



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS
P.O. BOX 889
SAVANNAH, GEORGIA 31402-0889

DEC 03 2008

Regulatory Division
200501498

JOINT PUBLIC NOTICE
Savannah District/State of Georgia

The Savannah District has received an application for a Department of the Army Permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

Application Number: 200501498

Applicant: Hutchinson Island Development, LLC
Attention: Robert Droop & Ed Bazemore
Post Office Box 2704
Savannah, Georgia 31402

Agent: Resource & Land Consultants
Attention: Alton Brown, Jr.
41 Park of Commerce Way
Suite 303
Savannah, Georgia 31405

Location of Proposed Work: The project site is located at latitude 32° 04' 56.65" north, and longitude 81° 03' 51.70" west, adjacent to the Savannah River, southeast of Grand Prize of America Avenue, on Hutchinson Island in Savannah, Chatham County, Georgia.

Description of Work Subject to the Jurisdiction of the US Army Corps of Engineers: A cutter-head dredge would be used to remove approximately 7,470 cubic yards of material from the Savannah River for the safe berthing of tug boats. The dredging activity would result in a final project depth of -17 feet below mean low water (MLW), and no maintenance dredging is anticipated following the completion of this project. Dredge spoils would be pumped to Georgia Department of Transportation's Disposal Area 12, located on the Back River. The project would also entail filling 0.143 acre of freshwater wetland for the construction of office buildings, maintenance facilities, and the installation of a 784.25 feet steel sheet pile bulkhead. The bulkhead and moored tugs would be approximately 90 feet from the toe of the federal navigation channel.

A contaminant evaluation was conducted on the sediments in the proposed project area in 2007. Results of those evaluations indicate that the sediments are suitable for removal and subsequent disposal in the material placement site.

For additional information, see the attached "Project Narrative" supplied by the applicant. The opinions, views and/or conclusions that are expressed by the applicant in this Project Narrative do not necessarily reflect those of the US Army Corps of Engineers.

BACKGROUND

This Joint Public Notice announces a request for authorizations from both the US Army Corps of Engineers and the State of Georgia. The applicant's proposed work may also require local governmental approval.

STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division, intends to certify this project at the end of 30 days in accordance with the provisions of Section 401 of the Clean Water Act, which is required by an applicant for a Federal Permit to conduct an activity in, on, or adjacent to the waters of the State of Georgia. Copies of the application and supporting documents relative to a specific application will be available for review and copying at the office of the Georgia Department of Natural Resources, Environmental Protection Division, Water Protection Branch, 4220 International Parkway, Suite 101, Atlanta, Georgia 30354, during regular office hours. A copier machine is available for public use at a charge of 25 cents per page. Any person who desires to comment, object, or request a public hearing relative to State Water Quality Certification must do so within 30 days of the State's receipt of application in writing and state the reasons or basis of objections or request for a hearing. The application can also be seen in the Savannah District US Army Corps of Engineers, Regulatory Branch, 100 West Oglethorpe Avenue, Savannah, Georgia.

State-owned Property and Resources: The applicant may also require assent from the State of Georgia which may be in the form of a license, easement, lease, permit, or other appropriate instrument.

Marshland Protection: This notice also serves as notification of a request to alter coastal marshlands (under the provision of the Coastal Marshlands Protection Act, Georgia Laws, 1970, p. 939 and as amended), if required. Comments concerning this action should be submitted to the Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, 1 Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

Georgia Coastal Management Program: Prior to the Savannah District Engineer making a final permit decision on this application, the project must be certified by the Georgia Department of Natural Resources, Coastal Resources Division, to be consistent with applicable provisions of the State of Georgia Coastal Management Program (15 CFR 930). Anyone wishing to comment on Coastal Management Program certification of this project should submit comments in writing within 30 days of the date of this notice to the Federal Consistency Coordinator, Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, One Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

US ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Essential Fish Habitat (EFH): This notice initiates the EFH consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal could potentially impact a minor amount of water bottoms in the Savannah River that may be utilized by various life stages of species comprising the red drum, shrimp, bluefish or snapper-grouper management complexes. Our initial determination is the project would not have an individual or cumulatively substantial adverse impact on EFH or federally managed fisheries in the Atlantic Ocean. Our final determination relative to project impacts to EFH and the need for mitigation measures are subject to review by and coordination with the NMFS and the South Atlantic Fisheries Management Council.

Cultural Resources Assessment: Review of the latest published version of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion are located at the site or in the area affected by the proposed work. Presently unknown archaeological, scientific, prehistorical, or historical data may be located at the site and could be affected by the proposed work.

Endangered Species: Pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), we request from the US Department of the Interior, Fish and Wildlife Service and the US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, or any other interested party, information on whether any species listed or proposed for listing may be present in the area.

Public Interest Review: The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and in general, the needs and welfare of the people.

Consideration of Public Comments: The US Army Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Native American Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the US Army Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality,

general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army Permit. Requests for public hearings shall state, with particularity, the reasons for requesting a public hearing. The decision whether to hold a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantial information necessary in evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army Permit should submit comments in writing to the Commander, US Army Corps of Engineers, Savannah District, Attention: Regulatory Division, P.O. Box 889, Savannah, Georgia 31402-0889, no later than 30 days from the date of this notice. Please refer to the applicant's name and the application number in your comments. If you have any questions, please call Ms. Megan Singleton, of the Regulatory Division, at (912) 652-5893.

Enclosures

1. Applicant's Project Narrative (7 pages)
2. Project Limits (Figure1)
3. Vicinity Map (Figure 2)
4. Plan View (Sheet 1 of 4)
5. Plan View (Sheet 2 of 4)
6. Typical Section (Sheet 3 of 4)
7. Profile (Sheet 4 of 4)
8. Freshwater Wetland Impact Exhibit (Sheet 1 of 1)

