



State of New Jersey

MAIL CODE 501-01A

DEPARTMENT OF ENVIRONMENTAL PROTECTION

NATURAL & HISTORIC RESOURCES

Engineering and Construction

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CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

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Commissioner

ADVERTISEMENT FOR BID

October 16, 2014

NJDEP PROJECT NO. 4263-15
SHARK RIVER BULKHEAD REPLACEMENT
BOROUGH OF AVON-BY-THE-SEA, NEW JERSEY

Sealed bid proposals for the Shark River Bulkhead Replacement, in the Borough of Avon-by-the-Sea, Monmouth County, New Jersey will be received by the Administrator, Office of Engineering and Construction, 1510 Hooper Avenue, Toms River, New Jersey 08753, at 10:00 A.M. prevailing time, Wednesday, November 5, 2014.

Bids shall be delivered to William Dixon, Acting Manager, Bureau of Coastal Engineering, in person at the above address or by mail prior to the time scheduled for bid openings. No bids will be accepted after the aforementioned time.

Plans and Specifications may be examined at the above address; however, call (732) 255-0767 before visiting to assure availability. Pre-qualified contractors can obtain bid documents from the Toms River address. Bidders must be pre-qualified with this Office under N.J.S.A. 52:35 et seq. and must register with both the New Jersey Department of Treasury, Division of Revenue pursuant to N.J.S.A. 52:32-44 AND the "Public Works Contractor Registration Act", N.J.S.A. 34:11-56.48 et seq. (P.L. 2003, c. 91) prior to contract execution. Appropriate proof of these registrations should be provided to NJDEP as soon as possible.

No proposals will be considered unless accompanied by Certified Check or Bid Bond in the amount of at least ten percent (10%) of total amount bid and a certified statement from bonding company stating that it will furnish necessary performance and payment bond in the amount of the contract in accordance with N.J.S.A. 2A:44-143 and 2A:44-147 inclusive, with a surety or sureties satisfactory to the State of New Jersey.

Minimum wage rates for this project shall be as specified in the "Prevailing Wage Determination of the New Jersey Department of Labor and Industry" on file with this Department. The attention of bidders is directed to the provisions covering subletting or assigning the contract. The entire work is to be completed within the **CONTRACT TIME STATED WITHIN THE BID DOCUMENTS.**

The Department of Environmental Protection reserves the right to waive any informality in or to rejecting any or all bids as pursuant to law or in the best interest of the State.

Dave Rosenblatt, Administrator
Office of Engineering and Construction

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENGINEERING AND CONSTRUCTION
1510 HOOPER AVENUE
TOMS RIVER, NEW JERSEY 08753

NOTICE TO BIDDERS
SPECIFICATIONS
AND
PROPOSAL FORM
FOR



SHARK RIVER BULKHEAD REPLACEMENT
BOROUGH OF AVON-BY-THE-SEA, NEW JERSEY

BUREAU OF COASTAL ENGINEERING
PROJECT NO. 4263-15

October 16, 2014

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENGINEERING AND CONSTRUCTION
1510 HOOPER AVENUE
TOMS RIVER, NEW JERSEY 08753

SHARK RIVER BULKHEAD REPLACEMENT
BOROUGH OF AVON-BY-THE-SEA, NEW JERSEY

BUREAU OF COASTAL ENGINEERING
PROJECT NO. 4263-15

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4263-15

1:00 (1) PROJECT DESCRIPTION

1:01 LOCATION:

The proposed work to be performed under this project is located along the northerly shoreline of the Shark River Inlet, in the Borough of Avon-By-The-Sea, County of Monmouth, New Jersey, as seen on Sheet 1 of 9 on the project plans signed October 16, 2014. The Shark River is a tidal water body having a tidal range of 8.62 feet.

1:02 WORK DESCRIPTION:

The work to be performed under these specifications consists of the furnishing of all equipment, labor and personnel, supplies and facilities, and the performing of all work required for the construction of a steel sheet piling bulkhead with timber pile anchor system; in the Borough of Avon-By-the-Sea, County of Monmouth, New Jersey in conformity with these specifications, and as shown on the nine (9) sheets of the project plans, signed October 16, 2014, and enumerated as E-36-21.

The Contractor shall adhere to the following provisions:

1. The Bureau of Coastal Engineering (BCE or Bureau) permits the Contractor a maximum of fourteen (14) calendar days to return all completed forms, executed bonds, and signed and notarized necessary paperwork for the contract in its entirety. Failure to do so could result in the Contractor's disqualification of their bid.
2. The contractor shall be fully mobilized and begin work within ten (10) calendar days after receiving the Notice To Proceed Letter from the Bureau of Coastal Engineering.
3. Bidders MUST visit the site(s) to satisfy themselves of the site(s), proposed work, and existing conditions prior to submitting their bid. Should the contractor decide not to visit the site(s), this will not relieve him of performing the job for the total price bid.
4. Other information given for bidding purposes, prior to construction, are for general information only, and are not warranted to show actual conditions, nor intended to substitute for personal investigation.
5. Where referenced "Manager" shall be deemed to include the Manager or Acting Manager of the NJDEP Bureau of Coastal Engineering or authorized representative.

1:00 (2) PROJECT DESCRIPTION

1:02 WORK DESCRIPTION (CONT):

6. Prior to any site disturbance, the Contractor shall field verify the existing topography and advise the Engineer in writing of any discrepancies. Should discrepancies arise, the Engineer reserves the right to provide a change of plan within seven (7) working days of said notification. The Contractor shall make no claims if a change of plan is necessary.
7. All applicable State Laws, Municipal Ordinances and the rules and regulations of all authorities having jurisdiction of the site and construction of the project shall apply to this project throughout and they shall be deemed to be included in the contract the same as though herein written out in full.
8. Should the Contractor, during the progress of the work lose, throw overboard, sink, or misplace any material, plant, machinery, or appliance, which in the opinion of the Manager may be dangerous to or obstruct navigation, or constitute a menace to property he shall recover and remove the same with the utmost dispatch.

The Contractor shall be given immediate notice with description and location of such obstructions from the Manager, and when required shall mark or buoy such obstructions until the same is removed. Should he refuse, neglect, or delay compliance with the above requirements, such obstructions may be ordered removed by the Manager and the costs of such removal may be deducted from any money due or to become due the Contractor.

9. There is NO adjustment for fuel price to be paid under this contract.
10. While the NJDEP reserves the right to take as long as 90 after bids have been received to fully execute a contract. Failure to submit all necessary paperwork to the Bureau of Coastal Engineering in a timely fashion will delay the execution of the contract and issuance of Notice to Proceed. The window to execute a contract shall be officially stopped should there be any formal bid protest until such time as the protest is officially dismissed. The clock shall continue from the elapsed time prior to the formal protest moving forward.
11. DUE TO PERMIT RESTRICTIONS, NO IN-WATER WORK SHALL BE PERFORMED BETWEEN MARCH 1st AND JUNE 30th OF ANY CALENDAR YEAR.

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1:00 (3) PROJECT DESCRIPTION

1:02 WORK DESCRIPTION (CONT):

12. The NJDOT Standard Specifications for Road and Bridge Construction, 2007 edition is referenced solely for the material classification (i.e. I-11 gradation) and execution of certain work items. The language contained herein the BCE Project No. 4263-15 specification shall govern the contract. Should a conflict arise between the NJDOT specifications and the Bureau's specification, the BCE language shall supersede.

The work under this project is to be bid upon and executed under six (6) work items more particularly described as follows:

ITEM NO. 1 – GENERAL WORK:

The work under this item is to be bid upon and executed on a lump sum basis and shall cover work not otherwise included under any other Item. The work shall include mobilization and demobilization of all materials, supplies, facilities, work and expenses required to perform the construction of a steel sheet piling bulkhead, and all materials, supplies, facilities, work and expenses required for the execution and completion of the project work as a whole and not specifically provided for elsewhere.

See Subsection 11:01 for further details and specifications.

ITEM NO. 2 – SURVEY:

The work to be performed under this item is to be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools and accessories required for conducting an as-built survey of the project area prepared by a surveyor licensed in the State of New Jersey as specified in Subsection 11.02.

ITEM NO. 3 – CLEARING SITE:

The work under this item is to be bid upon and executed on a lump sum basis and shall include all work for clearing site including but not limited to the complete removal of all debris, rubble, utility poles all shrubs, stumps, roots and other plantings, and all objects or obstacles of any kind within the area of construction, interfering with construction or not shown to remain within the project area or as shown on the plans or directed by the engineer.

See Subsection 11:03 for further details and specifications.

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1:00 (4) PROJECT DESCRIPTION

1:02 WORK DESCRIPTION (CONT):

ITEM NO. 4 – STEEL SHEET PILING BULKHEAD:

The work under this item is to be bid upon and executed at a unit price per linear foot of steel sheet pile bulkhead, measured along the center line, and shall include all labor, materials, equipment, rigging, tools, and accessories required to construct the bulkhead, complete in place, including all steel sheeting, wales, channels, caps, tie-backs, tie back extensions, excavation, backfill, anchor system, hardware, accessories and miscellaneous concrete used at existing and proposed corners as shown on the project plans and specified herein.

The estimated quantity for bidding purposes under this item is six hundred and forty one (641) linear feet of steel sheet pile bulkhead.

See Subsection 11:04 for further details and specifications.

ITEM NO. 5 – I-11 SOIL AGGREGATE:

The work to be performed shall include all labor, materials, equipment, rigging, tools, and accessories required to haul, place, compact and grade three thousand one hundred (3,100) cubic yards of I-11 Soil Aggregate.

See Subsection 11:05 for further details and specifications.

ITEM NO. 6 – TOPSOIL, 4" THICK, SEEDING, AND MULCH:

The work under this item is to be bid upon and executed at a unit price per square yard and shall include stabilizing all areas disturbed during the course of construction including haul roads, tops of slopes and staging areas using an estimated quantity of three thousand nine hundred (3,900) square yards of Topsoil, 4" thick, seeding, and mulch complete, in place, to the limits shown on the construction plans.

See Subsection 11:06 of the Technical Specifications for further detail.

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1:00 (5) PROJECT DESCRIPTION

1:03 INVESTIGATION OF SITE AND CONDITIONS:

The contractor, by the submission of a bid, acknowledges that he has satisfied himself as to the nature and location of the work; the general and local conditions including but not limited to those bearing on accessibility, transportation, disposal, handling and storage of materials; the availability of labor, water, supplies, materials, power and roads; the uncertainties of weather, tides and similar physical conditions at the sites of the work; the conformation and conditions of the ground, the surface or sub-surface materials, conditions and obstacles; the character of equipment and facilities needed prior to and during prosecution of the work.

Any failure of the contractor to acquaint himself with any and all factors bearing on the project will not relieve him from the responsibility for estimating properly the difficulty and the cost of successfully performing the work, and the responsibility for completing the project under the terms of the contract at the unit or lump sum prices bid in the proposal.

1:04 CONTRACT TIME:

The allowed contract time is ninety (**90**) calendar days. In the event of severe weather, which would not allow for work during these days, the contractor will be credited by the inspector against total elapsed work time. See Section 7:00 for further particulars.

DUE TO TIMING RESTRICTIONS, NO IN-WATER WORK SHALL BE PERFORMED BETWEEN MARCH 1ST AND JUNE 30TH OF ANY CALENDAR YEAR.

1:05 DETERMINATION OF LOWEST BID AND CONTRACT AWARD:

Bids will be compared on the basis of the total amount bid for all the work as outlined in the proposal form. If the lowest acceptable bid is within the funds available to finance the project, a contract will be awarded for all the work as bid upon.

If the total amount of the lowest acceptable bid exceeds the available project funds, the Department reserves the right to reduce the quantity of work so that a total dollar amount produced is within the available funds, and to award a contract on such a reduced basis.

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1:00 (6) PROJECT DESCRIPTION

**1:05 DETERMINATION OF LOWEST BID AND CONTRACT AWARD
CON'T:**

The Department of Environmental Protection, Office of Engineering and Construction reserves the right either to award a contract for all work as bid upon, or to reject any and all bids, as may be deemed in the best interests of the State of New Jersey.

In the event of a discrepancy between a unit price bid and an extended total in the bid proposal, the unit price shall govern.

