



COASTAL RESOURCES DIVISION

ONE CONSERVATION WAY · BRUNSWICK, GA 31520 · 912-264-7218

WALTER RABON
COMMISSIONER

DOUG HAYMANS
DIRECTOR

September 15, 2026

CDR Robert Moreno, Public Works Officer
Naval Submarine Base Kings Bay
910 Kimmons Avenue
Kings Bay, GA 31547

Re: Letter of Permission (LOP) and Revocable License (RL), Repairs to Trident Refit Facility (TRF) Interface Wharf Structure, Naval Submarine Base (NSB) Kings Bay, Kings Bay, Camden County, Georgia (SAS-2026-00344).

Dear Mr. Moreno:

This Letter of Permission (LOP) is in response to your request received April 16, 2026, to perform structural repairs and upgrades for components associated with the existing Trident Refit Facility (TRF) Interface Wharf Structure at Naval Submarine Base (NSB) Kings Bay, Camden County, Georgia.

The TRF Interface Wharf at NSB Kings Bay is a fixed pile supported waterfront structure designed to support mooring of barges and small craft that are required during submarine maintenance and refit operations. The TRF Interface Wharf serves as the logistical and mechanical interface between the vessels and shore-based maintenance infrastructure. NSB Kings Bay proposes the following maintenance activities at the TRF Interface Wharf:

- 1) Replacement of 102 existing corroded steel pilings along the channelward face of the existing TRF wharf with 112 square concrete pilings. Steel pilings will be pulled using a barge mounted crane with a vibratory hammer and concrete pilings will be installed with a impact hammer.
- 2) Removal of approximately 2,500cu.yds. of accumulated sediment from the existing underwater concrete and steel mooring pad located just seaward of the wharf face. As stated in the current dredging permit (SAS-2005-01790), dredged material will be placed in one or more of the following "Approved Confined Upland Disposal Facilities (CDFs)": Big Crab Island, Mainside, DAI, or DA2. Once the sediment is removed the damaged steel frame will be removed. The damaged concrete pad will be repaired, and a new structural steel frame will be welded in place.
- 3) Repairs to the existing TRF wharf concrete structure. Repairs will include concrete piles, concrete deck, beams, and walls.
- 4) Repair corrosion damage on the existing steel sheet pile coffer cells. The corrosion damage will be repaired by applying a 10-inch-thick concrete fascia to the existing three coffer cells. The concrete fascia provides structural reinforcement and protects the steel from corrosion damage.

The project will begin no sooner than 15 days from the date of this letter and be completed within six (6) months from the date of this letter.

The Department authorizes the repairs to the TRF Interface Wharf Structure as described in the attached project request and drawings. No unauthorized equipment, materials, or debris may be placed in, disposed of, or stored in jurisdictional areas. Any visible alterations in marsh topography will be restored immediately using low-impact hand tools. Any damage to the marsh vegetation that has not recovered naturally during the next growing season may require restoration by a method acceptable to the Department.

This LOP does not relieve you from obtaining any other required federal, state, or local permits. Tidal water bottoms and marshlands of coastal Georgia are public trust lands controlled by the State, except for such lands where a validated Crown Grant or State Grant exists. If you have any questions, you may contact Paul Tobler at (912) 689-6261.

Sincerely,



Doug Haymans
Director

Enclosures: Executed Revocable License, Federal Consistency Certification Statement, Project Request and Figures

CC: Lee@questecology.com
Jared.k.chrisp@usace.army.mil

File: LOP20260044

STATE OF GEORGIA

REVOCABLE LICENSE FOR THE USE OF TIDAL WATERBOTTOMS

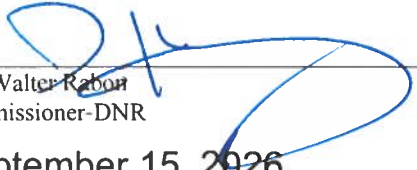
APPLICANT NAME(S): CDR Robert Moreno
MAILING ADDRESS: 910 Kimmons Ave., Kings Bay, GA 31547
(Street) (City) (State) (Zip)
PROJECT ADDRESS/LOCATION: NSB Kings Bay-north western terminus of Meadow Lark Trail (TRF Interface Wharf)
COUNTY: Camden WATERWAY: Kings Bay
LOT, BLOCK & SUBDIVISION NAME FROM DEED: N/A

The State of Georgia hereby grants you a revocable license not coupled with an interest¹. This area may now or in the future be utilized by boats employing power drawn nets under the provisions for commercial or sport bait shrimping. In its occupancy and use of the premises, licensee shall not discriminate against any person on the basis of race, gender, color, national origin, religion, age, or disability. This covenant by licensee may be enforced by termination of this license, by injunction, and/or by any other remedy available at law to the Georgia Department of Natural Resources.

Attached hereto and made a part of this license are the project description, drawing(s), and terms and conditions that are the subject of this license. The project approved for this license must be constructed and completed within the specified timeframe noted in the terms and conditions and must be maintained in serviceable condition. Otherwise, action will be initiated to revoke this license and all structures must be removed immediately at the licensee's expense.

STATE OF GEORGIA
Office of the Governor

By:


For: Walter Rabon
Commissioner-DNR

Date: September 15, 2026

Enclosures:

LOP20260044

¹ Tidal water bottoms and marshlands of coastal Georgia are public trust lands owned by the State, except where ownership of such lands is demonstrated through an unbroken chain of title to a valid Crown or State Grant, which explicitly conveys the beds of such tidewaters. The Revocable License authorizes use of lands presumed to be owned by the State of Georgia, and which are under control of the State. This Revocable License is issued with the understanding and condition that it could be rendered invalid should another person demonstrate ownership to such lands pursuant to a valid Crown Grant or State Grant. This Revocable License is issued with the understanding that such lands are subject to the public trust doctrine.

FEDERAL CONSISTENCY CERTIFICATION STATEMENT

Printed Name of Applicant(s): CDR Michael G. Mitsch c/o Naval Submarine Base Kings Bay

Applicant Email: michael.g.mitsch2.mil@us.navy.mil Phone: 904-270-5856

Agent Name (if applicable): Ms. Lee Cook Phone: 813-765-6209

To Whom It May Concern:

This is to certify that I have made application to the U.S. Army Corps of Engineers (USACE) for authorization to impact Waters of the United States and that such proposed work is, to the best of my knowledge, consistent with Georgia's Coastal Management Program.

I understand I must provide this Consistency Certification Statement, along with a copy of my permit application submitted to USACE, to the Georgia Department of Natural Resources Coastal Resources Division (CRD) before they can begin evaluating my proposed project for consistency with Georgia's enforceable policies. I understand additional information may be required to facilitate review.

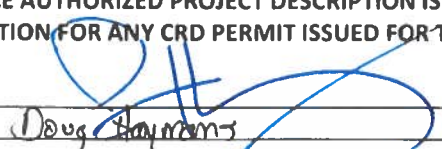
Once any required authorizations or permits from CRD have been issued, and CRD has concurred with my findings by signing this Consistency Certification Statement, CRD must submit it to USACE in order for them to issue any required federal permits or authorizations, or to validate any provisional authorizations they have already issued. A USACE provisional authorization or permit will not be valid until they receive this Certification Statement signed by CRD.

