Notice is hereby given that Sealed bids will be received by the Borough Clerk of the Borough of Florham Park on Thursday, May 9, 2019 at 10AM local prevailing time at the Borough Clerk’s Office, Borough Hall, 111 Ridgedale Avenue, Florham Park, NJ 07932 at which time and place bids will be opened and read in public for:

CAMPUS DRIVE, CAMPUS DRIVE JUGHANDLE, AND TRAFFIC SIGNAL PROJECT
CONTRACT # FP19-04

The project generally consists of Pavement Milling, HMA Asphalt Paving, Traffic Signal updates and repairs, Intersection crosswalk improvements, granite curb repairs and installation, ADA curb ramp and sidewalk construction, reflective traffic striping, pavement reflector installation, sign installation, and other incidental work, all in the Borough of Florham Park in accordance with the form of proposal, contract and specifications prepared by the Borough’s Engineering Consultant, NV5. The NJDOT 2007 Standard Specifications for Road and Bridge Construction, and as amended herein, shall govern the construction of this project.

Bid packages may be picked up or inspected by prospective bidders at the Borough of Florham Park Engineering Department located at 111 Ridgedale Avenue, Florham Park, NJ from 9:00 AM to 4:00 PM Monday thru Friday. Bidders will be furnished with a copy of the Contract Documents, Plans, and Specifications at the Department’s office on proper notice. A non-refundable charge of $50.00 per set shall be paid to the Borough of Florham Park for hardcopies. Plans and specifications will also be available on CD for a non-refundable charge of $10.00. Payment must be in the form of cash, certified check, or money order made out to the Borough of Florham Park.

Bids must be sealed in an envelope and plainly marked with the name of the Contract and Contract number; and shall contain the name and address of the Bidder on the envelope. The sealed Bid must be addressed to the Borough Clerk of Florham Park at the Borough Hall address above.

Bidders are notified that they must comply with the New Jersey Prevailing Wage Act (Chapter 150 of the Laws of 1963, as amended)(N.J.S.A. 34:11-56.25, et. seq.) and that award will not be made to any bidder whom the Commissioner of Labor and Industry does not certify.
Bids shall be submitted on the forms provided, in the manner designated therein and required by the Specifications. They must be accompanied by a certified check, cashier’s check, or bid bond on the form provided of not less than 10% of the amount of bid. Said check or bid bond may not be less than $500 nor shall it be more than $20,000 and must be accompanied by a Consent of Surety statement in the form provided from a Surety Company stating that the Surety Company will provide the bidder with a bond for 100% of the Contract amount in the event that the Contract is awarded to the bidder. A Non-Collusion Affidavit and a Record of Recent Contract Awards must also accompany the proposal on the forms provided.

Any Bid Addenda will be on the Borough website, and processed in accordance with N.J.S.A. 40A:11-23(c)(1). All interested bidders should check the website from now through bid opening. It is the sole responsibility of the respondent to be knowledgeable of all addenda related to this procurement.

Bidders shall comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17-27 et seq.

PROPOSALS MUST BE SUBMITTED UPON THE BLANK FORMS PROVIDED OR MAY BE ATTACHED TO THE APPLICABLE BLANK FORMS. PROPOSAL FORMS SHALL BE SUBMITTED IN THE SAME ORDER AS ORGANIZED IN THE BOUND SPECIFICATION BOOK.

Bidders must have at the time of bid, a Business Registration Certificate issued by the New Jersey Department of Treasury.

Bidders are required to comply with the requirements of P.L. 1975 Chapter 127. Bidders are further required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27 for an affirmative action program for equal employment opportunity. If awarded a contract, your company/firm will be required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and P.L. 1975 C. 127 (N.J.A.C. 17:27-1, et seq.).

The contract for this project is governed by the provisions of the Local Public Contracts Law, N.J.S.A. 40A: 11-1 et seq. Bidders must also comply with the requirements of P.L. 1977, Chapter 33 amending the Local Public Contracts Law. Bidders must submit a statement in accordance with N.J.S.A. 52:25-24.2 of all owners of the corporation setting forth the names and addresses of all the stockholders in the corporation or members of the partnership who own ten percent (10%) or more of its stock, or have a ten percent (10%) or greater interest in the case of partnership.

No bid may be withdrawn for sixty (60) days after the opening of bids. A Contract will be awarded to the lowest responsible bidder, or all proposals will be rejected within sixty (60) days after the opening of bids.

The Borough of Florham Park reserves the right to delete sections of work from the contract after the award of the bid has been made due to funding or other reasons. The prices bid for various items of work shall not be adjusted due to the deletion of any work and due to the variation of any quantity for the various items scheduled in the Proposal.

Proposals for this contract will be accepted only from bidders who have been properly qualified in accordance with the requirements of the Specifications.
Bidders are encouraged to visit the site to review the scope of construction work at the site.

The Mayor and Borough Council of the Borough of Florham Park reserve the right to reject any or all bids, to reject unbalanced bids, to waive any informality therein in any bid, and to accept any bid that will be in the best interest of the Borough of Florham Park according to N.J.S.A. 40A:11-1.

Mayor Mark Taylor

Patrice Visco, CFO, QPA
Purchasing Agent – Borough of Florham Park

Michael Sgaramella, PE, CME
Borough Engineer
Director of Water and Sewer Utilities
1. **SUBMISSION OF BIDS**

A. Sealed bids shall be received in accordance with public advertisement as required by law, a copy of said notice being attached hereto and made a part of these specifications.

B. Each bid shall be submitted on the proposal form attached, in a sealed envelope
   (1) Addressed to the Borough Clerk
   (2) Bearing the name and address of the bidder on the outside
   (3) Clearly marked “BID” with the name of the item(s) being bid. Provide One (1) Original & One (1) copy of the bid. **Faxed or emailed bids will NOT be accepted.**
   (4) We are storing all responses electronically, therefore submit all pages of the response on a CD or USB flash drive in addition to the printed copies. Bidders name to be identified on either the CD or USB flash drive being submitted.

C. It is the bidder’s responsibility to see that bids are presented to the Borough Clerk on the hour and at the place designated. Bids may be hand delivered or mailed; however, the Borough disclaims any responsibility for bids forwarded by regular or express mail. **If the bid is sent by express mail, the designation in B. above must also appear on the outside of the express company envelope.** Bids received after the designated time and date will be returned unopened.

D. The Borough reserves the right to postpone the date for presentation and opening of bids and will give written notice of any such postponement to each perspective bidder as required by law.

E. Sealed bids forwarded to the owner before the time of opening of bids may be withdrawn upon written application of the bidder who shall be required to produce evidence showing that the individual is or represents the principal or principals involved in the bid. Once bids have been opened, they shall remain firm for a period of sixty (60) calendar days.

F. Each bid proposal form must give the full business address, business phone, fax, e-mail, the contact person of the bidder, and be signed by an authorized representative as follows:
   - Bids by partnerships must be signed in the partnership name by one of the members of the partnership or by an authorized representative followed by the signature and designation of the person signing.
   - Bids by corporations must be signed in the legal name of the corporation, followed by the name of the State in which incorporated and must contain the signature and designation of the president, secretary or other person authorized to bind the corporation in the matter.
   - Bids by sole-proprietorship shall be signed by the proprietor.
   - When requested, satisfactory evidence of the authority of the officer signing shall be furnished.

G. **Multiple Bids Not Accepted**
   More than one bid from an individual, a firm or partnership, a corporation or association under the same or different names shall not be considered.

H. **Official Request for Bid packages are available from the Borough of Florham Park’s Engineering Department located at 111 Ridgedale Avenue, Florham Park. All addenda are posted on the Borough’s website and issued in accordance with N.J.S.A. 40A:11-23(c)(1). Potential bidders are cautioned that they are bidding at their own risk if a third party supplied the specifications that may or may not be complete. The Borough of Florham Park is not responsible for third party supplied specifications.**
I. Results of all bids are posted on the Borough’s website.

2. BID SECURITY
   The following provisions, *if indicated by an (x)*, shall be applicable to this bid and be made a part of the bidding documents:

A. **BID GUARANTEE**
   Bidder shall submit with the bid a certified check, cashier’s check or bid bond in the amount of ten percent (10%) of the total price bid, but not in excess of $20,000, payable unconditionally to the Borough.

   When submitting a Bid Bond, it shall contain Power of Attorney for full amount of Bid Bond from a surety company authorized to do business in the State of New Jersey and acceptable to the Borough.

   The check or bond of the unsuccessful bidder(s) shall be returned as prescribed by law. The check or bond of the bidder to whom the contract is awarded shall be retained until a contract is executed and the required performance bond or other security is submitted.

   The check or bond of the successful bidder shall be forfeited if bidder fails to enter into contract pursuant to statute. Failure to submit required guarantee shall be cause for rejection of the bid.

B. **BIDDER’S AFFIDAVIT**
   Bidder shall submit authorization to execute bid and deem it as a true offer of the Bidder.

C. **CONSENT OF SURETY**
   Bidder shall submit with the bid a Certificate (Consent of Surety) with Power of Attorney for full amount of bid price from a Surety Company authorized to do business in the State of New Jersey and acceptable to the Borough stating that it will provide said bidder to whom the contract is awarded will furnish Performance and Payment Bonds from an acceptable surety company on behalf of said bidder, in performance security equal to the total amount of the contract, pursuant to statute.

   Failure to submit this shall be cause for rejection of the bid.

D. **PERFORMANCE BOND**
   Successful bidder shall simultaneously with the delivery of the executed contract, submit an executed bond in the amount of one hundred percent (100%) of the acceptable bid as security for the faithful performance of this contract.

   The performance bond provided shall not be released until final acceptance of the whole work and then only if any liens or claims have been satisfied. The surety on such bond or bonds shall be a duly authorized surety company authorized to do business in the State of New Jersey pursuant to N.J.S.A. 17:31-5. For multi-year contracts, the Performance Bond may be resubmitted each year on the Contract Anniversary Date for the amount remaining on the contract.

   Failure to submit this with the executed contract shall be cause for declaring contract null and void pursuant to N.J.S.A. 40A:11-22.

D. **LABOR AND MATERIAL (PAYMENT) BOND**
   The successful bidder shall with the delivery for the performance bond submit an executed payment bond to guarantee payment to laborers and suppliers for the labor and material used in the work performed under the contract.

   Failure to submit a labor and material bond with the performance bond shall be cause for declaring the contract null and void.
E. **MAINTENANCE BOND**
Upon acceptance of the work by the Borough, the contractor shall submit a maintenance bond (N.J.S.A. 40A:11-16.3) in an amount not to exceed 15% of the project costs guaranteeing against defective quality of work or materials for the period of:

- ☐ 1 Year
- ☒ 2 Years

3. **PREPARATION OF BIDS (PRICING INFORMATION AND FORMS)**
A. (1) The Borough of Florham Park is exempt from any local, state or federal sales, use or excise tax. Florham Park Borough will not pay for New Jersey State Sales and Use Tax that are included in any invoices. Florham Park Borough will not pay service charges such as interest and late fees.

(2) The Borough of Florham Park or any of its offices and divisions will not complete credit applications as a result of contract(s) resulting from award based on these specifications.

The Borough of Florham Park is rated by:
Moody’s Investors Services: Aaa

B. Bids shall be **signed in ink** (Original Signature Required) by the bidder, all quotations shall be made with a typewriter/computer or pen and ink. Any quotation showing any erasure alteration must be initialed by the bidder in ink. Unit prices and totals are to be inserted in spaces provided.

C. Failure to sign and give all information in the bid may result in the bid being rejected.

D. **Estimated Quantities** (Open-Ended Contracts, Purchase as Needed) The Borough has attempted to identify the item(s) and the estimated amounts of each item bid to cover its requirements; however, past experience shows that the amount ordered may be different than that submitted for bidding. The right is reserved to decrease or increase the quantities specified in the specifications pursuant to N.J.A.C. 5:30-11.2 and 11.10. **NO MINIMUM PURCHASE IS IMPLIED OR GUARANTEED.**

E. Bidders shall insert prices for furnishing goods and services required by these specifications. Prices shall be net including any charges for packing, crating, containers etc. All transportation charges shall be fully prepaid by the contractor, F.O.B. destination and placement at locations specified by the Borough. No additional charges will be allowed for any transportation costs resulting from partial shipments made at vendor’s convenience when a single shipment is ordered.

F. Any bidder may withdraw his bid at any time before the time set for receipt of bids. No bid may be withdrawn in the 60 day period after the bids are received.

G. All forms shall be completed and attached to the bid proposal. **BIDDER IS ALERTED TO THE BID DOCUMENT CHECKLIST PAGE.**

H. Results of all bids are posted on the Borough website [www.fpboro.net](http://www.fpboro.net)

4. **FIRM FIXED CONTRACT**
This is a firm fixed contract, prices firm, FOB Borough of Florham Park locations. No price escalation. The vendor shall void the contract and permit Florham Park Borough to solicit open market pricing should any price increase or surcharge be imposed.
5. **INTERPRETATIONS AND ADDENDA**

A. The bidder understands and agrees that its bid is submitted on the basis of the specifications prepared by the Borough. The bidder accepts the obligation to become familiar with these specifications.

B. Bidders are expected to examine the specifications and related documents with care and observe all their requirements. Ambiguities, errors or omissions noted by bidders should be promptly reported in writing to the Purchasing Agent. In the event the bidder fails to notify the Borough of such ambiguities, errors or omissions, the bidder shall be bound by the bid.

C. No oral interpretation of the meaning of the specifications will be made to any bidder. Every request for an interpretation shall be in writing, **addressed to the Purchasing Agent, referencing the Contract Name and Contract Number in the subject line**, at pvisco@fpboro.net. In order to be given consideration, written requests for interpretation and or clarification must be received at last three (3) business days prior to the date fixed for the opening of the bids.

D. All interpretations, clarifications and any supplemental instructions will be in the form of written addenda to the specifications, and will be distributed to all prospective bidders. All addenda so issued shall become part of the specification and bid documents, and shall be acknowledged by the bidder by completing the Acknowledgement of Receipt of Addenda form. The Borough’s interpretations or corrections thereof shall be final.

Pursuant to N.J.S.A. 40A:11-23(c)(1) when issuing addenda, the owner shall provide required notice prior to official receipt of bids to any person who has submitted a bid or who has received a bid package. They will be sent via electronic transmissions to those known recipients of the bid specifications.

E. Discrepancies in Bids
   1. If the amount shown in words and its equivalent figures do not agree, the written words shall be binding. Ditto marks are not considered writing or printing and shall not be used.
   2. In the event that there is a discrepancy between the unit prices and the extended totals, the unit price shall prevail. In the event there is an error of the summation of the extended totals, the computation by the Borough of the extended totals shall govern.

6. **BRAND NAMES, STANDARDS OF QUALITY AND PERFORMANCE**

A. Brand names and or descriptions used in this bid are to acquaint bidders with the type of commodity desired and will be used as a standard by which alternate or competitive materials offered will be judged. Competitive items must be equal to the standard described and be of the same quality of work.

B. Variations between the goods and services described and the goods and services offered are to be fully identified and explained by the bidder on a separate sheet and submitted with the bid proposal form. Vendor’s literature **will not** suffice in explaining exceptions to these specifications. In the absence of any exceptions by the bidder, it will be presumed and required that materials as described in the proposal be delivered.

C. It is the responsibility of the bidder to demonstrate the equivalency of goods and services offered. The Borough reserves the right to evaluate equivalency of a product which, in its deliberations, meets its requirements.

D. In submitting its bid, the bidder certifies that the goods or services to be furnished will not infringe upon any valid patent or trademark and that the successful bidder shall, at its own expense, defend any and all actions or suits charging such infringement, and will save the Borough harmless from any damages resulting from such infringement.
E. Only manufactured and farm products of the United States, wherever available, shall be used pursuant to N.J.S.A. 40A:11-18.

F. Wherever practical and economical to the Borough, it is desired that recycled or recyclable products be provided. Please indicate when recycled products are being offered.

G. The contractor shall guarantee any or all goods and services supplied under these specifications. Defective or inferior goods shall be replaced at the expense of the contractor. The contractor will be responsible for return freight or restocking charges.

7. **METHOD OF CONTRACT AWARD**
   A. The Borough reserves the right to accept or reject any or all bids, to waive identified irregularities and technicalities, and to award in whole or in part to the lowest responsible bidder, if it is in the best interest of the Borough to do so. Without limiting the generality of the foregoing, any bid which is incomplete, obscure, or irregular may be rejected, any bid having erasures or corrections in the price sheet may be rejected, any bid in which unit prices are omitted, or in which unit/total prices are unbalanced, may be rejected, any bid accompanied by any insufficient or irregular certified check, cashier’s check or bid bond may be rejected.

   B. The Borough further reserves the right to award each item separately to the lowest responsible bidder meeting specifications or to make an award based on the total bid to the bidder whose total sum is the low bid meeting the specifications, whichever in the awarding authorities’ opinion is in the best interest of the Borough. Without limiting the generality of the foregoing, the Borough reserves the right to award a contract based on either option that may be described in the bid proposal or based on any combination thereof.

   C. The Borough may also elect to award the contract on the basis of unit prices.

   D. The Borough reserves the right to award equal or tie bids at their discretion to any one of the tie bidders.

   E. Should the bidder, to whom the contract is awarded, fail to enter into a contract, the Borough may then, at its option, accept the bid of the next lowest responsible bidder.

   F. The effective period of this contract will be one year unless otherwise noted in the specifications. Continuation of the terms of this contract beyond the fiscal year is contingent on availability of funds in the following year’s budget. In the event of unavailability of such funds, the Borough reserves the right to cancel this contract.

   G. The form of contract shall be submitted by the Borough to the successful bidder. Terms of the specifications/bid package prevail. Bidder exceptions must be formally accepted by the Borough; material exceptions shall not be approved.

   H. Government entities are not private business/consumer clients; therefore, separate company agreements are not honored. Terms of the specifications/bid package prevail unless otherwise noted by the vendor as exceptions.

8. **CAUSES FOR REJECTING BIDS**
   Bids may be rejected for any of the following reasons:

   A. All bids pursuant to N.J.S.A. 40A:11-13.2;

   B. If more than one bid is received from an individual, firm or partnership, corporation or association under the same name;

   C. Multiple bids from an agent representing competing bidders;
D. The bid is inappropriately unbalanced;

E. If the successful bidder fails to enter into a contract within 21 days, Sundays and holidays excepted, or as otherwise agreed upon by the parties to the contract. In this case at its option, the Borough may accept the bid of the next lowest responsible bidder. (N.J.S.A. 40A:11-24b)

9. **NEW JERSEY PREVAILING AGE ACT (When Applicable) N.J.S.A. 34:11-56.25 et seq.** Pursuant to N.J.S.A. 34:11-56.25 et seq, contractors on projects for public work shall adhere to all requirements of the New Jersey Prevailing Wage Act. The contractor shall be required to submit a certified payroll record to the owner within ten (10) days of the payment of wages. The contractor is also responsible for obtaining and submitting all subcontractors’ certified payroll records within the aforementioned time period. The contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c). It is the contractor’s responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards. Additional information is available at http://lwd.dol.state.nj.us/labor/wagehour/wagerate/wage_rates.html.

10. **THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT—N.J.S.A. 34:11-56.48 et seq.** N.J.S.A. 34:11-56.48 et seq. requires that a general or prime contractor and any listed subcontractors named in the contractor’s bid proposal shall possess a certificate at the time the bid proposal is submitted. After bid proposals are received and prior to award of contract, the successful contractor shall submit a copy of the contractor’s certification along with those of all listed subcontractors. All non-listed subcontractors and lower tier sub-subcontractors shall be registered prior to starting work on the project. It is the general contractor’s responsibility that all non-listed sub-contractors at any tier have their certificate prior to starting work on the job.

Under the law a “contractor” is “a person, partnership, association, joint stock company, trust, corporation or other legal business entity or successor thereof who enters into a contract” which is subject to the provisions of the New Jersey Prevailing Wage Act (N.J.S.A. 34: 11-56.25, et seq.) It applies to contractors based in New Jersey or in another state.

The law defines “public works projects” as contracts for “public work” as defined in the Prevailing Wage statute (N.J.S.A. 34:11-56.25(5)). The term means:

- “Construction, reconstruction, demolition, alteration, or repair work, or maintenance work, including painting and decorating, done under contract and paid for in whole or in part out of the funds of a public body, except work performed under a rehabilitation program.
- “Public work” shall also mean construction, reconstruction, demolition, alteration, or repair work, done on any property or premises, whether or not the work is paid for from public funds...”
- “Maintenance work” means the repair of existing facilities when the size, type or extent of such facilities is not thereby changed or increased. While “maintenance” includes painting and decorating and is covered under the law, it does not include work such as routine landscape maintenance or janitorial services.

To register, a contractor must provide the State Department of Labor and Workforce Development with a full and accurately completed application form. The form is available online at http://lwd.dol.state.nj.us/labor/wagehour/regperm/pw_cont_reg.html.

N.J.S.A. 34:11-56.55 specifically prohibits accepting applications for registration as a substitute for a certificate or registration.

The Non-Collusion Affidavit, which is part of these specifications, shall be properly executed and submitted intact with the proposal.


There shall be no discrimination against any employee engaged in the work required to produce the goods and services covered by any contract resulting from this bid, or against any applicant to such employment because of race, religion, sex, national origin, creed, color, ancestry, age, marital status, affectional or sexual orientation, familial status, liability for service in the Armed Forces of the United States, or nationality. This provision shall include, but not be limited to the following: employment upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this bid.


No firm may be issued a contract unless it complies with the affirmative action provisions of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq. as administered by the Division of Purchase & Property Contract Compliance and Audit Unit (Division) and provided below. The contract will include the language included as attachment A in this specification.