1:06 PROJECT SIGN:

The contractor shall furnish and erect one project sign, and shall maintain the sign throughout the contract operations. The sign shall be placed at a specific location designated in the field by the Project manager. The cost of the sign and of its erection, maintenance and removal shall be included in the lump sum price bid for Item No. 1 - General Work. The text of the sign shall be as follows:

1. STATE OF NEW JERSEY
2. DEPARTMENT OF ENVIRONMENTAL PROTECTION
3. SHORE PROTECTION PROJECT NUMBER 4263-15

4. THIS CONSTRUCTION PROJECT IS DESIGNED AS A
5. PROTECTIVE MEASURE TO PRESERVE NEW JERSEY'S
6. SHORELINE AND TO FURTHER IMPROVE OUR
7. RECREATIONAL FACILITIES

8. CHRIS CHRISTIE, Governor
9. KIM GUADAGNO, Lieutenant Governor
10. BOB MARTIN, Commissioner

NOTE: Lines 1 to 3 to be 4 inches high
Lines 4 to 7 to be block letters 2 1/2 inches high
Lines 8 to 10 to be 2 inches high

The upper portion of the sign, Lines 1 to 3, shall be gold letters on a blue field. The lower portion, Lines 4 to 10 shall be blue lettering on a gold field. All lettering shall be upper case standard block form.

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1:00 (7) PROJECT DESCRIPTION

1:07 NEW JERSEY PREVAILING WAGE ACT:

See Section 5:04 herein for detailed requirements of the New Jersey Prevailing Wage Act. A copy of bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the State of New Jersey, Department of Labor and Industry, will be on file for inspection in the Trenton and Toms River offices of the Bureau of Coastal Engineering, together with "Prevailing Wage Determination", issued by the Commissioner of the Department of Labor and Industry, and will be attached to the contract for the project.

1:08 TIDAL DATUM:

The datum plane of reference for this project is NAVD 1988. Range of tide is 8.62 feet.

1:09 NEW JERSEY SALES AND USE TAX ACT:

See Subsection 5:04(A) herein for Sales Tax Exemption Statement.

1:10 DIVISION OF MOTOR VEHICLES REGULATIONS:

All vehicles used on this project must meet current State regulations for travel on highways. The Contractor must conform to N.J.A.C. 7:27-14 "Diesel Idling Regulations".

1:11 AMERICANS WITH DISABILITIES ACT (A.D.A.):

Bidders are required to comply with the provisions of the Americans with Disabilities Act, (A.D.A.), as amended. This shall also pertain to any and all sub-contractors.

1:12 AFFIRMATIVE ACTION:

See Subsection 5:04 (B) herein for requirements. Bidders are required to comply with the requirements of P.L. 1975, c.127 et seq.

The parties to this contract agree to incorporate into this contract the mandatory language of Sub-section 3.4(a) of the Regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time and the contractor and/or sub-contractor agree to comply fully with the terms, provisions and obligations of said Sub-section 3.4 (a), provided that said sub-section shall be applied subject to the terms of sub-section 3.4(d) of said regulations.

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1:00 (8) PROJECT DESCRIPTION

1:13 BUSINESS REGISTRATION:

All Contractors bidding the work under this contract shall comply with the provisions of P.L. 2001, c. 134, Business Registration. No state agency can enter into a contract with contractors unless first provided with proof of a valid business registration with the Division of Revenue. A hotline, the Client Registration Unit at Revenue, has been set up at (609)-292-1730 for validation of current status or new contractor registration.

1:14 PERMIT CONDITIONS:

There are no necessary state permits, however, the contractor shall adhere to all conditions and regulations set forth in the USACE Nationwide Permit No. 3 – Maintenance as contained herein. Any failure to adhere to these conditions may result in fines levied to the Contractor from either the State or Federal Regulatory Enforcement Agencies.

1:15 DIVISION OF PURCHASE AND PROPERTY (DPP) FORMS:

All Contractors bidding the work under this contract shall comply with the provisions of the State of New Jersey DPP, Information Sheet and Certification for Delegated Purchasing Authority Transactions. No state agency can enter into a contract with contractors unless first provided with the properly executed DPP forms, included herein. Included are the following forms:

1. Ownership Disclosure Form
2. Disclosure of Investigations & Actions Involving Bidder Form
3. Disclosure of Investment Activities in Iran Form
4. Source Disclosure Certification Form
5. MacBride Principles Certification Form
6. Vendor Certification & Political Contribution Disclosure Form
7. Two Year Chapter 51 / Executive Order 117 Vendor Certification & Disclosure of Political Contributions Form
8. Affirmative Action Supplement Form (AA302)

It is the Contractor's responsibility to ensure that they are in full compliance with the State of New Jersey DPP, Information Sheet and Certification for Delegated Purchasing Authority Transactions.

S2:00 **STD. REVISED 9/1/63, 3/29/73, 11/1/75, 6/1/79, 10/1/96, 3/27/08**

2:00 **PROJECT PLANS AND SPECIFICATIONS:**

2:01 **PROJECT-SPECIFICATIONS:**

As issued, include Project Advertisement, Terms and Conditions of bidding and Contract Award, Project Specifications both general and technical and the project Proposal Form.

The specifications will be annexed to and become part of the contract.

2:02 **THE PROJECT PLANS:**

Are issued to accompany and be a part of the specifications. The plans are identified by date and number of sheets in Section 1:00 of these specifications.

2:03 **GENERAL STATEMENT:**

All labor, material and appliances to be furnished and all work to be done by the Contractor shall strictly conform to the specifications and plans. The specifications and plans are intended to be consistent with each other, but should there be any inconsistency either the specifications or plans shall take precedence, as decided by the Supervisor.

The work herein involved is to be complete in every way notwithstanding that every detail is not particularly mentioned. Any discrepancy shall be called to the attention of the Manager, in writing, who shall give a decision in writing.

Any desired change or modification of the project work herein specified must be evidenced by a written order by the Manager. Where a change or modification involves work, materials, products, or structures not specified herein, it must be evidenced by a supplemental work order describing and specifying the additional work and fixing the amount of compensation. Such supplemental work orders shall extend and be part of the original contract and surety bond.

All orders issued by the Manager and all supplemental work orders shall be delivered to the Contractor or his representative before the work thereunder is begun.

S2:00 **STD. REVISED 9/1/63, 3/29/73, 11/1/75, 6/1/79, 10/1/96**
S3:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70,**
1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82,
10/1/96, 3/27/08

2:03 **GENERAL STATEMENT Con't:**

If in the opinion of the Contractor, the construction operations as shown on the plan or staked on the ground will damage or undermine existing structures or properties adjacent to the site of the work, the Contractor shall request an examination and determination by the Bureau Manager before proceeding with the work.

Such examination and determination by the Bureau Manager shall not relieve the Contractor in any way from his proper responsibility for damages caused to structures or properties adjacent to the site of the work by his operations.

2:04 **TIDES AND DATUM:**

The datum plane of reference is indicated on the plans. It has been established at the site of the work and will not be changed during the progress of the work. The range of tide is shown on the plans.

3:00 **BIDDING AND CONTRACT AWARD:**

3:01 **PROPOSAL AND ESTIMATED QUANTITIES:**

Bids are solicited and shall be submitted on the Proposal Form attached to these specifications. A unit price or lump sum as specified shall be bid for each item of work complete in place. In the event that there is a discrepancy between the unit price and extended total, the unit price shall govern.

For the purpose of competitive bidding, approximate quantities have been calculated from the plans as shown, and are given in the attached Proposal Form for bidding. It must be distinctly understood that these quantities are approximate only, are the best obtainable at the present time, and will be used by all bidders submitting proposals.

3:02 **QUALIFICATIONS OF BIDDERS:**

The receipt and opening of bids is subject to the proper qualifications of each bidder in accordance with R.S. 52:35, together with all amendments thereto.

S3:00

**STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70,
1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82,
10/1/96, 3/27/08**

3:02

QUALIFICATIONS OF BIDDERS Con't:

The Contractor's Qualifications Affidavit, which is part of the Proposal Form, shall be executed under oath by each bidder.

In determining the qualifications of a bidder, the Department of Environmental Protection, Office of Engineering and Construction, will consider his record in the performance of any contracts for similar work into which he may have entered with the State of New Jersey, or with any Federal Department or Agency or with other public bodies; it expressly reserves the right to reject the bids of such bidder if such record discloses that such bidder, in its opinion, has not properly performed such contract or has habitually, and without just cause, neglected the payment of bills, or has otherwise disregarded his obligation to sub-contractors, employees, or who has failed to satisfactorily complete a previous contract.

3:03

SUBMITTING BIDS:

Bids received after the time named in the Project Advertisement or in unsealed envelopes will not be considered. Bids and guarantees must be submitted sealed in the bid envelopes furnished with the Proposal Forms. Bids received in other than required bid envelopes may be considered informal by the Department of Environmental Protection, Office of Engineering and Construction. The bid envelope should be marked in the places designated thereon with the name and address of the bidder, the number of the project for which the bid is made, and the date and hour of the opening bids.

All bids must be upon the Proposal Form attached thereto. The Proposal Form shall be submitted with the advertisement and specifications attached as issued for bidding. Bidders are cautioned not to attach any conditions, limitations, or provisos to the proposals as such conditions, limitations or provisos will render their bid informal and may cause its rejection. The right is reserved to waive any informality or to reject any or all bids as may be deemed best in the interest of the State of New Jersey.

S3:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

3:03 **SUBMITTING BIDS Con't:**

No proposal will be considered unless accompanied by Bid Bond or Certified Check made payable to the order of the DEPARTMENT OF ENVIRONMENTAL PROTECTION for at least ten (10%) percent of the amount bid, a certified statement from a Bonding Company acceptable to the State of New Jersey; stating that it will furnish required performance and payment bonds for the Contractor upon the award of the work and the required Qualification Affidavit which is issued as part of the Proposal. The Contractor will be required to execute and deliver a performance surety bond to the Department of Environmental Protection, Office of Engineering and Construction as part of the contract, within ten (10) days after the award of contract. The bond shall be in an amount equal to one hundred (100%) percent of the contract amount, with such sureties as shall be approved by the State of New Jersey, to secure the faithful performance of the contract; to indemnify and save harmless the said State of New Jersey from all proceedings, suits or actions of any name or description; to assure the payment of all persons performing labor and/or furnishing material in connection with the project.

Any change in the plans, specification agreements, or quantities without the consent of the bondsmen, shall in no way vitiate said bond. The bond shall be given in compliance with the requirements of the statutes of the State of New Jersey in respect to bonds of Contractors on public works, Revised Statutes of New Jersey, Sections 2A:44-143 through 147, as amended and supplemented.

3:04 **CONTRACT AWARD:**

The Department of Environmental Protection, Office of Engineering and Construction reserves the right to award a contract under this project within the funds available for the project on the basis of the lowest accepted bid received as determined by the provisions in section 1:00 herein, or to reject any or all bids as it may deem best in the interests of the State of New Jersey. The terms and conditions of bidding and contract award as set forth in these specifications and in section 1:00 of these specifications shall become a part of the contract agreement as though recited and contained therein.

S3:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82, 10/1/96**
S4:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

3:05 **ADDENDUM:**

The Department of Environmental Protection, Office of Engineering and Construction reserves the right at any time prior to the announced time for receipt of bids to amend the specifications, plans and proposal form in the interest of the State of New Jersey.

4:00 **THE DEPARTMENT OF ENVIRONMENTAL PROTECTION:**

4:01 **DEFINITION:**

The term "Department" in the specifications and contract refer to the Department of Environmental Protection. The term "Commissioner" refers to the Commissioner of Environmental Protection. The term "Office" refers to the Office of Engineering and Construction. The term "Manager" refers to the Manager of the Bureau of Coastal Engineering of the aforesaid Office. The terms mentioned above may appear in the specifications, contract or correspondence relating to this project.

4:02 **SUPERVISION AND INSPECTION:**

The work will be conducted under the general direction of the Manager. He will be represented on the work site by as many assistants as may be necessary. The Contractor shall give twenty-four (24) hours notice when he needs the services of the Manager. The Manager may appoint Inspectors whose duty it shall be to exercise supervision of operations and to enforce compliance with the evident intent and meaning of the of the contract and these specifications.

The presence of the Inspectors shall not relieve the Contractor of his responsibility for proper execution of the work.

If the Contractor considers any work required of him to be outside the requirements of the contract or considers any record or ruling of the Inspector unfair, he shall ask for written instructions or decision immediately and then file a written protest with the Manager against the same within five (5) days of the request, or be considered as having accepted the record or ruling.

S4:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

4:02 **SUPERVISION AND INSPECTION Con't:**

The Contractor, if dissatisfied with a ruling of the Manager may request a hearing before the Director of the Office of Engineering and Construction and at the hearing may present evidence to justify a different ruling. The decision of the Director of the Office shall be final. Request for such a hearing shall be made in writing to the Director of the Office not more than two (2) days after the date of the ruling by the Manager. No extensions of time will be allowed the Contractor during the processing of such a request.

The order in which the work will be prosecuted will be indicated from time to time by the Manager. The locations and limits of the work shall be plainly indicated in advance by stakes and ranges established by the Manager.

