



APPENDIX J

Preliminary Cultural Resources Findings



APPENDIX J

PRELIMINARY CULTURAL RESOURCES FINDINGS

1. General Historic Context

1.1 Precontact (Archaeological) Overview

The precontact history of the lower Rio Grande is rich, unique, and important. The river has been a critical conduit for trade and transportation, and a natural border between interests to the north and the south. The area's archaeological record is dominated by open-air sites, burned rock middens, lithic artifact scatters, clay dunes in the Rio Grande delta, and shell middens near the coast. These sites are difficult to identify and date because of heavy erosion, shallow soil horizons, and extensive artifact removal by collectors. The lack of excavation of deeply stratified subsurface sites means that the chronology of the south Texas plains is poorly understood.

The following discussion of the precontact history of the south Texas plains is divided into three general cultural periods. The Paleoindian period represents the first documented human occupation of the region. Evidence of the earliest Paleoindian complexes, Clovis and Folsom, has been found throughout southern Texas, although most of this evidence is from surface collections of the distinctive fluted points that characterize these complexes. Clovis and Folsom hunters appear to have specialized in hunting large animals, including mammoth and bison. Two stratified Paleoindian sites have been excavated in the South Texas region, Berger Bluff (41GD30) in Goliad County, and Buckner Ranch (41BE2) in Bee County.

The Archaic period in southern Texas is divided into the early, middle, and late subperiods based on subtle changes in material cultural and settlement patterns. During this period, hunting and gathering continued as the primary means of subsistence, but populations responded to fluctuations in regional climate by exploiting an increasingly wide range of plant and animal resources and geographic settings for settlement and subsistence. Specifically, the Early and Middle Archaic overlap with the Altithermal (ca. 6000–2000 B.C.), a warm and dry climate episode. The Early Archaic is poorly documented in the southern Texas region, especially on the Rio Grande Delta, due to deep sediment deposition. The available evidence suggests that population density was unchanged from the Paleoindian period, and that Early Archaic hunters continued to live in small, highly mobile groups. Middle Archaic sites appear to be more common than Early Archaic sites, and are found in upland, alluvial, and tributary settings and estuary bays. Middle Archaic sites in southern Texas are also distinguished by the occurrence of ground stone artifacts (Hester et al. 1989) and other evidence for expanded plant use, including an increase in the

number of burned rock middens. Exploitation of coastal resources also appears to have increased. The increasing breadth of subsistence-related resources is accompanied by an increase in site size and artifact abundance, suggesting an increase in population (Hester et al. 1989). Sites from the later Middle Archaic also contain evidence of trade between the Rio Grande plain and the coastal delta, and elaboration of ritual or ceremonial practices in the form of cemeteries for burial of the dead. Late Archaic sites are relatively common in the project area, suggesting increasing population density (Hester et al. 1989). Along with increasing site density, the period is marked by a continued expansion in the variety of resources exploited for subsistence, with rodents and rabbits becoming more common in the archaeological record and specialized plant resource extraction features, such as hearths, increasing in frequency. Sites also appear to have been used repeatedly, suggesting a more sedentary settlement pattern or an increasingly scheduled subsistence regime. Regional trade of items such as marine shell pendants continues, as does use of cemeteries.

The Late Prehistoric period is well-documented in the region. It is characterized by the appearance of pottery and the bow and arrow, although point typologies have not been formalized (Hester et al. 1989). In much of southern Texas, the Late Prehistoric period has two distinct horizons: the Austin (A.D. 800–1350) and the Toyah (A.D. 1350–1600) (Black 1986). Bone-tempered pottery with incised designs appears by A.D. 1000. The Toyah horizon is the best documented and is associated with the occurrence of Perdiz points, small end scrapers, flake knives, beveled knives, Leon Plain bone-tempered pottery, ceramic figurines and pipes, and shell and bone ornaments and beads. Toyah sites are generally found near streams. Along the coast, the Late Prehistoric period begins around A.D. 1200 with the Rockport complex. In the Rio Grande delta area, the Late Prehistoric begins around A.D. 1200 with the Brownsville complex. This complex is similar to the Austin and Toyah horizons, and is characterized in large part by bone-tempered ceramics virtually identical to inland types and a well-developed shell-working industry (THC 2007b).