1. **Goods, Professional Services and Service Contracts**

   Each contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

   i. A Letter of Federal Approval indicating that the vendor is under an existing federally approved or sanctioned affirmative action program. A copy of the letter must be provided by the vendor to the Public Agency and Division. This approval letter is valid for one year from the date of issuance.

   ii. A Certificate of Employee Information Report (hereafter "Certificate"), issued in accordance with N.J.A.C. 17:27 et seq. The vendor must provide a copy of the Certificate to the Public Agency as evidence of its compliance with the regulations. The Certificate represents the review and approval of the vendor’s Employee Information Report, Form AA-302 by the Division.

   iii. The successful bidder shall complete an Initial Employee Report, Form AA-302 and submit it to the Division with a check or money order for $150.00 made payable to “Treasurer, State of New Jersey” www.state.nj.us/treasury/contract_compliance

2. **Construction Contracts**

   All successful contractors shall complete and submit an Initial Project Manning Report (AA201-available on-line at www.state.nj.us/treasury/contract_compliance upon notification of award. Proper completion and submission of this Report shall constitute evidence of the contractor’s compliance with the regulations. Failure to submit this form may result in the contract being terminated. The contractor also agrees to submit a copy of the Monthly Project Workforce Report, Form AA-202 once a month thereafter for the duration of the contract to the Department of LWD and to the Public Agency.

14. **AMERICANS WITH DISABILITIES ACT OF 1990 – 42 U.S.C. S121 01 et seq.**

   Discrimination on the basis of disability in contracting for the purchase of goods and services is prohibited. Bidders are required to read Americans with Disabilities language that is included in this specification and agree that the provisions of Title II of the Act are made a part of the contract. The contractor is obligated to comply with the Act and to hold the Borough harmless.
15. **WORKER AND COMMUNITY RIGHT TO KNOW ACT – N.J.S.A. 34:5A-1 et seq.**

The manufacturer or supplier of chemical substances or mixtures shall label them in accordance with the N.J. Worker and Community Right to Know Law (N.J.S.A. 34:5A-1 et seq., and N.J.A.C. 5:89-5 et seq.).

All direct use containers 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). (N.J.A.C. 8:59-5) or adhere to the requirements of The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and the U.S. Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) as outlined in the Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations as adopted in the final rule by DEPARTMENT OF LABOR, Occupational Safety and Health Administration, 29 CFR Parts 1910, 1915, and 1926, {Docket No. OSHA-H022K-2006-0062, (formerly Docket No. H022K)}, RIN 1218-AC20, Hazard Communication. Further, all applicable documentation must be furnished.


In accordance with N.J.S.A. 52:25-24.2, no corporation, partnership, limited partnership, limited liability corporation, limited liability partnership, Subchapter S corporation or sole proprietorship, shall be awarded a contract, unless prior to the receipt of the bid or accompanying the bid of the corporation, partnership, limited partnership, there is submitted to the Borough a statement setting forth the names and addresses of all stockholders who own 10% or more of the stock, of any class or of all individual partners who own a 10% or greater interest in the corporation, partnership, limited partnership, limited liability corporation, limited liability partnership, Subchapter S corporation or sole proprietorship. If one or more such stockholder or partner is itself a corporation or partnership, the stockholders holding 10% or more of that corporation’s stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, shall also be listed. The disclosure shall be continued until names and addresses of every noncorporate stockholder and individual partner, exceeding the 10% ownership criteria established in this act has been listed. This form shall be signed and submitted with the bid/proposal whether or not a stockholder or partner owns less than 10% of the business submitting the bid. Failure to comply requires mandatory rejection of the bid/proposal.

17. **INSURANCE AND INDEMNIFICATION**

If it becomes necessary for the contractor, either as principal or by agent or employee, to enter upon the premises or property of the owner in order to construct, erect, inspect, make delivery or remove property hereunder, the contractor hereby covenants and agrees to take use, provide and make all proper, necessary and sufficient precautions, safeguards, and protection against the occurrence of happenings of any accident, injuries, damages, or hurt to person or property during the course of the work herein covered and be his/her sole responsibility.

The contractor further covenants and agrees to indemnify and save harmless the owner from the payment of all sums of money or any other consideration(s) by reason of any, or all, such accidents, injuries, damages, or hurt that may happen or occur upon or about such work and all fines, penalties and loss occurred for or by reason of the violation of any owner regulation, ordinance or the laws of the State, or the United States while said work is in progress.

The contractor shall maintain sufficient insurance to protect against all claims under Workers Compensation, General Liability and Automobile and shall be subject to approval for adequacy of protection and certificates of such insurance shall be provided with the owner named as additional insured.

REV 1/2019 11
A. Insurance Requirements

Worker’s Compensation and Employer’s Liability Insurance
This insurance shall be maintained in full force during the life of this contract by the bidder covering all employees engaged in performance of this contract pursuant to N.J.S.A. 34:15-12(a) and N.J.A.C. 12:35-1.6. Minimum Employer’s Liability $1,000,000.00

General Liability Insurance
This insurance shall have limits of not less than $3,000,000.00 any one person and $3,000,000.00 any one accident for bodily injury and $3,000,000.00 aggregate for property damage, and shall be maintained in force during the life of the contract.

Automobile Liability Insurance
This insurance covering bidder for claims arising from owned, hired and non-owned vehicles with limits of not less than $3,000,000.00 any one person and $3,000,000.00 any one accident for bodily injury and $3,000,000.00 each accident for property damage, shall be maintained in force during the life of this contract by the bidder.

B. Certificates of the Required Insurance

Certificates as listed above shall be submitted along with the contract as evidence covering Comprehensive General Liability, Comprehensive Automobile Liability, and where applicable, necessary Worker’s Compensation and Employer’s Liability Insurance. Such coverage shall be with acceptable insurance companies operating on an admitted basis in the State of New Jersey and shall name the OWNER as an additional insured.

Self-insured contractors shall submit an affidavit attesting to their self-insured coverage and shall name the OWNER as an additional insured.

C. Indemnification

The Contractor agrees to indemnify and save harmless the Borough, its officers, agents and employees, from all claims, suits or actions, and damages or costs of every name and description to which the owner may be subjected or put by reason of injury to the person or property of another, or the property of the owner, resulting from:

a) negligent acts or missions on the part of the contractor, the contractor’s agents, servants or subcontractors in the delivery of goods and services, or in the performance of the work under the contract; and,

b) the use of any copyrighted or copyrighted composition, valid trademark, secret process, patented or unpatented invention or article furnished or used in the performance of this contract.

Florham Park Borough will not accept Mutual Limitation of Liability terms.

18. PAYMENT

Payment will be made after a properly executed Borough voucher has been received and formally approved on the voucher list by the Mayor and Council at its subsequent regular meeting. The voucher will be certified correct by the department/division head who received the goods or services.

19. TERMINATION

A. If, through any cause, the contractor shall fail to fulfill in a timely manner obligations under the contract or if the contractor shall violate any of the requirements of the contract, the Borough shall thereupon have the right to terminate the contract by giving written notice to the contractor of such termination and specifying the effective date of termination. Such termination shall relieve the Borough of any obligation for balances to
the contractor of any sum or sums set forth in the contract. Florham Park Borough will pay for goods and services accepted prior to termination.

B. Notwithstanding the above, the contractor shall not be relieved of liability to the Borough for damages sustained by the Borough by virtue of any breach of the contract by the contractor and the Borough may withhold any payments to the contractor for the purpose of compensation until such time as the exact amount of the damage due the Borough from the contractor is determined.

C. The contractor agrees to indemnify and hold the Borough harmless from any liability to subcontractors/suppliers concerning payment for work performed or goods supplied arising out of the lawful termination of the contract by the Borough under this provision.

D. In case of default by the contractor, the Borough may procure the goods and services from other sources and hold the contractor responsible for any excess cost.

E. Continuation of the terms of the contract beyond the fiscal year is contingent on availability of funds in the following year's budget. In the event of unavailability of such funds, the Borough reserves the right to cancel the contract.

F. It is understood by all parties that if, during the life of the contract, the contractor disposes of his/her business concern by acquisition, novation, merger, sale and/or transfer or by any means convey his/her interest(s) to another party, all obligations are transferred to the new party. In this event, the new owner(s) will be required to submit all documentation/legal instruments that were required in the original bid/contract. Any changes shall be approved by the Borough.

G. The contractor will not assign any interest in the contract and shall not transfer any interest in the same without the prior written consent of the Borough.

H. The Borough may terminate the contract for convenience by providing sixty (60) calendar days advanced notice to the contractor.

I. The contractor shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be available to the New Jersey Office of the State Comptroller upon request.

I. For contracts that exceed one year, each fiscal year payment obligation of the Borough is conditioned upon the availability of Florham Park Borough funds appropriated or allocated for the payment of such an obligation. If funds are not allocated and available for the continuance of any services performed by the bidder awarded the contract (contractor) hereunder, whether in whole or in part, the Borough at the end of any particular fiscal year may terminate such services. The Borough will notify the contractor in writing immediately of any services that will be affected by a shortage of appropriated funds. This provision shall not be construed so as to permit the Borough to terminate the contract during the term, or any service hereunder, merely in order to acquire identical services from another contractor.

J. Neither party shall be responsible for any resulting loss or obligation to fulfill duties as specified in any of the terms or provisions of a contract if the fulfillment of any term or provision of the contract is delayed or prevented by any revolutions, insurrections, riots, wars, acts of enemies, national emergencies, strikes, floods, fires, acts of God, or by any cause not within the control of the party whose performance is interfered with which by the exercise of reasonable diligence such party is unable to prevent. Additionally, if the fulfillment of any of the terms and provisions of the contract is delayed or prevented by any court order, or action or injunction or other such agreement, the contract shall become voidable by Florham Park Borough by notice to the parties.
20. **ACQUISITION, MERGE, SALE AND/OR TRANSFER OF BUSINESS, ETC.**  
It is understood by all parties that if, during the life of the contract, the contractor disposes of his/her business concern by acquisition, merger, sale and/or transfer or by any means convey his/her interest(s) to another party, all obligations are transferred to that new party. In this event, the new owners(s) will be required to submit, when required, a performance bond in the amount of the open balance of the contract.

21. **ADDITIONS/DELETIONS OF SERVICE**  
The Borough reserves the right to add and/or delete services to this contract. Should a service requirement be deleted, payment to the Contractor will be reduced proportionally to the amount of service deleted in accordance with the bid price. Should additional services be required, payment to the Contractor will be increased proportionally to the amount of service added in accordance with the bid price.

22. Vendor’s literature and/or pricing sheets will not be accepted in lieu of completing the proposal blank(s) set forth in these specifications.

23. Bidders shall not write in margins or alter the official content or requirements of the Borough bid documents.

24. **SPECIFICATIONS**  
Any prospective bidder who wishes to challenge a bid specification shall file such challenges in writing with the contracting agent no less than three business days prior to the opening of the bids. Challenges filed after that time shall be considered void and having no impact on the contracting unit or the award of contract.

25. **OWNERSHIP OF MATERIAL**  
The owner shall retain all of its rights and interest in any and all documents and property both hard copy and digital furnished by the owner to the contractor for the purpose of assisting the contractor in the performance of this contract. All such items shall be returned immediately to the owner at the expiration or termination of the contract or completion of any related services, pursuant thereto, whichever comes first. None of the documents and/or property shall, without the written consent of the owner, be disclosed to others or used by the contractor or permitted by the contractor to be used by their parties at any time except in the performance of the resulting contract.

Ownership of all data, materials and documentation originated and prepared for the owner pursuant to this contract shall belong exclusively to the owner. All data, reports, computerized information, programs and materials related to this project shall be delivered to and become the property of the owner upon completion of the project. The contractor shall not have the right to use, sell, or disclose the total of the interim or final work products, or make available to third parties, without the prior written consent of the owner. All information supplied to the owner may be required to be supplied on CD-ROM media compatible with the owner’s computer operating system, windows based, Microsoft Office Suite 2010.

26. **TRUTH IN CONTRACTING LAW**

- N.J.S.A. 2C:21-34, et seq. governs false claims and representation. 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.
27. **PROOF OF N.J. BUSINESS REGISTRATION CERTIFICATE N.J.S.A. 52:32-44**

Pursuant to N.J.S.A. 52:32-44, Florham Park Borough ("Contracting Agency") is prohibited from entering into a contract with an entity unless the bidder/proposer/contractor, and each subcontractor that is required by law to be named in a bid/proposal/contract has a valid Business Registration Certificate on file with the Division of Revenue and Enterprise Services within the Department of the Treasury.

Prior to contract award or authorization, the contractor shall provide the Contracting Agency with its proof of business registration and that of any named subcontractor(s).

Subcontractors named in a bid or proposal shall provide proof of business registration to the bidder, who in turn, shall provide it to the Contracting Agency prior to the time of contract, purchase order, or other contracting document is awarded or authorized.

During the course of contract performance:

1. The contractor shall not enter into a contract with a subcontractor unless the subcontractor first provides the contractor with a valid proof of business registration.
2. The contractor shall maintain and submit to the Contracting Agency a list of subcontractors and their addresses that may be updated from time to time.
3. The contractor and any subcontractor providing goods or performing services under the contract, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of Treasury, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered in the State. Any questions in this regard can be directed to the Division of Taxation at (609) 292-6400. Form NJ-REG can be filed online at www.state.nj.us/treasury/revenue/busregcert.shtml.

Before final payment is made under the contract, the contractor shall submit to the Contracting Agency a complete and accurate list of all subcontractors used and their addresses.

Pursuant to N.J.S.A. 54:49-4.1, a business organization that fails to provide a copy of a business registration as required, or that provides false business registration information, shall be liable for a penalty of $25.00 for each day of violation, not to exceed $50,000, for each proof of business registration not properly provided under a contract with a contracting agency.

**Emergency Purchases or Contracts**

For purchases of an emergent nature, the contractor shall provide its Business Registration Certificate within two weeks from the date of purchase or execution of the contract or prior to payment for goods or services, whichever is earlier.

28. **PAY TO PLAY – NOTICE OF DISCLOSURE REQUIREMENT**

Business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if they receive contracts in excess of $50,000 from public entities in a calendar year. Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

29. **NON-PAYMENT OF PENALTIES AND INTEREST ON OVERDUE BILLS**

Public funds may be used to pay only for goods delivered or services rendered. Florham Park Borough will not pay penalties and/or interest on overdue bills. No employee is authorized to sign a letter of credit or any other document that represents a legal commitment on the part of the Borough to pay additional fees.
30. **W-9**

31. **Health Insurance Portability and Accountability Act of 1996-HIPAA (If Applicable)**
Both parties agree to comply with all requirements of the Federal Health Insurance Portability and Accountability Act of 1996 (“HIPAA”) as maybe amended from time to time, and the corresponding HIPAA regulations for the confidentiality and security of medical information.

The Contractor shall:
- Not use or disclose protected health information other than as permitted or required by law
- Use appropriate safeguards to protect the confidentiality of the information
- Report any use or disclosure not permitted

The contractor, by execution of the contract, shall thereby indemnify and hold the Borough harmless from any and all liabilities, claims, actions, costs and penalties which may be incurred as the result of the failure of the contractor to comply with the requirements of the Health Insurance Portability and Accountability Act (HIPAA) or any other statute or case law protecting the privacy of persons using its services.

32. **PUBLIC EMERGENCY**
In the event of a Public Emergency declared at the Local, State or Federal Level, if the Borough opts to extend terms and conditions of this bid, the contractor agrees to extend the terms and conditions of this bid, whether existing, expiring or expired no longer than six months, for goods and/or services for the duration of the emergency. In the event the original contractor cannot meet this requirement, the Borough may solicit the goods and/or services from any bidder on this contract.

33. The owner and the Contractor each bind themselves and their successors, executors, administrators, heirs and assigns and legal representatives of the other party respecting all covenants and agreements and obligations of this contract.

34. The terms of this Agreement shall be construed and interpreted, and all respective rights and duties of the parties shall be governed by the laws of the State of New Jersey.

35. **DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN**
P.L. 2012, c.25 prohibits State and local public contracts with persons or entities engaging in certain investment activities in energy or finance sectors of Iran.
SPECIFICATIONS

SPECIAL PROVISIONS
FOR
STATE AID PROJECTS
FOR THE CAMPUS DRIVE AND JUGHANDLE RESURFACING
IN THE BOROUGH OF FLORHAM PARK
COUNTY OF MORRIS

AUTHORIZATION OF CONTRACT

The contract for this project is authorized by the provisions of local public contracts law, NJSA 40A: 11-1 et seq.

SPECIFICATIONS TO BE USED

The 2007 Standard Specifications for Road and Bridge Construction, of the New Jersey Department of Transportation and as amended herein, shall govern the construction of this project.

WAGE RATES

The contractor shall pay the minimum wage rates determined by the New Jersey Department of Labor. State wage rates may be obtained from the New Jersey Department of Labor (Telephone: 609-292-2259) or by accessing the Department of Labor’s web site at http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html. The State wage rates in effect at the time of award will be made a part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.). In the event it is found that any employee of the contractor or any subcontractor covered by the contract, has been paid a rate of wages less than the minimum wage required to be paid by the contract, the contracting agency 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 contracting agency for any excess costs occasioned thereby.

GENERAL

All awards shall be made subject to the approval of the New Jersey Department of Transportation. No construction shall start before approval of said award by the New Jersey Department of Transportation. Prior to the start of construction the contractor must submit a Material Questionnaire (SA-11) listing all sources of materials. Any materials used on the project from a nonapproved New Jersey Department of Transportation source will be considered non-participating. The contractor is also notified that the District Office, Division of Local Aid and Economic Development must be notified of the construction commencement date at least three (3) calendar days prior to the start of construction.

Award of contract and subletting will not be permitted to, materials will not be permitted from, and use of equipment will not be permitted that is owned and/or operated by, firms and individuals included in the report of suspensions, debarments and disqualifications of firms and
Payment for a pay item in the proposal includes all the compensation that will be made for the work of that item as described in the contract documents unless the "measurement and payment" clause provides that certain work essential to that item will be paid for under another pay item.

Whenever any section, subsection, subpart or subheading is amended by such terms as changed to, deleted or added it is construed to mean that it amends that section, subsection, subpart or subheading of the 2007 Standard Specifications unless otherwise noted. Whenever reference to page number is made, it is construed to refer to the 2007 Standard Specifications unless otherwise noted.

Henceforth in this supplementary specification whenever reference to the State, Department, ME, RE or Inspector is made, it is construed to mean the particular municipality or county executing this contract. Whenever reference to Title 27 is made, it is construed to mean Title 40.
DIVISION 150 – CONTRACT REQUIREMENTS

SECTION 157 – CONSTRUCTION LAYOUT AND MONUMENTS

157.03.01 Construction Layout
THE SEVENTH PARAGRAPH IS CHANGED TO:
Provide the Utilities with the layout needed to install relocated utility facilities and coordinate the Work. Ensure that relocated facilities do not conflict with proposed construction, including High Voltage Proximity Act conflicts.

THE FOLLOWING IS ADDED AFTER THE NINTH PARAGRAPH:
For each bridge and sign structure within the Project Limits, provide the RE as-built measurements of the vertical under clearance at each lane line, shoulder line, curb line and edge of pavement line under a structure to the nearest inch. For each bridge structure, provide vertical under clearance measurements at each fascia beam.

157.04 MEASUREMENT AND PAYMENT
THE FOLLOWING ITEM’S PAY UNIT IS REVISED TO:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSTRUCTION LAYOUT</td>
<td>DOLLAR</td>
</tr>
</tbody>
</table>

THE SECOND PARAGRAPH IS CHANGED TO:
The Department will adjust payment for CONSTRUCTION LAYOUT based on the final contract amount and will calculate as follows:

\[ CL = \frac{CL_B \times (C_F - E_F)}{C_O - E_O} \]

Where:
CL = Adjusted payment for CONSTRUCTION LAYOUT.
CL_B = Bid price for CONSTRUCTION LAYOUT.
C_O = Original Contract Price.
C_F = Final Contract Price.
E_F = Total of CL_B and the final cost for PERFORMANCE BOND AND PAYMENT BOND, Incentive/Disincentives for completion/interim completion, and claim settlements.
E_O = Total of CL_B, and PERFORMANCE AND PAYMENT BOND.

SECTION 158 – SOIL EROSION AND SEDIMENT CONTROL
AND WATER QUALITY CONTROL

158.03.02 SESC Measures

8. Inlet Filters. Provide Type 1 and Type 2 inlet filters as follows:

   a. Type 1.
THE ENTIRE TEXT IS CHANGED TO:
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.

19. Oil-Only Emergency Spill Kit.
THE SECOND SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Include Oil-only Emergency Spill Kit, Type 1 consisting of the following:

SECTION 159 – TRAFFIC CONTROL

159.02.01 Materials
THE FOLLOWING IS ADDED TO THE LIST OF MATERIALS REFERENCES:

Box Beam for Construction Barrier Curb ........................................................................................................913.04

THE FOLLOWING IS ADDED:

Provide temporary crash cushions, inertial barrier systems as specified in 611.02. Provide temporary compressive crash cushions as specified for compressive crash cushions in 611.02.

159.02.02 Equipment
THE FOLLOWING IS ADDED TO THE LIST OF EQUIPMENT REFERENCES:

Portable Variable Message Sign w/Remote Communication...............................................................1001.04
Portable Trailer Mounted CCTV Camera Assembly..............................................................................1001.05

159.03.02 Traffic Control Devices

2. Construction Barrier Curb.
THE ENTIRE TEXT IS CHANGED TO:

Alternate A or B construction barrier curb may be used interchangeably in any location. The Contractor may use construction barrier curb that is constructed using gray or white concrete. Do not place different colors of construction barrier curb in a continuous run. Do not use construction barrier curb having any of the following deficiencies:

1. Exposed steel at the connector flangeway.
2. Exposed reinforcement steel.
3. Cracking through the cross section.
4. An area of concrete missing larger than a 3-inch by 3-inch right triangle.
5. Debris in the keyway.
7. Non-functioning anchor rod hole.
8. Paint applied to the surface.
9. Objects protruding from the surface.
10. Previous repairs.
11. Do not use damaged, kinked or bent connection key or box beam stiffener.

At least 30 days before delivering construction barrier curb to the Project Limits, provide the RE notice that the barrier curb is available for inspection. The RE will inspect the barrier curb, along with a Contractor representative, to determine what pieces are not approved for delivery to the Project Limits. Final determination of construction barrier approval will be made at the time of placement at the Project.