☒ Attached is a copy of my application to USACE (required)

Signature of Applicant:  Digitally signed by MICHAEL GREGORY 1369604747
Date: 2025.08.24 08:25:17 -0400 Date: 8/24/2026

FOR AGENCY INTERNAL USE ONLY:	Date Received (Commencement Date): <u>4/27/2026</u>
USACE Authorization/Permit Number (assigned by USACE):	<u>SAS-2626-00344</u>
USACE Authorization Type (select one): ☐ Individual Permit ☒ General Permit # <u>LOP</u> ☐ NWP # _____	
USACE Project Manager:	<u>Jared K. Chrisp</u>
CRD Authorization/Permit Number (assigned by CRD):	<u>LOP20260044</u>
CRD Project Manager:	<u>Paul D. Tobler</u>

CRD HAS REVIEWED AND CONCURS WITH THIS CONSISTENCY CERTIFICATION STATEMENT TO THE EXTENT THE USACE AUTHORIZED PROJECT DESCRIPTION IS CONSISTENT WITH THE AUTHORIZED PROJECT DESCRIPTION FOR ANY CRD PERMIT ISSUED FOR THIS PROJECT

CRD Signature:  Date: 9/15/26
Printed Name: Doug Baynham Title: Director

For questions regarding consistency with the Georgia Coastal Management Program, please contact the Federal Consistency Coordinator at (912) 264-7218 or visit www.CoastalGADNR.org.

Box 18. Nature of Activity (Continued)

The Trident Refit Facility (TRF) Interface Wharf at Naval Submarine Base Kings Bay is a fixed waterfront structure designed to support mooring of barges and small craft that are required during submarine maintenance and refit operations. The TRF Interface Wharf serves as the logistical and mechanical interface between the vessels and shore-based maintenance infrastructure. The proposed maintenance repairs of the TRF Interface Wharf will include the following in-water and overwater work:

(1) Replace 102 existing steel fender piles with 112 square concrete piles. The existing steel piles have severe corrosion damage. The steel piles will be pulled from the mudline using a barge mounted crane with a vibratory hammer to extract the piles. The limits of fender pile demolition are shown on sheets SD101 to SD103, with typical sections shown on sheets SD301 and SD302. The replacement concrete piles will be driven using an impact hammer. The limits of fender pile installation are shown on sheets S101 to S103, with typical sections shown on sheets S301 and S302.

(2) Remove approximately 2,500 cubic yards of accumulated soft sediment from the existing mooring pad to facilitate structural repairs to the foundation. See sheets CG103 for a plan view of the mooring pad and CG301 for a section view of the mooring pad with the approximate area of sediment removal indicated. An underwater inspection of the mooring pad identified structural damage to the steel frame, concrete foundation, and undermining at the perimeter of the mooring pad. After removal of the accumulated sediment, the steel frame will be cut to remove damaged pieces and will be repaired with new steel welded in-place. The undermined area around the perimeter of the mooring pad will be repaired with stacked concrete grout bags for erosion protection and to form the edges of the repairs. The grout bags and tremie concrete will cover an area of approximately 1,200 square feet. The total volume of tremie concrete and grout bags required to repair the mooring pad foundation is approximately 225 cubic yards. See sheet S-104 for a plan view and typical section of the proposed mooring pad repair, and sheet S-506 for tremie concrete repair details.

The proposed removal of accumulated sediments from the existing mooring pad is currently authorized under DA Permit No. SAS 200501790.

(3) Repair of the existing Interface Wharf concrete structure. The repairs will include concrete piles, concrete deck, beams, and walls. See sheets S-111, S-112 and S-113 for repair locations.

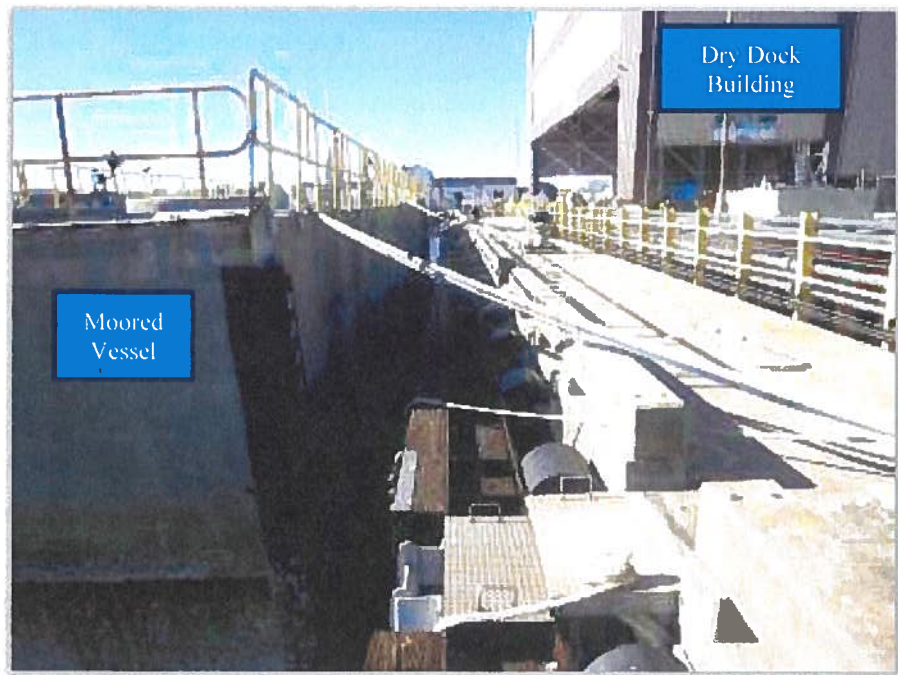
(4) Repair corrosion damage on the existing steel sheet pile coffer cells. The corrosion damage will be repaired by applying a 10-inch-thick concrete fascia to the existing three coffer cells. The concrete fascia provides structural reinforcement and protects the steel from corrosion damage. See sheets S-111, S-112 and S-113 for plan view of the coffer cell repairs. A section view of the coffer cell is shown on sheet S-302 and S-501. The concrete fascia extends from the top of the existing sheet piles above water to 2 feet below Mean Lower Low Water elevation. Sealed formwork will be used to form the concrete fascia underwater.

Waters of the United States:

The TRF Interface Wharf is located within a channelized portion of the East River, classified as estuarine and marine deepwater by the USFWS National Wetlands Inventory. See the attached **Figure 3. National Wetlands Inventory Map**. No wetlands are present landward of the existing hardened shoreline. Additionally, no emergent estuarine vegetation or submerged aquatic vegetation occurs waterward of the hardened shoreline within the project area as the area is regularly dredged per SAS-200501790. See Photos below.



PHOTOGRAPH 1* – View to northeast along the TRF Interface Wharf face (photo left). USACE jurisdiction in this location extends to the Mean High-Water Line (MHWL). The existing brown steel fender system shown water ward of the concrete barrier will be replaced with square concrete piles. No emergent estuarine vegetation or submerged aquatic vegetation occurs waterward of the hardened shoreline within the project area.



