

**TEXAS HISTORICAL COMMISSION**

**REQUEST FOR SHPO CONSULTATION:  
Projects Subject to Section 106 of the National Historic Preservation Act  
and/or the Antiquities Code of Texas**

*Submission of this form only initiates consultation with the Texas Historical Commission, the State Historic Preservation Officer (SHPO) for Texas. The SHPO may require additional information to complete the review for some projects.*

*FCC projects: this form should not be completed when submitting Form 620 or 621 for communications towers.*

Section 106 of the National Historic Preservation Act of 1966, as amended, requires federal agencies to consider the effects of their undertakings on historic properties and to consult with the State Historic Preservation Officer (SHPO) regarding the undertaking. An undertaking is any action by or on behalf of a federal agency that has the potential to affect historic resources and includes funding, permits, or other approvals. Federal agencies are required to identify historic resources that may be affected and to avoid, minimize, or mitigate any adverse effects. The Section 106 regulations are codified in 36 CFR 800 and are available from the Advisory Council on Historic Preservation website at [www.achp.gov](http://www.achp.gov). Regulations allow 30 days upon receipt for SHPO review.

The Antiquities Code of Texas (Title 9, Chapter 191 of the Texas Natural Resources Code) is intended to protect historic and archeological landmarks and is applicable to public lands owned by the state of Texas or a political subdivision of the state, including state agencies, counties, cities, school districts, and public colleges and universities, as well as other public authorities. Notification of the Texas Historical Commission is required before breaking ground at a project location on state or local public land.

- This is a new submission  
Complete all pages of this form and include required attachments.
- This is additional information relating to original submission made on or about \_\_\_\_\_  
Complete only the first page of this form and add any new information, including attachments.

1. Project Information		
PROJECT NAME San Jacinto Waste Pits Superfund Site		
PROJECT ADDRESS 18001 EAST FWY	PROJECT CITY Channelview	PROJECT ZIP CODE(S) 77530
PROJECT COUNTY OR COUNTIES Harris County		
PROJECT TYPE (Check all that apply)		
<input type="checkbox"/> Road/Highway Construction or Improvement	<input type="checkbox"/> Repair, Rehabilitation or Renovation of Structure(s)	
<input type="checkbox"/> Site Excavation	<input type="checkbox"/> Addition to Existing Structure(s)	
<input type="checkbox"/> Utilities & Infrastructure	<input type="checkbox"/> Demolition or Relocation of Existing Structure(s)	
<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> None of these	
BRIEF PROJECT SUMMARY: Please provide a one or two sentence description to explain the project. More details will be provided separately in Part 5, the Project Work Description Attachment. The project involves capping contaminated sediments in the San Jacinto River with geotextile fabric and clean sand, as well as improving an existing access road and possibly adding rock rip-rap in a limited area.		

2. Project Contact Information			
PROJECT CONTACT NAME Lara Jarrett	TITLE Managing Planner	ORGANIZATION Anchor QEA, LLC	
ADDRESS 901 S. Mopac Expressway, Barton Oaks Plaza IV, Suite 280	CITY Austin	STATE TX	ZIP 78746
PHONE 512.306.9221	EMAIL ljarrett@anchorqea.com		

For SHPO Use Only	Date Stamp Below:
Track/Review to:	
<input checked="" type="checkbox"/> Archeology Division Reviewer	
<input checked="" type="checkbox"/> History Programs Division Reviewer	
<input checked="" type="checkbox"/> Architecture Division Reviewer	
	9160208



**3. Federal Involvement**

Does this project involve approval, permit, license, or funding from a federal agency?  
 Yes (Please complete this section)       No (Skip to next box)

FEDERAL AGENCY U.S. Environmental Protection Agency	FEDERAL PROGRAM, FUNDING, OR PERMIT TYPE: Administrative Order on Consent, Time Critical Action
FEDERAL AGENCY CONTACT PERSON Stephen Tzhone	PHONE 214.665.8409
ADDRESS 1445 Ross Avenue Dallas, TX 75202	EMAIL tzhone.stephen@epa.gov

Has the federal agency (if other than HUD) formally delegated authority to consult with SHPO on the agency's behalf?  Yes (Please attach delegation letter)       No

**4. State Involvement**

Does this project involve approval, permit, license, or funding from a state agency?  
 Yes (Please complete this section)       No (Skip to next box)

STATE AGENCY Texas Department of Transportation	STATE PROGRAM, FUNDING, OR PERMIT TYPE: Right-of-Way permit
STATE AGENCY CONTACT PERSON John P. Campbell, P.E.	PHONE 512-416-2918
ADDRESS 125 E. 11th St. Austin, TX 7801-2483	EMAIL john.campbell@txdot.gov

Will this project involve public land owned by the State of Texas or a political subdivision of the state? (State Agency, County, City, School District, Public Authority, Public College or University, etc.)  
 Yes       No

CURRENT OR FUTURE OWNER OF THE PUBLIC LAND  
Some of the project work is in the right-of-way of Interstate-10, owned by the Texas Department of Transportation.

**5. Project Work Description**

**Attach** a detailed written description of the project that fully explains what will be constructed, altered, or demolished. Include architectural or engineering plans, site plans, specifications, or NEPA documents, as necessary, to illustrate the project.

**6. Identification of Project Location and Area of Potential Effect (APE)**

The APE includes the entire area within which historic properties could be affected by the project. This includes all areas of construction, demolition, and ground disturbance (direct effects) and the broader surrounding area that might experience visual or other effects from the project (indirect effects).

- Attach** map(s) indicating the location and specific boundaries of the project. Road names must be included and legible. Identify the project location, boundaries, and APE on the map(s) as precisely as possible. Suggested maps may include USGS 7.5 minute quadrangle maps (or relevant portions thereof), tax maps, satellite images, etc. The number and types of map(s) will depend on the nature and complexity of the project as well as the extent of the APE. **Projects involving ground disturbance must include the appropriate 7.5 minute USGS quadrangle.**
- Attach** a brief written description of the APE, including a discussion of the potential for direct and indirect effects that might result from the project and the justification for the boundaries chosen for the APE.

PROJECT/NAME  
San Jacinto Waste/Pits/Superfund Site

**7. Identification of Historic Properties within the APE (Attach additional materials as necessary)**

**A. Archeological Resources**

Does this project involve ground-disturbing activity?

- Yes (Please complete this section)       No (Skip to Structures section)

Describe the nature, width, length, and depth of the proposed ground-disturbing activity.

See attached memorandum.

Describe previous land use and disturbances.

See attached memorandum.

Describe the current land use and conditions.

See attached memorandum.

**B. Structures**

Are there any structures, buildings, or designed landscape features (park, cemetery, etc.) 45 years old or older within the project area or APE?

- Yes       No

Is the project located within or adjacent to a district that is listed in or eligible for the National Register of Historic Places? Eligible districts may include locally designated districts or areas identified in historic resource surveys.

- Yes, name of district:       No       Do not know

If the Texas Historic Sites Atlas (<http://atlas.thc.state.tx.us>) has been consulted, were previously identified architectural resources identified within the project area or APE?

- Yes       No       Did not consult Atlas

If the answer to any of the above questions is yes, use the space below or provide an attachment indentifying each structure, building, designed landscape feature, or district within the APE that is 45 years old or older.

Include an actual or estimated date of construction and the location of each of the features.

Does the project involve the rehabilitation, alteration, removal, or demolition of any structure, building, designed landscape feature, or district that is 45 years old or older?

- Yes       No

If yes, include information with the attachments for Part 5: Project Work Description and Part 8: Photographs.

**8. Photographs**

**Attach** clear, high-resolution color photographs that illustrate the project area and APE as defined in Section 6. Images from the internet are not acceptable due to low resolution. Photography should document the project area and properties within the APE, including clear views of any buildings or structures. Please number and label all photographs, and include a map or site plan labeled to show the location and direction of each view. Where applicable, include photographs of the surrounding area from the project site and streetscape images. Should your project entail the alteration of existing structures, please also provide photographs of the existing conditions of sites, buildings, and exterior and interior areas to be affected.

**9. Consulting Parties/Public Notification (Section 106 only)**

**Attach** a description of the actions taken to notify the public or invite consultation with parties other than SHPO. Provide a summary of any consultation and comments received from consulting parties or the public.

The SHPO is only one consulting party under Section 106. Refer to 36 CFR 800.2 for information about other participants who are entitled to comment on the Section 106 process, including Native American tribes, interested parties, and the public. Consultation with the SHPO is not a substitution for consultation with Native American tribes. When identifying historic resources within the APE and determining the effect of an undertaking, applicants should consider consulting with the county historical commission and the local historic preservation officer, if any.

PROJECT NAME:

San Jacinto Waste Pits Superfund Site

VER 0110



**10. Applicant's Determination of Effect (Section 106 only)**

An effect occurs when an action alters the characteristics of a property that qualify it for listing in the National Register of Historic Places, including changes to the property's location, design, setting, materials, workmanship, feeling, and association. Effects can be direct or indirect, and can be physical, visual, audible, or economic. They may include a change in ownership or change in use.

- No Historic Properties Affected** based on 36 CFR 800.4(d)(1). Please provide the basis for this determination.
- No Adverse Effect** on historic properties based on 36 CFR 800.5(b). Please explain why the criteria of adverse effect at 36 CFR 800.5(a)(1) were not found to be applicable for your project.
- Adverse Effect** on historic properties based on 36 CFR 800.5(d)(2). Please explain why the criteria of adverse effect at 36 CFR 800.5(a)(1) were found to be applicable to your project. You may also wish to include an explanation of how these adverse effects might be avoided, minimized, or mitigated.

In the space below or as an attachment, please explain the effect of the project on historic properties. The above determination represents Anchor QEA's conclusion, based on information presented in the attached memorandum.

**Submit Completed Form and Attachments to:**

Via mail:  
Mark Wolfe  
State Historic Preservation Officer  
Texas Historical Commission  
PO Box 12276  
Austin, TX 78711

Via hand delivery or private express delivery:  
Mark Wolfe  
State Historic Preservation Officer  
Texas Historical Commission  
108 West 16<sup>th</sup> St.  
Austin, TX 78701

**Faxes and email are not acceptable.**

**For SHPO Use Only**

PROJECT NAME			
San Jacinto Waste Pits Superfund Site			
PROJECT ADDRESS		PROJECT CITY	PROJECT ZIP CODE(S)
18001 EAST FWY		Channelview	77530
PROJECT COUNTY OR COUNTIES			
Harris County			
PROJECT CONTACT NAME		TITLE	ORGANIZATION
Lara Jarrett		Managing Planner	Anchor QEA, LLC
ADDRESS		CITY	STATE ZIP
901 S. Mopac Expressway, Barton Oaks Plaza IV, Suite 280		Austin	TX 78746
PHONE		EMAIL	
512-306-9221		ljarrett@anchoragea.com	





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## ATTACHMENT A: CULTURAL RESOURCES SURVEY

### DRAFT MEMORANDUM

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**To:** Valmichael Leos, U.S. Environmental Protection Agency  
**Date:** November 23, 2010

**From:** Barbara Bundy, Anchor QEA, LLC  
**Project:** 090557-01

**Cc:** Andrew Shafer, MIMC  
March Smith, MIMC  
Phil Slowiak, IPC  
Mark Wolfe, Texas Historical Commission  
David Keith, Anchor QEA, LLC  
Lara Jarrett, Anchor QEA, LLC  
John P. Campbell, TXDOT

**Re:** San Jacinto River Waste Pits Superfund Site:  
Supplemental Information

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#### PROJECT INFORMATION

International Paper Company (IPC) and McGinnes Industrial Maintenance Corporation (MIMC) are implementing a Time Critical Removal Action (TCRA) under an Administrative Order on Consent (AOC) with the United States Environmental Protection Agency (USEPA) - Docket No. 06-12-10, April 2010, at the San Jacinto River Waste Pits Superfund Site.

The Site is a 20 acre (8 hectare) tract located on the western bank of the San Jacinto River, immediately north of the Interstate Highway 10 (I-10) Bridge (Figure 1) in Channelview, Harris County, Texas. It consists of two intertidal former impoundments referred to as the western cell and the eastern cell, and a subtidal area referred to as the northwestern area.

The TCRA is to stabilize a portion of the Site, abating any release of polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans into the waterway from the impoundments until the Site is fully characterized and a remedy is selected (USEPA 2010a). The TCRA primarily involves construction of an armored cap over the Site.

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## **PROJECT CONTACT INFORMATION**

This memorandum was prepared by Barbara Bundy, Ph.D., RPA (907-677-6671, [bbundy@anchorqea.com](mailto:bbundy@anchorqea.com)). Dr. Bundy meets the Secretary of Interior's Professional Qualifications Standards; a resume is provided in Appendix A. The primary contact for Anchor QEA, LLC is Lara Jarrett (512-306-9221, [ljarrrett@anchorqea.com](mailto:ljarrrett@anchorqea.com)). The USEPA contact is Valmichael Leos (214-665-2283, [Leos.Valmichael@epa.gov](mailto:Leos.Valmichael@epa.gov)). The Texas Department of Transportation contact is John P. Campbell (512-416-2918, [John.campbell@txdot.gov](mailto:John.campbell@txdot.gov)).

## **FEDERAL INVOLVEMENT**

Under the Remedial Action Work Plan, USEPA identified Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR 800 (herein Section 106) as an Applicable or Relevant and Appropriate Requirement (ARAR). USEPA is required to comply with Section 106. This memorandum assists the USEPA by describing:

- The project's Area of Potential Effects (APE)
- Whether National Register of Historic Places (NRHP) eligible historic properties are present in the APE, and
- Whether the project will affect any such properties based upon our assessment.

