



Worcester County Government

One West Market Street | Room 1103 | Snow Hill MD 21863-1195

(410) 632-1194 | (410) 632-3131 (fax) | [admin@co.worcester.md.us](mailto:admin@co.worcester.md.us) | [www.co.worcester.md.us](http://www.co.worcester.md.us)

**NOTICE TO BIDDERS**  
**Worcester County Commissioners**  
**Worcester County, Maryland**  
**Worcester County Harbor- Proposed Marine Repairs**

The County Commissioners of Worcester County Maryland are currently soliciting bids for construction services for the West Ocean City Commercial Harbor bulkhead replacement project. This project consists of construction for 828+- linear feet of bulkhead, 8 finger piers with bumper piles, and the governors dock with bumper piles. Interested contractors are encouraged to attend a **pre-bid meeting at 1:00 PM on Tuesday, June 7, 2022**, at the West Ocean City Commercial Harbor located at 12826 Sunset Avenue, Ocean City, MD 21842. Last day for bid questions shall be noon Thursday, June 16, 2022. **Sealed bids will be accepted until 1:00 PM on Wednesday, June 29, 2022** in the Office of the County Commissioners, at Room 1103 -Worcester County Government Center, One West Market Street, Snow Hill, Maryland 21863, at which time they will be opened and publicly read aloud.

**Envelopes shall be marked "Worcester County Harbor-Propose Marine Repairs"** in the lower left-hand corner. After opening, bids will be forwarded to the Worcester County Recreation and Parks Department for tabulation, review and recommendation to the County Commissioners for their consideration at a future meeting. In awarding the proposal, the Commissioners reserve the right to reject any and all proposals, waive formalities, informalities and technicalities therein, and to take whatever proposal they determine to be in the best interest of the County considering lowest or best proposal, quality of goods and work, time of delivery or completion, responsibility of subcontractors being considered, previous experience of subcontractors with County contracts, or any other factors they deem appropriate. Bid documents are available by contacting the Worcester County Recreation and Parks Department at 410-632-2144 x2521 or by email at [jstephens@co.worcester.md.us](mailto:jstephens@co.worcester.md.us)

THE WORCESTER COUNTY COMMISSIONERS

DIVISION 2 - SITE WORK

SECTION 02701 - BULKHEAD, PIERS, PILINGS & DOLPHINS

Part 1 - General

1-1 Scope:

- A. The Contractor shall furnish all labor, materials and equipment necessary to construct the wingwalls and jetties as shown on the Drawings, as described in these Specifications and as directed by the Owner or Owner's Representative.
- B. The Contractor shall adhere to the terms of the various permits issued to this project. This shall include permits from the U. S. Army Corps of Engineers (USACE), Maryland Department of the Environment (MDE), Worcester County (Owner) and any other applicable permits.
- C. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to work. If the Contractor observes that the Specifications and/or Drawings are at variance therewith, he will give the Owner prompt written notice thereof. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he will bear all costs arising therefrom.
- D. Included elsewhere in these Specifications are copies of construction permits which are required to be available at the construction site. They are included for the contractor's convenience, compliance and guidance, but the engineering sketches and notes are approximate and suitable only for permit purposes and shall attach no significance to volumes mentioned in these permits, but shall compute his own.
- E. Related Documents: The general provisions of the Contract, "ASTM Standards in Building Codes", latest edition; the Geotechnical Report in Appendix 3 and all applicable supplements and addenda pertaining thereto apply to this section.

Part 2 - Products

2-1 **Timber:** All timber shall be Southern Yellow Pine unless otherwise approved by the Owner or Owner's Representative. Timber shall be free from all defects which will impair its strength and durability. All timber shall comply with the following specifications.

A. Round Timber Piles:

- 1. **General Quality:** Piles shall meet the requirements of the ASTM D25 "Standard Specifications for Round Timber Piles", except as modified by the Drawings and Specifications. Piles shall be cut from sound, live trees and shall be free from decay and insect attack. Piles shall be cut above the ground swell and have a gradual taper from the butt to the tip or from three feet below the butt to the tip as specified on the Drawings. Piles shall be free from defects such as holes, scars, checks, shakes, splits, twist of grain, compression wood and knots as required by ASTM Specification D25.
- 2. **Sizes:** In place length of piles, minimum butt and tip diameter, minimum butt and tip circumferences, and pile taper shall be as specified in the Drawings.
- 3. **Sapwood:** Piles shall have a minimum sapwood thickness of three (3.0) inches. The sapwood shall be measured continuously along the radius at mid-point of length and at the butt of the pile.
- 4. **Straightness:** Piles shall be within a straightness requirement where a line drawn from the center of the tip to the center of the butt does not fall outside the center of the pile at any point by more than 1 1/4% of the length of the pile, or shall be entirely within the body of the pile, whichever is less.
- 5. **Peeling and Cutting:** Prior to treatment, piles shall be clean peeled of all outer bark and at least a minimum of 80% of the inner bark. The butts and tips of piles shall be sawed square with the axis of the pile. The allowable tolerance shall be 10% from square.

B. **Lumber:** All timbers, dimensional lumber, and boards shall be graded and carry an identifiable grade mark in accordance with the Grading Rules of the Southern Pine Inspection Bureau. The in place length of lumber shall be as shown on the Drawings. Lumber shall comply with the following specifications:

- 1. **Wales and Butt Block:** Grade No. 1 Dense, surfaced on four sides (S4S).
- 2. **Liner and Capboard:** Grade No. 1 minimum, surfaced on four sides (S4S).

C. Vinyl Sheet Piling:

- 1. Sheet pile profile shall be manufactured with an interlocking feature that ensures adjacent panels maintain alignment. The sheeting shall be homogeneous, uniform in color, free from visible cracks, and other defects. The material manufacturer shall have five (5) years minimum experience with manufacturing of vinyl sheet piling.
- 2. Acceptable manufacturers of vinyl sheet piling products are:
  - a. Shore Guard SG 750: Manufactured by CMI (Crane Materials International, Inc.), 800-256-8857; [sales@cmic.com](mailto:sales@cmic.com)
  - b. Everlast ESP 8.5: Manufactured by Everlast Synthetic Products, LLC, 1-877-614-3719; [sales@everlastseawalls.com](mailto:sales@everlastseawalls.com)
- 3. Length: The length of piling furnished shall be adequate to provide the finished lengths shown on the drawings with the tops of the finished piling at the elevations called for on the drawings. Splicing of sheet piles will not be permitted.
- 4. The computed length of the wall may vary from the actual wall length because of rolling tolerances, setting and driving practice. The vinyl sheet piling shall be straight and free from all defects either in web of interlock tending to impair its strength or durability. The methods of manufacture, storing, handling, and driving shall be that injury to the sheeting will be avoided. Piling which has been damaged during shipping or storing shall, at the direction of the Owner or Owner's Representative, be removed from the site of the work and be replaced with satisfactory piling.
- 5. Manufacturing facility shall have Impact Testing Capabilities (ASTM D-4226) on site. Data and coupons from the test shall be provided to the Owner or Owner's Representative upon request.

D. **Hardware:** Hardware to be used for the construction of the bulkhead and piers shall be manufactured from good, commercial quality material and shall meet the minimum requirements of the following specifications:

- 1. **Rods, Bolts and Nuts:** All rods, bolts and nuts shall conform to ASTM Specification A-307 for Grade A Steel and shall have hexagonal heads.
- 2. NYDD and Standard Cut Washers shall be fabricated from a commercial grade steel and conform to ASTM Specification F-844 with the exception that galvanizing shall be as specified below.
- 3. **Spikes and Nails:** Shall be the annular wire type and shall meet AISI Specification 1010 or 1020 for steel.
- 4. Threads on all fasteners shall be of the rolled type. All bolts and rods shall show 1/4 inch of thread on the outside face of the nuts.
- 5. All of the above hardware, shall be hot-dipped galvanized in accordance with ASTM designation A-153. The zinc coating shall be Class A, 2.0 ounces of zinc per square foot of hardware surface.
- 6. **Screws:** All screw fasteners shall be Deckfast Epoxy Coated or approved equal.

E. Weather Guards:

- 1. All exposed vertical piles shall be covered with white plastic pile caps. They shall be molded from 3/16 inch thick, ultra-violet resistant, low-density polyethylene as approved by the Owner or Owner's Representative.
- 2. Wale splices shall be treated with Bitumastic 300-M (Black) and coated with 1/8 inch minimum thickness of asphalt roofing cement.

F. Miscellaneous Materials:

- 1. All field cuts, trimmed areas and holes shall be treated with Bitumastic No. 300-M (Black) as manufactured by Koppers Company, Inc., Pittsburgh, Pennsylvania, 15219. All coatings shall be done in accordance with the manufacturer's instructions.
- 2. Asphalt roofing cement for coating covered pile tops and wale splices shall be a high grade, waterproof cement, easily spread by trowel to 1/8 inch in one coat, meeting Federal Specifications SS-c-153 Type 1, Class B. Use Clipper Ship Roofing Cement MP51 or equivalent.
- 3. Safety stations shall consist of life ring mounting strap and a fire extinguisher cabinet manufactured by Hypower or an approved equal (telephone 1-800-825-3379). Life rings shall be 30" diameter, orange, U.S. Coast Guard approved life rings. Fire extinguishers shall be 5 lbs. as required in NFPA 10 "Standard for Portable Fire Extinguishers".

G. **Treatment:** All piles and lumber shall be treated with preservative by the pressure process in accordance with the following requirements.

- 1. Piles and lumber shall be squared to length in accordance with the Drawings before treatment.
  - 2. **CCA Treatment:**
    - a. All piles, wales, wale butt blocks and liners shall be pressure treated with CCA Type C in accordance with the requirements of the American Wood Preservers Association, Standard P5 to a final net retention of not less than 2.5 lbs. of chromated copper arsenate per cubic foot of wood as determined by chemical assay according to AWWA Standard A2.
  - 3. **MCA Treatment:**
    - a. The capboard shall be treated with Micronized Copper Azole (MCA) in accordance with requirements of AWWA Standard P5 to a minimum net retention of 0.24 lb. per cubic foot of wood as determined by chemical assay in accordance with AWWA Standard C2.
  - 4. In general, treated materials shall be branded or tagged after treatment for identification. Branding of piles shall be accomplished three feet from the butt by burning on the surface with legible lettering the supplier's brand, pile designation, date of treatment, species of timber, type of preservative and retention of preservative. Lumber shall be bundled and tagged with the appropriate information.
- H. **Certification:** Prior to delivery of materials to the construction site, the Contractor shall supply to the Owner or Owner's Representative the following certifications:
- 1. A notarized Certificate attesting to the fact that all timber meets the requirements of the Drawings and Specifications as to species, grade, strength, finish and size.
  - 2. A notarized Certificate of Treatment from the supplier indicating that all timber meets the Specifications as to type of CCA/MCA treatment used, method of application and final net retention in pounds per cubic foot. The Certificate shall include the number of pieces involved and their description. Accompanying the Certificate shall be a copy of the Charge Report and a copy of the chart obtained from the combination recorder. A date shall be shown when the gauges and recorder were certified by a particular inspection agency.
  - 3. A notarized Certificate indicating that all hardware (bolts, washers, rods, etc.) meet these specifications as to galvanizing and steel type. The certificate shall list the materials in detail.

