Appendix B
Agency Coordination

MDAH-SHPO and THPO Coordination

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ARCHIVES & HISTORY

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H. T. Holmes, Director

February 7, 2008

Mr. Michael Grisham
Environmental Liaison Officer
FEMA-DR-1604-MS
220 Popps Ferry Road, Bldg. A South
Biloxi, Mississippi 39531

RE: Proposed Relocation and Replacement of the City of Ocean Springs Community Pier, MDAH Project Log #01-107-08, Jackson County

Dear Mike:

We have reviewed the January 25, 2008, cultural resources assessment by Mr. Paul Drummond, received on January 29, 2007, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After review, we concur that the proposed project has the potential to affect National Register-eligible archaeological resources. As such, we also concur with FEMA's recommendation that a Phase I underwater and terrestrial archaeological investigation be performed to determine the existence of any unknown resources.

If you have any questions or need additional information, please call David Abbott, MDAH Staff Archaeologist, at (601) 576-6940.

Sincerely,

Jim Woodrick
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

c: Clearinghouse for Federal Programs

CULTURAL RESOURCES SURVEY OF THE CHESTER MCPHERSON PIER PROJECT AREA OCEAN SPRINGS, MISSISSIPPI

FINAL REPORT

BY
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AND
KELSEY M. LOWE

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812 WATER STREET
BILOXI, MS 39530

SUBMITTED TO:
BROWN & MITCHELL, INC.
521 34TH STREET
GULFPORT, MS 39507

APRIL 2008

INTRODUCTION

This report presents the results of an archaeological survey of the Chester C. McPherson Pier project area in Ocean Springs, Mississippi. This survey was conducted by Coastal Environments, Incorporated (CEI) in March 2008. CEI was hired by Brown & Mitchell, Incorporated (BMI) of Gulfport, who is in turn working for the City of Ocean Springs. The Chester McPherson Pier project includes funding from the Federal Emergency Management Agency which required a cultural resources survey in order to comply with Section 106 of the National Historic Preservation Act (1966). The purpose of the survey was to determine if intact archaeological deposits were located within the project area. The guidelines established by the Mississippi Department of Archives and History (MDAH) (Sims 2001) were followed during this survey. Additionally, magnetometry was used to examine submerged portions of the project area. No significant cultural resources were discovered during CEI's survey of the project area.

The project area is located on Ocean Spring's waterfront at the mouth of Biloxi Bay, on Front Beach Drive between Jackson Avenue to the west and Washington Avenue to the east (Figure 1). The area surveyed consists of approximately 0.03 acres (0.013 hectares) of beach and 0.08 acres (0.33 hectares) of the Mississippi Sound. The project area is located in Section 37, Township 7 South, Range 8 West in Jackson County. The proposed project involves the construction of a public pier, a fishing platform, and two pavilions. The pier will be 161.5 m (530 ft) long, 3 m (10 ft) wide and 2 m (6.5 ft) high. A fishing platform at the south end of the pier will be 27 m (90 ft) by 3 m (10 ft). Ground-disturbing activities associated with the construction of the pier include the driving of 30-cm^2 (1-ft^2)pilings every 3 m (10 ft) to a depth of approximately 12 m (40 ft).

Figure 1. Map showing location of the project area (base map from *Ocean Springs* 7.5' quadrangle, USGS 2007).

HISTORIC AND ARCHAEOLOGICAL BACKGROUND

Archaeological Background

Ocean Springs was the location of the original French settlement on the Mississippi Gulf Coast in 1699 (Giraud 1974:31). There are several sites from the French colonial period in the vicinity of the Chester McPherson Pier project area that are relevant to this project. The original 1699 settlement and fort, Fort Maurepas, are thought to have been located on a high bluff on a point of land—known as Fort Point—along the east side of Biloxi Bay. This area is located to the north of Highway 90 and the Louisville and Nashville rail line in the present-day Lover's Lane neighborhood (Blitz and Mann 2000:65-68; Blitz et al. 1995). A cluster of archaeological sites (22Ja534, 535, 538, and 539) have been recorded in this vicinity, some of which are based on the recovery of French colonial artifacts, but archaeological deposits definitively associated with Fort Maurepas have not been identified (Blitz and Mann 2000:68; Blitz et al. 1995).