Under 36 CFR 800.2(a), the federal agency official responsible for Section 106 compliance may delegate that responsibility to a state, local, or tribal government official, but not to an applicant. An applicant may "prepare information, analysis, and recommendations" but "the agency official remains legally responsible for all required findings and determination." Therefore, we respectfully request that the USEPA make a determination to the Texas State Historic Preservation Officer (SHPO) that the project will have no effects to historic properties and continue the consultation process. The USEPA is also responsible for ultimately demonstrating compliance with other ARAR's.

## **STATE INVOLVEMENT**

A portion of the APE is in the Texas Department of Transportation right-of-way of I-10. Therefore, the project is taking place on land controlled by a state agency and must comply with the Antiquities Code of Texas (ACT) and associated regulations in the Rules of Practice and Procedure for the Antiquities Code of Texas. This report and the attached consultation



form fulfill requirements of the ACT and comply with the Texas Historical Commission's "Guidelines for Cultural Resource Management Reports" (THC 2010).

### **PROJECT LOCATION AND WORK DESCRIPTION**

The APE includes all areas directly and indirectly affected by the undertaking (36 CFR 800.16[d]) (Figure 2). The APE is located on the Highlands United States Geological Survey (USGS) 7.5 minute quadrangle within Harris County, Texas.

The project will not demolish or modify any existing buildings, bridges, or other structures, and will not change the surrounding viewsheds. Therefore, it does not have the potential to affect the built environment, and the APE is restricted to ground disturbance that could potentially affect archaeological deposits. Site plans, engineering plans, and specifications are provided (Appendix B).

The project is designed to minimize ground disturbance. Areas of ground disturbance include (Figure 3):

- Construction staging
- Construction of an access road along the southern part of the APE
- Clearing and grubbing of vegetation in the western part of the APE
- Capping of source materials with clean granular cover

*Construction Staging:* Staging will consist of material stockpiles, construction equipment storage and maintenance, construction trailers, and contractor parking on the Big Star Boat & Barge property at the northwestern extent of the APE. Disturbance will occur only on the ground surface.

*Access Road:* The access road will be constructed by placing geotextile and gravel on top of an existing crushed gravel road adjacent to I-10. The existing road is shown on the topographic map (Figure 2). Ground disturbance will be no more than 6 inches (15 cm) below the existing surface for removal of vegetation.

*Vegetation Clearing:* Vegetation in the western cell needs to be cleared and grubbed to facilitate installation of the granular cover. Following mobilization, staging area preparation, and access road construction, the above-ground vegetation will be cut down and shipped off

site for disposal. After the initial above-ground clearing has been completed, stumps greater than 8 inches in diameter will be grubbed onsite. Grubbed material will be spread evenly across the footprint of the western cell and serve as the base layer upon which the granular cover will be constructed. Ground disturbance will be no more than 10-12 inches deep (25-30 cm) across the western cell.

*Capping.* Source materials will be capped at the eastern and western cells, as well as in the northwestern area. Capping consists of placement of geomembrane or geotextile cover in portions of the site, and deposition of imported aggregate materials above it. The geomembrane in the western cell will be anchored by in a trench that will be a maximum of 3 feet (1 m) deep and 3 feet (1 m) wide around the perimeter. The geotextile in the eastern cell will be placed without trenching or other ground disturbance, except for the southern boundary of the eastern cell where trenching may occur. A geotextile will not be used in the northwestern area. Clean aggregate of varying gradations for the granular cover will be obtained either from a source that is operational and permitted, or will be permitted at the time of selection.

## **IDENTIFICATION OF HISTORIC PROPERTIES**

An historic property is a prehistoric or historic district, archaeological site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the U.S. Secretary of the Interior. When evaluating resources, NRHP criteria for evaluation of significance of cultural resources properties must be applied. According to the National Register criteria for evaluation (NPS 2002):

The quality of significance in American history, architecture, archeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of significant persons in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic



values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

- D. That have yielded or may be likely to yield, information important in history or prehistory.

The Rules and Practice and Procedure for the Antiquities Code of Texas establishes similar criteria for assessing the significance of archaeological sites.

The commission uses one or more of the following criteria when assessing the appropriateness of official landmark designation, and/or the need for further investigations under the permit process:

1. The site has the potential to contribute to a better understanding of the prehistory and/or history of Texas by the addition of new and important information;
2. The site's archeological deposits and the artifacts within the site are preserved and intact, thereby supporting the research potential or preservation interests of the site;
3. The site possesses unique or rare attributes concerning Texas prehistory and/or history;
4. The study of the site offers the opportunity to test theories and methods of preservation, thereby contributing to new scientific knowledge;
5. The high likelihood that vandalism and relic collecting has occurred or could occur, and official landmark designation is needed to insure maximum legal protection, or alternatively further investigations are needed to mitigate the effects of vandalism and relic collecting when the site cannot be protected.

These criteria have been applied in the following review and analysis.

### **Historic Context**

The archaeology of coastal Texas is not as well known as it is in other parts of the state. According to Ricklis (2004), "the poor understanding of areal chronology is matched by a general lack of insight into synchronic patterns of prehistoric resource use and settlement patterns." In general, though, the earliest occupation is thought to be Paleoindian. The

Paleoindian period dates from around 12,000 Before Present (B.P.) to 8,000 B.P., though no dated sites are found in the coastal region (Ricklis 2004). The subsequent Archaic period lasted from 8,000 B.P. to 1,200 B.P. is characterized by adaptation to a drier climate, increase in the diversity of projectile points, and widespread trade networks. The Late Prehistoric period follows the archaic, and is “in large part, if not entirely, the archaeological correlate of the ethnically and linguistically distinct Karankawa groups” (Ricklis 2004).

In the historic era, the San Jacinto River area was the traditional homeland of Capoque or Cocos band of the Karankawa Indians, a group of at least 400 people (Himmel 1999). The Karankawa were nomadic people who hunted, fished and gathered and performed a rich ceremonial cycle. They traveled in dugout canoes between temporary campsites, made pottery, baskets, and red cedar bows; and lived in shelters made of willow poles and rush mats (Lipscomb 2002). The Karankawa are now extinct as a tribal group. After decades of conflict with Euroamerican settlers, the last remaining group of Karankawas was annihilated in 1858 (Lipscomb 2002).

Although Spain claimed the area that is now Harris County in 1528, few Euroamericans visited the San Jacinto River area until the early 1700s when French traders from the New Orleans area headed west (Henson 2002; Jackson 2002). The San Jacinto River was “a zone of perennial dispute between rival Spanish and French colonial empires,” and the Spanish extensively explored the area in the mid 1700s (Jackson 2002). For the next hundred years, settlements were sparse, and mostly related to military concern, due at least in part to the difficulty of travel along shallow rivers and marshy uplands (Himmel 1999). The nearest settlement to the project area was the Spanish fort El Orcoquisac, about 20 miles east on the Trinity River (Ladd 2002).

In 1821 “American Indian groups occupied all of Texas” (Himmel 1999). One year later, a group of American settlers arrived in the San Jacinto area, and over the next ten years the Euroamerican settlement increased while the Native American population declined (Henson 2002). The mostly American settlers in Texas soon came into conflict with the Mexican government, leading to the Texas Revolution.

The Revolution’s Battle of San Jacinto took place approximately three miles south-southwest of the current project APE on April 21, 1836, and was “the deciding moment in the Texas



Revolution” (Moore 2004). About six weeks earlier, a Texan force had been defeated at the Alamo by Mexican soldiers under General Antonio Lopez de Santa Anna (Nofi 1992). Santa Anna’s soldiers pursued Texan soldiers under the command of General Sam Houston, and the two armies met just south of where Buffalo Bayou enters the San Jacinto River, on a farm owned by a widow (Henson 2002). The Texas army overcame the Mexicans in under 20 minutes, ultimately killing as many as 900 Mexican soldiers (Moore 2004). Although no part of the battle took place at or near the current APE, Houston’s soldiers may have transited the area as they crossed at Lynch’s Ferry at the former town of Lynchburg on the east bank of the river south of I-10 (Moore 2004). General Santa Anna retreated from Texas in 1837, and Mexico recognized Texan independence in 1848 (Griswold del Castillo 1990).

Harris County recovered from the revolution slowly. By 1853 it had a steam mill and was the terminus for the Buffalo Bayou, Brazos, and Colorado Railway, which crossed the county to Stafford’s Point to facilitate the shipment of cotton and sugar. Five other railroads followed before the Civil War (Henson 2002). Settlers before the Civil War arrived mostly from the southeastern United States, many bringing African-American slaves while settlers after the Civil War included many Midwesterners (Henson 2002).

The area around the San Jacinto River was primarily rural and agricultural for nearly another century. An aerial photo from 1944 (Figure 4) shows the river meandering past a small rural settlement on the east bank, with a state highway crossing near Lynch’s Ferry. The new I-10 Bridge is visible in a 1957 aerial photo (Figure 5) and a 1967 topographic map documents increasing population density (Figure 6).

Between 1944 and the present, maps and aerial photos show a steady trend of subsidence. Sand mining, and later depletion of the aquifer, resulted in the preliminary APE shifting from marshy land with raised sandbar deposits to nearly entirely underwater. The Harris County Subsidence District has determined that there was 9 to 10 feet of subsidence in the area surrounding the Site between 1906 and 2000.

The cells were constructed between September 1965 and May 1966. The contours of the impoundments indicate that they were constructed by side cast borrow technique, in which a crane moves along the perimeter of the site and casts a bucket towards the center. The bucket removes sediment from the interior of the site and deposits it along the periphery.

where it is consolidated into levees. The ponds were used for settling a slurry of pulp and paper waste. Therefore, the original surface in the APE would have been wetland, but was heavily disturbed during construction of the impoundments and adjacent sand mining. The upper sediments in the waste ponds are likely pulp and paper waste.

### Archeological Resources

According to Texas Historical Sites Atlas, accessed in November 2010, there are no recorded archaeological sites in the preliminary APE, and no part of the preliminary APE has been previously archaeologically surveyed. Within a mile of the preliminary APE, five sites are recorded (Table 1). Descriptions are from the Texas Historical Commission TARL Site Forms. Four cultural resources surveys have been conducted within a mile of the preliminary APE (Table 2).

**Table 1**  
**Recorded Archaeological Sites**

Site Number	Description	Distance from APE
41HR15	"Earthen mound and lithic scatter" on "old river terrace."	0.9 miles (1.5 km)
41HR27	San Jacinto Site 1. Apparently a precontact site. Currently entirely submerged.	1.0 miles (1.6 km)
41HR28	Precontact shell midden. Currently entirely submerged.	1500 feet (450 m)
41HR407	Historic archaeological site, dates to mid-19th century. Homesite and sawmill, possible slave quarters.	1.0 miles (1.6 km)
41HR724	Scattered redeposited shell, likely not in situ. Currently entirely submerged.	2000 feet (630 m)

**Table 2**  
**Archaeological Surveys**

Author	Date	Title	Sites visited within 1 mile of APE
Hudson, Kay G.	1991	Archaeological Survey, Houston International Terminal, San Jacinto River, Harris County, Texas.	41HR28
McClure, W. and Leland W. Patterson	1975	Prehistoric Occupation of White Oak Bayou Watershed.	41HR15
Moore, Roger G. and Robert Travis	1994	Cultural Resources Investigations and Coordination for the San Jacinto Oil Spill Incident, Harris County, Texas	None
Carlson, Shawn	1998	Archaeological Investigations at the David	41HR407

Bonath		G. Burnet Park (41HR407), Harris County, Texas	
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The three *in situ* pre-contact sites (41HR15, 41HR27, and 41HR28) and the historic site (41HR407) all clearly represent occupations of the riverbank immediately adjacent to the river prior to historic and modern subsidence. Given this settlement pattern, the APE would have had a high probability for archaeological resources at or near the original ground surface. Industrial activities at the site and the associated subsidence and erosion, have reduced the archaeological potential. Given the deltaic depositional environment, deeply buried sites may be present. However, meandering and repeated flooding in the pre-contact era may have also eroded such sites in the past. Remaining archaeological resources, if any are present, are buried under waste placed in the 1960s.

### Results of Archaeological Review

The proposed ground disturbance (Figure 3) was compared to the extent of previous disturbance to determine whether fieldwork would be necessary. This review indicated that fieldwork was not necessary and was not likely to be productive. Results are listed by project element:

*Construction Staging:* Disturbance will occur only on the ground surface, which is already a prepared gravel surface. The Big Star Boat & Barge property is clearly built on fill to elevate it above the surrounding low-lying area. Surface disturbance for construction staging has no potential to affect historic properties.

*Access Road:* The access road would be in the TXDOT-owned right-of-way for I-10. The ROW is heavily filled to elevate the freeway at the approach to the bridge, and a *de facto* access road already exists. Ground disturbance for the road would be minimal (no more than 6 inches [15 cm] below the existing surface for removal of vegetation), and would not penetrate the existing road fill. The access road has no potential to affect historic properties.

*Vegetation Clearing:* The original ground surface in the vicinity of the western cell was disturbed during construction of the waste pits, and the current surface consists of wood and pulp waste. Geotechnical explorations performed within the pits indicate the presence of 6-8 feet of pulpy sediments with wood chunks and debris over native alluvial sediments. In the deltaic environment, deeply buried archaeological sites may exist. However, the minimal

ground disturbance for clearing and grubbing is unlikely to disturb any native sediments below the waste. Vegetation clearing has minimal to no potential to affect historic properties.