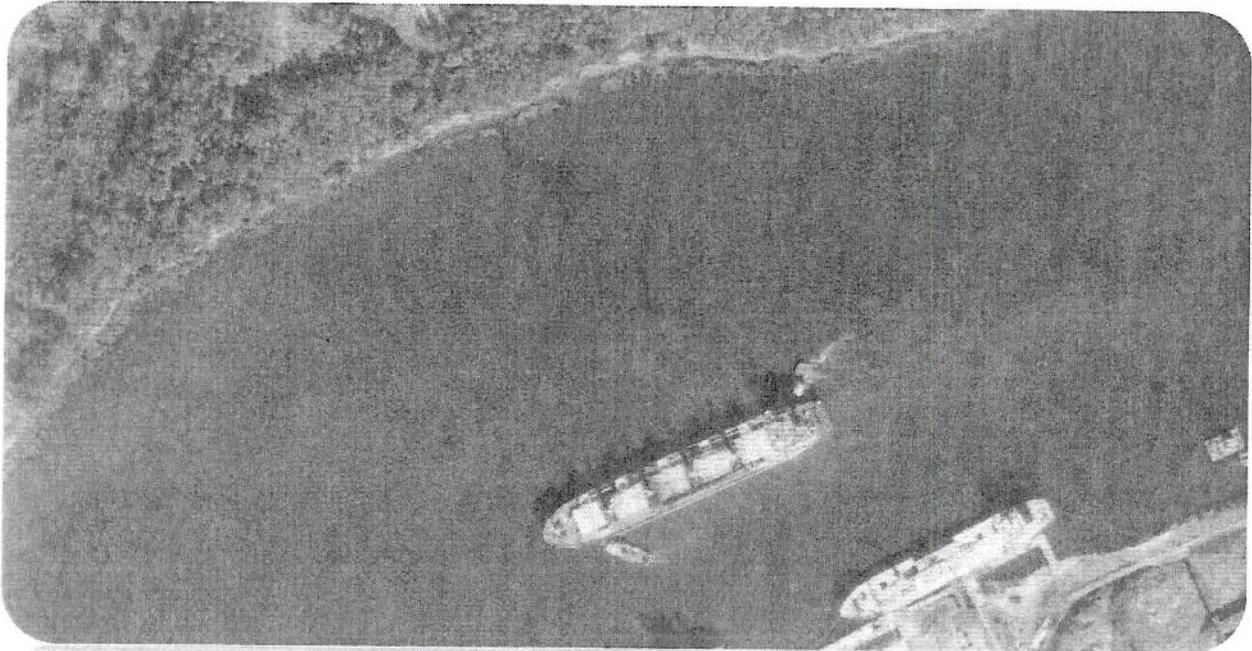
CRESCENT MORAN TUG BOAT FACILITIES

APPLICANT: HUTCHINSON ISLAND DEVELOPMENT, LLC

AGENT: RESOURCE & LAND CONSULTANTS

Individual Permit Application
Section 10 of the Rivers & Harbors Act of 1899
Section 401 of the Clean Water Act
&
Coastal Marshlands Protection Act of 1970

30 October 2008



RLC

**RESOURCE + LAND
CONSULTANTS**

41 Park of Commerce Way, Suite 303 / Savannah, GA 31405
phone 912.443.5896 fax 912.443.5898

CRESCENT TOWING & MORAN TOWING FACILITIES

HUTCHINSON ISLAND DEVELOPMENT

Savannah, Chatham County, Georgia

Project Description

3 November 2008

1.0 INTRODUCTION:

Hutchinson Island Development, LLC is seeking authorization under Section 10 of the Rivers & Harbors Act of 1899 (RHA), Section 401 of the Clean Water Act (401), and the Coastal Marshlands Protection Act of 1970 (CMPA) to construct a new tug boat operation facility on a 6.53 acre site adjacent to the Savannah River (Figure 1). The new facility will house Crescent Towing and Moran Towing. Both companies partnered on this land acquisition and facility construction project and the project will be completed jointly under Hutchinson Island Development, LLC. The project site is located adjacent to the Savannah River, southeast of Grand Prize of America Avenue, on Hutchinson Island, Savannah, Georgia. Resource & Land Consultants (RLC) is acting agent for the applicant and EMC Engineering Services is the consulting engineer.

2.0 BACKGROUND AND PROJECT PURPOSE:

Crescent Towing and Moran Towing are two large tug companies which currently service ports along the Atlantic and Gulf Coasts as well as the Port of Savannah. Since establishing operations in Savannah, these companies have leased docking and operation facilities. Crescent Towing is located on Hutchinson Island and Moran Towing is located on River Street (Figure 2). Crescent's lease has expired and is extended month to month while Moran's lease expires in 2010. Continued increase of residential development and the overall development master plan for Hutchinson Island has forced Crescent to consider other locations for operation. Likewise, Moran has proposed relocating current operations because of the increasing retail and tourism business and pedestrian traffic on River Street and commercial/recreational boat traffic along this section of the river.

Both companies have been considering relocation for the past five years and would prefer to lease facilities (land ownership is uncommon for these companies as most of their other port operations are leased). However, lack of lease options was quickly realized once these companies began discussing relocation. For this reason, Crescent Towing and Moran Towing partnered to purchase the project area in 2006. This site can accommodate and satisfy the operational needs both companies.

The overall project purpose is to construct an operation facility which would support the long term needs of both Crescent Towing and Moran Towing who currently service ships entering and exiting the Port of Savannah.

3.0 EXISTING SITE CONDITIONS:

The project site consists of habitats typical for undeveloped areas of Hutchinson Island. A wetland delineation was completed within the project site and has been submitted to the U.S. Army Corps of Engineers (USACE) and Georgia Department of Natural Resources – Coastal Resources Division for verification. Based on the preliminary jurisdictional determination, the site contains 0.137 acre of freshwater wetland and 6.53 acres of upland adjacent to the Savannah River (waters of the U.S./tidal state waters).

The upland portion of the project contains both forested and non forested areas. Forested areas are dominated by china berry (*Melia azedarach*) and Chinese tallow tree (*Sapium sebiferum*). The non forested areas consist of open fields with a few scatter black cherry (*Prunus serotina*), loblolly pine, and persimmon. Herbaceous species include Johnson grass (*Sorghum halepense*), dog fennel (*Eupatorium capillifolium*), hypericum (*Hypericum spp.*), and bahia grass (*Paspalum notatum*)

The jurisdictional area consists of deep open water riverine habitat with a minimal amount of wild rice (*Zizania aquatica*) along the bank.



4.0 PROPOSED PROJECT:

The proposed project includes the construction of office buildings, maintenance facilities, and parking associated with the new operations facilities for both tug companies. Activities required within or adjacent to jurisdictional waters include the fill of 0.137 acre of freshwater wetland during installation of a site access road, 292 square feet (0.006 acre) of wetland during installation of 784.25 linear feet of steel sheet pile bulkhead and one-time dredging of 3.45 acres of the Savannah River. A detail typical section of the bulkhead is provided in the attached permit drawings, Sheet 3 of 4 (Appendix F). Upon completion the project, the new facility will allow for docking of 12 tug boats (6 boats/2 deep at each facility).

