

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH, N.C.

PROPOSAL

DATE AND TIME OF BID OPENING: **AUGUST 17, 2004 AT 2:00 PM**

CONTRACT ID C201247

WBS 38200.3.1

FEDERAL-AID NO. NHS-264(29)

COUNTY GREENE, PITT

T.I.P. NO. R-4740

MILES 14.700

ROUTE NO. US 264

LOCATION US-264 FROM SR-1311 IN GREENE COUNTY TO SR-1200 IN PITT COUNTY.

TYPE OF WORK MILLING, SHLDR RECONST, RESURF OR HIP ALT & PVMT MARKINGS.

**NOTICE:**

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALITY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA.

**BIDS WILL BE RECEIVED AS SHOWN BELOW:**

THIS IS A ROADWAY PROPOSAL

**5% BID BOND OR BID DEPOSIT REQUIRED**

PROPOSAL FORM FOR THE CONSTRUCTION OF CONTRACT NO. C201247

IN GREENE, PITT COUNTIES NORTH CAROLINA

Date \_\_\_\_\_ 20\_\_

DEPARTMENT OF TRANSPORTATION,

RALEIGH, NORTH CAROLINA

The Bidder has carefully examined the location of the proposed work to be known as Contract No. C201247; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Board of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with the 2002 Standard Specifications for Roads and Structures by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete State Highway Contract No. C201247

In Greene, Pitt Counties, for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The published volume entitled "North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2002 with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the Construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

If the proposal is accepted and the award is made, the contract is valid only when signed either by the Contract Officer or such other person as may be designated by the Secretary to sign for the Department of Transportation. The conditions and provisions herein cannot be changed except over the signature of the said Contract Officer.

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of any item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

Accompanying this bid is a bid bond secured by a corporate surety, or certified check payable to the order of the Department of Transportation, for five percent of the total bid price, which deposit is to be forfeited as liquidated damages in case this bid is accepted and the Bidder shall fail to provide the required payment and performance bonds with the Department of Transportation, under the condition of this proposal, within 14 calendar days after the written notice of award is received by him, as provided in the Standard Specifications; otherwise said deposit will be returned to the Bidder.

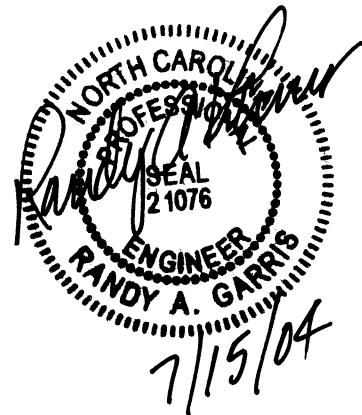


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**PROJECT SPECIAL PROVISIONS**

General

7-1-95

RG01

**CONTRACT TIME AND LIQUIDATED DAMAGES:**

**7-1-95**

The date of availability for this contract is October 1, 2004.

The completion date for this contract is October 1, 2005.

The observation period for the thermoplastic pavement markings is not a part of the work to be completed by the completion date for this contract as stated above. Warrant the observation period by the payment and performance bond.

The liquidated damages for this contract are Eight Hundred Dollars (\$800.00) per calendar day.

RG06

**PROSECUTION OF WORK:**

**7-1-95**

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project. The Contractor will not be permitted to suspend his operations except for reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operations in writing.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of \$800.00 will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of the work. Liquidated damages chargeable due to suspension of the work will be additional to any liquidated damages that may become chargeable due to failure to complete the work on time.

RG09

**SAFETY INDEX RATING:**

**6-18-02**

Revise the 2002 Standard Specifications as follows:

Page 1-10, Article 102-2

Before the last paragraph on this page, add the following paragraph:

"All subcontractors performing work for the Department shall have received a passing grade on the Safety Index Rating form, in accordance with Article 102-2, prior to beginning work.

Subcontractors can request the Safety Index Rating form from the State Contractual Services Engineer."

RG11

**RAILROAD GRADE CROSSING:**

**7-1-95**

The Contractor's attention is directed to the fact that should the use of slow moving or stopped equipment be required at railroad grade crossings, notify the railroad's local representative of their anticipated time of work at the grade crossing at least 48 hours prior to performing work in that grade crossing location.

RG12

**MAJOR CONTRACT ITEMS:**

**2-19-02<sub>C</sub>**

The following listed items are the major contract items for this contract (See Articles 101-54 and 104-5 of the Standard Specifications):

<u>Item #</u>	<u>Description</u>
5	Asphalt Concrete Base Course, Type B25.0C
6	Asphalt Concrete Surface Course, Type S9.5C
	-AND-
23	Asphalt Concrete Intermediate Course, Type I19.0C
	-OR-
27	Hot-in-Place Recycled Asphalt Concrete, Type I19.0C

RG15

**SPECIALTY ITEMS:**

**7-1-95<sub>C</sub>**

Items listed below will be the specialty items for this contract (See Article 108-6 of the Standard Specifications).

<u>Line #</u>	<u>Description</u>
9 thru 13	Thermoplastic Pavement Markings
17	Pavement Markers
18 thru 21	Erosion Control Items

RG18

**POSTED WEIGHT LIMITS:**

**7-1-95**

The Contractor's attention is directed to the fact that many Primary and Secondary Roads and bridges are posted with weight limits less than the legal limit. Do not exceed the posted weight limits in transporting materials and/or equipment to the projects, unless otherwise indicated below. Make a thorough examination of all projects and haul routes and be prepared to discuss them at the Preconstruction Conference.

RG24

**SCHEDULE OF ESTIMATED COMPLETION PROGRESS:**

**07-20-04**

The Contractor's attention is directed to the Standard Special Provision entitled "Availability Of Funds Termination Of Contracts" included elsewhere in this proposal. The Department of Transportation's schedule of estimated completion progress for this project as required by that Standard Special Provision is as follows:

<u>Fiscal Year</u>	<u>Progress (Dollar Value)</u>
2005 (07/01/04 – 06/30/05)	86% of Total Amount Bid
2006 (07/01/05 – 06/30/06)	14% of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the Standard Specifications. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

RG33

**ELECTRONIC BIDDING:**

**03-16-04<sub>R</sub>**

Page 1-2, Article 101-11

Delete this article and replace with the following:

**Bid (Or Proposal):** The electronic offer of a Bidder via Bid Express™ to the Department to perform the work and to furnish the labor and materials at the prices quoted.

Page 1-3, Article 101-20, **Contract**

Add after the second paragraph of this article.

All references to contracts shall include electronic agreements and printed paper agreements. These may include but not be limited to the electronic bid bond, non-collusion statement, debarment certification, and award limits.

Page 1-6, Article 101-64 **Proposal Form**

Delete this article and replace with the following:

**Proposal or Proposal Form:** The electronic or paper form provided by the Department that the Bidder uses to develop his electronic offer to perform the work at designated bid prices.



Page 1-14, Article 102-9

Delete Article 102-9 in its entirety and replace with the following:

### **102-9 ELECTRONIC BIDDING.**

The Bidder shall submit bids electronically using the following guidelines:

1. The prequalified Bidder shall have a fully executed *Non-Collusion Affidavit and Debarment Certification* on file in the Contract Office prior to submitting his bid. If the Bidder cannot provide the debarment certification required, he shall provide an explanation as shown in the certification. The explanation will not necessarily result in denial of participation in a contract. Non-collusion and debarment certification forms shall be downloaded at <http://www.NCDOT.org/business>. Forms shall be executed in accordance with Section 102-8. The affidavit and certification shall be received in the Contract Office by 5 p.m. the last business day before the bid letting. The Contract Office address is shown at the end of this provision.

If the prequalified Bidder's *status* changes, he shall immediately submit a new fully executed non-collusion affidavit and debarment certification with an explanation of the change.

Failure to have a fully executed non-collusion affidavit and debarment certification on file in the Contract Office prior to placing bids will cause those bids to be non-responsive.

2. Obtain on-line bidding information from Bid Express™ at [www.bidx.com](http://www.bidx.com) (Note: Obtain an account and valid Digital Signature from Bid Express™ in order to bid electronically).
3. An electronic corporate surety bid bond for at least 5% of the total amount bid shall accompany each electronic bid, or the Contractor may submit a certified check or cashier's check in lieu of an electronic bid bond. The certified check or cashier's check shall be for at least 5% of the total amount bid and shall be received by 5 p.m. the last business day before the bid letting and shall be delivered to the address shown at the end of this provision.

Contact either or both of the following bond management companies in order to acquire the necessary service to submit an electronic bid bond.

- a. Surety 2000 ([www.surety2000.com](http://www.surety2000.com))
  - b. Surepath ([www.insurevision.com](http://www.insurevision.com))
4. Debarment Certification – The Bidder shall provide a debarment certification in the electronic bid submittal. If a Bidder cannot provide the debarment certification required, he shall provide an explanation in the Bid Express™ miscellaneous folder within the .ebs file. The explanation will not necessarily result in denial of participation in a contract. Failure to furnish a certification or an explanation will be grounds for rejection of a bid.

5. Zero (0) is considered a valid bid. Do Not enter zero (0) in any unit price field unless zero (0) is the intended bid for that item.
6. Include all addenda in the submitted electronic bid. Bid Express™ will not accept a bid which does not contain all addenda. Section 103-2 (Correction of Bid Errors) will not apply to On-Line Electronic Bidding. All addenda and attachments will be considered part of the bid.
7. The electronic bid may be changed and resubmitted as many times as desired prior to the advertised bid opening time specified in the Invitation to Bid. The latest time stamped electronically submitted bid prior to the advertised bid opening time will constitute the Bid.
8. The provisions of Section 102-8 will apply to the preparation of bids except that the bid shall be submitted via Bid Express™ On-Line Bid Submission.
9. All bids shall be submitted with an electronically affixed digital signature. For the purpose of this provision, affixing a digital ID to the bid shall be the equivalent of signing before a notary public and placing in force the non-collusion affidavit and debarment certification on file with the Department.
10. By submitting an electronic bid, the Bidder certifies that he has read, understands, accepts, acknowledges and agrees to comply with all statements, conditions and Specifications in the electronic bid submittal.
11. Bids will be decrypted, opened, printed to paper and read publicly at the time and place specified in the invitation to bid.
12. The successful Bidder if award be made shall submit a fully executed *Execution of Contract, Non-Collusion Affidavit and Debarment Certification* signature sheet, and payment and performance bonds within 14 calendar days of receipt of award letter.
13. The Department will not be responsible if a Bidder cannot submit his bid to Bid Express™ and claims will not be accepted for this. In the event of technical difficulties, the Department reserves the right to postpone the reading of bids for up to 4 hours past the advertised bid opening time.
14. The pre-bid *Non-Collusion Affidavit, Debarment Certification signature sheet, Execution of Contract, Non-Collusion Affidavit, Debarment Certification signature sheet*, certified check or cashier's check in lieu of electronic bid bond, payment and performance bonds shall be delivered to the Contract Office at the address shown herein:

**Physical Address**  
State Contract Officer  
Project Services Unit  
Century Center Bldg. B  
1020 Birch Ridge Drive  
Raleigh, NC 27610

**Mailing Address:**  
State Contract Officer  
NC Department of Transportation  
Contracts and Proposals  
1591 Mail Service Center  
Raleigh, NC 27699-1591

RG34  
07-17-01R

**DISADVANTAGED BUSINESS ENTERPRISE**

**POLICY**

It is the policy of the North Carolina Department of Transportation that Disadvantaged Business Enterprises shall have the opportunity to participate in the performance of contracts financed in whole or in part by Federal Funds in order to create a level playing field.

**The Contractor is also encouraged to give every opportunity to allow DBE participation in Supplemental Agreements.**

**OBLIGATION**

The Contractor, subcontractor, and sub-recipient shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR 26 in the award and administration of federally assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the Department deems necessary.

**GOALS**

The following goal for participation by Disadvantaged Business Enterprise (DBE) is established for this contract:

Disadvantaged Business Enterprises 8%

The Contractor shall exercise all necessary and reasonable steps to ensure that Disadvantaged Business Enterprises participate in at least the percent of the contract as set forth above as goals for this contract.

**LISTING OF DBE SUBCONTRACTORS**

All bidders, at the time the bid proposal is submitted, must also submit a listing of DBE participation on the appropriate form (or facsimile thereof) contained elsewhere in this proposal in order for the bid to be considered responsive. Bidders must indicate the total dollar value of DBE participation for the contract. In the event the bidder has no DBE participation, he is still required to indicate this on the forms by entering the word or number zero. Blank forms will not be deemed to represent zero participation. BIDS SUBMITTED WHICH DO NOT HAVE DBE

PARTICIPATION INDICATED ON THE APPROPRIATE FORM WILL NOT BE READ PUBLICLY DURING THE OPENING OF BIDS. The Department will not consider these bids for award and they will be returned to the bidder. Bidders have the option of submitting their DBE participation in an abbreviated format as required in Paragraph A below, or the bidder may submit their DBE participation in the additional detail required by Paragraph B below. In the event the bidder elects to submit DBE participation in accordance with Paragraph A and is determined to be the apparent lowest responsive bidder, that bidder must deliver to the Department no later than 12:00 noon of the sixth day following the opening of bids, a detailed DBE submittal as required by Paragraph B below.

Only those DBE firms with current certification by the Department will be considered acceptable for listing in the bidder submittal of DBE participation.

- A. The Contractor shall indicate on the form for listing of DBE subcontractors contained elsewhere in this proposal the following required information:

REQUIRED INFORMATION

- (1) The names and addresses of DBE firms committed to participate in the contract
- (2) The Contract Item Numbers of work to be performed by each DBE firm; and
- (3) The total dollar amount to be paid to each DBE based on agreed upon unit prices.

Failure to indicate the required information on the specified form will cause the bid to be considered nonresponsive and it may be rejected.

- B. In lieu of submitting the information required by (A) above, the bidder may submit the detailed information that required below along with the bid proposal form.

REQUIRED INFORMATION

- (1) The names and addresses of DBE firms committed to participate in the contract
- (2) The Contract Item Numbers and Contract Item Descriptions and agreed upon unit prices of work to be performed by each DBE firm; and
- (3) The total dollar amount to be paid to each DBE based on agreed upon unit prices.

Failure to indicate the required information on the specified form will cause the bid to be considered nonresponsive and it may be rejected.

The bidder is required to submit written documentation of the bidder/offeror's commitment to use a DBE subcontractor whose participation it submits to meet a contract goal and written confirmation from each DBE, listed in the proposal form, indicating their participation in the contract.

The Department will not allow any substitutions, deletions, or other alterations to the listing of firms committed for DBE participation and/or the respective listed contract item numbers after opening of bids. The Department will not allow adjustments to total dollar amount of DBE participation after the opening of bids that would result in the DBE participation being less than the contract goal. The only exceptions to the requirements of this paragraph will be: (1) to allow for replacement of a DBE firm that had been decertified after opening of bids, and (2) to allow alteration of the listed contract item numbers subject to the Bidder submitting sufficient documentation to verify an obvious error in the initial submittal.

- C. If the DBE participation submitted in the bid by the apparent lowest responsive bidder in response to Paragraph A/B does not meet or exceed the DBE contract goal, the apparent lowest responsive bidder must submit information to satisfy the North Carolina Department of Transportation that sufficient Good Faith efforts have been made to meet the contract goals. One complete set and nine (9) copies of this information must be received in the office of the State Contractual Services Engineer no later than 12:00 noon of the sixth day following opening of bids. Where the information submitted includes repetitious solicitation letters it will be acceptable to submit a sample representative letter along with a distribution list of the firms being solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal as necessary to demonstrate compliance with the factors listed below which the Department considers in judging good faith efforts. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Where the bidder fails to provide this information by the deadline, the Department may impose one or more of the following sanctions: (1) disqualify the contractor and any affiliated companies from further bidding for a period of time of no more than 90 days from the date of disqualification as established in notification by certified mail, (2) disqualify the Contractor and any affiliated companies for award of all contracts for which bids have been received and opened, (3) disqualify the Contractor from the contract in question.

The following factors are what the Department will consider in judging whether or not the bidder has made adequate good faith effort:

- (1) Whether the bidder attended any pre-bid meetings that were scheduled by the Department to inform DBEs of subcontracting opportunities.
- (2) Whether the bidder provided solicitations through all reasonable and available means (e.g. advertising in newspapers owned and targeted to the Disadvantaged) at least 10 days prior to bid opening. Whether the bidder provided written notice to all DBEs listed in the NCDOT DBE directory, within the Divisions and surrounding Divisions where the project is located, that specialize in the areas of work (as noted in the DBE Directory) that the bidder will be subcontracting.

- (3) Whether the bidder followed up initial solicitations of interests by contacting DBEs to determine with certainty whether they were interested. If a reasonable amount of DBEs within the targeted Divisions do not provide an intent to quote or no DBEs specialize in the subcontracted areas, the bidder must notify DBEs outside of the targeted Divisions that specialize in the subcontracted areas, as well as call the project Compliance Officer in the Office of Civil Rights to give notification of the bidder inability to get DBE quotes.
- (4) Whether the bidder selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the contract goals. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise perform these work items with its own forces.
- (5) Whether the bidder provided interested DBEs with adequate and timely information about the plans, specifications and requirements of the contract
- (6) Whether the bidder negotiated in good faith with interested DBEs not rejecting them as unqualified without sound reasons based on a thorough investigation of their capabilities. Any rejection should be so noted in writing with a description as to why an agreement could not be reached.
- (7) Whether quotations were received from interested DBE firms but rejected as unacceptable without sound reasons why the quotations were considered unacceptable. The fact that the DBE firms quotation for the work is not the lowest quotation received will not in itself be considered as a sound reason for rejecting the quotation as unacceptable. The fact that the bidder has the ability and/or desire to perform the contract work with its own forces will not be considered as sound reason for rejecting a DBE quote. Nothing in this provision shall be construed to require the Contractor to accept unreasonable quotes in order to satisfy contract goals.
- (8) Whether the bidder specifically negotiated with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be sublet includes potential for DBE participation.
- (9) Whether the bidder made any efforts and/or offered assistance to interested DBEs in obtaining the necessary equipment, supplies, materials, insurance, and/or bonding to satisfy the work requirements in the bid proposal.
- (10) Any other evidence that the bidder submits which show that the bidder has made reasonable Good Faith efforts to include DBE participation.

In the event one bidder is the apparent low bidder on more than one project within the same letting located in the same geographic area of the state, as a part of the good faith effort the Department will consider allowing the bidder to combine the DBE participation as long as the overall goal value of all projects is achieved.

Where the apparent lowest responsive bidder fails to submit sufficient participation by DBE firms to meet the contract goal and upon a determination by the Goal Compliance Committee based upon the information submitted that the apparent lowest responsive bidder failed to make sufficient reasonable efforts to meet the contract goal, the bidder will be offered the opportunity to meet in person for administrative reconsideration. A committee appointed by the Department will hear administrative reconsideration. Members of this committee will be officials who did not take part in the original determination by the Goal Compliance Committee. The bidder will have the opportunity to present written documentation or argument concerning the issue of whether it met the goal or made an adequate good faith effort. The bidder will receive a written decision on the reconsideration. Explaining the basis for finding that the bidder did or did not meet the goal or made adequate Good Faith efforts to do so. The result of the reconsideration process is not administratively appealable to the Department.

In the event that the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy the Department that the contract goal can be met or that adequate good faith efforts have been made to meet the goal.

#### DBE DIRECTORY

Included with this Proposal Form is a list of Disadvantaged Business Enterprises (DBE) which have been certified as such by the North Carolina Department of Transportation. Only those DBE firms with current certification may be listed in the proposal form.

The listing of an individual firm in the Department's directory shall not be construed as an endorsement of the firms' capability to perform certain work.

#### REPLACEMENT OF DBEs

##### (A) Performance Related

If any DBE Subcontractor submitted on the form for listing of DBE Subcontractors, contained elsewhere in this proposal form, is terminated or fails to complete its work on the contract for any reason, the Contractor shall take all necessary, reasonable steps to replace the DBE Subcontractor with another DBE Subcontractor to perform at least the same amount of work of the contract as the DBE that was terminated.

