

JOINT
PUBLIC NOTICE

CHARLESTON DISTRICT, CORPS OF ENGINEERS
1949 Industrial Park Road, Room 140
Conway, South Carolina 29526

and

THE S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Office of Environmental Quality Control
Water Quality Certification and Wetlands Programs Section
2600 Bull Street
Columbia, South Carolina 29201

REGULATORY DIVISION
Refer to: P/N # 2002-02704

AUGUST 9, 2016

Pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), Sections 401 and 404 of the Clean Water Act (33 U.S.C. 1344), the South Carolina Coastal Zone Management Act (48-39-10 et. seq.), and the S.C. Construction in Navigable Waters Permit Program (R. 19-450, et. seq., 1976 S.C. Code of Laws, as amended), an application has been submitted to the Department of the Army and the S.C. Department of Health and Environmental Control by

R. L. MORRISON & SONS, INC.
C/O MR. KEN HANCE
NEWKIRK ENVIRONMENTAL, INC.
POST OFFICE BOX 746
MT. PLEASANT, SOUTH CAROLINA 29465

for a permit to construct a commercial marina and boat repair facility for use by R.L. Morrison & Sons, Inc., (RLM), a marine construction company, in the

SAMPIT RIVER

at a location west of US Highway 17, west of the City of Georgetown, in Georgetown County, South Carolina (Lat. 33.357293, Long. -79.297560 / USGS Georgetown South Quad).

In order to give all interested parties an opportunity to express their views

NOTICE

is hereby given that written statements regarding the proposed work will be received by the **Corps and SCDHEC** until

30 Days from the Date of this Notice,

from those interested in the activity and whose interests may be affected by the proposed work.

The proposed work consists of the construction of a concrete docking facility and barge loading ramp for use by RLM, a family owned marine construction company based out of McClellanville, SC.

Specific Project Details Provided by the Applicant:

In detail, the work involves the construction of a 20' x 572' main concrete pier running parallel to the shoreline that will be accessed by a 20' x 147' concrete pier and a 14' x 150' concrete pier. The construction of the main pier will include the placement of timber fender piles at 8' on center for the length of the pier and 5 pile clusters at the corners of the pier. A 4' x 20' gangway and 8' x 40' floating dock will also be constructed interior to the main pier, and a 25' x 30' pile supported steel framed storage rack used for storing recycled used pilings will also be constructed interior to the main pier. The proposed project also consists of the construction of a 80.5' x 230' concrete barge loading ramp with crane rails, associated riprap edge protection, and five 7 pile timber dolphins adjacent to and upstream of the ramp. The proposed barge loading ramp will impact 0.176 acres of waters of the US. Approximately 1,662 cubic yards of material will be excavated from within 0.16 acres of waters of the US prior to the construction of the barge loading ramp. This will be done by backhoe or other mechanical equipment, and the excavated material will be placed in a temporary disposal area in uplands on site prior to transport to the Georgetown County landfill. According to the applicant, the excavated material will be treated as contaminated. Additionally, the applicant proposes to place approximately 8 cubic yards of fill material into approximately 87 square feet of waters of the United States for bank stabilization in the form of a steel bulkhead and riprap in waters of the US. Note: the majority of the proposed steel bulkhead will be constructed above the delineated onsite wetlands with the exception of the 87 square feet impacted as proposed.

According to information provided by the applicant, "R. L. Morrison & Sons, Inc. (RLM) provides marine construction services to many private, public, and industrial clients including the maintenance, repair, and construction of recreational and commercial docks and piers, boat landings, marinas, erosion control structures, public utilities, bridges, fender systems, and port related facilities." "RLM currently operates out of their facility on Jeremy Creek in McClellanville. Access to this facility from the AICWW is limited due to water depths in Jeremy Creek and the need for periodic maintenance dredging. Maintenance dredging of Jeremy Creek is necessary every 5-10 years to maintain adequate water depths for RLM to access their site. The Sampit River site provides a number of advantages as compared to the Jeremy Creek site, including: deepwater access without the need for dredging; a larger site, including more water frontage; location in a commercial/industrial area; and SCDHEC classification of the Sampit River (FW, SB Below the Hwy 17 Bridge). For these reasons, RLM intends to relocate their marine construction facility to the Sampit River site in Georgetown to support their existing marine construction business."

"Vessels utilizing RLM's facility are primarily barges with equipment and materials. Vessel traffic to/from the facility is best described as irregular, on the order of once a week or longer, depending upon the location of job sites, duration of work and frequency of jobs. RLM will utilize upland areas of the property to construct their office, shop, and storage laydown areas for equipment and material."

Avoidance and Minimization:

According to the applicant, the project impacts were avoided and minimized in several ways. First, all of the docks and piers will be pile supported, and the majority of the bank stabilization will occur landward of any wetlands or other waters of the US. As stated by the applicant, "Hydrographic surveys were utilized to determine the most appropriate location of docks and piers to accommodate the intended use while minimizing impacts to navigation. Structures

proposed with this modification will extend into the Sampit River $\pm 155'$ ($\pm 21\%$), approximately 32' less than structures associated with the existing permit. In order to minimize/avoid potential impacts to marine species during the construction process, piling for proposed structures will be installed by vibrating, jetting, or, if impact pile driving is determined to be the preferred and/or necessary construction method, utilization of temporary noise attenuation piles." Additionally, dredging to maintain adequate depths will not be necessary at this location.

Proposed Mitigation:

The applicant states that "compensatory mitigation is not proposed as the project will result in minimal impacts to wetlands or waters of the US."

Project Purpose:

According to the applicant, "the purpose of the proposed project and permit modification is to provide for the structures, services and activities to support a commercial marine construction facility and in anticipation of R.L. Morrison and Sons, Inc., relocating their existing business and facility from McClellanville to Georgetown.

NOTE: A commercial marina was previously authorized at this location under permit number SAC 2002-02704 (fka 2002-1H-516).

NOTE: This public notice and associated plans are available on the Corps' website at: <http://www.sac.usace.army.mil/Missions/Regulatory/PublicNotices> .

The District Engineer has concluded that the discharges associated with this project, both direct and indirect, should be reviewed by the South Carolina Department of Health and Environmental Control in accordance with provisions of Section 401 of the Clean Water Act. As such, this notice constitutes a request, on behalf of the applicant, for certification that this project will comply with applicable effluent limitations and water quality standards. The work shown on this application must also be certified as consistent with applicable provisions of the Coastal Zone Management Program (15 CFR 930). This activity may also require evaluation for compliance with the S. C. Construction in Navigable Waters Permit Program. State review, permitting and certification is conducted by the S. C. Department of Health and Environmental Control. The District Engineer will not process this application to a conclusion until such certifications are received. The applicant is hereby advised that supplemental information may be required by the State to facilitate the review.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Implementation of the proposed project would impact 0.612 acres of estuarine substrates and emergent wetlands utilized by various life stages of species comprising the shrimp, and snapper-grouper management complexes. The District Engineer's initial determination is that the proposed action would not have a substantial individual or cumulative adverse impact on EFH or fisheries managed by the South Atlantic Fishery Management Council and the National Marine Fisheries Service (NMFS). The District Engineer's final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

Pursuant to the Section 7 of the Endangered Species Act of 1973 (as amended), the Corps has reviewed the project area, examined all information provided by the applicant, and the District Engineer has determined that the project is not likely to adversely affect the West Indian Manatee,

AUGUST 9, 2016

Kemp's Ridley Sea Turtle, and Leatherback Sea Turtle or result in the destruction or adverse modification of designated or proposed critical habitat. This public notice serves as a request for written concurrence from the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service on this determination. In addition, the District Engineer has made no determination of effect on the Atlantic and Shortnose Sturgeon. This public notice serves as a request to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for any additional information they may have on whether any Federally listed, or proposed to be listed, endangered or threatened species and/or designated or proposed critical habitat may be present in the area which would be affected by the activity.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), this public notice also constitutes a request to Indian Tribes to notify the District Engineer of any historic properties of religious and cultural significance to them that may be affected by the proposed undertaking.

In accordance with Section 106 of the NHPA, the District Engineer has consulted South Carolina ArchSite (GIS), for the presence or absence of historic properties (as defined in 36 C.F.R. 800.16)(f)(1)), and has initially determined that no historic properties are present; therefore, there will be no effect on historic properties. To ensure that other historic properties that the District Engineer is not aware of are not overlooked, this public notice also serves as a request to the State Historic Preservation Office and any other interested parties to provide any information they may have with regard to historic properties. This public notice serves as a request for concurrence within 30 days from the SHPO (and/or Tribal Historic Preservation Officer).

The District Engineer's final eligibility and effect determination will be based upon coordination with the SHPO and/or THPO, as appropriate and required and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps-identified permit area.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for a public hearing shall state, with particularity, the reasons for holding a public hearing.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the activity on the public interest and will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (EPA), under authority of Section 404(b) of the Clean Water Act and, as appropriate, the criteria established under authority of Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended. 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 project must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the project 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 and, in general, the needs and welfare of the people. A permit will be granted unless the District Engineer determines that it would be contrary to the public interest. In cases of conflicting property rights, the Corps cannot undertake to adjudicate rival claims.

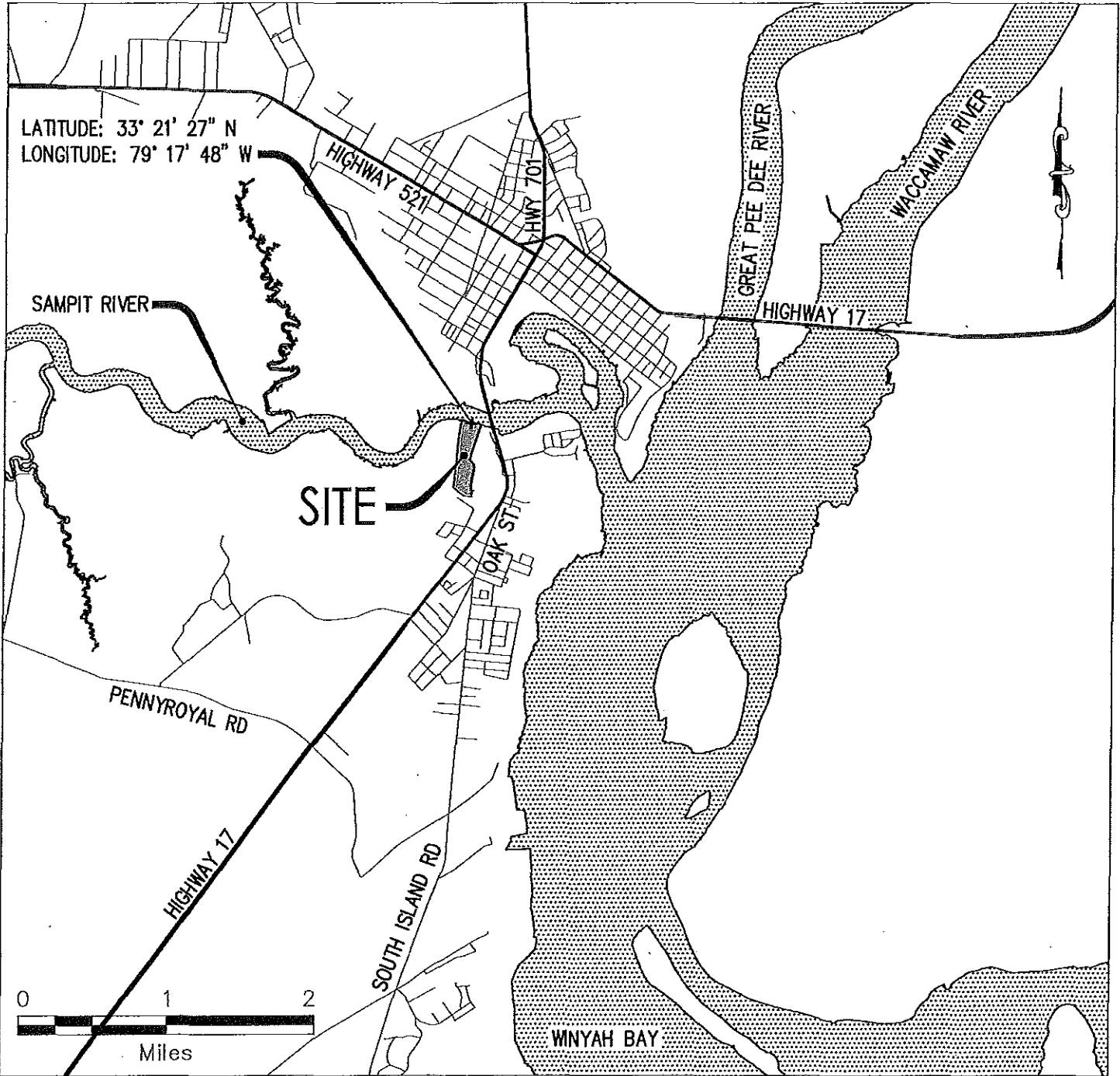
AUGUST 9, 2016

The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for this project. 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 activity. **Please submit comments in writing, identifying the project of interest by public notice number, to the following address:**

**US Army Corps of Engineers
Regulatory Office
1949 Industrial Park Road, Room 140
Conway, SC 29526**

If there are any questions concerning this public notice, please contact Ann Eaddy at 843-365-1709.

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 2016/07/21 4:33 PM By: Edwards, Mincy



Revision	Date	Description	Survey Datum: NGVD29

Drawing: FIGURE 1
 GEORGETOWN SITE LOCATION MAP

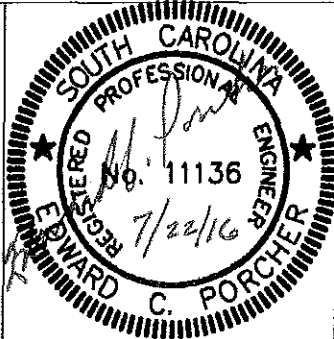
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project Loc: SAC 2002-02704

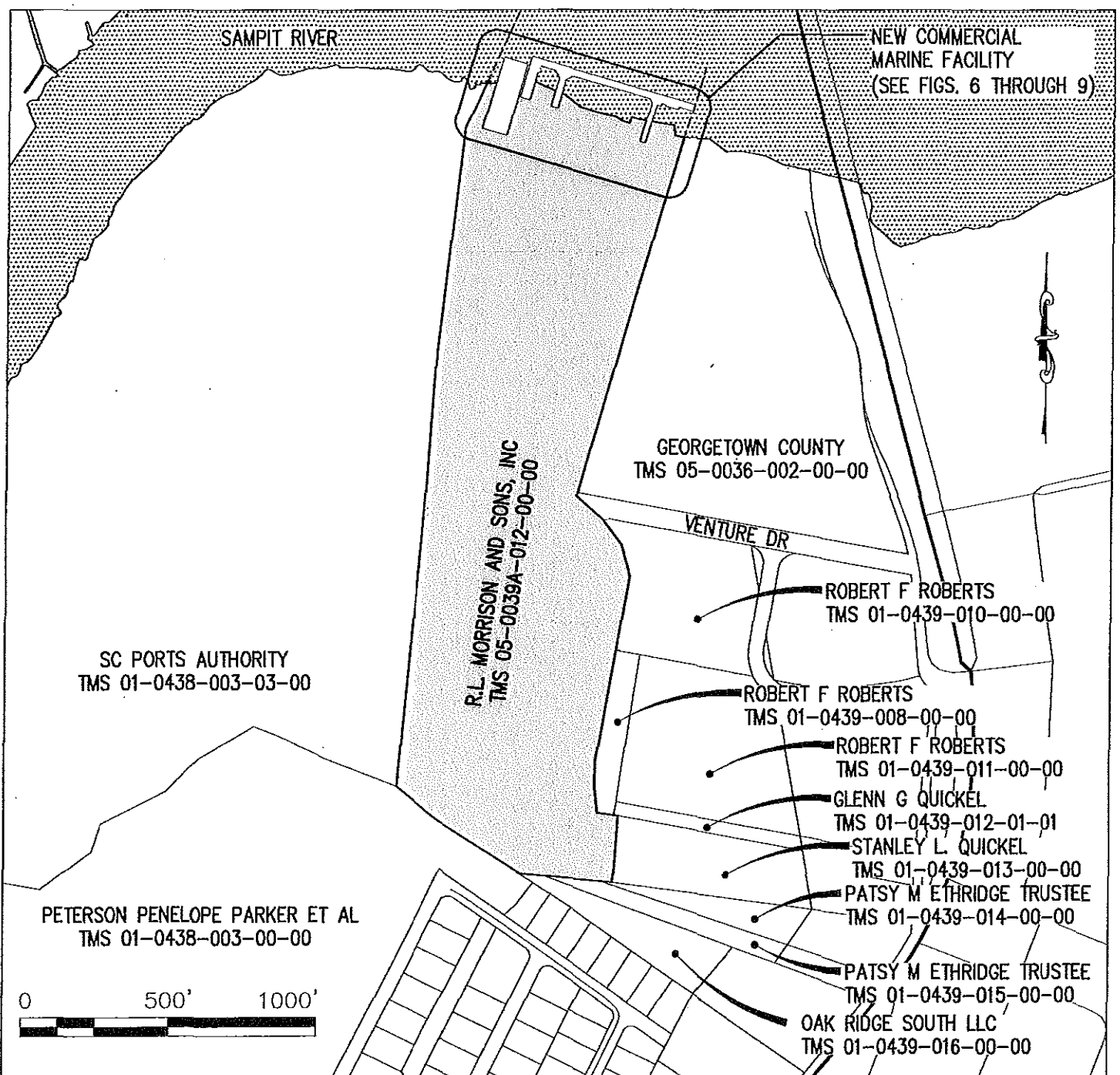
Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility

Date: Georgetown County, SC

Application Date: August 5, 2016 Sheet 1 of 33



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 2016/07/21 4:34 PM By: Edwards, Minda



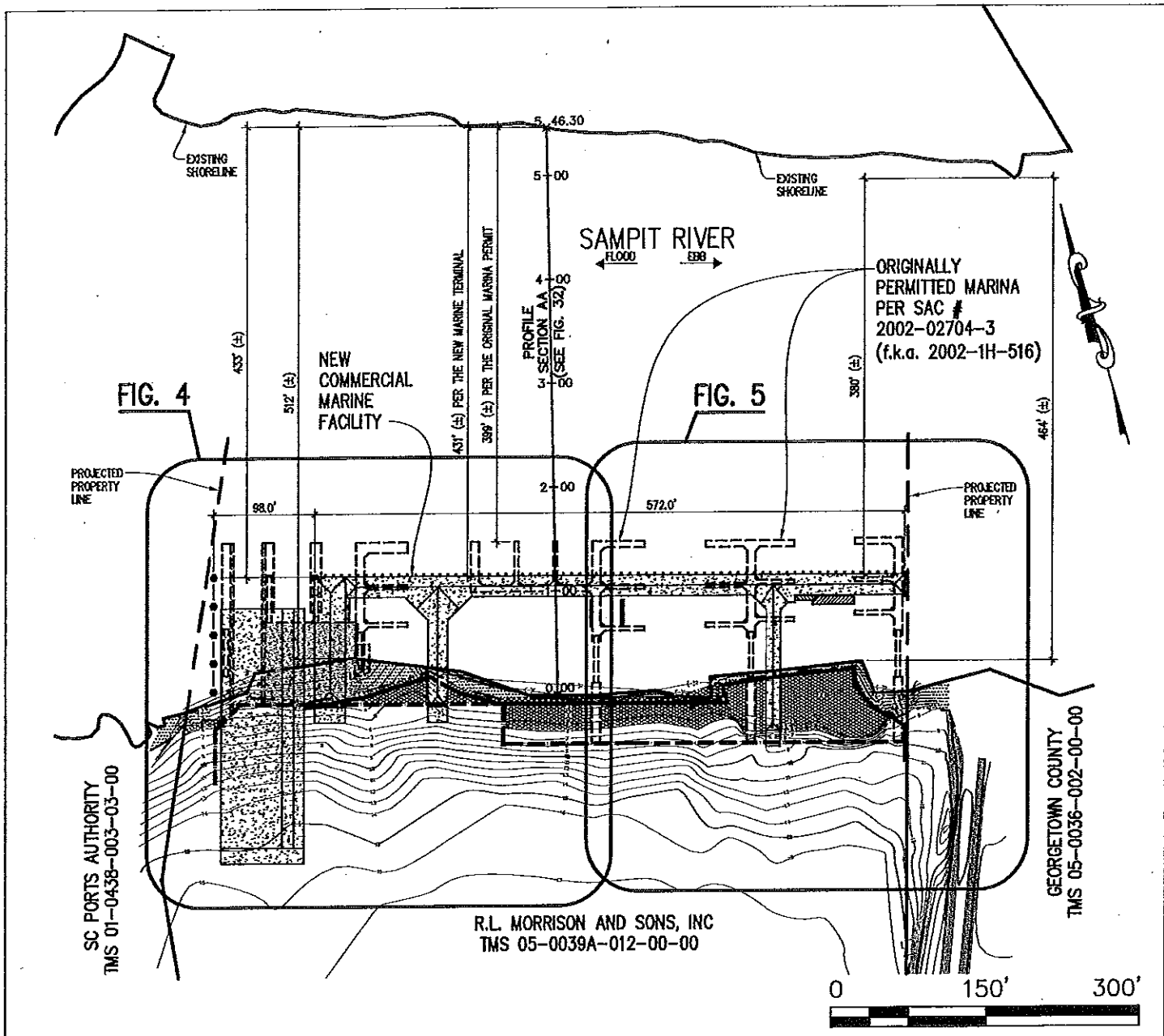
Revision	Date	Description	Survey Datum: NCV29
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STANTEC CONSULTING SERVICES, INC
No. C02310

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER
No. 11136
7/22/16
EDWARD C. PORCHER