I. Inspection and Testing:

- 1. All materials are subject to inspection and testing by an independent firm acceptable to the Owner or Owner's Representative in order to insure compliance with the Drawings, Specifications, AWWA Standards and other specified standards.
- 2. This independent firm shall specialize in the inspection and testing of timber materials and will be retained to provide these services by the Contractor or material supplier.
- 3. Inspection and testing of timber materials from approved treatment plants within a 120-mile radius of West Ocean City, Maryland shall be performed by the Engineer and/or an independent firm retained by the Engineer.
- 4. Inspection and testing of timber materials from approved treatment plants outside a 120-mile radius of Ocean, Maryland shall be performed by an independent firm retained by the Contractor and/or the material supplier.
- 5. The inspection and testing of timber materials shall be carried out in accordance with the Grading Rules of the Southern Pine Inspection Bureau and the AWWA Standard M2. These inspections shall be performed before treatment and after treatment, preferably on complete order and only at the treating plants.
- 6. If the Contractor chooses to obtain timber materials from a treatment plant located **OUTSIDE** the established limits, all costs relating to the inspection and testing of these materials shall be borne by him and/or the material supplier, and shall be included in the unit price bid for the project.
- 7. In cases where the treatment is **WITHIN** the established limits, the Contractor or material supplier shall notify the Engineer prior to treatment and after treatment when the timber materials are ready for inspection and testing.
- 8. In ordering materials, the Contractor is required to notify the Owner or Owner's Representative of the source from which he proposes to obtain all timber materials. He shall make available to the material supplier (and independent firm, if applicable) copies of the project Drawings and Specifications.
- 9. Acceptance or rejection of materials shall be made on the basis of adherence to the specified standards. Rejected materials shall be replaced and/or retreated. The cost of inspecting replaced or retreated materials shall be incurred by the treating plant. An independent inspection agency acceptable to the Owner or Owner's Representative shall be retained for this purpose.
- 10. Notwithstanding the inspection of materials at the treatment plant, the Owner or Owner's Representative reserves the right to reject any individual timber pieces not meeting the specified requirements. The Contractor shall be responsible for the replacement of any materials rejected at the project site.
- 11. Accepted timber materials shall be identified by hammering with an identifiable mark as evidence of inspection and testing. All required paperwork including certificates and test reports shall be made available to the Owner or Owner's Representative prior to the release of the materials from the treating plant. Materials shall not be delivered to the project site without prior notification and approval of the Owner or Owner's Representative.

Part 3 - Execution

3-1 General:

A. General:

- 1. Complete descriptions of timber and sheet pile driving equipment including hammers, extractors, protection caps and other installation equipment shall be submitted to the Owner or Owner's Representative and approved prior to the start of the work and no more than 15 work days following the pre-construction meeting.
- 2. All timber piles and lumber whenever possible shall be cut to size, trimmed and bored before assembly.
- 3. All field cuts, trimmed areas and holes shall be given three coats of Bitumastic No. 300-M (Black) in accordance with the manufacturer's instructions.
- 4. All materials shall be accurately assembled, set, regularly spaced and coursed; and they shall be true to line, even, square, plumb, tight and level.

B. Storage of Materials:

- 1. **Timber Material:** The method of storing and handling timber materials at the construction site shall be such as to avoid injury and to protect them against the weather. Timber piles shall be arranged so that they are not subjected to unequal forces which will tend to twist or warp them. Lumber shall be stored 12 inches above the ground to provide ventilation, piled to shed water and to prevent warp. The Owner or Owner's Representative may require suitable covering to protect the materials from the weather.
- 2. **Vinyl Sheet Piling:** Upon delivery of sheet piling to the site, Contractor shall visually inspect all materials for defects or damage. If serious defect or damage is detected, Contractor shall notify Owner or Owner's Representative immediately. Store the bundled sheet piling on relatively level surface with a slight pitch to allow water to drain. Contractor should not break bundled sheets until ready for immediate installation.

C. Timber Piles:

- 1. All timber piles as shown on the drawings shall be driven by gravity, vibratory or diesel hammer as approved by the Owner or Owner's Representative. Any hammer which does not perform satisfactorily on piles being driven, regardless of prior approval, shall be replaced by a hammer acceptable to the Owner or Owner's Representative. Driving shall be continuous without intermission until the pile has been driven to the required penetration. In general, the penetration for any pile shall not be less than shown on the Plans even in hard materials. Jetting or augering is permissible in hard materials, if approved by the Owner or Owner's Representative, but the last 2 feet of penetration must be driven without damage to the pile.
- 2. Each timber pile is expected to provide adequate pile bearing capacity. If during driving operations the Contractor finds inadequate bearing on piles, he shall stop driving and immediately contact the Owner or Owner's Representative. The Contractor is advised that in the event that the length of piles shown on the Drawings is found to be inadequate on the basis of bearing value, longer replacement piles may be required. It is anticipated that the replacement piles may be up to 50% longer than the piles shown on the Drawings. Conversely, in the event that the length of piles shown in the drawings is found to be excessive on the basis of bearing value (>30 tons), shorter replacement piles may be allowed. It is anticipated that the shorter replacement piles may be up to 25% shorter than the piles shown on the Drawings. These piles shall be installed as directed by the Owner or Owner's Representative. Payment for replacement piles shall be in accordance with the Contingent Unit Price Bid Items shown in the proposal.
- 3. Broken or shattered timber piles shall not be accepted. Piles shall not be more than 3 inches out of place along the construction line of the wall and not more than 2% out of plumb. Piles damaged by overdriving or which do not conform to the above tolerances shall be removed and replaced with new piles at the Contractor's expense.
- 4. During driving, the top of timber piles shall be protected from damage by using a head or cap. The head or cap shall cover the entire surface of the top of the pile. Trimming the top of the pile to fit the cap shall be kept to a minimum. Damage to the top of the pile shall be restricted to the top 6 inches.
- 5. After driving, the length of timber pile remaining above the elevation of cutoff shall not be more than 6 inches for damaged piles. The top of piles shall be sawed to a true plane of elevation fixed by the Drawings. Cutoff of piles shall not take place without the approval of the Owner or Owner's Representative. If the pile tops are not damaged, full length driving will be required. Pile tops shall then be trimmed and waterproofed.
- 6. In order to ensure minimal trimming of pile tops for proper fit of the pile cap, the Contractor shall measure each pile butt after cut-off and prior to ordering respective pile caps. The method of measuring pile tops shall consist of taking the average of the minimum and maximum diameter per pile and ordering the individual caps to the least half or whole inch increment. Pile tops shall be evenly beveled as necessary to fit the caps and the end of the grains treated with Bitumastic 300-M. Drill 5/32 inch pilot holes not more than 2" o/c around the circumference of the cap skirt. The cap will then be fastened in place with 10 gauge, 1-1/4 inch copper roofing nails.

D. Wales and Liner Systems:

- 1. For the alignment of wales, the maximum permissible gap in the pile shall not exceed 2 inches. Shims shall only be used in exceptional cases and then only with the permission of the Engineer. Wale surfaces of butt splices or lapped splices shall be coated with asphalt roofing cement prior to assembly.
- 2. In the installation of bolts, all bolt holes shall be a minimum diameter to assure a tight and driving fit. Holes shall be of a diameter such that bolts are inserted by light tapping. All counterbored holes for the installation of washers shall not be more than 1.0 inch in depth.
- 3. All bolts and rods shall have a 1/4 inch length of thread outside the face of all nuts after tightening, cutting and trimming of bolt and rod ends are completed.

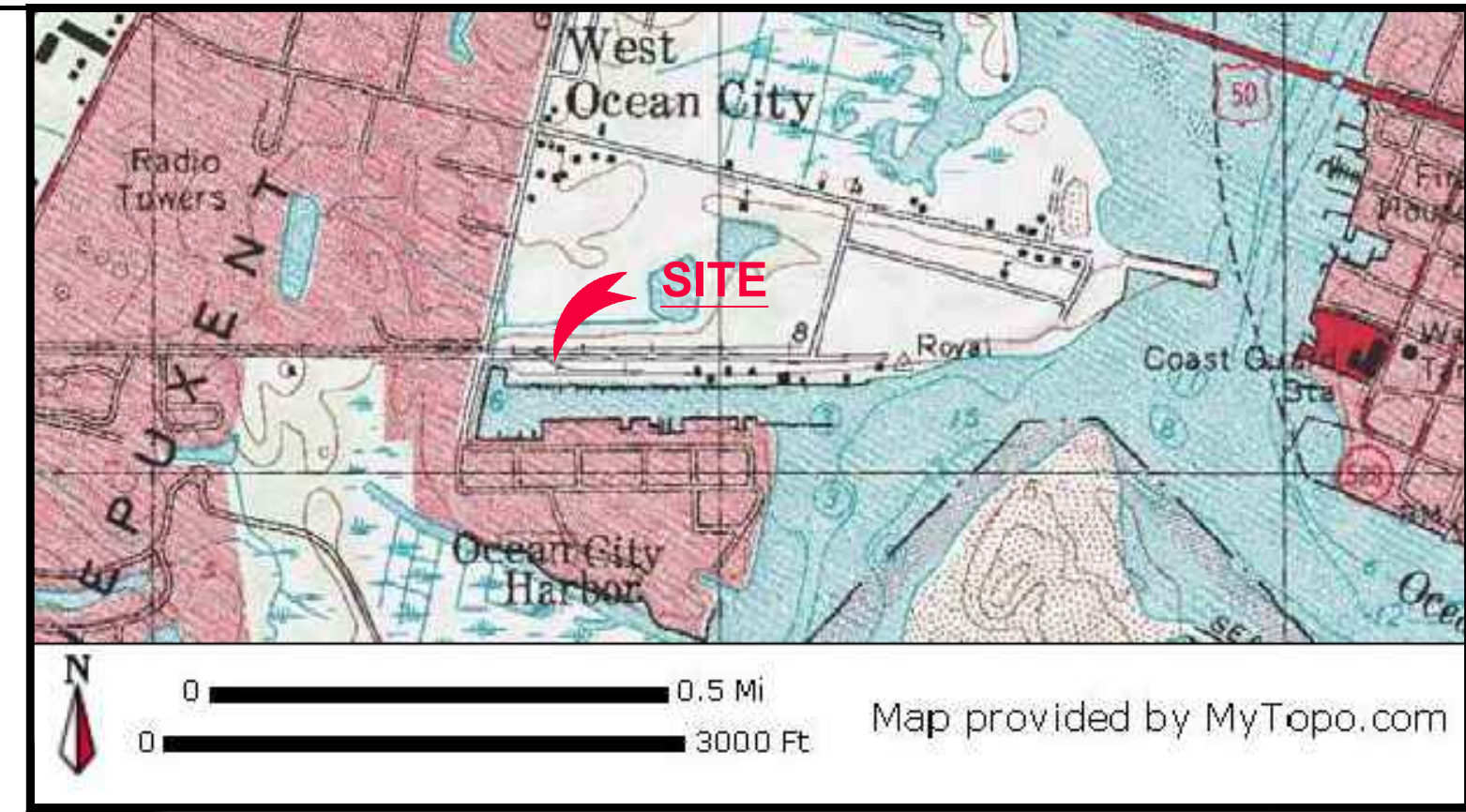
E. Vinyl Sheet Piling:

- 1. Sheet piling shall be carefully located as shown on the Drawings, and driven in a plumb position, each sheet pile interlocked with adjoining sheet piles for its entire length as to form a continuous diaphragm throughout the length of each run of bulkhead. The Contractor shall drive all sheet piles as true to line as practicable and shall provide suitable guide structures to ensure that sheet piles are driven in correct alignment. All sheet piles shall be driven to the top elevations shown on the Drawings.
- 2. Deformation of the vinyl sheeting during driving shall be minimized to the fullest extent possible. The Contractor shall be responsible for any additional sheet piling required due to stretching or compression during driving.
- 3. Mandrel, helmet or driving shoe may be required if driving through hard soil strata or obstructions. In general, jetting will not be permitted for installation of the vinyl sheet piles; however, jetting is permissible in hard materials upon approval of the Engineer. Water jet by displacing of soil shall only be used with non-cohesive soils (sands and gravels). Water jet shall not be used if driving through clay, silts, or immediately adjacent to an existing structures without the written approval from the Owner or Owner's Representative. Approval of jetting will be at the sole discretion of the Owner or Owner's Representative.
- 4. It is very important that the Contractor drive sheets to required embedment depth. Under no circumstances shall the Contractor cut-off or install shorter sheets without written authorization from the Engineer or Owner. Adequate precautions shall be taken to insure that piles are driven plumb. For alignment, the maximum permissible horizontal allowance shall not exceed 1" in 100' and the maximum permissible vertical allowance shall not exceed 1/2" in 10'.
- 5. Damage to the top of the sheeting shall be minimized. The top of the sheeting shall be protected during driving by using a cap. The maximum allowable cutoff of sheeting to the top wall elevation shall not be more than six (6) inches for damaged material. Cutoff of sheeting after driving shall not take place without the approval of the Owner or Owner's Representative. If the top of the sheeting is not damaged, full length driving will be required.
- 6. Sheet piling may be driven by vibratory means with equipment which creates a force or impulse which when delivered to the pile energizes the pile and drives it to the desired elevation by sustained elastic vibrations. The existing frequency shall not be less than 60 cycles per second, except during startup or run-down of the equipment. If necessary, brakes or other devices shall be provided to control the run-down period to the satisfaction of the Owner or Owner's Representative.
- 7. Pile hammers shall be of approved sizes and types and shall be maintained in proper alignment during driving operations by use of suitable leads or by guides attached to the hammer. A protective cap of approved design shall be employed in driving, to prevent damage to the top of piles. Each run of the sheet piling shall be driven progressively from the start and no cutting edge shall lead its neighbor by more than 5 feet and shall be driven to the top elevations shown on the Drawings.
- 8. Drive sheet piling (preferably in pairs) by "Driving in Steps" or "Gang Driving." Progress in driving sheeting shall be accomplished by using the "male" end as the leading edge. Controlled excavation for placement of sheeting may be allowed where bottom conditions prevent driving by normal methods. The specific methods on controlled excavation shall be approved by the Owner or Owner's Representative.
- 9. Upon approaching bends, corners or ends of the wall, take careful measurements adjusting sheet piling slightly so that they finish the run at the correct point. Be careful not to distort the corrugation.
- 10. Sheet piling driven out of interlock with adjacent piles or otherwise damaged shall be removed and replaced by new piling at the Contractor's expense.
- 11. After driving sheet piling to grade, use lag screws to lag the sheets to the timber wale.
- 12. The installation of the liner and upper wale must take place in conjunction with the driving of the sheet piling. All driven sheeting must have the liner bolted to the wale at the end of each workday to prevent damage to the sheeting by tide and wave action.
- 13. The capboards shall be placed as shown on the Drawings. To prevent splitting of the ends of the lumber, pilot holes at the ends of the capboard shall be drilled prior to nailing to the wale and liner. The Contractor shall place the wood grain rings of the capboard down on the wale and liner.

Part 4 - Measurement For Payment

No measurement for payment of items of work will be made since their cost shall be included in the Lump Sum Base Bid.

- END OF SECTION -



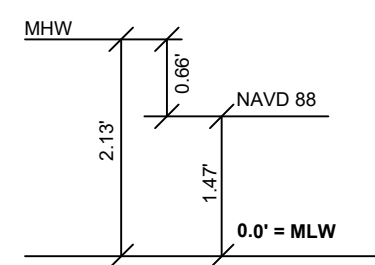
SHEET INDEX:

- C1 COVER / SPECIFICATIONS
- C2 EXISTING CONDITIONS
- C3 PROPOSED CONDITIONS
- C4 DETAILS

GENERAL NOTES & SITE DATA

- 1. TAX MAP 27, GRID 14, PARCEL 352
- 2. BOUNDARY INFORMATION OF PARCEL BASED ON PLAT BY OCEANBAY SURVEYS, INC.
- 3. DEED REFERENCE: 00028/00103
- 4. OWNER/DEVELOPER: COUNTY COMMISSIONERS OF WORCESTER COUNTY MARYLAND  
1 WEST MARKET STREET, ROOM 1103  
SNOW HILL, MD 21863  
410-632-1194

ENGINEER: J. STACEY HART & ASSOCIATES, INC.  
POST OFFICE BOX 6  
SNOW HILL, MARYLAND 21863  
CELL: 410-430-4169



DATUM COMPARISONS

SCALE: NONE

DATUM COMPARISONS WERE OBTAINED FROM NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) INFORMATION INTERPOLATED FROM STATION ID# 8570283 - PID: HU0267.

CONSTRUCTION NOTES:

- 1. ALL LUMBER USED IN THE CONSTRUCTION SHALL BE TREATED IN ACCORDANCE WITH THE SPECIFICATIONS.
- 2. VINYL SHEETING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 3. ALL TIMBER PILES SHALL HAVE 12" TO 3' BUTT, 8" MINIMUM TIP, AND:
  - 25' MINIMUM LENGTH FOR BULKHEAD
  - 55' FOR END PIER PILING, BUMPER/RIDER PILING AND CLUSTERS/DOLPHINS
  - SEE DETAIL FOR OTHER LENGTHS
  - PIERS ARE NOT TO BE CONNECTED TO BULKHEAD PILES
- 4. ALL SCREW FASTENERS USED IN THE CONSTRUCTION SHALL BE DECKFAST EPOXY COATED SCREWS OR APPROVED EQUAL.
- 5. ALL HARDWARE (BOLTS, NUTS, WASHERS, ETC.) SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS.

**J. STACEY HART & ASSOCIATES, INC.**

POST OFFICE BOX 6  
SNOW HILL, MD 21863  
PHONE: 410-390-8096  
FAX: 877-646-4365  
EMAIL: [stacey@jstaceyhart.com](mailto:stacey@jstaceyhart.com)

**JSH ENGINEERING**

REGISTERED PROFESSIONAL ENGINEER

MD 22798

REVISIONS	DATE	REVISED FOR:

**WORCESTER COUNTY HARBOR**

**PROPOSED MARINE REPAIRS**

12826 SUNSET AVENUE  
COUNTY COMMISSIONERS OF WORCESTER COUNTY  
WEST OCEAN CITY  
WORCESTER COUNTY

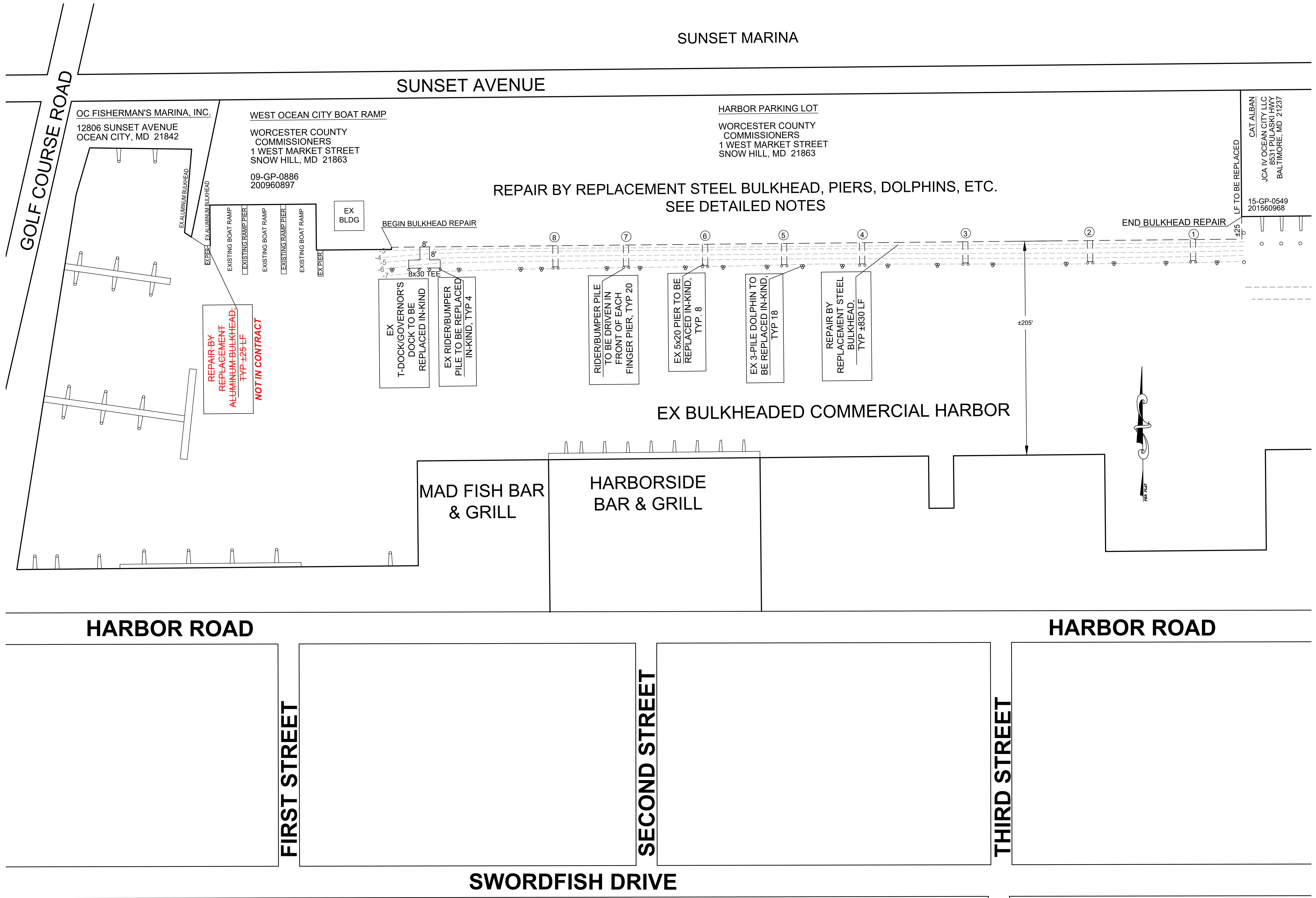
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THIS STATE.

LICENSE NO: MD 22798  
EXPIRATION DATE: AUGUST 10, 2022

05/17/2022

**COVER & SPECIFICATIONS**

DRAWN BY: jsh	DATE: 04/2022
JOB NUMBER: 2020-019	C1
SCALE: NONE	



SUNSET MARINA

SUNSET AVENUE

GOLF COURSE ROAD

OC FISHERMAN'S MARINA, INC.  
12806 SUNSET AVENUE  
OCEAN CITY, MD 21842

WEST OCEAN CITY BOAT RAMP  
WORCESTER COUNTY COMMISSIONERS  
1 WEST MARKET STREET  
SNOW HILL, MD 21863  
09-GP-0886  
200960897

HARBOR PARKING LOT  
WORCESTER COUNTY COMMISSIONERS  
1 WEST MARKET STREET  
SNOW HILL, MD 21863

CAT ALBAN  
JCA IV OCEAN CITY LLC  
8531 PULASKI HWY  
BALTIMORE, MD 21237  
15-GP-0549  
201560968

REPAIR BY REPLACEMENT STEEL BULKHEAD, PIERS, DOLPHINS, ETC.  
SEE DETAILED NOTES

EX BULKHEADED COMMERCIAL HARBOR

MAD FISH BAR & GRILL

HARBORSIDE BAR & GRILL

HARBOR ROAD

HARBOR ROAD

FIRST STREET

SECOND STREET

THIRD STREET

SWORDFISH DRIVE

**J. STACEY HART & ASSOCIATES, INC.**  
POST OFFICE BOX 6  
SNOW HILL, MD 21863  
PHONE: 410-390-9096  
FAX: 877-646-4365  
EMAIL: stacey@staceyhart.com

REVISIONS	DATE	REVISED FOR:

**WORCESTER COUNTY HARBOR PROPOSED MARINE REPAIRS**  
12826 SUNSET AVENUE  
COUNTY COMMISSIONERS OF WORCESTER COUNTY  
WEST OCEAN CITY  
WORCESTER COUNTY

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THIS STATE.

LICENSE NO: MD 22798  
EXPIRATION DATE: AUGUST 10, 2022

05/17/2022

**EXISTING CONDITIONS**

DRAWN BY: jsh	DATE: 04/2022
JOB NUMBER: 2020-019	C2
SCALE: 1"=40'	

SUNSET MARINA

SUNSET AVENUE

GOLF COURSE ROAD

OC FISHERMAN'S MARINA, INC.  
12806 SUNSET AVENUE  
OCEAN CITY, MD 21842

WEST OCEAN CITY BOAT RAMP

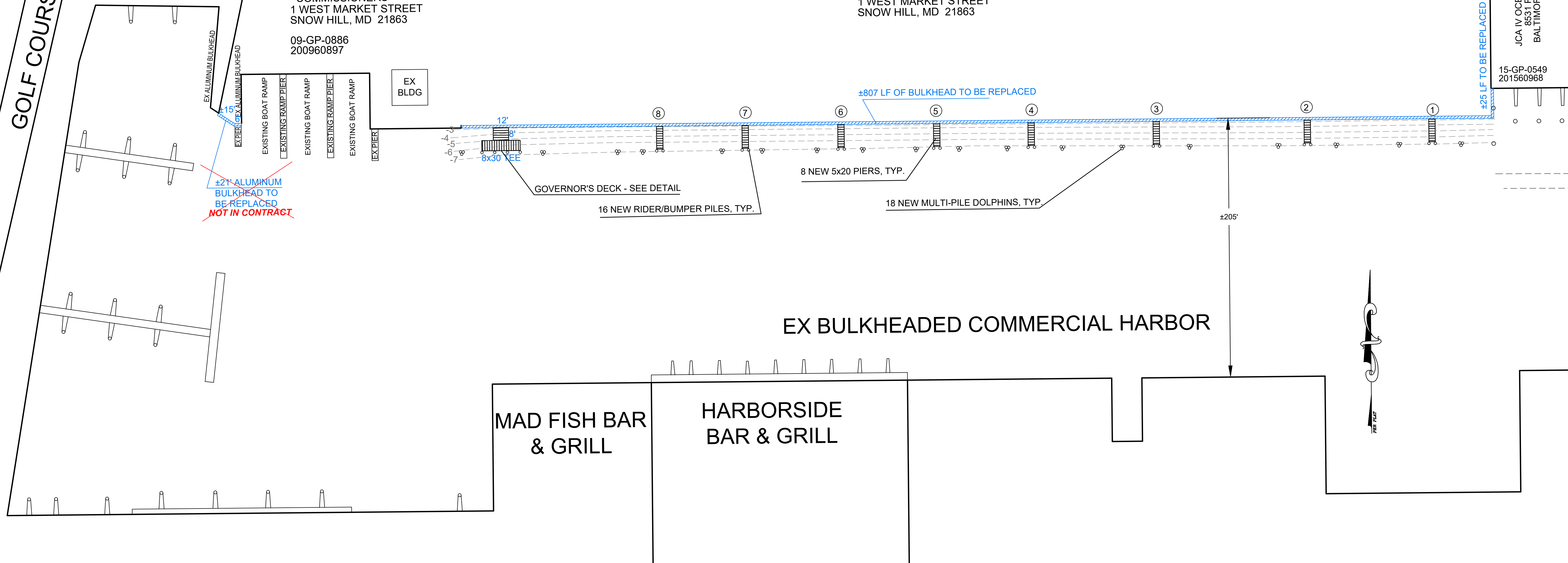
WORCESTER COUNTY  
COMMISSIONERS  
1 WEST MARKET STREET  
SNOW HILL, MD 21863

09-GP-0886  
200960897

HARBOR PARKING LOT

WORCESTER COUNTY  
COMMISSIONERS  
1 WEST MARKET STREET  
SNOW HILL, MD 21863

CAT ALBAN  
JCA IV OCEAN CITY LLC  
8531 PULASKI HWY  
BALTIMORE, MD 21237  
15-GP-0549  
201560968



EX BULKHEADED COMMERCIAL HARBOR

MAD FISH BAR & GRILL

HARBORSIDE BAR & GRILL

HARBOR ROAD

HARBOR ROAD

FIRST STREET

SECOND STREET

THIRD STREET

SWORDFISH DRIVE

J. STACEY HART & ASSOCIATES, INC.  
POST OFFICE BOX 6  
SNOW HILL, MD 21863  
PHONE: 410-390-9096  
FAX: 877-646-4365  
EMAIL: stacey@staceyhart.com

REVISIONS	DATE	REVISED FOR

**WORCESTER COUNTY HARBOR  
PROPOSED MARINE REPAIRS**  
12826 SUNSET AVENUE  
COUNTY COMMISSIONERS OF WORCESTER COUNTY  
WEST OCEAN CITY  
WORCESTER COUNTY