4:03 **PROJECT OFFICE:**

The Contractor shall furnish and maintain a suitable at the site of the work for the use of the Inspectors on the project. The office must be complete in all respects, fully furnished as specified herein, and ready for occupancy by the Inspector at least one day prior to the beginning of project operations. The office shall be located as directed by the Manager, insofar as possible shall be placed so as to allow all truck deliveries of materials to the project to pass in front of the office for official inspection and signatures. The Manager may direct that the office be relocated during the course of the project work if conditions require.

The office construction, location and facilities must be satisfactory to the Manager, with the facilities to include a toilet, in addition to all other furnishings hereinafter specified. The office shall have a floor area of not less than one hundred twenty (120) square feet, shall be waterproof, and shall be equipped with close fitting door and windows which can be locked.

The office shall be equipped with one (1) desk, not less than two (2) feet by three (3) feet, containing not less than two (2) drawers with locks, three (3) office chairs; one (1) new computer, one (1) scientific calculator, and a plan table not less than three (3) feet by five (5) feet. The Contractor shall provide a telephone and pay for all base charges including local scope area calls. Toll calls made by the Manager or Inspector will be reimbursed to the Contractor by billing monthly on State Form.

S4:00 **STD. REVISED 8/1/57, 10/23/57, 8/1/61, 9/1/63, 4/22/70,
1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 6/11/82,
10/1/96, 3/27/08**

4:03 **PROJECT OFFICE Con't:**

The Contractor shall provide light, and heat the office to 68 degrees Fahrenheit when weather conditions require it.

The office and all its facilities shall be maintained in good condition throughout the entire time the project is in operation. The cost of furnishing and maintaining such office and facilities shall be included in the unit price of lump sum bid for the project work and payment therefore shall be considered as included in the partial and final payment for contract work.

4:04 **OTHER FACILITIES TO BE FURNISHED:**

The Contractor will be required to furnish on request, such boats, boatmen, men and material as necessary for supervision, surveying or control work. The Contractor will be required to furnish lumber and other material for the stakes, ranges, bench marks and tide gauges.

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5:00 **THE CONTRACTOR:**

5:01 **DEFINITION:**

Wherever the term "Contractor" is used it is understood to refer to the first party of the contract. Sub-contractors as such will not be recognized.

However, the Contractor shall not award to, or allow any work to be done, by a sub-contractor, under this project, without the written approval of the Manager.

The Contractor shall formally request of the Manager, in writing, approval of the sub-contractor and approval of his use on the project. The judgment of his suitability for approval shall be made from a written statement to accompany the request. The statement shall contain the following: The Contractor's reason for employing a sub-contractor; the sub-contractor's history in detail, a performance of similar work, equipment, supervisory personnel, financial status and other information showing his ability to perform the proposed work in compliance with the plans and specifications to the satisfaction of the Manager.

The Contractor must at all times either be personally present upon the work or be represented thereon by a responsible agent who shall be clothed with full authority to act for him to all cases and to carry out any instructions relative to the work which may be given by the Manager either personally or through authorized representative.

The Contractor shall employ competent individuals to do the work. Whenever the Manager shall notify him or his representatives in charge, in writing, that any individual on the work is unfit for the place or is working contrary to the provisions of the specifications or that instruction of the Manager, he shall thereupon be removed from the project.

The Contractor must acquaint himself fully of the conditions relating to the construction of the project, the employment of labor thereon, all Federal and State Laws and Municipal Ordinances and regulations pertaining thereon.

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5:01 **DEFINITION Con't:**

The Contractor, by the submission of the proposal and bid for this project, agrees, that he has personal knowledge of the site of the project, of the physical conditions, of the surface and sub-surface conditions, of the tides, and datum and all hazards, known or anticipated and that the lack of any such knowledge affecting the performance fulfilling the provisions of the contract.

5:02 **OFFICIAL ADDRESS:**

The Contractor shall establish and maintain an official address in the State of New Jersey for service of all notices and papers in connection with the contract.

5:03 **SAFETY:**

The Contractor shall keep proper lights each night between the hours of sunset and sunrise, upon all plant connected with the work. Upon all ranges or other markers in connection with it when deemed necessary by the Manager, and upon all buoys which may be dangerous or obstruct navigation, and shall be responsible for all damages resulting from any neglect or failure in this respect. All excavations or other obstructions, which may endanger lives or property, shall be properly lighted and marked with railings or other guards.

Any loss or damage arising through the nature of the work to be done from the action of the elements or from any unforeseen or unusual obstruction or difficulty which may be encountered in the prosecution of said work during the contract period shall be borne by the Contractor.

The Contractor shall be responsible for the safety of his employees, plant, and materials and for any damage or injury done by or to them from any source or cause and shall comply with all laws of New Jersey relating to insuring of employees employed on the project.

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5:04 **(A) FEDERAL, STATE AND LOCAL LAWS:**

The Contractor shall be responsible for the strict observance of his employees of the laws of the United States affecting operations under the contract.

The Contractor shall comply with the provisions of Section 34:11-1, which act provides for a minimum wage and with the provisions of Section 34:11-1, which act provides that no laborer or mechanic shall work more than eight (8) hours in any one calendar day. Also Revised Statutes 10:2-1 to and inclusive of Section 10:2-4, which prohibits any discrimination in employment or labor or purchase of material on account of race, color or creed on public work.

The work under this project shall be subject to the provisions of Chapter 150, P.L. 1963 of the State of New Jersey, designated as the "New Jersey Prevailing Wage Act". The Contractor will be required to comply with the provisions of said law. A copy of Bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the New Jersey Department of Labor in six (6) pages, is attached to and made a part of these specifications.

Pursuant to Chapter 150, P.L. 1963, of the State of New Jersey, the current Prevailing Wage Rate Determination established by the Commissioner of Labor and Industry is available for reference at the Department of Environmental Protection, Office of Engineering and Construction, Bureau of Coastal Engineering, 1510 Hooper Avenue, Toms River, New Jersey 08753. The Contractor, and any sub-contractors will be required to pay all workman engaged in the performance of services directly upon the project the prevailing rate of wages specified in said determination. This determination is conclusive for a period of two (2) years from date of issuance unless superseded within said two (2) years by a later determination.

Employers not paying the itemized employee benefits to a payee designated in a collective bargaining agreement shall pay them directly to the employee on each payday.

The Contractor and any sub-contractor, will be required to keep an accurate record showing the name, craft or trade and actual hourly rate of wages paid to each workman employed by them in connection with the project. Such record shall be preserved for two (2) years from date of payment.

S5:00

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5:04

(A) FEDERAL, STATE AND LOCAL LAWS Con't:

The Contractor, and any sub-contractor, will be required to post the prevailing wage rate for each craft and classification involved, as determined by the Commissioner of Labor, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the work, and at such place or places as are used by them to pay workman their wages.

Reference is made to Chapter 30, P.L. 1966 as amended. The materials, supplies or services required for execution and completion of the work under this project are not subject to the provisions of the New Jersey Sales and Use Tax Act, Chapter 30, P.L. 1966 as amended.

Copies of Form ST-4, EXEMPT USE CERTIFICATION may be obtained from the State Division of Taxation, Sales Tax Bureau, 363 West State Street, Trenton, New Jersey 08625, or from the Office of Engineering and Construction, P.O. Box 419, Trenton, New Jersey, 08625. The Sales and Use Tax sections, which apply, are Nos. 8 (w) and 9 (a) (1). The project number, name of the Department and brief description of the project should be shown on the certificate for proper identification and reference.

The Contractor shall comply with the Laws of the United States and the State of New Jersey as to the inspection of hulls or boilers, etc. and the licensing of Masters and Engineers or other members of the crews of his vessels or plant. He shall conform to such sanitary requirements as may be prescribed by the State or Municipal Laws. The Contractor shall comply with any State code or United States code, which applies to any of the work to be done under the contract.

All applicable State Laws, Municipal Ordinances and the rules and regulations of all authorities having jurisdiction of the site and construction of the project shall apply to this project throughout and they shall be deemed to be included in the contract the same as though herein written out in full.

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5:04 **(B) AFFIRMATIVE ACTION PLAN:**

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA201) electronically provided to the public agency by the Division, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7.

During the performance of this contract, the contractor agrees as follows:

1. The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that all employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the public agency compliance officer setting forth provisions of this nondiscrimination clause;

2. The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex;

3. The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment;

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5:04

(B) AFFIRMATIVE ACTION PLAN Con't:

4. The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to *N.J.S.A. 10:5-31* et seq., as amended and supplemented from time to time. However, if a subcontractor has a total workforce of four or fewer employees or if a contractor or subcontractor is performing under an existing Federally approved or sanctioned affirmative action program, the contract shall contain only the mandatory language required in

(a) above, except for the language contained in the first sentence of this subparagraph.

(b) The public agency shall also include in all construction contracts and bid specifications, the language required by *N.J.A.C. 17:27-3.8*, unless the exemption provided under *N.J.A.C. 17:27-7.1* is applicable.

5. When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by *N.J.A.C. 17:27-7.2*; provided, however, that the Division may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by paragraph 5.a and 6 below, as long as the Division is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with *N.J.A.C. 17:27-7.2*. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

a. If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer, pursuant to *N.J.S.A. 10:5-31* et seq., as supplemented and amended from time to time. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities to minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not

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5:04 **(B) AFFIRMATIVE ACTION PLAN Con't:**

refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the procedures prescribed under paragraph 6 below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

6. If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of paragraph 5 above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:

a. To notify the public agency compliance officer, the Division, and minority and women referral organizations listed by the Division pursuant to *N.J.A.C. 17:27-5.3*, of its workforce needs, and request referral of minority and women workers;

b. To notify any minority and women workers who have been listed with it as awaiting available vacancies;

c. Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

d. To leave standing requests for additional referral of minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State training and employment service and other approved referral sources in the area;

e. If it is necessary to lay off any of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this chapter, as well as with applicable Federal and State court decisions;

f. To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) The contractor or subcontractor shall interview the referred minority or women worker.

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(B) AFFIRMATIVE ACTION PLAN Con't:

(ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a

contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience as recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the contractor or subcontractor shall consider the recruitment and hiring or scheduling of minority and women workers who qualify as trainees pursuant to these rules. All of these requirements, however, are limited by the provisions of 6.f.iii below.

(iii) The name of any interested woman or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in 6.f.ii above, whenever vacancies occur. At the request of the Division, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, a contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Division.

g. To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Division upon request.

7. The contractor or subcontractor agrees that nothing contained in paragraph 6 above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the

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failure to refer minorities and women consistent with the county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to paragraph 6 above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey workers ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of 6 above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

8. After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Division an initial project workforce report (Form AA201) electronically provided to the public agency by the Division, through its website, for distribution to and completion by the contractor, in accordance with *N.J.A.C. 17:27-7*. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer. The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

9. The Contractor will furnish all information and report required by rules, regulations and orders promulgated by the State Treasurer pursuant to P.L. 1975, c. 127 and/or pursuant to any authority delegated this political subdivision or agency by the State Treasurer. The Contractor will permit access to his books, records, and accounts by a duly appointed representative of the State Treasurer for purposes of investigation to ascertain compliance with rules, regulations, and orders adopted pursuant to P.L. 1975, c. 127 and pursuant to the provisions of N.J.S.A. 10:2-1 through 10:2-4 and all rules and regulations promulgated thereunder.

10. In the event of the Contractor noncompliance with these specifications or of any rules, regulations or orders promulgated by the State Treasurer pursuant to P.L. 1975, c. 127 or with the provisions of N.J.S.A. 10:2-4 or rules or regulations promulgated thereunder, this

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5:04 **(B) AFFIRMATIVE ACTION PLAN Con't:**

contract may be cancelled, terminated, or suspended in whole or in part of the Contractor may be declared ineligible by the State Treasurer for further public works contracts. Such other sanctions as may be adopted by the State Treasurer pursuant to P.L. 1975, c. 127 may be imposed for the aforementioned violations.

11. The Contractor will include all of clauses one (1) through ten (10) above in every subcontract or purchase order unless exempted by P.L. 1975, c. 127 or rules, regulations or orders promulgated thereunder by the State Treasurer, so that all of the aforementioned clauses will be binding upon each sub-contractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the State Treasurer may direct as a means of enforcing such provisions, including sanctions for noncompliance.

8. For the purpose of these specifications, the following terms shall have the following meanings:

A. *"Affirmative Action"* means procedures, which establish hiring and employment goals, timetables, and practices to be implemented, with good faith efforts, for minority group members.

B. *"Minority group members"* means persons who are Native American, African-American, Alaskan Native, Asian or Pacific Islander, Hispanic or women.