To demonstrate necessary, reasonable Good Faith efforts, the Contractor shall document the steps he has taken to replace any DBE Subcontractor who is unable to perform successfully with another DBE Subcontractor. Such documentation shall include but not be limited to the following:

- (a) Copies of written notification to DBEs that their interest is solicited in subcontracting the work defaulted by the previous DBE subcontractor or in subcontracting other items of work in the contract.

- (b) Efforts to negotiate with DBEs for specific subbids including, at a minimum:
  - (1) The names, addresses, and telephone numbers of DBEs who were contacted;
  - (2) A description of the information provided to DBEs regarding the plans and specifications for portions of the work to be performed; and
- (c) For each DBE contacted but rejected as unqualified, the reasons for the Contractor's conclusion.
- (d) Efforts made to assist the DBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

The contractor will not terminate a DBE subcontractor listed in the proposal form for convenience or perform the work with its own forces or those of an affiliate without the written approval of the Engineer. If the Contractor fails to demonstrate reasonable efforts to replace a DBE firm that does not perform as intended or completes the work with its own forces without the Engineer's approval, the Contractor will be disqualified from further bidding for a period of up to 6 months after notification by certified mail.

(B) Decertification

1. If a Prime Contractor has listed a DBE firm in his low bid submitted and that DBE Subcontractor is subsequently decertified by the Department after a Request for Subcontract has been approved, then the Department will not require the Prime Contractor to solicit replacement DBE participation equal to the remaining work to be performed by the decertified firm. The participation equal to the remaining work performed by the decertified firm will count toward the contract goal but may not be counted toward the overall program goal.
2. If a Prime Contractor has listed a DBE firm in his low bid submittal and the DBE firm is decertified prior to the Department approving a Request for Subcontract for the named DBE firm, the Prime Contractor shall take all necessary and reasonable steps to replace the DBE subcontractor with another DBE subcontractor to perform at least the same amount of work to meet the contract goal or demonstrate that it has made a Good Faith effort to do so.

DEFINITIONS

For purposes of this provision the following definitions will apply:

- (1) Socially and economically disadvantaged individuals means a person who has a net worth of \$750,000.00 or less and is a citizen or lawful permanent resident of the United States and who is:
  - (a) A Black American





- (b) A Hispanic American
  - (c) A Subcontinent Asian American
  - (d) A Native American
  - (e) An Asian-Pacific American
  - (f) A Woman
  - (g) Members of other groups, or other individuals found to be economically and socially disadvantaged by the Small Business Administration under Section 8(d) of the Small Business Act, as amended (15 U.S.C. 637(d)).
  - (h) Members of other groups, or other individuals found to be economically and socially disadvantaged by the N. C. Department of Transportation under the Criteria for Disadvantaged Business Enterprises as published by the Department.
- (2) Disadvantaged Business Enterprise (DBE) means a for-profit small business concern.
- (a) That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation in which 51 percent of the stock is owned by one or more such individuals; and
  - (b) Whose management and daily business operation are controlled by one or more of the socially and economically disadvantaged individuals who own it,

#### COUNTING DBE PARTICIPATION TOWARD MEETING THE DBE GOAL

- (1) If a firm is determined to be an eligible DBE firm and certified by the Department, the total dollar value of the participation by the DBE will be counted toward the goal. The total dollar value of participation by a certified DBE will be based upon the value of work actually performed by the DBE and the actual payments to DBE firms by the contractor.
- (2) When a DBE performs as a participant in a joint venture, the contractor may count toward its DBE goal a portion of the total value of participation with the DBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the DBE performs with its forces.
- (3) (a) The Contractor may count toward its DBE goal only expenditures to DBEs that perform a commercially useful function in the work of a contract. A DBE 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 responsibilities by actually performing, managing, and supervising the work involved. To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry

practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

- (b) Consistent with normal industry practices, a DBE may enter into subcontracts. Work that a DBE subcontracts to another DBE firm may be counted toward the contract goal. Work that a DBE subcontracts to a non-DBE firm does not count toward the contract goal. If a DBE Contractor or Subcontractor subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of normal industry practices, the DBE shall be presumed not to be performing a commercially useful function. The Department's decision on the rebuttal of this presumption is subject to review by the Federal Highway Administration but is not administratively appealable to USDOT.
- (c) The following factors will be used to determine if a DBE trucking firm is performing a commercially useful function.
  - (1) The DBE firm must be responsible for the management and supervision of entire trucking operation
  - (2) The DBE must itself own and operate at least one fully licensed, insured and operational truck
  - (3) The DBE will receive full credit for all trucks it owns, insures, operates, and employs drivers
  - (4) The DBE will receive full credit for all trucks leased from a certified DBE firm
  - (5) The DBE will only receive credit for the fees or commission for trucks leased from a non-DBE firm
  - (6) Others may use trucks during the term of the lease so long as the lease gives priority to the DBE for the use of the truck(s).

The DBE may present evidence to rebut this presumption to the Department for commercially useful functions.

- (4) A Contractor may count toward its DBE goal 60 percent of its expenditures for materials and supplies required to complete the contract and obtained from DBE regular dealer and 100 percent of such expenditures to a DBE manufacturer.
  - (a) For purposes of this provision, a manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.
  - (b) For purposes of this provision, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the firm must engage in, as its principal business and in its own name, the purchase and sale of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock,

if it owns or operates distribution equipment. Brokers and packagers shall not be regarded as manufacturers or regular dealers within the meaning of this section.

- (5) A contractor may count toward its DBE goal the following expenditures to DBE firms that are not manufacturers or regular dealers:
- (a) The fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, toward DBE goal, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.
  - (b) The fees or commissions charged for assistance in the procurement of the materials and supplies, or for transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), toward DBE goals, provided the fees are not from a manufacturer or regular dealer and provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

#### REPORTS

All requests for subcontracts involving DBE subcontractors shall be accompanied by a certification executed by both the Prime Contractor and the DBE subcontractor attesting to the agreed upon unit prices and extensions for the affected contract items. This document shall be on the Department's Form RS-1-D, or in lieu of using the Department's Form, copies of the actual executed agreement between the Prime Contractor and the DBE subcontractor may be submitted. In any event, the Department reserves the right to require copies of actual subcontract agreements involving DBE Subcontractors.

The RS-1-D certification forms may be obtained from the Department's Resident Engineer.

These certifications shall be considered a part of the project records, and consequently will be subject to penalties under Federal Law associated with falsifications of records related to projects.

#### REPORTING DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

When payments are made to Disadvantaged Business Enterprise firms, including material suppliers, contractors at all levels (prime, subcontractor, or second tier subcontractor) shall provide the Engineer with an accounting of said payments. This accounting shall be furnished the Engineer for any given month by the end of the following month. Failure to submit this information accordingly may result in (1) withholding of money due in the next partial pay estimate; or (2) removal of an approved Contractor from the prequalified bidders list or the removal of other entities from the approved subcontractors list. The accounting shall list for each payment made to a Disadvantaged Business Enterprise firm the following:

DOT Project Number  
 Payee Contractor Name  
 Receiving Contractor or Material Supplier  
 DBE Certification Basis, e.g., Woman Owned, Native American, African American, etc.  
 Amount of Payment  
 Date of Payment

A responsible fiscal officer of the payee contractor, subcontractor, or second tier subcontractor who can attest to the date and amounts of the payments shall certify that the accounting is correct. A copy of an acceptable report may be obtained from the Engineer.

RG36

**RETAINAGE AND PROMPT PAYMENT:**

6-19-01

Retainage:

The Department will not deduct and hold any retainage from the Prime Contractor on this project.

Revise the 2002 Standard Specifications as follows:

Pages 1-69 and 1-70, Sub-Article 109-4(A)

Delete the second, third, fourth, and fifth paragraphs of this subarticle and insert the following:

"The Department will withhold an amount sufficient to cover anticipated liquidated damages, as determined by the Engineer."

**Prompt Payment of Monies Due Subcontractors, Second Tier Subcontractors and Material Suppliers and Release of Retainage**

Contractors at all levels; prime, subcontractor, or second tier contractor, shall within seven calendar days of receipt of monies, resulting from work performed on the project or services rendered, pay subcontractors, second tier subcontractors, or material suppliers, as appropriate. This seven-day period begins upon knowledgeable receipt by the contracting firm obligated to make a subsequent periodic or final payment. These prompt payment requirements will be met if each firm mails the payment to the next level firm by evidence of postmark within the seven-day period.

This provision for prompt payment shall be incorporated into each subcontract or second tier subcontract issued for work performed on the project or for services provided.

The Contractor may withhold up to 3% retainage if any subcontractor does not obtain a payment and performance bond for their portion of the work. If any retainage is held on subcontractors, all retainage shall be released within seven calendar days of satisfactory completion of all work. For the purpose of release of retainage, satisfactory completion is defined as completion of all physical elements and corresponding documentation as defined in the contract, as well as agreement between the parties as to the final quantities for all work performed in the subcontract.

The Department will provide internal controls to expedite the determination and processing of the final quantities for the satisfactorily completed subcontract portions of the project.

Failure of any entity to make prompt payment as defined herein may result in (1) withholding of money due to that entity in the next partial payment until such assurances are made satisfactory to this provision; or (2) removal of an approved contractor from the prequalified bidders list or the removal of other entities from the approved subcontractors list."

RG48

**SUBMISSION OF BIDS - ALTERNATES:**

**3-17-98**

Revise the 2002 Standard Specifications as follows:

Page 1-13, Article 102-8

In Item 3, at the end of the second paragraph add the following:

“When Bidders submit prices on more than one alternate the lower cost of the correctly completed alternate is the accepted bid and will be used to determine the total amount bid.”

Page 1-18, Article 103-2(D)

Add the following paragraph after the second paragraph:

“When Bidders submit prices on more than one alternate the lower cost of the correctly completed alternate is the accepted bid and will be used to determine the total amount bid.”

RG57

**DOMESTIC STEEL AND IRON PRODUCTS:**

**7-1-95**

All steel and iron products which are permanently incorporated into this project shall be produced in the United States except minimal amounts of foreign steel and iron products may be used provided the combined project cost of the bid items involved does not exceed one-tenth of one percent (0.1 percent) of the total amount bid for the entire project or \$2,500.00, whichever is greater. This minimal amount of foreign produced steel and iron products permitted for use by this Special Provision is not applicable to fasteners. Domestically produced fasteners are required for this project.

All steel and iron products furnished as "domestic products" shall be melted, cast, formed, shaped, drawn, extruded, forged, fabricated, produced, or otherwise processed and manufactured in the United States. Raw materials including pig iron and processed pelletized and reduced iron ore used in manufacturing "domestic" steel products may be imported; however, all manufacturing processes to produce the products, including coatings, must occur in the United States.

Before each steel or iron product is incorporated into this project or included for partial payment on a monthly estimate, the Contractor shall furnish the Resident Engineer a notarized certification certifying that the product conforms to the above requirements of this Special Provision. The Resident Engineer will forward a copy of each certification to the Materials and Tests Unit.

Each purchase order issued by the Contractor or a subcontractor for steel and iron products to be permanently incorporated into this project shall contain in bold print a statement advising the supplier that all manufacturing processes to produce the steel or iron shall have occurred in the United States. The Contractor and all affected subcontractors shall maintain a separate file for steel products permanently incorporated into this project so that verification of the Contractor's efforts to purchase "domestic" steel and iron products can readily be verified by an authorized representative of the Department or the Federal Highway Administration.

RG63

**U.S. DEPARTMENT OF TRANSPORTATION HOTLINE:**

11-22-94

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

RG66

**CERTIFICATION FOR FEDERAL-AID CONTRACTS:**

3-21-90

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) 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.

- (2) 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.

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 Section 1352, Title 31, U.S. Code. 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.

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 subrecipients shall certify and disclose accordingly.

RG69

**SUBMISSION OF RECORDS - FEDERAL-AID PROJECTS: 12-15-98**

The Contractor's attention is directed to the Standard Special Provisions entitled "Required Contract Provisions - Federal-Aid Construction Contracts" contained elsewhere in this proposal form.

This project is located on the National Highway System. If the final construction cost of this project equals or exceeds **One Million Dollars**, the Contractor must submit federal form FHWA-47.

RG75

**COMPENSATION AND RECORD KEEPING 03-16-04**

Revise the *2002 Standard Specifications* as follows:

104-8 Compensation and Record Keeping

Change Article (A), subarticle 1. with the following:

In line 3 and line 6, change \$15,000.00 to \$25, 000.00.

RG80

**PLANT AND PEST QUARANTINES:**  
**(IMPORTED FIRE ANT, GYPSY MOTH,**  
**WITCHWEED, AND OTHER NOXIOUS WEEDS)**

03-18-03

Within quarantined area:

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

Originating in a quarantined county:

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

Contact:

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-733-6932, or <http://www.ncagr.com/plantind/> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include:

1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
2. Plants with roots including grass sod.
3. Plant crowns and roots.
4. Bulbs, corms, rhizomes, and tubers of ornamental plants.
5. Hay, straw, fodder, and plant litter of any kind.
6. Clearing and grubbing debris.
7. Used agricultural cultivating and harvesting equipment.
8. Used earth-moving equipment.
9. Any other products, articles, or means of conveyance, of any character, if determined by an inspector to present a hazard of spreading imported fire ant, gypsy moth, witchweed or other noxious weeds.

RG84

**SAFETY VESTS:**

6-19-01

All Contractors' personnel, all subcontractors and their personnel, and any material suppliers and their personnel must wear an OSHA approved reflective vest or outer garment at all times while on the project.

RG87



**TRAINING REQUIREMENTS:**

7-1-95

The Contractor's attention is directed to the Standard Special Provision "Training Special Provision" included elsewhere in this proposal.

The number of trainees to be trained on this project is one (1).

RG90

**DIRECTOR OF CONSTRUCTION IN LIEU OF CHIEF ENGINEER**

03-16-04

Revise the 2002 Standard Specifications as follows:

Wherever the term *Chief Engineer* or *Chief Engineer of Operations* occurs in the Specifications, the actions and responsibilities referred to will be performed by the Director of Construction, Division of Highways, North Carolina Department of Transportation, acting directly or through his duly authorized representative.

Revision to Definitions of Terms

Page 1-4, Article 101-35

**101-35 ENGINEER**

The Chief Engineer of Operations, and/or Director of Construction, Division of Highways, North Carolina, Department of Transportation, acting directly or through their duly authorized representative.

RG91

**CONTRACTOR BORROW SOURCE**

07-20-04

Revise the *2002 Standard Specifications* as follows:

Page 2-17, Article 230-4(C) Contractor Furnished Sources, add the following;

If the Contractor proposes a borrow source, the environmental assessment shall include wetland and stream delineation extending 400 feet beyond the proposed borrow source limits.

1. If wetlands or streams are present within 400 feet of the borrow source and the contractor proposes to dewater:
  - a .Submit a hydrologic analysis (DRAINMOD or equivalent) to determine if excavation, pump frequency/duration/volume will permanently impact or cause degradation to wetlands or streams. The analysis shall consist of, but not be limited to:

Required buffer width to avoid long term impacts to wetlands or stream

Return interval to pre-existing hydrologic conditions after pit excavation and dewatering is completed.

- b. Attach a conservation easement specifying that the completed pit impoundment, upon returning to mean water table elevation, shall not be drained, ditched, used for irrigation, or any other manner that would degrade wetlands and streams.
  - c. Provide copy of recorded conservation easement to Engineer prior to commencement of any work on proposed pit.
2. If wetlands or streams are not present within 400 feet, no additional documentation will be required.

During Department review of the proposed borrow area, the hydrologic analysis will be submitted to the U. S. Army Corps of Engineers for evaluation.

RG92

**FUEL PRICE ADJUSTMENT:**

**2-19-02<sub>cc</sub>**

Fuel Price Adjustment for items of work listed below will be made in accordance with Section 109-8 of the Standard Specifications.

The base index price for DIESEL #2 FUEL is \$1.0387 per gallon.

The selected item(s) of work and the fuel factor used in calculating adjustments to be made are as follows:

<u>Line #</u>	<u>Description</u>	<u>Units</u>	<u>Fuel Usage Factor</u> <u>Diesel</u>
5	Asphalt Concrete Base Course, Type B25.0 C	Gal/Ton	2.90
23	Asphalt Concrete Intermediate Course, Type I19.0 C	Gal/Ton	2.90
6	Asphalt Concrete Surface Course, Type S9.5 C	Gal/Ton	2.90

SP1G43

**PROJECT SPECIAL PROVISIONS****ROADWAY****1-15-02**

RR01

**BORROW EXCAVATION:****1-15-02<sub>R</sub>**

Revise the 2002 Standard Specifications as follows:

Page 2-20, Article 230-6

After the first paragraph, insert the following paragraph:

"No direct payment will be made for the work of Evaluation of Potential Wetlands and Endangered Species as outlined above. Payment at the contract unit price for the pay item 'Borrow Excavation', 'Grading – Lump Sum', or 'Shoulder Reconstruction' will be considered full compensation for this work.'

RR02

**SHOULDER RECONSTRUCTION:****1-18-00**

The work covered by this provision consists of reconstructing earth shoulders (including median shoulder) in accordance with Roadway Standard Nos. 560.01 and 560.02 from the edge of pavement to the existing shoulder point as directed by the Engineer. Perform this work immediately after the resurfacing operations are completed as directed by the Engineer.

On any map that contains widening, use all suitable material generated from the widening operation to construct the shoulder. Furnish any other earth material necessary for the construction of the shoulders. Provide earth material meeting the approval of the Engineer. No testing will be necessary.

Perform shoulder reconstruction in the following order: scarify the existing shoulder to provide the proper bond; add the earth material to the shoulder; and compact the reconstructed shoulder to the satisfaction of the Engineer.

Any excess material generated by the shoulder reconstruction will be disposed of by the Contractor in an approved disposal site.

This work is defined as "Shoulder Reconstruction" and the quantity of such work to be paid for will be the actual number of shoulder miles which have been constructed. Measurement will be made along the edge of each shoulder. Measurement will be made to the nearest 0.01 of a mile.

The quantity of shoulder reconstruction measured as provided above, will be paid for at the contract unit price per shoulder mile for "Shoulder Reconstruction".

Seeding and Mulching will be paid for as provided elsewhere in this contract.

Such price and payment will be full compensation for furnishing earth material, hauling, placing, compaction, and all incidentals necessary to complete construction of the shoulders.

RR07

Payment will be made under:

Shoulder Reconstruction.....Shoulder Mile

**PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX:** 11-21-00

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the Standard Specifications as modified herein.

The base price index for asphalt binder for plant mix is \$210.28 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on June 1, 2004.

RR19

**ASPHALT PAVEMENTS - SUPERPAVE** 02-17-04

Revise the 2002 Standard Specifications as follows:

**PRIME COAT**

Page 6-2, Article 600-9

Delete the first paragraph under this Article and substitute the following:

The quantity of prime coat to be paid will be the number of gallons (liters) of prime coat material that has been satisfactorily placed on the roadway. Each distributor load of prime coat material delivered and utilized on the project will be measured.

**ASPHALT TACK COAT**

Page 6-4, Article 605-8

Insert the following after paragraph one in this Article:

Take necessary precautions to limit the tracking and/or accumulation of tack coat material on either existing or newly constructed pavements. Excessive accumulation of tack may require corrective measures.

## FIELD VERIFICATION AND JOB MIX FORMULA ADJUSTMENTS

Page 6-7, Article 609-4

Delete the first paragraph under this Article and substitute the following:

Conduct field verification of the mix at each plant within 30 calendar days prior to initial production of each mix design, when required by the Allowable Mix Adjustment Policy and when directed as deemed necessary.

Page 6-8, Article 609-4

Delete the first paragraph on this page and substitute the following:

Retain records of these calibrations and mix verification tests, including Superpave Gyratory Compactor (SGC) printouts, at the QC laboratory. In addition, furnish copies, including SGC printouts, to the Engineer for review and approval within one working day after beginning production of the mix.