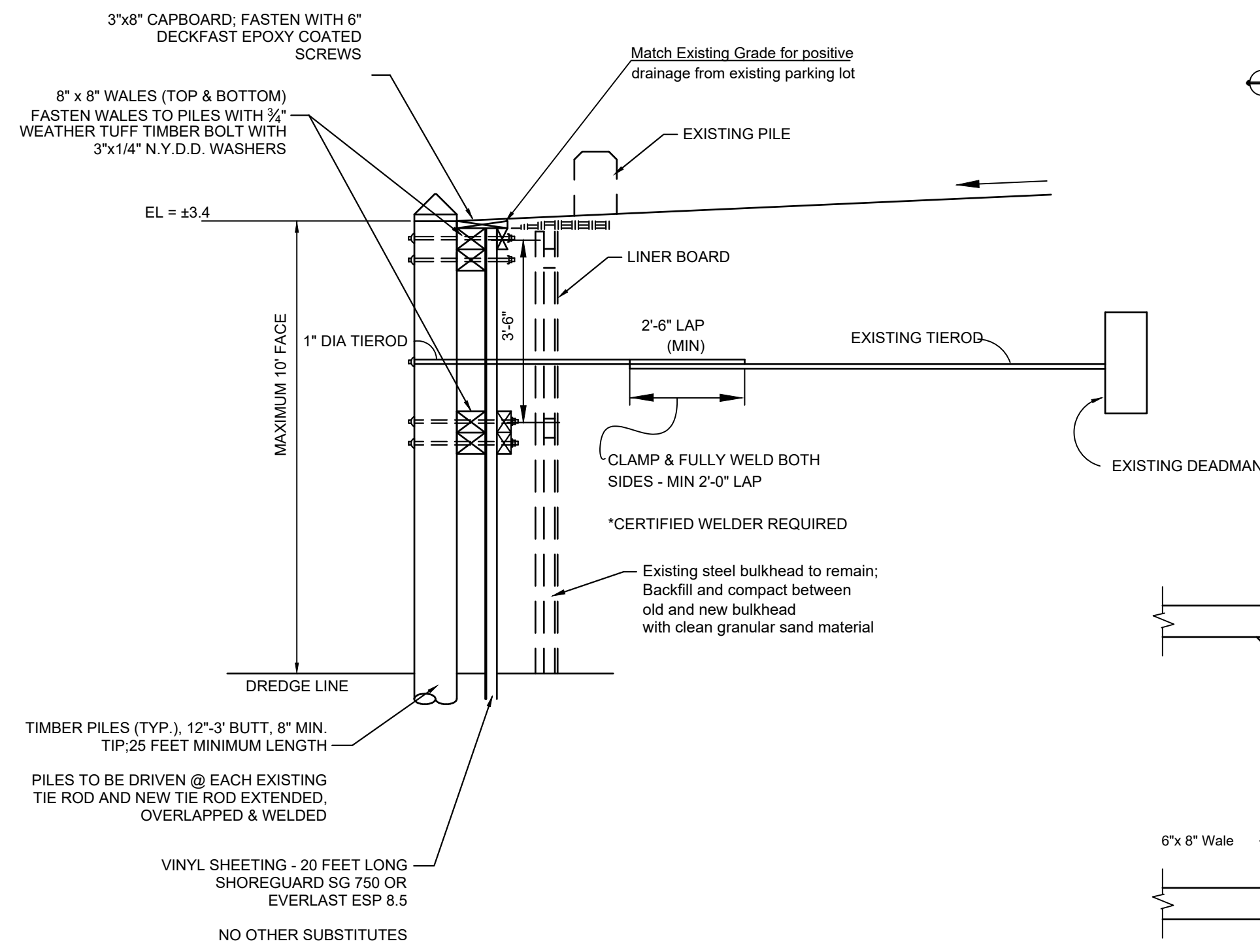
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THIS STATE.

LICENSE NO.: MD 22788  
EXPIRATION DATE: AUGUST 10, 2022

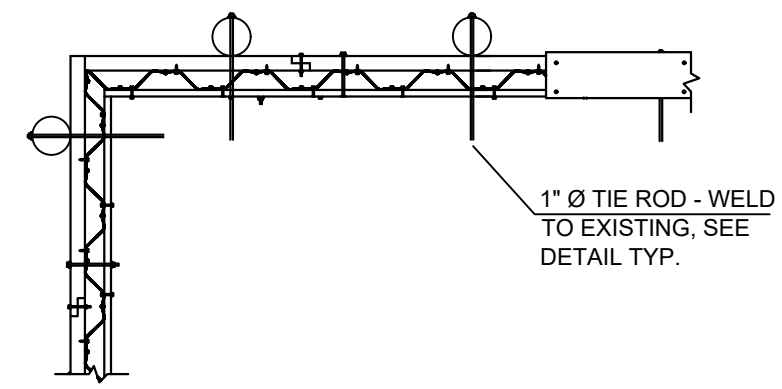
05/17/2022

**PROPOSED  
CONDITIONS**

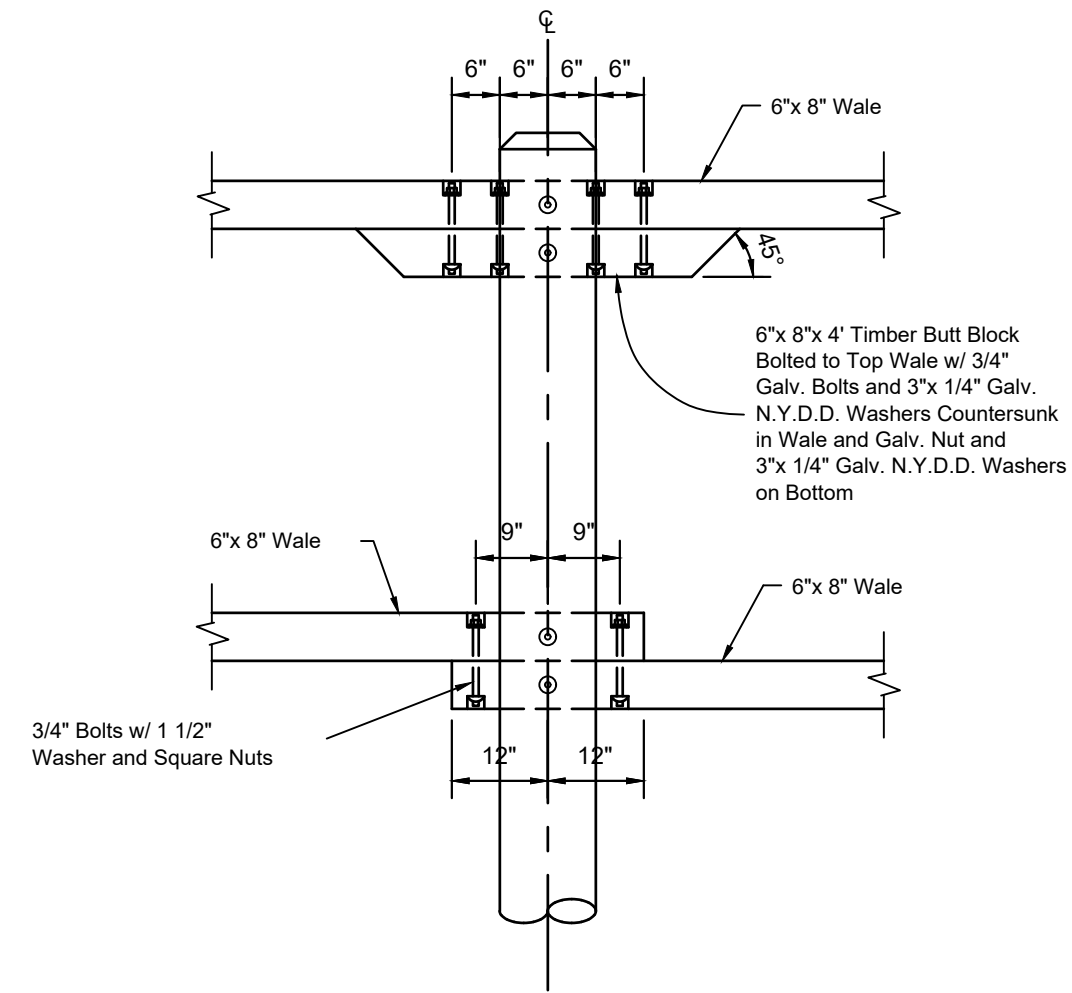
DRAWN BY: jsh	DATE: 04/2022
JOB NUMBER: 2020-019	C3
SCALE: 1"=40'	



