the head and neck constricted; skipper larvae usually feed inside a leaf shelter and pupate in a cocoon made of leaves fastened together with silk

Smyth's tiger beetle *Cicindela chlorocephala smythi*

most tiger beetles are active, usually brightly colored, and found in open, sunny areas; adult tiger beetles are predaceous and feed on a variety of small insects; larvae of tiger beetles are also predaceous and live in vertical burrows in soil of dry paths, fields, or sandy beaches

Subtropical blue-black tiger beetle *Cicindela nigrocoerulea subtropica*

most tiger beetles are active, usually brightly colored, and found in open, sunny areas; adult tiger beetles are predaceous and feed on a variety of small insects; larvae of tiger beetles are also predaceous and live in vertical burrows in soil of dry paths, fields, or sandy beaches

Tamaulipan agapema *Agapema galbina*

Tamaulipan thornscrub with adequate densities of the caterpillar foodplant Condalia hookeri hookeri (= obovata); adults occur Sep - Oct; eggs hatch within two weeks and larvae mature 'rapidly'

MAMMALS

Federal Status State Status

Coues' rice rat *Oryzomys couesi* T

cattail-bulrush marsh with shallower zone of aquatic grasses near the shoreline; shade trees around the shoreline are important features; prefers salt and freshwater, as well as grassy areas near water; breeds April -August

Ghost-faced bat *Mormoops megalophylla*

colonially roosts in caves, crevices, abandoned mines, and buildings; insectivorous; breeds late winter-early spring; single offspring born per year

Jaguar *Panthera onca* LE E

CAMERON COUNTY

MAMMALS

		Federal Status	State Status

extirpated; dense chaparral; no reliable TX sightings since 1952

Jaguarundi *Herpailurus yaguarondi* LE E

thick brushlands, near water favored; 60 to 75 day gestation, young born sometimes twice per year in March and August, elsewhere the beginning of the rainy season and end of the dry season

Mexican long-tongued bat *Choeronycteris mexicana*

deep canyons where uses caves and mine tunnels as day roosts; also found in buildings and often associated with big-eared bats (Plecotus spp.); single TX record from Santa Ana NWR

Ocelot *Leopardus pardalis* LE E

dense chaparral thickets; mesquite-thorn scrub and live oak mottes; avoids open areas; breeds and raises young June-November

Plains spotted skunk *Spilogale putorius interrupta*

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Southern yellow bat *Lasiurus ega* T

associated with trees, such as palm trees (Sabal mexicana) in Brownsville, which provide them with daytime roosts; insectivorous; breeding in late winter

West Indian manatee *Trichechus manatus* LE E

Gulf and bay system; opportunistic, aquatic herbivore

White-nosed coati *Nasua narica* T

woodlands, riparian corridors and canyons; most individuals in Texas probably transients from Mexico; diurnal and crepuscular; very sociable; forages on ground and in trees; omnivorous; may be susceptible to hunting, trapping, and pet trade

MOLLUSKS

		Federal Status	State Status

False spike mussel *Quadrula mitchelli* T

possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins

Salina mucket *Potamilus metnecktayi* T

lotic waters; submerged soft sediment (clay and silt) along river bank; other habitat requirements are poorly understood; Rio Grande Basin

Texas hornshell *Popenaias popeii* C T

both ends of narrow shallow runs over bedrock, in areas where small-grained materials collect in crevices, along river banks, and at the base of boulders; not known from impoundments; Rio Grande Basin and several rivers in Mexico

CAMERON COUNTY

REPTILES

		Federal Status	State Status
Atlantic hawksbill sea turtle	*Eretmochelys imbricata*	LE	E

Gulf and bay system, warm shallow waters especially in rocky marine environments, such as coral reefs and jetties, juveniles found in floating mats of sea plants; feed on sponges, jellyfish, sea urchins, molluscs, and crustaceans, nests April through November

Black-striped snake	*Coniophanes imperialis*		T

extreme south Texas; semi-arid coastal plain, warm, moist micro-habitats and sandy soils; proficient burrower; eggs laid April-June

Green sea turtle	*Chelonia mydas*	LT	T

Gulf and bay system; shallow water seagrass beds, open water between feeding and nesting areas, barrier island beaches; adults are herbivorous feeding on sea grass and seaweed; juveniles are omnivorous feeding initially on marine invertebrates, then increasingly on sea grasses and seaweeds; nesting behavior extends from March to October, with peak activity in May and June

Keeled earless lizard	*Holbrookia propinqua*		

coastal dunes, barrier islands, and other sandy areas; eats insects and likely other small invertebrates; eggs laid underground March-September (most May-August)