*Capping.* Ground disturbance for capping is limited to trenching around the perimeter of the western cell, and perhaps along the southern margin of the eastern cell. Trenches will be a maximum of 3 feet (1 m) deep and 3 feet (1 m) wide. A topographic map of the site (Figure 7) shows that the berm around the western cell, clearly an artificial feature, is 4-8 feet (1.2-2.4 m) above the lowest elevations in the cell. Excavation of the trench is not likely to penetrate into native sediments. Capping has minimal to no potential to affect historic properties.

Based on the comparison between historic disturbance and planned ground disturbance for the project, field testing was determined unnecessary. The eastern cell and northwestern area are submerged and not suitable for subsurface testing. The western cell has been demonstrated by geotechnical testing to contain 6-8 feet of wood and pulp waste. The southern margin of the APE, where the access road will be constructed, is road fill from I-10. Therefore, archaeological subsurface testing is both impractical and unnecessary.

### **Structures**

There are no structures older than 45 years in the APE. The only structure in the APE is a derelict warehouse on the Big Star Boat & Barge property that was constructed in 1970 (HCAD 2010). I-10 is immediately adjacent to the APE. The interstate was complete through the area by 1967 and is therefore currently 43 years old. I-10 will not be affected by the project. According to the Texas Historical Sites Atlas, there are no previously identified historic districts or structures in the APE.

### **Effects to NRHP-Eligible Historic Properties**

No NRHP-eligible properties are documented in the APE. Although deeply buried sites may be present, the current project will not extend into undisturbed sediments. For purposes of compliance with Section 106, it is recommended that USEPA evaluate our findings and determine if there are no historic properties present within the horizontal and vertical extent of the APE, and no NRHP-eligible historic properties will be affected by the undertaking.



For purposes of compliance with the ACT, we are providing this report to the THC as the required notification.

**CONSULTING PARTIES/PUBLIC NOTIFICATION**

USEPA retains responsibility to consult with SHPO, interested and affected tribes, and other consulting parties identified in 36 CFR 800.2(c).

The applicant will submit this report to the THC in fulfillment of the ACT, and to other local and state agencies if required for other permitting purposes. Letters from the client delegating authority for our involvement are provided in Appendix C.

**REFERENCES**

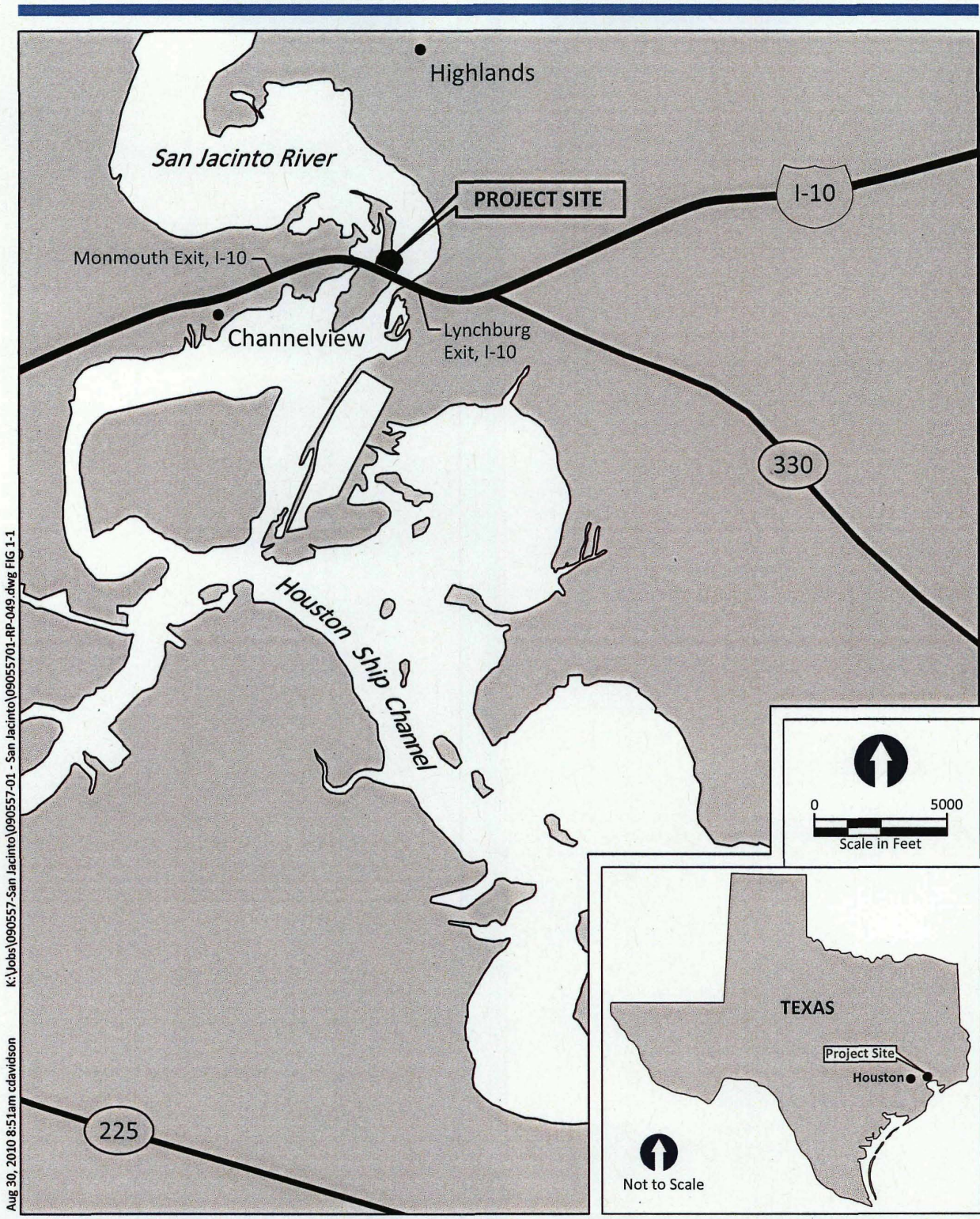
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FIGURES

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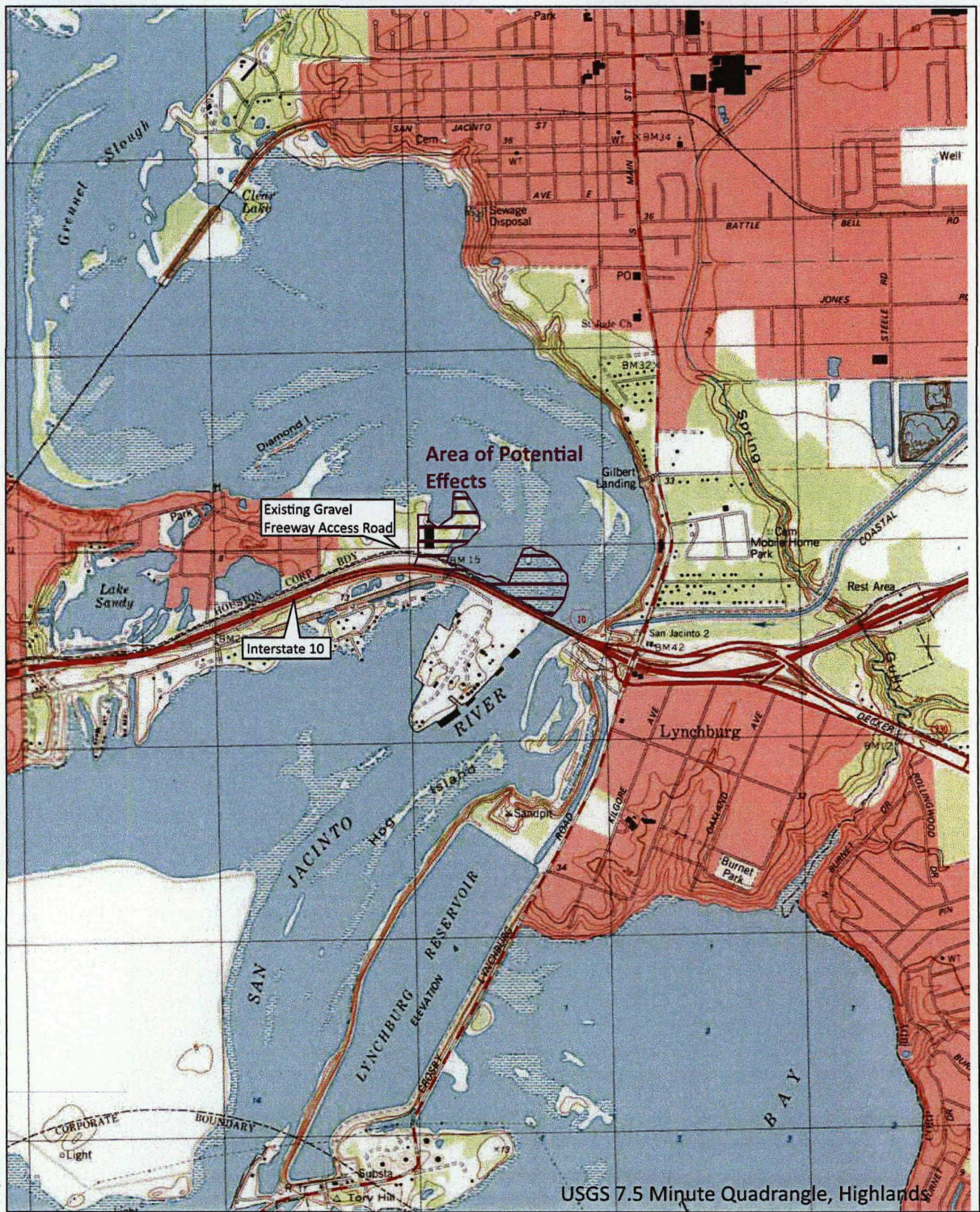


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**Figure 1**  
 Vicinity Map  
 Cultural Resources Assessment  
 San Jacinto Waste Pits Superfund Site





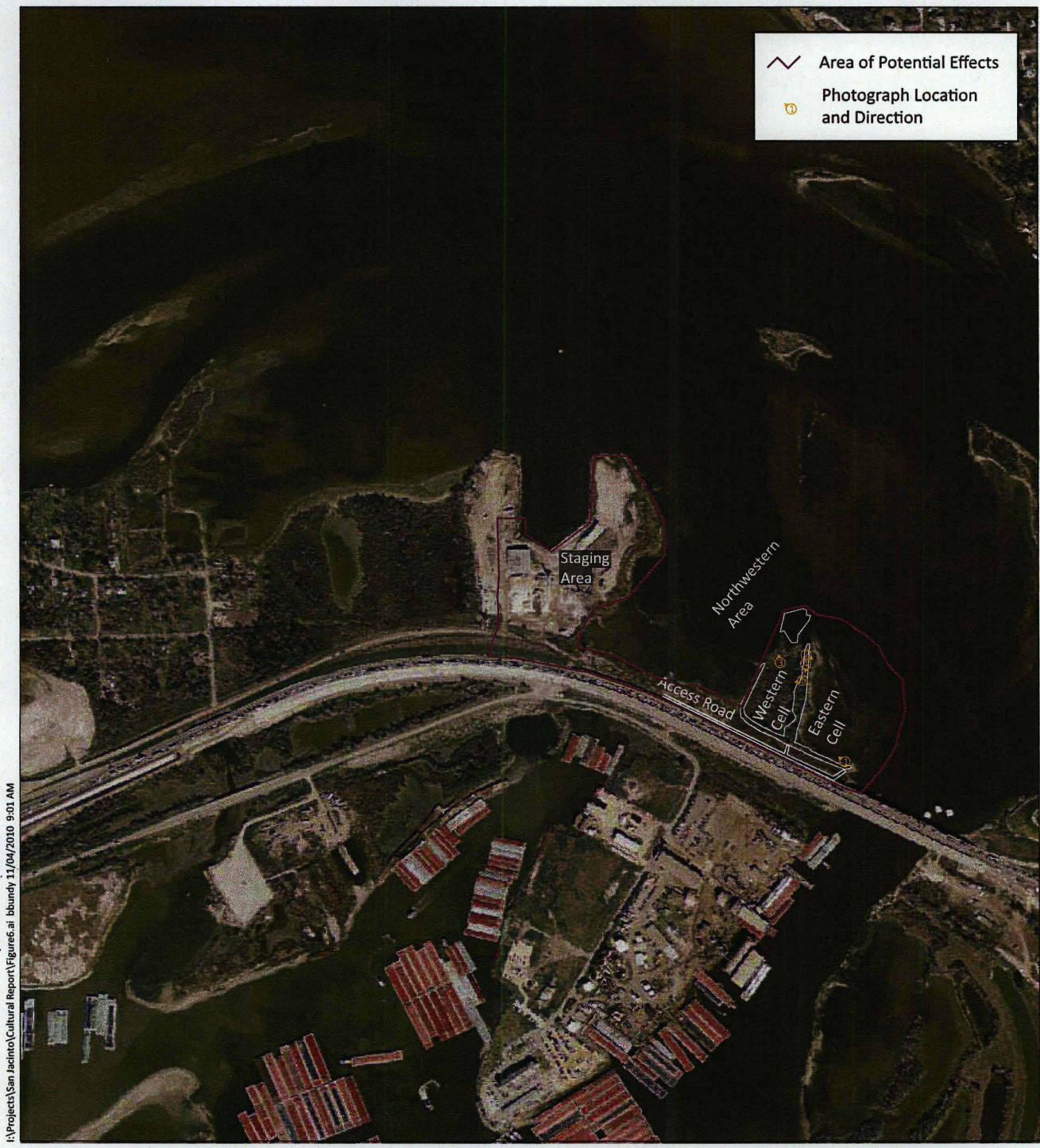
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USGS 7.5 Minute Quadrangle, Highland



