SPECIAL PROVISIONS

GORDON'S CORNER ROAD OVER ROUTE 9 FROM M.P. 3.620 TO M.P. 3.714 CONTRACT NO. 118003160 BRIDGE SUPERSTRUCTURE REPLACEMENT TOWNSHIP OF MANALAPAN, MONMOUTH COUNTY FEDERAL PROJECT NO. BH-0001(247)

AUTHORIZATION OF CONTRACT

The Contract is authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements thereto, and Title 23 of the United States Code - Highways.

SPECIFICATIONS TO BE USED

The 2007 Standard Specifications for Road and Bridge Construction, of the New Jersey Department of Transportation as amended herein will govern the construction of this Project and the execution of the Contract.

These Special Provisions consist of the following:

Pages 1 to 50 inclusive.

General wage determinations issued under Davis-Bacon and related acts, published by US Department of Labor, may be obtained from the Davis-Bacon web site at <u>http://www.access.gpo.gov/davisbacon/nj.html</u> under the appropriate county, select the construction type heading: HIGHWAY.

Pay the prevailing wage rates determined by the United States Secretary of Labor and the New Jersey Department of Labor. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, pay the higher rate.

State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development'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 are part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

The following FHWA funded project Attachments that are located after Division 1000:

- 1. Required Contract Provisions, Federal-Aid Construction Contracts (Form FHWA-1273).
- 2. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).
- 3. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246).
- 4. State of New Jersey Equal Employment Opportunity for Contracts Funded by FHWA.
- 5. Emerging Small Business Enterprise Utilization Attachment, FHWA Funded Contracts.
- 6. Equal Employment Opportunity Special Provisions.
- 7. Special Contract Provisions for Investigating, Reporting, and Resolving Employment Discrimination and Sexual Harassment Complaints.

DIVISION 100 – GENERAL PROVISIONS

SECTION 101 – GENERAL INFORMATION

The Federal FY begins October 1 of the previous calendar year and the State FY begins July 1 of the previous calendar each year.

101.03 TERMS

THE FOLLOWING TERMS ARE CHANGED.

Completion.

(3) IS CHANGED TO:

3. the Contractor has satisfactorily executed and delivered to the RE all documents, including federal form FHWA-47 "Contractor's Statement of Materials and Labor" according to 23CFR 635, certifications, and proofs of compliance required by the Contract Documents, it being understood that the satisfactory execution and delivery of documents, certificates, and proofs of compliance is a requirement of the Contract.

pavement structure. The combination of pavement, base courses, and when specified, a subbase course, placed on a subgrade to support the traffic load and distribute it to the roadbed (see Figure 101-1). These various courses are defined as follows:

- **1. pavement.** One or more layers of specified material of designed thickness at the top of the pavement structure.
- 2. base course. One or more layers of specified material of designed thickness placed on the subgrade or subbase.
- 3. subbase. One or more layers of specified material of designed thickness placed on the subgrade.

THE FOLLOWING TERMS ARE ADDED:

ECE - Electrochemical Chloride Extraction. See Section 557

SPMT - Self-Propelled Modular Transporter - See Section 1008.07

101.04 INQUIRIES REGARDING THE PROJECT

1. Before Award of Contract.

THE FIRST PARAGRAPH IS CHANGED TO:

Submit inquiries and/or view other questions/answers by following the format prescribed on the project's electronic bidding web page.

2. After Award of Contract.

Central Region Mr. John Szafranski, Regional Construction Engineer 100 Daniels Way Freehold, NJ 07728-2668 Telephone: 732-308-4073

SECTION 102 – BIDDING REQUIREMENTS AND CONDITIONS

102.02 BIDDER REGISTRATION AND DOWNLOADING OF THE PROPOSAL DOCUMENTS THE LAST SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Bidder shall not alter or in any way change the software.

102.03 REVISIONS BEFORE SUBMITTING A BID

THE SECOND PARAGRAPH IS CHANGED TO:

The Bidder shall acknowledge all addenda posted through the Department's website. The addenda acknowledgement folder is included in the Department's electronic bidding file. The Department has the right to reject the bid if the Bidder has not acknowledged all addenda posted.

102.04 EXAMINATION OF CONTRACT AND PROJECT LIMITS

3. Existing Plans and As-Builts.

Existing Plans and As-builts used are as follows:

 New Jersey State Highway Department, Division of Bridges Route No. 4, Sect. 40, STA 410 and 315 Underpass at Gordon's Corner Road Federal Aid Project No. 181 A(2), 1939

SECTION 104 – SCOPE OF WORK

104.01 Intent THE FOLLOWING IS ADDED:

The intent of the contract is to replace the superstructure, deck and concrete approach roadway during a one weekend closure of Gordon's Corner Road with concurrent lane restrictions on Route 9 and to perform other work of the contract using lane restrictions on Route 9 and Gordon's Corner Road.

104.02 VALUE ENGINEERING

104.02.01 Purpose and Scope

THE FOLLOWING IS ADDED:

The Department will not consider VE proposals that include the substitution of alternative materials or methods for electrochemical chloride extraction or the specified precast concrete bridge approach system.

104.03.04 Contractual Notice

THE SECOND PARAGRAPH IS CHANGED TO:

Immediately provide written notice to the RE of a circumstance that is believed to be a change to the Contract. If notice is not provided on Contractual Notice (Form DC-161), include the following in the initial written notice:

- 1. A statement that this is a notice of a change.
- 2. The date when the circumstances believed to be a change were discovered.
- 3. A detailed and specific statement describing the nature and circumstances of the change.
- 4. If the change will or could affect costs to the Department.
- 5. If the change will or could affect Contract Time as specified in 108.11.01.C.

In addition to the hard copy of the notice, email the notice to the RE. It is not necessary to attach listed documents to the email.

SECTION 105 – CONTROL OF WORK

105.05 WORKING DRAWINGS

THE SECOND PARAGRAPH IS CHANGED TO:

Ensure that working drawing submissions also conform to the Department design manuals and other Department standards for the proposed work. Ensure that working drawings are signed and sealed by a Professional Engineer. After Award, the Department will provide additional formatting information, the number of copies required, and the designated design unit to which the Contractor shall submit working drawings.

105.07.01 Working in the Vicinity of Utilities

A. Initial Notice.

Gas New Jersey Natural Gas Company 1415 Wyckoff Road Wall, NJ 07719 732-938-7864 Contact: John B. Wyckoff Electric Jersey Central Power and Light 331 Newman Springs Road Red Bank, NJ 07701 Contact: William Uellner 732-212-4246 Telephone Verizon New Jersey 5100 Belmar Boulevard Farmingdale, NJ 07727 Contact: Warren Ryllo 732-751-8725 **Cable Television** Cablevision 40 Pine Street Tinton Falls, NJ 07753 Contact: Hollis Orderson 732-681-8222, Ext. 3226 Water Gordon's Corner Water Company 475 County Route 520

P.O. Box 145 Marlboro, NJ 07746 Contact: Joseph Daily 732-845-4670

B. Locating Existing Facilities.

2.

Bureau of Traffic Operations, South Region (TOCS) 1 Executive Campus-Route 70 West Cherry Hill, NJ 08002-4106 Telephone: 856-486-6650

3.

Bureau of Electrical Maintenance, Central Region 100 Daniels Way Freehold, NJ 07728-2668 Telephone: 732-308-4086

C. Protection of Utilities.

THE SECOND PARAGRAPH IS CHANGED TO:

Protect and support existing Department electrical and ITS facilities and ensure that there is no interruption of service. Use hand tools only while working within two feet of the fiber optic network. At least 30 days before beginning the work, submit a plan to the RE for approval showing the method of support and protection.

Company Name & Address	Contact Person	Number of Day Advance Notice
New Jersey Natural Gas Company		
1415 Wyckoff Road	John B. Wyckoff - 732-938-7864	N/A
Wall, NJ 07719		
Jersey Central Power and Light		
331 Newman Springs Road	William Uellner – 732-212-4246	90 Days
Red Bank, NJ 07701		
Verizon New Jersey		
5100 Belmar Boulevard	Warren Ryllo – 732-751-8725	42 Days
Farmingdale, NJ 07727		
Cablevision		
40 Pine Street	Hollis Orderson – 732-681-8222, X 3226	21 Days
Tinton Falls, NJ 07753		
Gordon's Corner Water Company		
475 County Route 520	Joseph Daily - 732-845-4670	N/A
P.O. Box 145	Joseph Dany - 752-845-4670	\mathbf{N}/\mathbf{A}
Marlboro, NJ 07746		

105.07.02 Work Performed by Utilities

New Jersey Natural Gas (Gas)

Existing Facilities:

8" transmission main and utility vaults on Route 9 within project limits

Work to be performed by NJNG:

No relocation work is required. Coordinate with the Utility to determine if temporary protective measures will be required by the Utility based on the proposed loading of the SPMT's or other equipment. Install temporary protective measures before crossing the main and remove before reopening the road to traffic. Provide RE with correspondence from Utility that:

- 1. No protective measures are required by the Utility or;
- 2. Describes, details or both, the protective measures required by the Utility so the RE can ensure the contractor is in conformance with the Utility requirements.

Gordon's Corner Water Company (Water)

Existing Facilities: Water Main on Route 9

Work to be performed by Gordon's Corner Water Company

No relocation work is required. Coordinate with the Utility to determine if temporary protective measures will be required by the Utility based on the proposed loading of the SPMT's or other equipment. Install temporary protective measures before crossing main and remove before reopening the road to traffic. Provide RE with correspondence from Utility that:

- 1. No protective measures are required by the Utility or;
- 2. Describes, details or both, the protective measures required by the Utility.

Jersey Central Power and Light (Electric)

Existing Facilities:

•

Work to be performed by JCP&L

• Il lines must remain in service and cannot be de-energized. Install new 75'± pole (#40062) behind northeast wingwall. Install permanent overhead facilities on newly installed 75'± pole. Pole #40062 is being relocated because the guide rail between the pole and the curb is being removed. The pole does not conflict with the Work and it may be relocated before or after the superstructure work. Plan construction operations assuming the pole will remain during the Work.

Time to complete: 7 days.

•

De-energize transformer to cut off power supply to the lights in the commuter parking lot and along the ramps. Remove aerial low voltage secondary wire between Pole #BT2620MNT and JC4510MPN in the commuter parking lot.

Remove aerial low voltage secondary wire between Pole #BT2619MNT and JC4511MPN in the commuter parking lot.

Remove aerial low voltage secondary wire between Pole # BT2621MNTand #No ID along the exit ramp. Remove aerial low voltage secondary wire between Pole # BT2622MNTand #JC22MPN along the Entrance ramp.

After Stage 3 Work:

Install aerial low voltage secondary wire between Pole #BT2620MNT and JC4510MPN in the commuter parking lot.

Install aerial low voltage secondary wire between Pole #BT2619MNT and JC4511MPN in the commuter parking lot.

Install aerial low voltage secondary wire between Pole # BT2621MNTand #No ID along the exit ramp. Install aerial low voltage secondary wire between Pole # BT2622MNTand #JC22MPN along the Entrance ramp.

Except as specified in this Subsection, all electric lines must remain in service and cannot be de-energized. Time to complete: 3 days to remove, 7 days to re-install

Verizon (Telephone)

Existing Facilities:

- - **Route 9** STA. 399+32, 50' Right (Pole #2618 with light) to STA. 408+50, 49' Right (Pole #BT2623MNT with light). 6 Poles (#BT2618 with light, BT2619MNT with light, #BT2620 with light and transformer, BT2621MNT with light, BT2622MNP, BT2623MNT with light), aerial cable.

Work to be performed by Verizon:

• **Tennent Road** - Rerun 3 new copper cables to newly installed pole (#40062) after all other utilities are completed. Remove pole. Time to complete: 21 days • **Route 9** –

Before Stage 3 Work: Raise aerial cable to provide a minimum under clearance of 21ft. from Pole #BT2619 at STA.401+32, 52' Right to pole #BT 2622 at STA. 407+01, 43' Right (3 Sections) After Stage 3 Work: Lower aerial cable to original location Time to complete: 3 days to raise, 3 days to lower.

Cablevision (Cable TV)

Existing Facilities:

- **Tennent Road** STA. 9+17, 38' Left (Pole # "JC 366") to Morganville Road STA. 12+78, 19' Left (Pole # JC35), 6 Poles (#JC366 with light, #40062 with light, #JC35 with light, #No ID, #No ID, #JC14), aerial 750 coaxial cable, aerial fiber cable.
- Route 9, STA. 399+32, 50'Right (Pole #2618 with light) to STA. 405+51, 112' Right (Pole #No ID with light). 5 Poles (#BT2618 with light, BT2619MN with light, #BT2620 with light and transformer, BT2621MNT with light, #No ID), aerial cable.

Work to be performed by Cablevision:

• **Tennent Road** - Transfer wires to new Pole #40062 Remove abandoned facilities. Time to complete: 14 days

• Route 9

Before Stage 3 Work:

Raise aerial cable to provide a minimum under clearance of 21ft from Pole #BT2619 at STA. 401+32, 52' Right to Pole #No ID along the exit ramp at STA. 405+51, 112' Right. After Stage 3 Work:

Lower aerial cable to original location

Time to complete: 14 days to raise, 14 days to lower

SECTION 106 – CONTROL OF MATERIAL

SECTION 107 – LEGAL RELATIONS

107.04 NEW JERSEY CONTRACTUAL LIABILITY ACT THE FOURTH PARAGRAPH IS CHANGED TO:

For purposes of determining the date of "completion of the contract" pursuant to N.J.S.A. 59:13-5, "completion of the contract" occurs on the date that the Contractor provides written notice to the Department of Acceptance or conditional Acceptance of the Proposed Final Certificate or the 30th day after the Department issues the Proposed Final Certificate, whichever event occurs first.

107.09 INDEPENDENT CONTRACTOR

THE SECOND SENTENCE IS CHANGED TO:

It shall neither hold itself out as, nor claim to be, an officer or employee of the Department by reason hereof.

107.11 RISKS ASSUMED BY THE CONTRACTOR

1. Damage Caused by the Contractor.

THE FOLLOWING IS ADDED:

For any damages by the Contractor to the fiber optic network along Route 9, MP 3.620 to 3.714, also notify the Adesta Network Operations Center at 877-637-2344 within two hours. Only Adesta will be allowed to complete repairs on that respective section of the fiber optic network. Directly pay Adesta within 30 days from the receipt of Adesta's invoice for such repairs, and provide the RE with a copy of the transmittal letter. If the Contractor does not make payment within 30 days, the Department may recover the costs incurred for repairs from the Contract.

107.12 The Contractual Claim Resolution Process

107.12.01 Satisfying the Notice Requirements

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

Upon request, provide the RE with 3 copies of all documentation submitted in support of the claim.

SECTION 108 – PROSECUTION AND COMPLETION

108.01 SUBCONTRACTING

THE FOLLOWING IS ADDED:

Subcontractor Qualifications

ECE Subcontractor. Vector Corrosion Technologies is the only licensed contractor for the Norcure ECE process required for this project.

Vector Corrosion Technologies 13312 N. 56th Street Suite 102 Tampa, FL 33617 Phone: 813-830-7566 Fax: 813-830-7565 Attn: Chris Ball

The SPMT subcontractor must have performed at least 5 lifts of equal or greater weight than the lifts required for this project using SPMT's and moved the loaded SPMT's a distance equal to or greater than the distance between the bridge and the staging area for the lifts on this project.

The fabricator of the prefabricated superstructure units must have a minimum of ten years of experience on the fabrication of prefabricated, composite concrete deck/steel stringer superstructure units as specified in 556.02. The installation of the prefabricated superstructure units, must have been completed during a one weekend period on a minimum of three of the projects.

The fabricator of the precast concrete bridge approach slabs shall be The Fort Miller Co. Inc. PO Box 98 Schuylerville, NY 12871 Phone: 518-695-5000 Fax: 518-695-4970 www.fortmiller.com

1. Values and Quantities.

1.