1.2 Overview of Postcontact History

In the nearly 500 years since initial Spanish exploration, the area has been claimed and influenced by four nations: Spain, Mexico, Republic of Texas, and the United States. Each has pursued its own interests and left its mark as historic landmarks or in patterns of land use and settlement.

Missions were the focus during the Spanish colonial period (ca. 1519–1822) (USACE 1999). Spanish-speaking peoples established ranches in support of the missions. During the Early Anglo-European period (1822–1845), the missions of northern Mexico and Texas were secularized and became less important. Anglo-Americans and Anglo-Europeans began rapidly settling in Texas, bringing with them their own customs, traditions, and influences. Some were of Irish and Mexican descent, and practiced small-scale farming and ranching. These Empresarios had been granted lands in exchange for settling in the area and

becoming Mexican citizens. Large-scale Mexican/Spanish ranching interests continued in the area. Roma became an important port town in this period because of its favored location where river boats met overland routes. In 1836, the Anglo colonists revolted against Mexico and won their independence by defeating Santa Anna at San Jacinto.

During the Texas Republic period (1836–1846), the lower Rio Grande was central to the border tensions between the newly independent Texan republic and the government of Mexico, culminating in the Mexican-American War (1846–1848). On behalf of the Texans, U.S. troops under General Zachary Taylor landed their forces at Port Isabel and established Fort Brown on the Rio Grande across from Matamoros. The presence of these troops provoked the Mexican government to attack, starting the Mexican-American War. Besides military action at Fort Brown, significant battles occurred at Palo Alto and Resaca de la Palma in the lower Rio Grande.

During the American period (1848–present), Anglo-European farmers and ranchers continued to settle the lower Rio Grande area. They continued the large-scale, export cattle ranching started by the Mexicans. To protect the U.S. border, the U.S. Army constructed a line of forts from north-central Texas to the Rio Grande. A second line of forts was established, including Fort Ringgold. As Anglo-American and Anglo-European settlers moved in, towns grew at road and river crossings. Potteries, brick kilns, and local commercial centers were established.

The lower Rio Grande Valley played an important role during the Civil War as local supporters used the river to transport cotton and war materials to support the Confederate effort. Roma and Brownsville, in particular, prospered during the period. The last battle of the Civil War occurred at Fort Brown, ironically a month after the war's official end at Appomattox.

The decades following the Civil War were the years of the large cattle drives north on Chisolm Trail, which began at Brownsville. Railroads, drought, and the use of barbed wire contributed to the eventual breakup of large ranches, open range ranching, and the large cattle drives. The large ranches and open ranges were broken into smaller farms, many owned by immigrants from the Midwestern states. New irrigation systems enabled large-scale agriculture and the lower Rio Grande became noted for its rich croplands, sugar cane production, and citrus groves.

In recognition of the important-contribution of the lower Rio Grande to Texas and American history, the Texas Historical Commission designated the 200-mile area from Laredo to Brownsville along the Rio Grande as the Los Rios del Camino Heritage Trail (THC 2007a; Sanchez 2007, 1997). The binational Los Caminos del Rio Heritage Project was created to support the understanding and appreciation of the history of the area (Sanchez 2007).

The location of the Proposed Action along the lower Rio Grande places it in an area rich in cultural resources. Alternatives 2 and 3 would cross within two historic districts that are designated NHLs: the Roma Historic District and Fort Brown. Each would extend adjacent to or within the bounds of four additional NRHP-listed historic districts: Fort Ringgold Historic District, Louisiana-Rio Grande Canal Company Irrigation System Historic District (including Old Hidalgo Pumphouse), Neale House, and Old Brulay Plantation. It would be in the general vicinity of many other NRHP-listed properties, such as the Rancho Toluca Historic District, La Lomita Historic District, Gems Building, and Stillman House. It is known that additional architectural resources eligible for the NRHP but not formally nominated for listing are also in the vicinity of the Proposed Action. Others that meet the NRHP eligibility criteria but have not been inventoried or evaluated are expected. Historic-era property types in the lower Rio Grande area include historic residential, commercial, and institutional buildings both in settled communities and in rural contexts; military forts; transportation resources (ferry crossing and ferry, suspension bridge); cemeteries; religious complexes; industrial resources (irrigation systems and associated water pumphouses); and farmsteads, plantations, and ranch complexes. These might be found as standing structures or historic archaeological sites. Such sites are known to include shipwrecks, forts, homesteads, and trash scatters. One site is listed on the NRHP (Fort Brown).