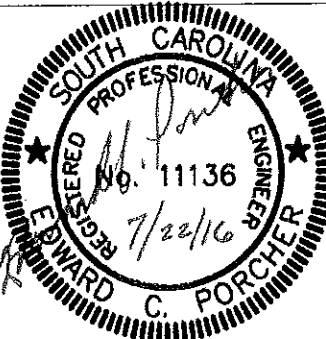
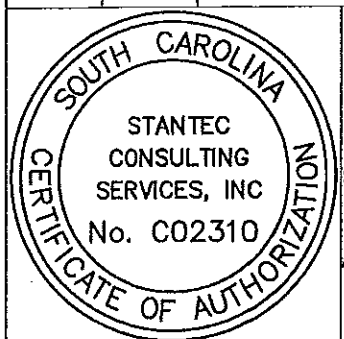
Drawing:	FIGURE 2 SITE PLAN AND ADJACENT PROPERTIES
Project Title:	R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
Project I:	SAC 2002-02704
Applicar	R.L. Morrison & Sons, Inc.
Date:	Georgetown Marine Facility Georgetown County, SC
Applicat	Date: August 5, 2016 Sheet 2 of 33

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 2016/07/21 5:06 PM By: Edwards, Mindy



Survey Datum: NGVD29
 with the exception of spot
 elevations within the
 Sampit River, which are
 depths in feet below MLLW

Revision	Date	Description



Drawing: FIGURE 3
 PROPOSED COMMERCIAL MARINE FACILITY RELATIVE
 TO THE PREVIOUSLY PERMITTED MARINA

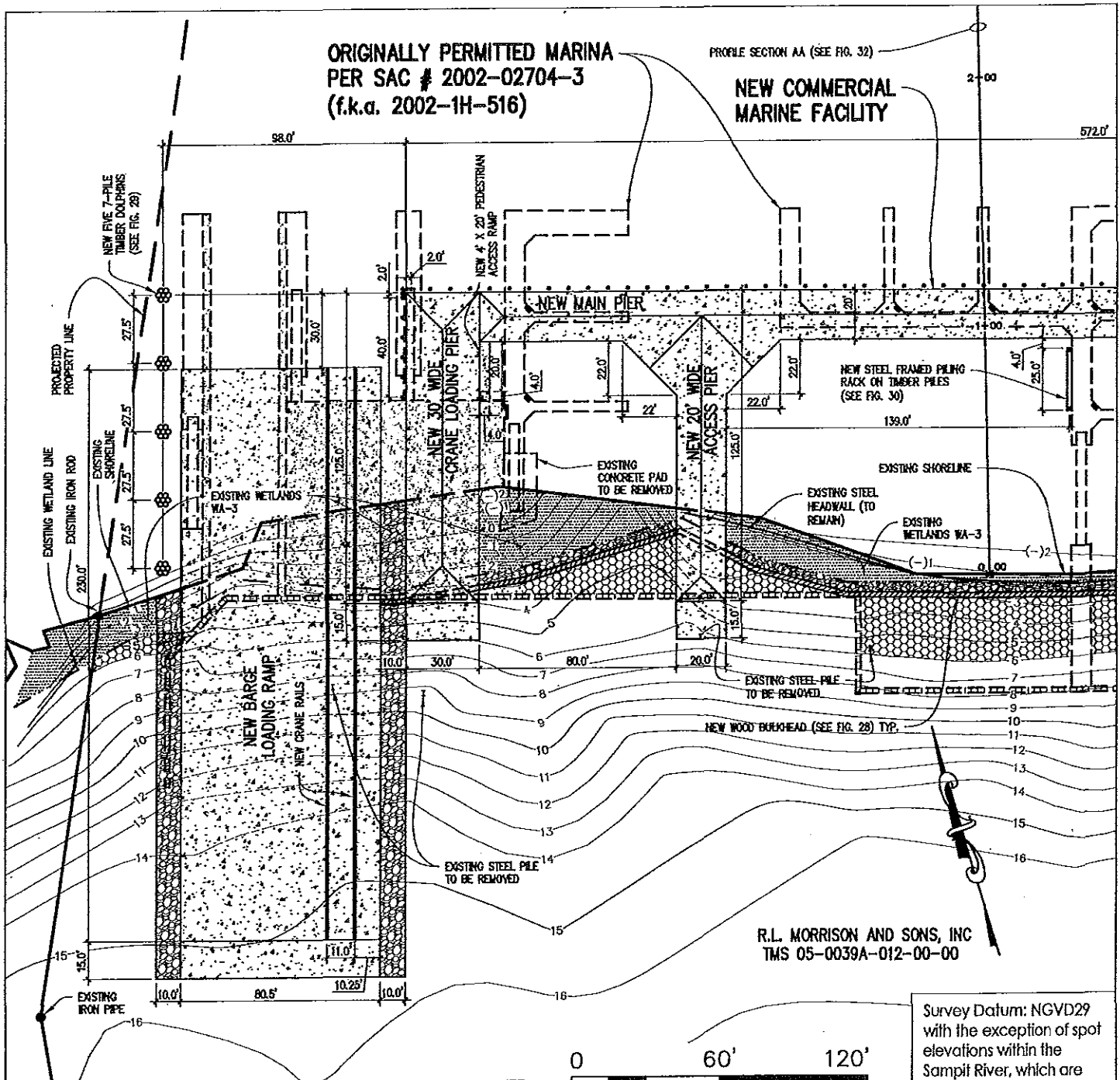
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project: SAC 2002-02704

Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility
 Georgetown County, SC

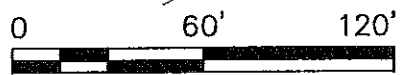
Date: August 5, 2016 Sheet 3 of 33

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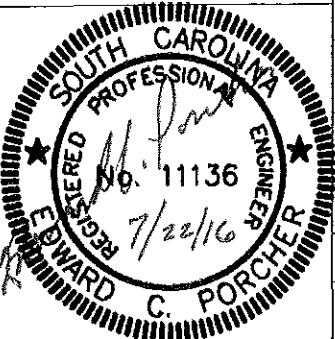
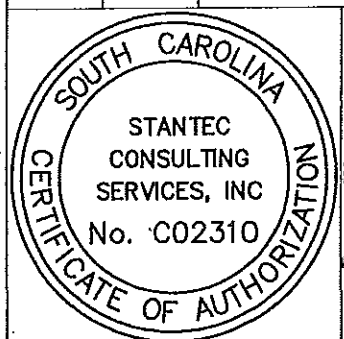


R.L. MORRISON AND SONS, INC
 TMS 05-0039A-012-00-00

Survey Datum: NGVD29
 with the exception of spot
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 depths in feet below MLLW



Revision	Date	Description



Drawing: **FIGURE 4**
PROPOSED COMMERCIAL MARINE FACILITY RELATIVE
TO THE PREVIOUSLY PERMITTED MARINA

Project Title: **R.L. MORRISON & SONS, INC.**
GEORGETOWN FACILITY

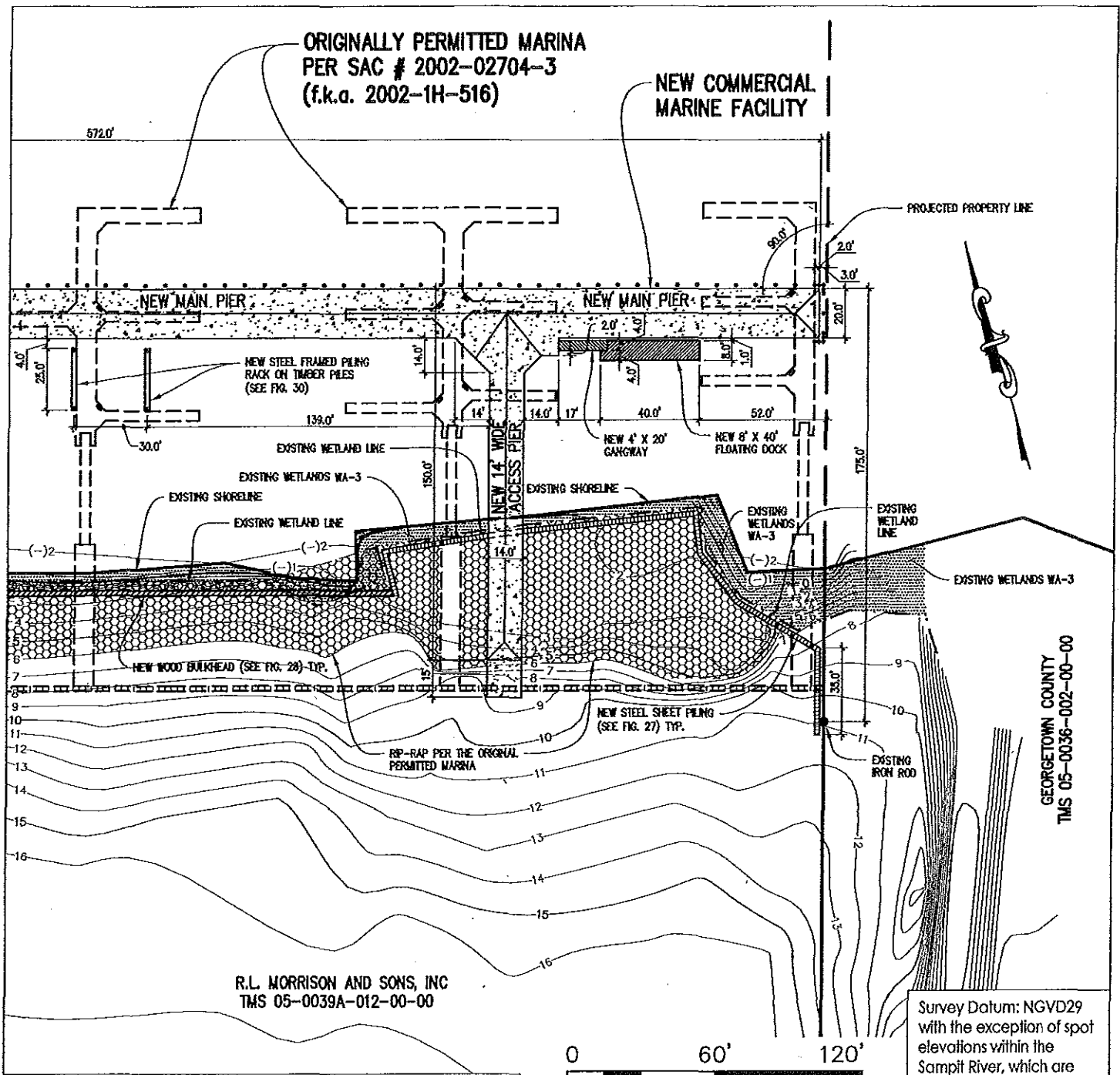
Project No: **SAC 2002-02704**

Applicant: **R.L. Morrison & Sons, Inc.**
Georgetown Marine Facility

Date: **Georgetown County, SC**

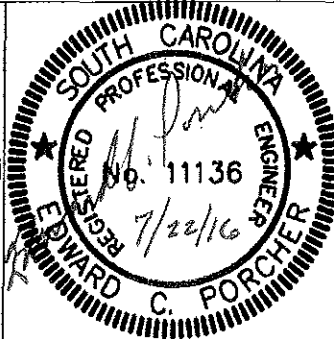
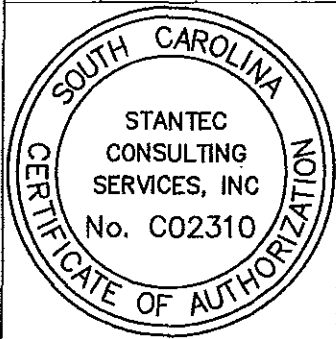
Applicatio: **Date: August 5, 2016** **Sheet 4 of 33**

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 2016/07/21 5:08 PM By: Edwards, Mincy



R.L. MORRISON AND SONS, INC
 TMS 05-0039A-012-00-00

Revision	Date	Description



Drawing: FIGURE 5
 PROPOSED COMMERCIAL MARINE FACILITY RELATIVE
 TO THE PREVIOUSLY PERMITTED MARINA

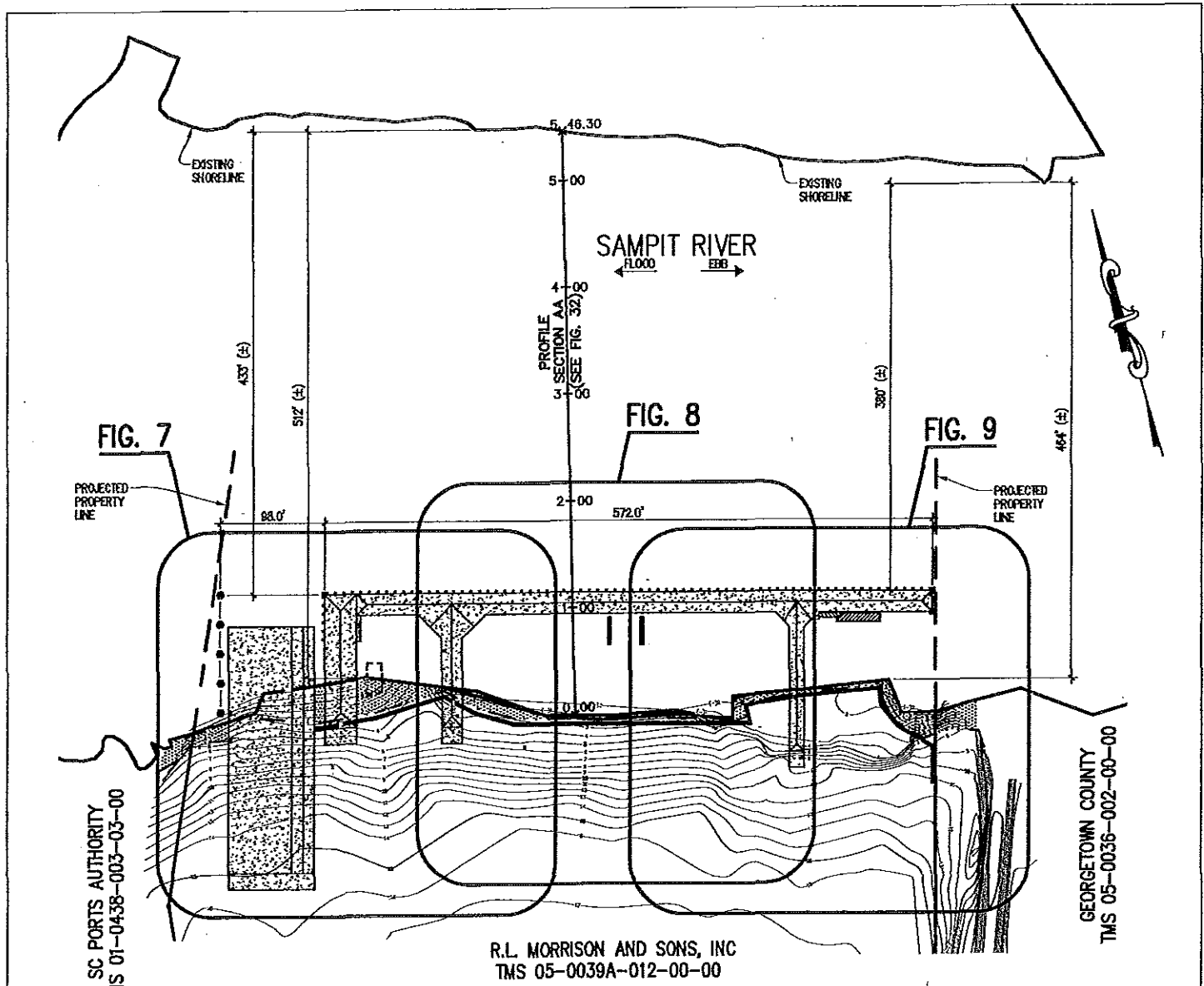
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project Loc: SAC 2002-02704

Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility
 Georgetown County, SC

Date: August 5, 2016
 Application: Sheet 5 of 33

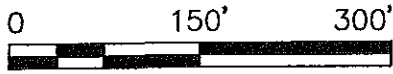
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SC PORTS AUTHORITY
 TMS 01-0438-003-03-00

GEORGETOWN COUNTY
 TMS 05-0036-002-00-00

R.L. MORRISON AND SONS, INC
 TMS 05-0039A-012-00-00



ALL EXISTING CONDITIONS HAVE BEEN TAKEN FROM THE FOLLOWING SURVEYS BY McKIM & CREED OF BOLIVIA/WILMINGTON, NORTH CAROLINA:

1. HYDROGRAPHIC SURVEY DATED 10/18/01
2. BOUNDARY & TOPOGRAPHIC SURVEY DATED 1/4/02, AND
3. WETLANDS DELINEATION SURVEY DATED 1/30/02

Survey Datum: NGVD29 with the exception of spot elevations within the Sampit River, which are depths in feet below MLLW

Revision	Date	Description

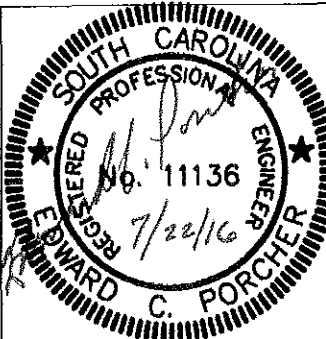
Drawing: **FIGURE 6**
COMMERCIAL MARINE FACILITY SITE PLAN

Project Title: **R.L. MORRISON & SONS, INC.**
GEORGETOWN FACILITY

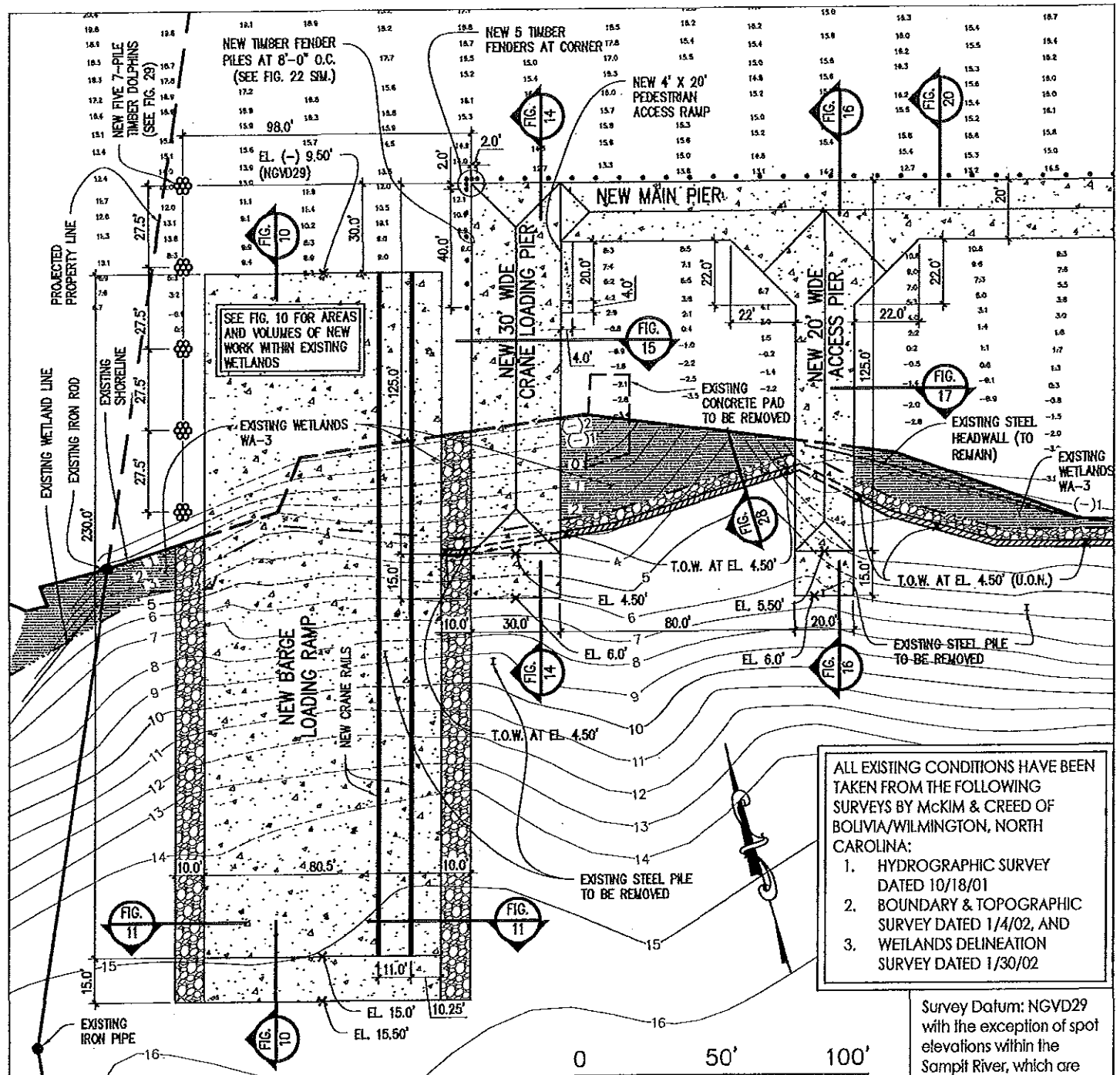
Project No: **SAC 2002-02704**

Applicant: **R.L. Morrison & Sons, Inc.**
Georgetown Marine Facility

Date: **Georgetown County, SC**
 Application Date: **August 5, 2016** Sheet 6 of 33



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ALL EXISTING CONDITIONS HAVE BEEN TAKEN FROM THE FOLLOWING SURVEYS BY McKIM & CREED OF BOLIVIA/WILMINGTON, NORTH CAROLINA:

1. HYDROGRAPHIC SURVEY DATED 10/18/01
2. BOUNDARY & TOPOGRAPHIC SURVEY DATED 1/4/02, AND
3. WETLANDS DELINEATION SURVEY DATED 1/30/02

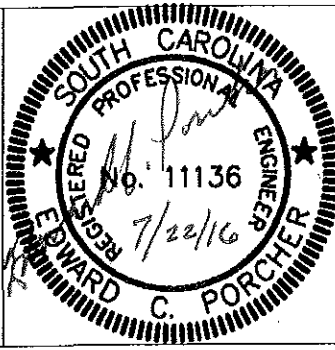
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Revision	Date	Description

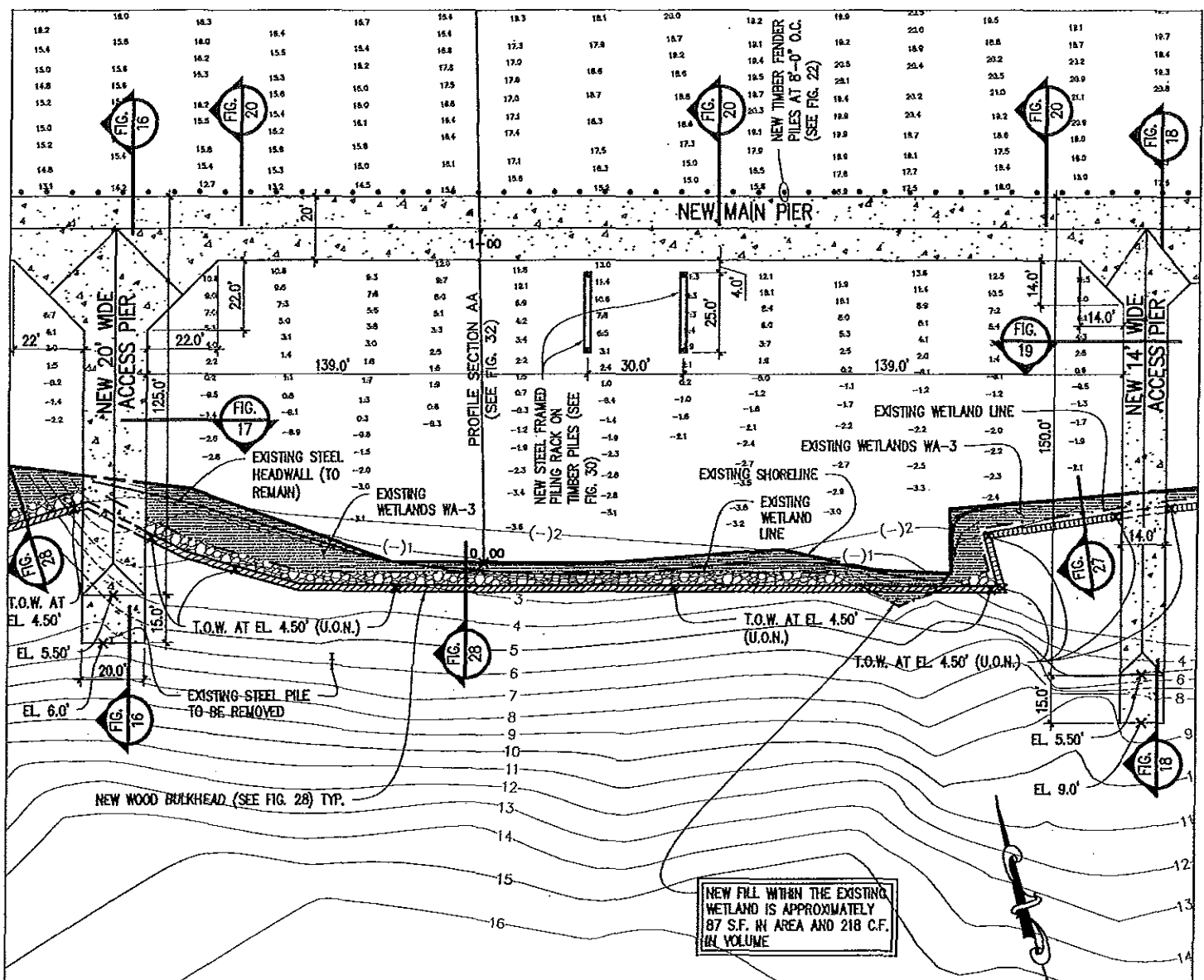
Drawing: **FIGURE 7**
 PARTIAL PLAN AT WEST END OF
 COMMERCIAL MARINE FACILITY

Project Title: **R.L. MORRISON & SONS, INC.**
GEORGETOWN FACILITY

Project: **SAC 2002-02704**
 Applied: **R.L. Morrison & Sons, Inc.**
 Date: **Georgetown Marine Facility**
 Applied: **Georgetown County, SC**
 Date: **August 5, 2016** Sheet 7 of 33



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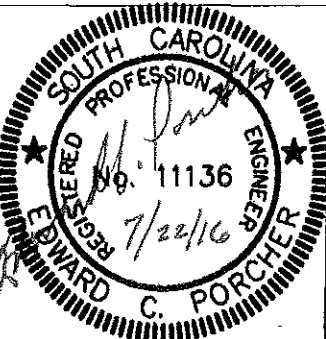
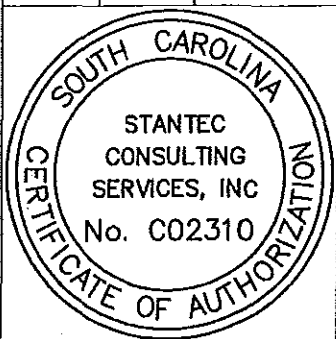
R.L. MORRISON AND SONS, INC
 TMS 05-0039A-012-00-00

ALL EXISTING CONDITIONS HAVE BEEN TAKEN FROM THE FOLLOWING SURVEYS BY McKIM & CREED OF BOLIVIA/WILMINGTON, NORTH CAROLINA:

1. HYDROGRAPHIC SURVEY DATED 10/18/01
2. BOUNDARY & TOPOGRAPHIC SURVEY DATED 1/4/02, AND
3. WETLANDS DELINEATION SURVEY DATED 1/30/02

Survey Datum: NGVD29
 with the exception of spot elevations within the Sampit River, which are depths in feet below MLLW

Revision	Date	Description



Drawing: **FIGURE 8**
 PARTIAL PLAN AT CENTER OF
 COMMERCIAL MARINE FACILITY

Project Title: **R.L. MORRISON & SONS, INC.**
GEORGETOWN FACILITY

Project I
SAC 2002-02704

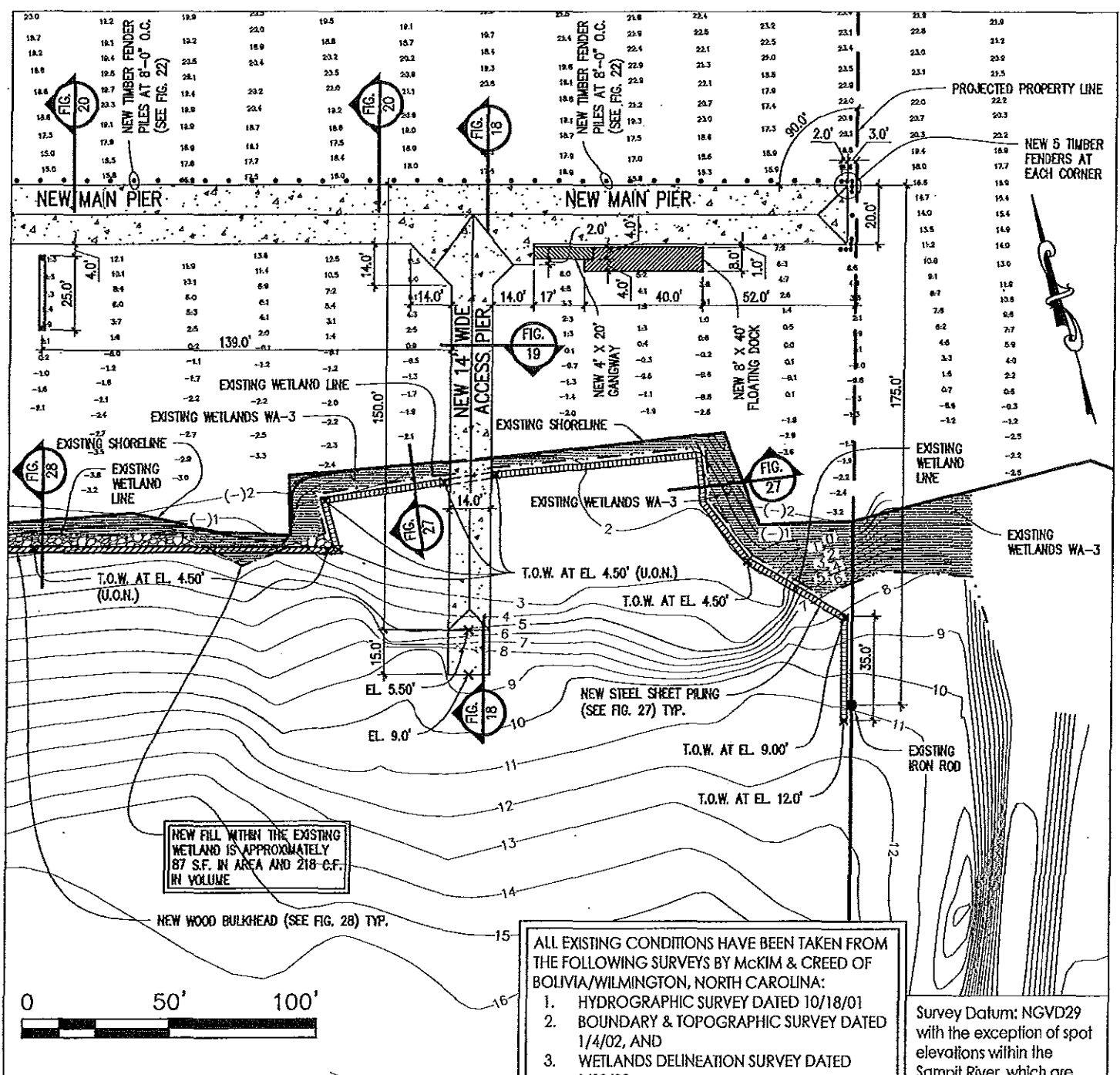
Applica
R.L. Morrison & Sons, Inc.

Date:
Georgetown Marine Facility

Applica
Georgetown County, SC

Date: August 5, 2016 Sheet 8 of 33

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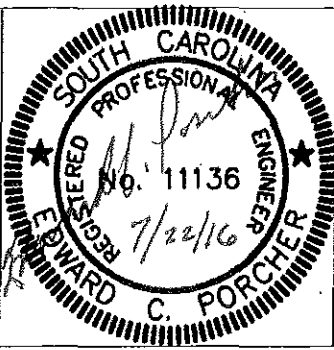
NEW FILL WITH THE EXISTING WETLAND IS APPROXIMATELY 87 S.F. IN AREA AND 218 C.F. IN VOLUME

ALL EXISTING CONDITIONS HAVE BEEN TAKEN FROM THE FOLLOWING SURVEYS BY McKIM & CREED OF BOLIVIA/WILMINGTON, NORTH CAROLINA:

1. HYDROGRAPHIC SURVEY DATED 10/18/01
2. BOUNDARY & TOPOGRAPHIC SURVEY DATED 1/4/02, AND
3. WETLANDS DELINEATION SURVEY DATED 1/30/02

Survey Datum: NGVD29 with the exception of spot elevations within the Sampit River, which are depths in feet below MLLW

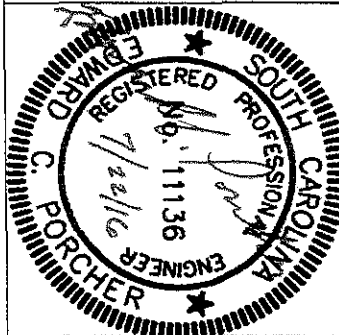
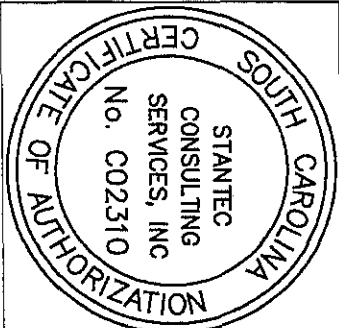
Revision	Date	Description



Drawing: FIGURE 9
 PARTIAL PLAN AT EAST END OF
 COMMERCIAL MARINE FACILITY

Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project # SAC 2002-02704
 Applica R.L. Morrison & Sons, Inc.
 Date: Georgetown Marine Facility
 Applica Georgetown County, SC
 Date: August 5, 2016 Sheet 9 of 33



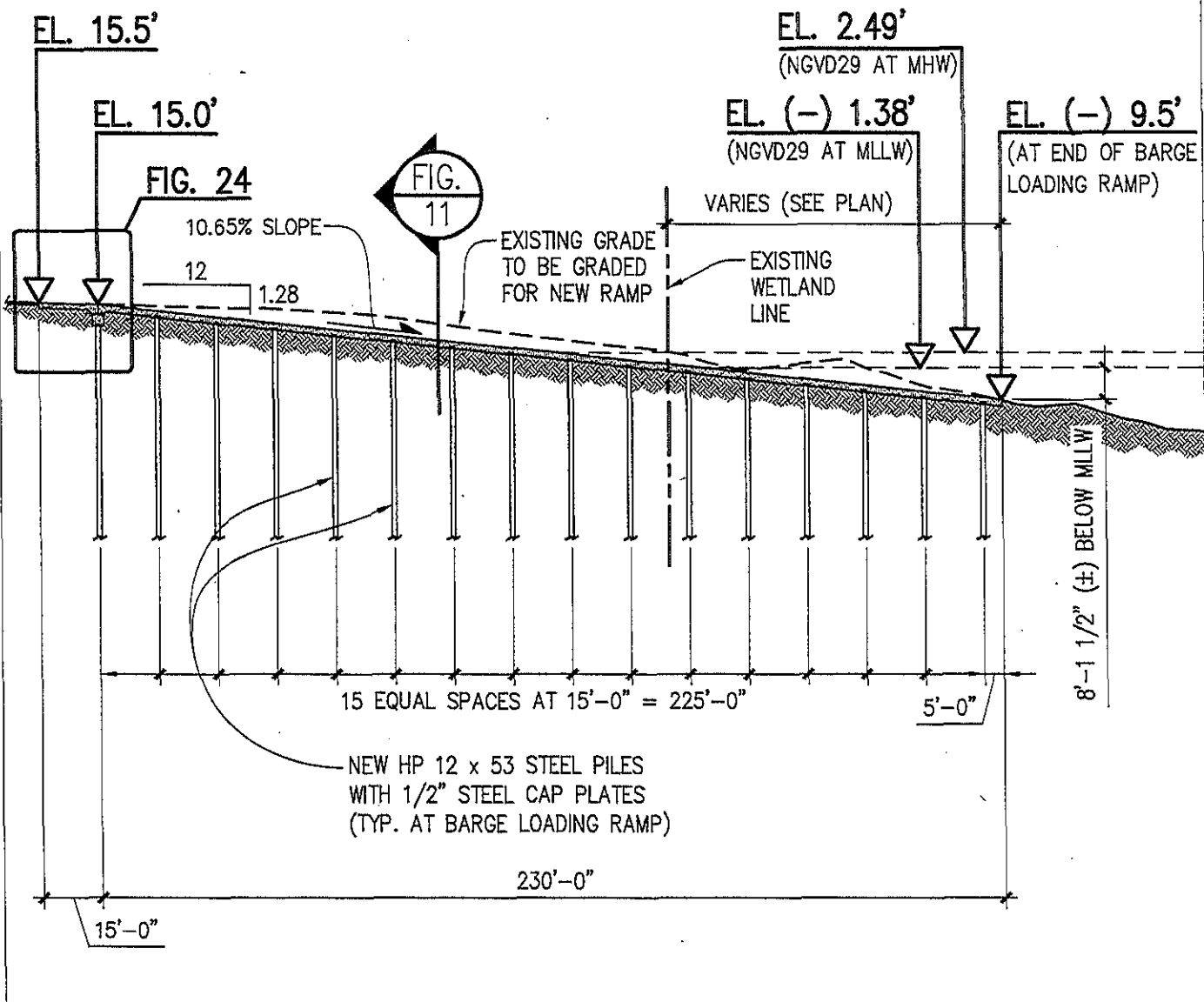
Revision	
Date	
Description	

NEW BARGE LOADING RIP-RAP IN EXISTING WETLANDS IS APPROXIMATELY 513 S.F. IN AREA AND 898 C.F. IN VOLUME.

NEW BARGE LOADING CONCRETE IN EXISTING WETLANDS IS APPROXIMATELY 1720 S.F. IN AREA AND 3010 C.F. IN VOLUME.

NEW BARGE LOADING CONCRETE BEYOND EXISTING WETLANDS, IN TIDAL BOTTOMS, IS APPROXIMATELY 5451 S.F. IN AREA AND 9539 C.F. IN VOLUME.

THE VOLUME OF EXCAVATED SOILS BELOW MEAN HIGH WATER (MHW) IS APPROXIMATELY 44,887 C.F.



Drawing: FIGURE 10
 LONGITUDINAL SECTION THROUGH THE BARGE LOADING RAMP

Survey Datum: NGVD29

Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY

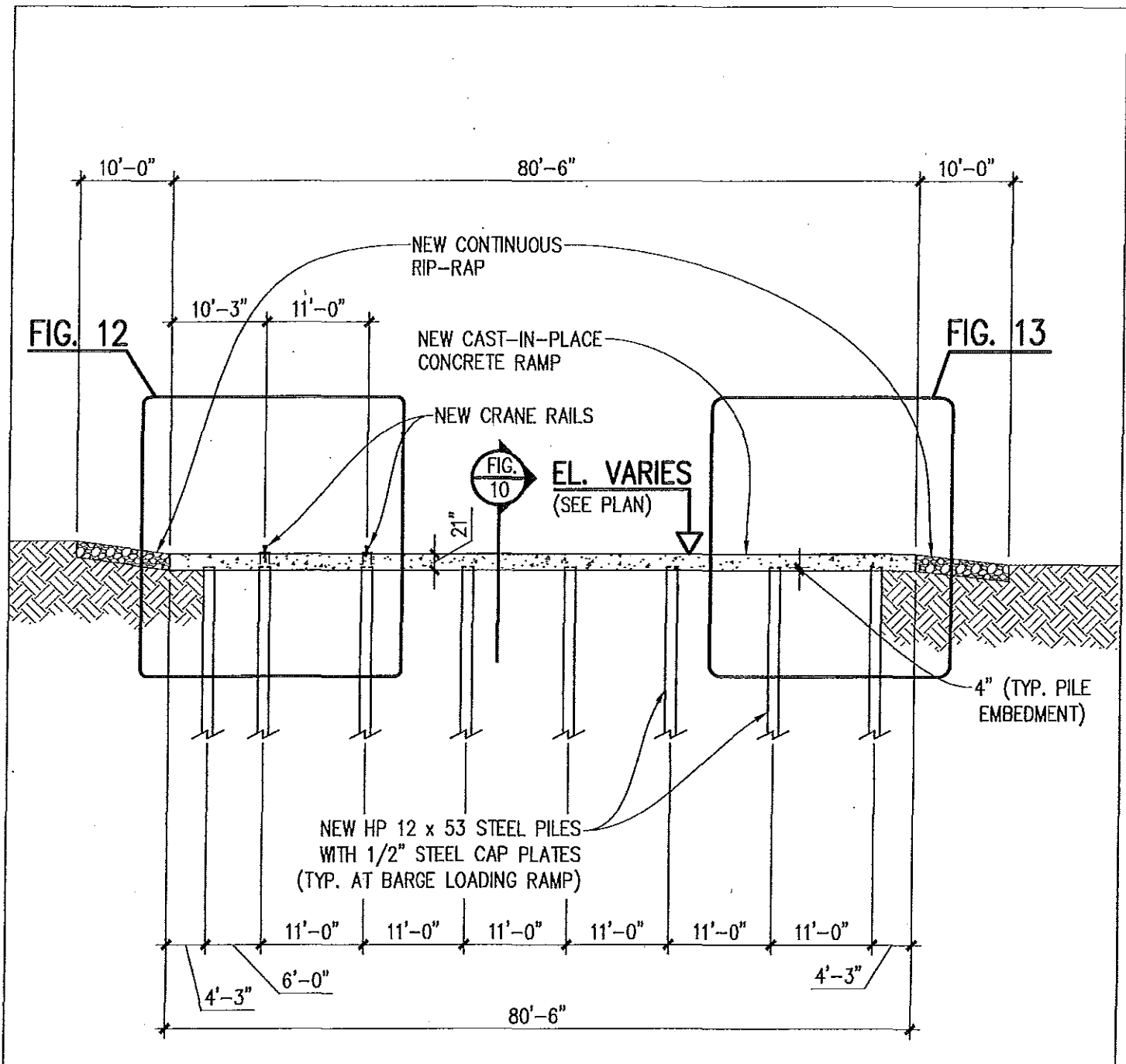
Project No: SAC 2002-02704

Applicator: R.L. Morrison & Sons, Inc. Georgetown Marine Facility Georgetown County, SC

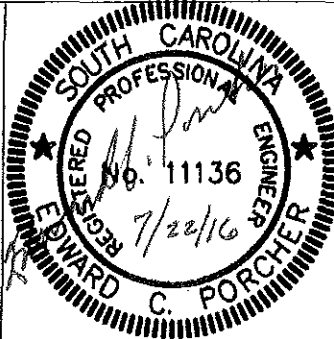
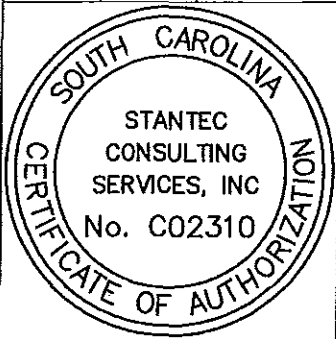
Date: August 5, 2016