Specialty Items are as listed below:

Self Propelled Modular Transporters Electrochemical Chloride Extraction

108.02 COMMENCEMENT OF WORK

THE SUBPART 4 IN THE FIRST PARAGRAPH IS CHANGED TO:

4. Progress schedule as specified in 153.03

108.06 NIGHT OPERATIONS

ADD THE FOLLOWING TO TABLE 108.06-1:

Table 108.06-1 Minimum Illuminance Levels for Night Operations		
Work Description	Minimum Level (Foot Candles)	Minimum Lighting Area
Superstructure Replacement (at bridge) Precast Concrete Bridge Approach Construction Work in staging areas during weekend superstructure replacement ECE installation	20	General lighting throughout area of operation
Substructure Concrete Repair Substructure Surface Sealant and Surface Crack Sealant installation Epoxy Waterproofing Installation Shielding Installation and removal Other miscellaneous work at structure	20	Lighting on task

108.07 TRAFFIC CONTROL

108.07.01 Interference

THE FOLLOWING IS ADDED:

By 4:00 PM each Wednesday, submit a written schedule of proposed lane closings for the following week (Monday through Sunday) to:

Manalapan-Englishtown Board of Education Transportation 116 Millhurst Road Manalapan, NJ 07726 Contact: Donna Perinelli Phone: 732-786-2642 dperinelli@mers.k12.nj.us

Centra State Medical Center 901 West Main Street Freehold, NJ 07728 Contact: Laurie Gambardella Phone: 732-431-2000

Manalapan Township Police Department

120 Rt 522 Taylors Mill Rd Manalapan, New Jersey 07726 Contact: Ptl. Robert Kelly Phone: 732-446-8383 Marlboro Township Police Department

Marboro Township Tonce Department1979 Township DriveMarlboro, NJ 07746Contact: Sergeant LengePhone: 732-536-0200

Submit written notification to the same contacts a minimum of 14 days before beginning Stage 2 and at least 14 days before beginning Stage 3.

108.08 LANE OCCUPANCY CHARGES

THE FOLLOWING IS ADDED:

The rate to calculate the Lane Occupancy Charge is as follows: Description Stage 1, 2 & 4 Construction

Rate \$10/minute

108.10 CONTRACT TIME

A. Begin Stage 3 Weekend Superstructure Replacement no later than May 7, 2010 and complete all work required for interim completion in seventy-two (72) continuous hours. The work period begins on a Friday 6:00 AM in accordance with the Traffic Control & Staging Plans. The work period is considered complete when:

Route 9 is open with 2-lanes of traffic in each direction using Construction-Pattern C Traffic Control in accordance with the Traffic Control & Staging Plans.

AND

Tennent Road is open with 3-lanes of traffic using Stage 4 Traffic Control in accordance with the Traffic Control & Staging Plans.

AND

Commuter Parking Lot, Franklin Lane and Ramp C connection to Wickatunk Road are open to traffic in accordance with the Traffic Control & Staging Plans.

- B. Complete all work required to re-open Ramps C, D & E within **7 days** of completing the Stage 3 Weekend Superstructure Replacement or by **May 17, 2010** (whichever is sooner).
- C. Complete all work required for Substantial Completion within **30 days** of completing the Stage 3 Weekend Superstructure Replacement or by **June 16, 2010** (whichever is sooner).
- D. Achieve Completion within **90 days** of completing the Stage 3 Weekend Superstructure Replacement or by August **15**, **2010** (whichever is sooner).

108.11.01 Extensions to Contract Time

B. Types of Delays.

2. Excusable, Non-Compensable Delays.

THE LAST PARAGRAPH IS CHANGED TO:

If approved excusable, non-compensable delays exceed a total of 90 days, the time in excess of 90 days will become excusable and compensable as specified in 108.11.01.B.3.

108.12 RIGHT-OF-WAY-RESTRICTIONS

THE FOLLOWING IS ADDED:

Temporary site access is provided on Manalapan Township owned parcel block 8, lot 11.01 for use during construction.

- 1. Temporary installation of directional signs alerting commuters of additional available parking to be made available by Manalapan at a nearby location on Block 7 lot 17.02.
- 2. Provide 10 days notice prior to utilizing the block 8, lot 11.01.
- 3. Restore Franklin Lane to original condition. Document condition with photos prior to use.Manalapan Township will inspect the work and provide approval. It is the contractor's responsibility to satisfy the Township and obtain approval of the work.
- 4. Restore the parking lot, block 8, lot 11.01 to original condition. This parking lot will be milled and paved. It is the contractor's responsibility to satisfy the Township and obtain approval of the work.

108.20 LIQUIDATED DAMAGES

Liquidated damages are as follows:

- A. LIQUIDATED DAMAGES
 - 1. For each hour that the Contractor fails to complete the work as specified in Subpart A of Subsection 108.10 of these Special Provisions, for Interim Completion, the Department will assess liquidated damages in the amount of **\$10,000**.
 - 2. For each day that the Contractor fails to complete the work as specified in Subpart B of Subsection 108.10 of these Special Provisions the Department will assess liquidated damages in the amount of **\$1,500**.
 - 3. For each day that the Contractor fails to complete the work as specified in Subpart C of Subsection 108.10 of these Special Provisions, for Substantial Completion, the Department will assess liquidated damages in the amount of **\$2,900**.
 - 4. For each day that the Contractor fails to achieve Completion as specified in Subpart D of Subsection 108.10 of these Special Provisions, the Department will assess liquidated damages in the amount of **\$1,150**.

When the Contractor may be subjected to more than one rate of liquidated damages established in this Section, the Department will assess liquidated damages at the higher rate.

B. INCENTIVE PAYMENT FOR EARLY COMPLETION

For this particular Contract, the Department agrees to pay the Contractor an "incentive payment for early completion", but only where the Contractor completes the work as specified in B.1. below and complies with the requirements of the Contract, including the provisions set forth in the paragraphs below. Time is of the essence for all time frames.

- 1. For each hour Route 9 is open with 2-lanes of traffic in each direction prior to 6:00 PM on the Sunday of Stage 3 Weekend Superstructure Replacement, as specified for Subpart A in Subsection 108.10 of these Special Provisions, the Contractor will receive an incentive payment of **\$10,000**.
- 2. The Department retains the right to add extra work or modify work to the Contract or increase the quantity of an Item(s) as provided by the Specifications. Complete all added or modified work in order to receive an incentive payment; unless, however, such work is added or increased within 4 months of the start date for B.1. above or the total thereof is equivalent to more than 20 % of the total value of the respective work based on Contract quantities and bid prices of the Items. Also, complete all added, increased or extra work that is not required to be completed in order to receive an incentive payment as determined by the Department according to the term completion date as specified in the respective Change Order or Supplementary Agreement.
- 3. The Contractor does not have the right to, nor will make any claim for Additional Compensation because an extension or reduction of time to perform the Contract work is granted by the Department that in turn results in the incentive payment as specified in B.1. above being reduced or eliminated. The Contractor may only seek to have the time frames of the incentive payment increased, as determined by the Department, with respect to Construction Operations for the work specified in B.1., above solely by reason of exigent circumstances so long as the Contractor acts in good faith to mitigate the effects of such exigent circumstances. Document, as specified in Section 153, exigent circumstances that impacted specific Items of Work which are on the critical path of a current approved Progress Schedule updated for the respective milestone or significantly impact the schedule so as to cause such effected Items of Work to become critical as determined by the Department. Exigent circumstances only include the following events: 1) fire; 2) acts of civil or military authorities, war, terrorism or riot; 3) severe floods, hurricanes, cyclones, severe sustained winds exceeding 75 mph, tornadoes, tidal waves or other cataclysmic natural phenomenon exclusive of Extreme Weather Conditions 4) strikes or labor disputes beyond the control or fault of the Contractor; and 5) court orders or injunctions not resulting from the fault of the Contractor. Extensions of time of the Completion date or Substantial Completion date will not effect or modify the dates applicable to receipt of an incentive payment except where such dates are adjusted by reason of "exigent circumstances" as specified above.
- 4. The Contractor does not have the right to make claim for Additional Compensation by reason of delays which result in the loss of or diminution of the incentive payment, whether or not the fault of the Contractor, arising from reasons of whatever nature, except that it may seek to have the time frames of the incentive payment modified as specified in B.3. above, subject to the provisions of this subsection.
- 5. The Contractor does not have the right to an increase in the amount of the incentive payment over and above the maximum limit specified in B.1 above no matter what adjustments were made to the Contract or when the Contractor completes the Work. Furthermore, the Contractor is not entitled to an incentive payment in the event of a termination of Contract by the Department whether it be for fault or convenience or a default as specified in Subsection 108.14 or 108.15. In the event of a termination for convenience, compensation for documented premium time expended in the effort to achieve incentive payment will be paid subject to and as specified in B. 7. below.
- 6. Do not rely upon or anticipate receipt of an incentive payment as compensation for the work performed. Do not include in any manner, anticipation of the receipt of the incentive payment while calculating the bid proposal for the various Items.
- 7. In the event of a termination for convenience as specified in Subsection 108.15, and not a termination for fault or a default and termination, and the Contractor has not been determined by the Department to be entitled to any incentive payment, the Contractor is only entitled to payment of documented premium time for labor and documented premiums paid to subcontractors and suppliers not under control or ownership of the Contractor, and reasonably expended by the Contractor to accelerate the work so as to qualify for the incentive payment and not because it was behind in its Progress Schedule as specified in Section 153. Any

such payment is in lieu of an incentive payment and will not exceed the corresponding percentage of completion of the respective milestone Item of the Project as applied to the incentive payment. The Contractor agrees that it is not entitled to any Additional Compensation in the event the Contract is terminated prior to the Contractor qualifying for an incentive payment and that its remedy is limited to payment of premium time and subcontractor and supplier premiums only. Furthermore, the Department retains the right to eliminate any ItemItem or part of any Item at any time. In such event make no claim to increase the incentive payment. However, where the Department eliminates work, the total value of which is equivalent to more than 20% of the total value of the respective milestone work based on Contract quantities and bid prices of the Items, the Department may eliminate the incentive payment. In such event the Contractor's remedy is limited to that provided under a partial termination or termination for convenience as the case may be.

8. Notify the RE in writing 10 days before it contends that the work specified in B.1. above has been started and completed or will be completed. Upon receipt of such notice, the Department will respond within 5 State Business Days of the date the notice was received from the Contractor or from the date that the Contractor contends the work will be done whichever is later. The Department's response will also be in writing and in the event completion is not found to have occurred, the Department will enumerate the reasons for its determination. When it is determined by the Department that an incentive payment is due as specified in this Subsection, such payment will be made by a single payment for each milestone that is achieved in accordance with the above specifications (possibly multiple checks) after a change order has been prepared, approved, and fully processed by the Department. Breach by the State, its official or employees, of this provision, or any other provision of this Subsection does not nullify the terms or the conditions for an incentive payment under this Contract

THE FOLLOWING IS ADDED:

When the Contractor may be subjected to more than one rate of liquidated damages established in this Section, the Department will assess liquidated damages at the higher rate.

109.01 MEASUREMENT OF QUANTITIES

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will designate Items as Measured Items or as Proposal Items by having a suffix of M or P in the Item number respectively. The Department will measure quantities of Measured Items for payment.

109.02 SCOPE OF PAYMENT

THE THIRD SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

The Department will not make additional or separate payment for work or portion of work unless specifically provided for in the "Measurement and Payment" Subsection.

109.05 ESTIMATES

SECTION 152 – INSURANCE

152.03.01 Owner's and Contractor's Protective Liability Insurance

A. Policy Requirements.

THE FOURTH SENTENCE OF THE FIRST PARAGRAPH IS CHANGED TO:

Ensure that policies are underwritten by companies with a current A.M. Best rating of A- with a Financial Size Category of VII or better.

SECTION 153 – PROGRESS SCHEDULE

153.03.01 CPM Progress Schedule

THE FOLLOWING IS ADDED AFTER THE FIFTH PARAGRAPH:

Provide additional detail on the Progress Schedule for Stage 3 weekend superstructure replacement:

- 1. Provide one activity for each item of work to be performed during Stage 3. Activities will include, but not be limited to:
 - Staging area preparation and setup
 - Final bridge demolition activities prior to superstructure removal
 - SPMT movements
 - Superstructure removal
 - Superstructure replacement
 - Traffic pattern shifts
 - Approach roadway reconstruction with precast units.
 - Demolition work in staging areas
 - Parking lot restoration
 - 2. Ensure that the schedule is broken down into increments no greater than 30 minutes
 - 3. Provide a breakdown of manpower and equipment assigned to each work item during the entire duration of Stage 3 construction. Identify if manpower, equipment or both will be used on more than one work item and when the transfer will occur.

153.03.02 CPM Progress Schedule Updates

THE LAST PARAGRAPH IS CHANGED TO:

If the project falls behind schedule for nonexcusable delays, so that the schedule indicates that the Work will not be completed by the Completion date, as specified in 108.10, take the necessary steps to improve progress. Under such circumstances, the RE may direct the Contractor to increase the number of shifts, begin overtime operations, work extra days including weekends and holidays, and supplement its construction plant. Furthermore, the RE may require the Contractor to submit for approval a recovery schedule showing how the Contractor proposes to meet the directed acceleration.

153.03.03 Bar Chart Progress Schedule and Updates

THE TEXT OF THIS SUBSECTION IS DELETED. A BAR CHART PROGRESS SCHEDULE IS NOT PERMITTED ON THIS PROJECT.

153.04 MEASUREMENT AND PAYMENT

THE THIRD PARAGRAPH IS CHANGED TO:

If the Contractor's CPM Progress Schedule update is not approved by the date of the progress meeting for the following update, the Department will assess liquidated damages to recover the Department's increased administrative costs. The Department will assess damages for each delinquent update as follows:

SECTION 155 – CONSTRUCTION FIELD OFFICE

155.03.01 Field Office

4. Communication Equipment.

- **a. Telephones.** Provide 3 cordless phones with auto-switching.
- **c.** Cell Phones. Provide 3 cellular phones. Ensure the cellular phone plan provides for unlimited mobile to mobile in-network usage, unlimited push-to-talk/ walkie-talkie usage and an anticipated monthly usage of 900 any-time minutes for each phone. Ensure the phones are on the same plan. Ensure the

cellular phone plan has a home rate with no roaming charges within the state. Ensure each cellular phone has the following features:

- 1. Push to Talk / Walkie-Talkie capable
- 2. Camera with 1 megapixel picture capability
- 3. Battery life capable of 180 minutes of continuous use and 72 hours of standby use
- 4. Equipped with a hands-free headset
- 5. Base charger and car charger
- d. Computer System. Provide a computer system meeting the following requirements:

2 computer configurations each meeting the following:

- 1. Equipped with an Intel Pentium IV processor with Hyper Threading technology having a clock speed of 3.5 GHz or faster, 2 GB RAM, 512 MB Video RAM, 200 Gigabyte hard drive designated as drive C, one DVD (+/-) Writer Drive, one CD-R Recordable Drive. Ensure the system is USB 2.0 compatible and has at least two front USB ports.
- 2. Wired Router with appropriate number of ports and cables and a print server. Ensure there is at least one wired Ethernet switch.
- 3. High-speed broad band connection and service with a minimum speed of 3 Megabytes per second (mbps) with dynamic IP address for the duration of the project.
- 4. 19 inch or larger Flat Screen LCD monitor with tilt/swivel capabilities.
- 5. 250 Megabyte or larger Zip Drive internal or external with backup software for MS-Windows and DOS, and fifteen corresponding formatted data cartridges corresponding to the tape drive size.
- 6. 1 Flatbed USB version 2.0 or greater Color Scanner with automatic document feed.
- 7. Uninterruptible power supply (UPS).
- 8. Surge protector for the entire computer configuration to be used in conjunction with the UPS.
- 9. 2 computer workstations, chair, printer stand, and/or table having both appropriate surface and chair height.
- 10. One can of compressed air and screen cleaning solution every other month of the duration of the contract.

Ensure one computer has a 56K baud data/fax modem. If more than one computer configuration is specified, provide one network interface card for the base computer configuration and hardwire connections between computer configurations as directed by the RE.