**Figure 2**  
 Area of Potential Effects  
 Cultural Resources Assessment  
 San Jacinto Waste Pits Superfund Site







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 Area of Potential Effects  
 Photograph Location and Direction

**Figure 3**

Project Elements  
 Cultural Resources Assessment  
 San Jacinto Waste Pits Superfund Site



Aerial Photos: 0.5-meter January 2009  
 DOQQs, Texas Strategic Mapping  
 Program (StratMap), TNIS

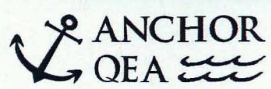
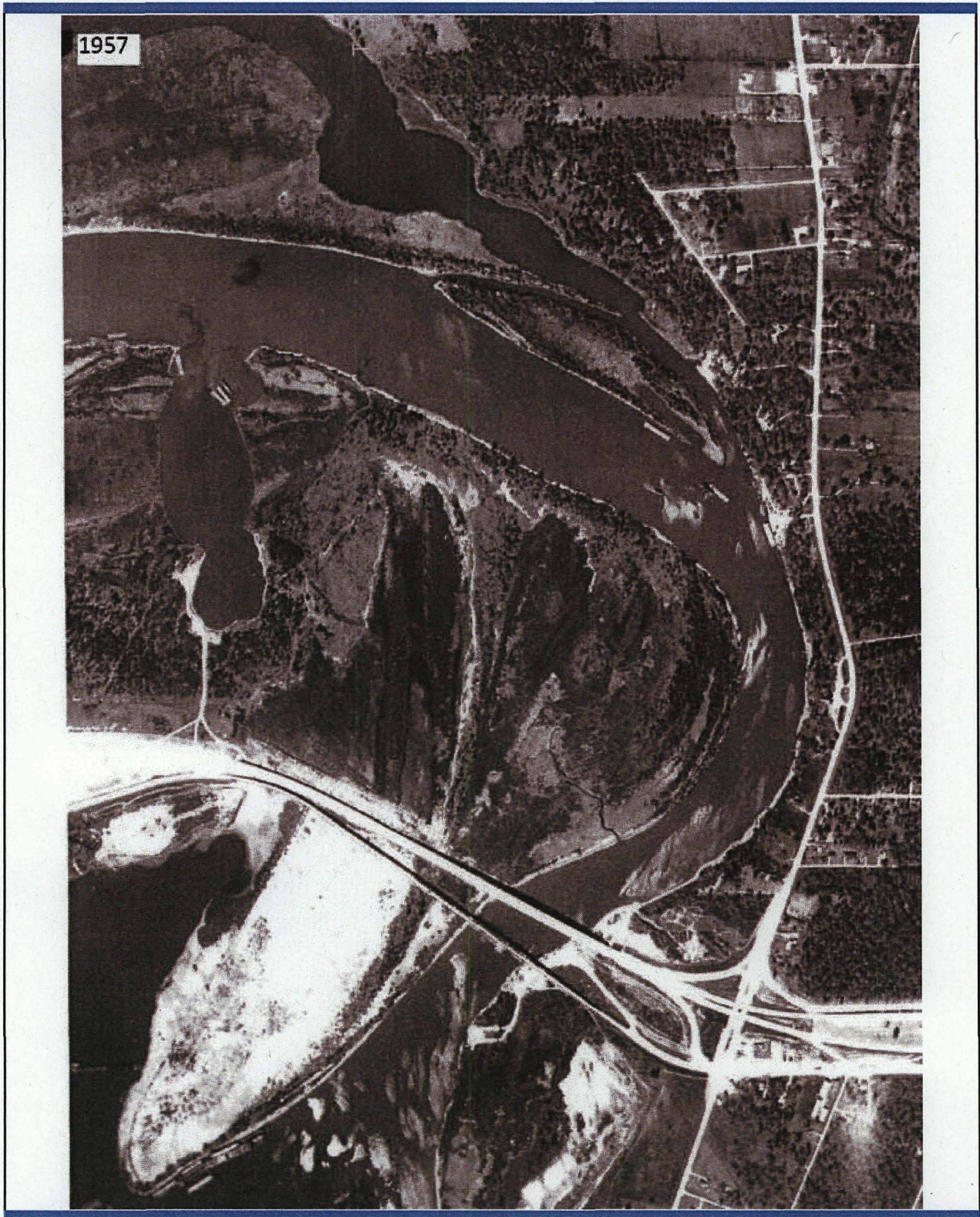






**Figure 4**  
1944 Aerial Photograph  
Cultural Resources Assessment  
San Jacinto Waste Pits Superfund Site





**Figure 5**  
1957 Aerial Photograph  
Cultural Resources Assessment  
San Jacinto Waste Pits Superfund Site



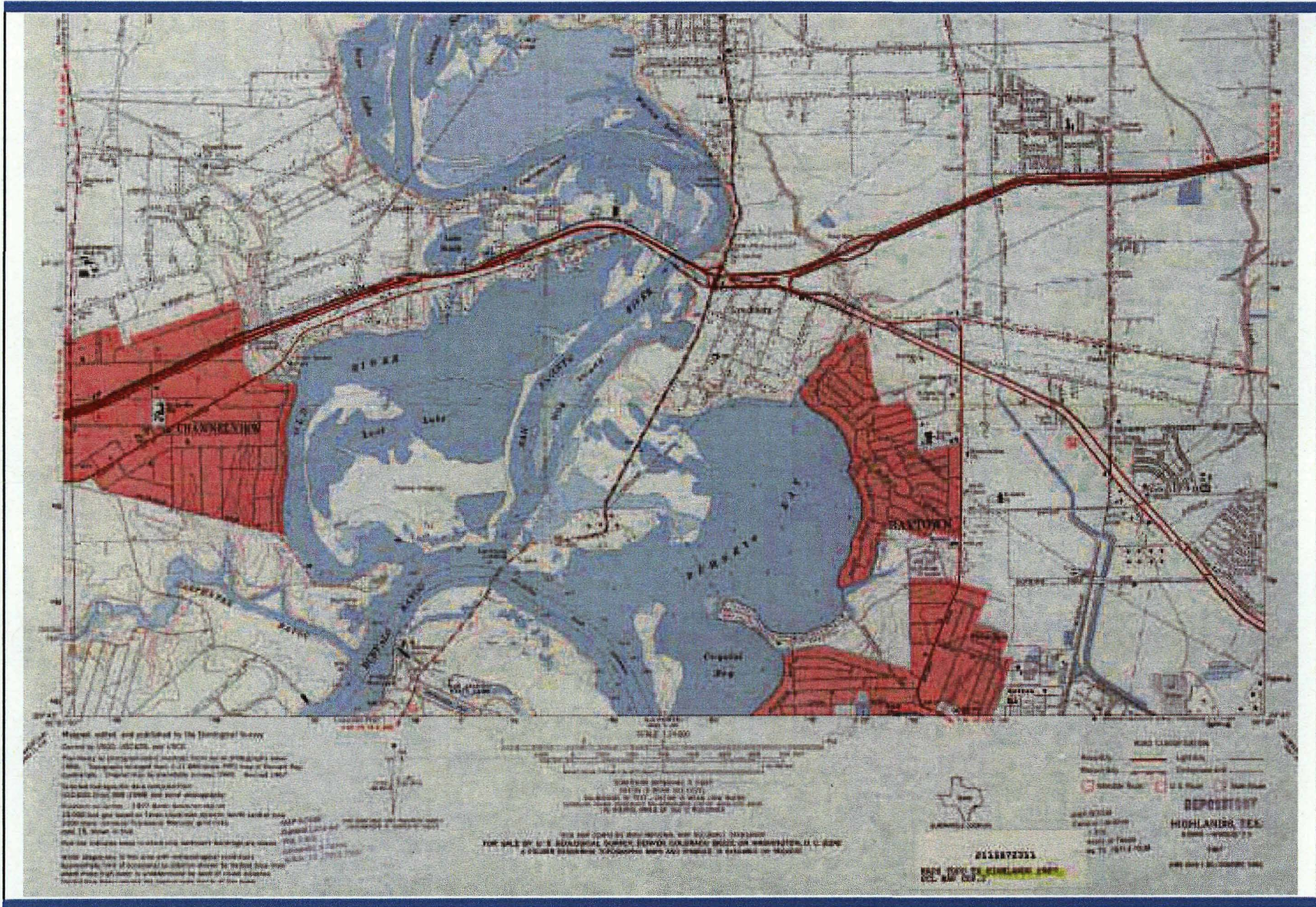


Figure 6  
 1967 Topographic Map  
 Cultural Resources Assessment  
 San Jacinto Waste Pits Superfund Site





**Figure 7**  
 Topographic Map  
 Cultural Resources Assessment  
 San Jacinto Waste Pits Superfund Site



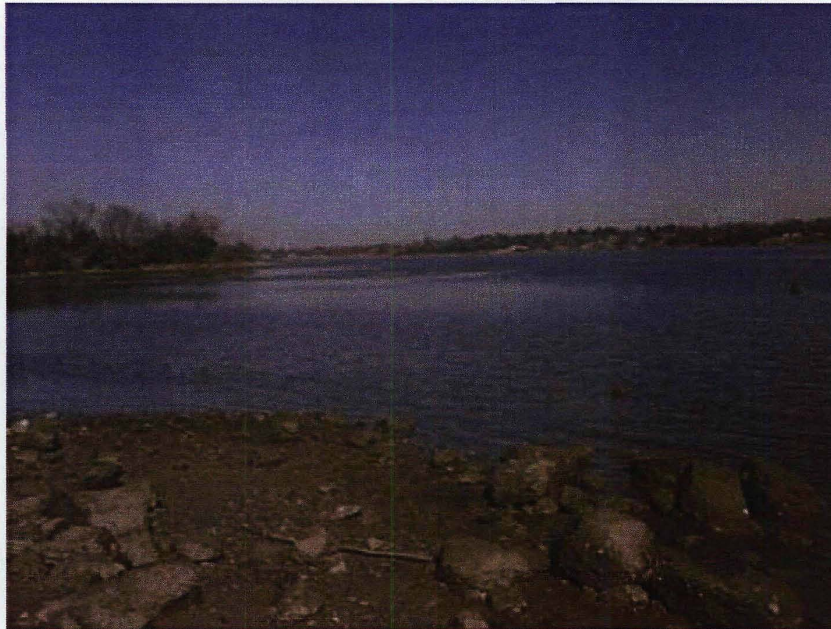
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PHOTOGRAPHS

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Photograph 1. Near the southeast corner of the eastern waste pit, looking northwest. The trees to the left of the photo are the north end of the central berm. January 2010.



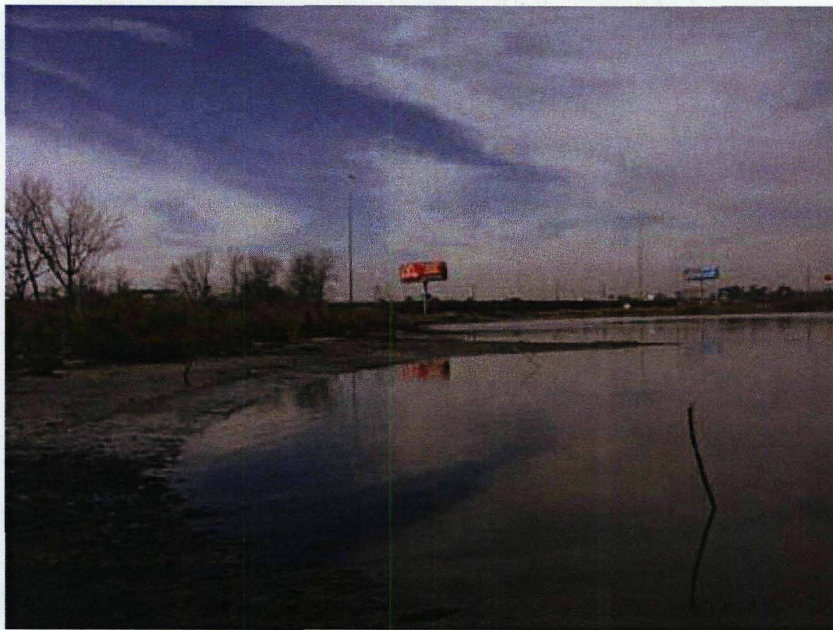
Photograph 2. The eastern waste pit from the central berm, looking southeast. January 2010.

San Jacinto Waste Pits Superfund Site  
San Jacinto





Photograph 3. Conditions in the western waste pit at high tide, looking north towards the northwest area. October 2010.



Photograph 4. At the north end of the central berm, looking southwest along the north edge of the western berm. January 2010.

San Jacinto Waste Pits Superfund Site  
San Jacinto





Photograph 5. Near the north end of the central berm, looking south along the eastern side of the berm, at unusually low tide. January 2010.

San Jacinto Waste Pits Superfund Site  
San Jacinto

APPENDIX A  
RESUME OF BARBARA BUNDY

## **BARBARA E. BUNDY**

**Cultural Resources Specialist**

### **PROFESSIONAL HISTORY**

Anchor QEA, Cultural Resources Specialist, January 2009 to Present  
Washington State Dept. of Transportation, Cultural Resources Specialist - Archaeologist, 2006 to 2008  
U.S. National Park Service, Archaeologist, 1999 to 2001 and 2003 to 2006  
U.S. National Park Service, Archaeologist on Contact, 1998 to 1999  
Afognak Native Corporation, Archaeologist – Dig Afognak Program, 1997 and 1998

### **EDUCATION**

University of Oregon, Ph.D., Anthropology, 2005  
University of Arkansas, M.A., Anthropology, 1998  
Clark Honors College at the University of Oregon, B.A., Anthropology, 1996

### **EXPERIENCE SUMMARY**

Dr. Bundy is an archaeologist with over 13 years of experience. She has prepared two monographs, several peer-reviewed articles, a National Register of Historic Places nomination, and many cultural resources surveys. Dr. Bundy specializes in managing Section 106 compliance on large projects with complex regulatory and technical issues. She has drafted Memoranda of Agreement and a Programmatic Agreement, and has extensive experience consulting with state and federal agencies and tribes. Dr. Bundy serves as Principal Investigator for archaeological studies and primary author of cultural resources reports.

