U-5617 Williams Road Gateway Project

Technical Specifications

U-5617 (Williams Road Gateway Project)

Town of Lewisville Forsyth County, North Carolina

Prepared for:

Town of Lewisville North Carolina

Prepared by:

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KH Project # 013813000 JULY 2022

U-5617 Williams Road Gateway Project

February 2022

TOWN OF LEWISVILLE U-5617 (WILLIAMS ROAD GATEWAY PROJECT)

CONTRACT PROPOSAL

TIP NUMBER: U-5617

FEDERAL AID NO.: STBGDA-1173(005)

WBS ELEMENT NO.: 47082.3.1

COUNTY: FORSYTH

DESCRIPTION: THE TOWN OF LEWISVILLE PROPOSES TO WIDEN SR 1173 (WILLIAMS

ROAD) AND IMPLEMENT A COMPLETE STREET DESIGN FROM THE

ROUNDABOUT AT CONCORD CHURCH ROAD SOUTH OF THE BRIDGE OVER

US 421 TO THE ROUNDABOUT AT SR 1001 (SHALLOWFORD ROAD).

DATE OF RE-ADVERTISEMENT: JULY 25, 2022

NON-MANDATORY PRE-BID MEETING WILL BE HELD IN PERSON ON AUGUST 09, 2022 at 10:00 AM AT 6510 SHALLOWFORD ROAD, LEWISVILLE, NC 27023 AND A VIRTUAL OPTION WILL BE ALLOWED – SEE DETAILS BELOW:

COPY AND PASTE THE LINK BELOW INTO A WEB BROWSER TO JOIN WITH VIDEO: https://bit.ly/3oefPF0

CALL THE PHONE NUMBER BELOW TO JOIN WITH AUDIO ONLY:

CALL: 1-984-204-1608 AND INPUT CONFERENCE ID: 730 434 103#

BID OPENING: AUGUST 25, 2022 at 2:00 PM, AT 6510 SHALLOWFORD ROAD, LEWISVILLE, NC 27023

*** 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. FOR CONTRACTS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD, BIDDERS ARE REQUIRESD TO BECOME LICENSED BY THE NC LICENSING BOARD. NON-LICENSED BIDDERS ARE PERMITED 60 DAYS AFTER BID OPENING TO OBTAIN PROPER LICENSING FOR THE TYPE OF PROJECT BEING LET. 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.

NAME OF BIDDER

ADDRESS OF BIDDER

RETURN BIDS TO: TOWN OF LEWISVILLE

ATTENTION: STACY TOLBERT

PERSON'S TITLE: INTERIM TOWN MANAGER

PHYSICAL ADDRESS: 6510 SHALLOWFORD ROAD, LEWISVILLE, NC 27023

ALL BIDS MUST BE RECEIVED PRIOR TO THE DATE AND TIME LISTED ABOVE.

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INSTRUCTIONS TO BIDDERS

PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE PREPARING AND SUBMITTING YOUR BID.

Please read all instructions and applicable articles found in the **2018 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES** available at the website listed below carefully before preparing and submitting your bid.

 $\frac{https://connect.ncdot.gov/resources/Specifications/Pages/2018-Specifications-and-Special-Provisions.aspx$

All bids shall be prepared and submitted in accordance with Articles 102-8, 102-10, 102-13, 102-14 and 102-15 of the Standard Specifications and the following additions and exceptions. Failure to comply with any requirement shall cause the bid to be considered irregular and shall be grounds for rejection of the bid.