The Chester McPherson Pier project area is located across Front Beach Drive from a locale that was once argued by some to be the location of Fort Maurepas (Caraway 1951; see Schmidt 1972:8). This belief was based on the recovery of an incised marble plaque purportedly of French origin, French bricks, and other artifacts (Blitz and Mann 2000:65-66). This location has not been recorded as an archaeological site, and it does not have a site number. A replica of Fort Maurepas was built on this location based on the belief that the Front Beach Drive locale was the site of its original location. However, the overall paucity of French artifacts found at the Front Beach site is not consistent with it having been the site of a fort and settlement (Blitz and Mann 2000:66). Furthermore, a French map from the 1700s suggests that the Front Beach Drive locale may have been the site of a defensive battery rather than being the location of Fort Maurepas, which undoubtedly was located in the Lover's Lane neighborhood along Fort Point (Blitz and Mann 2000:65-66; Blitz et al. 1995).

Another site relevant to the Chester McPherson Pier project is 22Ja542 which is a submerged vessel in Biloxi Bay that is thought to be the remains of an eighteenth-century French ship (Krivor 2001). The site is located in the Bay just to the west of Fort Point, the likely location of significant French activity during the eighteenth century. The importance of the eighteenth-century shipwreck site for the current study is that its presence demonstrates that significant cultural resources are preserved beneath the waters of the Bay, and that the potential to encounter these sites should be considered by any projects undertaken in this area.

Historic Background

Beginning in the early 1800s, the Mississippi Gulf Coast was a summer resort for wealthy families from New Orleans and for upstate planters from places such as Natchez (Jones 1956:268-269; WPA 1939:19). Some of these families built private residences for their summer visits while many others stayed in the numerous, large resort hotels that developed along the Coast. By 1860, six "watering places" had developed along the Mississippi Gulf Coast at Shieldsborough (Bay St. Louis), Pass Christian, Mississippi City (Gulfport), Biloxi, Ocean Springs, and Pascagoula (Jones 1956:268). The resort communities of the Mississippi Gulf Coast were served by steamboats traveling between New Orleans and Mobile prior to the establishment of regular train service in the 1870s (Berggren 1987; Jones 1956:269; Schmidt 1972:31-32; Sullivan and Powell 1999:105-107). Ocean Springs was particularly attractive to visitors because of the presence of a number of mineral springs that were reported to have therapeutic benefits and curative powers (Berggren 1987; Dyer 1971; Jones 1956:292; Schmidt 1972:16). The mineral springs at Ocean Springs were discovered in 1852, and a "project was immediately started to erect accommodations and make this a resort" (Jones 1956:292).

During the period from the mid-1800s through the twentieth century, the two-block area just north of the project area —bounded by Jackson Avenue on the west, Calhoun Street on the north, and Washington Avenue on the east—contained a number of resort hotels (Bellande 1994; Berggren 1987; Dyer 1971; Schmidt 1972:16). These

establishments included the Ocean Springs Hotel (1853-1905), the Morris House (1854-1900), the Seashore House (1855-1886), the Beach Hotel (1899-1921), and the Pines Hotel (1915-1932) (Bellande 1994; Schmidt 1972). Beginning in the 1830s, the steamboat wharf at Ocean Springs was a regular refueling stop on the route from New Orleans to Mobile, and the first hotel was built to take advantage of the area's popularity among steamboat visitors (Berggren 1987). From the 1830s to the construction of the Louisville and Nashville railroad line several blocks to the north in 1869, the steamboat landing at the foot of Jackson Avenue was the transportation focus for the town and that thoroughfare was essentially the community's main street (Berggren 1987; Schmidt 1972:48-49).