Ensure that anchor pins do not project above the plane of the barrier curb. Install the Construction Barrier Curb stiffened with box beams as indicated in the contract documents.

Replace construction barrier curb that does not meet the specified requirements. Do not patch or repair construction barrier curb.

Provide top and side mounted flexible delineators on the construction barrier curb. 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.
Starting at the beginning of the construction barrier curb section mount top delineators at 100-foot intervals on tangent sections, or curves of radii greater than 1,910 feet, and at 50-foot intervals on curves of radii of 1,910 feet or less.

Mount side delineators at the lead end of each barrier segment with the top of the delineator 3 inches from the top of the barrier.

5. **Temporary Crash Cushion**

THE SECOND SENTENCE IS CHANGED TO:

Install temporary compressive crash cushions as specified for compressive crash cushions in 611.03.02.

6. **Traffic Control Truck with Mounted Crash Cushions.**

THE LAST SENTENCE IS CHANGED TO:

Submit drawings to the RE detailing the manner of securing the ballast, signed and sealed by a Professional Engineer, certifying that it is capable of withstanding the impact forces for which the impact attenuator is rated.

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

8. **Portable Variable Message Sign with Remote Communication (PVMSRC).** Place the PVMSRC at the locations directed by the RE for the duration of the project. Ensure that a designated representative familiar with the operation and programming of the unit is available on the Project for On-Site Configuration. Only display messages on the PVMSRC authorized by the Department for the Project in accordance with the plans or as directed by the RE and make the signs available for use remotely from the Traffic Operation Center (TOC) specified in 105.07.01.B. Program within 8 hours, any message requested by the RE to be displayed on the PVMSRC at a scheduled time and verify that the message is displayed correctly and notify the RE. If the PVMSRC fails to function, repair the equipment within 48 hours of receiving notice from the Department that the PVMSRC is not functioning.

Integrate the PVMSRC for remote operation from TOC using Vanguard DMS software or the Department’s central DMS control software at the time of installation as directed by the RE.

Provide for one week of testing by the TOC for remotely operating the PVMSRC before the start of construction operations that require lane or shoulder closures, or other impacts to traffic. At least 10 days before testing, submit to the RE for approval a plan for any work to be completed in the TOC. Submit a request to the RE at least 4 days in advance to access the TOC for any work.

9. **Portable Trailer Mounted CCTV Camera Assembly (PTMCCA).**

Place the PTMCCA at the location directed by the RE. Ensure that a designated representative familiar with the operation and programming of the unit is available on the Project for initial installation. If the PTMCCA fails to function, repair the equipment within 48 hours of receiving notice from the Department that the PTMCCA is not functioning.

Provide a system that includes a robotic network camera remotely controllable, including Pan, Tilt and Zoom (PTZ). Provide broadband internet service connection and On-Site Camera Configuration for remote operation and control of the camera via the Department’s existing Head-End Camera Control System, Genetec. No other Head-End Camera Control System substitution is permitted. A Management user system is also to be provided for remote system programming to the camera sites. This includes a website that is to be provided and hosted by the vendor. This website is to have secure authentication and is to show the current devices with their location, status, and display links for each device. Provide continuous viewable image at a minimum of 320H x 240V resolution and 1 frame per sec (fps) through the website. As directed by the Traffic Operation Center (TOC) specified in 105.07.01.B, establish password level designations, camera presets, and camera image displays. Provide all incidental equipment and material required for successful remote operation and communications.

Provide for one week of testing by the TOC for remotely operating the PTMCCA before the start of construction operations that require lane or shoulder closures, or other impacts to traffic.

159.03.06 **Temporary Traffic Stripes and Temporary Traffic Markings**

THE SUBPART HEADING AND THE ENTIRE TEXT IS CHANGED TO:

159.03.06 **Traffic Stripes, Latex ,Traffic Markings Lines, Latex and Traffic Markings Symbols, Latex**
Apply latex traffic stripes and latex markings when they are required for 14 days or less. Apply epoxy traffic stripes and thermoplastic markings as specified in 610.03.01 and 610.03.02 when they are required for more than 14 days. Apply latex traffic stripes and latex markings when the ambient and surface temperatures are at least 45 °F and rising and the surface temperature is no more than 140 °F. Apply the latex paint in a wet film thickness of 6 ± 1 mil. Apply glass beads to the wet paint in a uniform pattern and at the rate of 12 pounds per gallon of paint.

159.03.08 Traffic Direction
A. Flagger.
THE LAST SENTENCE IS CHANGED TO:

Ensure that the flagger is equipped with a STOP/SLOW paddle and follows MUTCD flagging procedures.

B. Police.
THE FOURTH PARAGRAPH IS DELETED.

159.04 MEASUREMENTS AND PAYMENT
THE FOLLOWING ITEMS ARE ADDED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTABLE VARIABLE MESSAGE SIGN WITH REMOTE COMMUNICATION</td>
<td>UNIT</td>
</tr>
<tr>
<td>PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY</td>
<td>UNIT</td>
</tr>
<tr>
<td>TEMPORARY CRASH CUSHION, COMPRESSION BARRIER, TYPE___ WIDTH___</td>
<td>UNIT</td>
</tr>
<tr>
<td>TEMPORARY CRASH CUSHION, LOW MAINTENANCE COMPRESSION BARRIER, TYPE___ WIDTH___</td>
<td>UNIT</td>
</tr>
<tr>
<td>TRAFFIC STRIPES, LATEX ___&quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS LINES, LATEX ___&quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS SYMBOLS, LATEX</td>
<td>SQUARE FOOT</td>
</tr>
</tbody>
</table>

THE FOLLOWING ITEMS ARE DELETED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMPORARY TRAFFIC STRIPES, ___&quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TEMPORARY TRAFFIC MARKINGS</td>
<td>SQUARE FOOT</td>
</tr>
<tr>
<td>TEMPORARY CRASH CUSHION, ___</td>
<td>UNIT</td>
</tr>
</tbody>
</table>

THE SECOND PARAGRAPH IS CHANGED TO:

For traffic control devices measured by the linear foot or unit basis that are specified in 159.03.02, the Department will make payment for the maximum quantity in service at one time as required by the Contract. For CONSTRUCTION SIGNS, the Department will make payment for the maximum quantity of specific sign types in service at one time as required by the Contract. If a particular sign type has more than one unique text, each sign with a unique text will be considered to be a specific sign type. The Department will make payment for 50 percent of the Contract bid price for traffic control devices specified in 159.03.02 that are measured on a linear foot, square foot or unit basis upon approved placement. The Department will prorate the balance of payment over the duration of the Contract.

THE FOLLOWING IS ADDED

If after being notified by the Department that the PORTABLE VARIABLE MESSAGE SIGN WITH REMOTE COMMUNICATION or PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY has failed to function and the equipment has not been restored to good working order within 48 hours, the Department will make payment reductions as follows:

For each occasion the equipment was not restored within 48 hours the Department will assess a liquidated damage of $250 for every 48 hours period the equipment is not functioning.

The Department will not include payment for epoxy traffic stripes and thermoplastic traffic markings and symbols under TRAFFIC STRIPES LATEX, TRAFFIC MARKINGS LINES, LATEX and TRAFFIC MARKINGS SYMBOLS, LATEX. The Department will make payment for epoxy traffic stripes and thermoplastic traffic markings under TRAFFIC STRIPES, TRAFFIC MARKINGS LINES, and TRAFFIC MARKINGS SYMBOLS as specified in 610.04.
SECTION 160 – PRICE ADJUSTMENTS

160.03.01 Fuel Price Adjustment
THROUGHOUT THIS SUBPART, TABLE 161.03.01-1 IS CHANGED TO TABLE 160.03.01-1

THE THIRD PARAGRAPH IS CHANGED TO:

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 Department 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.

THE 13TH AND 15TH LINE IN THE TABLE 160.03.01-1 IS CHANGED TO:

| SOIL AGGREGATE BASE COURSE, ___ " THICK | 1 Gallon per Cubic Yard |
| DENSE-GRADED AGGREGATE BASE COURSE, ___ " THICK | 1 Gallon per Cubic Yard |

THE 25 TH LINE IN THE TABLE 160.03.01-1 IS CHANGED TO:

| HOT MIX ASPHALT ___ ___ ___ BASE COURSE | 2.50 Gallons per Ton |

THE FOLLOWING ARE ADDED TO TABLE 160.03.01-1

<table>
<thead>
<tr>
<th>Items</th>
<th>Fuel Usage Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>NON-VEGETATIVE SURFACE, HOT MIX ASPHALT</td>
<td>2.50 Gallons per Ton</td>
</tr>
<tr>
<td>COLOR-COATED NON-VEGETATIVE SURFACE, HOT MIX ASPHALT</td>
<td>2.50 Gallons per Ton</td>
</tr>
</tbody>
</table>

160.03.02 Asphalt Price Adjustment
NOTE 1 OF THE THIRD PARAGRAPH IS CHANGED TO:

1. The Department 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 Department will apply an appropriate conversion factor to determine the number of tons used.

THE FOURTH PARAGRAPH IS CHANGED TO:

For TACK COAT and PRIME COAT, the Department 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

160.04 MEASUREMENT AND PAYMENT
THE FOLLOWING ITEMS’ PAY UNITS ARE REVISED TO:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL PRICE ADJUSTMENT</td>
<td>DOLLAR</td>
</tr>
<tr>
<td>ASPHALT PRICE ADJUSTMENT</td>
<td>DOLLAR</td>
</tr>
</tbody>
</table>
DIVISION 200 – EARTHWORK

SECTION 201 – CLEARING SITE

201.03.01 Clearing Site

B. Clearing and Grubbing.
THE FOLLOWING IS ADDED:

Dispose of material and debris as specified in 201.03.09.

Remove trees and branches within 15 feet of the end of JCP&L pole cross arms. If the resulting tree is rendered hazardous, then remove the entire tree according to SECTION 802.

201.03.02 Clearing Site, Bridge and Clearing Site, Structure
THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH.

Only the following equipment is permitted for the work:

1. **Pneumatic or Electric Equivalent Hand Operated Hammers.**
   a. When demolishing concrete not closer than 6 inches to structural members: hammers weighing no more than 90 lbs (exclusive of bit), equipped only with chisel point bits.
   b. When demolishing concrete within 6 inches of structural members: hammers weighing no more than 30 lbs (exclusive of bit).

2. **Saw Cutters.**
   a. When cutting concrete within 6 inches of structural members: concrete cutters and concrete saws. While using water in the cutting operation, provide shielding beneath the cutting operation to prevent water leakage. Continuously collect slurry and dispose of as specified in 201.03.09. Ensure that the slurry does not enter the structure or highway drainage system.

3. **Hydraulic Breakers.** Ram-hoe type breakers, hydraulic breakers, and demolition shears may be used with the following restrictions:
   a. Submit required data to the RE for Department’s analysis of stresses induced to the girders.
   b. Delineate the centerline and limits of the top flange of girders before the equipment operation.
   c. Do not use equipment within 6 inches of the delineated flanges.
   d. Do not pull or twist the reinforcement steel.

4. **Hydraulic Splitters.** Hydraulic splitters.

5. **Other Equipment.** Obtain RE approval before use.
THE FOLLOWING IS ADDED:

The procedure is described below:

1. **Prestressed Concrete Stringers and Concrete Diaphragms.** Repair damage to prestressed concrete stringers and concrete diaphragms using nonshrink grout conforming to Subsection 903.08 before deck placement.

2. **Steel Stringers, Floorbeams, Cross Frames, and Diaphragms.**
   a. Repair procedures to tensile components in conformance with ASTM A 6/A 6M and the following:
   1. Repair gouges up to 1/8 inch by grinding flush in the direction of principal stress.
   2. Repair gouges deeper than 1/8 inch by first grinding; then, depositing weld metal and grinding flush with the surface of the metal in the direction of principal stress. Weld using low hydrogen electrodes conforming to current AWS Specifications A5.1 and A5.5.
   3. Repair kinks and deformations by flame straightening or a combination of flame straightening and jacking. Ensure flame straightening is performed by personnel having a minimum of three years of documented experience. Submit the names of the personnel to the RE for review and approval prior to performing the work.
b. Repair procedures to compression components for kinks and deformations as outlined in 2.a (3) above. Where more than five percent of the cross-sectional area of the member is damaged, submit a repair procedure to the RE for review and approval.

Clean and paint exposed existing top flanges of beams with prime coat as specified in Subsection 554.03.

Bonding and Grounding for Electrified Railroad. For the required materials, submit a list to the RE for approval 21 days before construction operation. In the list, include: material description, manufacturer and catalog number. After obtaining the RE’s approval, submit the list to the railroad for review and approval. Do not order the materials prior to obtaining the railroad’s approval. Furnish and deliver the materials to the railroad. Obtain a receipt for the materials from the railroad and provide a copy to the RE.

### List of Materials

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>U-bolt, ¾-inch diameter by 4-inch, BS fastener</td>
<td></td>
</tr>
<tr>
<td>Strap, clevis, 1½ by 2 inches stock, 12-inch connecting length, 1-inch diameter hole, ¾-inch diameter bolt, ultimate strength 25 psi, Brewer Tilchener Corp.-3074 C</td>
<td></td>
</tr>
<tr>
<td>Dead end eye bolt, compression type steel, use DIE 6010SH, compression tool, 60A ALCOA 9190-332</td>
<td></td>
</tr>
<tr>
<td>Jumper cable, compression type aluminum, use DIE 6020AH, compression tool, 60A ALCOA 5120-781</td>
<td></td>
</tr>
<tr>
<td>Terminal - Bundy AK2C39B1 to 336400 Cable (1)</td>
<td></td>
</tr>
<tr>
<td>Ground terminal - Bundy AK2C39B1 to 336400 Cable (2)</td>
<td></td>
</tr>
<tr>
<td>Terminal - solid barrier to 0.17 square inch cable Bundy KC28B1</td>
<td></td>
</tr>
<tr>
<td>Compound, aluminum to copper connection (ALNOX) CANS</td>
<td></td>
</tr>
<tr>
<td>Termination, dead end strand clamp, ALCO 336 4 KCM</td>
<td></td>
</tr>
<tr>
<td>Clip, bronze, complete type BC, Ohio brass</td>
<td></td>
</tr>
<tr>
<td>Thimble-Bronx 336 4 KCM</td>
<td></td>
</tr>
<tr>
<td>U-bolt, 1¼-inch diameter by 1½-inch loop 336 4 KCM 11, 30/7 STR ACSR, ANACONDA insulated aluminum cable having a diameter of 0.17 square inches, ANACONDA</td>
<td></td>
</tr>
</tbody>
</table>

#### 201.03.04 Removing Underground Storage Tanks

THE THIRD PARAGRAPH, SUBPART 2, LAST PARAGRAPH IS CHANGED TO:

Before backfilling, remove and dispose of contaminated water not associated with ground water. If directed, immediately backfill the excavated hole as required per N.J.A.C. 7:26E and obtain documentation for the quality of the fill. In addition, provide certification stating that it is virgin material from a commercial or noncommercial source or decontaminated recycled soil. Backfill the excavation as specified in 201.03.07.5 but use certified clean fill as noted above.

Remove following:

<table>
<thead>
<tr>
<th>Parcel No.</th>
<th>Tank Size</th>
<th>Contents</th>
<th>Tank Registration No.</th>
</tr>
</thead>
</table>

#### 201.03.08 Asbestos Removal

---

### SECTION 202 – EXCAVATION

#### 202.02 MATERIALS

THE FIRST IN THE LIST IS CHANGED TO:

| Coarse Aggregate (No. 57, or 67) | .......................................................... | 901.03 |

#### 202.03.03 Excavating Unclassified Material

**A. Excavating.**

THE FIRST PARAGRAPH IS CHANGED TO:

The Department, as the generator, is solely responsible for the designation of excavated material. Unclassified excavation consists of excavation and management of material of whatever nature encountered, except for regulated material, pavement removal and acid producing soil.
B. Temporarily Storing.
THE FOLLOWING SENTENCE IS ADDED AFTER THE SECOND SENTENCE OF THE FIRST PARAGRAPH:

Do not commingle different types or classifications of material.

202.03.04 Excavating Regulated Material
3. Temporarily Storing.
THE FIRST PARAGRAPH IS CHANGED TO:

Temporarily store regulated or hazardous material in stockpiles within the Project Limits and as shown on the Plans. Construct stockpiles on polyethylene sheeting. Contain stockpiles with haybales or silt fence placed continuously at the perimeter of the stockpiles. For hazardous material, if a stockpile area is not available within the Project Limits, sample and analyze materials in-situ for disposal. Excavate and place the hazardous regulated material directly into trucks, and haul it directly to the approved disposal facility.

202.03.07 Reuse or Disposal of Excess Material
A. Reuse.
THE THIRD PARAGRAPH IS CHANGED TO:

Upon RE’s approval, reuse excavated soil to widen or flatten slopes of embankment, to fade embankments into cuts, or as approved at other locations. Ensure that the excess material is not reused within a wetland, a transition area, a riparian zone, a flood hazard area or other regulated area without obtaining an appropriate NJDEP permit.

B. Disposal.
PARTS 1 AND 2 UNDER THE FIRST PARAGRAPH ARE CHANGED AND PART 3 IS ADDED:

1. At least 10 days before disposing, submit the disposal procedure and location to the RE for approval. Do not dispose of excavation on property proposed to be or used for parks, playgrounds, and other recreational purposes; residential facilities; educational facilities; environmentally sensitive areas such as wetlands; historic sites; or within sight of a State highway during all seasons.
2. Obtain the potential owner's notarized authorization of the acceptance of the excess material. If the potential owner requires environmental material sampling, obtain RE’s approval at least 7 days before sampling for oversight only. Approval of the sampling does not imply agreement with the sampling results and the Department reserves the right to sample the material for classification. Provide the RE all testing results and documentation associated with the sampling.
3. Load and transport excess material that the RE determines to be excess, unusable or unsuitable for the project according to Federal, State, and local law, rules and regulations.

SECTION 203 – EMBANKMENT

203.02.01 Materials
THIS SUBPART IS CHANGED TO:

Provide materials as specified:
Soil Aggregate (I-7, I-9, I-10, I-11, I-13, and I-14) ........................................................................................................... 901.11

203.03.01 Constructing Embankment
THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

The ME will determine the classification of the subgrade material specified in Table 203.03.02-1. Compact the subgrade using the directed method as specified in 203.03.02.C for the classification of the subgrade material.

THE FOURTH PARAGRAPH IS CHANGED TO:

Before placing embankment or any other unbound aggregate material, such as subbase or dense graded aggregate, on existing pavement, break the pavement into pieces that are a maximum of 12 inches in all dimensions.
DIVISION 400 – PAVEMENTS

SECTION 401 – HOT MIX ASPHALT (HMA) COURSES

401.02.01 Materials
THE FIRST PARAGRAPH IS CHANGED TO:

Provide materials as specified:
- Tack Coat 64-22, PG 64-22 ................................................................. 902.01.01
- Prime Coat, Grade CSS-1 ................................................................. 902.01.03
- Tack Coat:
  - Emulsified Asphalt, Grade RS-1, RS-1h, CRS-1, or CRS-1h ................................................................. 902.01.03
- Polymer Modified Tack Coat:
  - Polymer Modified Emulsified Asphalt ................................................................. 902.01.03
- HMA ................................................................................................................. 902.01.04
- HMA HIGH RAP ......................................................................................... 902.01.04
- Joint Sealer, Hot-Poured ....................................................................................... 902.13
- Polymerized Joint Adhesive .................................................................................... 914.02

401.02.02 Equipment
THE LAST PARAGRAPH IS CHANGED TO:

When an MTV is used, install a paver hopper with a minimum capacity of 14 tons in the hopper of the HMA paver.

THE FOLLOWING IS ADDED AT THE END:

NOTE: A Spray Paver as specified in 1003.04 may be used in lieu of a HMA Paver.

401.03.01 Preparing Existing Pavement

A. Milling of HMA.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Max. time interval allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THE FOLLOWING IS ADDED TO THE THIRD PARAGRAPH:

If unbound aggregate material is encountered within the specified milling depth, mill unbound aggregate material without damaging the underlying material.

THE FOLLOWING IS ADDED AFTER THE FOURTH PARAGRAPH:

Sawcut at the limit of paving in driveways and at other limits requiring a neat edge between new and existing HMA.

B. Milling of Concrete

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

If reinforcement steel becomes exposed or dislodged, cut off the exposed reinforcement at the concrete surface as directed by the RE.

THE FOLLOWING IS ADDED TO THE FIFTH PARAGRAPH:

Ensure that no reinforcement steel is protruding from the surface.

D. Repairing HMA Pavement

THE ENTIRE TEXT IS CHANGED TO:

Arrange a meeting with the RE at the project site to establish the limits of HMA pavement repair. Additional repairs, not delineated on the plans or by the RE during the project site meeting, may be required if the need is established by the RE.

If potholes are discovered, notify the RE immediately. The RE may immediately direct repairs of small areas. The RE may require further evaluation of a large area to determine the need for additional milling and paving.

Perform HMA repairs as a separate operation before milling, paving and other surface treatments. The Contractor may request approval of the RE to perform the repair work as one operation with the paving or surface treatment.
HMA repairs may be performed on full depth HMA pavement or on composite pavement (HMA over concrete pavement). For full depth HMA pavement, sawcut existing HMA pavement to a depth of 8 inches. For composite pavement sawcut existing HMA to a depth of 8 inches or up to the top of concrete, 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.

Remove damaged and loose material within the boundary of the sawcuts to form rectangular openings with vertical sides to a depth of 8 inches for HMA pavement, or to the top of concrete for composite pavement. A milling machine may be used to remove damaged pavement and form the repair areas if approved by the RE.

After the existing damaged HMA and loose material has been removed, the RE will examine underlying material to determine its condition.

If the base of the repair area is unbound material then shape and compact the unbound material to produce a firm and level base.