Page 6-8, Article 609-4

Add the following sentence to the end of the last paragraph in this Article:

Any mix produced that is not verified may be assessed a price reduction at the Engineer's discretion in addition to any reduction in pay due to mix and/or density deficiencies.

Quality control minimum sampling and testing schedule:

Page 6-9, Subarticle 609-5(C)1

Delete the second sentence in the second paragraph of this Article and substitute the following:

Retain the QC compacted volumetric test specimens for 5 calendar days, commencing the day the specimens are prepared.

Page 6-9, Subarticle 609-5(C)2

At the bottom of this page, delete the sentence directly above the Accumulative Production Increment and substitute the following:

Sample and test the completed mixture from each mix design at the following minimum frequency during mix production:

Page 6-10, Subarticle 609-5(C)2

Revise Items B, C, D and E on this page as follows:

- B. Gradation on Recovered Blended Aggregate from Mix Sample (AASHTO T 30 Modified) Grade on all sieves specified on JMF
- C. Maximum Specific Gravity (AASHTO T 209 or ASTM D 2041), optional (ASTM D 6857)
- D. Bulk Specific Gravity of Compacted Specimens (AASHTO T166), optional (ASTM D 6752), Average of 3 specimens at  $N_{des}$  gyrations (AASHTO T 312)
- E. Air Voids (VTM) (AASHTO T 269), Average of 3 specimens at  $N_{des}$  gyrations

Page 6-11, Subarticle 609-5(C)2

At the top of this page, delete Item B., "Reclaimed Asphalt Pavement..." and substitute the following:

- B. Reclaimed Asphalt Pavement (RAP) Binder Content and Gradation (AASHTO T 308 Modified or T 164 and AASHTO T 30 Modified) (sampled from stockpiles or cold feed system at beginning of production and weekly thereafter). Have RAP approved for use in accordance with Article 1012-1(G). (Split Sample Required)

Page 6-11, Subarticle 609-5(C)2

Insert the following sampling and testing at the end of this Subarticle

- F. Uncompacted Void Content of Fine Aggregate, AASHTO T 304, Method A (natural sand only). Performed at Mix Design and when directed as deemed necessary. (Split Sample Required)
- G. Reclaimed Asphalt Shingle Material (RAS) Binder Content and Gradation (AASHTO T 308 Modified or T 164 and AASHTO T 30 Modified) (sampled from stockpiles or cold feed system at beginning of production and weekly thereafter). Have RAS approved for use in accordance with Article 1012-1(F). (Split Sample Required)

## CONTROL CHARTS

Page 6-11, Subarticle 609-5(C)3

Delete the second sentence of the first paragraph in this Subarticle and substitute the following:

Record all regularly scheduled random sample or directed sample full test series results for mix incorporated into the project on control charts the same day the test results are obtained.

Page 6-12, Subarticle 609-5(C)3

Delete item 3 in the list below the second full paragraph on this page.

**CONTROL LIMITS**

Page 6-12, Subarticle 609-5(C) 4

At the bottom of this page, delete the table and substitute the following:

**CONTROL LIMITS**

<b>Mix Control Criteria</b>	<b>Target Source</b>	<b>Warning Limit</b>	<b>Moving Average Limit</b>	<b>Individual Limit</b>
2.36mm Sieve	JMF	±4.0 %	±5.0 %	±8.0 %
0.075mm Sieve	JMF	±1.5 %	±2.0 %	±2.5 %
Binder Content	JMF	±0.3 %	±0.5 %	±0.7 %
VTM @ N <sub>des</sub>	JMF	±1.0 %	±1.5 %	±2.0 %
VMA @ N <sub>des</sub>	Min. Spec. Limit	-0.5%	-0.8%	-1.0%
P <sub>0.075</sub> / P <sub>be</sub> Ratio	Max. Spec. Limit	0.0	N/A	+0.4%
%G <sub>mm</sub> @ N <sub>ini</sub>	Max. Spec. Limit	N/A	N/A	+2.0%
TSR	Min. Spec. Limit	N/A	N/A	-15.0%

**FIELD COMPACTION QUALITY CONTROL**

Page 6-15, Subarticle 609-5(D)1

Delete the first and second sentences in the fourth paragraph on this page and substitute the following:

Base and intermediate mix types (surface mixes not included) utilized for pavement widening of less than 4.0 feet and all mix types used in tapers, irregular areas and intersections (excluding full width travel lanes of uniform thickness), will not be subject to the sampling and testing frequency specified above provided the pavement is compacted using approved equipment and procedures. However, the Engineer may require occasional density sampling and testing to evaluate the compaction process.

Page 6-16, Subarticle 609-5(D)1

Delete item number 2 at the top of this page. Item number 3 should be re-numbered as 2 after the specified deletion.

## LIMITED PRODUCTION PROCEDURE

Page 6-17, Subarticle 609-5(D) 5

Delete the first paragraph in this Subarticle and substitute the following:

Proceed on limited production when, for the same mix type, one of the following items occur:

- (1) Two consecutive failing lots, excluding lots representing an individual resurfacing map or portion thereof.
- (2) Three consecutive failing lots, with each lot representing an individual resurfacing map or portion thereof.
- (3) Two consecutive failing nuclear control strips.

Pavement within each construction category (New and Other), as defined in Article 610-13, and pavement placed simultaneously by multiple paving crews will be evaluated independently for limited production purposes.

Delete the first sentence in the last paragraph in this Subarticle and substitute the following:

If the Contractor does not operate by the limited production procedures as specified above, the two consecutive failing density lots, three consecutive failing lots with each lot representing an individual resurfacing map or portion thereof, or two consecutive failing nuclear control strips, whichever is applicable, and all mix produced thereafter will be considered unacceptable.

## DOCUMENTATION (RECORDS)

Page 6-18, Subarticle 609-5(E)

Delete the third and fourth sentence in the first full paragraph on this page and substitute the following:

Maintain all QC records, forms and equipment calibrations for a minimum of 3 years from their completion date.

Delete the second full paragraph on this page and substitute the following:

Falsification of test results, documentation of observations, records of inspection, adjustments to the process, discarding of samples and/or test results, or any other deliberate misrepresentation of the facts will result in the revocation of the applicable person's QMS certification. The Engineer will determine acceptability of the mix and/or pavement represented by the falsified results or documentation. If the mix and/or pavement in question is determined to be acceptable, the Engineer may allow the mix to remain in place at no pay for the mix, asphalt binder and other mix components. If the mix and/or pavement represented by the falsified results is determined not to be acceptable, remove and replace with mix, which complies with the Specifications. Payment will be made for the actual quantities of materials required to replace the falsified quantities, not to exceed the original amounts.



QUALITY ASSURANCE

Page 6-18, Article 609-6

In Item 5 under Plant Mix Quality Assurance, add “at a frequency equal to or greater than 5% of the QC sample frequency”.

In the first sentence within the paragraph below Plant Mix Quality Assurance, delete the words “of mix”.

In Item 1 under Density Quality Assurance, delete the wording at the end of the sentence “at a frequency equal to or greater than 10% of the frequency required of the Contractor”.

Page 6-19, Article 609-6

In Item 4 under Density Quality Assurance, add “at a frequency equal to or greater than 5% of the QC sample frequency.”

Insert the following after Item 4 under Density Quality Assurance:

- 6. By periodically directing the recalculation of random numbers for the Quality Control core or nuclear density test locations. The original QC test locations may be tested by QA and evaluated as verification tests.

LIMITS OF PRECISION

Page 6-19, Article 609-6

In the limits of precision table, delete the last three rows and substitute the following:

QA retest of prepared QC Gyrotory Compacted

Volumetric Specimens	± 0.015
Retest of QC Core Sample	± 1.2% (% Compaction)
Comparison of QA Core Sample	± 2.0% (% Compaction)
QA Verification Core Sample	± 2.0% (% Compaction)
Nuclear Comparison of QC Test	± 2.0% (% Compaction)
QA Nuclear Verification Test	± 2.0% (% Compaction)

ASPHALT CONCRETE PLANT MIX PAVEMENTS – DESCRIPTION

Page 6-21, Article 610-1

Insert the following after the last paragraph in this Article:

A high frequency of asphalt plant mix, density, or mix and density deficiencies occurring over an extended duration of time may result in future asphalt, which is represented by mix and/or density test results not in compliance with minimum specification requirements, being excluded

from acceptance at an adjusted contract unit price in accordance with Article 105-3. This acceptance process may apply to all asphalt produced and /or placed and may continue until the Engineer determines a history of quality asphalt production and placement is reestablished.

## MATERIALS

Page 6-21, Article 610-2

Delete reference of Anti-strip additive (chemical) to Article 1020-2 and substitute Article 1020-8.

## COMPOSITION OF MIXTURES (MIX DESIGN AND JOB MIX FORMULA)

Page 6-21, Subarticle 610-3(A)

At the end of the second paragraph under this Subarticle, add the following sentence:

In addition, submit Superpave gyratory compactor printouts for all specimens compacted at  $N_{des}$  and  $N_{max}$  during the mix design process.

Insert the following paragraph after the second paragraph under this Subarticle:

For the final surface layer of the specified mix type, use a mix design with an aggregate blend gradation above the maximum density line on the 2.36 mm and larger sieves.

Insert the following at the end of the third paragraph under this Article:

When the percent of binder contributed from RAS or a combination of RAS and RAP exceeds 20 percent of the total binder in the completed mix, the virgin binder PG grade must be one grade below (both high and low temperature grade) the binder grade specified in Table 610-2 for the mix type.

Delete the fourth paragraph in this Subarticle and substitute the following:

For Type S 12.5D mixes, the maximum percentage of reclaimed asphalt material is limited to 15% and must be produced using virgin asphalt binder grade PG 76-22. For all other recycled mix types, when the percentage of RAP is 15 percent or less of the total mixture, the virgin binder PG grade must be as specified in Table 610-2 for the specified mix type. When the percentage of RAP is greater than 15 but not more than 25 percent of the total mixture, the virgin binder PG grade must be one grade below (both high and low temperature grade) the specified grade for the mix type. When the percentage of RAP is greater than 25 percent of the total mixture, the Engineer will establish and approve the asphalt binder grade.

Page 6-22, Subarticle 610-3(A)

**30**

Insert the following sentence at the end of the Item 4:

If natural sand is utilized in the proposed mix design, determine and report the Uncompacted Void Content of the natural sand in accordance with AASHTO T-304, Method A.

Page 6-23, Subarticle 610-3(A)

Under the quantities of mix components insert the following sentence:

When requested by the Engineer, submit to the Department's Materials and Tests Unit, in Raleigh, six (6) Superpave Gyrotory Compactor specimens compacted to a height of 75 mm and to a void content (VTM) of 4.0% +/- 0.5% for performance rut testing with the Asphalt Pavement Analyzer.

JOB MIX FORMULA

Page 6-24, Subarticle 610-3(C)

Delete Table 610-1 and associated notes. Substitute the following:

**TABLE 610-1  
SUPERPAVE AGGREGATE GRADATION DESIGN CRITERIA**

Standard Sieves (mm)	Percent Passing Criteria (Control Points)											
	Mix Type (Nominal Maximum Aggregate Size)											
	4.75 mm (a)		9.5 mm (c)		12.5 mm (c)		19.0 mm		25.0 mm		37.5 mm	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
50.0												100.0
37.5									100.0		90.0	100.0
25.0							100.0		90.0	100.0		90.0
19.0						100.0	90.0	100.0		90.0		
12.5				100.0	90.0	100.0		90.0				
9.5		100.0	90.0	100.0		90.0						
4.75	90.0	100.0		90.0								
2.36	65.0	90.0	32.0 <b>(b)</b>	67.0 <b>(b)</b>	28.0	58.0	23.0	49.0	19.0	45.0	15.0	41.0
1.18												
0.600												
0.300												
0.150												
0.075	4.0	8.0	4.0	8.0	4.0	8.0	3.0	8.0	3.0	7.0	3.0	6.0

- (a) For Type S 4.75A, a minimum of 50% of the aggregate components shall be manufactured material from the crushing of stone.
- (b) For Type SF 9.5A, the percent passing the 2.36mm sieve shall be a minimum of 60% and a maximum of 70%.
- (c) For the final surface layer of the specified mix type, use a mix design with an aggregate blend gradation above the maximum density line on the 2.36 mm and larger sieves.

Page 6-25, Subarticle 610-3(C),

Delete Table 610-2 and associated notes. Substitute the following:

**TABLE 610-2  
SUPERPAVE MIX DESIGN CRITERIA**

Mix	Design	Binder	Compaction Levels			Volumetric Properties (c)			
	ESALs	PG	No. Gyration @			VMA	VTM	VFA	%Gmm
Type	millions	Grade	N <sub>ini</sub>	N <sub>des</sub>	N <sub>max</sub>	% Min.	%	Min. - Max.	@ N <sub>ini</sub>
(f)	(a)	(b)							
S-4.75A	<0.3	64 -22	6	50	75	20.0	7.0-15.0		
SF-9.5A	<0.3	64 -22	6	50	75	16.0	3.0 - 5.0	70 - 80	≤ 91.5
S-9.5B	0.3 - 3	64 -22	7	75	115	15.0	3.0 - 5.0	65 - 80	≤ 90.5
S-9.5C	3 - 30	70 -22	8	100	160	15.0	3.0 - 5.0	65 - 76	≤ 90.0
S-12.5C	3 - 30	70 -22	8	100	160	14.0	3.0 - 5.0	65 - 75	≤ 90.0
S-12.5D	> 30	76 -22	9	125	205	14.0	3.0 - 5.0	65 - 75	≤ 90.0
I-19.0B	< 3	64 -22	7	75	115	13.0	3.0 - 5.0	65 - 78	≤ 90.5
I-19.0C	3 - 30	64 -22	8	100	160	13.0	3.0 - 5.0	65 - 75	≤ 90.0
I-19.0D	> 30	70 -22	9	125	205	13.0	3.0 - 5.0	65 - 75	≤ 90.0
B-25.0B	< 3	64 -22	7	75	115	12.0	3.0 - 5.0	65 - 78	≤ 90.5
B-25.0C	> 3	64 -22	8	100	160	12.0	3.0 - 5.0	65 - 75	≤ 90.0
B-37.5C	> 3	64 -22	8	100	160	11.0	3.0 - 5.0	63 - 75	≤ 90.0
	<b>Design Parameter</b>					<b>Design Criteria</b>			
All	1. %G <sub>mm</sub> @ N <sub>max</sub>					≤ 98.0% (d)			
Mix	2. Dust to Binder Ratio (P <sub>0.075</sub> / P <sub>be</sub> )					0.6 - 1.4			
Types	3. Retained Tensile Strength (TSR) (AASHTO T 283 Modified)					85 % Min. (e)			

- Notes:**
- (a) Based on 20 year design traffic.
  - (b) When Recycled Mixes are used, select the binder grade to be added in accordance with Subarticle 610-3(A).
  - (c) Volumetric Properties based on specimens compacted to N<sub>des</sub> as modified by the Department.
  - (d) Based on specimens compacted to N<sub>max</sub> at selected optimum asphalt content.
  - (e) AASHTO T 283 Modified (No Freeze-Thaw cycle required). TSR for Type S 4.75A, Type B 25.0 and Type B 37.5 mixes is 80% minimum.
  - (f) Mix Design Criteria for Type S 4.75A may be modified subject to the approval of the Engineer

**WEATHER, TEMPERATURE, AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES**

Page 6-26, Article 610-4, Table 610-3

Delete the title of Table 610-3 and substitute the following title:

**ASPHALT PLACEMENT- MINIMUM TEMPERATURE REQUIREMENTS**

In the first column, third row; delete reference to the ACSC Types S 9.5A and S 12.5B mix.

Add the following minimum placing temperatures for mix types S 4.75A and SF 9.5A.

<b>Asphalt Concrete Mix Type</b>	<b>Minimum Air Temperature</b>	<b>Minimum Road Surface Temperature</b>
ACSC, Type S 4.75A, SF 9.5A	40°F (5°C)	50°F (10°C)

**SPREADING AND FINISHING**

Page 6-32, Article 610-8

Insert the following after the second sentence within the sixth paragraph in this Article,

Take necessary precautions during production, loading of trucks, transportation, truck exchanges with paver, folding of the paver hopper wings, and conveying material in front of the screed to prevent segregation of the asphalt mixtures.

Page 6-33, Article 610-8

At the end of the third full paragraph on this page, add the following sentence:

Waiver of the use of automatic screed controls does not relieve the Contractor of achieving plan grades and cross-slopes.

DENSITY REQUIREMENTS

Page 6-34, Article 610-10,

Delete Table 610-4 and substitute the following table and associated notes:

**Table 610-4  
MINIMUM DENSITY REQUIREMENTS**

<b>MIX TYPE</b>	<b>MINIMUM % of G<sub>mm</sub></b>
<b>SUPERPAVE MIXES</b>	<b>(Maximum Specific Gravity)</b>
S 4.75A	85.0 <sup>(a,b)</sup>
SF 9.5A	90.0
S 9.5X, S 12.5X, I 19.0X, B 25.0X, B 37.5X	92.0

- (a) All S 4.75A pavement will be accepted for density in accordance with Article 105-3
- (b) Compaction to the above specified density will be required when the S 4.75 A mix is applied at a rate of 100 lbs/sy (55 kg/m<sup>2</sup>)

Page 6-34, Article 610-10

Delete the second paragraph in this Article and substitute the following:

Compact base and intermediate mix types (surface mixes not included) utilized for pavement widening of less than 4.0 feet (1.2 meters) and all mix types used in tapers, irregular areas and intersections (excluding full width travel lanes of uniform thickness), using equipment and procedures appropriate for the pavement area width and/or shape. Compaction with equipment other than conventional steel drum rollers may be necessary to achieve adequate compaction. Occasional density sampling and testing to evaluate the compaction process may be required. Densities lower than that specified in Table 610-4 will be accepted, in accordance with Article 105-3, for the specific mix types and areas listed directly above.

**SURFACE REQUIREMENTS AND ACCEPTANCE**

Page 6-35, Article 610-12

Delete the first paragraph in this Article and substitute the following:

Construct pavements using quality paving practices as detailed herein. Construct the pavement surface smooth and true to the plan grade and cross slope. Immediately correct any defective areas with satisfactory material compacted to conform with the surrounding area. Pavement imperfections resulting from unsatisfactory workmanship such as segregation, improper longitudinal joint placement or alignment, non-uniform edge alignment and excessive pavement repairs will be considered unsatisfactory and if allowed to remain in place will be accepted in accordance with Article 105-3.

When directed due to unsatisfactory laydown or workmanship, operate under the limited production procedures. Limited production for unsatisfactory laydown is defined as being restricted to the production, placement, compaction, and final surface testing (if applicable) of a sufficient quantity of mix necessary to construct only 2500 feet (750 meter) of pavement at the laydown width.

Remain on limited production until such time as satisfactory laydown results are obtained or until three consecutive 2500 foot (750 meter) sections have been attempted without achieving satisfactory laydown results. If the Contractor fails to achieve satisfactory laydown results after three consecutive 2500 foot (750 meter) sections have been attempted, cease production of that mix type until such time as the cause of the unsatisfactory laydown results can be determined. As an exception, the Engineer may grant approval to produce a different mix design of the same mix type if the cause is related to mix problem(s) rather than laydown procedures.

Mix placed under the limited production procedures for unsatisfactory laydown or workmanship will be evaluated for acceptance in accordance with Article 105-3.

#### DENSITY ACCEPTANCE

Page 6-36, Article 610-13

Delete the second paragraph on this page and substitute the following:

The pavement will be accepted for density on a lot by lot basis. A lot will consist of one day's production of a given job mix formula on a contract. As an exception, separate lots will be established when the one of the following occurs:

- (6) Portions of pavement are placed in both "New" and "Other" construction categories as defined below. A lot will be established for the portion of the pavement in the "New" construction category and a separate lot for the portion of pavement in the "Other" construction category.
- (7) Pavement is placed on multiple resurfacing maps, unless otherwise approved prior to paving. A lot will be established for each individual resurfacing map or portion thereof.
- (8) Pavement is placed simultaneously by multiple paving crews. A lot will be established for the pavement placed by each paving crew.
- (9) Pavement is placed in different layers. A lot will be established for each layer.
- (10) Control strips are placed during limited production.