### **REPRESENTATIVE PROJECT EXPERIENCE**

#### **Skagit River Bridge Modification and Interstate Highway Protection Project, Skagit County, Washington**

Dr. Bundy is managing Section 106 compliance, from initial consultation through final recommendations, on this federally-funded levee replacement project. The project area includes the dozens of historic structures, as well as two archaeological sites, one of them a deeply buried precontact site. Project tasks include writing two fieldwork research designs, managing sub-consultant fieldwork effort, and writing a Discipline Report for National Environmental Policy Act documentation.

#### **Northern Fiber Optic Link Project, Western and Northern Alaska**

Dr. Bundy provided cultural resources support for a grant application to construct a submarine fiber optic cable system serving western and northern Alaska. The grant applicant is the Kodiak-Kenai Cable Company, a joint venture of the Old Harbor Native Corporation and the Ouzunkie Native Corporation. Tasks included: writing a Cultural Resources Survey in compliance with Section 106 of the National Historic Preservation Act and U.S. Army Corps of Engineers cultural resources policy; writing a report on the ethnographic and sociocultural implications of the proposed system; and providing demographic information, cartography, writing, and editing for the grant application.

## **BARBARA E. BUNDY**

Cultural Resources Specialist

### **Alaskan Way Viaduct and Seawall Replacement Program**

Dr. Bundy served as the technical lead for Section 106 compliance for this large program of projects. She planned archaeological work, co-authored a Cultural Resources Assessment, managed consultant work, wrote two Archaeological Investigations and Monitoring Plans, and participated in consultation with state agencies and five tribes. She also drafted a Memorandum of Agreement and associated Archaeological Treatment Plan.

### **Interstate 405 Corridor Program**

Dr. Bundy took the lead in developing an innovative Section 106 Programmatic Agreement for this program of design-build projects, in consultation with agencies and tribes. The agreement is unique in addressing the cultural resources implications of the design-build process in a heavily urbanized environment with potential for deeply buried archaeological sites. She also co-authored several cultural resources reports, and continues to assist with implementation of the agreement.

### **Brooks River Cutbank Archaeological Data Recovery Project**

Dr. Bundy is the primary author of the monograph describing the Brooks River Cutbank excavation, a sensitive NAGPRA compliance project. She also served as the field crew chief and assisted in consultation with Native organizations. Dr. Bundy created interpretative materials about the project, including developing content for a project web site.

### **Newhalen Archaeology-Math Camp**

In coordination with the local school district and Native organizations, Dr. Bundy developed a curriculum for teaching math to high school students in the Lake Iliamna area using archaeological field methods. The program deepened students' connection to local heritage and improved their math scores dramatically.

### **Representative Publications and Reports List**

*Archaeological Looting and Vandalism in the Pacific Northwest: A Quantitative Analysis of Causes and Prevention.* By Barbara E. Bundy. VDM Verlag Dr. Muller Press, Saarbrücken, Germany. 2008.

Cultural Resources Assessment, Alaskan Way Viaduct & Seawall Replacement Program, Battery Street Tunnel Fire and Safety Upgrades, King County, Washington. By Barbara E. Bundy and Connie Walker Gray. July 2008. Report submitted to the Washington State Department of Archaeology and Historic Preservation.

Archaeological Investigations and Monitoring Plan, WSDOT SR 519 Intermodal Access Project Phase 2: South Atlantic Corridor, King County, Washington. By Barbara E. Bundy and Kenneth E. Juell. July 2008. Report submitted to the Washington State Department of Archaeology and Historic Preservation.



## **BARBARA E. BUNDY**

**Cultural Resources Specialist**

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Quantifying Dimensions of the Looting Problem in Alaska. By Barbara E. Bundy and Madonna L. Moss *Alaska Journal of Anthropology*. 7(2). 2007.

A Norton Tradition Village Site on the Alagnak River, Southwest Alaska. By Barbara E. Bundy. *Alaska Journal of Anthropology*. 7(1). 2007.

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Cultural Resources Survey, WSDOT I-5 124th St. Bicycle/Pedestrian Overcrossing Phase 2, Snohomish County, Washington. By Barbara E. Bundy. September 2006. Report submitted to the Washington State Department of Archaeology and Historic Preservation.

*Brooks River Cutbank: An Archeological Data Recovery Project in Katmai National Park & Preserve.* By Barbara E. Bundy, Dale M. Vinson, and Don E. Dumond. University of Oregon Anthropological Papers No. 64. Eugene, OR. 2005.

Glass Trade Beads from Reese Bay, Unalaska Island. By Barbara E. Bundy, Allen P. McCartney and Douglas W. Veltre. *Arctic Anthropology*. 40(1):28-47. 2003.

### **Grants**

National Science Foundation Dissertation Improvement Grant. Preventing Looting and Vandalism of Archaeological Sites in Alaska, Award No. OPP-0349398, May 1, 2004.

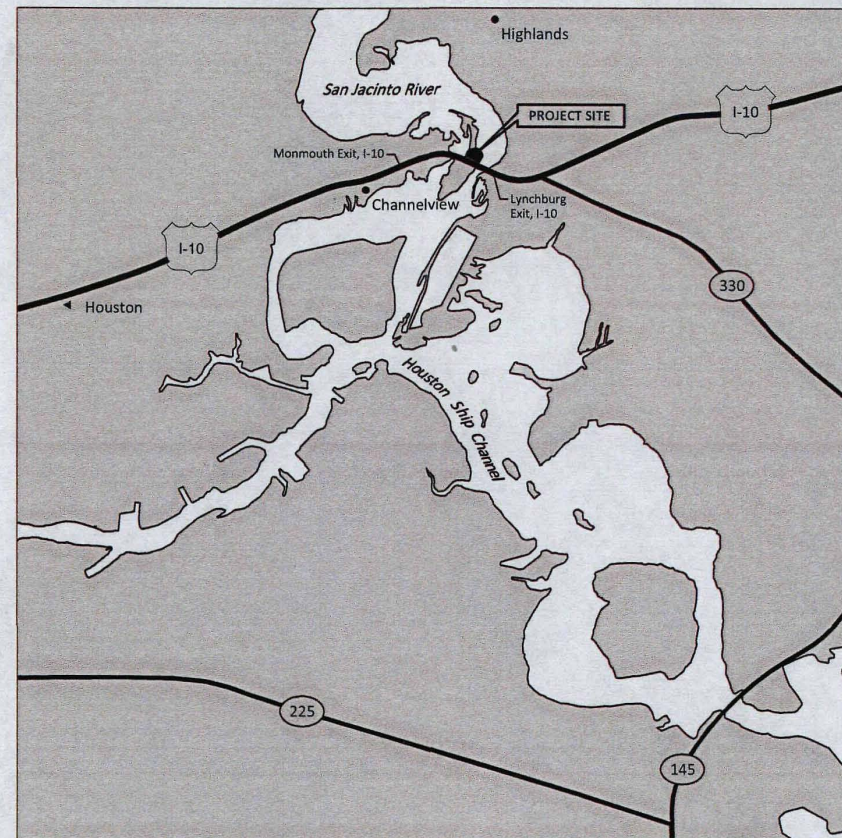
APPENDIX B  
ENGINEERING PLANS

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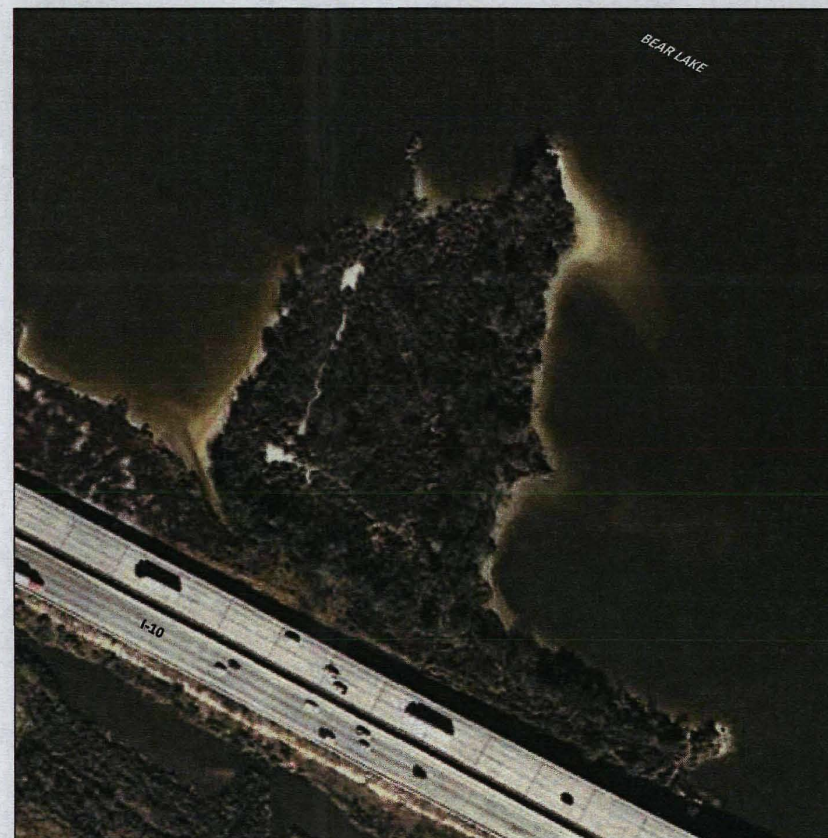
# TIME CRITICAL REMOVAL ACTION SAN JACINTO RIVER WASTE PITS SUPERFUND SITE CHANNELVIEW, HARRIS COUNTY, TEXAS

VICINITY MAP



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SITE MAP



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DRAWING INDEX

SHEET SEQUENCE	SHEET NO.	SHEET TITLE
1	T-1	COVER SHEET
2	G-1	SURVEY CONTROL PLAN
3	C-1	GEOMEMBRANE LOCATION PLAN
4	C-2	CAPPING PLAN
5	C-3	CROSS SECTIONS
6	C-4	CROSS SECTIONS
7	C-5	CROSS SECTIONS
8	C-6	CROSS SECTIONS
9	C-7	DETAILS

## GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF PROJECT SPECIFICATIONS, PERMITS AND ALL APPLICABLE REGULATIONS AND ORDINANCES.
2. THE CONTRACTOR SHALL AT ALL TIMES KEEP ITS CONSTRUCTION AREAS FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH; AND PRIOR TO COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ANY RUBBISH FROM THE PREMISES AND ALL TOOLS, EQUIPMENT, AND MATERIALS NOT THE PROPERTY OF THE OWNER.
3. THE CONTRACTOR SHALL MAINTAIN SUITABLE VESSEL TRAFFIC SAFETY SIGNS, EQUIPMENT AND MANPOWER TO PROVIDE VESSEL TRAFFIC CONTROL. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND EQUIPMENT NECESSARY TO MAINTAIN THE WATERWAYS FREE OF WASTE AND/OR DEBRIS RESULTING FROM PROJECT OPERATIONS.
4. OVERHEAD OR UNDERGROUND UTILITY LINES THAT MAY BE PRESENT ON OR NEAR THE PROPERTY ARE NOT SHOWN. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITY LINES.
5. FOR ALL SHEETS, HORIZONTAL DATUM IS TEXAS STATE PLANE SOUTH CENTRAL ZONE, NAD 83. VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM 1988 (NAVD 88). ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
6. TOPOGRAPHY AND BATHYMETRY HAS BEEN COMPILED FROM A FEBRUARY 16, 2009 AND JUNE 12, 2010 SURVEY CONDUCTED BY HYDROGRAPHIC CONSULTANTS, LTD OF BELLAIRE, TEXAS.