At this location on the Savannah River, the river is approximately 1,070 feet to 2,000 wide at mean high water (MHW) and 1,020 feet wide at mean low water (MLW). Upon completion of the project, the docked tugs will extend approximately 80 feet into the river (each tug is 40 feet wide and 100 feet long). At its closest point, the docking area is approximately 270 feet from the shipping channel and 920 feet from the closest facility across the river. The closest facility upstream is 4,220 feet and no facilities are located downstream. The project area and docking facility is located 1,396 linear feet from the western (upstream) property line and 227 linear feet from the eastern (downstream) property line.

The project will include the removal of approximately 7,470 cubic yards of material from the Savannah River in order to provide tug access to the site. The tug boats used by the applicant draft between 15 and 17 feet. For this reason, the project will include dredging to a depth of -17 feet MLW. Based on the results of sediment sampling completed by the applicant and submitted to the USACE for review, it does not appear any negative effect to water quality will occur as a result of the dredging. The disposal area to be utilized is GADOT Disposal Area 12A on the Back River (see approval letter in Appendix N). It is not anticipated that maintenance dredging will be required to maintain the project depth.

4.1 Marshlands Component

No vegetated saltwater marshlands are present within the project site. As discussed above, the jurisdictional area consists of deep open water aquatic habitat associated with the river and wild rice along the bank. The project will include one-time dredging of 3.45 acres of river.

4.2 Upland Component

The upland component for this project totals 6.53 acres and encompasses all of the operation facilities. The facilities include approximately 8,000 square feet of office space, 10,800 square feet of maintenance building, employee and visitor parking and the tug boat loading and maintenance deck. Permanent structures to be installed within 50 feet of the river include the steel sheet pile bulkhead and an asphalt deck adjoining and immediately behind the bulkhead. This area will provide access for the heavy equipment frequently used during loading and frequent maintenance of the tugs.

A 50 foot marshlands buffer would typically apply to the upland component of the project; however, since the proposed use (for access and maintenance of tug boats) is identified as an exception in the upland component rule "*Exceptions are provided for temporary construction and maintenance, permanent structures essential for the function or permanent access to the marsh component of the project.*", a 50 foot buffer to the upland component will not be required for this project.

4.3 Stormwater Management:

Untreated stormwater will not be discharged from the upland component of a project and discharged stormwater will meet the standards of the most recent edition of the Georgia Stormwater Management Manual. As depicted in the attached stormwater plan, all stormwater from the deck will be collected in drain inlets and directed to an oil/water separator at eastern and western ends of the project site. In addition, stormwater from the remaining developed area (road, buildings and parking) will be directed to grass swales prior to discharge. Greenspace must be retained where practicable and appropriate.



Impervious service of the upland component of the project totals 45 percent and includes roads, parking, buildings and deck adjacent to the river. A summary of pervious and impervious surface percentages is as follows:

Total Area: 269,636 SF
Total Pervious Area: 148,780 SF (55%)
Total Impervious Area: 120,856 SF (45%)

Impervious Area Breakdown:

Building Area:	18,800 SF (6.97%)
Dock Area:	44,160 SF (16.38%)
Pavement and Sidewalk Area:	57,896 SF (21.47%)

Although the total exceeds the 15% impervious area guideline, the applicant has proposed the maximum pervious service feasible for this industrial marine project and has utilized non-structural stormwater management and better site design practices to the maximum extent practicable. Industrial ports related projects, by their nature and daily operations, obviously require surfaces which can withstand daily and continuous operation of heavy equipment. Alternative surfaces were discussed by the applicant and consulting engineer but it was determined that options such as pervious concrete, brick pavers, gravel, etc. would not provide a durable lasting surface. Less durable surfaces in association with industrial project with high levels of river bank activity result in increased erosion and further degradation to water quality.

Oil and grit separators will be utilized at strategic points in the drainage network to clean stormwater before it discharges into the Savannah River. Proper sediment control methods will be implemented in accordance with the Georgia Erosion and Sedimentation Act. Best Management Practices will be in place before construction begins to prevent any loose material being released into jurisdictional waters. No oils or other pollutants which may be released from the proposed activities will be allowed to reach jurisdictional waters. The required land disturbance permit will be in place before construction commences as more than one acre of land will be disturbed in the construction process.

5.0 ALTERNATIVES ANALYSIS:

Prior to proposing this project, the applicant considered numerous alternatives which would satisfy the needs of Crescent Towing and Moran Towing. These alternatives included continued use of existing facilities, leasing new facilities at alternate locations along the river or acquisition and development of alternate sites along the river.

5.1 Continued Use of Existing Facilities:

Both tug companies currently lease docking facilities on the Savannah River. Continued lease and use of these facilities was considered but was determined unacceptable for the following reasons:

Crescent's facilities are located in north of the Savannah River, immediately upstream of the trade center. The lease has expired and is renewed month to month. The Crescent facilities are in desperate need of rehabilitation. The facility consists of concrete deck on piles which has significant structural issues. Continued use would require investment of significant resources. In addition, long term operations from this facility is not feasible with the continued residential and commercial development for this area of Hutchinson Island. For this reason, Crescent has determined that relocation will be required.

Moran's lease expires in 2010. Moran's facilities are located on River Street in a growing retail commercial and tourism area. Conflicts between tug boat operations and retail/tourism have forced Moran to consider other alternatives.



5.2 Leasing of Alternate Facilities:

The majority of the applicants tug operations at other ports are leased. If the applicant were able to lease a site which could satisfy current and long term needs, leasing existing facilities was much preferred over ownership. The needs of the applicant (+/- 800 feet of docking space) and availability of developed river front property, leasing opportunities were limited two locations (Alternative 1 & Alternative 2). Alternative 1 would have satisfied the needs of the proposed project (both current and long term) but the current owner denied the lease request. Alternative 2 provided suitable location and docking space but this site was determined unacceptable because daily tug operation would be hindered by the site access restrictions and high security associated with the Georgia Ports Properties. Thus, leasing alternate facilities was not a feasible alternative.

5.3 Relocation/Construction of New Facilities:

In addition to the proposed project site, the applicant considered purchase of two other properties along the Savannah River (Alternative 3 & Alternative 4). The location and linear footage of river front afforded by both tracts could satisfy the needs of the applicant. However, proposed residential development uses, conflicts with the overall development master plan for Hutchinson Island, and site remediation requirements prohibited the purchase of these tracts.

Following review of these alternatives and although construction of a new facility was not the preferred alternative, the applicant determined that the proposed project was the only alternative which could satisfy the long term operational requirements for both towing companies.

6.0 BUFFER VARIANCE:

The proposed project requires land disturbing activities within the buffer adjacent to state waters. The applicant will prepare and submit a buffer variance request prior to initiation of construction activities.