The Engineer will determine the final category and quantity of each lot for acceptance purposes.



Page 6-36, Article 610-13

Delete the first sentence in the third paragraph on this page and insert the following:

The “New” construction category will be defined as pavements of uniform thickness, exclusive of irregular areas, meeting all three of the following criteria:

Delete the sixth paragraph in this Article and substitute the following:

A failing lot for density acceptance purposes is defined as a lot for which the average of all test sections, and portions thereof, fails to meet the minimum specification requirement. If additional density sampling and testing, beyond the minimum requirement, is performed and additional test sections are thereby created, then all test results shall be included in the lot average. In addition, any lot or portion of a lot that is obviously unacceptable will be rejected for use in the work.

Page 6-36, Article 610-13

Delete the last paragraph on this page and substitute the following:

Any density lot not meeting minimum density requirements detailed in Table 610-4 will be evaluated for acceptance by the Engineer. If the lot is determined to be reasonably acceptable, the mix will be paid at an adjusted contract price in accordance with Article 105-3. If the lot is determined not to be acceptable, the mix will be removed and replaced with mix meeting and compacted to the requirement of these specifications.

**BASIS OF PAYMENT, ASPHALT PAVEMENTS**

Page 6-37, Article 610-16

Add the following to the second paragraph:

The quantity of hot mix asphalt pavement, measured as provided in Article 610-15, will be paid for at the contract unit prices per ton (metric ton) for “Asphalt Concrete Surface Course, Type S 4.75A, and SF 9.5A”.

Add the following to the payment item description:

Asphalt Concrete Surface Course, Type S 4.75A.....	Ton (Metric Ton)
Asphalt Concrete Surface Course, Type SF 9.5A.....	Ton (Metric Ton)

Delete reference to the Asphalt Concrete Surface Course, Types S 9.5A and S 12.5B in both the second paragraph and in the payment description.

ASPHALT BINDER FOR PLANT MIX - METHOD OF MEASUREMENT

Page 6-39, Article 620-4

Delete the first sentence of the second paragraph on this page and substitute the following:

Where recycled plant mix is being produced, the grade of asphalt binder to be paid for will be the grade for the specified mix type as required in Table 610-2 unless otherwise approved.

CONSTRUCTION REQUIREMENTS

Page 6-43, Article 650-5

Add the following paragraph after the first paragraph under this Article:

Do not place open-graded asphalt friction course between October 31 and April 1 of the next year, unless otherwise approved. Place friction course, Type FC-1 mixes, only when the road surface temperature is 50°F (10°C) or higher and the air temperature is 50°F (10°C) or higher. The minimum air temperature for Type FC-1 Modified and FC-2 Modified mixes will be 60°F (15°C).

AGGREGATES FOR ASPHALT PLANT MIXES

Page 10-34, Subarticle 1012-1(B)4

Delete this Subarticle and substitute the following:

(4) Flat and Elongated Pieces:

Use coarse aggregate meeting the requirements of Table 1012-1 for flat and elongated pieces when tested in accordance with ASTM D 4791 (Section 8.4) on the No. 4 (4.75 mm) sieve and larger with a 5:1 aspect ratio (maximum to minimum) for all pavement types, except there is no requirement for Types S 4.75A, SF 9.5A, and S 9.5B.

Delete Table 1012-1 and substitute the following:

**Table 1012-1  
AGGREGATE CONSENSUS PROPERTIES<sup>(a)</sup>**

Mix Type	Course Aggregate Angularities <sup>(b)</sup>	Fine Aggregate Angularities % Minimum	Sand Equivalent % Minimum	Flat & Elongated 5 : 1 Ratio % Maximum
	ASTM D 5821	AASHTO T 304 Method A	AASHTO T 176	ASTM D 4791 Section 8.4
S 4.75 A		40	40	
SF 9.5 A S 9.5 B I 19.0 B B 25.0 B	75 / -	40	40	10 <sup>(c)</sup>
S 9.5 C S 12.5 C I 19.0 C B 25.0 C B 37.5 C	95 / 90	45	45	10
S 12.5 D I 19.0 D	100 / 100	45	50	10
OGAFC	100 / 100	N/A	N/A	10

- (a) Requirements apply to the course aggregate blend and/or fine aggregate blend
- (b) 95/90 denotes that 95% of the course aggregate (+No.4 or + 4.75mm sieve) has one fractured face and 90% has two or more fractured faces.
- (c) Does not apply to Mix Types SF 9.5 A or S 9.5 B

Page 10-36, Subarticle 1012-1(C)1

Insert the following after the fourth paragraph on this page:

When natural sand is utilized in “C” or “D” level asphalt mixes, do not exceed the maximum natural sand percentage in the mix design and/or production aggregate blend detailed in Table 1012-1A.

**Table 1012-1A**

<b>Uncompacted Void Content of Fine Aggregate AASHTO T 304 Method A</b>	<b>Maximum Percent Natural Sand Included in Mix Design and/or Production*</b>
Less than 42.0	10
Equal to 42.0 to 44.9	15
Equal to 45.0 and greater	20

\*Maximum percent natural sand may be exceeded with approval from Pavement Construction Engineer upon satisfactory evaluation of pavement performance testing

**FINE AGGREGATE ANGULARITY**

Page 10-36, Subarticle 1012-1(C)6

Delete reference to AASHTO TP 33 Method A and substitute AASHTO T 304, Method A.

Page 10-37, Subarticle 1012-1(H)

Delete this Subarticle. It is a duplicate of Subarticle 1012-1(F) located on Page 10-36.

**ASPHALT BINDER**

Page 10-46, Article 1020-2

Delete the first paragraph under this Article and substitute the following:

Use Performance Graded Asphalt Binder meeting the requirements of AASHTO M 320. See Article 610-3 for the specified grades. Submit a Quality Control Plan for asphalt binder production in conformance with the requirements of AASHTO R 26 to the Materials and Tests Unit.

RR31

**ASPHALT BINDER CONTENT OF ASPHALT PLANT MIXES:**

**1-01-02<sub>R</sub>**

The approximate asphalt binder content of the asphalt concrete plant mixtures used on this project will be as follows:

Asphalt Concrete Base Course, Type B 25.0_	4.3%
Asphalt Concrete Intermediate Course, Type I 19.0_	4.7%
Asphalt Concrete Surface Course, Type S 4.75A	7.0%

Asphalt Concrete Surface Course, Type SF 9.5A	6.5%
Asphalt Concrete Surface Course, Type S 9.5	6.0%
Asphalt Concrete Surface Course, Type S 12.5	5.5%

The actual asphalt binder content will be established during construction by the Engineer within the limits established in the Standard Specifications or Project Special Provisions.

RR43

**ASPHALT PLANT MIXTURES:**

7-1-95

Place asphalt concrete base course material in trench sections with asphalt pavement spreaders made for the purpose, or with other equipment approved by the Engineer.

RR46

**HOT IN-PLACE RECYCLED ASPHALT CONCRETE:**  
(SUPERPAVE VERSION)08-12-02<sub>R</sub>**1.0 DESCRIPTION:**

This work shall consist of hot in-place recycling of the existing asphalt concrete surface by heating and softening the existing asphalt pavement with indirect heat, loosening the heated pavement by hot milling to the depth specified in the plans, adding a plant produced hot mix asphalt admixture, if required, applying an emulsified rejuvenating agent, thoroughly remixing the material in a pugmill, leveling, relaying and compaction of the hot-in-place (HIP) recycled asphalt mixture. A continuous, single train, single pass, multi-step process shall accomplish this work.

Hot In-Place Recycled Asphalt Concrete production and placement, including all materials and equipment shall be in accordance with applicable provisions of Division 6 of the Standard Specifications except as specifically noted or modified herein.

Provide and conduct the quality control and required testing for acceptance of the asphalt mixture in accordance with the Project Special Provisions titled "Quality Management System For Asphalt Pavements" (Hot In-Place Recycled Asphalt Concrete – Superpave Version), included herein.

**2.0 MATERIALS:****2.1 Hot Mix Asphalt Admixture:**

If required, the type and amount of plant produced hot mix asphalt admixture to be added to the recycled mixture shall be determined by the Contractor subject to the approval of the Engineer. The HMA admixture shall be a plant mixture of asphalt binder and aggregate(s) meeting the applicable requirements of Division 10 of the Standard Specifications as shown below. The aggregate in the admixture may be a single standard size aggregate or a combination of aggregate sizes as needed. The binder content of the admixture shall be such that the aggregate particles are fully coated. The gradation and binder content of the admixture shall be such that when blended with the other mix components, the hot in-place recycled mix properties will meet

the mix design criteria for the applicable mix type specified in the plans, unless approved otherwise by the Engineer. The HMA admixture shall be produced in accordance with applicable requirements of Division 6 of the Standard Specifications.

Coarse Aggregate.....	Article 1012-1
Fine Aggregate.....	Article 1012-1
Stone Screenings.....	Article 1012-1
Asphalt Binder.....	Article 1020-2
Anti-strip Additive.....	Article 1020-8

**2.2 Emulsified asphalt rejuvenating agent:**

Type CSS-IRP meeting the following requirements:	Minimum	Maximum
Viscosity, 77° F, SSF, ASTM D-244	20	125
Sieve, %, ASTM D-244	-----	0.10
Storage Stability, 24 hr, %, ASTM D-244	-----	1
Residue from distillation, % (1)	60	-----
Oil Distillate, Volume %	-----	5
Tests on Residue and Rolling Thin-film Oven Tests: (2)		
Penetration @ 77° F, 5 sec.	300	-----
Torsional Recovery 39.7° F, %	20	-----

- Notes: (1) ASTM D244 except that the maximum temperature shall be 350°F held for 20 minutes.  
 (2) The residue from distillation shall be subject to the standard rolling thin film oven test.

**3.0 Composition of Mixture (Mix Design /Job Mix Formula).**

**3.1 Mix Design-General:**

Prepare and submit a proposed HIP mix design and job mix formula to the Engineer at least 14 days prior to beginning work in accordance with all applicable requirements of Article 610-3 of the Standard Specifications, except as modified herein.

The Contractor shall sample the existing pavement by coring or other methods approved by the Engineer to determine representative characteristics and properties of the existing pavement for use in mix design preparation. These samples shall be taken in the presence of the Engineer and at locations approved by the Engineer.

The mix design shall be performed and documented in accordance with the Department’s most current accepted policies and procedures for the design of asphalt mixes. The Department’s Asphalt Design Engineer at the Materials and Tests Unit may be contacted for these procedures. The proposed mix design shall be established such that the hot in-place recycled mix properties will be within the design criteria for the type mix specified, unless otherwise approved by the

Engineer. The mix design shall be submitted on forms and in the format approved by the Department. Once the proposed mix design is approved, the Engineer will provide a Job Mix Formula for the hot in-place recycled asphalt mix. The job mix formula will be established within the design criteria below, unless otherwise approved by the Engineer.

In addition to applicable mix design data required in Sub-article 610-3 (A), the data shall include but not be limited to the proposed percent admixture, if needed, admixture components, gradation, binder grade, binder content, percent anti-strip additive in admixture, percent existing pavement (RAP), gradation and binder content of existing pavement, percent emulsified rejuvenating agent, penetration of recovered binder from total mix, and all mix design properties and calculations.

### **3.2 Mix Design Criteria:**

The finished asphalt pavement shall be a uniform mixture composed of the existing in-place asphalt pavement, emulsified asphalt rejuvenating agent, and new hot mix asphalt admixture, if required. The hot in-place recycled asphalt mix shall meet applicable requirements of Section 610-3 of the Standard Specifications (excluding maximum percentage of allowable RAP) for the mix type specified, except as modified herein.

The proposed mix design shall be established such that the hot in-place recycled mix properties will meet applicable gradation and mix design requirements of Table 1 and Table 2 for the mix type specified, except as modified herein, unless otherwise approved by the Engineer

Emulsified asphalt rejuvenating agent shall be added at a rate which yields a completed mixture with a minimum/maximum penetration value as specified in TABLE 2 below, unless otherwise approved by the Engineer.

**AGGREGATE GRADATION DESIGN CRITERIA—TABLE 1**

Standard	Percent Passing Criteria (Control Points)					
Sieves	Mix Type (Nominal Maximum Aggregate Size)					
	9.5 mm		12.5 mm		19.0 mm	
(mm)	Min.	Max.	Min.	Max.	Min.	Max.
50.0						
37.5						
25.0						100.0
19.0				100.0	90.0	100.0
12.5		100.0	90.0	100.0		90.0
9.5	90.0	100.0		90.0		
4.75		90.0				
2.36**	32.0**	67.0**	28.0	58.0	23.0	49.0
1.18						
0.600						
0.300						
0.150						
0.075	4.0	8.0	4.0	8.0	3.0	8.0

\*\*NOTE: For Type SF 9.5A the percentage Passing the 2.36 mm sieve is 60% Minimum and a Maximum of 70%.

Aggregate Nominal Maximum Size is defined as one standard sieve size larger than the first sieve to retain more than 10 percent aggregate. Maximum Size is defined as one standard sieve size larger than the nominal maximum size.



**MIX DESIGN CRITERIA—TABLE 2(d)**

Mix Type	Design ESALs (millions) (a)	Target Binder PG Grade	Compaction Levels			Volumetric Properties (b) (AASHTO PP 28)			
			No. Gyration @			VMA % Min.	VTM %	VFA Min.- Max.	%Gmm @ N <sub>ini</sub>
			N <sub>ini</sub>	N <sub>des</sub>	N <sub>max</sub>				
SF-9.5A	< 0.3	64 - 22	6	50	75	16.0	3.0 - 5.0	70 - 80	≤ 91.5
S-9.5A	< 0.3	64 - 22	6	50	75	15.0	3.0 - 5.0	70 - 80	≤ 91.5
S-9.5B	0.3 - 3	64 - 22	7	75	115	15.0	3.0 - 5.0	65 - 80	≤ 90.5
S-9.5C	3 - 30	70 - 22	8	100	160	15.0	3.0 - 5.0	65 - 76	≤ 89.0
S-12.5B	< 3	64 - 22	7	75	115	14.0	3.0 - 5.0	65 - 78	≤ 90.5
S-12.5C	3 - 30	70 - 22	8	100	160	14.0	3.0 - 5.0	65 - 75	≤ 89.0
I-19.0B	< 3	64 - 22	7	75	115	13.0	3.0 - 5.0	65 - 78	≤ 90.5
I-19.0C	3 - 30	64 - 22	8	100	160	13.0	3.0 - 5.0	65 - 75	≤ 89.0
All Mix	<b>Design Parameter</b>					<b>Design Criteria</b>			
	1. %G <sub>mm</sub> @ N <sub>max</sub> 2. Penetration(AASHTO T 49) from Abson Recovery (AASHTO T 170)					≤ 98.0% (c) 40 Min. 90 Max.			

- Notes: (a) Based on 20 year design traffic.  
 (b) Volumetric Properties based on specimens compacted to N<sub>des</sub> as modified by the Department.  
 (c) Based on specimens compacted to N<sub>max</sub> at selected optimum asphalt content.  
 (d) Mix Design Criteria may be modified, subject to approval by the Engineer.

**3.3 Job Mix Formula:**

Once the proposed mix design is approved, the Engineer will provide a Job Mix Formula for the hot in-place recycled asphalt mix. The job mix formula will be established within the design criteria below, unless otherwise approved by the Engineer.

Once the HIP mix design is approved, the Engineer will provide a Job Mix Formula for the admixture if utilized. The completed admixture shall be produced in accordance with the Job Mix Formula requirements for gradation and binder content as prescribed in the project special provision titled “Quality Management System for Asphalt Pavements” (Hot In-Place Recycled Asphalt Concrete – Superpave Version), included herein.

Samples of the completed recycled mixture may be taken by the Department on a random basis to determine if the PG grading on the recovered asphalt binder is in accordance with AASHTO MP 1 for the grade specified. If the grading is determined to be a value other than required for the specified mix type, the Engineer may require the Contractor to adjust the grade and/or percentage of additional asphalt binder, asphalt rejuvenator, and/or the blend of reclaimed material and admixture to bring the grade to the specified value.

#### **4.0 EQUIPMENT:**

##### **4.1 General:**

Equipment used to recycle the existing asphalt surface shall be designed and built for this specific purpose. The equipment shall be capable of a single pass, multi-step operation that includes; multi-step heating, milling, introducing recycling agent, introducing hot mix asphalt, if required, mixing the new material with the reclaimed material in a separate on-board chamber, redistributing the recycled material, leveling, and compacting the mixture.

##### **4.2 Heating Unit:**

Preheating mechanism(s) consisting of clusters of heaters capable of uniformly heating the asphalt pavement to a temperature high enough to remove excess moisture, to allow milling of the existing pavement material to the designated plan depth without excessive fracturing of aggregate particles, without charring the existing asphalt and without producing undesirable pollutants. The heating mechanism shall be so equipped that the heat application shall be completely under an enclosed or shielded hood. The unit shall be adjustable in width. The Contractor shall protect adjacent landscape from heat damage and shall be responsible for any damage that may occur.

##### **4.3 Milling/Blending Unit:**

A self propelled processing unit containing the following:

1. A recycling machine equipped with additional heaters conforming to the same requirements as the preheaters.
2. A unit capable of uniformly loosening the existing asphalt pavement to the depth specified. Care must be taken to ensure that milling or pavement reclaiming does not degrade the aggregates but only loosens the heated existing pavement.
3. A controlled system for adding and uniformly blending a rejuvenating agent at a predetermined rate with the reclaimed mix during the remixing and leveling operation. The metering equipment shall be capable of measuring in gallons. The application rate in gallons, for the added material, shall be synchronized with the machine ground speed to provide a uniform application. The actual rate used may be adjusted as determined by the Engineer.
4. A blending unit consisting of a twin shafted pugmill capable of uniformly adding new hot mix asphalt admixture at a rate of at least 50 lbs. per square yard. The unit shall be capable of thoroughly mixing the loosened asphalt pavement, emulsified asphalt rejuvenating agent, and new hot mix asphalt admixture if required, at the pugmill to produce a uniform mixture.
5. A unit capable of auguring the heated and loosened material into a windrow at the center of the machine prior to entry into the blending unit.
6. A paving machine meeting the requirements of Article 610-8 of the Standard Specifications, except as modified herein, shall be utilized to redistribute the remixed material over the width being processed and finished, so as to produce a uniform cross section and surface. The paving machine must be capable of screeding the full width of the remixed material. Automatic screed controls meeting the requirements of this Article shall be provided and used unless otherwise approved by the Engineer.

7. The recycling train shall be capable of maintaining an average production rate of a minimum of 1 lane mile per day.
8. The reheating and remixing units shall meet all state and local air quality emission standards for mobile sources.

#### **4.4 Compaction Equipment:**

Rollers meeting the requirements of Section 610-9 of the Standard Specifications and capable of achieving the specified density and surface requirements shall be utilized.

#### **5.0 CONSTRUCTION REQUIREMENTS:**

Hot In-place recycled mixtures shall not be produced or placed during rainy weather or when the air temperature measured in the shade away from artificial heat at the location of the paving operations is less than 50°F. Do not place surface course material which is to be the final layer of pavement between December 15 and March 16 of the next year.

Prior to heating and remixing operations, the pavement shall be cleaned of all loose material. Power brooms shall be used and supplemented when necessary by hand brooming or other cleaning operations, as required, to bring the surface to a clean, suitable condition free of deleterious material.

The pavement surface shall be evenly heated, loosened, and remixed to the lines, grades and depths shown on the plans. Heating shall be controlled to ensure uniform heat penetration without overheating, coking, or sooting of the asphalt pavement. The milled material shall be picked up, mixed with an emulsified asphalt rejuvenator and asphalt admixture, if needed, in a pugmill and then distributed and leveled by a conventional paving machine. The temperature of the milled material shall not be more than 325°F when measured immediately behind the milling unit. The temperature of the remixed material shall not be less than 235°F directly behind the screed.