PHOTOGRAPH 2* – View to southwest along the TRF Interface Wharf face (photo right). USACE jurisdiction in this location extends to the Mean High-Water Line (MHWL). The existing steel fender system (mostly in shadow) shown water ward of the concrete barrier will be replaced with square concrete piles. No emergent estuarine vegetation or submerged aquatic vegetation occurs waterward of the hardened shoreline within the project area.



PHOTOGRAPH 3* – View to the east of the walkway to the easternmost centerline dolphin. The fender piles will be removed from the two dolphins. An existing mooring pad is submerged at this location. The proposed work includes removing accumulated sediment from the mooring pad and shoring up the pad perimeter with concrete blocks.

**** Project Photos were approved and provided by NAVFAC in February 2024.***

Listed Species Consultation and Commitments:

An application for an Incidental Harassment Authorization (IHA) was submitted to the NMFS on March 12, 2026.

Included in this application package, please see:

- Informal Section 7 Consultation with the USFWS dated December 16, 2015.
- Section 7 Consultation with the NMFS dated July 8, 2016.
- Essential Fish Habitat Consultation with the NMFS dated April 22, 2016.
- Navy's No Effect Determination for the Giant Manta Ray

The applicant commits to following the included listed species protection measures:

- Manatee Protection Measures dated September 22, 2015.
- Sea Turtle and Smalltooth Sawfish Construction Conditions dated March 23, 2006.
- Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office revised May 2021

FINAL SUBMITTAL
06 DECEMBER 2024



WON 1728504
ACQ CORE
NAVAL STATION JACKSONVILLE,
JACKSONVILLE, FLORIDA

2	ENVIRONMENTAL PERMIT UPDATES	6/7/2025	VB
1	ISSUED FOR BID	7/26/2024	VB
2	ISSUED FOR BID	8/1/2024	VB



08	Catalogue & Ref. No.
09	Author
10	Publication by
11	M.S.
12	M.C.
13	M.A.

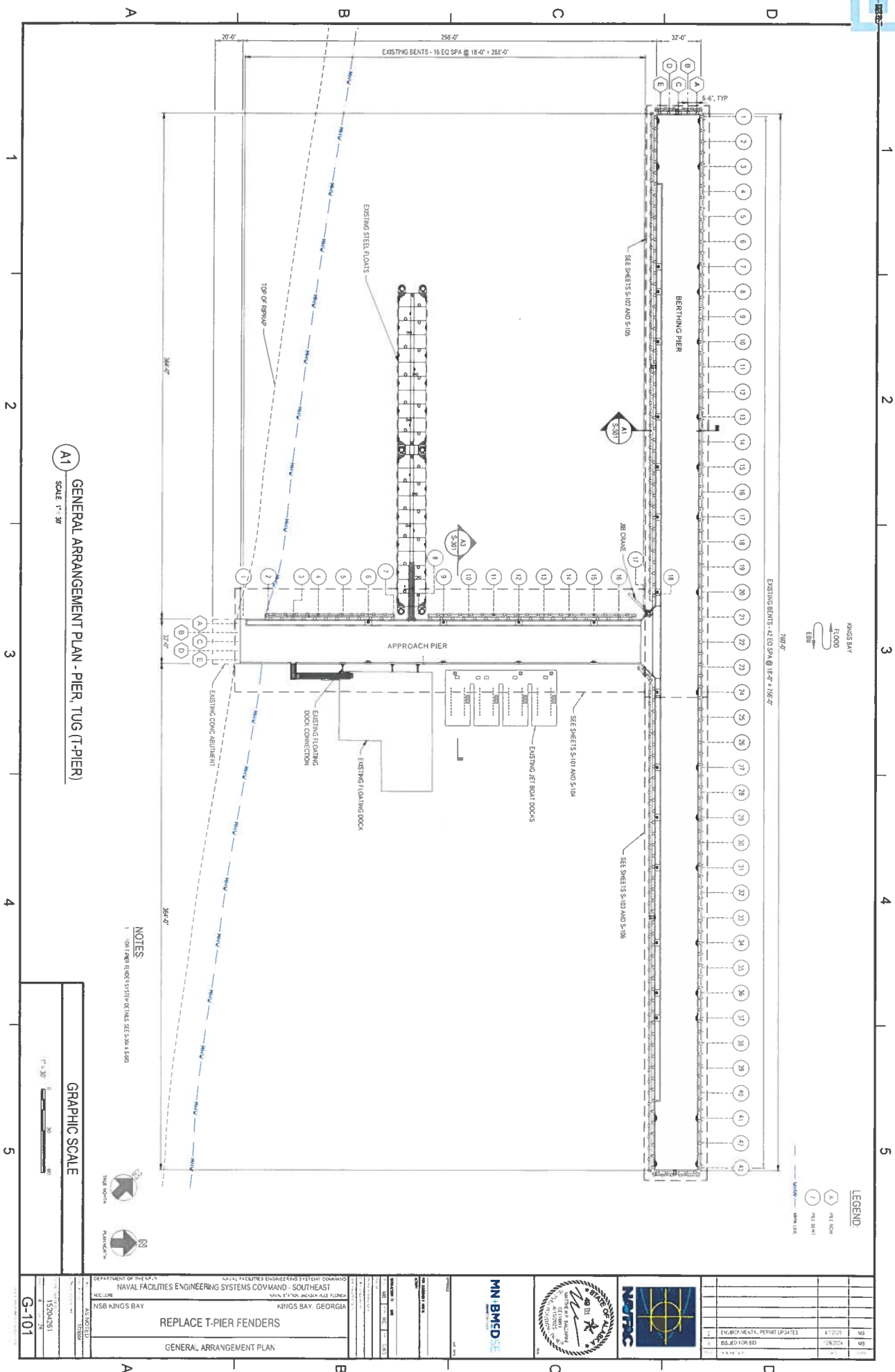
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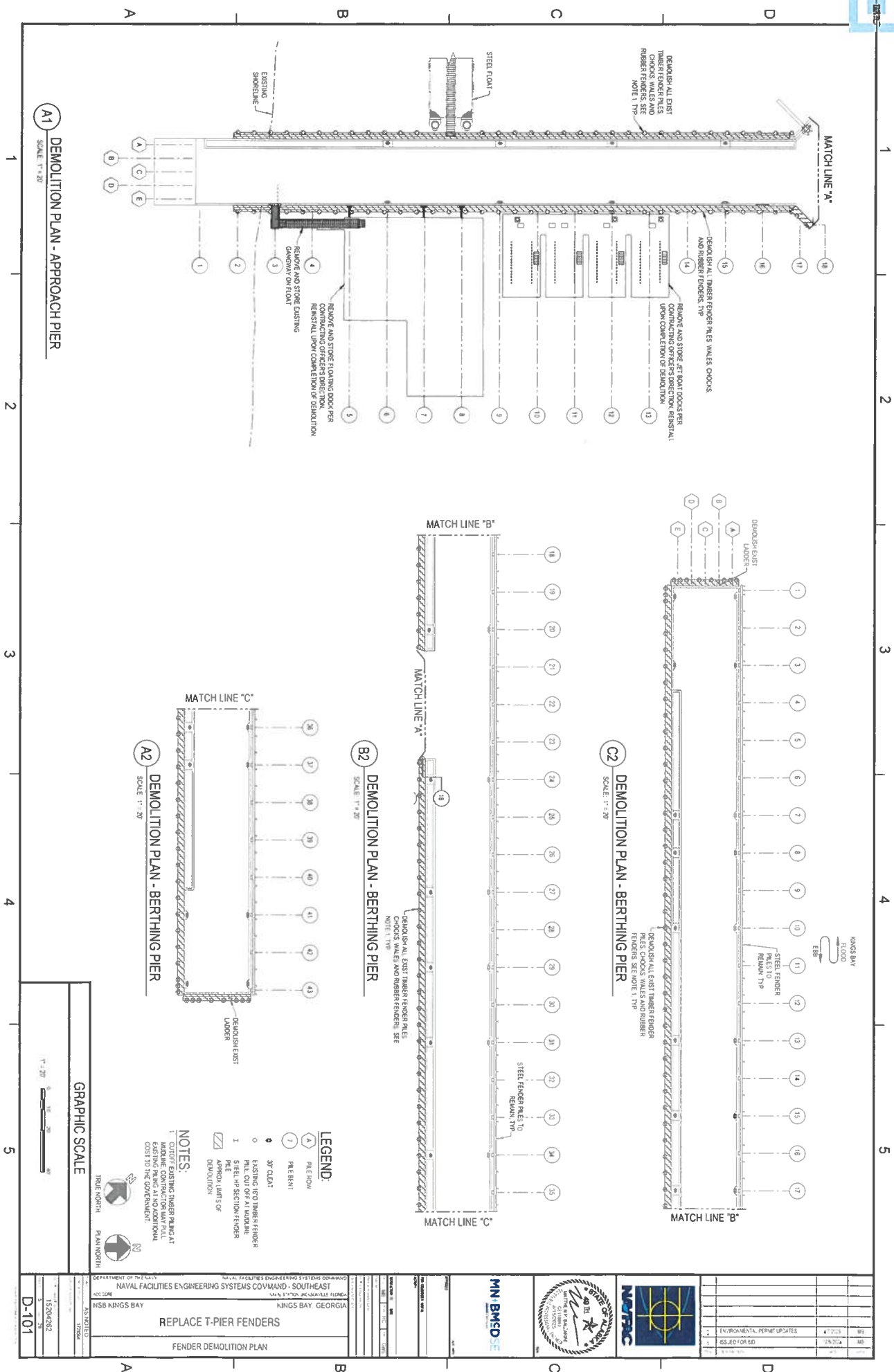
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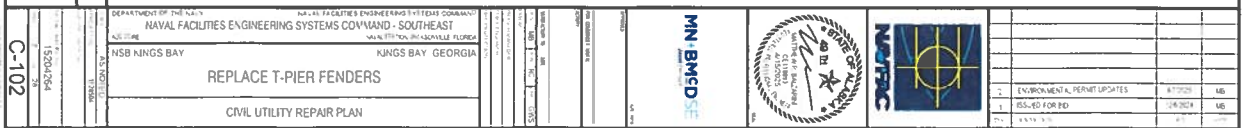
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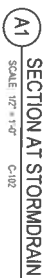