Also provide:

3 USB 1GB Flash/Jump memory drives

50 CD-R 700 MB (or larger) recordable CD's compatible with the CD drive and 50 recordable DVD's.

1 CD/DVD Holder (each holds 50)

1 color laser printers and supplies as follows:

- 1. HP PCL 5 emulation, with a minimum of 192 Megabytes of expanded memory, printer cable, and legal size paper tray.
- 2. One set of printer ink cartridges every other month for the duration of the construction project for each printer.

Software as follows:

- 1. Microsoft Windows, latest version with future upgrades for the duration of the entire project. Ensure 1 computer has a Microsoft Windows 32 Bit Operating System for ACES, Extra and Groupwise.
- 2. Microsoft Office Professional, latest version.
- 3. Norton's System Works for Windows, latest version, or compatible software package with future upgrades and latest virus patches.
- 4. Anti-Virus software, latest version with monthly updates for the duration of the contract.
- 5. Visio Professional Graphics Software for Windows, latest version
- 6. Primavera Project Planner, latest version

7. PaperPort, latest version, for Scanner

THE THIRD PARAGRAPH IS CHANGED TO:

When the computer system is no longer required by the RE, the Department will remove and destroy the hard drive, and return the computer system to the Contractor. The Department will retain other data storage media.

6. Office Equipment.

- 2. 1 digital camera(s). Ensure each digital camera has auto-focus, with rechargeable batteries and charger, 5 MB memory card, USB Memory Card Reader compatible with camera and field office computer, 1.5 inch LCD monitor, 5 mega pixel resolution, 10 X optical zoom lens, built in flash, image stabilization, computer connections, and a carrying case
- 3. 0 video camcorder(s). Ensure each video camcorder is a mini DVD camcorder with _____ optical zoom, 2" LCD monitor, USB 2.0 compatible and includes USB 2.0 connections.

7. Inspection Equipment.

- 1. 2 Calculators with trigonometric capability
- 2. 1 Date/ Received stamp and ink pad
- 3. 1 Electronic Smart level, 4 foot
- 4. 1 Carpenter rulers
- 5. 1 Steel tape, 100 feet
- 6. 1 Cloth tape, 100 feet
- 7. 1 Illuminated measuring wheel
- 8. 0 Plumb bob and cord
- 9. 0 Line level and cord
- 10. 1 Surface thermometer
- 11. 1 Concrete thermometer
- 12. 1 Digital infrared asphalt thermometer
- 13. 0 Direct Tension Indicator (DTI) Feeler Gage, 0.005 inch
- 14. 0 Sledge hammer, 8lb
- 15. 0 Self leveling laser level with range of 100 feet and an accuracy of ¹/₄ inch per 100 feet
- 16. 3 Hard hats orange, reflectorized hard hats according to ANSI Z89.1
- 17. 3 Safety garments orange, reflectorized, 360° high visibility safety garments according to ANSI/ISEA Class 3, Level 2 standards. To be replaced yearly for the duration of the contract.
- 18. 3 Sets of rain gear with reflective sheeting
- 19. 3 Sets of hearing protection with a Noise Reduction Rating of 22 dB
- 20. 3 Sets of eye protection according to ANSI Z87.1
- 21. 3 Sets of fall arrest equipment according to ANSI Z359.1 standards consisting of a full body harness, lanyard and anchor
- 22. 1 Light meter capable of measuring the level of luminance in foot-candles
- 23. 1 Lantern flashlight, 6V with monthly battery replacements
- 24 0 Digital Psychrometer
- 25. 1 Chain Drag according to ASTM D4580-86
- 26. Testing equipment and apparatus conforming to AASHTO T23, T119, T152
- 27 1 Hard Bound Daily Diaries, 5-1/2" x 8" minimum with one day per page. To be provided yearly for the duration of the contract.
- 28. 100 Legal size hanging folders
- 29. 100 Legal size manila file folders three tab

155.03.03 Telephone Service

THIS SUBPART IS CHANGED TO:

Telephone service consists of monthly charges for telephone and cellular phones provided for the field office and materials field laboratory excluding set up charges.

155.04 MEASUREMENT AND PAYMENT

THE THIRD PARAGRAPH IS CHANGED TO:

The Department will make payment for TELEPHONE SERVICE for the actual costs of the charges as evidenced by paid bills submitted within 60 days of receipt from the service provider for telephone and cell phones.

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

158.03.02 SESC Measures

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

159.02.02 Equipment

159.03.02 Traffic Control Devices

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

8. Portable Variable Message Sign w/Remote Communication (PVMSRC). Place the PVMSRC 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 On-Site Configuration. Only display messages authorized by the Department for the Project and make the signs available for use remotely from the Traffic Operation center (TOC) specified in 105.07.01.B. Repair or replace malfunctioning PVMSRC within 12 hours of notification by the RE.

Provide a broadband cellular telephone service plan with unlimited data service on an IP based packet network for the intended operational and functional requirements of the PVMSRC. Ensure that the PVMSRC has remote operation capability from the specified TOC using the Department's current DMS control software at the time of deployment.

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.

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.

159.03.09 Emergency Towing Service

THE FOLLOWING IS ADDED TO THE LAST PARAGRAPH

Emergency towing service, on call, heavy duty will be available within 30 minutes of the call from the field.

159.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEMS ARE ADDED:

Item

PORTABLE VARIABLE MESSAGE SIGN W/REMOTE COMMUNICATION EMERGENCY TOWING SERVICE, ON CALL, HEAVY DUTY EMERGENCY TOWING SERVICE, ON SITE, LIGHT DUTY Pay Unit UNIT TRIPS HOUR

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 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 AD	DED TO TABLE 160.03.01-1		
Items			Fuel Usage Factor
NON-VEGETATIVE SURFACE	E, HOT MIX ASPHALT		2.50 Gallons per Ton
COLOR-COATED NON-VEGE	TATIVE SURFACE, HOT MIX A	ASPHALT	2.50 Gallons per Ton

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:

$$A = B \times [(MA - BA)/BA] \times C \times M \times G$$

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

SECTION 162 – STAGING AREA

162.01 DESCRIPTION

This Section describes the requirements for using and restoring staging areas. **162.02 MATERIALS**

Use materials as specified in Section 900.

162.03 CONSTRUCTION

162.03.01 General

Staging area limits available to the Contractor have been delineated. The Contractor may use areas within the State ROW at all times as specified in 108.04. Additionally, the Contractor may use other areas within the staging area limits subject to the following restrictions.

- 1. Ramps C, D and E may be closed using Traffic Pattern C from 7 days before the beginning of Stage 3 to 7 days after the end of Stage 3. The ramps may be used for staging during this period.
- 2. Franklin Lane and Ramp C from Franklin Lane to Wickatunk Road may be closed from the beginning of Stage 3 to 6:00 AM the following Monday.
- 3. The north end of the municipal parking lot (Area 1, 26 spaces north of northerly driveway) may be closed from 9:00 PM on the Friday before the beginning of Stage 3.
- 4. The entire municipal parking lot may be closed from the beginning of Stage 3.
- 5. The entire municipal parking lot must be reopened for commuter parking before 6:00 AM on Monday of Stage 3, as specified in 162.03.02.
- 6. The entire municipal parking lot may be closed from 12:01 AM Saturday to midnight Sunday (48 hrs.) on a weekend after the end of Stage 3 to perform pavement reconstruction as specified in 162.03.02.

Design temporary staging area improvements for proposed construction activities. Restore staging areas as specified in 108.04. Submit working drawings for approval that include existing features to be removed, existing features to be replaced, locations and dimensions of temporary curb cuts, construction details for replacement work, temporary lighting as specified in 162.03.04, location of temporary cribbing and supports for existing and proposed superstructure sections, other details required by the RE. Submit separate drawings for soil erosion and sediment control measures and water quality measures required for the area of disturbance for the staging area used. If staging areas will be used by SPMT's, provide certification from SPMT subcontractor to RE that the design has been reviewed and approved by the SPMT subcontractor.

162.03.02 Municipal Parking Lot

The Contractor may use the municipal parking lot immediately south of the bridge on the east side of Route 9 for staging subject to the time limitations specified in 162.03.01.

Construct curb cuts and temporary pavement between Route 9 and the parking lot without disrupting or preventing access to existing parking spaces. Provide a positive means of preventing the use of the temporary pavement as an access to or from Route 9 and to prevent vehicles from accidentally driving onto Route 9 from the lot.

Coordinate with the municipality to inform users of pending work and closures.

Prior to reopening the lot at the end of Stage 3, ensure that pavement is acceptable for public use and parking space markings are clearly visible.

During a weekend period after the end of Stage 3 as specified in 162.03.01, mill the existing pavement in the entire lot, 2" depth, repair any damaged pavement below the milling limits and resurface with Hot Mix Asphalt 9.5M 64 Surface Course, 2" thick. Provide new parking space markings to match existing using Epoxy Traffic Stripes, 4" Wide.

162.03.03 Tree Removal

Existing trees on State property within the staging area limits may be removed as specified in 802. The trees will be replaced as allocated by the quantity provided. Coordination is required with the DOT Landscape Unit. Coordinate with the municipality for the removal of any trees on their property. Replace trees as required by the municipality as specified in 811 except 811.03.02 will not apply.

Provide RE with planting requirements from the municipality.

162.03.04 Temporary Lighting

Provide temporary lighting for Route 9 and municipal parking lot immediately after existing lighting is de-energized and service wires are removed by JCP&L. Coordinate with JCP&L to ensure temporary lighting is activated the same day the existing lighting is taken out of service. Provide the same illumination levels as the existing system. Submit working drawings for approval that include location and type of temporary lighting, locations of power service, wiring locations and proposed illumination levels. Coordinate with JCP&L to provide temporary electric drop. Pay connection and service fees for temporary lighting. Maintain temporary lighting until service is restored to the permanent lighting system.

162.03.05 Soil Erosion

Install all soil erosion and sediment control measures and water quality measures as specified in the approved working drawings.

162.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

Item	Pay Unit
STAGING AREA	LUMP SUM

The Department will not make payment for the Item STAGING AREA in excess of \$295,200.00 (or 90% of the price bid, whichever is less) until Substantial Completion.

DIVISION 200 – EARTHWORK

SECTION 201 – CLEARING SITE

201.03.01 Clearing Site

THE FOLLOWING IS ADDED:

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:

Assume the existing paint system on the girders is lead based. Submit a Lead Health and Safety Plan (LHASP) for approval as specified in 554.03.01.

201.04 MEASUREMENT AND PAYMENT

THE FOLLOWING IS ADDED:

The Department will not make payment for the Item CLEARING SITE in excess of \$15,000 until Completion.

The Department will not make payment for the Item CLEARING SITE, until Substantial Completion. BRIDGE (1303156) in excess of \$234,950

SECTION 202 – EXCAVATION

202.02 MATERIALS

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THE FIRST IN THE LIST IS CHANGED TO:	
Coarse Aggregate (No. 57, or 67)	
203.02.01 Materials THIS SUBPART IS CHANGED TO:	
Provide materials as specified:	

DIVISION 400 – PAVEMENTS

SECTION 401 - HOT MIX ASPHALT (HMA) COURSES

401.02.02 Equipment

THE LAST PARAGRAPH IS CHANGED TO:

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

401.03.03 HMA Courses

D. Transportation and Delivery of HMA.

THE FIRST PARAGRAPH 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. Project title.
- 3. Load time and date.
- 4. Truck number.
- 5. Mix designation.
- 6. Plant lot number.
- 7. Tare, gross, and net weight.

E. Spreading and Grading.

THE THIRD PARAGRAPH IS CHANGED TO:

The use of an MTV is optional for the construction of intermediate and surface course in the traveled way. If an MTV is used, ensure that the MTV independently delivers HMA from the HMA trucks to the HMA paver. Operate the MTV to ensure that the axle loading does not damage structures, roadway, or other infrastructure.

J. Ride Quality Requirements.

THE FIRST PARAGRAPH IS CHANGED TO:

The Department will evaluate the HMA surface course using the International Roughness Index (IRI) according to ASTM E 1926. The Department will use the measured IRI to compute the appropriate pay adjustment (PA). The PA may be positive for superior quality work or negative for defective work. The Department may exclude certain area as specified in the Special Provisions.

DIVISION 500 – BRIDGES AND STRUCTURES

SECTION 504 – STRUCTURAL CONCRETE

504.02 MATERIALS

THE FOLLOWING IS ADDED:

504.03 CONSTRUCTION THE FOLLOWING SUBPART IS ADDED:

504.03.04 Concrete Surface Treatment

Provide a Catalog Cut including manufacturer's recommendations for certification.

Apply the concrete surface sealant after Stage 3 construction and before applying the Epoxy Waterproofing following the manufacturer's best recommended procedures and practices.

504.04 MEASUREMENT AND PAYMENT THE FOLLOWING IS ADDED:

Pay Item	Pay Unit
CONCRETE SURFACE TREATMENT	SQUARE YARD

SECTION 505 PRECAST AND PRESTRESSED STRUCTURAL CONCRETE

505.03 CONSTRUCTION

THE FOLLOWING SUBPART IS ADDED:

505.03.04 Precast Concrete Structure

- **A.** Working Drawings. Submit working drawings for the precast cheekwalls for certification that show elevation and section, all hardware, and the proposed method of installing the units.
- **B.** Shipping and Storing. Notify the RE at least 5 days before shipping. Ship and store according to the manufacturer's recommendations.
- C. Surface Finish. Ensure units have surface finish as specified in Subpart 504.03.02 (H).

505.04 MEASUREMENT AND PAYMENT THE FOLLOWING IS ADDED:

Pay Item	Pay Unit
PRECAST CONCRETE STRUCTURE	UNIT

SECTION 506 – STRUCTURAL STEEL

506.03.01 Structural Steel

E. Installing High-Strength Steel Bolts.

THE SECOND PARAGRAPH IS CHANGED TO:

Provide a Skidmore-Wilhelm calibrator or an acceptable equivalent tension measuring device on the Project during erection. Ensure that the manufacturer's representative is present during the first full day of tensioning work to provide technical assistance. Verify each lot of DTIs using the Skidmore-Wilhelm calibrator as specified in NJDOT S-3.

SECTION 507 – CONCRETE BRIDGE DECK AND APPROACHES

507.02.01 Materials

THE FOLLOWING IS ADDED:

Bedding Material	901.12
Pavement Hardware Grout	
Bedding Grout	903.08.05
Tie Bolts	905.03.01
Joint Ties	905.03.01
Tie Bolts	905.03.02
Dowel Bars	905.03.03
Foam Gasket	919.18
Lifting Inserts	919.19
Precast Concrete Bridge Approach	See Note 1

Use an oil or paraffin based material as a bond breaker.

Note 1: Use Super-Slab Units manufactured by Fort Miller Co. Inc. for the Precast Concrete Bridge Approach. No substitution is permitted.

The Fort Miller Co., Inc. P.O. Box 98 Schuylerville, NY 12871 Tel: (518) 695-5000 Fax: (518) 695-4970

507.02.02 Equipment THE FOLLOWING IS ADDED:

Grout Pumping Unit	1006.03
Mixer	1006.04
Injection Device	1006.04
Grinding Machine	1006.08
Pavement Saw	

507.03 CONSTRUCTION

507.03.03 Date Panel THE TEXT OF THIS SUBPART IS DELETED.

507.03.07 Concrete Bridge Approach

THE FOLLOWING SUBPART IS ADDED:

507.03.08 Precast Concrete Bridge Approach

A. Design. Perform a detailed "X", "Y", "Z" construction survey of matching (abutting) pavement edges before preparing working drawing. Develop a detailed slab layout drawing. Provide three-dimensional values for each corner of every slab. Ensure slab corner elevations meet all vertical and horizontal parameters. Use the construction survey in the design and fabrication of the Super-Slab units. Do not rely on the plan data.

Use one row of 14" thick slabs at the ends of the prefabricated superstructure units. Design these slabs to span 7 feet from the end of the bridge. Post tensioning is not required. Use 12" thick slabs for the remainder of the precast concrete bridge approach. Use drop-in expansion slabs for the second row of slabs away from the bridge. Size the slabs so they do not require installation equipment which would require relocation of the utilities.