If water exists in the area, remove the underlying material to the depth specified by the RE. Place geotextile, then place and compact coarse aggregate to required grade to provide for a minimum 8 inch thick HMA pavement repair. Compact coarse aggregate as specified in 203.03.02.C. If the base of the repair is HMA or concrete pavement then ensure that the remaining pavement is cleaned and dry prior to applying tack coat.

Apply tack coat at an application rate of 0.15 gallons per square yard to the vertical surfaces and base of the opening. Spread and grade HMA surface course mix in the opening as specified for the roadway surface or a HMA surface course mix approved by the RE. 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 flat face compactor. Compact until the top of the patch is flush with, or 1/8 inch higher than, the adjacent pavement surface.

Reuse removed material as specified in 202.03.07.A.

THE FOLLOWING PART IS ADDED:

E. Micro-Milling.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Max. time interval allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ensure that pavement repairs are performed prior to micro-milling. Ensure that joint and crack sealing is performed after micro-milling.

Micro-mill pavement surfaces to the required depth, profile, and cross slope. The micro milling depth is not to exceed 1 1/2 inch depth. Operate the micro-milling machine at a speed recommended by the manufacturer, not greater than 50 feet per minute. 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 the work in a manner that prevents dust and other particulate matter from escaping into the air.

Ensure positive drainage is maintained. When micro-milling to improve the profile, ensure that at least 95 percent of the surface is micro-milled and textured. Ensure that the micro-milled area is free from gouges, continuous grooves, ridges, and delaminated areas and has a uniform texture consisting of discontinuous longitudinal striations. If during micro-milling the pavement surface becomes damaged, then correct the damaged areas as approved by the RE. Ensure that the micro-milling produces a final surface texture with a mean texture depth of not greater than 4mm when tested according to ASTM E 965.

Ensure that the vertical differential in the surfaces across transverse joints and cracks is less than 1/4 inch after micro-milling. The RE will use a 10 feet long straight edge to evaluate the vertical differential at transverse joints and cracks by centering the straightedge perpendicular to and across the transverse joints or cracks. If the vertical differential exceeds 1/4 inch as measured from the bottom of the straight edge to the top of the pavement surface at any point, perform corrective action until the differential is 1/4 inch or less.

When micro-milling to correct profile and cross slope, ensure the cutting depth is sufficient to remove ruts and corrugations and to scarify the remaining surface. If the depth required to remove ruts and corrugations exceeds a depth of 1 1/2 inches, then notify the RE. The RE may direct additional milling to correct these areas.

Using a mechanical sweeper, clean the area before opening to traffic and before subsequent construction or resurfacing. Reuse millings and sweepings as specified in 202.03.07.A.

The RE will visually inspect the micro-milled surface. The RE may reject micro-milled areas that are unsatisfactory based on visual inspection. Improper micro-milling that produces excess surface damage or a surface which does not meet the requirements of this specification may be rendered unsatisfactory as determined by the RE. Correct areas of the micro-milling that the RE rejects. Visual inspection by the RE is considered sufficient grounds for such rejection.
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.

A spray paver may be used to apply tack coat, or polymer modified tack coat, and HMA in a single operation. When paving HMA with a spray paver, use tack coat. When paving polymer modified HMA with a spray paver, use polymer modified tack coat. When using a spray paver then apply tack coat at a rate of 0.10 to 0.15 gallons per square yard and at a temperature as specified in Table 401.03.02-1.

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:

   ![Table 401.03.02-1 Tack Coat Application](image)

   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 RE 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. **Polymer Modified Tack Coat**. When paving polymer modified HMA, apply polymer modified tack coat with a spray paver at a temperature of 140 to 185 °F. Continuously monitor rate of spray, ensuring a uniform application rate over entire width to be overlaid. Apply at the rate of 0.10 to 0.15 gallons per square yard. For ultra-thin friction course, modified open-graded friction course and asphalt-rubber open-graded friction course, apply at a rate of 0.20 to 0.25 gallons per square yard. For Bridge Deck Waterproof Surface Course, apply at a rate of 0.15 to 0.20 gallons per square yard. Do not allow traffic, equipment, tools, or any other disturbance to the polymer modified tack coat before placing the HMA material.

4. **Prime Coat**. Clean the surface of foreign and loose material where the HMA is to be placed. Immediately before beginning paving operations, ensure that the surface is dry. Do not place prime coat unless the weather restrictions, as specified in 401.03.03.B, are met.

   Do not apply prime coat to asphalt-stabilized drainage course.

   For curbs, gutters, manholes, and other similar structures, do not apply 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. Do not allow traffic on prime coated surfaces. Treat surfaces as follows:

   Apply prime coat of emulsified asphalt on unpaved surfaces as follows:
Table 401.03.02-2  Prime Coat Application

<table>
<thead>
<tr>
<th>Material</th>
<th>Spraying Temp, °F</th>
<th>Gallons per Square Yard</th>
<th>Season</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emulsified Asphalt:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSS-1</td>
<td>70 to 140</td>
<td>0.1 to 0.50</td>
<td>All year</td>
</tr>
</tbody>
</table>

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 RE 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.

401.03.03  HMA Courses

A. Paving Plan.

THE FIRST PARAGRAPH IS CHANGED TO:

At least 20 days before beginning placing HMA, submit a detailed plan of operation to the RE for approval that includes the following:

THE PARTS 3, 5 & 9 ARE CHANGED TO:

3. Number, type, and model of equipment. Innovative equipment features to be utilized such as but not limited to intelligent compaction rollers, paver mounted infrared thermal profile system, and other Global Position System (GPS) located construction equipment.
5. Longitudinal joint layout plan, quality control and construction practices.
9. Paving sequence and paver automation use plan. 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.

THE FOLLOWING ARE ADDED AT THE END OF THE FIRST PARAGRAPH:

15. If applicable, the warm mix asphalt additive or process being used.

THE FOLLOWING PARAGRAPH IS ADDED:

When using HMA HIGH RAP submit for Department approval a plan of the location for the HMA HIGH RAP on the project.

C. Test Strip.

Construct a test strip for each HMA mix for contracts with more than a total of 5500 tons of HMA. For HMA HIGH RAP, construct the test strip at least 14 days prior to production. 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 RE:

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.
7. Warm Mix Asphalt. Note the warm mix asphalt additive or process, if used.

When a spray paver is used, during the test strip or prior to starting the paving operation, operate spray paver without mix to verify tack coat application rate and demonstrate full tack coat coverage to the RE for the project. Only after the RE approves the tack coat application and coverage, then proceed with the test strip.

Upon completion of the test strip, the Contractor may continue paving except when paving HMA HIGH RAP. If the Contractor does not continue paving, the Department will accept the test strip as the first 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 RE in writing. If any changes are made to the paving plan after the beginning of the paving operation, construct an additional test strip.

D. Transportation and Delivery of HMA.

THE ENTIRE TEXT IS CHANGED TO:

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 RE will reject HMA if the HMA trucks do not meet the requirements specified in 1009.02. The RE 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. Contractor
3. Project title.
4. Load time and date.
5. Truck number.
7. Item name and number
8. Plant lot number.
9. Tare, gross, and net weight.

Ensure that weigh tickets are signed and sealed by a certified weighmaster.

In the event of breakdown of an automatic printer system, the RE 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. Ensure the printed ticket shows 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 provide certification from the weighmaster that the total net weight supplied was correct.

E. Spreading and Grading.

THE ENTIRE TEXT IS CHANGED TO:

Use a stringline or other linear reference system to ensure proper line and grade when spreading material. Ensure that the system is in place and approved by the RE 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 to the full width of the HMA. Obtain RE 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 the paver vibratory screed is on when paving and that the paver automation is used as per the paving plan. Ensure the paver and auger speed are coordinated and operated at the proper speed to allow for a uniform head of material across the entire width of the paver. Ensure that the proper paver and auger speed are maintained. Ensure that the grade and profile are maintained.

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.
When paving HMA HIGH RAP record the laydown temperature (temperature immediately behind the paver) at least once per hour during paving. Submit the temperatures to the RE and the HMA Plant producing the HMA HIGH RAP.

Construct joints as follows:

1. **Longitudinal Joints.** Perform paving with the spring-loaded end plates of the paver in the “down” position and ensure that they are firmly seated on the pavement surface. Ensure augers and tunnels are extended to within 12 to 18 inches of the end plates and that a continual supply of hot material flows out to the end plates and the material is not segregating. Ensure the longitudinal joint in 1 lift offsets 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 ±1 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 straight, and 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. Apply polymerized joint adhesive to the vertical faces, curb and utility structures.

      When maintaining traffic with a lift thickness greater than 2 inches, construct a wedge joint. The RE will permit a butt joint for lift thickness 2 inches or less when maintaining traffic, or for lift thickness greater than 2 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 1/2 to 1 inch. Leave the material sufficiently high to allow for compaction. Do not lute the HMA material. Do not broadcast HMA material at the joint across the new HMA mat.

      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 more than 1/8 inch, suspend 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.**

   THE FOURTH SENTENCE OF THE LAST PARAGRAPH IS CHANGED TO:

   On a daily basis, provide results of both the nuclear density and core testing to the RE.

G. **Opening to Traffic.**

   THE ENTIRE TEXT IS CHANGED TO:

   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 temperature has cooled to less than 140 °F.

   When using Warm Mix Asphalt, do not allow traffic or construction equipment on the HMA course until the surface temperature is less than 120 °F.

401.03.03 H AIR VOIDS ACCEPTANCE PLAN

   THIS SUBSECTION IS REPLACED BY THE FOLLOWING:

   H. Air Void Requirements.
Pavement lots are defined as approximately 15,000 square yards of pavement in surface area. If pavement lot area is less than 5000 square yards, the Regional District Local Aid Office may waive the air voids requirements.

The RE will designate an independent testing agency (Laboratory) to perform the quality assurance sampling, testing and analysis. The Laboratory is required to be accredited by the AASHTO Accreditation Program (www.amrl.net). The Laboratory’s accreditation must include AASHTO T 166 and AASHTO T 209.

The Laboratory will determine air voids from 5 (Five) 6 inch diameter cores taken from each lot in random locations within the traveled way and at least one core in each travel lane. The Laboratory 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 Laboratory will determine the maximum specific gravity of the mix according to NIDOT 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 Laboratory will determine the bulk specific gravity of the compacted mixture by testing each core according to AASHTO T 166. The Laboratory will calculate the in-place air voids of each completed lot outside the acceptable range of 2 percent air voids to 8 percent air voids. The RE will assess a reduction in lot due to nonconformance to air voids according to the Table 401.03.03-3.

Table 401.03.03-3 Reduction for Nonconformance to Air Voids Requirements

<table>
<thead>
<tr>
<th>Lot Average Air Void Value (Five Samples)</th>
<th>Reduction Per Lot (Percent of Lot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 to 1.9</td>
<td>10</td>
</tr>
<tr>
<td>2.0 to 8.0</td>
<td>0</td>
</tr>
<tr>
<td>8.1 to 9.0</td>
<td>5</td>
</tr>
<tr>
<td>9.1 to 10.0</td>
<td>15</td>
</tr>
<tr>
<td>10.1 to 12.0</td>
<td>30</td>
</tr>
<tr>
<td>Over 12.0</td>
<td>Remove &amp; Replace</td>
</tr>
</tbody>
</table>

If the average air voids for the lot is greater than 12.0 percent, remove and replace the lot. The replacement work is subject to the same requirements as the initial work.

**401.03.03 I THICKNESS REQUIREMENTS**  
THIS SUBSECTION IS DELETED. IN NO INSTANCE WILL A COMPACTED AVERAGE THICKNESS OF LESS THAN 1.25 INCHES BE ACCEPTABLE.

**401.03.04 Sawcutting and Sealing of Joints in HMA Overlays**  
THE TEXT OF THIS SUBPART IS DELETED.

THIS SUBPART IS INTENTIONALLY LEFT BLANK

**401.03.05 Core Samples**  
THE LAST SENTENCE OF THE 2ND PARAGRAPH IS CHANGED TO THE FOLLOWING:

Apply an even coating of tack coat to sides of the hole. Place HMA in maximum lifts of 4 inches in the hole and compact each lift. Ensure that the final surface is 1/4 inch above the surrounding pavement surface.

THE FIFTH PARAGRAPH IS CHANGED TO:

At least 24 hours prior to coring, provide a tamper proof core sample box for the RE’s inspection and approval. Ensure that the core sample box can be locked and sealed and is tamper proof in such a manner that it cannot be opened without removing the seals. Ensure that the core sample box provides protection for the cores from being disturbed or damaged during transit. Mark the Department assigned core number on the side of the sample. Place core samples and corresponding
forms, including a completed and signed Form DC-286 Contractor’s certificate of compliance Core sample delivery, in the core sample box. Ensure Form DC-286 is also signed by a Department witness. Before sealing the core sample box, ensure that the RE has recorded the seal number on the laboratory form. Transport the sealed core sample boxes to the Department Laboratory. The RE at his discretion may decide to deliver the core samples as indicated above.

THE SIXTH PARAGRAPH IS CHANGED TO:

The Department will not accept damaged core samples for testing. If the core sample box exhibits indications of tampering, the core samples will be rejected. If the Department rejects any core samples, drill a replacement core at the same offset and within 5 feet of the original station and deliver to the laboratory as specified above within 48 hours.

401.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAWING AND SEALING JOINTS IN HOT MIX ASPHALT OVERLAY</td>
<td>LINEAR FOOT</td>
</tr>
</tbody>
</table>

THE FOLLOWING ITEMS ARE ADDED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYMER MODIFIED TACK COAT</td>
<td>GALLON</td>
</tr>
<tr>
<td>MICRO-MILLING</td>
<td>SQUARE YARD</td>
</tr>
<tr>
<td>HOT MIX ASPHALT ___ ___ ___ SURFACE COURSE HIGH RAP</td>
<td>TON</td>
</tr>
<tr>
<td>HOT MIX ASPHALT ___ ___ ___ INTERMEDIATE COURSE HIGH RAP</td>
<td>TON</td>
</tr>
<tr>
<td>HOT MIX ASPHALT ___ ___ ___ BASE COURSE HIGH RAP</td>
<td>TON</td>
</tr>
</tbody>
</table>

THE FOURTH PARAGRAPH IS CHANGED TO:

The Department will measure TACK COAT, TACK COAT 64-22, PRIME COAT and POLYMER MODIFIED TACK COAT by the volume delivered, converted to the number of gallons at 60 °F as calculated by the temperature-volume correction factors specified in 902.01.

THE FOLLOWING IS ADDED:

The Department will make a payment adjustment for HMA air void quality by the following formula:

\[
\text{Pay Adjustment} = Q \times BP \times PPA
\]

Where:
BP = Bid Price
Q= Air Void Lot Quantity
PPA= air void PPA as specified in 401.03.03H.

The Department will make a payment adjustment for HMA thickness quality by the following formula:

\[
\text{Pay Adjustment} = Q \times BP \times PPA
\]

Where:
BP = Bid Price
Q= Thickness Lot Quantity
PPA= thickness PPA as specified in 401.03.03I

The Department will make a payment adjustment for HMA ride quality, as specified in 401.03.03J.
DIVISION 600 – MISCELLANEOUS CONSTRUCTION

SECTION 606 – SIDEWALKS, DRIVEWAYS, AND ISLANDS

606.03.01 HMA Sidewalks, Driveways, and Islands
THE THIRD AND FOURTH PARAGRAPHS ARE CHANGED TO:

For sidewalks and islands, construct the base course using DGA as specified in 302.03.01. Construct the HMA course, as specified in 401.03.03. Compact using at least 1/2 ton rollers.

For driveways, if directed by the RE, construct a base course using DGA as specified in 302.03.01 to the thickness directed by the RE. Construct the HMA course, as specified in 401.03.03. Compact using at least 1/2 ton rollers.

606.03.02 Concrete Sidewalks, Driveways, and Islands

F. Placing Concrete.
THE ENTIRE PART F. IS CHANGED TO:

Obtain RE 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 1 and March 15, submit to RE 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. Ensure that concrete is not discharged into windrows or piles. 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 by hand spading or using internal mechanical vibrators. If a slab is not completed from transverse joint to transverse joint, remove the incomplete slab and replace. Terminate each day’s placement at a transverse joint. If concrete becomes segregated during placement, cease operations and correct handling operations. Protect concrete as specified in 504.03.02.I.

H. Protection and Curing.
THE LAST SENTENCE IS CHANGED TO:

Ensure vehicles and other loads are not placed on sidewalks, islands, and driveways until the concrete has attained compressive strength of 3000 pounds per square inch, as determined from 2 concrete cylinders field cured according to AASHTO T 23.

SECTION 607 – CURB

607.03.01 Concrete Barrier Curb

D. Placing Concrete.
THE THIRD SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

To place concrete between November 1 to March 15, submit to RE for approval a plan detailing the method of protecting the concrete from salt for at least 30 days after placing.

607.03.02 Concrete Vertical Curb and Concrete Sloping Curb

D. Placing Concrete.
THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical curb and sloping curb as specified in 607.03.01.D, except that consolidation may be achieved by hand spading or internal mechanical vibrators.

607.03.04 Concrete Vertical Curb and Concrete Sloping Curb, Dowelled

D. Placing Concrete.
THE ENTIRE TEXT IS CHANGED TO:

Place concrete for vertical and sloping curb as specified in 607.03.02.D.
607.04 MEASUREMENT AND PAYMENT
THE FOLLOWING ITEMS ARE ADDED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>__&quot; X __&quot; F SHAPE CONCRETE BARRIER CURB</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>__&quot; X __&quot; F SHAPE CONCRETE BARRIER CURB, DOWELLED</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>__&quot; X VARIABLE HEIGHT F SHAPE CONCRETE BARRIER CURB, DOWELLED</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>__&quot; X __&quot; HEIGHT F SHAPE CONCRETE BARRIER CURB, DOWELLED</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>VARIABLE WIDTH X VARIABLE HEIGHT F SHAPE CONCRETE BARRIER CURB</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>VARIABLE WIDTH X VARIABLE HEIGHT CONCRETE BARRIER CURB</td>
<td>LINEAR FOOT</td>
</tr>
</tbody>
</table>

SECTION 610 – TRAFFIC STRIPES, TRAFFIC MARKINGS, AND RUMBLE STRIPS

610.02.01 Materials
THE FOLLOWING MATERIALS ARE RENAMED TO:
Traffic Stripes........................................................................................................................................... 912.03.01
Traffic Markings........................................................................................................................................... 912.03.02

610.03.02 Thermoplastic Traffic Markings
THE SUBPART HEADING AND THE ENTIRE TEXT IS CHANGED TO:

610.03.02 Traffic Stripes, Traffic Markings Lines, Traffic Markings Symbols and Traffic Markings Route Symbols

A. Marking Plan. At least 20 days before beginning the work, submit to the RE for approval a marking plan that includes:

1. Schedule of operations for applying traffic stripes and markings,
2. Number and type of equipment,
3. Manufacturer’s recommendations for use of the materials, including mixing ratios and application temperatures.
4. Details on the means and methods for surface preparation
5. Details on the means and methods for premarking

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 Traffic Stripes and 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. 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.

2. 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 ± 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.

D. Performance. Ensure that the traffic markings show no fading, lifting, cracking, chipping for any reason including but not limited to traffic wear, maintenance activities including snow plowing, until Acceptance. Ensure that 60 days after application, traffic markings have a minimum retroreflectance value of:

375 millicandelas per square meter per lux for white traffic markings
250 millicandelas per square meter per lux for yellow traffic markings

E. Defective work. Replace thermoplastic traffic markings that are determined by the RE before Acceptance to be defective or that are damaged during construction. Remove defective markings as specified in 610.03.08.
Replace the entire area of thermoplastic 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 for longitudinal lines the entire length from where the deficiency first occurs to where it no longer exists.

The RE will determine initial retroreflectance as follows:

Provide the RE with a Reflectometer that meets a 30 meter geometry as specified in ASTM E 1710, capable of measuring wet and dry conditions as specified in ASTM E 2176 and ASTM E 2177, and that has been certified by the manufacturer as being calibrated within the last two years. The RE will test the retroreflectance of traffic markings. Replace traffic markings that do not meet the retroreflectance values indicated in 610.03.02.D.

**F. Opening to Traffic.** Complete each application of thermoplastic traffic markings and allow to thoroughly dry before opening to traffic. The RE will determine when the traveled way can be opened to traffic.

### 610.03.04 Removal of RPMs

The entire text is changed to:

Remove RPMs as directed by the RE. Dispose of RPMs as specified in 201.03.09. If directed by the RE, fill the hole with HMA patch as specified in 159.03.07 except sawcutting is not required.

### 610.03.06 Ground Mounted Flexible Delineators

The first paragraph is changed to:

Use white retroreflective sheeting for delineators located on the right side when facing in the direction of traffic. Use yellow retroreflective sheeting for delineators located on the left side when facing in the direction of traffic.

### 610.03.07 Rumble Strip

The entire subpart is changed to:

At least 20 days before constructing rumble strips, submit a plan for cutting rumble strips and debris collection/removal to the RE for approval.

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.

### 610.04 Measurement and Payment

The following items are deleted:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPM, BI-DIRECTIONAL, WHITE LENS</td>
<td>UNIT</td>
</tr>
<tr>
<td>TRAFFIC STRIPES, LONG-LIFE, EPOXY RESIN ___&quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS, THERMOPLASTIC</td>
<td>SQUARE FOOT</td>
</tr>
</tbody>
</table>

The following items are added:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAFFIC STRIPES, ___ &quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS LINES, ___ &quot;</td>
<td>LINEAR FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS SYMBOLS</td>
<td>SQUARE FOOT</td>
</tr>
<tr>
<td>TRAFFIC MARKINGS ROUTE SYMBOLS</td>
<td>SQUARE FOOT</td>
</tr>
</tbody>
</table>

The second paragraph is changed to:

The Department will measure TRAFFIC STRIPES and TRAFFIC MARKINGS LINES by the linear foot for each specified width of stripe. The Department will not measure gaps in striping.
SECTION 612 – SIGNS

612.02 MATERIALS
THE FOLLOWING IS DELETED FROM THE MATERIALS LIST.
   Non-Breakaway Sign Supports................................................................. 911.02.03

THE SECOND PARAGRAPH IS DELETED.