SCALE 1/2" = 1'-0" C-10



SCALE 1/2" = 1'-0" C-101

B1 **BERTHING PIER SECTION AT STORMDRAIN**
SCALE 1/2" = 1'-0" C-102



SCALE 1/2" = 1'-0" C-11



SCALE 5" = 1'-0"

A3 SECTION - END CONNECTIONS
SCALE 3" = 1'-0"



SCALE 1" = 1'-0" C-50

B4 PS1: 2 WAY PIPE SUPPORT
SCALE 1" = 1'-0" C-501



SCALE 1"=100' C-1

A4
PS2: 3 WAY PIPE SUPPORT
SCALE 1"=1'-0"
C-501



APHILIC SCALE

NOTES:

1. SEE STORMWATER PROJECT SHEET S-C301 - C-302
2. ONLY A STORMWATER PAVING SHOWING THE SHEET (SEE C-301) FOR ADDITIONAL UTILITY AND MECHANICAL ARRANGEMENTS, REFER TO SPECIFICATION 601.11 FOR NEW STORMWATER PAVING.
3. ALL PAVING MUST FOLLOW THE GENERAL ARRANGEMENTS SHOWN. PAVING MUST BE LAIN AS INDICATED. CARE BEING TAKEN TO AVOID INTERFERENCE WITH OTHER PAVING, CONDUIT, OR EQUIPMENT.
4. PAVING MUST BE ASTM A117 TYPE 100/100 STAINLESS STEEL, SCHEDULE 40.
5. PAVING MUST BE JOINTED AND GROOVED WITH PAVING JOINTS. JOINTS AND GROOVING MUST BE STAINLESS STEEL FOR BOTH FIXED AND FLEXIBLE JOINTS. JOINTS AND JOINTS MUST BE STAINLESS STEEL, ACCORDING TO ASTM F483 AND ASTM F484.
6. AT LEAST ONE FLEXIBLE JOINT MUST BE INSTALLED BETWEEN EACH PAVING SUPPORT. TYPICAL EXPANSION OF THE PIPE, FLEXIBLE JOINTS MUST ALSO BE INSTALLED TO BE ALIGNED WITH DRAINAGE STRUCTURAL EXPANSION JOINTS.
7. TYPICAL PAVING SPACING MUST BE AT MAXIMUM UNITS INDICATED ON THE DRAWINGS. A FIRST PIPE SUPPORT MUST BE INSTALLED AT 17'11" MAXIMUM. THE SUPPORTS AND JOINTS MUST BE 316 STAINLESS STEEL. REFER TO 2001 FOR SUPPORT DETAILS.

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STRUCTURAL NOTES:

CODES & STANDARDS

UFC 4-151-10	UNIFIED FACILITIES CRITERIA, GENERAL CRITERIA FOR WATERFRONT CONSTRUCTION, 2012
UFC 4-151-21	UNIFIED FACILITIES CRITERIA, DESIGN PERS AND WATERS, 2017
UFC 4-151-23	UNIFIED FACILITIES CRITERIA, DESIGN WATERS, 2017
ACI 308-10	AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND CONCRETE MASONRY
ACI 308-16	AMERICAN CONCRETE INSTITUTE, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
ACI 308-16	AMERICAN INSTITUTE FOR STEEL CONSTRUCTION, SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
ACI 308-16	AMERICAN CONCRETE INSTITUTE, FIELD GUIDE TO CONCRETE REPAIR APPLICATION PROCEDURES, STRUCTURAL CRACK REPAIR BY EPOXY INFUSION

ACI 308-16	SURFACE REPAIR USING FORM-IN-PLACE TECHNIQUES
ACI 308-16	SURFACE REPAIR USING FORM-IN-PLACE TECHNIQUES
ACI 308-16	VERTICAL AND OVERHEAD SPALL REPAIR BY HAND APPLICATION
ACI 308-16	SPALL REPAIR OF HORIZONTAL SURFACES
ACI 308-16	INSTALLATION OF EMBEDDED GALVANIC ANODES
ACI 308-16	WET/DRY/SLATE FLOOR COAT
ACI 308-16	AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE, STEEL
ACI 308-16	AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE, REINFORCING STEEL
ACI 308-16	AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE, UNDERWATER WELDING
ACI 308-16	AMERICAN WOOD PROTECTION ASSOCIATION
ACI 308-16	AMERICAN WOOD COUNCIL, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION

DESIGN LOADS

1. UNIFORM LIVE LOAD
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NAME	BEAM LENGTH (FT)	BEAM WIDTH (FT)	BEAM HEIGHT (FT)	BEAM WEIGHT (LBS/FT)	BEAM LOCATION
YB-100	100	20	14	15	00
YB-101	100	20	14	15	00
YB-102	100	20	14	15	00
YB-103	100	20	14	15	00
YB-104	100	20	14	15	00
YB-105	100	20	14	15	00
YB-106	100	20	14	15	00
YB-107	100	20	14	15	00
YB-108	100	20	14	15	00
YB-109	100	20	14	15	00
YB-110	100	20	14	15	00
YB-111	100	20	14	15	00
YB-112	100	20	14	15	00
YB-113	100	20	14	15	00
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YB-199	100	20	14	15	00
YB-200	100	20	14	15	00

DESIGN VESSEL FOR MOORING AND BERTHING LOAD

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STEEL

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CONCRETE

1. CONCRETE WORK MUST COMPLY WITH THE RECOMMENDATIONS OF ACI 308 AND ACI 318, LON.
2. REINFORCING STEEL MUST BE PROVIDED WITH A MINIMUM OF 3 INCHES OF CONCRETE COVER, LON.
3. EXPOSED CONCRETE EDGES MUST HAVE A 1/4 INCH CHAMFER, LON.
4. FOR REPAIR OF PILES, CAST-IN-PLACE CONCRETE COMPRESSIVE STRENGTH MUST BE 8,000 PSI MINIMUM AT 28 DAYS, FOR OTHER CONCRETE REPAIRS, CAST-IN-PLACE CONCRETE COMPRESSIVE STRENGTH MUST BE 5,000 PSI MINIMUM AT 28 DAYS.
5. GROUT MUST BE NONMETALLIC, NONSHRINK, HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 10,000 PSI.

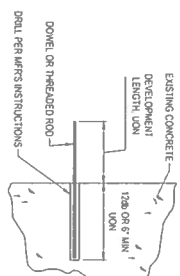
REINFORCING STEEL

1. REINFORCING STEEL MUST BE DEVELOPED AND CONFORM TO ASTM A615 OR ASTM A706 WITH MINIMUM BASIC YIELD STRENGTH, LON.
2. FOR CONCRETE, HOOK AND BEND DETAIL S, SEE A3.1.3.1 ON SHEET S-002.
3. REINFORCING STEEL MUST BE DEVELOPED AND CONFORM TO ASTM A615 OR ASTM A706 WITH MINIMUM BASIC YIELD STRENGTH, LON.
4. FOR CONCRETE, HOOK AND BEND DETAIL S, SEE A3.1.3.1 ON SHEET S-002.
5. REINFORCING STEEL MUST BE DEVELOPED AND CONFORM TO ASTM A615 OR ASTM A706 WITH MINIMUM BASIC YIELD



CONCRETE REPAIR NOTES:

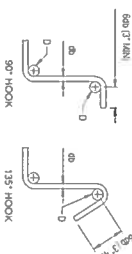
1. REMOVE DELAMINATED OR DEGRADED CONCRETE UNTIL SOUND CONCRETE IS ENCOUNTERED. CHIPPED OUT AREA MUST EXTEND AN ADDITIONAL 2" ALL AROUND.
2. CHECK SURFACES TO ENSURE THEY ARE FREE FROM LOOSE AGGREGATE AND/OR ADDITIONAL DELAMINATIONS.
3. CHIPPED OUT AREA MUST BE NOT LESS THAN 1" TO BAR AROUND ALL EXPOSED REINFORCING BARS. EXPOSED REINFORCING BARS MUST BE CLEANED AND REPAIRED.
4. EDGES OF THE CHIPPED OUT AREA MUST BE SAWCUT PERPENDICULAR TO THE CONCRETE SURFACE FOR A MINIMUM OF 1" TO 1.5" TO PREVENT SPALLS. SAWCUT MUST NOT EXCEED 1" DEPTH.
5. EXPOSED REINFORCING BARS MUST BE CLEANED OF SCALE, RUST, OIL, AND OTHER DELETERIOUS MATERIALS.
6. AFTER THE BAR HAS BEEN CLEANED BY HAND TOOLS, OR WIRE BRUSH, MEASURE THE DIAMETER OF THE EXPOSED REINFORCING BARS AT THE EDGE OF THE CHIPPED OUT AREA TO DETERMINE THE ORIGINAL BAR SIZE. COMPARE THE BAR DIAMETERS WITH THE CHIPPED OUT AREA WITH DETAIL C AND REPLACE BARS AS REQUIRED WITH DETAIL A ON THIS SHEET.
7. IF STAINLESS STEEL BARS ARE FOUND DAMAGED, CONTACT CONTRACTING OFFICER.
8. FORMS MUST BE WATER TIGHT.
9. DO NOT FEATHER EDGES OF REPAIR.
10. AT INTERFACES BETWEEN EXISTING AND NEW CONCRETE, ADJOINED EXISTING SURFACE TO 14".
11. EXISTING CLEAR COVER MUST BE MAINTAINED. PLACE OF REPAIR CONCRETE MUST NOT EXTEND BEYOND EXISTING FACE OF CONCRETE.
12. PROVIDE DISCRETE ANODES AT INTERFACES BETWEEN NEW AND EXIST CONCRETE AT REINFORCING BARS ONLY. SEE DETAIL B1 AND B2 ON THIS SHEET.



DOWEL BAR NOTES:

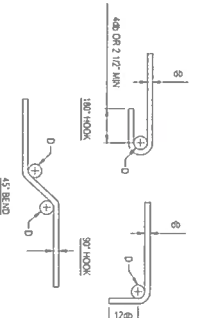
1. EPOXY ANCHORS MUST BE PER SPEC SECTION 05 50 13 OR APPROVED EQUAL (SPECIAL INSPECTION REQUIRED).
2. ANCHORS MUST BE INSTALLED IN CONFORMANCE WITH ALL MANUFACTURERS RECOMMENDATIONS.
3. ANCHORS MUST NOT BE EPOXY COATED AND MUST BE FREE OF OIL, SCALE AND RUST. ANCHORS TO BE NOT DOWEL TYPE DRILL.
4. UNLESS OTHERWISE APPROVED, HOOKS TO RECEIVE DOWELS MUST BE DRILLED WITH A ROTARY DRILL TYPE DRILL.
5. PRIOR TO DRILLING, LOCATE EXISTING REINFORCEMENT THROUGH COORDINATE WITH CONTRACTOR AND FIELD TO PREVENT DAMAGING THE EXISTING REINFORCEMENT.
6. HOLE MUST BE CLEANED IN CONFORMANCE WITH ANCHOR SYSTEM MANUFACTURERS INSTRUCTIONS.
7. MIXING OF ADHESIVE MUST BE IN CONFORMANCE WITH MANUFACTURERS RECOMMENDATIONS.
8. ANCHORS MUST NOT BE DISTURBED DURING THE SET TIME.
9. STAINLESS STEEL ANCHORS TO BE SOLIDIFIED FROM GALVANIZED STEEL.
10. EPOXY GROUT SUBMITTAL MUST INCLUDE A CURRENT ICC-ES EVALUATION REPORT.
11. DOWELS OR ANCHOR RODS MUST BE SECURED WITH EPOXY GROUT HAS CURED FOR 24 HOURS.
12. A MINIMUM OF 1" OR 10% OF POST INSTALLED ANCHORS MUST BE PULL TESTED BY A QUALIFIED AGENT.