7.0 PROJECT JUSTIFICATION:

The proposed project will provide mooring space for 12 tugs and meet the needs of the two major towing companies which provide services to the Port of Savannah. The project will include installation of a bulkhead and dredging of this section of the river. No impacts to vegetated coastal marshlands are required. The project will not result in alteration of the navigable waters, shoaling, creation of areas of stagnant water, or an adverse effect on aquatic life.

8.0 ESSENTIAL FISH HABITAT:

The proposed project is located in a coastal tidal river, which has been identified as essential fish habitat for the shrimp, red drum, and snapper-grouper complexes. Since the proposed project will not result in the loss of aquatic resources, it is anticipated that there will be no adverse effect on essential fish habitat.

9.0 THREATENED AND ENDANGERED SPECIES:

RLC conducted a threatened and endangered species survey to determine the potential occurrence of animal and plants species (or their preferred habitats) currently listed as threatened or endangered by state and federal regulations [Federal Endangered Species Act of 1973 (16 USC 1531-1543)]. The U.S. Fish and Wildlife Service (USFWS) lists the following plant and animal species as endangered or threatened in Chatham County, Georgia:

PLANTS

Pondberry (*Lindera melissifolia*)

MAMMALS

Humpback Whale (*Megaptera novaeanglie*)

Northern Atlantic Right Whale (*Eubalaena glacialis*)



Manatee (*Trichechus manatus*)

BIRDS

Bachman's Warbler (*Vermivora bachmanii*)

Bald Eagle (*Haliaeetus leucocephalus*)

Piping Plover (*Charadrius melodus*)

Red-Cockaded Woodpecker (*Picoides borealis*)

Wood Stork (*Mycteria americana*)

REPTILES

Eastern Indigo Snake (*Drymarchon corais couperi*)

Green Sea Turtle (*Chelonia mydas*)

Hawksbill Sea Turtle (*Eretmochelys imbricate*)

Kemp's Ridley Sea Turtle (*Lepidochelys kempii*)

Leatherback Sea Turtle (*Dermochelys coriacea*)

Loggerhead Sea Turtle (*Caretta caretta*)

AMPHIBIAN

Flatwoods Salamander (*Ambystoma cingulatum*)

FISH

Shortnose Sturgeon (*Acipenser brevirostrum*)

Although the upland area associated with the project does not contain habitat required to support any listed species, the proposed project will require work in tidal waters. Several protected species frequent coastal waters of Georgia, including the Northern Right Whale (*Eubalaena glacialis*), West Indian Manatee (*Trichechus manatus*), 5 species of sea turtle, and the shortnose sturgeon (*Acipenser brevirostrum*). The following provides a brief discussion on the projects potential affect on these species.

9.1 West Indian Manatee

The proposed project is located in a coastal tidal river, which provides habitat for the West Indian Manatee and in an area where this species has been documented. The proposed project will consist of the installation of 784.25 linear feet of bulkhead and dredging of approximately 3.45 acres of the river. Due to the proposed activities, the potential to affect manatees is possible during construction. All dredging and construction activities will be conducted in accordance with established federal manatee protection guidelines to minimize potential hazards. Post construction operation of the facility will include adherence to the standard manatee conditions and a maintenance plan that will provide for routine inspection of any freshwater sources that could potentially attract manatees. Through the implementation of these guidelines, it is anticipated that potential impacts to manatees will be minimal.

9.2 Northern Right Whale

The proposed project will provide operation facilities for twelve tugs which currently operate on the Savannah River. Since the project will not increase operation of vessels in off shore waters, the proposed project will have no impact on the northern right whale.

9.3 Sea Turtles

The coastal waters near the proposed facilities also harbor several species of sea turtles, including the loggerhead (*Caretta caretta*), hawksbill (*Eretmochelys imbricata*), Kemp's ridley (*Lepidochelys kempii*), green (*Chelonia mydas*) and leatherback (*Dermochelys coriacea*). The loggerheads is the only species that routinely nests on Georgia's barrier islands. The other species travel through Georgia waters on their way to tropical nesting locations to the south.

Threats to sea turtles have been identified and separated into two categories: threats to nesting environments and threats to the marine environment. The project is located well inland and within the existing commercial section of the Savannah River and will have no affect on these species. However, in order to avoid any potential affect on sea turtles, the applicant will post and distribute educational



materials to all employees to raise awareness of the potential threats to sea turtles.

9.4 Shortnose Sturgeon

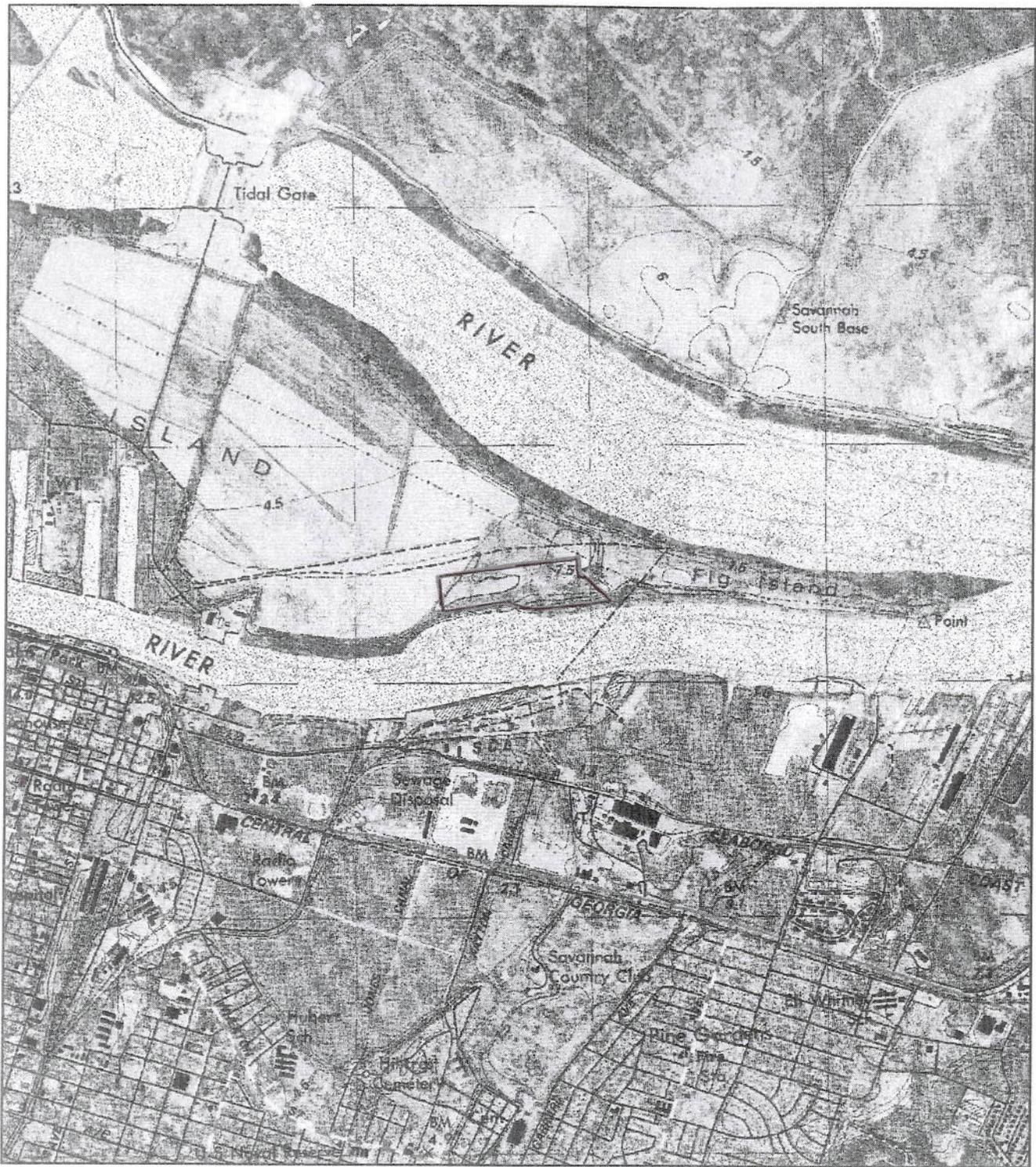
The shortnose sturgeon is found in Atlantic seaboard rivers, primarily in Georgia in the Altamaha, Ogeechee, and Savannah Rivers. Threats to the sturgeon include construction of dams, pollution leading to loss of habitat, habitat alterations from discharges, dredging or disposal of material into rivers, related development activities involving estuarine/riverine mudflats and marshes, and past commercial exploitation. Since the project is located in a section of the Savannah River where dredging and frequent operation of vessels occurs in association with the Port of Savannah, no impacts to the sturgeon are anticipated.