- 1. The bid form furnished by TOWN OF LEWISVILLE with the proposal shall be used and shall not be altered in any manner. DO NOT SEPARATE THE BID FORM FROM THE PROPOSAL FORMS! Each bid proposal must be accompanied by all appropriate forms and documentation to be considered responsive.
- 2. Bid Bonds will be required.
- 3. No electronic bids will be accepted.
- **4.** All entries on the bid form, including signatures, shall be written in ink.
- 5. The Bidder shall submit a unit price for every item on the bid form. The unit prices for the various contract items shall be written in figures. ***Unit prices must be limited to TWO decimal places.***
- **6.** An amount bid shall be entered on the bid form for every item. The amount bid for each item shall be determined by multiplying each unit bid by the quantity for that item, and shall be written in figures in the "Amount Bid" column of the form.
- 7. The total amount bid shall be written in figures in the proper place on the bid form. The total amount shall be determined by adding the amounts bid for each item.
- **8.** Changes in any entry shall be made by marking through the entry in ink and making the correct entry adjacent thereto in ink. A representative of the Bidder shall initial the change in ink. Do not use "White Out" or similar product to make corrections.
- **9.** The bid shall be properly executed. All bids shall show the following information:
 - a. Name of individual, firm, corporation, partnership, or joint venture submitting bid.
 - b. Name of individual or representative submitting bid and position or title.
 - c. Name, signature, and position or title of witness.
 - d. Federal Identification Number

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- e. Contractor's License Number (If available)
- **10.** Bids submitted by corporations shall bear the seal of the corporation.
- 11. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
- **12.** The bidder shall not add any provision reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.
- 13. THE PROPOSAL WITH THE BID FORM STILL ATTACHED SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL HAVE BEEN DELIVERED TO AND RECEIVED IN THE TOWN OF LEWISVILLE, P.O. BOX 547, 6510 SHALLOWFORD ROAD, LEWISVILLE, NC 27023 BY 2:00 PM ON, AUGUST 25, 2022.

BIDDERS SHALL DROP OFF PRIOR TO THE BID OPENING BETWEEN THE HOURS OF 8:30 AM AND 5:00 PM MONDAY THRU FRIDAY.

14. The sealed bid must display the following statement on the front of the sealed envelope:

"QUOTATION FOR – U-5617: WILLIAMS ROAD GATEWAY PROJECT TO BE OPENED AT 2:00 PM ON AUGUST 25, 2022."

15. <u>If delivered by mail</u>, the sealed envelope shall be placed in another sealed envelope and the outer envelope shall be addressed as follows:

TOWN OF LEWISVILLE Attn: Stacy Tolbert P.O. Box 547 6510 Shallowford Road Lewisville, NC 27023 336-945-1028

- **16.** Each proposal shall indicate the full business name and address of the Bidder and shall be signed by him with the usual signature.
- 17. Questions will only be received in written form by email to planner@lewisvillenc.net. The deadline to submit written questions is 5:00 PM on August 16, 2022. Responses to questions will be posted in an addendum and will be made available by 5:00 PM on August 18, 2022. Each bidder shall make acknowledgement of receipt of all addendums in the space provided in the Bid Form.

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NCDOT STANDARD NOTES (Federal Aid)

(01/02/18)

- A. <u>NCDOT Standard Specifications</u> The 2018 North Carolina Department of Transportation Standard Specifications for Roads and Structures, herein referred to as the 'Standard Specifications', and the 2018 Roadway Standard Drawings, shall apply to all portions of this project except as may be modified by this document.
- B. <u>Bidder Prequalification</u> Bidders are required to be prequalified with NCDOT for their specific discipline. Contractors wishing to become prequalified may obtain information through the NCDOT website at: https://connect.ncdot.gov/business/Pages/default.aspx
- C. <u>Disadvantaged Business Enterprise References</u> Since this is a Federal-aid project with DBE participation, only those requirements and goals set forth by NCDOT Goal Setting Committee are applicable. References to any other requirements or to N.C. General Statute 143-128.2 shall <u>not</u> apply to this project. Refer to Special Provision SP1 G63.
- D. <u>Award of Contract</u> The contract will be awarded to the lowest responsible, responsive bidder. Alternate items will not be considered in determining the low bidder and will only be evaluated after the award of the contract is made.
- E. <u>Contractor Licensing</u> On all Federal-aid contracts, non-licensed contractors are permitted to submit bids, however they must be licensed prior to performing any work. Bidders are permitted 60 days, after bid opening, to become licensed by the North Carolina Licensing Board. If they fail to do so within 60 days, their bid will be considered non-responsive and will be rejected. If the successful bidder does not hold the proper license to perform any plumbing, heating, air conditioning, or electrical work in this contract, he will be required to sublet such work to a contractor properly licensed in accordance with *Article 2 of Chapter 87 of the General Statutes* (licensing of heating, plumbing, and air conditioning contractors) and *Article 4 of Chapter 87 of the General Statutes* (licensing of electrical contractors).
- F. <u>Bonds</u> Please note that all Bid Bonds, Payment Bonds, and Performance Bonds required for this project, shall be those found on the NCDOT website. The bonds are located at:

Bid Bonds (M-5):

 $\frac{https://connect.ncdot.gov/municipalities/Bid\%20Proposals\%20for\%20LGA\%20Conten}{t/04\%20Bid\%20Bonds.doc}$

Payment Bonds (M-6):

 $\frac{https://connect.ncdot.gov/municipalities/Bid\%20Proposals\%20for\%20LGA\%20Conten}{t/05\%20Payment\%20Bonds.doc}$

Performance Bonds (M-7):

 $\underline{https://connect.ncdot.gov/municipalities/Bid\%20Proposals\%20for\%20LGA\%20Content/06\%20Performance\%20Bonds.doc$

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- G. <u>Liability Insurance</u> In addition to any insurance requirements as may be required by the LGA, the Contractor is obligated to comply with Article 107-15 of the *Standard Specifications* including the dollar limits set forth.
- H. <u>Buy America</u> This project shall be governed by the Buy America requirements, for the use of domestic steel and iron products, as outlined in the *Standard Specifications*.
- I. <u>Proprietary Items</u> When a proprietary (brand name) product, whether material, equipment or procedure, are specified in the plans or specifications, they are used only to denote the style, type, character, and quality desired of the product. They do not restrict the bidder from proposing other brands, makes, or manufacturers, which are determined to be of equal quality. The approval, or disapproval of those products, will be made by the Engineer prior to allowing those product(s) or material(s) to be incorporated into the work.
- J. <u>Retainage by LGAs</u> The LGA for this contract will not retain any amount or percentage from progress payments or final estimates due the contractor.
 - <u>Retainage by Contractors</u> Contractors are NOT permitted to retain any amount or percentage from monies due their subcontractors or material suppliers on federally funded projects except as permitted by Subarticle 109-4(B) of the *Standard Specifications*.
- K. <u>Traffic Control</u> –The requirements of the *Manual on Uniform Traffic Control Devices* (*MUTCD*) *FHWA*, as amended by the *NCDOT Supplement to MUTCD*, shall apply. Traffic Control, both vehicular and pedestrian, shall be maintained throughout the project as required by these specifications as modified by the project plans or special provisions.

ALLOWABLE CHANGES TO THE NCDOT 2018 STANDARD SPECIFICATIONS

(01/02/18)

- 1. Article 102-1 Invitation to Bid, page 1-9, delete this section in its entirety.
- 2. Subarticle 102-8(B) Electronic Bids, page 1-15, delete this section in its entirety.
- 3. Subarticle 102-9(C)2 Electronic Bids, page 1-17, delete this section in its entirety.
- 4. Article 102-10 Bid Bond or Bid Deposit, page 1-17, line 38, "60" days shall be modified to "90" days.
- 5. Subarticle 102-10 Bid Bond or Bid Deposit, page 1-18, delete lines 16-27.
- 6. Subarticle 102-11 Delivery of Bids, pages 1-18-19, delete lines 31-32.
- 7. Subarticle 102-12(A) Paper Bid, page 1-18, line 37, the reference to "Contract Officer" shall be changed to "TOWN or duly authorized agent".
- 8. Subarticle 102-12(B) Electronic Bid, pages 1-18 and 19, delete this section in its entirety.
- 9. Subarticle 102-13(B)2 Electronic Bids, page 1-19, delete this section in its entirety.
- 10. Subarticle 103-2(B) Electronic Bids, page 1-22, delete this section in its entirety.