5:05 **STAKES AND BENCH MARKS:**

The Contractor will be required to preserve all stakes and benchmarks, established on the work until duly authorized by the Manager to remove the same. All stakes and benchmarks disturbed or removed without the permission of the Manager shall be replaced at the expense of the Contractor.

5:06 **PROPERTY PROTECTION:**

The Contractor will be required to protect all concrete pavement, curb, sidewalk, and bulkhead from any damage during the construction of the work. If any such property is damaged by the Contractor or his agents, or employees, he will be required to replace the damaged property to the entire satisfaction of the Manager.

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5:07 **PATENTS:**

The Contractor shall hold and save harmless the State of New Jersey from liability of any nature or kind including expenses and costs for, or on account of, any patented process material or method, used in this project, or royalties arising from his use of any patented process material or method in any way involved in this project.

5:08 **(A) INDEMNIFICATION:**

The Contractor acknowledges that at all times under this contract he shall be acting in the capacity of an independent Contractor, and as such shall be solely liable for all claims of any kinds and description including any and all damages awarded in any suit or proceeding including costs thereof, to which the Contractor may be subjected, by reason of injury to the person or property of others, including employees, resulting from the performance of the project, or through negligence of the Contractor, or through any improper or defective machinery, implements or appliances used by the Contractor in the performance of the project or through any act or omission on the part of the Contractor, his sub-contractor, employees, agents, or servants; the Contractor agrees that there shall be no liability upon the State of New Jersey, through or by any and all of its Departments, Divisions or sub-divisions thereof including but not limited to its officers, agents, servants, or employees thereof, arising out of the performance by the Contractor of his obligations as set forth herein, and the Contractor further agrees to indemnify and save harmless the State of New Jersey, through or by any and all of its Department, Division, or Sub-Division thereof including but not limited to its officers, agents, servants, or employees thereof, from any liability and from all costs and expenses of any kind to which the State of New Jersey through or by any and all of its Departments, Divisions, or Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, may be put by reason of injury or claim of injury to persons or property resulting or arising from the performance by the Contractor, his servants, licensees, agents, or invitees of his obligations herein.

Contractor waives any right of recovery for contribution from the State of New Jersey, through or by any and all of its Departments, Divisions, or Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, for any liability sustained by the Contractor under this contract including but not limited to claims for injury to person or property resulting from any portion of the work performed under this contract which may be deemed to be inherently dangerous.

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5:08 **(B) INSURANCE:**

Prior to the commencement of the work under the contract for which these specifications are a part the Contractor shall furnish to the Manager a Certificate of Insurance from a responsible insurance company, authorized to do business in New Jersey covering Workmen's Compensation, Public Liability and Property Damage Claims, and which certificates shall contain a provision that the policies of which said certificates are evidence insure and protect the Contractor, the State of New Jersey through or by any and all of its Departments, Divisions, Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, the Department of Environmental Protection, and the Municipalities in which the site of the work is located in the amounts listed as follows:

BODILY INJURY

<u>EACH PERSON</u>	<u>EACH OCCURRENCE</u>	<u>EACH OCCURRENCE</u>
\$1,00,000.00	\$3,000,000.00	\$1,000,000.00

Against all suits and costs of every kind and description and for all damages to which the Contractor, the State of New Jersey, through or by any kind and all of its Departments, Divisions, or Sub-Divisions thereof, including but not limited to its officers, agents, servants, or employees thereof, may be subjected by reason of injury to the person or property of others, including employees, resulting from the performance of the project or through the negligence of the Contractor or through any improper or defective machinery, implements or appliances used by the Contractor in the project, or through the act of omission on the part of the Contractor, his sub-contractors, agents, employees, or servants; and the Contractor shall be liable for all damages to, or claims by third persons including accidents or damage or injury which follow naturally and proximately from the type, nature or character of the project, and all operations incidental thereto to be performed by the Contractor or sub-contractors or by anyone directly or indirectly employed by either or any of them, and whether caused by acts of omission in the prosecution of the work.

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5:08 **(B) INSURANCE Con't:**

Where the work to be performed by the Contractor is the result of a joint venture between the State and any of its Municipalities or Sub Divisions or agencies or with any person or entity whatsoever where the costs of such projects are being shared by the respective parties to the joint venture, all of the terms, conditions and undertaking by the Contractor herein shall run in favor of such Municipality, Sub Division, agency person or entity. The Department of Environmental Protection, Office of Engineering and Construction at any time, may examine the complete policies listed on the said insurance certificate.

6:00 **GENERAL CONSTRUCTION:**

6:01 **OBSTRUCTION OF DRAINAGE:**

If it is necessary during the progress of the work to interrupt or obstruct the natural drainage or flow from artificial drains, waterways, or mosquito ditches, the Contractor shall make proper provisions for taking care of such drainage so that no damage of any kind or character shall result, and if the Contractor shall neglect so to do he shall be liable therefore and shall indemnify and save harmless the State of New Jersey from all liability on damage which may result from such negligence.

6:02 **MISPLACED MATERIAL:**

Should the Contractor, during the progress of the work lose, throw overboard, sink, or misplace any material, plant, machinery, or appliance, which in the opinion of the Manager may be dangerous to or obstruct navigation, or constitute a menace to property he shall recover and remove the same with the utmost dispatch.

The Contractor shall be given immediate notice with description and location of such obstructions from the Manager, and when required shall mark or buoy such obstructions until the same is removed. Should he refuse, neglect, or delay compliance with the above requirements, such obstructions may be ordered removed by the Manager and the costs of such removal may be deducted from any money due or to become due the Contractor.

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6:03 **WATER:**

The Contractor shall furnish all water required to do the work and include the cost thereof in his bid.

6:04 **RIGHTS-OF-WAY:**

In the event the Contractor shall deem it necessary to obtain rights-of-way, storage areas, or other facilities, other than those provided by the Department of Environmental Protection, Office of Engineering and Construction, they shall be procured, used, and returned at his expense.

6:05 **ACCESS TO ROADWAY AND TRESTLE:**

The Contractor shall include in his bid for the work the cost of providing and removing all access roadways and trestles required by his operations. Ramps and trestles shall be constructed in such a manner as to make them safe to carry all construction loads. The Contractor shall be responsible for the design, construction, and complete removal of such structures.

6:06 **DAMAGE TO STRUCTURES:**

When necessary, and with the approval of the Manager, permission is given for the removal of any part of an existing permanent structure during the progress of the work; the Contractor shall replace the materials so removed or damaged with new materials of the same kind and quality as that removed or damaged, and reestablish to a completed finished condition and appearance. No allowance will be made the Contractor for such work, which shall be assumed as included in the bid for the new work.

6:07 **CONSTRUCTION MATERIALS:**

All construction materials furnished for the work shall be new and unused and shall strictly conform to the grade and quality hereinafter specified.

S6:00 **STD. REVISED 8/1/57, 8/1/61, 12/13/67, 4/17/69, 4/22/70, 8/18/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 7/20/77, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

6:08 **PROJECT SIGN:**

The Contractor shall furnish and erect one or more project signs, complete with necessary supports, at locations to be designated in the field by the Manager. The signs shall be placed at least one (1) day prior to the beginning of the project operations, and shall be maintained by the Contractor throughout the project operations. The number and text of the signs shall be as indicated in section 1:00, and the construction and materials shall be as hereinafter described.

Upon completion of the project, the signs shall be removed by the Contractor and shall become his property. Final payment under the project will not be made until the signs have been removed.

The cost of the signs and appurtenant work shall be included in the bid as described in section 1:00.

The signs shall be 3/4" plywood, Marine-Ext. DFPA, four (4) feet high by eight (8) feet long. The edges shall have two (2) coats of primer, plus one (1) intermediate and one (1) finish coat; the front and back, one (1) coat of primer and one (1) coat of intermediate.

The upper portion of the sign shall bear gold letters over a dark blue field. The lower portion shall bear blue letters over a gold field. All lettering shall be standard upper case block letters. The work and lettering shall be of professional quality. Should the sign flake or fade during the contract time, it shall be repainted as necessary.

The Manager may order changes in the names and category if required to convey existing conditions.

The height and size of lettering may be varied to give proportion to the sign. See Section 1:00 for legend, sizes and wording.

S7:00 **STD. REVISED 8/1/57, 8/1/61, 12/13/67, 4/17/69, 4/22/70, 8/18/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 7/20/77, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

7:01 **CONTRACT TIME:**

The Contractor will be required to begin work under the contract within ten (10) calendar days after the date of written notice from the Manager, to begin work and must prosecute the work with due dispatch and with sufficient machinery and appliances, in good order to insure the completion of the work within the number of calendar days after the date of the commencement of the work as stated in Section 1:00 of these specifications. If at any time after the date fixed for beginning work, it shall be found that project operations in the opinion of the Manager, are not being carried on at such a rate to complete the work within the time herein specified, the Manager shall have the power after due notice in writing to the Contractor, to employ such additional plant or labor as may be necessary to insure proper prosecution of the work and any excess cost thereto over what the work should have cost at the contract rate, shall become due the Contractor. This provision however, shall not affect the right of the Department of Environmental Protection to annul the contracts.

7:02 **SUNDAYS AND LEGAL HOLIDAYS:**

No work shall be done on Sundays and Legal Holidays except in case of emergency, and then only with the consent of the Manager. Work may be prosecuted at night if it can be done to the satisfaction of the Manager.

7:03 **LIQUIDATED DAMAGES:**

For each day after the date of completion stipulated in the contract that the work remains incomplete, the Department of Environmental Protection, may withhold from the Contractor's total compensation for the work the sum of fifty (\$50.00) dollars, and the amount thus withheld shall not be considered as a penalty but as liquidated damages fixed and agreed to in advance by contracting parties because of the difficulty of fixing exact damages, as a proper compensation to the State of New Jersey for the loss, inconvenience, and expense caused it by such delay.

7:04 **STOPPING WORK:**

The Manager may stop any portion of the work if in his judgment the same cannot or is not being properly done for any reason. No allowance of any kind will be made for such stopping except in extension of the time for the completion of the work.

S7:00 **STD. REVISED 8/1/57, 8/1/61, 12/13/67, 4/17/69, 4/22/70, 8/18/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 7/20/77, 6/1/79, 6/11/82, 10/1/96, 3/27/08**

7:05 **CLAIM FOR DELAY:**

At any time during the contract period, the Contractor may submit to the Manager a claim for allowance of additional contract time, expressed in calendar days, to compensate for delay in prosecution of the work due to causes beyond the Contractor's control. Such claims shall be submitted within ten (10) calendar days of the commencement of such delay. Each claim shall describe the delay and its effect on the work; the causes from which the delay arose; the efforts and lack of ability on the Contractor's part to overcome the delay; the actual or projected length of such delay; and the number of calendar days of compensatory time required for such delay. In the case of extended delay, the Contractor shall file a supplementary statement, upon resumption of work, setting forth the total period of delay and requested compensatory number of calendar days. In acceptance the filing of claims, the Office reserves the right to deny any such claims or to approve and fix the compensatory time in each case, such time to be additive to the contract time stated in Section 1:00.

7:06 **ABANDONMENT OF CONTRACT:**

If at any time the Manager should judge that the work herein described, or any part thereof, has been abandoned, that it is unnecessarily delayed, or that the Contractor is violating any faith, then, in that case, the Manager shall notify the Contractor in writing to discontinue all work under this contract. The Department of Environmental Protection, Office of Engineering and Construction may employ other parties to complete the work in accordance with these specifications and use such equipment and materials as may be found upon the site of aforesaid work, and if necessary, procure other materials, equipment and labor for its completion.

The Department shall recover the cost of the work thus done by deducting the amount thereof out of any moneys which may be due the Contractor, or by an action at Law against the Contractor or his surety, or by either or both of these methods.

8:00 **STD. REVISED 8/1/57, 1/1/61, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 10/1/96, 8/20/97, 3/27/08**

8:00 **PAYMENT AND ACCEPTANCE:**

8:01 **PAYMENTS:**

Estimates and partial monthly payment for the work performed during the previous monthly period, in accordance with the terms of the contract, and not previously paid for, will be made on the twentieth (20th) day of each month by the Manager and payment there upon will be made by the Department of Environmental Protection, Office of Engineering and Construction within sixty (60) days thereafter.

Prior to the issuance of a progress payment by the Office to the Contractor, the Contractor shall certify to the state agency that a sub-contractor or supplier has been paid any amount due from any previous progress payment and shall be paid any amount due from the current progress payment or that there exists a valid basis under the terms of the sub-contractor's or supplier's contract to withhold payment from the sub-contractor or supplier and therefore payment is withheld.