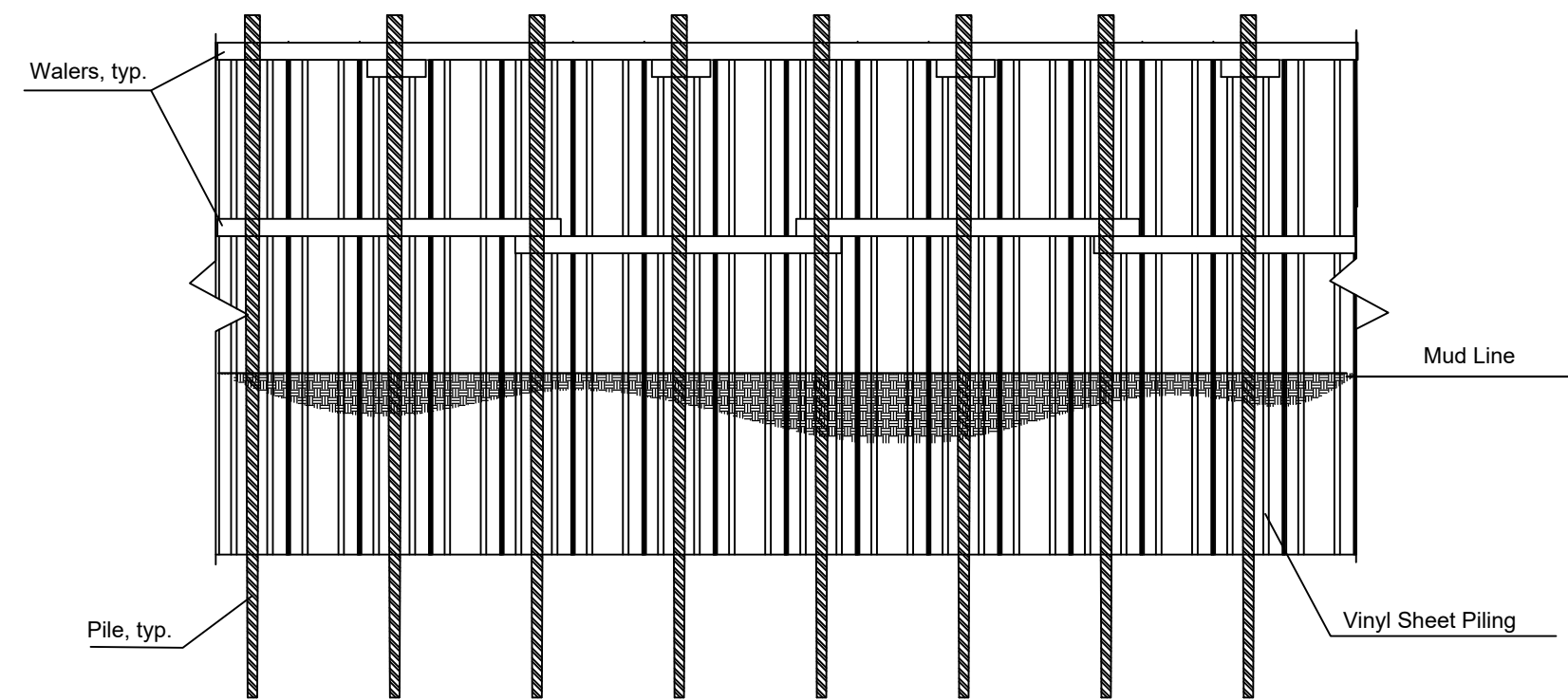
SECTION



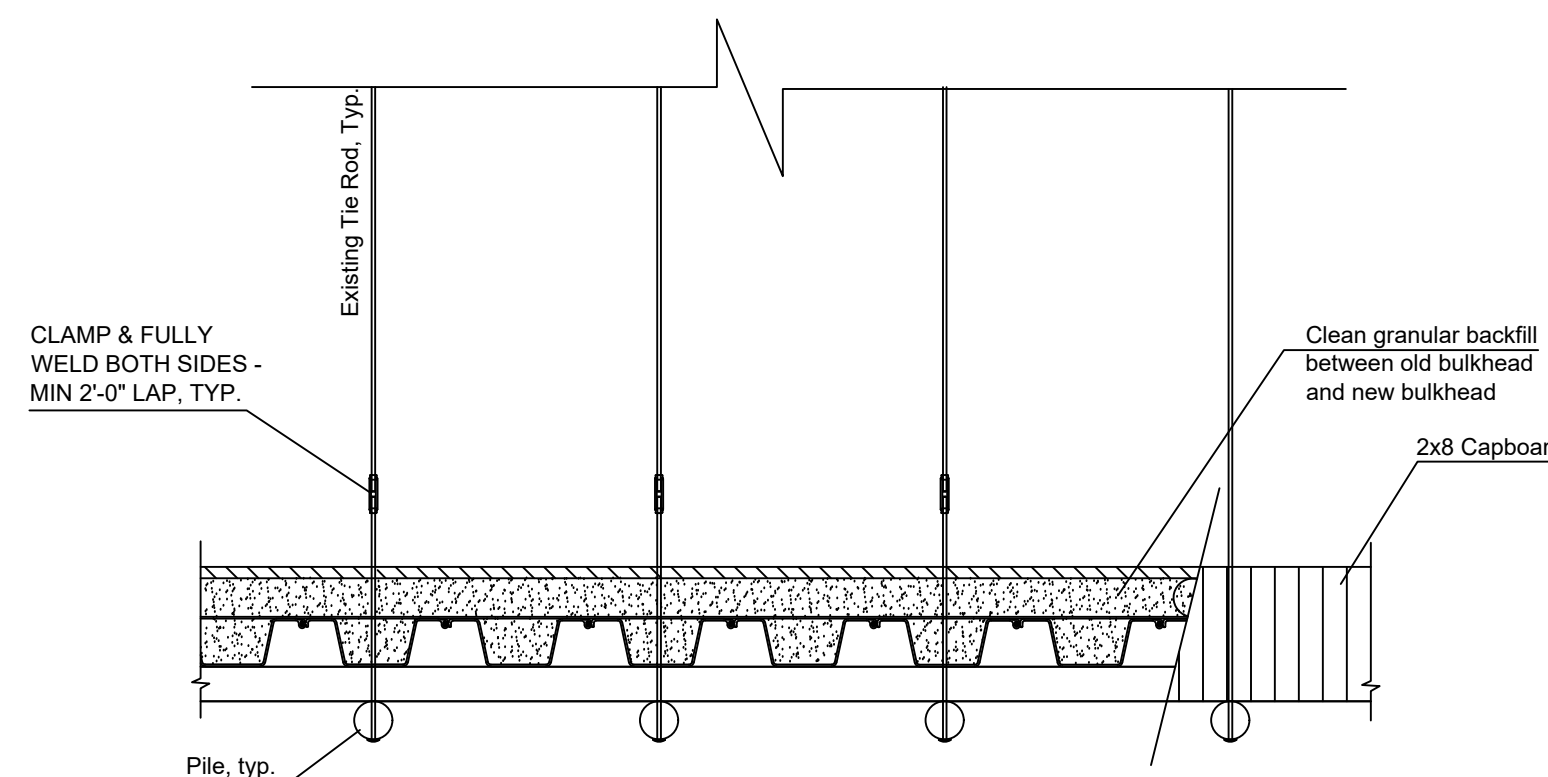
VINYL SHEET PILING CORNER



TYPICAL WALE & BUTT BLOCK



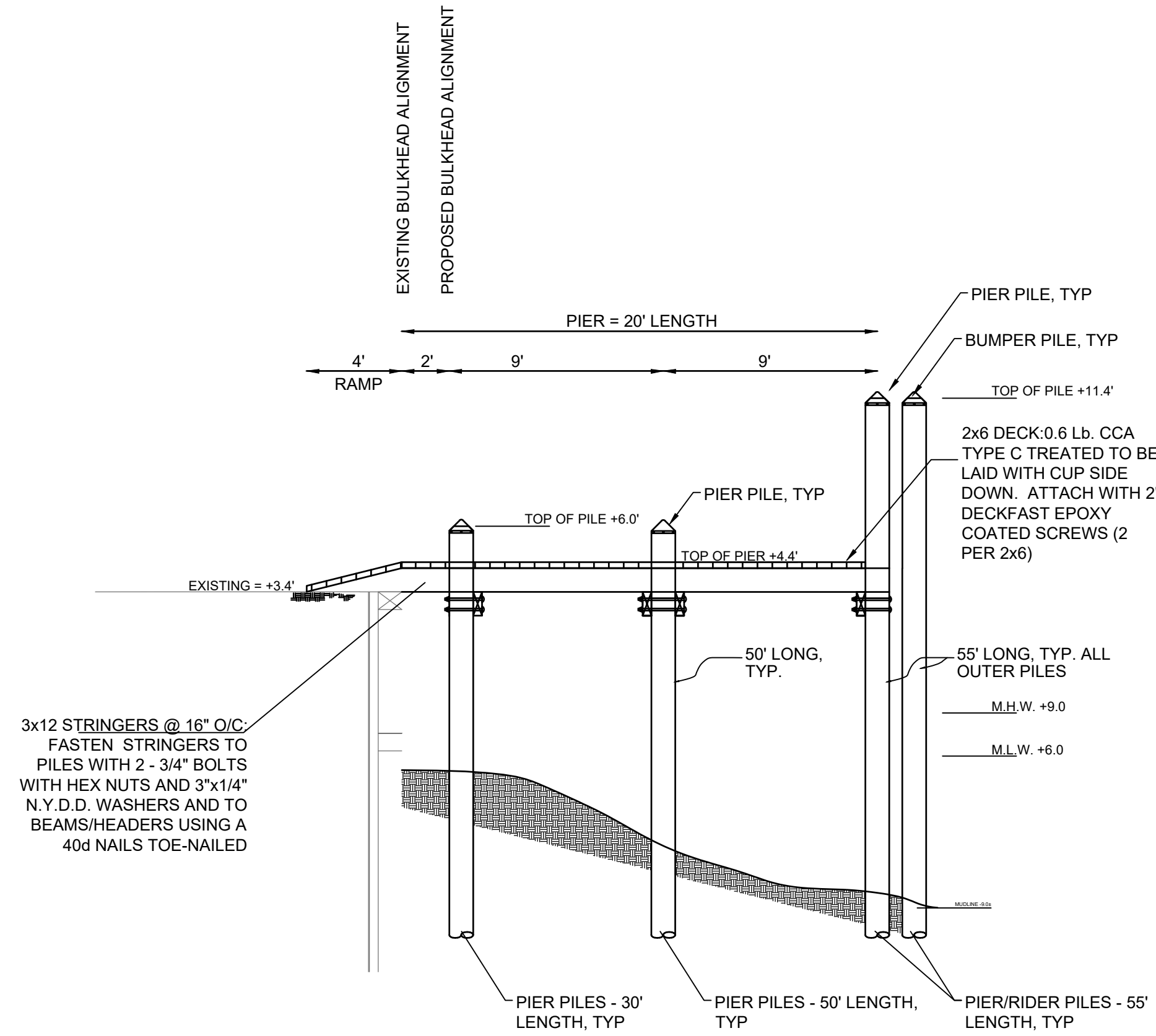
ELEVATION VIEW



PLAN VIEW

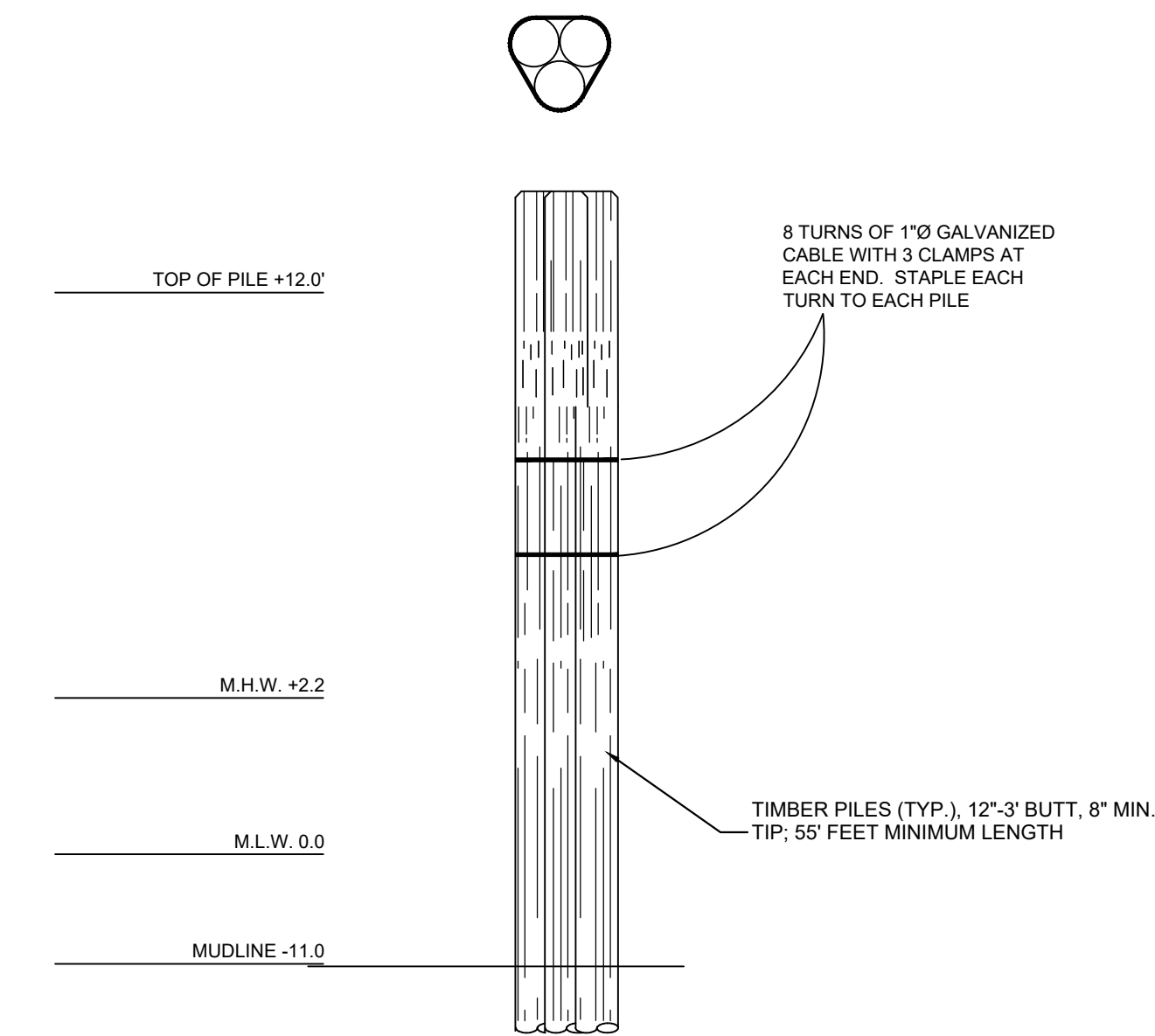
**TYPICAL BULKHEAD DETAILS**

NO SCALE

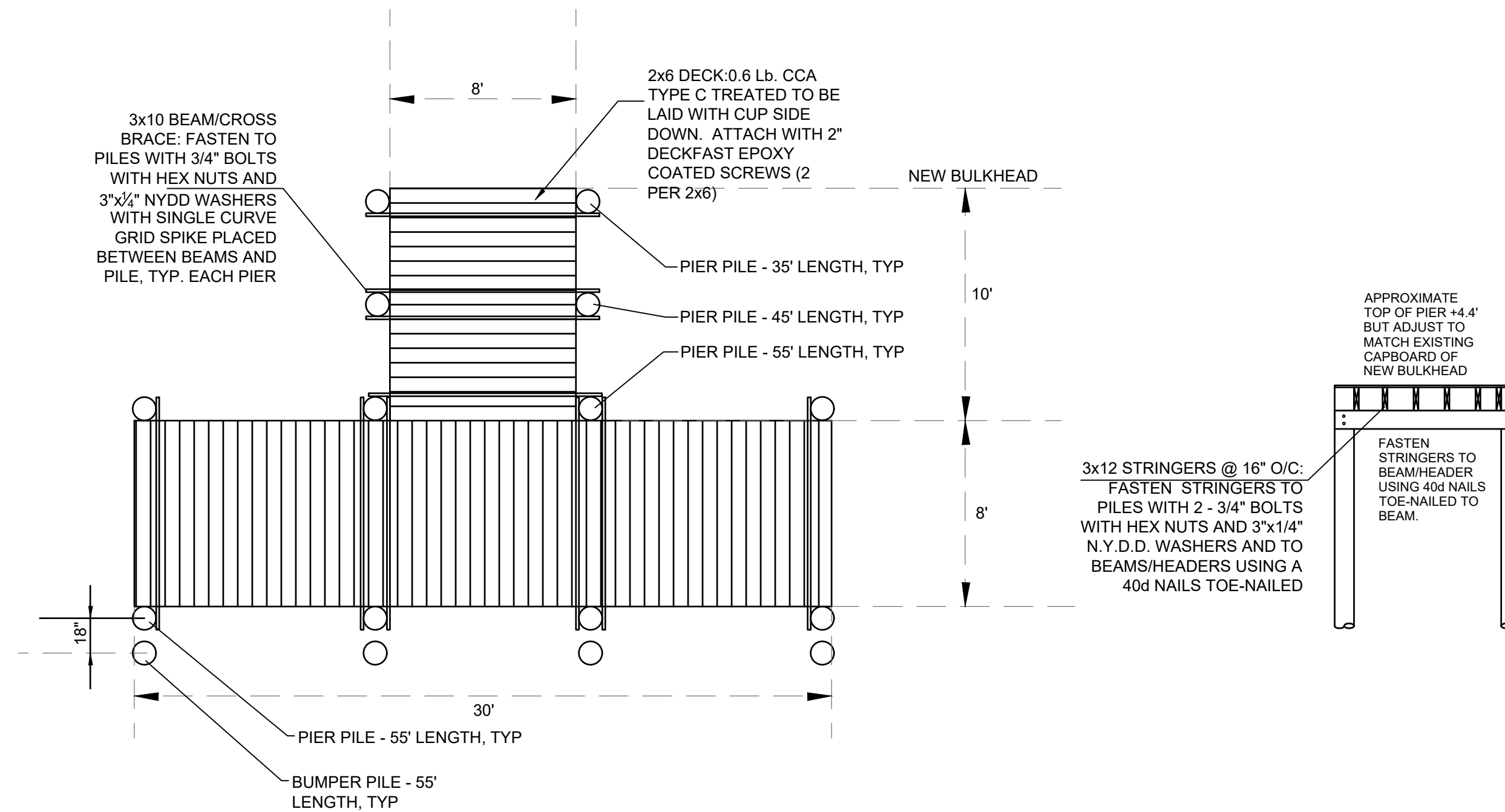


**TYPICAL FINGER PIER DETAILS**

SCALE: 1"=5'



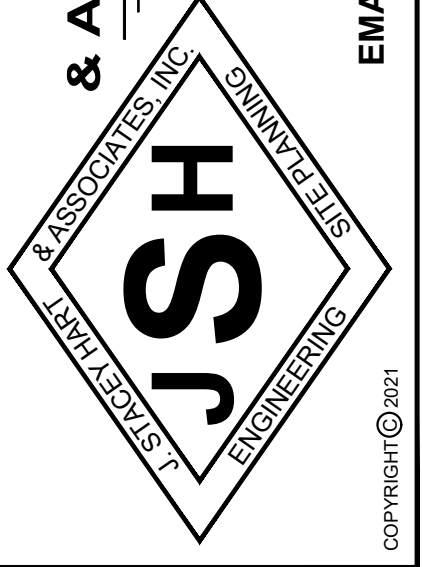
3-PILE CLUSTER/DOLPHIN DETAIL: NO SCALE



**GOVERNOR'S/TEE DOCK**

SCALE: 1"=5'

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REVISIONS	DATE	REVISED FOR:

**WORCESTER COUNTY HARBOR  
PROPOSED MARINE REPAIRS**  
12826 SUNSET AVENUE  
COUNTY COMMISSIONERS OF WORCESTER COUNTY  
WEST OCEAN CITY  
WORCESTER COUNTY

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THIS STATE.

LICENSE NO: MD 22798  
EXPIRATION DATE: AUGUST 10, 2022



05/17/2022

**DETAILS**

DRAWN BY: jsh	DATE: 04/2022
JOB NUMBER: 2020-019	C4
SCALE: AS NOTED	

# WEST OCEAN CITY HARBOR



## PROPOSAL DOCUMENT FOR PROPOSED MARINE REPAIRS

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<b>BID TIMELINE OF EVENTS</b>
<b>Pre-Bid Meeting &amp; Location:</b> 1 p.m. Tuesday, June 7, 2022 at West Ocean City, 12826 Sunset Avenue, West Ocean City.
<b>Last Day for Questions:</b> Noon, Thursday, June 16, 2022
<b>Addendum:</b> Close of Business Wednesday, June 22, 2022
<b>Bid Due Date, Time, &amp; Location:</b> 1:00 pm Wednesday, June 29, 2022 Office of the County Commissioners, Worcester County Government Center, Room 1103, One West Market Street, Snow Hill, MD 21863

# **TECHNICAL SPECIFICATIONS**

## **TABLE OF CONTENTS**

SECTION 01000	SUMMARY OF WORK
SECTION 01010	INSTRUCTIONS TO BIDDERS
SECTION 02000	GENERAL REQUIREMENTS
