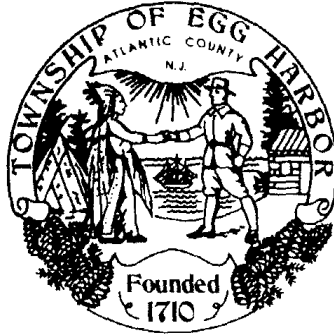


**TOWNSHIP OF EGG HARBOR**  
ATLANTIC COUNTY, NEW JERSEY



**2022 Stormwater Management Grant -  
Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
Contract No. 132**

**MAYOR**

Laura Pfrommer

**TOWNSHIP COMMITTEE**

Ray Ellis, Jr., Deputy Mayor

Paul W. Hodson

William Pauls

Pete Castellano

June 2026

A handwritten signature in black ink, appearing to read "R. A. Watkins", is positioned above a horizontal line.

Robert A. Watkins  
Professional Engineer, License No. 45865

TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY  
**NOTICE TO BIDDERS**

NOTICE is hereby given that sealed bids will be received by the Township of Egg Harbor (hereinafter called the "Owner") for:

**2022 Stormwater Management Grant - Municipal Parking Lot Green**  
**Infrastructure Improvements - REBID**  
CONTRACT NO. 132

Electronically sealed bids for the above-named Contract, which comprises of miscellaneous improvements at **2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID** in the Municipality of Egg Harbor Township, Atlantic County, New Jersey ("Owner"), will be received and conducted in electronic platform in accord with N.J.A.C. 5:34-1 et. Seq., on BidNet Direct at [www.bidnetdirect.com/ehtgov](http://www.bidnetdirect.com/ehtgov) at which time and place the sealed bids will be opened publicly and read for the following: on **Wednesday July 8<sup>th</sup>, 2026, at 10:00 a.m.** prevailing time. Bid opening will be broadcast via zoom, public access can be obtained by contacting the assistance purchasing agent at [scanning@thecanninggroup.org](mailto:scanning@thecanninggroup.org).

The work includes the furnishing of all labor, materials and equipment necessary to complete the work as shown on the Drawings and as described in the Specifications. The work on CONTRACT NO. 132 consists of 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID which will include various green infrastructure improvements to the Municipal parking lot such as: bioswales, landscaping, asphalt pavement, and concrete curbing.

The work for CONTRACT NO. 132 shall be completed within one hundred and thirty days (30) calendar days of the Contractor's receipt of written Notice to Proceed. Township reserves the right to award any/all or none of the bids

**Bids are to be submitted electronically in accord with this notice, then the bidder shall submit a copy of the bid guarantee with electronic submittal and mail PRIOR to bid opening the original to the Municipal Clerks office Township of Egg Harbor, 3515 Bargaintown Road, Egg Harbor Township, NJ 08234.** No bid will be received unless in writing on the forms furnished, and unless accompanied by bid security in the form of a bid bond or certified check made payable to the Owner in an amount equal to 10% of the amount of the total bid, provided that the said security need not be more than \$20,000 nor less than \$500.00 and be delivered at the place on or before the hour named above.

The bid shall be accompanied by a Certificate of Surety on the form included in the Contract Documents, from a surety company licensed to do business in the State of New Jersey, which shall represent that the surety company will provide the Contractor with the required bonds in the sums required in the Contract Documents and in a form satisfactory to the Owner's Attorney and in compliance with the requirements of law. Each bidder shall submit with his bid an "Ownership Disclosure Statement" and "Non-Collusion Affidavit" as stated in Public Law,

1975, C.127 NJSA 34:11-56,25 et seq. as amended in chapter 64 of the Laws of 1974 and P.L. 1977 Ch.33, NJSA 52:25-24.2 on the forms included in the Contract Documents.

Public Works Contractor Registration pursuant to NJSA 34:11-56.48 et. Seq. is required for all projects/contracts that include construction, reconstruction, demolition, alteration, and alteration of repair or maintenance work on a public building.

All Contractors and Subcontractors are required to submit a copy of their Business Registration Certificate issued by the NJ Division of Taxation (PL 2004, c 57 effective 9-1-04). Compliance with the New Jersey Prevailing Wage Act (N.J.S.A. 34:11-56.25) is required.

Bidders must use the prepared proposal forms that are contained in the Contract Documents. Each individual proposal must be separately BidNet Direct at [www.bidnetdirect.com/ehgvtgov](http://www.bidnetdirect.com/ehgvtgov).

After receipt of bids, no bid shall be withdrawn except as expressly authorized herein. The Owner shall award the Contract or reject all bids within 60 days of bid opening, except that the bids of any bidders who consent thereto may, at the request of the Owner, be held for consideration for such longer period as may be agreed.

The Owner will evaluate bids and any award will be made to the lowest, responsive, responsible bidder, in accordance with N.J.S.A. 40A:11-6.1. A copy of N.J.S.A. 40A:11-6.1 is included in Section entitled Local Public Contract of this specification. The Owner reserves the right to reject any or all bids and to waive minor informalities or irregularities in bids received.

The qualification and reclassification of bidders will be subject to the statutory provisions contained in N.J.S.A. 40A:11-25 to 32 ("Local Public Contract Law"). A copy of N.J.S.A. 40A:11-25 to 32 is included in Section entitled "Local Public Contract Law" of this specification.

Successful bidders, after notification of award, but prior to signing a construction contract, shall submit to the township and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA 201) electronically provided to the public agency by the Dept. LWD, Construction EEO Monitoring Program, through its website [http://www.state.nj.us/treasury/contract\\_compliance/pdf/aa201.pdf](http://www.state.nj.us/treasury/contract_compliance/pdf/aa201.pdf) for distribution to and completion by the contractor, in accordance with the 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 Dept. of LWD, Construction EEO Monitoring Program and to the public agency compliance officer

The successful bidder will also be required to submit bonds and proof of insurance on or before execution of their respective Contracts as explained in the Contract Documents.

Bidders are required to comply with all relevant Federal and State Statutes, Rules and Regulations including but not limited to the applicable provisions of Title VI of the Civil Rights Act of 1964 as amended (42 USC 2000d 2000D 4A), the discrimination and affirmative action provisions of NJSA 10:5-31 et seq. and NJAC 17:24 (Contract Compliance and Affirmative Action for Public Contracts), the rules and regulations promulgated pursuant thereto, the State

requirement for bidders to supply statements of ownership (N.J.S.A. 52:25 24.2) and the State requirement for submission of the names and addresses of certain subcontractors (N.J.S.A. 40A:11 16).

Challenges to bid specifications must be made, in writing, addressed to the Owner, at least, three (3) business days prior to the bid opening date.

Challenges filed otherwise will not be considered.

Pursuant to P.L. 2004, c.57 (N.J.S.A. 52:32-44) effective September 1, 2004, all business organizations that conduct business with a New Jersey government agency are required to be registered with the State of New Jersey.

If the Contract is awarded, no refunds will be given. If for any reason the Contract is not awarded, refunds will be made to bidders pursuant to N.J.S.A. 40A:11-24(b) when the Contract Documents are returned in reasonable condition within 90 days of notice that the Contract has not been awarded.

It is the purpose of this Notice to Bidders to summarize some of the more important provisions of the Contract Documents. Prospective bidders are cautioned not to rely solely on this summary, but to read the Contract Documents in their entirety.

The Township reserves the right to reject bids based upon the criteria specified in the Information to Bidders.

By Order of the Township of Egg Harbor

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Sharon Riley, CFO  
Chief Financial Officer

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### TOWNSHIP OF EGG HARBOR ATLANTIC COUNTY, NEW JERSEY

#### 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID CONTRACT NO. 132

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## INFORMATION FOR BIDDERS

### 0.00 Definitions

The attention of all bidders is directed to the Article of the Contract entitled, "Definitions", for definitions of the terms, Owner, Contractor, Engineer, Contract Documents, Contract, Contract Price, Specifications, Substantial Completion, Contract Drawings and General Conditions.

In the Contract Documents the words "Bid", "bid", "Proposal" and "proposal" are used interchangeably.

### 0.01 Location of Work

The site work to be performed under the Contract consists of recreational improvements at 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID in the Township of Egg Harbor, Atlantic County, New Jersey as shown on the Contract Drawings.

### 0.02 Contract Drawings

The Contract Drawings, forming an integral part of this project, bear the following general title:

TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY  
2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132

Copies of the Contract Documents shall be furnished to interested parties as set forth in the Notice to Bidders.

### 0.03 Phases Comprising the Project

The work on this project will be performed under a single overall Contract comprising of site work, and general construction work.

### 0.04 Date and Place of Opening Bids

Sealed Proposals for this work, as required by the Contract Documents and as specified herein, including the furnishing of all required plant, labor, equipment, materials, facilities and services, will be received at the time and place stated in the Notice to Bidders and at that time unsealed and the contents publicly announced.

#### 0.05 Preparation of Proposal

Proposals must be submitted on the prescribed forms. All blank spaces for bid prices must be filled in, in ink, in both words and figures.

The Proposal shall contain the full name and address of every person, partnership and corporation having an interest in the bid. In addition, any trade name of the bidder must be set forth in full. When an individual proprietor bids, the bid must be signed for or on behalf of the proprietor. When a partnership bids, the bid must be signed for or on behalf of each general partner. When a corporation bids the president and secretary (or assistant secretary) must sign, except that other officers of the corporation may sign, provided a corporate resolution, certified by the corporate secretary (or assistant secretary) duly authorizing such other officers to sign, accompanies the bid. Bids of corporations shall have the corporate seal affixed. Bids signed by an agent must be accompanied by a Power of Attorney duly acknowledged before a notary public, evidencing the authority of the agent to act for the principal or principals. All corporations and partnerships must complete the statement form that appears on the Proposal pages pursuant to the requirements of P.L. 1977, c. 33 (N.J.S.A. 52:25-24.2).

All Public contracts prohibit the successful bidder from discrimination in hiring of persons who are qualified and available to perform work to which the contract relates by reason of age, race, religion, sex, national origin, creed, color, ancestry, marital status, affectional or sexual orientation, familial status, liability for services in the Armed Forces of the United States or nationality. All bidders shall comply with the Act relating to Affirmative Action in relation to the Law Against Discrimination as amended per Chapter 127, P.L. 1975.

#### 0.06 Right to Accept or Reject Bids

Award, if made, will be to the lowest responsible and responsive bidder. All bids can be rejected: when the lowest bid substantially exceeds projected cost estimates and/or budgetary appropriations; the Owner decides to abandon the project or purchase; the specifications are substantially revised; purposes and/or provisions of the applicable laws are violated or it is determined that use of a State Contract / Cooperative Purchasing Agreement is in the best interest of the Township.

In determining the lowest responsible bidder, the Owner may take into account conformity with the requirements of the general and technical specifications, including but not limited to: 1) Strict conformance with the technical/performance requirements for equipment, labor and goods/services. 2) The ability of the bidder to perform all of the work required. 3) Experience of the bidder. 4) Prior negative experience or lack of performance as documented by the Owner.

Chapter 353 of the Public Laws of 1975 shall govern the award of contracts, regardless of wording to the contrary in the general specifications.

The Township reserves the right to waive minor irregularities, except for late delivery of bids and/or to permit minor exceptions to the requirements of the specifications.

Penalties for the submission of false, deceptive or fraudulent statements or information by bidders are provided by Local Public Contracts Law (N.J.S.A. 40A:11-33 and 34). No contract for work shall be awarded to a contractor or subcontractor who is included on the New Jersey State Treasurer's list of debarred, suspended and disqualified bidders.

Bidder should be aware of the following statutes that represent "Truth in Contracting" laws:

N.J.S.A. 2C:21-34, et seq. governs false claims and representations by bidders. It is a serious crime for the bidder to knowingly submit a false claim and/or knowingly make material misrepresentation.

N.J.S.A. 2C:27-10 provides that a person commits a crime if said person offers a benefit to a public servant for an official act performed or to be performed by a public servant, which is a violation of official duty.

N.J.S.A. 2C:27-11 provides that a bidder commits a crime if said person, directly or indirectly, confers or agrees to confer any benefit not allowed by law to a public servant.

Bidder should consult the statutes or legal counsel for further information.

#### 0.07 Withdrawal of Bids

No bidder may withdraw his bid for a period of sixty (60) days after the bids are opened. The Owner and bidder may agree to hold bids for consideration for a longer period of time, in accordance with the Local Public Contracts Law, N.J.S.A. 40A:11-1, et seq.

#### 0.08 Items of Work

No bid will be allowed to be withdrawn for any reason after it has been presented.

#### 0.09 Addenda and Interpretations

No interpretations of the meaning of the Contract Drawings, Specifications or other Contract Documents will be made to any bidder orally. Any request for interpretations shall be made in through the bidnet direct platform at [www.bidnetdirect.com//ehtgov](http://www.bidnetdirect.com//ehtgov), and, to be given consideration, must be received at least ten (10) days – Saturdays, Sundays and holidays excepted – prior to the date fixed for the opening of bids. Any and all revisions, interpretations, or supplemental instructions will be in the form of written addenda to the Contract Documents which, if issued, will be noticed in bia bidnetdirect and noticed to registered contractors who have downloaded bids. Failure of any bidder to receive any such addenda shall not relieve the bidder from any obligations under such addenda. All addenda so issued shall become part of the Contract Documents. If any addenda materially change the solicitation, the Owner may postpone the date for the opening of bids.

#### 0.10 Bid Security

Each bid must be accompanied by a certified check, cashiers check or bid bond prepared on the form in the Contract Documents, or on an equivalent form which has been approved by Owner's attorney; duly executed by the Bidder as principal and having as surety thereon a surety company duly authorized to issue bonds in New Jersey, in the amount of 10% of the total amount bid but not in excess of \$20,000 nor less than \$500.

Such checks or bid bonds except those of the three apparent lowest responsible bidders, shall, unless otherwise requested by the bidder, be returned within ten (10) days after the opening of the bids, Sundays and holidays excepted, and the bids of such bidders shall be considered as withdrawn. Within three days, Sundays and holidays excepted, after the awarding and signing of the Contract and the approval of the Contractor's performance bond, insurance and other submissions required in the Information for Bidders, the bid security of the remaining unsuccessful bidders shall be returned to them. The check or bid bond of the bidder to whom the Contract is awarded shall be retained until the required performance bond, insurance and other submissions required in the Information for Bidders is submitted and approved and the Contract is signed. If, for any reason, the Owner does not make an award within sixty (60) days after the opening of bids, the Owner may request that each of the three apparent lowest responsible bidders agree to hold their bids open for consideration for a longer period.

Bid security shall remain in effect for a minimum of sixty (60) calendar days from the date of opening of bids, except as set forth above. In the event that a bidder shall agree to an extension in the sixty (60) day period for making award, such bidder shall be required to ensure that their bid security shall remain in effect to cover the period of extension.

An attorney-in-fact who signs any bid bonds or other bonds required by the Contract Documents shall file with each bond a certified copy of a Power of Attorney duly acknowledged before a notary public authorizing the attorney-in-fact to execute said bonds in behalf of the surety.

All bonds issued for this project must be issued by bonding companies that have a Best's Rating Guide rating of B-minus or higher.

#### 0.11 Certificate of Surety

Each bidder must accompany his bid with an appropriate certificate from a surety company duly authorized to issue bonds in New Jersey and satisfactory to the Owner, stating that such surety company will provide the bidder with the bonds in such sums as are required by the Contract Documents for the faithful performance of the Contract including the payment of the labor and material furnished in the prosecution thereof and the faithful performance of the contract provisions relating to Contract warranties and the repair and maintenance of the Contract Work and keeping the same in good and serviceable condition. All surety bonds in connection with the advertisement and award of this Contract must be written by a surety company whose qualification and authority to

issue bonds in New Jersey has been certified by the New Jersey Commissioner of Insurance pursuant to the provisions of N.J.S.A. 17:17-1 et seq.

Where federal funding is involved in the Project, the surety company must also hold a federal Certificate of Authority as an acceptable surety (31CFR Part 223) and must be listed on the Federal Treasury List (Department Circular 570 - "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies". Copies of this document may be obtained from the USEPA.

With respect to all payment and performance bonds in the amount of \$850,000 or more, the surety must hold a current Certificate of Authority issued by the United States Secretary of the Treasury pursuant to 31 U.S.C. Sec. 9305, that is valid in New Jersey as listed annually in the United States Treasury Circular 570, all as required by and subject to the exceptions and exemptions of N.J.S.A. 2A:44-143.

With respect to payment and performance bonds in the amount of more than \$3.5 million, there are further certification requirements under N.J.S.A. 2A:44-143 which must be observed.

N.J.S.A. 2A:44-143 requires that a Surety Disclosure Statement and Certification be attached to the payment and performance bonds. The requisite form of such Certification is set forth in the Proposal pages herein. The Owner may not accept a payment bond or a performance bond unless the required Surety Disclosure Statement and Certification, complete in all respects and duly acknowledged according to Law, is attached thereto.

#### 0.12 Obligation of Bidders

At the time of the opening of bids, each bidder will be conclusively presumed to have read and to be thoroughly familiar with the Contract Documents, including all addenda and interpretations issued. The failure or omission of any bidder to receive or examine the Contract Documents and any addenda thereto or interpretations thereof shall in no way relieve the bidder from any obligation in respect of his bid.

#### 0.13 Examination of and Familiarity with Work

Each bidder must inform himself fully of the conditions under which the work will be performed. Failure to do so will not relieve a successful bidder of the obligation to furnish all plant, labor, material, equipment, facilities and services necessary to carry out the provisions of the Contract Documents, and to complete the required work for the consideration set forth in the bid.

Bidders are expected to read and become familiar with the Contract Documents, including all addenda; to visit the site of the work; to make their own estimates of the plant, labor, material, equipment, facilities and services needed to perform the work; to make any required tests and inspections and to evaluate the difficulties attending the execution of the proposed Contract, including local conditions, site conditions, location and availability of utilities, labor, transportation facilities, uncertainties of weather,

subsurface conditions and other contingencies. In no case will the Owner or the Engineer assume any responsibility whatsoever for any interpretation, deduction or conclusion to be drawn from the Contractor's examination of the site. Failure to become aware of all conditions affecting the work will not relieve the successful bidder from assuming all responsibility for estimating the difficulties and cost of successfully performing the complete work. The failure or omission of any bidder to receive or examine any form, instrument or document; or to make any required tests or inspections shall in no case relieve any bidder from any obligation under the Contract Documents.

Neither the Owner nor the Engineer make any express or implied representations or warranties as to the accuracy of the information shown on drawings of previous construction or any interpretation of same. The Contractor shall ascertain by his own field inspections the accuracy of the information shown on any existing drawings or reports.

#### 0.14 Bidder Responsibility

The prime Contractor (the bidder) shall perform on the site and with its own organization, work equivalent to at least 51% of the total amount of work to be performed under this Contract. This percentage may be reduced by a supplemental agreement to this Contract if during the performance of the work the Contractor requests a reduction and the Owner determines that the reduction would be to the advantage of the Owner.

Each bidder shall submit experience, and equipment information as described below with and as a part of its bid:

(Nothing required herein shall be construed as limiting the right of the Owner or Engineer to request any bidder to supply clarifying or additional information concerning the bidder's responsibility.)

- A. The bidder's performance record with listing of work of similar character and size which he has constructed, giving the names of the Owners, dates built and construction cost.
- B. A tabulation of other work now under contract, giving location, type, size, total cost, required date of completion and the percentage of completion (to the date of this bid) of each job.
- C. An itemized list of equipment owned, leased or controlled, which will be available for use on the Contract (See Proposal Pages).
- D. A listing of the work identified in N.J.S.A. 40A:11-16 which the bidder will subcontract and the names and addresses of the subcontractors (See Proposal Pages).
- E. Evidence, in the case of a corporation organized under the laws of any other state, that the bidder has been issued a certificate of authority to transact business in this State

- F. In the case of a corporation, the names and addresses of the stockholders holding 10% or more of that corporation's stock (See Proposal Pages) and the names and addresses of all corporate officers and directors.
- G. Evidence, in the case of a partnership, as to whether the partnership is general or limited and identifying the names and addresses of all partners and indicating whether they are general or limited partners (See Proposal Pages).
- H. Evidence, in the case of a joint-venture bidder, as to the parties to the joint venture, a statement of the individual responsibilities of each party to the joint venture agreement and such other information as may be pertinent to each of the joint venture's responsibility to fulfill the obligations of the Contract.
- I. All information and certification required in the Contract Documents shall be separately stated for each member of the joint venture.
- J. The largest amount of construction work which the bidder has done in any one year (state the year).
- K. Such additional information as will satisfy the Owner and the Engineer that the bidder is responsible and is adequately prepared to fulfill the requirements of the Contract.

The Owner and the Engineer may in addition make such investigations as they deem necessary to verify the responsibility of the bidder to perform the Contract, and the bidder shall furnish the Owner with all additional information and data for this purpose as may be requested. The Owner reserves the right to reject any bid if the evidence submitted by the bidder, or the investigation of such bidder fails to satisfy the Owner that such bidder has the responsibility to properly carry out the obligations of the Contract.

Before taking final action to reject a low bid for lack of bidder responsibility, the Owner shall notify the low bidder and afford such bidder an opportunity to request a hearing before the Owner to present any additional information concerning the low bidder's responsibility.

#### 0.15 Rescission of Award

It is expressly understood and agreed by the bidder that, in addition to and not in lieu of any other provisions of the Contract Documents, the Owner may condition any award made by it upon consummation of financing and/or upon receipt of the necessary approvals of the State and Federal agencies involved and, further, may, at any time, rescind any award made by it, if financing satisfactory to the Owner cannot be consummated as contemplated, if such financing does not continue to be available on terms satisfactory to the Owner, if the requisite State and Federal agencies do not approve said Contract, or if any court of competent jurisdiction shall enjoin or otherwise prohibit the Owner from proceeding with the work.

#### 0.16 Failure of Bidders to Enter Contract

On a date and time to be set by the Owner and notified to the successful bidder, but in any case within twenty-one (21) days, Sundays and holidays excepted, after notification of the award of the Contract, the successful bidder shall deliver to the Owner, in quadruplicate, the duly executed Contracts. The successful bidder shall simultaneously deliver to the Owner an executed Performance Bond of a responsible surety company authorized to issue bonds in New Jersey and satisfactory to the Owner, as specified herein, and evidence of all insurance coverage required in the Contract Documents (consisting of certificates of insurance and copies of the policies with all endorsements).

The Contractor shall also submit at that time a detailed Cost Breakdown as further described in the Article of the Information for Bidders, entitled, "Cost Breakdown, Construction Schedule and Shop Drawing Schedule." This Cost Breakdown must be satisfactory to the Owner prior to the Owner's signing the Contract and may or may not, in the discretion of the Engineer, be used by the Engineer as a basis for evaluating periodic Applications for payment.

The Contractor shall also submit at that time a detailed Construction Schedule Bar Graph and detailed Shop Drawing Submission Schedule, which are further described in the Article of the Information for Bidders, entitled, "Cost Breakdown, Construction Schedule Bar Graph and Shop Drawing Submission Schedule" and which must be satisfactory to the Owner prior to the Owner's signing the Contract. The submission of the foregoing documents in a form satisfactory to the Owner shall be a condition precedent to the Owner's execution of the Contract. Copies of the referenced documents shall be provided to the Engineer at the same time.

Should the successful bidder fail or refuse to execute and deliver the Contract, bonds, evidence of insurance, Cost Breakdown, Construction Schedule Bar Graph, Shop Drawing Submission Schedule, or any of them, satisfactory to the Owner, within twenty-one (21) days after the Contractor has received notice of the award, Sundays and holidays excepted, or within such further time period as the Contractor and Owner may in writing agree, the Owner shall have the right to declare the amount of the Contractor's bid security to be forfeited to the Owner, as liquidated damages for such failure or refusal.

#### 0.17 Security for Faithful Performance and Maintenance (Bonds)

The execution of the Contract is contingent *inter alia* upon the Contractor's furnishing of the Performance Bond as set forth herein.

The Performance Bond shall be in a sum equal to 100% of the accepted bid as security for the faithful performance of the Contract and for the payment of all persons performing labor or furnishing materials in connection with the Contract. The Performance Bond shall remain in effect until completion and acceptance by the Owner as specified in the Article of the Contract, entitled "Final Estimate and Payment"; and the furnishing of the Maintenance Bond to cover the Contractor's obligations specified in the Article of the Contract, entitled "Maintenance Period".



The Maintenance Bond shall be in a sum equal to 50% of the Contract Price, as security for the faithful performance of the Contract during the Maintenance Period, as specified in the Articles of the Contract, entitled "Warranty" and "Maintenance Period". The Maintenance Bond shall be furnished to the Owner prior to completion and acceptance by the Owner as specified in the Article of the Contract, entitled "Final Estimate and Payment" and shall remain in effect for a period of two (2) years from such completion and acceptance.

The Performance Bond and Maintenance Bond shall be in the forms included in the Contract Documents, or in equivalent forms which have received the prior approval of the Owner's Attorney.

An attorney-in-fact who signs any bonds must file with each bond a certified copy of his power of attorney authorizing him to execute said bonds on behalf of the surety.

All bonds issued for this project must be issued by bonding companies which have a Best's Rating Guide of B-minus or higher.

#### 0.18 Interference or Delay

Insofar as possible, the Contractor in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor or subcontractor on this Contract or on any other on-going project contracted for by the Owner, or operations conducted by the Owner, whether or not they are directly associated with this Contract. All contractors will be required to cooperate to the end that the projects will be brought to a successful conclusion as rapidly as possible, but the Owner cannot guarantee that no interference or delay will be caused thereby. The Contractor shall have no recourse against the Owner for any damages whatsoever with regard to any interference or delay occasioned by the work or operations of the Owner or of others with that of the Contractor or that of his subcontractors. The Contractor shall refer to the requirements of the Article of this Information for Bidders, entitled, "Cost Breakdown, Construction Schedule and Shop Drawing Submission Schedule."

#### 0.19 Lines and Grades

Attention of bidders is directed to the following specific requirements regarding the establishing and transferring of lines and grades.

- a) The Engineer will establish a benchmark as shown on the Contract Drawings. The Contractor shall run all offset lines, set the drive stakes, set batter boards, and take all other measurements in order to lay out the work in accordance with the Contract Documents. The Contractor shall be aware that the alignment may change slightly due to the existing utilities.
- b) No separate payment will be made to the Contractor for the cost of establishing lines and grades or for the cost of assisting the Engineer in

checking of such work or for delay in checking such work, but the cost thereof shall be included in prices bid for the various items.

Bidders shall also note further requirements as explained in the paragraph entitled, "Line, Grades and Measurements" as set forth in the General Requirements of the Specifications.

#### 0.20 Insurance Requirements

The Contractor shall not commence any work under the Contract until the Contractor has obtained, at the Contractor's own expense, all insurance as set forth in the Contract Article entitled, "Insurance" and has delivered Certificates of Insurance and copies of the required insurance policies with all required endorsements and indemnifications to the Owner and Engineer, and as required by the Article of this Information for Bidders entitled, "Failure of Bidders to Enter Contract." The Contractor shall not permit any subcontractor of any tier to begin work until the required insurance and evidence of insurance has been provided to the Owner and Engineer by the subcontractor. Such insurance and evidence of insurance must be in a form satisfactory to the Owner.

The Township of Egg Harbor, Atlantic County and Mott Watkins Associates shall be additionally insured on all Certificates of Insurance submitted by the Contractor.

#### 0.21 Time Limit

The Contractor is required to begin work within ten (10) calendar days of Contractor's receipt of a written Notice to Proceed issued by the Owner. The Contractor shall prosecute the work diligently and uninterruptedly, at a rate to ensure completion sufficient for final acceptance of all work within thirty (30) consecutive calendar days from the day of the Contractor's receipt of the written Notice to Proceed. Failure to complete the Contract within this prescribed time period will result in the assessment of liquidated damages in accordance with Article XXII in the Contract section of these specifications. The Contractor shall comply with all provisions in the Contract Documents regarding intermediate times of completion of construction.

The Contractor shall complete certain minimum amounts of work under this Contract by specified times as shown in the following Schedule of Intermediate Completion Times.

Intermediate Completion Time, In Consecutive Calendar Days After Contractor's Receipt of Written <u>Notice to Proceed</u>	Minimum Percentage Dollar Value of Work Required to be Completed Under the Contract Shown <u>(Total Base Bid)</u>
15	50%
30	100%

Time is of the essence for final completion of all work within the time limit established from the Contractor's receipt of the Notice to Proceed and for intermediate completion of the work covered by the Base Bid by the above Intermediate Completion Times. All work shall be completed within thirty (30) days of the Notice to Proceed or subject to liquidated damages of \$500.00 per day.

#### 0.22 Damages

The bidder shall refer to the Article of the Contract entitled, "Damages and Liquidated Damages".

#### 0.23 Site Conditions

Bidders are required to make any investigations of site conditions bidder shall deem necessary. However, prior to any site investigation, the bidder shall obtain the permission of the Owner and the bidder shall ascertain the location of underground utilities and structures. The bidder shall be responsible for any damage caused by the bidder, shall restore the site to its original condition and shall repair any damage resulting from such investigations. In addition, prior to undertaking any on-site investigations, the Bidder shall furnish the Owner with a certificate of insurance that is in accordance with the Contract Article, entitled "Insurance".

#### 0.24 Cost Breakdown, Construction Schedule and Shop Drawing Submission Schedule

On a date and time set by the Owner and notified to the successful bidder, but in any case within twenty-one (21) days, Sundays and holidays excepted, after notification of the award of the Contract, the successful bidder shall deliver to the Owner and the Engineer (in addition to the other documents referred to in the Article of the Information for Bidders entitled, "Failure of Bidders to Enter Contract"), a detailed Cost Breakdown, a detailed Construction Schedule Bar Graph and a detailed Shop Drawing Submission Schedule. The breakdown and schedules are for the review of the Owner and the Engineer who may elect to comment upon the contents as it may suit their respective interests. No Contract will be signed by the Owner until these documents are satisfactory to the Owner and Engineer and the Contractor hereby agrees to any extension of the time limit set forth in N.J.S.A. 40A:11-24(b) necessary for this purpose.

A cost breakdown is not required for contracts with all unit price items.

Neither the comments upon nor the acceptance of the Cost Breakdown or Construction Schedule Bar Graph or Shop Drawing Submission Schedule by the Owner or Engineer shall relieve the Contractor of his responsibility for the means, methods, techniques, sequences and procedures of construction, or for the safety precautions and programs incident thereto; and neither the Owner nor the Engineer will be responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.

The detailed Cost Breakdown will be a reference document to which the Owner and Engineer may (but need not) refer in determining the value of the work-in-place in order

to approve the periodic Applications for Payment. The detailed Cost Breakdown must be sufficiently detailed to permit complete appraisal of the work to the degree that will permit all parties to be fairly treated. This breakdown will not necessarily be used as a basis for determining the cost of any change orders that might occur during the period of construction.

- The Cost Breakdown shall set forth, in detail, a true and representative breakdown of costs, by each major Specification Division, for each of the individual components listed in the Scope of Contract; and shall include the expected delivered costs of all materials and equipment to be installed and the costs for the plant, labor, construction equipment, facilities, services and overhead to be incurred in connection with each such component and in connection with the Contract generally. The Cost Breakdown must also include line items for testing and maintenance, where applicable. The Cost Breakdown shall, as nearly as possible, reflect the true cost of each item, and the Owner reserves the right to reject the Cost Breakdown if the Owner considers it unbalanced, unreasonable, unsatisfactory or lacking in detail. The burden of proof shall be upon the Contractor to substantiate the correctness of the proposed Cost Breakdown as fit for its intended purpose. If the Contractor fails to provide a Cost Breakdown satisfactory to the Owner, the Owner shall, in its sole discretion, have the right to have a Cost Breakdown supplied by the Engineer and, in such case, the Contractor agrees to be bound by the Cost Breakdown to be supplied by the Engineer. In preparing his bid, the Contractor shall limit mobilization costs in accordance with N.J.A.C. 7:14-2.9(b).

The Construction Schedule Bar Graph must be submitted on a date and time set by the Owner and notified to the successful bidder, but in any case within ten (10) days, Sundays and holidays excepted, after notification of the award of the Contract.

The Construction Schedule Bar Graph is to be a graphical representation of all significant construction and construction-related activities indicating their duration and the concurrence with the various contract activities.

The Construction Schedule Bar Graph must be in accordance with the calendar days permitted for construction and the Intermediate Completion Times and must indicate appropriately the percentage of work scheduled for completion by any given day of the Schedule.

The Construction Schedule Bar Graph must be in accordance with the calendar days permitted for construction and the Intermediate Completion Times and must indicate appropriately the percentage of work scheduled for completion by any given day of the Schedule.

The detailed Shop Drawing Submission Schedule must account for each item for which shop drawings are required, must indicate the equipment manufacturer proposed for use and the time frame estimated from first submittal to projected final approval of any item.

The Contractor shall enter his actual progress on the Construction Schedules and shall deliver copies to the Owner and Engineer at least once each month. If at any time, in the opinion of the Owner, progress is not being maintained as required by the Construction Schedules, amendments shall be made to the Schedules to regain the progress in the work required by the Contract Documents, without additional cost to the Owner. In this circumstance the Owner may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for review any amendments to the Construction Schedules as the Owner deems necessary to demonstrate how the required rate of progress will be regained. The amendments shall be subject to the review of the Owner, but action or inaction by the Owner shall not relieve the Contractor of any responsibility under the Contract. Failure of the Contractor to comply with the requirements of the Owner shall be grounds for the Owner to order the Contractor to discontinue the work under the Article of the Contract entitled, "Right of the Owner to Terminate the Contract or Give a Three (3) Day Deficiency Notice".

Further, the Contractor may be required by the Owner to submit supplementary construction schedules, concurrent with applications for monthly progress payments, which will show the order in which the Contractor will start various parts of the work and the estimated dates of completion of these parts. Such submissions, acceptable to the Owner and Engineer, shall be a prerequisite for consideration of applications for progress payments and shall be revised to indicate the progress of the work and the projected schedule at the time of the applications for the progress payments.

#### 0.25 Field Measurements

The Drawings show existing conditions only in a general way, and it shall be the responsibility of the Contractor to verify all distances and locations in the field.

#### 0.26 Preconstruction and Progress Video

The following are the requirements for Preconstruction and Construction video:

1. The Contractor shall furnish a video showing the state of the project and all stages of construction as deemed appropriate by the Engineer.
2. The video shall be forwarded to the Engineer as completed. All videotapes shall be referenced to indicate pertinent project information, including location and view, description of subject and names of the Owner, Engineer, Contractor and Photographer.
3. The Contractor shall furnish video showing the existing condition prior to the start of site and access clearing and construction. Special attention shall be given to environmentally critical areas and areas outside of the public right-of-way. Video shall be referenced by station so that upon completion of the construction, or during construction, if necessary, subsequent videos can be taken from the same control points.

4. The Contractor shall provide one video per month, as specified above, during the course of the project. A pre-construction video will also be required, prior to start of work.
5. The Engineer, at his discretion, may direct the manner, method, and units of the construction to be videotaped; therefore, before the video is to be taken, the Contractor shall notify the Engineer at least 24 hours in advance.

Video shall be referenced by exact location station so that upon completion of the construction, or during construction, if necessary, subsequent video can be taken from the same control points.

In the event that the Contractor delays in complying with above requirements, the Engineer, in conjunction with the Owner, may call in an experienced photographer to take such video and the cost thereof shall be borne by the Contractor.

#### 0.27 Subsurface Structures and Utilities

The Contractor will be held solely responsible for locating and protecting all underground utilities and structures affected by Contractor activities or the work; including, but not limited to, utilities and structures of the Owner, and the Contractor shall comply with all applicable provisions of the Underground Facility Protection Act (PC 1994, C. 118). The Contractor shall notify, in writing, the owners of all utilities and structures that will or may be affected by the nature and scope of the project or the Contractor's operations. The Contractor shall, at his own expense, arrange with the owners of all such utilities and structures for the location of their utilities and structures, and shall be responsible for the protection of subsurface structures and utilities, and shall pay all charges, costs and fees in connection therewith at his own expense.

Attention is particularly directed to the fact that the locations, elevations and sizes of utilities and other subsurface structures shown on the Contract Drawings are not warranted to be even approximately correct, nor can they be assumed to be the only subsurface piping or structures which may be encountered in the work. All required test pit excavations are to be performed prior to the start of work to locate existing subsurface piping and structures at the expense of the Contractor.

#### 0.28 Materials and Equipment

In order to establish standards of quality, the Engineer, in the detailed Specifications, may have referred to certain products by name and/or catalog number. This procedure is not to be construed as eliminating from competition other products of equivalent or better quality by other suppliers or manufacturers where fully suitable in design and manufacture.

The Contractor's bid must be based upon the materials and equipment named in the Specifications, or materials and equipment of equivalent quality and effectiveness. The

first named supplier shall be considered as the standard of reference, for the Engineers design and for the equivalency determination to be made by the Engineer.

#### Equivalent Materials and Equipment

Following execution of the Contract with the successful bidder, the Contractor may then submit to the Engineer for consideration the use of materials and equipment that the Contractor believes to be equivalent to or better than those specified.

To be considered an equivalent, the materials and equipment must be shown by the Contractor to meet all requirements of the Specifications herein; be of similar type, function and quality; be cost effective, as compared to the materials and equipment named, in all respects, including first costs, operating costs and maintenance costs; and must perform satisfactorily.

#### Substitution of Materials and Equipment

The procedure to be followed for review of proposed substitutions for the materials and equipment not equivalent to those specified is as follows:

Requests for review of substitute items of material and equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute item of material or equipment, the Contractor shall make a written application to the Engineer for acceptance thereof, certifying that the proposed substitute will be similar and of equal or better substance and quality to that specified, will be suited to the same use and will perform properly the same functions as that specified.

The application will state whether or not acceptance of the substitute for use in the work will require a change in the Drawings or Specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available warranties, maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such a substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Engineer in evaluating the proposed substitute.

The Engineer may require the Contractor to furnish at the Contractor's expense, additional data about the proposed substitute. The Engineer will be the sole judge of acceptability and no substitute will be ordered or installed without the Engineer's prior written acceptance. The Owner may require the Contractor to

furnish, at the Contractor's expense, a special performance guarantee or other surety with respect to any substitute.

#### Equivalent Materials and Equipment and Substitutions

The following provisions shall apply to both the furnishing of equivalent materials and equipment and to substitutions.

It shall be the responsibility of the Contractor to ensure that materials and equipment to be furnished fit the space available. The Contractor shall make necessary field measurements to ascertain space requirements, including those for connections.

All redesign or other additional costs incurred by the Owner as a result of the Contractor's furnishing equivalent materials and equipment or substitutions shall be borne by the Contractor.

All materials and equipment must be new unless expressly stated otherwise in the Contract Documents.

The Engineer will record the time required by the Engineer and the Engineer's consultants in evaluating the Contractor's proposals for equivalent materials and equipment for substitutions for items named in the specifications and in making changes in the Drawings or Specifications occasioned thereby.

Whether or not the Engineer accepts a proposed equivalent or substitute, the Contractor shall reimburse the Owner for the charges of the Engineer and the Engineer's consultants for evaluating any proposed substitution for named items.

Following review and acceptance by the Engineer and Owner, the Contractor may proceed with ordering and installing the equivalent or substituted materials and equipment.

#### 0.29 Construction Terms and Conditions

The bidder is advised that the terms and conditions set forth in the Contract Documents will be rigidly enforced. This Information for Bidders is included as part of the Contract Documents.

#### 0.30 Nondiscrimination Provisions

Bidders are required to comply with all applicable Federal and State Statutes, Rules and Regulations including but not limited to Title VI of the Civil Rights Act of 1964, as amended (42 USC 2000d-2000D-4A) and the discrimination and affirmative action provisions of N.J.S.A. 10:2.1 through 10:2-4, the New Jersey Law against Discrimination, N.J.S.A. 10:5-1, et seq., and the rules and regulations promulgated pursuant thereto.



Bidders must submit with their initial bid a signed certification stating that it and its subcontractors shall comply with the discrimination and affirmative action provisions of N.J.S.A. 10:2-1 through 10:2-4, the New Jersey Against Discrimination (N.J.S.A. 10:5-1 et. seq.), and the rules and regulations promulgated pursuant thereto, including but not limited to N.J.A.C. 17:27-1 et. seq.

Successful bid contractors are required to submit a copy of their "Certificate of Employee Information Report" or the pink copy of the AA-302 form within seven (7) days after receipt of the notification of intent to award the contract or receipt of the contract, whichever is sooner. Failure to do so will result in the bid being rejected as non-responsive. This requirement is statutorily based and monitored by the State.

Successful bidders shall, upon request, submit a list of all subcontractors who will perform work on the project and written signed statements from authorized agents of the labor pools with which they will or may deal for employees on the work, together with supporting information to the effect that said labor pools will affirmatively cooperate in or offer no hindrance to the recruitment, employment, and equal treatment of employees seeking employment and performing work under the contract or, a certification as to what efforts have been made to secure such statements when such agents or labor pools have failed or refused to furnish same prior to the award of the Contract.

#### 0.31 State Mandatory Affirmative Action Language, Construction Contracts

During the performance of this Contract, the Contractor agrees as follows:

- I. 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, sex, affectional or sexual orientation. The Contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, sex, affectional or sexual orientation. Such action 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.
- ii. 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, sex, affectional or sexual orientation.
- iii. The Contractor or Subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or worker's representative of the Con-

tractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- iv. The Contractor or Subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to PL 1975, c. 127, as amended and supplemented from time to time.
- (b) When hiring workers in each construction trade, the Contractor or Subcontractor agrees to attempt in good faith to employ minority and female workers in each construction trade consistent with the applicable employment goal prescribed by N.J.A.C. 17:27-7.3; provided however, that the Affirmative Action office may, in its discretion, exempt a Contractor or Subcontractor from compliance with the good faith procedures prescribed by 1, 2 and 3 below as long as the Affirmative Action office is satisfied that the Contractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Affirmative Action Office, that its percentage of active "card carrying" members who are minority and female workers is equal to or greater than the applicable employment goal prescribed by N.J.A.C. 17:27-7.3 promulgated by the Treasurer pursuant to PL 1975, C. 127, as amended and supplemented from time to time. The Contractor or Subcontractor agrees that a good faith effort shall include compliance with the following procedures:
  - 1. 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 (3) days of the Contract award, seek assurances from the union that it will cooperate with the Contractor as it fulfills its affirmative action obligations under this Contract and in accordance with the regulations promulgated by the Treasurer pursuant to P.L. 1975, c. 127, as it is 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 (5) days prior to the commencement of construction work, the Contractor or Subcontractor agrees to attempt to hire minority and female workers consistent with the applicable employment goal. 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 refer sufficient minority and female workers consistent with the applicable employment goal, the Contractor or Subcontractor agrees to be prepared directly to hire minority and female workers, consistent with the applicable employment goal, by complying with the hiring procedures prescribed under (c) below; and the Contractor or Subcontractor further agrees immediately to take said action immediately if it determines or is so notified by the Affirmative Action Office that the union is not referring minority and female workers consistent with the applicable employment goal.
- (c) If the hiring of a work force consistent with the employment goal has not or cannot be achieved for each construction trade by adhering to the procedures of (b) 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 consistent with the applicable county employment goals:

1. To notify the Public Agency Compliance Officer, Affirmative Action Office, and at least one approved minority referral organization of its manpower needs, and request referral of minority and female workers.
  2. To notify any minority and female workers who have been listed with it as awaiting available vacancies.
  3. Prior to commencement of work, to request the local construction trade union, if the Contractor or Subcontractor has a referral agreement or arrangement with a union for the construction trade, to refer minority and female workers to fill job openings.
  4. To leave standing requests for additional referral of minority and female workers with the local construction trade union, if 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 until such time as the work force is consistent with the employment goal.
5. If it is necessary to lay off some of the workers in a given trade on the construction site, to assure, consistent with the applicable State and Federal statutes and court decisions, that sufficient minority and female employees remain on the site consistent with the employment goal; and to employ any minority and female workers so laid off by the Contractor on any other construction site in the area on which its work force composition is not consistent with an employment goal established pursuant to regulations implementing PL 1975, c. 127.
6. To adhere to the following procedure when minority and female workers apply or are referred to, the Contractor or Subcontractor:
  - i. If said individuals have never previously received any document or certification signifying a level of qualification lower than that required, the Contractor or Subcontractor shall determine the qualifications of such individuals and if the Contractor's or Subcontractor's work force in each construction trade is not consistent with the applicable employment goal, it shall employ such persons which satisfy appropriate qualification standards; provided however, that a Contractor or Subcontractor shall determine that the individual at least possesses the skills and experience recognized by any worker skills and experience classification determination which may have been made by a Public Agency Compliance Officer, union, apprentice program or a referral agency, provided the referral agency is acceptable to the Affirmative Action Office and provided further, that if necessary, the Contractor or Subcontractor shall hire minority and female workers who qualify as trainees pursuant to these rules. All of the requirements of this paragraph, however, are limited by the provisions of (d) below.
  - ii. If the Contractor's or Subcontractor's work force is consistent with the applicable employment goal, the name of said female or minority group individual shall be maintained on a waiting list for the first consideration, in the event the Contractor's or Subcontractor's work force is no longer consistent with the applicable employment goal.

- iii. If for any reason said Contractor or Subcontractor determines said minority group individual or a female is not qualified or if the individual qualifies as an advance trainee or apprentice, the Contractor or Subcontractor shall inform said individual in writing with the reasons for the determination and maintain a copy in its files, and send a copy to the Public Agency Compliance Officer and to the Affirmative Action Office.

7. 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 Affirmative Action Office and submitted promptly to that office upon request.

- (d) The Contractor or Subcontractor agrees that nothing contained in (c) above shall preclude the Contractor or Subcontractor from complying with the hiring hall or apprenticeship provisions in any applicable collective bargaining agreement or 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; provided, however, that where the practices of a union or apprenticeship program will result in the exclusion of minorities or females or the failure to refer minorities and females consistent with the county employment goal, the Contractor or Subcontractor shall consider for employment persons referred pursuant to (c) above without regard to such agreement or arrangement; provided further however, that the Contractor or Subcontractor shall not be required to employ female and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total work force for the construction trade, which percentage significantly exceeds the apprentice to journey worker 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 (c) above, it shall, where practicable, employ minority and female workers residing within the geographical jurisdiction of the union.
- (e) The Contractor agrees to complete an Initial Project Manning Reports on forms provided by the Affirmative Action Office or in the form prescribed by the Affirmative Action Office and submit a copy of said form no later than three (3) days after signing a construction contract; provided however, that the Public Agency may extend in a particular case the allowable time for submitting the initial form to no more than fourteen (14) days; and to submit a copy of the Monthly Project Manning Report once a month thereafter for the duration of this Contract to the Affirmative Action Office 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 off-the-job programs for outreach and training of minority and female trainees employed on the construction projects.

- (f) The Contractor and its Subcontractors shall furnish such reports or other documents to the Affirmative Action Office as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the affirmative action office for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code (N.J.A.C. 17:27).

#### 0.32 Solid Waste Disposal

The bidder is directed to N.J.A.C. 7:26-1, et seq., Rules of the Department of Environmental Protection, Division of Waste Management. The Contractor shall be required to follow the applicable rules and regulations. In general, these regulations require that all solid wastes (including, without limitation, concrete, black top, demolition or construction debris, unacceptable fill, etc.) must be disposed in an approved, licensed disposal facility. Also, any truck hauling this type of material to a landfill must have a permit issued by the Bureau of Registration and Permit Administration, NJ Department of Environmental Protection, 840 Bear Tavern Road, Trenton, NJ 08625.