If the prime Contractor withholds payment from a sub-contractor or supplier, the prime Contractor shall provide to the sub-contractor or supplier written notice of a withholding of payment. The notice shall detail the reason for withholding payment and state the amount of payment withheld. A copy of the notice shall be provided to the bonding company providing the performance bond for the general Contractor and to the Office.

The reserved percentage of five (5%) percent of the total amount due monthly, and so reserved from such payment for the work performed under the contract until the work has been completed, will be paid on final completion of the entire work, to the satisfaction of the Manager of the Bureau of Coastal Engineering of the division in charge of the work, and upon presentation by the Contractor of a final certificate signed by the Contractor. Such final certificate shall be the Contractor's signed statement certifying to the Office that all lawful bills, charges and claims for payment whether due or which could become due, for all labor, materials and supplies of every kind in the completed project or employed or used in its construction, including payment for all suppliers and sub-contractors, have been fully paid and discharged, and that the prevailing wage was paid for all labor employed in connection with the work, and that there remain no just liens, claims or demands whether presently asserted or which could become asserted against the work.

S8:00 **STD. REVISED 8/1/57, 1/1/61, 4/22/70, 1/4/71, 3/29/73, 2/15/74, 11/1/75, 6/1/79, 10/1/96, 8/20/97, 3/27/08**

8:01 **PAYMENTS Con't:**

The Contractor agrees that as a further condition precedent to the granting of such final certificate, he will furnish said Manager with satisfactory evidence that he has completed the work or furnished materials under this contract for which payment is sought and/or that whoever has sustained damage or injury by reason of any act, omission or carelessness upon its part, or its agents, in the prosecution of the work, has been paid in full or so secured that no liability of any kind or character can attach to the State of New Jersey on account of any claim.

It is specifically understood that in case either greater or lesser quantities under the various work items given herein are required finally to complete the work, the Contractor shall accept final payment for the actual quantity of work performed under each work item at his price or lump sum bid, for such item and shall make no claim for the variation of any anticipated profit, costs, or charges.

8:02 **CONDITIONS OF ACCEPTANCE:**

At any time of final acceptance the whole work must have been finished in a neat and workmanlike manner, and must be in that condition at that time. Defects arising from any cause at any time before acceptance must be made good and the whole work put in a condition as herein specified before acceptance.

After completion of the work, and before final payment is made, the Contractor shall promptly remove his plant, and all appurtenances placed by him under the contract both in the waterways and on the upland and shall leave the site in a clean, uninjured good condition. Any and all piles driven by the Contractor either to support a construction trestle or for any other purpose in connection with the execution of the work shall be removed by the Contractor, prior to final acceptance of the contract work.

All construction materials will receive appropriate inspections and tests as provided elsewhere in these specifications. Final acceptance of materials shall be made only after the incorporation of materials into the finally accepted completed structure.

S8:00

**STD. REVISED 8/1/57, 1/1/61, 4/22/70, 1/4/71, 3/29/73,
2/15/74, 11/1/75, 6/1/79, 10/1/96, 8/20/97, 3/27/08**

8:03

CONTRACT QUANTITIES:

The Contractor obtaining the award will be paid upon the exact amount of work performed under each work item at the unit price or lump sum at which he bid such work item. It has been the endeavor to estimate the approximate quantity under each item to cover the outside requirements. In case either greater or lessor quantity under the various work items than those given herein for bidding are required to finally complete the work, the Contractor shall accept final payment for the actual quantity of work performed under each work item at his unit price or lump sum bid under that work item, and shall make no claim for the variation or any anticipated profits, costs or charges.

4263-15

11:00 (1) TECHNICAL SPECIFICATION:

11:01 ITEM NO. 1 - GENERAL WORK:

The work to be performed shall include, but not be limited to the following:

1. All general and overhead work, materials, supplies, facilities and expenses not specifically provided for under any other item or sub-items and required to complete the project work as a whole.
2. There will be **NO** fuel or asphalt price adjustments for this contract.
3. **It is the contractor's responsibility to locate and protect all underground utilities within project work area and fully comply with New Jersey's Underground Facility Protection Act.** The contractor is required to call 1-800-272-1000 three days prior to the start of construction to find locations of all utilities and will supply the Bureau representative with the confirmation number of the "One-Call" system prior to the start of construction. Utilities indicated on the project plans are for general reference only. The exact type, number and locations of existing utilities has not been shown on the plans, and it is therefore the full responsibility of the contractor to verify the exact location of all existing utilities and provide for their protection, or repair if damaged.

If a conflict between any proposed project work and existing utilities is found by the contractor, he shall notify the engineer immediately and protect said utilities until direction is given regarding the disposition of the said utilities.

4. The construction and removal to pre-construction condition of all roads, runways and trestles; storage and facilities for protection of the work and construction material, and any other temporary structures or appliances necessary for proper execution of the work.
5. The restoration and repair of all private and public property and improvements disturbed, damaged, moved or changed in any way to their condition prior to the contractor's operations.
6. The removal of all debris, equipment and material created by the contractor's operation, or used by him, from the site of the work.

4263-15

11:00 (2) TECHNICAL SPECIFICATION:

11:01 ITEM NO. 1 - GENERAL WORK (CON'T):

7. The furnishing of a project sign, as specified in subsection 1:06 & 6:08.
8. The furnishing and maintaining of warning signs, traffic cones and barrels, barricades and watchmen, as necessary for the safety and protection of the public, particularly during construction.

Also, the work area shall be sufficiently secured during the nighttime hours to prevent against trespassing and possible vandalism.

9. The contractor shall also be responsible for establishing and maintaining lines and levels and assuring that all proposed fills are at their correct elevations. The contractor will be responsible for the maintenance of stakes at all times throughout the construction process. Stakes shall remain in the ground until the contractor is told by a Bureau representative they can be removed. Site grades shall be laid out by a competent engineer or land surveyor employed by the contractor, who shall certify in writing to the Project Engineer the correctness of the layout of the stakes.
10. All labor, materials, equipment, and all other costs and accessories required to satisfy the requirements of soil erosion and sediment control and water quality control in conformance with Section 158 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition as revised herein and section 11:07 herein. Supplying and erection of all soil erosion and sediment control devices and structures as directed by the Monmouth County Soil Conservation District and/or as directed by the project engineer if required.
11. The contractor shall be responsible for sweeping the street if tracked by vehicles and shall clean all houses affected by dust if necessary.

4263-15

11:00 (3) TECHNICAL SPECIFICATION:

11:02 ITEM NO. 2 - SURVEY:

The work under this item shall be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools, and accessories required for conducting an as-built survey the steel bulkhead and surrounding landscape, prepared by a surveyor licensed in the State of New Jersey as specified in Section 12:00 – Surveys, and as described herein. The as-built survey shall include, but not be limited to: bulkhead alignment, cap elevation, wale elevation, site grades and limits of disturbance, and adjacent structures, roads, bridges, bulkheads, storm drains as necessary to properly depict the newly constructed bulkhead and adjacent areas.

NOTE: Section 12:00 – Surveys is a general specification utilized to describe all types of survey work required by the Bureau. However, for this project, only an “As-Built” topographic survey shall be required. No pre- or post-hydrographic or pre-topographic surveys or volume estimates are required under this contract.

11:03 ITEM NO. 3 – CLEARING SITE:

The work under this item is to be bid upon and executed on a lump sum basis and shall include all labor, materials, equipment, rigging, tools and accessories required to site clear in conformance with Section 201 of the “NJDOT Standard Specifications for Road and Bridge Construction”, 2007 Edition.

The following shall be added to Section 201.01 of the “NJDOT Standard Specifications for Road and Bridge Construction”, 2007 Edition:

Clearing Site shall also include the removal and/or resetting of trees, shrubs, fences, walks, and minor yard structures which interfere with construction or need to be reset to meet the new construction as designated for removal by the engineer during construction, and for which payment is not otherwise provided in the contract. The contractor shall transport these removals to an off site location at his own expense. Any items to be reset which are damaged or deteriorated shall be replaced in kind with new materials. All costs shall be included under the clearing site item.

4263-15

11:00 (4) TECHNICAL SPECIFICATION:

11:03 ITEM NO. 3 – CLEARING SITE (CON'T):

Clearing Site shall include all labor, materials, equipment, rigging, tools, and accessories required for all required excavation in conformance with Section 202 of the "NJDOT Standard Specifications for Road and Bridge Construction", 2007 Edition. This bid item shall also include the removal and disposal of the existing concrete caps, concrete ramps, timber bulkhead and cutting of piles to the limits shown on the contract plans.

Excavation shall be completed in accordance with the U.S. Department of Labor, Occupational Safety and Health Administration, 1990 (revised) (O.S.H.A. 226 and 29 CFR Parts 1926.650 through 1926.652).

Section 201.04 is amended as follows:

Payment for Clearing Site will be on a lump sum basis at the price bid, in accordance with this specification and to the limits indicated on the Plans for the item, Clearing Site, in the Proposal, which price shall include any and all equipment, labor and materials and all else necessary therefore and incidental thereto.

11:04 ITEM NO. 4 – STEEL SHEET PILING BULKHEAD:

The work under this item is to be bid upon and executed at a unit price per linear foot of steel sheet pile bulkhead, measured along the center line, and shall include all labor, materials, equipment, rigging, tools, and accessories required to construct the bulkhead, complete-in-place, including all steel sheeting, wales, channels, caps, tie-backs, excavation, backfill, timber pile anchor system, hardware, accessories, and miscellaneous concrete fill as shown on the project plans and specified herein. This bid item shall also include the complete removal and disposal of the existing inshore aluminum bulkhead and any existing timber bulkhead or concrete needed to be removed for installation of tie back system.

The estimated quantity for bidding purposes under this item is six hundred and forty one (641) linear feet of steel sheet pile bulkhead.

4263-15
11:00 (5)

TECHNICAL SPECIFICATION:

11:04

ITEM NO. 4 – STEEL SHEET PILING BULKHEAD (CON'T):

CONSTRUCTION MATERIALS:

Sheeting:

Sheeting shall be A572 Grade 50 PZC-13 steel sheet piling with manufacturer-applied corrosion protected surface as specified, and shall be distributed by LB Foster (or approved equal) and dimensions as shown on the project plans and noted below:

- Bulkhead Sheeting: 35 feet minimum length
- Corrosion protect both sides of the sheet for the full length.

All corner points shall be factory welded and have manufacturer-applied corrosion protection. All holes for hardware, bolts, tie-rods, etc. must be drilled.

Following installation, all nicks, cuts, holes, and welds shall be field-coated with a corrosion protection system in accordance with the manufactures specifications.

Corrosion protection:

Apply coal tar epoxy paint immediately after the installation of all connections, except for tie rods that do not have threaded ends. Paint unthreaded tie rods at least 72 hours before installation. Clean galvanized surfaces receiving coal tar epoxy paint according to SSPC-SP 6. Ensure that galvanizing is not damaged during the cleaning process.

Blast clean surfaces of sheeting, plates, and wales according to SSPC-SP 6. Coat the surfaces with coal tar epoxy paint as follows:

1. Immediately after blast cleaning, apply 2 coats of coal tar epoxy paint at a maximum coverage rate of 125 square feet per gallon. Ensure that the total dry film thickness of the 2 coats is less than 16 mils at any point. Apply the coating by brush, roller, or spray. The Contractor may thin the first coat with a maximum of 10 percent of solvent according to the coating manufacturer; however, the Contractor may not thin the second coat. Allow the first coat to thoroughly dry before applying the second coat. Allow the second coat to dry and harden before handling the steel.

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11:00 (6) TECHNICAL SPECIFICATION:

11:04 ITEM NO. 4 – STEEL SHEET PILING BULKHEAD (CON'T):

CONSTRUCTION MATERIALS (CON'T):

Corrosion protection (con't):

2. Clean damaged or rejected areas of coating of foreign or loose material and promptly recoat the area. Remove the loose or damaged coating in the surrounding area, and brush the adjacent surface of the remaining sound film with methyl isobutyl ketone to provide a good bonding surface for the new coats.
3. Allow the top coat to cure for at least 72 hours before driving.

Use coal tar epoxy-polyamide paint that conforms to SSPC-Paint No. 16 and is black in color. Submit certifications of compliance.

Cap:

The cap shall be constructed from A572 Grade 50 steel, C15x33.9 (min. 40-foot lengths) as specified in the contract plans. The cap shall have manufacturer-applied coal tar epoxy paint corrosion protection system coating on all sides and shall be bolted to the sheet piles as shown on the contract plans.

All joints and turning points shall be butt-welded and shall be uniform with no abrupt change in top elevation. Following installation, all nicks, cuts, holes, and welds shall be field-coated with a corrosion protection system in accordance with the manufacturer's specifications. All costs for the caps shall be included in the steel sheet piling bulkhead pay item.