Kemp's Ridley sea turtle	*Lepidochelys kempii*	LE	E

Gulf and bay system, adults stay within the shallow waters of the Gulf of Mexico; feed primarily on crabs, but also snails, clams, other crustaceans and plants, juveniles feed on sargassum and its associated fauna; nests April through August

Leatherback sea turtle	*Dermochelys coriacea*	LE	E

Gulf and bay systems, and widest ranging open water reptile; omnivorous, shows a preference for jellyfish; in the US portion of their western Atlantic nesting territories, nesting season ranges from March to August

Loggerhead sea turtle	*Caretta caretta*	LT	T

Gulf and bay system primarily for juveniles, adults are most pelagic of the sea turtles; omnivorous, shows a preference for mollusks, crustaceans, and coral; nests from April through November

Northern cat-eyed snake	*Leptodeira septentrionalis septentrionalis*		T

Gulf Coastal Plain south of the Nueces River; thorn brush woodland; dense thickets bordering ponds and streams; semi-arboreal; nocturnal

Speckled racer	*Drymobius margaritiferus*		T

extreme south Texas; dense thickets near water, Texas palm groves, riparian woodlands; often in areas with much vegetation litter on ground; breeds April-August

Texas horned lizard	*Phrynosoma cornutum*		T

open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Texas indigo snake	*Drymarchon melanurus erebennus*		T

CAMERON COUNTY

REPTILES

Federal Status State Status

Texas south of the Guadalupe River and Balcones Escarpment; thornbush-chaparral woodlands of south Texas, in particular dense riparian corridors; can do well in suburban and irrigated croplands if not molested or indirectly poisoned; requires moist microhabitats, such as rodent burrows, for shelter

Texas scarlet snake *Cemophora coccinea lineri* T

mixed hardwood scrub on sandy soils; feeds on reptile eggs; semi-fossorial; active April-September

Texas tortoise *Gopherus berlandieri* T

open brush with a grass understory is preferred; open grass and bare ground are avoided; when inactive occupies shallow depressions at base of bush or cactus, sometimes in underground burrows or under objects; longevity greater than 50 years; active March-November; breeds April-November

PLANTS

Federal Status State Status

Bailey's ballmoss *Tillandsia baileyi*

epiphytic on various trees and tall shrubs, perhaps most common in mottes of Live oak on vegtated dunes and flats in coastal portions of the South Texas Sand Sheet, but also on evergreen sub-tropical woodlands along resacas in the Lower Rio Grande Valley; flowering (February-)April-May, but conspicuous throughout the year

Green Island echeandia *Echeandia texensis*

on somewhat saline clays of lomas along the Gulf Coast near the mouth of Rio Grande, a habitat shared with E. chandleri; both species grow in areas dominated by herbaceous species with scattered brush and stunted trees, or in grassy openings in subtropical thorn shrublands; flowers April, June, and November, and likely in other months, as well

Lila de los llanos *Echeandia chandleri*

most commonly encountered among shrubs or in grassy openings in subtropical thorn shrublands on somewhat saline clays of lomas along Gulf Coast near mouth of Rio Grande; also observed in a few upland coastal prairie remnants on clay soils over the Beaumont Formation at inland sites well to the north and along railroad right-of-ways and cemeteries; flowering (May-) September-December, fruiting October-December

Mexican mud-plantain *Heteranthera mexicana*

wet clayey soils of resacas and ephemeral wetlands in South Texas and along margins of playas in the Panhandle; flowering June-December, only after sufficient rainfall

Plains gumweed *Grindelia oolepis*

coastal prairies on heavy clay (blackland) soils, often in depressional areas, sometimes persisting in areas where management (mowing) may maintain or mimic natural prairie disturbance regimes; 'crawfish lands'; on nearly level Victoria clay, Edroy clay, claypan, possibly Greta within Orelia fine sandy loam over the Beaumont Formation, and Harlingen clay; roadsides, railroad rights-of-ways, vacant lots in urban areas, cemeteries; flowering April-December

Runyon's cory cactus *Coryphantha macromeris var runyonii*

CAMERON COUNTY

PLANTS

Federal Status State Status

gravelly to sandy or clayey, calcareous, sometimes gypsiferous or saline soils, often over the Catahoula and Frio formations, on gentle hills and slopes to the flats between, at elevations ranging from 10 to 150 m (30 to 500 ft); ?late spring or early summer, November, fruit has been collected in August

Runyon's water-willow *Justicia runyonii*

margins of and openings within subtropical woodlands or thorn shrublands on calcareous, alluvial, silty or clayey soils derived from Holocene silt and sand floodplain deposits of the Rio Grande Delta; can be common in narow openings such as those provided by trails through dense ebony woodlands and is sometimes restricted to microdepressions; flowering (July-) September-November