Coastal survey maps from the 1850s show a number of piers along Ocean Springs's waterfront, several of which are either in or in the vicinity of the current project area (Gilbert et al. 1858; Greenwell 1851). Additionally, late nineteenth-century maps of the area show two piers at the end of Jackson Avenue extending into the Bay to the southwest. This area is located just to the west of the Chester McPherson Pier project area. A circa 1882 map of the Seashore House property shows a short, private pier to the east and a much longer pier to the west labeled as a "Steamboat Wharf" (Figure 2). Beginning in the 1830s, the wharf at the foot of Jackson Avenue served as a steamboat landing on the coastal route that included a series of stops between New Orleans and Mobile (Pearson et al. 1991; Schmidt 1972:31-32; Sullivan and Powell 1999). A circa 1902 map of the Ocean Springs Hotel property shows two piers of approximately equal length. The eastern pier is labeled as a "Public Wharf" while the western pier is labeled as the "Hotel Wharf" (Figure 3). The rectilinear structures at the ends of these piers were probably bathhouses (see Schmidt 111-112), and these piers were likely used by visitors for swimming, sunbathing, and other recreational activities (see Husley 2000:23).

Several oyster or fish shops—small, tin, shed-like structures for processing seafood—were erected on pilings in Biloxi Bay at the foot of Washington and Jackson avenues (Belland 2004; Schmidt 1972:54-57). The Catchot family placed the first oyster house at the foot of Jackson Avenue in the late 1850s. From the 1850s to the 1880s,

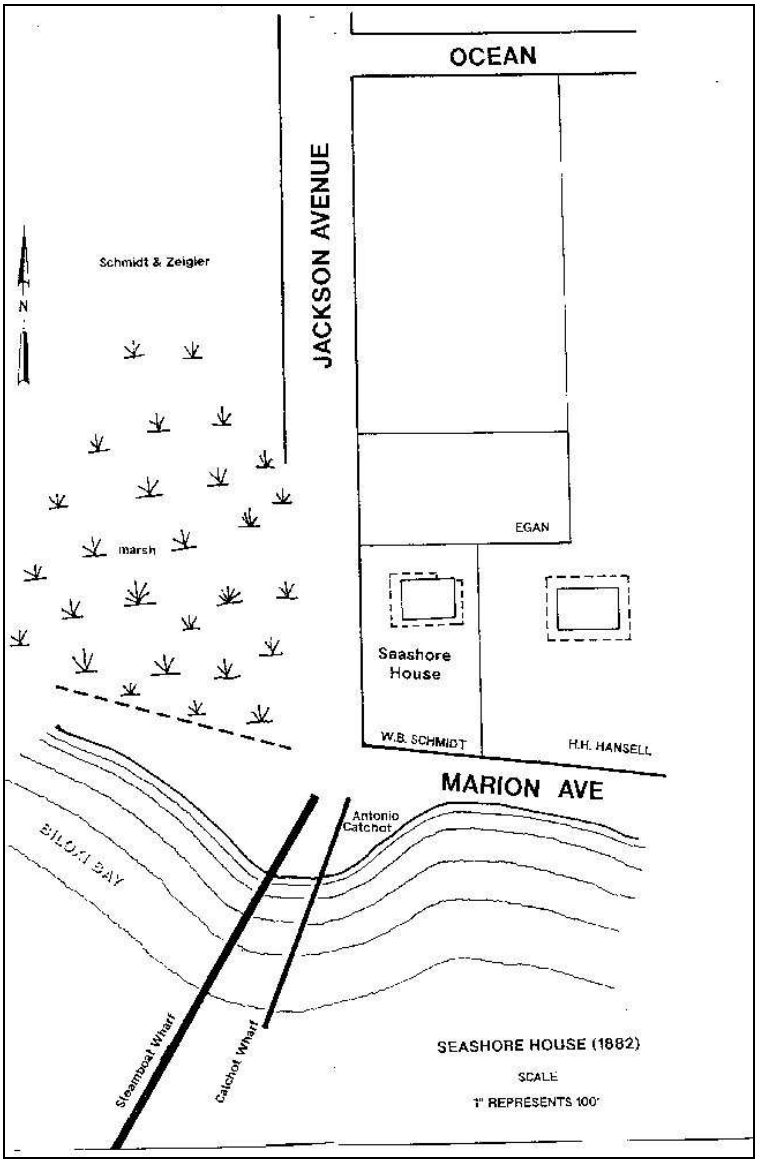

Figure 2. Plat of the Seashore House Hotel (ca. 1882) showing piers at the end of Jackson Avenue (from Bellande 1994).