Prior to the removal of any solid waste material from the site, the Contractor shall submit a written statement from a licensed solid waste disposal facility operator which grants the Contractor permission to use the facility for the disposal of materials originating at the Owner's project site.

Under the price bid, the bidder shall include the cost of all permit and disposal fees and hauling costs that may be necessary for compliance with all applicable laws and regulations.

#### 0.33 New Jersey State Sales and Use Tax Exemption

Materials and equipment purchases for permanent installation in the project will be exempt from the New Jersey State Sales and Use Tax. Each Bidder shall take this exemption into account in calculating his bid. It shall be the Contractor's responsibility to file the necessary exemption applications.

#### 0.34 Allowances

NOT IN CONTRACT

#### 0.35 Department of Labor, Safety and Health Regulations

The Contractor shall comply with all applicable requirements of the Federal Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1972 (P.L. 91-596) and under Section 108 of the Contract Work Hours and Safety Standards Act (P.L. 91-54).

### 0.36 Prompt Payment

Provided the Contractor is performing all obligations required under the Contract Documents, the Owner agrees to make payment to the Contractor at least once each month as the work progresses and to retain only such amounts as may be permitted by law and the Contract Documents.

### 0.37 Construction Plans and Specifications

Upon award of the Contract, the Contractor may obtain, free of charge, four (4) complete sets of Drawings and Specifications. Additional sets of Drawings and Specifications may be purchased by the Contractor for the deposit amount set forth in the Notice to Bidders.

### 0.38 Bidders Referred to Laws and Safety

The attention of the bidders is especially directed to the provisions of Federal, State, County and Municipal laws, statutes and regulations that may apply to the work, including particularly all safety regulations. The provisions of the U.S. Occupational Safety and Health Act (OSHA) and its implementing regulations and all safety standards promulgated thereunder shall be observed by the Contractor in the performance of the Contract, whether or not they would otherwise be applicable.

Such provisions refer to obstruction of streets, traffic safety, open burning, maintaining of signals, excavation, storing and handling of explosives, etc. Particular note is to be taken also of those provisions affecting the Contractor and his employees in the prosecution of the work and his relation to any political subdivision or person. All applicable laws, statutes, ordinances and regulations shall be obeyed and complied with by the Contractor, his subcontractors and all of his representatives, including, without limitation, all applicable provisions of Federal and New Jersey State Labor Laws.

The Contractor shall be solely and completely responsible for conditions in, on or near the job site, including safety of his operations during performance of the work. This requirement will apply continuously 24 hours a day until final acceptance of the work by the Owner and shall not be limited to normal working hours.

Construction observation of the Contractor's performance by the Engineer is not intended to and shall not include review of the adequacy of the Contractor's safety measures, in, on or near the construction site.

"The Contractor shall provide in writing, prior to beginning any work, who his "competent person" will be for the project and emergency phone numbers. Prior to beginning any work, the Contractor shall also submit emergency action plans, where applicable and as required by OSHA, Title 29 CFR, Section 1910 and Part 1926. In addition to any required by OSHA, a written emergency action plan shall be required for confined space entry, trenching/excavation, underground and overhead utilities. In addition, no work shall commence without the Contractor contacting the utility mark-out firm (1-800-272-1000) or any other utilities not contracted with the utility mark-out firm

for a mark-out prior to construction. In addition, prior to commencing any work, if the utility mark-out firm or other utilities have been contacted for a mark-out and there have been no utilities marked on the ground when work is ready to commence, the Contractor is not to assume that there are no utilities in the area and shall confirm this by recontacting the utility mark-out firm and/or utility companies to insure that there are in fact no utilities in the area."

#### 0.39 Subcontractor Requirements

The laws pertaining to public bidding in the State of New Jersey require that a prime contractor list his subcontractors at the time of bid for any of the following subcontracted work: Structural Steel and Ornamental Iron, Plumbing work and Gas Fitting and all kindred work, Steam and Hot Water Heating and Ventilating Apparatus, Steam Power Plants and kindred work, and Electrical work.

The contractor shall not sublet, transfer, assign and sell or otherwise dispose of the contract or any portion thereof, or of the work provided therein, or of his right, title or interest therein to any purpose, firm or corporation without the written consent of the Owner. No subcontractor will be approved by the Owner until evidence has been presented that a surety bond will be supplied to the subcontractor to cover the work and materials used in that particular subcontract. Said bond shall be drawn in favor of the general contractor and Owner as joint obligee and shall recite the fact that the original contract has been entered into as well as the subcontract which the bond immediately covers.

The provisions regarding Affirmative Action and the Americans with Disabilities Act shall apply to any/all subcontractors.

#### 0.40 Pre-Construction and Construction Conferences

Before construction is started, preconstruction conferences shall be held. During the first conference the Owner, his Engineer, and the Contractor will discuss the procedures to be followed by the Contractor during the construction process.

The Contractor will also be required to attend a preconstruction conference attended by all utility companies and State and local authorities.

A third conference, if necessary, may include representatives of the Owner, Engineer, Contractor, EPA, U.S. Army Corps of Engineers, and NJDEP and would concern compliance with State and Federal regulations and the environmental plans and specifications.

During the construction, job meetings shall be held at frequent intervals to review construction and restoration progress and to resolve difficulties that might delay completion of the work. Attendees at these meetings shall include representatives of the Owner, the Engineer and the Contractor.

#### 0.41 State Wage Rates

The Contractor's attention is directed to the prevailing wage rates listed on the SWR pages and to the applicable provisions of the New Jersey Prevailing Wage Act, Chapter 150, of the Laws of 1963 as amended, governing the prevailing rates of wages for workmen who are employed on this project. All applicable provisions of said Prevailing Wage Act and Amendments thereto shall be considered part of this Contract and made a part hereof.

The Bidder does also declare and represent that in the event of any change of such prevailing rates at any time before the execution and delivery of the Contract between the Bidder and the Owner for the work of construction of the project, or at any time thereafter, the new rates,

if applicable, will become minimum rates for work performed thereafter under said Contract. No increase in the Contract price shall be claimed by the Bidder and no such increase will be granted by the Owner as a result of such change.

The Contractor is specifically directed to the following requirements as set forth by the Act (to the extent applicable):

- a. All workmen engaged in the performance of services directly under this public work Contract shall be paid not less than the prevailing rate of wages as specified.
- b. Each Contractor and subcontractor shall keep an accurate record showing the name, craft trade, and actual hourly rate of wages paid to each workman employed by him in connection with said public work. Records shall be preserved for two years from date of payments.
- c. The Contractor and Subcontractor shall post the prevailing wage rates for each craft and classification involved, as determined by the Commissioner of Labor and Industry, including the effective date of any changes thereof, in prominent and easily accessible places at the site of the work, or at such place or places as are used by them to pay workmen their wages.
- d. In the event that it is found that any workman employed by the Contractor or any Subcontractor covered by such a Contract is paid less than the required wage rates, the Owner may terminate the Contractor's or Subcontractor's right to proceed with the work, or such part of the work as to which there has been a failure to pay required wages, and to prosecute the work to completion or otherwise, and the Contractor and his Surety shall be liable to the Owner for any excess costs occasioned thereby.
- e. The Contractor and Subcontractors shall file written statements to the Owner certifying to the amounts then due and owing from them to any and



all workmen or wages due on account of said work. Said statements shall be filed prior to the final payment certificate and again prior to the final payment of any retained percentage funds by the Owner. The statements shall set forth the names of the persons whose wages are unpaid (if any) and the amount due to each. The statements shall be verified by the oath of the Contractor or Subcontractor as the case may be.

- f. Whenever the State and Federal Wage Rate Determinations list different minimum rates of pay for the same class of worker, the Contractor and all Subcontractors shall pay the higher of the two rates.
- g. Fringe benefits are part of prevailing wage rates; employers not paying these fringe benefits to a party designated in a collective bargaining agreement shall pay benefits directly to employee on each pay day.

Each bidder shall read carefully and fully said published wage rates, and shall predicate and bid on said rates as minimum requirements. Submission of bid shall imply that Bidder has carefully inspected all said wage rates, that the Bidder is thoroughly familiar with all provisions of the Prevailing Wage Act and that should he be awarded a contract, he will fully and faithfully comply with all provisions of the Prevailing Wage Act.

#### 0.42 Change Orders

During the course of the construction of the Project, it may be necessary to make modifications to the Contract. If a modification should become necessary, it shall be made only in writing and in accordance with N.J.A.C 5:34-1 et. Seq.,

#### 0.43 Project Observation

The Contractor's attention is directed to the fact that Mott Watkins Associates or any other Engineer authorized by the Owner, will provide observation services, which will include observing the progress and quality of the executed work and determining, in general, if the work is proceeding in accordance with the Contract Documents.

#### 0.44 Observer's Service for Saturdays, Sundays, Holidays and Off-Hours

The excess cost of wages, overhead and fees of observers employed or engaged by the Owner shall be paid by the Owner except that the cost of such services required any time on Saturdays, Sundays, or legal holidays, or on weekdays outside the hours of 8:00 A.M. to 4:30 P.M. inclusive, shall be borne by the Contractor if the Owner so elects. The Owner reserves the right to deduct from the Contractor's payments and shall be retained by the Owner, an amount sufficient to cover the excess cost of wages, overhead and fees paid by the Owner to any observer or observers necessarily employed on the work outside the above-mentioned times, such amount to be determined on the basis of actual cost of wages, overhead and fees.

For purposes of this clause, the term "excess cost" refers to overtime premia, etc., caused by the non-regular workdays and hours.

#### 0.45 American Goods and Products

All bidders are advised that in accordance with the requirements of the Local Public Contracts Law 40A:11-18 only manufactured and farm products of the United States, wherever available, shall be used in the Contract work. If the use of foreign products is required, the advance written approval of the Owner and Assistant Director, Municipal Wastewater Assistance Element (MWAE) of NJDEP is required.

#### 0.46 Access to the Work

The representatives of the Federal Department of Labor, the New Jersey Department of Environmental Protection and the New Jersey Department of Labor and any other governmental entity having jurisdiction shall be afforded access to the work under this contract wherever it is in preparation or progress. The Contractor shall provide proper facilities for such access and inspection.

#### 0.47 Plant Organization Required

It is the purpose of the Owner to build the works under its charge in the shortest time consistent with good construction. To this end, the Contractor will be required to use improved methods and appliances for doing the various parts of the work. Complete and well-designed construction plants and effective organization will be insisted upon.

#### 0.48 Quality of Materials and Workmanship

The attention of bidders is directed to the exacting requirements of the Contract requiring the Contractor to provide safe, watertight and otherwise adequate structures. The bidder shall realize fully that the first class materials and workmanship specified must be supplied in full measure in order to produce acceptable structures and equipment of the kind specified and as designed to give uninterrupted service for an extended period.

#### 0.49 Dewatering Facilities

The Contractor shall provide suitable and adequate dewatering equipment to ensure satisfactory construction and maximum progress. This shall be included within the bid proposal price.

#### 0.50 Connections to Existing Mains and Valve Operation

All connections to existing piping and facilities shall be made only after receiving permission from the Owner. Existing valves shall be operated only by the Owner's personnel.

#### 0.51 Interruption in Traffic Flow

The plan for proposed interruptions or detouring of traffic shall be submitted to the Police Department for approval. Contractor shall notify the Municipal Clerk, Police Department, Fire Department, Emergency Medical Services and Transportation Coordinator of all Boards of Education serving the project area of approved traffic detour plans at least forty-eight (48) hours prior to their implementation.

#### 0.52 Penalties for False Statements

Any person who makes or causes to be made, a false, deceptive or fraudulent statement in the statement or answers in response to the questionnaire, or in the course of any hearing hereunder, shall be guilty of a misdemeanor, and upon conviction shall be punishable by a fine of not less than \$100.00 nor more than \$1,000.00, and shall be permanently disqualified from bidding on all public work or contracts of the contracting unit which submitted the questionnaire; or, in the case of an individual or an officer or employee charged with the duty of responding to the questionnaire for a person, firm, co-partnership, association or corporation, by such fine or by imprisonment, not exceeding 6 months, or both.

#### 0.53 Right-to-Know Labeling

All containers are required to provide New Jersey Right-to-Know labeling.

All containers, including shipping cartons, shall bear a label indicating the chemical name(s) and Chemical Abstracts Service number(s) of all hazardous substances in the container, and all other substances which are among the five most predominant substances in the container, or their trade secret registry number(s). (NJAC 8:59-5).

"Container" means a receptacle used to hold a liquid, solid or gaseous substance such as bottles, bags, barrels, boxes, cans, cylinders, drums and shipping cartons. (NJAC 8:59-1.3).

#### 0.54 Extra Material on Hand

Existing facilities that are to be expanded or modified are sized and located in accordance with the best information available. The Contractor shall be prepared to accommodate changes in the size or location by maintaining at the job site additional pipe, fittings and valves in the ranges of sizes being dealt with. This additional material shall be available to prevent delays in construction.

#### 0.55 Reference to General Requirements and Special Conditions

The attention of bidders is specifically directed to the General Requirements, and the Special Conditions of the specifications.

#### 0.56 Debarment

The Contractor may be debarred, suspended or disqualified from contracting on any project financially assisted by the State of New Jersey or the New Jersey Department of Environmental Protection and Energy if the Contractor commits any of the acts listed in N.J.A.C. 7:1-5.2.

No work may be awarded to a Contractor or subcontractor who is included on the State Treasurer's List of Debarred, Suspended and Disqualified Bidders, or who has been debarred, suspended or disqualified from New Jersey Department of Environmental Protection and Energy contracting pursuant to N.J.A.C. 7:1-5

#### 0.57 Local Public Contract Law

##### **40A:11-25. General power to provide qualification for bidders**

The governing body of any contracting unit may establish reasonable regulations appropriate for controlling the qualifications of prospective bidders upon contracts to be awarded on behalf of the contracting unit, by the class or category of goods or services to be provided or performed, which may fix the qualifications required according to the financial ability and experience of the bidders and the capital and equipment available to them pertinent to and reasonably related to the class or category of goods or services to be provided or performed in the performance of any such contract, and may require each bidder to furnish a statement thereof; and if such governing body is not satisfied with the qualifications of any bidder as founded upon such statement, it may refuse to furnish the bidder with any plans or specifications for any public contract or consider any bid made by the bidder for any contract.

Prior to the adoption of any such regulations, a contracting unit shall submit them to a public hearing. Notice of the hearing and a general description of the subject matter of the regulations to be adopted shall be published in not less than two newspapers circulating in the county or municipality in which the contracting unit is located. Publication shall precede by at least 20 days the date set in the notice for the hearing. The clerk or secretary of the governing body of the contracting unit shall keep a record of the proceedings and of the testimony of any citizen or prospective bidder. Within 10 days after the completion of the hearings, the proposed regulations and a true copy of the hearings shall be forwarded to the Director of the Division of Local Government Services for the director's approval. This approval shall be indicated by a letter from the director to the governing body of the contracting unit. If the director fails to approve or disapprove the regulations within 30 days of their receipt by the director, they shall take effect without the director's approval. The director may disapprove such proposed regulations only if the director finds that:

- (a) They are written in a manner which will unnecessarily discourage full, free and open competition; or

(b) They unnecessarily restrict the participation of small businesses in the public bidding process; or

(c) They create undue preferences; or

(d) They violate any other provision of this act, or any other law.

If the director disapproves such proposed regulations within the 30-day period prescribed, they shall be of no force and effect and may not be required as a condition to the acceptance of a bid on any public contract by the contracting unit. Any appeal from a decision of the director to the Local Finance Board shall be subject to the provisions of the "Local Government Supervision Act (1947)", P.L.1947, c.151 (C.52:27BB-1 et seq.).

No qualification rating of any bidder shall be influenced by the bidder's race, religion, sex, national origin, nationality or place of residence or business.

Nothing contained in this act shall limit the right of any court to review a refusal to furnish any such plans or specifications or to consider any bid on any contract advertised.

Any such governing body may adopt a standard form of statement or questionnaire for bidders on public works contracts, and in such case their action shall be governed as provided herein.

L.1971, c. 198, s. 25; amended 1999, c. 440, s. 32.

#### **40A:11-26. Standard questionnaire; effect of unsatisfactory answers**

The governing body of any contracting unit may adopt a standard form of statement or questionnaire for bidders and may require from any person proposing to bid upon any such contract a statement or answers showing the bidder's financial ability and experience in performing public sector work and describing the equipment available to such bidder in the performance of such contract, and if not satisfied with the sufficiency of this statement or answers may refuse to furnish plans and specifications to the bidder.

L.1971, c. 198, s. 26; amended 1999, c. 440, s. 33.

#### **40A:11-27. Standard statements and questionnaires; prospective bidders; responses**

Such statements and questionnaires shall be standardized for like classes of goods or services to be submitted to prospective bidders who may be required to respond to questions under oath. The statement or answer shall disclose fully the financial ability, adequacy of plant and equipment, organization and prior experience of the prospective bidder, and such other pertinent and material facts as may be required.

L.1971, c. 198, s. 27; amended 1999, c. 440, s. 34.

#### **40A:11-28. Classification of prospective bidders; notice**

Prospective bidders shall be classified as to the character and amount of goods or services contracts as to which they shall be qualified to submit bids, and bids shall be accepted only from persons so qualified. The classification shall be made and an immediate notice thereof shall be sent to the prospective bidders by certified or registered mail within eight days after the date of receipt of the responsive statement or answers.

L.1971, c. 198, s. 28; amended 1999, c. 440, s. 35.

#### **40A:11-29. Reclassification of prospective bidders; request for; time limit**

If any person, after being notified of a classification, shall be dissatisfied therewith or with the classification of other bidders, that person may request in writing a hearing before such governing body, and may present such further evidence with respect to the financial responsibility, organization, plant and equipment, or experience of that person or other prospective bidders as might tend to justify a different classification.

Where a request is made for the change of classification of another prospective bidder, the applicant therefor shall notify such other bidder by certified or registered mail of the time and place of hearing, as fixed by the governing body, and at the hearing shall present satisfactory evidence that the notice was served as herein required, before any matters pertaining to a change of classification of such other bidder shall be taken up. After hearing such evidence the governing body may, in its discretion, by appropriate action, change or retain the classification of any bidder.

No change in classification to be effective for any contract where bidding therefor has been duly advertised, shall be made unless the written request therefor shall have been received at least 20 days before the final day for submission of bids.

All requests for change in classification and notice of any action sent by certified or registered mail to the parties directly affected thereby, shall be acted upon by the governing body concerned at least eight days prior to the date fixed for the next opening of bids on any contract or contracts for which such persons might be qualified to bid as a result of the reclassification.

L.1971, c. 198, s. 29; amended 1999, c. 440, s. 36.

#### **40A:11-30. Board of review upon classification; membership, et cetera**

There is hereby established a board of review upon classification and reclassification of prospective bidders. This board shall consist of one member of the governing body of the contracting unit concerned and two citizens of the county or municipality to be designated by such governing body. In all counties having a county supervisor, he shall be a member of the board of review instead of one of the citizens. The clerk of the contracting unit shall be the secretary of the board of review and shall keep a complete record of its proceedings and decisions. The members of the board shall serve without compensation.

L.1971, c. 198, s. 30, eff. July 1, 1971.

#### **40A:11-31. Reconsideration by board of review; request for; time limit**

Any prospective bidder who is dissatisfied with an original classification or reclassification may upon receipt of notice thereof, request in writing a hearing of the matter before the board of review. The request shall be filed with the contracting agent and the secretary of the board.

The board shall hold a hearing at which the prospective bidder shall be entitled to be heard and to submit additional information.

The board shall review the responsibility of all prospective bidders who have filed statements or answers, considering both the statement, answers and any additional information given at the hearing, and shall certify to the contracting unit concerned, its decision as to the original classifications or reclassifications, if any. The decisions shall be made by a majority vote.

In order for any change in classification by the board to be effective for a contract previously advertised, the request shall be filed not less than five days prior to the final day for submission of bids, and the board shall hold a hearing and act upon the request not less than two days prior to the date fixed for the next opening of bids on any public works contract for which such prospective bidders might be qualified to bid as a result of the reclassification.

L.1971, c. 198, s. 31; amended 1999, c. 440, s. 37.

#### **40A:11-32. Rejection of bids after qualification of bidder; hearing**

Nothing herein contained shall be construed as depriving any governing body of the right to reject a bid at any time prior to the actual award of a contract, where the circumstances of the prospective bidder have changed subsequent to the qualification and classification of the bidder, which in the opinion of the awarding contracting unit would adversely affect the responsibility of the bidder. Before taking final action on any such bid, the contracting agent concerned shall notify the bidder and afford the bidder an opportunity to present any additional information which might tend to sustain the existing classification.

No person shall be qualified to bid on any contract unless that person shall have submitted a statement or answers as herein required within a period of six months preceding the date of opening of bids for the contract, if the bidders thereon are required to be classified hereunder. In any case where the contracting unit shall require classification of the bidders in compliance with these sections, each bidder on any contract shall be required to submit a statement listing the changes in the statement or answers herein required as part of the bidder's bid submission.

L.1971, c. 198, s. 32; amended 1999, c. 440, s. 38

# State Wage Rates

## NOTICE

To all Public Works Employers:

Please be advised that effective February 18, 1992 Regulation N.J.A.C. 12:60-2.1 and 6.1 of the New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq. requires that certified payroll records must be submitted to the public body for each employee on the project. The General Contractor is responsible for ensuring that each sub-contractor submits the certified payroll within ten (10) days of the payment of wages. The public body shall receive, file and make available for inspection during normal business hours the certified payroll records.

A copy of the certified payroll form may be obtained by contacting the New Jersey Department of Labor, Division of Workplace Standards, Public Contracts Section, CN 389, Trenton, NJ 08625-0389, Telephone (609) 292-2259.



# **PROPOSAL**

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Bidder Declaration

PROPOSAL

to the

TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132

THE UNDERSIGNED, as bidder, declares that the only persons or parties interested in the Proposal as principals are named on Page P-8; that the Proposal is in all respects fair and without collusion or fraud; that he has carefully examined the annexed proposed form of Contract, the Specifications, the Contract Drawings, the Information for Bidders, and supplemental general conditions; that he, or his representative, has made a personal inspection of the site of the proposed work; and that he proposes and agrees that if this Proposal is accepted, he will contract with the Township of Egg Harbor in the form of contract hereto annexed, to provide the necessary machinery, tools, apparatus, and other means of construction, and to furnish all the materials, equipment and labor specified in the Contract in the manner and time therein specified, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following prices, to wit:

## Bid Items

PROPOSAL  
TO  
TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID  
CONTRACT NO. 132

### SCHEDULE OF QUANTITIES AND PRICES

Pursuant to and in compliance with your Advertisement for Bids and the Information for Bidders relating thereto, the undersigned hereby offers to furnish all plant, labor, materials, supplies, equipment and other facilities and things necessary for, or proper for, or incidental to the **TOWNSHIP CONTRACT 132 - 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID** as required by, and in strict accordance with the applicable provisions of plans and specifications and all addenda issued by the **TOWNSHIP OF EGG HARBOR** or its Engineer prior to the date of opening the bids whether received by the undersigned or not for the amount bid based on the following unit and/or lump sum prices.

Contract Time: 30 Calendar Days  
Schedule of Liquidated Damages: \$500 Per Calendar day

### BID

Item	Quantity	Units	Description	Unit Price	Write Out Unit Price	Amount
1	1	LUMP SUM	CLEARING SITE	\$		\$
2	1	LUMP SUM	TREE & SHRUB REMOVAL	\$		\$
3	1	LUMP SUM	SOIL EROSION AND SEDIMENT CONTROL	\$		\$
4	400	C.Y.	BIOSWALE EXCAVATION	\$		\$
5	6,200	S.Y.	HMA MILLING, 2" & VARIABLE	\$		\$
6	850	TON	HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK	\$		\$
7	170	L.F.	REMOVE & REPLACE CONCRETE VERTICAL CURB	\$		\$
8	20	S.F.	TRAFFIC MARKINGS, LINES, LONG-LIFE, THERMOPLASTIC, 24" THICK	\$		\$
9	2,800	L.F.	TRAFFIC STRIPES, LINES, LONG-LIFE, EPOXY RESIN, 4" THICK	\$		\$
10	6	S.F.	TRAFFIC MARKINGS, SYMBOLS, LONG-LIFE, THERMOPLASTIC	\$		\$
11	40	L.F.	BLOCK RETAINING WALL	\$		\$
12	195	L.F.	CHAINLINK FENCE, 4FT HIGH	\$		\$

ALL "P" PAGES MUST BE COMPLETED AND SIGNED OR BID SHALL BE REJECTED.

SIGNATURE: \_\_\_\_\_

PROPOSAL  
TO  
TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID  
CONTRACT NO. 132

SCHEDULE OF QUANTITIES AND PRICES

**BID**

Item	Quantity	Units	Description	Unit Price	Write Out Unit Price	Amount
13	40	L.F.	VINYL SPLIT RAIL FENCE, 4FT HIGH	\$		\$
14	100	S.Y.	RIP RAP, D50- 4"-6"	\$		\$
15	220	C.Y.	BIOSEED MIX	\$		\$
16	2	UNIT	BETULA POPULIFOLIA, "BIRCH GRAY"	\$		\$
17	2	UNIT	CARINUS CAROLINIANA, "HORNBEAM, AMERICAN"	\$		\$
18	2	UNIT	ACER SACCHARINUM, "MAPLE, SILVER"	\$		\$
19	4	UNIT	CLETHRA ALNIFOLIA, "RED MAPLE"	\$		\$
20	4	UNIT	SPIRAEA TOMENTOSA, "STEEPLE-BUSH"	\$		\$
21	4	UNIT	VIBURNUM CASSINOIDES, "WITH- ROD"	\$		\$
22	500	S.Y.	TOPSOILING, 4" THICK	\$		\$
23	500	S.Y.	HYDROSEEDING	\$		\$
24	250	S.F.	CONSTRUCTION SIGNS	\$		\$
25	25	UNIT	DRUM	\$		\$
26	50	UNIT	TRAFFIC CONES	\$		\$
27	1	LUMP SUM	FUEL PRICE ADJUSTMENT	\$ 100.00	ONE HUNDRED DOLLARS AND ZERO CENTS	\$ 100.00
<b>Total Amount Bid Based on Estimated Quantities, Bid Items 1 - 27, Inclusive</b>				\$		

*DOLLARS*

**TOTAL AMOUNT BID FOR BID ITEMS 1-27, WRITTEN**

SIGNATURE

NAME & TITLE (TYPE OR PRINT)

BID DATE

COMPANY NAME

**Owner reserves the right to award bid at their sole discretion based on availability of funds. There will only be one (1) contract awarded for this project.**

The amount shall be shown in both words and figures. In case of discrepancy, the amount shown in words will govern. It is understood that in the event that there is a discrepancy between the unit price and the extended total, as above set forth, the unit price shall govern.

It is further understood that the quantities quoted are approximations only for comparing bids and the total price is only to be used as the basis for awarding the contract, subject to the audit of the extended totals as above set forth and no claim shall be made against the Township of Egg Harbor, for excess or deficiency thereof, actual or otherwise.

It is further understood that the Township reserves the right to order, and the contractor agrees to furnish, a greater or lesser amount than then amounts quoted in each item, within the guidelines of the State public bidding laws, at the unit prices quoted, and the payment at the unit prices will be in full for the complete work as specifically included in the items, as more fully and respectively described on the Plans and in the Specifications or as otherwise required, and all other expenditures incidental to the satisfactory compliance with the contract.

The undersigned hereby agrees to execute and deliver a bond with some surety or guaranty company authorized to do business in the State of New Jersey, security to be approved by the Township Clerk, as surety for the faithful performance of the contract, and also for the payment of all lawful claims of subcontractors, material, men, laborers, persons, firms or corporations for labor performed, or materials, provisions, provender or other supplies or teams, fuel, oils, implements or machinery furnished, used or consumed in the carrying forward, performing or completing of said contract; the said bond to be in the penal sum equal to one hundred percent (100%) of the contract amount for the work as finally awarded, the said bond to be approved as to form and execution by the Township Solicitor and do further agree to execute and deliver the contract, certificates of insurance and the said bond, duly approved as aforesaid, to the Township Clerk of the Township of Egg Harbor, at their office in the Township Hall, within ten (10) days from the date of the service of a notice to the effect that the contract has been awarded to the undersigned and in case of failure or neglect so to do the undersigned shall be considered as having abandoned the contract and in default to the Township of Egg Harbor to the amount of the certified or cashier's check or bid bond deposited with this bid, the same being not less than ten percent (10%) of the amount of the bid, but in no case in excess of \$20,000, which sum may be retained by the said Township of Egg Harbor as liquidated damages for such neglect or refusal, upon condition, however, that if this bid be rejected the said certified or cashier's check or bid bond shall be returned upon application to the Township Clerk; and in case such contract and bond shall be executed and delivered by the undersigned in the manner and within the time above specified; the amount of said deposit shall be returned at the time of such delivery.

Pursuant to N.J.S.A. 40A.11-23 1a, the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents by indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject to rejection of the bid.

Local Unit Reference Number or Title of Addendum/Revision	How Received (Email, Fax, Pick-up, etc.)	Date Received

AND DO further admit and agree that this bid is made subject to all the provisions, conditions and statements in the Advertisement, Instructions to Bidders, and Specifications.

Dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

BIDDER'S SIGNATURE: \_\_\_\_\_

BIDDER'S NAME PRINTED: \_\_\_\_\_

## Statement of Ownership Disclosure

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

**This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.**

**Name of Organization:** \_\_\_\_\_

**Organization Address:** \_\_\_\_\_

### **Part I** Check the box that represents the type of business organization:

- ☐ Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- ☐ Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- ☐ For-Profit Corporation (any type)      ☐ Limited Liability Company (LLC)
- ☐ Partnership      ☐ Limited Partnership      ☐ Limited Liability Partnership (LLP)
- ☐ Other (be specific): \_\_\_\_\_

### **Part II**

- ☐ The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**

**OR**

- ☐ No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Home Address (for Individuals) or Business Address

**Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II**

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

**Please list** the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II **other than for any publicly traded parent entities referenced above.** The disclosure shall be continued until names and addresses of every noncorporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Home Address (for Individuals) or Business Address



**Part IV   Certification**

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the Township of Egg Harbor is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with Township of Egg Harbor to notify the Township of Egg Harbor in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the Township of Egg Harbor declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

## Prohibited Russia-Belarus Activities & Iran Investment Activities

<b>Prohibited Russia-Belarus Activities &amp; Iran Investment Activities</b>			
<b>Person or Entity</b>			
<b>Part 1: Certification</b>			
<p>COMPLETE PART 1 BY CHECKING <b><u>ONE OF THE THREE BOXES BELOW</u></b></p> <p>Pursuant to law, any person or entity that is a successful bidder or proposer, or otherwise proposes to enter into or renew a contract, for goods or services must complete the certification below prior to contract award to attest, under penalty of perjury, that neither the person or entity, nor any parent entity, subsidiary, or affiliate, is identified on the Department of Treasury's Russia-Belarus list or Chapter 25 list as a person or entity engaging in prohibited activities in Russia, Belarus or Iran. Before a contract for goods or services can be amended or extended, a person or entity must certify that neither the person or entity, nor any parent entity, subsidiary, or affiliate, is identified on the Department of Treasury's Russia-Belarus list. Both lists are found on Treasury's website at the following web addresses:</p> <p style="text-align: center;"> <a href="https://www.nj.gov/treasury/administration/pdf/RussiaBelarusEntityList.pdf">https://www.nj.gov/treasury/administration/pdf/RussiaBelarusEntityList.pdf</a>  <a href="http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf">www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf</a> </p> <p>As applicable to the type of contract, the above-referenced lists must be reviewed prior to completing the below certification.</p> <p>A person or entity unable to make the certification must provide a detailed, accurate, and precise description of the activities of the person or entity, or of a parent entity, subsidiary, or affiliate, engaging in prohibited activities in Russia or Belarus and/or investment activities in Iran. The person or entity must cease engaging in any prohibited activities and provide an updated certification before the contract can be entered into.</p> <p>If a vendor or contractor is found to be in violation of law, action may be taken as appropriate and as may be provided by law, rule, or contract, including but not limited to imposing sanctions, seeking compliance, recovering damages, declaring the party in default, and seeking debarment or suspension of the party.</p>			
<b>CONTRACT AWARDS AND RENEWALS</b>			
<input type="checkbox"/>	<p><i>I certify, pursuant to law, that neither the person or entity listed above, nor any parent entity, subsidiary, or affiliate appears on the N.J. Department of Treasury's lists of entities engaged in prohibited activities in Russia or Belarus pursuant to P.L. 2022, c. 3 or in investment activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. (Skip Part 2 and sign and complete the Certification below.)</i></p>		
<b>CONTRACT AMENDMENTS AND EXTENSIONS</b>			

<input type="checkbox"/>	<p><i>I certify, pursuant to law, that neither the person or entity listed above, nor any parent entity, subsidiary, or affiliate is listed on the N.J. Department of the Treasury's lists of entities determined to be engaged in prohibited activities in Russia or Belarus pursuant to P.L. 2022, c. 3. I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. (Skip Part 2 and sign and complete the Certification below.)</i></p>		
<b>IF UNABLE TO CERTIFY</b>			
<input type="checkbox"/>	<p><i>I am unable to certify as above because the person or entity and/or a parent entity, subsidiary, or affiliate is listed on the Department's Russia-Belarus list and/or Chapter 25 Iran list. I will provide a detailed, accurate, and precise description of the activities as directed in Part 2 below, and sign and complete the Certification below. <u>Failure to provide such will prevent the award of the contract to the person or entity, and appropriate penalties, fines, and/or sanctions will be assessed as provided by law.</u></i></p>		
<b>Part 2: Additional Information</b>			
<p><b><u>PLEASE PROVIDE FURTHER INFORMATION RELATED TO PROHIBITED ACTIVITIES IN RUSSIA OR BELARUS AND/OR INVESTMENT ACTIVITIES IN IRAN.</u></b></p> <p>You must provide a detailed, accurate, and precise description of the activities of the person or entity, or of a parent entity, subsidiary, or affiliate, engaging in prohibited activities in Russia or Belarus and/or investment activities in Iran in the space below and, if needed, on additional sheets provided by you.</p>			
<b>Part 3: Certification of True and Complete Information</b>			
<p><i>I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments there, to the best of my knowledge, are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity.</i></p> <p><i>I acknowledge that the Contracting Unit is relying on the information contained herein and hereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the Contracting Unit to notify the Contracting Unit in writing of any changes to the answers of information contained herein.</i></p> <p><i>I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the Contracting Unit and that the Contracting Unit at its option may declare any contract(s) resulting from this certification void and unenforceable.</i></p>			
<b>Full Name (Print)</b>			<b>Title</b>
<b>Signature</b>			<b>Date</b>



## State of New Jersey

PHILIP D. MURPHY  
*Governor*

DEPARTMENT OF THE TREASURY  
DIVISION OF PURCHASE AND PROPERTY  
OFFICE OF THE DIRECTOR  
33 WEST STATE STREET  
P. O. BOX 039

ELIZABETH MAHER MUOIO  
*State Treasurer*

SHEILA Y. OLIVER  
*Lt. Governor*

TRENTON, NEW JERSEY 08625-0039  
<https://www.njstart.gov>  
Telephone (609) 292-4886 / Facsimile (609) 984-2575

MAURICE A. GRIFFIN  
*Acting Director*

**The following list represents entities determined, based on credible information available to the public, to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25"):**

1. AK Makina Ltd.
2. Amona
3. Bank Markazi Iran (Central Bank of Iran)
4. Bank Mellat
5. Bank Melli Iran
6. Bank Saderat PLC
7. Bank Sepah
8. Bank Tejarat
9. China International United Petroleum & Chemicals Co., Ltd. (Unipecc)
10. China National Offshore Oil Corporation (CNOOC)
11. China National Petroleum Corporation (CNPC)
12. China National United Oil Corporation (ChinaOil)
13. China Oilfield Services Limited
14. China Petroleum & Chemical Corporation (Sinopec)
15. China Precision Machinery Import-Export Corp. (CPMIEC)
16. Indian Oil Corporation
17. Kingdream PLC
18. Naftiran Intertrade Company (NICO)
19. National Iranian Tanker Company (NITC)
20. Oil and Natural Gas Corporation (ONGC)
21. Oil India Limited
22. Persia International Bank
23. Petroleos de Venezuela (PDVSA Petróleo, SA)
24. PetroChina Company, Ltd.
25. Sameh Afzar Tajak Co. (SATCO)
26. Shandong Fin Cnc Machine Company, Ltd.
27. Sinohydro Co., Ltd.
28. SK Energy Co. Ltd.
29. SKS Ventures
30. Som Petrol AS
31. Zhuhai Zhenrong Company

**List Date: July 1, 2021**

Contractor's Certification

DISCRIMINATION AND AFFIRMATIVE ACTION

CONSTRUCTION CONTRACTS

"Bidder are required to comply with the requirements of N.J.S.A. 10:5-31 et. seq. and N.J.A.C. 17:27.

All successful contractor(s) must submit, to the agencies named below, after notification of award but prior to the signing of the contract an Initial Project Workforce Report (Form AA201) for any contract award that meets or exceeds the Public Agency bidding threshold.

The successful contractor(s) must submit the appropriate copies of the Initial Project Workforce Report (Form AA201) to the Division of Contract Compliance and the appropriate copy to the Public Agency. The successful contractor(s) must submit a copy of the Monthly Workforce Report (Form AA 202) once a month thereafter for the duration of this contract to the Division and to the public agency compliance officer.

The undersigned certifies that he/she is aware of the commitment to comply with the requirements of N.J.S.A. 10:531 et seq. and N.J.A.C. 17:27. and agrees to furnish the required forms of evidence.

The undersigned further understands that his/her bid may be rejected as non-responsive if the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27 are not complied with.

(Name of Bidder)

\_\_\_\_\_

\_\_\_\_\_  
Signature

Typed name:

Subscribed and sworn to  
before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary Public of \_\_\_\_\_

My Commission expires \_\_\_\_\_, 20\_\_.

## **EXHIBIT B**

### **MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE**

**N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)**

#### **N.J.A.C. 17:27-1.1 et seq. CONSTRUCTION CONTRACTS**

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

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 applicant's in recruitment and employment, and that 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.

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.

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. 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 and the Americans with Disabilities Act.

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 Dept. of LWD, Construction EEO Monitoring Program, may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B,

and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, 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 and the Americans with Disabilities Act. 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 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 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 hiring or scheduling procedures prescribed under (B) 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.

(B) 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 (A) 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:

(1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, 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;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) 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;

(4) To leave standing requests for additional referral to 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;

(5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and nondiscrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

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

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 recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.

The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

If, for any reason, said 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 Dept. of LWD, Construction EEO Monitoring Program.

(7) To keep a complete and accurate record of all requests made for the referral of worker's in any trade covered by the contract, on forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.



(C)The contractor or subcontractor agrees that nothing contained in (B) 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 failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) 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 worker 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 (B) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, 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 Dept. of LWD, Construction EEO Monitoring Program, 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.

(D)The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

**NEW JERSEY ANTI-DISCRIMINATION PROVISIONS**  
**N.J.S.A. 10:2-1 ET SEQ.**

Pursuant to N.J.S.A. 10:2-1, if awarded a contract, the contractor agrees that:

a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;

b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;

c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and

d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

### Americans with Disabilities Act of 1990

The CONTRACTOR and the OWNER do hereby agree that the provisions of Title 11 of the Americans With Disabilities Act of 1990 (the "ACT") (42 U.S.C~ S12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this contract. In providing any act benefit, or service on behalf of the OWNER pursuant to this contract, the CONTRACTOR agrees that the performance shall be in strict compliance with the Act. In the event that the Contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the OWNER in any action or administrative proceeding commenced pursuant to this Act. The Contractor shall indemnify, protect, and save harmless the OWNER, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the OWNER grievance procedure, the CONTRACTOR agrees to abide by any decision of the OWNER which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the OWNER or if the OWNER must any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its OWN expense.

The OWNER shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with frill and complete particulars of the claim. if any action or administrative proceedings is brought against the OWNER or any of its agents, servants, and employees, the OWNER shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the OWNER or its representatives.

It is expressly agreed and understood that any approval by the OWNER of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the OWNER pursuant to this paragraph.

It is further agreed and understood that the OWNER assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the

OWNER from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor's obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

**Business Name (Print):** \_\_\_\_\_

**Representative's Name (Print):** \_\_\_\_\_

**Representative's Title:** \_\_\_\_\_

**Representative's Signature:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Date:** \_\_\_\_\_

Pay to Play Advisory

**Disclosure Requirement  
P.L. 2005, Chapter 271, Section 3 Reporting  
(N.J.S.A. 19:44A – 20.27)**

Any business entity that has received \$50,000 or more in contracts from government entities in a calendar year will be required to file an annual disclosure report with ELEC.

The report will include certain contributions and contract information for the current calendar year.

At a minimum, a list of all business entities that file an annual disclosure report will be listed on ELEC's website at [www.elec.state.nj.us](http://www.elec.state.nj.us).

If you have any questions please contact ELEC at:  
1-888-313-ELEC (toll free in NJ) or  
609-292-8700

An analyst from ELEC's Special Programs Section will assist you.

Initials \_\_\_\_\_

### Listing of Subcontractors to be Used

Before submitting his bid, the Bidder shall completely familiarize himself with Section 40A:11-16 of the New Jersey Local Public Contracts Law (New Jersey Statutes Annotated 40A:11-16). If the Bidder will use subcontractors for the plumbing work and gas fitting and all kindred work, steam and hot water heating and ventilating apparatus steam power plants and kindred work, electrical work, structural steel and ornamental iron work he shall list below the name and address of each subcontractor to be used for these respective and kindred categories of work.

<u>WORK CATEGORY</u>	<u>NAME</u>	<u>ADDRESS</u>	<u>PHONE #</u>
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NOTE: Submission of the names and addresses of the subcontractors required by N.J.S.A. 40A:11-16 is essential and nonwaivable. Failure to comply with the statutory requirements will result in the Bid being deemed nonresponsive.

Non-Collusion Affidavit

STATE OF NEW JERSEY, COUNTY OF \_\_\_\_\_ ss.:

I, \_\_\_\_\_, of the Township of \_\_\_\_\_ in the County of \_\_\_\_\_ and the State of \_\_\_\_\_, of full age, being duly sworn according to law on my oath depose and say that:

I am \_\_\_\_\_ of \_\_\_\_\_ the bidder making the Proposal for the above-named contract, and that I executed the said Proposal with full authority so to do; that said bidder has not, directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the within Contract; and that all statements contained in said Bid and in this Affidavit are true and correct, and made with full knowledge that the TOWNSHIP OF EGG HARBOR relies upon the truth of the statements contained in said Proposal and in the statements contained in this Affidavit in awarding the Contract.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by the bidder for the purpose of securing business.

For breach or violation of this warranty the Owner shall have the right to annul the Contract without liability or in its discretion to deduct from the Contract price or consideration the full amount of such commission, percentage, brokerage or contingent fee.

(N.J.S.A. 52:34-15)

(Name of Bidder)

\_\_\_\_\_

\_\_\_\_\_  
Signature

Typed name:

Subscribed and sworn to  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_,

\_\_\_\_\_  
Notary Public of

Statement of Responsibility

Previous work of similar nature completed within the past five years. (List three)

1. Town or Utility Phone No. \_\_\_\_\_  
Town or Utility Business Address \_\_\_\_\_

Type of Work \_\_\_\_\_  
Contract Price \$ \_\_\_\_\_ Extra Work Required \$ \_\_\_\_\_

Approx. Date of Contract Award \_\_\_\_\_ Approx. Date of Completion \_\_\_\_\_  
Names, Address & Phone No. of Town's or Utility's Engineer or Superintendent \_\_\_\_\_

2. Town or Utility Phone No. \_\_\_\_\_  
Town or Utility Business Address \_\_\_\_\_

Type of Work \_\_\_\_\_  
Contract Price \$ \_\_\_\_\_ Extra Work Required \$ \_\_\_\_\_

Approx. Date of Contract Award \_\_\_\_\_ Approx. Date of Completion \_\_\_\_\_  
Names, Address & Phone No. of Town's or Utility's Engineer or Superintendent \_\_\_\_\_

3. Town or Utility Phone No. \_\_\_\_\_  
Town or Utility Business Address \_\_\_\_\_

Type of Work \_\_\_\_\_  
Contract Price \$ \_\_\_\_\_ Extra Work Required \$ \_\_\_\_\_

Approx. Date of Contract Award \_\_\_\_\_ Approx. Date of Completion \_\_\_\_\_  
Names, Address & Phone No. of Town's or Utility's Engineer or Superintendent \_\_\_\_\_



List approximate volume of work of similar nature completed within the past five years

\$ \_\_\_\_\_

List of Equipment required for this job which you now own \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

General Business References (List three)

<u>Name</u> <u>No.</u>	<u>Occupation</u>	<u>Business Address</u>	<u>Phone</u>
---------------------------	-------------------	-------------------------	--------------

A. \_\_\_\_\_

B. \_\_\_\_\_

C. \_\_\_\_\_

Bank Reference

<u>Name</u> <u>No.</u>	<u>Address</u>	<u>Phone</u>
---------------------------	----------------	--------------

\_\_\_\_\_  
\_\_\_\_\_

Number of Permanently Employed Persons in your Organization \_\_\_\_\_

\_\_\_\_\_

It is understood and agreed that the execution of this statement of responsibility is made solely at the risk, cost and expense of the maker; is given in consideration of the agreement of the TOWNSHIP OF EGG HARBOR to make available to the maker the plans and contract documents for bidding purposes, and no rights, causes or claims at law or in equity shall arise on behalf of the maker against the TOWNSHIP OF EGG HARBOR for any use made thereof by the TOWNSHIP OF EGG HARBOR including the refusal to the maker of the right to bid on said work.

\_\_\_\_\_  
SIGNATURE AND BUSINESS ADDRESS OF BIDDER

DATED \_\_\_\_\_

### Federal Debarment List

Please note that P.L. 2019, c. 406, codified at N.J.S.A. 52:32-44.1, became effective February 20, 2020. This new law requires that prior to awarding any contract for public work, a bidder must provide written certification to the State contracting agency that neither the bidder nor bidder's affiliates are debarred at the Federal level from contracting with a Federal governmental agency. The Bidder who is recommended for a contract award shall complete and submit a Federal Debarment Certification with original signatures. A contract shall not be executed without a completed certification that satisfies State law.

#### CERTIFICATION OF NON-DEBARMENT

#### FOR FEDERAL GOVERNMENT CONTRACTS

N.J.S.A. 52:32-\_\_ (P.L. 2019, c.406)

This certification shall be completed, certified to, and submitted to the contracting unit prior to contract award, except for emergency contracts where submission is required prior to payment.