2. Specific Historic Property Discussion

In the following discussion, historic districts and individual properties listed in the NRHP that occur near Alternatives 2 and 3 would be described. Previously identified archaeological resources would also be noted. This discussion is based on information contained in the THC Texas Historic Sites Atlas and Texas Archaeological Sites Atlas. Cultural resources surveys of the APEs that would be directly impacted under Alternatives 2 and 3, are underway or about to commence; these surveys are anticipated to identify additional resources. **Table J-1** summarizes the resources discussed in this section.

2.1 Roma Historic District

The Roma Historic District was designated an NHL by the Secretary of the Interior in 1993. The 15-block historic district comprises 35 contributing buildings, including the Nestor Sáenz Store (1884) and Manuel Guerra House and Store (1878–84). The Roma-San Pedro International Bridge (1928) is a contributing property of the historic district. It is anticipated that architectural survey efforts would identify additional buildings that are individually eligible for listing in the NRHP, both within and outside of historic district.

The 19th-century town of Roma was an important shipping point for steamboats along the Rio Grande. The site was first settled in 1760 by Spanish colonists from the colonial settlement, Mier, on the south bank of the Rio Grande. With the

Table J-1. Table of Known Historic Properties That Might Be Affected

Fence Section	Historic Property	NRHP Status
O-1	Roma Historic District	NRHP-listed, NHL
O-2	Fort Ringgold Historic District (including an archaeological component)	NRHP-listed
O-3	Los Ebanos Crossing, Ferry, and Community	Likely NRHP-eligible
O-5	La Lomita Historic District	NRHP-listed
O-6	Louisiana-Rio Grande Canal Company Irrigation System Historic District (including Old Hidalgo Pumphouse)	NRHP-listed
O-10	Toluca Ranch Historic District	NRHP-listed
O-14	Landrum House	Registered Texas Historic Landmark, likely NRHP-eligible
O-19	Brownsville and Fort Brown Historic District (including an archaeological component)	Fort Brown – NRHP-listed, NHL Brownsville has many NRHP-listed and Registered Texas Historic Landmark properties (depends on delineations of APE)
O-19	Neale House	NRHP-listed
O-21	Old Brulay Plantation Historic District	NRHP-listed

development of steamboat river commerce in the middle of the 19th century, Roma prospered as the western port for flatbed ships carrying cotton down the Rio Grande and supplies upriver. It also was a connection point for overland trade into western Texas and the eastern interior of Mexico.

The Roma Historic District represents an outstanding example of the building techniques of the Lower Rio Grande. These techniques, derived from the 18th-century traditions of northern Mexico, are best exemplified by the finely detailed brick commercial and residential buildings designed and constructed by German emigrant mason Heinrich Portscher. Influenced by the architecture of its sister city of Mier across the river and by the architecture of Guerrero Viejo, Mexico, Roma possesses buildings of river sandstone, caliche limestone, and molded brick. Masons used both *rejoneado* and *sillar* construction techniques in Roma. The International Bridge linking Roma to Mexico is the last suspension bridge on the Rio Grande and a contributing element of the historic district (Weitze 1993).

2.2 Fort Ringgold Historic District

Fort Ringgold was one of four military posts the Federal government organized along the Lower Rio Grande following the Mexican-American War. Its location on the Rio Grande made the post an important supplier of goods and materials to military installations further upriver. Troops stationed at Fort Ringgold helped quell numerous border conflicts that erupted from 1849 to 1917. The troops ultimately helped bring stability, which contributed to economic development on both sides of the Rio Grande. The fort was deactivated by the Army in 1944 and sold to the Rio Grande City school system.

The Fort Ringgold Historic District encompasses much of the U.S. Army installation established in 1848. The Fort Ringgold Historic District was listed in the NRHP in 1993 under Criteria A and C at the state level of significance. The district, which includes approximately 75 acres, has 41 contributing properties. Most of the buildings are at the northern end of the historic district surrounding the parade ground. They are associated with the post-1869 development of the older fort. During the earlier phase (1848–1869), frame buildings were constructed to the south on two hills overlooking the Rio Grande and a steamboat dock. A small settlement grew called Davis Landing or Davis Rancho. The 1848 buildings included a hospital, storehouses, barracks, Commandant's house, stables, mess hall and fort store, and cemetery. When new buildings were constructed to the north in 1869, these earlier structures were given new uses. The Commandant's house (also known as the Lee House or Robert E. Lee House) from the earlier post was used later as the quartermaster's office after construction of the new post. Archaeological site 41SR142 is the archaeological component of the earlier fort, and encompasses an area larger than the historic district (Clark 1975).