10.0 COMMERCIAL BAIT SHRIMP, OYSTER, AND CRABBING AREAS

The proposed project is not located in a designated bait shrimp zone according to Georgia Department of Natural Resources *Commercial and Recreational Bait Shrimp Zones, Coastal Georgia* map. The project area is not listed on the *Georgia Harvester Reported Crabbing Areas* list, and the project area is not located in designated commercial or recreational oyster harvest areas.

11.0 IMPAIRED WATERS

The subject waterway is not listed on the U.S. Environmental Protection Agency 303(d) list for impaired water bodies.



 PROJECT LIMITS

US GEOLOGICAL SURVEY;
SAVANNAH QUADRANGLE

OCTOBER 2008

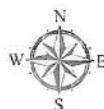
MAP SCALE : 1 INCH = 2000 FEET

PREPARED BY: JB

RLC PROJECT #08-082

FIGURE 1
MORAN CRESCENT TOWING FACILITY
CHATHAM COUNTY, GEORGIA

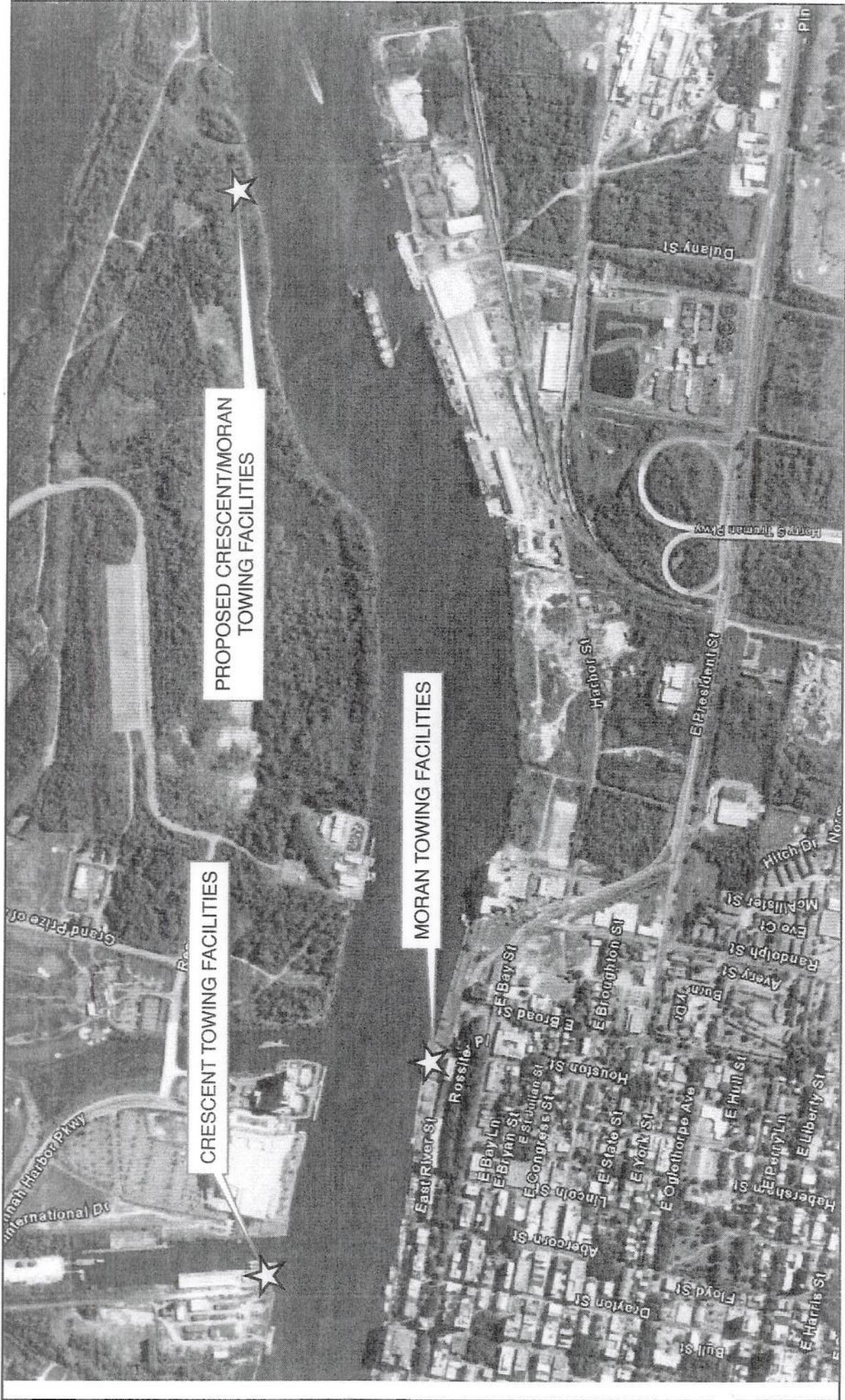
PREPARED FOR:
HUTCHINSON ISLAND DEVELOPMENT, LLC