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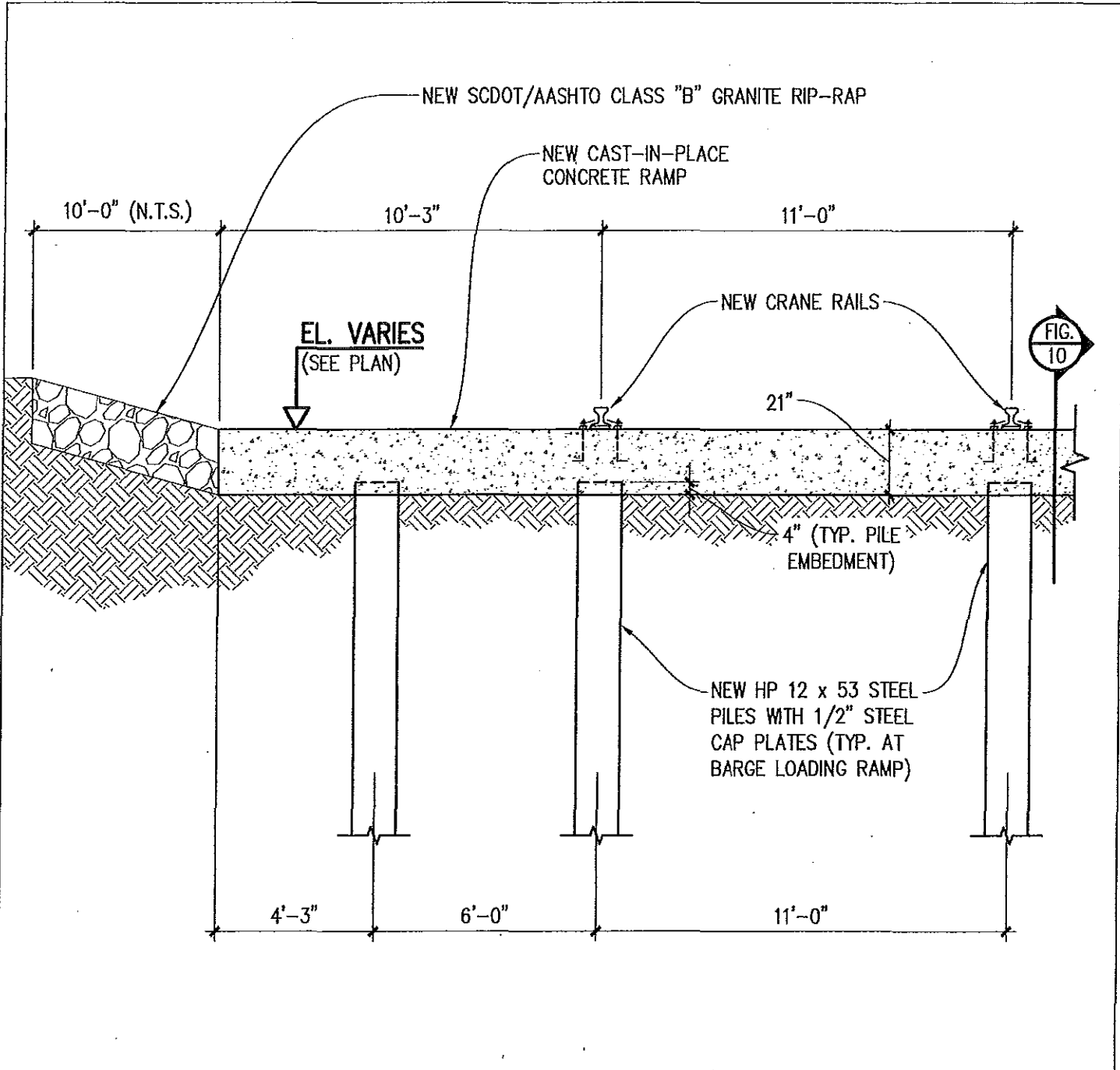
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2016/07/21 5:22 PM By: Edwards, Mincy



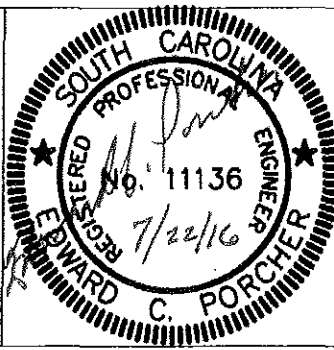
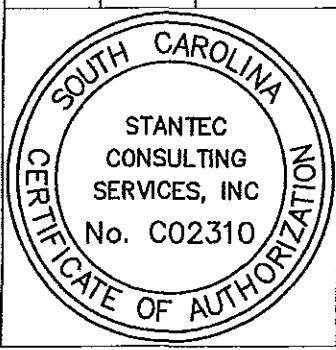
Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 11 TRANSVERSE SECTION THROUGH THE BARGE LOADING RAMP
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project: SAC 2002-02704
			Applic: R.L. Morrison & Sons, Inc. Georgetown Marine Facility
			Date: Georgetown County, SC
			Applic: Date: August 5, 2016 Sheet 11 of 33



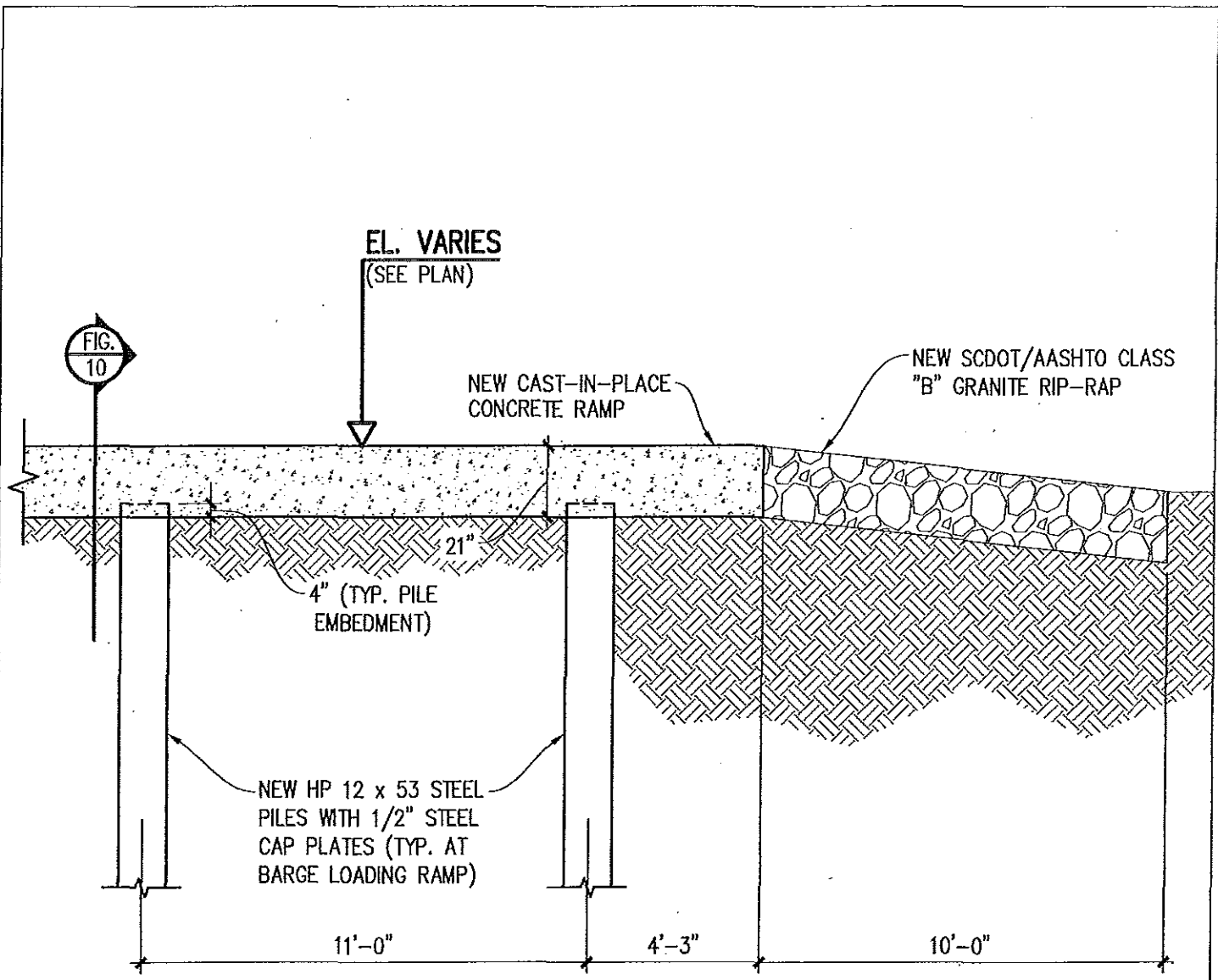
V:\1710\active\171015105_structural_drawing\2016-07-22_permit_drawing\171015105-permit_sections.dwg
 2016/07/21 5:23 PM By: Edwards, Mindy



Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 12 PARTIAL SECTION THROUGH THE EAST SIDE OF THE BARGE LOADING RAMP
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project: SAC 2002-02704
			Applic: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Date: Georgetown County, SC
			Applic: Date: August 5, 2016 Sheet 12 of 33

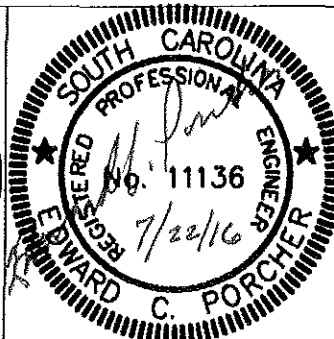
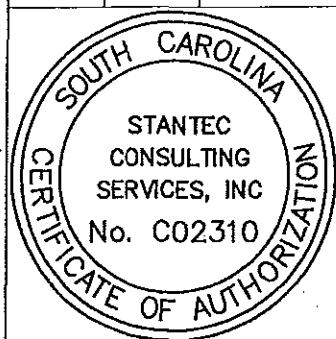


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 2016/07/21 5:24 PM By: Edwards, Mindy



Revision	Date	Description

Survey Datum: NGVD29



Drawing: FIGURE 13
 PARTIAL SECTION THROUGH THE WEST SIDE OF
 THE BARGE LOADING RAMP

Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

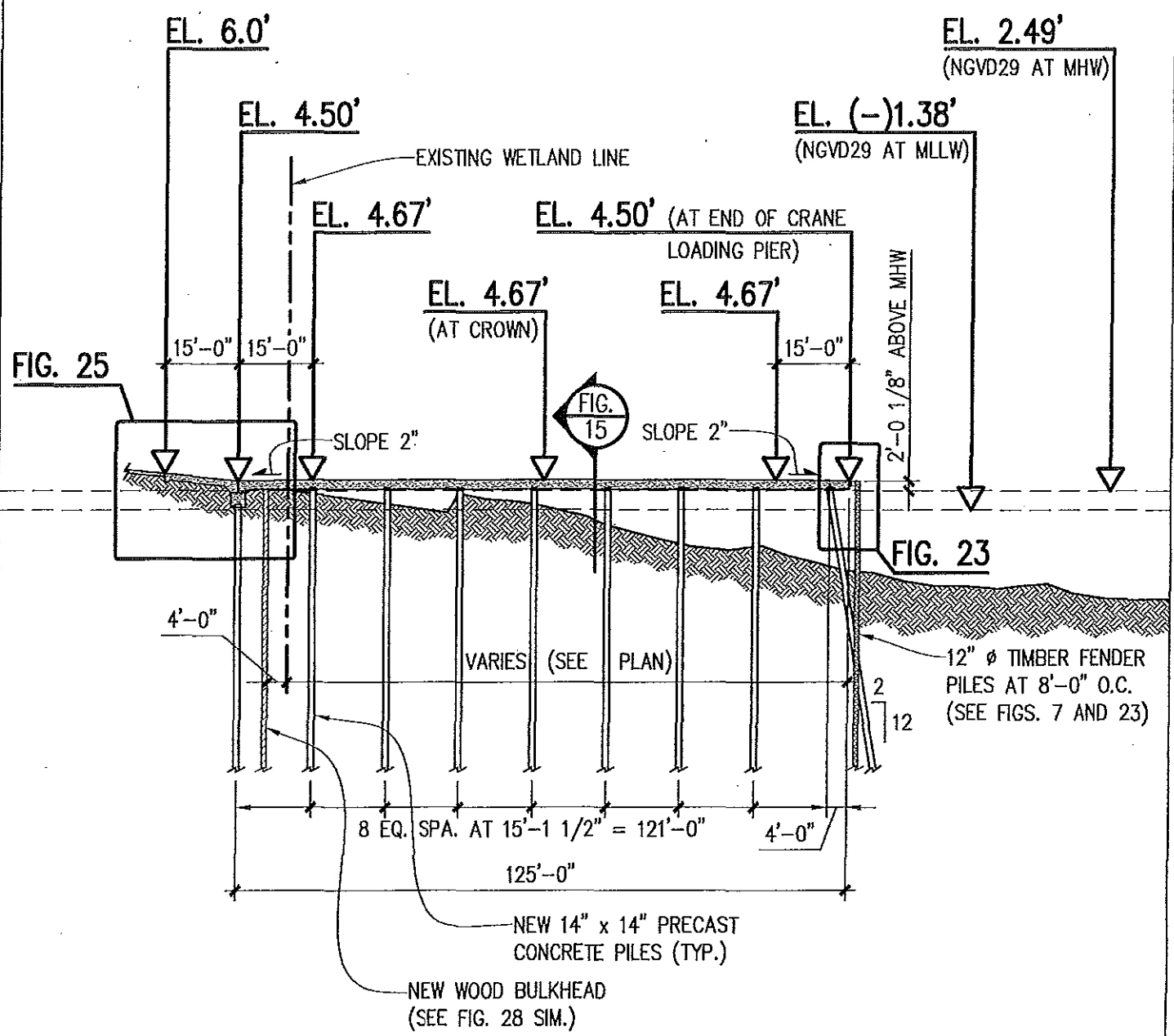
Project: SAC 2002-02704

Applic: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility

Date: Georgetown County, SC

Applic Date: August 5, 2016 Sheet 13 of 33

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 2016/07/21 5:24 PM By: Edwards, Mindy



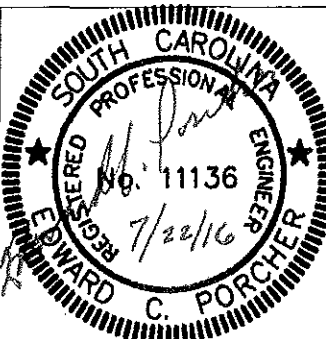
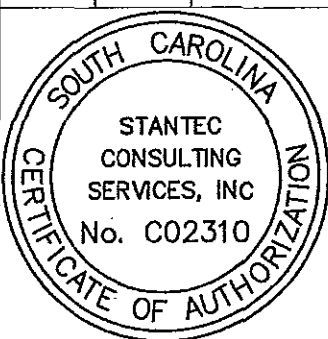
Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 14
 LONGITUDINAL SECTION THROUGH
 THE CRANE LOADING PIER

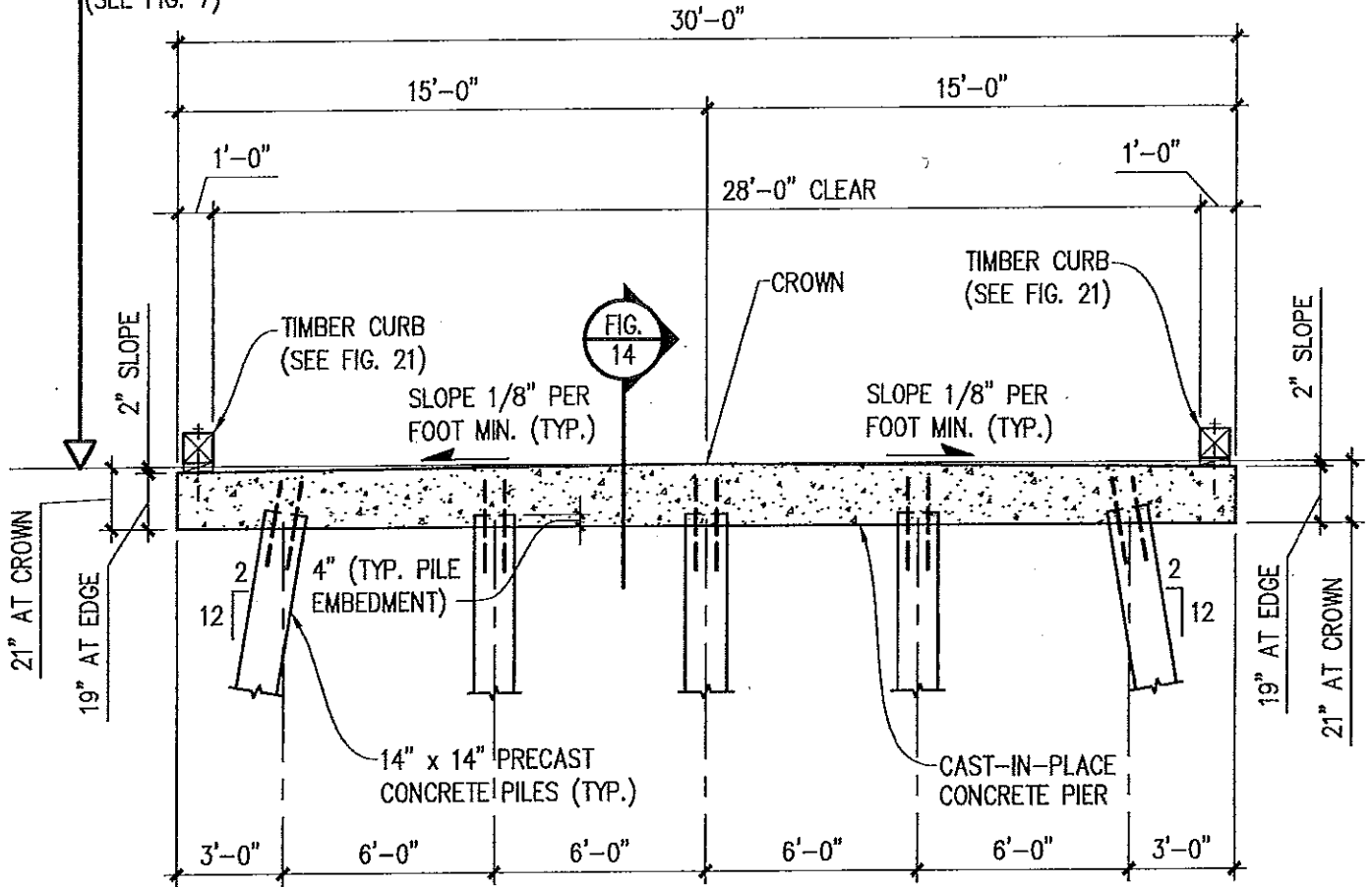
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project: SAC 2002-02704
 Applic: R.L. Morrison & Sons, Inc.
 Date: Georgetown Marine Facility
 Georgetown County, SC
 Applic: Date: August 5, 2016 Sheet 14 of 33



EL. 4.67' AT CROWN

(SEE FIG. 7)



ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPA C3 TO 2.5 LBS/FT³ OF RETENTION WITH CCA.