Ensure the design is coordinated with the prefabricated superstructure units. Ensure the dowels between the prefabricated superstructure units and the first row of slabs are installed perpendicular to the end of the prefabricated superstructure units. Match cast the first row of precast approach slabs next to the prefabricated superstructure units with the prefabricated superstructure units. The Department will not waive the requirement for match casting.

Use two layers of reinforcing, each with a steel ratio of 0.0018 in all slabs. Use epoxy coated or galvanized reinforcement steel in the top layer. Use 3 inch minimum cover for the top layer and 2 inch minimum cover for the bottom layer. Use #19 deformed bars for the tie bars and 1 ¹/₄" diameter dowels. Ensure the tie bars and dowels are spaced no greater than 12" on center.

Size the dovetail slots consistent with the thickness of the slab to ensure the bottom opening is at least 2 $\frac{1}{2}$ " wide and $\frac{1}{2}$ " of grout cover is provided over the top of the dowel. Bedding grout channels may be oriented in the transverse or longitudinal direction. The distance between grout channels is not to exceed 4'-0".

Place foam gaskets around slots to isolate dowel grout from the bedding grout. Place foam gaskets between bedding grout channels to limit the distance bedding grout is required to flow.

Recess lifting devices 1" (minimum) below the surface of the slab to allow for a minimum grout cover of 1".

Design warped slabs to meet the required three dimensional geometry as follows:

- 1. All sides of slab are horizontally straight.
- 2. All sides are vertically straight
- 3. All edges are square to the top surface
- 4. Raise or lower one corner from the plane established by the other three corners before casting slab
- 5. Slabs which are warped $\frac{1}{4}$ or less may be cast as single plane slabs.
- B. Working Drawings. Submit working drawings for approval which includes:
 - 1. Slab layout drawing
 - 2. Three-dimensional surface data required to fabricate warped slabs.
 - 3. Site accurate dimensions to fabricate special slabs to accommodate all abutting edges and ends of existing concrete, drainage structures, water valves and any other existing pavement appurtenances.
 - 4. Reinforcement sizes, spacing, number of mats and method of maintaining concrete cover.
 - 5. Sizes and locations of dowels, tie bars, tie bolts, joint ties, inverted dovetail slots, grout channels, grout ports, lifting inserts, gaskets and keyways
 - 6. Compressive strength and air content of concrete
 - 7. anticipated method of curing
 - 8. Typical Marking Legend: Precast manufacturer; date of production; contract number; unique piece number
 - 9. Weights of each slab and all details relating to yard storage, shipping and handling

- 10. Production note sheet showing the service of materials, tolerances and testing methods
- 11. Top surface texture
- 12. Bond breaker material
- 13. Proposed method and equipment for fine grading
- 14. Materials for dowel, bedding and pavement hardware grouts
- 15. Grout mix designs
- **C. Fabrication.** Conduct a pre-pour inspection of the forms with the ME. Ensure the forms do not exceed the following tolerances:

Length, Width & Diagonals	+/-3/16"
Thickness	+/-1/8"
Dowel variance from level, squareness to edge of slab and location	+/-1/8"
Female Tie Bar Splicer Location	+/-1/4"
Edge squareness $1/8$ " in 10" (in relation to top and bottom surfaces)	

Ensure the forms are constructed as specified in 504.03.02 B

Ensure that reinforcement steel is installed as specified in 504.03.01.

Ensure the concrete is placed as specified in 507.03.02 F and 504.03.02 D.

Screed top of slab (roller screed recommended) to meet surface and thickness tolerances.

Apply transverse Astro Turf finish to top of slab.

Apply red paint around bedding grout ports to indicate ports are to be used for installation of bedding grout only. Do not apply paint around dowel grout ports.

D. Installation.

1. General

Within 15 days of the beginning of Stage 3, conduct a pre-placement meeting with the RE, the ME and the manufacturer to discuss the plan of operation.

Prepare trial batches of the bedding grout and pavement hardware grout 45 days before the beginning of Stage 3. The ME will take cylinders for testing. If the grout does not meet design requirements, submit a new mix design for approval. Prepare another trial batch of grout for testing. Use the mix design which is approved by the ME for the installation.

Ensure that a representative of the manufacturer is present at the project site at all times during installation.

2. Subbase Preparation and Grading

Remove the existing concrete pavement as specified in 202.03.06. Match lines which follow existing joints do not need to be saw cut.

Install joint ties and dowels in the existing concrete roadway as specified in 453.03.01 C.

Excavate the existing subgrade to $6 \frac{1}{2}$ " below the designed bottom of slab elevation. Construct 6" of subbase and $\frac{1}{2}$ " of bedding material.

Use a laser or mechanically-controlled screeding device that is capable of grading compacted bedding material to the required three-dimensional subbase surface for each slab.

Construct the bedding material in one layer to allow for compaction. Dampen the bedding material with water as required before compacting it. Use a vibratory roller and/or a walk behind plate compactor to compact the material. Use a minimum of two roller or compactor passes.

Set the screed to the elevation of the proposed bottom of the precast slab before making the final grading pass. Continue to screed the bedding material until the screed carries no appreciable bedding material in front of it.

Prior to placing the precast slabs check the subbase surface with a straight-edge and a depth gage approved by the Fort Miller Co., Inc. The straight-edge shall be at least 10'-0" long and the depth gage at least 6'-0: long.

Just prior to placing the slabs, dampen the subbase with water if required such that the subbase surface remains moist after slab placement. A dry subbase surface may impede the flow of bedding grout.

3. Slab Installation

Lay out and mark the leading ends and leading edges of all slabs prior to placement to the lay length (width) to ensure proper placement and fit. Place all leading ends and edges of slabs to the lay length (width) marks regardless of the joint width left behind.

Prior to placing a precast slab, install longitudinal joint ties and transverse joint supports in adjacent slabs. When two-piece longitudinal joint ties are used between new precast slabs, coat threads of male half of the two piece tie with corrosion inhibitor.

Apply bond breaker as follows:

- a. To the leading transverse vertical face of the slab and the transverse joint supports
- b. Do not place bond breaker on longitudinal edges of precast slabs or longitudinal joint ties.
- c. Apply bond breaker to the longitudinal face of existing pavement to be removed.

Use picking cables that allow the slab to contact the subbase uniformly. Use guide bars inserted in bedding grout port holes to align slabs during setting. Do not use pry bars or wedges in joints to align slabs.

Immediately after the slab has been set, ensure the vertical differential between adjacent slabs is not greater than $\frac{1}{4}$ ". If it is, remove the slab, re-grade and re-set the slab until the differential is less than $\frac{1}{4}$ " before moving on to the next slab.

4. Grouting

a. Placement of Pavement Hardware Grout:

Prior to installing pavement hardware grout, install foam grout dams at the open end of the joint to be grouted to prevent grout from escaping.

Insert the grout nozzle into the back port of the lowest slot on the joint. Pump grout into the port until it comes out of the second port in the same slot. As soon as the grout appears in the second port, cover it and continue pumping until the grout flows along the joint to the next slot. Proceed to the back port of the next slot and repeat the same procedure. Continue to monitor the grout level in previously filled ports. Add grout as required. Keep the grout level in the ports even with the top of the slab. Keep the grout level in the adjacent joints above the top of the slots. Finish the top of all pavement hardware grout ports to match adjacent slab surface.

b. Placement of Bedding Grout:

Place bedding grout after the pavement hardware grout has been installed. Mix bedding grout in strict accordance with the instructions provided by the manufacturer of the viscosity-reducing admixture.

Start pumping grout in the lowest port of the slab until it comes out the corresponding port at the other end of the slab. Continue to monitor the grout level in previously-filled ports while filling the remaining ports in the slab and add grout to keep the grout level in the ports even with the top of the slab. This will maintain a safe and adequate head pressure on the bedding grout until all voids under the slab are filled.

5. Finishing

Diamond grind the surface of the slabs as specified in 405.03.04. This work may be completed after the end of Stage 3 using nighttime lane closures.

507.04 MEASUREMENT AND PAYMENT

THE SECOND PARAGRAPH IS CHANGED TO:

The Department will make payment for reinforcement steel under REINFORCEMENT STEEL, REINFORCEMENT STEEL, EPOXY-COATED, and REINFORCEMENT STEEL, GALVANIZED as specified in 504.04, except the Department will not make separate payment for reinforcement steel in precast concrete bridge approach slabs.

THE FOLLOWING IS ADDED:

The Department will make a payment adjustment for concrete surface requirement quality in deck slabs and approach, by the following formula: Pay Adjustment = $Q \times BP \times PR$

Where: BP = Bid PriceO= Surface Requirement Lot Quantity PR= percent reduction as specified in Table 507.03.02-2 THE FOLLOWING IS ADDED:

Item

PRECAST CONCRETE BRIDGE APPROACH

Pay Unit

SQUARE YARD

The Department will make payment for excavation under "EXCAVATION UNCLASSIFIED".

The Department will make payment for construction survey under "CONSTRUCTION LAYOUT".

The Department will make payment for subbase under "SUBBASE".

The Department will make payment for concrete pavement removal under "REMOVAL OF PAVEMENT".

THE FOLLOWING PAY ITEM IS DELETED:

Item	Pay Unit
DATE PANEL	UNIT

THE FOLLOWING SECTIONS ARE ADDED:

SECTION 555 SUBSTRUCTURE CONCRETE REPAIR

555.01 DESCRIPTION

This section describes the requirements for repairing existing substructure concrete.

555.02 MATERIALS

555.02.01 Materials

Provide materials as specified:

Concrete	903.03
Epoxy Grout	903.08.02.B
Curing Materials	
Reinforcement Steel, Welded Wire Reinforcement	905.01
Reinforcement Steel Couplers	905.04
Pneumatically Applied Mortar	553.02.01
Quick Setting Patching Material	903.07

555.02.02 Equipment

Provide equipment as specified:

Vibrator	1005.04
Concrete Plant and Mixing Equipment	1010

Use pneumatic hammers, not heavier than 30-pound class and triple-headed tampers fitted with drills not less than 2 inches in diameter, to remove concrete.

555.03 CONSTRUCTION

555.03.01 Substructure Concrete Repair Preparation

- A. Preparation. Provide temporary shielding during removal and repair work to protect the vehicular and pedestrian traffic. Sawcut repair areas to a depth of 1 inch around the perimeter of each repair area before removing the deteriorated concrete. Remove loose and disintegrated concrete from the areas to expose a sound concrete surface. Remove at least ¹/₄ inch of sound concrete. Clean the area. Ensure that the remaining concrete is not damaged. Use only pneumatic or hand tools to remove the disintegrated material and to prepare and shape the areas to be repaired. Do not use hammers that exceed 30 pounds. Remove concrete adjacent to exposed reinforcement steel by hand chipping. Do not damage or debond the reinforcement steel. Drill holes for installing dowels. Maintain alignment during drilling and do not damage existing concrete surrounding the hole.
- **B.** Setting Forms and Dowels. Before installing the dowels, clean the holes to ensure proper bonding of the epoxy grout. Install the dowels using epoxy grout. Place the reinforcement in repair areas. Construct forms as specified in 504.03.02B for placing concrete in portions of repair areas ensuring that concrete can be consolidated with vibrators.
- **C.** Placing and Consolidating Concrete. Place and consolidate concrete as specified in 504.03.02.D. Cure the concrete as specified in 504.03.02.F. Remove the forms as specified in 504.03.02.G. Finish concrete surface as specified in 504.03.02.H.

- D. Crack Repair. Repair cracks as specified in Section 552.
- E. Pier Treatment. Apply ECE pier treatment as specified in Section 557.

555.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

Pay Item Pay Unit

SUBSTRUCTURE CONCRETE REPAIR SQUARE FOOT

The Department will make payment for crack repairs under "PRESSURE INJECTION, CONCRETE CRACKS".

The Department will make payment for ECE under "Electrochemical Chloride Extraction".

SECTION 556 PREFABRICATED SUPERSTRUCTURE

556.01 DESCRIPTION

This Section describes the requirements for constructing prefabricated superstructure units.

556.02 MATERIALS

556.02.01 Materials

Prefabricated Superstructure Units	See Note 1
Concrete	903.03
Non Shrink Grout	903.08.02A
Curing Materials	903.10
Reinforcement Steel	
Structural Steel	906.01
Structural Steel Fabrication	906.04
Bolts and Bolting Materials	908.01
Direct Tension Indicators (DTI)	908.03
Structural Steel Paint	
Longitudinal Joint Primer and Sealer	919.16

556.02.02 Equipment

Provide Equipment as specified:

Vibrator
Grout Pumping Unit
Mixer
Injection Device
Grinding Machine
Straightedge
Mechanical Sweeper
Self-Propelled Modular Transporter (SPMT)
Concrete Batching Plant
Concrete Trucks

Note 1: Use prefabricated superstructure units with steel stringers and diaphragms, and a composite concrete deck. Units may be fabricated with the beams oriented upside down while the concrete is placed and cured.

556.03 CONSTRUCTION

556.03.01 Design

Design the prefabricated superstructure units as continuous for live load. Design the units, including camber, to accommodate future deck removal and replacement. Do not include the capacity of any prestressing force induced by inverted fabrication in the design. Ensure that additional camber caused by prestressing the units is considered for future redecking. Use epoxy coated or galvanized reinforcement steel in the deck. Use two stringers in each unit. Install diaphragms between unit stringers before shipping. Design units for field installed diaphragms between units.

Use Class P Concrete for the deck.

Ensure the design of the prefabricated superstructure panels is coordinated with the design of the precast concrete bridge approach slabs. Ensure that the dowels between the prefabricated superstructure units and the slabs are oriented perpendicular to the end of the prefabricated superstructure units. Match cast the first row of precast approach slabs next to the prefabricated superstructure units with the prefabricated superstructure units. The Department will not waive the requirement for match casting. Perform a detailed construction survey of the existing substructure components. Use the construction survey data to design and fabricate the prefabricated superstructure units. Do not rely on the plan data.

Submit a mix design for a High Early Strength Latex Modified Concrete which will achieve a compressive strength of 3,000 psi in 4 hours for the closure pour over the pier.

Submit a mix design for non-shrink grout which will achieve the compressive strength required by the manufacturer prior to opening the bridge.

556.03.02 Working Drawings

Submit Working Drawings for approval that include:

- 1. Structural Steel Type and Grade Specifications
- 2. Welding Procedures
- 3. Cambering Procedures
- 4. Panel Layout, including length, width, skew angle and orientation
- 5. Concrete Mix Design including admixtures
- 6. Concrete Surface Finish
- 7. Concrete Compressive Strength at stripping, lifting and rotating
- 8. Lifting Details
- 9. Deck Cross-Sections showing structural depth and reinforcement
- 10. Fabrication and Construction Tolerances
- 11. Reinforcement Schedule
- 12. Camber Table

556.03.03 Quality Control (QC)

Submit a Quality Control Plan for approval to the ME prior to the commencement of fabrication which includes the manufacturer's quality control procedures during all stages of fabrication, shipping and erection; personnel responsible for QC; frequency of QC activities; and recommended remedial actions which may be necessary to correct defects which may occur.

Ensure that controls are in place to achieve the following fabrication tolerances.

A. <u>Geometry of Concrete Deck</u>

	Length (Each Unit):	+/-3/8"
	Width:	+/-3/8"
	Deck Thickness:	+3/8", -1/4"
	Deviation from end Squareness or skew:	+/-3/4" (horizontal)
	Stringer Spacing:	+/-1/2" (within a unit)
	Horizontal alignment (Deviation from straight line p	+/-3/8" arallel to the centerline of the unit)
	Insert Location:	+/-3/8"
B.	Reinforcing	
	Spacing:	+/-1" (non-cumulative)
	Cover (Top & Bottom Mat):	+/-3/8"
C.	Camber of Steel Beams	
	Inverted (at time of casting): (As measured at tension flange	
	Upright Design Camber:	+/-3/8"

Ensure that the forms are constructed as specified in 504.03.02B. Ensure that the adjustable supports and deflection controls are checked prior to pouring the concrete and are monitored throughout the pouring process.

Ensure that reinforcement steel is installed as specified in 504.03.01.

Repair any defects, damage or both as specified in the approved Quality Control Plan.

