# Exhibit HH. I-12 Industrial Site Phase I Cultural Resources Assessment Report 



## I-12 Industrial Site Phase I Cultural Resources Assessment Report

## Louisiana Division of Archaeology <br> Report No. XX-XXXX

Negative Findings Report
Phase I Cultural Resource Survey
I-12 Industrial Site
in
Tangipahoa Parish, LA

Prepared for:
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December 2018

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December 2018

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#### Abstract

In October and December of 2018, ELOS Environmental, LLC (ELOS) conducted a Phase I cultural resource survey of 261.02 acres ( 105.63 hectares) in Tangipahoa Parish, Louisiana, between Robert and Covington, for a proposed Louisiana Economic Development (LED) Certified Industrial Site-Interstate 12 (I-12) Industrial Site. The Phase I was completed as part of the due diligence action items that must be completed for LED certification and in fulfillment of the requirements of Section 106 of the National Historic Preservation Act of 1966 as amended. The purpose of this Phase I was to locate, evaluate, and record all cultural resources, and, if possible, make recommendations of eligibility to the National Register of Historic Places (NRHP). A total of 508 shovel tests were excavated. No new archaeological sites, cultural resources, or isolated finds were found. Therefore, potential development of the will have no effect on historic resources located within the area of potential effect (APE). No further cultural resources work is recommended. A copy this report and all records of this project will be curated with the Louisiana State Historic Preservation Officer (SHPO) in Baton Rouge, Louisiana.


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## ACKNOWLEDGEMENTS

ELOS Environmental, LLC (ELOS) has prepared this report for development of a potential industrial site in Tangipahoa Parish, Louisiana. Martin J. Healey, M.A., R.P.A. served as the Principal Investigator for this project. The report was authored by Martin Healey M.A., R.P.A. and Walter Hano, M.A., R.P.A., with contributions by Carey Lynn Perry, Brittany Berthelot, Jesse McQuigg, and Flynn Daigle, who served as Project Manager. ELOS would like to thank the Louisiana State Historic Preservation Officer's (SHPO) staff for their guidance and assistance. ELOS would also like to thank the field crew for their hard work and dedication, including: Martin Healey, who served as Field Director, Walter Hano, who served as crew chief, Sarah Giles, Eric Poche, Wren Vicknair, Adam Price, Taston Brookshire, Heart Faust, and Jonathan Damiens. The authors also thank ELOS principals, Jay Prather and Lucas Watkins, for their continued support for the Cultural Resource Program.

### 1.0 INTRODUCTION

### 1.1 Project Description and Lead Agency

ELOS Environmental, LLC (ELOS) conducted a Phase I cultural resource survey of 261.02 acres (105.63 hectares) in Tangipahoa Parish, Louisiana, between Robert and Covington, for a proposed Louisiana Economic Development (LED) Certified Industrial Site-Interstate 12 (I-12) Industrial Site. The Phase I was completed as part of the due diligence action items that must be completed for LED certification and in fulfillment of the requirements of Section 106 of the National Historic Preservation Act of 1966 as amended. As no plans have been developed, it is not possible to describe future development plans. ELOS was retained by CSRS, working under a grant from the LED and Reimers Company, LLC, to conduct both environmental and cultural resources due diligence investigations.

The Project Area is an approximately 261.02-acre tract located on the south side of U.S. Highway 190 (US 190) in Tangipahoa Parish, Louisiana east of the Florida Parishes Juvenile Detention Center (Figure 1). It is situated in Section 25; Township 6 South - Range 9 East. Coordinates of the center point of the direct Area of Potential Effect (APE) are approximately latitude $30^{\circ} 30^{\prime}$ $04.061^{\prime \prime} \mathrm{N}$ and longitude $90^{\circ} 15^{\prime} 14.328^{\prime \prime} \mathrm{W}$. The direct APE is the entire 261.02-acre tract located south of US 190 just west of the St. Tammany Parish and Tangipahoa Parish line (Figure 2). The indirect APE included a 1-mile radius (1.61 kilometers) of the direct APE (Figure 2).