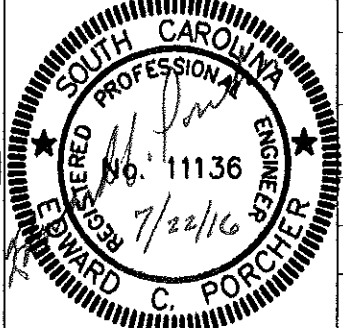
Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 15
TRANSVERSE SECTION THROUGH THE CRANE LOADING PIER

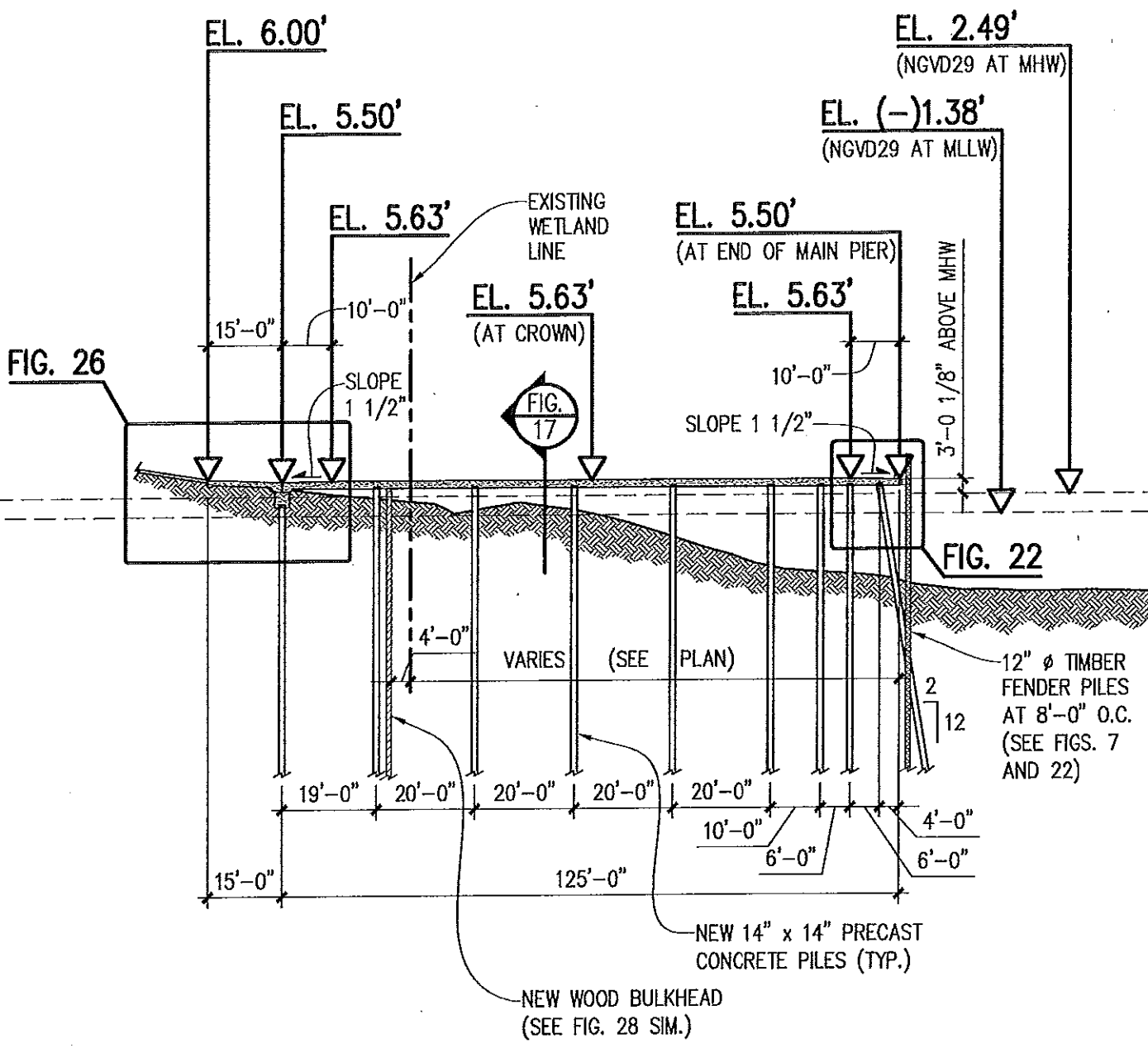
Project Title: R.L. MORRISON & SONS, INC.
GEORGETOWN FACILITY

Project L: SAC 2002-02704
Applicant: R.L. Morrison & Sons, Inc.
Georgetown Marine Facility
Georgetown County, SC
Date: August 5, 2016 Sheet 15 of 33



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2016/07/21 5:25 PM By: Edwards, Mindy

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 2016/07/21 5:25 PM By: Edwards, Minda



Revision	Date	Description

EDWARD C. PORCHER
 REGISTERED PROFESSIONAL ENGINEER
 No. 11136
 7/22/16

STANTEC CONSULTING SERVICES, INC
 No. C02310
 CERTIFICATE OF AUTHORIZATION

Survey Datum: NGVD29

Drawing: FIGURE 16
 LONGITUDINAL SECTION THROUGH
 THE 20' WIDE ACCESS PIER

Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

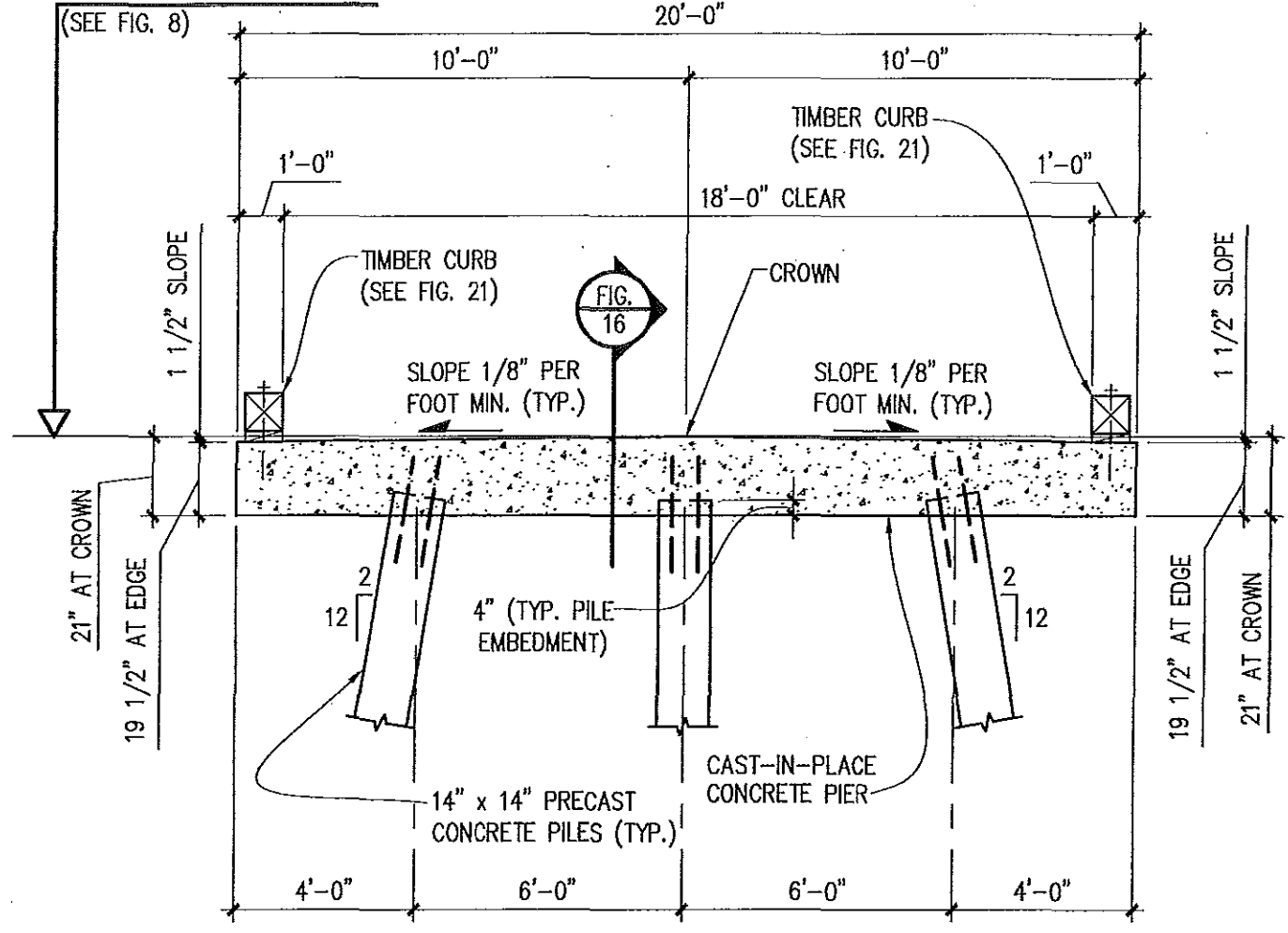
Project: SAC 2002-02704

Applic: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility

Date: Georgetown County, SC

Applic: Date: August 5, 2016 Sheet 16 of 33

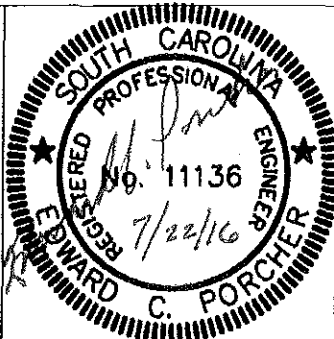
EL. 5.63' AT CROWN



ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPAC3 TO 2.5 LBS/FT³ OF RETENTION WITH CCA.

Revision	Date	Description

Survey Datum: NGVD29



Drawing: FIGURE 17
 TRANSVERSE SECTION THROUGH THE 20' WIDE ACCESS PIER

Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project No: SAC 2002-02704

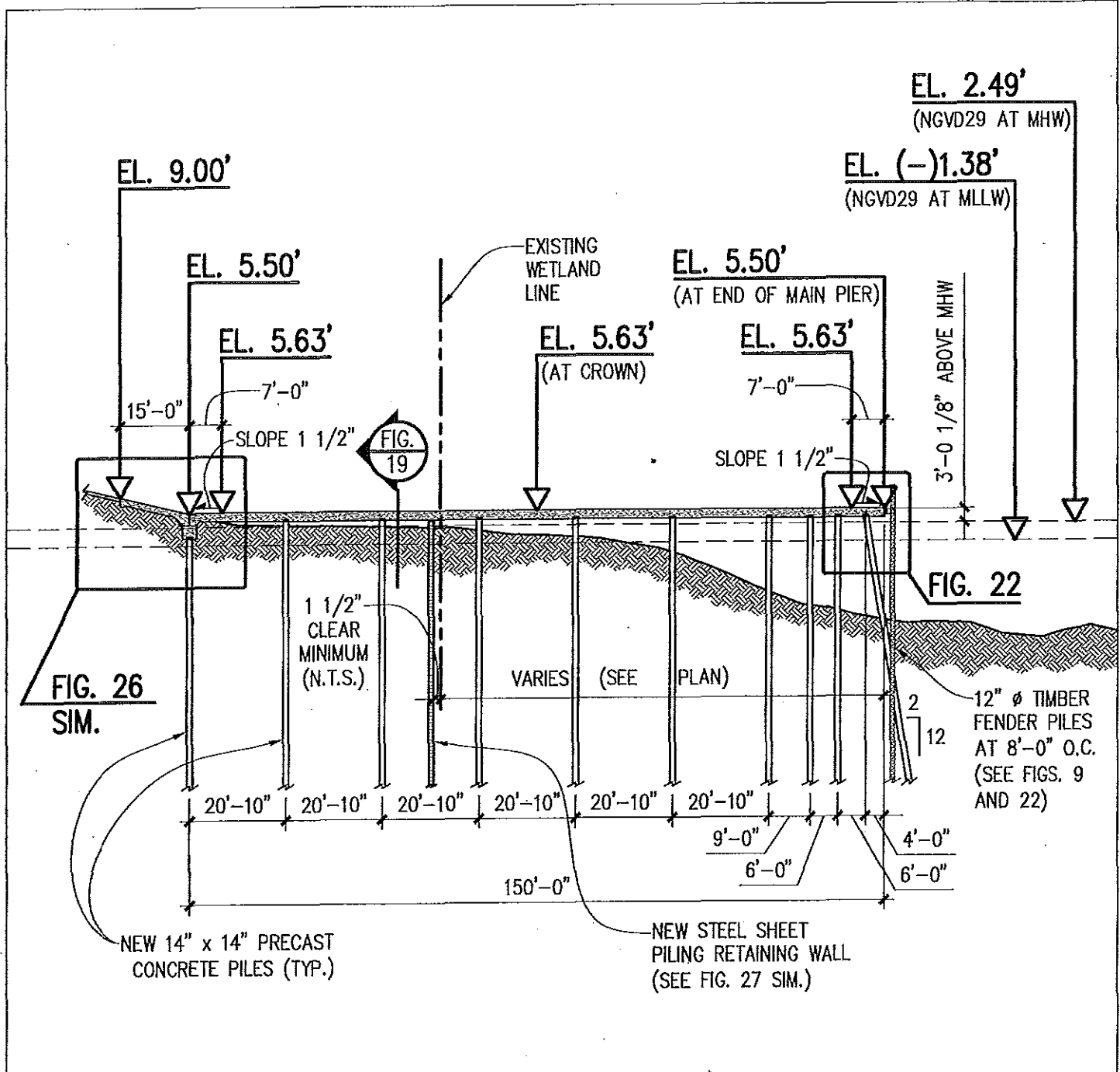
Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility
 Georgetown County, SC

Date: August 5, 2016

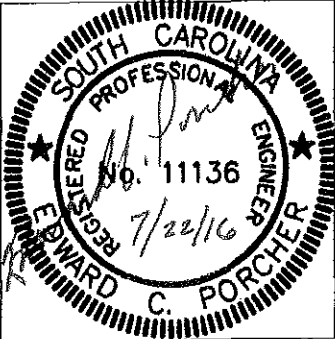
Application: Sheet 17 of 33

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 2016/07/21 5:26 PM By: Edwards, Mindy

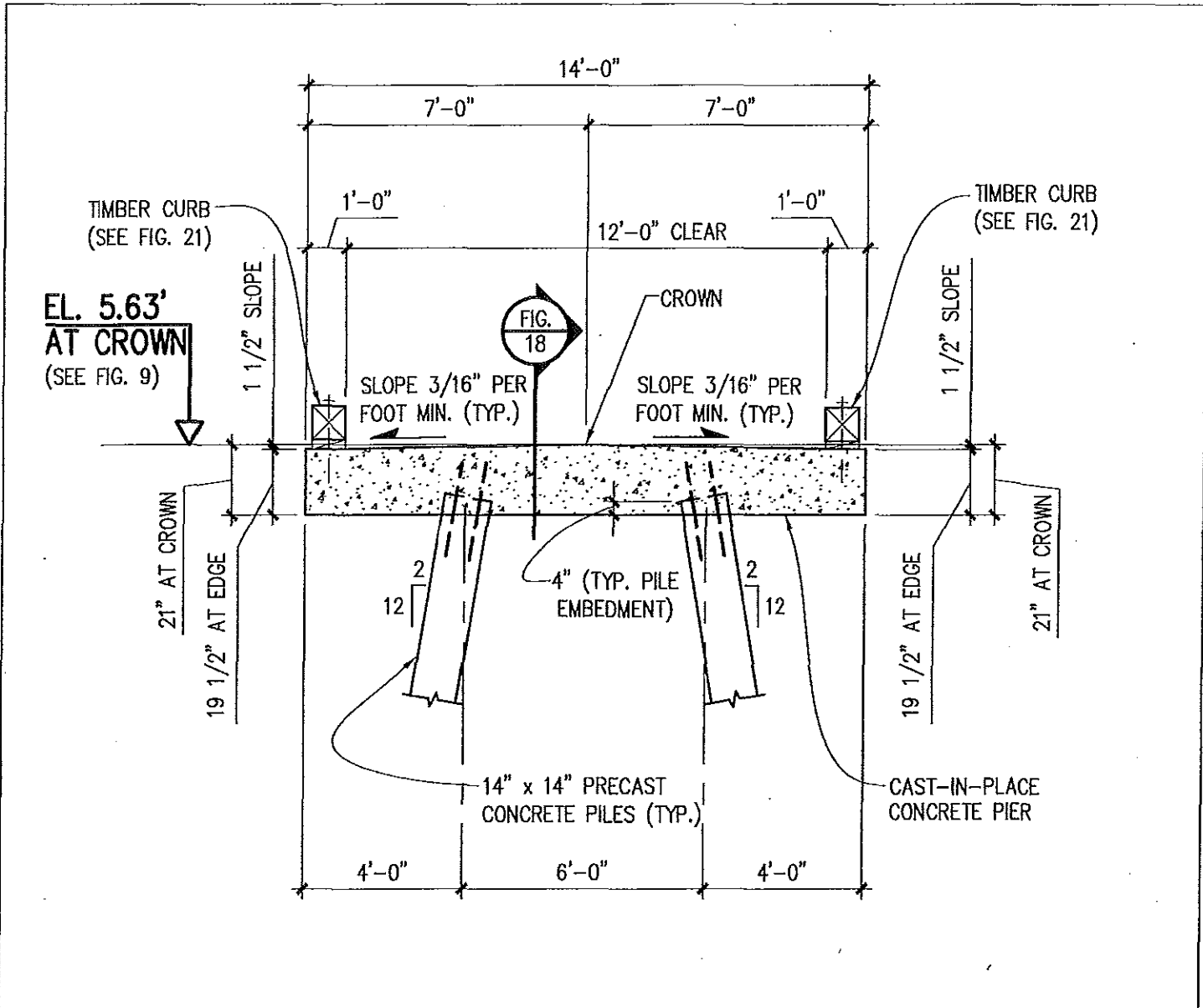
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 2016/07/21 5:26 PM By: Edwards, Wincy



Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 18 LONGITUDINAL SECTION THROUGH THE 14' WIDE ACCESS PIER
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project: SAC 2002-02704
			Applic: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Date: August 5, 2016
			Sheet 18 of 33



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 2016/07/21 5:26 PM By: Edwards, Mirndy



ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPAC3 TO 2.5 LBS/FT³ OF RETENTION WITH CCA.

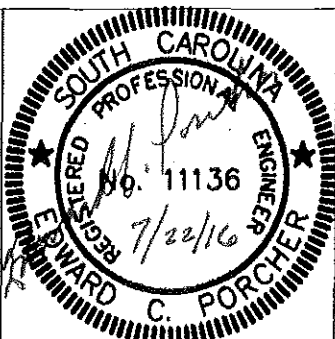
Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 19
 TRANSVERSE SECTION THROUGH
 THE 14' WIDE ACCESS PIER

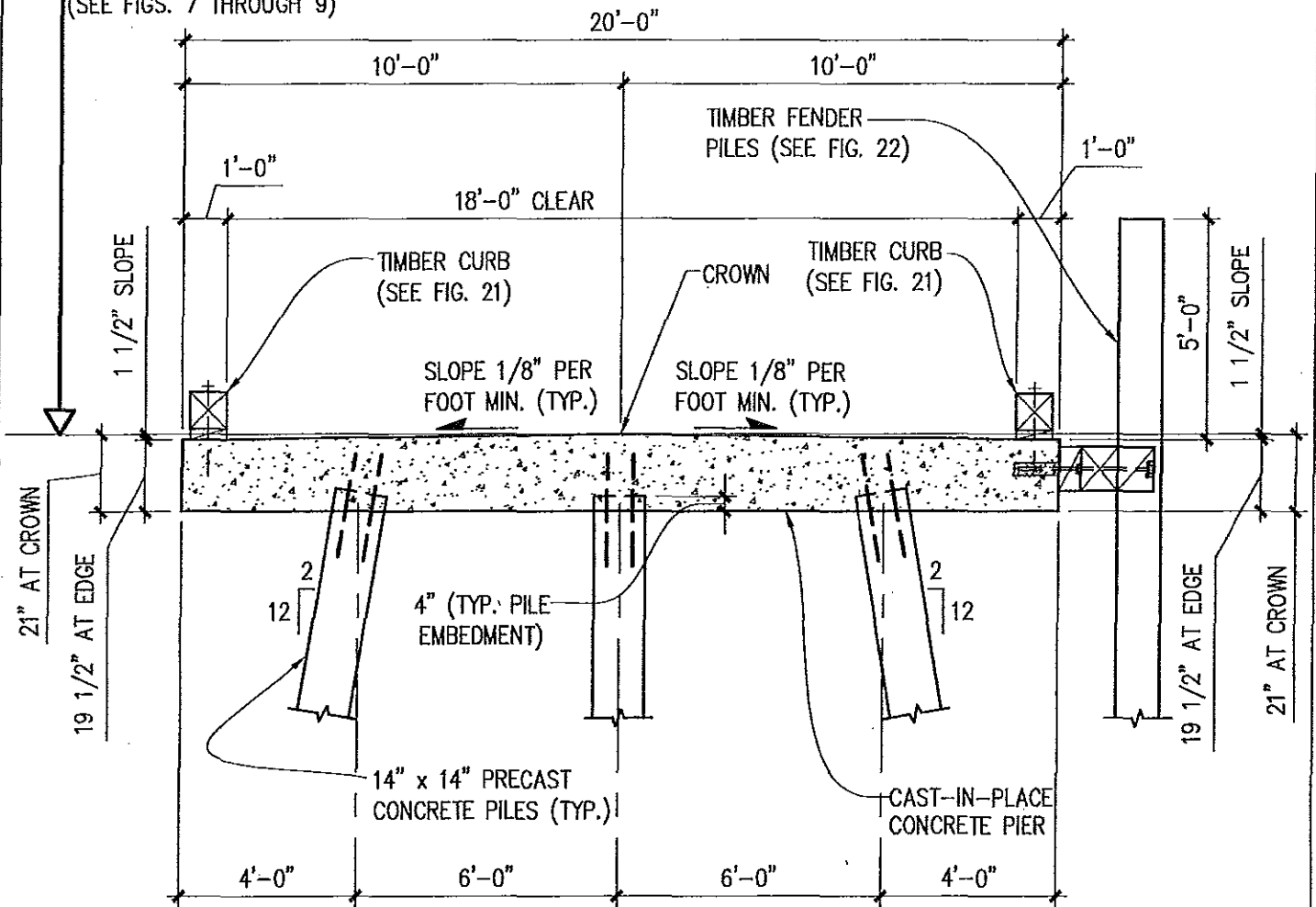
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project L: SAC 2002-02704
 Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility
 Georgetown County, SC
 Date: August 5, 2016
 Sheet 19 of 33



EL. 5.63' AT CROWN

(SEE FIGS. 7 THROUGH 9)



ALL TIMBER SHALL BE TREATED IN
ACCORDANCE WITH AWPAC C3 TO 2.5
LBS/FT³ OF RETENTION WITH CCA.