SECTION 02701	SITE WORK – BULKHEAD, PIERS, PILINGS & DOLPHINS
SPECIAL FORM OF PROPOSAL	
REFERENCES	

## DIVISION 1

### SECTION 01000 - SUMMARY OF WORK

#### Part 1 - General

- A. The Work under the Contract, as further detailed on the attached technical specifications and Drawings, shall consist of:
1. To provide all labor and equipment necessary to perform the specified marine improvements work,
  2. Mobilization and demobilization of equipment, and personnel,
  3. Protection of existing site, including regulated coastal areas and adjacent properties,
  4. Installation and maintenance of environmental controls,
  5. Construction of the bulkhead, finger piers, piles and dolphins,
  6. All other Work either shown on the Drawings or included in the Specifications, unless specifically indicated as not to be done.
- B. In addition, the Work under the Contract includes:
1. Work outside the Project Site, as may be called for in the Contract Documents and as may be required for the performance of the Work.
  2. The restoration of any items, structures, or embankments damaged or destroyed by activity upon areas or items of work outside the Project Site or not specifically intended to be altered by the Scope of Work.
  3. Providing and restoring, where appropriate, all temporary facilities.

#### Part 2 – Time for Completion

- A. Work, including mobilization of equipment and materials shall begin on or after Monday, October 17, 2022. This is due to the scheduled Harbor Day at the Docks Event.
- B. The Work shall start at the stated date in the Notice to Proceed, and the Contractor shall complete all work hereunder within the time limits stated.
- C. The work schedule shall be coordinated with the County in order to accommodate the boats that are docked at the end of the finger piers.