The heating operation shall extend at least 4 inches beyond the width of remixing on both sides. When a pass is made adjacent to a previously placed mat, the longitudinal joint shall extend at least 2" into the previously placed mat.

The layer thickness specified in the Plans or Contract Proposal shall be the compacted in-place thickness of the rejuvenated and recycled mixture layer, not to exceed the original elevation by more than 1/2 inch. The depth of milling of the existing surface shall be such that the depth as specified on the plans is within  $\pm 1/4$  inch, unless otherwise approved by the Engineer.

The emulsified asphalt rejuvenator shall be applied uniformly to the mixed material prior to remixing in the pugmill. The rate of application of rejuvenator will be as specified on the Job Mix Formula approved by the Engineer based upon the Contractor's proposed mix design.

The remixed asphalt pavement shall be compacted immediately after it has been spread and leveled, while it is still in a workable condition.

Density control may be by either core samples or nuclear density control in accordance with the Department's most current procedures. Density shall be a minimum of 92.0 percent of Maximum Specific Gravity (AASHTO T 209) as determined by procedures specified in the Department's most current edition of the HMA/QMS Manual.

The compacted surface of the completed and accepted pavement structure shall meet the requirements of Article 610-12 of the Standard Specifications.

The Contractor shall take precautions needed to protect the adjacent landscape from heat damage. Damaged landscape shall be repaired or replaced at no cost to the Department.

#### **6.0 METHOD OF MEASUREMENT:**

The quantity of Hot In-Place Recycled Asphalt Concrete, Type\_\_\_ to be paid for will be measured by the square yard and shall include all completed and accepted work.

The quantity of emulsified asphalt rejuvenating agent to be paid for will be measured by the metered quantity in gallons used in all completed and accepted work.

The quantity of admixture to be paid for, when required, will be measured by being weighed in trucks on a certified weighing device and documented on load tickets.

The quantity of asphalt binder to be paid for will be measured in accordance with Article 620-4 of the *Standard Specifications*.

#### **7.0 BASIS OF PAYMENT:**

The quantity of hot in-place recycled asphalt concrete pavement measured as provided above will be paid for at the contract unit price per square yard for "Hot In-Place Recycled Asphalt Concrete, Type\_\_\_" for the mix type specified.

The quantity of emulsified asphalt rejuvenating agent measured as provided above will be paid for at the contract price per gallon for "Emulsified Asphalt Rejuvenating Agent."

The quantity of hot mix asphalt for admixture measured as provided above will be paid for at the contract unit price per ton for "Hot Mix Asphalt Admixture."

Furnishing asphalt binder for hot mix asphalt admixture will be paid for as provided in Article 620-5 for "Asphalt Binder for Plant Mix."

The above prices and payments will be full compensation for all work covered by this section including but not limited to furnishing all materials, producing, weighing, transporting, placing, and compacting the recycled pavement; maintaining the finished course until final acceptance of the project, performing quality control as specified in the project special provisions and making any repairs or corrections to the surface of the pavement that may become necessary.



Payment will be made under:

Hot In-Place Recycled Asphalt Concrete, Type _____	.....Square Yard
Emulsified Asphalt Rejuvenating Agent.....	Gallons
Hot Mix Asphalt Admixture.....	Tons
Asphalt Binder for Plant Mix, Grade PG _____	Tons

**QUALITY MANAGEMENT SYSTEM FOR ASPHALT PAVEMENTS:**      **08-12-02**  
 (Hot In-Place Recycled Asphalt Concrete-SUPERPAVE)

**1.0 DESCRIPTION:**

The work covered by this provision consists of the production and placement of hot in-place asphalt recycled mixtures in accordance with a quality management system as described in these specifications. All provisions of Division 6 of the Standard Specifications, except as modified herein, shall apply.

**2.0 DESCRIPTION OF RESPONSIBILITIES:**

**2.1 Quality Control:**

The Contractor shall provide and conduct a quality control program. A quality control program is defined as all activities, including mix design, process control inspection, sampling and testing, and necessary adjustments in the process that are related to production of a pavement which meets all requirements of the Specifications.

**2.2 Quality Assurance:**

The Department will conduct a quality assurance program. A quality assurance program is defined as all activities, including inspection, sampling, and testing related to determining that the quality of the completed pavement conforms to specification requirements.

**3.0 MIX DESIGN/JOB MIX FORMULA REQUIREMENTS:**

All mix design and job mix formula requirements of the Project Special Provision titled “Hot In-Place Recycled Asphalt Concrete” shall apply.

**4.0 FIELD VERIFICATION OF MIXTURE AND JOB MIX FORMULA ADJUSTMENTS:**

The Contractor shall conduct field verification of the hot in-place mix at the beginning of production of each new mix design. Beginning production shall be limited to a maximum of 2500 linear feet of laydown width for performing the field verification tests. In addition to the required sampling and testing, all preliminary checks and equipment calibrations shall be performed. Records of these checks and calibrations shall be maintained by the Contractor for the Engineer's review and approval.

Field verification testing shall consist of a minimum of one (1) set of samples tested according to "Required Sampling and Testing" specified in Section 5.4. The field verification mix sample shall be obtained from the completed hot in-place recycled mix prior to laydown and compaction and split in accordance with current procedures in the HMA/QMS Manual. Normal production shall not begin until all field verification test results have been completed and approved by the Engineer. Verification is considered satisfactory when all volumetric properties except %Gmm@Nini are within the applicable mix design criteria and the gradation, binder content, and %Gmm@Nini are within the individual limits for the mix type being produced, unless otherwise approved by the Engineer.

Retain records of these calibrations and mix verification tests at the QC laboratory. In addition, furnish copies to the Engineer for review and approval within one working day after beginning production of the mix.

If the Contractor and/or the Engineer determine from results of quality control tests conducted during mix verification that adjustments to the JMF are necessary to achieve specified mix properties, adjustments to the JMF may be made within tolerances permitted by specifications for the mix type being produced. All JMF adjustments will be approved by the Engineer and documented in writing.

Failure by the Contractor to fully comply with the above mix verification requirements shall result in immediate production stoppage by the Engineer. Normal production shall not resume until all mix verification sampling and testing, and calibrations have been performed and approved by the Engineer.

## **5.0 CONTRACTOR'S QUALITY CONTROL SYSTEM:**

### **5.1 Personnel Requirements:**

The Contractor shall provide a certified Hot-In-Place Asphalt Recycling Plant Technician Level I to perform quality control operations and activities at all times during production of hot in-place recycled mix on the project.

In addition, a certified Plant Technician Level I shall be provided at the asphalt plant during production of the hot mix asphalt admixture, if required. A plant operator who is a certified Asphalt Plant Technician Level I may be utilized to meet this requirement when daily production for the admixture is less than 100 tons, provided the randomly scheduled increment sample as defined in Section 5.4 herein, is not due. When performing in this capacity, the plant operator will be responsible for all quality control activities which are necessary and required. Any absence of either Level I Technician, other than those for normal breaks and emergencies must be pre-approved by the appropriate QA Supervisor or his designated representative. Any extended absence of the Technician that has not been approved will result in immediate suspension of production by the Engineer. The Contractor shall also have a certified Asphalt Plant Technician Level II readily available to supervise, coordinate, and make any necessary process adjustments. A plant technician may serve in more than one of the above capacities; however, all specification requirements shall still apply.

The Contractor shall provide a certified QMS Roadway Technician with each hot in-place recycling operation at all times during production and placement of asphalt. This person shall be responsible for and directly supervise all roadway paving operations and roadway quality control processes.

Provide a certified nuclear gauge operator when nuclear density control is being utilized.

All certifications shall be in accordance with the Department's current asphalt technician certification program.

## **5.2 Field Laboratory Requirements:**

The Contractor shall furnish and maintain a Department certified laboratory for quality control testing of the hot in-place recycled mix. The laboratory shall be located either at or near the project site. In either case, all other requirements of these specifications shall apply. The laboratory may be either stationary or portable and shall include all necessary equipment and supplies for performing required Contractor quality control testing. The Contractor shall also furnish a certified laboratory for the quality control testing of the hot mix asphalt admixture. This laboratory may be located at the plant site or may be the laboratory provided at the project site for testing of the hot in-place recycled mix. Convenient telephone and fax machine access for QMS personnel shall be provided by the Contractor at the plant laboratory site producing the admixture and the laboratory site testing the completed mix from the roadway.

## **5.3 Field Laboratory Equipment:**

The laboratory testing equipment shall meet the requirements of the test methods herein identified in Section 5.4 - "Required Sampling and Testing."

Laboratory equipment furnished by the Contractor or his representative shall be properly calibrated and maintained. The Engineer shall be allowed to inspect measuring and testing devices to confirm both calibration and condition. If at any time the Engineer determines that the equipment is not operating properly or is not within the limits of dimensions or calibration described in the applicable test method, the Engineer may stop production until corrective action is taken. The Contractor shall maintain a record of calibration results at the laboratory.

## **5.4 Required Sampling and Testing (Mixtures):**

All mix sampling, testing, data analysis and data posting shall be performed or directly supervised by a certified HIP QMS Asphalt Plant Technician.

The Contractor's quality control process shall include, at a minimum but not limited to, the sampling and testing of all parameters outlined in these provisions using test methods and frequencies as specified herein. The Contractor shall obtain randomly selected samples of hot in-place recycled mix prior to the laydown and compaction processes. A minimum of one random mix sample of 180 pounds shall be taken from each 5000 linear foot test section. The Contractor shall also obtain a minimum of one randomly selected 25 pound sample of the hot mix asphalt admixture, when required, from each 200 ton increment of admixture production. The admixture samples shall be taken from the truck at either the plant site or project site. The random samples

shall be obtained and at location(s) determined in accordance with procedures specified in AASHTO T 168. All samples shall be split in accordance with the procedures in the most current edition of the Department's "HMA/QMS Manual" and shall be logged on forms provided by the Engineer. All samples taken shall be split and retained in accordance with these procedures.

The untested split portion of the hot in-place recycled mix sample and hot mix asphalt admixture sample shall be retained for 5 calendar days at the appropriate laboratory site by the Contractor commencing the day the samples are tested. The QC SUPERPAVE Gyratory Compactor (SGC) specimens shall be retained for 2 calendar days commencing the day the specimens are prepared. Disposal permission may be given by Quality Assurance personnel prior to these maximum storage periods. The split portion of the Contractor's mix verification sample shall be retained until disposal permission is given by QA personnel. All retained samples shall be stored in a dry and protected location.

The Contractor shall maintain minimum test frequencies as established above. All tests shall be completed within 24 hours of the time the sample was taken, unless specified otherwise in these provisions. Should the specified tests not be completed within the required time frame, production will cease at that point until such time the tests are completed.

The Contractor may utilize innovative equipment or techniques not addressed by these specifications to produce and/or monitor the production of the mix, subject to approval by the Engineer.

Should the Contractor's testing frequency for hot in-place recycled mix fail to meet the minimum frequency requirement, all mix without the specified test representation shall be considered unsatisfactory. If the Engineer allows the mix to remain in place, payment will be made at 50 percent of the contract unit bid price for the hot in-place recycling.

Should the Contractor's testing frequency for the hot mix asphalt admixture fail to meet the minimum requirements, all admixture without test representation shall be considered unsatisfactory, and will be paid for at 50 percent of the contract unit bid price for the admixture.

### **QUALITY CONTROL SAMPLING AND TESTING SCHEDULE (MIXTURES)**

#### **A. Hot In-Place Recycled Mix:**

1. Blended aggregate recovered from hot in-place recycled mix sample (AASHTO T-30 and T-11) (Shall be graded on all sieves specified on the job mix formula.)
2. Binder Content, % (Contractor may select any option below)
  - a. Extraction (AASHTO T-164)
  - b. Ignition Furnace (AASHTO T 308 Modified)
  - c. OTHER: Contractor may request to use other means of checking Binder Content subject to approval by the Engineer.
3. Maximum Specific Gravity (AASHTO T 209)
4. Bulk Specific Gravity of Compacted Specimens (AASHTO T 166, Average of 3 specimens at  $N_{des}$  gyrations (AASHTO PP 28 and AASHTO TP 4)
5. Air Voids (VTM), Average of 3 specimens at  $N_{des}$  gyrations
6. Voids in Mineral Aggregate (VMA) (calculation)



7. Voids Filled with Asphalt (VFA) (calculation)
  8.  $P_{0.075}/P_{be}$  Ratio
  9. % Maximum Specific Gravity at  $N_{ini}$  (calculation)
- B. Hot Mix Asphalt Admixture (if required):
1. Binder Content, % (Contractor may select any option below)
    - a. Extraction (AASHTO T-164)
    - b. Ignition Furnace (AASHTO T 308 Modified)
    - c. OTHER: Contractor may request to use other means of checking AC Content subject to approval by the Engineer
  2. Blended aggregate recovered from admixture sample (AASHTO T-30 and T-11) (Shall be graded on all sieves specified on the job mix formula.)

In addition to the above sampling and testing program, the following test shall be conducted as indicated:

Penetration Test (AASHTO T 49) from Abson Recovery (AASHTO T 170).  
 Test performed on hot in-place mix sampled from roadway during field verification and at a minimum of weekly thereafter; however, penetration results are not required for approval of the field verification. Recovery and Penetration Test may be performed at an off-site laboratory. Results must be furnished to the Engineer within 3 working days of obtaining the sample.

### 5.5 Documentation (Records):

The Contractor shall document all observations, records of inspection, samples taken, adjustments to the mix, and test results on a daily basis. Results of observations and records of inspection shall be noted as they occur in a permanent field record. Adjustment to mix production and test results shall be recorded on forms provided by the Engineer.

All such records shall be made available to the Engineer, upon request, at any time during project construction. All QC records and forms shall be completed and distributed in accordance with the most current edition of the Department's "HMA/QMS Manual". At the completion of the project, a copy of the control charts (with the moving average shown in red) shall be provided to the Engineer in a neat and orderly manner. The QC testing forms shall be maintained by the Contractor for 1 year after completion of the form.

Failure to maintain QC records and forms as required, or to provide these records and forms to the Engineer upon request, may result in production stoppage until the problem is resolved.

Falsification of test results, documentation of observations, records of inspection, adjustments to the process, discarding of samples and/or test results, or any other deliberate misrepresentation of the facts will result in the revocation of the applicable person's QMS certification. The Engineer will determine acceptability of the mix and/or pavement represented by the falsified results or documentation. If the mix and/or pavement in question is determined to be acceptable, the Engineer may allow the mix to remain in place at no pay for mix processing, admixture, asphalt binder, rejuvenating agent and/or other mix components. If the mix and/or pavement represented by the falsified results are determined not to be acceptable, reprocess or remove and replace with

mix which complies with the Specifications as approved by the Engineer. Payment will be made for the actual quantities of materials required to reprocess or replace the falsified quantities, not to exceed the original amounts.

### 5.6 Documentation (Control Charts):

Standardized control charts furnished by the Department shall be maintained by the Contractor at the appropriate field laboratory. All test results obtained by the Contractor shall be recorded on control charts the same day tests are conducted.

Results of quality assurance tests performed by the Engineer will be posted on the Contractor's control charts as data becomes available.

The following data shall be recorded on standardized control charts:

Hot In-Place Recycled Mix:

1. Aggregate Gradation Test Results:
  - a. For each mix type: one sieve size smaller than the mix nominal maximum size.
  - b. For all mix types: 2.36 mm and 0.075 mm sieves
2. Binder Content, %,  $P_b$
3. Bulk Specific Gravity of Compacted Specimens at  $N_{des}$  (measured)
4. Maximum Specific Gravity Determined by AASHTO T 209
5. Percent Voids in Total Mix at  $N_{des}$  Gyration
6. Percent Voids in Mineral Aggregate at  $N_{des}$  Gyration

Hot Mix Asphalt Admixture, if required:

1. Binder Content, %,  $P_b$
2. 0.075 mm sieve

Both the individual test value and the moving average of the last four (4) data points will be plotted on each chart. The Contractor's test data will be shown in black and the moving average in red. The Engineer's assurance data will be plotted in blue. The warning control limits shall be drawn with a dash green line, the JMF control limits with a dash blue line, and individual test limits with a dash red line.

Once a moving average has been established for a given JMF, the moving average shall be continuous with the following exceptions. A new moving average shall be re-established when a change in the asphalt cement percentage or aggregate blend is made in the JMF or when the Contractor elects or is required to stop production after one or two moving average values, respectively, fall outside the warning limits as outlined in Section 5.9. In addition, if the Contractor fails to stop production after two consecutive moving averages exceed the warning limits, but does stop production at a subsequent time, a new moving average shall be re-established beginning at the actual production stop point. The moving averages for all other mix properties shall also be re-established. Moving averages will not be re-established when

production stoppage occurs due to an individual test result exceeding the Specification requirements.

All individual test results shall be part of the quality control record and shall be included in moving average calculations with the following exception. When the Contractor’s testing data has been proven incorrect, the correct data as determined by the Engineer shall be used in lieu of the Contractor’s data to determine acceptance of the mix in question. In this case, only the data in question shall be replaced.

**5.7 Control Limits:**

The following shall be considered control limits for mix production. For each criteria, the warning and moving average control limits are based on a moving average of the last four (4) data points. All control limits will be applied to target data given on the current JMF except VMA limits. VMA control limits will be based against the minimum specification requirement for that mix type.

Hot In-Place Recycled Mix (Control Criteria)	Warning	Control Limits	
		Moving Average	Individual Test
2.36 mm Sieve	± 4.0	± 5.0	± 8.0
0.075 mm Sieve	± 1.5	± 2.0	± 2.5
Binder Content, %	± 0.3	± 0.5	± 0.7
Air Voids(VTM)% @ N <sub>des</sub>	± 1.0	± 1.5	± 2.0
VMA, %@ N <sub>des</sub>	- 0.5	-0.8	- 1.0

Hot Mix Asphalt Admixture, if required:

Binder Content, %	± 0.3	± 0.5	± 0.7
0.075 mm sieve	± 1.5	± 2.0	± 2.5

**5.8 Warning Bands:**

Warning bands are defined as the area between the Warning limits and Moving Average Limits.

**5.9 Corrective Action:**

All required corrective actions are based upon initial test results and should be taken immediately upon obtaining those results.

When an individual test result for a mix control criteria exceeds both the individual test control limits and the applicable specification mix design limits, production of that mix shall cease immediately. Normal production of the mix in question shall not resume until approval is given by the Engineer.

Acceptance of all mix failing to meet the individual test control limits as described above will be determined in accordance with Article 105-3. In addition, any mix that is obviously unacceptable will be rejected for use in the work.

Failure to stop production and make adjustments when required due to an individual test not meeting the specified requirements shall subject all mix from the stop point tonnage to the point when the next individual test is back on or within the warning limits, or to the tonnage point when production is actually stopped, whichever occurs first, to be considered unacceptable. This material shall be remilled and reprocessed to comply with the specifications, unless otherwise approved by the Engineer.

If two consecutive moving average values for any one of the mix control criteria fall outside the warning limits, the Contractor shall cease production of that mix and make adjustments. The Contractor may elect to stop production after only one moving average value falls outside the warning limits. In either case, a new moving average shall not be determined until the fourth test after the elective or mandatory stop in production. Normal production of the mix in question shall not be resumed until approved by the Engineer.

If the process adjustment improves the property in question such that the moving average after four additional tests is on or within the warning limits, the Contractor may continue production with no reduction in payment.

If the adjustment does not improve the property in question such that the moving average after four additional tests is not on or within the warning limits, the applicable mix shall be accepted in accordance with Article 105-3. The quantity of mix in question will be determined by the Engineer. Any mix which is obviously unacceptable will be rejected for use in the work.