Hardware:

All steel hardware, including nuts, bolts, washers, spacers, tie-rods, splice plates, anchor plates and accessories shall be zinc coated (hot-dip galvanized) or stainless steel conforming to ASTM A325 and shall meet the sizes and dimensions as shown on the project plans.

- All bolts & bolting material including washers and heavy hex nuts shall conform to ASTM A325 and shall be zinc coated (hot-dip galvanized).
- Zinc Coating (hot-dip galvanizing) must conform to Section 917.12 of the 2007 NJDOT Standard Specifications for Road and Bridge Construction.

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11:00 (7) TECHNICAL SPECIFICATION:

11:04 ITEM NO. 4 – STEEL SHEET PILING BULKHEAD (CON'T):

CONSTRUCTION MATERIALS (CON'T):

Welds:

All welds shall be 2% Nickel Rod spec AWS A5.5. and shall be smooth and uniform, and be ground smooth, if required. All welds, once completed shall be field-coated with corrosion protection system in accordance with the manufacturer's specifications.

CONSTRUCTION METHODS:

Driving Sheets:

Installation shall be accomplished as recommended by the manufacturer. Sheeting shall be driven to the final top grade as indicated on the contract plans without cutoffs.

CONTRACTOR MUST CONSTRUCT FALSE WORK TO ASSURE A STRAIGHT, IN-LINE BULKHEAD.

Assembly of panels of steel sheet piling before driving is suggested. This facilitates driving, maintains piling verticality, and makes it possible to obtain the nominal width of piling sections.

Care should be taken to provide for the proper sequence of driving. For normal interlocking, alternate Z-piles must be reversed end for end.

- Have an adequate driving template. Using an adequate driving template will facilitate setting and driving and result in a superior end product.
- Mark the driving template for each pair of Z-piles. This will indicate whether the line of piling being set is gaining or losing wall length. This procedure is particularly important for tied bulkheads where tie rod location is important.
- Set piles one at a time or in loose (not fixed) pairs. This allows for adjustments during threading to increase or decrease the length of a wall.
- Remove several inches of finger before threading. If allowed, this permits overlapping of steel piles before interlocks are engaged. This procedure is particularly helpful when the piles are long or when they are being threaded in windy conditions.

11:04 ITEM NO. 4 – STEEL SHEET PILING BULKHEAD (CON'T):

CONSTRUCTION METHODS (CON'T):

- Once threaded and plumbed, a pile should be allowed to drop under its own weight. Mechanical threading devices are available and their use precludes the need for cutting back the finger.
- Z-piling should be driven with the ball-end leading. This eases driving of the pile because the socket end does not become clogged with soil. When the socket end must lead, place a bolt or similar object in the open space at the bottom end to minimize clogging.
- Pile must be driven in pairs. Under no circumstances shall sheeting be driven as singles unless written authorization is given to the Contractor by the Principal Engineer prior to installation of single sheets. Once sheet piles are threaded and set, it's more economical to drive two at a time.
- Set a panel of piling and drive piles in stages. This allows the piles to be guided by those previously driven. It also lessens the chance of driving a pile out of interlock. The distance a pile or pair of piles should be driven at any one time will depend upon the driving conditions.
- The welding of lifting tabs shall not be permitted as such actions degrade the coating system offshore of the weld.

If obstructions are encountered, the sheeting shall be driven in panels. When an obstacle is hit, stop driving and move the hammer to the next pile that can be driven. With piles on both sides of the obstacle acting as guides, attempt to drive through the obstacle.

Lifting Eyes:

If lifting eyes have been cut into the bulkhead sheets, the contractor shall cover all lifting eyes (holes) by using two (2) fender washers and one and three quarter (1-¾) inch long by 5/8" diameter galvanized dome head bolts and lock washers. These bolts, fender washers, and lock washers, once installed, shall be field-coated with corrosion protection system in accordance with the manufactures specifications.

Existing Bulkhead Removal:

The existing aluminum bulkhead including all sheeting and tie rods shall be removed as specified on the plans. The existing timber piles shall remain and tops cut to elevations indicated on the contract plans. Sheeting shall be disposed of in accordance with all Federal, State and Local regulations. No burial shall be permitted.

4263-15

11:00 (9) TECHNICAL SPECIFICATION:

11:05 ITEM NO. 5- I-11 SOIL AGGREGATE:

The work to be performed shall include all labor, materials, equipment, rigging, tools, and accessories required to install three thousand, one hundred (3,100) cubic yards (C.Y.) of I-11 Soil Aggregate that conform to and be placed in accordance with Section 203 of the New Jersey Department of Transportation Standard Specifications.

Material to be used to obtain the lines and grades shall be Upland Embankment, Designation I-11, or better, as specified in Section 203 of the NJDOT specifications.

The work shall include all labor, materials, equipment, rigging, tools, and accessories required to construct with material obtained from the project excavation or additional borrow materials brought to the site and furnished by the contractor to attain the lines and grades necessary prior to placement of the proposed items of construction shown on the plans and as directed by the engineer.

Embankment shall include the construction of embankment with suitable material obtained from the project excavation and materials brought to the site and supplied by the contractor and approved by the engineer to attain the lines and grades necessary prior to placement of the steel bulkhead and tie back system. Material used from the project excavation and brought to the site shall be Upland Embankment, Soil Aggregate Designation I-11, or better, as specified in Section 203 of the NJDOT Standard Specifications for Road and Bridge Construction, 2007 edition.

This item shall also include hauling, soil density testing, placing and compacting the material, forming and shaping the embankment, all materials, equipment, labor and all else necessary therefore and incidental thereto.

11:06 ITEM NO. 6 - TOPSOIL, 4" THICK, SEEDING, AND MULCH:

The work to be performed shall include all labor, materials, equipment, rigging, tools, and accessories required to install three thousand, nine hundred square (3,900) yards (S.Y.) of Topsoil, 4" Thick, Seeding, and Straw Mulch that conform to and be placed in accordance with Section 804, 806 and 809 of the Standard Specifications with the exception that the topsoil shall be sieved to remove all stones and objectional material larger than ½" in diameter.

4263-15

11:00 (10) TECHNICAL SPECIFICATION:

11:06 ITEM NO. 6 - TOPSOIL, 4" THICK , SEEDING, AND MULCH (CON'T):

It shall be the responsibility of the contractor to furnish a good stand of grass and to maintain it for a period of sixty (60) days after final acceptance of this project. The contractor will not be compensated for this bid item until final approval is given.

All topsoil delivered to the site or obtained from the site by the contractor for use in this project shall be supplied with documentation from a New Jersey State certified laboratory that the soil has been tested for herbicides and pesticides and that the detectable levels of herbicides and pesticides are below the New Jersey Department of Environmental Protection Soil Cleanup Criteria for Residential Direct Contact. The levels shall be below that which was published on May 1999 or the most current revision available at the time of execution of the project. The topsoil shall be sieved (single screened) to remove all stones and objectional materials larger than 1/2" in diameter.

The topsoil shall meet the following criteria's:

<u>Material</u>	<u>Percentage</u>	<u>Particle Size</u>
Sand	80% to 90%	2.0 to 0.05 m.m.
Silt	15% to 7.5%	0.05 to 0.005 m.m.
Clay	5% to 2.5%	0.005 m.m. and smaller

Organic content shall be a minimum of 4.5 percent by weight. Peat shall be installed if required to obtain the specified organic content.

pH level shall range from 6.0 to 7.5. Pulverized domestic lime shall be installed as required to obtain the specified pH level.

Starter fertilizer, (nitrogen soluble form) shall be installed at the following rates:

- 1-1-1 (nitrogen, phosphate and potash) or
- 10-10-10 applied at a rate of 1 lb. (each) per 1,000 s.f

Prior to the ordering/delivery and placement of any topsoil material, the engineer shall be provided a sample of the material along with a sieve and organic content analysis per A.A.S.H.T.O., T27 Testing Methods and Sections 901.19 and 901.20 of the Standard Specifications, performed by a certified laboratory, at the Contractor's expense. If during the project the engineer determines that additional testing is required, the contractor shall perform the testing, as directed, at the contractor's expense.

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11:00 (11) TECHNICAL SPECIFICATION:

11:06 ITEM NO. 6 - TOPSOIL, 4" THICK , SEEDING, AND MULCH (CON'T):

Seed shall be a fescue blend of three or four improved varieties not one of which shall exceed 40% (by weight) of the seeded blend. Contractor to submit seed mixtures of sod for approval.

Payment for Topsoil, 4" Thick, Seeding, and Mulch will be made for the quantity actually placed, measured in square yards, at the price per square yard bid for that item in the Proposal, which price shall include all work specified herein, furnishing, placing, cleaning, sieving (single screened), grading and raking any topsoil; watering until the entire project is approved and accepted by the engineer, County and Borough; furnishing all materials, labor and equipment, and all else necessary therefore and all other work in connection therewith and incidental thereto.

The contractor shall restore any area disturbed outside the limits at his expense.

11:07 SOIL EROSION AND SEDIMENT CONTROL:

All work under this item be included under the item "General Work", and shall include all materials, required for the execution and completion of the project work as a whole, and not specifically provided for under any other work item.

1. Standards for Soil Erosion and Sediment Control in New Jersey, N.J.A.C. 2:90-1.3, including the following Sections:
 - (a) 3.11 Temporary Vegetative Cover for Soil Stabilization.
 - (b) 3.31 Stabilization with Mulch Only.
 - (c) 4.10.1 Dust Control.
 - (d) 4.13.1 Sediment Barrier.
2. Materials must be as specified under "Standards for Soil Erosion and Sediment Control in New Jersey", N.J.A.C. 2:90-1.3.(2)
3. Temporary vegetative cover shall consist of annual ryegrass applied uniformly at a rate of 0.9 lbs. per 1,000 sq. ft. (40 lbs/ac). Limestone (pulverized dolomitic equivalent to 50 percent calcium plus magnesium oxides) shall be applied at the rate of 135 lbs/1,000 sq. ft. (3 tons/ac) and fertilizer (10-20-10 or equivalent) at the rate of 14 lbs/1,000 sq. ft. (600 lbs/ac).

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11:00 (12) TECHNICAL SPECIFICATION:

11:07 SOIL EROSION AND SEDIMENT CONTROL (CON'T):

4. When required for sites difficult to vegetate (sands, slopes, hydro-seeding and off-season operations), mulching shall be accomplished as follows:

- A. Mulch Materials should be unrotted salt hay, hay, or small grain straw at a rate of 1-1/2 to 2 tons per acre, or 70 to 90 pounds per 1,000 sq. ft. Mulch blowers should not grind or chop material.

- B. Spread Uniformly by hand or mechanically so that approximately 75% to 95% of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.

- C. Mulch Anchoring shall be accomplished using either peg and twine, mulch netting, mulch-anchoring tool or liquid mulch-binder, per the accompanying "Stabilization with Mulch Only" specifications.

* Seeding dates: 2/15 - 5/1 and 8/15 - 10/15

5. Mulch materials should be unrotted salt hay, hay or small grain straw at the rate of 1-1/2 to 2 tons per acre, or 70 to 90 lbs. per 1,000 sq. ft. Mulch blowers should not grind or chop the material.
6. Spread uniformly by hand or mechanically so that approximately 70 percent to 95 percent of the soil surface will be covered. For uniform distribution of hand spread mulch, divide area into approximately 1,000 sq. ft. sections and distribute 70 to 90 lbs. within each section.
7. Mulch anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes and costs:
 1. Peg and Twine - Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 ft. in all drive directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a crisscross and a square pattern. Secure twine around each peg with two or more round turns.

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11:00 (13) TECHNICAL SPECIFICATION:

11:07 SOIL EROSION AND SEDIMENT CONTROL (CON'T):

2. Mulch Netting - Staple paper, jute, cotton or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

3. Mulch Anchoring Tool - A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control, but its use is limited to those slopes upon which the tractor can operate safely. Tool penetration should be about 3 to 4 inches. On sloping land, the operation should be done on the contour.

4. Liquid Mulch-binders - May be used to anchor salt hay, hay or straw mulches.

a. Applications should be heavier at edges where wind catches the mulch, in valleys and at crests of banks. Remainder of area should be uniform in appearance.

b. Use one of the following:

i. Emulsified asphalt - (SS-1, CSS-1, CMS-2, MS-2, RS-2, CRS-1, and CRS-2). Apply 0.04 gal/sq. yd. or 194 gal/ac on flat slopes and on slopes less than 8 ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.

ii. Cutback asphalt rapid curing (RC-70, RC-250, and RC-800) or medium curing (MC-250 or MC-800). Apply 0.04 gal/sq. yd. or 194 gal/ac on flat areas and on slopes less than 8 ft. high. On slopes 8 ft. or more high use 0.075 gal/sq. yd. or 363 gal/ac.

iii. Synthetic or Organic Binders - binders such as Curasol, DCA-70, Petro-set and Terra-tack may be used at rates recommended by the manufacturer to anchor mulch materials.