The purpose of this Phase I was to locate, evaluate, and record all cultural resources and if possible, make recommendations of eligibility to the National Register of Historic Places (NRHP). ELOS estimated that approximately 66.5 acres would have a high probability to contain cultural resources due to the presence of a historic railroad foundation running east to west across the site, the proximity to Bedico Creek and associated tributaries, and associated ridges looking over waterways that have a high probability to contain prehistoric sites. The remaining 194.5 acres were considered to have a low probability to contain cultural resources.

This Phase I survey complied with Section 106 of the National Historic Preservation Act (NHPA), as amended by 16 U.S.C. 407 f and with its implementing regulations 36 CFR Part 800 . The assessment was overseen by a professional archaeologist meeting the qualifications as specified in the Secretary of the Interior's Professional Qualification Standards (Federal Register, Vol. 48, No. 190, Thursday, Sept 29, 1983, pp 44738-44739).

### 1.2 Key Personnel and Dates of Work

From October 17 to October 18 (high probability area) and December 4 to December 7, 2018 (low probability area), Martin Healey, Walter Hano, Sarah Giles, Eric Poche, Wren Vicknair, Adam Price, Taston Brookshire, Heart Fanst, and Jonathan Damiens, of ELOS, conducted a Phase I cultural resource survey of the 261.02-acre (105.63-hectare) Project Area. The investigation was conducted in accordance with the 2018 Phase I cultural resource survey guidelines, as established by the Louisiana Office of Cultural Development, Division of Archaeology. A total of 508 shovel test pits were excavated, 166 were in the high probability area and 342 were in the low probability area.



F:IKLE\CSRS I-12 Industrial Site\GIS Maps\Cultural Resources\Figure 2_Area of Potential Effect

### 2.0 LAND USE HISTORY

### 2.1 Natural Setting of Project Area

The APE consists of 261.02 acres of forested land located west of the Florida Parishes Juvenile Detention Center in Tangipahoa Parish, Louisiana. The Project Area is accessible from US 190 on the north. This section of US 190 has been a part of the US highway network since the 1920s and is currently striped as a two-lane highway. The Project Area is also accessible from a dirt road, which was once a railroad line, that runs through the site, which is accessible from Fire Tower Road.

The project area is located within the Southern Coastal Plain Ecoregion of Louisiana, according to the 2018 Louisiana's Comprehensive Archaeological Plan (Girard et al. 2018). This region consists of late Pleistocene terraces with Holocene-age alluvial and deltaic deposits along the coast. It represents approximately $2.0 \%$ of the state. The uplands consist of gently rolling topography dissected by north-south trending streams and rivers. Cherty gravels derived from the Pleistocene sediments accumulate in stream beds. Upland vegetation is dominated by long-leaf pine forests with occasional open savannas on level upland surfaces. Holocene alluvial deposits are in floodplains and on low terraces along the major streams, particularly the Pearl River. These areas have riverine swamp forest vegetation regimes dominated by oaks, bald cypress, and water tupelo. Sites in the upland areas are concentrated on higher ridge crests and overlooking streams. Most of these deposits are shallow with overlapping occupations and no opportunity for stratified sites. Buried and stratified sites may occur in the floodplains of the larger streams.

The direct APE contains tree stratum vegetation such as live oak (Quercus virginiana), blackjack oak (Quercus marilandica), red oak (Quercus phellos), water oak (Quercus nigra), loblolly pine (Pinus taeda), sweetbay magnolia (Magnolia virginiana), blackgum (Nyssa sylvatica), American holly (Ilex opaca), red maple (Acer rubrum), swampbay (Persea borbonia), winterberry (Ilex glabra), southern wax myrtle (Morella cerfifera), and American sweetgum (Liquidambar styraciflua). Herb, shrub, and vine vegetation included muscadine (Vitus rotundifolia), yaupon (Ilex vomitoria), slender woodoats (Chasmanthium laxum), southern waxy sedge (Carex glaucescens), roundleaf greenbrier (Smilax rotundifolia), poison ivy (Toxicodendron radicans), southern dewberry (Rubus trivialis), seven-angled pipewort (Eriocaulon aquaticum), foxtail bogclubmoss (Lycopodiella alopecuroides), St. John's wort (Hypericum perforatum), and whiskey grass (Andropogon virginicus). The flora within the project area provide food and habitat for small and large mammals, birds, and reptiles that would have been a source of food during the prehistoric and historic periods.