**END OF SECTION**



## DIVISION 1

### SECTION 01010 – INSTRUCTIONS TO BIDDERS

#### Part 1 - General

- A. Proposals:
1. Shall be on the furnished proposal forms. All blank spaces in the form shall be filled, signed in ink in longhand where designated, and all numbers shall be stated in words and figures. Only initialed corrections or erasures will be acceptable,
  2. No changes shall be made in the phraseology of the form. No partial bids or any alternative bids not provided for in the form will be considered.
- B. Drawings:
1. Drawings accompanying these specifications are entitled: Worcester County Harbor, Proposed Marine Repairs, dated April 2022.
- B. The Bidder
1. Shall carefully examine the documents, the permits and the specifications, shall visit the site and fully inform himself as to all existing and controlling conditions and limitations. The submission of a bid shall be a representation that he has inspected the site and has familiarized himself with all of the controlling conditions. Failure to conduct these through examinations shall in no way relieve the successful bidder of his responsibility for the complete and satisfactory performance of all required work.
  2. Shall state the unit prices for which he will execute and complete the contract base bid items in accordance with the permits, specifications, and the requirements of the Contract.
  3. Shall state that he will complete the work of the contract in accordance with the Construction Schedule and/or completion date included as part of the Specifications
- C. The Owner:
1. Is the County Commissioners of Worcester County, Maryland.
  2. May, during the bidding period, advise the bidders by addenda, of additions, omissions or alterations in the specifications. All such changes shall be included in the work covered by the proposal and shall become a part of the specifications as if originally included therein.
  3. Reserves the right to reject the bid of any Bidder who fails to furnish promptly and properly all the required information, when notified to do so.
  4. Reserves the right to verify the qualification of all bidders. Such qualification may serve as the basis for acceptance or rejection of bids.
  5. Reserves the right to reject any and all bids, or to accept any bid in interest of the owner.
- D. Bid Bond – Proposal Guaranty
- a. No proposal will be considered unless accompanied by a certified check drawn on a solvent clearing house bank, made payable to Worcester County in the amount of 5% of the proposal. A satisfactory bid bond will be acceptable in lieu of a certified check.
  - b. The deposit of the unsuccessful bidder will be returned within 30 days after the opening of the bids. Upon execution of a formal contract, the bid bond or certified check deposit shall be returned to the successful bidder by the County.

E. Equipment Required

- a. Each bidder is required to have the proper equipment for the performance of this work, including a barge, excavator, trucks for material transportation, and all miscellaneous equipment and tools required.

F. Licenses

- a. The Contractor is required to be licensed to perform marine work and shall provide a copy of their MHIC and Maryland Marine Contractor's license with their bids.

G. Contract Award

- a. The successful bidder will be notified of the award of the contract in writing within forty-five (45) days from the date of opening proposals. If the successful bidder fails to execute the required contract on the Proposal Form and official notice of the award of the Contract, the proposal guaranty shall immediately become forfeited as liquidated damages.

H. References

1. The contractor shall supply a minimum three (3) references. The references shall be for projects performed and completed and shall include a contact name and phone number. Projects shall be similar in size to monetary bid as well as scope of work.

**END OF SECTION**

## DIVISION 2

### SECTION 02000 - GENERAL REQUIREMENTS

#### **PART 1 - GENERAL**

##### **1.1 RELATED DOCUMENTS**

A. Plans, Bid Specifications, and general provisions of Contract, including General and Supplementary Conditions, apply to the work specified in this section.

B. Related Work:

Section 01000	Instruction To Bidders
Section 01010	Summary of Work
Section 02000	General Requirements
Section 02701	Bulkhead, Piers, Pilings & Dolphins (on plan sheets)

##### **1.2 DESCRIPTION**

A. Contractor shall provide control of site access and activities, mobilize personnel and equipment to the project site, provide maintenance of the project area and facilities in existing condition or better, and coordinate with the County as required by the specifications or as deemed necessary by the County.

##### **1.3 CONSTRUCTION SCHEDULES AND SUBMITTALS**

A. The Construction schedule shall be maintained on the project for review during site meetings. If a major change is made to the schedule, digital copies of the updated schedule shall be submitted to the County immediately.

B. Work, including mobilization of equipment and materials shall begin on or after Monday, October 17, 2022. This is due to the scheduled Harbor Day at the Docks Event.

##### **1.4 QUALITY ASSURANCE**

A. Codes and Standards:

1. All work and materials shall conform to the latest applicable sections under the state's various jurisdictions, Department of Transportation, Standard Specifications, hereinafter referred to as the "Standard Specifications", as well as the codes and standards referenced in the individual sections. In case of conflict, the codes and standards referenced in the individual sections shall govern.
2. All work and materials shall also be in full accordance with the latest rules, regulations, and safety orders of state, municipal, and utility laws, rules, and regulations. Nothing in these Plans and Specifications shall be construed to permit work not conforming to the above.
3. When the Specifications call for material or construction of better quality or

larger size than is required by the above-mentioned codes and standards, then the provisions of the Specifications shall take precedence over the requirements of said codes and standards. If there is any direct conflict between the above-referenced codes and standards and Plans or Specifications, the codes and standards shall govern. Contractor shall furnish, without extra charge, any additional material and labor when required to comply with these codes and standards, even though the work is not mentioned in the Specifications or shown on the Plans.

4. Inspection, protection and maintenance of the construction access roadway, fence, gates, basins, drainage structures, and other project area facilities shall be ongoing by the Contractor throughout the period of this contract. The Contractor shall provide all labor, materials, and equipment necessary to maintain the project facilities during the period of this contract.

## **1.5 CONTRACTOR USE OF SITE AND ACCESS**

- A. Site usage by the Contractor is limited to that area as necessary to accomplish the work within the limits of work as shown in the Contract Drawings.
- B. Contractor shall take adequate measures to protect existing site improvements. Any existing site features damaged during the work shall be repaired or replaced to the County's satisfaction at no additional cost.
- C. During construction, the Contractor shall secure any necessary permits and/or rights of way for the transportation, disposal and staging of materials and equipment.
- D. Contractor shall repair, at its own expense, any damage caused to the public or private property, remove from the site all debris, excess materials, tools, and equipment, and shall leave the premises in a neat and orderly condition, to the satisfaction of the County.
- E. Contractor shall examine the areas and conditions of the proposed work for this project. Work shall not proceed until unsatisfactory conditions are corrected.
- F. Contractor shall consult the records and drawings of adjacent work and of existing services and utilities which may affect the progression of the project.
- G. Contractor shall notify "Dig Safe" or local utilities and services as applicable previous to any work in order to have all known utilities and services marked out before work begins.
- H. If the Contractor, in the course of work, uncovers or otherwise encounters any artifacts, whether historic or prehistoric, Contractor shall bring them to the immediate attention of the County, and stop all work in that vicinity until directed by the County.
- I. If the Contractor, in the course of excavation, uncovers or otherwise encounters any suspected hazardous or unidentified substances, the Contractor shall bring them to the immediate attention of the County, and stop all work in that vicinity of said substances until directed by the County.
- J. Contractor shall obtain governing authorities written permission, when required, to close or obstruct streets, walks and adjacent facilities and provide alternate routes around closed or obstructed traffic ways, when required by governing authorities.

## **1.6 CONSTRUCTION FACILITIES**

- A. Provide and maintain temporary sanitary facilities.
- B. The Contractor shall provide on-site phone service or other telephone facilities such that

the Contractor can be reached at any time throughout the workday. Contractor shall provide phone numbers for communication and emergency contact during off work hours.

## **PART 2 - PRODUCTS**

Not Used

## **PART 3 - EXECUTION**

Not Used

## **PART 4 - MEASUREMENT AND PAYMENT**

### 4.01 **BASIS OF PAYMENT**

There are no pay items under this section. No separate payment shall be made for work under this section. Payment for this section will be included in the contract prices of the items for which this work is necessary.

**END OF SECTION**

**SPECIAL FORM OF PROPOSAL**

**WEST OCEAN CITY HARBOR, PROPOSED MARINE REPAIRS**

DATE: \_\_\_\_\_

County Commissioners of Worcester County  
1 West Market Street, Room 1103  
Snow Hill, MD 21863

We hereby submit our proposal for the following:

PROPOSED MARINE REPAIRS  
WEST OCEAN CITY HARBOR  
12826 SUNSET AVENUE  
OCEAN CITY, MD 21842

After carefully examining the documents for the subject construction –

Documents & Specifications: JSH Project #: 2020-019

Addenda numbered: \_\_\_\_\_

and having received clarifications on all items of conflict or upon which any doubt arose, the undersigned propose to furnish all materials, labor and equipment called for by the said documents for the entire work for the stipulated sum of:

**BASE BID:**

For all work required for the installation of the new 828+/- l.f. bulkhead, eight (8) 5x20 finger piers with 2 rider/bumper piles per pier (16 total) and re-construct existing Governor's/T-Dock with four (4) rider/bumper piles, the Lump Sum of:

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_ )  
WRITTEN FIGURES

**ADD/ALTERNATE:**

For all work required for the replacement of eighteen (18) in-kind 3-pile cluster/dolphins in same footprint, the Lump Sum of:

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_ )  
WRITTEN FIGURES

\_\_\_\_\_  
(Sign for Identification)

SCHEDULE OF UNIT PRICES

The following unit prices, if accepted in the award of the Contract, shall be applied in computing the value of changes, additions, deletions, and substitutions, which may be made in the work following the Award of Contract. Each unit price shall include all work, materials, and incidentals necessary to complete the items.

NOTE: Prices shall be written in both words and numbers.

1. Construct Finger Pier, 5x20 with pilings per detail: \_\_\_\_\_  
\_\_\_\_\_ each

2. Install Piles, 12"-3' butt, 8" minimum tip diameter:

25' length \_\_\_\_\_ each

30' length \_\_\_\_\_ each

35' length \_\_\_\_\_ each

40' length \_\_\_\_\_ each

45' length \_\_\_\_\_ each

50' length \_\_\_\_\_ each

55' length \_\_\_\_\_ each

60' length \_\_\_\_\_ each

65' length \_\_\_\_\_ each

70' length \_\_\_\_\_ each

3. Install vinyl bulkhead cross-section per detail: \_\_\_\_\_  
\_\_\_\_\_ / l.f.

4. Install 3-pile cluster/dolphins per detail: \_\_\_\_\_  
\_\_\_\_\_ each

\_\_\_\_\_  
(Sign for Identification)

## REFERENCES

List three (3) references for similar services successfully completed within the last three years. Include contact name, address, telephone number and Services consumed. Projects should be similar in monetary value and Scope of work.

Company Name:	
Type of Work:	
Address:	
Town, State, Zip Code:	
Contact Person:	
Telephone Number:	
Date of Service:	
Project Site Address:	
Company Name:	
Type of Work:	
Address:	
Town, State, Zip Code:	
Contact Person:	
Telephone Number:	
Date of Service:	
Project Site Address	
Company Name:	
Type of Work:	
Address:	
Town, State, Zip Code:	
Contact Person:	
Telephone Number:	
Date of Service:	
Project Site Address:	

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(Sign for Identification)