Shinners' rocket *Thelypodiopsis shinnersii*

mostly along margins of Tamaulipan thornscrub on clay soils of the Rio Grande Delta, including lomas near the mouth of the river; Tamaulipas, Mexico specimens are from mountains, with no further detail; flowering mostly March-April, with one collection in December

South Texas ambrosia *Ambrosia cheiranthifolia* LE E

grasslands and mesquite-dominated shrublands on various soils ranging from heavy clays to lighter textured sandy loams, mostly over the Beaumont Formation on the Coastal Plain; in modified unplowed sites such as railroad and highway right-of-ways, cemeteries, mowed fields, erosional areas along small creeks; flowering July-November

Star cactus *Astrophytum asterias* LE E

gravelly clays or loams, possibly of the Catarina Series (deep, droughty, saline clays), over the Catahoula and Frio formations, on gentle slopes and flats in sparsely vegetated openings between shrub thickets within mesquite grasslands or mesquite-blackbrush thorn shrublands; plants sink into or below ground during dry periods; flowering from mid March-May, may also flower in warmer months after sufficient rainfall, flowers most reliably in early April; fruiting mid April-June

Texas ayenia *Ayenia limitaris* LE E

Subtropical thorn woodland or tall shrubland on loamy soils of the Rio Grande Delta; known site soils include well-drained, calcareous, sandy clay loam (Hidalgo Series) and neutral to moderately alkaline, fine sandy loam (Willacy Series); also under or among taller shrubs in thorn woodland/thorn shrubland; flowering throughout the year with sufficient rainfall

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for Texas:

Counties Selected: Nueces

Select one or more counties from the following list to view a county list:

Anderson
Andrews
Angelina
Aransas
Archer

View County List

Nueces County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
brown pelican	*Pelecanus occidentalis*	Birds	DM				P
green sea turtle	*Chelonia mydas*	Reptiles	E, T				P
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	Mammals	E				P
hawksbill sea turtle	*Eretmochelys imbricata*	Reptiles	E				P
Kemp's ridley sea turtle	*Lepidochelys kempii*	Reptiles	E				P
leatherback sea turtle	*Dermochelys coriacea*	Reptiles	E				P
loggerhead sea turtle	*Caretta caretta*	Reptiles	T				P
ocelot	*Leopardus (=Felis) pardalis*	Mammals	E				P
piping Plover	*Charadrius melodus*	Birds	E, T			Final	P
slender rush-pea	*Hoffmannseggia tenella*	Flowering Plants	E				P
south Texas ambrosia	*Ambrosia cheiranthifolia*	Flowering Plants	E				P
West Indian Manatee	*Trichechus manatus*	Mammals	E				P
whooping crane	*Grus americana*	Birds	E, EXPN				P

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for Texas:

Counties Selected: Kleberg

Select one or more counties from the following list to view a county list:

Anderson
Andrews
Angelina
Aransas
Archer

View County List

Kleberg County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
black lace cactus	*Echinocereus reichenbachii var. albertii*	Flowering Plants	E				P
brown pelican	*Pelecanus occidentalis*	Birds	DM				P
green sea turtle	*Chelonia mydas*	Reptiles	E, T				P
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	Mammals	E				P
hawksbill sea turtle	*Eretmochelys imbricata*	Reptiles	E				P
Kemp's ridley sea turtle	*Lepidochelys kempii*	Reptiles	E				P
leatherback sea turtle	*Dermochelys coriacea*	Reptiles	E				P
loggerhead sea turtle	*Caretta caretta*	Reptiles	T				P
northern aplomado falcon	*Falco femoralis septentrionalis*	Birds	E				P
ocelot	*Leopardus (=Felis) pardalis*	Mammals	E				P
piping Plover	*Charadrius melodus*	Birds	E, T			Final	P
slender rush-pea	*Hoffmannseggia tenella*	Flowering Plants	E				P
south Texas ambrosia	*Ambrosia cheiranthifolia*	Flowering Plants	E				P
West Indian Manatee	*Trichechus manatus*	Mammals	E				P
whooping crane	*Grus americana*	Birds	E, EXPN				P

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for Texas:

Counties Selected: Kenedy

Select one or more counties from the following list to view a county list:

Anderson
Andrews
Angelina
Aransas
Archer

View County List

Kenedy County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
brown pelican	*Pelecanus occidentalis*	Birds	DM				P
green sea turtle	*Chelonia mydas*	Reptiles	E, T				P
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	Mammals	E				P
hawksbill sea turtle	*Eretmochelys imbricata*	Reptiles	E				P
Kemp's ridley sea turtle	*Lepidochelys kempii*	Reptiles	E				P
leatherback sea turtle	*Dermochelys coriacea*	Reptiles	E				P
loggerhead sea turtle	*Caretta caretta*	Reptiles	T				P
northern aplomado falcon	*Falco femoralis septentrionalis*	Birds	E				P
ocelot	*Leopardus (=Felis) pardalis*	Mammals	E				P
piping Plover	*Charadrius melodus*	Birds	E, T			Final	P
south Texas ambrosia	*Ambrosia cheiranthifolia*	Flowering Plants	E				P
West Indian Manatee	*Trichechus manatus*	Mammals	E				P
whooping crane	*Grus americana*	Birds	E, EXPN				P

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for Texas:

Counties Selected: Willacy

Select one or more counties from the following list to view a county list:

Anderson
Andrews
Angelina
Aransas
Archer

View County List

Willacy County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
brown pelican	*Pelecanus occidentalis*	Birds	DM				P
green sea turtle	*Chelonia mydas*	Reptiles	E, T				P
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	Mammals	E				P
hawksbill sea turtle	*Eretmochelys imbricata*	Reptiles	E				P
Kemp's ridley sea turtle	*Lepidochelys kempii*	Reptiles	E				P
leatherback sea turtle	*Dermochelys coriacea*	Reptiles	E				P
loggerhead sea turtle	*Caretta caretta*	Reptiles	T				P
northern aplomado falcon	*Falco femoralis septentrionalis*	Birds	E				P
ocelot	*Leopardus (=Felis) pardalis*	Mammals	E				P
piping Plover	*Charadrius melodus*	Birds	E, T			Final	P
Texas ayenia	*Ayenia limitaris*	Flowering Plants	E				P
West Indian Manatee	*Trichechus manatus*	Mammals	E				P

U.S. Fish & Wildlife Service

Endangered Species List

Back to Start

List of species by county for Texas:

Counties Selected: Cameron

Select one or more counties from the following list to view a county list:

Anderson
Andrews
Angelina
Aransas
Archer

View County List

Cameron County

Common Name	Scientific Name	Species Group	Listing Status	Species Image	Species Distribution Map	Critical Habitat	More Info
brown pelican	*Pelecanus occidentalis*	Birds	DM				P
green sea turtle	*Chelonia mydas*	Reptiles	E, T				P
Gulf Coast jaguarundi	*Herpailurus (=Felis) yagouaroundi cacomitli*	Mammals	E				P
hawksbill sea turtle	*Eretmochelys imbricata*	Reptiles	E				P
Kemp's ridley sea turtle	*Lepidochelys kempii*	Reptiles	E				P
leatherback sea turtle	*Dermochelys coriacea*	Reptiles	E				P
loggerhead sea turtle	*Caretta caretta*	Reptiles	T				P
northern aplomado falcon	*Falco femoralis septentrionalis*	Birds	E				P
ocelot	*Leopardus (=Felis) pardalis*	Mammals	E				P
piping Plover	*Charadrius melodus*	Birds	E, T			Final	P
red-crowned parrot	*Amazona viridigenalis*	Birds	C	No Image			P
south Texas ambrosia	*Ambrosia cheiranthifolia*	Flowering Plants	E				P
Texas ayenia	*Ayenia limitaris*	Flowering Plants	E				P

Appendix F

Project Listings in Transportation Improvement Program

DISTRICT	COUNTY	CSJ	HWY	LET DATE	PHASE	CITY	PROJECT SPONSOR	YOE COST
Pharr	Starr	0039-01-075	US 83	01-Jul-11	C	Rio Grande City	TxDOT	**$1,402,977.00**

Limits From: Four Locations from 6th Street
Limits To: KCTM Road
TIP DESCRIPTION: DrainageImprovements@ 6th St(Roma),Los Villareales,ArroyoLosOlmos&K
Remarks: YOE/CAP=$C

Funding Categories: 10 Earmark, 1;
Rev Date: 01-Jul-10

Project History:

Contract CSJ: 0039-01-075

Total Project Cost Information

Preliminary Engineering:	4.9%	$68,745.87
Right of Way:		$0.00
Construction:		1,402,977.00
Construction Engineering:	7.50%	$105,223.28
Contingencies:	7.00%	$98,208.39
Indirects :	6.47	$90,772.61
Bond Financing:		$0.00
Total Project Cost (YOE):		**1,765,927.15**