The modern climate of Tangipahoa Parish is humid, with warm summers and mild winters. Summer temperatures average 27.8 degrees Celsius $\left({ }^{\circ} \mathrm{C}\right)\left(82\right.$ degrees Fahrenheit $\left.\left[{ }^{\circ} \mathrm{F}\right]\right)$, with an average daily high of $31.7^{\circ} \mathrm{C}\left(89^{\circ} \mathrm{F}\right)$. Winter temperatures average $12.7^{\circ} \mathrm{C}\left(55^{\circ} \mathrm{F}\right)$, with an average daily low of $8.9^{\circ} \mathrm{C}\left(48^{\circ} \mathrm{F}\right)$. Humidity is highest at night, with an average dawn relative humidity of 87 percent and an average midafternoon relative humidity of 63 percent. The total annual rainfall is approximately 147.3 cm ( 58 in ), some 67 percent of which falls during the growing season of March to October. Summers see the most thunderstorms, while the parish experiences roughly 70 days with rainfall overall. Severe thunderstorms and tornadoes are occasional, and every few years the parish receives a hurricane.

### 2.2 Geomorphology of Project Area and its Potential Effect on Sites

The APE for this project is located in the Florida Parishes of Louisiana. The surface geomorphological characteristics for this region are determined by a series of terraces with their origins in the Pleistocene geological epoch. These terraces are arranged like steps in profile that descend from north to south. A great deal of discussion about the exact number and proper naming of these terraces has taken place among geologists and others since the turn of the century. What has been agreed upon, however, is that this terracing was the product of the fluctuations in eustatic sea level, and that it has caused rivers in the area to alternately incise and then silt in their floodplains over the millennia (Saucier 1963). In addition, the collection of sediment below the lower terraces has caused the upper terraces to be uplifted due to the subcrustal flow of the sediment weight.

The chief geomorphological characteristic of the Florida Parishes is essentially defined by the north to south flow of the major streams in the region (Figure 3). The Amite River on the west and the Pearl River on the east geographically bracket streams such as the Tickfaw, Tangipahoa, Bayou Lacombe, Natalbany, Bogue Chitto, and their tributaries, that flow into the Pontchartrain Basin. Because of their high gradients, these streams are deeply incised and have relatively narrow floodplains (Figure 4).

A modified version of the Tangipahoa Soil Survey with the APE was presented in Figure 5. The soil survey illustrates that the APE lies over Myatt fine sandy loam (Mt and My) and Stough fine sandy loam (St). The soils belong to the Myatt-Stough association and support pasture, range and southern pine forest. Myatt soils, which occur in the depressed areas, comprise 60 percent of the association and the Stough soils, in the level to depressed areas, make up 30 percent of the association (USDA 1971). Myatt soils have a gray fine sandy loam surface and a gray sandy clay loam subsoil, while Stough soils have a pale brown fine 4 sandy loam surface and a yellowishbrown fine sandy loam subsoil with gray mottles. Okenee, Prentiss, Kalmia, and Cahaba soils form most of the remainder of the association (USDA 1971).

Myatt fine sandy loam (Mt), 0 to 1 percent slopes, is a poorly drained, hydric soil that is generally found on stream terraces on coastal plains. The parent material consists of Pleistocene fluviomarine deposits. Organic matter content in the surface horizon is about 2 percent. The nonirrigated land capacity classification is 3 w , and the soil is not flooded. Unlike Myatt fine sandy loam (Mt), Myatt fine sandy loam (My) is classified has having non-irrigated land capacity of 4 w . The soil is occasionally flooded. Otherwise the soils are relatively the same.