NOTE: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products. Or equals may be deemed acceptable based upon review.

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11:00 (14) TECHNICAL SPECIFICATION:

11:07 SOIL EROSION AND SEDIMENT CONTROL (CON'T):

8. Wood-fiber or paper-fiber mulch at the rate of 1,500 lbs. per acre may be applied by hydroseeder. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
9. Irrigation - (where feasible) - If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 in. twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.
10. Install and maintain temporary measures for soil erosion and sediment control in accordance with the "Standards for Soil Erosion and Sediment Control in New Jersey" and as shown on the plans.
11. Contractor shall be responsible for immediate repairs of damages incurred by failure to maintain temporary measures for soil erosion and sediment control.
12. Install temporary seeding on all areas exposed for three (3) months or more.
13. If applicable, contractor must notify governing Soil Erosion Control Agency in writing at least 72 hours prior to beginning construction. Failure to do so may result in a fine by the Agency, which fine shall be the responsibility of the contractor.

DUST CONTROL

Dust control shall conform with and be performed in accordance with the construction plans, and/or as directed by the engineer, Section 4.10.1 of the Standard for Soil Erosion Control in New Jersey, July 1999 and Section 107.28 of the New Jersey Department of Transportation Standard Specifications.

ROADWAY CLEANING:

If approved by the engineer and the contractor utilizes the roadways as a construction entrance, existing roadways shall be cleaned as needed and directed by the Monmouth County Soil Conservation District and the engineer.

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11:00 (15) TECHNICAL SPECIFICATION:

11:07 SOIL EROSION AND SEDIMENT CONTROL (CON'T):

The contractor shall install all soil erosion and sediment control measures in accordance with Chapters 3 and 4 of the Standards for Soil Erosion and Sediment Control in New Jersey, July 1999. All measures shall be maintained and left in place until construction is complete and area is stabilized.

When seasons and/or other conditions are not suitable for growing an erosion-resistant cover, areas shall be temporarily stabilized in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey, July 1999.

No specific payment will be made for Soil Erosion Control and should be included in the bid for Item No. 1 - General Work. The cost thereof will be included in Item No. 1 - General Work, which price shall include the cost of furnishing and installing all required hay bales and lath, silt fence and inlet protection structure materials, dust control, complete, any and all temporary stabilization as may be required, roadway cleaning, all labor, equipment and all else necessary therefore and incidental thereto.

11:08 SITE GRADING:

Site Grading shall consist of all grading required within the construction area including rough grading and final grading. Fine grading of the entire construction area shall consist of mechanically or manually raking, scraping, dragging, smoothing and rolling all surfaces for the preparation of the respective improvements. Fine grading shall remove all irregularities and undulations and shall follow the grades shown on the plan.

Fine grading shall be performed on all topsoil areas; landscape mulch beds; subgrade and/or subbase for all bituminous pavement areas and concrete pads, floors, etc.; playing and game surfaces; playground surface areas.

All trash and stones exceeding one half inch (1/2") shall be removed from all topsoil prior to the installation of seeding and fertilizing. All subgrade areas, all trash, and stones larger than 3" shall be removed prior to the placement of the subbase or final material where no subbase is specified.

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11:00 (16) TECHNICAL SPECIFICATION:

11:08 SITE GRADING (CON'T):

No specific payment will be made for Site Grading and should be included in the bid for Item No. 5 - I-11 Soil Aggregate and Item No. 6 - Topsoil, 4" Thick, Seeding, and Mulch which includes all fine grading of the entire construction area, all embankment, all materials, labor, equipment and appurtenances required. Payment will be made for one occasion, no matter how many occasions are required to complete the site grading to the satisfaction of the engineer.

11:09 ONSITE MATERIAL:

The material on site is believed to be comparable to the soil specified. No guarantee is given of this, however, and the State of New Jersey, County of Monmouth, or The Borough of Avon-by-the-Sea will not be responsible if the actual conditions are found to be different. All existing debris, rubble, roots, stumps, logs, rocks, rip-rap, cable or hulks which come within the lines of the work or which interfere with the prosecution of the work shall be removed and disposed of in a manner satisfactory to the engineer, or his appointed representative, by the contractor, and the cost thereof shall be included in his bid for the work.

Bidders are encouraged to visit the site of the work, and to ascertain for themselves the kind of material to be met with and all other local conditions, and it will be assumed that their bids are based upon personal information. No extra allowance will be made for excavation of material different than herein specified, nor will extra allowances be paid should mechanical breakdowns occur due to the above-mentioned obstacles.

11:10 CONTRACT TIME:

The allowed contract time is ninety (**90**) consecutive calendar days. In the event of severe weather, which would not allow for work during these days, the contractor will be credited by the inspector against total elapsed time.

DUE TO TIMING RESTRICTIONS, NO IN-WATER WORK SHALL BE PERFORMED BETWEEN MARCH 1ST AND JUNE 30TH OF ANY CALENDAR YEAR.

See Sub-section 7:01 for further details.

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11:00 (17) TECHNICAL SPECIFICATION:

11:11 PAYMENT:

ITEM NO. 1 - GENERAL WORK:

This item under this item is to be paid for on a lump sum basis. Estimate of percentage complete for monthly partial payments will be made.

Forty percent (40%) of the lump sum bid shall be paid when mobilization of plant, equipment, facilities and Inspector's trailer is complete and is ready to begin operations.

The remaining sixty percent (60%) will be paid only upon completion of all work under the contract, specifically including the complete and satisfactory clean-up of all areas used for the contractor's operations, such as areas used for access or other operations.

ITEM NO. 2 – SURVEY:

The work under this item is to be paid for on a lump sum basis and shall include furnishing all labor, materials, plant and equipment, and performing all operations required for conducting an as-built topographic survey.

ITEM NO. 3 – CLEARING SITE:

The work under this item is to be paid for on a lump sum basis and shall include all work described in these specifications for clearing site including but not limited to the complete removal of any obstacles, debris, rubble and all dead and live vegetation including all trees, shrubs and other plantings in the construction area within 50 feet of the top of bank or proposed bulkhead indicated on the project plans. Payment for Clearing

Site shall be in accordance with Section 201.04 of the Standard Specifications with the following amendment:

Payment for Clearing Site will be on a lump sum basis at the price bid. Payment shall be in accordance with the specifications listed and to the various construction limits indicated on the plans, which price shall include any and all equipment, labor and materials and all else necessary therefore and incidental thereto.

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11:00 (18) TECHNICAL SPECIFICATION:

11:11 PAYMENT (CON'T):

ITEM NO. 4 – STEEL SHEET PILING BULKHEAD:

The work under this item shall be paid for at a unit price per linear feet of steel sheet piling bulkhead, measured along the center line of the bulkhead, and shall include all labor, materials, equipment, rigging, tools, and accessories required to construct the bulkhead, complete-in-place, including all steel sheeting, wales, channels, caps, tie-backs, tie back extensions, excavation, backfill, anchor system, hardware and accessories as shown on the project plans and specified herein. This bid item shall also include the removal and disposal of the existing aluminum bulkhead and all necessary exiting bulkheads and cutting of piles to the limits shown on the contract plans and all else necessary therefore and incidental.

ITEM NO. 5 – I-11 SOIL AGGREGATE:

The work under this item shall be paid for at a unit price per cubic yard of I-11 Soil aggregate.

ITEM NO. 6 – TOPSOIL, 4" THICK, SEEDING AND FERTILIZING:

The work under this item shall be paid for at a unit price per square yard for topsoil, 4" thick, seeding, fertilizing, borrow topsoil, and shall include stabilizing all areas disturbed during the course of construction including haul roads, tops of slopes and staging areas with Topsoil, 4" Thick, Seeding, and Fertilizing.

11:12 ACCESS:

The contractor shall obtain all access and/or rights of way as necessary for his operations. All access areas shall be barricaded when not in use and shall be maintained in a safe, clean condition. No access point will be used unless approved in writing by the project engineer.

11:13 DISADVANTAGED BUSINESS ENTITIES GOALS:

Due to the Federal nature of a portion of funding for this project, the Bureau is encouraged to provide a situation conducive for participation by Disadvantaged Business Entities. Therefore, to meet Disadvantaged Business Enterprise goals, the contractor is required to use DBE haulers qualified by the Housing and Urban Development (HUD) to move deleterious

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11:00 (19) TECHNICAL SPECIFICATION:

11:13 DISADVANTAGED BUSINESS ENTITIES GOALS (CON'T):

materials from the site to the proper disposal location as well as utilize DBE firms for the hauling of a 30% portion of material under Item No. 5 – I-11 Soil Aggregate.

The winning contractor must supply proof of sub-contract, including specifics regarding scope of work and assignment of costs to the Bureau for concurrence prior to the start of any hauling operations.

11:14 WORK SCHEDULE:

Within ten (10) calendar days after the date of the contract award, the Contractor shall furnish to the Manager or his representative, for approval, a construction schedule which shall include a statement as to the planned mode of operations; a listing of construction material orders including a delivery schedule, and a full description of the equipment he plans to use. The approximate dates for each phase of operations shall be furnished at the pre-construction meeting.

The Project Manager reserves the right to reject, modify, require different construction methods or operations, additional rigging, equipment and/or personnel as he/she deems necessary in order to accomplish the contract requirements.

Any changes to the approved construction plan shall be reviewed and approved by the Project Manager prior to implementation. Said schedule shall be updated at least twice a month and shall be updated prior to, and provided at, all project meetings.

11:15 NEW JERSEY PREVAILING WAGE ACT:

A copy of Bulletin MW 210 entitled "Prevailing Rate of Wages on Public Contracts", issued by the State of New Jersey, Department of Labor and Industry, will be on file for inspection in the Trenton and Toms River offices of the Bureau of Coastal Engineering, together with "Prevailing Wage Determination", issued by the Commissioner of the Department of Labor and Industry and will be attached to the contract for the project.

11:16 DIVISION OF MOTOR VEHICLES REGULATIONS:

All vehicles used on this project must meet current State regulations for travel on highways. The Contractor must conform to N.J.A.C. 7:27-14 "Diesel Idling Regulations".

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11:00 (20) TECHNICAL SPECIFICATION:

11:17 NEW JERSEY SALES AND USE TAX ACT:

See sub-section 5:04 herein for Sales Tax Exemption Statement.

11:18 AMERICANS WITH DISABILITIES ACT (A.D.A.):

Bidders are required to comply with the provisions of the Americans with Disabilities Act, (A.D.A.), as amended. This shall also pertain to any and all sub-contractors.

11:19 AFFIRMATIVE ACTION:

See Subsection 5:04 (B) herein for requirements. Bidders are required to comply with the requirements of P.L. 1975, c.127 et seq.

The parties to this contract agree to incorporate into this contract the mandatory language of Sub-section 3.4(a) of the Regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as amended and supplemented from time to time and the contractor and/or sub-contractor agree to comply fully with the terms, provisions and obligations of said Sub-section 3.4 (a), provided that said sub-section shall be applied subject to the terms of sub-section 3.4(d) of said regulations.

11:20 BUSINESS REGISTRATION:

All Contractors bidding the work under this contract shall comply with the provisions of P.L. 2001, c. 134, Business Registration. No state agency can enter into a contract with contractors unless first provided with proof of a valid business registration with the Division of Revenue. A hotline, the Client Registration Unit at Revenue, has been set up at (609)-292-1730 for validation of current status or new contractor registration.

11:21 PROJECT MEETINGS:

Project meetings shall be held on a weekly basis or at an interval determined by the engineer. The Contractor will be required to have all Superintendents, foremen and other persons involved in the oversight of the project in attendance, including same for all subcontractors.

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11:00 (21) TECHNICAL SPECIFICATION:

11:22 PERMIT CONDITIONS:

There are no necessary state permits, however, the contractor shall adhere to all conditions and regulations set forth in the USACE Nationwide Permit No. 3 – Maintenance as contained herein. Any failure to adhere to these conditions may result in fines levied to the Contractor from either the State or Federal Regulatory Enforcement Agencies.

NOTE: DUE TO TIMING RESTRICTIONS, NO IN-WATER WORK SHALL BE PERFORMED BETWEEN MARCH 1ST AND JUNE 30TH OF ANY CALENDAR YEAR.

11:23 SUBCONTRACTORS:

In addition to the requirements of Section 5:01 of the Standard Specifications, all subcontractors must be pre-qualified with the Bureau of Coastal Engineering for the type of work and estimated value to be performed.