612.03.02 Type GA Breakaway and Non-Breakaway Support Guide Signs
THE SUBPART HEADING IS CHANGED TO:

612.03.02 Type GA Breakaway Support Guide Signs

612.03.02 Type GA Breakaway Support Guide Signs
C. Constructing Pedestals
THE SUBPART IS CHANGED TO:

Place reinforcement steel as specified in 504.03.01 before placing the concrete. Ensure that concrete placement complies with the limitations as specified in 504.03.02.C. Place concrete as specified in 504.03.02.D. Cure concrete as specified in 504.03.02.F.

D. Erecting Posts
THE SUBPART IS CHANGED TO:

Erect posts as specified in 512.03.01.G.

THE FOLLOWING IS ADDED:

F. Constructing Anchor, Hinge, Bracket and Coupling Assemblies. At least 10 days before beginning the work, submit the manufacturer’s installation guide and installer’s certification to the RE.

Ensure that the installer is certified by the manufacturer.

Ensure that the manufacturer’s representative is present during the foundation pour and the installation of the first sign. Install anchor, hinge, bracket and coupling assemblies according to the manufacturer’s recommendations. The RE may require the system manufacturer’s representative to be present at all times during the installation to provide on-site technical support.

612.04 MEASUREMENT AND PAYMENT
THE FOLLOWING ITEM IS DELETED:

<table>
<thead>
<tr>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUIDE SIGN, TYPE GA, NON-BREAKAWAY SUPPORTS</td>
<td>SQUARE FOOT</td>
</tr>
</tbody>
</table>
DIVISION 700 – ELECTRICAL

SECTION 701 – GENERAL ITEMS

701.03.01 Existing Systems
THE FIFTH PARAGRAPH IS CHANGED TO:

If removal of existing above ground electrical material is required, deliver salvaged materials to the nearest Department electrical maintenance yard and unload the salvaged materials as directed. Dispose of salvaged materials rejected by the Department from the Project Limits as specified in 201.03.09.

Deliver and unload salvaged ITS materials to:

- Mobility Management North (MMN)- ITS Maintenance
  670 River Drive
  Elmwood Park, NJ 07407-1347
  Telephone: 732-697-7360
- Mobility Management South (MMS) – ITS Maintenance
  One Executive Suite Route 70 West
  Cherry Hill, NJ 08002-4106
  Telephone: 856-486-6615

THE FOLLOWING IS ADDED:

If new cable or wire is designated to be installed into existing conduit systems, clean and swab the conduit system prior to installing the cable or wire. After cleaning, test each conduit by pulling through a metal ball with a diameter at least 85 percent of the nominal inside diameter of the conduit to ensure the conduit is free of any obstruction or foreign material. If the ball fails to pass through the conduit, repair or replace the defective conduit as directed by the RE. Restore disturbed areas to original condition.

701.03.02 Rigid Metallic Conduit (Earth)
B. Installation.
THE FOLLOWING IS ADDED:

In rigid metallic conduit used exclusively for fiber optic cable, install a tracer wire continuously for the entire run of conduit, including through the junction boxes, mounting it on the wall. Splice the tracer wire only in the junction box. Seal the ends of rigid metallic conduit carrying the tracer wire. If wire or cable is not scheduled to be installed within 6 months of conduit installation, cap and seal the other conduits leaving the true tape inside. Install warning tape in the trench above the conduit.

701.03.03 Rigid Metallic Conduit (Roadway)
THE FOLLOWING IS ADDED:

In rigid metallic conduit used exclusively for fiber optic cable, install a tracer wire continuously for the entire run of conduit, including through the junction boxes, mounting it on the wall. Splice the tracer wire only in the junction box. Seal the ends of rigid metallic conduit carrying the tracer wire. If wire or cable is not scheduled to be installed within 6 months of conduit installation, cap and seal the other conduits leaving the true tape inside. Install warning tape in the trench above the conduit.

701.03.05 Rigid Nonmetallic Conduit
B. Installation.
THE LAST PARAGRAPH IS CHANGED TO:

Install true tape marked in 1-foot increments for the length of the rigid non-metallic conduit. Install a tracer wire continuously for the entire run of conduit, including through the junction boxes, mounting it on the wall. Splice the tracer wire only in the junction box. Seal the ends of rigid nonmetallic conduit carrying the tracer wire. If wire or cable is not scheduled to be installed within 6 months of conduit installation, cap and seal the other conduits leaving the true tape inside. Install warning tape in the trench above the conduit.

701.03.06 Flexible Metallic Conduit
THE ENTIRE SUBSECTION TEXT IS CHANGED TO:

Install liquidtight flexible metallic conduit according to NEC requirements. Cut liquidtight flexible metallic conduit according to manufacturer’s recommendations. Ensure that conduit used for fiber optic cables meets the minimum bend and
radius requirements as specified in the Contract and according to the fiber optic cable manufacturer. Utilize NEMA-4X weather-tight hubs for conduit connections to ITS and electrical enclosures.

701.03.07 Flexible Nonmetallic Conduit

B. Installation.
THE SECOND PARAGRAPH IS DELETED.

THE THIRD PARAGRAPH IS CHANGED TO:

Construct flexible nonmetallic conduit runs so that there are no joints or splices in the conduit between adjacent junction boxes. Ensure flexible nonmetallic conduit runs are terminated in the junction boxes according to manufacturer’s recommendations.

THE LAST PARAGRAPH IS CHANGED TO:

Install true tape marked in 1-foot increments for the length of the flexible non-metallic conduit. Install a tracer wire continuously for the entire run of conduit, including through the junction boxes, mounting it on the wall. Splice the tracer wire only in the junction box. Seal the ends of flexible nonmetallic conduit carrying the tracer wire. If wire or cable is not scheduled to be installed within 6 months of conduit installation, cap and seal the other conduits leaving the true tape inside. Install warning tape in the trench above the conduit.

701.03.15 Cable and Wire

A. Installing.
THE FOLLOWING IS ADDED

Test the existing tracer wire in the conduit for continuity. If there is no existing tracer wire in any of the conduits in the same trench, then install a continuous tracer wire between the adjacent junction boxes without any splice when installing the cable and wire as directed by the RE.

C. Connection and Coordination with Utility Services.
THE FOLLOWING IS ADDED:

Obtain and provide for utility services required for testing and operation of ITS systems until interim acceptance of each system or device. Utility Services may be governed by differing Authorities Having Jurisdiction (AHJ). Along with Utility Requirements, comply with all AHJ requirements. Upon successful completion of level C testing and acceptance of any device, provide the RE with a letter requesting transfer of utility services providing the latest copy of the utility bill from each utility company. Such transfers are to be effective beginning the next monthly billing cycle after completion of successful ITS system testing as specified in Section 704 and interim acceptance of the device or as directed by the RE.

Once new utility services have been energized or activated and the utility company has de-energized and unhooked the old service connection; remove existing pole risers and service heads, cut back one foot below grade, and plug the conduits.

701.04 MEASUREMENT AND PAYMENT
THE FOLLOWING IS ADDED:

The Department will not include payment for restoring disturbed areas in the various Items of this Section. The Department will pay for restoring disturbed areas (pavement, curb, sidewalk, driveway or island) as specified in 104.03.03.

The Department will not include payment when the RE directs the installation of a new conduit or a repair to the defective conduit in the various Items of this Section. The Department will pay for the installation, when directed by the RE, of a new conduit or a repair to the defective conduit as specified in 104.03.03.

The Department will not include payment when the RE directs the installation of a tracer wire in existing conduit in the various Items of this Section. The Department will pay for the installation, when directed by the RE, of a tracer wire in existing conduit as specified in 104.03.03.
702.03 CONSTRUCTION
THE FOLLOWING IS ADDED:

After placing a new, temporary or interim traffic signal system into operation, inspect the traffic signal system every 2 months. Fill out a Contractor Maintenance Traffic Signal Inspection Report (Form EL-16C) when the traffic signal system becomes operational, when the traffic signal system is modified, and at every 2-month inspection.

Maintain as-built drawings of each signal modification. Place copies of the as-built drawings for each traffic signal system modification, Forms EL-16C, and Forms EL-11C in a plastic pocket mounted inside the cabinet door of each controller cabinet. Also provide a copy of all forms and as-built drawings to the RE.

If a new, temporary or interim traffic signal system fails or becomes damaged, repair and restore the traffic signal system to normal operation. Begin repair of the traffic signal system within 2 hours of receiving notice of damage or malfunction from the Department, State police, or local authorities. Ensure that workers assigned to such repair work continuously until the traffic signal resumes normal signal operation.

For each response to a system failure or damage, fill out a Contractor Maintenance Emergency Call Record (Form EL-11C) and place it in a plastic pocket mounted inside the cabinet door of each controller cabinet.

If the Contractor fails to respond to a failure or damage notification and begin work within 2 hours of notification, or does not continue to work until the traffic signal system resumes normal operation, the Department, in the interest of safety, will respond with its own forces to restore normal operation. If the Department mobilizes its forces to effect repairs, the Contractor agrees to pay the Department a sum of $3000 for costs of mobilizing its forces and equipment. In addition, the Contractor must pay the Department the actual cost of material used for the repair and pay the actual costs of police traffic protection.

702.03.11 Temporary and Interim Traffic Signal Systems
THE FIRST THROUGH FIFTH PARAGRAPHS ARE DELETED:
THE FOLLOWING IS ADDED:

702.03.13 Uninterruptible Power Source Unit With Controller Cabinet Revisions

The controller shall be mounted on an 18” aluminum skirt with adjustable shelves. The 18” aluminum skirt shall be of the same manufacturer as of the controller cabinet.

The controller shall also include an uninterruptible power source (UPS) unit:

The UPS unit shall conform to the following criteria:

1. The UPS shall be run continuously, with power to the controller fed through the UPS.
2. All interconnecting harnesses shall be heavy duty with military type connectors.
3. The UPS unit shall be capable of running the intersection at full operation for a minimum of 6 hours at 600 watts. The reserve margin shall be 10%.
4. The UPS unit shall be covered by warranty for a minimum of 2 years.
5. The UPS unit shall be compatible with all other equipment as specified in this item.

The UPS unit shall be shelf-mounted and the battery pack shall be shelf mounted on the sidewall of the controller cabinet skirt.

In addition, the generator cabinet hookup shall be replaced with an Alpha Generator Transfer Switch. The wall mounting bracket, male twist lock, 130V AC receptacle, waterproof cover, and cabling shall also be replaced.
DIVISION 900 – MATERIALS

SECTION 901 – AGGREGATES

THE ENTIRE SUBSECTION IS CHANGED TO:

901.07  GRIT

901.07.01  Grit for Epoxy Waterproofing.

Use grit for spreading over the epoxy waterproofing that is a subangular, natural, 98 percent silica sand. Ensure that 90 percent of the total sample by weight falls between the No. 4 and No. 30 sieves, with 0 percent passing the No. 30 sieve.

901.07.02  Fine Aggregate for Fog Seal.

Use fine aggregate for spreading over fog seal that conforms to 901.05.02 and the gradation requirements in Table 901.07.02-1:

<table>
<thead>
<tr>
<th>Sieve Size</th>
<th>Percent Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 8</td>
<td>100</td>
</tr>
<tr>
<td>No. 16</td>
<td>90 - 100</td>
</tr>
<tr>
<td>No. 50</td>
<td>70 - 100</td>
</tr>
<tr>
<td>No. 200</td>
<td>0 - 2</td>
</tr>
</tbody>
</table>

901.11  SOIL AGGREGATE

1. Composition of Soil Aggregate.

THE FOLLOWING IS ADDED TO THE LAST PARAGRAPH:

For Designation I-14, the Contractor may use up to 30 percent steel slag by weight of the coarse aggregate portion of the soil aggregate. Obtain steel slag from a source listed on the QPL as specified in 901.01. Use steel slag that was produced as a co-product of the steel making process. Ensure that the steel slag consists of tough, durable pieces that are uniform in density and quality. Stockpile steel slag as specified in 901.02. Ensure steel slag for blending with I-14 Soil Aggregate does not exceed 0.50 percent expansion from hydration when tested according to ASTM D 4792.

SECTION 902 – ASPHALT

902.01  BITUMINOUS MATERIALS

THE ENTIRE TEXT IS CHANGED TO:

Use the following temperature-volume correction (TVC) factors to convert the volume of bituminous materials, measured at the temperature at the point of use, to the volume at 60 °F:

1. For PG Binder, use the following equation:

\[
TVC = 1.0211326242 - 3.548988118 \times 10^{-4} [T (°F)] + 4.49881 \times 10^{-8} [T (°F)]^2
\]

2. For emulsified asphalts, use Table 902.01-1.

<table>
<thead>
<tr>
<th>Temp (°F)</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>1.0050</td>
</tr>
<tr>
<td>41</td>
<td>1.0048</td>
</tr>
<tr>
<td>42</td>
<td>1.0045</td>
</tr>
<tr>
<td>43</td>
<td>1.0043</td>
</tr>
<tr>
<td>44</td>
<td>1.0040</td>
</tr>
<tr>
<td>45</td>
<td>1.0038</td>
</tr>
<tr>
<td>46</td>
<td>1.0035</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temp (°F)</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>56</td>
<td>1.0010</td>
</tr>
<tr>
<td>57</td>
<td>1.0008</td>
</tr>
<tr>
<td>58</td>
<td>1.0005</td>
</tr>
<tr>
<td>59</td>
<td>1.0003</td>
</tr>
<tr>
<td>60</td>
<td>1.0000</td>
</tr>
<tr>
<td>61</td>
<td>0.9998</td>
</tr>
<tr>
<td>62</td>
<td>0.9995</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temp (°F)</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>72</td>
<td>0.9970</td>
</tr>
<tr>
<td>73</td>
<td>0.9968</td>
</tr>
<tr>
<td>74</td>
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<tr>
<td>75</td>
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</tr>
<tr>
<td>76</td>
<td>0.9960</td>
</tr>
<tr>
<td>77</td>
<td>0.9958</td>
</tr>
<tr>
<td>78</td>
<td>0.9955</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temp (°F)</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>0.9930</td>
</tr>
<tr>
<td>89</td>
<td>0.9928</td>
</tr>
<tr>
<td>90</td>
<td>0.9925</td>
</tr>
<tr>
<td>91</td>
<td>0.9923</td>
</tr>
<tr>
<td>92</td>
<td>0.9920</td>
</tr>
<tr>
<td>93</td>
<td>0.9918</td>
</tr>
<tr>
<td>94</td>
<td>0.9915</td>
</tr>
</tbody>
</table>
902.01.01 Asphalt Binder
THE SECOND PARAGRAPH IS CHANGED TO:
When specified, use PG 64E-22 asphalt binder that is a storage-stable and conforms to AASHTO M 332 including compliance with the elastic response requirement in Appendix X1.1.

902.01.02 Cutback Asphalts
THE ENTIRE SUBPART IS DELETED.

902.01.03 Emulsified Asphalts
THE ENTIRE TEXT IS CHANGED TO:
Use undiluted anionic emulsified asphalts of the rapid-setting (RS) and medium-setting (MS) types conforming to AASHTO M 140. Use undiluted cationic emulsified asphalts of the rapid-setting (CRS), quick-setting (CQS), and medium-setting (CMS) types conforming to AASHTO M 208.

For prime coats, use an anionic emulsified asphalt of the slow-setting (SS) type conforming to AASHTO M140 or cationic emulsified asphalt of the slow-setting (CSS) type confirming to AASHTO M 208.

The emulsified asphalt producer shall provide the emulsified asphalt quality control plan annually to the ME for approval. Ensure that the quality control plan conforms to AASHTO R77.

Submit to the ME a certification of compliance, as specified in 106.07, for the emulsified asphalt. The ME will perform quality assurance sampling and testing of each emulsified asphalt lot as defined in the approved quality control plan.

902.01.04 Polymer Modified Tack Coat
THE TITLE AND ENTIRE TEXT IS CHANGED TO:
902.01.04 Polymer Modified Emulsified Asphalt

Use undiluted polymer modified emulsified asphalt of the rapid-setting (RS), cationic rapid-setting (CRS), medium-setting (MS), and cationic quick-setting (CQS) types conforming to AASHTO M 316. The polymer modified emulsified asphalt producer shall provide the polymer modified emulsified asphalt quality control plan annually to the ME for approval. Ensure that the quality control plan conforms to AASHTO R77.

Submit to the ME a certification of compliance, as specified in 106.07, for the polymer modified emulsified asphalt. The ME will perform quality assurance sampling and testing of each polymer modified emulsified asphalt lot as defined in the approved quality control plan.

THE FOLLOWING SUBPART IS ADDED:

902.01.05 Warm Mix Asphalt (WMA) Additives and Processes

Use a WMA additive or process that is listed on the Northeast Asphalt User/Producer Group (NEAUPG) Qualified WMA Technologies List which can be found at the following website: http://www.neaupg.uconn.edu/

If an approved HMA mix design is used, a separate mix design with WMA additives or processes is not required.

Submit information on the WMA additive or process with the Paving Plan required in 401.03.03.A. For controlled foaming systems, also submit the operating parameters of the system including accuracy of the meter, operating range, and temperature of the binder. Provide the target and operating tolerances for the percent water injection and temperatures for the binder. Provide a method for validating this with changing production rates.

Ensure that a technical representative of the manufacturer is on-site or available for consultation for the first day or night of production.

902.02.01 Mix Designations

THE ENTIRE SUBPART IS CHANGED TO:

The requirements for specific HMA mixtures are identified by the abbreviated fields in the Item description as defined as follows:

HOT MIX ASPHALT 12.5ME SURFACE COURSE

1. “HOT MIX ASPHALT” “Hot Mix Asphalt” is located in the first field in the Item description for the purpose of identifying the mixture requirements.

2. “12.5” The second field in the Item description designates the nominal maximum size aggregate (in millimeters) for the job mix formula (sizes are 4.75, 9.5, 12.5, 19, 25, and 37.5 mm).

3. “M” The third field in the Item description designates the design compaction level for the job mix formula based on traffic forecasts as listed in Table 902.02.03-2 (levels are L=low and M=medium).

4. “E” The fourth field in the Item description designates the high temperature designation of the performance-graded binder. Options are “64” for PG 64-22 and “E” for PG 64E-22.

5. “SURFACE COURSE” The last field in the Item description designates the intended use and location within the pavement structure (options are surface, intermediate, or base course).

902.02.02 Composition of Mixtures

THE ENTIRE SUBPART IS CHANGED TO:

Provide materials as specified:

Aggregates for Hot Mix Asphalt .......................................................... 901.05
Asphalt Binder .......................................................... 902.01.01
Warm Mix Additives and Processes (optional) .................................. 902.01.05

If a WMA additive is pre-blended in the asphalt binder, ensure that the asphalt binder meets the requirements of the specified grade after the addition of the WMA additive. If a WMA additive is added at the HMA plant, ensure that the addition of the additive will not negatively impact the grade of asphalt binder. Follow the manufacturer’s recommendations for percentage of WMA additive needed.

Mix HMA in a plant that is listed on the QPL and conforms to the requirements for HMA Plants as specified in 1009.01.

Composition of the mixture for HMA surface course is coarse aggregate, fine aggregate, and asphalt binder, and may also include mineral filler, WMA additive, and up to 15 percent Reclaimed Asphalt Pavement (RAP). For controlled asphalt
foaming system WMA, the Department may require an anti-stripping additive. Ensure that the finished mix does not contain more than a total of 1 percent by weight contamination from Crushed Recycled Container Glass (CRCG).

The composition of the mixture for HMA base or intermediate course is coarse aggregate, fine aggregate, and asphalt binder, and may also include mineral filler, WMA additive and up to 35 percent of recycled materials. For controlled asphalt foaming system WMA, the Department may require an anti-stripping additive. The 35 percent of recycled materials may consist of a combination of RAP, CRCG, Ground Bituminous Shingle Material (GBSM), and RPCSA, with the following individual limits:

<table>
<thead>
<tr>
<th>Recycled Material</th>
<th>Maximum Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAP</td>
<td>25</td>
</tr>
<tr>
<td>CRCG</td>
<td>10</td>
</tr>
<tr>
<td>GBSM</td>
<td>5</td>
</tr>
<tr>
<td>RPCSA</td>
<td>20</td>
</tr>
</tbody>
</table>

Combine the aggregates to ensure that the resulting mixture meets the grading requirements specified in Table 902.02.03-1. In determining the percentage of aggregates of the various sizes necessary to meet gradation requirements, exclude the asphalt binder.

Ensure that the combined coarse aggregate, when tested according to ASTM D 4791, has less than 10 percent flat and elongated pieces retained on the No. 4 sieve and larger. Measure aggregate using the ratio of 5:1, comparing the length (longest dimension) to the thickness (smallest dimension) of the aggregate particles.

Ensure that the combined fine aggregate in the mixture conforms to the requirements specified in Table 902.02.02-2. Ensure that the material passing the No. 40 sieve is non-plastic when tested according to AASHTO T 90.

902.02.03 MIX DESIGN

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:
UNLESS OTHERWISE APPROVED BY THE ENGINEER, ONLY ONE SOURCE OF SUPPLY FOR HOT MIX ASPHALT SURFACE COURSE MAY BE USED ON THE PROJECT.

902.02.04 SAMPLING AND TESTING

ADD THE FOLLOWING TO 902.02.04:
F. Acceptance of HMA. The Department may accept the HMA as specified in 902.02.04.A through 902-02.04.E by employing staff or an independent testing agency at the HMA plant during production. The inspector who performs the quality assurance sampling shall be certified by the Society of Asphalt Technologists of New Jersey as an Asphalt Plant Technologist, Level 2. Alternatively, the Department may accept the HMA by Certification of Compliance according to 106.07.

902.03.01 Composition of Mixtures

THE ENTIRE TEXT IS CHANGED TO:

Mix OGFC and MOGFC in a plant that is listed on the QPL and conforms to the requirements for HMA plants as specified in 1009.01.