TYPICAL DOWEL INSTALLATION



BAR SIZE	#3	#4	#5	#6	#7	#8
D	1 1/2"	2"	2 1/2"	4 1/2"	5 1/4"	5"

TYPICAL STIRRUP AND TIE HOOKS



TYPICAL REINFORCING HOOKS

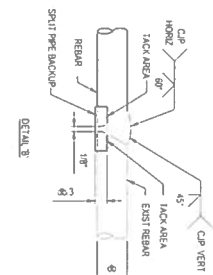
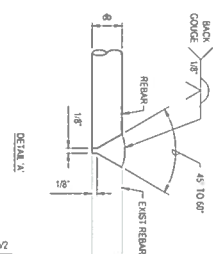


TYPICAL ALLOWABLE BAR DIAMETER CHART

ALLOWABLE BAR DIAMETER CHART	ORIGINAL MAX. SCALE	LIGHT TO MEDIUM DAMAGED SECTION (CLAMPING REQ'D)	HEAVY DAMAGED SECTION (CLAMPING REQ'D)
BAR SIZE	DIAMETER	DIAMETER	DIAMETER
#3	5/16"	5/16"	5/16"
#4	3/8"	3/8"	3/8"
#5	1/2"	1/2"	1/2"
#6	5/8"	5/8"	5/8"
#7	11/16"	11/16"	11/16"
#8	13/16"	13/16"	13/16"
#9	7/8"	7/8"	7/8"

NOTES:

1. REMOVE ALL HEAVY CORROSION & SCALE FROM REINFORCING BARS BY HAND TOOLS.
2. IF REINFORCING BAR DIAMETER AFTER CLEANING IS LESS THAN THAT SHOWN IN PERMISSIBLE BAR DIAMETER CHART, REPLACE PER ALLOWABLE.
3. FOR BONDING PURPOSES THE CONTRACTOR REINFORCING STEEL IS RESPONSIBLE FOR THE REPAIRS REQUIRES REPLACEMENT.

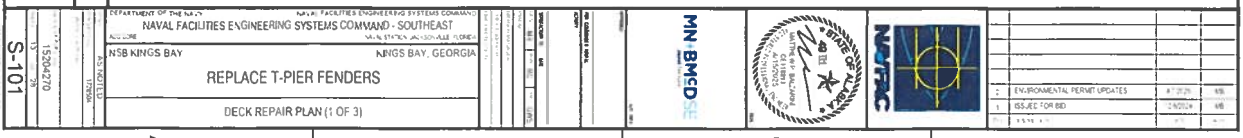


TYPICAL WELDED SPLICE DETAIL

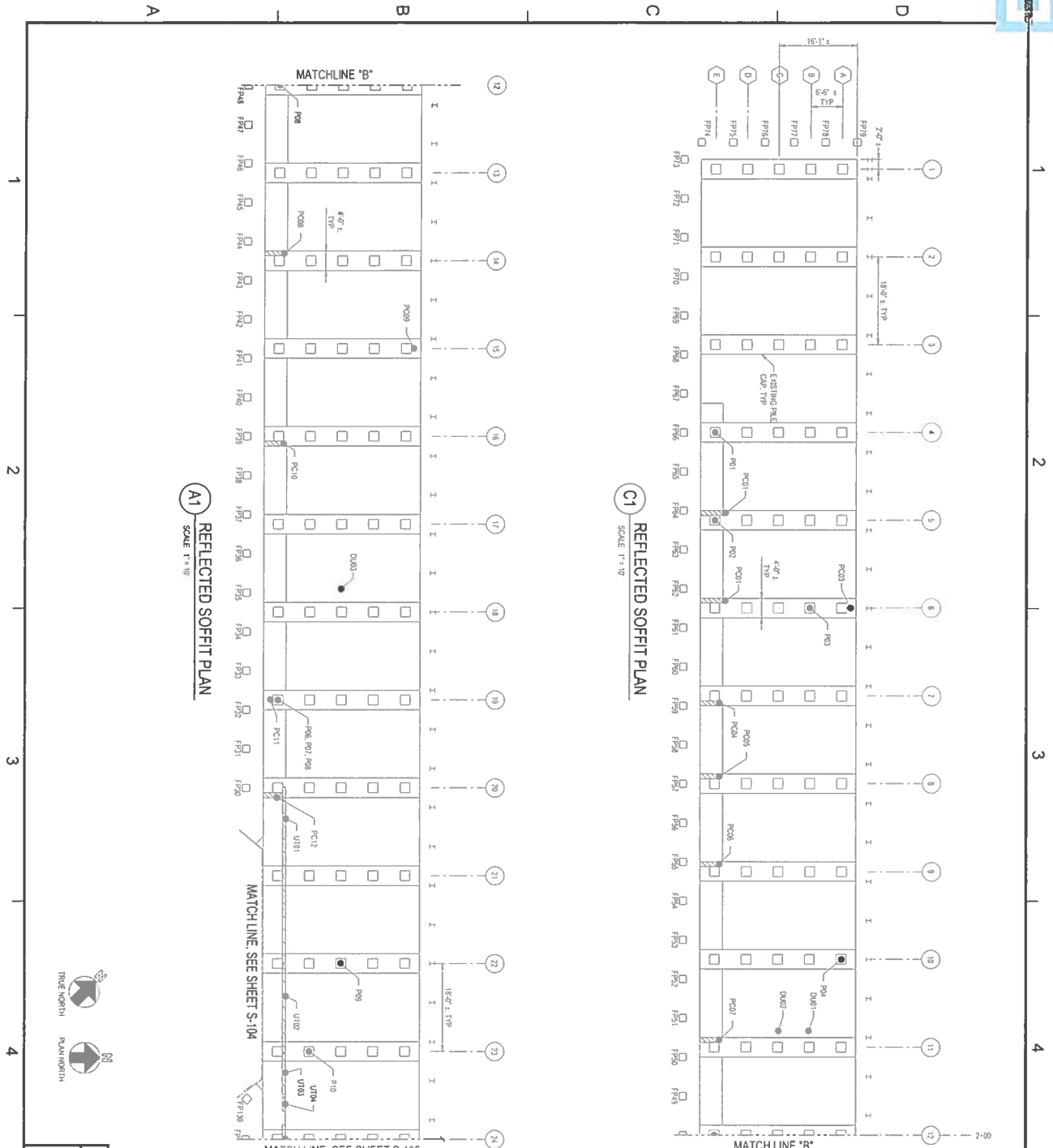


REINFORCING WELDING NOTES:

1. COPE GROUND OR COUPE TO SOUND METAL BEFORE WELDING.
2. USE DETAIL A, C FOR #3 BAR AND LARGER DETAIL B FOR #6 TO #10 BAR AND DETAIL D FOR #11 BAR AND SMALLER.
3. SEE AWS D1.4 FOR WELDING PROCESS AND OTHER DETAILS. CANNOT BE MADE.
4. TO REPAIR THE DAMAGES IN THE GALVANIZED COATINGS OF THE WELD AFFECTED AREA, SEE ASTM A796.