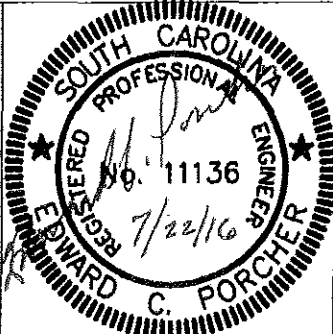
Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 20
TYPICAL SECTION THROUGH THE MAIN PIER

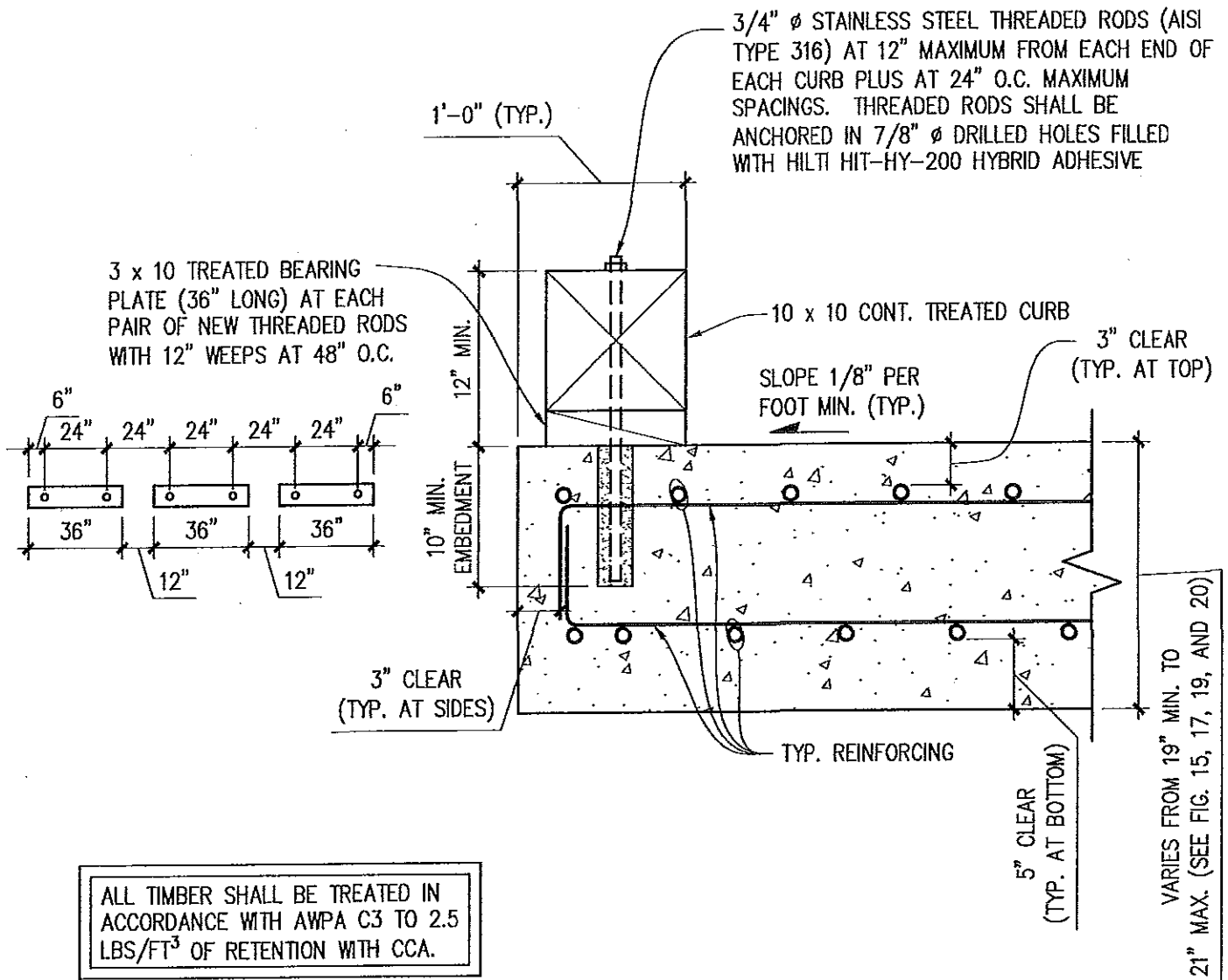
Project Title: R.L. MORRISON & SONS, INC.
GEORGETOWN FACILITY

Project: SAC 2002-02704
Applic: R.L. Morrison & Sons, Inc.
Georgetown Marine Facility
Georgetown County, SC
Date: August 5, 2016



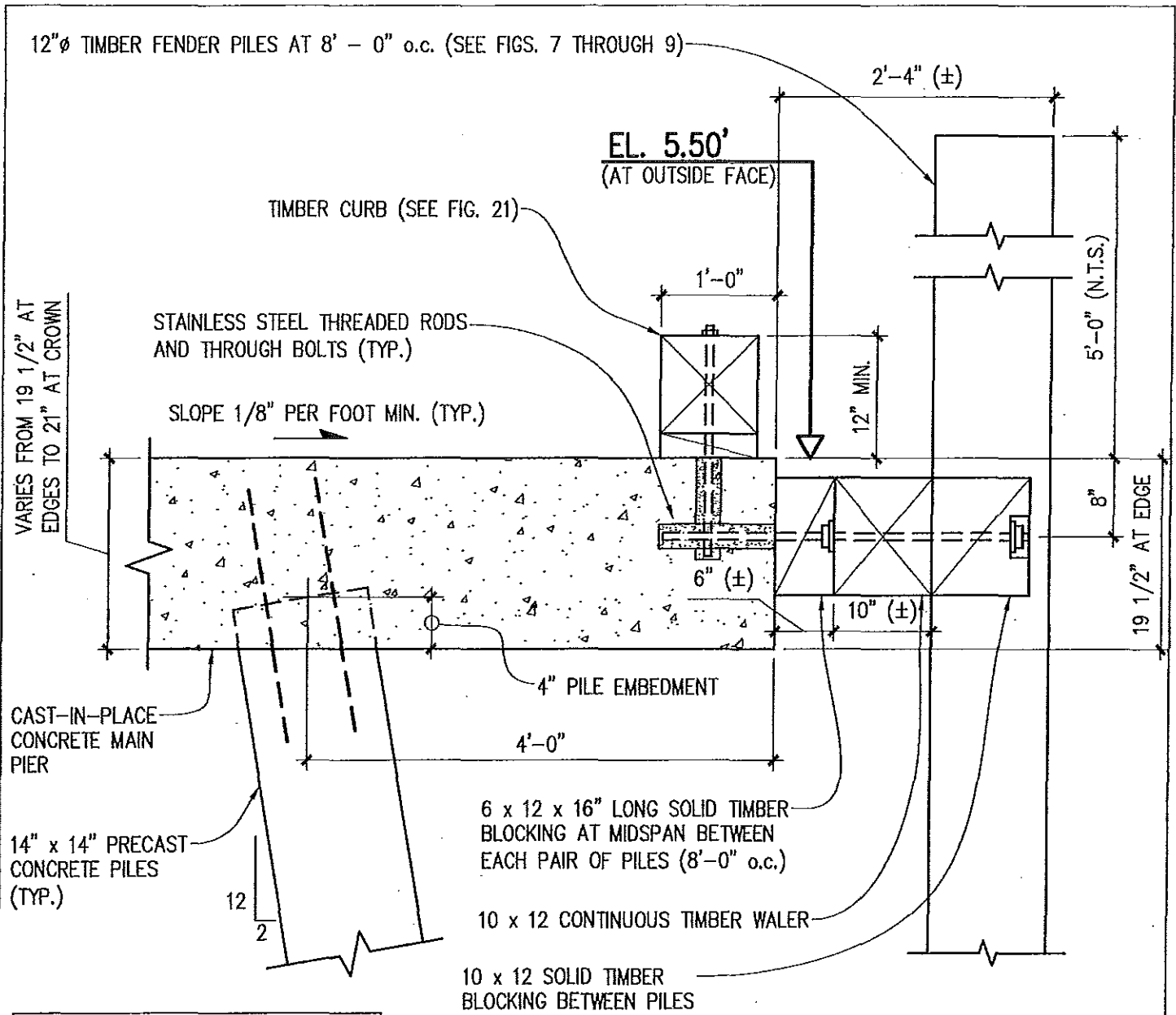
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 2016/07/21 5:27 PM By: Edwards, Mindy



Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 21 TYPICAL SECTION AT TIMBER CURB
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project: SAC 2002-02704
			Appl: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Georgetown County, SC
			Appl: Date: August 5, 2016 Sheet 21 of 33

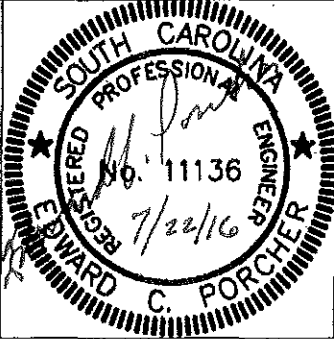
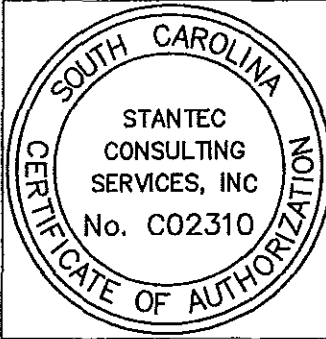
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 2016/07/21 5:27 PM By: Edwards, Minda



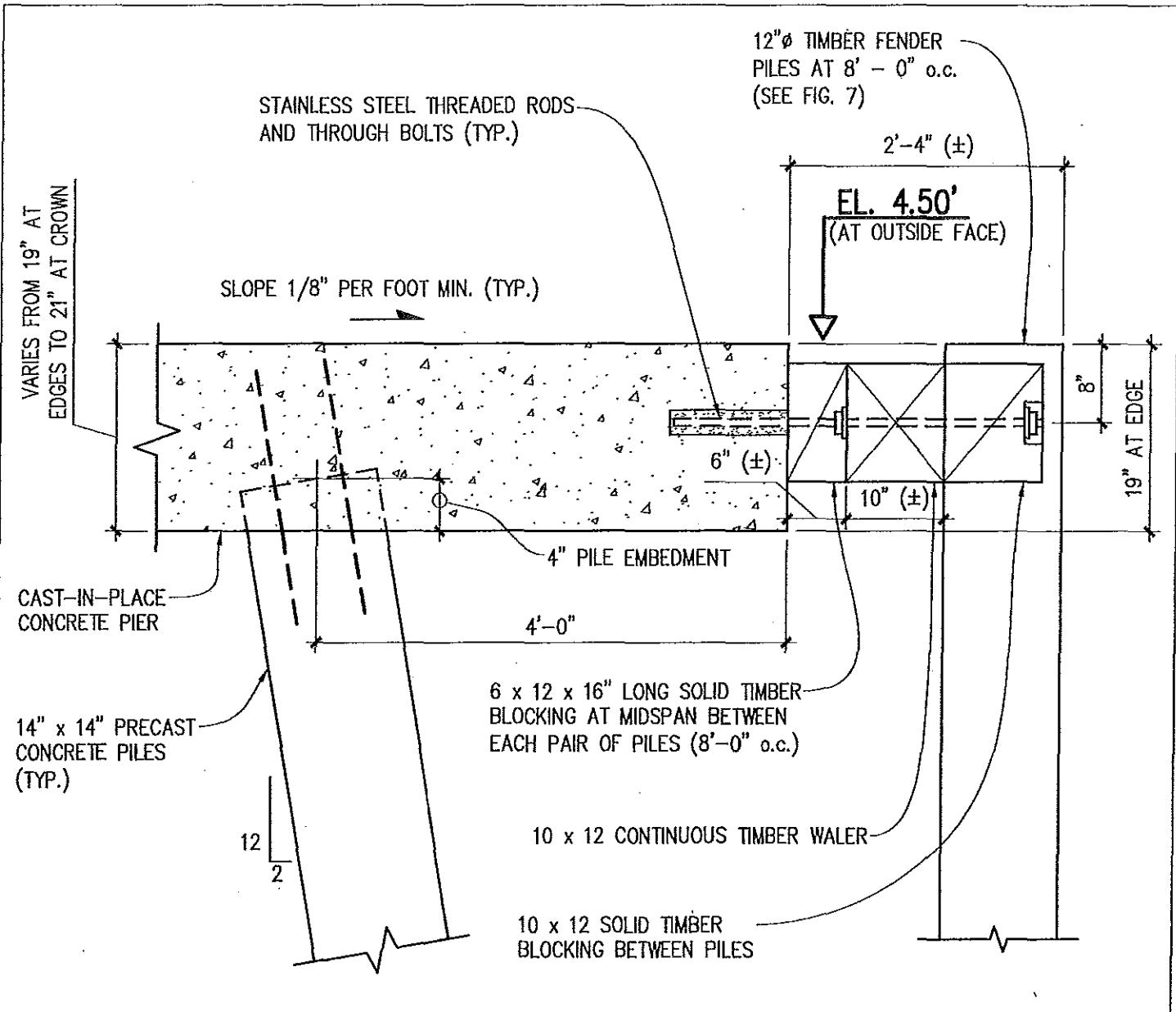
ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPAC3 TO 2.5 LBS/FT³ OF RETENTION WITH CCA.

Revision	Date	Description

Survey Datum: NGVD29	
Drawing: FIGURE 22 TYPICAL TIMBER FENDERS AT THE MAIN PIER	
Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY	
Project No.	SAC 2002-02704
Applicant	R.L. Morrison & Sons, Inc.
Date:	Georgetown Marine Facility Georgetown County, SC
Application Date:	Date: August 5, 2016

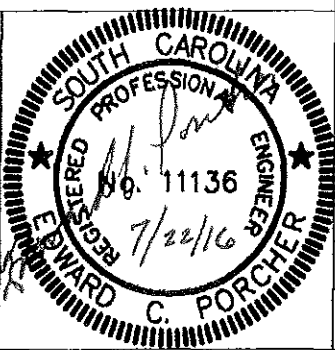


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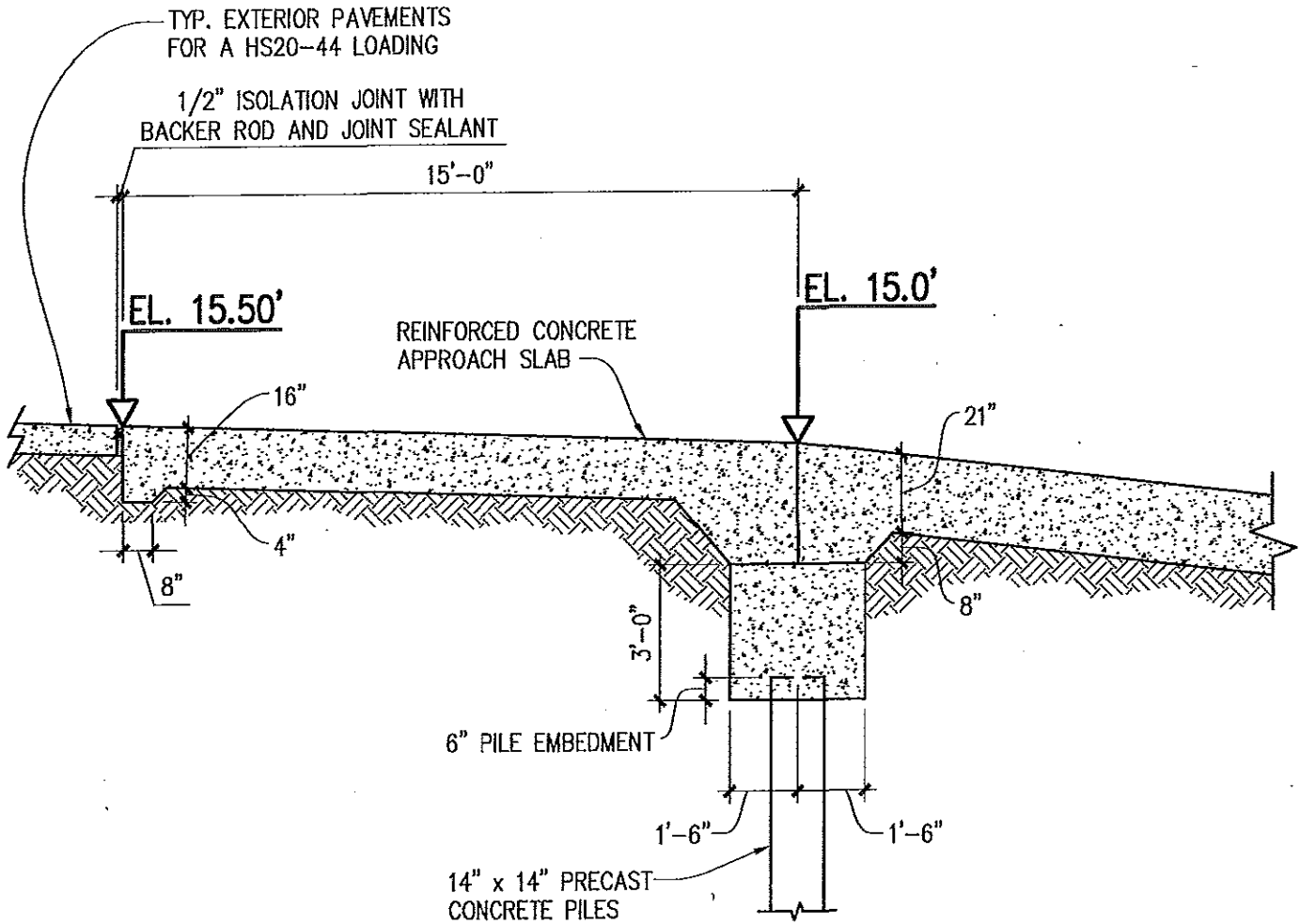


ALL TIMBER SHALL BE TREATED IN ACCORDANCE WITH AWPAC3 TO 2.5 LBS/FT³ OF RETENTION WITH CCA.

Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 23 TYPICAL TIMBER FENDERS AT THE CRANE LOADING PIER
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project I SAC 2002-02704
			Applica: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Applica: Georgetown County, SC
			Date: August 5, 2016 Sheet 23 of 33



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 2016/07/21 5:28 PM By: Edwards, Mincy



Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 24
 SECTION THROUGH APPROACH SLAB TO THE BARGE LOADING RAMP

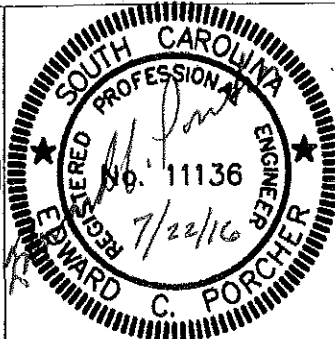
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project: SAC 2002-02704

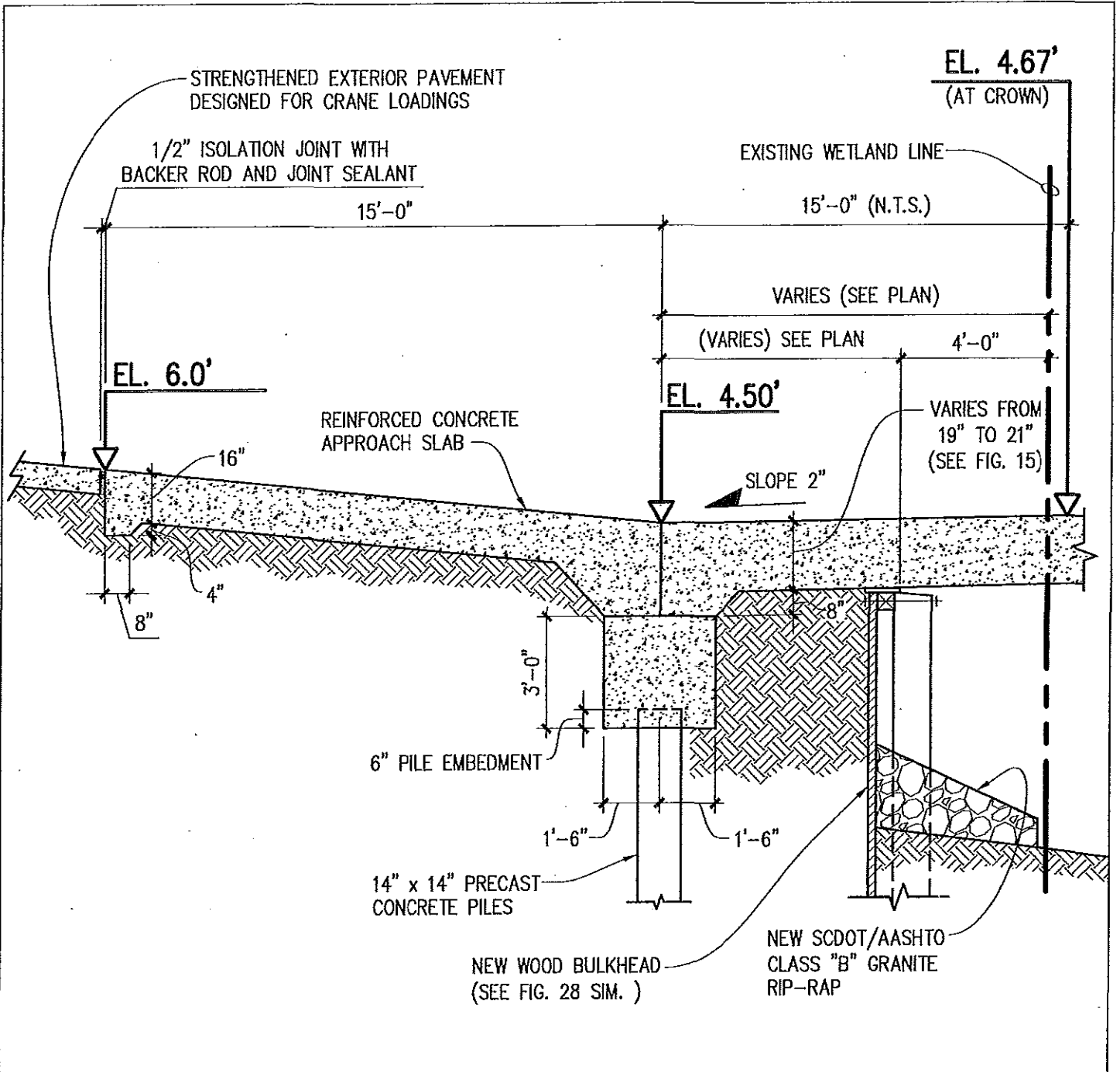
Applic: R.L. Morrison & Sons, Inc.