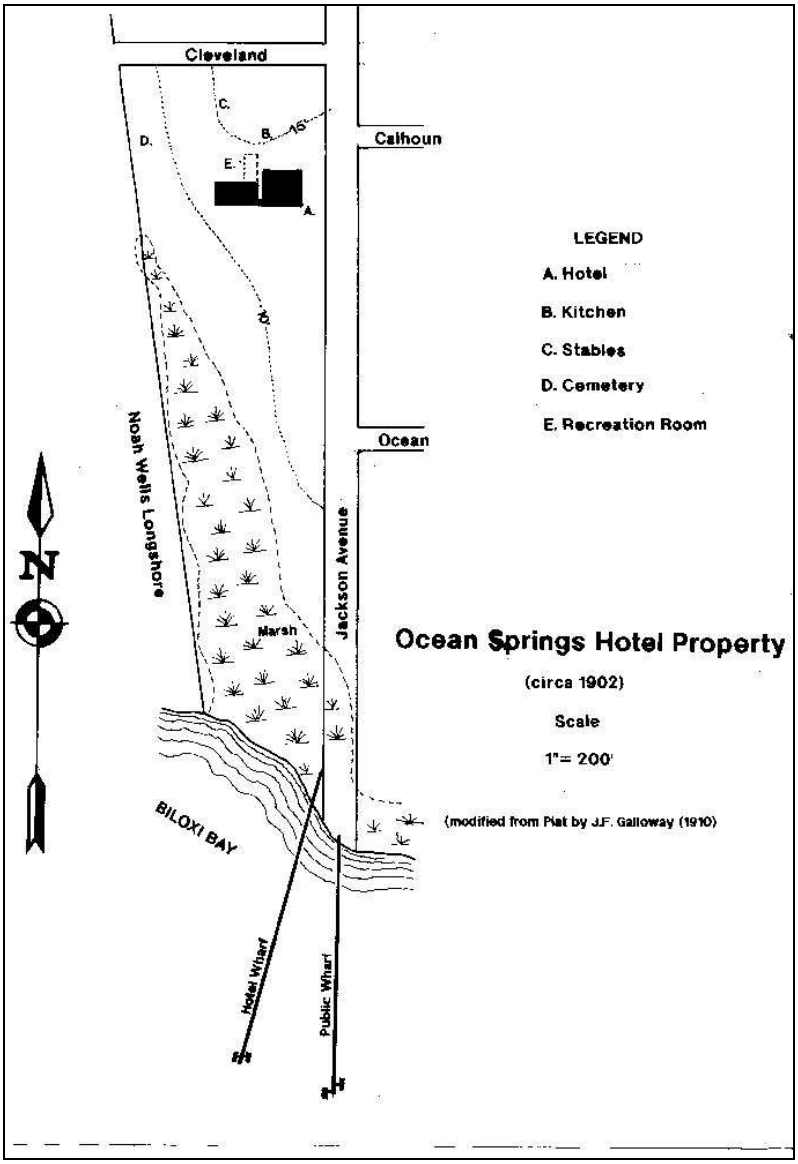

Figure 3. Plat of the Ocean Springs Hotel property (ca. 1902) showing piers at the end of Jackson Avenue (from Bellande 1994).

Antonio Catchot operated at the foot of Jackson Avenue an oyster shop—a small building about 20 feet square on pilings—where he sold raw oysters (Figure 4). He also built a wharf at the end of Jackson Avenue that extended from the shore about 230 feet into Biloxi Bay (Bellande 2004). This property remained in the family until it was sold to the Purity Seafood Company in 1941 (Figure 5) (Bellande 2004). A seafood facility, the Ocean Springs Seafood Company, existed in this location until 2005 when it was destroyed by Hurricane Katrina (Figure 6). Between 1870 and 1900, two seafood facilities were operated by the Seymour and Friar families at the foot of Washington Avenue (Figures 7 and 8) (Bellande 2004).

The Chester McPherson Pier project area is located just south of the Old Ocean Springs Historic District, which is listed in the National Register of Historic Places. This district consists of the core area around which the city of Ocean Springs developed (Berggren 1987). Pivotal and contributing structures within this district date to between the 1850s and 1930s. The district is currently mostly residential, although initially it consisted of a mixture of residences, resort hotels, boarding houses, stores, and other commercial properties (Berggren 1987).