614 MAGNOLIA AVENUE | OCEAN SPRINGS,  
MS 39564 | (228) 818-9626

**SAN JACINTO RIVER WASTE PITS  
SUPERFUND SITE**

**TIME CRITICAL REMOVAL ACTION**

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DRAWN BY: G. HOWELL  
CHECKED BY: T. MERRITTS  
APPROVED BY: J. VERDUIN  
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DATE: NOVEMBER 2010

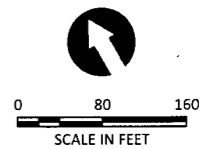
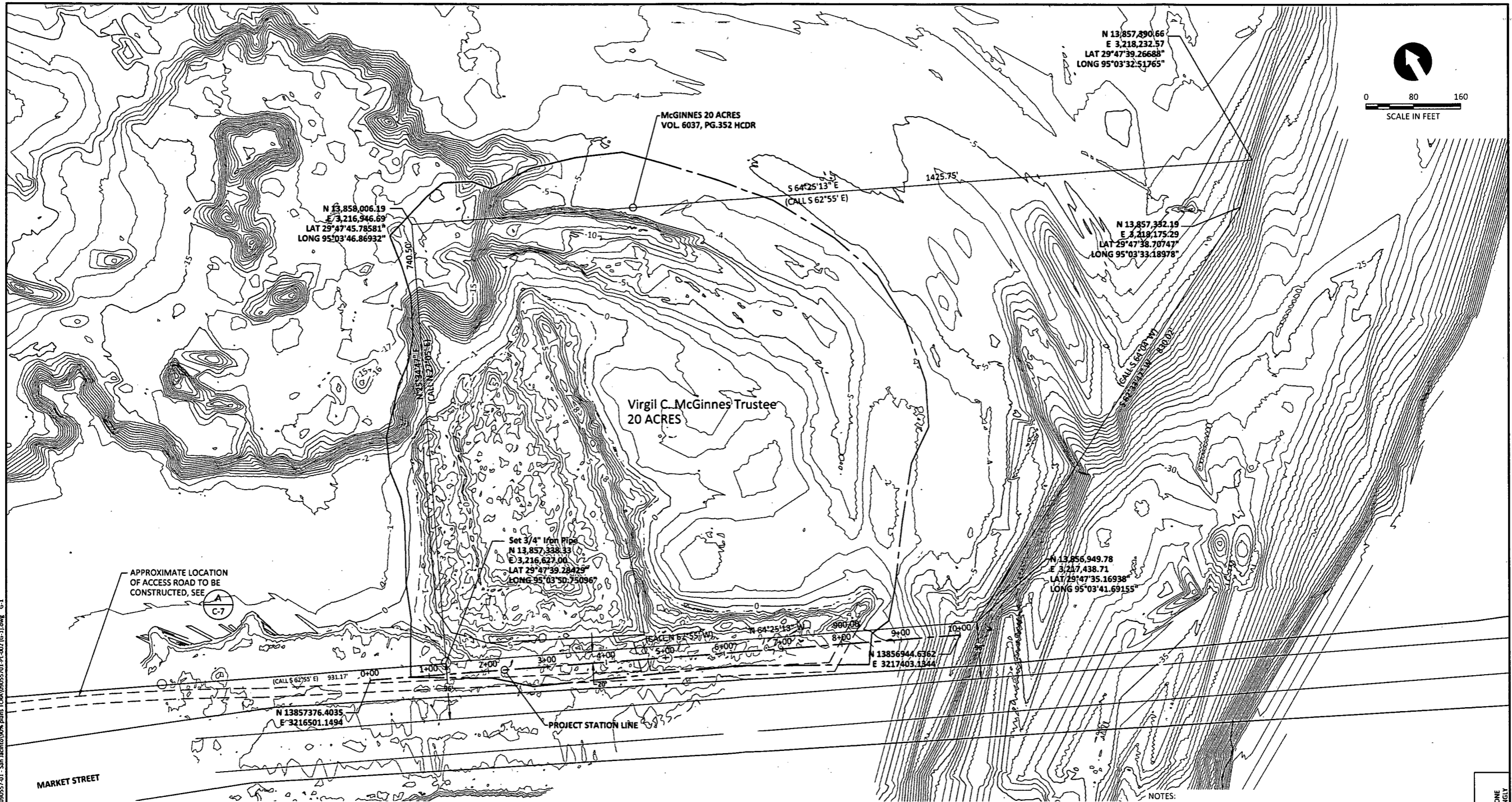
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SHEET NO. **1** OF **9**

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ANCHOR QEA, L.L.C. (F-3617)  
NOVEMBER 1, 2010

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APPROXIMATE LOCATION OF ACCESS ROAD TO BE CONSTRUCTED, SEE A-C-7

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  3. VERTICAL CONTROL: HGCS 33 (26.57' NAVD88 - TSARP)

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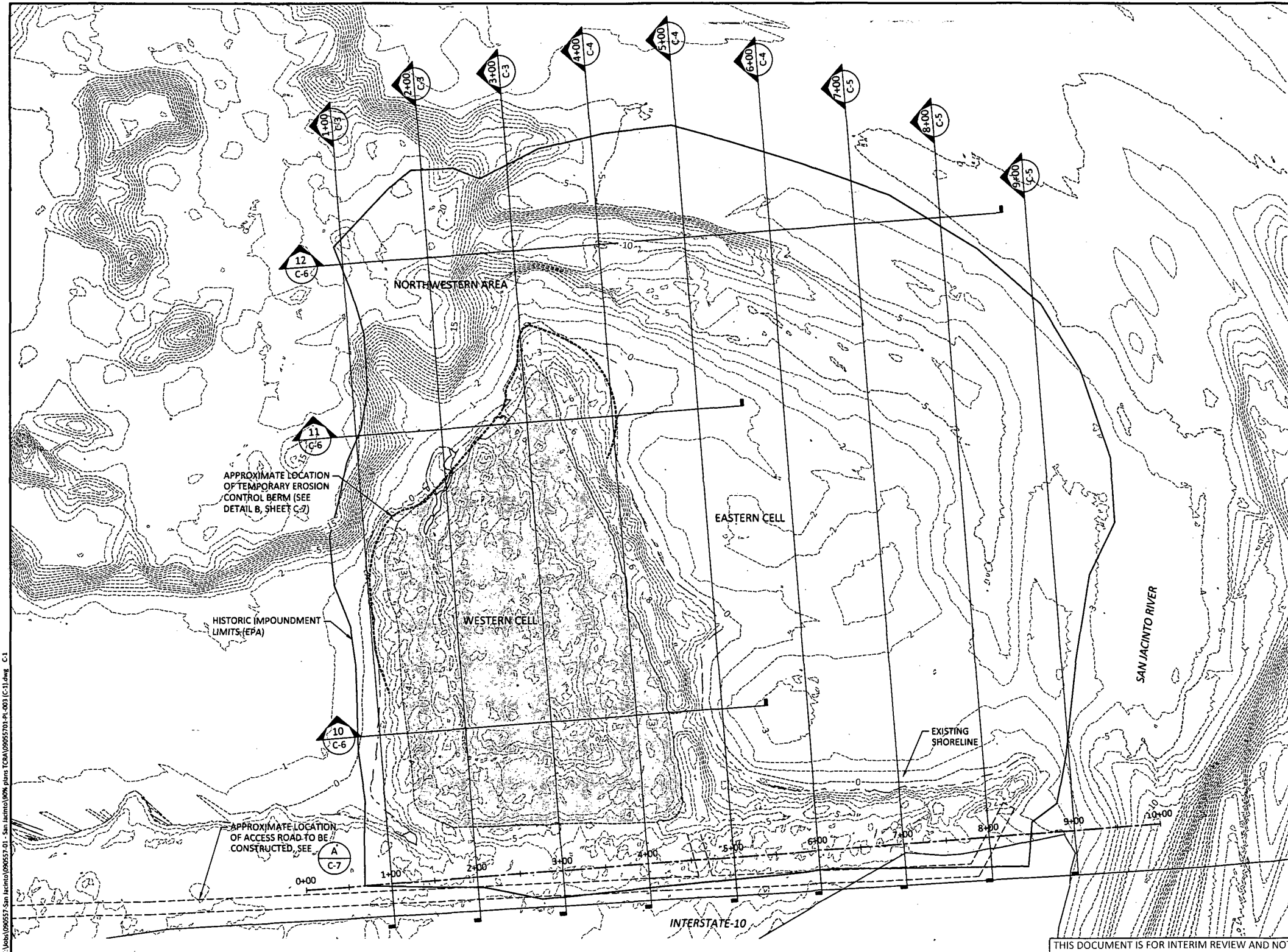
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SURVEY CONTROL PLAN

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2. VERTICAL DATUM: NAVD 88.
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- CROSS SECTION LOCATION
- EXISTING CONTOUR (1 FOOT INTERVAL)
- APPROXIMATE EXTENT OF GEOMEMBRANE LOCATION

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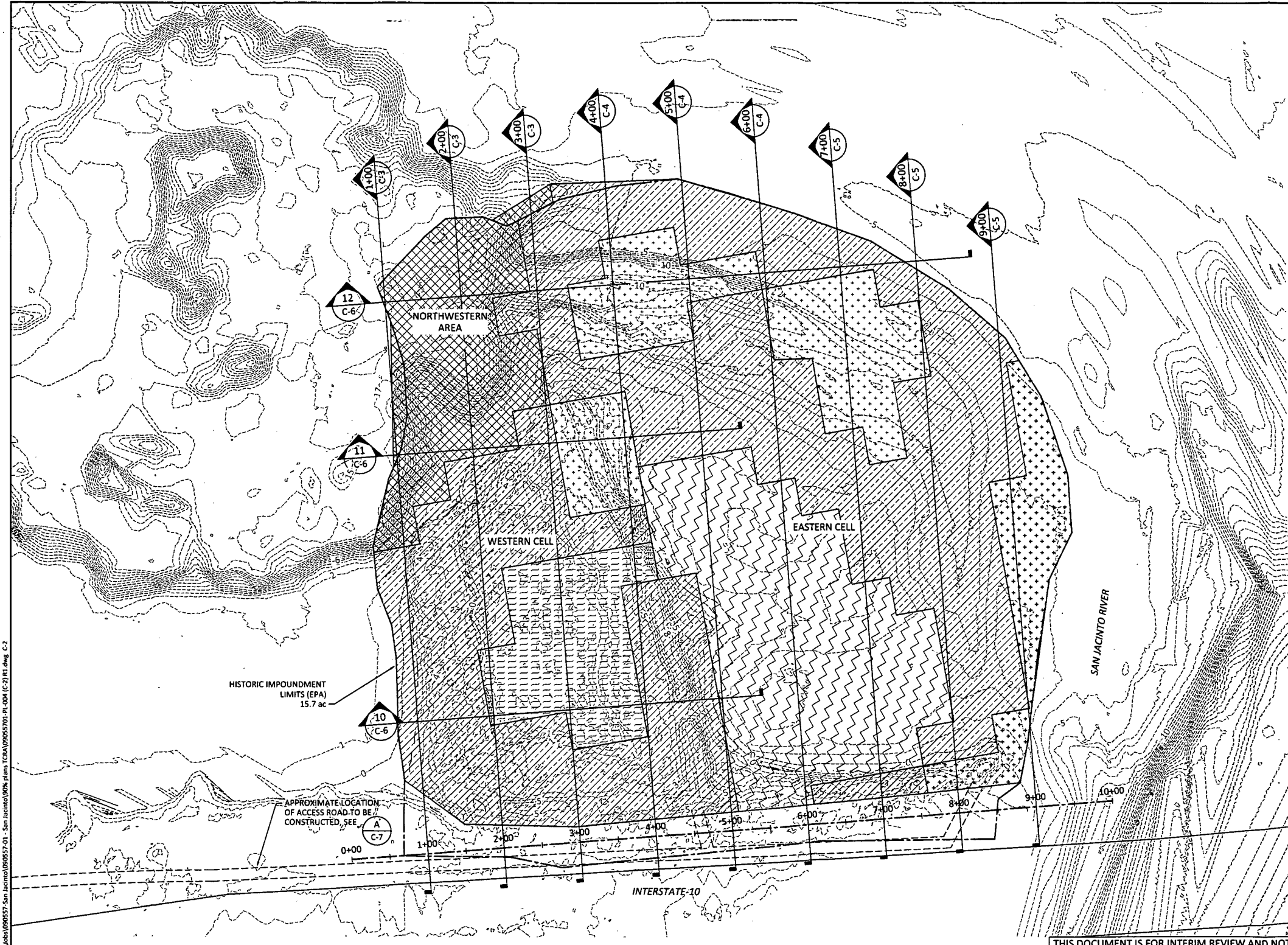
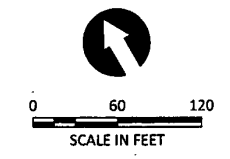
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**GEOMEMBRANE LOCATION PLAN**

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SHEET NO. 3 OF 9





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  3. SEE DETAIL J ON SHEET C-7 FOR EDGE TREATMENT.