Cost of Approved Phases: **$1,402,977.00**

District ID# 88

Authorized Funding by Category Share

	Federal	State	Local	Local Contribution	Total Funding by Category
Cat 1 Cost:	$481,437.60	$120,359.40	$0.00		$601,797.00
Cat 10 Cost: Earmark	$640,944.00	$160,236.00	$0.00		$801,180.00
Cat 11 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 12 Cost:	$0.00	$0.00	$0.00		$0.00
Local Contribution:				$0.00	$0.00
Total Funding by Share:	$1,122,381.60	$280,595.40	$0.00	$0.00	$1,402,977.00

Pharr	Willacy	0327-10-053	US 77	01-Jul-11	C		TxDOT	**$10,350,001.00**

Limits From: FM 1018
Limits To: 0.3 mi N. of FM 498
TIP DESCRIPTION: Construct Mainlanes
Remarks:

Funding Categories: 1,12
Rev Date: 01-Jul-10

Project History:

Contract CSJ: 0327-10-053

Total Project Cost Information

Preliminary Engineering:	4.9%	$507,150.00
Right of Way:		$0.00
Construction:		0,349,999.92
Construction Engineering:	4.50%	$465,750.00
Contingencies:	6.50%	$672,749.99
Indirects :	6.47	$669,644.99
Bond Financing:		$0.00
Total Project Cost (YOE):		**2,665,294.90**

Cost of Approved Phases: **10,350,001.00**

District ID# 252

Authorized Funding by Category Share

	Federal	State	Local	Local Contribution	Total Funding by Category
Cat 1 Cost:	$0.80	$0.20	$0.00		$1.00
Cat 10 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 11 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 12 Cost:	$8,280,000.00	$2,070,000.00	$0.00		$10,350,000.00
Local Contribution:				$0.00	$0.00
Total Funding by Share:	$8,280,000.80	$2,070,000.20	$0.00	$0.00	$10,350,001.00

Pharr	Willacy	0327-10-054	US 77	01-Jul-11	C		TxDOT	**$17,400,001.00**

Limits From: 0.3 mi N. of FM 498
Limits To: FM 3168
TIP DESCRIPTION: Construct Overpass and Mainlanes
Remarks:

Funding Categories: 1,12
Rev Date: 01-Jul-10

Project History:

Contract CSJ: 0327-10-054

Total Project Cost Information

Preliminary Engineering:	4.9%	$852,600.00
Right of Way:		$0.00
Construction:		7,400,000.00
Construction Engineering:	4.50%	$783,000.00
Contingencies:	6.50%	1,131,000.00
Indirects :	6.47	1,125,780.00
Bond Financing:		$0.00
Total Project Cost (YOE):		**1,292,380.00**

Cost of Approved Phases: **17,400,001.00**

District ID# 253

Authorized Funding by Category Share

	Federal	State	Local	Local Contribution	Total Funding by Category
Cat 1 Cost:	$0.80	$0.20	$0.00		$1.00
Cat 10 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 11 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 12 Cost:	$13,920,000.00	$3,480,000.00	$0.00		$17,400,000.00
Local Contribution:				$0.00	$0.00
Total Funding by Share:	$13,920,000.80	$3,480,000.20	$0.00	$0.00	$17,400,001.00

Pharr	Zapata	0921-28-006	Boat Ramp	01-Dec-10	C	Zapata	Zapata County	**$972,605.00**

Limits From: Zapata County Boat Ramp
Limits To: at Zapata Lake
TIP DESCRIPTION: Park and Boat Ramp Improvements
Remarks: YOE/CAP=$C+CE+Contingencies;

Funding Categories: 10 Earmark, Local
Rev Date: 01-Jul-10

Project History:
PE = 100% LG; LG=Zapata County

Contract CSJ: 0921-28-006

Total Project Cost Information

Preliminary Engineering:	4.9%	$47,657.65
Right of Way:		$0.00
Construction:		$972,605.00
Construction Engineering:	7.50%	$72,945.38
Contingencies:	7.00%	$68,082.35
Indirects :	6.47	$62,927.54
Bond Financing:		$0.00
Total Project Cost (YOE):		**1,224,217.92**

Cost of Approved Phases: **$972,605.00**

District ID# 231

Authorized Funding by Category Share

	Federal	State	Local	Local Contribution	Total Funding by Category
Cat 1 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 10 Cost: Earmark	$594,000.00	$0.00	$0.00		$594,000.00
Cat 11 Cost:	$0.00	$0.00	$0.00		$0.00
Cat 12 Cost:	$0.00	$0.00	$0.00		$0.00
Local Contribution:				$378,605.00	$378,605.00
Total Funding by Share:	$594,000.00	$0.00	$0.00	$378,605.00	$972,605.00

Appendix G

Design Schematics