Composition of mixture for OGFC and MOGFC is coarse aggregate, fine aggregate and asphalt binder and may include a WMA additive. Ensure that the mixture conforms to the following requirements:
1. Use aggregate for OGFC and MOGFC that conforms to 901.05, except, for coarse aggregate, use broken stone of gneiss, granite, quartzite, or trap rock. Do not use RAP, CRCG, GBSM, or RPCSA.
2. Use asphalt binder for OGFC and MOGFC that is PG 64E-22 as specified in 902.01.01.
3. If used, ensure that WMA additives or processes conform to 902.01.05. If a WMA additive is pre-blended in the asphalt binder, ensure that the asphalt binder meets the requirements of the specified grade after the addition of the WMA additive. If a WMA additive is added at the HMA plant, ensure that the addition of the additive will not negatively impact the grade of asphalt binder. Follow the manufacturer’s recommendations for percentage of WMA additive needed. For controlled asphalt foaming system WMA, the Department may require an anti-stripping additive.
4. For MOGFC, add a stabilizing additive consisting of mineral fiber or cellulose fiber to the mix. Use a stabilizing additive that conforms to the requirements for stabilizing additives in AASHTO M 325. Use only 1 type per mix design. If using mineral fibers, use a dosage rate of 0.4 percent by weight of total mix. If using cellulose fibers, use a dosage rate of 0.3 percent by weight of total mix. The dosage rate may be increased, as necessary, to prevent draindown as measured by the visual draindown determination of asphalt content in NJDOT B-8. Accurately control proportioning the fibers into the mixture within ±10 percent of the required weight, and use equipment that ensures uniform dispersion of the fibers. Store fibers in a dry location with a storage temperature not to exceed 120 °F. The supplier of the cellulose or mineral fibers shall provide a certification of compliance, as specified in 106.07, that the material supplied conforms to AASHTO M 325. Ensure that a technical representative from the additive supplier is at the work site for the first full day of construction for technical assistance.

902.03.02 Mix Design
THE FOURTH PARAGRAPH IS CHANGED TO:

The ME will test 2 specimens to verify that the final JMF produces a mixture that has a minimum void content as specified in Table 902.03.03-1. The ME will determine percent air voids according to AASHTO T 209, and either NJDOT B-6 or AASHTO T 331.

902.03.03 Sampling and Testing
THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that the mix meets the requirements as specified in 902.02.04.A, otherwise the RE or ME will reject the material.

THE SECOND PARAGRAPH IS CHANGED TO:

During production, the ME will take one random acceptance sample from each 700 tons of production to verify composition. Conduct air voids and draindown tests as directed by the ME.

THE THIRD AND FOURTH PARAGRAPH ARE CHANGED TO:

If the composition testing results are outside of the production control tolerances specified in Table 902.03.03-2 for an acceptance sample, immediately run a quality control sample. If the quality control sample is also outside of the control tolerances in Table 902.03.03-2, determine if a plant adjustment is needed and take corrective action to bring the mix into compliance. Take additional quality control samples after the corrective action to ensure that the mix is within the production control tolerances. If 2 consecutive acceptance samples are outside the tolerances specified in Table 902.03.03-2, immediately stop production. Obtain ME approval of a plant correction plan before resuming production. Upon restarting production, do not transport mixture to the Project Limits before the results of a QC sample from the mixture indicate that the mixture meets JMF tolerances. The ME will reject mixture produced at initial restarting that does not meet tolerances. The ME will perform sampling according to NJDOT B-2 or ASTM D 3665, and will perform testing for composition according to AASHTO T 308 or NJDOT B-5. Perform testing for air voids according to AASHTO T 209 and either NJDOT B-6 or AASHTO T 331. Perform testing for draindown according to NJDOT B-7 or NJDOT B-8. During production at the plant, a sample of asphalt binder will be taken once every 3500 tons or as directed by the ME.

TABLE 902.03.03-2 IS CHANGED TO:
### Table 902.03.03-2 Production Control Tolerances for OGFC and MOGFC Mixtures

<table>
<thead>
<tr>
<th>Sieve Sizes</th>
<th>Production Control Tolerances from JMF&lt;sup&gt;1&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2”</td>
<td>±3.0</td>
</tr>
<tr>
<td>3/8”</td>
<td>±4.0</td>
</tr>
<tr>
<td>No. 4</td>
<td>±3.0</td>
</tr>
<tr>
<td>No. 8</td>
<td>±1.0</td>
</tr>
<tr>
<td>No. 200</td>
<td>±1.0</td>
</tr>
<tr>
<td>Asphalt Binder Content, % (AASHTO T 308)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>±0.40</td>
</tr>
<tr>
<td>Asphalt Binder Content, % (NJDOT B-5)&lt;sup&gt;2&lt;/sup&gt;</td>
<td>±0.15</td>
</tr>
<tr>
<td>Minimum % Air Voids</td>
<td>1.0% less than design requirement</td>
</tr>
</tbody>
</table>

1. Production tolerances may not fall outside of the wide band gradation limits in Table 902.03.03-1.
2. The asphalt binder content may not be lower than the minimum after the production tolerance is applied.

### SECTION 911 – SIGNS, SIGN SUPPORTS, AND Delineators

**911.02.02 Breakaway Sign Supports for Ground Mounted Signs**

THE ENTIRE SUBPART IS CHANGED TO:

Fabricate and construct breakaway sign supports for ground mounted signs using materials conforming to the requirements in Table 911.02.02-1.

**Table 911.02.02-1 Materials for Breakaway Sign Supports**

<table>
<thead>
<tr>
<th>Item</th>
<th>Test Method</th>
<th>Type or Grade</th>
<th>Galvanizing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Materials (other than bracket)</td>
<td>911.01.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bracket</td>
<td>B308</td>
<td>6061-T6</td>
<td></td>
</tr>
<tr>
<td>Structural steel shapes</td>
<td>ASTM A709</td>
<td>Grade 36</td>
<td>ASTM A123</td>
</tr>
<tr>
<td>Steel Sheet</td>
<td>ASTM A1011</td>
<td>Grade 36</td>
<td>ASTM A 653</td>
</tr>
<tr>
<td>Bolts (except special bolt for coupling)</td>
<td>ASTM F3125</td>
<td>Grade A 325</td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Special bolt for coupling</td>
<td>ASTM A449</td>
<td></td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Cap Screw</td>
<td>ASTM A307</td>
<td></td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Lock Washer</td>
<td>ANSI B18-21-1</td>
<td>Grade DH</td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Nut</td>
<td>ASTM A563</td>
<td>Grade DH</td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Coupling</td>
<td>AMS 6378 F</td>
<td></td>
<td>ASTM A153</td>
</tr>
<tr>
<td>Steel Hinge Plate</td>
<td>AISI 4130</td>
<td></td>
<td>ASTM 123</td>
</tr>
<tr>
<td>Anchor Rod</td>
<td>AISI 1045</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchor Coil</td>
<td>AISI 1008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchor Washer</td>
<td>908.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchor Ferrule</td>
<td>908.04</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Submit mill certificates for the component materials.

**911.02.03 Non-Breakaway Sign Supports for Ground Mounted Signs**

THE TEXT OF THIS SUBPART IS DELETED.

THIS SUBPART IS INTENTIONALLY LEFT BLANK

**911.03 FLEXIBLE DELINEATORS**

1. **Delineator Dimensions.**

   b. **Guide Rail Mounted.**

   THE ENTIRE TEXT IS CHANGED TO:

   Ensure that the unit for beam guide rail mounted flexible delineators has a minimum width of 3 inches and a minimum thickness of 0.100 inch. Use units of a height that will ensure that the top of the reflective area is 5 ± 2 inches above the top of post.
Design the base of the unit to mount over the I-beam blockout or to the top of a wood or synthetic blockout, of the beam guide rail.

c. **Barrier Curb Mounted.**

THE ENTIRE TEXT IS CHANGED TO:

For barrier curb mounted flexible delineators, use a delineator that is 3-1/2 \( \times \) 3-1/2 inches, with a minimum thickness of 0.100 inch, and that has a base that forms a “T” shape with the panel for mounting on the side of the barrier curb, and is flexible or hinged so as to return to its original position after being struck.

THE FOLLOWING IS ADDED:

**d. Construction Barrier Curb Mounted.** For construction barrier curb top mounted flexible delineators, use a delineator that is 6 \( \times \) 12 inches with a minimum thickness of 0.100 inch. For construction barrier curb side mounted flexible delineators, use a delineator that is 3-1/2 \( \times \) 3-1/2 inches with a minimum thickness of 0.100 inch, and that has a base that forms a “T” shape with the panel for mounting on the barrier curb and is flexible or hinged so as to return to its original position after being struck.

4. **Retroreflective Sheeting.**

   **b. Guide Rail Mounted.**

THE ENTIRE TEXT IS CHANGED TO:

Ensure that the sheeting is a minimum of 3 inches square and is mounted on the upper portion of the delineator.

THE FOLLOWING IS ADDED:

**d. Construction Barrier Curb Mounted.** Ensure that the sheeting for top mounted flexible delineators is 6 \( \times \) 12 inches and the sheeting for side mounted flexible delineators is 3-1/2 \( \times \) 3-1/2 inches.

Submit a certification of compliance, as specified in 106.07, for delineators.

**SECTION 912 – PAINTS, COATINGS, TRAFFIC STRIPES, AND TRAFFIC MARKINGS**

**912.03.01 Epoxy Traffic Stripes**

THE SUBPART HEADING IS CHANGED TO:

**912.03.01 Traffic Stripes**

**A. Epoxy Resin.**

THE FIRST SENTENCE IS CHANGED TO:

For pavement striping, use an epoxy resin that is a 2 component, 100 percent solids formulation conforming to the following requirements:

**B. Glass Beads.**

THE FIRST PARAGRAPH IS CHANGED TO:

Submit certifications of compliance as specified in 106.07 for each lot of glass beads used on the Contract. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

**912.03.02 Thermoplastic Traffic Markings**

THE SUBPART HEADING IS CHANGED TO:

**912.03.02 Traffic Markings**

THE ENTIRE SUBPART TEXT IS CHANGED TO:

For traffic markings, use either preformed or hot extruded thermoplastic conforming to AASHTO M 249, except that for preformed thermoplastic, the minimum thickness requirement is 90 mils. Use beads conforming to AASHTO M 247, Type 1, with a moisture resistant coating. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.
Submit certifications of compliance, as specified in 106.07, for each batch of materials used on the Contract. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C.

912.04.01 Latex Paint
THE ENTIRE SUBPART TEXT IS CHANGED TO:

Use latex traffic paint that is a fast-drying white, or non-lead yellow, ready-mixed pigmented binder emulsified in water and capable of anchoring reflective glass beads that are separately applied. Ensure that the color matches FED-STD-595B color chip No. 33538 for yellow and No. 37886 for white. Ensure that the paint has a maximum no-track time of 120 seconds when applied in a wet film. In addition, ensure that the finished product meets the following:

1. Volume of solids is a minimum 61 percent.
2. Total solids are a minimum of 77.5 percent total non-volatiles by weight, when tested according to ASTM D 2369.
3. Weight per gallon is a minimum 14 ± 0.2 pounds per gallon for each color.
4. Hegman Grind is a minimum of 2 Hegman when tested according to ASTM D 1210.
5. Viscosity is between 70 and 95 Krebs Units at 77 °F, when tested according to ASTM D 562.

Use glass beads conforming to AASHTO M247, Type 1, with a moisture resistance coating. Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 100 ppm of arsenic.

Submit a certification of compliance, as specified in 106.07, for latex and glass beads. For each lot of glass beads, submit test results indicating the parts per million of lead, antimony and arsenic as determined by testing according to Environmental Protection Agency testing method 3052 and testing method 6010B or 6010C.

SECTION 914 – JOINT MATERIALS

914.03 POLYMERIZED JOINT ADHESIVE
TABLE 914.03-1 IS CHANGED TO:

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cone Penetration, 25 °C</td>
<td>ASTM D 5329</td>
<td>60-100</td>
</tr>
<tr>
<td>Flow, 60 °C</td>
<td>ASTM D 5329</td>
<td>5 mm maximum</td>
</tr>
<tr>
<td>Resilience, 25 °C</td>
<td>ASTM D 5329</td>
<td>30% minimum</td>
</tr>
<tr>
<td>Ductility, 4 °C</td>
<td>ASTM D 113</td>
<td>30 cm minimum</td>
</tr>
<tr>
<td>Tensile Adhesion, 25 °C¹</td>
<td>ASTM D 5329</td>
<td>500% minimum</td>
</tr>
<tr>
<td>Softening Point</td>
<td>ASTM D 36</td>
<td>77 °C minimum</td>
</tr>
<tr>
<td>Asphalt Compatibility</td>
<td>ASTM D 5329</td>
<td>Pass</td>
</tr>
</tbody>
</table>

1. A precision estimate for this standard has not been developed, so it should not be used for acceptance or rejection of a material during product approval.

914.04.01 Preformed Elastomeric (Compression Type)

B. Joint Sealer.
THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

If splicing of a sealer is allowed, ensure that the sealer at the splice point has no significant misalignment at its sides or top and that misalignment at the bottom does not exceed half of the bottom wall thickness.

914.04.03 Modular Joints
THE ENTIRE SUBPART IS CHANGED TO:

A. Manufacturer. Manufacturer is to be AISC certified for “Bridge and Highway Components (CPT)”, have a minimum of 3 years experience in Modular Bridge Joint System (MBJS) fabrication, and has completed fatigue testing of the designed structural elements and connections or splice details per AASHTO LRFD Construction Specifications.

B. Materials. Use materials that conform to the following requirements:

1. Use structural steel conforming to the requirements of AASHTO M 270M/M 270 (ASTM A709/A709M), Grade 50, or Grade 50W with Zone 2 CVN requirements. Do not use aluminum components.
2. Use stainless steel conforming to ASTM A240/A240M, Type 304.
3. Use PTFE that is 100 percent virgin material, woven PTFE fabric, or dimpled PTFE conforming to the material requirements in Section 18 of the AASHTO LRFD Bridge Design Specifications, and Section 19 of AASHTO LRFD Bridge Construction Specifications.
4. Use neoprene strip seals conforming to the requirements in Table 914.06-1 and that have a maximum movement range of 3.15 inches per seal. Provide water tightness of strip seals at connection to steel beams and field splice(s). Do not use box seals or seals utilizing double webs.

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Requirement</th>
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</thead>
<tbody>
<tr>
<td>Tensile strength, minimum psi</td>
<td>ASTM D 412</td>
<td>2000</td>
</tr>
<tr>
<td>Elongation at break, minimum %</td>
<td>ASTM D 412</td>
<td>250</td>
</tr>
<tr>
<td>Hardness, Type A durometer</td>
<td>ASTM D 2240</td>
<td>55 to 70</td>
</tr>
<tr>
<td>Compression Set at 72 hr at 212 °F, maximum %</td>
<td>ASTM D 395</td>
<td>40</td>
</tr>
</tbody>
</table>

5. Use bolts and other hardware conforming to the requirements of AASHTO M 164 (ASTM F3125/F3125M Grade A325) and galvanized according to AASHTO M232 (ASTM A153/A153M) or ASTM B695.
6. Fabricate slide bearings and precompressed springs as steel reinforced elastomeric pads with a PTFE sliding surface. Do not manufacture components from polyurethane compounds.

Perform prequalification tests, Open Movement and Vibration (OMV) testing and Seal Pushout (SPO) testing, according to AASHTO LRFD Construction Specifications Section 19/A19 and provide testing report.

C. Fabrication. Fabricate the structural steel components of the modular joint assembly as specified in 906.04 and according to AWS D1.5 and as shown on the Plans and approved working drawings. Hot-dip galvanize the assembly according to AASHTO M111 (ASTM A123/A123M).

Perform field splices according to the details and procedures included in the approved working drawings.

D. Shipping, Handling, and Certification. The RE will reject joint systems damaged during shipping or handling. The Contractor may repair minor damage to the galvanizing according to ASTM A780/A780M. Store the expansion joint system according to the manufacturer’s recommendations.

Submit a certification of compliance, as specified in 106.07, for the modular joint assembly. With the certification, submit test results for neoprene strip seal and mill certifications for the structural steel components.

SECTION 918 – ELECTRICAL MATERIALS

918.01 CONDUIT AND FITTINGS

4. Flexible Nonmetallic Conduit.
THIS PART IS CHANGED TO:

Use coil able HDPE conduit made from virgin HDPE resin as per the minimum standard of PE345440E according to ASTM D3350. Ensure conduit is circular and of uniform cross sectional area and dimensions in accordance with ASTM F2160. Ensure conduit is of continuous length containing no welds or joints coiled on a reel. Additionally, conduit’s inner and outer walls are to be smooth and the inner wall is to be lubricated with manufacturer’s recommended lubricant. Conduit colors are to be integrally extruded throughout the conduit in the manufacturing process. Ensure conduit is permanently marked with a laser ink imprinter or heat embossed white lettering showing the diameter, size, sequential length marks, owners name, ASTM, SDR, and/or Schedule rating. Additional markings of date-of-manufacture, time, and batch-of-resin are to be identified and referenced to certifications and quality control test results. Ensure manufacturer provides certification of the properties specified and mark/label the reels with purchase order, project name and/or other information for tracking and receiving. Applicable material standards are required based on the following applications:

a. Direct Burial. Use conduit material with a rating of Schedule 80 conforming to ASTM F2160, NEMA TC-7 EPEC-80 and certified for its intended use.

b. Innerduct. Use conduit material with a rating of Schedule 40 conforming to ASTM F2160, NEMA TC-7 EPEC-40.

ITS conduits used for the installation of Fiber Optic Cable including tracer wire, are to be extruded integrally colored orange to indicate its use for Communications.
ITS conduits designated for electrical use are to be extruded integrally colored red to indicate its use for Electrical wiring.

Submit a certificate of compliance, as specified in 106.07, for all materials, components, and assemblies.

918.12 PEDESTALS, POLES, TRANSFORMER BASES, AND MAST BRACKET ARMS
THE FIRST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Fabricate pedestals, poles, transformer bases, and mast bracket arms for traffic signal, highway lighting, and camera standards with materials according to the appropriate ASTM standard and the AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.
DIVISION 1000 – EQUIPMENT

SECTION 1001 – TRAFFIC CONTROL EQUIPMENT

THE FOLLOWING SUBSECTION IS ADDED:

1001.04 PORTABLE VARIABLE MESSAGE SIGN WITH REMOTE COMMUNICATION

THE ENTIRE SUBSECTION IS CHANGED TO:

Provide a NTCIP compliant portable variable message sign as described under 1001.02 with the exceptions noted below and each equipped with broadband cellular modem.

Ensure that the sign panel is color full matrix model that displays a combination of letters and graphic images.

Ensure that the sign panel is capable of displaying three lines of text with variable size characters.

Ensure nine characters are displayed per line for posting travel times. For this nine character requirement, smaller size characters may be allowed that meets MUTCD guidelines.

Ensure that the panel is also capable of displaying eight (8) characters per line with a minimum character height of eighteen (18) inches.

Ensure that the PVMSRC can be integrated with the Department’s central DMS control software for remote operation.

1001.05 PORTABLE TRAILER MOUNTED CCTV CAMERA ASSEMBLY

Provide a Portable Trailer Mounted CCTV Camera Assembly (PTMCCA) with the following:

A. Trailer Platform

1. Maximum size, including tongue, 14 feet long by 7 feet wide by 8 feet high.
2. NJDOT approved lighting package to include electrical brake and marker lights with wire connections.
3. Primed and painted with powder coated orange color.
4. Fitted with manual telescoping outriggers with adjustable jacks sized to counter full mast extension.
5. Four 3500 pounds, drop leg, top wind screw jacks.
6. All equipment secured to prevent theft or separation from platform.
7. 24/7 operation in all weather conditions.
8. One locking NEMA-4 equipment box for operational controls.
9. Removable wheels (with wheel locks) when trailer is in deployed position.
10. Operation manual with a copy placed in the storage bin.

B. Mast

1. 150 pounds payload capacity.
2. 29 feet to 32 feet of extension with capability to mount antenna at 20 feet, 25 feet or at the top, 10 feet maximum nested length of mast - 3 to 9 sections.
3. Un-guyed.
4. Driven by galvanized steel cable.
5. Spiral conduit for cables.
6. Compactly retractable when nested into storage container at the bottom & foldable for easy transport.
7. Operated by a power winch with a safety brake.
8. Capable of being raised or lowered during sustained wind speeds of 30 miles per hour.

C. Power Source

Equip the PTMCCA with either a diesel charged or a solar charged battery system. Ensure that the PTMCCA is also capable of operating on 120-volt AC electrical service. The Department may require a solar charged battery system in
noise sensitive areas. Provide the power with a battery backup system capable of providing continuous operation when
the primary power source fails. Ensure that the power source meets the following requirements:

1. Diesel. Ensure that the fuel tank is capable of operating the sign for a period of 72 hours without refueling. Equip
   with an exhaust muffler and a United States Department of Forestry approved spark arrester. Ensure that the
   engine is shock mounted to reduce vibration and locked in a ventilated enclosure.

2. Solar. Provide solar panels capable of recharging the batteries at a rate of 4 hours of sun for 24 hours of camera
   usage. Ensure that the battery capacity is capable of operating the sign for a period of 18 days without sunlight.

D. Electronics

1. Cellular (CDMA), microwave, or 802.11 bandwidth option.
2. Work lights in all cabinets.
3. Remote trailer diagnostics (battery level, charging output, etc.).

E. Camera and Software

Ensure that the camera has the following characteristics:

1. Dome Camera in a heavy duty plastic dome or with a weather resistant case.
2. Impact resistant viewing window.
3. Minimum resolution of NTSC 704 (H) x 480 (V).
5. Image stabilization.
6. Light Sensitivity 0.02 lux NIR Mode.
7. Auto Focus with Manual Focus capability.
9. Motorized Zoom up to 16x optical, 10x digital.
11. Thermostatically controlled heater and defroster -50° to 140°F operating range.
12. Windshield wiper.
13. 24/7 operation in all weather conditions.
14. Time and date stamp.