2.3 Los Ebanos Crossing, Ferry, and Community of Los Ebanos

The Los Ebanos ferry crossing lies on an ancient river ford site used during the 1740s by the Spanish colonist, Jose de Escandón. Historically, a salt trail led from the ford crossing to La Sal del Rey, an inland salt lake 40 miles northeast that produced the first export from the region. The ford also was used over several centuries, notably by troops of the Mexican-American War, 1846; by Texas Rangers chasing cattle rustlers, 1874; and by smugglers in many eras, especially during the American prohibition years, 1920–33 (THC 2007a). A ferry and inspection station are located at the crossing today. Los Ebanos Ferry, established in 1950, is notable as the only government-licensed, hand-pulled ferry on any boundary of the United States. The ferry has capacity for 3 automobiles and approximately 12 persons. The ferry cable is connected to an estimated 250-year-old Texas ebony tree that is included in the Texas Forest Service's *Famous Trees of Texas* (Texas Forest Service 2007). It is possible that the Los Ebanos Ferry is eligible for listing in the NRHP and that the area including the ferry is a historic landscape. The community of Los Ebanos is an

historic town, and has a cemetery where veterans of many wars are buried. It was named for and associated with the unique ebony trees.

2.4 La Lomita Historic District

La Lomita Historic District, listed in the NRHP in 1975, comprises three contributing properties. The earliest remaining property is the stucco and stone mission chapel with a bell tower constructed in 1899. On the small hill is the mission-style St. Peter's Novitiate erected in 1912 that served as a novitiate training center for student priests. Together, the Mission chapel, 122 acres of farm and ranch lands, and novitiate are tangible reminders of the important role of the Catholic Church in the lower Rio Grande Valley. They also document the contribution of the Oblate Fathers in settling this southern tip of Texas (Landon 1975).

2.5 Louisiana-Rio Grande Canal Company Irrigation System Historic District

The Louisiana-Rio Grande Canal Company Irrigation System Historic District was listed in the NRHP in 1995. The 31,200-acre historic district comprises the first-lift and second-lift pumphouses and the associated historic irrigation canal network. The first-lift pumphouse, known as the Old Hidalgo Pumphouse, is significant for its historical associations and engineering and retains original equipment. The historic canal system extends for approximately 500 miles, and includes border-to-border earthen canals, concrete-lined facilities, and canals in pipes on original alignments.

The historic district is significant at the state level under Criterion A with a period of significance from 1904 to 1949. The system contributed to the early 20th century agricultural revolution in the Lower Rio Grande. Private irrigation systems, like the Louisiana-Rio Grande system constructed by the Louisiana-Rio Grande Canal Company, transformed the arid brush land of the Lower Rio Grande Valley into a vast patchwork of 20- to 80-acre irrigated farms within two decades following the 1904 arrival of the first railroad to the isolated area. Once established, the successful production of those farms defined South Texas as one of the nation's three largest winter agricultural regions until a freeze in 1949. Today the irrigation system, except the Old Hidalgo Pumphouse, is owned by the Hidalgo County Irrigation District No. 2 (Moore et al. 1992).

2.6 Toluca Ranch

The Toluca Ranch, listed in the NRHP in 1983 as a historic district, is one of the few intact ranch ensembles in the Rio Grande Valley. Originally the ranch land holdings included 5,900 acres. The four contributing properties constituting Toluca Ranch are the Church of St. Joseph of the Worker, a two-story house, a store, and a schoolhouse. Constructed in 1899 by Florencio Saenz, the Gothic Revival church with a tower served the Saenz family and local community. The

two-story Italianate-style house was constructed in 1906 by Saenz. The schoolhouse was built in 1903 and operated for the children of the local community and the Saenz family until 1911. Saenz was a progressive farmer. Four hundred acres of Saenz's croplands were irrigated to grow beans, corn, melons, and sugar cane for ranch consumption. On pasturelands further north of the river he raised horses, sheep, goats, and cattle (Victor 1981).