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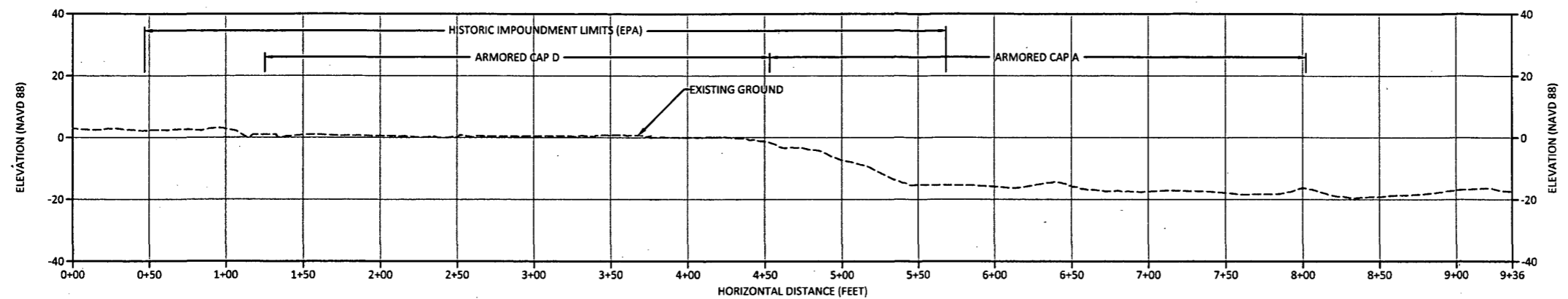
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**CAPPING PLAN**

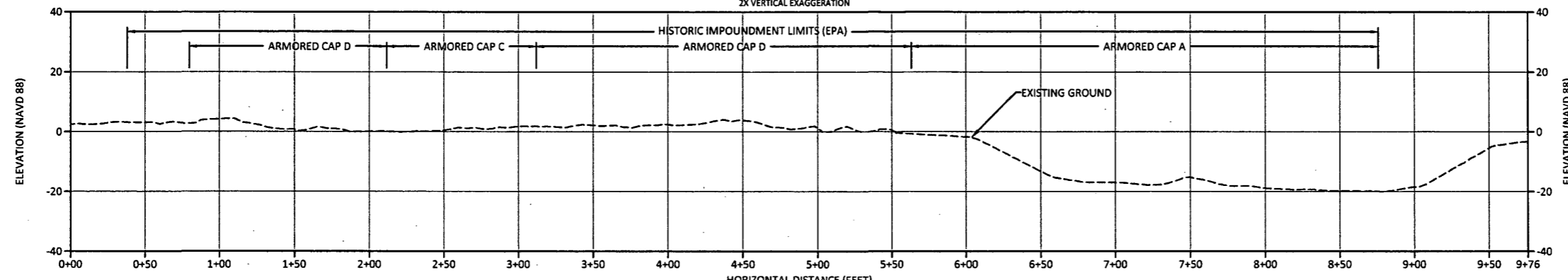
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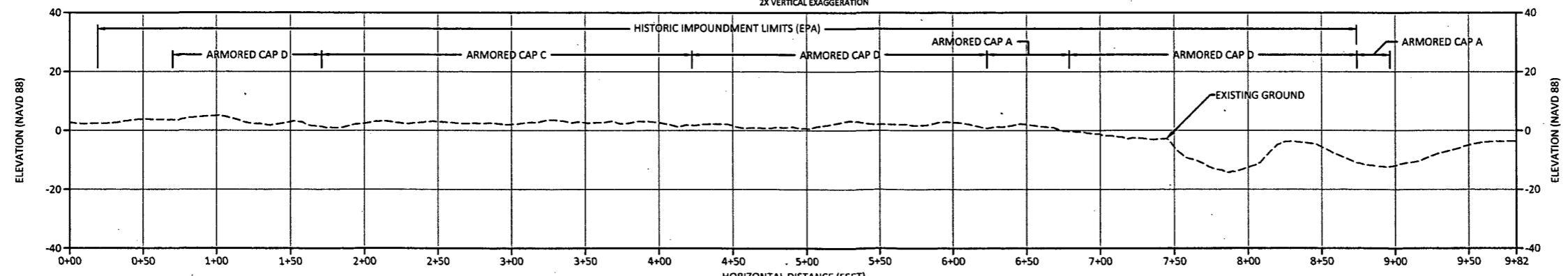




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- NOTES:
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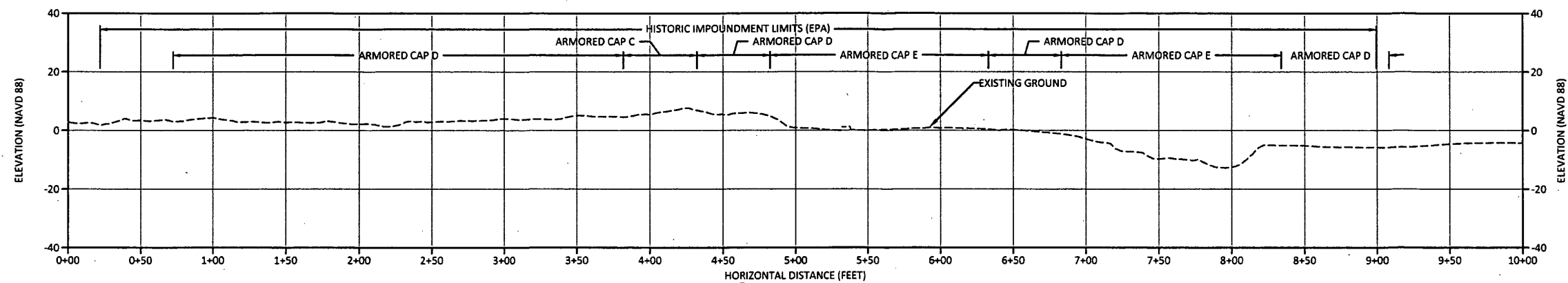
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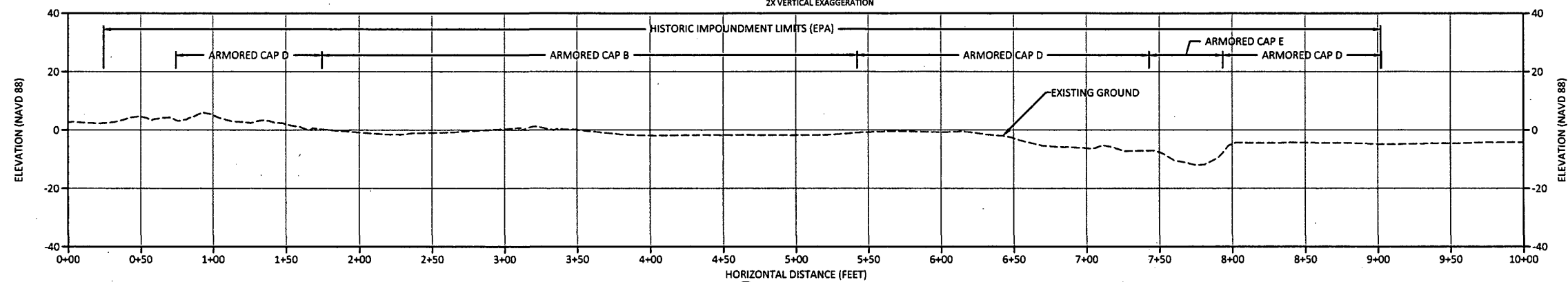
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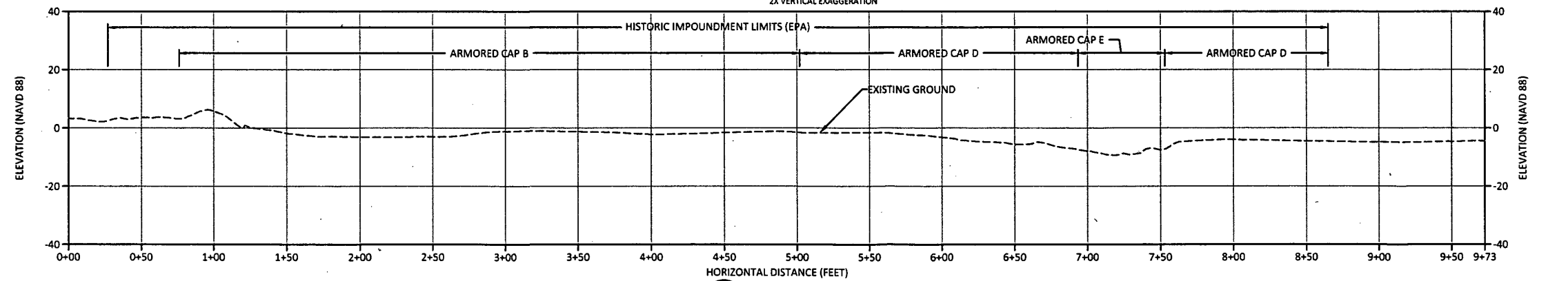
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- NOTES:
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  - VERTICAL DATUM: NAVD 88.

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AT FULL SIZE IF NOT ONE  
INCH SCALE ACCORDINGLY



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: W. MEARS/T. MERRITTS  
DRAWN BY: G. HOWELL  
CHECKED BY: J. VERDUIN  
APPROVED BY: J. VERDUIN  
SCALE: AS SHOWN  
DATE: NOVEMBER 2010

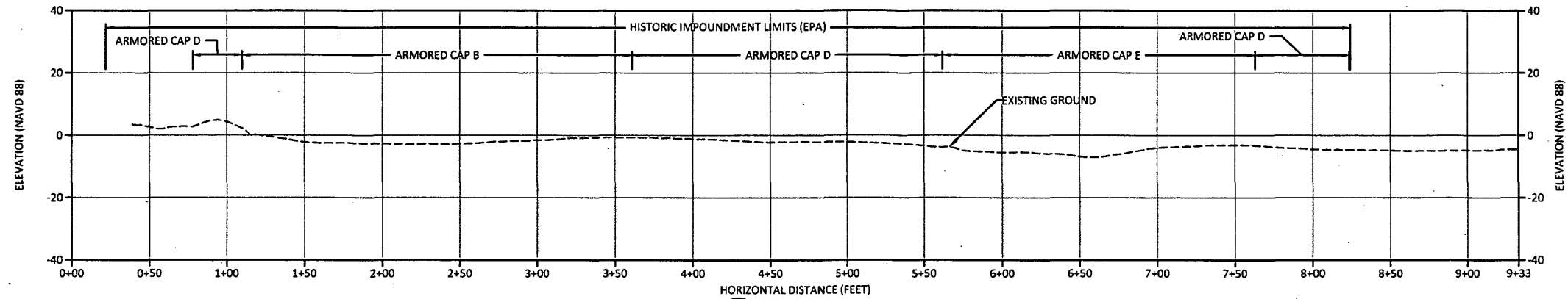
SAN JACINTO RIVER WASTE PITS SUPERFUND SITE

CROSS SECTIONS

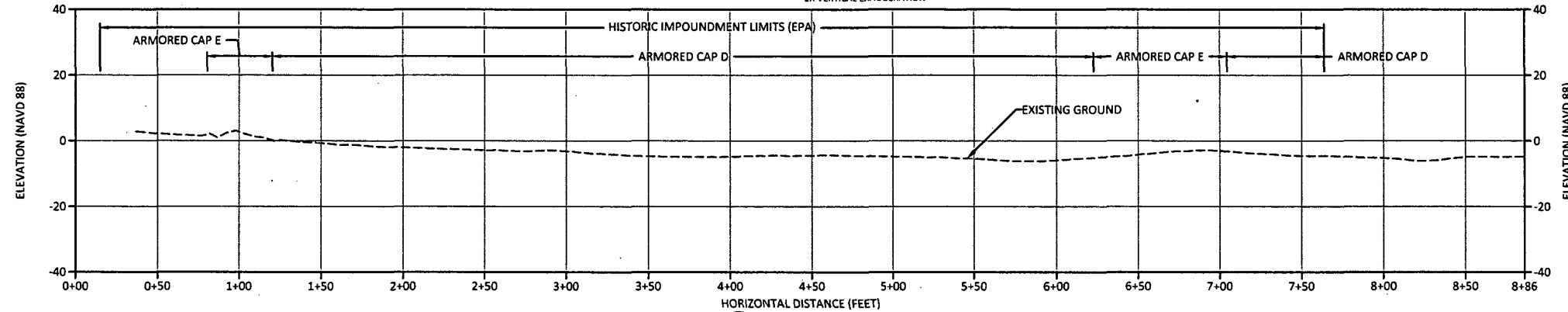
C-4

SHEET NO. 6 OF 9

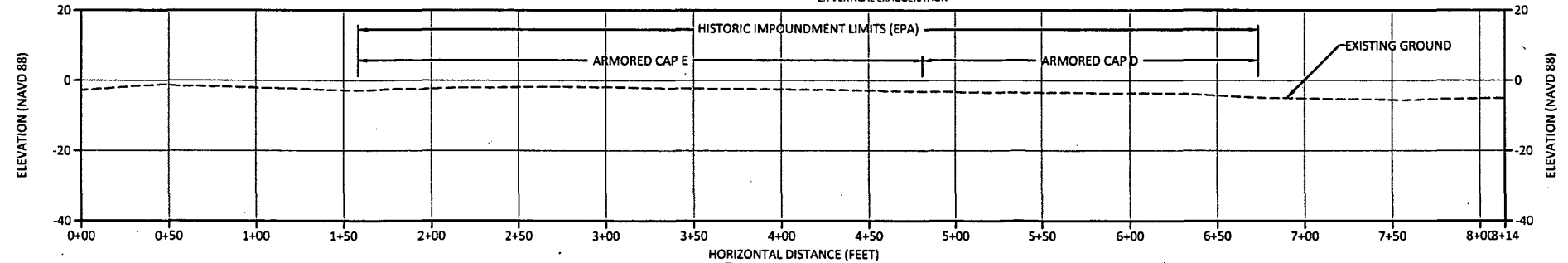




7+00 SECTION  
 C-2  
 HORIZ. SCALE: 1" = 40'  
 VERT. SCALE: 1" = 20'  
 2X VERTICAL EXAGGERATION



8+00 SECTION  
 C-2  
 HORIZ. SCALE: 1" = 40'  
 VERT. SCALE: 1" = 20'  
 2X VERTICAL EXAGGERATION



9+00 SECTION  
 C-2  
 HORIZ. SCALE: 1" = 40'  
 VERT. SCALE: 1" = 20'  
 2X VERTICAL EXAGGERATION

- NOTES:
1. HORIZONTAL DATUM: TEXAS SOUTH CENTRAL, NAD83, US SURVEY FEET.
  2. VERTICAL DATUM: NAVD 88.