Stough fine sandy loam (St), 0 to 1 percent slopes, is a somewhat poorly drained, non-hydric soil generally found on flatwoods on coastal plains. The parent material consists of loamy alluvium derived from sedimentary rock. Organic matter content in the surface horizon is about 3 percent. The non-irrigated and irrigated land capacity classification is 2 w .




### 2.3 Overview of Historic Land Use and its Potential for Impacts to Sites

The Native Americans that inhabited this area were a sub-tribe of the Acolapissa, known as the Tangipahoa. It was these Native Americans that were inhabiting the area when the French explorers, and brothers, Bienville and Iberville, arrived to colonize Louisiana. The southern boundary of Tangipahoa Parish was part of route used by Native Americans to travel from Mobile, Alabama and Pensacola, Florida and through Pass Manchac to Illinois and the Great Lake regions

Historical topographic maps from 1911, 1935, 1942, 1954, 1962 (Figures 6, 7, 8, and 9), show that the APE has been undeveloped and forested with the exception of the abandoned railway. A now abandoned railway runs east to west through the southern portion of the APE. According to the 1911 South Texas Land Co. map (Figure 6), the rail line was the Yazoo and Mississippi Valley railroad (Y\&MV). The Y\&MV railroad was established in 1882 and was part of the Illinois Central Railroad system (IC). Construction began in Jackson, Mississippi and continued to Yazoo City, Mississippi. The line was later expanded throughout the Mississippi Delta and on to Memphis, Tennessee. In 1886, the IC purchased the Mississippi and Tennessee Railroad, and in 1892, the IC also bought the Memphis to New Orleans line, forming the Louisville, New Orleans and Texas Railway (Howe et al. 2009). These lines were then merged into the Y\&MV. Between 1945 and 1946, the IC began to absorb its subsidiaries (Howe et al. 2009). The Y\&MV Railroad ceased to operate as an independent railroad, and later railroad restructuring ended passenger service on this line. At the time of the survey, all that remains of the railroad is a dirt road that is utilized by the Blue Swamp Creek Hunting Club.

Aerial images from 1954 through present (Figure 10), confirm that the APE has been forested and used for silviculture operations. These sources, also illustrate the majority use of adjoining properties as forested, undeveloped land. Aerial images from 1954 depict a less dense landscape of vegetation, which suggests that timber was harvested from the property. Field investigations resulted in observations of rows of trees, typically found on land that is managed for timber production, which was regenerated by artificial regeneration (planting seedling trees).

The Florida Parishes Juvenile Detention Center was constructed in October 1992 and remains a maintained development directly adjacent to the east of the APE. There are also three streams that drain into Bedico Creek, located to the west of the APE. Topographic maps from 1935 and 1951 show another feeder creek located on the southwest of the APE. The creek is not shown in any other topographic map after 1951. Remnants of the creek remain based on field observations by ELOS (2018). The IC Railroad (now abandoned) runs east to west through the APE and can be seen on historical topographic maps and aerials.






|  |  | Legend: $\square$ Direct APE $\qquad$ Roadway |
| :---: | :---: | :---: |
| environmental <br> 43177 East Pleasant Ridge Road Hammond, Louisiana 70403 <br> P. 985-662-5501, F. 985-662-5504 | -12 Industrial Site | This figure was prepared utilizing public and proprietary data. It should not be used to establish any legal boundaries or specific locations. ELOS Environmental, L.L.C., is not responsible for any usage of this figure contrary to its original, intended purpose. |

F:IKLE\CSRS I-12 Industrial SitelGIS Maps\Cultural Resources\Figure 10_1954 Aerial Image of Direct APE

### 3.0 PREVIOUS INVESTIGATIONS

ELOS conducted a records search for previously surveyed areas in order to identify cultural resources within the proposed project area. Only one CRAS was previously conducted within the APE (Figure 11). The research determined that there is a total of eight previous surveys conducted near the APE according to the Louisiana Cultural Resource Map database. Each of these records were Phase I cultural resource surveys that yielded no significant cultural resources and did not meet the criteria for NRHP eligibility. The records are as follows:

- 22-2300 - A Phase I cultural resources survey of the 300-acre (121.46 hectares) Zahn-190 Tract in Tangipahoa Parish, Louisiana, was conducted from December 27, 1999 through January 5, 2000, following an initial inspection of the property by personnel from Coastal Environments, Inc. on December 3, 1999 (Hunter 1999). This property is situated just east of Robert, Louisiana, and is slated for the construction of a Wal-Mart Regional Distribution Center. The purpose of this work was to locate archaeological sites, standing structures greater than 50 years of age, and cemeteries, and to make preliminary assessments of NRHP eligibility. Fieldwork was conducted by a three-person survey crew and consisted of systematic shovel testing and pedestrian survey. As with the initial inspection, no significant cultural resources were encountered.
- 22-5366 - Unavailable on SHPO website (SHPO has been contacted for this information)
- 22-5368 - From September 16-27, 2016, Surveys Unlimited Research Associates, Inc. (SURA) conducted a Phase I cultural resources survey of 123 acres ( 49.7 hectares) of a proposed residential subdivision off Louisiana Hwy 1077, near Goodbee, St. Tammany Parish, Louisiana. A total of 623 shovel tests were excavated. One archaeological site was discovered, the Baham Site (16ST270). The authors suggest that because of the disturbance due to a modern dirt road and extensive agricultural activities, this site does not possess the qualities of significance and is not eligible for listing on NRHP because it does not meet any of the criteria listed. As a result, no further work is recommended for the surveyed area.
- 22-5372 - In June of 2016, SURA conducted a Phase I cultural resources survey of 64 acres ( 25.9 hectares) near Robert in Tangipahoa Parish, Louisiana, between Byers Lane and East Bedico Creek for a planned residential development. A total of 298 shovel tests were excavated. No cultural resources were found, and it was recommended that the project proceed as planned.
- 22-5397 - Unavailable on SHPO website (SHPO has been contacted for this information)
- 22-5410 - Unavailable on SHPO website (SHPO has been contacted for this information)
- 22-5527 - Unavailable on SHPO website (SHPO has been contacted for this information)


F:IKLE\CSRS I-12 Industrial Site\GIS Maps\Cultural Resources\Figure 11_Previous Investigations Map

- 22-5695 - August of 2017, ELOS conducted a Phase I cultural resources investigation of approximately 48 acres ( 19.43 hectares) for a proposed residential subdivision on US Hwy 190 in Goodbee, St. Tammany Parish, Louisiana. This project was requested by the U.S. Army Corps of Engineers to fulfill the requirements of Section 106 of the National Historic Preservation Act as a condition for a permit under Section 404 of the Clean Water Act. The purpose of this investigation was to locate, evaluate, and record all cultural resources, and to make recommendations of eligibility to the NRHP for any identified resources within the project area. No new archaeological sites, cultural resources, or isolated finds were identified during this investigation. No further cultural resources work is recommended for the project area.

Table 1: Previous Archaeological Surveys

| Site No. | Site Name | Type | NRHP <br> Eligibility | Reference |
| :---: | :---: | :---: | :---: | :---: |
| $22-2300$ | ZAHN-190 <br> PROPERTY | Phase 1 Survey | None | Roberts 2000 |
| $22-5366$ |  |  |  |  |
| $22-5368$ | 123 acres near <br> Goodbee | Phase 1 Survey | None | Murray et al <br> 2016 |
| $22-5372$ | 64 acres near <br> Robert | Phase 1 Survey | None | Murray and <br> Shuman 2016 |
| $22-5397$ |  |  |  |  |
| $22-5410$ |  |  | None | Barnes 2017 |
| $22-5527$ | Phase 1 Survey |  |  |  |
| $22-5695$ | Proposed <br> Preston <br> Vineyard <br> Residential <br> Subdivision | Prent |  |  |

### 4.0 METHODS

Prior to any fieldwork, ELOS used archival and current imagery, as well as the USGS quadrangle maps to identify any potential cultural resources located within the project footprint. Neither historic imagery nor historic topographic maps show any indications of structures on the site. Excluding the presence of the previously mentioned railroad, historic maps of the area did not reveal any historic roads or military activity.