2.7 Landrum House

The Landrum House has been a Recorded Texas Historic Landmark since 1978. It is not listed in the NRHP, but is likely to be eligible for its historical and architectural significance. The house was constructed in 1902 for Frances and James Landrum (THC 2007a).

2.8 Sabas Cavazos Cemetery

The Sabas Cavazos Cemetery was established in 1878 with the burial of rancher and businessman, Sabas Cavazos. Cavazos was great grandson to Jose Salvador de la Garza, recipient of the Espiritu Santo royal land grant of approximately 250,000 acres encompassing present-day Brownsville (ACHP 2007b). It lies approximately 0.25 miles north of the Section O-17 corridor (THC 2007a).

2.9 Brownsville and Fort Brown Historic District

Brownsville is rich in historic buildings and sites, many of which are listed in the NRHP. Fort Brown, a historic district designated an NHL, was established in April 1846 by Brigadier General Zachary Taylor and became the first U.S. military post in Texas. The fort was important in some of the earliest battles of the Mexican-American War, the Battles of Palo Alto and Resaca de la Palma. The early fort comprised earthworks with six bastions in the form of a six-pointed star with 15-foot thick walls.

During the Civil War, Brownsville became an important Confederate port town. Boats transported cotton bound for Europe and inbound war material for the Confederacy. Union troops fought for control of Fort Brown, which was held by the Confederate army until the end of the war. Troops from Fort Brown engaged in the last battle of Civil War, the Battle of Palmetto Hill, nearly a month after the Confederacy surrendered at Appomattox (NPS 2007).

After the Civil War, the fort was re-occupied by the U.S. Army and expanded. Under the efforts of Lieutenant Wouldiam Gorgas (later U.S. Army Surgeon General), Fort Brown had a major role in the medical research related to the control of yellow fever. Fort Brown also contributed to efforts to control the Mexican bandit trouble of 1913–1917. In 1948, the fort was transferred to the city of Brownsville. Today the former hospital and other historic buildings are part of the University of Texas/Southmost College campus. Archaeological site

41CF96, south of the later fort complex, is the remnants of the earthworks of the original Fort Brown (THC 2007a).

Brownsville has many other NRHP-listed historic buildings and sites. Near Fort Brown is the Neale House (ca. 1850). Although relocated, the Neale House is significant as one of the oldest houses in Brownsville. Within downtown Brownsville are the Gems Building and the Stillman House. Constructed in 1850 and listed in the NRHP in 1979, the Stillman House is one of the earliest Greek Revival-style brick structures in the region (ACHP 2007c). The house was originally built for and occupied by Charles Stillman, who hired a surveyor to lay out the town lots adjacent to Fort Brown before Brownsville was founded. The house was later occupied by Thomas Carson, Brownsville mayor from 1879 to 1892 and judge of the Cameron County Commissioners Court. There also are a number of historic shipwrecks that are reported west of Fort Brown including archaeological site 41CF177, a steamboat shipwreck site (THC 2007b).

2.9 Old Brulay Plantation Historic District

The Old Brulay Plantation, listed in the NRHP in 1975, is composed of the two-story brick house of French emigrant George N. Brulay and nine buildings associated with his sugar cane plantation. The Brulay Plantation was purchased in 1870 by Brulay. In 1872, he built the first commercial sugar mill in the area to produce *piloncillo* (a dark brown sugar) on his 300-acre plantation and began irrigating his fields. In irrigating his plantation, Brulay revolutionized agricultural practices in the lower Rio Grande Valley; in the early 20th century, irrigation districts established elaborate irrigation systems throughout the valley. Brulay's cultivated fields are north of the structures (Clark 1975). The Brulay Cemetery is north and east of the plantation complex.

2.10 Archaeological Resources

Previously reported prehistoric archaeological resources within a mile of the Proposed Action are primarily open-air campsites and lithic scatters. Temporal and cultural affiliations of the sites are unclear, and few sites are very extensive. The recorders did not evaluate the NRHP eligibility of most of them. Additional prehistoric sites are expected to be found.

In general, historic archaeological sites can be expected to include early Spanish and Mexican colonial remains, forts, shipwrecks, early Republic and American-period sites, homesteads, industrial archaeological sites such as potteries and early irrigation and agricultural sites and features, and historic trash scatters. There might be additional types of historic archaeological sites identified upon further research. Should any sites be found through archaeological surveys, they would be considered for various treatment options such as redesigning the project or data recovery.