The RE may reject individual units for the following reasons:

- 1. Fractures or cracks passing through the deck
- 2. Camber that does not meet the requirements in the approved working drawings
- 3. Honeycombed open texture
- 4. Exceeding the allowable tolerances \
- 5. Separation of the concrete deck from the steel girders
- 6. Damaged ends where such damage would prevent a satisfactory joint
- 7. Units with cracks within any part of the concrete that is greater than 0.03 inches in width
- 8. Damage to the units during fabrication, transportation or erection which could affect the long term integrity of the unit.

556.03.04 Shipping

Do not ship units until the minimum 28 day strength is attained and after the ME has stamped the units. Provide 48 hour advance notice of loading and shipping schedule. Secure necessary hauling permits. Ensure the units are loaded so that no fatigue cracking will occur during transportation. Submit a copy of the results of all tests performed during fabrication to the RE prior to shipping.

At least five days before shipping, submit to the RE for approval, all shipping and storage details. Ensure that the units are handled and shipped as specified in Subpart 906.04.04. Ensure that the panels are protected from the binding chains

during shipping using softeners approved by the ME. Do not store the panels on the ground. Ensure that members do not fall or rest on each other. Ensure that each unit is clearly and permanently labeled on the underside of the deck in the vicinity of the end diaphragm with the following information:

- 1. Manufacturer
- 2. Date of Manufacture
- 3. Load Rating
- 4. Mark Number

556.03.05 Erection

- **A. Erection Plan.** At least thirty (30) days before the Pre-Erection Meeting, submit a plan of operations to the RE for approval. Include, at a minimum, the following:
 - 1. Number and type of manpower and equipment
 - 2. Shipping procedures
 - 3. Lifting procedures
 - 4. Panel erecting sequence, including the method of setting bearings and diaphragms
 - 5. Manufacturer's recommendations
 - 6. Procedures for employee safety
- **B. Pre-Erection Meeting.** At least fourteen (14) days before installation, conduct a meeting with the RE, the Manufacturer and the SPMT subcontractor (or subcontractor providing the superstructure removal and erection equipment) to discuss the proposed sequence of operations for the weekend construction including the methods proposed to install the units in the shortest time possible.
- **C. Erecting.** Ensure that the units are pre-assembled in the shop, with account taken to the relative position in the finished structure as to grade and camber. Pre-assemble the units on a full size template of the existing bridge substructures developed from the contractor's construction survey, which physically depicts the front face of each abutment, both faces of the pier and the exterior face of the wingwalls a distance of five feet back from the face of each abutment. Erect the panels according to Section 11 of the *AASHTO LRFD Bridge Construction Specifications*. Ensure that temporary attachments or supports for scaffolding or forms do not damage the coating system of the steel. Use sufficient support pads for fascia bracing.

Install temporary protective measures required by the Utilities before crossing and remove before reopening the road to traffic.

Use equipment to remove the existing superstructure and erect the prefabricated superstructure units to complete Stage 3 construction in one weekend. Use equipment which will not require any additional utility relocations except the raising of the telephone and cable television lines on Route 9 as specified in 105.07. Plan construction operations assuming pole #40062 will remain during Stage 3 work. **The Department has designed the project assuming the Contractor will use SPMT's for this work.** The Department will not allow slide in placement of the superstructure units from falsework over Route 9 adjacent to the existing bridge.

Ensure that a representative of the manufacturer is present on site at all times during installation. Ensure that adjacent panels are within ¹/₄" vertically along the longitudinal edges and ¹/₄" vertically at the end of the panels, provided all diaphragms can be tightened without permanent deformation or damage to any structural component. Adjust the units as specified in the approved working drawings to correct vertical deviations in excess of ¹/₄".

Conduct a walk-through of the structure with the RE following installation of all panels to identify any damage which requires repair.

556.03.06 Finishing

A. Filling and Sealing Longitudinal Joints. Ensure the surface of the joint is free of any material such as oil, grease or dirt, which may prevent bonding of the sealing materials.

Form the bottom of the joint flush with the bottom of the slab. Do not use a backer rod. Mix non-shrink grout material with fine aggregate, if necessary, and water according to the manufacturer's directions. Place the non-shrink grout and cure as specified in the manufacturer's instructions for use.

Install longitudinal joint primer and sealer as specified in the manufacturer's instructions.

Install longitudinal joint primer and sealer immediately after grouting material is cured. Use individuals trained in the proper handling and use of joint materials supplied or recommended by the manufacturer. Place the joint sealer to a level 1/8" below the top of deck of the lower panel

- **B.** Sealing of Lifting Holes. Apply a bonding agent and fill the lifting holes with cementatious grout after the units are in their final locations. Provide a removable form at the bottom surface of the deck to retain the grout.
- **C.** Closure Pour. Ensure that reinforcement steel is installed in the closure pour as specified in Subpart 507.03.01B. Place the High Early Strength Latex Modified Concrete closure pour over the pier as specified in 507.03.02F and 504.03.02D. Cure as specified in 504.03.02F, except the curing period will be four (4) hours.
- **D. Diamond Grinding.** Diamond grind the surface of the deck as specified in 405.03.04. This work may be completed after the end of Stage 3 Construction using night lane closures on Gordon's Corner Road.

556.03.07 Opening to Traffic

Do not shift traffic patterns on Route 9 until all the units have been secured to the bearings, the anchor bolts for all the bolsters at the pier and one anchor bolt on each bolster at the abutment have been installed, and all the diaphragms have been bolted. Do not reopen Gordon's Corner Road until all anchor bolts at the abutments are installed and the anchor bolt grout has cured.

Ensure that the panels are not loaded until the non-shrink grout has cured.

556.03 MEASUREMENT AND PAYMENT

The Department will measure and make payment for items as follows:

Pay ItemPay UnitPREFABRICATED SUPERSTRUCTURESQUARE FOOTFURNISH EQUIPMENT FORSUPERSTRUCTURE REMOVAL AND ERECTIONLUMP SUM

The Department will make payment for construction survey under "CONSTRUCTION LAYOUT". The Department will make payment for bearings under "STRUCTURAL BEARING ASSEMBLY". The Department will make payment for bolsters under "STRUCTURAL STEEL".

The Department will not make payment for the item FURNISH EQUIPMENT FOR SUPERSTRUCTURE REMOVAL AND ERECTION in excess of \$375,000 until completion.

SECTION 557 ELECTROCHEMICAL CHLORIDE EXTRACTION (ECE)

557.01 DESCRIPTION

This Section describes the requirements for treating reinforced concrete to passivate active corrosion.

CONTRACT NO. 118003160 GORDON'S CORNER ROAD OVER ROUTE 9

557.02 MATERIALS

557.02.01 Materials

Provide materials as specified:

ECE System......Norcure System

No substitution is permitted.

557.02.02 Equipment

Provide equipment as specified:

A. AC Power Supply

Provide an appropriate AC power supply, either by securing a service drop with the local power company or by providing an appropriately controlled AC generator. Pay all connection and service fees to the Utility.

B. DC Power Supply

1. General

Provide DC power rectifiers which have a sufficient number of independent AC/DC converter circuits for the number of individual concrete zones to be treated.

Ensure each AC/DC converter is rated to provide total output current and voltage to meet the current demand of the individual zone. Provide current distribution box for each zone, so that each zone can be divided into subzones that can operate electrically in parallel. Limit the voltage on the secondary side to approximately 40 VDC. Provide converters that are rated to operate continuously at maximum output under site conditions of temperature and relative humidity.

2. Enclosures

House the converters in vandal-proof enclosures suitable for site conditions.

3. Controls and Connections

Provide each AC/DC converter output unit with:

- (i) All output controls.
- (ii) One output voltmeter and one output ampmeter.
- (iii) Provision for direct measurement of output voltage of the secondary side with an external meter.
- (iv) Unobstructed access to the positive and negative terminals of each output, which shall be clearly marked "+VE Anode" and "- VE Rebars". Ensure all output terminals are fully insulated from the chassis or its enclosure.
- (v) An adequately rated circuit breaker, enclosed in a moulded case designed for operation at ambient temperature, on the main input to ensure protection against short circuit and thermal overload.
- (vi) Main cable connections that conform to all applicable standards and regulations.

4. Electrical Components

Use waterproof electrical insulating materials to cover all electrical connections.

Encapsulate all electronic component subassemblies in epoxy resin or varnishes recommended by the component manufacturers.

Ensure the rectifiers shall be suitable for continuous operation at the specified output ratings, with a peak inverse voltage of at least 800 volts. Provide rectifiers that have double windings and which are separated by a grounded metallic screen or mounted on separate limbs of a grounded core.

Provide rectifiers of the silicon type with suitable AC surge protection. Fuses shall be used to protect the rectifiers on the DC output side.

Ensure AC ripple on DC output of all rectifiers does not exceed 2V at all output settings from 10 to 100% of rated voltage and current outputs.

C. Cables

1. General

Ensure all cables or wiring are stranded copper conductors and that the cables are insulated with crosslinked polyethylene listed by UL.

2. DC Cables

Identify the cables for connection to the anode mesh (positive) by red insulation and of a minimum gauge 10 AWG.

Identify the cables for connection to the reinforcing steel (negative) by black insulation and of a minimum gauge of 6 AWG.

Label each DC cable according to the zone or portion of a concrete structure that it is connected to.

D. Digital Voltmeter

Provide a battery-operated digital voltmeter (DVM) to enable test and monitoring during the treatment period. Spare batteries shall be provided.

Provide a DVM which, at the minimum, have 3.5 digit display and resolution of 10 mV and an error of no more than 1 digit. Ensure the input impedance of the DVM will be at least 10 Mohms.

E. Current Probes

Provide a battery-operated current tong probe, with spare batteries, for current readings during the treatment period. Ensure the error of the probe is less than +5%.

557.03 CONSTRUCTION

557.03.01 Working Drawings

Submit working drawings for certification that include the location of all equipment on the project site, proposed sampling and testing procedures, core and dust sample locations, anticipated treatment duration, power feeds to the pier, material catalog cuts, application and removal procedures with anticipated lane closure durations, equipment required and contact information.

557.03.02 Sampling, Testing and Coordination

CONTRACT NO. 118003160 GORDON'S CORNER ROAD OVER ROUTE 9 At least 15 days before beginning substructure repairs, conduct a coordination meeting with the RE, ECE subconsultant and the manufacturers of the epoxy injection materials and surface crack sealant materials to ensure that the substructure repairs will not adversely affect the performance of the ECE.

Use only hydraulic cement concrete for spall repairs.

Obtain a minimum of five (5) samples from the pier for chloride analysis. Do not take any samples at the abutments.

Sample concrete for chloride analysis by drilling either cores or powder samples. Cut cores into slices and crush to fine powder.

Determine the residual water-soluble chloride content in the concrete as specified in AASHTO T260-94. Measurements may be made using the rapid chloride test method.

Sample the concrete before and after treatment. Prevent cross contamination between samples. Take core samples directly over a single reinforcing bar while dust samples may be drilled adjacent to the intersection of two reinforcing bars.

Locate the reinforcement steel in the area to be tested with a cover meter, pachometer, or other suitable reinforcement steel-locating device. Extract the samples by taking cores no greater than 3 in. diameter down to the depth of the rebar. Obtain the approval of the RE to core through the reinforcement steel. Dust samples may be extracted with a hammer drill. Use a drill bit which is the smaller of $1.5d_b$ of the reinforcement steel in the location being tested, or 1 in. To eliminate surface variability, drill the concrete to a depth of $\frac{1}{4}$ in. and discard the dust. Take dust samples in standard increments from the surface to the depth of the reinforcement steel. Avoid cross contamination the drill bit by cleaning or changing to one of a smaller diameter for the different increments. Thoroughly clean the hole with compressed air at each increment. Place samples into sealed airtight bags, or other suitable containers. Clearly mark the samples with the contract name, the date, the location of the sample, the depth from which the sample was removed, and the depth of the reinforcement steel at that location.

Submit a report to the RE which includes documenting the findings from the preliminary investigation and recommendations for the ECE installation.

557.03.04 Installation

A. Pre-installation Survey

Conduct visual and sounding surveys over the full surface area of the pipe to determine where delaminations exist and where previous repairs have been carried out. Locate areas where concrete cover over the reinforcement steel is insufficient (less than 0.4 in.) by means of a cover meter / pachometer survey and selective chip-outs. Perform a pre-treatment corrosion potential survey throughout the surface area.

Repair delaminated and spalled concrete areas before the treatment.

Apply a cement-based grout over all areas with insufficient concrete cover until the total cover at each area is at least 0.4. in.

Remove or insulate any tie wires, nails, or other metal components that are close to the surface or visible on the surface of the concrete with silicon rubber or non-conductive epoxy. Obtain the approval of the RE to cut these elements to 10 mm or more below the surface and to patch the area with a cement-based grout.

B. Reinforcement Continuity

Ensure that the outer layer of reinforcement is electrically continuous prior to treatment. Drill or chip additional holes, if necessary. Reinforcement steel is considered to be continuous if the voltage difference

between any two reinforcing steel bars (from different locations in the structure) is less than 1.0 mV (when measured with a high input impedance voltmeter with a resolution greater than 0.1 mV), or resistance is less than 5 Ohms (when measured with a Ohms/ multimeter).

Review drawings of the structure to locate areas where continuity might not exist, and measure voltage differences or resistance between reinforcing steel bars in these areas and other areas in the structure. Ensure measurement points include the perimeters and the middle of each structural component. Record the locations of measurement points and the measured voltage/resistance differences and submit to the RE with the final report, or sooner if requested.

Notify the RE if any electrical discontinuity is identified.

C. Reinforcement (negative) Connections

Ensure there is at least 1 reinforcement steel connection per 500 SF of concrete surface area, and never less than 2 connections per zone. Make reinforcement steel connections by drilling a ${}^{3}/_{4}$ in. hole to the reinforcement steel, ensuring that the surface is cleaned by the action of the drill. Insert a lead plug connected to the cathode wire into the hole, and compress the lead plug against the reinforcing steel with the use of the setting tool. Immediately after a connection has been made, coat the connection with a non-conductive material, such as silicon rubber or seal the hole with an approved patch repair mortar.

Protect any metal fixtures attached to the concrete structure against corrosion by electrical connection to the reinforcement. Ensure that the sheathing of any cable used in providing electrical connections is color coded black.

D. Installation of the Anode System

Clean the surface of the concrete of any grease, coating, etc., that may interfere with the passage of electrical. Sandblasting or water jetting may be required.

Mask any exposed steel in or on the surface of the concrete. If necessary, connect the steel to the reinforcement or remove it before applying the anode system.

E. Electrolytic Reservoir

The reservoir consists of an anode mesh embedded within electrolyte-saturated cellulose fibers.

Deliver the fibers and the electrolyte through separate hoses, mix at the nozzle and spray directly onto the surface of the concrete. Securely fix the anode mesh using wooden battens or suitable plastic spacers. (Plastic screws and plugs must be used with wooden battens). Ensure there are at least two wooden battens for each face of any pier cap and square column (no more than 4ft wide).

Apply the fiber-electrolyte mixture after the anode mesh is securely installed. Ensure the fiber electrolyte layer is approximately 40 to 50mm thick.

Wrap and securely bind the entire area with plastic to reduce dehydration. Wet the fibers throughout the ECE treatment with the electrolyte.

Provide the necessary water and containers.

F. Connection of Cables

Place and connect all DC cables so that they do not cause any impact to traffic. Check cable insulation; repair any damaged insulation using a generous amount of an appropriate insulation material, or by making new joints contained in junction boxes.

Install all AC power cables in accordance to relevant NEC codes and standards.

G. Placement of the AC/DC Converters

Ensure the chassis of the converters are grounded as specified in the relevant NEC codes and standards.

557.03.05 Operation and Maintenance

A. System Start-Up

Circuit Verification. Test the system prior to start-up or energization of power to ensure that all measurements and power distribution circuits are correctly wired, connected and labelled. Ensure the appropriate circuits have the expected resistances.

Determine the polarity of the reinforcement when the power sources are switched on.

Do not energize the system until all tests indicate the system is operating properly.

Adjustment of Current Output. Ensure the current used for the chloride removal treatment is between 1A/m^2 to 2A/m^2 and does not exceed 5 A/m^2 .