Individual or Organization Name:

---

Individual or Organization Address:

---

DUNS Number (if applicable): \_\_\_\_\_

CAGE Code (if applicable): \_\_\_\_\_

Check the box that represents the type of business organization:

- ☐ Sole Proprietorship (skip Parts II and III)
- ☐ Non-Profit Corporation (skip Parts II and III)
- ☐ For-Profit Corporation (any type)
- ☐ Limited Liability Company (LLC)
- ☐ Partnership
- ☐ Limited Partnership
- ☐ Limited Liability Partnership (LLP)
- ☐ Other (be specific): \_\_\_\_\_

## Part I Certification of Non-Debarment: Individual or Organization

I hereby certify that \_\_\_\_\_ (name of individual or organization) is not debarred at the federal level from contracting with a federal government agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the \_\_\_\_\_ (name of contracting unit) is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with \_\_\_\_\_ (type of contracting unit) to notify the \_\_\_\_\_ (type of contracting unit) in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the \_\_\_\_\_ (type of contracting unit), permitting the \_\_\_\_\_ (type of contracting unit) to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Part II Certification of Non-Debarment: Individual or Entity Owning Greater Than 50 Percent of Organization

### PART A

Below is the name and address of the stockholder in the corporation who owns more than 50 percent of its voting stock, or of the partner in the partnership who owns more than 50 percent interest therein, or of the member of the limited liability company owning more than 50 percent interest therein, as the case may be.

Name of Individual or Business Entity:

\_\_\_\_\_

Home Address (for Individual) or Business Address:

\_\_\_\_\_

OR

No one stockholder in the corporation owns more than 50 percent of its voting stock, or no partner in the partnership owns more than 50 percent interest therein, or no member in the limited liability company owns more than 50 percent interest therein, as the case may be.

PART B (Skip if no business entity is listed in Part A above)

Below is the name and address of the stockholder in the corporation who owns more than 50 percent of the voting stock of the organization's parent entity, or of the partner in the partnership who owns more than 50 percent interest in the organization's parent entity, or of the member of the limited liability company owning more than 50 percent interest in organization's parent entity, as the case may be.

Stockholder/Partner/Member Owning Greater Than 50 Percent of Parent Entity:

---

Home Address (for Individual) or Business Address:

---

OR

No one stockholder in the parent entity corporation owns more than 50 percent of its voting stock, no partner in the parent entity partnership owns more than 50 percent interest therein, or no member in the parent entity limited liability company owns more than 50 percent interest therein, as the case may be.

PART C: Certification

I hereby certify that no individual or organization that is debarred at the federal level from contracting with a federal government agency owns greater than 50 percent of \_\_\_\_\_ (name of organization) or, if applicable, owns greater than 50 percent of a parent entity of \_\_\_\_\_ (name of organization). I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the \_\_\_\_\_ (name of contracting unit) is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with \_\_\_\_\_ (type of contracting unit) to notify the \_\_\_\_\_ (type of contracting unit) in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the \_\_\_\_\_ (type of contracting unit), permitting the \_\_\_\_\_ (type of contracting unit) to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Part III Certification of Non-Debarment: Contractor-Controlled Entities

PART A

Below is the name and address of the corporation(s) in which \_\_\_\_\_ (name of individual or organization) more than 50 percent of voting stock, or of the partnership(s) in which \_\_\_\_\_ (name of individual or organization) OWNS more than 50 percent interest therein, or of the limited liability company or companies in which \_\_\_\_\_ (name of individual or organization) owns more than 50 percent interest therein, as the case may be.

Name of Business Entity: \_\_\_\_\_

Business Address: \_\_\_\_\_

(add additional sheets if necessary)

OR

\_\_\_\_\_ (name of individual or organization) does not own greater than 50 percent of the voting stock in any corporation, and does not own greater than 50 percent interest in any partnership or any limited liability company.

PART B (Skip if no business entities are listed in Part III A)

Below are the names and addresses of any entities in which an entity listed in Part III A owns greater than 50 percent of the voting stock (corporation) or owns greater than 50 percent interest (partnership or limited liability company).

Name of Business Entity Controlled by:

\_\_\_\_\_

Entity Listed in Part III A Business Address:

\_\_\_\_\_

(add additional sheets if necessary)

OR

No entity listed in Part III A owns greater than 50 percent of the voting stock in any corporation, or owns greater than 50 percent interest in any partnership or limited liability company.

PART C: Certification

I hereby certify that \_\_\_\_\_ (name of individual or organization) does not own greater than 50 percent of any entity that is debarred at the federal level from contracting with a federal government agency and, if applicable, does not own greater than 50 percent of any entity that in turn owns greater than 50 percent of any entity debarred at the federal level from contracting with a federal government agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the \_\_\_\_\_ (name of contracting unit) is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with \_\_\_\_\_ (type of contracting unit) to notify the \_\_\_\_\_ (type of contracting unit) in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the \_\_\_\_\_ (type of contracting unit), permitting the \_\_\_\_\_ (type of contracting unit) to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132  
Certification of Bidder's Status

ON THE STATE TREASURER'S LIST OF  
DEBARRED, SUSPENDED AND DISQUALIFIED BIDDERS

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_ of the Township of \_\_\_\_\_, in the State of,  
\_\_\_\_\_ of full age, being duly sworn according to law on my oath  
depose and say that:

I am \_\_\_\_\_ of the firm of \_\_\_\_\_,  
the bidder making the Proposal for the above named project; that I executed the said  
Proposal, this affidavit and all other bidding documents with full authority to do so; and  
that said bidder is not now at the time of submission of this bid included on the State of  
New Jersey Treasurer's List of Debarred, Suspended and Disqualified Bidders.

The undersigned understands that the firm making the bid as Contractor is subject to  
debarment, suspension and/or disqualification in contracting with the State of New  
Jersey, if the Contractor, pursuant to NJAC 7:1-5.2, commits any of the acts listed  
therein, and as determined according to applicable law and regulation.

By: \_\_\_\_\_

Date: \_\_\_\_\_

Deponent's Name

\_\_\_\_\_  
Deponent's Title

Subscribed and sworn to  
before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
My Commission expires \_\_\_\_\_, 20\_\_.

Notary Public of \_\_\_\_\_

### Requirement for Certificate of Surety

The Contractor bidding this single overall contract shall furnish to TOWNSHIP OF EGG HARBOR Certificates of Surety for a Performance Bond for an amount equal to 100% of the Bid price, and for a Maintenance Bond for an amount equal to 50% of the Bid price. Certificates of Surety may be supplied by the Bidder on behalf of himself and any or all subcontractors, or by each respective subcontractor, or by any combination thereof which results in evidence of performance security equaling the required amounts. Certificates of Surety and Bonds shall be on the forms included in the Contract Documents.

### Certificate of Surety

WHEREAS the Contractor named below has requested that the undersigned Surety Company provide the bonds required by CONTRACT NO. 132 of the TOWNSHIP OF EGG HARBOR, Atlantic County, New Jersey, 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID; and

WHEREAS the undersigned Surety Company desires to provide a statement as required by the New Jersey Local Public Contracts Law, N.J.S.A. 40A:11-22, that it will provide the said bonds in the forms and amounts required;

NOW, THEREFORE, in consideration of the premises and One Dollar (\$1.00), lawful money of the United States to it in hand paid by the said Contractor, the receipt whereof is hereby acknowledged, the undersigned Surety Company hereby certifies and agrees that if CONTRACT NO. 132 of the TOWNSHIP OF EGG HARBOR, Atlantic County, New Jersey, 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID be awarded to the Contractor named below;

It will become bound as surety and guarantor, in a penal sum equal to 100% of the Contractor's accepted bid for this Contract, for the faithful performance of said Contract according to its terms and conditions.

It will become bound as surety and guarantor, in a penal sum equal to 100% of the Contractor's accepted bid for this Contract, for the payment of all lawful claims of subcontractors, materialmen, laborers, persons, firms or corporations for labor performed or materials, provisions, provender or other supplies or teams, fuels, oils, implements or machinery furnished, used or consumed in the carrying forward, performing or completing of said Contract, such guarantee to remain in effect through the end of the period within which such claims must be asserted under the New Jersey Municipal Mechanics' Lien Law; and

It will become bound as surety and guarantor, in a penal sum equal to 100% of the Contractor's accepted bid for this Contract for the faithful maintenance of all work completed under the Contract. Said Bond to remain in effect through the end of the



Maintenance Period specified in the Article of the Contract entitled, "Maintenance Period"; and

The undersigned surety agrees to execute the said bonds as surety and will deliver them to the Owner under said Contract as obligee, upon the demand of said Owner.

Name and Address of Principal (Contractor):

---

---

---

IN WITNESS WHEREOF said Surety Company has caused these presents to be signed and attested by its duly authorized representatives and its corporate seal to be hereto affixed this \_\_\_\_\_ day of \_\_\_\_\_,

Attest: \_\_\_\_\_ Surety Company

\_\_\_\_\_ By \_\_\_\_\_

Note: A corporate acknowledgment of the Surety Company and evidence of the authority of the signer is to be attached hereto by the Surety Company.

Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_  
\_\_\_\_\_

Hereinafter called the Principal, as Principal and \_\_\_\_\_  
a corporation duly organized under the laws of the State of \_\_\_\_\_,  
hereinafter called the Surety, as Surety, are held and firmly bound unto \_\_\_\_\_  
\_\_\_\_\_ hereinafter called the  
Obligee, in the sum of \_\_\_\_\_

Dollars (\$\_\_\_\_\_), for the payment of which sum well and truly to be  
made, the said Principal and the said Surety, bind ourselves, our heirs, executors,  
administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, The Principal has submitted a bid for \_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE, if the Obligee shall accept the Bid of the Principal and the  
Principal shall enter into a Contract with the Obligee in accordance with the terms of  
such bid and the Contract Documents; and give such bond or bonds as may be specified  
in the Contract Documents with good and sufficient surety for the faithful performance of  
such Contract, for the prompt payment of labor and material furnished in the prosecution  
thereof and for the environmental maintenance requirements thereof; and deliver  
evidence of insurance and such other documents as are required by the Contract  
Documents as conditions precedent to the Owner's execution of the Contract, all within  
the times required in the Contract Documents, then this obligation shall be null and void,  
otherwise to remain in full force and effect.

SIGNED AND SEALED this \_\_\_\_\_ day of \_\_\_\_\_ A.D. 20\_\_.

In the presence of:

\_\_\_\_\_  
PRINCIPAL (Seal)

\_\_\_\_\_  
WITNESS TITLE

\_\_\_\_\_  
SURETY (Seal)

\_\_\_\_\_  
WITNESS TITLE (Seal)

Equipment Certification

INSTRUCTIONS FOR COMPLETING THE EQUIPMENT CERTIFICATION

For necessary equipment owned, leased or controlled by the Bidder, Part 1 shall be completed. For the necessary equipment not owned, leased or controlled by the Bidder, Part 2 shall be completed. These certifications are made pursuant to the provisions of N.J.S.A. 40A:11-20 and must be submitted with the Proposal. Attach additional pages, if necessary.

This is to certify that I, the Bidder signing the attached Proposal, own, lease or control the necessary equipment required to accomplish the work shown and described in the Contract Documents and described below.

List of Equipment

_____	_____
_____	_____
_____	_____

(Attach Additional Sheet as Required)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Bidder

NEW JERSEY  
Business Registration Certificate Form

P.L. 2004, Ch. 57 requires that Business Organization's, be registered with the New Jersey Department of Treasury, Division Revenue. The definition in the law is as follows:

"Contractor" means a business organization that seeks to enter, or has entered into a contract with a contracting agency, to provide goods, services, or a construction project, the cost of which exceed 15% of the contracting unit's bid threshold.

Please indicate below, for the bidder and all subcontractors listed on the "Subcontractor Declaration" herein, as to their registration with the NJ Department of Treasury, Division of Revenue in accordance with P.L. 2004, Ch. 57.

Proof of registration is required for all contractors and named subcontractors. Proof of registration means a copy of the organization's "Business Registration Certificate". No other form can be substituted to fulfill this requirement.

Copies of the Business Registration Certificate shall be submitted and attached to this form.

<u>Name</u>	<u>Registration Number</u>
Bidder _____	_____
(Subcontractor) _____	_____
(Subcontractor) _____	_____
(Subcontractor) _____	_____
(Subcontractor) _____	_____

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Signature

Notary Public of \_\_\_\_\_  
Name and Title (type or print)

My Commission Expires \_\_\_\_\_, 20\_\_\_\_\_.

Prevailing Wage Certification

N.J.A.C. 12:60-9 App.

LOWEST BIDDER PREVAILING WAGE CERTIFICATION

In the matter of an award of a contract for public work for a project described as:

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132

STATE OF NEW JERSEY

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

DIVISION OF WAGE & HOUR COMPLIANCE

Certification of Lowest Bidder

\_\_\_\_\_, of full age and under oath, duly provides the following sworn statement:

(1). I am the owner and/or highest-ranking official or officer of a company or firm named \_\_\_\_\_, which holds a currently valid public works contractor registration pursuant to the New Jersey Public Works Contractor Registration Act, N.J.S.A. 34:11-56.48 et seq., certificate number \_\_\_\_\_.

(2). I submitted a bid for a contract award in the above identified project and the public body has informed me that I am the lowest bidder by 10 percent or more as compared to the next lowest bid submitted.

(3). The amount of my bid does include paying the prevailing wage rate to all workers who perform work on the project at rates of pay, including both base wage and fringe benefits, set forth in applicable Wage Determinations, (1) for the appropriate locality, (2) for the appropriate work classification (e.g., carpenter, electrician, mason, plumber), and (3) for the appropriate job title (e.g., Apprentice, Journeyman, Forman), published by the New Jersey Department of Labor and Workforce Development (NJDOL) pursuant to the New Jersey Prevailing Wage Act (NJPWA), N.J.S.A. 34:11-56.25 et seq., and corresponding NJDOL rules, N.J.A.C. 12:60.

Pursuant to NJ Law P.L. 2023, c. 138, contractor shall register on and submit certified payrolls to <https://njwages.nj.gov/>. For any assistance please email [njwagehubinfo@dol.nj.gov](mailto:njwagehubinfo@dol.nj.gov).

I certify that under penalty of perjury that the foregoing statements made by me are true. I am aware that if any of the foregoing statement made by me are false, I am subject to punishment. See N.J.S.A 2C: 28-1 et seq., specifically, N.J.S.A. 2C:28-3, within the New Jersey Code of Criminal Justice.

Dated: \_\_\_\_\_ Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Agreement to Hold Prices

A. The vendor by signing below agrees as per J.J.S.A. 40A:11-24(a) to hold prices beyond the 60 days of award provision.

40A:11-24(a). a. the contracting unit shall award the contract or reject all bids within such time as may be specified in the invitation to bid but in no case more than 60 days, except that the bids any bidders who consent thereto may, at the request of the contracting unit, be held for consideration for such longer period as may be agreed.

\_\_\_\_\_  
Vendor

\_\_\_\_\_  
Date

## Bid Document Submission Checklist

### Township of Egg Harbor

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure

Improvements - REBID

CONTRACT NO. 132

**A. Failure to submit the following documents is a mandatory cause for the bid to be rejected. (N.J.S.A. 40a:11-23.2)**

Required with Submission of Bid (Owner's checkmark)		Initial Each Item Submission with bid (Bidder's Initials)
✓	A bid guarantee as required by <u>N.J.S.A. 40A: 11-21</u>	
✓	If applicable, bidder's acknowledgment of receipt of any notice(s) or revision(s) or addenda to an advertisement, specification or bid document(s)	
✓	A certificate from a surety company, pursuant to <u>N.J.S.A. 40A:11-22</u>	
✓	A statement of corporate ownership, pursuant to <u>N.J.S.A. 52:25-24.2</u>	
✓	A listing/declaration of subcontractors as required by <u>N.J.S.A. 40A:11-16</u> , if applicable.	
✓	Bid Proposal Pages	
✓	Performance Bond and Labor and material Payment Bond (Required from the Awarded Contractor)	
✓	Maintenance Bond in the Amount of 100% for a period indicated in "General Conditions" Required from the Awarded Contractor Upon Acceptance of Project	

**B. Failure to submit the following documents of contract may be cause for the bid to be rejected. (N.J.S.A. 40a:11-23.1b.)**

Required with Submission of Bid (Owner's checkmark)		Initial Each Item Submission with bid (Bidder's Initials)	Required with Submission of Bid (Owner's checkmark)		Initial Each Item Submission with bid (Bidder's Initials)
✓	EEO AA Form AA201 or AA302 or Federal approval or Cert. of Employee Info. Report.		✓	Insurance and Indemnification Certificate	
✓	Copy of Business Registration Certificate issued by NJ Department of Treasury		✓	Submission of a Non-Collusion Affidavit (this form must be Notarized)	
	Statement of Compliance with N.J.S.A. 45:14C-2(h) (licensed master plumber)		✓	Certificate of Bidder showing that Bidder owns, leases, or controls any necessary equipment	
✓	Equipment Certification		✓	Federal Debarment List	
✓	Public Works Contractor Registration Certificate(s) for the Bidder and all Sub Contractors (Prior to Award, but effective at time of bid)		✓	Prevailing Wage Compliance Declaration pursuant to N.J.S.A. 34:11-56.25 et seq.	
✓	Experience and Qualifications		✓	Affirmative Action	
✓	Agreement to Hold Prices		✓	American Projects Certification pursuant to N.J.S.A. 40A:11-18	
✓	Bidders Checklist				

**C. READ ONLY**

Required with Submission of Bid (Owner's checkmark)		Initial Each Item Submission with bid (Bidder's Initials)	Required with Submission of Bid (Owner's checkmark)		Initial Each Item Submission with bid (Bidder's Initials)
	Americans With Disability Act of 1990 Language			Pay to Play Advisory (P.L. 2005, Chapter 271, Section 3 Reporting)	

**D. SIGNATURE: The undersigned hereby acknowledges and has submitted the above listed requirements.**

Name of Bidder: \_\_\_\_\_

By Authorized Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_



TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132

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TOWNSHIP OF EGG HARBOR  
ATLANTIC COUNTY, NEW JERSEY

2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure  
Improvements - REBID  
CONTRACT NO. 132

THIS AGREEMENT, made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the TOWNSHIP OF EGG HARBOR, Atlantic County, State of New Jersey, party of the first part, hereinafter designated as the Owner, and \_\_\_\_\_ with legal address at \_\_\_\_\_ in the County of Atlantic, State of New Jersey, party of the second part, hereinafter designated as the Contractor.

WITNESSETH, that the parties to these presents, each in consideration of the undertakings, promises and agreements on the part of the other herein contained, have undertaken, promised and agreed, and do hereby undertake, promise and agree, the party of the first part for itself and for its successors and assigns, and the party of the second part for itself and for its heirs, executors, administrators, successors and assigns, as follows:

ARTICLE I - DEFINITIONS

Wherever the words defined in this Article or pronouns used in their stead, occur in the Contract Documents (as defined herein), they shall have the following meanings:

The word "Owner" shall mean the party of the first part above designated or any agency or officer duly authorized to act in its place under this Contract.

The word "Contractor" shall mean the party of the second part above designated, entering into this Contract for the performance of the work required to be performed hereunder, and the legal representatives of the said party, or agents appointed to act for the said party in the performance of the work.

The word "Engineer" shall mean Mott Watkins Associates, of 3120 Fire Road, Egg Harbor Township, New Jersey, acting through properly authorized agents or project representatives, such agents or project representatives acting within the scope of their authority; or such other engineer named by the Owner in the event that Mott Watkins Associates is unable to act or ceases to act as the Engineer for the Owner.

The word "Contract" shall mean this Contract No. 132 of the Township of Egg Harbor, Atlantic County, New Jersey, 2022 Stormwater Management Grant - Municipal Parking Lot Green Infrastructure Improvements - REBID.

The word "Bid proposal Quantity" means the quantity indicated in the bid proposal less the quantities designated in the project plans as "if and where directed."

The word "Material Change" means a character change which increases or decreases the contractor's cost of performing the work, increases or decreases the amount of time by which the contractor completes the work in relation to the contractually required completion date or both.

The word "Differing Site Conditions" means the physical conditions at the contract work site that are subsurface or otherwise concealed and which differ materially from those indicated in the contract documents or are of such an unusual nature that the conditions differ materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the contract

The words "Contract Documents" shall mean, collectively, all of the covenants, terms and conditions in this Contract and in the documents which constitute essential parts of this Contract and which are hereby made part hereof as if set forth at length herein, to wit:

- I. General Conditions
  - A. Notice to Bidders
  - B. Information for Bidders
  - C. Labor Standards
  - D. Equal Employment Opportunity
  - E. Supplemental General Conditions
  - F. State and Federal Wage Rates
  - G. Scope of Contract
  - H. Proposal
    - (1) Bid Items
    - (2) Ownership Disclosure Statement
    - (3) Listing of Subcontractors to be Used
    - (4) Non-Collusion Affidavit
    - (5) Contractor's Certification
    - (6) Equipment Certification
    - (7) Bid Bond
    - (8) Requirement for Certificate of Surety
    - (9) Certificate of Surety
  - I. Contract
  - J. Performance Bond
  - K. Maintenance Bond
  - L. Special Conditions
- II. Specifications
  - A. General Requirements
  - B. Detailed Specifications
  - C. Appendices
- III. Drawings

The words "Contract Price" shall mean the total amount earned by the Contractor and paid in the final estimate and payment under the Article of the Contract entitled, "Final Estimate and Payment".

The word "Specifications" shall mean, collectively, all of the terms and stipulations contained in the General Requirements and in the Detailed Specifications. The requirements of the General Requirements shall be considered part of each Division of the Detailed Specifications.

The words "Final Completion" or "final completion" shall mean the proper completion of all work, for the entire project as contemplated and provided for under the Contract, sufficient for the acceptance by the Owner. If any items of work shall not have been properly completed, e.g., should any punch list items remain uncompleted, Final Completion shall not have been achieved. The Owner, with the advice of the Engineer, shall fix the date of Final Completion of all the work and shall annotate the date of Final Completion upon the Contractor's final Application for Payment.

The words "Substantial Completion" or "substantial completion" or "substantially complete" shall mean satisfactory completion of the major portions of the Contract work, including, without limitation, inspection and testing and the issuance of any necessary governmental Certificates of Occupancy, so that the facility may be turned over to the Owner for its intended use or occupancy. The date of Substantial Completion shall be certified by the Engineer.

The words "Drawings" and "Contract Drawings" shall mean the drawings which show the character and scope of the work to be performed and which are described in the Article of the Information for Bidders entitled, "Contract Drawings".

The words "General Conditions" shall mean everything hereinbefore defined under the word "Contract Documents", except for the Specifications and the Drawings.

The words "Work" or "work" shall refer to any and all labor, construction, demolition, materials, or equipment to be performed by or furnished by Contractor under the Contract.

Wherever in the Contract Documents the terms "ordered", "directed", "required", "allowed", "permitted", "instructed", "designated", "considered necessary", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of the Engineer as to the work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to Engineer any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of the Article of this Contract entitled, "Responsibility of the Engineer".

## ARTICLE II - RIGHTS AND RESPONSIBILITY OF CONTRACTOR

### A. General

All work shall be performed in strict accordance with and completed in strict compliance the Contract Documents. Observations, construction review, tests, recommendations, acceptances or approvals by the Engineer or by others, shall in no way relieve the Contractor of the obligation to perform and complete all work in accordance with the Contact Documents.

All work shall be performed under the direction and supervision of the Contractor.

The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction but shall not be responsible for the negligence of others where specific means, methods, techniques, sequences or procedures of construction are required by the Contract Documents.

### B. Supervision

The Contractor shall provide and maintain a qualified superintendent, acceptable to the Owner, at all times during the progress of the work and such superintendent shall give efficient supervision to the work until its completion.

The superintendent shall have full authority to act in behalf of the Contractor, and all communications and instructions given to the superintendent shall be considered as given to the Contractor. It shall be the responsibility of the Contractor's superintendent to coordinate the work of the Contractor with the work of the Contractor's subcontractors and with the work of other contractors and subcontractors working on the site.

The superintendent shall be present on the construction site at all times required to ensure the proper performance and coordination of the Contractor's work and that of its subcontractors.

### C. Use and Care of Construction Site and Property

The Contractor shall ensure that its personnel and equipment and those of its subcontractors, materialmen, suppliers, etc., shall enter only the land and areas identified in and expressly permitted by the Contract Documents. The Contractor shall further ensure that the use of the construction site or any other lands or areas to which the Contractor or any of its personnel, equipment, subcontractors, materialmen, suppliers, etc., are permitted entry (including, without limitation, easement and right-of-way areas), shall be limited to the uses permitted by the Contract Documents and such uses shall be conducted in the manner required by the Contract Documents.

The Contractor shall be fully responsible for all damage to the construction site and any other lands or areas (including, without limitation, any improvements, monuments, structures, trees or shrubs thereon) damaged by, in connection with or in any way related

to the performance of the work. Any injury or damage to the same shall be made good at the Contractor's expense.

The Contractor shall not enter upon or use private property for any purpose without obtaining the written permission of the owner.

The Contractor is responsible for locating all underground structures and facilities (whether shown in the Contract Drawings or not), for coordinating the work with the owners of such underground structures and facilities, for the safety and protection thereof, and for repairing any damage thereto resulting from or in any way connected with the work. The Contractor shall protect carefully from disturbance or damage all monuments and property markers until the Engineer has witnessed or otherwise referenced their location and consented to their removal in writing. The cost of such location, coordination, safety, protection and repair is deemed to be included in the accepted bid price for this Contract.

#### D. Safety

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work and for construction site safety, generally. The Contractor shall be responsible for and shall take all precautions for the safety of all persons on the work and other persons who may be affected thereby. The Contractor shall provide the necessary protection to prevent damage to all work and materials and equipment to be incorporated in the work and all other property at the construction site and at lands and areas which the Contractor is authorized to enter under the Contract Documents. This requirement will apply continuously 24 hours per day until final acceptance of the work by the Owner.

The Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

The Engineer's observation of the Contractor's performance of the work is to be solely in behalf of the Owner and not in behalf of the Contractor and is not intended to include review of the adequacy of the Contractor's safety measures.

#### E. Indemnification

The Contractor shall indemnify, defend and save and hold the Owner, the Engineer and their consultants, and the officers, employees and agents of each of them and all owners of property upon which work is being performed hereunder pursuant to easement or right-of-way agreements, harmless from and against any damage, liability, loss, cost (including but not limited to attorneys' fees and court and arbitral costs) or claim arising out of, resulting from or related to, the performance or nonperformance of the work provided for in the Contract Documents. This indemnification shall not apply to damages, liabilities, losses, costs or claims arising from the sole negligence of the



indemnatee. The Contractor's indemnification obligations shall not be limited by the amounts of insurance required to be carried by the Contractor under this Contract.

The Contractor shall indemnify and save harmless the Owner and Engineer and all persons acting for or on behalf of them from all claims and liability of any nature or kind, including costs and expenses arising from or occasioned by any infringement or alleged infringement of patent rights on any invention, process, article or apparatus, or any part thereof, furnished and installed by said Contractor or arising from or occasioned by the use or manufacture thereof, including their use by the Owner.

These Indemnifications are intended to provide the broadest indemnification permitted by law and shall be construed consistent with all applicable laws, including but not limited to the laws pertaining to indemnification.

### ARTICLE III - RESPONSIBILITY OF THE ENGINEER

The Engineer shall initially decide questions which may arise as to the quality, quantity and acceptability of materials furnished, acceptability of the work performed, rate of progress of the work, interpretation of Drawings and Specifications and items related thereto, as provided herein. The duties and responsibilities of the Engineer as set forth herein shall not be extended except through written consent of the Engineer and the Owner.

a. Observation of the Work: The Engineer will make visits to the construction site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the Contract Documents. The Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. The Engineer shall be provided access to all parts of the work and shall be furnished with such information and assistance by the Contractor as the Engineer may require to make its observations and construction review. The Contractor shall also make all materials and equipment available at all times for observation by the Engineer. Observations may be made at the source of material or supply, whether mill, plant or shop, as well as at the construction site. The Engineer will keep the Owner informed of the progress of the work and will endeavor to guard the Owner against defects and deficiencies in the work.

b. Acceptability of Work: The Engineer shall have authority to disapprove or reject work which the Engineer believes to be defective work or work not in accordance with the Contract Documents and shall also have authority to require special inspection or testing of the work as authorized in the Contract Documents, whether or not the work is fabricated, installed or completed. The Contractor agrees to abide by the Engineer's decisions relative to the acceptability of the work.

c. Engineer's Decisions: The Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder in behalf of the Owner. Claims, disputes and other matters relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents will be referred to the Engineer in writing with a request for a formal decision

in accordance with this subparagraph, which the Engineer will make within a reasonable time. Written notice of each such claim, dispute or other matter will be delivered by the claimant to the Engineer and to the other party promptly (but in no event later than thirty (30) days) after the occurrence of the event giving rise thereto, and adequate written supporting data will be submitted to Engineer within sixty (60) days after such occurrence unless the Engineer allows an additional period of time to ascertain more accurate data in support of the claim. The rendering of a formal decision by the Engineer with respect to any such claim, dispute or other matter will be a condition precedent to any exercise by the claimant of such rights or remedies as it may have under the Contract Documents or by laws or regulations in respect of any such claim, dispute or other matter.

d. Limitations of Engineer's Responsibilities: Neither the Engineer's authority nor responsibility under the Contract Documents shall give rise to any duty or responsibility of the Engineer to the Contractor, or any subcontractor or materialman of the Contractor, or to any other person performing any of the work. The Engineer will not be responsible for the Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for construction site safety generally, and the Engineer will not be responsible for the Contractor's failure to perform or complete the work in accordance with the Contract Documents. The Engineer will not be responsible for the acts of omissions of the Contractor or of any subcontractor, any materialman, or any other person performing or furnishing any of the work.

#### ARTICLE IV - EXPLANATIONS AND WORK SEQUENCE

The Engineer shall make any explanations, clarifications and interpretations, requested in writing by the Contractor and considered necessary by the Engineer, as to the meaning and intention of the Contract Drawings and Specifications. Such explanations, clarifications and interpretations shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

The Contractor's order or sequence of execution of the work and the general conduct of the work shall be subject to the disapproval of the Engineer. The Engineer shall have authority to direct the Contractor that changes in the Contractor's means, methods, techniques, sequences or procedures of construction are necessary to accord with the intent of the Contract Documents or with good construction practice. However, the Engineer shall not be required to advise the Contractor on the substitute means, methods, techniques, sequences or procedures of construction to be utilized or on how the Contractor may overcome any particular problems or difficulties, but the Contractor shall have the responsibility to make proposals in this regard for the consideration of the Engineer.

The Contractor must consult with the Engineer as to sequence of work and intermediate times of completion as set forth in the Schedule of Intermediate Completion Times. The Contractor is hereby notified that the approved Construction Schedules must be considered the general sequence of the work and the Engineer may request that they be

amended, supplemented or modified from time to time during the period of construction to accord with the intent of the Contract Documents or good construction practice.

Such changes, amendments, supplements or modifications shall in no way entitle the Contractor to additional compensation or affect the responsibility of the Contractor for the work.

#### ARTICLE V - CONTRACTOR'S REPRESENTATIVES, EMPLOYEES & OFFICE

The Contractor shall at all times enforce strict discipline and good order among the Contractor's employees and those of its subcontractors (of any tier) and materialmen and shall not employ on the work any unfit person or anyone not skilled in the task assigned them.

The Contractor shall maintain an office at the site of the work, where copies of the Contract Documents and of all working drawings shall be kept available for use at any time.

#### ARTICLE VI - DISCREPANCIES, ERRORS & OMISSIONS

The Contract Documents are intended to be mutually explanatory of each other, but should any discrepancy appear or any contradiction arise or be detected by the Contractor as to anything contained therein, the Contractor shall promptly call the same to the attention of the Engineer and the Contractor shall be deemed to have bid the Contract predicated on the more expensive way of performing such work and the interpretation and decision of the Engineer shall be binding on the Contractor. The Contractor shall be held responsible for all corrective measures and associated costs for failure to notify the Engineer of such discrepancy or contradiction.

Any correction of errors or omissions in the Contract Documents may be made by the Engineer when such correction is necessary for the proper fulfillment of the Contract as construed by him. Except as otherwise provided in this Article, where said correction of errors or omissions materially adds to the cost of or time required for the work to be done by the Contractor, compensation for said additional work and/or an extension of time may be granted under the Article of this Contract entitled, "Changes".

If any item of work is required by the Drawings but is omitted in the Specifications, such item shall be required. If any item of work is required by the Specifications but omitted in the Drawings, such item shall be required. If any item of work is omitted both in the Drawings and Specifications, whether intentionally or otherwise, when the same is usually and customarily required to complete fully the work specified herein, such item shall be required. None of the foregoing shall entitle the Contractor to extra compensation or an extension of time, but the said items of work shall be provided as if called for by all of the Contract Documents.

## ARTICLE VII - INSURANCE

In accordance with the provisions of the Article of the Information for Bidders entitled, "Failure to Enter Contract", as a condition precedent to the Owner's obligation to execute this Contract, the Contractor is required to submit evidence (consisting of Certificates of Insurance and copies of the insurance policies with all endorsements) satisfactory to the Owner showing that the Contractor has obtained all insurance coverages required herein. Neither the Contractor nor any of the Contractor's agents, employees or subcontractors are permitted to enter the site or to perform any work on the Contract unless all of the insurance required by the Contract Documents is in effect.

Nothing contained in this Article entitled, "Insurance" or in the Contract Documents shall be construed as limiting the extent of the Contractor's liability for claims or damages resulting from or related to the Contractor's operations under this Contract.

All insurance required hereunder (except Workers' Compensation Insurance policies) shall include the interests of the Owner; Contractor; Engineer and Engineer's consultants, all of whom shall be listed as additional insureds on such policies. Contractor waives all rights against the Owner; Engineer and all parties named as additional insureds in such policies for all losses and damages caused by any of the perils covered by such policies and all such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any of the parties named as additional insureds.

The Contractor acknowledges that the Owner, Engineer and Engineer's consultants have insurable interests in the project under the Contractor's insurance policies.

The Contractor shall purchase and maintain, at its sole expense, insurance as will provide protection from claims and liabilities which may arise out of or result from Contractor's performance and furnishing of the work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, by any of Contractor's subcontractors or sub-subcontractors (of any tier), by anyone directly or indirectly employed by any of them to perform or furnish any work, or by anyone for whose acts any of them may be liable, with companies satisfactory to the Owner, as follows:

- a. Worker's Compensation and Employer's Liability Insurance - covering all of the Contractor's employees directly or indirectly engaged in the performance of this Contract. This insurance shall comply with the statutory requirements of the State or States involved and shall have an Employer's Liability Insurance limit of not less than \$1,000,000 for bodily injury by accident, \$1,000,000 for occupational disease and \$1,000,000 aggregate limit.
- b. Comprehensive General Liability Insurance - with a limit of not less than \$1,000,000 combined single limit for bodily injury and property damage. The Comprehensive General Liability Insurance shall include the Broad Form Property Damage Liability Endorsement as well as coverage for explosion, collapse and underground (XCU) hazards and completed operations and products liability coverage.

Blanket Contractual Liability Insurance must be included, expressly insuring the Contractor's liability for occurrences assumed by the Contractor under the indemnification clause set forth in the Article of the Contract entitled, "Rights and Responsibility of Contractor", to the extent covered by the standard form of Comprehensive General Liability policy in New Jersey (Broad Form with Blanket Contractual Liability Endorsement).

c. Owners' and Contractors' Protective Liability Insurance - with a limit of not less than \$1,000,000, combined single limit for bodily injury and property damage.

d. Comprehensive Automobile Liability Insurance - covering Contractor for claims arising from all owned, hired and non-owned vehicles with a limit of not less than \$1,000,000 combined single limit for bodily injury and property damage.

e. Umbrella Liability Insurance - providing coverage at least as broad as that provided by the Comprehensive General Liability Insurance and Comprehensive Automobile Liability Insurance required above, with a limit of not less than \$2,000,000 combined single limit for bodily injury and property damage.

f. Policy Limits - specified above are minimum, and wherever the law requires higher limits, the higher limits shall govern.

g. Periods of Coverage - All policies required under this Contract shall remain in full force and effect until the Contractor's Maintenance Bond has been released.

h. Certificates - of the insurance required above must be filed with the Owner with a copy to the Engineer before the Contract is signed on behalf of the Owner. The Certificate(s) must expressly state that, "All insurance coverage required by the provisions of Contract No. 132 of the Township of Egg Harbor has been provided." The Certificate of Insurance must expressly state that, "The Blanket Contractual Liability Insurance required in Contract No. 132 of the Township of Egg Harbor is in full force and effect and such insurance covers the Contractor's liability for occurrences arising under the indemnification clause contained in the Article of the said Contract entitled, "Rights and Responsibility of Contractor", to the extent covered by the standard Broad Form Comprehensive General Liability policy form written in New Jersey (with Blanket Contractual Liability Endorsement)." All Certificates of Insurance must provide for a minimum one hundred and twenty (120) days prior written notice to the Owner of any policy cancellation, material change, or non-renewal.

i. Copies of the Insurance Policies - required must be filed with the Owner and the Engineer before the Contract is signed by the Owner.

j. Forms of Policies - all liability insurance shall be on an occurrence basis.

k. Subcontractors - shall be required by the Contractor to provide the following insurance:

(1) Worker's Compensation and Employer's Liability Insurance - covering all of the subcontractor's employees directly or indirectly engaged in the performance of this Contract . This insurance shall comply with the statutory requirements of the State or States involved and shall have an Employer's Liability Insurance limit of not less than \$500,000 for bodily injury by accident, \$500,000 for occupational disease and \$500,000 aggregate limit.

(2) Comprehensive General Liability Insurance - with minimum limits of not less than \$1,000,000 aggregate for bodily injury and property damage. The Comprehensive General Liability Insurance shall include the Broad Form Property Damage Liability Endorsement as well as coverage for explosion, collapse and underground (XCU) hazards, products liability coverage, with Blanket Contractual Liability and Completed Operations Coverage.

(3) Comprehensive Automobile Liability Insurance - covering subcontractor for claims arising from all owned, hired and non-owned vehicles with limits of not less than \$1,000,000 aggregate for bodily injury and property damage.

(4) Policy Limits - specified above are minimum, and wherever the law requires higher limits, the higher limits shall govern.

(5) Periods of Coverage - All policies required under this Contract for subcontractors shall remain in full force and effect until the Contractor's Maintenance Bond has been released.

(6) Certificates - of the insurance required above must be filed with the Owner and the Engineer, in triplicate, before the subcontractor is permitted to start work. The Certificate of Insurance must expressly state that the required Blanket Contractual Liability Insurance is in full force and effect and that such insurance covers the subcontractor's liability for occurrences arising under the indemnification clause contained in the Articles of the Contract entitled, "Subcontracts" and "Rights and Responsibility of Contractor", in the Subarticle entitled "Indemnification", to the extent covered by the standard Broad Form Comprehensive General Liability policy form written in New Jersey (with Blanket Contractual Liability Endorsement). The State of New Jersey and its agencies, employees and officers; Owner and Engineer must appear as additional insured on all liability policies. All Certificates of Insurance must provide for a minimum sixty (60) days prior written notice to the Owner of any policy cancellation, material change, or non-renewal.

The Contractor shall not allow any subcontractor to commence work on his subcontract until all insurance required of the subcontractor has been so obtained and the proper Certificates of Insurance have been provided to the Owner and Engineer.

Acceptance of the Contractor's insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder.

### ARTICLE VIII - PATENTS AND COPYRIGHTS

The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work or the incorporation in the work of any invention, design, process, product or publication which is the subject of patent rights or copyrights held by others.

The Contractor shall indemnify and save harmless the Owner and Engineer, and all persons acting for or on behalf of them, from all claims and liability of any nature of any kind, including costs and expenses, arising from or occasioned by any infringement or alleged infringement of patent rights or copyrights on any invention, design, process, product or publication, or any part thereof, furnished or installed or used in the performance of the work by said Contractor or arising from or occasioned by the use or manufacture thereof, including their use by the Owner.

### ARTICLE IX - REGISTRATION OF MOTOR VEHICLES

All motor vehicles used in connection with this Contract shall be registered in the State of New Jersey, to the extent required by the laws, rules or regulations of the State of New Jersey.

### ARTICLE X - PROVISIONS REQUIRED BY LAW DEEMED INSERTED

Each and every provision and clause required by law to be inserted in this Contract shall be deemed to be inserted herein as if set forth at length herein, and the Contract shall be read and enforced as though it were included herein, and if through mistake or inadvertence or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion and such adjustment shall be made without adjustment of the Contract Price or the time for performance of the Contract.

### ARTICLE XI - PREVAILING WAGES

The Contractor shall pay not less than the prevailing wage rates as required by the Article of the Information for Bidders entitled, "State Wage Rates" and "Federal Labor Standards and Federal Wage Rates".

All laborers, workers and mechanics shall be paid not less than the prevailing rate of wage established by law for the type of work to be done in the place in which it is or is to be performed. The violation of the foregoing provision shall constitute a breach of the Contract, and the foregoing provision shall be considered to be a contract for the benefit of the workers, laborers and mechanics, upon which such laborers, workers and mechanics shall have the right to maintain an action against their employers for the difference between the prevailing rate of wage and the rate of wage actually received by them. Any such action by the workers shall be against their respective employers and not against the Owner or Engineer.

In the event it is found that any workman, employed by the Contractor or any subcontractor covered by this Contract, has been paid a rate of wages less than the prevailing wage required to be paid by this Contract, the Owner may terminate the Contractor's or subcontractor's right to proceed with the work, or such part of the work as to which there has been a failure to pay required wages and to prosecute the work to completion or otherwise. The Contractor and his sureties shall be liable to the Owner for any excess costs occasioned thereby.

## ARTICLE XII - COMPLIANCE WITH LAWS

The Contractor shall keep itself fully informed of all existing and future federal and state laws and municipal ordinances and regulations in any manner affecting the work, those engaged or employed in the work, the materials used in the work, or in any way affecting the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Contract Documents pertaining to the work in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report the same to the Engineer in writing.

The Contractor shall at all times observe and comply with and cause all its subcontractors agents and employees to observe and comply with, all applicable statutes, regulations, ordinances, orders and decrees in effect prior to or during the life of this Contract and shall indemnify the Owner and the Engineer, and their officers, agents and employees against any claim or liability arising from or based upon the violation or alleged violation of such statute, regulation, ordinance, order or decree, whether by himself, his subcontractors, or their agents or employees.

The provisions of the U.S. Occupational Safety and Health Act (OSHA) and its implementing regulations and all safety standards promulgated thereunder shall be observed by the Contractor in the performance of the Contract, whether or not they would otherwise be applicable.

## ARTICLE XIII - RIGHTS-OF-WAY AND EASEMENTS

The Owner will obtain such rights-of-way and easements from federal, state, county, municipal and any other public authorities, railroad and utility companies and all other property owners, as are indicated in the Contract Documents. The Contractor shall inform himself of the location and extent of such rights-of-way and easements.

Any land, access, right-of-way or easement, not specifically shown in the Contract Documents as being furnished by the Owner, that may be required by the Contractor for temporary construction facilities or for storage of materials, shall be provided by the Contractor with no cost or liability to the Owner and the Contractor shall indemnify the Owner and the Engineers from and against all claims and liabilities arising out or connected therewith.

The Contractor is responsible for the restoration of rights-of-way and easement areas provided under the Contract Documents to good condition and as near to the original



condition prior to disturbance by the Contractor as practicable. The required restoration includes, without limitation, the restoration of roads and other structures, trees, shrubbery, lawns and environmental features. Such restoration is a part of the Contract work and shall be included in the coverage of the Contractor's bonds.

#### ARTICLE XIV - ACCESS TO THE WORK, DOCUMENTS AND INFORMATION

The Contractor shall provide the representatives of the Owner, the Engineer, and testing agencies and governmental agencies with jurisdictional interests, with access to the work under this Contract, whenever it is in preparation or progress, for observation, inspection and testing. The Contractor shall provide proper facilities and safety protections for such access.

#### ARTICLE XV - PERMITS

- a. Federal, State, County and municipal permits required as a result of the construction activity within the delineated project site shall be obtained by the Owner and associated fees shall be paid by the Owner. In addition, permits required for construction activities on railroad properties shall be obtained by the Owner.
- b. The Contractor shall be responsible for obtaining any permits to use explosives for rock excavation and for such other permits which by law are required to be obtained by the Contractor and the Owner will reimburse the Contractor for the cost of such permits. The Contractor shall, at its own expense, post all necessary sureties required by the agencies issuing the permits to be obtained by the Contractor.
- c. Conditions pertaining to construction activity made a part of any permit shall be imposed upon the Contractor at no additional charge. Additional costs associated with a permit resulting from the construction activity which is beyond that stipulated in the Contract shall be the responsibility of the Contractor.
- d. The methods of construction to be utilized by the Contractor must satisfy the requirements of the agencies having jurisdiction. Generally, the "methods of construction" are defined as the means to be employed by the Contractor to obtain the end results required by the design.
- e. Whenever requested, the Contractor shall assist the Owner in the acquisition of permits.
- f. The Contractor shall obtain the consent of and shall bear the charges of all utilities and agencies involved for connections with the work.
- g. The Contractor shall notify, cooperate with and arrange for inspections from all agencies having jurisdiction over the work.

## ARTICLE XVI - ASSIGNMENT

The Contractor shall not assign, transfer, convey, hypothecate, or otherwise dispose of this Contract, or his right, title or interest in or to the same or any part thereof, without the prior express consent, in writing, of the Owner, and the Contractor shall not assign, by power of attorney or otherwise, any of the moneys to become due and payable under this Contract unless by and with the like consent of the Owner. Consent by the Owner to an assignment of this Contract shall not, in any way, release the Contractor from the conditions, covenants and agreements herein undertaken to be done and performed by the Contractor, but such duty to perform shall continue as though such assignment had not been made.

## ARTICLE XVII - SUBCONTRACTS

At the times set forth in the Contract Documents for certain subcontractors (See "Listing of Subcontractors to be Used" in Proposal Pages), and when requested by the Owner for other subcontractors, but in any case (for all subcontractors) prior to the subcontractor's being permitted to enter the construction site or to perform any work, the Contractor shall submit, in writing, to the Owner and the Engineer, the names and addresses of all subcontractors proposed for the work. The Contractor shall also submit to the Owner at such time(s) satisfactory evidence of the required insurance coverage for each proposed subcontractor.

Subcontractors named under N.J.S.A. 40A:11-16 may not be changed except at the request of or with the express prior written approval of the Owner for good cause shown. The Contractor shall be fully responsible to the Owner and Engineer for the acts and omissions of the Contractor's subcontractors (of any tier), materialmen and other persons and organizations performing or furnishing any of the work and of their direct and indirect employees, to the same extent as Contractor is responsible for its own acts and omissions and those of its agents and employees. The Contract Documents shall not be construed as creating any contractual relation between any subcontractor (of any tier) and the Owner or Engineer.

The Contractor shall bind every subcontractor in writing to the terms of the Contract Documents applicable to the subcontractor's work and the Contractor shall require every subcontractor so to bind every sub-subcontractor of any tier. In such writing the subcontractor or sub-subcontractor (as the case may be) shall be required to indemnify, for the actions or omissions of such subcontractor or sub-subcontractor in the performance of its work, the indemnities identified in the Clause of this Contract entitled, "Rights and Responsibility of Contractor", in the Subclause entitled, "Indemnification", to the same extent as the Contractor is required to indemnify such indemnities for claims and liabilities arising out of or in connection with the Contractor's work.

For convenience of reference and to facilitate the letting of Contracts and subcontracts, the Specifications are separated into titled sections. Such separation shall not, however, operate to make the Owner or the Engineer arbiters to establish limits of responsibility in the subcontracts between the Contractor and his subcontractors or sub-subcontractors.