Date: Georgetown Marine Facility
 Georgetown County, SC

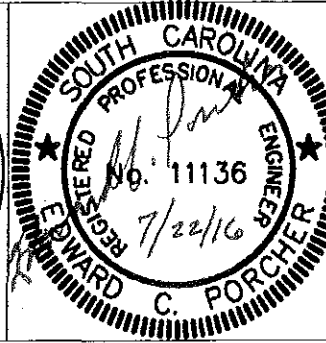
Applica Date: August 5, 2016 Sheet 24 of 33



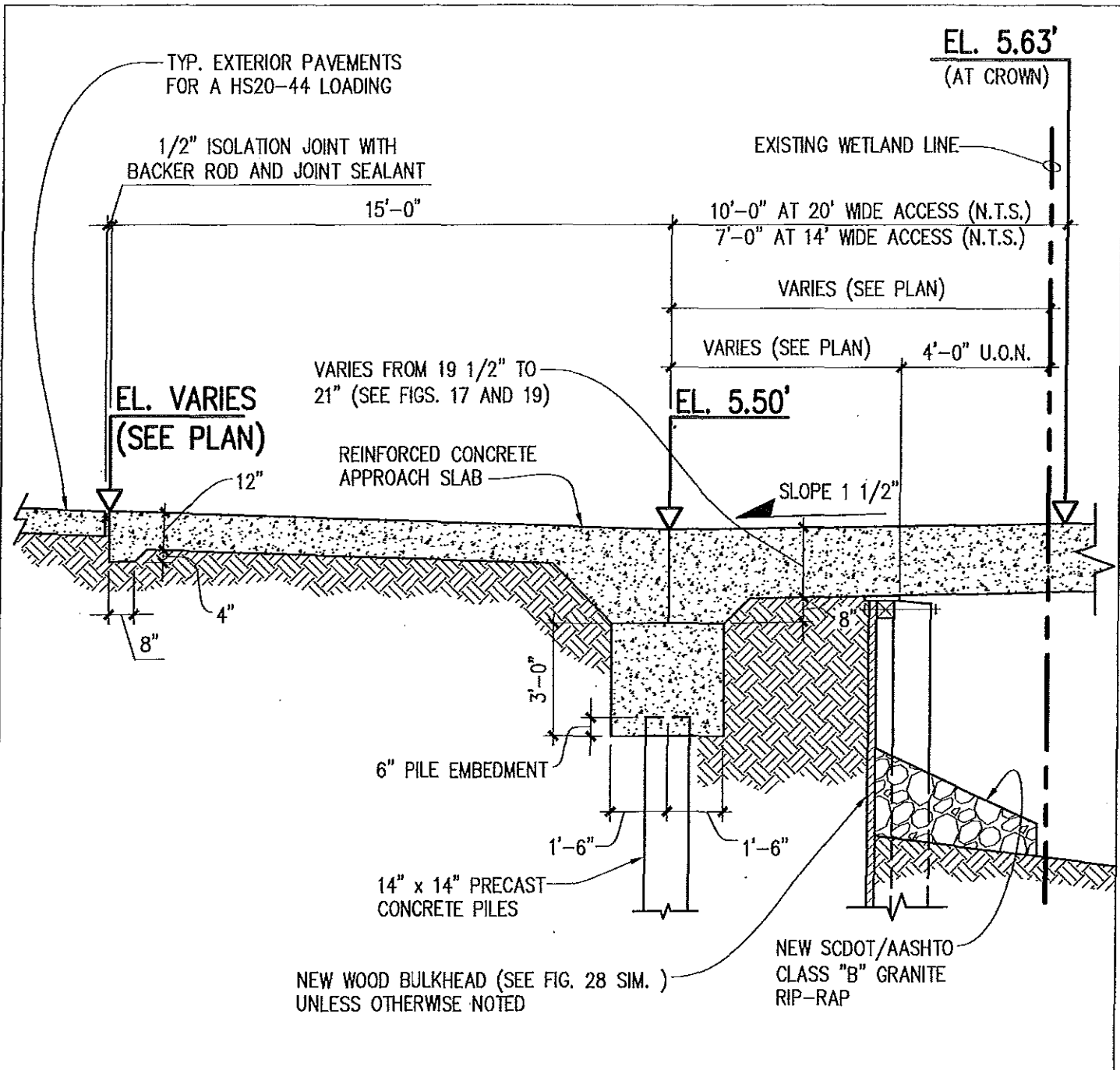
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 2016/07/21 5:28 PM By: Edwards, Minda



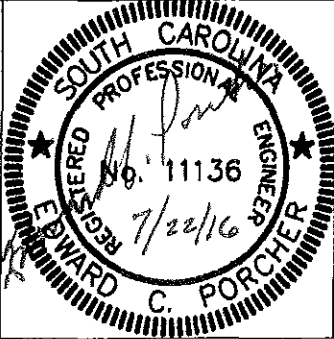
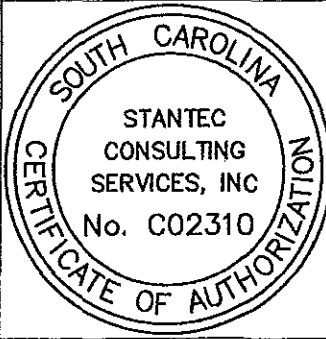
Revision	Date	Description	Survey Datum: NGVD29
Drawing: FIGURE 25 SECTION THROUGH APPROACH SLAB TO THE CRANE LOADING PIER			
Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY			
Project: SAC 2002-02704 R.L. Morrison & Sons, Inc. Georgetown Marine Facility Georgetown County, SC			
Date: August 5, 2016			Sheet 25 of 33



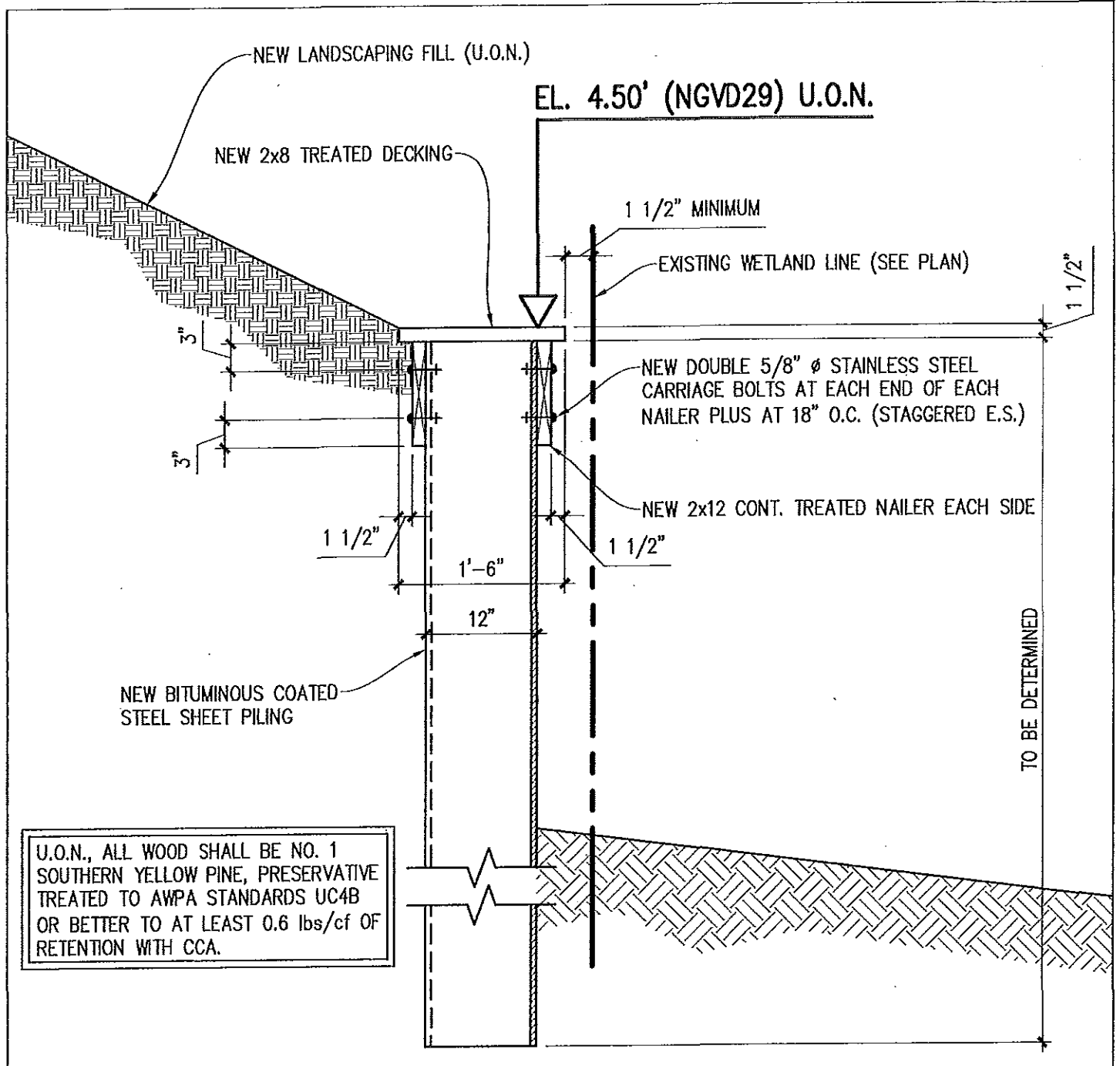
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 2016/07/21 5:28 PM By: Edwards, Mindy



Revision	Date	Description	Survey Datum: NGVD29
Drawing: FIGURE 26 SECTION THROUGH ACCESS PIER APPROACH SLABS			
Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY			
Project I: SAC 2002-02704			
Applicant: R.L. Morrison & Sons, Inc. Georgetown Marine Facility Georgetown County, SC			
Date: August 5, 2016			
Applicant:			



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 2016/07/21 5:28 PM By: Edwards, Wrtday



U.O.N., ALL WOOD SHALL BE NO. 1 SOUTHERN YELLOW PINE, PRESERVATIVE TREATED TO AWP standards UC4B OR BETTER TO AT LEAST 0.6 lbs/cf OF RETENTION WITH CCA.

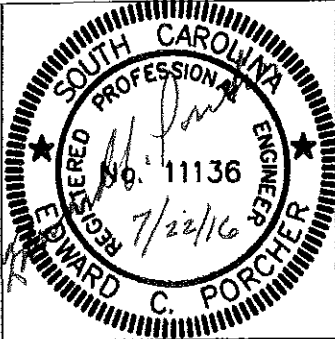
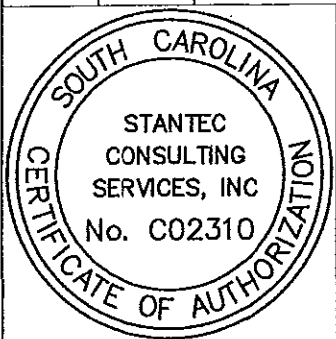
Revision	Date	Description

Survey Datum: NGVD29

Drawing: FIGURE 27
 TYPICAL SECTION AT NEW SHEET PILING RETAINING WALL

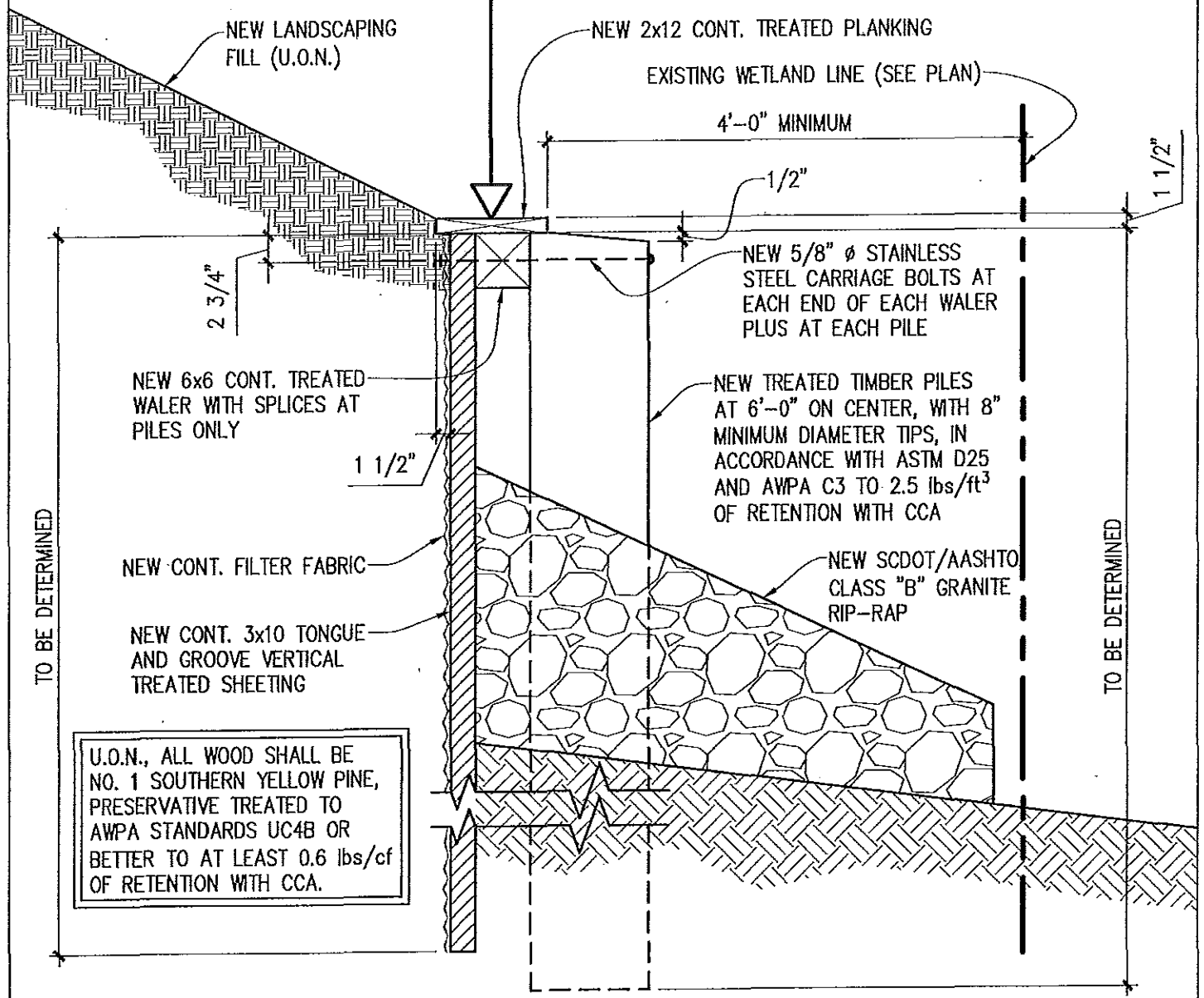
Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

Project No: SAC 2002-02704
 Applicant: R.L. Morrison & Sons, Inc.
 Georgetown Marine Facility
 Georgetown County, SC
 Date: August 5, 2016 Sheet 27 of 33



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2016/07/21 5:29 PM By: Edwards, Minda

EL. 4.50' (NGVD29) U.O.N.



U.O.N., ALL WOOD SHALL BE NO. 1 SOUTHERN YELLOW PINE, PRESERVATIVE TREATED TO AWPA STANDARDS UC4B OR BETTER TO AT LEAST 0.6 lbs/cf OF RETENTION WITH CCA.

Revision	Date	Description

SOUTH CAROLINA

STANTEC CONSULTING SERVICES, INC

No. C02310

CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA

REGISTERED PROFESSIONAL ENGINEER

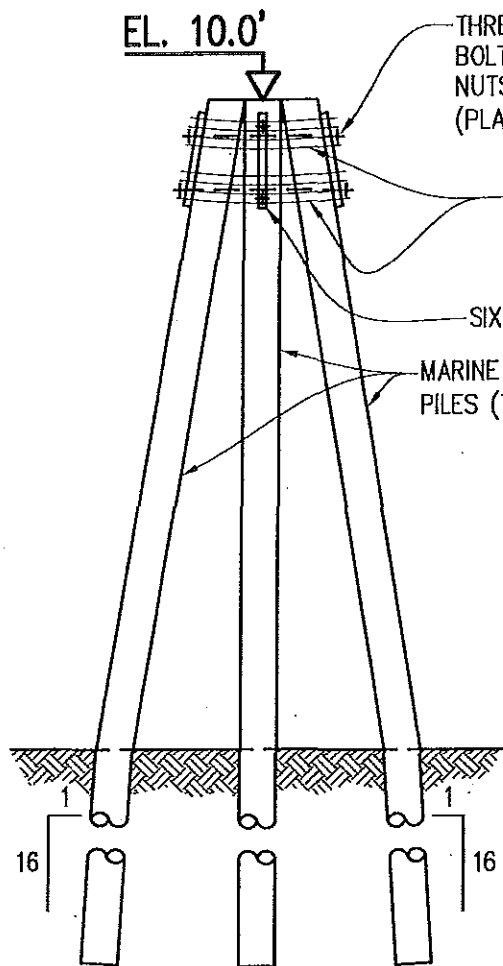
No. 11136

7/22/16

EDWARD C. PORCHER

Survey Datum: NGVD29	
Drawing: FIGURE 28 TYPICAL SECTION AT NEW WOOD BULKHEAD	
Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY	
Project:	SAC 2002-02704
Applic:	R.L. Morrison & Sons, Inc.
Date:	Georgetown Marine Facility
Applic:	Georgetown County, SC
Date:	August 5, 2016
Sheet 28 of 33	

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 2016/07/21 5:29 PM By: Edwards, Mindy



TYPICAL ELEVATION AT A 7-PILE TIMBER DOLPHIN

THREE (3) 1" ϕ GALVANIZED BUTTON HEAD BOLTS TOP & BOTTOM, WITH HEX HEAD NUTS, AND 2 STANDARD CUT WASHERS (PLACE HEADS ON CHANNEL SIDES)

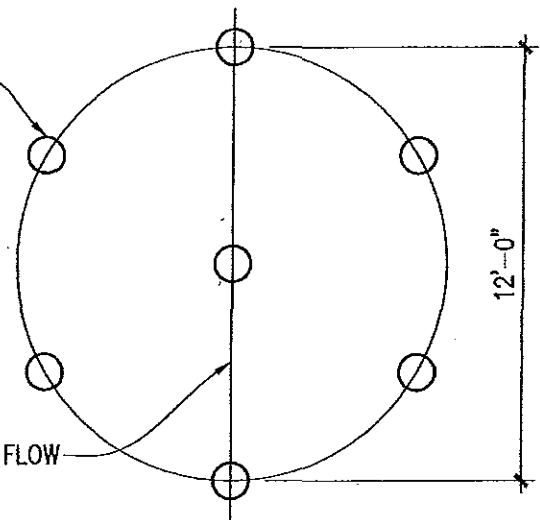
TWO (2) SETS OF 3/4" ϕ GALVANIZED STEEL CABLES (SEE NOTES)

SIX (6) 2 1/2" ϕ GALV. PIPES (2'-6" LONG)

MARINE TREATED TIMBER PILES (TYP.) SEE NOTES

PARTIAL PLAN AT THE TOP OF A 7-PILE TIMBER DOLPHIN

6 PERIMETER PILES DRIVEN ON A BATTER AND PULLED INTO PLACE (TYP.) SEE NOTES



PARTIAL PLAN AT THE BASE OF A 7-PILE TIMBER DOLPHIN

NOTE:

- 1) ALL DOLPHIN PILES SHALL BE TREATED TIMBER PILES, WITH 8" MINIMUM DIAMETER TIPS, IN ACCORDANCE WITH ASTM D25 AND AWP A C3 TO 2.5 lbs/ft³ OF RETENTION WITH CCA.
- 2) PILES SHALL BE DRIVEN TO A 1 TO 16 BATTER AND THEN PULLED TOGETHER AS SHOWN.
- 3) EACH 7-PILE CLUSTER SHALL BE SEIZED WITH 2 BANDS OF 3 TURNS EACH, OF 3/4" DIAMETER GALVANIZED PLOW STEEL CABLE, PULLED TIGHT AS REQUIRED TO HOLD PILES SNUG AGAINST EACH OTHER. EACH END OF EACH CABLE SHALL BE SECURELY FASTENED WITH 3 GALVANIZED CABLE CLIPS. SLACK IN CABLES SHALL BE REMOVED BY TIGHTENING BUTTON HEAD BOLTS THROUGH EACH PIPE.