Ensure the software provides the following functionality:

1. Remote control of pan, tilt and zoom.
2. Display of streaming video in MPEG format, motion-JPEG, and single snapshot JPEG images, remotely
   interchangeable by using central software.
3. Preset controls of pan/tilt/zoom combinations. Ensure all presets are accessible from a drop-down menu with
   descriptive name of preset. Set first 8 presets with quick- launch icons with graphical representation of the preset
   views.
4. Display of all the project’s web cams in a single view screen.
5. Display of local time and weather conditions including temperature and humidity.
6. Saving images and sending e-mail images.
7. Viewing archived images via a graphical calendar control and storing archived images at least every five minutes.
8. Three levels of password protection: administrator, user, and guest, individual user accounts.
9. Monitoring and controlling the cameras using web access.
SECTION 1003 – HMA SITE EQUIPMENT

1003.03 HMA PAVER

THE FOLLOWING IS ADDED AT THE END:

NOTE: A Spray Paver as specified in 1003.04 may be used in lieu of a HMA Paver.

1003.04 ULTRA-THIN LIFT PAVER

THE HEADING AND THE ENTIRE SUBSECTION TEXT IS CHANGED TO:

1003.04 SPRAY PAVER

Provide a self-propelled spray paver that meets the requirements in 1003.03 and is specifically designed and manufactured for applying tack coat and polymer modified tack coat immediately in front of, and just prior to applying, hot mix asphalt in a single operation without trafficking and tracking of the tack coat. Ensure the spray paver is insulated and equipped with a heater to evenly heat, maintain and apply the tack coat at the proper temperature recommended by the manufacturer. Ensure the spray paver can apply tack coat in a controlled manner which automatically adjusts the rate of tack coat application based on the speed of the paver to provide a uniform and complete tack coat coverage of the paving surface. Ensure that the spray paver is capable of spreading tack coat and HMA to the width, thickness, and application rates required without tearing, shoving, or gouging the mixture, to produce a smooth and homogeneous surface. Ensure the spray paver is capable of operation at forward speeds of at least 70 feet per minute. Ensure that the spray paver is equipped and operated using a heated vibratory screed or tamper bar to ensure material is capable of being placed and compacted to the required density and smoothness. Ensure that the paver is equipped with an automatic reverse signal alarm that is audible above the surrounding noise.

SECTION 1008 – MISCELLANEOUS EQUIPMENT

1008.01 MILLING MACHINE

THE ENTIRE SUBSECTION IS CHANGED TO:

A Standard Milling Machine. Provide a self-propelled planing, grinding, or cutting milling machine with variable operating speeds that is capable of removing HMA or concrete without the use of heat. Ensure that the milling machine is equipped with automatic grade controls. Use either a stringline or ski type reference system. If a ski type reference system is used, ensure that the ski has a minimum length of 20 feet. Ensure that the milling machine is equipped with an automatic audible warning signal when operating in reverse. The RE may not require use of the automatic grade controls at intersections and other locations.

Immediately replace teeth in the milling drum that become dislodged, broken, or unevenly worn with teeth of the same length as the remaining teeth in that row.

B Micro Milling Machine. Provide a standard milling machine as specified in 1008.01. A that is equipped with a cutting mandrel designed specifically for cold planing and texturing asphalt and concrete pavement surfaces to close tolerances as defined herein. Ensure that the cutting mandrel is equipped with four wraps of flighting with blocks that bolt in, each accepting 3 to 4 carbide or polycrystalline diamond (PCD) tipped cutting bits on the wear side of the flight. The cutting bits on the wraps at 0 degrees and 180 degrees repeat each other. Likewise the cutting bits at 90 degrees and 270 degrees also repeat each other, creating a double hit cutting mandrel. Ensure that tips of the cutting bits, on any given wrap, are spaced at a maximum of 1/4 inch axial distance between the tips of each bit, plus or minus of 1/32 inch. Repeat the cutting bits on the second wrap to the proceeding wrap at 1/4 inch maximum.

Ensure that the cutting bits and height of the holder blocks are uniform so that the cutting radius of the mandrel is within plus or minus of 0.02 inch. Ensure that the blocks are completely machined and capable of being easily removed from the cutting mandrel to check tolerance and height of the holders.

Ensure that the equipment used does not cause strain or damage to the underlying pavement surface course, causes excessive ravel, aggregate fractures, spalls or disturbance of the transverse or longitudinal joints.

Replace cutting bits that become dislodged, broken, or unevenly worn. When only changing intermittent cutting bits, remove an existing “sample” cutting bit from the machine and measure amount of wear and gage height. Ensure that replacement bit is matched to existing height of the “sample” cutting bit, plus or minus of 1/32 inch, to insure even micro-milling.
1009.01 HMA PLANT

A. Requirements for HMA Mixing Plants.

The following is added after the second paragraph:

The HMA producer is required to have a quality control (QC) program plan approved annually by the ME as per Materials Approval Procedure MAP-102. The HMA producer is required to ensure that the QC plan conforms to the requirements outlined in the report entitled “Hot Mix Asphalt Quality Control Program Plan” prepared by the Department of Transportation and New Jersey Asphalt Paving Association. Failure to follow these requirements will result in rejection of HMA materials supplied by the HMA producer and removal of the HMA supplier from the QPL.

1. Plant Laboratory.
   a. General Equipment.

1. An office for the exclusive use of the ME with a floor area of at least 100 square feet, excluding the plant lab area.

The following subsection is added after 1009.02:

1009.03 ASPHALT-RUBBER BINDER BLENDING EQUIPMENT

Provide equipment for preparation of Asphalt-Rubber Binder. Ensure that the unit is equipped with a crumb rubber feed system capable of continuously supplying the asphalt cement feed system, and is capable of fully blending the individual crumb rubber particles with the asphalt cement. Use an asphalt-rubber binder storage tank that is equipped with a heating system capable of maintaining the temperature of the binder between 325 and 375 °F during the reaction. Ensure the asphalt-rubber binder storage tank is also equipped with an internal auger mixing device, oriented horizontally in the tank, capable of maintaining a uniform mixture of the asphalt-rubber binder.

Ensure that the tanks for storage of asphalt-rubber binder are equipped to uniformly heat the material to the required temperature under effective and positive control at all times. Ensure that heating is accomplished so that no flame comes in contact with the heating tank.

Provide a circulating system of sufficient capacity for the binder to ensure continuous circulation between the storage tank and proportioning units during the entire operating period. Ensure that the discharge end of the binder circulating pipe is maintained below the surface of the binder in the storage tank to prevent discharge of hot binder into the open air.

Ensure that pipe lines and fittings are steam or oil jacketed, electrically or otherwise heated, and insulated to prevent heat loss.

Provide valves according to AASHTO T 40, except ensure that a sampling valve is also located in the lowest third of each storage tank.

If the plant has been equipped with a water injection type asphalt foaming system, ensure that the system will allow the proper amount of asphalt rubber binder to be supplied continuously or provide a by-pass to ensure that the proper amount of asphalt rubber binder is supplied to the mix.

The following section is added:

SECTION 1012 – PAVEMENT PRESERVATION EQUIPMENT

1012.01 Micro Surfacing and Slurry Seal Paver

Provide fully automated self-propelled continuous flow type equipment that is specifically designed, equipped, calibrated, and operated for mixing and spreading slurry seal and micro surfacing conforming to the approved mix design and application rate. Immediately correct defects that adversely affect the functioning of the equipment or quality of the mixture. Perform calibration in the presence of the ME. Ensure that the documentation includes an individual calibration of each material at various settings that can be related to the machine metering devices. Any component replacement affecting material proportioning requires that the machine be recalibrated. Do not use a machine on the project until the calibration has been completed and accepted. Ensure the paver is equipped with the following:

1. Mixing Equipment. Ensure that the machine is specifically designed and manufactured to mix micro surfacing and slurry seal materials. Mix the material in an automatic-sequenced, self-propelled, micro surfacing and slurry
seal mixing machine. Ensure that it is a continuous-flow mixing unit that accurately proportions and delivers the mix components, within 2% of the required amount as per the mix design, into a revolving multi-blade double-shafted mixer. Sufficient storage capacity for all mix components is required to maintain an adequate supply to the proportioning controls.

Ensure that the machine is capable of loading materials while continuing to apply microsurfacing and slurry seal. Ensure that the continuous-run machine is equipped to provide the operator with full control of the forward and reverse speeds during application and is equipped with opposite-side driver stations to assist in alignment. Ensure that the self-loading device, opposite-side driver stations, and forward and reverse speed controls are of original-equipment-manufacturer design.

Provide material control devices, readily accessible and so placed that the inspector may determine the amount of each material used at any time.

Provide machine with a water pressure system and nozzle type spray bar to provide a water spray ahead of and outside the spreader box.

Locate mineral filler feed so the proper amount of mineral filler is dropped on the aggregate before discharge into mixer.

2. Spreading Equipment. Provide spreading equipment that agitates and spreads the mixture uniformly in the surfacing box by means of twin shafted paddles or spiral augers fixed in the spreader box. Ensure that a front seal is provided such that there is no loss of the mixture at the road contact point. Ensure that there is an adjustable rear seal which will act as a final strike-off. Ensure that the spreader box and rear strike-off is designed and operated so that a uniform consistancy is achieved and a free flow of material is provided to the rear strike-off. Ensure that the spreader box has suitable means provided to side shift the box to compensate for variations in the pavement geometry.

Ensure that a secondary strike-off is provided to improve surface texture. Ensure that the secondary strike-off is adjustable to match the width of the spreader box and allows for varying pressures to control the surface texture.

3. Electronic Mix Control and Diagnostic (EMCAD) System. Ensure the paver is equipped with a computer mix control and diagnostic system that records, displays, and prints the following:

1. Individual sensor counts for emulsion, aggregate, mineral filler, water, and additive.
2. Aggregate, emulsion and mineral filler output in pounds per minute.
3. Spread rate in pounds per square yard.
4. Percentages of emulsion, mineral filler, water, and additive.
5. Cumulative total quantities of aggregate, Emulsion, mineral filler, water, and additive.
6. Scale factor for all materials.

Ensure the computer system is functional and capable of printing reports.

4. Rut, Longitudinal Joint and Rumble Strip Filling Equipment. Provide rut filling equipment with a steel V-configuration screed rut box commercially designed and manufactured to fill ruts as required. Ensure that the rut box can be adjusted to provide a mixture spread width of between 2 feet to 6 feet and have a moveable steel strike-off to control crown.

1012.02 Mechanical Fine Aggregate Spreader

Provide fully automated self-propelled fine aggregate spreading equipment with positive controls that is specifically designed, equipped, calibrated, and operated for spreading fine aggregate uniformly at the required width and application rate. Immediately correct defects that adversely affect the functioning of the equipment or quality of the fine aggregate application. Perform calibration in the presence of the ME. Ensure that the calibration documentation includes the fine aggregate at various application rate settings that can be related to the machine metering devices. Any component replacement affecting application rate requires that the machine be recalibrated. Do not use a machine on the project until the calibration has been completed and accepted.
RECORD OF RECENT CONTRACT AWARDS

Give full information about all your contracts: whether private or government contracts; whether prime or sub-contracts; whether in progress or awarded but not yet begun; or where you are low bidder pending formal award of contract.

<table>
<thead>
<tr>
<th>OWNER</th>
<th>LOCATION</th>
<th>DESCRIPTION</th>
<th>ADJUSTED CONTRACT AMOUNT</th>
<th>DATE OF COMPLETION</th>
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BOROUGH OF FLORHAM PARK
EXCEPTIONS

For each exception, the bidder must identify the specific section of specifications by providing the number and title the exception applies to. It is the responsibility of the bidder to document the equivalence claim in writing. Submitting product brochures is not an acceptable claim of equivalence.

(IF NONE SO STATE)

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USE ADDITIONAL SHEET IF NECESSARY
### A. FAILURE TO SUBMIT ANY OF THESE ITEMS IS MANDATORY CAUSE FOR REJECTION OF BID

- Stockholder Disclosure Certification
- Acknowledgement of Receipt of Addenda (To be Completed if Addenda are Issued)
- Required Evidence EEO/Affirmative Action Regulations Questionnaire
- Bidder’s Affidavit
- Non-Collusion Affidavit
- Bid Guarantee (bid bond or certified/cashier’s check) (with Power of Attorney for full amount of Bid Bond)
- Consent of Surety (Certificate from Surety company)
- Surety Disclosure Statement and Certification
- Performance Bond
- Labor and Material (Payment) Bond
- Maintenance Bond
- Disclosure of Investment Activities in Iran - Submit with bid response

### B. MANDATORY ITEM(S), REQUIRED NO LATER THAN TIME PERIOD INDICATED

- Business Registration Certificate – Bidder – Prefer with Bid Response. Required by Law prior to award of contract
- Business Registration Certificate – Designated Subcontractor(s) – Prefer with Bid Response. Required by Law prior to award of contract
- Public Works Contractor Registration Certificate(s) for the Bidder and Designated Subcontractors (Prior to Award, but effective at time of bid)
- License(s) or Certification(s) Required by the Specifications

### C. FAILURE TO SUBMIT ANY OF THESE ITEMS AT TIME OF BID MAY BE CAUSE FOR REJECTION

- Three (3) references for similar projects
- Authorization for Background Check
- Catalog/Price List
- Product Samples
- Certification of Available Equipment
- Other: CD or USB flash drive with PDF of Bid Response along with Printed Copies (ref page 1).
- CD and/or USB flash drive must be labeled with the bidder’s name
- Other:

### D. READ ONLY

- Americans With Disability Act of 1990 Language

### E. OPTIONAL ITEM(S)

- Borough Cooperative Contract Option

This checklist is provided for bidder’s use in assuring compliance with required documentation; however, it does not include all specifications requirements and does not relieve the bidder of the need to read and comply with the specifications.

Name of Bidder: ___________________________ Date: __________________

By Authorized Representative:

Signature: _________________________________

Print Name & Title: ________________________
BOROUGH OF FLORHAM PARK
BID PROPOSAL FORM/SIGNATURE PAGE

TO THE BOROUGH OF FLORHAM PARK
MAYOR AND COUNCIL:

The undersigned, having examined the proposed said contract documents; and being familiar with the specifications, including the Notice to Bidders, Instruction to Bidders, form of Bid Bond, Affidavits, Scope of Services, and Addenda (if any) thereto, as prepared by the Borough of Florham Park; and having visited the site and examined the conditions affecting the Project; hereby proposes to furnish, in compliance with the provisions thereof, all labor, materials, and services required to construct said project and/or provide such product and/or services for the bid prices listed below.

In submitting this bid, it is understood that the Mayor and Council of the Borough of Florham Park reserve the right to reject any and all bids. If written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned within sixty (60) days after the date of bid opening, the undersigned will sign and deliver the Contract within ten (10) business days after the date of such notice; and will provide the necessary Performance Bond and Insurance documents within fifteen (15) business days after the date of such notice, as provided herein.

The undersigned hereby designates the following as his office to which such notice of acceptance may be mailed, telegraphed, faxed, or delivered:

(Corporation)
The undersigned is a Partnership) under the laws of the State of __________________________ having its
(Individual)
Principal office at __________________________

Company __________________________

Address __________________________

Signature of Authorized Agent __________________________

Type or Print Name __________________________

Title of Authorized Agent __________________________

Date __________________________

Telephone Number __________________________

Email Address __________________________

Fax Number __________________________
CONTRACT NO. FP 19-04

SCHEDULE OF PRICES - BASE BID

TOTAL OF ITEM

ITEM 1  MOBILIZATION

1 L.S. @ $  Per L.S. $  

________________________

(Write Lump Sum Price for Item 1 in Words and Numbers)

ITEM 2  BREAKAWAY BARRICADES

15 UNITS @ $  Per UNIT $  

________________________

(Write Lump Sum Price for Item 2 in Words and Numbers)

ITEM 3  DRUMS

50 UNITS @ $  Per UNIT $  

________________________

(Write Lump Sum Price for Item 3 in Words and Numbers)

ITEM 4  TRAFFIC CONES

56 UNITS @ $  Per UNIT $  

________________________

(Write Unit Price for Item 4 in Words and Numbers)
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>QTY</th>
<th>UNIT</th>
<th>PRICE PER UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>CONSTRUCTION SIGNS</td>
<td></td>
<td>S.F.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>163 @ $</td>
<td></td>
<td>S.F.</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 5 in Words and Numbers)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>6</td>
<td>FUEL PRICE ADJUSTMENT</td>
<td>1 DOLLAR</td>
<td>@ $</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 6 in Words and Numbers)</td>
<td></td>
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</tr>
<tr>
<td>7</td>
<td>ASPHALT PRICE ADJUSTMENT</td>
<td>1 DOLLAR</td>
<td>@ $</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 7 in Words and Numbers)</td>
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<td></td>
</tr>
<tr>
<td>8</td>
<td>CONSTRUCTION LAYOUT</td>
<td>1 DOLLAR</td>
<td>@ $</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 8 in Words and Numbers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>POLICE TRAFFIC DIRECTORS</td>
<td></td>
<td>LS</td>
<td>$15,000</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 9 in Words and Numbers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>EXCAVATION, UNCLASSIFIED</td>
<td></td>
<td>C.Y.</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 10 in Words and Numbers)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM 11</td>
<td>SAWCUTTING</td>
<td>945 L.F.</td>
<td>@ $</td>
<td>Per L.F.</td>
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<tr>
<td>(Write Unit Price for Item 11 in Words and Numbers)</td>
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</tr>
<tr>
<td>ITEM 12</td>
<td>DENSE GRADED AGGREGATE BASE COURSE, 6” THICK</td>
<td>49 S.Y.</td>
<td>@ $</td>
<td>Per S.Y.</td>
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<tr>
<td>(Write Unit Price for Item 12 in Words and Numbers)</td>
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</tr>
<tr>
<td>ITEM 13</td>
<td>HMA MILLING, 3” OR LESS</td>
<td>17,359 S.Y.</td>
<td>@ $</td>
<td>Per S.Y.</td>
</tr>
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<tr>
<td>(Write Unit Price for Item 13 in Words and Numbers)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>ITEM 14</td>
<td>TACK COAT</td>
<td>1,402 GAL</td>
<td>@ $</td>
<td>Per GAL.</td>
</tr>
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<td></td>
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<tr>
<td>(Write Unit Price for Item 14 in Words and Numbers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM 15</td>
<td>PRIME COAT</td>
<td>507 GAL</td>
<td>@ $</td>
<td>Per GAL.</td>
</tr>
<tr>
<td></td>
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<tr>
<td>(Write Unit Price for Item 15 in Words and Numbers)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM 16</td>
<td>HOT MIX ASPHALT, 12.5M64 SURFACE COURSE</td>
<td>2,045 TONS</td>
<td>@ $</td>
<td>Per TON</td>
</tr>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>(Write Unit Price for Item 16 in Words and Numbers)</td>
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<td></td>
</tr>
</tbody>
</table>
ITEM 17  HOT MIX ASPHALT, 25M64, BASE COURSE

115 TONS @ $  Per TON $  

(Write Unit Price for Item 17 in Words and Numbers)

ITEM 18  CONCRETE SIDEWALK, 4” THICK

51 S.Y. @ $  Per S.Y. $  

(Write Unit Price for Item 18 in Words and Numbers)

ITEM 19  BRICK PAVERS

5 S.Y. @ $  Per S.Y. $  

(Write Unit Price for Item 19 in Words and Numbers)

ITEM 20  DETECTABLE WARNING SURFACE

13 S.Y. @ $  Per S.Y. $  

(Write Unit Price for Item 20 in Words and Numbers)

ITEM 21  9” x 18” CONCRETE VERTICAL CURB

61 L.F. @ $  Per L.F. $  

(Write Unit Price for Item 21 in Words and Numbers)

ITEM 22  BELGIAN BLOCK CURB

65 L.F. @ $  Per L.F. $  

(Write Unit Price for Item 22 in Words and Numbers)
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>TRAFFIC STRIPES, THERMOPLASTIC, WHITE, 4” WIDTH</td>
</tr>
<tr>
<td></td>
<td>5,316 L.F. @ $_____________ Per L.F. $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 23 in Words and Numbers)</td>
</tr>
<tr>
<td>24</td>
<td>TRAFFIC STRIPES, THERMOPLASTIC, WHITE, 8” WIDTH</td>
</tr>
<tr>
<td></td>
<td>2,337 L.F. @ $_____________ Per L.F. $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 24 in Words and Numbers)</td>
</tr>
<tr>
<td>25</td>
<td>TRAFFIC MARKINGS, THERMOPLASTIC, WHITE</td>
</tr>
<tr>
<td></td>
<td>584 S.F. @ $_____________ Per S.F. $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 25 in Words and Numbers)</td>
</tr>
<tr>
<td>26</td>
<td>TRAFFIC MARKING LINES, THERMOPLASTIC, WHITE, 24” WIDTH</td>
</tr>
<tr>
<td></td>
<td>613 L.F. @ $_____________ Per L.F. $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 26 in Words and Numbers)</td>
</tr>
<tr>
<td>27</td>
<td>RPM PAVEMENT REFLECTORS, BI-DIRECTIONAL, BLUE LENS</td>
</tr>
<tr>
<td></td>
<td>5 UNITS @ $_____________ Per UNIT $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 27 in Words and Numbers)</td>
</tr>
<tr>
<td>28</td>
<td>REGULATORY AND WARNING SIGNS</td>
</tr>
<tr>
<td></td>
<td>79 S.F. @ $_____________ Per S.F. $_____________</td>
</tr>
<tr>
<td></td>
<td>(Write Unit Price for Item 28 in Words and Numbers)</td>
</tr>
</tbody>
</table>
ITEM 29  TRAFFIC SIGNAL HEAD

7 UNITS @ $   Per UNIT $ 

________________________

(Write Unit Price for Item 29 in Words and Numbers)

ITEM 30  PEDESTRIAN SIGNAL HEAD

2 UNITS @ $   Per UNIT $ 

________________________

(Write Unit Price for Item 30 in Words and Numbers)

ITEM 31  LED INSTALLATION

31 UNITS @ $   Per UNIT $ 

________________________

(Write Unit Price for Item 31 in Words and Numbers)

ITEM 32  PUSH BUTTON

2 UNITS @ $   Per UNIT $ 

________________________

(Write Unit Price for Item 32 in Words and Numbers)

ITEM 33  UNINTERRUPTIBLE POWER SOURCE UNIT WITH CONTROLLER CABINET REVISIONS

1 UNIT @ $   Per UNIT $ 

________________________

(Write Unit Price for Item 33 in Words and Numbers)

ITEM 34  TOPSOILING, 4” THICK

35 S.Y. @ $   Per S.Y. $ 

________________________

(Write Lump Sum Price for Item 34 in Words and Numbers)
ITEM 35  FERTILIZING AND SEEDING, TYPE A-3

35 S.Y.  @ $______________  Per S.Y.  $______________

(Write Lump Sum Price for Item 35 in Words and Numbers)

ITEM 36  STRAW MULCHING

35 S.Y.  @ $______________  Per S.Y.  $______________

(Write Lump Sum Price for Item 36 in Words and Numbers)

ITEM 37  CORE SAMPLES, HOT MIX ASPHALT

5 UNITS  @ $______________  Per UNIT  $______________

(Write Lump Sum Price for Item 37 in Words and Numbers)

TOTAL BASE BID  $______________

(Write TOTAL BASE BID in words)
LEGAL NAME OF BIDDER: __________________________________________

Check the box that represents the type of business organization:

☑ Partnership ☐ Corporation ☐ Sole Proprietorship
☐ Limited Partnership ☐ Limited Liability Corporation ☐ Limited Liability Partnership
☐ Subchapter S Corporation ☐ Other, Please List ____________________

List the names and addresses of all stockholders who own ten (10%) percent or more of the above company's stock, and if there are NO STOCKHOLDERS OF 10% OR MORE, simply check the second box below. If one or more such stockholders or partner is itself a corporation or partnership, the stockholders holding 10% or more of that corporation's stock, or the individual partners owning 10% of that corporation's stock, or the individual partners owning 10% or greater interest in that partnership, as the case may be, must also be listed.