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- 11. Subarticle 103-3(A) Criteria for Withdrawal of Bid, page 1-22, modify the reference "G.S.136-28.1" to "G.S.143-129.1". On page 1-23, in that same subarticle under (5), line 11, modify "State Contract Officer" to "TOWN or duly authorized agent".
- 12. Article 103-7 Contract Bonds, page 1-30, line 5, modify "14" calendar days to "10" calendar days per G.S.143-129.
- 13. Article 103-9, Failure to Furnish Contract Bonds, page 1-30, line 15, modify "14" calendar days to "10" calendar days per G.S.143-129.
- 14. Article 105-9 Construction Stakes, Lines and Grades, page 1-48, delete this section in its entirety and substitute the following: "The Municipality will <u>not</u> set the stakes, lines or grades for this project."
- 15. Article 108-2, Progress Schedule, page 1-68, add the following requirement as subarticle (D) on page 1-69: "The municipality may add additional requirements as noted in the bid proposal".
- 16. Article 108-3, Preconstruction Conference, page 1-69, line 20, change "Division Engineer" to "TOWN or duly authorized agent".
- 17. Article 108-4, Construction Conferences, page 1-69, line 28, change "Resident Engineer" to "TOWN or duly authorized agent".
- 18. Article 109-8, Fuel Price Adjustments, page 1-87, delete this article in its entirety and substitute the following: "Fuel Price Adjustments will not apply to this project."
- 19. *Article-620-4, Measurement and Payment, page 6-33*, delete lines 38 through line 20 on page 6-34 and substitute the following: "Asphalt Price Adjustments will <u>not</u> apply to this project."

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PROJECT SPECIAL PROVISIONS

GENERAL

CONTRACT TIME AND LIQUIDATED DAMAGES

(7-1-95) (Rev. 12-18-07) (Rev. KH 10-31-19)

108

SP1 G10 A

The date of availability for this contract is the issued date of the Notice to Proceed.

The completion date for this contract is 300 days from the Notice to Proceed.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Eight-Hundred and Fifty Dollars** (\$850.00) per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 & LIQUIDATED DAMAGES

(2-20-07) 108 SP1 G14 B

Construction is only allowed between the hours of 7:00 AM and 7:00 PM Monday thru Friday. No work shall commence outside of the aforementioned work hours, holidays as stated below, or during the weekend without written approval from the Town of Lewisville. Opportunities to work outside of standard hours are limited and require a request letter to be submitted at least 48 hours in advance of non-standard working hours. No Construction will be allowed on Sundays on any road. No Construction will be allowed on Saturday unless approved by the Town of Lewisville. If the Contractor obtains permission from the Town of Lewisville to perform work on Saturdays, construction will only be allowed between the hours of 9:00 AM and 5:00 PM.

If the Contractor requests work hours to commence on weekends, holidays, or exceed the standard 40-hour work week, the Town of Lewisville will be responsible for additional costs associated with CEI services.

The Contractor shall not narrow or close a lane of traffic on SR 1173 (Williams Road), detain and /or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Town of Lewisville Public Works.

- 2. For **New Year's Day**, between the hours of **6:00 a.m.** December 31st and **7:00 p.m.** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **7:00 p.m.** the following Tuesday.
- 3. For **Easter**, between the hours of **6:00 a.m.** Thursday and **7:00 p.m.** Monday.
- 4. For **Memorial Day**, between the hours of **6:00 a.m.** Friday and **7:00 p.m.** Tuesday.
- 5. For **Independence Day**, between the hours of **6:00 a.m.** the day before Independence Day and **7:00 p.m.** the day after Independence Day.
 - If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **6:00 a.m.** the Thursday before Independence Day and **7:00 p.m.** the Tuesday after Independence Day.
- 6. For **Labor Day**, between the hours of **6:00 a.m.** Friday and **7:00 p.m.** Tuesday.
- 7. For **Thanksgiving Day**, between the hours of **6:00 a.m.** Tuesday and **7:00 p.m.** Monday.
- 8. For **Christmas**, between the hours of **6:00 a.m.** the Friday before the week of Christmas Day and **7:00 p.m.** the following Tuesday after the week of Christmas Day.
- 9. For "Street Party," occurring at Shallowford Square on the third Saturday of June, between the hours of 5:00 PM the Friday before the "Beach Blast" and 9:00 AM on the Monday following the "Street Party".
- 10. For "The Lewisville Christmas Parade" on the second Sunday of December, between the hours of 5:00 PM the Friday before "The Lewisville Christmas Parade" and 9:00 AM the Monday following "The Lewisville Christmas Parade".