Measure the current output individually in each anode cable during the treatment. Adjust the total current by decreasing or increasing the applied voltage.

B. Monitoring of System Operation

Inspections. Monitor the operation of the system regularly during treatment and record the following:

- date and time
- current (to each zone and subzone)
- voltage (to each zone and subzone)

Conduct visual inspections of cable connections, cable insulation, anode meshes, and wetting of the cellulose fibre at least twice weekly.

Determination of Chloride Content. Determine the residual water-soluble chloride (Cl⁻) in the concrete adjacent to the steel during the treatment. Conduct the tests on concrete samples taken at pre determined points at the level of the rebar.

557.03.06 Termination of the Electrochemical Treatment

Continue the ECE treatment until one of the following criteria is achieved:

- 1. 60 days treatment duration, or
- 2. 600A-hrs/m² total treatment, or
- 3. until the results of the residual water-soluble chloride analyses (Section 5.2.2) indicate that the chloride in the concrete in the vicinity of the reinforcing steel has been reduced to 0.030% (adjusted for background chlorides) or has decreased by no less than 50%, whichever is the earliest.

557.03.07 Removal and Disposal of the System

After the system is turned off, remove all electrical cables, conduits, hangers, and power supplies from the site. Remove and dispose of the cellulose fibre, anode mesh and wooden battens from the site or dispose in accordance with applicable regulations.

Lightly sandblast the surface to remove any stain left by the corrosion of the mesh.

Wash the surface of all treated concrete with pressure cleaning, using clean water.

Inspect the entire treated structure; note the occurrence, location, and extent of any physical damage or changes to the concrete. Repair defects and holes made in the concrete.

557.03.08 Documentation

Within 30 days after completion of the surface treatment, submit a written final report to the RE, detailing the installation and all operating data for the system. Include records of all tests and measurements, made before and during treatment, including:

- locations of previous repairs and new damages (found and repaired before the treatment) in as-built drawings and descriptions of such.
- rebar continuity on the structure and locations of any continuity bondings made •
- surface preparation performed before treatment •
- description of the ECE installation and procedure used •
- materials used with manufacturers' data sheets •
- description of test locations and test procedures •
- current and voltage readings during treatment
- all test results including pre and post Cl⁻ levels. •
- pre and post corrosion potential survey readings. •
- locations and repair of any damage to the concrete arising from the treatment •
- discussion of results, including consideration of any local anomalies or variations in results •
- statement on effectiveness of the treatment.

557.04 MEASUREMENT AND PAYMENT

The Department will measure and make payment for Items as follows:

Pay Item

ELECTROCHEMICAL CHLORIDE EXTRACTION LUMP SUM

The Department will make payment for 50% of the item ELECTROCHEMICAL CHLORIDE EXTRACTION upon the installation of the system. The system will not be considered installed until it is verified to be operating as intended. The Department will make payment for the remaining 50% after removal of the system except that the Department will not make payment in excess of \$100,000.00 until Substantial Completion.

Pay Unit

DIVISION 600 – MISCELLANEOUS CONSTRUCTION

SECTION 606 – SIDEWALKS, DRIVEWAYS, AND ISLANDS

606.03.02 Concrete Sidewalks, Driveways, and Islands

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 610 - TRAFFIC STRIPES, TRAFFIC MARKINGS, AND RUMBLE STRIPS

610.04 MEASUREMENT AND PAYMENT

THE FOLLOWING ITEM IS DELETED:

Item RPM, BI-DIRECTIONAL, WHITE LENS

Pay Unit UNIT

DIVISION 700 – ELECTRICAL

SECTION 701 – GENERAL ITEMS

SECTION 702 – TRAFFIC SIGNALS

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:

SECTION 703 – HIGHWAY LIGHTING

703.03 CONSTRUCTION THE FOLLOWING IS ADDED:

Maintain up-to-date as-built drawings of the highway lighting system and temporary highway lighting system. Place copies of the as-built drawings in a plastic pocket mounted inside the meter cabinet, and provide a copy to the RE

If the highway lighting system or temporary highway lighting system fails or becomes damaged, repair and restore the system to normal operation. Begin repair of the signal system within 2 hours of receiving notice of damage or malfunction from the Department, State police, or local authorities. Ensure workers assigned to such repair work continuously until the lighting system is restored to normal 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 lighting system is restored to 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.

SECTION 811 – PLANTING

811.03.01 Planting

E. Excavation for Plant Pits and Beds.

THE LAST SENTENCE OF THE SECOND PARAGRAPH IS CHANGED TO:

Obtain RE approval before reusing topsoil from the excavated pits.

I. Watering.

THE FIRST PARAGRAPH IS CHANGED TO:

Water plants with sufficient frequency and quantity to ensure that the soil surrounding the root system remains moist but not saturated.

DIVISION 900 – MATERIALS

SECTION 901 AGGREGATES

THE FOLLOWING SUBSECTION IS ADDED:

901.12 PRECAST ROADWAY SLAB BEDDING

Use materials as specified in Table 901.12.1

Table 901.12.1PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVES

	1/2"	No. 4	No. 10	No. 40	No. 200
Bedding	100	80-100	55-75	10-40	0-20

SECTION 903 – CONCRETE

903.03.02 Mix Design and Verification

THE FOLLOWING IS ADDED:

Prepare at least six 4 x 8-inch test cylinders of the High Early Strength Latex Modified Concrete for the prefabricated superstructure closure pour. The ME will test 3 cylinders at 3 hours and 3 cylinders at 4 hours to determine the compressive strength.

903.03.05 Control and Acceptance Testing Requirements

E. Acceptance Testing for Strength for Pay-Adjustment Items.

ITEMS	DESCRIPTION	UNIT	BASE PRICE
507036P	CONCRETE BRIDGE PARAPET	LF	\$305.00

903.03.06 Tables

Table 903.03.06-2 Requirements for Structural Concrete ItemsTHE SEVENTH LINE UNDER CAST-IN-PLACE ITEMS IS CHANGED TO:

Table 903.03.06-2 Requirements for Structural Concrete Items				
	Concrete Slump ¹		Percent Air Entrainment for Coarse Aggregate ¹	
	Class	(inches)	No. 57 & No. 67	No. 8
Decks, Sidewalks, Curbs, Parapets, Concrete Patch	А	3 ± 1	6.0 + 1.5	7.0 ± 1.5

THE FOLLOWING SUBPARTS ARE ADDED:

903.08.04 Pavement Hardware Grout

Use pumpable grout manufactured by Pre-Blend Products Inc. with 4.0 QT/50LB bag as specified in Pre-Blend's technical data sheet for precast slab dowel grout or HD-50 manufactured by Dayton-Superior with 3.7 QT/50LB bag as specified in Dayton-Superior's Technical Bulletin for Super-Slab. No substitution is permitted.

903.08.05 Bedding Grout

Use a mixture of Type 1 or Type III Portland Cement, water and approved viscosity-reducing admixture(s) to attain a flow rate of 15-20 seconds in a standard ASTM C939 flow cone. Design the mix to meet the required flow rate and a compressive strength of 600 PSI in 12 hours. The bedding grout material and mix design used must be approved by The Fort Miller Co., Inc.

The Contractor may use the following suggested mix design as a trial mix:

Type II Portland Cement	5 – (94 lb) bags
MEYCO® Fix Flowcable*	1 - (25 lb) bag
Water	28 – Gals (.46 w/c)

Vary the amount of water as necessary to achieve the flow rate and strength requirements above. Accelerator may be required to meet the required compressive strength at low temperatures.

* MEYCO® Fix Flowcable is manufactured by BASF Admixture Co. (Master Builders). Call Chris Gause at (800) 628-1488 or (216) 496-1488 for purchase information.

SECTION 904 – PRECAST AND PRESTRESSED CONCRETE

904.01.02 Fabrication

THE LAST SENTENCE OF PART 2 IS CHANGED TO:

If using SCC, minimize or eliminate the use of vibrators to prevent segregation.

SECTION 907 BEARING ASSEMBLIES

907.01.02 Types

A. High Load Multi-Rotational (HLMR) Bearing Assemblies THE FOLLOWING IS ADDED:

Use only disc type bearings on this project.

SECTION 912 - PAINTS, COATINGS, TRAFFIC STRIPES, AND TRAFFIC MARKINGS

912.03.01 Epoxy Traffic Stripes

B. Glass Beads. THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 200 ppm of arsenic.

912.03.02 Thermoplastic Traffic Markings

THE FOLLOWING IS ADDED TO THE FIRST PARAGRAPH:

Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 200 ppm of arsenic.

912.04.01 Latex Paint

THE FOLLOWING IS ADDED TO THE SECOND PARAGRAPH:

Ensure that glass beads do not contain more than 200 ppm of lead, 200 ppm of antimony, or 200 ppm of arsenic.

SECTION 919 MISCELLANEOUS

THE FOLLOWING SUBSECTIONS ARE ADDED:

919.15 CONCRETE SURFACE TREATMENT

Use a clear, one component silane penetrating sealer. Siloxane sealers are not acceptable. Do not use materials that create a vapor barrier, degrade from UV exposure or both.

Use a material which meets the following:

Color V.O.C. Content Solids and active ingredients by weight Clear 2.9 lb/gal 40%

CONTRACT NO. 118003160 GORDON'S CORNER ROAD OVER ROUTE 9 When tested in accordance with NCHRP Report # 244, produces the following results:

Reduction of water absorption into concrete (ASTM C 642)	Exceeds 91% reduction
Reduction of chloride in concrete	Exceeds
Moisture vapor permeability penetrant	100%
Flash Point	106° or higher

If requested by the RE, submit a certification of compliance as specified in 106.07.

919.16 LONGITUDINAL JOINT PRIMER AND SEALER

Use Penetron 6012-2F for the joint primer and Penetron 3246 for the joint sealer. Submit alternative materials to the ME for approval. Include written verification from the prefabricator that the proposed alternative will have the same performance characteristics as the materials listed.

If requested by the RE, submit a certification of compliance as specified in 106.07.

Penetron Products are manufactured by:

ASTC Polymers Inc. 3207 W. Warner Avenue Santa Ana, CA 92704 714-966-2893

919.17 FOAM GASKET, PRECAST CONCRETE BRIDGE APPROACH

Use open cell two (2) pound polyester foam gasket material meeting the requirements of ASTM D 3574 capable of being fully compressed under the weight of the slab.

If requested by the RE, submit a certification of compliance as specified in 106.07.

919.18 LIFTING INSERTS, PRECAST CONCRETE BRIDGE APPROACH

Use galvanized Meadow Burke Model CX-24, 1" diameter (with six struts) x 6 ¹/₄" high lifting inserts.

DIVISION 1000 – EQUIPMENT

SECTION 1001 – TRAFFIC CONTROL EQUIPMENT

THE FOLLOWING SUBSECTION IS ADDED:

1001.04 PORTABLE VARIABLE MESSAGE SIGN W/REMOTE OPERATION

Provide a portable variable message sign as described under 1001.02 equipped with the required broadband cellular modem.

SECTION 1008 MISCELLANEOUS EQUIPMENT

THE FOLLOWING SUBSECTION IS ADDED:

1008.07 SELF-PROPELLED MODULAR TRANSPORTER (SPMT)

Use an SPMT which consists of a number of four or six axle modules which can be interconnected laterally and longitudinally by a cable linking the control systems such that all modules operate as a single unit. Use SPMT modules that have a detachable power power-pack and that can be driven by a single operator standing away from the equipment using a tethered connection to the SPMT modules. Ensure the units have water cooled turbo-diesel engines that also activate hydraulic pumps for drive, steering, axle compensation and stroke. Use an SPMT that can maintain loads in the horizontal position while driving on slopes. Use an SPMT that has the capability of adjusting vertically. Use an SPMT that has the following minimum steering capabilities:

- 1. Crab
- 2. Circular
- 3. Transverse (perpendicular to the prior direction of travel)
- 4. Carousel (rotate 360 degrees about the center point of the units)
- 5. Normal
- 6. Diagonal

Ensure the SPMT's can travel with the bridge load on uneven terrain, with a maximum ground pressure that will not damage pavement or underground utilities and which can travel at 3 miles per hour loaded. Use an SPMT that has hydraulic axle compensation to distribute equal loading to all wheel sets independent of road or terrain. Ensure that the platform will never be out of level by more than 6 degrees when loaded.

Submit technical data on the SPMT with the working drawing submission for the prefabricated superstructure units. Include proposed measures for dealing with minor mechanical malfunctions during the move including ruptured hydraulic lines and flat tires.

Submit calculations for approval of the proposed loading on the pavement and which verify the pavement will not be damaged during the moves.

FHWA ATTACHMENT NO. 1

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Payment of Predetermined Minimum Wage
- V. Statements and Payrolls
- VI. Record of Materials, Supplies, and Labor
- VII. Subletting or Assigning the Contract
- VIII. Safety: Accident Prevention
- IX. False Statements Concerning Highway Projects
- X. Implementation of Clean Air Act and Federal Water Pollution Control Act
- XI. Certification Regarding Debarment, Suspension Ineligibility, and Voluntary Exclusion
- XII. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

- A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)
- I GENERAL
 - 1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
 - 2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.
 - 3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.
 - 4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;

Section IV, paragraphs 1, 2, 3, 4, and 7;

Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

- 6. Selection of Labor: During the performance of this contract, the contractor shall not:
 - a. discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
 - b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
 - a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
 - b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: 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, preapprenticeship, and/or on-the-job training."

- 2. **EEO Officer**: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.
- 3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
 - a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
 - b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
 - c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
 - d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- 4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
 - a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.
 - b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
 - c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.
- 5. **Personnel Actions**: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
 - a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
 - b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. he contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.
- 7. **Unions**: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:
 - a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
 - b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
 - c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
 - d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.
- 8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.
 - a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
 - b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.
 - c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.
- Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

- a. The records kept by the contractor shall document the following:
 - 1. The number of minority and non-minority group members and women employed in each work classification on the project;
 - 2. The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;
 - 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - 4. The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

- a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.
- b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).
- c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates

conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

- b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.
- c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

- a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.
- b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:
 - 1. the work to be performed by the additional classification requested is not performed by a classification in the wage determination;
 - 2. the additional classification is utilized in the area by the construction industry;
 - 3. the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - 4. with respect to helpers, when such a classification prevails in the area in which the work is performed.
- c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

- a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.
- b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

- a. Apprentices:
 - 1. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.
 - 2. The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.
 - 3. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.
 - 4. In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.
- b. Trainees:

- 1. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.
- 2. The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the work actually performed.
- 3. Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits as apprentices.
- 4. In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, the last four digits of the social security number of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing

benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs. Contractors or subcontractors shall maintain complete social security numbers and home addresses for employees. Government agencies are entitled to request or review all relevant payroll information, including social security numbers and addresses of employees. Contractors and subcontractors are required to provide such information upon request.

- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.
- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - 1. that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 - that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
 - 3. that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.
- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.
- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

- a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
- b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
- c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
- 2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

- The contractor shall perform with its own organization contract work amounting to not less than 30
 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract
 price, excluding any specialty items designated by the State. Specialty items may be performed by
 subcontract and the amount of any such specialty items performed may be deducted from the total
 original contract price before computing the amount of work required to be performed by the
 contractor's own organization (23 CFR 635).
 - a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
 - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
- 2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
- 3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
- 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

- In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
- 2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not

permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

 Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more that \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

 That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

- 2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.
- 3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
- 4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily

excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
 - d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- 2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

- b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT PREFERENCE FOR APPALACHIAN CONTRACTS (APPLICABLE TO APPALACHIAN CONTRACTS ONLY.)