The disclosure shall be continued until names and addresses of every person who is a non-corporate stockholder, or individual partner, exceeding the 10% ownership criteria established in this act, has been listed, in full compliance with Chapter 33 of the New Jersey Public Laws of 1977.

BIDDERS/RESPONDENTS MUST CHECK THE APPROPRIATE BOX:

☐ I certify that the list below contains the names and addresses of all stockholders holding 10% or more of the issued and outstanding stock of the undersigned.

☐ I certify that no one stockholder owns 10% or more of the issued and outstanding stock of the undersigned.

☐ Publicly Traded - For publicly traded entities to comply with N.J.S.A. 52:25-24.2 they may submit the name and address of each publicly traded entity, and the name and address of each person holding 10% or more beneficial interest in the publicly traded entity as of the last annual filling with the Security Exchange Commission (SEC), or foreign equivalent

Submit here the Website (URL) providing the last annual Security Exchange Commission (SEC) filing, or foreign equivalent:
______________________________________________

The requested information is available on the following page number(s) of the SEC, or foreign equivalent, filing:
___________________________________________________________

Stockholder Name__________________________________________
Address___________________________________________________
Percentage of Ownership_______%.

Stockholder Name__________________________________________
Address___________________________________________________
Percentage of Ownership_______%.

Stockholder Name__________________________________________
Address___________________________________________________
Percentage of Ownership_______%.

(Note: Attach additional pages if necessary)

(Respondent/Respondent Authorized Signature) __________________________ ____________
(Print name of authorized signatory) _____________________________________________
(Date) ________________
(Title) __________________________
BOROUGH OF FLORHAM PARK
BIDDER’S AFFIDAVIT

STATE OF NEW JERSEY )
ss: COUNTY OF )

________________________________, being of full age and being duly sworn, upon his
oath deposes and says:

1. I reside at


2. I am ________________________________ of the firm of


(Name of Bidder)

3. I am the person who signed the foregoing Bid and I was duly authorized to
execute
such Bid. The Bid is a true offer of the Bidder. If the Bidder has a seal, then
such seal is affixed to the Bid. All of the statements and declarations contained
in the Bid are true to the best of my knowledge and belief.


(Signature)

(Seal)

Subscribed and sworn to

before me this _____ day

of ________________, 20__.

_________________________________
Notary Public of the State
of New Jersey

My Commission expires____________
(Notary Seal)
BOROUGH OF FLORHAM PARK
NON-COLLUSION AFFIDAVIT

State of _______________
Borough of _______________ ss:

I, _____________________________ of the City of _______________ in the County of _______________ and State of _______________ of full age, being duly sworn according to law on my oath depose and say that:

I am _____________________________ of the firm of _______________

______________________________

(Name of firm)

the bidder making this Proposal for the above named project, 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 above named project; and that all statements contained in said proposal and in this affidavit are true and correct, and made with full knowledge that the Borough of Florham Park relies upon the truth of the statements contained in said proposal and in the statements contained in this affidavit in awarding the contract for the said project.

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_________________________________.

(Name of Contractor)

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

Subscribed and sworn to

Before me this _______day

Of __________, _______.

Signature

_______________________________________

(Type or print name of affiant under signature)

_______________________________________

Notary public of

My Commission expires ___________________.

REV 1/2019
EXHIBIT A
EEO/AFFIRMATIVE ACTION COMPLIANCE NOTICE
N.J.S.A. 10:5-31 and N.J.A.C. 17:27
GOODS, PROFESSIONAL SERVICE AND GENERAL SERVICE CONTRACTS

All successful bidders are required to submit evidence of appropriate affirmative action compliance to the Borough and Division of Public Contracts Equal Employment Opportunity Compliance. During a review, Division representatives will review the Borough files to determine whether the affirmative action evidence has been submitted by the vendor/contractor. Specifically, each vendor/contractor shall submit to the Borough, prior to execution of the contract, one of the following documents:

**Goods and General Service Vendors**
1. Letter of Federal Approval indicating that the vendor is under an existing federally approved or sanctioned affirmative action program. A copy of the approval letter is to be provided by the vendor to the Borough and the Division. This approval letter is valid for one year from the date of issuance.

**Do you have a federally-approved or sanctioned EEO/AA program?**  Yes ☐  No ☐
If yes, please submit a photo static copy of such approval.

2. A Certificate of Employee Information Report (hereafter “Certificate”), issued in accordance with N.J.A.C. 17:27-1.1 et seq. The vendor must provide a copy of the Certificate to the Borough as evidence of its compliance with the regulations. The Certificate represents the review and approval of the vendor’s Employee Information Report, Form AA-302 by the Division. The period of validity of the Certificate is indicated on its face. Certificates must be renewed prior to their expiration date in order to remain valid.

**Do you have a State Certificate of Employee Information Report Approval?**  Yes ☐  No ☐
If yes, please submit a photo static copy of such approval.

3. The successful vendor shall complete an Initial Employee Report, Form AA-302 and submit it to the Division with $150.00 Fee and forward a copy of the Form to the Borough. Upon submission and review by the Division, this report shall constitute evidence of compliance with the regulations. Prior to execution of the contract, the EEO/AA evidence must be submitted.

The successful vendor may obtain the Affirmative Action Employee Information Report (AA302) on the Division website www.state.nj.us/treasury/contract_compliance.

The successful vendor(s) must submit the AA302 Report to the Division of Public Contracts Equal Employment Opportunity Compliance, with a copy to Public Agency.

The undersigned vendor certifies that he/she is aware of the commitment to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27 and agrees to furnish the required forms of evidence.

The undersigned vendor further understands that his/her bid shall be rejected as non-responsive if said contractor fails to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27.

COMPANY: ____________________________  SIGNATURE: ____________________________

PRINT NAME:__________________________  TITLE: ____________________________

DATE: ____________________________
EXHIBIT A
MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.A.C. 17:27
GOODS, PROFESSIONAL SERVICE AND GENERAL SERVICE 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 applicants 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 of the contractor's commitments under this chapter 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.

The contractor or subcontractor agrees to make good faith efforts to meet targeted Borough employment goals established in accordance with N.J.A.C. 17:27-5.2.

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel 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.

In conforming with the targeted employment goals, 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, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

Letter of Federal Affirmative Action Plan Approval
Certificate of Employee Information Report

Employee Information Report Form AA302 (electronically provided by the Division and distributed to the public agency through the Division’s website at www.state.nj.us/treasury/contract_compliance).

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Purchase & Property, CCAU, EEO Monitoring Program 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 Division of Purchase & Property, CCAU, EEO Monitoring Program for conducting a compliance investigation pursuant to Subchapter 10 of the Administrative Code at N.J.A.C. 17:27.
CERTIFICATE OF EMPLOYEE INFORMATION REPORT

INITIAL

This is to certify that the contractor listed below has submitted an Employee Information Report pursuant to N.J.A.C. 17:27-1.1 et. seq. and the State Treasurer has approved said report. This approval will remain in effect for the period of 15-DEC-20XX to 15-DEC-20XX.

SAMPLE COMPANY, INC.
33 WEST STATE STREET
TRENTON, NJ 08625

State Treasurer

VOID
BOROUGH OF FLORHAM PARK

AMERICANS WITH DISABILITIES ACT OF 1990
Equal Opportunity for Individuals with Disability

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. 12101 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 there unto, are made a part of this contract. In providing any aid, 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’s 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 incurs 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 full and complete particulars of the claim, If any action or administrative proceeding 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.
BOROUGH OF FLORHAM PARK

THESE ARE SAMPLES OF THE ONLY ACCEPTABLE BUSINESS REGISTRATION CERTIFICATES.

PREFER SUBMITTED WITH BID RESPONSE REQUIRED BY LAW PRIOR TO AWARD OF CONTRACT
BOROUGH OF FLORHAM PARK
DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN

BID/RFP/Solicitation Number: ____________________  Bidder/Offeror: ____________________

Part 1: Certification
BIDDERS ARE TO COMPLETE PART 1 BY CHECKING EITHER BOX

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of the Treasury’s Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division’s website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the below certification. Failure to complete the certification may render a bidder’s proposal non-responsive. If the Director finds a person or entity to be in violation of the law, s/he shall take action as may be appropriate and 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.

PLEASE CHECK THE APPROPRIATE BOX:

☐ I certify, pursuant to Public Law 2012, c. 25, that neither the bidder listed above nor any of the bidder’s parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury’s list of entities determined to be engaged in prohibited 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. I will skip Part 2 and sign and complete the Certification below.

☐ OR

☐ I am unable to certify as above because the bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the Department’s Chapter 25 List. I will provide a detailed, accurate and precise description of the activities in Part 2 below, sign and complete the Certification below.

PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN
You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran on additional sheets provided by you.

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto 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 acknowledge that Florham Park Borough from the date of this certification through the completion of any contracts with the Borough to notify the Borough in writing of any changes to the answers of information contained herein. I acknowledge 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 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 Florham Park Borough, New Jersey and that the Borough at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print)___________________________________ Signature: __________________________________________

Title ___________________________ Date: ___________________________
The undersigned Bidder hereby acknowledges receipt of the following Addenda:

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Acknowledged for: ____________________________________________
(Name of Bidder)

By: _______________________________________________________
(Signature of Authorized Representative)

Name: ____________________________________________________
(Print or Type)

Title: ____________________________________________________

Date: ____________________________________________________

FORM NOT REQUIRED IF NO ADDENDA ISSUED
BOROUGH OF FLORHAM PARK

CAMPUS DRIVE, CAMPUS DRIVE JUGHANDLE, AND TRAFFIC SIGNAL PROJECT

Contract# FP19-04

THIS CONTRACT made as of the____ day of_____________ in the year 2019 by and between the Borough of Florham Park herein known as the BOROUGH and___________________________, with legal address and principal place of business at _______________________________, hereinafter called the CONTRACTOR. The BOROUGH and CONTRACTOR in consideration of the mutual covenants hereinafter set forth, agree as follows:

WORK.

The project generally consists of Pavement Milling, HMA Asphalt Paving, Traffic Signal updates and repairs, Intersection crosswalk improvements, granite curb repairs and installation, ADA curb ramp and sidewalk construction, reflective traffic striping, pavement reflector installation, sign installation, and other incidental work, all in the Borough of Florham Park in accordance with the form of proposal, contract and specifications prepared by the Borough’s Engineering Consultant, NV5. The NJDOT 2007 Standard Specifications for Road and Bridge Construction, and as amended herein, shall govern the construction of this project.

The Work under this Contract shall begin after the last party signs the Contract. The execution of this Contract shall be contingent upon receipt of necessary local, state and federal permit(s), if applicable.

PROGRESS SCHEDULE

The Contractor shall within ten (10) calendar days after the date of the execution of the Contract submit a detailed construction schedule establishing dates of starting and completion of various parts of the work. This schedule will establish how the work proposed can be completed within the time limit specified herein.

The Contractor agrees that the Work shall be prosecuted regularly, diligently and uninterruptedly in order to assure full compliance with the Contract.

NOTICE TO PROCEED AND TIME FOR COMPLETION

Upon the execution of the Contract by the Borough, a written Notice to Proceed will be forwarded to the Contractor. Thenceforth, the rate of progress shall be such that all construction shall be completed prior to either 60 calendar days thereafter or October 31, 2019; whichever occurs first excluding weather related delays. The entire work will be completed and the grounds cleaned up, all in accordance with the terms of the Contract on or before the 60th day, or October 31, 2019; whichever occurs first; unless extensions of time are made for the reason and in the manner stated under the terms of the General Conditions of Contract.

CONTRACT PRICE

The Borough will pay the Contractor for performance of the Work in accordance with the Contract Documents in current funds at the Bid Unit Price agreed upon in the Contractor's Bid attached to this Contract.

APPLICATIONS FOR PAYMENT

The Contractor shall submit monthly Applications for Payment. Applications for Payment will be processed by the Borough as provided in the Contract Documents.
**DAMAGES FOR FAILURE TO COMPLETE ON TIME**

If Contractor breaches its obligation to complete the Contract Work in accordance with the schedule provided for in this Contract, the Contractor shall pay the Borough $500.00 per day for each day of delay as liquidated damages. The parties expressly agree that quantifying damages and other losses arising from the Contractor’s failure to complete the Work in accordance with the Contract schedule is inherently difficult insofar as delay may impact the Borough’s reputation or require the Borough to provide non-monetary concessions or make other adjustments to account for the lack of completion of the project on time. The Borough also anticipates a loss of goodwill with its citizens and an interruption of, or complete inability of the Borough to provide the services rendered on the Borough’s roadways in the event that the project is not completed by the completion date. The parties further stipulate that the agreed upon sum is not a penalty, but rather a reasonable measure of damages and losses, based upon the parties’ experience in the construction industry and in municipal services, and given the nature of the losses that may result from delay. This provision shall apply in the event of concurrent delay or delay caused by a third-party such as utility companies or other contractors at the site, unless the Contractor obtains a written change order modifying the time for completion approved and executed by the Borough prior to the date for completion as set forth herein. The Contractor shall not be liable for damages or any excess cost when the delay in completion of the Work is for reasons beyond the control of the Contractor. Delays beyond the control of the Contractor shall include the, acts of God such as fires, floods, epidemics, abnormal weather conditions.

Provided, further, that the Contractor shall, furnish the Borough written notification of such delays promptly after the start of the event giving rise thereto.

If delays are attributed to the Contractor by the Borough Engineer, then the Contractor shall pay to the Borough for each and every calendar day that he shall be in default in completing the work ready for service and/or in completing the entire work within the respective times stipulated, unless the times are extended as provided herein, a sum for liquidated damages of $500.00 per day.

The Borough shall have the right to deduct the amount of any such damages from any monies due to the Contractor under the Contract.

**ASSURANCE**

The Contractor has familiarized its self with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

The Contractor agrees that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

**CONTRACT DOCUMENTS.**

The Contract Documents which comprise the Contract between the Borough and the CONTRACTOR are attached hereto and made a part hereof.

**MISCELLANEOUS**

Neither Borough nor CONTRACTOR shall, without the prior written consent of the other, assign or sublet in whole or in part his/her interest under any of the Contract Documents; and, specifically but without limitation, the CONTRACTOR shall not assign any monies due or to become due without the prior written consent of the Borough. In case the CONTRACTOR assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the CONTRACTOR shall be subject to prior claims of all persons,
firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract.

The Borough and the CONTRACTOR each binds himself, his/her partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

The Contract Documents constitute the entire agreement between the Borough and the CONTRACTOR and may only be altered, amended or repealed by a written modification.

CONFLICTING INFORMATION

In the event that any provision in any of the following component parts of this Contract conflicts with any provision in any other of the following component parts, the provision in the component part first enumerated below shall govern over any other component part which follows it numerically, except as may be otherwise stated. Said components parts are the following:

1. Contract
2. Addenda
3. Specifications
4. Invitation to Bid
5. Instruction to Bidders
6. Bid Form

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in triplicate. Two (2) copies have been delivered to the Borough and one copy each to the CONTRACTOR All portions of the Contract Documents have been signed or identified by the Borough and the CONTRACTOR.

TERMINATIONS AND/OR DEFAULT

Remedies for Default. In the event of a breach by either party of any obligation under this Contract, the right to recover damages or to be reimbursed will ordinarily constitute an adequate remedy. However, either party shall also have the right to seek injunctive or other equitable relief against the other party.

Default Notice by the Borough. The Borough shall have given prior written notice to the Contractor stating that in the Borough’s opinion a particular default or defaults (to be described in reasonable detail in such notice) exist (s) which will, unless corrected, constitute a material breach of this Contract on the part of the Contractor and which will, in the Borough's opinion, give it the right to terminate this Contract unless such default is corrected within a reasonable period of time, but in no event more than seven (7) days.

Material Breach by the Contractor. A material breach shall be deemed to include but not be limited to, the Contractor’s failure (i) to provide road construction services; (ii) to make good faith efforts to end an Emergency within thirty (30) days of its commencement; (iii) to provide and continue to provide the required insurance coverage.

Force Majeure. A Force Majeure event for purposes of this Contract shall include an Act of God, a natural disaster, acts of war, riots and/or a judicial injunction. Notwithstanding anything contained in this Contract to the contrary, if a Force Majeure event occurs, the Contractor shall not be deemed in default under this Contract to the extent that such event was beyond the control of the Contractor. The Contractor shall notify the Borough in writing that a Force Majeure event has occurred no later than three (3) days after the date the Contractor knew or should have known of the occurrence of any Force Majeure event.

Event of Default by the Borough. An Event of Default on the part of the Borough is the failure on the part of the Borough to pay any amount required to be paid to the Contractor under this Contract after written demand made no sooner than the forty-fifth (45th) day after submission of
the subject invoice and purchase order that unless such amount is paid within fifteen (15) days after such demand, the default will constitute a breach, if such amount is not so paid. If payment has not been made by the Borough to the Contractor because of a legitimate dispute over the amount owed, and payment has been made by the Borough of any undisputed amounts, failure to pay the remainder while the dispute is pending shall not constitute a breach by the Borough.

Termination of Contract. The Borough shall have the right to terminate this Contract without cause upon forty-five (45) days written notice to the Contractor. Provided, however, either party shall have the right to terminate this Contract for cause in the event of default in accordance with this article; however, the same shall be exercised only upon giving a written fifteen (15) days' notice to the defaulting party. The Contractor may not discontinue road construction until the termination notice contemplated by this article has been sent and the fifteen (15) days have expired from the date of receipt of the notice of termination.

TEMPORARY SUSPENSIONS

The Borough shall have the right to suspend the services provided by the Contractor on a temporary basis due to malfunction or temporary shut down by the Borough. The Contractor will be given a ten (10) day notice of any planned temporary suspensions. The Contractor will be notified by phone within 24 hours of any unplanned suspension.

INDEMNITY

The Contractor agrees to indemnify and defend the Borough and its agents, servants, employees, and representatives, from any claim, liability, or loss with respect to property damage and personal injury, including reasonable attorney's fees, resulting in whole or in part from breach of this contract or from the acts or omissions of the Contractor, its employees, agents, officers arising out of or relating to the work. This liability shall not be limited in type or amount by any applicable Workmen’s Compensation Law.

GOVERNING LAW

This Contract is governed by and is to be construed and enforced in accordance with the laws of New Jersey as though made and to be fully performed in New Jersey (without regard to the conflicts of law rules of New Jersey).

PARTIAL INVALIDITY

If any term, covenant or condition of this Contract or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Contract or the affiliation of such term, covenant or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each term, covenant or condition of this Contract shall be valid and be enforced to the fullest extent permitted by law.

If any term or condition of this Contract or any application of this Contract shall be determined to be contrary to the laws of the State of New Jersey or the United States, then such term or condition or application shall not be deemed valid except to the extent permitted by law, but all other terms and conditions or applications shall continue in full force and effect.

WAIVERS

Neither inspection by the Borough Engineer nor any of its agents, nor any orders, measurement, or certificate by the Borough or its agents, nor any order by the Borough for the payment of money nor payment for, not acceptance of, the whole nor any part of the work, nor any extension of time, shall operate as a waiver of any provisions of this Contract.
RESPONSIBILITY OF THE BOROUGH

The Borough or its authorized agents or employees shall decide any and all questions which may arise as to the quality and acceptability of the work furnished and/or performed, interpretation of specifications, and all questions as to the acceptable fulfillment of the Contract of the part of the Contractor.

NOTICES

All notices made pursuant to this Contract shall be in writing and delivered personally or sent by facsimile or electronic mail, to the parties at the address set forth at the end of this section.

Either party may change the address to which notices are to be sent to it, by giving ten (10) days written notice of such change of address to the other party.

This Agreement shall become effective on ______________________, 2019.

OWNER

Borough of Florham Park

By

__________________________
Mark Taylor, Mayor

(Corporate Seal)

Attest

Sheila Williams, R.M.C.
Borough Clerk

Address for giving notices

Michael Sgaramella, PE, CME
Borough Engineer
111 Ridgedale Avenue
Florham Park, NJ 07932

Sheila A. Williams, R.M.C.
Borough Clerk
111 Ridgedale Avenue
Florham Park, NJ 07932

Note: if Contractor is a corporation, an affidavit giving the principal the right to sign the agreement must accompany the executed agreement.