3. Cultural Resource Surveys

3.1 Area of Potential Effects

According to 36 CFR 800, the Area of Potential Effects (APE) of a Federal undertaking is defined as the geographical area within which effects on historic properties could occur if such properties hypothetically exist. According to 36 CFR 800, the APE should account for both direct and indirect effects. 36 CFR 800.5(a)(2) specifically cites as adverse effects both visual effects and changes to the setting of a historic property where the setting contributes to the significance of the property.

Under Alternative 2 of the Proposed Action, direct construction impacts would occur within a 60-foot-wide corridor that accounts for grading of vegetation and fence construction. Under Alternative 3, the direct construction APE would directly affect a 130-foot-wide corridor. In addition, there are ancillary areas outside the corridor of both alternatives such as construction staging areas. Thus, for direct construction purposes, the APE considers a 150-foot-wide corridor plus ancillary areas outside that corridor. A second APE for both Alternatives 2 and 3 is being delineated by USBP in consultation with the THC to account for visual impacts, noise, and other potential impacts that extend beyond immediate construction locations. Topography, type and density of vegetation and intervening development, orientation of streets and properties in relation to the Proposed Action, traffic patterns, and surrounding development all are factors to be considered in the definition of this latter APE.

Finally, several Native American tribes with ancestral ties to lands within the Rio Grande Valley Sector have been contacted for input into the cultural resources survey as required under NHPA.

3.2 Identification of Historic Properties

Efforts are underway to identify historic properties potentially affected by the Proposed Action. An archaeological survey is in progress, and an architectural survey would begin in the near future (November 2007). To prepare for these studies, information about previously recorded archaeological, historical, and architectural sites within the 150-foot survey corridor and within a 1-mile radius of the corridor was gathered from the two THC atlases. This information was plotted on project maps, aerial photographs, and topographic maps to identify areas of interest for further identification and evaluation. This data set was considered as a starting point because it has inherent limitations. Much of the survey data from the THC atlases are not recent and might not be complete. Not all of the area of the corridor has had recent archaeological surveys, and the information from past surveys is quite fragmentary. Information about architectural resources from the Texas Historic Sites Atlas is limited to buildings and historic districts listed in the NRHP. It is assumed that additional buildings

and resources are eligible for listing in the NRHP but have not been formally listed or previously surveyed and evaluated.

3.3 Archaeological Resources

Pedestrian and subsurface archaeological survey of accessible portions of fence sections began October 19, 2007. Accessibility has been limited by Right of Entry (ROE) agreements for privately owned parcels, issuance of a Special Use Permit for surveys on lands managed by the USFWS, and Texas Antiquities Permit requirements for all non-Federal publicly owned land (e.g., Texas Parks and Wildlife, county land, municipal parks). The USFWS has found that the surveys would not be harmful to the refuge. The finding is in a public comment period through November 15, 2007.

The archaeological survey is being conducted in accordance with the Texas Archaeological Research Council requirements and standards identified in *Archaeological Survey Standards of Texas*. The survey also is being conducted in accordance with the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation Projects* (including the *Standards and Guidelines for Identification, Evaluation, and Archaeological Documentation*). The survey is subject to a State Antiquities Permit from the THC, and the THC has been consulted in the development of the survey methodology. Professional archaeologists meeting the *Secretary of the Interior's Professional Qualifications Standards* are conducting the survey (NPS).

Priority for archaeological survey was determined based upon the general proportion of land in a given section for which access is available. At the time this document is being prepared, an archaeological survey has been completed for 20.6 miles of the 68.06 miles of surveyable alignment. This represents all accessible portions of the McAllen Sector (Sections O-3, O-4, and O-6), the Weslaco Sector (Sections O-7, O-8, O-9, and O-10), and portions of the Harlingen Sector (Sections O-11, O-12, O-13, and portions of O-14). Accessible portions of the Rio Grande City Sector (Sections O-1 and O-2), the Brownsville Sector (Sections O-17, O-18, O-19, and O-20), the Fort Brown Sector (Section O-21), and the remaining portions of the Harlingen Sector (Sections O-15 and O-16) are slated for survey beginning mid-November 2007. The status of archaeological survey is presented in more detail in **Table J-2**.