Figure 4. Catchot's oyster shop (ca. 1910) at the end of Jackson Avenue, facing northeast (from Bellande 1994).

Figure 5. Purity Seafood (ca. 1947) at the end of Jackson Avenue, facing south (from Bellande 1994).

Figure 6. Ocean Spring's Seafood at the end of Jackson Avenue in 2005, facing south (from Bellande 1994).

Figure 7. Seymour Oyster Shop at the end of Washington Avenue, facing southeast (from Bellande 1994).

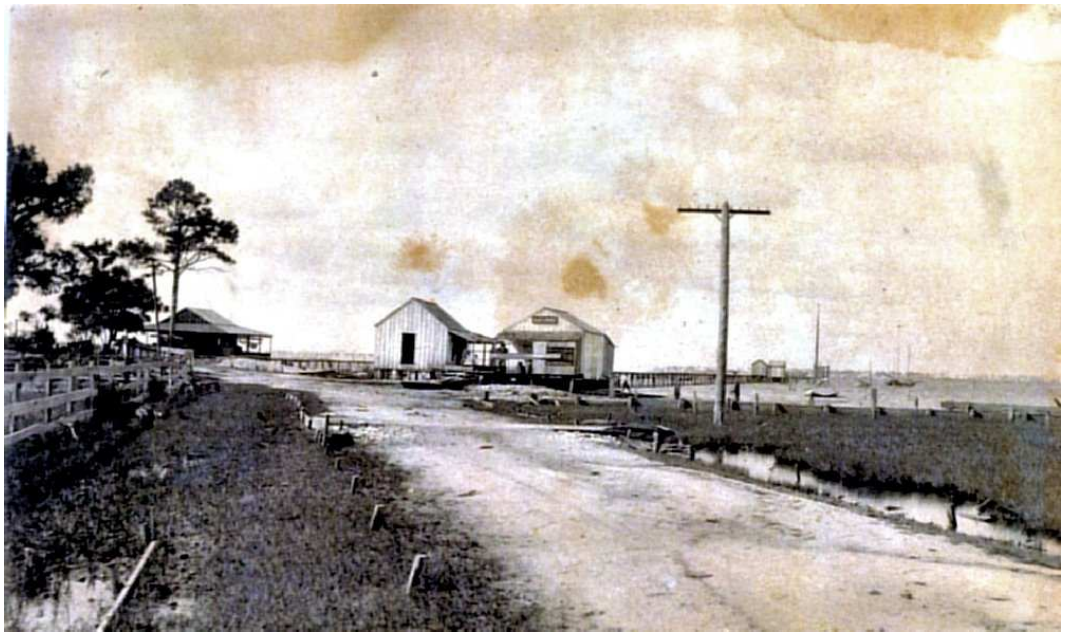

Figure 8. Seymour Oyster Shop at the end of Washington Avenue, facing south (from Bellande 1994).

FIELDWORK AND METHODS

The project area consists of about 0.03 acres of sand beach and about 0.08 acres in Biloxi Bay. The land portion of the project area was examined through a pedestrian survey and augering. The water portion of the project area was surveyed by using a boat and a magnetometer.

Land-Based Survey

A two-person crew surveyed the land portion of the project area on March 18, 2008. This area consists of sand beach between Biloxi Bay and Front Beach Drive (Figure 9). Two auger tests spaced 30 m apart were excavated to depths of 80-100 cm (32-40 in) using a 2-inch bucket auger (Figure 10). The locations of both auger tests were recorded with a global positioning system (GPS) unit. The goal of the auger testing was to locate intact cultural deposits below the sand surface. Artifacts or intact deposits were not found in either auger test. The soil profile encountered in the first auger test yielded a light yellow-brown (10YR6/4) sand from 0-40 cm (0-16 in). The soil started to change to a darker gray (10YR5/2) sand around 55 cm (22 in) below surface, and this continued down to 100 cm (40 in). The second auger test was located in an area that contained beach vegetation on the surface. The first 5 cm (2 in) consisted of a recently deposited very light yellow to pale brown (10YR7/4) sand layer. A dark yellowish brown (10YR4/4) layer containing recently buried beach vegetation was below the sand layer. This layer extended to a depth of about 28 cm (11 in), and it was followed by a gray brown (10YR5/2) sand from 28-45 cm (11-18 in). The remainder of the test contained a light brownish gray (10YR 6/2) sand from 45-80 cm (18-32 in). The water table was encountered about 60 cm (24 in) below the surface in both auger tests.