### ARTICLE XVIII - TIME OF BEGINNING WORK

The Contractor shall commence work within ten (10) days after receipt of written Notice to Proceed from the Owner.

### ARTICLE XIX - INTERMEDIATE TIMES OF COMPLETION AND DEFAULT

The Contractor hereby warrants that it will complete the Contract within the overall time period as set forth in the Contract Documents. It further warrants that it will complete its construction work as set forth in the Schedule of Intermediate Completion Times set forth in the Article of the Information for Bidders entitled, "Time Limit and Damages for Non-Completion", in the Special Conditions and any amendments, addenda, supplements and modifications thereto.

The times set forth therein and elsewhere for completion of the various phases of the work are hereby made "time of the essence". In the event that Contractor fails to complete work within the time period required, at the option of the Owner, the Contractor shall be in default of this Contract.

In the event that the Contractor defaults in meeting a time period as set forth herein then the Owner shall, at any time thereafter before the Contractor has timely achieved a subsequent Intermediate Completion Time and before the full completion of the Contract, have the option of terminating the Contract. In the event that the Owner so terminates the Contract, the Contractor shall be paid for only such work installed under the terms of the Contract, as shall be determined by the Engineer, and shall not be entitled to any additional monies for loss of profit for the work to be performed under the terms of the Contract. The Owner shall withhold any payments due to the Contractor at the time of such termination until such time the Owner enters into an agreement for the balance of the work. In the event that the Owner, in accordance with the bids received, awards the Contract to the lowest responsible bidder which requires the Owner to pay for the balance of the work to be done in excess of the amount which was to be paid the Contractor for balance of work, as determined by Engineer, then the Owner shall be authorized to apply any monies of the Contractor retained by the Owner toward this difference, remitting to Contractor the balance if any. In the event that such monies are insufficient to cover the said difference, the Contractor shall promptly pay any deficiency to the Owner.

In the event that the Owner elects not to declare Contractor in default, then Owner shall not be required to pay Contractor any monies for work performed by Contractor until such time that Contractor overcomes his delay and completes the work in accordance with a subsequent Intermediate Completion Time or completes the whole of the work.

The Owner's remedies under this Article are in addition to and not in lieu of the Article of this Contract entitled, "Damages and Liquidated Damages".

### ARTICLE XX - FINAL COMPLETION

The Contractor's rate of progress shall be such that the Base Bid work shall be finally completed in accordance with the terms of this Contract within the time limit established

for the project starting from the Contractor's receipt of the Notice to Proceed, unless and except as the Contractor shall be granted to an extension of time under the Article of this Contract entitled, "Suspension of Work, Delay and No Damage for Delay" or under the Article entitled, "Changes".

It is expressly understood and agreed by and between the Contractor and the Owner, that the Contract time for the completion of the work and the intermediate Completion Times described in the Contract Documents are reasonable times taking into consideration the climatic conditions, economic conditions, labor force and other factors prevailing in the locality of the work.

The time in which this contract is to be performed and completed and the Intermediate Completion Times are of the essence of this Agreement.

#### ARTICLE XXI - SUSPENSION OF WORK

##### DELAY AND NO DAMAGES FOR DELAY

The Owner shall have the right to defer the beginning of or to suspend the whole or any part of the work herein contracted to be done, whenever, in the opinion of the Owner, it may be necessary or expedient for the Owner to do so. And, if the Contractor be delayed in the completion of the work by any wrongful act, neglect, or default of the Owner, or of the Engineer, or of any other consultant or contractor employed by the Owner upon the work, or by strikes, riots, lockouts, fire, unavoidable casualties, or any other unforeseeable cause clearly beyond the Contractor's control, or by any cause which the Owner shall decide to justify the delay, then for all such delays and suspensions the Contractor shall be allowed an equitable extension in the completion of the work, the same to be determined by the Owner and notified to the Contractor in writing. In no case shall the additional time exceed the time of the delay.

The Owner must provide advance written notice to the Contractor of any suspension of work lasting more than 10 calendar days of the performance of all or any portion of the work of the contract.

If the performance of all or any portion of the work of the contract is suspended by the Owner for more than 10 calendar days due to no fault of the Contractor or as a consequence of an occurrence beyond the Owner's control, the Contractor shall be entitled to compensation for any resultant delay to the project completion or additional contractor expenses, and to an extension of time, provided that, to the extent feasible, the Contractor, within 10 calendar days following the conclusion of the suspension, notifies the Owner, in writing, of the nature and extent of the suspension of work.

- The notice must include available supporting information, which information may thereafter be supplemented by the Contractor as needed and as may be reasonably requested by the Owner.

- Whenever a work suspension exceeds 60 days, upon seven days' written notice, either party shall have the option to terminate the contract for cause and to be fairly and equitably compensated therefor.

Upon receipt of the Contractor's suspension of work notice, the Owner must promptly evaluate the Contractor's notice and promptly advise, in writing, the Contractor of its determination on how to proceed.

- If the Owner determines that the Contractor is entitled to additional compensation or time, the Owner must make a fair and equitable upward adjustment to the contract price and contract completion date.
- If the Owner determines that the contractor is not entitled to additional compensation or time, the Contractor shall proceed with the performance of the contract work and is entitled to pursue a suspension of work claim against the Owner for additional compensation or time attributable to the suspension.

Failure of the Contractor to provide timely notice of a suspension of work will result in a waiver of a claim if the Owner can prove by clear and convincing evidence that the lack of notice or delayed notice by the Contractor actually prejudiced the Owner's ability to adequately investigate and defend against the claim.

#### ARTICLE XXII - DAMAGES AND LIQUIDATED DAMAGES

The parties acknowledge that in the event of a default in performance by the Contractor it is foreseeable that the Owner will suffer damages for which it is entitled to be compensated, both by virtue of the provisions of this Contract and as a matter of applicable law. Certain of these damages may be reasonably ascertaining. Others shall consist of intangible losses which are difficult of calculation, including but not limited to revenue losses and general and administrative costs. For these intangible losses, in the event the Contractor fails satisfactorily to complete all work for the entire project as contemplated and provided for under this Contract on or before the time wherein final completion is required under the terms of the Contract Documents, the Contractor shall be liable for, and the Owner may deduct from the Contract price, the sum of \$500.00 as liquidated damages for each calendar day (Sundays and legal holidays included) of delay. Such damages shall continue for the period of time that final completion has not been met and the sum thereof is hereby, in view of the difficulty of estimating such damages, fixed and determined as liquidated damages which the Owner will suffer by such time delay. The sum determined pursuant to this paragraph is not a penalty but an attempt reasonably to forecast the potential harm due to intangible losses caused by delay. The Contractor acknowledges that in submitting its bid and in setting the amount thereof it has ascertained the risk of nonperformance under this Article to the same extent as if the Contractor and the Owner had negotiated the amount of liquidated damages at arm's length.

In addition to and not in lieu of liquidated damages for the intangible costs of delay, the Contractor shall be liable for compensatory damages as allowed by law and in addition as hereinafter provided.

The Contractor agrees that, as compensatory damages due on account of delay in performance of the Contract, the Contractor shall be liable for and the Owner may deduct from the Contract Price the actual costs, resulting from the Contractor's failure to complete the work contemplated herein within the time provided, for payment for the services of construction observers necessarily employed on the work and for the services of the Engineer for any number of days in excess of the time allowed in the Contract Documents and for payment for all fines and penalties of whatever description imposed by the State of New Jersey or other governmental agency.

If the amounts of liquidated or compensatory damages due from the Contractor exceed the amounts of all monies due and to become due to the Contractor, the Contractor or his Surety shall pay the balance to the Owner.

#### ARTICLE XXIII - NIGHT, SUNDAY & HOLIDAY WORK

The Contractor shall notify the Engineer in advance of the nature and timing of the work which it intends to do during nights or on Sundays or holidays.

No night, Sunday or holiday work shall be conducted in violation of law, including, without limitation, applicable noise restrictions.

The Contractor shall not be entitled to compensation beyond the bid amount for any costs incurred for work done during nights, Sundays or holidays in order to accommodate the Owner's operational requirements.

Except where it is necessary for the Contractor to work nights, Sundays, and holidays, as indicated above, the Contractor shall not schedule work to be done at night or on Sundays or holidays except for the usual protective work such as pumping, tending of lights and heating apparatus, etc.

The Contractor's attention is called to the fact that certain aspects of the construction work may have to be scheduled outside of normal working hours due to operational requirements of existing facilities and the Owner's ability to interrupt or modify existing operations. The Contractor may be obligated to work nights, Sundays, or holidays to accommodate the Owner's operational requirements.

#### ARTICLE XXIV - ACCELERATION

If, in the opinion of the Owner, upon the advice of the Engineer, the Contractor is not making sufficient progress to complete this Contract within the time specified in the Contract Documents, based upon the remaining time within which the work is required to be completed, the Owner may, after giving written notice to the Contractor, require the Contractor to accelerate its performance and employ sufficient means and make sufficient

progress so that final completion will be achieved by the time required by the Contract Documents.

Neither the Owner so notifying the Contractor, nor the Owner's failure to notify the Contractor shall in any way relieve the Contractor from its obligation to complete its performance in a timely manner.

The Contractor shall not be entitled to any additional compensation by reason of such acceleration.

#### ARTICLE XXV - ILLEGAL DRUGS AND INTOXICATING LIQUORS

The Contractor shall strictly prohibit all persons from using or being under the influence of illegal drugs or intoxicating liquors upon or about the work site(s).

#### ARTICLE XXVI - EXAMINATION OF WORK AND TESTING

The representatives of the Engineer, the Owner, testing agencies and governmental agencies with jurisdictional interests will have access to the work at all reasonable times for their observation, inspection and testing. The Contractor shall provide proper and safe conditions for such access.

No work shall be covered without the advance authorization of the Engineer. The Contractor shall give the Engineer timely notice of the Contractor's intention to cover the work and the Engineer shall act with reasonable promptness in response to such notice. If work is covered without the Engineer's advance authorization, it must, if requested by the Engineer, be uncovered for the Engineer's observation and replaced at the Contractor's expense.

If the Engineer considers it necessary or advisable that work which had been covered with the authorization of the Engineer be observed, inspected or tested, Contractor, at the Engineer's request, shall uncover, expose or otherwise make available for such observation, inspection or testing, that portion of the work in question, furnishing all necessary labor, material and equipment. If it is found that such work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and Owner shall be entitled to an appropriate decrease in the Contract Price for such costs. If, however, such work is found not to be defective, Contractor shall be allowed an increase in the Contract Price for those costs directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction.

#### ARTICLE XXVII - DEFECTIVE WORK

Observation of the work by the Owner and/or Engineer shall not relieve the Contractor of any of his obligations to fulfill the Contract as herein described, and defective work shall be made good, and unsuitable materials may be rejected, notwithstanding that such defective or unsuitable work or materials may previously have been overlooked by the

Owner and/or Engineer and accepted or approved for payment. If the work or any part thereof shall be found defective at any time before the final acceptance of the whole of the work, the Contractor shall forthwith make good such defect in a manner satisfactory to the Owner upon the advice of the Engineer, and if any material for use in the work, or selected therefore, shall be condemned by the Engineer as unsuitable or not in conformity with the Contract Documents, the Contractor shall forthwith move such material from the vicinity of the work. If the Contractor shall fail to remove or replace any defective or unsuitable materials or work within a reasonable time after written notice to the Contractor, the Owner may, without prejudice to any other remedy it may have, correct such deficiencies, and the expense thereof shall be borne by the Contractor.

#### ARTICLE XXVIII - PROTECTION OF WORK

The Contractor shall take all precautions to prevent damage to the work, including, without limitation, damage caused by surface or ground waters. In case of damage to the work of any kind whatsoever, the Contractor shall, at its own cost, make such repairs or replacements or rebuild such parts of the work, in order that the finished work may be completed as required by the Contract Documents.

#### ARTICLE XXIX - MISTAKES OF CONTRACTOR

The Contractor shall pay to the Owner all expenses, losses and damages caused by or relating to any defect, omission or mistake of the Contractor or of his materialmen, suppliers or subcontractors (of any tier), or their agents, or employees, or caused by or relating to the making good of such defect, omission or mistake.

#### ARTICLE XXX - TITLE TO WORK, MATERIALS AND EQUIPMENT

The Contractor warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to the Owner upon receipt of such payment by the Contractor, free and clear of all liens, claims, security interests or encumbrances.

The Contractor shall furnish releases of all liens, claims, security interests and encumbrances at the time the Contractor submits an Application for Payment for the work, materials and equipment.

#### ARTICLE XXXI - CHANGES

The Owner may, at any time, by written order, and without notice to the sureties, make changes in the work within the general scope of the Contract Documents, consisting of additions, deletions or other revisions. Such changes may include, without limitation, changes in the Contract Documents, Contract Drawings and Specifications, changes in the quantities, estimated quantities, design, line, grade, plan, form, dimensions or materials of the work or any part thereof, changes in the method or manner of performing the work, and changes in Owner-furnished property.



If the Contractor encounters differing site conditions during the progress of the contract work, the contractor must promptly provide written notification to the Owner of the specific differing site conditions encountered before the site is further disturbed and before any additional work is performed in the impacted area. Upon receipt of differing site conditions written notice or upon the Owner otherwise learning of differing site conditions, the Owner must promptly undertake an investigation to determine whether differing site conditions are present.

If the Owner determines that different site conditions may result in additional cost or delays, the Owner shall provide prompt written notification to the contractor containing directions on how to proceed. The Owner shall make a fair and equitable adjustment to the contract price and contract completion date for increased costs and delays resulting from the agreed upon differing site conditions encountered by the Contractor. If both parties agree to the Owner's investigation and directions decrease the Contractor's costs or time, the Owner is entitled to fair and equitable downward adjustment to the contract and price. If the Owner determines that there are no differing site conditions present that would result in additional costs or delays, the Owner must notify the Contractor, in writing, and the Contractor must resume performance of the contract, and be entitled to pursue a differing site conditions claim against the Owner for additional compensation or time attributable to the alleged differing site conditions. Contract execution by the Contractor constitutes a representation that the Contractor has visited the site and has become generally familiar with the local conditions under which the work is to be performed.

Any other written or oral orders (including, without limitation, directions, instructions, interpretations, or determinations) from the Owner or Engineer to the Contractor that cause material change in the requirements of the Contract Documents, may be authorized as changes under this Clause; provided, as conditions precedent, that the Contractor gives the Owner and Engineer advance written notice at the earliest practicable time (in any case before beginning the work which will be the subject of the claimed change and before incurring any costs in connection with the claimed change) of the date, circumstances and source of the alleged change; provided that the Contractor expressly states in the notice that the Contractor regards the order as a change in the requirements of the Contract Documents and cites this Article of the Contract; and provided that the Owner determines that the claim of the Contractor is meritorious and issues a duly authorized written change order to that effect.

If the quantity of a pay item:

- Is cumulatively increased or decreased by 20% or less from the bid proposal quantity, the quantity change is considered a minor change in quantity and the Owner will make payment for the quantity of the pay item performed at the bid price for the pay item
- Is cumulatively increased or decreased by more than 20% from the bid proposal quantity, the quantity change is considered a major change in quantity.

For major increase:

- The Owner or the Contractor may request to renegotiate the price for the quantity in excess of 120% of the bid proposal.
- If mutual agreement cannot be reached the contracting unit must pay the actual cost plus an additional 10% for overhead and additional 10% for profit unless otherwise specified in the original bid.

For major decrease:

- The contracting unit or the contractor may request to renegotiate the price for the quantity of work performed
- If mutual agreement cannot be reached the contracting unit must pay the actual cost plus an additional 10% for overhead and additional 10% for profit unless otherwise specified in the original bid. Provided that the contracting unit does not make a payment in an amount that exceeds 80% of the value of the bid price multiplied by the bid proposal quantity.

If any such change causes an increase or decrease in the cost of or time required for the performance of any part of the work under this Contract, the Owner shall make an equitable adjustment in the Contract Price, the required completion times for the Contract work, or both.

If the Contractor believes that a change directive by the Owner results in a material change to the contract work, the Contractor must notify the Owner in writing. The Contractor must continue to perform all work on the project that is not the subject of the notice. Upon receipt of the Contractor's change in character notice the Owner shall promptly evaluate the Contractor's notice and promptly advise the Contractor of its determination on how to proceed in writing. If the Owner determines that a change to the Contractor's work caused or directed by the Owner materially changes the character of any aspect of the contract work, the Owner must make a fair and equitable upward adjustment to the contract price and contract completion date. The basis for any such price adjustment shall be the difference between the cost of performance of the work as planned at the time of contracting and the actual cost of such work as a result of its change in character, or as otherwise mutually agreed upon by the Contractor and the Owner prior to the contractor performing the subject work. If the Owner determines that the Contractor is not entitled to additional compensation or time, the Contractor must continue the performance of all contract work and is entitled to pursue a claim against the Owner for additional compensation or time attributable to the alleged material change.

As a condition precedent to the Contractor's right to any entitlement to increased costs or an extension of time under this Clause, the Contractor must fully document its claim to an equitable adjustment within thirty (30) days after receipt of a written change order from the Owner or within thirty (30) days after the Contractor gives notice of a constructive change. Such documentation shall, without limitation, include a written statement to the Owner and Engineer setting forth the full particulars of the Contractor's claimed

entitlements and the claimed amounts, accompanied by full documentation and detailed accounting in support of all aspects of the claim. The Contractor shall update and supplement its claim and documentation as necessary at intervals not greater than thirty (30) days.

No claims for an equitable adjustment shall be allowed if asserted after final payment under this Contract.

The following general policies shall apply to equitable adjustments under this Article:

- (a) The Contractor shall be entitled to any additional identifiable Contract Direct Costs associated with the changed work excluding Subcontractor's costs. For equitable adjustments not in excess of \$10,000 per change order (total of Contractor's direct cost, overhead and profit), the Contractor may include up to 10-percent overhead factor to its additional identifiable direct job costs, but excluding the cost of any subcontracting, plus up to a 10-percent profit factor to its identifiable direct costs plus overhead amount.
- (b) These overhead and profit factors may be accepted by the Owner as reasonable in lieu of requiring the submission of additional supporting data. However, the Owner reserves the right to review any cost or profit element on a case-by-case basis.
- (c) Equitable adjustments relating to changes in subcontracted work may be similarly handled and the Contractor may add up to 10 percent to the total cost (including overhead and profit factors) incurred by the subcontractor. In such cases, the same reservation of rights shall apply.
- (d) For equitable adjustments in the amount of \$10,000 to \$100,000, the above factors may be included initially for equitable adjustments but will be subject to negotiation, cost and pricing data, and Owner review requirements.

In order to be allowable in equitable adjustments, costs must be reasonable in nature and amount. Indirect Costs (overhead costs) must be allocable to the Contract, i.e., chargeable to the Contract on the basis of relative benefit received or other equitable relationship. Direct Costs for changed work shall be limited to increases or decreases in the identifiable direct cost of the following:

- (a) Direct Labor costs, including the time of a foreman while engaged directly upon changed work.
- (b) Direct Labor employee insurance, social security and other direct costs assessed on Direct Labor payrolls by properly authorized public agencies.

- (c) Direct costs of equipment, materials and supplies installed in the work. The direct cost of these items shall be the actual costs paid by Contractor to the suppliers of these items, without markup.
- (d) Direct costs of job equipment associated with the changed work. The compensatable cost for construction equipment shall be based upon the most current costs established in the "Rental Rate Blue Book for Construction Equipment" (published by Equipment Guide-Book Company) for each piece of equipment having a value in excess of \$50.00. Equipment and tools of lesser value are considered "small tools" and, as such, are considered to be part of overhead. Costs shall be based on an hourly rate determined by dividing the monthly rate listed in the cited "Blue Book" by 176. Overhead and profit factors shall only be applied to the rates charged for rental equipment. No overhead or profit will be allowed for Contractor-owned equipment.

Should the Owner and Contractor fail to agree upon any equitable adjustment the Engineer shall initially fix the terms of the adjustment and if the Owner or Contractor shall be dissatisfied with the Engineer's actions in this regard, such party may give notice to the Engineer of a dispute and a request for a formal decision under the Clause of this Contract entitled, "Responsibility of the Engineer". However nothing shall excuse the Contractor from proceeding with the Contract as changed.

The change orders executed for this Contract shall, in no event, cause the originally awarded Contract Price to exceed limitations set forth in N.J.A.C. 5:34-4.1 et seq., except as may be authorized under such regulation.

#### ARTICLE XXXII - CHANGES NOT TO AFFECT BOND

No modifications, omissions or additions to the terms of the Contract Documents shall in any way affect the obligations of the sureties on the Contractor's bonds.

#### ARTICLE XXXIII - DISCONTINUANCE OF WORK

If the work to be done under this Contract shall be abandoned, or if this Contract or any part thereof shall be sublet without the previous written consent of the Owner, or if the Contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the Engineer or Owner shall be of the opinion, and shall so certify in writing, that the conditions herein specified as to the rate of progress are not fulfilled, or that the work or any part thereof is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of this Contract, the Owner may notify the Contractor by seven (7) days advance written notice with a copy mailed to the Contractor's sureties to discontinue all work, or any part thereof; and thereupon the Contractor shall discontinue such work or such part thereof as the Owner may designate, and the Owner may thereupon, by contract or otherwise as it may determine, complete the work, or such part thereof, and charge the reasonable expense of so completing the work or part thereof to the Contractor; and for such completion the Owner for itself or its contractors may take possession of and use or cause to be used in the completion of the

work or part thereof, any of such materials, equipment, machinery, implements, and tools of every description as may be found at the location of said work.

All expenses charged under this Article shall be deducted and paid by the Owner out of any monies then due or to become due the Contractor under this Contract, or any part thereof; and in such accounting the Owner shall not be held to obtain the lowest reasonable figures for the work of completing the contract or any part thereof, or for insuring its proper completion, but all sums actually and reasonably paid therefore shall be charged to the Contractor. In case the expenses so charged exceed the sum which would have been payable under this contract if the same had been completed by the Contractor, the Contractor shall pay the amount of the excess to the Owner.

#### ARTICLE XXXIV - PRICES FOR WORK

The Owner shall pay, and the Contractor shall receive, the price stipulated in the Proposal as full compensation for everything furnished and done by the Contractor under this Contract, including all work required but not specifically mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein specified, and for well and faithfully completing the work and the whole thereof, as herein provided.

#### ARTICLE XXXV - MONEY MAY BE RETAINED

The Owner may keep any monies which would otherwise be payable at any time hereunder, and apply the same or so much as may be necessary therefor, to the payment of any expenses, losses or damages, incurred by the Owner, and may retain until all claims are settled, so much of such money as the Owner shall be of the opinion shall reasonably be required to settle all claims filed with the Owner, its officers and agents, relating to this Contract.

#### ARTICLE XXXVI - APPLICATIONS FOR PAYMENT

Except as hereinafter provided, the Contractor shall submit monthly a written Application for Payment for the approval of the Engineer on forms furnished by the Engineer for the value of the work done to the date of the Application for Payment and the amount earned by the Contractor under the terms of the Contract Documents.

The Owner shall withhold 2% of the amount due on each Application for Payment for Contracts in excess of \$100,000 in value and withhold 10% for Contracts under \$100,000 in value pursuant to N.J.S.A. 40A:11-16.3, unless the Contractor makes the deposits referred to in N.J.S.A. 40A:11-16.1. Such withholding shall be in addition to any retainage otherwise authorized by law or the Contract Documents.

The Owner shall make payments to the Contractor once each month as the work progresses. Payment may be withheld at any time if the work is not proceeding in accordance with the Contract Documents.

At least twenty (20) days before each monthly progress payment falls due for approval by the Owner (but not more often than once per month), the Contractor will submit to the Engineer an Application for Payment filled out and signed by the Contractor covering the work performed during the period covered by the Application for Payment and supported by such data as the Engineer may reasonably require.

Accompanying each Application for Payment shall be releases of any and all lien claims which may have been filed by persons claiming to have performed any labor or furnished any materials toward performance or completion of this Contract.

Where any specific item(s) in the Application for Payment is questioned, the Engineer may delete those items from the Application for Payment and approve the acceptable portion of the Application for Payment.

For unit price work the quantities set forth in the Contract Documents are estimated quantities. Such quantities are not guaranteed but are solely for the purpose of comparing Bids and determining the initial Contract Price. Determinations of the actual quantities for unit price work will be made by the Engineer, whose decisions (by recommendation of an Application for Payment or otherwise) will be final and binding unless a formal decision is requested within the time provided in the Article of this Contract entitled, "Responsibility of the Engineer" in the Subarticle entitled, "Engineer's Decisions".

Prior to performing unit price work which would cause a net increase in the Contract Price by reason of the estimated quantity(ies) for such unit price work being exceeded, the Contractor shall request that the Owner issue a change order under the Article of the Contract entitled, "Changes" to cover such increase. No increase in the Contract Price will be authorized without advance approval by change order.

Payment requested for stored materials and/or equipment shall, in addition to the conditions set forth in N.J.S.A. 40A:11-16.4, be subject to the following conditions:

- (a) The materials and/or equipment shall be received in a condition satisfactory for incorporation in the work.
- (b) The materials and/or equipment shall be stored in such manner that they will not be damaged due to weather, construction operations or any other cause.
- (c) An invoice from the supplier shall be furnished for each item which payment is requested.
- (d) The Contractor shall furnish written proof from the supplier of payment for at least 90% of the cost of the materials and/or equipment, no later than thirty (30) days after Contractor's receipt of the payment for such

materials and/or equipment from the Owner. The Owner shall have the right to deduct from the next Application for Payment an amount equal to the cost of the said materials and/or equipment if adequate and timely proof of payment is not submitted by the Contractor.

- (e) Title to the stored materials and/or equipment shall pass to the Owner immediately upon the Owner's issuance of payment for the same. All stored materials and/or equipment for which the Owner has title shall be prominently labeled by the Contractor to indicate that title is in the Owner.
- (f) Risk of loss for the stored materials and/or equipment shall remain in the Contractor until the materials and/or equipment shall be incorporated into the works and finally accepted by the Owner. The Contractor shall maintain (and provide evidence of) adequate insurance to cover the risk of loss of the stored materials and/or equipment.
- (g) All stored materials and/or equipment shall be, at all reasonable times, subject to the inspection of the Engineer and the Owner. The Contractor shall bear the cost of Engineer's time and expense incurred in traveling to the Contractor's storage site(s).

The Engineer will, after receipt of each Application for Payment, either indicate in writing its approval of payment and present the Application for Payment to the Owner, or return the Application for Payment to the Contractor indicating in writing its reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the Application for Payment. The Owner shall review the Application for Payment at its next regularly scheduled meeting (provided that the Owner has received the Application for Payment in accordance with the Owner's standard payment procedure). Any Application for Payment shall be subject to correction in any subsequent Application for Payment.

#### ARTICLE XXXVII - FINAL ESTIMATE AND PAYMENT

The Contractor shall, as soon as practical after the final completion of this Contract, submit to the Engineer, in writing, for his approval, a final Application for Payment.

All prior Applications for Payment shall be subject to correction in the final Application for Payment.

Upon final completion and acceptance by the Owner, the Owner shall pay to the Contractor, as provided by law, the entire balance of the Contract Price due hereunder, including the amount withheld pursuant to N.J.S.A. 40A:11-16.3, after deducting therefrom all previous payments and all amounts to be deducted and all amounts to be retained under the provisions of this Contract and as permitted by law. Such final payment shall not be made before the expiration of the time within which claims for labor performed and materials furnished under the Contract must be filed under the "Municipal Mechanics Lien Law" (N.J.S.A. 2A:44-125, et seq.).

The Owner, with the advice of the Engineer, shall fix the date of final completion of the work and shall annotate the date upon the final Application for Payment.

#### ARTICLE XXXVIII - LIENS

If at any time before final payment any person or persons claiming to have performed any labor or furnished any materials, toward the performance or completion of this Contract, shall file proper notice of claim, the Owner shall retain, until the discharge thereof from the monies under its control, so much of such monies as shall be sufficient to satisfy and discharge the amount claimed to be due in such notice, together with the estimated cost of any action or actions to be incurred by the Owner in connection with the filing of such notice.

After such retainage, the balance of money which may be due to the Contractor shall not be paid by the Owner until the Contractor has delivered to the Owner an Affidavit to be signed personally by the Contractor, or by a General Partner if Contractor is a Corporation, or by the President or Secretary if Contractor is a Corporation, attesting to the payment of all others who supplied labor, materials or equipment for the Contract and for which a lien claim could be filed, with receipts in full to cover the potential claims of such other suppliers of labor, materials or equipment, such receipts to be attached to such Affidavit.

#### ARTICLE XXXIX - WAIVERS

Neither the observation by the Owner or the Engineer nor any of their agents, nor any order, measurement, or certification by the Engineer, nor any order by the Owner for the payment of money nor payment for, nor acceptance of, the whole or any part of the work by the Owner, nor any extension of time, nor any possession taken by the Owner or its employees, shall operate as a waiver of any provision of this Contract, or of any power herein reserved to the Owner, or any right to damages herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach. Any remedy provided in this Contract shall be taken and construed as cumulative, that is, in addition to each and every other remedy herein provided, and, in addition to all other suits, actions, or legal proceedings, the Owner shall also be entitled as of right to a writ of injunction as a relief against any breach of any of the provisions of this Contract.

#### ARTICLE XL - LIABILITY OF OWNER

No person, firm or corporation, other than the Owner, the Engineer and the Contractor, now has any interest hereunder, and no claim by any other person to be a beneficiary of this Contract shall be made or be valid, and neither the Owner nor any agent of the Owner, shall be liable for, or be held to pay, any money, except as herein provided. The acceptance by the Contractor of the final payment shall operate as and shall be a release to the Owner, the Engineer and every agent of the Owner and Engineer, for all claims by and liabilities to the Contractor for anything done or furnished for, or relating to the work, or for any act or neglect of the Owner or the Engineer or of any person relating to



or affecting the work except the claim against the Owner for the remainder, if any there be, of the amounts deducted or retained as herein provided.

#### ARTICLE XLI - WARRANTY

The Contractor warrants to the Owner and Engineer that the materials and equipment furnished by the Contractor or any Subcontractor (of any tier) under the Contract Documents will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the work will be free from defects not inherent in the quality required or permitted, and that the work will conform with the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, shall be considered defective. This warranty excludes remedy for damage or defect caused by others for whom the Contractor is not responsible, modifications not executed by the Contractor or its Subcontractors (of any tier), improper operation, or normal wear and tear under normal usage. In case of inquiry by the Engineer, the Contractor shall furnish evidence, satisfactory to the Engineer, as to the nature and quality of any work, materials or equipment furnished under the Contract.

#### ARTICLE XLII - MAINTENANCE PERIOD

In addition to, and not in lieu of the Contractor's warranty, above, if, within two years from the date of Owner's final acceptance of the Contractor's work or such longer period of time as may be prescribed by law or regulation or by the terms of any special warranty required by the Contract Documents, any such work is found to be defective or requires repair, amendment, reconstruction, or rectification to keep the facility and its appurtenances in good and serviceable condition, the Contractor shall promptly, without cost to the Owner and in accordance with Owner's written instructions, either correct such condition or, if the work has been rejected by the Owner, remove it from the site and replace it with proper work. Such one-year period is referred to here as the "Maintenance Period."

The Contractor's maintenance obligation excludes remedy for damage or defect caused by others for whom the Contractor is not responsible, or caused by Owner's improper use or operation, or caused by the failure of the Owner to provide necessary lubricants.

Throughout the Maintenance Period, the Contractor shall also correct any settlement or erosion in fills or cuts and restore all ground areas to elevations indicated on the Contract Drawings when so instructed by the Owner or the Engineer.

The Contractor's Maintenance Bond shall remain in effect until the end of the Maintenance Period.

If the Contractor does not comply with the requirements of the above stated warranty obligations or maintenance obligations, promptly correct the work, promptly comply with the terms of instructions of the Owner or Engineer, or, in an emergency where delay would cause material risk of loss or damage, the Owner may have the work corrected or the rejected work removed and replaced and all direct, indirect and consequential costs of

such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be borne by Contractor and may be deducted from amounts payable to the Contractor under the Contract under the Contract. If instead of requiring correction or removal and replacement of the work, the Owner prefers to accept it, the Owner may do so and the Owner shall be entitled to an appropriate decrease in Contract Price.

#### ARTICLE XLIII - LEGAL ADDRESS OF CONTRACTOR

The address given in the bid or proposal submitted by the Contractor and the Contractor's office at or near the site of the work are hereby designated as places to either of which notices, letters, and other communications to the Contractor may be certified, mailed or delivered. The delivery at the site office, or delivery to the address given in the bid or proposal or depositing in a postpaid wrapper directed to the address given in the bid or proposal, in any post office box regularly maintained by the U.S. Postal Service of any notice, letter or other communication to the Contractor, shall be deemed sufficient service thereof upon the Contractor, and the date of said service shall be the date of such delivery or mailing. The Contractor's address may be changed at any time by an instrument in writing, executed and acknowledged by the Contractor and delivered to the Owner with a copy to the Engineer. Nothing herein contained shall be deemed to preclude or render inoperative the personal service of any notice, letter or other communication upon a Contractor's representative.

#### ARTICLE XLIV - RIGHT OF THE OWNER TO TERMINATE CONTRACT

##### OR GIVE A THREE (3) DAY DEFICIENCY NOTICE

In the event of any material delay or default in the performance of any of the provisions of the Contract Documents by the Contractor, or by any of his Subcontractors (of any tier), the Owner may serve written notice upon the Contractor and the surety(ies) of its intention to terminate the Contract, such notice to contain the reasons for the Owner's intention to terminate the Contract, and unless within ten (10) days after the serving of such notice upon the Contractor, such delay or default shall cease or arrangements for the correction and cure of the delay or default satisfactory to the Owner shall be made, the Owner may, upon the expiration of said ten (10) days, terminate the Contract. In the event of any such termination, the Owner shall immediately serve notice thereof upon the Contractor and the surety(ies), and the surety(ies) shall have the right to take over and perform the Contract; provided, however, that if the surety(ies) do not commence performance of the Contract within ten (10) days from the date of the mailing to such surety(ies) of the notice of termination and correct and cure such delay or default or make arrangements for the correction and cure of the delay or default satisfactory to the Owner, the Owner may take over the work and prosecute the same to completion by contract or by force account for the account of and at the expense of the Contractor and may deduct the cost thereof from the payment then or thereafter due to the Contractor, and the Contractor and the surety(ies) shall be liable to the Owner for any excess cost caused to the Owner thereby, and in such event the Owner may take possession of and utilize in

completing the work, such of the Contractor's materials, equipment appliances, and plant as may be on the site of the work and necessary or convenient therefor.

In addition to and not in lieu of the termination remedy provided above or any other remedy the Owner may have, if the Contractor or Subcontractor (of any tier) should fail or neglect at any time to prosecute the work properly or fail to perform any provision of the Contract Documents, the Owner may give a three (3) day written deficiency notice. The Owner, after three (3) days from the service of the three (3) day deficiency notice to the Contractor, may make good such deficiencies for the account of and at the expense of the Contractor and may deduct the cost thereof from the payment then or thereafter due to the Contractor and the Contractor and the surety(ies) shall be liable to the Owner for any excess cost caused to the Owner thereby.

In addition to and not in lieu of the termination remedies provided above, the Owner may terminate this Contract, in whole or in part, for the convenience of the Owner, if the Owner determines that such termination is in the Owner's interest. Such termination shall be by written notice to the Contractor specifying the extent of termination and the effective date. In case of such termination for convenience, the Contractor shall be paid for the work satisfactorily completed to the date of termination, together with the reasonable costs of settlement of the work terminated, but not for lost or anticipated profits on the work terminated.

#### ARTICLE XLV - USE AND OCCUPANCY PRIOR TO ACCEPTANCE BY OWNER

The Contractor agrees to the possession, use and occupancy of any portion or unit of the project prior to acceptance by the Owner.

The possession, use or occupancy of any part or parts of the project by the Owner shall not operate to relieve the Contractor from its responsibility to complete all of the work as specified in the Contract Documents. The possession, use or occupancy by the Owner of any part of the project, as aforesaid, shall not constitute or necessarily imply Completion or acceptance of that part of the project or work by the Owner or Engineer.

#### ARTICLE XLVI - PAYMENT FOR UNCORRECTED WORK

Should the Owner direct the Contractor not to correct work that has been damaged or that has not been performed in accordance with the Contract Documents, an equitable deduction from the amount payable under the Contract, as determined by the Engineer, shall be made to compensate the Owner for the uncorrected work.

#### ARTICLE XLVII - ORAL AGREEMENTS

No oral order, objection, claim or notice by any party to the other shall affect or modify any of the terms or obligations contained in any of the Contract Documents, and none of the provisions of the Contract Documents shall be held to be waived or modified by reason of any act whatsoever, other than by an express waiver or modification to the Contract Documents, in writing, and no evidence shall be introduced in any proceeding of any other alleged waiver or modification.

## ARTICLE XLVIII - CONTRACTOR BOOKS AND RECORDS

The Contractor shall maintain its books and records in accordance with generally-accepted accounting principles and auditing standards throughout the performance of this Contract and for three (3) years after final completion and acceptance.

## ARTICLE XLIX – MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE GOODS, PROFESSIONAL SERVICES AND GENERAL SERVICE CONTRACTS

1. During the performance of this contract, the contractor agrees as follows:
  - i. The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, religion, sex, national origin, creed, color, ancestry, marital status, affectional or sexual orientation, familial status, liability for services in the Armed Forces of the United States or nationality. Except with respect to affectional or sexual orientation, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, religion, sex, national origin, creed, color, ancestry, marital status, affectional or sexual orientation, familial status, liability for services in the Armed Forces of the United States or nationality. Such action shall include, but not 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;
  - ii. The contractor or subcontractor, where applicable will, in all solicitations of advertisements for employees places by or on behalf of the contractor, state that all qualifies applicants will receive consideration for employment without regard to age, race, religion, sex, national origin, creed, color, ancestry, marital status, affectional or sexual orientation, familiar status, liability for services in the Armed Forces of the United States or nationality.
  - iii. The contractor or subcontractor, where applicable, will send to each labor union or representative or workers with which it has a collective bargaining agreement or other contractor understanding, 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.

iv. The contractor or subcontractor, where applicable, agrees to comply with the regulations promulgated by the Treasurer pursuant to NJSA 10:5-31 et seq, as amended and supplemented from time to time and the Americans with Disabilities Act.

(a) 1. The contractor or subcontractor agrees to attempt in good faith to employ minority and female workers consistent with the applicable county employment goals prescribed by NJAC 17:27-5.2 as amended and supplemented from time to time or in accordance with a binding determination of the applicable county employment goals determined by the Division pursuant to NJAC 17:27-5.2.

(a) 2. The contractor or subcontractor agrees to inform in writing appropriate recruitment agencies in the area, including employment agencies, placement bureaus, colleges, universities, labor unions, that does not discriminate on the basis of age, race, religion, sex, national origin, creed, color, ancestry, martial status, affectional or sexual orientation, familial status, liability for services in the Armed Forces of the United States or nationality; will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

(a) 3. The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personal testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

(a) 4. The contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading, and layoff to ensure that all such actions are taken without regard to age, race, religion, sex, national origin, creed, color, ancestry, martial status, affectional or sexual orientation, familial status, liability for services in the Armed Forces of the United States or nationality and conform with the applicable employment goals, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor and subcontractor shall furnish such reports or other documents to the Division of Contract Compliance & EEO as may be requested by that office from time to time to carry out the purpose of these regulations, and public agencies shall furnish such information as may be requested by the Division of Contract Compliance & EEO for conducting a compliance investigation pursuant to Subchapter 10 of the Administration Code (NJAC 17:27). The Township will supply to the contractor the appropriate forms. Said forms are required to be submitted prior to the Township executing a contract.

---

BIDDER'S SIGNATURE

---

DATE

IN WITNESS WHEREOF, the parties to these presents have hereunto set their names and affixed their seals:

TOWNSHIP OF EGG HARBOR  
By: \_\_\_\_\_  
\_\_\_\_\_(Seal)  
Title

Attest:  
\_\_\_\_\_  
\_\_\_\_\_  
Title

Contractor  
By: \_\_\_\_\_  
\_\_\_\_\_(Seal)  
Title

Attest:  
\_\_\_\_\_  
\_\_\_\_\_  
Title

(ACKNOWLEDGMENT OF OFFICER OF OWNER ATTESTING CONTRACT)

State of New Jersey)

)ss.:

County of Atlantic)

I CERTIFY that on \_\_\_\_\_, 20\_\_\_\_, personally  
came before me and this person acknowledged under oath, to my satisfaction, that:

- (a) this person is the clerk of the TOWNSHIP OF EGG HARBOR
- (b) this person is the attesting witness to the signing of this Contract by the  
proper officer who is the of the TOWNSHIP OF EGG HARBOR
- (c) this document was signed and delivered by the TOWNSHIP OF EGG  
HARBOR as its voluntary act duly authorized by a resolution of said  
TOWNSHIP OF EGG HARBOR
- (d) this person knows the proper seal of the TOWNSHIP OF EGG HARBOR  
which was affixed to this Contract; and
- (e) this person signed this proof to attest to the truth of these facts.

Signed and sworn to  
before me on

\_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

\_\_\_\_\_  
(Attesting Witness)

(ACKNOWLEDGMENT OF OFFICER OF  
CONTRACTOR ATTESTING CONTRACT)

State of New Jersey)

)ss.:

County of        )

I CERTIFY that on \_\_\_\_\_, 20\_\_\_\_, personally came before me  
and this person acknowledged under oath, to my satisfaction, that:

- (a)     this person is the secretary of the corporation named as the Contractor in  
          this Contract;
- (b)     this person is the attesting witness to the signing of this Contract by the  
          proper officer who is the of the corporation;
- (c)     this document was signed and delivered by the corporation as its voluntary  
          act duly authorized by a resolution of its Board of Directors;
- (d)     this person knows the proper seal of the corporation which was affixed to  
          this Contract; and
- (e)     this person signed this proof to attest to the truth of these facts.

Signed and sworn to

before me on

\_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

\_\_\_\_\_  
(Attesting Witness)



## PERFORMANCE BOND

KNOW all men by these presents, that we, the undersigned, \_\_\_\_\_, as principal and \_\_\_\_\_, as sureties, are hereby held and firmly bound unto the Township of Egg Harbor in the penal sum of \_\_\_\_\_ dollars, for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this \_\_ day of \_\_\_\_\_, 20\_\_.

The condition of the above obligation is such that whereas, the above named principal did on the \_\_ day of \_\_\_\_\_, 20\_\_, enter into a contract with the Township of Egg Harbor (the "Contract"), which said Contract is made a part of this bond the same as though set forth herein;

Now, if the said \_\_\_\_\_ shall well and faithfully do and perform the things agreed by \_\_\_\_\_ to be done and performed according to the terms of said Contract, and shall pay all lawful claims of subcontractors, materialmen, laborers, persons, firms or corporations for labor performed or materials, provisions, provender or other supplies or teams, fuels, oils, implements or machinery furnished, used or consumed in the carrying forward, performing or completing of said contract, we agreeing and assenting that this undertaking shall be for the benefit of any subcontractor, materialman, laborer, person, firm or corporation having a just claim, as well as for the obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

The said surety hereby stipulates and agrees that no modifications, omissions or additions in or to the terms of the said Contract or in or to the plans or specifications therefor shall in anyway affect the obligation of said surety on its bond.

Recovery of any claimant under this bond shall be subject to the conditions and provisions of Article 12, Chapter 44 of Title 2A of the New Jersey Statutes (N.J.S.A. 2A:44-143, et seq.) to the same extent as if such conditions and provisions were fully incorporated in this bond.

IN WITNESS WHEREOF said principal and surety have hereunto set their respective hands and seals or caused these presents to be signed and sealed by their proper representatives on the day and date set forth above.

WITNESS/ATTEST

\_\_\_\_\_  
Principal

By \_\_\_\_\_

ATTEST

\_\_\_\_\_  
Surety

By \_\_\_\_\_

NOTE: If the principal (Contractor) is a partnership, the bond should be signed by each of the general partners.

If the principal (Contractor) is a corporation, the bond must be signed by and attested by duly authorized representatives and an enabling corporate resolution must be attached.

There are to be executed an appropriate number of counterparts of this Performance Bond corresponding to the number of counterparts of the Contract.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located.

MAINTENANCE BOND

KNOW all men by these presents, that we, the undersigned, \_\_\_\_\_, as principal, and \_\_\_\_\_, as sureties, are hereby held and firmly bound unto the TOWNSHIP OF EGG HARBOR in the penal sum of \_\_\_\_\_ dollars, for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

The condition of the above obligation is such that whereas, the above-named principal did on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, enter into a contract with the TOWNSHIP OF EGG HARBOR (the "Contract"), which said Contract is made a part of this bond the same as though set forth herein;

Now, if the said \_\_\_\_\_ shall well and faithfully do and perform all things agreed by \_\_\_\_\_ to be done and performed according to the Articles of the Contract entitled, "Warranty" and "Maintenance Period"; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

This Maintenance Bond is to remain in effect until the end of the Maintenance Period provided under the Contract.

The said surety hereby stipulates and agrees that no modifications, omissions or additions in or to the terms of the said Contract or in or to the plans or specifications therefore shall in anyway affect the obligation of said surety on its bond.

IN WITNESS WHEREOF said principal and surety have hereunto set their respective hands and seals or caused these presents to be signed and sealed by their proper representatives on the day and date set forth above.

WITNESS/ATTEST

\_\_\_\_\_  
Principal

By \_\_\_\_\_

\_\_\_\_\_  
ATTEST

\_\_\_\_\_  
Surety

By \_\_\_\_\_

NOTE: If the principal (Contractor) is a partnership, the bond should be signed by each of the general partners.

If the principal (Contractor) is a corporation, the bond must be signed by and attested by duly-authorized representatives and an enabling corporate resolution must be attached.

There are to be executed an appropriate number of counterparts of this Maintenance Bond corresponding to the number of counterparts of the Contract.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the PROJECT is located.

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## Section 1.0 General Requirements

### 1.0.1 General

The Contract Documents for this work are identified in the Article of the Contract entitled Definitions.

The term "Engineer" and "Architect" are used interchangeably within the Contract Documents and are intended to refer to the Owner's Design Representative familiar with the design or construction phases of the project.

The Detailed Specifications consist of two (2) Sections as follows:

Section 1 - General Requirements

Section 2 - Technical Specifications

### 1.0.2 Work Included

The following information is part of this Section:

1.0 General Requirements

1.1 Additional Information

1.2 Special Project Procedures

1.3 Coordination

1.4 Field Engineering

1.5 Regulations

1.6 Alternates

1.7 Measurement and Payment

1.8 Project Meetings

1.9 Submittals

1.10 Quality Control

1.11 Construction Facilities and Temporary Utilities

1.12 Material and Equipment

1.13 Special Conditions



### 1.0.3 Project Description

The Contractor is to provide administrative and scheduling personnel as well as provide all the labor, superintendence, materials, plant, tools and equipment necessary and required for properly performing and completing the work as described and more particularly specified within the time stipulated. He is to furnish, erect, maintain and remove the construction plant and such temporary works as may be required. These requirements include, but are not restricted to, suitable quarters for workers where necessary, including temporary sanitary facilities, water supply, heat and light for the workers as well as for construction purposes. Existing public roads which are adjacent to the construction site may be affected by construction activities on the site.