RLC

**RESOURCE+LAND
CONSULTANTS**

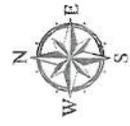
41 Park of Commerce Way, Ste. 303
Savannah, Georgia 31405
912.443.5896 www.rlandc.com



CRESCENT TOWING FACILITIES

MORAN TOWING FACILITIES

PROPOSED CRESCENT/MORAN TOWING FACILITIES



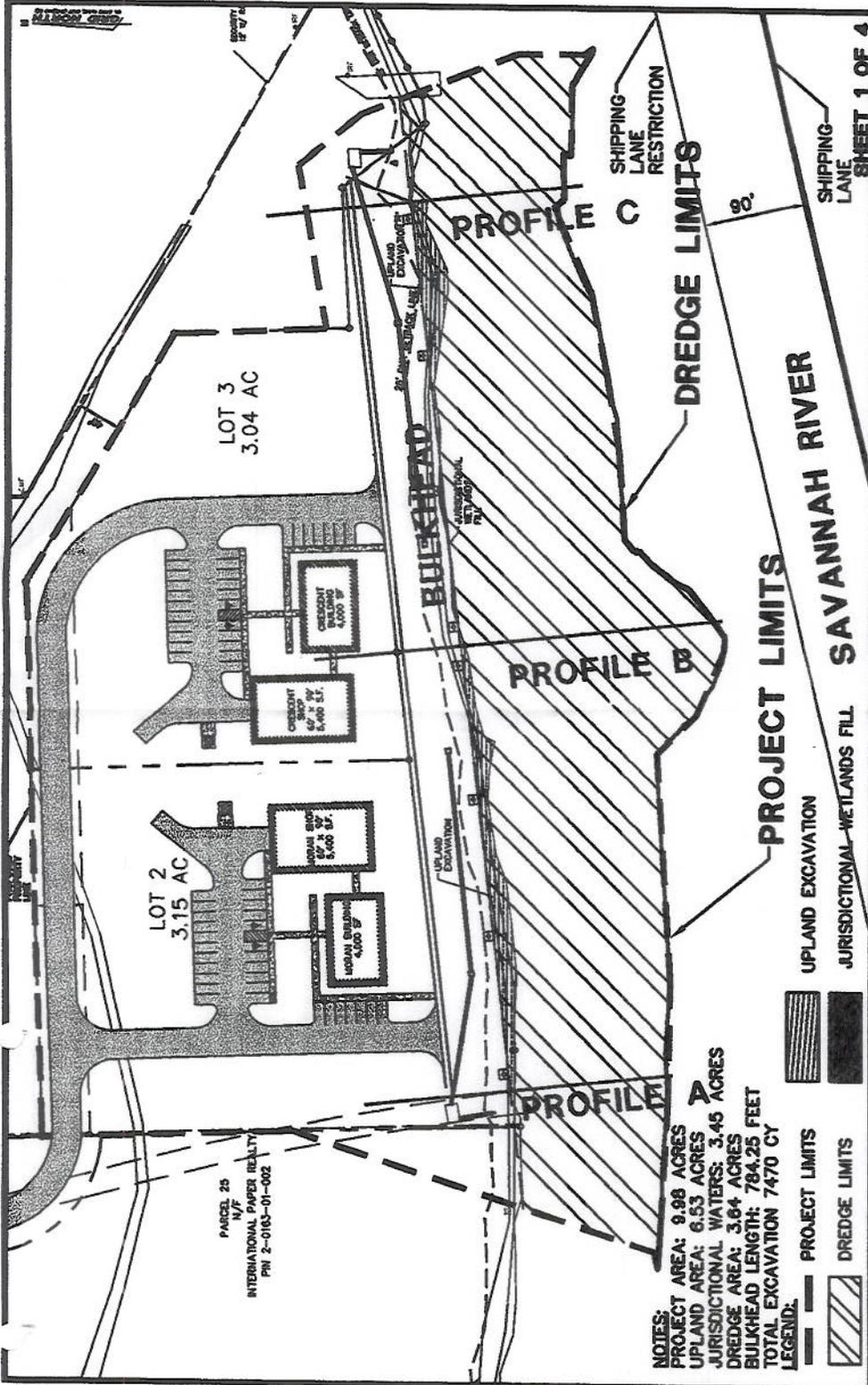
**RESOURCE + LAND
CONSULTANTS**
41 Park of Commerce Way, Ste. 303
Savannah, Georgia 31475
912.443.5956 www.rlandc.com



FIGURE 2
CRESCENT MORAN TOWING FACILITIES
SAVANNAH, CHATHAM COUNTY, GEORGIA

PREPARED FOR:
HUTCHINSON ISLAND DEVELOPMENT, LLC

GOOGLE EARTH IMAGE
OCTOBER 2008
MAP SCALE : NOT TO SCALE
RLC PROJECT NO: 08-082



PARCEL 25
N/P
INTERNATIONAL PAPER REALTY
PIN 2-0163-01-002

NOTES:
 PROJECT AREA: 9.98 ACRES
 UPLAND AREA: 6.53 ACRES
 JURISDICTIONAL WATERS: 3.45 ACRES
 DREDGE AREA: 3.64 ACRES
 BULKHEAD LENGTH: 784.25 FEET
 TOTAL EXCAVATION 7470 CY