JOHN VERDUIN, PE 83802  
 ANCHOR QEA, L.L.C. (F-3617)  
 NOVEMBER 1, 2010

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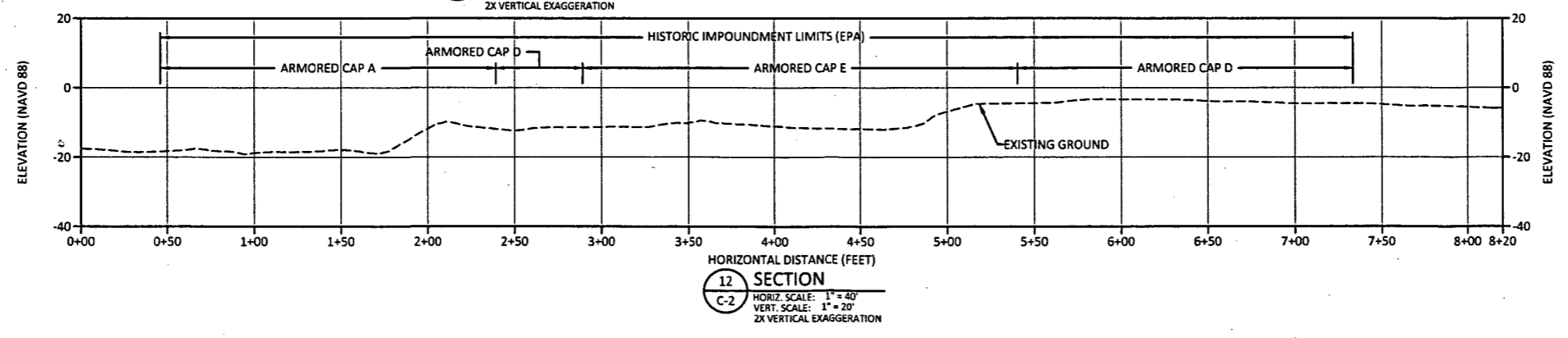
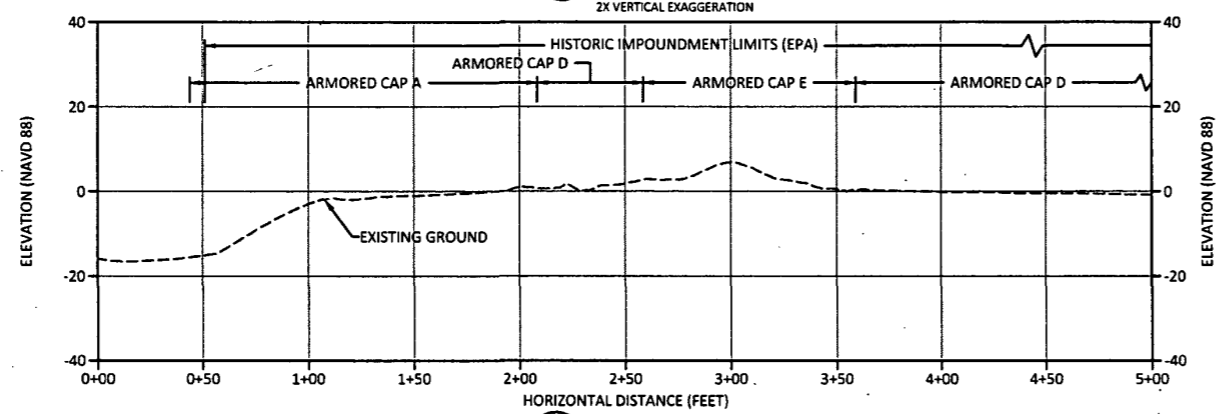
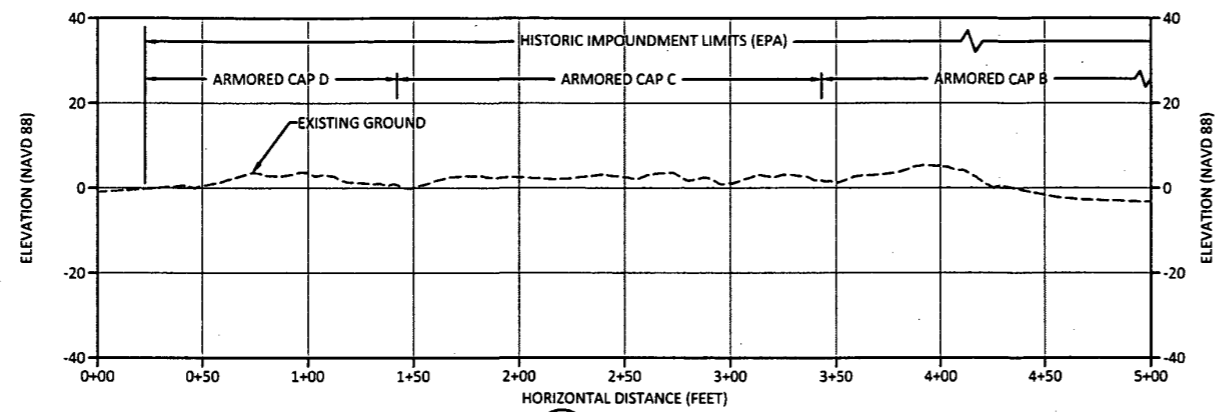
SAN JACINTO RIVER WASTE PITS SUPERFUND SITE

CROSS SECTIONS

C-5

SHEET NO. 7 OF 9

Aug 26, 2010 2:35 PM c:\admin\K:\John\090557-San Jacinto\090557-01 - San Jacinto\090557-01-PI-005 (C-3 C-6) RI.dwg C-5

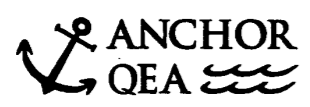


- NOTES:
1. HORIZONTAL DATUM: TEXAS SOUTH CENTRAL, NAD83. US SURVEY FEET.
  2. VERTICAL DATUM: NAVD 88.

JOHN VERDUIN, PE 83802  
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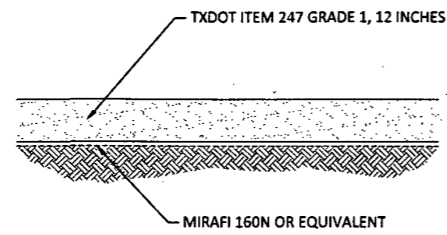
SAN JACINTO RIVER WASTE PITS SUPERFUND SITE

CROSS SECTIONS

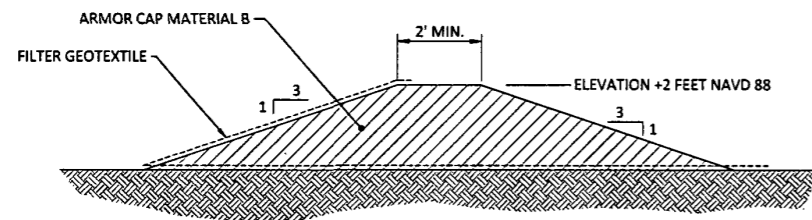
C-6

SHEET NO. 8 OF 9

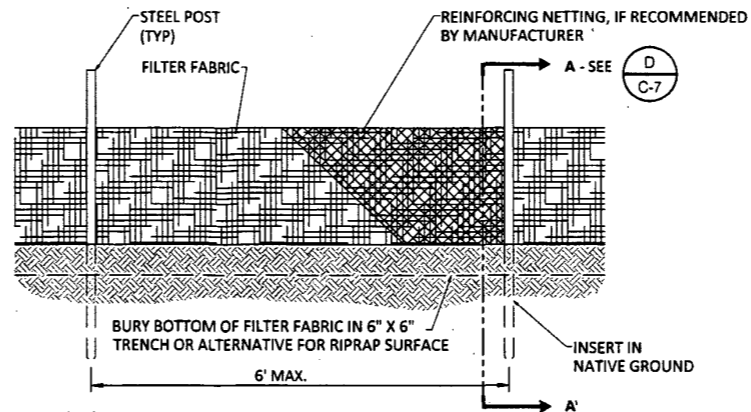




**A ACCESS ROAD**  
C-1 SCALE: NTS



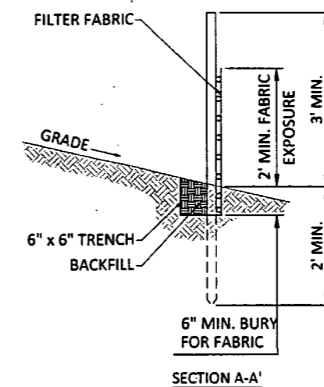
**B TEMPORARY EROSION CONTROL BERM**  
C-1 SCALE: NTS



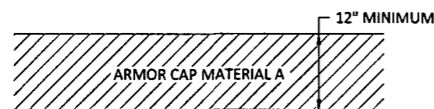
NOTES:

1. SILT FENCE MATERIAL SHOULD BE POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE WOVEN OR NON-WOVEN FABRIC. THE FABRIC WIDTH SHOULD BE 36 INCHES, WITH A MINIMUM UNIT WEIGHT OF 4.5 OZ/YD, MULLEN BURST STRENGTH EXCEEDING 190 LB/IN 2, ULTRAVIOLET STABILITY EXCEEDING 70%, AND MINIMUM APPARENT OPENING SIZE OF U.S. SIEVE NO. 30.
2. FENCE POSTS SHOULD BE MADE OF HOT ROLLED STEEL, AT LEAST 4 FEET LONG WITH TEE OR Y-BAR CROSS SECTION, SURFACE PAINTED OR GALVANIZED, MINIMUM NOMINAL WEIGHT 1.25 LB/FT 2, AND BRINDELL HARDNESS EXCEEDING 140.
3. WOVEN WIRE BACKING TO SUPPORT THE FABRIC SHOULD BE GALVANIZED 2" X 4" WELDED WIRE, 12 GAUGE MINIMUM.
4. SPLICE JOINTS AT SUPPORT POSTS ONLY, WITH A MIN. 6 IN. OVERLAP.
5. ANGLE ENDS OF SEDIMENT FENCE UPHILL TO ASSURE SOIL/SEDIMENT IS TRAPPED.

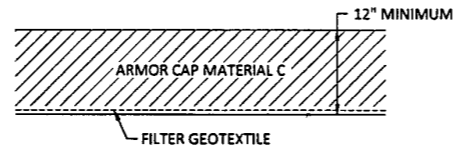
**C SEDIMENT FENCE DETAIL - ELEVATION**  
C-1 SCALE: NTS



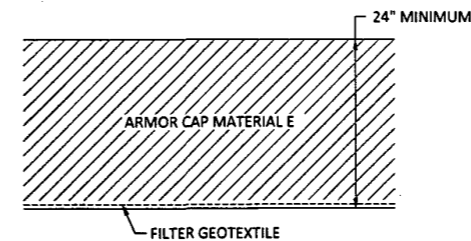
**D SEDIMENT FENCE SECTION A-A'**  
C-1 SCALE: NTS



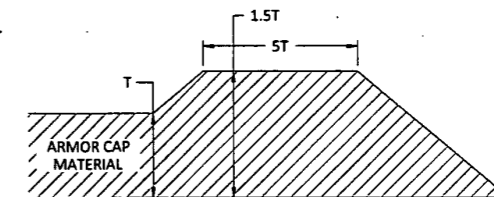
**E ARMORED CAP A**  
C-2 SCALE: NTS



**G ARMORED CAP C**  
C-2 SCALE: NTS

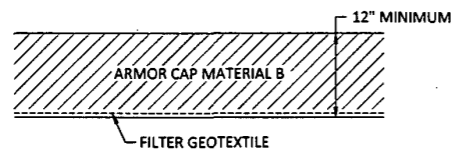


**I ARMORED CAP E**  
C-2 SCALE: NTS

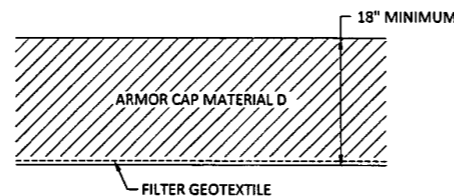


**J ARMORED CAP WATER EDGE DETAIL**  
C-2 SCALE: NTS

- NOTES:
1. THIS EDGE DETAIL SHALL BE APPLIED TO ALL ARMORED CAP EDGES BELOW ELEVATION 0 FEET NAVD 88.



**F ARMORED CAP B**  
C-2 SCALE: NTS



**H ARMORED CAP D**  
C-2 SCALE: NTS

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ANCHOR QEA, L.L.C. (F-3617)  
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Aug 26, 2010 2:35 PM cadvelson K:\Jobs\090557-San Jacinto\090557-01-San Jacinto\090557-plans\TCEA\09055701-01-C06 (C-7).dwg C-7



REVISIONS				
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DRAWN BY: G. HOWELL  
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SAN JACINTO RIVER WASTE PITS SUPERFUND SITE

DETAILS

C-7

SHEET NO. 9 OF 9



APPENDIX C  
LETTERS DELEGATING AUTHORITY



# McGinnes Industrial Maintenance Corporation

1000 Parkwood Circle-Suite, 4000 • Atlanta, Georgia 30339 • 770-805-3520 • 713-286-7453 Fax

November 10, 2010


Mr. Mark Wolfe  
State Historic Preservation Officer  
Texas Historical Commission  
P.O. Box 12276  
Austin, Texas 78711

Dear Mr. Wolfe:

The United States Environmental Protection Agency (USEPA) has entered into an Administrative Order on Consent (AOC) with International Paper Company (IPC) and McGinnes Industrial Maintenance Corporation (MIMC) (Docket No. 06-12-10, April 2010) regarding the San Jacinto River Waste Pits Superfund site. USEPA is responsible for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, for actions taken under the AOC. This consultation is intended to address compliance with a portion of the Applicable Relevant and Appropriate Requirements (ARARs) identified in the Work Plan prepared under the AOC.

Our company recognizes Anchor QEA, LLC (Anchor QEA) as our agent for this and other local, state, and federal consultations necessary to support our demonstration of substantive compliance with the ARAR's. Anchor QEA has the authority to represent our project and submit necessary materials to agencies on our behalf.

Sincerely,  
McGinnes Industrial Maintenance Corporation



March Smith  
Vice-President



Environment Health & Safety  
INTERNATIONAL PLACE, TOWER III  
6400 Poplar Avenue  
Memphis, TN 38197  
(901) 419-3845

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Very truly yours,

INTERNATIONAL PAPER COMPANY

A handwritten signature in black ink, appearing to read "Philip J. Slowiak".

Philip J. Slowiak, CSP, CHCM  
Senior Project Manager