### 4.1 Standing Structure Survey Methods

ELOS conducted archival research in search of any historic standing structures to be evaluated; however, no historic structures were located within the APE. Therefore, no structure evaluations were completed as part of this project.

### 4.2 Archeological Site Survey Methods

Fieldwork consisted of both of high probability systematic grid subsurface shovel testing and pedestrian survey. Using grid pattern within the Project Area, a total of 166 shovel tests were placed in a high probability area, and a total of 342 shovel tests were placed in low probability area (Figures 12, 13, and 14). Shovel test locations were pre-plotted on a grid system, then mapped with Geographical Positioning System (GPS) coordinates to provide systematic coverage of the survey areas.

Pre-plotted shovel test locations were field located using a combination of hand-held GPS units and compass and pacing methods. Ground visibility was minimal within the majority of the Project Area due to heavy underbrush and a layer of dead foliage. Areas with increased ground visibility were inspected for surface artifacts and washouts.

Each shovel test was 50 centimeters in diameter and excavated in 10 -centimeter increments to a minimum depth of 50 centimeters or to sterile soil or water, whichever was first. All excavated soil was screened through quarter inch hardware cloth mounted on portable frames. At shovel tests where the soil content was too wet or contained too much clay material to permit effective screening, the excavated material was broken up by hand or trowel, and visually examined. Soil stratigraphy was recorded for each shovel test, and obstacles of the site, and cardinal direction photographs were taken of the interior of the Project Area (Photographs 1 through 3).


Photograph 1: Representative of Shovel Test Pits






Photograph 2: Obstacles of the site. Flooded Areas (Top Left); Impenetrable Brush and Briars (Top Right); Holes Filling with Water (Bottom)


## Photograph 3: Project Area Cardinal Directions. North (Top Left); East (Top Right); South (Bottom Left); West (Bottom Right)

No artifacts or cultural resources were found during the field survey. Therefore, site delineation techniques or artifact documentation, preservation, and curation techniques will not be discussed.

### 4.3 Curation Statement

A copy of this report and all records of this project will be curated with the SHPO at the main office in Baton Rouge, Louisiana. No Artifacts were recovered during this survey; therefore, no laboratory or artifact curation will be discussed in this report.

### 5.0 RESULTS

In October and December of 2018, ELOS conducted a Phase I cultural resources assessment survey of the proposed I-12 industrial development site in Tangipahoa Parish, Louisiana. The Phase I archaeological survey was negative for any archaeological or historic resources within the project's APE.

### 6.0 SUMMARY AND RECOMMENDATIONS

ELOS's study included a comprehensive literature and records review of pertinent historic documents to develop a historic context for the APE to determine the presence or absence of potentially significant cultural resources. The survey utilized a combination of survey methodologies, which included pedestrian, systematic subsurface shovel testing, and a windshield survey. A total of 508 shovel tests were excavated. No new archaeological sites, cultural resources, or isolated finds were found within the primary APE during this investigation. Therefore, potential development of the property will have no effect on historic resources located within the APE. No further cultural resources work is recommended.

Reasonable efforts have been made during this investigation to identify and evaluate possible locations of prehistoric or historic archaeological site locations. However, the possibility still exists that evidence of prehistoric and historic resources not identified during ELOS's investigation may still be discovered during ground disturbing activities within the project footprint. Should evidence of archaeological resources be discovered during developmental activities, it is recommended that all work in that portion of the project area cease immediately. Evidence of historic resources include: aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, as well as historic archaeological remains. Should questionable materials be uncovered during construction, procedures contained in ACHP 36 CFR Part 800 will take effect. All ground disturbing activities in the area will cease if any human remains are uncovered. The local law enforcement agency will be notified immediately upon such discovery and the SHPO will be notified within 72 hours. The provisions of the Louisiana Unmarked Human Burial Sites Preservation Act (Revised Statute 8:671-681) should be followed.

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