In addition to the superintendence required by Section 5:01 of the Standard Specifications, the Contractor shall be required to furnish one superintendent at the site and on the Contractor's payroll to be responsible for coordinating, directing, inspecting and expediting the subcontract work at all times.

11:24 DIVISION OF PURCHASE AND PROPERTY (DPP) FORMS:

All Contractors bidding the work under this contract shall comply with the provisions of the State of New Jersey DPP, Information Sheet and Certification for Delegated Purchasing Authority Transactions. No state agency can enter into a contract with contractors unless first provided with the properly executed DPP forms, included herein. Included are the following forms:

1. Ownership Disclosure Form
2. Disclosure of Investigations & Actions Involving Bidder Form
3. Disclosure of Investment Activities in Iran Form
4. Source Disclosure Certification Form
5. MacBride Principles Certification Form
6. Vendor Certification & Political Contribution Disclosure Form
7. Two Year Chapter 51 / Executive Order 117 Vendor Certification & Disclosure of Political Contributions Form
8. Affirmative Action Supplement Form (AA302)

It is the Contractor's responsibility to ensure that they are in full compliance with the State of New Jersey DPP, Information Sheet and Certification for Delegated Purchasing Authority Transactions.

12:00 SURVEYS

12:01 PART 1 - GENERAL:

12:01.1 SCOPE OF WORK:

The work covered under this section consists of furnishing all labor, materials, plant and equipment, and performing all operations required for conducting pre and post hydrographic surveys, pre-construction and as-built topographic surveys, mark-out surveys, volume estimates, and survey data submittals.

12:01.2 MEASUREMENT AND PAYMENT

Payment for Surveys shall be in accordance with Section 11:00 "PAYMENT" subsection.

12:01.3 PRE-DREDGE HYDROGRAPHIC SURVEY(S):

Pre-dredge hydrographic surveys of the entire channel(s) proposed for dredging shall be performed as specified in Section 11:00 and as outlined on the project plans. The pre-dredge hydrographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting hydrographic surveys, and shall be submitted to the Bureau of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.4 PRE-DREDGE VOLUME ESTIMATE(S):

Volume estimate(s) of material to be removed from each channel section, based upon the pre-dredge hydrographic survey(s) and the proposed dredge channel depths, widths, and sideslopes as indicated on the project plans, shall accompany the pre-dredge survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of material to be removed must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Bureau of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.5 POST-DREDGE HYDROGRAPHIC SURVEY(S):

Post-dredge hydrographic survey(s) of the entire channel(s) proposed for dredging shall be performed as specified in Section 11:00 and as outlined on the project plans. The post-dredge hydrographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting hydrographic surveys, and shall be submitted to the Bureau of Coastal Engineering within fifteen (15) calendar days upon the completion of dredging of each channel section.

12:00 SURVEYS

12:01 PART 1 - GENERAL Con't:

12:01.6 POST-DREDGE VOLUME ESTIMATE(S):

Volume estimate(s) of actual material removed from each section, based upon the volume difference between the pre-dredge and post-dredge hydrographic surveys, shall accompany the post-dredge survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of actual material removed must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Bureau of Coastal Engineering within fifteen (15) calendar days upon the completion of dredging of each channel section.

12:01.7 PRE-CONSTRUCTION SURVEY(S):

Pre-construction hydro/topographic surveys shall be performed of the entire area specified in Section 11:00 and as outlined on the project plans. The pre-construction hydro/topographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey and shall be submitted to the Bureau of Coastal Engineering within thirty (30) calendar days from the Notice to Proceed.

12:01.8 AS-BUILT SURVEY(S):

As-built hydro/topographic surveys shall be performed of the entire area as specified in Section 11:00 and as outlined on the project plans. The as-built hydro/topographic survey(s) and accompanying map(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey and shall be submitted to the Bureau of Coastal Engineering within fifteen (15) calendar days upon the completion of work for that related bid item.

12:01.9 VOLUME ESTIMATE(S):

Volume estimate(s) of material, based upon the volume difference between the pre-construction and as-built surveys, shall accompany the as-built survey(s) as specified in Section 11:00 and as outlined on the project plans. The volume estimate(s) of must be prepared by a Professional Engineer licensed in the State of New Jersey and submitted to the Bureau of Coastal Engineering within fifteen (15) calendar days upon the completion of work for that related bid item.

12:01.10 MARK-OUT SURVEY(S):

Stake-out surveys shall be performed of the entire area as specified in Section 11:00 and as outlined on the project plans. The stake-out survey(s) must be performed by a Professional Land Surveyor licensed in the State of New Jersey.

12:00

SURVEYS

12:02

PART 2 - SURVEY REQUIREMENTS:

All surveys must be performed under the direction and supervision of a Professional Land Surveyor licensed in the State of New Jersey experienced in conducting surveys of a similar nature, and by the accompaniment of a representative from the Bureau of Coastal Engineering.

All calibrations, settings and tide gauge readings shall be made with the accompaniment of a representative from the Bureau of Coastal Engineering. Upon completion of the survey, the recording chart shall be signed and dated by the Bureau's representative as well as the Contractor's representative.

1. All survey data shall be referenced to National Geodetic Survey monumentation. First order vertical and horizontal. PID # of all monuments used shall be provided (ex. AB1234). Tidal benchmarks used/referenced shall be listed by PID # also.
2. The contractor shall establish ground control.
3. The contractor shall be responsible for identifying the location of the channel in the field, including locating and staking of corners, turning points, etc.
4. All existing structures, roads, utilities, topography, vegetation, wetlands, piers, bulkheads, pilings, stone, etc., shall be clearly surveyed within the project limits.
5. All existing navigational markers shall be accurately surveyed and recorded.
6. Hydrographic cross-sectional surveys shall be taken at the starting and ending stations and regular intervals not to exceed 50-feet. The cross-sections shall extend a minimum of 50 feet beyond the limits of the channel section(s).
7. Topographic cross sectional surveys shall be taken at the starting and ending stations and regular intervals not to exceed 10-feet. The cross-sections shall extend a minimum of 100 feet beyond the limits of the project area to be surveyed.
8. All information supplied (data, work drawings, cross-sections) shall include all raw survey data/notes.

12:00 SURVEYS

12:03 PART 3 - SURVEY MAP REQUIREMENTS:

All data obtained from survey(s) shall be used to produce an accurate map which shall be submitted along with the original recording chart and all original ground control data notes.

12:03.1 SURVEY MAPS:

The maps generated from the obtained surveys shall include the following:

1. The original map shall be drawn on mylar using a high quality black drafting ink.
2. All verbage and numbering shall be either computer generated or leroyed.
3. Drawing scale shall be one (1) inch equals one hundred (100) feet for the channel alignment and so indicated on the drawing.
4. The drawing shall be twenty-four (24) inches by thirty-six (36) inches only. If additional sheets are required, match lines must be shown and sheets shall be consecutively numbered.
5. Each sheet shall contain a title block stating the following:
 - A. "(Type of Survey)", Name of Project and/or Channel Section(s), Municipality, County, State of New Jersey, Department of Environmental Protection, Office of Engineering and Construction, Bureau of Coastal Engineering.
 - B. Survey Date.
 - C. Scale one (1) inch equals one hundred (100) feet.
 - D. Project No.
 - E. Sheet number and total sheets.
6. The New Jersey State Plane coordinate system shall be used for the map grid system and clearly shown on the map and location plan.
7. Local tidal benchmark used for this project shall be listed by PID # and must be tied to NAVD88 (North American Vertical Datum of 1988) and shown on the generated maps.
8. All land elevations shall be in feet and tenths of feet and refer to NAVD88. All water depths shall be in local MEAN LOW WATER (MLW), unless otherwise specified, and shall be adjusted for tide. Adjustment between MLW and NAVD88 shall be noted.
9. All channel alignments and their name as well as the location of the tide gauge.
10. The name of all water bodies, municipality(s), roads, lots and blocks.

12:00 SURVEYS

12:03 PART 3 - SURVEY MAP REQUIREMENTS:

12:03.1 SURVEY MAPS Con't:

11. Mean high, mean low and spring high water lines.
12. Hydrographic surveys shall display contour lines at 1-foot increments unless otherwise specified in Section 11:00.
13. Topographic surveys shall display contour lines at 1-foot increments unless otherwise specified in Section 11:00.

12:03.2 COMPUTER DATA FILES:

In addition to the hard copy maps, computer data files of the submitted maps shall be provided on compact disks with the following requirements.

1. PREFERRED FORMAT: .DCD drawing format (DesignCAD 3D MAX).
Each page of the drawing shall be in a separate file:
Example PROJECT1.DCD PERMIT1.DCD
 PROJECT2.DCD PERMIT2.DCD
 etc. etc.
2. .DXF files or AutoCad 2000 .DWG files may be used as an alternative to DesignCAD 3D MAX.
3. IF ANY FORMAT OTHER THAN DesignCAD 3D MAX IS USED, CONSULTANT SHALL ENSURE COMPLETE AND TOTAL DRAWING EXCHANGE (fonts, line weight and type, proper location and orientation of all drawing details) BETWEEN CHOSEN FORMAT AND DesignCAD 3000, BEFORE SUBMISSION.
4. No X-REF in drawings or attached image files.
5. Layers: Maximum 3 layers (3 colors).
6. Font: One font only, standard block lettering.
7. No shading or solid fill areas.
8. Limited cross-hatching, only if absolutely necessary.
9. All plan views shall be in the State Plane Coordinate System NAD83, in feet and tenths of feet, with a north orientation to the top of drawing sheet. Graphic scale shall be included.
10. All land elevations shall be in feet and tenths of feet and refer to NAVD88. All water depths shall be in local MEAN LOW WATER (MLW), unless otherwise specified, and shall be adjusted for tide. Adjustment between MLW and NAVD88 shall be noted.

12:00

SURVEYS

12:04

PART 4 - VOLUME ESTIMATES:

Volume estimates shall be calculated and submitted by a Professional Engineer licensed in the State of New Jersey and shall accompany the appropriate survey.

All volume estimate calculations shall conform to the following:

1. All calculations and computations utilized shall be performed by a Professional Engineer licensed in the State of New Jersey and shall be signed and sealed.
2. Volume estimates shall be in cubic yards unless otherwise specified in Section 11:00.
3. The pre-dredge volume estimate of material to be removed from each section shall be based upon the pre-dredge hydrographic survey and the proposed dredge channel depths, widths, and sideslopes as indicated on the project plans.
4. The post-dredge estimate of actual material removed from each section shall be based upon the volume difference between the pre-dredge and post-dredge hydrographic surveys.
5. General volume estimates shall be based upon the volume difference between the pre-construction and as-built hydro/topographic surveys and as further specified in Section 11:00.

12:00 SURVEYS

12:05 PART 5 - SUBMITTALS:

12:05.1 SURVEYS:

The contractor shall submit to the Bureau of Coastal Engineering for approval an original mylar along with two (2) copies of each generated map accompanied by computer data files of all submitted maps.

All submitted maps shall bear the embossed seal of the Professional Land Surveyor licensed in the State of New Jersey responsible for conducting and preparing the surveys.

All original fathometer data, recording rolls, survey rolls, survey field data and ground control data, shall be submitted along with the maps. All submitted data, charts and maps shall become the property of the State of New Jersey, Bureau of Coastal Engineering. The contractor shall be given copies of all submitted data and generated maps if requested.

Should the survey data and/or generated maps be deficient, lacking information, illegible, or not in conformance with the standards outlined under this section, the Bureau reserves the right to order the contractor to re-perform the hydrographic survey and/or redraw the map(s). Should this be required, no additional monies will be paid to the contractor by the State. The additional cost shall be the sole responsibility of the contractor.

12:05.2 VOLUME ESTIMATES:

The contractor shall submit to the Bureau of Coastal Engineering for approval two (2) copies of each volume estimate performed. All volume estimates shall bear the embossed seal of the Professional Engineer licensed in the State of New Jersey responsible for preparing said estimate.

The engineer shall submit all data, calculations and computations utilized for estimating the volume of material. All submitted information is subject to review and approval by the Bureau of Coastal Engineering. All submitted calculations, data, charts and maps shall become the property of the State of New Jersey, Bureau of Coastal Engineering. The contractor shall be given copies of all submitted data and generated maps if requested.

Should the estimates, volume calculations and/or methods utilized be deficient, lacking information, illegible or not in conformance with the standards outlined under this section, the Bureau reserves the right to order the contractor to re-perform the survey, redraw the map(s) and/or re-calculate volume estimates. Should this be required, no additional monies will be paid to the contractor by the State. The additional cost shall be the sole responsibility of the contractor.

--END OF SECTION 12:00 --