The Contractor will be required to keep these roads open at all times during the contract and maintain these roads in a safe condition which is suitable for the public use. The connection to, or extension of, existing utility services from locations on the existing property is part of this Contract. Temporary roads, guards, lights and signposts are to be included. The Contractor is to furnish all material, equipment and labor necessary to complete his work in accordance with the terms of this Contract and the requirements thereunder, including all general and detailed Specifications hereinafter outlined.

A description of the work is included in the Scope of Contract section of the specifications. This description generally defines the work to be undertaken on this project and is to be supplemented by the remaining contract documents and site visitations.

### 1.1. Additional Information

#### 1.1.1 Insurance and Time Limits

The Contractor is to refer to the appropriate sections of the Information for Bidders and the Contract ("CON") pages for insurance requirements and time limits relating to project completion.

#### 1.1.2 Allowances - NOT IN CONTRACT

#### 1.1.3 Patents and Royalties

If any design, device, material or progress covered by letters, patent or copyright is used or installed by the Contractor, he is to secure, pay for and provide for such use by legal agreement with the holder of the patent or a duly authorized licensee of such holder, and is to save harmless the Owner and the Engineer from any and all loss or expense on account of including its use by the Owner.

#### 1.1.4 Guarantees

All work, materials, and equipment furnished under this Contract are to be guaranteed by the Contractor to perform the services required of them, to the full satisfaction of these Specifications, for a period of one (1) year from the date of the final acceptance.

#### 1.1.5 Other Contracts

The Owner may let other contracts related to the work of the Contractor. The Contractor is to cooperate with other contractors with regard to storage of materials and execution of the work. It is the Contractor's responsibility to inspect all work by other contractors affecting his work and to report to the Owner any irregularities which will not permit him to complete his work in a satisfactory manner. His failure to notify the Owner of such irregularities indicates the work of other contractors has been satisfactorily completed to receive his work. The Contractor is not responsible for defects of which he could not have known, which develop in the work of others after the work is completed. Where work under this Contract is to be connected to work under other contracts, it is the responsibility of the Contractor to measure the completed work in place and report to the Owner immediately any difference between completed work by others and the provisions of the Contract Documents.

#### 1.1.6 Witness Testing

All testing of materials and equipment specified under the various sections of these Contract Documents is to be witnessed by the Engineer and by a representative of the New Jersey Department of Environmental Protection at its option.

### 1.2 Special Project Procedures

#### 1.2.1 Engineer's Field Office - NOT IN CONTRACT

#### 1.2.2 Photographs

Refer to "Information to Bidders" Section 0.26.

#### 1.2.3 Emergency Telephone

The Contractor is to maintain telephones at all times after regular working hours, including weekends and holidays, where he or his representatives can be reached on an emergency basis. The Contractor or his representatives are to be prepared to act to correct conditions on the site deemed to constitute an emergency by either the Owner, his agent, the Engineer, or local authority, but he is not to wait for instructions before proceeding to properly protect both life and property. If a condition on the site requires attention after working hours, either the Owner, agent, Engineer, or local authority may call the Contractor or his representatives at the emergency telephone number, identify himself and describe the emergency condition. The Contractor is expected to dispatch men and equipment to adequately institute corrective measures within two (2) hours. If, for some reason, the Contractor or his agent cannot be reached at the emergency number after a reasonable time (1/2 hour), the Owner will have the right to immediately initiate corrective measures in accordance with the Article which follows, covering Emergency Services to Correct Hazardous Conditions, and the Contractor will be considered to have waived any right to perform emergency service.

#### 1.2.4 Emergency Services to Correct Hazardous Conditions

In the event that the Contractor fails to maintain safe job conditions or traffic conditions, including, but not limited to, trench settlement and hazardous piling or storage of backfill or construction materials, the Owner, after failure of the Contractor to commence substantial steps at the job site to rectify the situation within two (2) hours of the time the contractor has been notified, pursuant to the preceding paragraph, of the unsafe conditions, may hire guards, take such precautions, make such repairs and take any other steps which the Owner or the Owner's agent, in its discretion, considers necessary to protect the property, persons, or the Owner. The cost of any of these precautions, guards, or steps will be deducted from the payments due the Contractor, and the Contractor will be billed for these services, work, and materials at prevailing rates.

#### 1.2.5 Notification to Utility Companies and Owners of Buried Pipelines

The Contractor is to comply with all provisions of the "Underground Facility Protection Act" (P.L. 1994 Ch. 118). Prior to the start of any work in the vicinity of existing utilities or appurtenances, the Contractor is to notify the owner of the utilities at least ten (10) days in advance of the start of his work. The Engineer is to be furnished, in writing, the time at which such notice was given and the Garden State Underground Plant location service markout confirmation number, prior to the start of any work.

#### 1.2.6 Work In Bad Weather

During freezing, stormy or inclement weather, no work is to be done except such as can be done satisfactorily and in a manner to secure first-class construction throughout.

When required, protection is to be provided by use of tarpaulins, wood and building paper shelters, or other approved means.

During cold weather, materials are to be preheated, if required, and the materials and adjacent structure into which they are to be incorporated are to be made and kept sufficiently warm so that a proper bond will take place and a proper curing, aging or drying will result. Protected spaces are to be artificially heated by approved means which will result in a moist or dry atmosphere according to the particular requirements of the work being protected. Ingredients for concrete and mortar are to be sufficiently heated so that the mixture will be warm throughout when used.

#### 1.2.7 Explosives

Explosives are not to be stored at the site of the Project. If explosives are required, their use may be permitted after discussions with the Owner in consultation with the Engineer and written permission from the Owner and authorities having jurisdiction, and only under the supervision of competent licensed blasters.

#### 1.2.8 Owner/Engineer/Architect Protection

The Contractor is solely responsible for construction methods and safety at the site of his work. He must fully protect the Owner, the Owner's employees or visitors; the Engineer and Architect from all claims. The protection is to be of a form and amount satisfactory to the Owner and his Engineer or Architect.

### 1.3 Coordination

#### 1.3.1 General

The review and coordination of shop drawings, actual execution of the work, and testing between general construction work, equipment and piping installation, pertinent instrumentation and electrical work is the responsibility of the Contractor.

The Engineer will check each shop drawing submitted to determine whether it complies with the intent of the Contract Documents and the design. This same requirement is placed on the Contractor and his supplier. It is the intention of the Contract Documents to place various materials of construction and related requirements in their proper place both on the Drawings and in the specifications. However, no guarantee is made that such locations are, in every instance where the Contractor might expect to find them.

The Contractor is required to provide, or make available, all of the Contract Documents to each vendor and subcontractor, both prior to bid to ensure proper Proposals, and during construction to insure compliance with the intent of the Contract Documents. This is the sole responsibility of the Contractor.

The Engineer is not responsible for project coordination between various subcontractors, which is the responsibility of the Contractor. The Engineer will observe, by attendance at regularly scheduled job meetings, the orderly flow and progress of the work. The various subcontractors and those people responsible to them are required to interact with each other to insure that the work progresses in an orderly fashion and without exceeding the time allotted in the Contract.

The Contractor is to refer to the appropriate sections of the Contract Documents which defines the limitations of the Engineer's responsibilities.

The Contractor is responsible for reading all the Specifications and following the various Contract Drawings. His review of all the Contract Documents as well as shop drawings, coordination drawings and other information required to complete the project is his sole responsibility. He is to request clarification on any matters where ambiguities might exist, in order to receive instruction as to the proper documents to follow.

All products or materials which require the selection of color finishes are to be submitted early and with sufficient lead time to permit the Owner or his Engineer or Architect to develop an overall color coordination system for use by the Contractor in the final

installation. Delays in submitting such product or material samples or color charts at one time may delay the selection process and prevent the Contractor from granting suppliers final releases for fabrication.

### 1.3.2 Working Hours

The Contractor should generally limit construction operations and activities between the hours of 7 A.M. and 6 P.M. unless stricter limitations are established by law. No pile driving, pulling or other noisy operations, or operations entailing the use of vibratory hammers or compactors shall started prior to 7:30 A.M., prevailing time. The Contractor must also abide by the provisions of the Article of the contract entitled, "Night, Sunday & Holiday Work".

## 1.4 Field Engineering

### 1.4.1 Method of Construction

Before starting the work, and from time to time during its progress as the Engineer may request, the Contractor is to outline to the Engineer the methods he plans to use in doing the work and the various steps he intends to take.

### 1.4.2 Additional Instructions and Detail Drawings

The Engineer may furnish the Contractor with additional instructions and detailed drawings as may, in the opinion of the Engineer, be required to clarify the work included in the Contract. The additional drawings and instructions, thus supplied to the Contractor, will be coordinated with the Contract Documents and will be so prepared that they can be reasonably interpreted as a part thereof. The Contractor is to carry out the work in accordance with any additional detailed drawings and instructions. Additional instructions and detail drawings are not to be considered extra work.

### 1.4.3 Pipe Location

All new pipe lines are to be located substantially as indicated on the drawings, but the right is reserved to make such modifications in their location as may be found desirable to avoid interference with existing structures or for other sound reasons. Where fittings or accessories are noted on the drawings, such notation is for the Contractor's convenience and does not relieve him from laying and joining different or additional fittings where required to place pipe in proper position, without additional compensation. Where existing underground utilities are encountered which were not anticipated or indicated, the Contractor is to request from the Engineer such instructions as may be necessary to properly install new piping in order to eliminate the interference. In certain instances, a negotiated realignment cost may be required.

### 1.4.4 Changes in Design

If, during construction, it is found expedient by the Contractor to modify or change the design of any part of the facility, including the equipment or any part thereof, completely

detailed and checked working drawings showing the proposed changes are to be submitted to the Engineer for his review. Any permitted modification or change of design as set forth above is to be at the sole discretion of the Engineer. Approval of such changes does not release the Contractor from his obligation or guarantees, nor are any of the conditions of the Contract abrogated thereby. Any additional costs, including redesign costs to this Contract resulting from these changes, are to be borne by the Contractor. The Contractor is further to note the Contract Article entitled "Changes".

## 1.5 Regulations

### 1.5.1 General

All work under this Contract is to comply with all applicable requirements of Federal, State and local statutes, regulations, and codes, and especially the safety provisions contained therein.

Certain work to be done within the scope of this Contract may be required to meet the specification of persons, municipalities or bodies other than the Owner. The Contractor is to be responsible for obtaining the approval and acceptance of his completed work by such persons, municipalities, counties and similar bodies. Such work may include, but is not to be restricted to installation of sidewalks, curbs, pavement or utilities; plumbing, electrical and building construction work or other incidental work required to complete the Contract.

### 1.5.2 Environmental Protection

The Contractor is to minimize environmental impact due to his construction operations during all phases of his work. This shall include, but is not limited to, prohibition of the following construction procedures.

1. Dumping of spoil material into any stream corridor, any wetlands, any surface waters, or any unspecified locations.
2. Indiscriminate, arbitrary, or capricious operation of equipment in any stream corridors, wetlands, or surface waters.
3. Pumping of silt-laden water from trenches or other excavations into surface waters, stream corridors, or wetlands.
4. Damaging vegetation adjacent to or outside of the access road or the right of way.
5. Disposal of trees, brush, and other debris in any stream corridors, wetlands, surface waters, or at unspecified locations.
6. Permanent or unspecified alteration of any flow line of any stream.
7. Open burning of project debris.

8. Use of chemicals for dust control.
9. Use of asphaltic mulch binder.
10. Discharge of test waters with high chemical disinfectant or other pollutant concentrations.

The Contractor shall protect to the dripline all trees not designated by the Engineer to be removed.

The Contractor is directed to the appropriate sections of the Specifications for additional information regarding environmental work and protection.

#### 1.5.3 Labor, Safety, Health and Security Regulations

The Contractor is to refer to the appropriate portions of Information for Bidders regarding Regulations.

The Contractor is to provide adequate signs, barricades, lights and uniformed guards and take all necessary precautions for the protection of the workers, the work and the safety of the public. All traffic control shall be in accordance with the requirements of the latest edition of the USDOT "Manual of Uniform Traffic Control Devices." All barricades and obstructions are to be protected at night by suitable signal lights which are to be lit from sunset to sunrise. Barricades are to be of substantial construction and painted such as to increase their visibility at night. Suitable warning signs are to be so placed and illuminated at night as to show in advance where construction, barricades or detours exist.

The Contractor is to keep on proper lights each night between the hours of sunset and sunrise at and upon all portions of his work; upon all ranges or other stakes in connection with the work, when deemed necessary by the Owner or by the proper authorities, or when required by the liability insurance coverers, and is to be responsible for all injuries and damages resulting from neglect or failure in this respect. Night lighting must be so sized, concentrated and located so as to cast not more than two (2) foot candles around new construction and excavations. All excavations and obstructions must be properly marked, lighted and provided with railing and other guards.

The Contractor is to maintain sufficient guards by day and night to prevent accidents of any kind or character whatsoever, and will be liable for any damage which may arise from any negligence on his part or that of his agents and employees.

If, at any time, in the opinion of the Owner or the Engineer, the work is not properly lighted, barricaded, and in all respects safe in respect to public travel, persons on or about the work, or public or private property, the Owner will have the right, but not the obligation, to order such safeguards to be erected and such precautions to be taken as he deems advisable, and the Contractor is to promptly comply with such orders. If, under such circumstances, the Contractor does not or cannot immediately put the same into

proper and approved condition or if the Contractor or his representative is not upon the grounds so that he can be immediately notified of this insufficiency of safety precautions in accordance with the procedures for notification of the Contractor specified under "Emergency Telephone", then the Owner may put the work into such a condition that it shall be, in his opinion, in all respects safe and the Contractor is to pay all expenses of such labor and materials as may have been used for this purpose by him or by the Owner. Such action of the Owner, or his failure to take such action, will in no way relieve the Contractor of the entire responsibility for any cost, loss, or damage by any party sustained on account of the insufficiency of the safety precautions taken by him, by the Owner acting under authority of this Section.

#### 1.5.4 Sanitation

Sanitary conveniences, properly screened from public observation, for the use of all persons employed on the work and beginning with the first persons engaged in preliminary operations, are to be provided and maintained by the Contractor in sufficient numbers, in such a manner and at such locations as will be approved. Sanitary facilities are to be completely self-contained, chemically treated and regularly serviced.

#### 1.5.5 Sales Tax Exemption

The Contractor is to refer to the Information for Bidders regarding sales tax exemptions.

#### 1.5.6 Fire Safety

The Contractor is held responsible and is to maintain conditions which promote fire safety in his operations at all times. Materials which could constitute a fire hazard such as gasoline, paints, wood and paper products are to be safely stored.

### 1.6 Alternates

#### 1.6.1 General

The Contractor is to refer to the appropriate section of the Information for Bidders regarding the substitution of alternate materials and equipment.

### 1.7 Measurement and Payment

#### 1.7.1 General

For the estimating of quantities in which the computation of areas by geometric method would be comparatively laborious, it is stipulated and agreed that the planimeter may be considered an instrument of precision adapted by the measurement of such areas.

It is further stipulated and agreed that the computation of the volume of prisms is to be by the method of average end areas.



## 1.8 Project Meetings

### 1.8.1 Preconstruction Conferences

The Contractor shall refer to Information for Bidders, paragraph "Pre-construction and Construction Conferences" for information regarding preconstruction conferences.

### 1.8.2 Job Meetings

The Engineer may schedule regular job meetings at least twice monthly during the life of the Contract. The time and location of meetings is to be set by the Engineer. The Contractor, unless otherwise notified by the Engineer, is to have an authorized representative attend each meeting.

The purpose of these meetings is for maintaining communication between the Owner, Engineer and Contractor, including the Contractor's subcontractors and suppliers. The meetings are to be used to coordinate various parts of the work, update construction schedules, prepare progress estimates and respond to questions which may be raised by the various participants.

## 1.9 Submittals

### 1.9.1 General

This section covers a variety of different types of documents, drawings, and material which the Contractor is to provide to the Engineer or Owner for his approval, information, or use. Submittals will include, but not be limited to: bonds, bid price breakdown, construction schedule, shop drawing schedule, shop drawings, samples, color charts, operating and maintenance manuals, parts lists, spare parts and materials, special tools, and guarantees.

These items are to be submitted as specified in this Division and other Divisions of the Specifications, in the proper quantities, and in a timely manner.

### 1.9.2 Shop, Coordination, Setting and Installation Drawings and Samples

The Contractor shall promptly submit to the Engineer, one (1) reproducible and five (5) copies of detailed shop drawings, guaranteed test curves, and manufacturer's specifications for all equipment, tools and furnishings to be supplied under this Contract. Detailed shop drawings shall be submitted for items such as piping, ducts, miscellaneous metals, reinforced plastics, structural steel, reinforcing steel, mechanical equipment, fabricated items, electrical components, instrumentation and other work, whether or not mentioned in this section.

The Contractor shall submit these data with such promptness as to avoid delay in the work. In no case shall shop drawings be submitted later than 30 days after Contract

signing. Mechanical items, electrical items, instrumentation, reinforcing steel, and other items requiring long lead times and extensive review time shall be submitted first. Items requiring a lesser degree of lead time or review time may be submitted toward the end of this 30 day period. In order for the Contractor to be deemed to have fulfilled this requirement, his individual submissions must be complete in every respect so that a logical and orderly review might follow. Piecemeal submissions are not acceptable. Final submissions for approval must be complete in all respects.

When dimensions are of particular importance, the drawing must be certified by the manufacturer as correct for this project.

The Engineer will review submitted data within a reasonable time after receipt of such data considering the complexity and completeness of such submissions. He shall determine at his sole discretion whether the data submitted are sufficient to render a decision. Resubmission of drawings by the Contractor for the Engineer's approval must be completed within thirty (30) days of the return of the previous submission by the Engineer, unless the Engineer specifically agrees to the contrary.

No materials, equipment or specialties are to be purchased, fabricated or released until the Engineer has approved the shop or working drawings as conforming to the contract requirements. All materials and work involved in the construction shall then be as represented by such drawings.

Shop drawings are to be not smaller in size than 8-1/2 x 11 inches nor larger than the 30"x 42". Reproductions of the Engineer's drawings will not be acceptable as shop drawings. Before submitting shop drawings, the Contractor must check and sign all drawings, noting thereon any deviation from the Contract Drawings and Specifications.

One (1) reproducible and five (5) copies of shop drawings, test curves, or other material are to be submitted for approval. Following his review, the Engineer will return three (3) copies to the Contractor. If shop drawings are checked "Revise and Resubmit" by the Engineer, the Contractor must resubmit one (1) reproducible and four (4) copies of the revised shop drawings, of which three (3) will be returned to the Contractor by the Engineer.

The Contractor is to be responsible for furnishing subcontractors with approved shop drawings as required. No shop drawings are to be used for construction, ordering, fabrication, or other reasons unless marked "No Exceptions Taken" or "Make Corrections Noted" by the Engineer. Should the Contractor desire more than two (2) copies of approved shop drawings, he is to submit one (1) additional reproducible drawing, identical to that approved by the Engineer, to the Engineer. The Engineer will then mark this additional reproducible drawing and return it to the Contractor for his use.

The Contractor is to note the difference in action expected by the Engineer with regard to Engineer required drawings such as shop, coordination and installation drawings, and those which are presented by the Contractor, by his own choice, and for his convenience. Engineer required drawings are to be construed as those which define shop systems work,

parts drawings, fabrication drawings, test reports, certifications, and manufacturer's installation requirements. These will be reviewed and stamped appropriately by the Engineer after detailed review.

Contractor's coordination and/or installation drawings which are presented at his option are to be construed as those which assist the Contractor in his orderly execution of the work. Such drawings will be reviewed by the Engineer only as a convenience afforded the Contractor and shall not be stamped by the Engineer.

All Engineer required drawings are to be stamped by the Contractor certifying his review and approval thereof. The stamp is to bear the following information:

APPROVED FOR CONTRACT REQUIREMENTS

The Contractor's signature below indicates that he has checked the drawing with the Contract Drawings and Specifications and found it to meet all requirements of same including dimensions, and that the Contractor's guarantee fully applies to the specified material or equipment.

RE: Specification Section \_\_\_\_\_ Page No. \_\_\_\_\_ Paragraph No. \_\_\_\_\_

Drawing Sheet \_\_\_\_\_ By: \_\_\_\_\_

Signature/Contractor

Approval of any shop drawings, manufacturer's specifications, or other material by the Engineer does not relieve the Contractor of the responsibility for:

- a) Errors of any sort in shop or setting drawings or schedules.
- b) Deviations from Contract Drawings or Specifications unless the Contractor has given written notice to the Engineer of any such deviations at the time of submission.
- c) Responsibility for proper performance of his work.
- d) Coordination with other trades.
- e) Safety and security on the job site.

Data must include dimensions, detailed drawings, and manufacturer's specifications for all items. Specific data required are set forth under the various Specifications items, but in general, are to include characteristics and efficiency curves for all motors and pumps, as well as weights of equipment to be delivered.

When required by the specifications, the Contractor is to furnish duplicate samples of materials, finishes or other items proposed to be used in the work. All materials, finishes and workmanship incorporated in the work are to be similar and equal to the approved

samples. The Engineer shall retain such samples until final acceptance of the project and return only those samples specifically requested.

The Contractor is to prepare and submit to the Engineer for approval, a schedule fixing the respective dates for the submission of shop or setting drawings; the beginning of manufacture, testing and installation of materials, supplies and equipment; and the completion of the various parts of the work. Such schedules will be subject to change from time to time in accordance with the progress of the work. Major emphasis will be placed on the submission of the shop drawing schedule which is to include submittal dates, time of starting manufacture, time of testing at place of manufacture where applicable, and date of delivery.

#### 1.9.3 Payment Schedule and Cost Breakdown

Prior to contract signing, the Contractor is to have submitted and received approval on a cost breakdown which will be used in preparing the monthly requisition for payment. The breakdown is to be in sufficient detail to facilitate a meaningful and fair estimate of work in place as evaluated by the Engineer. Any unrealistic breakdown of work which is anticipated early in the construction period may be cause for rejection of the breakdown and require resubmittal prior to contract signing.

The cost breakdown is to define costs associated with individual subcontracts by key elements. Each subcontractor is to file a waiver of lien with each monthly estimate submitted to the Contractor, before the Contractor's monthly estimate can be processed.

#### 1.9.4 Record Drawings

The Contractor is to keep accurate records of all deviations of his work from that shown on the Drawings, and indicate the actual construction with colored lines on a set of white drawings.

During the course of construction, the Engineer reserves the right to examine the Contractor's record drawings to ensure that adequate effort is being afforded to the record drawings. The Contractor's failure to properly maintain accurate record drawings may result, at the option of the Owner, in sufficient monies being retained from the Contractor's progress pay estimates to cover the costs of maintaining proper records.

After completion of the project, the Contractor is to turn over to the Engineer one (1) set of white drawings indicating thereon a complete record of any changes or revisions which exist in the completed work. These drawings are to be used to assist and supplement the Engineer in his preparation of "Record Drawings".

### 1.10 Quality Control

#### 1.10.1 Conformance to Drawings and Specifications

All work is to conform during its progress and upon its completion truly to the lines, levels and grades indicated on the Drawings or given by the Engineer and is to be built in

a thoroughly substantial and workmanlike manner, in accordance with the Drawings, Specifications and directions given from time to time by him. In no case will any work in excess of Drawing requirements and Specifications be paid for, unless ordered in writing by said Engineer.

#### 1.10.2 Lines, Grades and Measurements

The controlling bench marks and field ties as shown on the drawings are to be used by the Contractor, who is to provide at his own expense such stakes, batter boards, forms, materials and labor as may be required. Additional batter boards, lines, grades and forms may be furnished and set by the Contractor if so desired.

The Contractor is to adequately protect all monuments, stakes and marks set by the Engineer. If they are disturbed or obliterated by the Contractor during the progress of the work, they will be replaced by the Engineer at the Contractor's expense. After the Contractor has erected batter boards or forms, and set elevations for the structures, the Engineer is to be afforded the opportunity to check such work for alignment, grade and location of steel, piping or equipment.

#### 1.10.3 Dimensions of Existing Structures

The Contractor is to verify in the field, the dimensions and locations of existing structures, where an error or incomplete information relative to the location or dimension of existing structures would affect the construction to be done under this Contract. The Contractor is to verify such dimensions and locations before continuing with the construction work to the point where it would be affected.

#### 1.10.4 Datum

All elevations shown on the Drawings or used in the Specifications are expressed in feet above Mean Sea Level at Sandy Hook, NJ, taken as Elevation 0.00, unless otherwise noted.

#### 1.10.5 Standard Specifications

All standard specifications referred to herein, such as ANSI, ASTM, AWWA, and the like, unless otherwise noted are to be the latest revision thereof, at the time of bidding.

#### 1.10.6 Services of Testing Laboratories and Special Consultants

The Owner may retain and, except as otherwise specified, pay for the services of an independent testing laboratory to do such sampling and to make such tests as the Owner or Engineer may deem necessary to verify that the materials and equipment proposed for or incorporated into the work conform to the requirements of the Contract Documents. Payment for such testing will be provided in the Article of the contract entitled, "Examination of Work and Testing".

#### 1.10.7 Watertightness

The attention of the Contractor is called to the specific requirements of this Contract whereby the most rigid supervision will be required to insure an absolute minimum of leakage or infiltration in the case of water conveying or water containing structures.

In general, all structures and all pipe and appurtenant structures are to be of watertight construction. Any leakage is to be repaired in accordance with the appropriate sections of the Specifications.

The Contractor is to provide, maintain and operate suitable and adequate dewatering equipment to insure satisfactory construction and maximum progress.

In certain instances dewatering permits may be required by regulatory agencies. The Owner shall obtain such permits from the New Jersey Department of Environmental Protection.

#### 1.10.8 Clean-Up

During the course of construction all efforts must be made to maintain a neat and orderly project. Clean-up is to be pursued on a regular basis and in conjunction with the construction. The Contractor is to be responsible for clean-up during the life of this Contract with the full cooperation of all subcontractors. Upon completion of all construction, final clean-up is to include removal of all excess materials, equipment, backfill, etc., and the site is to be restored to a condition equal to or better than that existing prior to construction. At the end of each work week, Friday afternoon, the contractor shall have all roadways/paved areas cleaned of debris, dust and/or dirt prior to 4:00 with the acceptance by the Engineer or Owner. Should the Contractor fail to remove such material, equipment and supplies, the Owner has the right to remove them at the expense of the Contractor.

At the completion of construction, the Contractor must tear down and remove all temporary structures unless expressly directed otherwise, and remove remaining rubbish of all kinds from all Contract structures, and from the site occupied during the progress of the work. The Contractor is to remove all concrete and ballast droppings and leave the site and the adjacent property which may have been affected by his operations in a neat and satisfactory condition. All structures and parts thereof constructed by the Contractor are to be thoroughly cleaned and left in first-class condition.

### 1.11 Construction Facilities and Temporary Utilities

#### 1.11.1 Maintenance of Structures, Utilities, and Natural or Man-Made

##### Surroundings

All existing utilities and process services in the existing facilities are to be kept in operation at all times during construction operations. Access routes through the facilities are to be maintained at all times.

From the commencement of work, the Contractor is to be solely responsible for the care of the work during its progress for materials delivered and intended to be used, and for the protection to existing structures and trees or shrubs on or adjacent to the site of the work. Any injury or damage to the same is to be made good at the Contractor's expense.

If any bypassing or disruption to plant operations inadvertently occurs or is anticipated, the Contractor shall immediately notify the Engineer and Owner, and appropriate notification is to be given to the NJDEP.

#### 1.11.2 Occupying Private Land

The Contractor is not to enter or occupy with workers, tools, materials, or equipment, any land outside the easements or property of the Owner, unless written consent from said private property owner has been given to the Contractor and a copy of the consent provided to the Owner beforehand.

#### 1.11.3 Existing Construction and Facilities

When new construction is adjacent to or crosses streets or utilities under the jurisdiction of State, County, City or other public agency, public utility or private entity, the Contractor must secure written permission from the proper authority before executing such new construction. A copy of this written permission must be filed with the Owner before any work is done. The Contractor is to replace or repair all existing construction damaged in the execution of this contract. The Contractor will be required to furnish a release from the proper authority before final acceptance of the work.

#### 1.11.4 Public Convenience

The Contractor is at all times to conduct his work so as to insure the least possible obstruction to traffic and inconvenience to the general public and residents in the vicinity of the work, and to insure the protection of persons and property. No road or street is to be closed to the public except with the permission of the proper authorities.

Fire hydrants on or adjacent to the work are to be kept accessible to fire-fighting equipment at all times. Temporary provisions are to be made by the Contractor to insure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches, which are not to be obstructed.

The Contractor is solely responsible for satisfactorily maintaining flows in the existing utilities, affected by the work, at all times during the course of construction, unless otherwise indicated in the Contract Documents. All costs for such maintenance is deemed to be included under the price bid and no additional costs are to be paid by the Owner for any work involved in this maintenance.

The Contractor is to review his construction schedule with the Engineer and the local Police Department with respect to interruption of traffic and revise it accordingly if the Engineer so requires.

#### 1.11.5 Temporary Utilities

The Contractor shall make all necessary arrangements for temporary utilities as may be required to insure adequate completion of the Contract. No additional payment will be made for the cost of such utilities other than that included in the prices bid for the construction work. Upon completion of the work, the temporary utilities shall be removed. In each case, the Contractor who originally furnished and installed a temporary utility shall be responsible for removing it.

#### 1.12 Material and Equipment

##### 1.12.1 Construction Equipment

Bidders are to familiarize themselves thoroughly with the type and nature of the equipment required in the proper execution of the work, and are to use and employ only first-class equipment. Previously used equipment must be in a safe first-class working order and condition. Sufficient equipment must be furnished and used by the contractor to permit the completion of the work within the time specified. The equipment used on any portion of the work is to be such that no injury or damage to the streets, adjacent property, or utilities will result from its use.

##### 1.12.2 Materials

Unless otherwise indicated on the Drawings or specified, only new materials are to be incorporated into the work. All materials furnished by the Contractor to be incorporated into the work may be subjected to the inspection and approval of the Engineer. No material is to be processed, fabricated, or delivered to the work without the prior approval of the Engineer, except at the risk of the Contractor.

As soon as possible after the Contract has been executed, the Contractor is to submit, to the Engineer, data relating to materials he proposes to furnish for the work. Such data are to be in sufficient detail to enable the Engineer to identify the particular product in question and to form an opinion as to its conformity to the Contract requirements.

Facilities and labor for the handling and inspection of all materials are to be furnished by the Contractor. Defective materials must immediately be removed from the site of the work.

If the Engineer so requires, either prior to beginning, or during the progress of the work, the Contractor is to submit samples of materials for such specific tests as may be necessary to demonstrate that the materials conform to the Specifications. Such samples are to be furnished, taken, stored, packed, and shipped as directed, at the expense of the Contractor. Except as otherwise noted, the Owner will make arrangements for and pay for tests.

All samples are to be packed so as to reach their destination in good condition and are to be so labeled as to indicate the materials represented, the name of the building or work and location for which the material is intended, and the name of the Contractor



submitting the sample. To ensure consideration of samples, the Contractor is to notify the Engineer by letter that the samples have been shipped and is to properly describe the samples in the letter. In no case is the letter of notification to be enclosed with the samples.

The Contractor is to submit data and samples, or place his orders, sufficiently early to permit consideration, inspection, testing, and approval before the materials are necessary for incorporation in the work. Any delay resulting from his failure to do so is not to be used as the basis of a claim against the Owner or the Engineer.

When required, the Contractor is to furnish to the Engineer, in quadruplicate, sworn copies of manufacturer's shop or mill tests, or reports from independent testing laboratories relative to material data.

In accordance with the "Buy American" provision in Public Law 95-217 (Section 215 of the Public Law 92-500 as amended) N.J. Public Contracts Law 40A:11-18, and implementing EPA regulations and guidelines, the Contractor agrees that preference will be given to domestic construction material by the Contractor, subcontractor, material suppliers, and equipment suppliers in the performance of this contract.

The Contractor is to certify that the purchased products and materials are in accordance with the above referenced "Buy American" clause and, in addition, is to provide all information required to justify the use of any foreign made product.

#### 1.12.3 Cutting and Patching

The Contractor is to do all necessary cutting and patching of the work that may be required to properly receive the work of the various trades or as may be required by the Drawings and Specifications to complete the structures. He is to restore all such cut or patched work to a condition which receives the approval of the Engineer. Cutting of structures that may endanger the work, adjacent property, workers or the public is not to be done.

#### 1.12.4 Delivery and Storage

The Contractor is to deliver equipment and materials to the site and store them in original containers suitably sheltered from the elements, but readily accessible for inspection until installed. He is to store all items subject to moisture damage (such as controls and electrical equipment) in dry, heated spaces. All excavated materials, construction equipment and materials to be incorporated in the new work are to be so placed as not to damage the work and so placed that free access may be had at any time to all parts of the work and to all public utility installations in the vicinity of the work. If insufficient area is available, the Contractor is to provide off-site areas at his own expense. Materials are to be kept neatly piled and compacted and conveniently stored so as to inconvenience, as little as possible, public travel and adjoining tenants.

#### 1.12.5 Service of Manufacturer's Representatives

The Contractor is to provide the services of a skilled and experienced representative of each manufacturer supplying equipment under this Contract, for such periods as, in the opinion of the Engineer, are essential for the proper and satisfactory installation and testing of the equipment, and training of the Owner's personnel in its use. In certain instances, particular specification sections may indicate the minimum number of visits and/or hours required to comply with the intent of the specifications regarding services of manufacturer's representatives.

#### 1.12.6 Materials and Equipment to Suit Design

The Contractor is to be responsible for insuring that all materials and equipment furnished by him fit the spaces provided in the construction. He is to make all necessary field measurements and is to order only those materials and equipment which can be accommodated in the spaces provided.

Where materials or equipment are approved which occupy more or less space than is shown on the Drawing or is available, and which require different arrangements from those shown on the Drawings, or which require any modifications of the structures or other equipment or connections, the Contractor is to install the equipment so as to operate properly and in harmony with the intended design and is to provide all labor, materials and equipment necessitated by such rearrangements or modifications at his own expense. Should any such changes cause the Owner to incur redesign costs, the actual redesign costs for said changes are to be deducted from the total contract amount due the Contractor.

Except as noted above, materials and equipment which do not conform to the requirements of the Contract Documents; do not fit the space requirements and arrangements shown; are not equal to samples reviewed by the Engineer, or are in any way unsatisfactory or unsuited to the purpose for which they are intended, are not to be furnished nor installed by the Contractor and will not be paid for by the Owner.

For the purpose of avoiding conflicts with other trades and adjoining work, where more than one article, device, product, material, fixture, form or type of construction is referred to by proprietary name, manufacturer, make or catalog number, the FIRST NAMED has generally been used as the basis of design and detail.

Any and all additional costs to other trades resulting from the installation of any equipment other than that used for the basic design, including acceptable substitutions or accepted alternates, are to be paid by the Contractor without any additional compensation whatsoever.

### 1.13 Special Conditions

#### 1.13.1 General

The Contractor is to review the Drawings and Specifications to determine the extent of the work. The Contractor is specifically alerted to this section concerning inspection of the existing field conditions. The Contractor is to visit and inspect the project prior to preparing his bid in order to clearly familiarize himself with all field conditions, the intent of the design, and the extent of all work. After his review and inspection is complete, and before he submits his bid, if the Contractor has any questions regarding the extent and details of the work, he is to submit them to the Engineer.

Before proceeding with any work, the Contractor is to confirm methods of construction, obtain field measurements, and verify all dimensions on the Drawings as required.

Failure of the Contractor to familiarize himself with all drawings relating to the work and conditions existing at the site of construction will not relieve him of his obligation to furnish all material and labor necessary to carry out the provisions of the Contract Documents and to complete the contemplated work for the consideration set forth in his bid.

The Contractor is cautioned that existing utilities are to be kept in operation during the period of the Contract.

The Contractor is alerted to the fact that the Owner assumes no responsibility for actual conditions of the areas affected by work indicated or called for by the Contract Documents.

Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner in so far as practicable.

#### 1.13.2 Construction Sequence

The Contractor shall undertake work under this Contract only in accordance with the following sequence of construction activities. This sequence may be modified from time to time by the Engineer and Owner, but the Contractor shall not depart from the sequence indicated below without prior written permission from the Engineer or Owner to do so. Construction sequence follows below:

1. Mobilization.
2. Installation of erosion control measures.
3. Storm drainage construction.
4. Concrete Work.
5. Shoulder restoration.

6. Pavement Overlay
7. Final restoration of site.

#### 1.13.3 Asbestos-Containing Material and Hazardous Material

The Contractor shall not supply, provide or bring onto the construction site any asbestos containing material or hazardous material (either in kind, as a component of equipment to be used or furnished under the Contract, or as a component of another material to be used or furnished under the Contract) without the express advance, written consent of the Owner. The term, "hazardous material" shall have the meaning ascribed in Federal Standard No. 313B in effect on the date of the Contract.

The Contractor shall submit to the Owner (with a copy to the Engineer) a Material Safety Data Sheet (Department of Labor Form OSHA-20) together with a complete written description of the intended usage for any such material for which the Owner's consent is required, at least thirty (30) days before the delivery of such material.

Such consent shall not be given if materials or equipment not containing asbestos or hazardous material are available, and the Contractor shall not be entitled to any adjustment in time or compensation for providing non-asbestos-containing and nonhazardous materials.

\* \* \* \* \*

## TECHNICAL SPECIFICATIONS

### GENERAL

#### Scope

The work performed under this contract shall include the reconstruction, resurfacing, drainage and miscellaneous improvements to various roads in the TOWNSHIP OF EGG HARBOR, all as shown on the plans and in accordance with the contract specifications.

#### Specifications and Details To Be Used

The work of the following items shall conform in accordance with the applicable provisions of the New Jersey Department of Transportation Standard Specifications for Roads and Bridge Construction 2019, available at <https://www.state.nj.us/transportation/eng/specs/2019/Division.shtml>, and the Supplementary Specifications for Federal Aid Projects and all amendments to same which said State Department of Transportation Standard Specification and said Amendments are hereby made a part of these specifications and are on file in the Municipality Engineer's Office, and as more pertinently specified herein under for this particular project and any updates resulting from Baseline Document Changes (BDC's).

Reference to sections in the title of each Item of Work refers to sections of said State Department of Transportation Specifications.

Where reference is made to Standard Specifications it shall mean New Jersey State Highway Department of Transportation Standard Specifications for Road and Bridge Construction, 2019 or latest edition.

Details, if not depicted on the set of drawings, shall be in conformance with Standard NJDOT Construction Detail Sheets (current edition) in the plans and note related updates by Baseline Document Changes (BDC's) from link available at <https://www.state.nj.us/transportation/eng/specs/2019/Division.shtml>.

#### Maintenance and Protection of Traffic

1. The Contractor shall at all times so conduct his work as to assure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the roads to be reconstructed and the protection of persons and property shall be provided for by the Contractor.
2. The Contractor shall provide adequate barricades, night lights (flashers, etc.), rails for protection of the public in accordance with the USDOT Manual of Uniform Traffic Control Devices. All excavations or other obstructions which may endanger lives or property shall be properly lighted and marked with railings or other guards.
3. Prior to commencement of work, the Contractor shall submit, in writing to the Engineer for the approval of the Safety Officer of the Egg Harbor Township Police Department, a plan of methods, facilities and devices proposed as safety measures and methods proposed for maintenance of traffic.

### General Site Maintenance

The Contractor shall include provisions for daily removal of unusable or excess material from the construction site. Unusable material shall be disposed of by the Contractor and transported to approved locations outside of the Township. Excess suitable material shall be transported to the Township's yard by the Contractor at his own expense.

### Soil Erosion and Sediment Control Procedures

Before commencing any other construction activities, the Contractor shall first provide all soil erosion measures so as to completely prohibit any excavated or fill soils, silts and other materials resulting from construction operations from being carried off and away from the construction area. No excavation work shall be permitted and no fill shall be brought onto the site until the Engineer has given conditional approval of the Contractor's proposed works for controlling soil erosion and sediment control.

All temporary disposal sites and stockpile areas shall be so located so as to prohibit runoff of silt and soil to any watercourses.

The Contractor shall maintain all soil erosion and sediment control structures and devices throughout the life of the Contract except that with the progress of construction, the Contractor may be required to relocate or remove some of the hay bales or to realign them to accommodate the various construction work, while at the same time preserving their soil erosion and sediment control capability.

All materials, structures and devices used by the Contractor shall be in strict accordance with the New Jersey Department of Agriculture's "Soil Erosion and Sediment Control Act" effective as of January 1, 1976, and as amended by Senate Bill No. 1263, approved on 2/27/80.

The following Guidelines and Standards shall be construed to be part of these Specifications.

1. The New Jersey State Soil Conservation Committee - Standards for Soil Erosion and Sediment Control in New Jersey.
2. The United States Department of Environmental Protection - Guidelines for Erosion and Sediment Control Planning and Implementation, (EPA-R2-73-015).
3. The Atlantic County Soil Erosion and Sediment Control Standards.

### Dust Control

The Contractor shall take effective measures, including the use of calcium chloride sprinklers and covered trucks, to minimize dust protection and spreading as a result of construction activities on the site and hauling operations off the site.

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## **ITEM NO. 1 – CLEARING SITE**

## **ITEM NO. 2 – TREE & SHRUB REMOVAL**

### **201.01 DESCRIPTION**

This section consists of furnishing all labor, equipment and materials necessary to perform clearing site which shall include the following but not limited to; removal and disposal of all existing asphalt, existing asphalt & concrete curbing, sidewalk and concrete driveways, relocating fence lines, relocating mail boxes, relocating or replacing any sprinkler heads in area where sidewalk or roadway widening is being constructed, relocating any landscaping accessories onto lot owners property with direction from engineer or lot owner where sidewalk or roadway widening is being constructed and relocating signs. Removal of inlets shall be included in clearing of site costs. **Mobilization and layout for this item shall be included in bid. Any fill required to replace holes shall be included in this line item. Any fill required to replace holes shall be included in this line item. All mailboxes shall be replaced, if removed for construction of sidewalk, widening of roadway or placement of curb, within 24 hours after excavated area for sidewalk has been completed. An area in front of every mailbox measuring 15' in both directions shall have pavement instead of topsoil. The Engineer will inspect this area before paving operations begin. The Engineer may stop all work on site until this operation is completed to his or her satisfaction.**

Cleaning of all inlets within project limits shall be included with this item. Any stone or landscaping which needs to be removed and replaced due to installation of pipe, curbing, concrete or asphalt shall be replaced in the location determined by the engineer and shall be included under Clearing Site bid item.

### **201.02 MATERIALS**

Provide materials as specified:

Soil Aggregate (I-14).....	<a href="#"><u>901.11</u></a>
Concrete .....	<a href="#"><u>903.03</u></a>
Caution Fence.....	<a href="#"><u>913.02.02</u></a>
Polyethylene Sheeting .....	<a href="#"><u>919.12</u></a>

Provide a commercially available basement waterproofing.

### **201.03 CONSTRUCTION**

#### **201.03.01 Clearing Site**

**A. Preparation.** Construct SESC measures, as specified in 158.03.02, before clearing site.

**B. Clearing and Grubbing.** Before beginning excavation or embankment construction, clear the site within the limits of construction. Clear the ground surface of vegetation (trees of various caliper, brush, weeds, roots, matted leaves), small structures not shown on the Plans for demolition, debris, and other objectionable material where its existing position conflicts with the limits of construction. In cut sections, grub out tree stumps within the limits of the total cut area. In fill sections, the Contractor may leave tree stumps extending less than 1 foot above the original ground surface in those areas where the proposed subgrade, or proposed finished grade in non-pavement sections, is greater than 3 1/2 feet above the original ground surface. Grub out tree stumps that lie within 5 feet horizontally or vertically from any proposed structure, pipe, or duct.

Do not remove trees, shrubs, and other landscape features that do not interfere with the Work or are designated for preservation. Prevent damage or injury to existing trees, plants, and other vegetation that are to remain within or adjacent to the Project Limits. **All trees and shrubs to be cleared shall be part of Item No. 2. All other work outlined herein shall be part of Item No. 1.**

Backfill and compact depressions in excavation areas that lie below the finished subgrade to finished subgrade using the directed method as specified in 203.03.02.B.3.

Clear slopes in areas of cuts, embankments, ditches, channels, waterbodies, and structures, both old and new, of brush, hedges, weeds, heavy vegetation, and other objectionable material or growth. Clear to a maximum of 8 feet beyond the top of slopes of roadway excavation and 5 feet beyond the top of slopes of ditches and channels, except do not clear outside ROW.

Conduct clearing and removal activities in areas identified as containing regulated material according to the pre-excavation plans as specified in 202.03.05.1.

Dispose of material and debris as specified in 201.03.01.H.

- C. Mailbox and Sign Relocation.** Remove and reset residential and commercial mailboxes at locations acceptable to the owners and according to United States Postal Service (USPS) requirements. Notify the USPS before relocating USPS mailboxes.

Remove local street and road signs and reset at locations and in the manner acceptable to local authorities. Ensure that Tourist Oriented Directional Signs and logo signs remain visible to motorists during and after stages of construction. Remove from the immediate work site and safely store existing signs that are to be reset.

- D. Plugging Pipe.** Seal abandoned pipes and conduits using concrete. Construct the plugs to a depth equal to the diameter of the pipe or conduit, or 2 feet, whichever is less
- E. Removing Pipe, Inlets, and Manholes.** Excavate for the removal of existing pipe, inlets, and manholes as specified in 601.03.01.B. Backfill with excavated material and compact using the directed method as specified in 203.03.02.B.3. The RE may require use of the density control compaction method as specified in 203.03.02.B.4, except that the RE may increase the frequency of measurements.

Reuse removed drainage structures as specified in 202.03.03.C.1. Unless designated for resetting on the Project, dispose of inlet and manhole castings as specified in 201.03.01.H.

- F. Removing Sidewalks, Driveways, Curbs, and Gutters.** Sawcut full depth at the limits of removal. Remove sidewalks, driveways, vertical curbs, sloping curbs, barrier curbs, and gutters, designated for removal and reuse as specified in 202.03.03.C. Obtain RE approval of methods to remove barrier curb before beginning work. Repair damage to adjacent pavement courses caused by removal operations.
- G. Removing Electrical Material and Equipment.** Remove existing foundations and junction boxes that are abandoned under the Contract to a minimum depth of 2 feet below the finished grade. Remove foundations or junction boxes that interfere with the installation of a new system

and backfill as specified in 203.03.02.B.3. Reuse concrete from foundations and junction boxes as specified in 202.03.03.C.1. Dispose of castings as specified in 201.03.01.H

Remove other electrical material and equipment that are designated for removal, and dispose of as specified in 201.03.01.H. Obtain RE approval of methods of removal, and ensure remaining electrical equipment is left undamaged. Salvage and deliver to the Department removed, above-ground electrical material as required.

- H.** Disposal of Materials. Dispose of or recycle removed materials and debris according to Solid Waste Management Act (N.J.S.A. 13:1E-1) and N.J.A.C 7:26 et seq. and according to the solid waste management plan developed by the solid waste management district of origin. Submit proper documentation from the disposal facility to the RE and the county of origin within 15 days of acceptance at the disposal facility.