LEGEND:
 PROJECT LIMITS
 DREDGE LIMITS

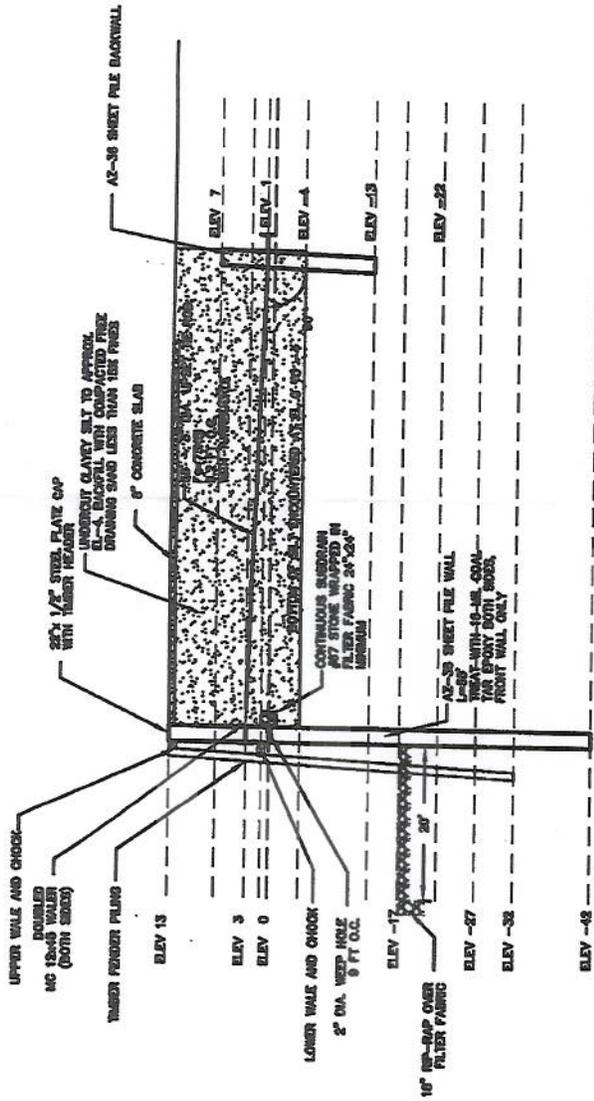
EMC ENGINEERING SERVICES, INC.
 POST OFFICE BOX 8101
 23 EAST CHARLTON STREET
 SAVANNAH, GEORGIA 31412
 TEL. PHONE: (912) 644-3200
 MOBILE FAX: (912) 233-4580
 EMAIL: savannah@emc-eng.com

ALBANY, ATLANTA, AUGUSTA, BRUNSWICK,
 COLUMBUS, STATESBORO & VALDOSTA

MORAN CRESCENT TOWING FACILITY
 PLAN VIEW
 SAVANNAH, GEORGIA
 Prepared for:
 MORAN CRESCENT TOWING

PROJECT NO.: 07-0011
DRAWN BY: BLM
DESIGNED BY: BLM
SURVEYED BY: EMC
SURVEY DATE: N/A
CHECKED BY: MDM
SCALE: 1" = 120'
DATE: 9-25-08

SHIPPING LANE
 SHEET 1 OF 4



**STEEL SHEET PILE BULKHEAD
TYPICAL SECTION**

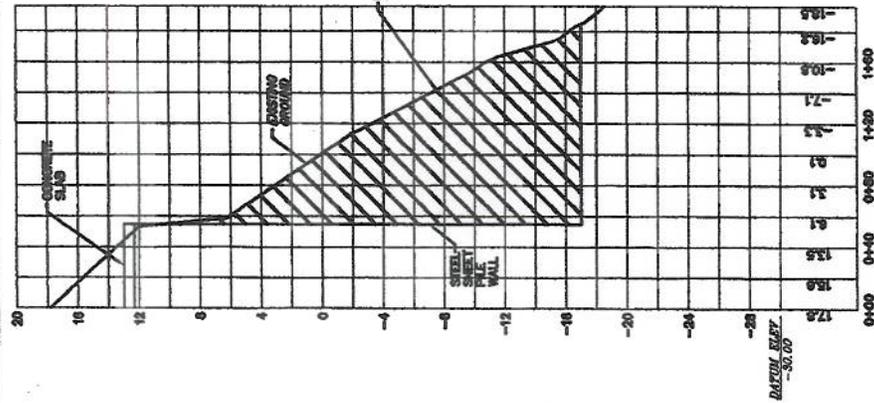
SHEET 3 OF 4

EMC ENGINEERING SERVICES, INC.
 10500 WOODBURN BLVD.
 SUITE 200
 SAVANNAH, GEORGIA 31412
 TEL: (912) 844-3200
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 WWW: savannah@emc-eng.com

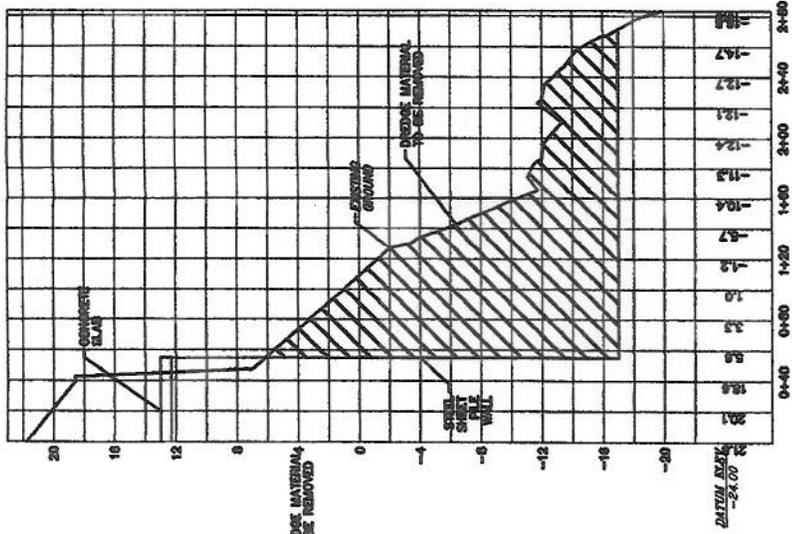
ALBANY, ATLANTA, AUGUSTA, BRUNSWICK,
 COLUMBUS, STATESBORO & VALDOSTA

MORAN CRESCENT TOWING FACILITY
 DETAIL
 SAVANNAH, GEORGIA
 Prepared for:
 MORAN CRESCENT TOWING

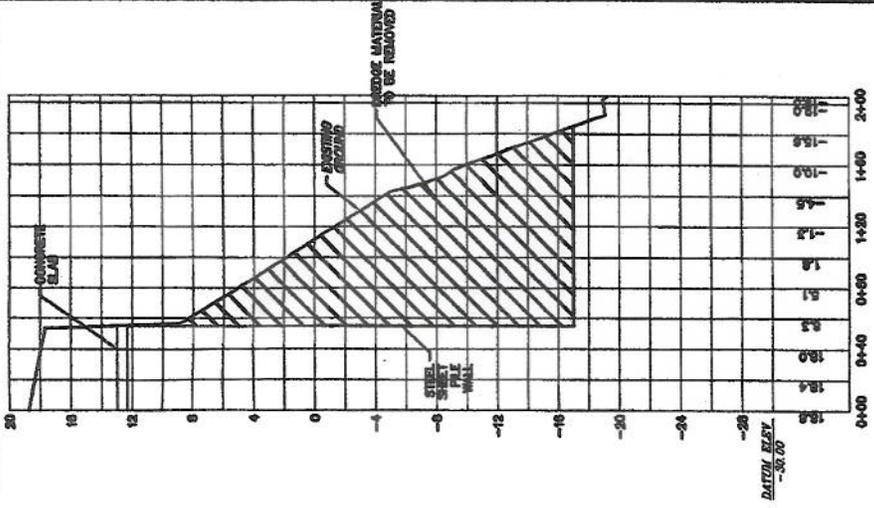
PROJECT NO.:	07-0011
DRAWN BY:	BLM
DESIGNED BY:	BLM
SURVEYED BY:	EMC
SURVEY DATE:	N/A
CHECKED BY:	MDM
SCALE:	1" = 20'
DATE:	9-25-08