Figure 9. Area surveyed between Front Beach Drive (left) and Biloxi Bay (right), facing east.

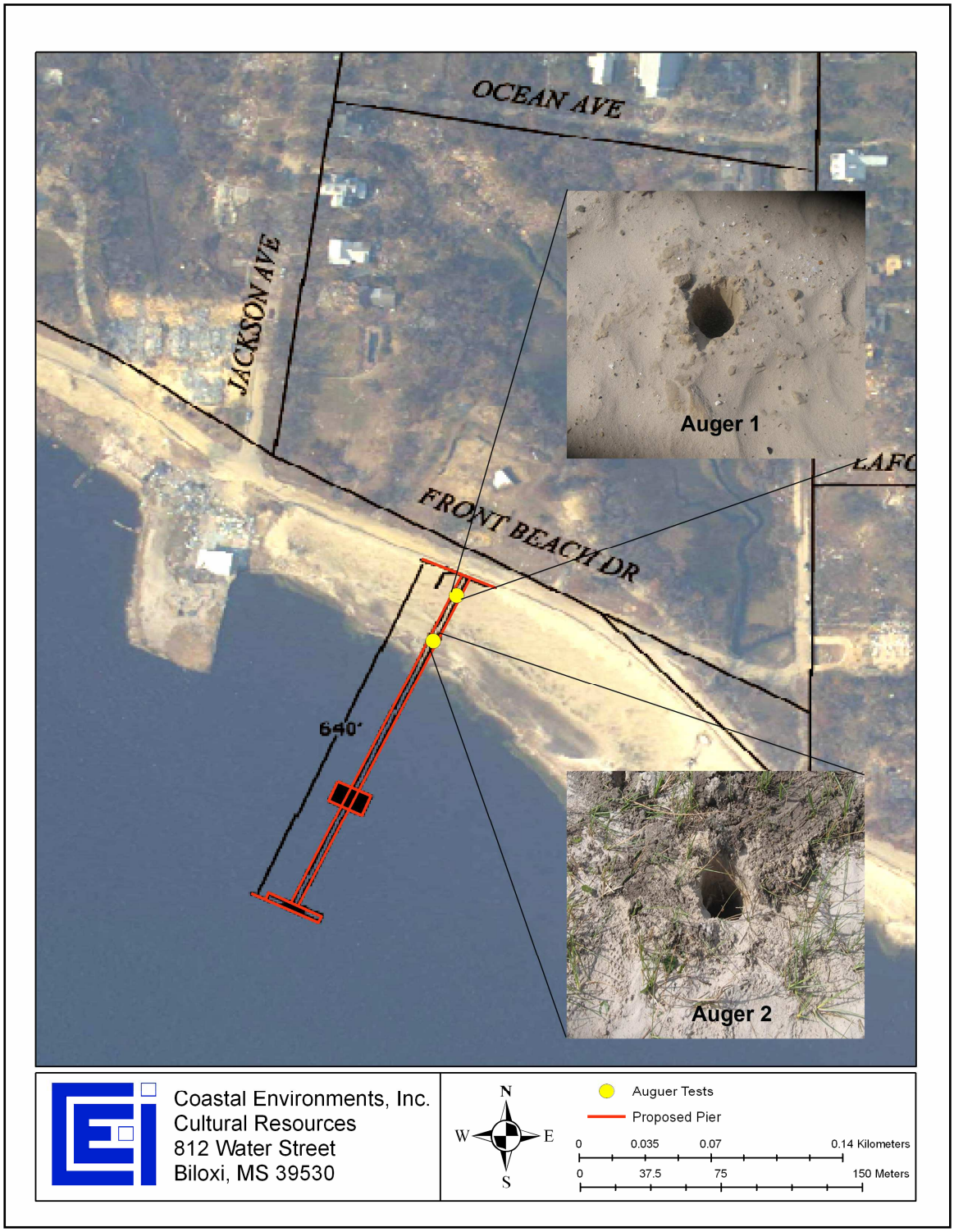

Figure 10. Image showing locations of auger tests (base image from BMI).