- 1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:
 - a. To the extent that qualified persons regularly residing in the area are not available.
 - b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.
 - c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph 1c shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph 4 below.
- 2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which he estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, he shall promptly notify the State Employment Service.
- 3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.
- 4. If, within 1 week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph 1c above.
- 5. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

FHWA ATTACHMENT NO. 2

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

- 1. As used in these Specifications:
 - a. Covered area means the geographical area in which the Project is located.
 - b. Director means Director, Office of Federal Contract Compliance Programs, United States Department of Labor or any person to whom the Director delegates authority.
 - c. Employer identification number means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, US Treasury Department Form 941.
 - d. Minority includes:
 - (1) Black (a person having origins in any of the black African racial groups not of Hispanic origin);
 - (2) Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (a person having originals in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan Native (a person having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participating or community identification).
- 2. Whenever the Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- 3. The Contractor shall implement the specific affirmative action standards provided in paragraphs 6a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- 4. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minorities or women shall excuse the Contractor's obligations under these Specifications, Executive Order 111246, or the regulations promulgated pursuant thereto.
- 5. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the US Department of Labor.
- 6. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The contractor shall specifically ensure that all foreman, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment with specific attention to minority or female individual working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred back to the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the source compiles under 6b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news median, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

- j. Encourage present minority and female employees to recruit other minority persons and females and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- I. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are nonsegregated except that separate or singleuser toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contraction and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 7. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (6a through p). The efforts of a Contractor association, joint contractor union, Contractor-Community, or other similar group of which the Contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 6A through p of these Specifications provided that the Contractor actively participates in the group, make every effort to assure that the group has a positive impact on the employment of minorities and females in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, make a good faith effort to meet its individual goals and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 8. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women both minority and nonminority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 9. The Contractor shall not use the goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 10. The Contractor shall not enter any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 11. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspensions, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246 as amended.
- 12. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 6 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the

Contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

- 13. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone number, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (such as mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
- 14. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (such as those under the Public Works Employment Act of 1977 and the community Development Block Grant Program).
- 15. Noncompliance by the Contractor with the requirements of the Affirmative Action Program for Equal Employment Opportunity may be cause for delaying or withholding monthly and final payments pending corrective and appropriate measures by the Contractor to the satisfaction of the Department.

FHWA ATTACHMENT NO. 3

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The goals for minority and female participation, in the covered area, expressed in percentage terms for the Contractor's aggregate work force in each trade, on all construction work are as shown on Page 2.

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4. (3) a, and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- 2. The Contractor will provide the Department with written notification in triplicate within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification will list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
- 3. As used in this Notice and in the Contract resulting from this solicitation the covered area is the county or counties in which the Project is located.
- 4. If a project is located in more than one county, the minority work hours goal, only, will be determined by the county which serves as the primary source of hiring or, if workers are obtained almost equally from one or more counties, the single minority goal will be the average of the affected county goals.

WORK HOUR GOALS IN EACH TRADE FOR MINORITY AND FEMALE PARTICIPATION

COUNTY	MINORITY PARTICIPATION	FEMALE PARTICIPATION	
	PERCENT	PERCENT	
Atlantic	18.2	6.9	
Bergen	15	6.9	
Burlington	17.3	6.9	
Camden	17.3	6.9	
Cape May	14.5	6.9	
Cumberland	16	6.9	
Essex	17.3	6.9	
Gloucester	17.3	6.9	
Hudson	12.8	6.9	
Hunterdon	17	6.9	
Mercer	16.4	6.9	
Middlesex	15	6.9	
Monmouth	9.5	6.9	
Morris	17.3	6.9	
Ocean	17	6.9	
Passaic	12.9	6.9	
Salem	12.3	6.9	
Somerset	17.3	6.9	
Sussex	17	6.9	
Union	17.3	6.9	
Warren	1.6	6.9	

STATE OF NEW JERSEY EQUAL EMPLOYMENT OPPORTUNITY FOR CONTRACTS FUNDED BY FHWA

The parties to this Agreement do hereby agree that the provisions of NJSA 10:2-1 through 10:2-4 and NJSA 10:5-31 et seq (PL 1975, c 127, as amended and supplemented) dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereunto, are hereby made a part of this contract and are binding upon them.

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

- a. 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 or sex. The Contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status or sex. Such action shall include but not be limited to the following: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Division of Civil Rights/Affirmative Action setting forth provisions of this nondiscrimination clause;
- b. 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 or sex;
- c. The Contractor of subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Division of Civil Rights/Affirmative Action, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The notices referred to in paragraphs a and c may be obtained from the Supervising Engineer of Construction or his representative at the preconstruction conference.

EMERGING SMALL BUSINESS ENTERPRISE UTILIZATION ATTACHMENT FHWA FUNDED CONTRACTS

I UTILIZATION OF EMERGING SMALL BUSINESS ENTERPRISE (ESBE) AS CONTRACTORS, MATERIALS SUPPLIERS AND EQUIPMENT LESSORS.

The New Jersey Department of Transportation (NJDOT) advises each contractor or subcontractor that failure to carry out the requirements set forth in this attachment shall constitute a breach of contract and, after the notification of the applicable federal agency, may result in termination of the agreement or contract by the Department or such remedy as the Department deems appropriate. Requirements set forth in this section shall also be physically included in all subcontracts in accordance with USDOT requirements.

II POLICY.

It is the policy of the NJDOT that Emerging Small Business Enterprises (ESBE), as defined in Section IV, Part B below, shall have an opportunity to participate in the performance of contracts financed in whole or in part with federal funds. In furtherance of this policy the NJDOT has established an Emerging Small Business Enterprise Program. This program is designed to promote participation and shared economic opportunity by smaller firms who qualify as ESBE's in NJDOT construction contracts and is undertaken pursuant to the authority contained in 23 CFR Part 26.

III. CONTRACTOR'S ESBE OBLIGATION.

The contractor agrees to ensure that ESBE's, as defined in Section IV, Part B below, have an equal opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with federal funds. In performing work under this agreement with the NJDOT, the contractor shall take all necessary and reasonable steps in accordance with the provisions of this attachment to ensure that ESBE's have the maximum opportunity to compete for and perform contracts. The contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of any contract obligation including, but not limited to, its performance of its obligations under this ESBE attachment.

IV. GOALS FOR THIS PROJECT.

A. This project includes a goal of awarding <u>6</u> percent of the total contract value to subcontractors, equipment lessors and/or material suppliers, which qualify as ESBE's.

- 1. Failure to meet the minimum goal placed on this project, or to provide a good faith effort to meet the minimum goal, may be grounds for rejection of the bid as being non-responsive.
- 2. As a source of information only, an ESBE Directory is available from the Division of Civil Rights/Affirmative Action. Use of this listing does not relieve the contractor of its responsibility to seek out ESBE's not listed, prior to bid. If a contractor proposes to use an ESBE contractor not listed in the ESBE Directory, the proposed ESBE firm must submit a completed certification application to the Division of Civil Rights/Affirmative Action, fifteen (15) days prior to bid date.

B. DEFINITIONS.

- 1. Emerging Small Business Enterprise is defined as: a for-profit business concern classified as a small business pursuant to the appropriate Small Business Administration regulations, and which is owned and controlled by individuals who do not exceed the personal net worth criteria (\$750,000) established in 49 CFR Part 26.
- 2. Owned and Controlled is defined as: that at least 51% of the ownership interests as well as the management and daily business operations of the firm reside in individuals whose personal net worth does not exceed the requirements established in 49 CFR, Part 26.

- V. COUNTING ESBE PARTICIPATION.
 - A. Each ESBE is subject to a certification procedure to ensure its ESBE eligibility status prior to the award of contract. In order to facilitate this process it is advisable for the bidder to furnish names of proposed ESBE's to the Department 15 days before bid opening. Once a firm is determined to be a bona fide ESBE by the Division of Civil Rights/Affirmative Action, the total dollar value of the contract awarded to the ESBE is counted toward the applicable goal.
 - B. The contractor may count toward its ESBE goal only expenditures to ESBE's that perform a commercially useful function in the work of a contract. An ESBE is considered to perform a commercially useful function when it is responsible for execution of a distinct element of the work of a contract and carrying out its responsibility by actually performing, managing and supervising the work involved. To determine whether an ESBE is performing a commercially useful function, the contractor shall evaluate the amount of work contracted, industry practice and other relevant factors.
 - C. If a ESBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the ESBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, you must presume that it is not performing a commercially useful function.
 - D. If the prime contractor is a certified ESBE, payments made to the contractor for work performed by the contractor will be applied toward the ESBE goal. Payments made to the prime contractor for work performed by non-ESBE's will not be applied toward the ESBE goal.
 - E. The prime contractor may count 60 percent of its expenditures to ESBE suppliers that are not manufacturers, provided that the ESBE supplier performs a commercially useful function in the supply process. The contractor may count 100% of its expenditure to ESBE suppliers who are also manufacturers. Manufacturers receive 100% credit toward the ESBE goal.

VI GOOD FAITH EFFORT.

To demonstrate sufficient reasonable efforts to meet the ESBE contract goals, a bidder shall document the steps it has taken to obtain ESBE participation, including but not limited to the following:

- A. Attendance at a pre-bid meeting, if any, scheduled by the Department to inform ESBE's of prime contracting and subcontracting opportunities under a given solicitation.
- B. Advertisement in general circulation media, trade association publications, and small business publications for at least 20 days before bids are due. If 20 days are not available, publication for a shorter reasonable time is acceptable.
- C. Written notification to ESBE's that their interest in the contract is solicited;
- D. Efforts made to select portions of the work proposed to be performed by ESBE's in order to increase the likelihood of achieving the stated goal;
- E. Efforts made to negotiate with ESBE's for specific bids including at a minimum:
 - 1. The names, addresses and telephone numbers of ESBE's that were contacted;
 - 2. A description of the information provided to ESBE's regarding the plans and specifications for the work to be performed; and
 - 3. A statement of why additional agreements with ESBE's were not reached;
- F. Information regarding each ESBE the bidder contacted and rejected as unqualified and the reasons for the bidder's conclusion;
- G. Efforts made to assist the ESBE in obtaining bonding or insurance required by the bidder or the department.
- NOTE: If the Division of Civil Rights/Affirmative Action determines that the apparent successful low bidder has failed to meet the requirements of this section, the bidder will be afforded the

opportunity for an administrative reconsideration of that determination prior to the award or rejection of the contract. As part of the administrative reconsideration process, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. NJDOT will send the bidder a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the USDOT.

VII SUBMISSION OF REQUIRED DOCUMENTS.

- A. The following shall be submitted either with the bid or to the Division of Civil Rights and Affirmative Action no later than seven (7) State business days after the date of receipt of bids.
 - 1. ESBE Form "A2" Schedule of ESBE Participation. List all ESBE's participating in the contract; listing the scope of work, dollar value and percent of total contract to be performed.
 - 2. Supplement to ESBE Form "A2"- A list of all subcontractors who submitted bids or quotes on this project.
 - ESBE Form B Affidavit of Emerging Small Business Enterprise. Each proposed ESBE not listed in the NJDOT ESBE directory must submit Form B attesting to its validity as an ESBE. (All firms must be certified by the Department's ESBE Coordinator prior to award of the contract).
 - 4. Request for Exemption In the event that the bidder fails to meet the specified goal, they must submit within Seven State business days of the bid, a written request for exemption to the goal. This request must include a written statement addressing Items A through G in Article VI of this attachment in addition to an accounting of the reason(s) why each items in the bid proposal was not subcontracted. Submittal of such request does not imply departmental approval. An assessment of the material will be conducted by the Department's Division of Civil Rights/Affirmative Action.
 - 5. The name of the person who is serving as its ESBE Liaison Officer
- B. The State Highway Engineer will be the sole judge of proper compliance and action taken in fulfilling the requirements as set forth herein.

VIII ESBE LIAISON OFFICER.

A. The contractor shall designate an ESBE Liaison Officer who shall be responsible for the administration if its ESBE program in accordance with the requirements of this attachment.

IX OBLIGATIONS AFTER AWARD OF THE CONTRACT.

If at any time following the award of contract, the contractor intends to sublet any portion(s) of the work under said contract, or intends to purchase material or lease equipment not contemplated during preparation of bids, said contractor shall take the following actions:

- 1. Notify the Resident Engineer, in writing, of the type and approximate value of the work the contractor intends to accomplish by such subcontract, purchase order or lease.
- 2. Attempt to obtain a qualified ESBE to perform the work.
- 3. Submit the Post-Award ESBE Certification Form to the Regional Supervising Engineer with his application to sublet or prior to purchasing material or leasing equipment. Post Award ESBE forms may be obtained from the Resident Engineer.

X CONSENT BY DEPARTMENT TO SUBLETTING.

The Department will not approve any subcontract proposed by the Contractor unless and until said contractor has complied with the terms of this attachment.

XI SELECTION AND RETENTION OF SUBCONTRACTORS.

- A. The contractor is further obligated to provide the Resident Engineer with a listing of firms, organizations or enterprises solicited and those utilized as subcontractors on the proposed project. Such listing shall clearly delineate which firms are classified as an ESBE.
- B. The contractor shall identify all efforts it made to identify and retain an ESBE as a substitution subcontractor when the arrangements with the original ESBE proved unsuccessful shall be submitted in writing to the Department's ESBE Coordinator for approval. Work in the category concerned shall not begin until such approval is granted in writing.
- C. Notification of a subcontractor's termination will be sent to the Department by the contractor through the Resident Engineer. Said termination notice will state whether the subcontractor is an ESBE and the reason for termination.

XII CONCILIATION.

Allegations of breach of any obligation contained in these ESBE provisions will be investigated by the Federal Office of Contract Compliance in conjunction with the Division of Civil Rights/Affirmative Action of the New Jersey Department of Transportation and the Federal Highway Administration.

XIII DOCUMENTATION.

- A. The Department or the federal funding agencies may at any time require such information as is deemed necessary in the judgement of the Department to ascertain the compliance of any bidder or contractor with the terms of these provisions.
- B. Record and Reports.

The Contractor shall keep such records as are necessary to determine compliance with its Emerging Small Business Enterprise Utilization obligations. The records kept by the contractor will be designed to indicate:

- 1. The names of ESBE contractors, equipment lessors and material suppliers contacted for work on this project.
- 2. Work, services and materials which are not performed or supplied by the prime contractor.
- 3. The actual dollar value of work subcontracted and awarded to ESBE's.
- 4. Efforts taken in seeking out and utilizing ESBE's. This would include solicitations, quotes and bids regarding project work items, supplies, leases, or other contract items.
- 5. Documentation of all correspondence, contacts, telephone calls, or other actions taken to obtain the services of ESBE's on this project.
- 6. Records of all ESBE's who have submitted quotes/bids to the contractor on the project.
- C. Submit reports, as required by the Department, on those contracts and other business transactions executed with ESBE's in such form and manner as may be prescribed by the Department.
- D. All such records must be maintained for a period of three (3) years following acceptance of final payment and will be available for inspection by the Department.

XIV PAYMENT TO SUBCONTRACTORS.

The Contractor agrees to pay its subcontractors in accordance with the Specifications

XV NON-COMPLIANCE.

Failure by the bidder to comply with these provisions may result in rejection of the bid. The contractor may further be declared ineligible for future Department contracts.

EQUAL EMPLOYMENT OPPORTUNITY SPECIAL PROVISIONS

- 1. General
 - a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract Provisions (Form FHWA-1273) and these Special Provisions which are imposed pursuant to Section 140 of Title 23 USC, as established by Section 22 of the Federal Aid Highway Act of 1968. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the Equal Employment Opportunity requirements set forth in the Required Contract Provisions.
 - b. The Contractor will work with the State agencies and the Federal Government in carrying out Equal Employment Opportunity obligations and in their review of activities under the contract.
 - c. The Contractor and all subcontractors holding subcontracts, not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of Equal Employment Opportunity. The Contractor will include these requirements in every subcontract of \$10,000 or more with such modification of language as is necessary to make them binding on the subcontractor. (The equal employment opportunity requirements of Executive Order 11246, as set forth in Volume 6, Chapter 4, Section 1, Subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors).
 - d. Noncompliance by the Contractor with the requirements of the Affirmative Action Program for Equal Employment Opportunity may be cause for delaying or withholding monthly and final payments pending corrective and appropriate measures by the Contractor to the satisfaction of the Department.
- 2. Equal Employment Opportunity Policy

The Contractor will accept as its operating policy the following statement which is designed to further the provisions of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include 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, preapprenticeship, and on-the-job training.