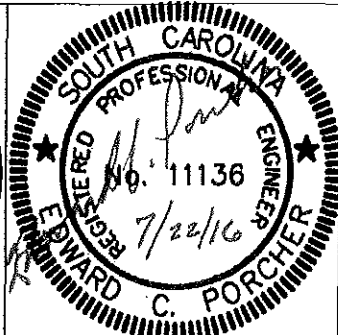
Revision	Date	Description

Survey Datum: NGVD29

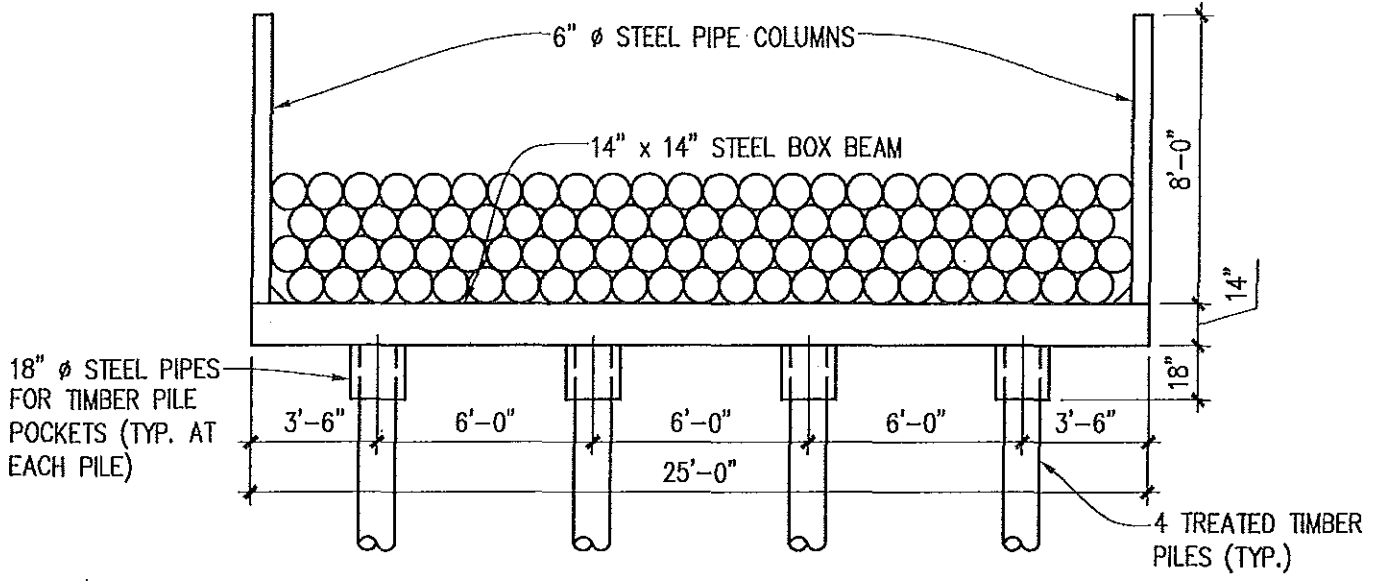
Drawing: FIGURE 29
 TYPICAL DETAILS AT A 7-PILE TIMBER DOLPHIN

Project Title: R.L. MORRISON & SONS, INC.
 GEORGETOWN FACILITY

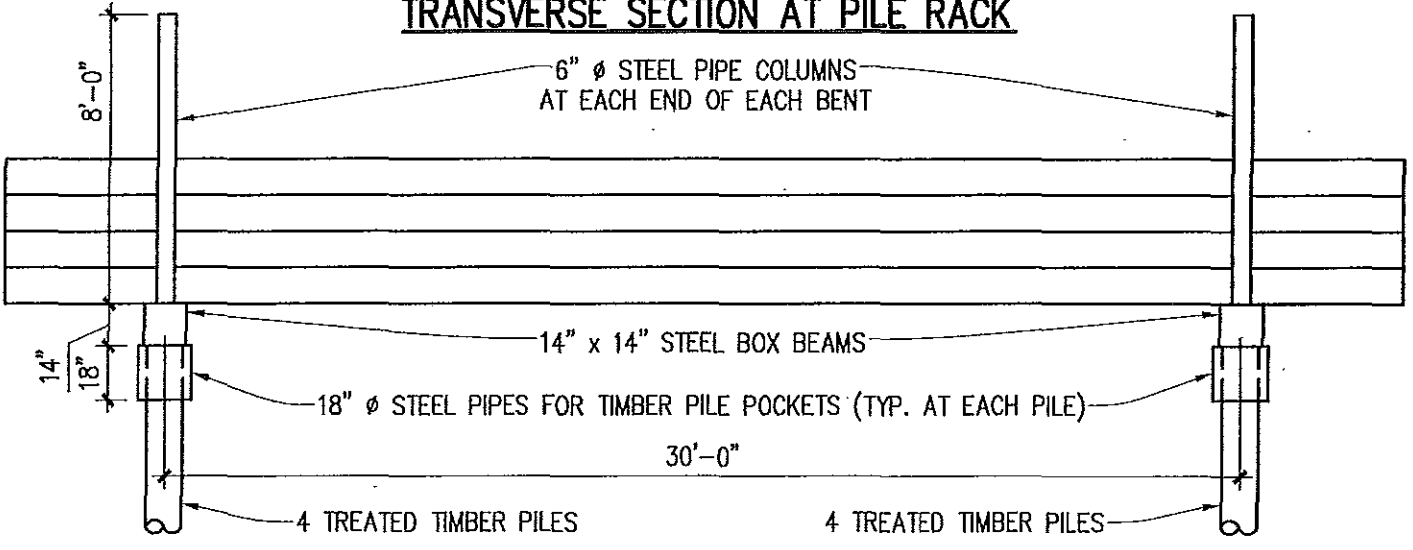
Project: SAC 2002-02704
 Applicant: R.L. Morrison & Sons, Inc.
 Date: Georgetown Marine Facility
 Georgetown County, SC
 Applicant Date: August 5, 2016 Sheet 29 of 33



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 2016/07/21 5:29 PM By: Edwards, Mindy



TRANSVERSE SECTION AT PILE RACK

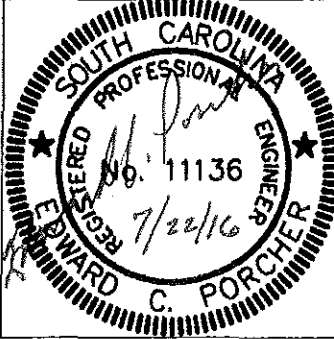
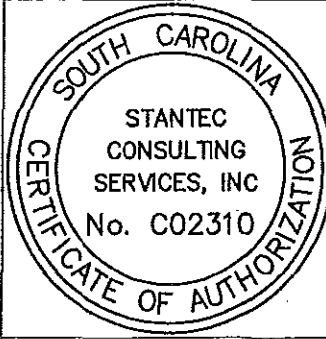


LONGITUDINAL SECTION AT PILE RACK

NOTE:

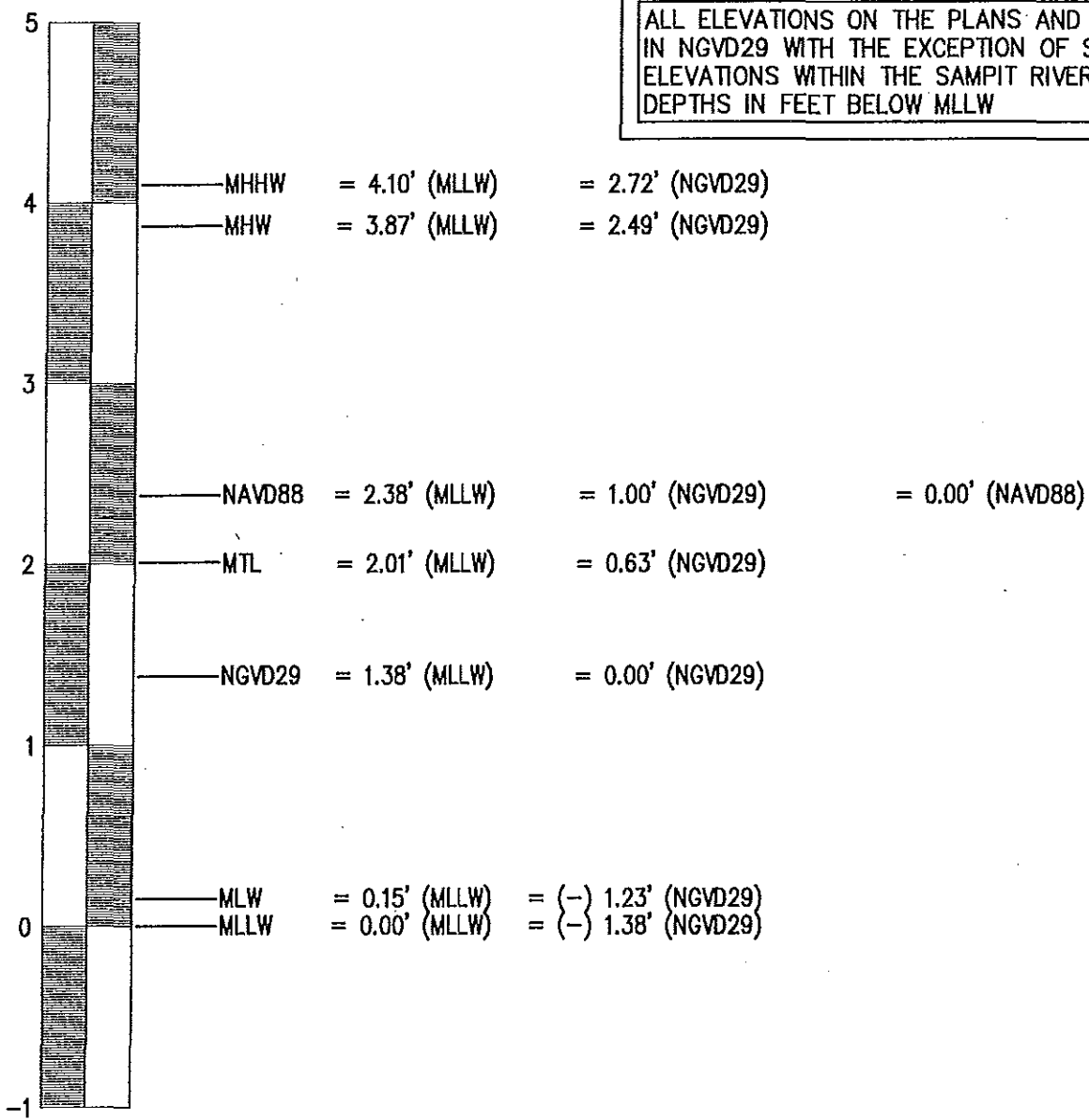
- 1) ALL TIMBER PILES SHALL BE MARINE TREATED, WITH 8" MINIMUM DIAMETER TIPS, IN ACCORDANCE WITH ASTM D25 AND AWPAC C3 TO 2.5 lbs/ft³ OF RETENTION WITH CCA.

Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 30 TYPICAL SECTIONS AT NEW STEEL PILE RACKS
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project No: SAC 2002-02704
			Applicar: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Georgetown County, SC
			Applicati: Date: August 5, 2016 Sheet 30 of 33



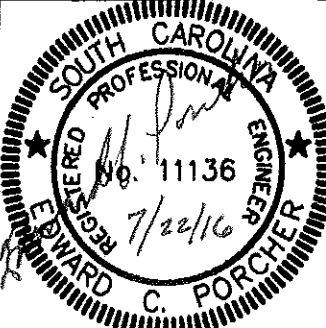
VERTICAL DATUM COMPARISONS ARE BASED ON THE HYDROGRAPHIC SURVEY BY McKIM & CREED OF WILMINGTON, NORTH CAROLINA, DATED OCTOBER 18, 2001

ALL ELEVATIONS ON THE PLANS AND DETAILS ARE IN NGVD29 WITH THE EXCEPTION OF SPOT ELEVATIONS WITHIN THE SAMPIT RIVER, WHICH ARE DEPTHS IN FEET BELOW MLLW

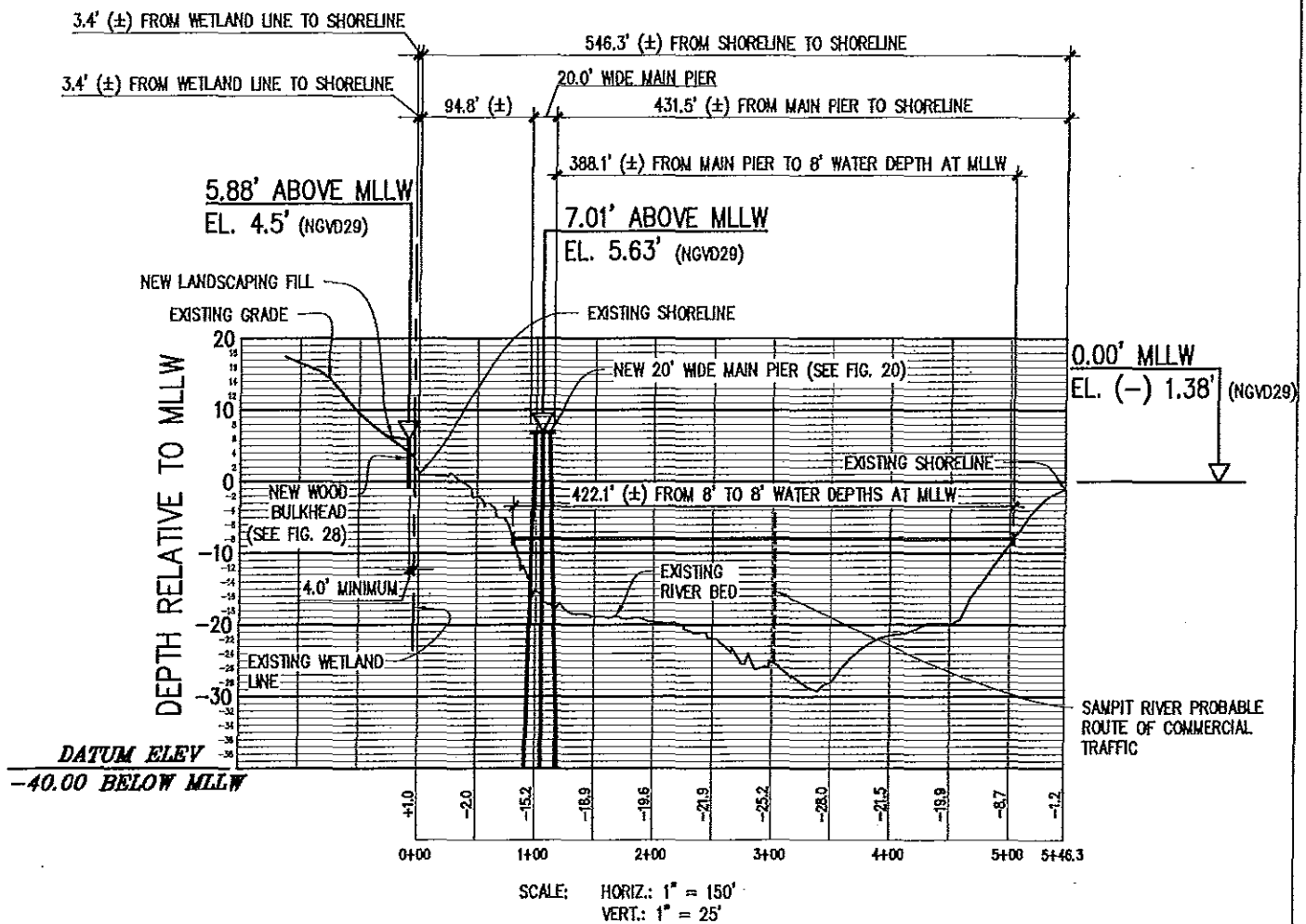


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Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE 5 VERTICAL DATUM COMPARISONS
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			Project: SAC 2002-02704
			Applic: R.L. Morrison & Sons, Inc.
			Date: Georgetown Marine Facility
			Applic: Georgetown County, SC
			Date: August 5, 2016 Sheet 31 of 33



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 2016/07/21 5:33 PM By: Edwards, Mincy



THE LOCATION OF PROFILE SECTION AA HAS BEEN TAKEN FROM SHEET 4 BY THOMAS & HUTTON ENGINEERING CO., WITH REVISIONS NO. 3 DATED 5/21/04.

THE HYDROGRAPHIC PROFILE IN SECTION AA HAS BEEN TAKEN FROM SHEET 5 BY THOMAS & HUTTON ENGINEERING CO., WITH REVISIONS NO. 5 DATED 11/11/04.

Survey Datum: Depths in feet relative to MLLW, unless otherwise noted

Revision	Date	Description

Drawing: FIGURE 32
PROFILE SECTION AA

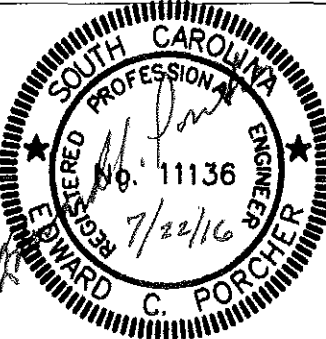
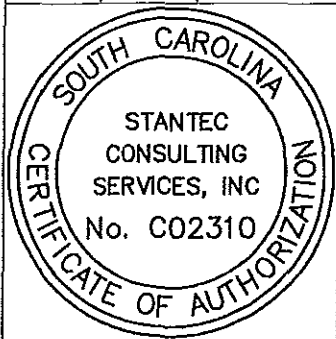
Project Title: R.L. MORRISON & SONS, INC.
GEORGETOWN FACILITY

Project L: SAC 2002-02704

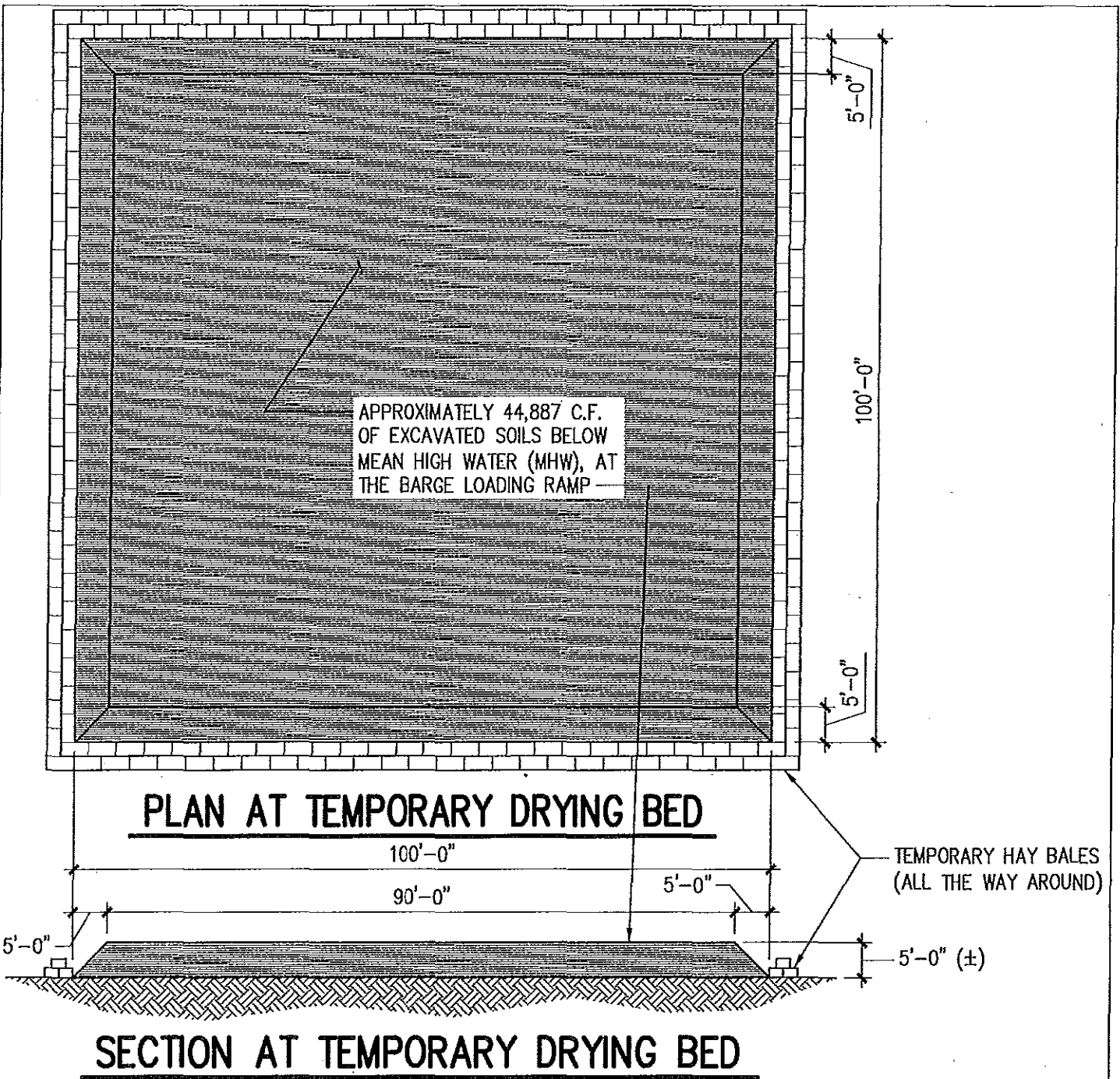
Applicar: R.L. Morrison & Sons, Inc.
Georgetown Marine Facility
Georgetown County, SC

Date: August 5, 2016

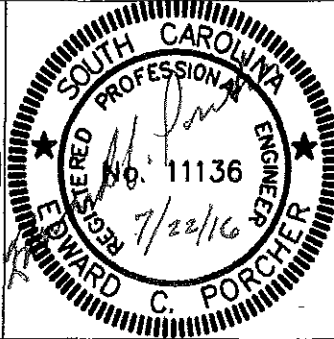
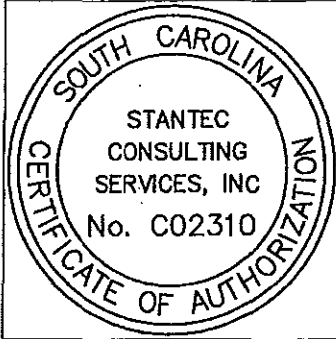
Applicat: Sheet 32 of 33



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 2016/07/21 6:24 PM By: Edwards, Windy



Revision	Date	Description	Survey Datum: NGVD29
			Drawing: FIGURE A1 TEMPORARY DRYING BED FOR EXCAVATED MATERIALS BELOW MEAN HIGH WATER (MHW)
			Project Title: R.L. MORRISON & SONS, INC. GEORGETOWN FACILITY
			P SAC 2002-02704 / R.L. Morrison & Sons, Inc. c Georgetown Marine Facility / Georgetown County, SC
			Date: August 5, 2016 Sheet 33 of 33



1'-0"
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