Magnetometer Survey

A geophysical survey was conducted within the project boundaries of the proposed pier to locate any large, buried archaeological deposits underwater. This boat-based survey was conducted by a three-person crew on March 20, 2008. The primary concern was the identification of submerged vessels based on this area's association with maritime activities during the historic period (Bellande 2004; Berggren 1987; Schmidt 1972; Sullivan and Powell 1999). The area surveyed using magnetometry was roughly 195 m (640 ft) long by 35 m (110 ft) wide. This slightly exceeded the pier's project area, but we felt that it was necessary to survey the surrounding area as well.

Magnetometry is a passive archaeogeophysical method that measures the strength or alteration of the earth's magnetic field in a particular location (Bevan 1998; Clark 1996; Gaffney and Gater 2003; Kvamme 2006). Localized differences in this field are defined as anomalies (Bevan 1998; Clark 1996). Magnetometers are useful in detecting anomalies associated with iron-bearing ferrous objects. Archaeologically, magnetometry has been used to detect buried deposits such as graves, burned structures, walls, hearths, pits, and ditches (Clark 1996; Gaffney and Gater 2003; Johnson 2006; Kvamme 2006). Magnetometry has also been used to detect buried shipwrecks in both archaeological and environmental applications (Clausen 1966; Clausen and Arnold 1975; Garrison et al. 1989; Keith and Carrell 1991; Pearson 2001).

Magnetometers can be used in two different modes, a single-sensor mode, which measures the total magnetic field of the earth, or a two-sensor mode, which is defined as a gradiometer because the difference between the two sensors or the local magnetic field of the earth is measured instead of total field. The size of the objects one detects is dependent on the height of the magnetic sensor during operation. For detecting small and shallow objects, the sensor should be low and close to the surface. For large and deep objects, the sensor can be higher. Because the strength of the earth's magnetic field is being measured, no definable depth for magnetometry is distinguished. The sensitivity of the sensor's signal for total magnetic field is determined by the strength of the buried

feature. For example, any object buried within 1 m of the sensor will hold a stronger signal than if the object was located 3 m below the sensor (Clark 1996:78).

A Geometrics Cesium Vapor G-858 single-sensor magnetometer was used to survey the Chester McPherson Pier project area. The goal was to locate large magnetic anomalies below the water, and a single-sensor was optimal for this application. The instrument was positioned at the bow of a 16-ft (5-m) aluminum Weldcraft boat (Figure 11). The instrument was held by an operator in a horizontal gradient mode while a second operator collected the data. The sensor was attached to the end of a sensor staff that extended about 1 m (3.3 ft) from the edge of the bow, and the sensor was held roughly 1 m (3.3 ft) above the water.

Several sensor staff extensions were used to avoid the magnetic signature from the boat's engine during operation. A distance from the engine of 4.5 m (15 ft) or more was required for precise data collection. The magnetometer survey was conducted with 10-m (32 ft) transect spacing and 0.125-m (0.4 ft) spacing between readings along each transect. Data were collected for the first survey in a single-line fashion with transects running northeast to southwest (about 30 degrees from magnetic north). Due to problems with maneuvering the boat because of strong winds and choppy seas, a second survey was conducted with transects running northwest to southeast. The sensor was aligned to magnetic north and all readings were collected simultaneously with a GPS unit with sub-meter accuracy. Using the GPS in correspondence with the magnetometry allowed a trouble-free way to post-process the geophysical data.

While we could not directly evaluate geophysical anomalies, anomalies were interpreted based on their strength, size, and shape of the magnetic signature. Data were processed in a geophysical program called Magmap 2000 (Geometrics 2001), and the output was used to create a contour map in Surfer 7.0 (Golden Software 1997). The processed and contoured data are displayed in Figures 12 and 13, the latter of which has contours and interpreted features drawn on it. Both figures are oriented so that north is at the top. Also, the colors red and black are used to represent higher magnetic signatures.

Figure 11. Geometrics Cesium Vapor G-858 single-sensor magnetometer in use during boat survey.