3. Equal Employment Opportunity Officer

The Contractor will designate and make known to the Department contracting officers an equal opportunity officer (hereinafter referred to as the EEO Officer) who will have the capability, authority and responsibility to effectively implement and promote an active contractor program of equal employment opportunity.

- 4. Dissemination of Policy
 - a. All members of the Contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommended such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the Contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure compliance, the following minimum actions will be taken:

- (1) An initial project site meeting with key supervisory and office personnel will be conducted before or at the start of work, and then not less than once every 6 months, at which time the Contractor's equal employment opportunity program will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.
- (2) All new supervisory and office personnel will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the Contractor's equal employment opportunity obligations within 30 days following their reporting for duty with the Contractor.
- (3) All personnel engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official concerning the Contractor's procedures for locating and hiring minority and female employees.
- b. In order to make the Contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:
 - Notices and posters setting forth the Contractor's equal employment opportunity policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
 - (2) The Contractor's equal employment opportunity policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, and/or other appropriate means.
- 5. Recruitment
 - a. When advertising for employees, the Contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer". All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.
 - b. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants, including, but not limited to, State employment agencies, schools, colleges and minority-oriented organizations. To meet this requirement, the Contractor will, through his EEO Officer, identify sources of potential minority and female employees, and establish procedures with such sources whereby applicants may be referred to the Contractor for employment consideration.

In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with the equal employment opportunity contract provisions. (The US Department of Labor has held that where implementation of such agreements have the effect of discriminating against minorities or females, or obligates the Contractor to do the same, such implementation violates Executive Order 11246, as amended).

- c. The Contractor will encourage his present employees to refer minority and female applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures pertaining to the referral of applicants will be discussed with employees.
- 6. Personnel Actions

Wages, working conditions and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, or national origin. The following procedures shall be followed:

a. The Contractor will conduct a project site inspection at the start of work, and periodically thereafter, to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

- b. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The Contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- d. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with its obligations under this contract, and will resolve or attempt to resolve such complaints, within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform complainants of available avenues of appeal.
- 7. Training Special Provisions

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journey people in the type of craft or job classification involved.

The number of training positions will be 2, where feasible consisting of at least 0 apprentices and <u>2</u> apprentice graduates of a Pre-Apprenticeship Training Cooperative Program, and/or trainees.

Apprentices are defined as registered members of an approved apprenticeship program recognized by the United States Department of Labor (USDOL) Bureau of Apprenticeship and Training (BAT) or a New Jersey State apprenticeship agency recognized by USDOL BAT (e.g., New Jersey Department of Education). Graduates of the Pre-Apprenticeship Training Cooperative Program shall be classified as apprentices. Trainees are defined as skilled, semi-skilled or lower level management individuals receiving training per one of the approved NJDOT "Revised Standard Training Guidelines" (available from the Division of Civil Rights).

Where feasible, at least 50% of the training positions will be assigned to Skilled Crafts which include but are not limited to Carpenters, Dockbuilders, Electricians, Ironworkers and Operating Engineers.

a. Contractor Submission and NJDOT Approval of the Initial Training Program.

At or after the preconstruction conference and prior to the start of work, the Contractor shall submit a training program to the Resident Engineer for his or her review and comments prior to Division of Civil Rights review and approval. The Contractor's training program shall include:

- (1) the number of trainees or apprentices to be trained in all selected Training Positions,
- (2) the Standard Program Hours for all positions,
- (3) an estimate of the Minimum Available Hours actually feasible on the project toward completion of the Standard Program Hours per position,
- (4) a training schedule of Estimated Start Dates for the apprentices or trainees, developed and coordinated with the project's work progress schedule,
- (5) Training Guidelines for all positions, and
- (6) which training will be provided by the Contractor and which by Subcontractors.

The number of apprentices and trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeypeople in the various crafts within a reasonable area of recruitment. The Contractor shall submit timely, revised training programs as required throughout the project to ensure that feasible and Maximum Available Training is provided. Maximum Available Training is defined as bringing each apprentice or trainee onto the project when work first becomes available in his/her craft and providing all available training until hours are no longer available.

b. Assignment of Training to Subcontractors

In the event that portions of the contract work are subcontracted, the Contractor shall determine how many, if any, of the apprentices or trainees are to be trained by subcontractors, provided,

however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by these Training Special Provisions. The Contractor shall also ensure that these Training Special Provisions are made applicable to such subcontracts.

- c. Requirements for Recruitment, Selection and Approval of Apprentices and Trainees
 - (1) Apprentices or trainees should be in their first year of apprenticeship or training. The Contractor shall interview and screen trainee candidates to determine if their actual work experience is equivalent to or exceeds that offered by the training program prior to submitting candidates, via the Resident Engineer, to the Division for review and approval or disapproval.
 - (2) Training and upgrading of minorities (e.g., Blacks, Asians or Pacific Islanders, Native Americans or Alaskan Natives, Hispanics) and females toward journeyperson status is a primary objective of these Training Special Provisions. Accordingly, the Contractor shall make every effort to enroll minorities and females, by conducting systematic and direct recruitment through public and private sources likely to yield minority and female apprentices or trainees, to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.
 - (3) No employee shall be employed as an apprentice or trainee in any position in which he or she has successfully completed a training course leading to journeyperson status or in which he or she has been employed as a journeyperson. The Contractor shall satisfy this requirement by including appropriate questions in the employment application or by other suitable means and by submitting an accurate and complete "Apprentice/Trainee Approval Memorandum." Regardless of the methods used, the Contractor's records should document the findings in each case.
 - (4) Skilled craft trainees may complete up to 3,000 total training hours on NJDOT projects, with an extension of an additional 1,000 hours permitted on a case-by-case basis. Semi-skilled and lower-level management trainees attain journeyperson status upon completion of a training guideline and may complete up to three (3) different positions.
- d. Apprenticeship and Training Programs
 - (1) The minimum length and type of training for each position will be established in the training program selected by the Contractor and approved by NJDOT and the Federal Highway Administration. NJDOT will approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average apprentice or trainee for journeyperson status in the craft concerned by the end of the training period.
 - (2) Apprenticeship programs registered with the US Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by USDOL BAT and training programs approved but not necessarily sponsored by the US Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided such programs are being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the NJDOT Division of Civil Rights prior to commencing work on the positions covered by the Contractor's training program. The Division will review guidelines developed by the Contractor for approval or disapproval in accordance with the Training Guideline Approval Process described in the "Revised Standard Training Guidelines". The Division will also review existing guidelines for revision based on the same process.
 - (3) It is the intention of these provisions that training be provided in construction crafts rather than clerk-typist or secretarial-type positions. Training is permitted in lower level management positions (e.g., timekeepers), where the training is oriented toward project site applications. Training in semi-skilled laborer positions is permitted provided that significant and meaningful training is available on the project site. Some offsite, classroom training (e.g., safety, first aid instruction) may be permitted as long as such training is an integral part of an approved training program and does not comprise a significant part of the overall training.
- e. Reimbursement of the Contractor for Providing Training

- (1) The Contractor will be credited for each apprentice or trainee employed on the construction site who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such apprentices or trainees as provided hereinafter. Payment will be made under the pay item Trainees at the bid price in the Proposal per person-hour of training given an employee on this contract in accordance with an approved training program. If approved, payment will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other sources do not specifically prohibit the Contractor from receiving other reimbursement. Offsite, classroom training reimbursement may only be made to the Contractor when the company does one or more of the following and the apprentices or trainees are concurrently employed on a Federal-aid project: contributes to the cost of the training and/or provides instruction to apprentices or trainees or pays their wages during the offsite, classroom training (e.g., safety, first aid instruction) period.
- (2) The Contractor shall pay apprentices and trainees according to the project-specific New Jersey Department of Labor Prevailing Wage Rate Determination for the project.
- f. Documentation Required to be Signed by Apprentices or Trainees and provided to NJDOT
 - (1) At the start of training, the Contractor shall provide the Resident Engineer and each apprentice or trainee with an applicable "Training Guideline" and, at the conclusion of training, an accurate and complete "Training Certificate for Reporting Hours to NJDOT", showing hours of training satisfactorily completed.
 - (2) The Contractor shall maintain and submit an accurate and complete "NJDOT Contractor's 1409 Quarterly Training Report" to the Resident Engineer within ten (10) days of the end of each training quarter (e.g., January 10, April 10, July 10, October 10); a copy shall also be given to each apprentice or trainee.
 - (3) The Contractor shall maintain and submit accurate and complete "Biweekly Training Reports" to the Resident Engineer, and each apprentice or trainee, as periodic reports documenting performance under these Training Special Provisions.
- g. Training and Promotion
 - (1) The Contractor shall assist in locating, qualifying, and increasing the skills of minority and female employees, and applicants for employment.
 - (2) The Contractor shall advise employees and applicants for employment of available training programs and entrance requirements.
 - (3) The Contractor shall periodically review the training and promotion potential of minority and female employees and encourage eligible employees to apply for such training and promotion.
- h. Determining Good Faith Compliance
 - (1) Per the approved program or guideline, the Contractor shall provide Maximum Available Training to apprentices and trainees by beginning their training as soon as feasible with the start of craft work utilizing the skill involved on the project construction site and by retaining them as long as training opportunities exist in their crafts or until their training program positions are completed.
 - (2) The Contractor shall recall apprentices or trainees released due to reductions in force when the work scope permits and they are available to return. When they are unavailable to resume training on the project site, the Contractor shall submit written proof of recall efforts and replacement candidates and/or positions in a timely manner. The Contractor shall not terminate apprentices or trainees prior to completion of their training program positions without NJDOT consultation and authorization. Apprentices or trainees are not required to be on board for the entire length of the contract.
 - (3) The Contractor shall have fulfilled the contractual responsibilities under these Training Special Provisions if the company has provided Acceptable Training to the number of apprentices or trainees specified in this contract and/or by providing the remaining hours required to complete training positions begun by apprentices or trainees on other projects. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.
 - (4) The Contractor shall be responsible for demonstrating all steps that have been taken in pursuance of enrolling minorities and females in the training program positions, prior to a

determination as to whether the Contractor is in compliance with these Training Special Provisions.

- (5) The Contractor shall submit to the Resident Engineer written training program summaries at the 50% time and/or cost stage of the contract and also prior to project completion, describing all good faith actions and particularly addressing Maximum Available Training for incomplete training positions, per the procedure found in the revised "Instructions for Implementing the Training Special Provisions".
- i. Enforcement Measures and Contractor's Rating
 - (1) Payment will not be made if either the failure to provide the required training or the failure to hire the apprentice or trainee as a journeyperson is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of these Training Special Provisions.
 - (2) Per established procedures and scheduled Contract Compliance Reviews, the Contractor's performance will be rated and reviewed periodically by the Department.
 - (3) Noncompliance with these Training Special Provisions may be cause for delaying or withholding monthly and final payments, pending corrective and appropriate measures by the Contractor to the satisfaction of the Department, per Item 1d of these EEO Special Provisions.

8. Unions

If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will make maximum effort to obtain the cooperation of such unions to increase opportunities for minorities and females within the unions, and to effect such union referrals to the construction project. Actions by the Contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

- a. The Contractor will use maximum effort to develop, in cooperation with the unions, joint training programs aimed at qualifying more minorities and females for union membership and increasing their skills in order to qualify for higher paying employment.
- b. The Contractor will use maximum effort to incorporate an equal employment opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, or national origin.
- c. The Contractor will obtain information concerning the referral practices and policies of the labor unions except that to the extent such information is within the exclusive possession of the labor unions and they refuse to furnish this information to the Contractor, the Contractor shall so certify to the Department and shall set forth what efforts have been made to obtain this information.
- d. In the event the unions are unable to provide the Contractor with a reasonable flow of minority and female referrals within the time limit set forth in the collective bargaining agreement, the Contractor will through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, or national origin, making full efforts to obtain qualified and/or qualifiable minorities and females. (The US Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees). In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such Contractor shall immediately notify the Department.

9. Subcontracting

- a. The Contractor will use maximum effort to solicit bids from and to utilize minority subcontractors or subcontractors with meaningful minority and female representation among their employees. Contractors may use lists of minority-owned construction firms as issued by the Department.
- b. The Contractor will use maximum effort to ensure subcontractor compliance with the equal employment opportunity obligations.
- 10. Documents and Reports

- a. The Contractor will maintain such documents as are necessary to determine compliance with the contract's equal employment opportunity requirements. Documents will include the following:
 - (1) the number of minorities, non-minorities, and females employed in each work classification on the Project.
 - (2) the progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and females (applicable only to Contractors who rely in whole or in part on unions as a source of their work force).
 - (3) the progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees, and
 - (4) the progress and efforts being made in securing the services of minority and female subcontractors or subcontractors with meaningful minority and female representation among their employees.
- b. All such documents must be retained for a period of 3 years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the Department and the Federal Highway Administration.
- c. The contractor and each subcontractor must submit monthly employment and wage data to the Department via a web based application using electronic Form CC-257R. Instructions for registering and receiving the authentication code to access the web based application can be found at:

http://www.state.nj.us/transportation/business/procurement/ConstrServ/documents/NJ_StimulusRe portingNotification-Contractor.pdf

Instructions on how to complete Form CC257 are provided in the web application. Submit Form CC-257R through the web based application within 10 days following the end of the reporting month. Submission of this form also satisfies the requirement of the form FHWA 1391.

All employment and wage data must be accurate and consistent with the certified payroll records. The contractor is responsible for ensuring that their subcontractors comply with these reporting requirements. Failure by the contractor to submit Monthly Employment Utilization Report may impact the contractor's prequalification rating with the Department.

SPECIAL CONTRACT PROVISIONS FOR INVESTIGATING, REPORTING AND RESOLVING EMPLOYMENT DISCRIMINATION AND SEXUAL HARASSMENT COMPLAINTS

The contractor hereby agrees to the following requirements in order to implement fully the nondiscrimination provisions of the Supplemental Specifications.

The Contractor agrees that in instances when it receives from any person working on the project site a verbal or written complaint of employment discrimination, prohibited under N.J.S.A. 10:5-1 et seq., 10:2-1 et seq., 42 U.S.C. 2000(d) et seq., 42 U.S.C. 2000 (e) et seq. and Executive Order 11246, it shall take the following actions:

- 1. Within one (1) working day commence an investigation of the complaint which shall include but not be limited to interviewing the complainant, the respondent, and all possible witnesses to the alleged act or acts of discrimination or sexual harassment.
- 2. Prepare and keep for its use and file a detailed written investigative report which includes the following information:
 - a) Investigatory activities and findings.
 - b) Dates and parties involved and activities involved in resolving the complaint.
 - c) Resolution and corrective action taken if discrimination or sexual harassment is found to have taken place.
 - d) A signed copy of resolution of complaint by complainant and contractor.

In addition to keeping in its files the above-noted detailed written investigative report, the contractor shall keep for possible future review by the Department all other records, including but not limited to, interview memos and statements.

- 3. Upon the request of the Department, provides to the Department within ten (10) calendar days a copy of its detailed written investigative report and all other records on the complaint investigation and resolution.
- 4. Take appropriate disciplinary action against any contractor employee, official or agent who has committed acts of discrimination or sexual harassment against any contractor employee or person working on the project. If the person committing the discrimination is a subcontractor employee, then the contractor is required to attempt to effectuate corrective and/or disciplinary action by the subcontractor in order to establish compliance with project's contract requirements.
- 5. Take appropriate disciplinary action against any contractor employee, official or agent who retaliates, coerces or intimidates any complaint and/or person who provides information or assistance to any investigation of complaints of discrimination or sexual harassment. If the person retaliating, coercing or intimidating a complainant or other person assisting an investigation is a subcontractor's employee, then the contractor is required to attempt to effectuate corrective and/or disciplinary action by the subcontractor in order to establish compliance with the project's contract requirements.
- 6. Ensure toe the maximum extent possible that the privacy interests of all person who give confidential information in aid of the contractor's employment discrimination investigation are protected.

In conjunction with the above requirements, the contractor shall develop and post a written sexual harassment policy for its work force.

Failure by the contractor to comply with the above requirements may be cause for the New Jersey Department of Transportation to institute against the contractor any and all enforcement proceedings and/or sanctions authorized by the contract or by state and/or federal law.