Archaeological survey to date has resulted in the identification of 11 previously unrecorded sites. The majority of these (n=8) are historic in age or have historic components. Five sites are either prehistoric or have prehistoric components. Preliminary results support a recommendation of eligible for listing in the NRHP for 6 sites, not eligible for 4 sites, and eligible for 1 site. These recommendations are preliminary and are subject to change as investigation continues. Sites recommended as NRHP eligible might require further testing before a determination can be made.

**Table J-2. Archaeological Survey Status for All Fence Sections,
as of November 1, 2007**

Fence Section Number	County	Border Patrol Station	Total Mileage	Approximate Mileage Completed	Approximate Percentage Completed
O-1	Starr	Rio Grande City	5.28	0.00	0.0
O-2	Starr	Rio Grande City	7.3	0.00	0.0
O-3	Hidalgo	McAllen	1.85	0.56	30.0
O-4	Hidalgo	McAllen	4.35	3.48	80.0
O-5	Hidalgo	McAllen	1.72	0.00	0.0
O-6	Hidalgo	McAllen	3.85	2.70	70.0
O-7	Hidalgo	Weslaco	2.43	2.43	100.0
O-8	Hidalgo	Weslaco	2.04	1.63	80.0
O-9	Hidalgo	Weslaco	3.01	3.01	100.0
O-10	Hidalgo	Weslaco	2.42	1.45	60.0
O-11	Cameron	Harlingen	2.32	1.51	65.0
O-12	Cameron	Harlingen	0.95	0.81	85.0
O-13	Cameron	Harlingen	1.58	1.50	95.0
O-14	Cameron	Harlingen	3.06	1.53	50.0
O-15	Cameron	Harlingen	1.92	0.00	0.0
O-16	Cameron	Harlingen	2.97	0.00	0.0
O-17	Cameron	Brownsville	1.62	0.00	0.0
O-18	Cameron	Brownsville	3.58	0.00	0.0
O-19	Cameron	Brownsville	1.62	0.00	0.0
O-20	Cameron	Brownsville	0.9	0.00	0.0
O-21	Cameron	Fort Brown	13.29	0.00	0.0
Total			68.06	20.60	30.3

The THC requires backhoe trenching of deep sediments on lands with high archaeological potential if the lands fall under the State Antiquities Permit.

All recorded archaeological resources would be evaluated for their NRHP eligibility using the National Register Criteria (36 CFR 60.4) and relevant guidance of the NPS such as *National Register Bulletins 15* and *22*. USBP would request the THC's concurrence regarding determination of a resource's NRHP eligibility; a determination of eligibility from the Keeper of the National Register (NPS) would be sought if the THC does not concur with USBP's evaluation.

3.4 Resources of the Built Environment

An architectural survey of buildings and structures that might be affected by the Proposed Action was begun in November 2007. The APE to be surveyed for indirect impacts related to the Proposed Action is being determined in discussion with the THC and would vary depending on the visual field in a given area, relative to the Proposed Action. Types of resources expected to be surveyed and evaluated include residences, commercial and institutional resources, ranches and plantations, levees, irrigation canals and pumphouses, ferry crossing, bridges, and industrial facilities such as water treatment plants as appropriate. Resources that pre-date 1968 would be surveyed and evaluated, consistent with THC requirements. Based on a windshield survey conducted on October 30–November 1, 2007, it is estimated that as many as 325 buildings and other resources predating 1968 might require survey.

Information about past surveys of architectural resources available at the THC is being evaluated for completeness, level of effort, conformance to current standards, and survey results. This information would help to focus survey efforts so that resources are considered to the extent and manner appropriate. The architectural survey would be conducted in accordance with both the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* and the THC's *Historic Resources Survey Form* and survey guidance. Professionals who meet the *Secretary of the Interior's Professional Qualifications Standards* for architectural historian, historian, and other appropriate discipline would conduct the survey (ACHP 2007a, DOI 1983). The THC has been consulted in the delineation of the APEs and the development of the survey methodology.

All surveyed resources would be evaluated for their NRHP eligibility using the National Register Criteria (36 CFR 60.4) and relevant guidance of the NPS such as *National Register Bulletins 15* and *22*. USBP would request THC concurrence regarding determination of a property's NRHP eligibility; a determination of eligibility from the keeper of the National Register (NPS) would be sought if the THC does not concur with USBP's evaluation.

4. References

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