#### **201.04 MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment as follows:

<b><u>Pay Item</u></b>	<b><u>Pay Unit</u></b>
Clearing Site	Lump Sum
Tree & Shrub Removal	Lump Sum

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 3 – SOIL EROSION & SEDIMENT CONTROL**

### **158.01 – DESCRIPTION**

This Section describes the requirements for: providing pollution control measures to maintain water quality; constructing and maintaining permanent SESC measures; and constructing, maintaining, and removing temporary SESC measures. **Mobilization and layout for this item shall be included in bid.**

### **158.02 – MATERIALS**

Provide materials as specified:

Coarse Aggregate (No. 2 and No. 8).....	<a href="#"><u>901.03</u></a>
Temporary Riprap (6 to 9 inches).....	<a href="#"><u>901.08</u></a>
Soil Aggregate (I-14) .....	<a href="#"><u>901.11</u></a>
Welded Wire Reinforcement.....	<a href="#"><u>905.01.03</u></a>
Temporary Slope Drain Pipe.....	<a href="#"><u>909.02.03</u></a>
Chain-Link Fence.....	<a href="#"><u>913.02.01</u></a>
Caution Fence.....	<a href="#"><u>913.02.02</u></a>
Posts .....	<a href="#"><u>913.02.02.2</u></a>
Seed Mixtures.....	<a href="#"><u>917.03</u></a>
Mulch .....	<a href="#"><u>917.06</u></a>
Sod .....	<a href="#"><u>917.07</u></a>
Miscellaneous Landscape Materials .....	<a href="#"><u>917.09</u></a>
Geotextiles.....	<a href="#"><u>919.01</u></a>
Inlet Filter, Type 1 .....	<a href="#"><u>919.01</u></a>
Inlet Filter, Type 2 .....	<a href="#"><u>919.01</u></a>
Sediment Control Bag.....	<a href="#"><u>919.02</u></a>
Haybales .....	<a href="#"><u>919.03</u></a>
Polyethylene Sheeting.....	<a href="#"><u>919.12</u></a>
Floating Turbidity Barrier .....	<a href="#"><u>919.13</u></a>

Provide wood stakes and wood posts that are solid, reasonably knot free and conform to the nominal size shown on the Plans.

Provide absorbent booms, towels, and blankets made from UV-resistant, spunbond polypropylene skin and filler.

### **158.03 – CONSTRUCTION**

#### **158.03.01 Environmental Manager**

Assign a supervisory-level employee experienced in all aspects of soil erosion and sediment control, water quality control, and work site waste control. Submit the name and applicable experience of this employee to the RE for approval at least 15 days before beginning any construction operations, except construction layout, on the Project. Submit written notification and obtain approval from the RE before changing the environmental manager.

The environmental manager shall have the responsibility and sufficient authority for implementing the approved SESC and water quality methods of operations. The environmental manager shall coordinate, oversee, and supervise SESC and water quality operations on the Project. This includes both on-site and off-site activities, including those involving subcontractors. The environmental manager shall oversee and supervise all site waste control operations for the Project.

The environmental manager shall attend SESC and water quality meetings. The environmental manager, with the RE, shall inspect SESC and site waste control measures at least weekly. Perform additional inspections immediately after precipitation and other weather events that may damage SESC measures or cause uncontrolled erosion to occur. During extended periods of precipitation, perform inspections every 24 hours until the precipitation has ended. Submit original Environmental Compliance Check List and Inspection Form to the RE the same day that the inspection is performed. Perform corrective actions, if required, within 24 hours of the inspection, and resubmit the Environmental Compliance Check List and Inspection Form to the RE within 2 days indicating that the corrective action has been completed.

### **158.03.02 SESC Measures**

Construct SESC measures, as required, before starting construction operations. With the approval of the RE, the Contractor may fell trees or cut other vegetation not designated to be preserved using hand methods before constructing SESC measures. Coordinate temporary SESC measures with the permanent measures and with other construction operations to ensure effective and continuous erosion and sediment control. Construct temporary SESC measures to correct unforeseen conditions that develop during construction. If the Contractor fails to comply with SESC or site waste control provisions, the RE will suspend the Work as specified in 108.13.

Maintain SESC measures regardless of construction season or other times when the Project is closed down or suspended to ensure that the SESC measures function properly. Immediately correct or replace non-functioning SESC measures to meet the specified functionality. If the Contractor fails to maintain SESC or site waste control measures, the RE will suspend the Work as specified in 108.13. Ensure that clearing and grubbing does not interfere with the construction of permanent SESC measures or other operations. When unstabilized areas caused by site development, grading, or other soil disturbing activities exist beyond 14 days, seed and mulch the disturbed areas. The RE may limit the size of unstabilized areas due to clearing, grubbing, grading, or other soil disturbing activities based on site conditions and the Contractor's ability to install and maintain SESC measures. Upon completion of soil disturbing activities, permanently stabilize disturbed areas within 7 days as specified in 807.03.01. If seasonal limitations preclude permanent stabilization, provide temporary SESC measures as approved by the RE.

When excavation or embankment construction reaches the finished subgrade, areas where pavement is to be placed are exempt from the above stabilization requirements. Roadways and haul roads actively used for daily conveyance of equipment, as well as areas between temporary berms, except median areas, are also exempt.

Employ construction methods to minimize airborne dust and prevent soils and other materials from being deposited on existing roadways. Apply water or other RE approved materials to unpaved areas to control dust caused by hauling or other construction operations. Reuse, as specified in 202.03.03.C.1, dirt and other materials that have been spilled, washed, or tracked onto existing roadways by hauling or other construction operations.

Remove temporary SESC measures when necessary to allow for the installation of permanent measures, or as permanent measures become functional. Notify the RE 10 days before removing temporary SESC measures. Between Substantial Completion and Completion, remove temporary SESC measures unless the RE directs that specific Items remain in place.

Construct SESC measures as follows:

1. **Caution Fence.** Install caution fence at locations shown on the Plans to delineate wetlands and other environmentally sensitive areas. Space posts at least every 10 feet.
2. **Silt Fence.** Install silt fence with geotextile buried securely in the existing soil. Join sections of the geotextile so that they work effectively as a continuous fence. The Contractor may install haybales instead of silt fence when approved by the Department.
3. **Heavy-Duty Silt Fence.** Install heavy-duty silt fence with geotextile securely buried in the existing soil. Join sections of the geotextile so that they work effectively as a continuous fence. Install fence posts at a slight angle toward the anticipated runoff source. Install the color of heavy-duty silt fence in locations as shown in the Plans. Do not substitute orange for black or black for orange.
4. **Haybale.** Embed haybales in the ground and place end to end to form a continuous line without gaps. Anchor haybales in place with wood stakes.
5. **Haybale Check Dams With Temporary Stone Outlets.** Embed haybales into the ground and anchor in place with wood stakes. Place temporary riprap in the center of each flow line. Place temporary No. 2 coarse aggregate immediately upgrade of each stone outlet. Place temporary riprap and No. 2 coarse aggregate on geotextile. When joining sections of geotextile, overlap the sections a minimum of 18 inches in the direction of flow.
6. **Temporary Stone Check Dams.** Construct temporary stone check dams in ditches to reduce flow velocity. Place No. 2 temporary coarse aggregate immediately upgrade of each check dam. Place temporary riprap and No. 2 coarse aggregate on the geotextile. When joining sections of the geotextile, overlap the sections a minimum of 18 inches in the direction of flow. Construct temporary stone check dams with limestone rock in areas of acid producing soils as directed by the RE.
7. **Temporary Slope Drains.** Install temporary drainage pipe, minimum of 8 inches in diameter, on embankment slopes to intercept surface runoff where concentrated runoff will cause excessive erosion of the slope. Stake the drainpipe to the slope or secure it with temporary riprap to prevent movement or displacement. Attach a flared end section at each end of the pipe, and install elbows that conform with the existing changes in slopes. Ensure that end sections and elbows are of the same material as the pipe to which they are joined.

Construct a temporary berm using suitable material, and place haybales at the top of slope in the vicinity of the slope drain to intercept runoff and channel the runoff to the slope drain. Embed the haybales into the ground, and anchor them with wood stakes.

Place temporary riprap loosely on geotextile at both ends of the pipe to prevent scour. Drape the geotextile over the top of the earth berm and anchor it as necessary. When joining sections of the geotextile, overlap the sections a minimum of 18 inches in the direction of flow.

**8. Inlet Filters.** Provide Type 1 and Type 2 inlet filters as follows:

- a. Type 1.** For a new inlet structure without a casting, mold welded steel wire fabric around the inlet walls. Extend the welded steel wire a minimum of 6 inches down each side of the structure. Secure geotextile to the welded wire fabric. Place No. 2 coarse aggregate against the inlet structure to hold the inlet filter in place.

For an inlet structure with a casting and exposed exterior walls, place geotextile under the casting and extend it a minimum of 6 inches below the top of the exposed walls. Place No. 2 coarse aggregate around the drain hole opening.

For an existing inlet structure without exposed exterior walls, place geotextile under the grate and extend the geotextile for a minimum of 6 inches beyond the grate.

For an inlet with a curb piece and without exposed exterior walls, ensure that the opening in the curb piece has a height of 2 inches. If the opening is greater than 2 inches, achieve the 2 inch opening size by wrapping the geotextile around an appropriately sized piece of lumber. Place the lumber against the vertical opening.

- b. Type 2.** Remove the inlet grate and place the inlet filter in the opening, holding out approximately 6 inches of the filter outside the frame. Replace the inlet grate to hold the filter in place. Empty the filter according to the manufacturer's recommendations. When removing the filter, ensure that sediment does not enter into the drainage system. Clean out the filter, dispose of the sediment as specified in 202.03.03.C.2, rinse and return the filter to its original shape, and replace the filter inside the inlet.

**9. Temporary Inlet Sediment Traps.** Construct temporary inlet sediment traps when the elevation of the surface runoff is lower than the inlet structure. Create a 6 inch diameter opening in the inlet and place a 3 × 3 foot piece of Type 1 inlet geotextile and No. 2 coarse aggregate over the opening to prevent sediment from entering the inlet. Place temporary inlet sediment traps in each flow line upgrade of the inlet structure.

Before raising the elevation of the surface runoff, remove and dispose of the temporary inlet sediment trap and repair the opening in the inlet.

**10. Temporary Stone Outlet Sediment Traps.** Construct temporary stone outlet sediment traps with temporary basins and riprap spillways, within existing, new, and temporary ditches. Place No. 2 coarse aggregate immediately upgrade of the spillways. Place the riprap stones and coarse aggregate on geotextile that is anchored in the soil. If sections of geotextile need to be joined, overlap the sections a minimum of 18 inches in the direction of flow.

**11. Floating Turbidity Barriers.** At least 10 days before installation, submit floating turbidity barrier design and placement locations for Department approval. Install floating turbidity barrier in streams or other waterbodies to contain discharge from drainage pipes and construction operations before beginning work in that area. Install floating turbidity barriers radially from the point of discharge of drainage pipes, or from construction operations that could potentially impact the waterbody. Install floating turbidity barriers parallel and as close to the shore as possible while still enabling it to float. Ensure that at least 5 feet of each end of the floating turbidity barrier is anchored on shore. When floating turbidity barrier will not work in shallow water because of

fluctuating water levels or heavy currents, stake the floating turbidity barrier in a fixed position which may also include a fixed height. Provide detail for Department approval.

Clean out floating turbidity barriers and keep them free from debris. Ensure floating turbidity barriers remain in place until all of the work in the area is completed, the cofferdam is removed (if applicable), and the adjacent ground area has established a firm stand of vegetation (if applicable). Remove floating turbidity barriers in such a manner as to minimize the release of sediment and debris.

12. **Dewatering Basin.** At least 10 days before installation, submit to the RE for approval a plan detailing the size, materials, and location for all dewatering basins. Size dewatering basins to contain the expected discharge of water and sediment based on the flow rate of the pump to be used and the volume of area to be dewatered. Contain the turbid discharge from dewatering activities in a dewatering basin to control sediment and provide water filtration. As specified in N.J.A.C 7:9B or other applicable jurisdictional regulations, provide filtration to release clean and clear water into adjacent streams or other waterbodies. Install floating turbidity barriers where the basin outfall flows into a receiving waterbody. Ensure that the outfall of the basin does not cause erosion to or scour of the area onto which the water is being discharged.

At the end of dewatering operations, remove the dewatering basin. Restore the disturbed area to the original condition.

13. **Sediment Control Bag.** At least 10 days before installation, submit to the RE for approval a plan detailing the size, location, details of aggregate base, anticipated discharge flow, and manufacturer's catalog cuts. If the outfall of the sediment control bag flows into receiving waterbody, ensure that floating turbidity barriers are installed as specified in 158.03.02.11.

Install and maintain sediment control bags according to the manufacturer's recommendations. Size sediment control bags to accommodate anticipated sediment and flow rates. Place the sediment control bag on the slope to allow water to flow downhill through the bag. Place the discharge hose into the neck of sediment control bag and fasten to ensure that water does not leak at the connection. To increase the efficiency of filtration, place the bag on an aggregate bed to maximize water flow through the surface area of the bag. Size aggregate to prevent puncture of sediment control bags. Ensure that the discharge from the sediment control bag does not cause erosion to, or scour of, the area onto which the water is being discharged.

When the sediment control bag is 90 percent full, can no longer efficiently filter sediment, or does not allow water to pass at a reasonable rate, remove and replace.

Remove sediment control bags according to the manufacturer's recommendations and dispose as specified in

202.03.09. Restore the disturbed area to the original condition.

14. **Sediment Control Tank.** At least 10 days before installation, submit sediment control tank design and proposed location for Department approval. Design sediment control tanks to contain or control the expected discharge of water and sediment based on the flow rate of the pump to be used, the volume of area to be dewatered, and the frequency of removal of water, sediment, or both. Provide a sediment control tank to capture sediment and floating debris from dewatering activities. Provide filtration to release clean and clear water into adjacent streams or other



waterbodies. Relocate the tank as needed to dewater other locations. Inspect the tank daily for level of sediment, debris, and water. Remove tank contents before the tank reaches 50 percent of its capacity or when the tank no longer efficiently captures sediment or floating debris. Dispose of tank contents as specified in 202.03.03.C.2. If water from the tank is being discharged into a waterbody, install floating turbidity barriers to corral the discharge area. Protect the discharge area from erosion and scour.

15. **Construction Driveway.** To minimize tracking of dirt and other materials onto existing roadways, provide a construction driveway at each location where vehicles exit the work site as approved by the RE. Construct driveways using No. 2 coarse aggregate placed on geotextile. Ensure that the driveway is at least 15 feet wide. The Contractor may make driveways wider if approved by RE. Maintain the driveway by top dressing or by excavating and top dressing, as directed by the RE, with additional No. 2 coarse aggregate. When the driveway is no longer required, remove the driveway, backfill to the adjacent ground elevation, and restore the disturbed area to the original condition.
16. **Concrete Washout System.** At least 10 days before the first concrete placement, submit to the RE for approval a plan for the concrete washout system. Design the concrete washout system to fully contain the concrete washout needs, concrete slurry, and the Department's concrete testing of the Work.

Ensure that each concrete washout facility prevents discharge from concrete trucks and equipment cleaning from entering into inlets and into surface or groundwater. Ensure that the location of concrete washout facilities are no closer than 50 feet from environmentally sensitive areas such as streams, wetlands, or other areas shown on the Plans. Use signs to designate concrete washout areas. Ensure that concrete washout facilities are limited to the designated areas.

Ensure that the concrete washout system is in place before delivery of concrete to the site. Ensure that a secure, non-collapsing, non-water collecting cover over each concrete washout facility is in place during precipitation so that precipitation does not accumulate and cause the washout areas to overflow. If the concrete washout facility becomes 50 percent full, discontinue pouring concrete until the concrete washout facility is cleaned out.

Remove hardened concrete and reuse as specified in 202.03.03.C.1. Allow slurry to evaporate, or dispose of as specified in 202.03.03.C.2.

If a lined basin is used, replace the liner if it becomes damaged or compromised. Remove concrete washout facilities when no longer needed. Restore the disturbed area to original condition.

17. **Absorbent Boom.** Install the absorbent boom inside turbidity barrier or as shown on Plans to ensure that oil products do not escape the work site. If an oil spill occurs, remove absorbent boom after absorption of oil and dispose of as specified in 202.03.09. Replace as necessary to continually protect the waterbody.
18. **Oil-Water Separator.** At least 10 days before beginning the work, submit to the RE for approval a plan detailing the size, location, anticipated discharge flow and manufacturer's catalog cuts of the oil-water separator before installation. Provide an oil-water separator for removal of free product generated in dewatering excavations in each area of petroleum contaminated groundwater.

Use a self-contained factory assembled oil-water separator meeting the following requirements:

- a. Capable of removing free petroleum product as required by Contractor-obtained discharge permits.
- b. Designed for intermittent, varied, or continuous flows of water, oil, or combinations of non-emulsified oil- water mixtures.
- c. Designed to minimize solids buildup in the separator's oil-water collection chamber.
- d. Capable of being moved about within the Project Limits as needed.

Dispose of oils and sediments collected in the oil-water separators as specified in 202.03.09.

**19. Oil-Only Emergency Spill Kit.** Before start of construction operations, place Oil-Only Emergency Spill Kits within the Project Limits, with each kit capable of cleaning up at least 95 gallons of spill. Include Oil-Only Emergency Spill Kit, Type 1 consisting of the following:

- e. An instruction manual and emergency response guide.
- f. Ten 5 inch × 1 foot oil-only absorbent booms.
- g. Ten 3 inch × 10 foot oil-only absorbent booms.
- h. One hundred 20 × 16 inch oil-only absorbent pads.
- i. Twenty temporary disposal bags and ties.
- j. A 40 pound bag of loose absorbent pellets.
- k. A wheeled container for the above.

If a spill occurs, immediately contain the spill and notify the NJDEP Hotline (1-877-927-6337) and the RE. Clean up and remediate the spill as directed by the NJDEP. Separately stockpile, as specified in 201.03.03.3, the contaminated material and dispose of the contaminated material as specified in 202.03.09. Submit an incident report to the RE within 10 days after clean-up that includes a summary of the incident, the clean-up and containment measures taken, the time and date of the incident, and the NJDEP case number.

Replenish the kits to ensure that the specified number of complete kits are on-site at all times during construction operations.

**20. Tree Protection.** Before start of construction operations, install tree protection by surrounding trees and other vegetation with chain-link fence. Place the tree protection a minimum of 2 feet outside the dripline of tree or vegetation canopy. Do not park vehicles or equipment, or store materials within the area of tree protection. In situations where tree protection conflicts with excavation or other construction, request permission to modify tree protection and provide a protection plan for approval by the Department.

### **158.03.03 Erosion Control Sediment Removal**

Remove sediment from sediment traps and dewatering basins when they are 50 percent filled. Remove sediment from silt fences, stone outlet structures, dams, and haybales when the sediment reaches 50

percent of the height of the SESC measure. Remove the coarse aggregate and riprap from check dams when removing the sediment. Reuse the removed material as specified in 202.03.03.C.1. Replace the coarse aggregate and riprap removed from check dams.

#### **158.04 – MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment for Items as follows:

Soil Erosion & Sediment Control shall be measured and paid by the Lump Sum.

Pay Unit

Pay Unit

Soil Erosion & Sediment Control

Lump Sum

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 4 – BIOSWALE EXCAVATION**

### **SECTION 202.01 – DESCRIPTION**

The work shall consist of the excavation for all site work including but not limited to the excavation of material for the bioswales. Excavation shall include the excavation and removal of all existing reeds, gravel, sand, earth, rock, concrete, brick, trees, hedges, and other materials encountered of whatsoever nature, required for this project. **Mobilization and layout for this item shall be included in bid. Measurement shall be 18 CY per truck.**

### **SECTION 202.02 – CLASSIFICATION**

Bioswale Excavation shall consist of the excavation of all materials of whatever character encountered.

### **SECTION 202.04 – CONSTRUCTION**

Bioswale Excavation shall be performed in accordance with the provisions of the applicable Section(s) of the Standard Specifications.

Excavation operations shall not begin until the site has been stripped. Excavation operations shall be conducted so that material outside the limits of the slopes is not disturbed. Excavated material shall not be deposited outside the limits of construction without written authorization. Work shall be performed with such equipment as will avoid the possibility of causing damage to subsurface utilities including storm drains, gas mains and gas laterals, telephone wires, cables or conduits.

The work of Bioswale Excavation and all equipment used thereon shall be under constant supervision of a competent superintendent or foreman whose duty and responsibility shall be to avoid the possibility of damage to subsurface utility structures.

### **SECTION 202.14 – METHOD OF MEASUREMENT**

Bioswale Excavation will be measured by the truck load which shall be equal to 18 cubic yard full triaxle dump truck. Or volume calculations will be prepared by area and depth of excavation provided by surveyed topographic survey. The inspector shall measure the depth and width of the excavation for the volume calculations and match them with the contractor at the end of each working day. If such calculations are not agreed upon then a topographic survey from the contractor shall be provided at no cost to the owner for calculating such volume. All excavated material deemed acceptable by the Engineer shall be stockpiled for use on other portions of the project or stockpiled in a location as directed by the Engineer. No suitable material shall be taken off site unless directed by the Engineer, and all cost shall be bared by the contractor.

### **SECTION 202.15 – MEASUREMENT AND PAYMENT**

Bioswale Excavation will be paid by the cubic yard. **Measurement shall be 18 CY per truck.** Payments for these items shall include all labor, equipment and all else necessary and incidental thereto, including but not limited to disposal costs relating to unsuitable materials and repair or replacement of utilities damaged by the Contractor.

Pay Item

Pay Unit

Bioswale Excavation

Cubic Yard

The payment for Basin Excavation will be made for the quantity as determined above at the unit price bid for Basin Excavation in the proposal. The price shall include the construction layout, trucking, placement and compaction, labor, equipment and all else necessary therefore and incidental thereto.

**ITEM NO. 5 – HMA MILLING, 2” & VARIABLE**

**ITEM NO. 6 – HOT MIX ASPHALT SURFACE COURSE, MIX 9.5M64, 2" THICK & VARIABLE**

**401.01 DESCRIPTION**

This Section describes the requirements for constructing base course, intermediate course, and surface course of HMA. **It is recommended that milling and paving be done in phases due to high volume of traffic on site. Mobilization and layout for this item shall be included in bid.**

Clean edges shall be provided at all existing streets where grades are to be matched. Hot joint seals shall be performed with the CAFCO Mini Sealer or approved equal and joint adhesive.

**401.02 MATERIALS**

**401.02.01 Materials**

Provide materials as specified:

Tack Coat 64-22, PG 64-22 .....	902.01.01
Prime Coat, Cut-Back Asphalt, Grade MC-30 or MC-70 .....	902.01.02
Tack Coat:	
Cut-Back Asphalt, Grade RC-70 .....	902.01.02
Emulsified Asphalt, Grade RS-1, SS-1, SS-1h, Grade CSS-1 or CSS-1h .....	902.01.03
HMA .....	902.02
Joint Sealer, Hot-Poured .....	914.02
Polymerized Joint Adhesive.....	914.03

Use HMA specified for the roadway surface as patching material for HMA pavement repair. The Contractor may use a commercial type of cold mixture as patching material for filling core holes if HMA surface course is not being placed when coring. The Contractor may use an approved HMA surface course to fill core holes, provided the material remains hot enough to compact.

**401.02.02 Equipment**

Provide equipment as specified:

Materials Transfer Vehicle (MTV) .....	1003.01
HMA Paver .....	1003.03
HMA Compactor .....	1003.05
Vibratory Drum Compactor.....	1003.06
Bituminous Material Distributor.....	1003.07
Sealer Application System .....	1003.08
Milling Machine.....	1008.01
Hot-Air Lance .....	1008.06
HMA Plant .....	1009.01
HMA Trucks .....	1009.02
Mechanical Sweeper .....	1008.03

Provide a thin-lift nuclear density gauge according to ASTM D 2950. Install a paver hopper insert with a minimum capacity of 14 tons in the hopper of the HMA Paver.

## **401.03 CONSTRUCTION**

### **401.03.01 Preparing Existing Pavement**

A. ***Milling of HMA.*** Mill HMA to the specified depth, profile, and cross slope. Operate milling machine to produce milled material that passes a 3-inch sieve. Use automatic grade controls to control the line and grade of the milling machine. Use either a stringline or ski reference system. Replace teeth in the milling drum that become dislodged, broken, or unevenly worn. Perform milling operation, including removal of the milled material, in a manner that prevents dust and other particulate matter from escaping into the air.

Ensure that the milled area is free from gouges, continuous grooves, ridges, and delaminated areas and has a uniform texture consisting of discontinuous longitudinal striations. Ensure that the striations do not deviate more than 1 inch in 200 feet from a line parallel to the center of the traveled way and do not exceed 3/8 inch in depth. Check at least every 25 feet to ensure that the depth of milling is within 1/4 inch of the indicated depth.

Mill HMA to the depth specified without damaging underlying HMA. If HMA below the specified milling level becomes dislodged or delaminated, remove and replace. When profile milling, ensure the cutting depth is sufficient to remove ruts and corrugations and to scarify the remaining surface. Using a mechanical sweeper, clean the milled area before opening to traffic and before subsequent construction or resurfacing. Reuse millings and sweepings as specified in 202.03.07.A.

If the milled area is opened to traffic, ensure that water can drain from the surface and does not become trapped. If the longitudinal edge height of a milled surface exceeds 2 inches, slope the edge to provide a smooth transition from the milled surface to the remaining pavement. At transverse edges of milled areas, provide a smooth transition from the milled surface to the remaining pavement. In areas inaccessible to the milling machine, remove HMA with other equipment. The Engineer will provide the time interval for resurfacing the milled areas in the Special Provisions.

**Base course paving will not be permitted the same days as milling, unless authorized by the Engineer, so that possible grade and subbase problems can be discovered and corrected.**

B. ***Milling of Concrete.*** Mill concrete pavement to 1-inch depth at the locations shown on the Plans without damaging the underlying pavement. Ensure that the milled area is free from gouges, continuous grooves, ridges, and delaminated areas and has a uniform texture consisting of discontinuous longitudinal striations. Ensure that the striations do not deviate more than 1 inch in 200 feet from a line parallel to the center of the traveled way and do not exceed 3/8 inch in depth. Perform milling operations, including removal of the milled material, in a manner that prevents dust and other particulate matter from escaping into the air.

Mill 1 inch of concrete and any remaining HMA not removed by previous milling operations at locations shown on the Plans. Based on the condition of the remaining pavement, the Engineer may direct additional areas to be milled. If milling transition areas for HMA overlays, mill the transition from 0 to 1 inch in depth over a length of 100 feet. Construct a keyway at the terminal transverse limit of the area to be milled by sawcutting and removing the material within this area by hand methods so as to produce a vertical face.

Using a mechanical sweeper, clean the milled area before opening to traffic and before subsequent construction or resurfacing. Reuse millings and sweepings as specified in 202.03.07.A.

If the milled area is opened to traffic, ensure that water can drain from the surface and does not become trapped. If the longitudinal edge height of a milled surface exceeds 2 inches, slope the edge to provide a smooth transition from the milled surface to the remaining pavement. At transverse edges of milled areas, provide a smooth transition from the milled surface to the remaining pavement. In areas inaccessible to the milling machine, remove concrete with other equipment.

**C. Sealing Cracks in HMA Surface Course.** Seal cracks that are 1/4 inch wide or wider. Clean cracks to a depth of 1 inch using a random crack saw, carbide-tipped, rotary-impact router, commercial power-driven wire brush, or by other Engineer approved means. Provide acceptable protective screening if the cleaning operation causes damage to or interference with traffic in adjacent lanes. Immediately before applying sealant, clean cracks and dry further with a hot-air lance.

At least 10 day before beginning the work, submit to the Engineer a copy of the manufacturer's recommendations for heating and applying the sealant. Seal cracks with hot-poured joint sealant according to the manufacturer's recommendations. Cut sealant into small pieces to facilitate slow and uniform melting with constant stirring. Ensure that the temperature of the sealant in the field application equipment does not exceed the recommended safe heating temperature. Do not heat sealant material at the pouring temperature for more than 6 hours and do not reheat.

Pour sealant into the cracks so that, upon completion of the work, the surface of the sealant is flush with or not more than 1/4 inch lower than the surface of the adjacent HMA surface course. If the sealant subsides to a lower level, perform another pouring. When more than 1 pour is required to fill the cracks, perform succeeding pours immediately after shrinkage of the previous pouring. If spilling or overfilling occurs, immediately squeegee the crack. If the Engineer determines that the overfilled crack or spilled sealant creates a slippery, hazardous, or otherwise undesirable condition, initially correct the area by sprinkling a light application of abrasive (sand or grit material) to absorb the excess material, restore skid-resistance, and abate the condition caused by the overpour. After the excess material has been absorbed, hand sweep the area clean, and restore to its original condition or texture to the Engineer's satisfaction.

Do not allow traffic or construction equipment over the poured cracks until the sealant has hardened sufficiently to resist pickup. The Engineer may direct sprinkling of dry sand over poured areas to provide additional pickup resistance.

**D. Repairing HMA Pavement.** Sawcut existing HMA pavement to a maximum depth of 10 inches, or to the full depth of bound layers, whichever is less. Sawcut lines parallel and perpendicular to the roadway baseline and 3 inches away, at the closest point, from the damaged area to be repaired. For larger areas, the Contractor may use a milling machine for removal of HMA pavement. Remove material within the boundary of the sawcuts to form rectangular openings with vertical sides, and clean the area. Shape and compact the underlying surface to produce a firm, level base. Ensure that the remaining pavement is not damaged. Apply polymerized joint adhesive or tack coat to the vertical surfaces of the openings. Backfill with HMA as specified for the roadway surface. Ensure that the temperature of the HMA when placed is at least 250°F, and compact as specified in 401.03.03.F. Compact areas not accessible to rollers with a vibratory drum. Compact until the top of the patch is flush with the adjacent pavement surface. Reuse removed material as specified in 202.03.07.A.

#### **401.03.02 Tack Coat and Prime Coat**



Clean the surface where the HMA is to be placed of foreign and loose material. Immediately before beginning paving operations, ensure that the surface is dry. Do not place tack coat or prime coat unless the weather restrictions, as specified in 401.03.03.B, are met. Do not apply tack coat or prime coat to asphalt-stabilized drainage course. For curbs, gutters, manholes, and other similar structures, do not apply tack coat or prime coat. Clean the exposed surfaces of these structures and apply a uniform coating of polymerized joint adhesive to contact surfaces before paving. In areas inaccessible to distributor spray bars, use hand spraying equipment for tack and prime coat. Do not allow traffic on tack coated or prime coated surfaces. Treat surfaces as follows:

1. **Tack Coat.** Uniformly spray tack coat when placing HMA on paved surfaces. Apply tack coat only to areas to be paved in the same day. Apply tack coat as specified in Table 401.03.02-1:

<b>Table 401.03.02-1 Tack Coat Application</b>			
<b>Material</b>	<b>Spraying Temp, °F</b>	<b>Gallons per Square Yard</b>	<b>Season</b>
<b>Cut-Back Asphalt:</b>			
RC-70	120 to 190	0.05 to 0.15	Oct 15 to Apr 15
<b>Emulsified Asphalt:</b>			
RS-1	70 to 140	0.05 to 0.15	All year
CRS-1	125 to 185	0.05 to 0.15	All year
SS-1, SS-1h	70 to 140	0.05 to 0.15	All year
CSS-1, CSS-1h	70 to 140	0.05 to 0.15	All year

Correct uncoated or lightly coated areas. Blot areas showing an excess of tack coat with sand or other similar material. Remove blotting material before paving. Ensure that the material is not streaked or ribboned. Before paving, allow tack coat to cure to a condition that is tacky to the touch.

2. **Tack Coat 64-22.** When precipitation has occurred within 24 hours before application, the Engineer will determine whether to allow the work to proceed, or to wait until the surface is completely dry. Only apply tack coat that can be paved over in the same day. Apply tack coat 64-22 at a rate of 0.06 to 0.14 gallons per square yard and at a spraying temperature of 325 °F. Adjust the spraying temperature and application rate to produce a uniform coating, with no excess material. Correct uncoated or lightly coated areas and remove excess tack coat from affected areas. Ensure that the material is not streaked or ribboned.

3. **Prime Coat.** Apply prime coat of cut-back asphalt on unpaved surfaces as follows:

<b>Table 401.03.02-2 Prime Coat Application</b>			
<b>Cut-Back Asphalt</b>	<b>Spraying Temp, °F</b>	<b>Gallons per Square Yard</b>	<b>Season</b>
MC-30	85 to 150	0.15 to 0.35	All year
MC-70	120 to 190	0.15 to 0.35	All year

Apply prime coat at least 12 hours before placement of the HMA and when the base courses are not saturated or frozen. Unless the prime coat is under asphalt-stabilized drainage course, the Engineer may waive the application of prime coat if more than 5 inches of HMA is placed on the unbound

aggregate course before the roadway is opened to traffic. Take measures to prevent prime coat from entering into the drainage system or extending beyond the area to be paved.

**The cost of Prime and Tack coats shall be included in the bid price of HMA Base and Surfaces Courses**

#### 401.03.03 HMA Courses

**Surface course paving will not be permitted within one week of base course paving, unless authorized by the Engineer, so that possible grade and thickness problems can be discovered and corrected.**

**A. Paving Plan.** At least 20 days before beginning placing the HMA surface course, submit a detailed plan of operation to the Engineer for approval that includes the following:

1. Asphalt paving construction technologist (APCT), certified by the Society of Asphalt Technologists of New Jersey, Inc. The Engineer will accept the equivalent certification by the Mid-Atlantic Regional Technician Certification Program.
2. Size and description of crew.
3. Number, type, and model of equipment.
4. Lighting plan for nighttime operations as specified in 108.06.
5. Method of locating and maintaining joint locations if sawing and sealing.
6. Manufacturer's recommendations for heating and applying joint sealant.
7. Paving procedures for maintaining continuous operation as specified in 401.03.03.D.
8. Manufacturer's recommended laydown temperature for modified binders.
9. Paving sequence. Ensure that the HMA surface course is constructed for the full width of the traveled way, shoulder, and auxiliary lanes as a single paving operation.
10. Schedule, hours of operation, and production rates for the Project.
11. Plant locations.
12. Method of maintaining HMA temperature during transportation.
13. Method of constructing and compacting joints as specified in 401.03.03.E.
14. Quality control plan outlining the use of the thin lift nuclear density gauge, quality control cores, and the control of the compaction process.

Do not begin paving until the Engineer approves this plan. Submit an adjusted pavement plan before making adjustments to the paving operation.

**B. Weather Limitations.** Do not place HMA if it is precipitating. Do not allow trucks to leave the plant when precipitation is imminent. The Contractor may resume operations when the precipitation has stopped and the surface is free of water. When placing HMA, ensure that the base temperature meets the minimum temperature requirements specified in Table 401.03.03-1.

Table 401.03.03-1 Minimum Base Temperature	
Lift Thickness, inches (t)	Minimum Base Temperature, °F
$t \leq 1$	50
$1 < t < 2$	41
$t \geq 2$	32

**C. Test Strip.** Construct a test strip for contracts with more than 5500 tons of HMA. Test strips are not necessary for temporary pavement. Ensure that the tack coat or prime coat has been placed as specified in 401.03.02, before placing HMA. Transport and deliver, spread and grade, and compact as specified in 401.03.03.D, 401.03.03.E, and 401.03.03.F, respectively, and according to the approved paving plan. Construct a test strip for the first 700 to 1200 square yards placed for each job mix formula. While constructing the test strip, record the following information and submit to the Engineer:

1. **Ambient Temperature.** Measure ambient temperature at the beginning and end of each day's paving operation.
2. **Base Temperature.** Measure the surface temperature of the existing base before paving.
3. **HMA Temperature.** Measure the temperature of the HMA immediately after placement.
4. **Roller Pattern.** Provide details on the number of rollers, type, and number of passes used on the test strip.
5. **Nuclear Density Gauge Readings.** Obtain the maximum density from the plant, and input it into the nuclear density gauge. Use the nuclear density gauge to read the bulk density and percent air voids.
6. **Quality Control Core Density Test Results.** Take 5 randomly selected quality control cores to test for the bulk specific gravity and the maximum specific gravity. Use drilling equipment with a water-cooled, diamond-tipped, masonry drill bit that shall produce 6-inch nominal diameter cores for the full depth of the pavement. Remove the core from the pavement without damaging it. After removing the core, remove all water from the hole. Fill the hole with HMA or cold patching material, and compact the material so that it is 1/4 inch above the surrounding pavement surface. Compare the nuclear density gauge readings and the core test results to establish a correlation. Use this correlation as a guide for the continued use of the nuclear density gauge for density control.

Upon completion of the test strip, the Contractor may continue paving. If the Contractor does not continue paving, the Engineer will accept the test strip as 1 lot regardless of size. If the test strip does not meet requirements, make adjustments and construct a second test strip. If the second test strip does not meet requirements, suspend paving operations until written approval to proceed is received. Before making adjustments to the paving operations, notify the Engineer in writing.

**D. Transportation and Delivery of HMA.** Deliver HMA using HMA trucks in sufficient quantities and at such intervals to allow continuous placement of the material. Do not allow trucks to leave the plant within 1 hour of sunset unless nighttime lighting is provided as specified in 108.06. The Engineer will reject HMA if the HMA trucks meet the requirements specified in 1009.02. The Engineer will suspend construction operations if the Contractor fails to maintain a continuous paving operation. Before the truck leaves the plant, obtain a weigh ticket from a fully automatic scale. Before unloading, submit for each truckload a legible weigh ticket that includes the following:

1. Name and location of the HMA plant.
2. Project title.
3. Load time and date.
4. Truck number.
5. Mix designation.
6. Plant lot number.
7. Tare, gross, and net weight.

A certified weighmaster shall sign and affix a seal to the weigh tickets. In the event of breakdown of an automatic printer system, the Engineer will accept weigh tickets showing the tare, gross, and net weight of each truck, as entered and certified by a weighmaster for a period not exceeding the necessary repair time as certified by a licensed repairman.

When using an automated batching plant, obtain weigh tickets from the printer used in conjunction with an automated batching and mixing system. The printed ticket shall show the individual weights of the various components of the HMA in a batch, the total weight of each batch, and the sum of all batch weights in the truckload. At the completion of each day's work, a producer's representative shall certify that the total net weight supplied to each Contract was correct.

**E. Spreading and Grading.** If using a stringline reference system, ensure that the system is in place and approved by the Engineer before placing HMA. Ensure that the underlying surface meets line and grade as specified in 202.03.03.C. Before placing HMA, ensure that the tack coat or prime coat has been placed as specified in 401.03.02. Obtain Engineer approval of the underlying surface far enough in advance of spreading HMA to allow 1 day's paving operations.

Ensure that the certified APCT is present during paving operations. Ensure that an MTV independently delivers HMA from the HMA trucks to the HMA paver.

Before beginning, ensure that the temperature of the screed on the HMA paver is heated to at least the laydown temperature of the HMA. Using the MTVs and HMA pavers, construct paving courses in lifts of at least 4 times the nominal maximum aggregate size of the HMA being constructed. Ensure that the grade and profile are maintained.

Where directed, use HMA having a nominal maximum aggregate size of 3/8 inch or less in transition (run out) areas. On areas where irregularities or unavoidable obstacles make use of a paver impractical, spread, rake, and lute HMA with hand tools. For these areas, dump, spread, and screed the HMA to obtain the required compacted thickness.

Construct joints as follows:

1. **Longitudinal Joints.** Perform paving with the spring-loaded end plates of the paver in the "down" position. The longitudinal joint in 1 lift shall offset that in the lift immediately below by approximately 6 inches. Offset the joint in the surface course from the lane lines by 6 inches. When constructing a joint between lanes of opposing traffic, offset the joint by 6 inches into either lane.
  - a. **Echelon Paving.** If a single paver does not spread the HMA the entire width of the roadway, use 2 or more pavers in echelon. Ensure that the trailing paver follows within 300 feet of the lead paver. Extend the screed and end gate of the trailing paver 1 inch over the uncompacted HMA placed by the lead paver. Ensure that the uncompacted HMA elevation from the trailing paver is equal to that from the lead paver at the joint. The Contractor may construct either a butt joint or a wedge joint. Do not rake the joint.
  - b. **Cold Joint Paving.** If echelon paving is not possible, construct the pavement using cold longitudinal joints. When constructing the first lane, compact so the line and grade of the edges of the HMA are not displaced. Construct longitudinal joints parallel to the centerlines within a tolerance of  $\pm 3$  inches per 100 linear feet. If this tolerance is not met, trim or mill the edge of the HMA mat as necessary. Before paving the abutting lane, ensure longitudinal joints are free from dust and debris. For surface course only, uniformly apply polymerized joint adhesive to longitudinal cold joint. Apply a 1/8-inch thick coating of polymerized joint adhesive over the entire joint face. Apply slowly to ensure an even coating thickness.

When maintaining traffic with a lift thickness greater than 2-1/4 inches, construct a wedge joint. The Engineer will permit a butt joint for lift thickness 2-1/4 inches or less when maintaining traffic, or for lift thickness greater than 2-1/4 inches when maintaining traffic is not required. Maintain a uniform width and depth of overlapped material at all times. Position the paver so that the HMA overlaps the edge of the lane previously placed by 1 to 2 inches. Leave the material sufficiently high to allow for compaction. Lute back overlapped material, pushing the material off of the cold HMA and onto the hot HMA mat directly over the joint. Remove excess material instead of broadcasting it across the new lift.

When compacted, ensure that the new mat at the joint is even or slightly higher (maximum 1/8 inch) than the previously placed adjoining mat. If the newly compacted mat results in a depression at the joint of 1/8 inch or more lower than the previously placed adjacent HMA lift, suspend all paving operations until corrective action is taken to prevent reoccurrence.

2. **Transverse Joints.** Construct transverse joints to provide a smooth riding surface. When using a bulkhead to form the joint, ensure that the bulkhead forms a straight line and vertical face. If a bulkhead is not used to form the joint, make the joint by sawing the compacted HMA for a sufficient distance behind the end of the placement to ensure full thickness and a smooth surface at the joint. Remove the full lift thickness of HMA ahead of the sawed joint. In either case, paint the joint face with polymerized joint adhesive before the fresh material is placed against it. Unless prohibited by field conditions, cross roll to obtain thorough compaction of these joints.

**F. Compacting.** Compact with the minimum number of rollers as specified in the Table 401.03.03-2.

<b>Table 401.03.03-2 Compaction Requirements</b>	
<b>Laydown Rate (r), yd<sup>2</sup>/day</b>	<b>Minimum Number of Rollers</b>
$r \leq 2000$	1
$2000 < r < 4000$	2
$r \geq 4000$	3

Orient the drive axles of the roller towards the paver during compaction operation. Operate rollers at a slow, uniform speed not exceeding 2-1/2 miles per hour. If necessary to prevent adhesion of the HMA to the rollers, keep the wheels moistened with water mixed with very small quantities of detergent. Begin compacting at the sides and progress gradually to the center. On superelevated curves, compact from the lower to the upper edge parallel to the centerline and uniformly overlap each preceding track until the entire surface has been compacted.

Continue rolling until roller marks are eliminated and the air voids conform to the specified requirements. Along forms, curbs, headers, walls, and other places not accessible to the rollers, compact the HMA by a vibratory drum compactor. Remove and replace HMA that becomes loose, broken, or otherwise defective or that shows an excess or deficiency of asphalt binder material.

When paving in echelon, keep the rollers for the first lane approximately 6 inches from the unconfined edge adjacent to the second paving operation. After HMA from the second paver is placed against the uncompacted edge of the mat from the first paver, compact the HMA on both sides of the joint. Prevent lateral or vertical displacement of the unconfined edge during the compaction operation. Ensure that the edge of the drums of the rollers extends over the free edge of the mat by at least 6 inches. When

compacting the butt or wedge joint, while paving the adjacent lane, place the roller on the newly placed HMA and overlap the joint by approximately 6 inches.

If a test strip was not required, establish a correlation between the nuclear density gauge and the cores as specified in 401.03.03.C.6. To adjust correlation with the thin lift nuclear density gauge, take 1 additional core every week during the paving operation. The Engineer may approve additional coring with valid cause presented by the Contractor. On a weekly basis, provide results of both the nuclear density and core testing to the Engineer. Provide core and nuclear density results that include the bulk specific gravity, the maximum specific gravity according to AASHTO T 209, and the percent air voids. Failure to submit the core and nuclear density test results from the previous week's paving will result in suspended paving operations.

**G. Opening to Traffic.** Remove loose material from the traveled way, shoulder, and auxiliary lanes before opening to traffic. Open HMA courses to traffic or construction equipment, including paving equipment, only after the surface temperatures meet the following requirements:

1. When using PG 64-22 or PG 70-22, do not allow traffic or construction equipment on the HMA course until the surface temperature is less than 140 °F.
2. When using PG 76-22, do not allow traffic or construction equipment on the HMA course until the surface temperature is less than 170 °F.

**H. Air Void Requirements.** Mainline lots are defined as the area covered by a day's paving production of the same job mixed formula between 1000 and 4000 tons for the traveled way and auxiliary lanes. The Engineer will combine daily production areas less than 1000 tons with previous or subsequent production areas to meet the minimum lot requirements. When the maximum lot requirement is exceeded in a day's production, the Engineer will divide the area of HMA placed into 2 lots with approximately equal areas. Ramp pavement lots are defined as approximately 10,000 square yards of pavement in ramps. The Engineer may combine ramps with less than the minimum area into a single lot. If 2 or more ramps are included in a single lot, the Engineer will require additional cores to ensure that at least 1 core is taken from each ramp.

Other pavement lots are defined as approximately 10,000 square yards of pavement in shoulders and other undefined areas.

The Engineer will calculate the percent defective (PD) as the percentage of the lot outside the acceptable range of 2 percent air voids to 8 percent air voids. The acceptable quality limit is 10 percent defective. For lots in which  $PD < 10$ , the Engineer will award a positive pay adjustment. For lots in which  $PD > 10$ , the Engineer will assess a negative pay adjustment.

The Engineer will determine air voids from 5 cores taken from each lot in random locations. The Engineer will determine air voids of cores from the values for the maximum specific gravity of the mix and the bulk specific gravity of the core. The Engineer will determine the maximum specific gravity of the mix according to NJDOT B-3 and AASHTO T 209, except that minimum sample size may be waived in order to use a 6-inch diameter core sample. The Engineer will determine the bulk specific gravity of the compacted mixture by testing each core according to AASHTO T 166.

The Engineer will calculate pay adjustments based on the following:

**1. Sample Mean ( $\bar{X}$ ) and Standard Deviation ( $S$ ) of the  $N$  Test Results ( $X_1, X_2, \dots, X_N$ ).**

$$\bar{X} = \frac{(X_1 + X_2 + \dots + X_N)}{N}$$

$$S = \sqrt{\frac{(X_1 - \bar{X})^2 + (X_2 - \bar{X})^2 + \dots + (X_N - \bar{X})^2}{N - 1}}$$

**2. Quality Index (Q).**

$$Q_L = \frac{(\bar{X} - 2.0)}{S}$$

$$Q_U = \frac{(8.0 - \bar{X})}{S}$$

**3. Percent Defective (PD).** Using NJDOT ST for the appropriate sample size, the Engineer will determine

PDL and PDU associated with QL and QU, respectively. PD = PDL + PDU

**4. Percent Pay Adjustment (PPA).** Calculate the PPA for traveled way and ramp lots as specified in Table

401.03.03-3.