C1 REFLECTED SOFTT PLAN
SCALE 1" = 10'

A1 REFLECTED SOFTT PLAN
SCALE 1" = 10'

LEGEND:

- ▲ PILE ROW
- PILE BEAM
- PRESTRESSED CONCRETE PILE
- PC01 PILE CAP REPAIR NUMBER AND APPROXIMATE REPAIR LOCATION FOR REPAIR SCHEDULES SEE SHEETS S-601 & S-602.
- PC02 PILE CAP REPAIR NUMBER AND APPROXIMATE REPAIR LOCATION FOR REPAIR SCHEDULES SEE SHEETS S-601 & S-602.
- PC03 UNDER DECK REPAIR NUMBER AND APPROXIMATE REPAIR LOCATION FOR REPAIR SCHEDULES SEE SHEETS S-601 & S-602.
- PC04 UTILITY TRENCH REPAIR NUMBER AND APPROXIMATE REPAIR LOCATION FOR REPAIR SCHEDULES SEE SHEETS S-601 & S-602.
- PC05 18" SO PRESTRESSED CONCRETE PILE

GRAPHIC SCALE

1" = 10'

0 10 20

KEY PLAN

THIS DRAWING

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
KINGS BAY, GEORGIA

REPLACE T-PIER FENDERS
REFLECTED SOFTT REPAIR PLAN (2 OF 3)

NSB KINGS BAY

15/04/27/4

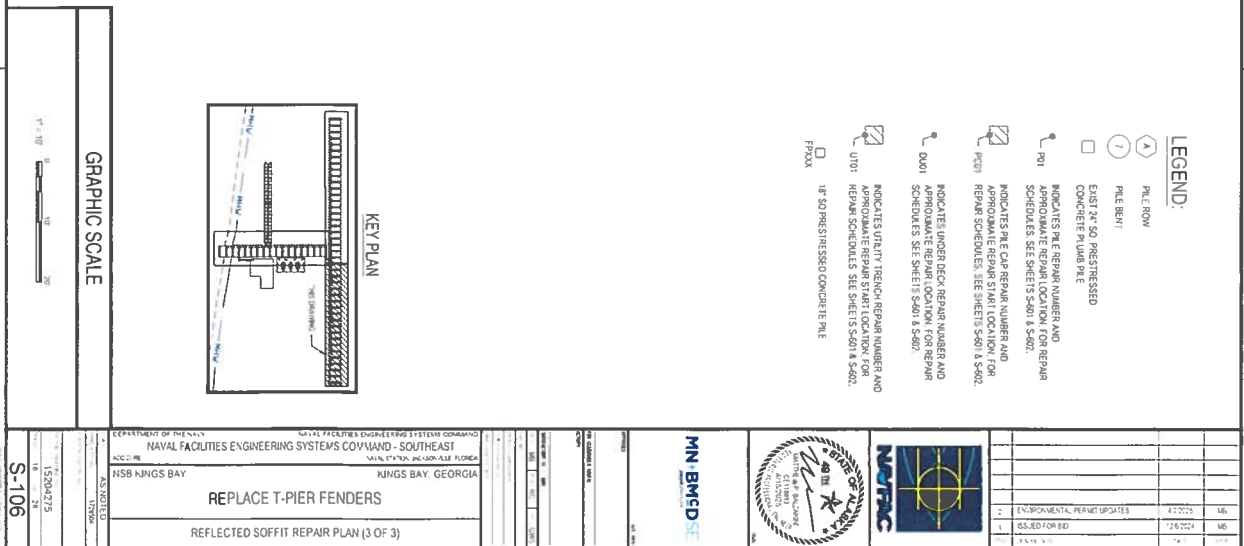
S-105

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST
KINGS BAY, GEORGIA

MN BMCD

NAVFAC

1	ENVIRONMENTAL PERMIT UPDATES	4/2/25	MB
2	ISSUED FOR BID	12/05/24	MB





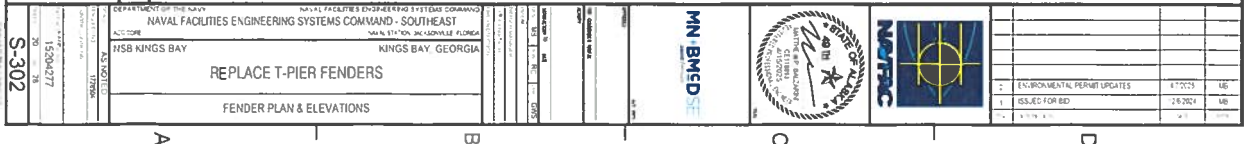
TYPICAL SECTION - APPROACH PIER

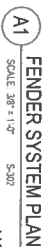
LEGEND:

PA. E FROM

GRAPHIC SCALE

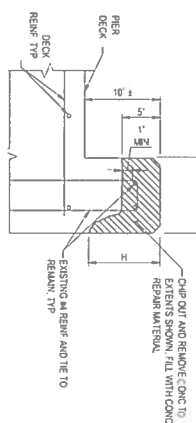
S-301	DATE	15	28
	TIME		
	BY		
	REMARKS		
	AIRPORT		
	LOCATION		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND - SOUTHEAST NSB KINGS BAY KINGS BAY, GEORGIA REPLACE T-PIER FENDERS TYPICAL PIER SECTIONS			





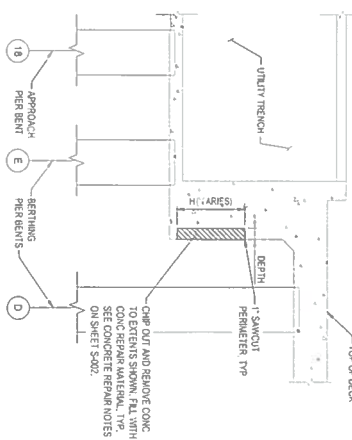
- GRAPHIC SCALE





DETAIL - CURB TOP FACE REPAIR
SCALE: 1 1/2" = 1'-0"

S-501	315504280	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018	17/01/2018
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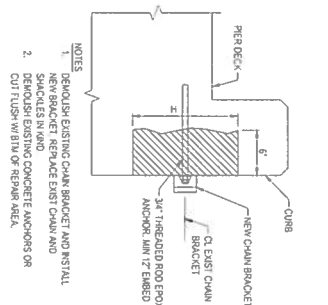


C1 PILE CONCRETE SPALL REPAIR SCHEMATIC
SCALE NTS

C2 **DETAIL - PILE SIDE SPALL REPAIR**
SCALE 1 1/2" = 1'-0"

C3 PLAN - UTILITY VAULT REPAIR AT PILE CAP
SCALE 1/2" = 1'-0"