PROFILE A



PROFILE B



PROFILE C
SHEET 4 OF 4

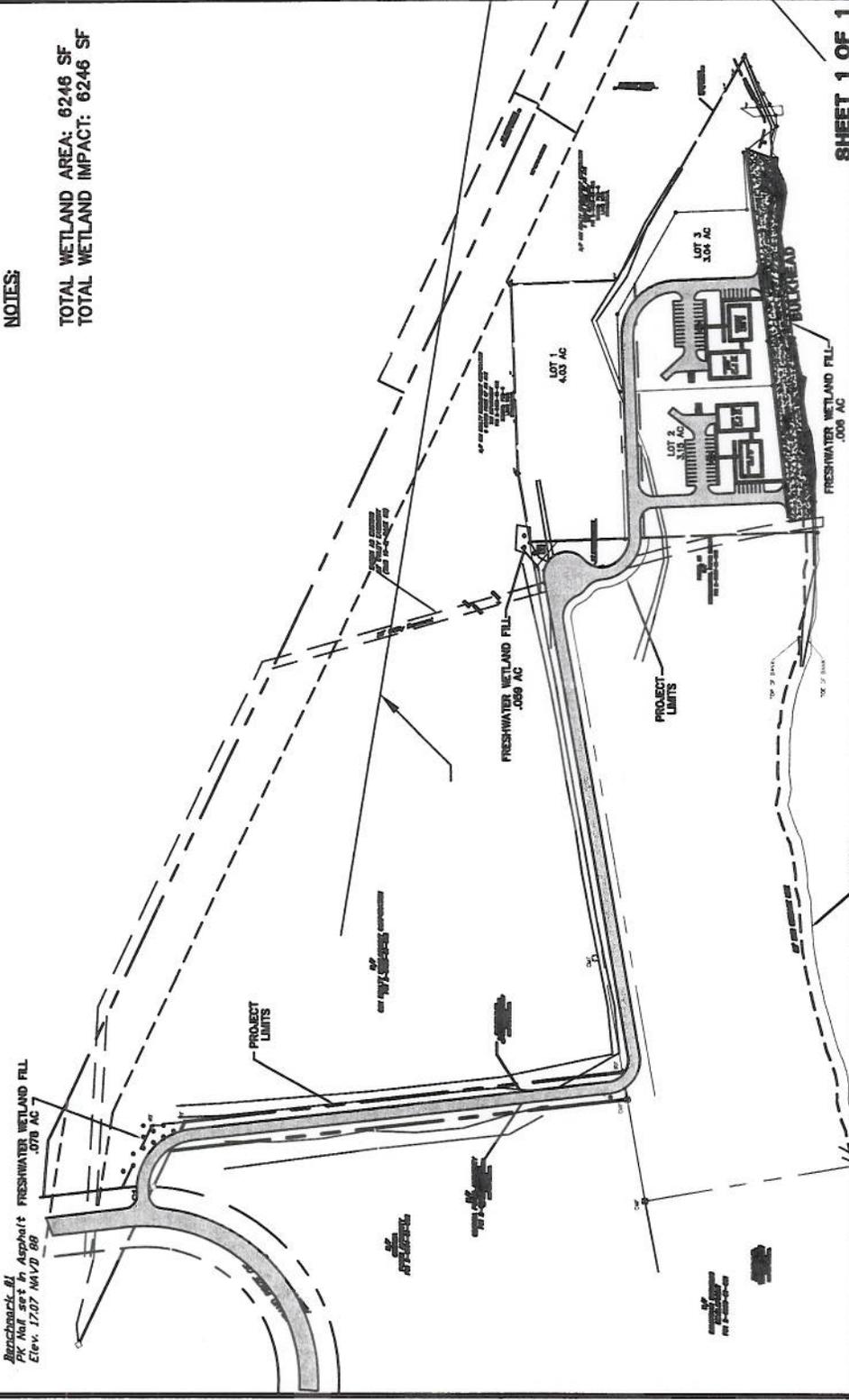
EMC
EMC ENGINEERING
SERVICES, INC.
 POST OFFICE BOX 8101
 23 EAST CHARLTON STREET
 SAVANNAH, GEORGIA 31412
 TEL. PHONE: (912) 644-3200
 INTERNET FAX: (912) 233-6860
 emc@emc.com savannah@emc-inc.com

ALBANY, ATLANTA, AUGUSTA, BRUNSWICK,
 COLUMBUS, STATESBORO & VALDOSTA

**MORAN CRESCENT
 TOWING FACILITY
 PROFILES**
 SAVANNAH, GEORGIA
 Prepared for:
 MORAN CRESCENT TOWING

PROJECT NO.: 07-0011
 DRAWN BY: BLM
 DESIGNED BY: BLM
 SURVEYED BY: EMC
 SURVEY DATE: N/A
 CHECKED BY: MDM
 SCALE: 1"=100'
 DATE: 9-25-08

Benchmark M1
 74.141' ±
 Elev. 1737.141' ±



NOTES:
 TOTAL WETLAND AREA: 6246 SF
 TOTAL WETLAND IMPACT: 6246 SF

SHEET 1 OF 1

PROJECT NO.:	07-0011
DRAWN BY:	BLM
DESIGNED BY:	BLM
SURVEYED BY:	EMC
SURVEY DATE:	N/A
CHECKED BY:	MDM
SCALE:	1" = 300'
DATE:	10-31-08

**MORAN CRESCENT
 TOWING FACILITY**
 FRESHWATER WETLAND IMPACT EXHIBIT
 SAVANNAH, GEORGIA
 Prepared for:
 MORAN CRESCENT TOWING

EMC ENGINEERING SERVICES, INC.
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 COLUMBUS, STATESBORO & VALDOSTA**