<b>Table 401.03.03-3 PPA for Mainline Lots and Ramp Lots</b>		
	<b>Quality</b>	<b>PPA</b>
<b>Surface</b>	PD < 10	PPA = 4 - (0.4 PD)
	10 ≤ PD < 30	PPA = 1 - (0.1 PD)
	PD ≥ 30	PPA = 40 - (1.4 PD)
<b>Intermediate and Base</b>	PD < 30	PPA = 1 - (0.1 PD)
	PD ≥ 30	PPA = 40 - (1.4 PD)

Calculate the PPA for other pavement lots as specified in Table 401.03.03-4.

<b>Table 401.03.03-4 PPA for Other Pavement Lots</b>		
	<b>Quality</b>	<b>PPA</b>
<b>All Courses</b>	PD < 50	PPA = 1 - (0.1 PD)
	PD ≥ 50	PPA = 92 - (1.92 PD)

**5. Outlier Detection.** The Engineer will screen all acceptance cores for outliers using a statistically valid procedure. If an outlier is detected, replace that core by taking an additional core at the same offset and within 5 feet of the original station. The following procedure applies only for a sample size of 5.

1. The Engineer will arrange the 5 core results in ascending order, in which X1 represents the smallest value and X5 represents the largest value.
2. If X5 is suspected of being an outlier, the Engineer will calculate:

$$R = \frac{X_5 - X_4}{X_5 - X_1}$$

3. If  $X_1$  is suspected of being an outlier, the Engineer will calculate:

$$R = \frac{X_2 - X_1}{X_5 - X_1}$$

4. If  $R > 0.642$ , the value is judged to be statistically significant and the core is excluded.

**6. Retest.** If the initial series of 5 cores produces a percent defective value of  $PD \geq 30$  for mainline or ramp lots, or  $PD \geq 50$  for other pavement lots, the Contractor may elect to take an additional set of 5 cores at random locations chosen by the Engineer. Take the additional cores within 15 days of receipt of the initial core results. If the additional cores are not taken within the 15 days, the Engineer will use the initial core results to determine the PPA. If the additional cores are taken, the Engineer will recalculate the PPA using the combined results from the 10 cores.

**7. Removal and Replacement.** If the final lot  $PD \geq 75$  (based on the combined set of 10 cores or 5 cores if the Contractor does not take additional cores), remove and replace the lot and all overlying work. The replacement work is subject to the same requirements as the initial work.

**I. Thickness Requirements.** Thickness requirements will apply when full-depth, uniform-thickness HMA pavement construction is shown. The size and the assigned number of thickness lots will match those of the surface course air void lots. The Engineer will not include areas consisting of different HMA mixtures or thicknesses in the same lot.

The Engineer will test for thickness using the full-depth cores taken for surface course air voids, evaluated according to NJDOT B-4. The Engineer will base acceptance on total thickness and thickness of the surface course.

**1. Total Thickness.** The Engineer will calculate the percent defective (PD) as the percentage of the lot that is less than the design thickness. The Engineer will consider 10 percent defective as the acceptable quality limit. For lots where  $PD < 10$ , the Engineer will award a positive pay adjustment. For lots where  $PD > 10$ , the Engineer will assess a negative pay adjustment. The Engineer will base total thickness acceptance on the percentage of the lot estimated to fall below the specified thickness as follows:

- a. **Sample Mean ( $\bar{X}$ ) and Standard Deviation ( $S$ ) of the  $N$  Test Results ( $X_1, X_2, \dots, X_N$ ).** Calculate as specified in 401.03.03.H.1.

- b. **Quality Index (QI).**

$$Q_L = (\bar{X} - T_{des})/S, \text{ and } T_{des} \text{ is the design thickness.}$$

- c. **Percent Defective (PD).** Using NJDOT ST for the appropriate sample size, determine the percentage of material (PD) falling below the design thickness associated with QL (lower limit).
- d. **Percent Pay Adjustment (PPA).** The Engineer will determine the pay adjustment based on the quantity of the surface course  $\times$  PPA.

**Table 401.03.03-5 Pay Equations for Thickness**

Quality	PPA
$PD < 30$	$PPA = 1 - (0.1 \times PD)$
$PD \geq 30$	$PPA = 40 - (1.4 \times PD)$



- e. **Retest.** If the initial series of 5 cores produces a percent defective value of  $PD \geq 30$ , the Contractor may elect to take an additional set of 5 cores at random locations chosen by the Engineer. Take the additional cores within 15 days of receipt of the initial core results. If the additional cores are not taken within the 15 days, the Engineer will use the initial core results to determine the PPA. If the additional cores are taken, the Engineer will recalculate the PPA using the combined results from the 10 cores.
- f. **Removal and Replacement.** If the final lot  $PD \geq 75$  (based on the combined set of 10 cores or 5 cores if the Contractor does not take additional cores), remove and replace, or mill and overlay, the lot. The replacement work is subject to the same requirements as the initial work.

**2. Surface Course Thickness.** The Engineer will evaluate the surface course solely to determine whether a remove and- replace or an overlay condition exists, not for pay adjustment. The Engineer will calculate the percent defective (PD) as the percentage of the lot that is less than the allowable thickness for the nominal maximum aggregate used in the surface course. The Engineer will accept pavement lots with  $PD \leq 10$  and will reject pavement lots with  $PD > 10$ .

The Engineer will base surface thickness acceptance on the percentage of the lot estimated to fall below the allowable thickness as follows:

- a. **Sample Mean (  $\bar{X}$  ) and Standard Deviation (S) of the N Test Results (X1, X2,..., XN).** Calculate using the formula as specified in 401.03.03.H.1.
- b. **Quality Index (Q).**

$$Q_L = (\bar{X} - T_{all})/S, \text{ where } T_{all} \text{ is the minimum allowable thickness.}$$

Table 401.03.03-6 Surface Course Thickness Requirements	
HMA Mix Design Size Designation	Minimum Allowable Compacted Lift Thickness ( $T_{all}$ )
9.5 MM	1.00 inch
12.5 MM	1.25 inches
19 MM	2.00 inches

- c. **Percent Defective.** Using NJDOT ST for the appropriate sample size, determine the percentage of material (PD) falling below the allowable thickness associated with QL (lower limit).
- d. **Retest.** If the initial series of 5 cores produces a percent defective value of  $PD > 10$ , the Contractor may take an additional 5 cores at random locations determined by the Engineer. Take the additional cores within 15 days of receipt of the initial core results. If the additional cores are not taken within the 15 days, the Engineer will use the initial core results to determine the PPA. When the additional cores are taken, the Engineer will recalculate the PPA using the combined results from the 10 cores to obtain the total PD.
- e. **Removal and Replacement.** If the surface course fails to meet the acceptance requirement, the Engineer will require removal and replacement of the lot. The replacement work is subject to the same requirements as the initial work.

**J. Ride Quality Requirements.** The Engineer will evaluate the HMA surface course using the International Roughness Index (IRI) according to ASTM E 1926. The Engineer will use the measured IRI to compute the appropriate pay adjustment (PA). The PA may be positive for superior quality work or negative for defective work. The Engineer will calculate the PA as specified in Table 401.03.03-7 and will base PA on lots of 0.01 mile length for each lane, ramp, and shoulder.

1. **Smoothness Measurement.** The Engineer will test the longitudinal profile of the HMA surface course for ride quality with a Class 1 Inertial Profiling System according to AASHTO MP 11 approved according to AASHTO PP 49. The Engineer will test the full extent of the pavement in the direction of travel in each wheel path. The single IRI value reported for each 0.01-mile lot of pavement is the average of 3 runs.
2. **Control Testing.** Perform control testing during HMA placement to ensure compliance with the ride quality requirements specified in Table 401.03.03-7.
3. **Preparation for IRI Testing.** Provide the necessary traffic control when the Engineer performs IRI testing. Perform required mechanical sweeping of the surface course before IRI testing. To facilitate auto triggering on laser profilers, place a single line of preformed traffic marking tape perpendicular to the roadway baseline at the beginning and end of each lane, shoulder, and ramp to be tested. Submit the actual stationing for each traffic marking tape location to the Engineer.
4. **Acceptance.** The Engineer will determine acceptance and make payment adjustments based on the following:
  - a. **Pay Adjustment.** The pay equations in Table 401.03.03-7 express the pay adjustment in dollars per lot of 0.01 mile. For lots of any other length, the Engineer will scale the pay adjustment up or down in proportion to the actual length of the lot. IRI numbers are in inches per mile.

Table 401.03.03-7 – Pay Equations for Ride Quality for 0.01 Mile		
Freeways / Limited Access Highways	More than one lift	
	IRI < 45	PA = \$100
	$45 \leq \text{IRI} < 63$	$\text{PA} = \$350 - (\$5.5556 \times \text{IRI})$
	IRI = 63	PA = \$0
	$63 < \text{IRI} \leq 125$	$\text{PA} = (\text{IRI} - 63) \times (-\$16.1290)$
	IRI > 125	Remove & Replace
	One lift	
	IRI < 60	PA = \$50
	$60 \leq \text{IRI} < 75$	$\text{PA} = \$250 - (\$3.3333 \times \text{IRI})$
	IRI = 75	PA = \$0
	$75 < \text{IRI} \leq 145$	$\text{PA} = (\text{IRI} - 75) \times (-\$7.1429)$
	IRI > 145	Remove & Replace
Highways Other Than Freeways/Limited Access	More than one lift	
	IRI < 60	PA = \$50
	$60 \leq \text{IRI} < 80$	$\text{PA} = \$200 - (\$2.50 \times \text{IRI})$
	IRI = 80	PA = \$0
	$80 < \text{IRI} \leq 140$	$\text{PA} = (\text{IRI} - 80) \times (-\$8.3333)$
	IRI > 140	Remove & Replace
	One lift	
	IRI < 70	PA = \$50
	$70 \leq \text{IRI} < 85$	$\text{PA} = \$283.33 - (\$3.333 \times \text{IRI})$
	IRI = 85	PA = \$0
Other Roadways	$85 < \text{IRI} \leq 160$	$\text{PA} = (\text{IRI} - 85) \times (-\$6.6667)$
	IRI > 160	Remove & Replace
	IRI < 80	PA = \$50
	$80 \leq \text{IRI} < 100$	$\text{PA} = \$250 - (\$2.50 \times \text{IRI})$
	IRI = 100	PA = \$0
Ramps and Shoulders	$100 < \text{IRI} \leq 170$	$\text{PA} = (\text{IRI} - 100) \times (-\$7.1429)$
	IRI > 170	Remove & Replace
	IRI = 120	PA = \$0
	$120 < \text{IRI} \leq 170$	$\text{PA} = (\text{IRI} - 120) \times (-\$10.00)$
	IRI > 170	Remove & Replace

- b. **Retest provision.** After testing, if the IRI exceeds the Remove and Replace value (RRV) in Table 401.03.03-7, the Engineer will retest the lot. The Engineer will average the IRI values from the initial test and the retest to determine the final result. If there is definitive evidence that the initial test is invalid, the Engineer will disregard the initial test and will consider the retest as the initial test. If there is no evidence that the original test was invalid, the Engineer will average the IRI values from the initial test and the retest to determine the final result.
- c. **Removal and Replacement.** If the average IRI is greater than the RRV after a retest is performed, remove and replace the lot. Any replacement work is subject to the same requirements as the initial work. On contracts where only a small percentage (less than 8 percent) of paving lots falls under the RRV, the Engineer may allow the Contractor to submit a plan for corrective action. If the Contractor's plan for corrective action is not approved, the Engineer may require removal and replacement, or may allow the lot to remain in place and the lot will be subject to the pay adjustment as computed in Table 401.03.03-7. If the Contractor's plan for corrective action is approved and the lot is reworked, the Engineer will test and

evaluate it as a new lot that must meet the same requirements as the initial work. Corrective action locations are not eligible for bonus payments.

#### 401.03.04 Sawcutting and Sealing of Joints in HMA Overlays

Before paving over concrete pavement, identify joint locations and maintain references throughout paving operations. Ensure that the HMA overlay is sawcut directly over the existing concrete pavement joints. Make sawcuts between 1 and 5 days after placement of the overlay. Existing transverse joints that are offset at the longitudinal joint by more than 1 inch, measured between the centers of the joints, require separate sawcuts terminating at the longitudinal joint. For full-depth HMA replacement of an underlying concrete slab, sawcut the overlay directly over the HMA/slab interfaces.

Sawcut as specified in Table 401.03.04-1:

Table 401.03.04-1 Sawcuts in HMA Overlays		
Total Overlay Thickness (t), inches	Width of cut, inches	Depth of cut, inches
t < 6	1/4 to 3/8	2
t ≥ 6	1/4 to 3/8	4

Sawcut the transverse joints the full width of the traveled way and 3 feet into the shoulder.

If the surface course is not to be constructed within 30 days of placing the base or intermediate course, within 5 days, make a 1/8-inch wide sawcut 2 inches deep over the joints. The Engineer will not require sealing or cleaning of these sawcuts. When placing the surface course, make a 1/4 to 3/8-inch sawcut the full depth of the surface course. If cracks appear in a base or intermediate course before placing the surface course, sawcut the surface course directly over the crack, rather than directly over the joint.

After sawcutting, immediately collect the slurry from the sawcut cavity and surrounding pavement surface and dispose of as specified 201.03.09. Clean sawcuts with a 150-pounds-per-square-inch water blast to remove remaining debris in the sawcut cavity, and then blow sawcuts with a hot-air lance to provide a dry surface. Immediately after blowing, seal sawcuts.

Seal joints with hot-poured joint sealer prepared according to the manufacturer's recommendations. Do not heat joint sealer at the pouring temperature for more than 6 hours and do not reheat. Fill the sawcuts so that after cooling the level of the sealer is not more than 1/4 inch above, or less than 1/8 inch below, the surface. Do not spread sand or other fine material on the sealed joints. Before opening to traffic, allow joint sealer to cure to prevent pickup.

#### 401.04 MEASUREMENT AND PAYMENT

The Engineer will measure and make payment for Items as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
HMA Milling, 2" & Variable	Square Yards
Hot Mix Asphalt Surface Course, Mix 9.5M64, 2" Thick	Ton

The Engineer will measure HOT MIX ASPHALT 9.5M64 SURFACE COURSE AND HOT MIX ASPHALT 19M64 BASE COURSE by the ton as indicated on the certified weigh tickets, **excluding**

**unused** material. When nominal maximum aggregate size 3/8-inch HMA surface course is directed for use in transition (run out) areas, the Engineer will include this weight with the weight for HOT MIX ASPHALT 9.5M64 SURFACE COURSE.

## **ITEM NO. 7 – REMOVE & REPLACE CONCRETE VERTICAL CURB**

### **607.01 DESCRIPTION**

This Section describes the requirements for constructing concrete curb, granite curb, and HMA curb, and for resetting granite curb. **Mobilization and layout for this item shall be included in bid.**

### **607.02 MATERIALS**

#### **607.02.01 Materials**

Provide materials as specified:

HMA (9.5M64) .....	902.02
Concrete .....	903.03
Mortar .....	903.08.01
Curing Materials .....	903.10
Reinforcement Steel .....	905.01
Granite Curb .....	910.04
Flexible Delineators .....	911.03
Preformed Joint Filler .....	914.01
Joint Sealer, Hot-Poured .....	914.02

For concrete curb at driveways, the Contractor may use Class E concrete, as specified in 903.04, in order to open the driveway to traffic in 3 days.

#### **607.02.02 Equipment**

Provide equipment as specified:

HMA Curb Machine .....	1003.02
Bituminous Material Distributor .....	1003.07
Sealer Application System .....	1003.08
Vibrator .....	1005.04
Straightedge .....	1008.02
HMA Plant .....	1009.01
HMA Trucks .....	1009.02
Concrete Batching Plant .....	1010.01
Concrete Trucks .....	1010.02

### **607.03 CONSTRUCTION**

#### **607.03.01 Concrete Barrier Curb**

**A. *Placing Footing.*** Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain Engineer approval before finishing excavation. If the Engineer determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the Engineer.

Place footing concrete according to the limitations specified in 504.03.02.C. Consolidate the concrete by hand spading or using internal mechanical vibrators. Insert the reinforcement steel into the concrete

before initial set. Ensure that it remains perpendicular to the footing until the barrier curb is constructed. Protect concrete as specified in 504.03.02.I.

**B. Constructing Forms.** Each time before using, ensure that the forms are thoroughly cleaned and treated with a material that will prevent adherence of the concrete to the forms without discoloring the concrete. Construct concrete barrier curb in sections that correspond to the transverse joints in the existing or proposed pavement and at most 20 feet in length. Reduce this length where necessary for closures, but do not construct closure sections that are less than 6 feet. Where changes in the size or shape are necessary for variable height barrier curb, ensure that the transition between the sections is gradual.

**C. Installing Joints.** Place 1/2-inch preformed joint filler at the transverse joints and ensure that filler is flush with the top and face of the curb. Install 1/2-inch preformed joint filler between the curb and concrete pavement, and seal the joint with hot-poured joint sealer.

**D. Placing Concrete.** Obtain Engineer approval of forms and joint placement before placing concrete. Place concrete according to the limitations specified in 504.03.02.C. To place concrete between November 15 to March 1, submit to Engineer for approval a plan detailing the method of protecting the concrete from salt for at least 30 days after placing. Do not begin placing concrete until this plan is approved.

Place concrete across the formed area to minimize rehandling. Continuously place concrete between transverse joints without the use of intermediate bulkheads. To prevent bowing or misalignment of the transverse joints, place concrete simultaneously on both sides of transverse joints without disturbing the joints.

Consolidate the concrete using internal mechanical vibrators. When required, supplement vibrating by hand spading to ensure proper and adequate consolidation. Provide at least an additional standby vibrating unit for individual concrete placements in excess of 10 cubic yards.

Use vibrators to work the concrete around the reinforcement steel and embedded fixtures and into corners and angles of the forms. Ensure proper vibration of the concrete to avoid honeycombing and voids. Do not use vibrators to move or spread concrete into position. Do not over vibrate concrete. Place reinforcement steel and sleeves for sign posts while placing concrete, and ensure that they remain in position until the concrete is set. If a section is not completed from transverse joint to transverse joint, remove the incomplete section and replace. Terminate each day's placement at a transverse joint. Protect concrete as specified in 504.03.02.I. Fill sleeves for sign or delineator posts installed in barrier curb with sand, and seal the sleeves with hot-poured joint sealer immediately after installation. Reseal the sleeves if and when posts are installed.

**E. Finishing Concrete.** Finish the top of the curb with a wood float and round the top edges. Remove the forms as soon as the concrete holds its shape, and immediately finish joint edges using an edging tool with a radius of 1/4 inch. Remove lips of mortar and irregularities caused by form joints. Using mortar from the barrier concrete placement, patch holes, depressions, voids, and honeycombs to produce a smooth, dense, uniform surface of concrete. Finish the surface of the barrier curb with a steel float and texture with a broom.

If a rigid type of construction is to be made against any exposed surface, leave the exposed surface smooth and uniform to allow free movement of the curb.

**F. Protecting and Curing Concrete.** Immediately after finishing the concrete, apply curing compound as specified in 504.03.02.F.1.

**G. Installing Flexible Delineators.** For delineators located on the right side when facing in the direction of traffic, ensure that the retroreflective sheeting is white. For delineators located on the left side when facing in the direction of traffic, ensure that the retroreflective sheeting is yellow. Attach flexible delineators, according to the manufacturer's recommendations, 3 inches from the top of the barrier curb. Mount the first flexible delineator at the beginning of the concrete barrier curb section. Mount subsequent delineators every 80 feet. Position each delineator so that the plane face of the center of the reflective area is at an angle of 0 degrees with a line that is perpendicular to the direction of traffic. If the distance between the end of the concrete barrier curb and the adjacent delineator is greater than 40 feet, install a delineator on both sides of the barrier curb opening.

### **607.03.02 Concrete Vertical Curb and Concrete Sloping Curb**

**A. Underlayer Preparation.** Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain Engineer approval before finishing excavation. If the Engineer determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the Engineer.

**B. Constructing Forms.** Construct forms as specified in 607.03.01.B.

**C. Installing Joints.** Install joints as specified in 607.03.01.C.

**D. Placing Concrete.** Obtain Engineer approval of forms and joint placement before placing concrete. Place concrete according to the limitations specified in 504.03.02.C. Place concrete across the formed area to minimize rehandling. Continuously place concrete between transverse joints without the use of intermediate bulkheads. Consolidate the concrete by hand spading or using internal mechanical vibrators. To prevent bowing or misalignment of the transverse joints, place concrete simultaneously on both sides of transverse joints without disturbing the joints. If a section is not completed from transverse joint to transverse joint, remove the incomplete section and replace. Terminate each day's placement at a transverse joint. Protect concrete as specified in 504.03.02.I.

**E. Finishing Concrete.** Finish the top and front face of the curb as specified in 607.03.01.E.

**F. Protecting and Curing Concrete.** Immediately after finishing the concrete, apply curing compound as specified in 504.03.02.F.1.

**G. Backfilling Curb.** Backfill and compact using the directed method, as specified in 203.03.02.C, against the curb.

### **607.03.03 Concrete Barrier Curb, Dowelled**

**A. Underlayer Preparation.** Remove dirt, bituminous material, and other loose or adhering matter from the surface. Drill holes in the concrete that are between 1/4 inch and 3/4 inch in diameter bigger than the diameter of the reinforcement steel dowel. Set the reinforcement steel dowels in the hole and grout into place.



**B. Constructing Forms.** Construct forms as specified in 607.03.01.B.

**C. Installing Joints.** Locate transverse joints in dowelled curb directly over the transverse joints in the concrete pavement, and over transverse pavement cracks wider than 1/4 inch. Locate additional joints as needed to divide the curb into approximately equal lengths of at most 20 feet. Place 1/2-inch preformed joint filler at transverse joint locations and ensure that it is flush with the top and faces of the curb. Place 1/2-inch preformed joint filler between the curb and concrete pavement, and seal the joint with hot-poured joint sealer.

**D. Placing Concrete.** Place concrete for barrier curb as specified in 607.03.01.D.

**E. Finishing Concrete.** Finish concrete as specified in 607.03.01.E.

**F. Protecting and Curing Concrete.** Immediately after finishing the concrete, apply curing compound as specified in 504.03.02.F.1. Protect the concrete as specified in 504.03.02.I.

**G. Installing Flexible Delineators.** Install flexible delineators as specified in 607.03.01.G.

#### **607.03.04 Concrete Vertical Curb and Concrete Sloping Curb, Dowelled**

**A. Underlayer Preparation.** Prepare the underlying surface as specified in 607.03.03.A.

**B. Constructing Forms.** Construct forms as specified in 607.03.01.B.

**C. Installing Joints.** Install joints as specified in 607.03.01.C.

**D. Placing Concrete.** Place concrete for vertical and sloping curb as specified in 607.03.01.D.

**E. Finishing Concrete.** Finish the top and front face of the curb as specified in 607.03.01.E.

**F. Protecting and Curing Concrete.** Immediately after finishing the concrete, apply curing compound as specified in 504.03.02.F.1.

**G. Backfilling Curb.** Backfill and compact using the directed method, as specified in 203.03.02.C, against the curb.

#### **607.03.05 Granite Curb**

Excavate as specified in 202.03.03. Shape and compact the underlying material to produce a firm, even surface. Obtain Engineer approval before finishing excavation. If the Engineer determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the Engineer. Place footing concrete according to the limitations specified in 504.03.02.C. Consolidate the concrete by hand spading or using internal mechanical vibrators. Set granite curb in concrete ensuring that the top surface is at the required grade. Ensure that joints are at most 1/4 inch wide for dressed and 3/8 inch wide for quarry-split curb. Point the joints using mortar. Place 1/2-inch preformed joint filler between the granite curb and concrete pavement. Seal with hot-poured joint sealer. Backfill and compact using the directed method, as specified in 203.03.02.C, against the curb.

#### **607.03.06 Reset Granite Curb**

Remove granite curb without damaging the existing granite curb sections. Remove the existing foundation and concrete adhering to the granite curb sections to be reset. Reuse concrete as specified in 202.03.07.A.

Shape and compact the underlying material to produce a firm, even surface. Remove unstable material and replace it with suitable material. Once placed, compact the replacement underlying material.

Place footing concrete according to the limitations specified in 504.03.02.C. Consolidate the concrete by hand spading or using internal mechanical vibrators. Reset granite curb. Ensure that joints are at most 1/4 inch wide for dressed and 3/8 inch wide for quarry-split curb. Point the joints using mortar. Place 1/2-inch preformed joint filler between the granite curb and adjacent concrete pavement. Seal with hot-poured joint sealer. Backfill and compact using the directed method, as specified in 203.03.02.C, against the curb.

#### **607.03.07 HMA Curb**

Clean the surface where the HMA curb will be placed. Construct HMA curb using an HMA curb machine. Where the HMA curb is to be placed on an existing surface that does not have a smooth grade, use a method that provides the required curb line and grade. The Contractor may use side forms. When short sections of HMA curb with short radii are required, the Contractor may use another method as long as the resulting HMA curb conforms to the curb as produced by the automatic machine. Perform HMA curb construction in a continuous operation in 1 direction to eliminate curb joints. However, where conditions prevent a continuous operation, construct joints to ensure a continuous bond between the old and new sections of the HMA curb.

#### **607.04 MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment for Items as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Remove & Replace Concrete Vertical Curb	Linear Foot

These pay items shall include the cost of excavation, backfill, concrete, expansion joints in curb, gutter and between curb and adjacent concrete curb, patch of the street, all materials, labor, equipment and all else necessary therefore and incidental thereto

**ITEM NO. 8 – TRAFFIC MARKINGS, LINES, LONG-LIFE, THERMOPLASTIC, 24” THICK**  
**ITEM NO. 9 – TRAFFIC STRIPES, LINES, LONG-LIFE, EPOXY RESIN, 4” THICK**  
**ITEM NO. 10 – TRAFFIC MARKINGS, SYMBOLS, LONG-LIFE, THERMOPLASTIC**

**610.01 - DESCRIPTION**

This work shall consist of applying white or yellow pavement stripes or markings to bituminous concrete and furnishing, fabrication assembly and erection of all signs as stipulated on the Plans or as directed by the Engineer. All striping and signs shall be installed in accordance with the “Manual on Uniform Traffic Control Devices for Streets and Highways (M.U.T.C.D.).” **Traffic Markings, Lines, Long-Life Epoxy, shall be 4” in width; all Traffic Markings, Lines Long-Life Thermoplastic, shall be 24” in width unless clarified by engineer.** Contractor shall video tape the roadways where striping is existing, showing all existing parking spot locations and existing centerline striping. 24” wide stop bars shall be placed where stop signs exist and will be the entire lane width to the centerline of two (2) way roads. **Mobilization and layout for this item shall be included in bid.**

**610.02 MATERIALS**

**610.02.01 Materials**

Provide materials as specified:

Flexible Delineators .....	911.03
Epoxy Traffic Stripes .....	912.03.01
Thermoplastic Traffic Markings .....	912.03.02
Raised Pavement Marker (RPM).....	912.03.03
Epoxy Resin Adhesive .....	912.03.03.2
Lenses .....	912.03.03.3
Lens to Casting Adhesive.....	912.03.03.4

**610.02.02 Equipment**

Provide equipment as specified:

Grinding Machine .....	1006.08
Epoxy Striping Equipment .....	1007.01
Thermoplastic Applicator .....	1007.02
Traffic Stripe and Marking Removal Equipment .....	1007.03
Rumble Strip Cutting Machine .....	1007.04
Pavement Saw .....	1008.04

**610.03 CONSTRUCTION**

**610.03.01 Long-Life Traffic Stripes**

**A. *Striping Plan.*** At least 20 days before beginning the work, submit to the Engineer for approval a striping plan that includes:

1. Schedule of operations for applying traffic stripes.
2. Number and type of equipment.

3. Manufacturer's recommendations for use of the materials, including, but not limited to, mixing ratios and application temperatures.

**B. Surface Preparation.** Immediately before striping the pavement surface, clean the surface of dirt, oil, grease, and foreign material, including curing compound on new concrete. Clean the surface 2 inches beyond the perimeter of the stripes to be placed.

**C. Striping Test Strip.** Before beginning long-life traffic striping operations, construct 1 or more striping test strips as specified in 610.03.01.D. For each striping test strip, apply striping to approximately 500 linear feet of pavement with the same striping procedure that will be used for the Project. Construct a test strip for each applicator unit and long-life material used. Construct additional test strips when major equipment repairs or adjustments are made or when the traffic stripes are determined to be defective. When the test strip is in compliance, as determined by the Engineer, proceed with striping operations. Each test strip may remain in place and become part of the finished stripes subject to the requirements of 610.03.01.E.

**D. Applying Striping.** Mix epoxy resin with an automatic proportioning and mixing machine, and hot-spray the compound at a temperature of between 100 and 130 °F onto dry surfaces. Apply the compound with a wet film thickness of  $20 \pm 1$  mil. **Apply the material during dry weather conditions when the ambient temperature is a minimum of 45 °F and the surface temperature is a minimum of 50 °F. Adjust operations as required for the prevailing ambient and surface conditions to achieve a no-track drying time of 30 minutes or less.**

Immediately after, or in conjunction with, the compound application, uniformly apply 12 pounds of large glass beads per gallon of epoxy resin to the compound. After applying the large glass beads, uniformly apply 12 pounds of small glass beads per gallon of epoxy resin to the compound. Remove all compound that has been tracked or spilled outside of the intended placement areas.

**E. Defective Striping.** Replace long-life traffic stripes that are determined by the Engineer before Acceptance to be defective or that are damaged due to sawcutting or sealing of joints in the HMA overlay. Remove defective stripes as specified in 610.03.08. Replace the entire 10-foot skip line if the Engineer determines the line to have a deficiency.

If the Engineer determines, based upon calculated and measured yields, that the striping has a wet film thickness of less than 19 mils, restripe the entire length with 20 mils of new compound.

Replace the entire length of striping where improper curing or discoloration has occurred. Discoloration is localized areas or patches of brown or grayish colored compound. Where improper curing or discoloration occurs intermittently in intervals of 100 feet or less throughout the striping length, replace the entire length of striping from the beginning of the first occurrence until the end of the last occurrence, plus 5 feet on each end.

Replace the entire length of striping that has failed to bond to the pavement, or has chipped or cracked. Where more than 25 spots of chipping, cracking, or poor bonding have occurred within 1000 linear feet of striping, replace the entire 1000 foot length of striping.

Replace the entire area of striping where the glass bead coverage or retention is deficient, based on yield

measurements made during application and on visual comparisons of the production traffic stripes with those of the test strips.

Replace the entire 1-mile length of striping where the initial retroreflectance values for 2 of 4 readings for that 1 mile length are less than 375 millicandelas per square meter per lux for white or 250 millicandelas per square meter per lux for yellow, as measured with a LTL-2000 Retroreflectometer.

**F. Opening to Traffic.** Complete each application of all types of traffic stripes and allow to thoroughly dry before opening to traffic. At a minimum, delineate center lines on undivided roadways and broken lines between lanes before the traveled way is opened. The Engineer will determine when the traveled way can be opened to traffic.

### 610.03.02 Thermoplastic Traffic Markings

**A. Marking Plan.** At least 20 days before beginning the work, submit to the Engineer for approval a marking plan that includes:

1. Schedule of operations for applying markings,
2. Number and type of equipment, and
3. Manufacturer's recommendations for use of the materials, including mixing ratios and application temperatures.

**B. Surface Preparation.** Immediately before marking the pavement surface, clean the surface of dirt, oil, grease, and foreign material, including curing compound on new concrete. Clean the surface 2 inches beyond the perimeter of the marking to be placed.

**C. Applying Long-Life Traffic Markings.** Place preformed thermoplastic or hot extruded thermoplastic traffic markings on thoroughly dry surfaces and during dry weather conditions. Apply using equipment and procedures that produce markings of the specified color, width, and thickness with well-defined edges, uniform retroreflectivity, and proper bonding to the pavement. Apply the thermoplastic material as follows:

1. **Extruded Thermoplastic.** Uniformly heat the thermoplastic material. When the ambient and surface temperatures are at least 50° F, apply the melted material at a temperature of between 400 and 425 °F. Extrude the thermoplastic traffic markings on the HMA or concrete pavement ensuring a thickness of  $90 \pm 1$  mils.

Immediately after, or in conjunction with, the thermoplastic extrusion, uniformly apply glass beads to the wet material at a minimum rate of 10 pounds per 100 square feet of markings. Apply glass beads by mechanical means only.

2. **Preformed Thermoplastic.** Melt the preformed thermoplastic tape to bond the traffic markings permanently in position according to the manufacturer's recommendations. Meet the minimum initial retroreflectance value, as specified in 610.03.01.D for thermoplastic tape, by applying additional glass beads to the hot-wet material in a uniform pattern as necessary.

**D. Defective Markings.** Replace long-life traffic markings that are determined by the Engineer before Acceptance to be defective or that are damaged due to sawcutting or sealing of joints in the HMA overlay. Remove defective markings as specified in 610.03.08.

Replace the entire area of traffic markings determined to be less than the required thickness, to have incorrect color or width, to have failed to bond to the pavement, or to have chipped or cracked. The

minimum replacement area is an individual word or symbol, or entire length of longitudinal line from where the deficiency first occurs to where it no longer exists.

Replace the entire area of marking where the initial retroreflectance value is less than 375 millicandelas per square meter per lux for white or 250 millicandelas per square meter per lux for yellow. The Engineer will determine initial retroreflectance as follows:

1. The Engineer will perform visual inspections at night to identify defective traffic markings that appear to be below the specified minimum value.
2. The Engineer will perform retroreflectance measurements with a LTL-2000 Retroreflectometer on a clean, dry surface.
3. For word markings, the Engineer will make 3 random retroreflectance measurements on each letter. For symbols, the Engineer will make 9 random retroreflectance measurements over the symbol.
4. The Engineer will average all retroreflectance measurements for each letter or symbol to determine if the minimum retroreflectance requirement is met.

**E. Opening to Traffic.** Complete each application of traffic markings and allow to thoroughly dry before opening to traffic. The Engineer will determine when the traveled way can be opened to traffic.

#### **610.03.08 Removal of Traffic Stripes and Markings**

Remove traffic stripes and traffic markings using methods that do not damage the underlying or adjacent pavement, and do not cause gouging or create ridges or grooves in the pavement. Before beginning removal operations, demonstrate to the Engineer the proposed method to remove at least 95 percent of stripes or markings without removing more than 1/16 inch of pavement thickness. Obtain Engineer approval before beginning removal operations. The removal area includes the area of the stripe or marking plus 1 inch on all sides. Only remove traffic stripes or markings that will be replaced during the same workday.

Dispose of debris from the removal of stripes and markings as specified in 201.03.09.

#### **610.03.07 Rumble Strips**

At least 20 days before constructing rumble strips, submit a plan for cutting rumble strips and debris collection/removal to the RE for approval. **The rumble strips shall be constructed as per NJDOT Details provided. The rumble strips shall be placed along a centerline joint but shall not straddle the centerline joint. This shall be reviewed with the inspecting engineer prior to installation.**

Construct rumble strips on newly constructed pavement after it has cooled sufficiently to allow the cutting to be done cleanly without causing damage to the adjacent pavement.

Clean the area where rumble strips are to be constructed. Construct rumble strips by cutting indentations into the pavement perpendicular to the traveled way without disturbing the surrounding pavement. Collect cuttings and reuse or dispose of as specified in [202.03.07](#).

Ensure that the centerline rumble strips are constructed before placing TRAFFIC STRIPES. After cutting centerline rumble strips and collecting the debris, apply Fog Seal over the centerline rumble strip as specified in [422.03.02](#). **This shall be included in the linear foot price of Rumble Strips.**

Do not construct rumble strips 200 feet linear feet before and after the approximate midpoint of Weigh-in-Motion (WIM) systems in the roadway as listed in the Special Provisions.

#### **610.04 - MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment for Items as follows:

All Traffic Stripes, Long-Life Thermoplastic, will be paid at 6" in width and all Traffic Markings, Long Life Thermoplastic, will be paid at 24" in width.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Traffic Markings, Lines, Long-Life, Thermoplastic, 24" Thick	Square Foot
Traffic Stripes, Line, Long-Life, Epoxy Resin, 4" Thick	Linear Foot
Traffic Markings, Symbols, Long-Life, Thermoplastic	Square Foot

The Engineer will measure traffic stripes of the various types and materials by the linear foot for each specified width of stripe. The Engineer will not measure gaps in striping.

The Engineer will measure rumble strip by the linear foot measured in the longitudinal direction of the rumble strip without deducting the interval spacing between rumble strips and the gaps for RPM placement and make payment under the Item RUMBLE STRIP.

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the cost of all materials, delivery, excavation, placement, grading, compaction, concrete, wire, etc., all as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 11 – BLOCK RETAINING WALL**

### **SECTION 616.01 - DESCRIPTION**

This Section describes the requirements for constructing cast-in-place retaining walls, prefabricated modular wall systems, mechanically stabilized earth (MSE) wall systems, and other alternate retaining wall systems. **Mobilization and layout for this item shall be included in bid.**

### **SECTION 616.02 - MATERIALS**

Provide materials as specified:

Coarse Aggregate (No. 57).....	<u>901.03</u>
Soil Aggregate (I-9) .....	<u>901.11</u>
Soil Aggregate (I-15) .....	<u>901.11</u>
Concrete .....	<u>903.03</u>
Mortar.....	<u>903.08.01</u>
Curing Materials.....	<u>903.10</u>
Precast Concrete Units .....	<u>904.02</u>
Reinforcement Steel .....	<u>905.01</u>
Welded Wire Reinforcement.....	<u>905.01.03</u>
Structural Steel Plates and Bars .....	<u>905.01.04</u>
High-Strength Steel Bolts.....	<u>908.02</u>
Coal Tar Epoxy Paint .....	<u>912.01.03</u>
Preformed Joint Filler.....	<u>914.01</u>
Joint Sealer (Hot-Poured).....	<u>914.02</u>
Subsurface Drainage Geotextile.....	<u>919.01</u>
HDPE Geomembrane.....	<u>919.05</u>
Waterstops .....	<u>919.06</u>

Provide soil reinforcement strips according to ASTM A 572, Grade 65. Provide tie strips according to ASTM A 1011, Grade 50.

For MSE Walls, use either Soil Aggregate, I-15 or Coarse Aggregate, No. 57. For Prefabricated Modular Retaining Walls and T-Wall, use either Soil Aggregate, I-9 or Coarse Aggregate, No. 57.

### **513.02.02 – EQUIPMENT**

Provide equipment as specified:

Vibrator.....	<u>1005.04</u>
Concrete Batching Plant .....	<u>1010.01</u>
Concrete Trucks.....	<u>1010.02</u>

### **513.03 – CONSTRUCTION**

#### **Retaining Walls**

- A. **Working Drawings.** At least 30 days before beginning the work, submit working drawings for approval that include, at a minimum, the following:



1. Design calculations giving complete information as to the proposed method of fabrication and erection of precast units and related components.
2. General notes, design parameters, soil characteristics, and factors of safety.
3. An elevation view of the wall showing elevations at the top of the wall, the beginning, and at the end.
4. Plan view of the wall showing the offset from the construction baseline to face of wall units at all changes in horizontal alignment.
5. Distance from front of wall to the extreme limit of module.
6. Typical sections of the wall indicating how internal drainage and surface drainage behind the wall is handled. Typical cross sections of cut and fill sections. Limits and extent of select granular backfill material placed above original ground. Location of proposed ground line.
7. Panel or unit length and size and designations.
8. A numbered panel layout for fabrication and erection purposes.
9. Typical panels, as well as special panels, such as at bends; dimensions necessary to construct the member; the location of reinforcement steel in the member; and the location of reinforcement attachment devices that are embedded in the panels.
10. Designation of breaks in vertical alignments and elevations at whole stations and at 25 foot increments and treatment.
11. All details for footings and leveling pads, including step details, locations, and elevations, and actual maximum bearing pressure.
12. Architectural details, such as special facing finish, texture, and color.
13. The location of the proposed final ground line.
14. ROW limits and their relationship to the wall, with offsets and stations to corners.
15. Location of any noise walls or sign structures near the wall by station and offsets.
16. Centerline of any drainage structures or utilities behind and passing through or under walls.
17. Location of all piles on any adjoining structure's foundation plans with details to avoid any conflict.
18. Connections to barriers, copings, signs, lights, railing, fences, noise barriers, or any other element.
19. Details for the construction of walls and soil reinforcement around obstructions including bridge supports, drainage facilities, sign footings, or any other element.

20. Details for required electrical systems, including highway lighting bases, junction boxes, and conduit.
21. Limits and extent of common structure volume, such as excavation, volume of concrete, reinforcement steel, and backfill.
22. Numbers and types of precast units/panels.
23. Manufacturer's recommendations, including suggested sequence of construction.

**B.Shipping, Handling, and Storing.** Ensure that the precast units have cured for at least 72 hours and have attained the minimum 28 day compressive strength before shipping.

Provide galvanized handling devices according to ASTM A 123. Store, transport, hoist, and handle units to prevent cracking or damage. After galvanizing, coat attachment surfaces not to be embedded in concrete with coal tar epoxy paint. Replace or repair units damaged by improper storing, transporting, or handling.

**C.Wall Foundation.** Excavate as specified in [202.03.03](#). Shape and compact the underlying material to produce a firm, even surface. Obtain RE approval before finishing excavation. If the RE determines that the bottom of the excavation is unstable, undercut, backfill, and compact as directed by the RE. Grade the foundation for the structure level for a width that exceeds the length of the soil reinforcement by at least 2 feet.

Place concrete, as specified in [504.03.02.D](#), for an unreinforced concrete leveling footing, or provide a precast concrete leveling pad according to the manufacturer's recommendations.

Before placing wall units, install underdrains and drainage pipes.

**D.Installing.** Provide 2 copies of the manufacturer's recommendations to the RE. If a section of wall is to be cast-in-place, construct the section as specified [504.03.02.D](#). Obtain RE approval of the foundation for the structure before beginning erection. Install the units according to the manufacturer's recommendations. For erection, handle units with lifting devices set into the upper edge of the panels. Place units in a horizontal course. Do not place the subsequent course until the previous course is backfilled within 2 inches of the top of the course.

Provide external bracing for the initial course. While erecting each course, examine line, and grade, and correct deviations to prevent cumulative inaccuracies in alignment. Ensure vertical tolerance and horizontal alignment tolerance does not exceed 1/2 inch, when measured along a straightedge. Install joint filler and rubber pads according to the manufacturer's recommendations. Close joints at corners or angle points.

Ensure that all wall units above the first course interlock with the lower courses. Ensure vertical joint openings on the wall's front face do not exceed 3/4 inch. Ensure the front face vertical joints has 12 inch wide strips of subsurface drainage geotextile behind each joint starting 2 feet below grade.

**E.Back of Wall Drainage.** Place a stone pocket, subsurface drainage geotextile, and an 8

inch corrugated steel underdrain pipe as shown on the Plans.

When constructing weep holes, place ports or vents for equalizing hydrostatic pressure below low water. Use 4 inch PVC or unreinforced concrete drain pipe as forms for weep holes through concrete.

- F. Backfilling.** For MSE walls, place reinforcement perpendicular to the face of the wall, unless otherwise shown on the Plans or directed. Before placing soil reinforcement, compact the backfill material as specified in [513.03.01.G](#).

For modular bin walls, fill wall units 4 feet or less in height in 1 lift and then thoroughly compact with a vibratory tamping device. Fill wall units more than 4 feet in height in 2 approximately equal lifts and thoroughly compact after each layer is placed.

Backfill after erecting each course of wall units. Verify that the reinforcements and wall units are not damaged, disturbed, or misaligned while backfilling. Correct misalignment and remove and replace damaged units of the wall units before placing the next course. Backfill using one of the following materials.

1. **Soil Aggregate.** Do not exceed 10 inches loose measurement for the maximum lift thickness of the backfill. Decrease this lift thickness to obtain the specified density.

The ME will determine the optimum moisture content as specified in AASHTO T 99, Method C. Ensure that the moisture content of the backfill is uniform throughout each layer and has a placement moisture content that is less than or equal to the optimum moisture content. Remove and rework backfill that has a placement moisture content in excess of the optimum moisture content until the moisture content is uniformly acceptable throughout the entire layer.

Ensure that backfill placed within 1 foot of a drainage structure or utility does not have any particle greater than 3 inches in maximum dimension.

2. **Coarse Aggregate.** Do not exceed 8 inch lift thickness of coarse aggregate. Place subsurface drainage geotextile at the interface of the coarse aggregate and regular roadway materials and embankments.

At each reinforcement strip level, level and compact the coarse aggregate before placing the reinforcement.

- G. Compacting.** Compact backfill material without damaging, disturbing, or misaligning the wall units before placing the next block level. Roughly level each course of backfill to an elevation approximately 2 inches above the level of the next course of units. Compact in a direction parallel to the wall. For MSE walls, do not use sheepsfoot or grid-type rollers for compacting backfill within the limits of the soil reinforcement. Compact for the specified material as follows:

1. **Soil Aggregate.** With the exception of the 5 foot zone directly behind the units, compact soil aggregate with large, smooth drum, vibratory rollers using the density control method as specified in [203.03.02.B.4](#).

Within 5 feet of the wall, use small, single or double drum, hand operated, walk-behind vibratory rollers, or walk-behind vibrating plate compactors. Make at least 3 passes.

2. **Coarse Aggregate.** To provide the proper density of the broken stone, compact by making at least 4 passes with a vibratory roller that has a total operating weight of 8 to 10 tons. Set the roller in the vibratory mode between 1.5 and 2.5 miles per hour.

Within 5 feet of the wall, use small, single or double drum, hand operated, walk-behind vibratory rollers, or walk-behind vibrating plate compactors. Make at least 3 passes.

When there is evidence of wall displacement or disturbance, compact with a smooth drum static roller.

At the end of each day's operation, slope the last placed layer of backfill away from the wall units to direct runoff of rainwater away from the wall face. Do not allow surface runoff from adjacent areas to enter the work site. Ensure that the overall vertical tolerance of wall does not exceed 1/2 inch per 10 feet of wall height.

- H. **HDPE Geomembrane Liner for MSE Walls.** Deliver HDPE geomembrane liner systems and store to prevent damage to the material before installation.

Before placing HDPE liner, ensure that the area to be lined is smooth and free of sharp objects or debris. Do not use equipment or tools that may damage the HDPE liner while handling, moving, or installing.

Place the HDPE liner below the pavement and just above the first row of reinforcements. Slope the HDPE liner to drain away from the wall units.

Align seams parallel to the line of maximum slope. Overlap seams at least 2 feet and seam according to the manufacturer's recommendations. Conduct field testing of seams, according to the manufacturer's specifications, to verify satisfactory seaming conditions.

#### **513.01.01 Retaining Wall, Cast-in-Place**

Place reinforcement steel as specified in [504.03.01](#). Construct concrete as specified in [504.03.02](#).

#### **513.01.02 Concrete Staining**

Perform concrete staining as specified in [504.03.04](#).