DETAIL - UTILITY VAULT REPAIR AT PILE CAP
SCALE 3/8" = 1'-0"

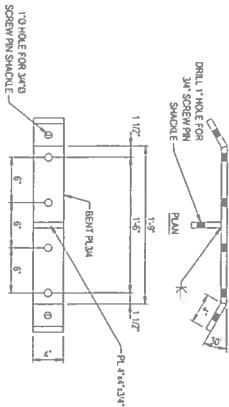
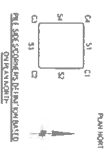


B1 **DETAIL - PILE CORNER SPALL REPAIR**
SCALE 1 1/2" = 1'-0"

B2 **DETAIL - PILE SIDE SPALL REPAIR**
SCALE: 1 1/2" = 1'-0"

B3 **DETAIL - FENDER CHAIN BRACKET REPAIR**
SCALE 1 1/2" = 1'-0"

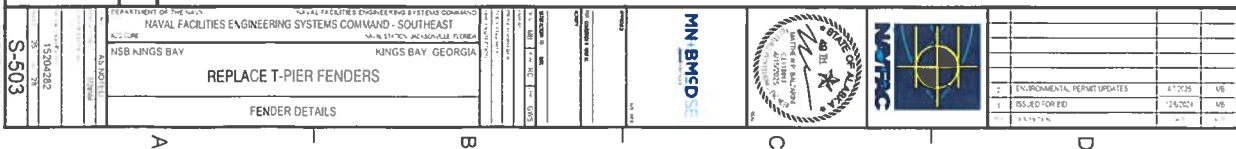
1. FLEET VEHICLES, 4 DIMENSIONS.
2. FOR INFORMATION ONLY, SHOWING THE INITIALS, SEE REFERENCE PLANNINGS.
3. DAMAGE LOCATION IN THE REPAIR SCHEDULE IS BASED ON THE LOCATION OF THE DAMAGE IN THE REPAIR SCHEDULE. SEE THE SOFT PLAN 5.5.01. REPAIRS ARE FOR APPROXIMATE LOCATIONS.
4. SEE SHEET 5.5.01.5 FOR REPAIR NOTES AND TYPICAL DETAILS.
5. SEE SHEET 5.5.01.6 FOR REPAIRS OF SMALL LOCATIONS AND REPAIR LENGTH.
6. THE LINE SIZES AND CORNERS ARE DESIGNED BASED ON THE ORIENTATION OF THE WITH RESPECT TO PLAIN WALL. SEE THE SCHEDULE.



A1
DETAIL - NEW CHAIN BRACKET
SCALE 1 1/2" = 1'-0"



GRAPHIC SCALE





REPAIR NO.	DAMAGE LOCATION	FACILITY SECTION	DEFECT	PAGE	REPAIR		REPAIR		REPAIR DETAIL
					LENGTH INCH	WIDTH INCH	DEPTH INCH	VOLUME	
U701	38-32 E BENT	BRIDGING PIER	OGOSUELLAM	N	36	71	18	72	C3-5-502
U702	32-33 E	BRIDGING PIER	OGOSUELLAM	N	18	4	6	6	C3-5-502
U703	22-23 E	BRIDGING PIER	OGOSUELLAM	N	8.5	4	6	17	C3-5-502
U704	22-24 E	BRIDGING PIER	OGOSUELLAM	N	3	2	6	6	C3-5-502
U705	24 E	BRIDGING PIER	OGOSUELLAM	N	3	2	6	6	C3-5-502
TOTAL CF									115
TOTAL CF WITH 100% INCREASE									231

[illegible]

UNDER DECK CRACK REPAIR SCHEDULE									
REPAIR NO.	DAMAGE LOCATION	FACILITY SECTION	DEFECT	FACE	REPAIR LENGTH	REPAIR WIDTH	REPAIR DEPTH	REPAIR DATE	REPAIR BY
AGENT	ROW				FT.	IN.	IN.		
D001	10 3	B	BERNTHING PIER	CRACK	87M	4	1/8	6/5-5/61	NOTE
D002	10 9	B	BERNTHING PIER	CRACK	87M	4	1/8	6/5-5/61	NOTE
D003	11 8	C	BERNTHING PIER	CRACK	87M	4	1/8	6/5-5/61	NOTE
D004	24 35	C	BERNTHING PIER	CRACK	87M	4	1/8	6/5-5/61	NOTE
D005	26 25	D	BERNTHING PIER	CRACK	87M	4	1/8	6/5-5/61	NOTE
D006	31	C	BERNTHING PIER	CRACK	87M	6	1/8	6/5-5/61	NOTE
D007	31	D	BERNTHING PIER	CRACK	87M	6	1/8	6/5-5/61	NOTE
D008	33	C	BERNTHING PIER	CRACK	87M	6	1/8	6/5-5/61	NOTE
D009	33	D	BERNTHING PIER	CRACK	87M	6	1/8	6/5-5/61	NOTE
TOTAL LF WITH 10% INCREASE					86	44			

CONCRETE CURB REPAIR SCHEDULE									
REPAIR NO.	DAMAGE LOCATION	FACILITY SECTION	CURB FACE	REPAIR LENGTH	REPAIR HEIGHT	REPAIR VOLUME	REPAIR DETAIL		
	BENT	ROW		FT	IN	CF			
CR001	2.25	A	BERTHING PIER	1.0	9	0.6	C&S-501		
CR002	4.1	A	BERTHING PIER	3.0	10	2.1	A&S-501		
CR003	10.9	A	BERTHING PIER	5	1.0	0.6	C&S-501		
CR004	16.15	A	BERTHING PIER	N	12	0.6	A&S-501		
CR005	20.5	E	BERTHING PIER	5	8.5	3.6	C&S-501		
CR006	21.5	A	BERTHING PIER	N/OP	12	0.6	C&S-501		
CR007	22.25	E	BERTHING PIER	5	15	1.4	C&S-501		
CR008	35.6	A	BERTHING PIER	TOP	10.0	6.3	C&S-501		
CR009	30.9	A	BERTHING PIER	N	2.0	8	1.1	A&S-501	
CR010	40.5	A	BERTHING PIER	N/OP	12	1.7	C&S-501		
CR011	7.9	E	APPROACH	8	2.0	9	1.3	C&S-501	
CR012	8.5	E	APPROACH	W/OP	0.6	17	0.6	A&S-501	
TOTAL CF						20.6			
TOTAL CF WITH 100% INCREASE						41.3			

[illegible]

REPAIR NO.	DAMAGE LOCATION	FACILITY CONNECTION	REPAIR SCHEDULE	REPAIR VOLUME	REPAIR DETAIL
	BEHRT ROW	BEHRT SECTION	DEFECT	REPAIR MEASUREMENT	
F001	24.25	A	BEHRTING PIER SPALL	12	0.5
F002	24.25	A	BEHRTING PIER SPALL	12	0.5
F003	47.5	A	BEHRTING PIER SPALL	4	0.1
F004	40.9	A	BEHRTING PIER SPALL	12	0.5
F005	42	A	BEHRTING PIER SPALL	8	0.2
TOTAL CF					1.8
TOTAL CF WITH 100% INCREASE					3.6