Failure to stop production and make adjustments as described above due to two consecutive moving average values falling outside the warning limits shall subject all mix produced from the stop point tonnage to the tonnage point when the moving average is back on or within the warning limits, or to the tonnage point when production is actually stopped, whichever occurs first, to be considered unacceptable. This material shall be remilled and reprocessed to comply with the specifications, unless otherwise approved by the Engineer.

#### **5.10 Allowable Retesting for Mix Deficiencies:**

The Contractor may elect to resample and retest for hot in-place recycled mix deficiencies when individual QC test(s) exceed one or more of the mix property target(s) by more than the tolerances indicated below. The retesting shall be performed within 10 days of the initial test results. Retesting shall be approved by the Engineer prior to being performed and shall be in accordance with the Department's "Guidelines For Retests Of Plant Mix Deficiencies" as outlined in the HMA/QMS Manual except will based on equivalent linear feet in lieu of tonnage Retests for any mix deficiency other than as listed below will not be allowed unless otherwise permitted by the Engineer. Acceptance of the mix in question will be based on the retest data in accordance with Article 105-3. The Department reserves the right to direct the Contractor to resample and retest at any time or location as directed by the Engineer.

Air Voids (VTM)	-- by more than +/- 2.5%
Binder Content	-- by more than +/- 1.0%
VMA	-- by more than - 2.0%
0.075 mm sieve	-- by more than +/- 3.0%
2.36 mm sieve	-- exceeds Specification Mix Design Limits and one or more of the above tolerances are also exceeded.

## 6.0 QUALITY ASSURANCE OF MIX:

Quality assurance will be accomplished in the following ways:

1. By conducting assurance testing of split samples obtained by the Contractor at a frequency equal to or greater than 10% of the frequency required of the Contractor;
2. By periodically observing tests performed by the Contractor;
3. By monitoring required control charts exhibiting test results of control parameters;
4. By directing the Contractor to take additional samples at any time and any location during production (in lieu of the next scheduled random sample) and;
5. By conducting verification sampling and testing on samples taken independently of the Contractor's quality control samples at a frequency equal to or greater than 5% of the required QC sample frequency; and
6. By any combination of the above

In all cases, the Engineer's quality assurance and verification testing will be independent of the Contractor's tests. The Department's quality assurance program will be conducted by a certified QMS technician(s).

The Engineer will conduct assurance tests on split samples taken by the Contractor for quality control testing. These samples may be the regular quality control samples or a sample selected by the Engineer from any location in the process. The frequency will be equal to or greater than 10% of that required of the Contractor as stated in Section 5.4 - "Required Sampling and Testing". The Engineer may select any or all split samples for assurance testing. Results of quality assurance tests will be provided to the Contractor within 3 working days after the sample has been obtained. Differences between the Contractor's and the Department's split sample test results will be considered acceptable if within the following limits:

Test Parameter	Acceptable Limits of Precision
12.5 mm Sieve	±6.0
9.5 mm Sieve	±5.0
4.75 mm Sieve	±5.0
2.36 mm Sieve	±5.0
0.075 mm Sieve	±2.0
Binder Content, %	±0.5
Maximum Specific Gravity Mix, $G_{mm}$	±0.020
SGC Bulk Specific Gravity, $G_{mb}$	±0.030

In the event comparison test results are outside the above acceptable limits of precision, or the quality assurance test results are either outside the individual test control limits or fail to meet Specification requirements, the Engineer will immediately investigate the reason for the difference. If the potential for a pavement failure is present, the Engineer may suspend production, wholly or in part, in accordance with Article 108-7 while the investigation is in progress. The Engineer's investigation may include joint testing of any remaining split samples, review and observation of the Contractor technician's sampling and testing procedures and equipment, and a comparison of split sample test results on mix currently being produced. If reasons for the difference cannot be determined, payment for the mix in question will be determined in accordance with Article 105-3.

The Engineer will periodically witness the sampling and testing being performed by the Contractor. If the Engineer observes that the sampling and quality control tests are not being performed in accordance with the applicable test procedures, the Engineer may stop production until corrective action is taken. The Engineer will promptly notify the Contractor of observed deficiencies, both verbally and in writing. The Engineer will document all witnessed samples and tests.

The Engineer will elect to obtain verification samples for testing independent of the Contractor's quality control process. These samples will be split for testing by the Engineer and the Contractor.

**7.0 ACCEPTANCE of MIX:**

The Engineer will base final acceptance of the mix on the results of random testing made on split samples during the assurance process and validation of the Contractor's quality control process as outlined in Sections 5.9 and 6.0.

**8.0 MILLING DEPTH QUALITY MANAGEMENT:****8.1 Quality Control of Milling Depth:**

The Contractor shall perform quality control of the milling process in accordance with applicable provisions of Section 607 of the Standard Specifications, except as modified herein.

The minimum frequency of checking the milling depth shall be at least one set of measurements for each 500 feet of milled pavement length. These measurements shall be taken by either stretching a stringline transversely across the milled area or by extending a straightedge from the existing pavement transversely over the milled area and taking measurements at the approximate quarter points of the milled pavement. When the average depth of milling is less than the depth specified on the plans by more than ¼ inch, corrective action shall be initiated. When two consecutive averages from the above sets of measurements exceed the tolerance specified, work shall be stopped until the process can be corrected.

A permanent field record of these milled depths shall be maintained by the Contractor and made available to the Engineer anytime upon request and upon completion of the project.

**8.2 Quality Assurance of Milling Depth:**

The Departments quality assurance program for milling depth will consist of the following:

1. By re-measuring randomly selected quality control measurements at a frequency equal to or greater than 10% of the frequency required of the Contractor;
2. By periodically observing measurements performed by the Contractor; and
3. By conducting verification measurements independently of the Contractor's quality control measurements at a frequency equal to or greater than 5% of the required QC sample frequency;

**8.3 Quality Acceptance of Milling Depth:**

The Department will evaluate the finished asphalt pavement for milling depth compliance using the Contractor's milling depth quality control test results, the Department's quality assurance test results, and by observation of the Contractor's depth quality control process as outlined in Subarticle 8.1 and Subarticle 8.2. Any pavement found to be deficient in milled depth shall be evaluated for acceptance in accordance with Article 105-3 of the Standard Specifications.

## **9.0 FIELD COMPACTION QUALITY MANAGEMENT:**

### **9.1 Contractor Quality Control of Density:**

The Contractor shall perform quality control of the compaction process in accordance with applicable provisions of Article 609-5(D) of the Standard Specifications, except as modified herein. The Contractor may elect to use either cored sample density procedures or nuclear gauge density procedures. The method of density quality control shall be provided to the Engineer by the Contractor at the preconstruction conference.

The minimum frequency of sampling and testing by either method shall be based on test sections consisting of not more than 2000 linear feet of laydown width.

Nuclear density control procedures shall be in accordance with the Department's most current Nuclear Gauge Operator's Manual. This manual may be obtained through the Department's M&T Soils Section. Density shall be determined by the backscatter method of testing using a thin-lift nuclear gauge, with printer, which has been approved by the Department. The Contractor shall furnish, maintain, and operate the nuclear gauge. The gauge operator shall have been certified by the Department. The gauge shall have been calibrated within the previous 12 months by an approved calibration service. The Contractor shall maintain documentation of such calibration service for a 12 month period.

The Contractor shall establish acceptable control strips at locations approved by the Engineer. Control strip shall be 300 feet in length at the laydown width of the paver. Nuclear density control strips shall be placed at the frequencies specified in the Department's most current Nuclear Gauge Operators Manual. Core sample control strips shall be placed anytime the Contractor is proceeding on limited production due to failing densities. In addition, control strips shall be placed anytime deemed necessary by the Engineer.

When cored sample control is being utilized the testing frequency shall consist of a minimum of one random 6 inch (152 millimeters) core sample taken from each test section, except that not less than three cored samples shall be taken from each mix type and/or lot placed on a given day. The Contractor may elect to take full depth cores instead of placing a separator beneath the layer to be tested. Should full depth cores be taken, he is responsible to separate the layer of mix to be tested in a manner such that it is not damaged.

When cored sample control is being utilized and a core sample appears not to be representative in comparison with other cores from the same lot and is more than 2.0 percent below the average of all core samples from the same lot, check samples may be taken by the Contractor. For each core sample that is in question, there shall be three check samples taken: one adjacent to the initial sample and one ten feet to each side, longitudinally, of the initial sample. The results of these 3 check samples will be averaged and this average will be used instead of the initial core results in question. The initial core sample results will not be used if check samples are taken. Check samples must be taken within 2 calendar days of the date of the initial sample. Only one set of check samples per sample location will be allowed. If full depth cores are necessary at these check sample locations, separation of the layer to be tested will be the responsibility of the Contractor. All check samples shall be taken in the presence of a representative of the Engineer.



In addition, a QA comparison core sample(s) may be taken adjacent to one or more of these check samples.

When nuclear gauge control is being utilized, the testing frequency shall consist of five random gauge readings ( one from each of five equally spaced increments) from each test section.

The Contractor shall maintain minimum test frequencies as established above. Should the Contractor's density testing frequency fail to meet the minimum frequency as specified above, all mix without required density test representation shall be considered unsatisfactory and if allowed to remain in place, will be paid for at 50 percent of the contract unit bid price for the mixture.

All QC nuclear density tests shall be conducted the same day that the mix being tested was placed and compacted. All core samples shall be cored no later than the beginning of the next production day, not to exceed three (3) calendar days. QC core samples shall be tested and test results submitted to the Engineer within one working day of the time the samples were taken. Should the specified density tests not be completed within the applicable time frame, production will cease at that point until such time the required tests are completed.

The Contractor's quality control density core samples shall be retained for 5 calendar days, commencing the day the samples are tested, at the laboratory located on or near the project, or until disposal permission is granted by the Quality Assurance personnel, whichever occurs first. The Department's comparison quality assurance core samples shall be retained in a sealed container at the above laboratory site until obtained by quality assurance personnel. All retained density samples shall be stored on a smooth, flat surface in a cool, dry protected location.

Proceed on limited production when three failing density lots occur, not to exceed two production days or two consecutive failing nuclear control strips occur for the same mix type.

Limited production is defined as the production, placement, and compaction of a sufficient quantity of hot in-place recycled mix to construct a 300 feet control strip plus 100 feet of pavement adjacent to each end of the control strip. The Contractor shall remain on limited production until such time as satisfactory density results are attained or two control strips have been attempted without achieving acceptable density test results, whichever occurs first.

If the Contractor fails to achieve satisfactory density at this point, production of the asphalt mix shall cease until the cause of the failing density test results can be determined. Should the Contractor not operate by the limited production procedures as specified above, the two consecutive failing production days and all mix produced thereafter will be considered unacceptable. This material shall be reprocessed or removed and replaced with material that complies with the Specifications, unless otherwise approved by the Engineer.

## **9.2 Quality Assurance of Density:**

The Departments quality assurance program for density will consist of the following:

1. By retesting randomly selected quality control test sections (either cores or nuclear);
2. By periodically observing tests performed by the Contractor;

3. By testing randomly selected comparison core samples taken adjacent to the Contractor's quality control core samples (8" (200 mm) center-to-center) at a frequency equal to or greater than 10% of the frequency required of the Contractor;
4. By conducting verification sampling and testing on test sections (either core or nuclear) independently of the Contractor's quality control test sections at a frequency equal to or greater than 5% of the required QC sample frequency;

Comparison and verification core samples will be taken in the presence of a DOT technician, and either delivered directly to the appropriate QA Lab by a DOT technician or placed in a sealed container and delivered to the Contractor's QC Lab for QA testing.

Results of all density quality assurance tests will be provided to the Contractor within 3 working days after the samples have been obtained by the QA personnel.

Differences between the Contractor's quality control and the Department's quality assurance test results will be considered acceptable if within the following limits.

Test	Acceptable Limits of Precision
Retest of QC Core Sample	±1.2% (% Compaction)
Comparison QA Core Sample	±2.0% (% Compaction)
QA Verification Core Sample	±2.0% (% Compaction)
Nuclear Comparison of QC Test Section (Average of 5 Tests in Test Section)	±2.0 %(% Compaction)
QA Nuclear Verification Test	±2.0% (% Compaction)

In the event test results are outside the above acceptable limits of precision or the quality assurance test results are below the minimum specification requirements, the Engineer will immediately investigate the reason for the difference. If the potential for a pavement failure is present, the Engineer may suspend production, wholly or in part, as stated in Article 108-7 of the Standard Specifications while the investigation is in progress. The Engineer's investigation may include checking of the Contractor's testing equipment, comparison testing of other retained quality control samples, or additional core sample testing of the roadway pavement in question. If additional core samples are necessary to resolve the difference, the Contractor shall core these samples at the direction of the Engineer and these will be tested jointly by the Contractor's quality control and Department's quality assurance personnel. If the reason for the difference cannot be determined, payment for the mix in question will be determined in accordance with Article 105-3 of the Standard Specifications. If the reason for the difference is determined to be an error or other discrepancy in the quality control test results, the applicable quality assurance test results will be used to determine compliance with the Specification density requirements.

### 9.3 Acceptance of Density:

The Department will evaluate the asphalt pavement for density compliance after the asphalt mix has been placed and compacted using the Contractor's quality control test results, the Department's quality assurance test results, and by observation of the Contractor's density quality control process. Minimum density requirements will be as specified for each mix type in the project special provision titled Hot In-Place Recycled Asphalt Concrete. Density compliance for

nuclear gauge control will be as provided in the Department's Nuclear Gauge Operator's Manual. Density compliance for core samples will be determined by use of the average Marshall lab specific gravity until a moving average of four lab specific gravities is attained. Once a moving average is established for the lab specific gravity, the last moving average in effect at the end of the same day's production will then be used to determine density compliance.

The pavement will be accepted for density on a lot by lot basis. A lot will consist of one (1) day's production of a given mix type on the project except that individual map sections will be evaluated as separate lots, unless otherwise approved by the Engineer. The Engineer will determine the final quantity of each lot.

A failing lot for density purposes is defined as a lot for which the average of all test sections fails to meet the minimum specification requirement. In addition, any lot or portion of a lot that is obviously unacceptable will be rejected for use in the work.

Acceptance of all failing lots will be made under the provisions of Article 105-3 of the Standard Specifications.

Any reduction in pay due to failing densities will be in addition to any reduction in pay due to failing mix property test results on the same mix.

#### **10.0 COMPENSATION:**

The production and construction of all hot in-place recycled asphalt mixtures and pavements shall be performed in accordance with these provisions. There will be no direct payment for the quality control work required herein. Payment at the contract unit prices for the various asphalt related items will be full compensation for all work covered by this provision.

#### **BORROW MATERIAL**

**02-17-04**

Revise the 2002 Standard Specifications as follows:

Page 10-44

Section 1018-2 II (b) Delete the last sentence in its entirety.

RR51

#### **RESURFACING EXISTING BRIDGES:**

**7-1-95**

The Contractor's attention is directed to the fact that he will be required to resurface the bridges on this project if directed by the Engineer.

Place the surface so as to follow a grade line set by the Engineer with the minimum thickness as shown on the sketch herein or as directed by the Engineer. State Forces will make all necessary repairs to the bridge floors prior to the time that the Contractor places the proposed surfacing. Give the Engineer at least 15 days notice prior to the expected time to begin operations so that State Forces will have sufficient time to complete their work.

At all bridges which are not to be resurfaced, taper out the proposed resurfacing layer adjacent to the bridges to insure a proper tie-in with the bridge surface.

RR61

**TRENCHING FOR BASE COURSE:**

7-1-95

Perform all trenching necessary to place the asphalt concrete base course widening in accordance with the typical sections, at locations shown on the sketch maps, and as directed by the Engineer.

Perform the trenching for the base course on the same day that the base course is to be placed. If the base course cannot be placed on the same day the trench section is excavated, backfill the trench with earth material and compact same to the satisfaction of the Engineer. Once the trench is open, perform backfilling and re-opening of the trench at no cost to the Department.

The Contractor will be restricted to widening one side of the project at a time unless otherwise permitted by the Engineer. In widening, operate equipment and conduct operations in the same direction as the flow of traffic.

Density tests may be taken every 2000 feet in the widened areas as directed by the Engineer. Shape and compact the subgrade in the widened areas to the satisfaction of the Engineer. Compact the asphalt concrete base course in the widened areas in accordance with the provisions of Article 610-9 of the Standard Specifications.

Place the excavated material from trenching operation on the adjacent shoulder area as directed by the Engineer. Cut adequate weep holes in the excavated material to provide for adequate drainage as directed by the Engineer. Remove all excavated material from all drives to provide ingress and egress to abutting properties and from in front of mailboxes and paper boxes. Saw a neat edge and remove all asphalt and/or concrete driveways, and existing asphalt widening, as directed by the Engineer, to the width of the widening and dispose of any excavated concrete or asphalt materials. Properly reconnect driveways.

Upon completion of the paving operation, backfill the trench to the satisfaction of the Engineer. Dispose of any excess material remaining after this operation.

No direct payment will be made for trenching, sawing, and removal of driveways, depositing material on shoulder area, backfilling trench, or removal of spoil material, as the cost of this work shall be included in the contract unit price per ton for "Asphalt Concrete Base Course, Type \_\_".

RR79

**AGGREGATE PRODUCTION:****11-20-01**

Provide aggregate from a producer who utilizes the new Aggregate Quality Control/Quality Assurance Program which is in effect at the time of shipment.

No price adjustment is allowed to contractors or producers who utilize the new program. Participation in the new program does not relieve the producer of the responsibility of complying with all requirements of the Standard Specifications. Copies of this procedure are available upon request from the Materials and Test Unit.

RR109

**DRUMS:****07-16-02**

Revise the 2002 Standard Specifications as follows:

Page 10-195, Subarticle 1089-5(C)

Delete the first (1<sup>st</sup>) sentence of the first (1<sup>st</sup>) paragraph and insert the following:

“Provide a minimum of three orange and two white alternating horizontal circumferential stripes covering the entire outside with each drum.”

RR116

**REMOVAL OF EXISTING PAVEMENT MARKERS:****7-1-95**

The Contractor's attention is directed to the fact that there are pavement markers on this project.

Remove and dispose of these markers prior to the paving operation.

No direct payment will be made for this work, as it will be incidental to the paving operation and payment at the contract unit price for the various asphalt items in the contract will be full compensation for such work.

RR118

**PAVEMENT MARKING GENERAL REQUIREMENTS:****07-16-02**

Revise the 2002 Standard Specifications as follows:

Page 12-10, Subarticle 1205-3(J)

Delete the first (1<sup>st</sup>) sentence of the first (1<sup>st</sup>) paragraph and insert the following:

“Have at least one member of every pavement marking crew working on a project certified through the NCDOT Pavement Marking Technician Certification Process. For more information contact the Traffic Control, Marking and Delineation Section of the North Carolina Department of Transportation at 919-250-4151 or

<http://www.doh.dot.state.nc.us/preconstruct/traffic/congestion/TC/>”

RR119

## Greene, Jones, Lenoir and Pitt

### SEEDING AND MULCHING

The Contractor shall seed all disturbed areas as directed by the Engineer, in accordance with Section 1660 of the Standard Specifications. Seeding and mulching shall immediately follow shoulder construction operations and in no case shall shoulder construction operations exceed seeding and mulching operations by more than two weeks without written permission of the Engineer. Failure to meet this requirement shall be cause to cease paving operations until it can be met.

The kinds of seed and fertilizer, and the rates of application of seed, fertilizer, and limestone, shall be as stated below. During periods of overlapping dates, the kind of seed to be used shall be determined by the Engineer. All rates are in pounds per acre.