### **610.04 - MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Block Retaining Wall	Linear Foot

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the cost of all materials, delivery, excavation, placement, grading, compaction, rods, pipe, concrete, wire, etc., all as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

**ITEM NO. 12 – CHAINLINK FENCE, 4’ HIGH**

**ITEM NO. 13 – BINYL SPLIT RAIL FENCE, 4’ HIGH**

**SECTION 614.01 - DESCRIPTION**

The Contractor shall furnish all labor, material, equipment, etc., for the installation of a chain link fence, complete in place with gates, as shown on the plans and as herein specified and directed by the Engineer. **Mobilization and layout for this item shall be included in bid. The restoration, in kind, of the existing ground that is disturbed as a result of the installation of the proposed fence shall be included in the unit price for each fence type.**

**SECTION 614.02 - MATERIALS**

Chain link fence, as referred to in these specifications, shall consist of galvanized steel fabric and galvanized steel post, including gates constructed on bases.

Fabric - Wire fabric shall be as follows:

- a) 4-foot-high fence shall be No. 8 gauge class 2b black vinyl coated extruded steel wire woven to a 2 inch mesh with top and bottom salvages knuckled. Mesh openings shall be 2”, footings for fence shall be 12” diameter and depth per design plans.
- b) 20-foot-high fence shall be No. 6 gauge class 2b black vinyl coated extruded steel wire woven to a 2 inch mesh with top and bottom salvages knuckled for the first 10’ in height and be 8 gauge class 2b for top 10’ height section. Openings for mesh shall be 2”, footings shall be 16” diameter and depth per design plans.
- c) All fencing shall have 2” Open x 8 gauge x 8’ high black vinyl coated mesh.

**Terminal/Corner Posts- All corner and end posts shall be 2.5” O.D. “Standard Weight” pipe, 5.79 pounds per linear foot for 4- and 6-foot-high fence, 3.0” O.D. for 4-foot-high fence.**

**Intermediate Posts – Intermediate posts may be 2.0” O.D. nominal galvanized steel pipe, 2.70 lbs. per linear foot for 4- and 6-foot-high fence, 2.5” O.D. for 4-foot-high fence.**

Rails & Braces – Top rails and middle rails shall be 1 5/8” O.D. standard weight galvanized pipe, 2.27 lbs. Per linear foot. Middle rails only required for 12’ high fence or higher.

Galvanizing – All posts and other appurtenances used in construction of the fence shall be hot dipped or electrogalvanized steel, or other non-corrosive metal. The zinc coating on all fabric and wire shall weigh not less than 1.2 ounces per square foot of surface area.

Ornaments – All posts, where designated, are to be equipped with malleable, cast iron or pressed steel ornamental tops. Tubular post tops to be so designed as to exclude moisture from the post. All intermediate post tops to be designed to hold the top rail.

**SECTION 614.04 - CONSTRUCTION**

Fence and gates shall be erected in accordance with the construction requirements recommended by the manufacturer and the following:

Terminal posts shall be set at the beginning and end of each continuous length of fence, at abrupt changes in vertical and horizontal alignment and on each side of gate locations. Aluminum surfaces to be placed in contact with concrete shall be given a coat of zinc chromate primer.

Posts to be set in concrete shall be installed in dug or predrilled holes. Posts not requiring concrete foundation may be driven to the required depth if ground conditions permit or the posts shall be installed in holes dug or drilled to allow room for backfilling.

Post holes for posts not requiring concrete foundations shall be backfilled with suitable material. Backfill shall be placed in layers not exceeding 4 inches and each layer shall be thoroughly tamped.

Pull shall not be applied to posts set in concrete foundations until the concrete has cured a minimum of 72 hours.

#### **SECTION 614.07 - METHOD OF MEASUREMENT**

Fence of the various kinds and sizes will be measured by the linear foot along the bottom line of the fence.

#### **SECTION 614.08 - BASIS OF PAYMENT**

The Engineer will measure and make payment as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Chain Link Fence, 4' High	Linear Foot
Vinyl Split Rail Fence, 4' High	Linear Foot

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the cost of all materials, delivery, excavation, placement, grading, compaction, rods, pipe, concrete, wire, etc., all as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 14 – RIP RAP, D50-4”-6”, 8” THICK**

### **SECTION 616.01 - DESCRIPTION**

This work shall consist of the construction of various kinds of slope and channel protection. **Mobilization and layout for this item shall be included in bid.**

### **SECTION 616.02 - MATERIALS**

Portland cement concrete shall conform to Section 914 except that water shall be omitted for concrete bag slope protection. Other materials shall conform to the following Subsections:

Riprap Stones.....	901.16
Emulsified Asphalt, Grade RS-1 .....	904.03
Curing Materials .....	905.03
Preformed Expansion Joint Filler .....	908.01
Joint Sealer.....	908.02
Concrete Block for Slope Protection .....	910.03
Granite Paving Block.....	910.08
Mortar and Grout .....	914.03
Reinforcement Steel.....	915.03
Bags .....	919.01
Geotextiles .....	919.06

Coarse aggregate for riprap stone slope or channel protection shall conform to Subsection 901.04.

Fine aggregate for the base course used with concrete or granite block slope protection shall conform to Subsection 901.12.

According to the provisions of Subsection 901.16, the required  $d_{50}$  riprap stone size shall be stated in the appropriate riprap stone Pay Item listed below.

### **SECTION 616.03 - PREPARATION OF SLOPES OR CHANNELS**

Immediately before the construction of the slope or channel protection, the slopes or ground surface shall be trimmed conforming to the lines and grades and shall be thoroughly compacted by mechanical or vibrating tampers or rollers.

### **SECTION 616.07 - RIPRAP STONE SLOPE OR CHANNEL PROTECTION**

Riprap stone slope or channel protection shall be constructed by placing riprap stones in close contact on prepared slopes or channel bottoms upon which has been placed a layer of coarse aggregate No. 57 in size and geotextile fabric.

The geotextile shall be positioned over the entire surface upon which the riprap is to be placed and extend a minimum of 1 foot out on each side. The extended edges of the geotextile fabric shall be buried under a minimum of 6 inches of soil. When sections of geotextile fabric need to be joined, the sections shall be overlapped a minimum of 1 foot-6 inches in the direction of flow.

The coarse aggregate shall be laid on the geotextile in a manner that does not cause damage to or dislodge the geotextile.

The riprap stones shall be firmly bedded into the coarse aggregate also without damage to the geotextile fabric. Open spaces between the placed riprap shall be filled with smaller stones of the same type and quality as the riprap stones. These smaller stones shall be firmly rammed into place. The larger of these stones shall be used in the lower courses.

The finished surfaces of the riprap stone slope or channel protection shall be even.

#### **SECTION 616.08 - METHOD OF MEASUREMENT**

Slope or channel protection of the various kinds and thicknesses will be measured by the cubic yard.

#### **SECTION 616.09 - BASIS OF PAYMENT**

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Rip Rap, D50 = 4"/6", 8" Thick	Cubic Yard

Separate payment will NOT be made for geotextiles and coarse aggregate placed under riprap stone slope or channel protection. Shall be included with bid for rip rap construction.



## **ITEM NO. 15 – BIOSEED MIX**

### **SECTION - DESCRIPTION**

Select backfill consists of soil aggregate either natural or prepared mixtures consisting predominantly of hard durable particles or fragments of stone, slag, gravel or sand. **Mobilization and layout for this item shall be included in bid. Filter fabric shown on design plans shall be included in this line item.**

All fill required to backfill where the excavated material is judged by the engineer to be unfit will be classified and paid for as select backfill. The cost of disposal of excavated material classified as unfit shall be included in the unit price bid under the various items of these specifications and disposal shall be as stated below.

All fill required to adjust the elevation to allow the contractor to achieve proposed grades will also be classified as select backfill as indicated on the plans.

K5 sand material shall be certified by an accredited testing company prior to installing into the basin and the cost of such testing shall be included in the bid price. No extra fee will be paid by the owner. The permeability rate shall be at a minimum of 15 in/hr.

### **SECTION - MATERIALS**

Lightweight fill material for constructing an embankment or backfilling shall be expanded slate or shale, cinders, or blast furnace slag. Blast furnace slag shall conform to Subsection 901.06, except that the quality requirements are deleted.

Bioseed Mix: THE PLANTING SOIL BED MATERIAL SHALL CONSIST OF 85 TO 95 % SANDS (BY WEIGHT), WITH NO MORE THAN 25% OF THE SANDS AS FINE FOR VERY FINE; NO MORE THAN 15% SILT AND CLAY WITH 2% TO 5% CLAY CONTENT. THE ENTIRE MIX SHALL THEN BE AMENDED WITH 3 TO 7% ORGANICS. THE MIX MUST BE CERTIFIED BY THE VENDOR WHO PREMIXES THE SOIL. THE MATERIALS pH SHALL RANGE FROM 5.5 TO 6.5. THE MATERIAL SHALL BE PLACED IN 6" LIFTS. (NOTE: ADDITIONAL MATERIAL MY BE NECESSARY TO ACCOUNT FOR THE SUBSEQUENT SETTLING OF THE MATERIAL OVER TIME.)

Lightweight fill materials shall meet the following requirements:

Sodium Sulfate Test (AASHTO T 104) ..... 20% maximum, dry  
Unit Weight (ASTM C 29, Rodding Method ).....70 lbs/ft<sup>3</sup> maximum,

<b>Sieve Size</b>	<b>Percentage by Weight Passing</b>
2 inch .....	100
¾ inch .....	50 - 100
No. 4 .....	5 - 90
No. 50 .....	0 - 55
No. 200 .....	0 - 20

## **SECTION - CONSTRUCTION**

When the material at the bottom of a trench or other subsurface structure excavation is soft or otherwise unsuitable in the opinion of the engineer, it shall be removed to such depth as the engineer may require and the space backfilled with select backfill material or when the native material excavated from the trench or other subsurface structure excavation in the opinion of the engineer is unsuitable for backfilling the excavation, the contractor shall backfill material as herein specified to the limits directed by the engineer.

All work shall conform to Section 204 of the Standard Specifications.

## **SECTION - METHOD OF MEASUREMENT**

Select Backfill will be measured by the cubic yards, truck measure. (18 CY for triaxle dump truck)

## **SECTION - BASIS OF PAYMENT**

Payment will be made under:

Pay Unit

Bioseed Mix

Pay Unit

Cubic Yard

The payment for Select Backfill will be made for the quantity as determined above at the unit price bid for Select Backfill in the proposal. The price shall include the trucking, placement and compaction, labor, equipment and all else necessary therefore and incidental thereto.

**ITEM NO. 16 – BETULA POPULIFOLIA, “BIRCH GREY”**  
**ITEM NO. 17 – CARINUS CAROLINIANA “HORNBEAM, AMERICAN”**  
**ITEM NO. 18 – ACER SACCHARINUM, “MAPLE, SILVER”**  
**ITEM NO. 19 – CLETHRA ALNIFOLIA, “RED MAPLE”**  
**ITEM NO. 20 – FOTHERGILLA GARDENII, “WITCH-ALDER, DWARF”**  
**ITEM NO. 21 – VIBURNUM CASSINOIDES, “WITH-ROD”**

## **811.01 DESCRIPTION**

This Section describes the requirements for furnishing, delivering, and installing plants. **Mobilization and layout for this item shall be included in bid.**

## **811.02 MATERIALS**

Provide materials as specified:

Topsoil .....	<a href="#">917.01</a>
Fertilizer, 1-2-1 Ratio.....	<a href="#">917.02.02</a>
Pulverized Limestone.....	<a href="#">917.02.03</a>
Mulch .....	<a href="#">917.04</a>
Plant Materials .....	<a href="#">917.08</a>
Antidesiccant.....	<a href="#">917.09.02</a>
Herbicide .....	<a href="#">917.09.03</a>
Water Retaining Polymer.....	<a href="#">917.09.04</a>
Stakes .....	<a href="#">.917.10.G.2</a>
Water.....	<a href="#">.919.08</a>

Provide wire staples made of No. 25 plain iron wire that are formed into a U shape, 1 inch wide and 12 inches long.

## **811.03 CONSTRUCTION**

### **811.03.01 Planting**

- A. **Furnishing, Delivering, Installing, and Caring for Plants.** Submit to the RE the current Materials Questionnaire Form for landscaping material, as specified in [106.04](#), 30 days before delivery with a copy to the Office of Landscape Architecture in the Bureau of Landscape Architecture and Environmental Solutions.

Handle and pack plants to prevent injuries during transit. Do not dump or drop plants while unloading. Protect the roots of all plants from freezing or desiccating by heeling-in, watering, covering or keeping shaded, or placing in a climate controlled building or trailer.

Coordinate work to prevent delays in planting that may expose the root systems of plants to the air, sun, or freezing conditions.

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**B. Optimal Planting Seasons.Table 811.03.01-1 Optimal Planting Season**

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<b>Type of Plant</b>	<b>Season</b>
Broadleaf and coniferous evergreen trees, shrubs, vines	March 1 to May 15
and ground covers	August 15 to December 1
Deciduous trees, shrubs, vines, ornamental grasses,	March 1 to May 15
and perennials	October 15 to December 1
Container grown plant materials	March 1 to May 15
	August 15 to December 1
Narcissus	October 1 to December 1
Hemerocallis	March 1 to May 15
Peltandra virginica and Pontederia cordata	Specified Season – Non-dormant
	March 15 to June 15 only
Spartina species and Distichilis spicata	Specified Season- Non-dormant
	May 1 to July 15 only

When planting outside the optimal planting seasons, ensure that plants installed are kept watered and protected from freezing and desiccation.

**C. Layout.** Before planting, stake plant locations and bed outlines and obtain Department approval. Immediately notify the RE to arrange for Departmental guidance for the “Naturalized Plant Material” or if existing conditions prevent planting at the exact locations shown on the Plans. The Department may adjust plant locations to meet field conditions.

**D. Planting Beds.** Spray existing vegetation within proposed planting beds during the growing season with glyphosate at the manufacturer’s recommended rates. The Department may

direct the reapplication of glyphosate 10 days after the first application. Mow the dead vegetation as closely as possible to existing ground, or turn it into the soil. Ensure glyphosate is applied by a Pesticide Applicator Business, under direction and supervision of a Commercial Pesticide Applicator in accordance with the NJ Pesticide Control Program regulations in NJAC Title 7 Chapter 30.

- E. Excavation for Plant Pits and Beds.** Excavate as specified in [202.03.03](#). Before excavating plant pits and beds, ensure that the areas conform to the specified lines and grades. On slopes steeper than 4H:1V, excavate plant pits no more than 5 days in advance of planting.

Excavate pits for balled and burlapped plants to a minimum of 2 times the width of the root ball and no deeper than the root ball as measured from the bottom of the trunk flare to the bottom of the ball. Excavate pits for containerized plants to a minimum of 2 times the width of the container and no deeper than the actual height of the root mass within the container. Ensure that side slopes of all pits taper down from the rim of the pit to the outer edge of the bottom of the ball. Ensure that the sides of the pits are loosened and roughened to promote root penetration. Obtain RE approval before reusing topsoil from the excavated pits. Plant pits may be adjusted to fit site conditions. Ensure volumetric equivalent.

For seedlings, vines, ground covers, and perennials, excavate pits to a minimum 12 inch diameter and 12 inch depth.

Dispose of excavated soil from plant pits as specified in [202.03.03.C.2](#). When requesting reuse of excavated material, obtain Department approval before reuse as specified in [202.03.03.C.1](#). Dispose of sod, weeds, roots, and other objectionable material as specified in [201.03.01.H](#).

If the Contractor does not plan to plant excavated pits before the end of the working day, provide a plan, to the RE for approval, 5 days before planting that details the measures to ensure safety.

- F. Pruning.** Prune according to ANSI A300 to preserve the natural character of each plant. Limit pruning at the time of planting to the removal of dead, conflicting, and broken branches. Do not prune the leaders of trees. Ensure that experienced personnel, using properly conditioned equipment and methods in keeping with accepted horticultural practice, perform all pruning.
- G. Setting Plants.** Set plants plumb and at the same depth at which they were grown in the nursery, except set trees with a trunk flare 1/2 to 1 inch above the surrounding grade to allow for settling. Set roots for the various conditions as follows:
- Balled and Burlapped Plants.** Handle and move plants only by the ball. Either remove, or loosen and fold back the burlap from the upper 1/2 of the ball. When balled and burlapped plants are in wire baskets, remove the entire wire basket, preserving the integrity of the ball.
  - Containerized Plants.** Immediately before planting, remove the container, and make 3 vertical cuts equidistantly spaced around the perimeter of the root mass. Make each cut 1/2 inch deep from the top of the root-earth mass to the

bottom.

- c. **Wetland Plants.** Pin the plugs within tidal elevations with wire staples to prevent floating. Fertilize the herbaceous plants with 1 ounce of 3 to 4 month slow release fertilizer.
- H. **Backfilling.** Backfill with topsoil and a water retaining polymer around the root system. Hand-tamp the topsoil and water at the rate of 15 gallons per square yard of pit area to settle the topsoil and to remove air pockets. Ensure that the topsoil is not frozen at the time of backfilling. Where necessary, backfill areas that have settled with topsoil. Form a 4 inch high compacted berm using topsoil around individual plants to a diameter equal to that of the pit. Ensure that the berm functions properly throughout the plant establishment period.
- I. **Watering.** Ensure plants receive a minimum of 1 inch depth of water per square yard of planting surface area per week. Ensure that the soil surrounding the root system remains moist but not saturated.
- J. **Staking and Guying.** Immediately after planting, stake or guy trees either 1 inch or more in caliper or more than 3 feet in height. Ensure that guy wires are not used to plumb trees but allow for normal sway. Ensure that trees remain plumb.
- K. **Tree Protection.** Install tree protectors to a height of 2 feet above the ground surface on all planted *Malus* and *Crataegus* species to prevent damage from bark consuming rodents.
- L. **Mulching.** Treat all beds with a pre-emergent herbicide before placing mulch. Ensure pre-emergent herbicide is applied by a Pesticide Applicator Business, under direction and supervision of a Commercial Pesticide Applicator in accordance with the NJ Pesticide Control Program regulations in NJAC Title 7 Chapter 30. Mulch plants as specified in [809.03.03](#). Neatly edge the beds to a depth of 4 inches to produce a smooth, flowing edge line and to retain mulch in bed.
- M. **Caring for Plants.** Inspect plants for condition and health. Maintain plants in a healthy growing condition by watering, weeding a minimum of once per month during growing seasons, spraying with pesticides, pruning, remulching, maintaining guys and stakes, and other horticultural operations as necessary. Replant missing plants or those that are not alive and healthy.
- N. **Restoration and Cleanup.** Where existing turf areas have been damaged during planting operations, restore the disturbed areas as specified in [806.03.01](#). Dispose of debris as specified in [201.03.01.H](#).

#### **811.03.02 Plant Establishment and Maintenance Period**

After completion, request that an inspection be made by the Department to determine if 100 percent of plants are alive and healthy. The Department will inspect plantings between May 1 and October 1. Install plants as specified in [811.03.01](#) that are missing or not alive and healthy. If replanting plants outside of the optimal or specified planting season as specified in [Table 811.03.01-1](#), only use containerized or balled and burlapped plants that are certified as being dug dormant. The plant establishment and maintenance period will begin when the Department determines that 100 percent of the plants are alive and healthy.

Ensure the plantings are cared for during the plant establishment and maintenance period by keeping the plants in a healthy growing condition by watering, weeding, spraying with pesticides, pruning, remulching disturbed areas, maintaining guys and stakes, and by other operations as horticulturally necessary. Remove and dispose of weeds, debris, and damaged plant material as specified in [201.03.01.H](#). Inspect plants annually and replace any missing plants or those that are not alive and healthy.

The Department will reinspect the plants annually for the number of years specified in the Special Provisions. The reinspection by the Department will be yearly after the start of the plant establishment and maintenance period. If the Department determines that plants need to be replaced after each inspection, install plants as specified in [811.03.01](#) within 3 weeks of notification. If replacing outside of the optimal planting season as specified in [Table 811.03.01-1](#), only use containerized or balled and burlapped plants that are certified as being dug dormant.

Remove stakes, guys, and guy wires within the last month of the conclusion of the plant establishment and maintenance period. At the conclusion of the plant establishment and maintenance period, remove and dispose of weeds, debris, and damaged plant material as specified in [201.03.01.H](#). Treat planting beds with a pre-emergence herbicide.

Provide the Department's Office of Landscape Architecture with the following for the duration of the plant establishment and maintenance period:

1. **Highway Occupancy Permit (HOP).** Obtain a Highway Occupancy Permit from the NJDOT Centralized Permits office. Provide 2 copies of the approved permit to the Department's Office of Landscape Architecture. Include the following with the permit application, which will become part of the approved permit:
  - a. Submit project description, location, and copy of the landscape plans, details, and specifications.
  - b. Submit, for approval by the Department, a plant establishment and maintenance plan based on [811.03.01.M](#).
  - c. Submit, for approval by the Department, a detailed work schedule describing when the plant establishment and maintenance work will occur.
2. **Maintenance Bond.** Provide a bond to the Department in the amount specified in the Special Provisions with 2 copies sent to the Office of Landscape Architecture.
3. Ensure that the HOP and maintenance bond remain in effect for the duration of the plant establishment and maintenance period.

Notify the Office of Landscape Architecture 3 days before the date plant establishment and maintenance work will be performed.

Failure to care for, maintain, or replace material that is missing or not alive and healthy both on and off site in each year of the Plant Establishment and Maintenance for the period specified in the Special Provisions will be cause for the Department to access the bond and contact the bonding company to complete this work.

## 811.04 MEASUREMENT AND PAYMENT

The Engineer will measure and make payment for Items as follows:

The Engineer will not include payment for the various mulching work under various Items. The Engineer will make payment for the various mulching work under STONE MULCHING, GRAVEL MULCHING, SHREDDED HARDWOOD BARK MULCHING, and WOOD MULCHING as specified in [809.04](#).

The Engineer will not include payment for TOPSOIL and WATERING required in various Items of work. The Engineer will make payment for topsoil and watering works under TOPSOIL and WATERING.

The Department will measure and make payment for Items as follows:

<u>Pay Item</u>	<u>Pay Unit</u>
Betula Populifolia, "Birch Gray"	UNIT
Carinus Caroliniana, "Hornbeam, American"	UNIT
Acer Saccharinum, "Maple, Silver"	UNIT
Clethra Alnifolia, "Red Maple"	UNIT
Fothergilla Gardenii, "Witch-Alder, Dwarf"	UNIT
Viburnum Cassinoides, "With-Rod"	UNIT

The payment for plantings will be made for the quantity as determined above at the unit price bid for plantings in the proposal. The price shall include the trucking, placement and compaction, labor, equipment and all else necessary therefore and incidental thereto.



## **ITEM NO. 22 – TOPSOILING, 4” THICK**

### **804.01 DESCRIPTION**

This Section describes the requirements for preparing and placing topsoil. **Mobilization and layout for this item shall be included in bid.**

### **804.02 MATERIALS**

Provide materials as specified:

Topsoil ..... 917.01

### **804.03 CONSTRUCTION**

#### **804.03.01 Topsoiling**

Store topsoil in stockpiles as specified in 202.03.03.B.

Scarify the area to be topsoiled to improve the bond between slope and topsoil. Remove from the scarified area stones 2 inches or larger in any dimension and other debris such as wires, cables, tree roots, pieces of concrete, clods, and lumps. For slopes of 2H:1V or steeper, create ridges (such as by a dozer track) in the subsoil surface parallel to the bottom of the slope.

After the Engineer has approved the prepared surface elevations, spread topsoil and smooth to grade to produce the required thickness. For slopes of 2H:1V or steeper, create ridges (such as by a dozer track) in the topsoil surface parallel to the bottom of the slope to hold the seed in place and to retain moisture.

Ensure that ground areas are not damaged by the delivery, handling, or storage of materials; by washouts due to drainage diversion; by workers; or by equipment. Repair such damage by grading, fertilizing, seeding, and mulching as specified in 806.03.01.

### **804.04 MEASUREMENT AND PAYMENT**

The Engineer will measure and make payment for Items as follows:

Pay Item

Topsoiling, 4” Thick

Pay Unit

Square Yard

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 23 – HYDROSEEDING**

### **DESCRIPTION**

This work shall consist of furnishing all labor, equipment, and materials for hydroseeding. Hydroseeding shall be the only acceptable method of stabilization. Seed, fertilizer, and mulch shall not be placed by hand. **Mobilization and layout for this item shall be included in bid. Bioswale slopes shall be stabilized with netting during hydroseed installation, this shall be included in the this Item bid price.**

### **MATERIALS**

- a. Equipment shall have a built in agitation system and operating capacity sufficient to agitate, suspend and homogeneously mix a slurry containing not less than 20 kilos (44 lbs.) of organic mulching amendment plus fertilizer, chemical additives and solids for each 100 gallons of water.
- b. Cellulose Fiber Mulch: Apply at a minimum rate of 1500 lbs./acre.
- c. Fertilizers: Best 6-20-20 or Best 15-15-15 or approved equal applied at rate appropriate for product.
- d. Organic tackifier shall be applied at rate of 70 lbs./acre.
- e. Hydroseed seed mix, Jonathan Green Drought Tough Mixture (or approved equal), shall be applied at the 20 lbs./1000 sq.ft.
  - 40% Frontier Perennial Ryegrass
  - 25% Black Magic Tall Fescue
  - 25% Dakota Tall Fescue
  - 10% Deepblue Kentucky Bluegrass

### **CONSTRUCTION**

#### **1. *Installation procedures:***

- a. Inspection of conditions: Examine related work including irrigation and grading of surface before proceeding with any work and notify the Engineer in writing on conditions which may prevent the proper execution of this work. Failure to report unsuitable conditions will require the contractor to rectify unacceptable work at no additional cost to the City.
- b. Water all plant areas thoroughly to saturate upper layers of soil prior to the hydroseeding operation.
- c. Allow the planting area soil surface to dry out for one day only prior to the hydroseeding application. Exercise care not to allow the soil surface to be overly saturated with water prior to the hydroseeding installation. At the same time the soil surface should not become too dry during this period. There should be some residual moisture within the first 1/4 inch of the soil surface.
  - d. Prior to starting the hydroseeding operation notify the Engineer forty eight (48) hours in advance to be present at start of hydroseeding.

#### **2. *Hydroseeding Application:***

- a. Apply the hydroseeding in the form of slurry consisting of organic soil amendments, commercial fertilizer, and any other chemicals that are called out. When hydraulically sprayed onto the soil, the mulch shall form a blotter-like material. Direct the spray operation so that this procedure will drill and

mix the slurry components into the soil, the slurry spray will also penetrate the soil surface, thus ensuring maximum impregnation and coverage. The impregnation and mixing of the components will help in retaining moisture while stabilizing soil surface from superficial erosion.

b. Do not let the hydroseeding slurry components in the hydroseeding machine for more than two (2) hours because of possible seed destruction. If slurry components are left for more than two hours in the machine, add 50% more of the originally specified seed mix to any slurry mixture which has not been applied within the two hours after mixing. Add 75% more of the original seed mix to any slurry mixture which has not been applied eight (8) hours after mixing. All mixtures more than eight (8) hours old, must be disposed, off-site, at the contractor's expense.

c. Spray the area with a uniform visible coat, using the dark color of the cellulose fiber as a visual guide. The slurry shall be applied in a downward drilling motion via a fan stream nozzle. Insure that all of the slurry components enter and mix with the soil. Insure the uniformity of the hydroseed application. The hydraulic contractor shall be approved by the Engineer.

d. Exercise special care to prevent any of the slurry from being sprayed onto any hardscape areas including concrete walks, fences, walls, buildings, etc. Remove all slurry sprayed onto these surfaces at the contractor's expense.

e. Contractor shall save all seed and fertilizer tags and fiber mulch bags for the Engineer to verify compliance with the drawings and specifications.

f. The City Engineer shall be present during the hydroseeding operation and has final determination if conditions are acceptable for hydroseed application.

## **Maintenance**

1. Upon acceptance of hydroseeding operations, maintain all hydroseeding areas for a period of 90 calendar days as follows:

a. Germination stage irrigation: Approximately 25 hours after hydroseeding the planting areas, initiate the watering sequence. Leave the water on long enough to moisten the soil thoroughly to the depth of the slurry mulch taking care not to super saturate or wash away the slurry and seed. Perform frequent, light irrigation until the seed has germinated. Repair all seed washings and erosion.

b. Establishment stage irrigation: After germination, reduce each watering. The specific watering program shall be approved by the Engineer.

2. Fertilization: Fertilize all hydroseed areas with an approved commercial fertilizer, 30 calendar days from the start of the maintenance period and continuing once every 60 calendar days until the completion of the 90 calendar day maintenance period.

3. Weeding: All concentrated developments of weed growth appearing in the seed mix planting areas during the maintenance period shall be removed at two (2) week intervals. The contractor may elect to remove such concentrations of weeds manually or by a City approved herbicide program.

4. Minimum Coverage and Acceptance:

a. Minimum coverage: Final acceptance may be given at the end of the 90 calendar day maintenance period if an acceptable germination of turf and adequate plant establishment has been obtained, as determined by the Engineer.

b. Final approval and acceptance will be given in writing by the Engineer following a final acceptance inspection. The Engineer reserves the option to extend the maintenance period to achieve complete germination of all turf or other plant materials with a uniform height, color and density throughout all hydroseeded areas.

## MEASUREMENT & PAYMENT

The Engineer will measure and make payment for Items as follows:

Payment for hydroseeding includes furnishing all labor, equipment, and materials for hydroseeding. Hydroseeding will be measured in place by area in square yards.

Payment will be made under:

Pay Item

Pay Unit

Hydroseeding

Square Yard

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation.

## **ITEM NO. 24 – CONSTRUCTION SIGNS**

## **ITEM NO. 25 – DRUMS**

## **ITEM NO. 26 – TRAFFIC CONES**

### **Section 159.01 – Description**

This work shall consist of the planning for and the carrying out of maintenance and protection of vehicular or pedestrian traffic and to provide for the safe and convenient passage of such traffic. Maintenance and protection of traffic includes furnishing, assembling, placing, and relocating traffic control devices, including pavement markers, and removing them when they are no longer required. Traffic control devices need not be new but must be in good condition. All traffic control devices and coordination shall be in accordance with the MUTCD latest edition. Also included shall be the removal of existing inlet as shown on design plans. **Mobilization and layout for this item shall be included in bid.**

The Contractor shall be responsible for the proper notification of residences, businesses, emergency services, busing services and all other parties affected by the traffic control implemented on the project. All Local County and State police coordination needed to maintain, restrict or detour traffic is to be included in the work of this section. The contractor shall include in bid price all signs which may be warranted by EHTPD and MUTCD for Road Closures, Detours, Lane Closures, etc.

Roadway closures should be avoided. In the event the Contractor must close a road at the interest of completing the work in a safe and timely manner, the Contractor shall develop a detour plan that must be approved by the Engineer and the Egg Harbor Township Police Department. Once the road closure and detour plan is approved, the Contractor shall notify the Egg Harbor Township Police Department, 48 hours prior to closure of said intersection.

The Contractor shall be responsible for traffic control in compliance with New Jersey Department of Transportation rules and regulations. The closure of roadways shall not exceed a period of 72 hours. Every effort shall be made to maintain access by emergency vehicles at all times. Roads shall be left in safe condition. No additional cost will be paid for Uniformed traffic control directors if warranted by the EHTPD and shall be the sole responsibility of the contractor to pay for these directors and shall be included in the bid.

When the construction involves improvements of an existing roadway, the roadway shall be kept open to traffic unless otherwise approved or shown on the approved Traffic Control Plan. The portion of the project, which is opened to traffic, shall be kept in such condition that traffic is adequately accommodated. Temporary approaches or crossings and intersections shall be provided and maintained in a safe condition. Any restrictions of traffic lane widths or diversions of traffic at any time are subject to approval. Work that closes or alters the use of existing roadways shall not be undertaken until adequate temporary or permanent provisions for traffic have been approved and are in place.

### **Section 159.02.01 – Materials**

Materials shall conform to the following Subsections:

Signs .....	911.01
Sign Posts .....	911.02.01
Removable Pavement Marking Tape.....	912.23
Temporary Pavement Markers.....	912.27

### **Section 159.03.01 – Traffic Coordinator**

A Traffic Control Coordinator shall be provided for the project in accordance with Subsection 159 in the Standard Specifications.

### **Section 159.03.02 – Traffic Control Devices**

Traffic control devices need not be new but must be in good condition as approved. Prior to beginning construction, traffic control devices shall be placed where shown on the Traffic Control Plan provided by the Contractor, or as directed by the Engineer. Traffic control devices shall be kept clean and maintained in good condition until no longer required for the Project, at which time they shall be disposed of.

Traffic control devices shall also be placed as directed to provide traffic control for personnel doing inspection, sampling, testing, or taking measurements required for the Project.

The number and location of construction signs W99-2 with the legend **Give Us a Brake - Slow Down!** shall be as directed. A one-quarter full size detail is available upon written request to the appropriate Regional Construction Engineer listed in Subsection 101.04 of the Special Provisions.

When construction signs conflict with existing signs, the existing signs shall be covered. When construction signs are no longer required, they shall be removed. If they are temporarily not required, such as overnight, they shall be either temporarily removed or covered. Signs covered from view of the traveling public shall be completely covered with lightweight opaque material securely fastened so that it does not blow in the wind. Burlap shall not be used. Traffic control devices shall be provided in accordance with Subsection 159 in the Standard Specifications.

### **Section 159.03.11– Traffic Control Plan**

The TCP provides for the treatment of conditions caused by or encountered during the Work on the Project. The Work shall be performed according to the TCP.

The TCP shall be a stand-alone document and shall not be reliant on any ancillary conditions or circumstances relative to the Project site. It is the Contractor's sole responsibility to implement the TCP. The TCP shall not be the original plan detail or a subsequent modification as proposed by the Contractor unless specifically adopted by the Contractor, in writing, and the Contractor provides detailed information as to how the original or modified original plan will support its operation with the Engineer's approval. The TCP shall conform to the requirements of the current Manual on Uniform Traffic Control Devices (MUTCD) and the specifications contained herein.

Ten days before the start of Work, the Contractor shall submit a written TCP operations to the Engineer for acceptance. The Engineer will review and approve the TCP with reasonable promptness for conformance with the Contract Documents. The Engineer's approval of the TCP does not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents, unless the Contractor has informed the Engineer in writing of such deviation at the time of submission and the Engineer has given written approval to the specific deviation, nor does the Engineer's approval relieve the Contractor from responsibility for errors or omissions in the TCP. The TCP shall detail the means of traffic control for all aspects of the Contractor operations. The TCP shall identify any contingencies or foreseen problems and address remedial actions. Subsequent changes to the TCP during the progress of the Work to accommodate actual or unforeseen project conditions shall be submitted and approved as specified above.

The Contractor shall be responsible to coordinating his work operations and activities with the Township Police Department. The Contractor agrees that it shall make no claims against the Owner for extra costs resulting from delays or interruptions to its operations attributable to the actions or inactions of the police. The Contractor further agrees that he has incorporated in the proposal any costs that may be incurred by the Contractor as a result of the actions or inactions of the police and agrees to bear the risk of loss for any costs not included in its Proposal.

### **Section 159.03.08 – Traffic Direction**

**Traffic Directors, Flaggers 1** shall consist of the assignment and use of *police* in conjunction with the Resident Engineer in the enforcement of the approved TCP, and applicable laws to provide a safe worksite for both construction personnel, and the traveling public.

*Police* providing traffic director services shall be *police* officers from the municipality or county within which the Work of the Project is to be accomplished. The term “*municipal police*” when used shall mean all police other than *NJSP*.

*Police* will be assigned during construction hours at locations and times designated by the Engineer. The Contractor agrees that it shall make no claims against the State for extra costs resulting from any delays or interruptions to its operations attributable to the actions or inactions of police in the performance of traffic safety services. The Contractor further agrees that it has incorporated in its Proposal any costs that may be incurred by the Contractor as a result of the actions or inactions of police in the performance of traffic safety services, and agrees to bear the risk of loss for any costs not included in its Proposal.

*Police* providing traffic director services shall operate traffic signals when manual control of the signals is required, or shall maintain traffic flow at a signalized intersection when the signals are temporarily out of service.

The use of *police* on the Project will be as determined and directed by the Engineer. The Engineer’s projections for anticipated usage of police shall consider the Contractor’s operations provided that the Contractor notify the Engineer of planned operations at least 72 hours before projected usage. The Project progress schedule shall not constitute notice for usage of police traffic directors. Assignment of police to the Project will be on the basis of the Contractor’s operations, and the needs of the worksite, and will be made solely by the Engineer with the advice of the *police*.

The Contractor’s failure to give complete, detailed, timely and proper notice of its operations shall not be cause for claims for extra costs by the Contractor, nor shall the number of *police* assigned to a project constitute a valid basis for a claim by the Contractor. The Contractor agrees that the TCP is a stand-alone document, and that the Contractor is solely responsible for the safety of the Project, the continuity of movement of traffic through the worksite, and the impact of traffic on its work.

The Contractor is advised that there may be emergency situations when *police* are not available, or when *police* do not arrive at the job site until after the scheduled arrival time or leave before the scheduled departure time. The Contractor agrees that it shall make no claims against the State for any costs associated with the failure of *police* to be on the job site at a scheduled time. The Contractor further agrees that it shall assume all risk of the possibility of such occurrences and shall factor the associated costs into its Proposal.

The Contractor shall be fully responsible for the set-up and maintenance of the TCP except as required by State law or as specifically set forth in the Contract. The use of *police* in the providing of traffic director services is supplemental to the TCP and their presence shall not relieve the Contractor of its responsibility to maintain the TCP and safety on the Project.

The Contractor shall notify the Resident Engineer of any work cancellations at least 24 hours before the start of work with the sole exception of unforeseen weather cancellations that occur after the start of work or less than 24 hours before the start of work.

When *police* have been assigned to a project by the Resident Engineer, it is the Contractor’s obligation to notify the Engineer of all cancellations of projected or scheduled operations. *Police* reporting for work will be reimbursed for a minimum of four hours. If projected work has been canceled, for whatever reason, including but not limited to foreseen weather conditions, and the **Resident Engineer was not notified** of the cancellations at least 24 hours before by the Contractor, except as noted above, the police will each be reimbursed for four hours of work. **These payments** will be made by the Contractor to the police and **will not be reimbursed under the Contract**.

#### **Section 159.05 – Method of Measurement**

Construction signs will be paid by the square foot, drums and breakaway barricades will be paid by the unit, “**Traffic Directors, Flaggers**”, however, the pay unit (hours) will be capped at the current “**New Jersey Department of Labor and Workforce Development Prevailing Wage Determination**” including fringe benefits, for the labor class that includes flagger work within each appropriate county (<https://www.nj.gov/labor/wagehour/wagerate/CurrentWageRates.html>). current rate = **\$94.03** per hour

Pay Item

Pay Unit

Construction Signs

Square Foot

Drums

Unit

Traffic Cones

Unit

Payment for this Item, for the quantity as above determined at the unit price bid in the proposal, which price shall include, but not necessarily be limited to the as described including all labor, equipment, supervision, and all else necessary therefore and incidental thereto for a complete installation



## **ITEM NO. 27 – FUEL PRICE ADJUSTMENT**

### **160.01 DESCRIPTION**

This Section describes the requirements for price adjustments for fuel and asphalt usage.

### **160.03 PROCEDURE**

#### **160.03.01 Fuel Price Adjustment**

The Engineer will make monthly price adjustments for fuel usage for Items listed in Table 160.03.01-1. The Engineer will calculate fuel price adjustments based on the monthly pay quantities of listed Items using the fuel usage factors listed in Table 160.03.01-1. Price adjustments may result in an increased payment to the Contractor for increases in the price index and may result in a reduction in payment for decreases in the price index.

If the as-built quantity of an Item listed in Table 160.03.01-1 differs from the sum of the quantities in the monthly Estimates, and the as-built quantity cannot be readily distributed among the months that the Item listed in Table 160.03.01-1 was constructed, then the Engineer will determine fuel price adjustment by distributing the difference in the same proportion as the Item's monthly Estimate quantity is to the total of the Item's monthly estimates.

**TABLE 160.03.01-1 Fuel Price Adjustments**

<b>Items</b>	<b>Fuel Usage Factor</b>
EXCAVATION, UNCLASSIFIED	0.5 Gallons per Cubic Yard
EXCAVATION, REGULATED MATERIAL	0.5 Gallons per Cubic Yard
EXCAVATION, ACID PRODUCING SOIL	0.5 Gallons per Cubic Yard
REMOVAL OF PAVEMENT	0.25 Gallons per Square Yard
HMA MILLING, 3" OR LESS	0.25 Gallons per Square Yard
HMA MILLING, MORE THAN 3" TO 6"	0.25 Gallons per Square Yard
CONCRETE MILLING,	0.25 Gallons per Square Yard
HMA PROFILE MILLING	0.25 Gallons per Square Yard
BREAKING PAVEMENT	0.25 Gallons per Square Yard
RUBBLIZATION	0.25 Gallons per Square Yard
SUBBASE	1 Gallon per Cubic Yard

**TABLE 160.03.01-1 Fuel Price Adjustments**

I-___ SOIL AGGREGATE	1 Gallon per Cubic Yard
SOIL AGGREGATE BASE COURSE, ___ " THICK	1 Gallon per Cubic Yard
SOIL AGGREGATE BASE COURSE, VARIABLE THICKNESS	1 Gallon per Cubic Yard
DENSE-GRADED AGGREGATE BASE COURSE, ___ " THICK	1 Gallon per Cubic Yard
DENSE-GRADED AGGREGATE BASE COURSE, VARIABLE THICKNESS	1.00 Gallon per Cubic Yard
CONCRETE BASE COURSE, ___ "	0.25 Gallons per Square Yard

THICK CONCRETE BASE COURSE, REINFORCED ____ " THICK	0.25 Gallons per Square Yard
ASPHALT STABILIZED DRAINAGE COURSE	2.50 Gallons per Ton
OPEN-GRADED ____ FRICTION COURSE	2.50 Gallons per Ton
MODIFIED OPEN-GRADED ____ FRICTION COURSE	2.50 Gallons per Ton
ULTRA-THIN FRICTION COURSE	2.50 Gallons per Ton
HOT MIX ASPHALT ____ ____ SURFACE COURSE	2.50 Gallons per Ton
HOT MIX ASPHALT ____ ____ INTERMEDIATE COURSE	2.50 Gallons per Ton
HOT MIX ASPHALT ____ ____ BASE COURSE	2.50 Gallons per Ton
STONE MATRIX ASPHALT ____ SURFACE COURSE	2.50 Gallons per Ton
CONCRETE SURFACE COURSE, ____ " THICK	0.25 Gallons per Square Yard
DIAMOND GRINDING OF CONCRETE SURFACE COURSE	0.25 Gallons per Square Yard
DIAMOND GRINDING EXISTING CONCRETE PAVEMENT	0.25 Gallons per Square Yard
CONCRETE BRIDGE APPROACH	0.50 Gallons per Cubic Yard
CONCRETE CULVERT	1.00 Gallon per Cubic Yard
CONCRETE FOOTING	1.00 Gallon per Cubic Yard
CONCRETE WING WALL	1.00 Gallon per Cubic Yard
CONCRETE PIER COLUMN PROTECTION, HPC	1.00 Gallon per Cubic Yard
CONCRETE PIER COLUMNS AND CAP	1.00 Gallon per Cubic Yard
CONCRETE ABUTMENT WALL	1.00 Gallon per Cubic Yard
CONCRETE PIER SHAFT	1.00 Gallon per Cubic Yard
CONCRETE PEDESTRIAN BRIDGE	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE DECK	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE DECK, HPC	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE SIDEWALK	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE SIDEWALK HPC	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE PARAPET	1.00 Gallon per Cubic Yard
CONCRETE BRIDGE PARAPET HPC	1.00 Gallon per Cubic Yard
CAST-IN-PLACE CONCRETE PILES, DRIVEN ____ " DIAMETER	1.00 Gallon per Cubic Yard
RETAINING WALL, LOCATION NO. ____	0.10 Gallon per Square Foot
____ NON-VEGETATIVE SURFACE, HOT MIX ASPHALT	2.50 Gallons per Ton
COLOR-COATED NON-VEGETATIVE SURFACE, HOT MIX ASPHALT	2.50 Gallons per Ton

For those Pay Items in which the pay unit differs from that which appears in the fuel usage factor, the appropriate conversion will be figured before applying the fuel usage factor. Fuel price adjustment will be determined on a monthly basis by the following formula:

$$F = (MF - BF) \times G$$

Where: F = Fuel Price Adjustment  
MF = Monthly Fuel Price Index  
BF = Basic Fuel Price Index  
G = Gallons of Fuel Eligible for Price Adjustment

The NJDOT will post the monthly fuel price index every month on the NJDOT's website:  
<http://www.state.nj.us/transportation/business/trnsport/PriceIndex.shtm>

The basic fuel price index is the previous month's fuel price index before receipt of bids. The NJDOT will use the fuel price index for the month before the regular monthly estimate cut off date as the Monthly Fuel Price Index. If the Monthly Fuel Price Index increases by 50 percent or more over the Basic Fuel Price Index, do not perform any work involving Items listed in Table 160.03.01-1 without written approval from the Engineer.

### **160.03.02 Asphalt Price Adjustment**

The Engineer will make monthly price adjustments for asphalt binder usage over 1,000 tons. The Engineer will calculate asphalt price adjustments based on the quantities of Items containing asphalt binder constructed during a given month. Price adjustments may result in an increased payment to the Contractor for increases in the price index and may result in a reduction in payment for decreases in the price index.

The Engineer will calculate the asphalt price adjustment by the following formula:

$$A = (MA - BA) \times T$$

Where:

A = Asphalt Price Adjustment  
MA = Monthly Asphalt Price Index  
BA = Basic Asphalt Price Index  
T = Tons of New Asphalt Binder

1. The Engineer will determine the weight of asphalt binder for price adjustment by multiplying the percentage of new asphalt binder in the approved job mix formula by the weight of the item containing asphalt binder. If a Hot Mix Asphalt item has a payment unit other than ton, the Engineer will apply an appropriate conversion factor to determine the number of tons used.

For TACK COAT and PRIME COAT, the Engineer will calculate asphalt price adjustments by the following formula:

$$A = B \times [(MA - BA)/BA] \times C \times M \times G$$

Where:

A = Asphalt Price Adjustment

B = Bid Price for Tack Coat/Prime Coat  
 MA = Monthly Asphalt Price Index  
 BA = Basic Asphalt Price Index  
 C = Petroleum Content of the Tack Coat and Prime Coat in Percent by Volume:  
 Use 100% for cutbacks and Tack Coat 64-22  
 60% for Polymer Modified Tack Coat  
 60% for RS or similar type emulsions  
 M = Percentage of Bid Price Applicable to Materials Only: Use 82%  
 G = Gallons of Tack Coat and Prime Coat Furnished and Applied

The monthly asphalt price index, as determined by the NJDOT, will be the average of quotations from suppliers serving the area in which the Project is located, and will be determined by the NJDOT each month. The NJDOT will post the monthly asphalt price index every month on the NJDOT's web site <http://www.state.nj.us/transportation/business/trnsport/PriceIndex.shtm>.

The basic asphalt price index is the asphalt price index for the month before the opening of bids. The Engineer will use the asphalt price index for the month before the regular monthly estimate cut off date as the monthly asphalt price index.

If the monthly asphalt price index increases 50 percent or more over the basic asphalt price index, do not perform work on Items containing asphalt binder without written approval from the Engineer.

### **Basis of Payment**

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Asphalt Price Adjustment	Lump Sum
Fuel Price Adjustment	Lump Sum