#### All Roadway Areas

March 1 - August 31

50# Tall Fescue  
5# Centipede  
25# Bermudagrass (hulled)  
500# Fertilizer  
4000# Limestone

September 1 – February 28

50# Tall Fescue  
5# Centipede  
35# Bermudagrass (unhulled)  
500# Fertilizer  
4000# Limestone

#### Waste and Borrow Locations

January 1 – December 31

75# Tall Fescue  
50# Bahia (hulled)  
500# Fertilizer  
4000# Limestone

#### Approved Tall Fescue Cultivars:

Adventure	Adventure II	Amigo	Anthem
Apache	Apache	Arid	Austin
Brookstone	Bonanza	Bonanza II	Chapel Hill
Chesapeake	Chieftain	Coronado	Crossfire II
Debutante	Duster	Falcon	Falcon II
Finlawn Petite	Finelawn	Finelawn I	Genesis
Grande	Guardian	Houndog	Jaguar
Jaguar III	Kentucky 31	Kitty Hawk	Monarch
Montauk	Mustang	Olympic	Pacer

Phoenix	Pixie	Pyramid	Rebel
Rebel Jr.	Rebel II	Renegade	Safari
Shenandoah	Tempo	Titan	Tomahawk
Trailblazer	Tribute	Vegas	Wolfpack
Wrangler			

All areas seeded shall be mulched in accordance with Section 1660 of the Standard Specifications.

Payment will be made under:

Seeding and Mulching.....Acre

**SEED FOR REPAIR SEEDING**

The kinds of seeds and proportions shall be the same as specified for “Seeding and Mulching”. All areas seeded shall be in accordance with Section 1661 of the Standard Specifications.

Payment will be made under:

Seeding for Repair Seeding.....LB

**FERTILIZER TOPDRESSING**

Fertilizer used for topdressing on all roadway areas except slopes 2:1 and steeper shall be 10-20-20 grade and shall be applied at the rate of 500 pounds per acre. Upon written approval of the Engineer, a different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application is adjusted to provide the same amount of plant food as 10-10-20 analysis.

Fertilizer used for topdressing on slopes 2:1 and steeper and waste and borrow areas shall be 16-8-8 grade and shall be applied at the rate of 500 pounds per acre. Upon written approval of the Engineer, a different analysis of fertilizer may be used provided the 2-1-1 ration is maintained and the rate of application is adjusted to provide the same amount of plant food as 16-8-8 analysis.

All areas shall be fertilized in accordance with Section 1665 of the Standard Specifications.

Payment will be made under:

Fertilizer Topdressing.....Ton

**FERTILIZER FOR REPAIR SEEDING**

Fertilizer shall be the same analysis as specified for “Fertilizer Topdressing”. All areas shall be fertilized in accordance with Section 1661 of the Standard Specifications.

Payment will be made under:

Fertilizer for Repair Seeding .....Ton



WBS#: 38200.3.1 ( R-4740)  
Date: 06-29-2004  
Revised:

Pitt & Greene Counties

**TRAFFIC CONTROL:**

Maintain traffic in accordance with Divisions 11 and 12 of the North Carolina Department of Transportation January 2002 Standard Specifications for Roads and Structures, and the following provisions:

Use a lane closure (refer to North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings Nos. 1101.02, 1101.11, 1110.02, Detail for 1130D01 and details for the Advance Work Zone signing in contract) or a slow-moving operation as shown in details of this contract. Use a moving operation only if the minimum speed maintained at all times is 3 mph with no stops that narrow or close a lane of travel. If the moving operation is progressing slower than 3 mph at any time, install a lane closure. Maintain the existing traffic pattern at all times, except in the immediate work zone where lane closures are allowed as determined by the Engineer.

Refer to Attached Detail(s) and North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings Nos. 1101.02, 1101.03, 1101.04, 1101.05, 1101.07, 1101.11, 1110.01, 1110.02, 1115.01, 1135.01, 1145.01, 1150.01, 1165.01 and 1170.01 when closing a lane of travel in a stationary work zone such as pavement patching resurfacing, or pavement marking removal, etc. Properly ballasted cones may be used instead of drums for lane closures during daylight hours. The stationary work zone shall be a maximum of 3 miles in length at any given time unless otherwise directed by the Engineer. A "pilot vehicle" operation may be used in conjunction with flaggers and the appropriate pilot vehicle warning signing as directed by the Engineer. During periods of construction inactivity, return the traffic pattern to the existing alignment and remove or cover any work zone signs. When covering work zone signs, use an opaque material that prevents reading of the sign at night by a driver using high beam headlights. Use material, which does not damage the sign sheeting. Replace any obliterated markings as required by other sections of the Specifications and the Engineer.

When personnel and/or equipment are working on the shoulder adjacent to an undivided facility and within 5 feet of an open travel lane, close the nearest open travel lane using Roadway Standard Drawing No. 1101.02 unless the work area is protected by barrier or guardrail. When personnel and/or equipment are working on the shoulder, adjacent to a divided facility and within 10 feet of an open travel lane, close the nearest open travel lane using Roadway Standard Drawing No. 1101.02 unless the work area is protected by barrier or guardrail. When personnel and/or equipment are working within a lane of travel of an undivided or divided facility, close the lane according to the traffic control plans, roadway standard drawings or as directed by the Engineer. Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Do not work simultaneously, on both sides of an open travel way, within the same location, on a two-lane, two-way road. Do not perform work involving heavy equipment within

15 feet of the edge of travel way when work is being performed behind a lane closure on the opposite side of the travel way.

The maximum acceptable difference in elevation between open lanes of travel is 1.5 inches. The maximum acceptable edge of pavement drop-off is 2 inches. Backfill at a 6:1 slope up to the edge and elevation of existing pavement in areas adjacent to an open travel lane if the drop-off exceeds 2 inches at no expense to the Department.

When utilizing a slow-moving operation for such items as pavement marking placement, pavement marker installation and pesticide spraying, the slow moving operation caravan shall consist, as a minimum, of the vehicles and devices shown on the Moving Operation Caravan Detail(s) herein. Traffic cones may be used when necessary to provide additional protection of wet pavement markings. Ballast all traffic cones so they will not be blown over by traffic.

**Submit a sequence of operation for all maps to the Engineer at the first pre-construction meeting for approval by the Engineer. Approved sequence can not be altered without written permission of the Engineer.**

Notify the Engineer forty-eight (48) hours before milling or resurfacing will interfere with the existing Signal Loops. Loops may need to be placed in milled surface before resurfacing occurs. Coordinate all signal loop operations with the Engineer.

Notify the Engineer fifteen (15) consecutive calendar days before resurfacing a bridge or its approaches. Patch and make repairs to bridge surface and its approaches before resurfacing occurs. Coordinate all operations on the bridge and its approaches with the Engineer.

Notify the Engineer forty-eight (48) hours before resurfacing the areas of existing pavement that require patching. Patch these areas before resurfacing occurs. Coordinate the resurfacing operations of the patched areas with the Engineer

During a resurfacing only operation, bring all newly resurfaced lanes to the same elevation within 72 hours.

For partial or "wheel track" milling operations on two-way, two-lane facilities, mill and pave back by the end of each work day. For partial or "wheel track" milling operations on multi-lane facilities, the lane being milled may be left closed and paved back within 72 hours.

The following options are acceptable during Resurfacing/milling operations on two-way, two-lane facilities when the entire roadway or entire lane is to be milled:

- 1) Mill a single lane and pave back by the end of each work day
- 2) Mill the entire width of roadway and pave back within 72 hours

The following options are available during Resurfacing/milling operations on multi-lane facilities when all lanes or a single lane in one direction are to be milled:

- 1) Mill the entire width of pavement for all lanes to be milled in any given direction daily and pave back within 72 hours.
- 2) Mill a single lane and pave back by the end of each work day
- 3) Mill a single lane, leave a lane closure in and pave back within 72 hours.

Slope the pavement at the beginning and ending of the daily milling operation as directed by the Engineer. Sweep and remove all milled material from the roadway as soon as the daily milling operation is completed. Maintain all accesses where milling is conducted using suitable backfill material approved by the Engineer. Continue milling operations until the particular section of roadway being milled is complete.

Operate equipment and conduct operations in the same direction as the flow of traffic. Do not cross medians with equipment, except at properly designated interchanges.

Review and record the existing pavement markings and markers prior to resurfacing. Use the record of existing pavement markings and markers in conjunction with North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings to re-establish the proposed pavement markings and markers unless otherwise directed by the Engineer.

Provide appropriate lighting in accordance with Section 1413 of the North Carolina Department of Transportation January 2002 Standard Specifications for Roads and Structures when electing to perform paving at night at no expense to the Department.

Remove existing pavement markers in preparation for paving. Repair any pavement damage due to existing pavement marker removal **prior to the end of the work day**. Dispose of existing pavement markers as directed by the Engineer.

No direct payment will be made for the signing and traffic control items including Truck Mounted Impact Attenuators (TMIA – see Section 1165 of the NCDOT January 2002 Standard Specifications for Roads and Structures and January 2002 Highway Design Branch Roadway Standard Drawings). This work will be considered incidental to the various other bid items in the Contract.

**R-1Revised**

**PROJECT SPECIAL PROVISIONS****Traffic****WORK ZONE SIGNING:**

09-16-03

**1- DESCRIPTION.**

Install and maintain signing in accordance with Divisions 11 and 12 of the North Carolina Department of Transportation January 2002 Standard Specifications for Roads and Structures, the North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings and the following provisions:

Furnish, install, maintain, and remove advance warning work zone signs and any required lane closure signing.

Furnish, install, and maintain general work zone warning signs for resurfacing and/or milling such as "Rough Road" (W8-8 at 48" X 48") (for milling only), "Uneven Pavement" (W8-15 at 48" X 48"), "Low Shoulder" (W8-9 at 48" X 48"), "Low / Soft Shoulder" (W8-9B at 48" X 48"), "Unmarked Pavement Ahead" (W16-10 at 48" X 48"), and "Do Not Pass"(R4-1 at 24" X 30". When construction is completed in any given area of the project, relocate signs to the next work site, as directed by the Engineer. Remove these signs at the completion of the project.

All work zone signs may be portable.

**2- CONSTRUCTION METHODS.****(A) General:**

Install all warning work zone signs before beginning work on a particular map. If signs are installed three days prior to the beginning of work on a particular map, cover the signs until the work begins. Install each work zone warning sign separately and not on the same post(s) with any other sign except where an advisory speed plate or directional arrow is used.

**(B) Advance warning work zone signs:**

Install advance warning work zone signs (see attached Detail(s) and North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings Nos. 1101.02 and 1110.01) prior to beginning of work and remove upon final completion of the project. If there is a period of construction inactivity longer than two weeks, remove or cover advance warning work zone signs. Uncover advance warning work zone signs no more than 3 days before work resumes. All other operations could be suspended upon failure to comply with the above requirements. Such suspended operations would not be resumed until the above requirements are fulfilled.

**(C) Lane closure work zone signs:**

Install any required lane closure signing needed during the life of the project (see North Carolina Department of Transportation January 2002 Highway Design Branch Roadway Standard Drawings Nos. 1101.02, 1101.11 and 1110.02).

**(D) General work zone warning signs:**

Install general work zone warning signs for resurfacing and/or milling such as "Rough Road" (W8-8 at 48" X 48") (for milling only), "Uneven Pavement" (W8-15 at 48" X 48"), "Low Shoulder" (W8-9 at 48" X 48") and "Low / Soft Shoulder" (W8-9B at 48" X 48") at 1 mile intervals starting at a minimum of 500 feet in advance of the condition for both directions of travel (undivided roadways only) and at any other points determined by the Engineer.

Install the "Low Shoulder" (W8-9 at 48" X 48") or "Low / Soft Shoulder" (W8-9B at 48" X 48") signs prior to any resurfacing in an area where shoulder construction will be performed. Install general work zone warning signs such as "Unmarked Pavement Ahead" (W16-10 at 48" X 48") and "Do Not Pass" (R4-1 at 24" X 30") alternately at 1/2 mile intervals starting at a minimum of 500 feet in advance of the condition for both directions of travel (undivided roadways only) and at any other points determined by the Engineer. Install signs prior to the obliteration of any pavement markings. Remove these signs at the completion of the project.

**3- BASIS OF PAYMENT.**

No direct payment will be made for Work Zone Signing as such work will be considered incidental to the various other bid items in the Contract.

R-3

WBS#: 38200.3.1 ( R-4740)

Pitt & Greene Counties

Date: 06-29-2004

Revised:

**TIME LIMITATION FOR PLACEMENT AND REPLACEMENT  
OF PAVEMENT MARKINGS AND MARKERS COMPLETED BY CONTRACTORS  
ON NEWLY RESURFACED AREAS**

**MARKING BY CONTRACTOR: DIVIDED AND MULTI-LANE FACILITIES**

For all Interstate highways and access ramps, place all markings including symbols and legends, by the end of each workday's operation.

For all divided and multi-lane facilities, place all center line and lane line markings and railroad and school symbols by the end of each workday's operation. Place all edge lines, gore lines, and other symbols within 3 calendar days after they have been obliterated by the resurfacing operation.

**A Multi-lane facility is defined as any roadway having more than two lanes to include a two-lane/ two-way with a center two-way left turn lane.**

**MARKING BY CONTRACTOR: TWO-LANE, TWO-WAY FACILITIES**

For all two-lane, two-way facilities, place all center line markings, railroad and school symbols within 5 calendar days after they have been obliterated by the resurfacing operation. Place all edge lines and other symbols within 30 calendar days after they have been obliterated by the resurfacing operation.

**MARKING BY CONTRACTOR: ALL FACILITIES**

Place two applications of paint on newly resurfaced asphalt which will remain in place over three (3) months. Place the second application of paint upon ample drying time of the first, as determined by the Engineer.

**MARKERS BY CONTRACTOR: ALL FACILITIES**

Install permanent pavement markers within sixty (60) calendar days after completing the resurfacing on each map.

R-4Revised

WBS#: 38200.3.1 ( R-4740)  
Date: 06-29-2004  
Revised:

Pitt & Greene Counties

**USE IN CONJUNCTION WITH 2002 STANDARD SPECIFICATIONS**

THE FOLLOWING ROADWAY STANDARDS DRAWINGS AS THEY APPEAR IN THE "HIGHWAY DESIGN BRANCH ROADWAY STANDARD DRAWINGS" - ROADWAY DESIGN UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY, 2002 AND THE LATEST REVISIONS THERETO ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STANDARD PAVEMENT MARKINGS

ROADWAY STANDARD DRAWINGS: 1205.01, 1205.02, 1205.03, 1205.04, 1205.05,  
1205.06, 1205.07, 1205.08, 1205.09, 1205.10,  
1205.11, 1205.12

SNOWPLOWABLE PAVEMENT MARKERS

ROADWAY STANDARD DRAWINGS: 1250.01, 1253.01

R-5

Milled Rumble Strips

Roadway Standard Drawing: 665.01

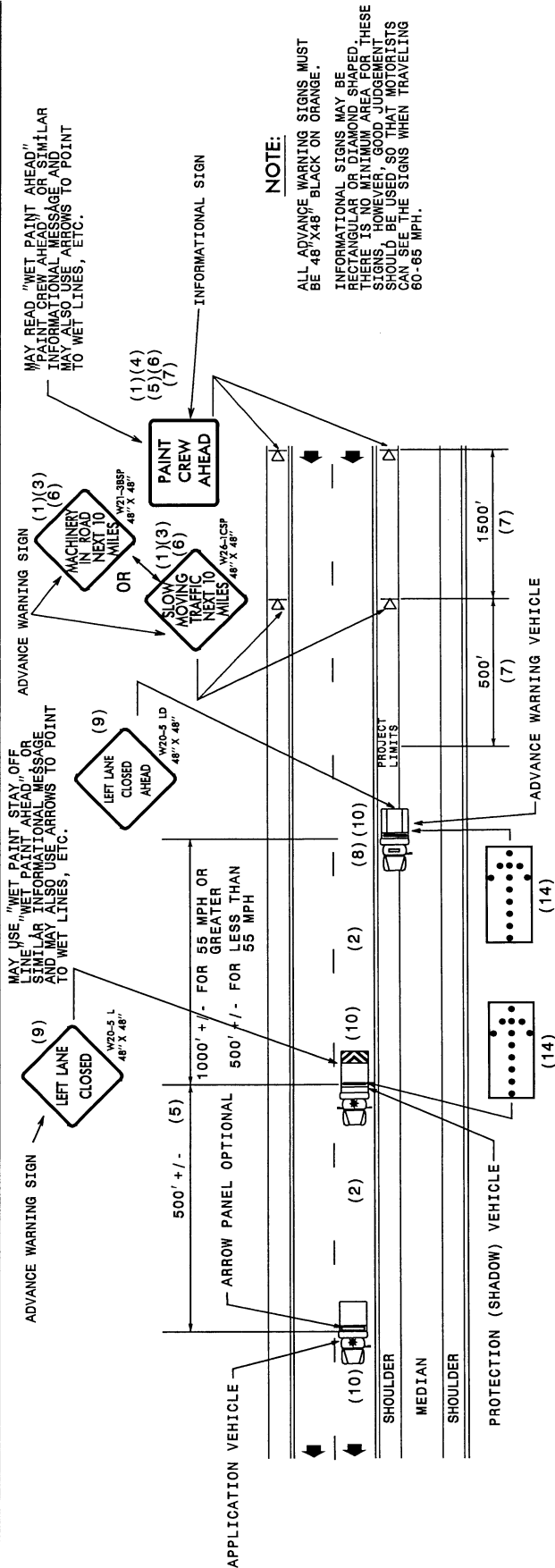
**GENERAL NOTES**

- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
  - A. TRUCK MOUNTED ADVANCE WARNING SIGNS
  - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
  - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST USE "NEXT 10 MILES" AND CIRCLE TO PICK UP SIGNS)
  - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE "NEXT 10 MILES" AND CIRCLE TO PICK UP CMS)
- (2) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE MOVING OF PAVEMENT MARKING MATERIAL. TRUCKS ARE OPTIONAL. THESE ADDITIONAL VEHICLES, HOWEVER, THE FIRST VEHICLE MOTORISTS SEE SHOULD HAVE A TMA.
- (3) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED TEN (10) MILES IN LENGTH.
- (4) SIGNS SHOULD BE ACTIVITY SPECIFIC I.E., PAINT CREW AHEAD (W21-001 C 48"X48")
- (5) DISTANCE BETWEEN APPLICATION VEHICLE AND PROTECTION VEHICLE WILL VARY AS DRYING TIMES VARY, HOWEVER, THE CRITICAL FACTOR IS PASSING MOTORISTS. IF THE GAP BETWEEN VEHICLES IS TOO GREAT, MOTORISTS WILL ATTEMPT TO PASS AND ULTIMATELY APPEAR IN THE MIDDLE OF THE OPERATION.
- (6) MOUNTING HEIGHT DIMENSIONS FROM ROADWAY TO SIGN SHOULD BE A MINIMUM OF FIVE (5) FEET FOR INTERSTATES, OTHER HIGH VOLUME ROADWAYS, OR ROADWAYS THAT MAY REQUIRE A MOUNTING HEIGHT OF FIVE (5) FEET FOR INCREASED VISIBILITY AND A MINIMUM OF ONE (1) FOOT FOR ALL OTHER ROADWAYS.
- (7) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.

**LEGEND**

- K PORTABLE SIGN
- ➔ DIRECTION OF TRAFFIC FLOW
- APPLICATION VEHICLE WITH ROTATING BEACON
- ▣ PROTECTION VEHICLE WITH TRUCK MOUNTED ADVANCE WARNING SIGN AND ROTATING BEACON (SEE ROADWAY STANDARD NO. 1185.01)
- ▤ PICKUP TRUCK WITH MOUNTED SIGN
- ⋯ FLASHING ARROW PANEL, TYPE "B" APPROPRIATE DIRECTION INDICATED

PANEL TYPE	MIN. SIZE
B	60"X30"



**MOVING OPERATION CARAVAN**  
 (OPERATIONS TRAVELING 3 MPH OR FASTER)  
 PLACING PAVEMENT MARKING OR MARKERS ON  
 INTERSTATE & MULTILANE DIVIDED ROADWAYS

**DRAWING NUMBER 7**  
 IMPLEMENTATION DATE: 07/01/97  
 REVISED: 04/25/97



**STANDARD SPECIAL PROVISION**

**AVAILABILITY OF FUNDS - TERMINATION OF CONTRACTS**

In accordance with G.S. 143.18.1 (6), Subsection (5) of G.S. 143-28.1 is hereby incorporated verbatim in this contract. G.S. 143-28.1(5) is as follows:

“(5). Amounts Obligated - Payments subject to the Availability of Funds - Termination of Contracts. Highway maintenance and construction appropriations may be obligated in the amount of allotments made to the Department of Transportation by the Office of State Budget and Management for the estimated payments for maintenance and construction contract work to be performed in the appropriation fiscal year. The allotments shall be multi-year allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in subdivision (2) above. Payment for highway maintenance and construction work performed pursuant to contract in any fiscal year other than the current fiscal year will be subject to appropriations by the General Assembly. Highway maintenance and construction contracts shall contain a schedule of estimated completion progress and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any highway maintenance or construction contract and any highway maintenance or construction contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of schedule work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications”.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Article 108-13, Item 5, of the North Carolina Department of Transportation Standard Specifications for Roads and Structures, dated January 1, 2002.

**STANDARD SPECIAL PROVISIONS**  
**(ENGLISH AND METRIC)**  
**NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY**

Seed shall be sampled and tested by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory. When said samples are collected, the vendor shall supply an independent laboratory report for each lot to be tested. Results from seed so sampled shall be final. Seed not meeting the specifications shall be rejected by the Department of Transportation and shall not be delivered to North Carolina Department of Transportation warehouses. If seed has been delivered it shall be available for pickup and replacement at the supplier's expense.

Any relabeling required by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory, that would cause the label to reflect as otherwise specified herein shall be rejected by the North Carolina Department of Transportation.

Seed shall be free from seeds of the noxious weeds Johnsongrass, Balloonvine, Jimsonweed, Witchweed, Itchgrass, Serrated Tussock, Showy Crotalaria, Smooth Crotalaria, Sicklepod, Sandbur, Wild Onion, and Wild Garlic. Seed shall not be labeled with the above weed species on the seed analysis label. Tolerances as applied by the Association of Official Seed Analysts will NOT be allowed for the above noxious weeds except for Wild Onion and Wild Garlic.

Tolerances established by the Association of Official Seed Analysts will generally be recognized. However, for the purpose of figuring pure live seed, the found pure seed and found germination percentages as reported by the North Carolina Department of Agriculture and Consumer Services, Seed Testing Laboratory will be used. Allowances, as established by the NCDOT, will be recognized for minimum pure live seed as listed on the following pages.

The specifications for restricted noxious weed seed refers to the number per pound as follows:

<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. Of Seed</u>	<u>Restricted Noxious Weed</u>	<u>Limitations per Lb. of Seed</u>
Blessed Thistle	4 seeds	Bermudagrass	27 seeds
Cocklebur	4 seeds	Cornflower (Ragged Robin)	27 seeds
Spurred Anoda	4 seeds	Texas Panicum	27 seeds
Velvetleaf	4 seeds	Bracted Plantain	54 seeds
Morning-glory	8 seeds	Buckhorn Plantain	54 seeds
Corn Cockle	10 seeds	Broadleaf Dock	54 seeds
Wild Radish	12 seeds	Curly Dock	54 seeds
Purple Nutsedge	27 seeds	Dodder	54 seeds
Yellow Nutsedge	27 seeds	Giant Foxtail	54 seeds
Canada Thistle	27 seeds	Horsenettle	54 seeds
Field Bindweed	27 seeds	Quackgrass	54 seeds
Hedge Bindweed	27 seeds	Wild Mustard	54 seeds

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass and Fine or Hard Fescue shall not contain more than 5% inert matter whereas a maximum of 2% inert matter will be allowed on all other kinds of seed. In addition, all seed shall not contain more than 2% other crop seed nor more than 1% total weed seed. The germination rate as tested by the North Carolina Department of Agriculture shall not fall below 70%, which includes both dormant and hard seed. Seed shall be labeled with not more than 7%, 5% or 2% inert matter (according to above specifications), 2% other crop seed and 1% total weed seed.

Exceptions may be made for minimum pure live seed allowances when cases of seed variety shortages are verified. Pure live seed percentages will be applied in a verified shortage situation. Those purchase orders of deficient seed lots will be credited with the percentage that the seed is deficient.

Further specifications for each seed group are give below:

Minimum 85% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 83% pure live seed will not be approved.

Sericea Lespedeza  
Oats (seeds)

Minimum 80% pure live seed; maximum 1% total weed seed; maximum 2% total other crop; maximum 144 restricted noxious weed seed per pound. Seed less than 78% pure live seed will not be approved.

Tall Fescue (all approved varieties)	Bermudagrass
Kobe Lespedeza	Browntop Millet
Korean Lespedeza	German Millet - Strain R
Weeping Lovegrass	Centipedegrass
Carpetgrass	Clover - Red/White/Crimson

Minimum 78% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 76% pure live seed will not be approved.

Common or Sweet Sundangrass

Minimum 76% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 74% pure live seed will not be approved.

## 4

Rye (grain; all varieties)  
Kentucky Bluegrass (all approved varieties)  
Hard Fescue (all approved varieties)  
Shrub (bicolor) Lespedeza

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 144 restricted noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Crownvetch  
Pensacola Bahiagrass  
Japanese Millet  
Switchgrass  
Reed Canary Grass

**STANDARD SPECIAL PROVISIONS**  
**ERRATA**

Correct the *2002 Standard Specifications* as follows:

**Page 1-61, Subarticle 108-10(A)**

In the first sentence, change the Article reference from 101-24 to 101-25.

**Page 2-21, Subarticle 235-4(B)**

In the third sub-bullet under the eighth bullet in this subarticle, delete the word "subgrade" and insert the words "finished grade".

**Page 3-4, Article 300-10**

Change all references to 300-8 to 300-9.

**Page 5-9, Subarticle 520-3(A)**

Delete the words "at your option".

**Page 5-10, Subarticle 520-6(A)**

In the first sentence, add a period after "(B)" and delete the words "and (C)."

Delete the last sentence of the subarticle.

**Page 8-47, Subarticle 862-6**

Change the subarticle number from 862-6 to 862-7.

**Page 8-49, Subarticle 864-4**

In the first paragraph, change the Article reference from 862-3 to 864-3.

**Page 8-55, Subarticle 866-5(G)**

In the third pay item, insert the words "with Posts" after the word "Fence".

**Page 10-1, Subarticle 1000-3(A)**

In the second paragraph, change 550 psi to 600 psi (4.1 MPa).

**Page 10-2, Subarticle 1000-3(A)**

In the last sentence of the second paragraph on this page, change 550 psi to 600 psi (4.1 MPa).

**Page 10-5, Table 1000-1**

Under the column "Consistency Max. Slump" change the sub-heading 'Non-Vibrated' to 'Vibrated' and change the sub-heading 'Vibrated' to 'Non-Vibrated'. Under the column "Min. Cement Content" change the sub-heading 'Non-Vibrated' to 'Vibrated' and change the sub-heading 'Vibrated' to 'Non-Vibrated'.

**Page 10-7, Table 1005-2**

For Std. Size # 2S make the following changes:

- #50 (0.300) Sieve change the limits from 8 - 30 to **5 - 30**.
- #100 (0.150) Sieve change the limits from 0.5 - 10 to **0 - 10**.

For Std. Size # 2MS make the following changes:

- #50 (0.300) Sieve change the limits from 8 - 35 to **5 - 35**.
- #100 (0.150) Sieve change the limits from 0.5 - 20 to **0 - 20**.

**Page 15-3, Article 1505-3**

In the last paragraph of this article, change Article 300-6 to Article 300-7.

**Page 15-10, Article 1510-5**

In the fourth paragraph, insert a comma after the word "water".

**Page 15-18, Article 1530-2**

In the third paragraph on the page, change "Section 812" to "Section 340".

**Page 16-15, Article 1635-3(A)**

Substitute the second paragraph with the following:

Construct the rock pipe inlet sediment trap type-A with a minimum height of 18 inches (457.2 mm) and a minimum of 12 inches (304.8 mm) below the roadway shoulder or diversion point.

**STANDARD SPECIAL PROVISION**

**AWARD OF CONTRACT**

“The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the Regulations of the Department of Transportation (49 C.F.R., Part 21), issued pursuant to such act, hereby notifies all bidders that it will affirmatively insure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the ground of race, color, or national origin”.

MINORITY AND FEMALE EMPLOYMENT REQUIREMENTS

## NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE NUMBER 11246)

1. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, see as shown on the attached sheet entitled "Employment Goals for Minority and Female participation".

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 effort 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 or the 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. As used in this Notice and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the cover sheet of the proposal form and contract.



EMPLOYMENT GOALS FOR MINORITY  
AND FEMALE PARTICIPATION

Economic Areas

Area 023 29.7%

Bertie County  
Camden County  
Chowan County  
Gates County  
Hertford County  
Pasquotank County  
Perquimans County

Area 024 31.7%

Beaufort County  
Carteret County  
Craven County  
Dare County  
Edgecombe County  
Green County  
Halifax County  
Hyde County  
Jones County  
Lenoir County  
Martin County  
Nash County  
Northampton County  
Pamlico County  
Pitt County  
Tyrrell County  
Washington County  
Wayne County  
Wilson County

Area 025 23.5%

Columbus County  
Duplin County  
Onslow County  
Pender County

Area 026 33.5%

Bladen County  
Hoke County  
Richmond County  
Robeson County  
Sampson County  
Scotland County

Area 027 24.7%

Chatham County  
Franklin County  
Granville County  
Harnett County  
Johnston County  
Lee County  
Person County  
Vance County  
Warren County

Area 028 15.5%

Alleghany County  
Ashe County  
Caswell County  
Davie County  
Montgomery County  
Moore County  
Rockingham County  
Surry County  
Watauga County  
Wilkes County

Area 029 15.7%

Alexander County  
Anson County  
Burke County  
Cabarrus County  
Caldwell County  
Catawba County  
Cleveland County  
Iredell County  
Lincoln County  
Polk County  
Rowan County  
Rutherford County  
Stanly County

Area 0480 8.5%

Buncombe County  
Madison County

Area 030 6.3%

Avery County  
Cherokee County  
Clay County  
Graham County  
Haywood County  
Henderson County  
Jackson County  
McDowell County  
Macon County  
Mitchell County  
Swain County  
Transylvania County  
Yancey County

# 10

## SMSA Areas

Area 5720 26.6%

Currituck County

Area 9200 20.7%

Brunswick County  
New Hanover County

Area 2560 24.2%

Cumberland County

Area 6640 22.8%

Durham County  
Orange County  
Wake County

Area 1300 16.2%

Alamance County

Area 3120 16.4%

Davidson County  
Forsyth County  
Guiford County  
Randolph County  
Stokes County  
Yadkin County

Area 1520 18.3%

Gaston County  
Mecklenburg County  
Union County

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## Goals For Female

### Participation in Each Trade

(Statewide) 6.9%

**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

**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 dispute 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.)

1. **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 implementations 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. The 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.

9. **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 rate on the 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 wage determination for 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 for apprentices, in which case such trainees shall receive the same 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 an 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, social security number, and address 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.



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;

(2) 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 than the applicable wage rate and fringe benefits or cash equivalent for the classification of work 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

1. 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

1. 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).

3. 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 than \$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:

1. 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.

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#### **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.

**C201247 (R-4740)**

**Training Special Provisions**

This project special provision will not be applicable to those Contractors who have elected to participate in the Department's *Alternative On-The-Job Training Program*. In the event the Contractor is participating in the Department's *Alternative On-The-Job Training Program*, the On-The-Job Training program of the Construction Unit, Contractual Services Section will certify that participation to the appropriate Highway Division and Resident Engineers.

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "*Specific Equal Employment Opportunity Responsibilities*," (Attachment 1), and is in implementation of 23 USC 140(a). As a part of the Contractor's equal opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or classification involved. Preference shall be given to providing training in the following skilled work classifications:

- |                     |                                  |
|---------------------|----------------------------------|
| Equipment Operators | Office Engineers                 |
| Truck Drivers       | Estimators                       |
| Carpenters          | Iron / Reinforcing Steel Workers |
| Concrete Finishers  | Mechanics                        |
| Pipe Layers         | Welders                          |

The number of trainees to be trained under this contract will be as specified in the project special provisions included else where in the proposal form.

In the event that a Contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, the Contractor shall maintain the primary responsibility for meeting the training requirements imposed by this special provision and the subcontractor has an approved on-the-job training program. The Contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the skilled work classifications on the basis of the Contractor's needs and the availability of journey workers in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the Department for approval the number of trainees to be trained in each selected classification and the training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications on the form provided by the Department. That form shall be submitted by the Contractor to the Department on or before the date of the pre-construction conference. The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and who receives training for at least 50 percent of the specific program requirement.

Training and upgrading of minorities and women toward journey worker status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private resources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps he has taken in the pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. 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.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journey worker status or in which he has been employed as a journey worker. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the finding in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Department. The Department shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journey worker status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the US Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the US Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training, shall also be considered acceptable provided it is 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 Department prior to commencing work on the classification covered by the program. It is the intention of these provisions that training be provided in the construction crafts rather than clerk-typist or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is provided and approved by the Department and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

It is normally expected that a trainee will begin his training on the project as soon as feasible after the start of work utilizing the skill involved and remain on the project as long as training opportunities exist in the work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this



training special provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the Contractor for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journey worker's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will be following providing the training. The Contractor shall provide each trainee with a with a certificate showing the type and length of training satisfactorily completed.

The Contractor will provide for maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

GENERAL DECISION NC030010 06/13/03 NC10  
 General Decision Number NC030010

Superseded General Decision No. NC020010

State: North Carolina

Construction Type:  
 HIGHWAY

County(ies):

ALLEGHANY	GRANVILLE	PASQUOTANK
ANSON	GREENE	PENDER
ASHE	HALIFAX	PERQUIMANS
AVERY	HARNETT	PERSON
BEAUFORT	HAYWOOD	PITT
BERTIE	HENDERSON	POLK
BLADEN	HERTFORD	RICHMOND
BRUNSWICK	HOKE	ROBESON
CALDWELL	HYDE	ROCKINGHAM
CAMDEN	IREDELL	RUTHERFORD
CARTERET	JACKSON	SAMPSON
CASWELL	JOHNSTON	SCOTLAND
CHATHAM	JONES	STANLY
CHEROKEE	LEE	SURRY
CHOWAN	LENOIR	SWAIN
CLAY	MACON	TRANSYLVANIA
CLEVELAND	MADISON	TYRRELL
COLUMBUS	MARTIN	VANCE
CRAVEN	MCDOWELL	WARREN
CURRITUCK	MITCHELL	WASHINGTON
DARE	MONTGOMERY	WATAUGA
DUPLIN	MOORE	WAYNE
EDGECOMBE	NASH	WILKES
GATES	NORTHAMPTON	WILSON
GRAHAM	PAMLICO	YANCEY

HIGHWAY CONSTRUCTION PROJECTS (does not include Tunnels, Building Structures in rest area projects, Railroad Construction, and Bascule/Suspension/Spandrel Arch Bridges, Bridges designed for Commercial Navigation, and Bridges involving marine construction and other major bridges).

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

ALLEGHANY	GRANVILLE	PASQUOTANK
ANSON	GREENE	PENDER
ASHE	HALIFAX	PERQUIMANS
AVERY	HARNETT	PERSON
BEAUFORT	HAYWOOD	PITT
BERTIE	HENDERSON	POLK
BLADEN	HERTFORD	RICHMOND
BRUNSWICK	HOKE	ROBESON
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CAMDEN	IREDELL	RUTHERFORD
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CHEROKEE	LEE	SURRY
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CURRITUCK	MITCHELL	WASHINGTON
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DUPLIN	MOORE	WAYNE
EDGECOMBE	NASH	WILKES
GATES	NORTHAMPTON	WILSON
GRAHAM	PAMLICO	YANCEY

SUNC3001A 02/12/1990

	Rates	Fringes
CARPENTER	7.71	
CONCRETE FINISHER	7.64	
IRONWORKER (Reinforcing)	9.27	
LABORER		
Comman	5.42	
Asphalt Raker	6.32	
Form Setter (Road)	6.90	
Mason (Brick, Block, Stone)	7.76	
Pipe Layer	5.90	
Power Tool Operator	6.53	
POWER EQUIPMENT OPERATORS:		
Asphalt Distributor	6.57	
Asphalt Paver	7.00	
Bulldozer	7.21	
Bulldozer (utility)	6.00	
Concrete Finishing Machine	9.48	
Concrete Grinder	8.13	
Crane, Backhoe, Shovel, & Dragline (Over 1 yd.)	8.53	
Crane, Backhoe, Shovel, & Dragline (1 yd. & under)	6.91	
Drill Operator	7.65	
Grade Checker	5.15	
Grease man	6.43	
Hydroseeder	7.00	
Loader	6.85	
Mechanic	8.27	
Milling Machine	8.00	
Motor Grader (Fine Grade)	8.01	
Motor Grader (Rough Grade)	7.42	
Oiler	5.80	
Piledriver	11.00	
Roller (Finish)	6.32	
Roller (Rough)	5.43	
Scraper	6.41	
Screed Asphalt	6.33	
Stone Spreader	5.88	
Stripping Machine Operator	6.00	
Subgrade Machine	9.00	
Sweeper	5.64	

Tractor (utility)	6.15
TRUCK DRIVERS:	
Single Rear Axle Trucks	5.15
Multi Rear Axle Trucks	5.48
Heavy Duty trucks	5.50
Welder	9.07

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

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In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.  
END OF GENERAL DECISION

County : Greene, Pitt

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
<b>ROADWAY ITEMS</b>						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	1245000000-E	SP	SHOULDER RECONSTRUCTION	71.9 SMI		
0003	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (2-1/4")	9,387 SY		
0004	1330000000-E	607	INCIDENTAL MILLING	2,850 SY		
0005	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	20,608 TON		
0006	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	54,130 TON		
0007	1565000000-E	620	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22	3,247 TON		
0008	1840000000-E	665	MILLED RUMBLE STRIPS	310,464 LF		
0009	4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	60,720 LF		
0010	4688000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 90 MILS)	334,854 LF		
0011	4690000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (6", 120 MILS)	41,859 LF		
0012	4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	700 LF		
0013	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	33 EA		
0014	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	51,282 LF		
0015	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	325 LF		
0016	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	9 EA		
0017	4905000000-N	1253	SNOWPLOWABLE RAISED PAVEMENT MARKERS	4,240 EA		

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0018	6084000000-E	1660	SEEDING & MULCHING	69	ACR	
0019	6090000000-E	1661	SEED FOR REPAIR SEEDING	784	LB	
0020	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	2.51	TON	
0021	6108000000-E	1665	FERTILIZER TOPDRESSING	54.68	TON	

\*\*\*\*\* BEGIN SCHEDULE AA \*\*\*\*\*  
 \*\*\*\*\* ( 2 ALTERNATES ) \*\*\*\*\*

0022 AA1	1297000000-E	607	MILLING ASPHALT PAVEMENT, **** DEPTH (2")	52,096	SY	
0023 AA1	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	25,071	TON	
0024 AA1	1560000000-E	620	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	2,065	TON	
*** OR ***						
0025 AA2	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	18,127	TON	
0026 AA2	1560000000-E	620	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	1,903	TON	
0027 AA2	1839302000-E	SP	HOT-IN-PLACE RECYCLED ASPHALT CONCRETE, TYPE I19.0C	52,096	SY	
0028 AA2	1839400000-E	SP	EMULSIFIED ASPHALT REJUVENA- TING AGENT	7,816	GAL	
0029 AA2	1839500000-E	SP	HOT MIX ASPHALT ADMIXTURE	1,304	TON	

\*\*\*\*\* END SCHEDULE AA \*\*\*\*\*

Contract No: **C201247**

Counties: **Greene and Pitt**

ACCEPTED BY THE  
DEPARTMENT OF TRANSPORTATION

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Contract Officer

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Date

Execution of Contract and Bonds  
Approved as to Form:

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Attorney General