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures are not required during these periods, unless otherwise directed by the Town of Lewisville Public Works.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane closures according to the time restrictions stated herein and place traffic in the existing traffic pattern.

The liquidated damages are **Five-Hundred Dollars** (\$500.00) per 15-minutes or portion thereof.

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INTERMEDIATE CONTRACT TIME NUMBER 2 & LIQUIDATED DAMAGES

(2-20-07) 108 SP1 G14 C

Construction is only allowed between the hours of 7:00 AM and 7:00 PM Monday thru Friday. No work shall commence outside of the aforementioned work hours, holidays, or during the weekend without written approval from the Town of Lewisville. Opportunities to work outside of standard hours are limited and require a request letter to be submitted at least 48 hours in advance of non-standard working hours. No Construction will be allowed on Sundays on any road. No Construction will be allowed on Saturday unless approved by the Town of Lewisville. If the Contractor obtains permission from the Town of Lewisville to perform work on Saturdays, construction will only be allowed between the hours of 9:00 AM and 5:00 PM.

If the Contractor requests work hours to commence on weekends, holidays, or exceed the standard 40-hour work week, the Town of Lewisville will be responsible for additional costs associated with CEI services.

The Contractor shall complete the required work of installing, maintaining and removing the traffic control devices for lane closures and restoring traffic to the existing traffic pattern. The Contractor shall not close or narrow a lane of traffic on **SR 1173 (Williams Road)** during the following time restrictions:

DAY AND TIME RESTRICTIONS

Daily between the hours of 7:00 AM and 9:00 AM

Daily between the hours of 4:00 PM and 6:00 PM

The time of availability for this intermediate contract time will be the time the Contractor begins to install traffic control devices required for the lane closures according to the time restrictions stated herein.

The completion time for this intermediate contract time will be the time the Contractor is required to complete the removal of traffic control devices required for the lane closures according to the time restrictions stated herein and restore traffic to the existing traffic pattern.

The liquidated damages are **Five-Hundred Dollars** (\$500.00) per 15-minutes or portion thereof.

PERMANENT VEGETATION ESTABLISHMENT

(2-16-12) (Rev. 10-15-13) 104 SPI G16

Establish a permanent stand of the vegetation mixture shown in the contract. During the period between initial vegetation planting and final project acceptance, perform all work necessary to establish permanent vegetation on all erodible areas within the project limits, as well as, in borrow and waste pits. This work shall include erosion control device maintenance and installation, repair seeding and mulching, supplemental seeding and mulching, mowing, and fertilizer topdressing, as directed. All work shall be performed in accordance with the

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applicable section of the 2018 Standard Specifications. All work required for initial vegetation planting shall be performed as a part of the work necessary for the completion and acceptance of the Intermediate Contract Time (ICT). Between the time of ICT and Final Project acceptance, or otherwise referred to as the vegetation establishment period, the Department will be responsible for preparing the required National Pollutant Discharge Elimination System (NPDES) inspection records.

Once the Engineer has determined that the permanent vegetation establishment requirement has been achieved at an 80% vegetation density (the amount of established vegetation per given area to stabilize the soil) and no erodible areas exist within the project limits, the Contractor will be notified to remove the remaining erosion control devices that are no longer needed. The Contractor will be responsible for, and shall correct any areas disturbed by operations performed in permanent vegetation establishment and the removal of temporary erosion control measures, whether occurring prior to or after placing traffic on the project.

Payment for Response for Erosion Control, Seeding and Mulching, Repair Seeding, Supplemental Seeding, Mowing, Fertilizer Topdressing, Silt Excavation, and Stone for Erosion Control will be made at contract unit prices for the affected items. Work required that is not represented by contract line items will be paid in accordance with Articles 104-7 or 104-3 of the 2018 Standard Specifications. No additional compensation will be made for maintenance and removal of temporary erosion control items.

MAJOR CONTRACT ITEMS

(2-19-02) 104 SPI G28

The following listed items are the major contract items for this contract (see Article 104-5 of the 2018 Standard Specifications):

Line #	Description
23	Asphalt Concrete Base Course, Type B25.0C
24	Asphalt Concrete Intermediate Course, Type I19.0C
25	Asphalt Concrete Surface Course, Type S9.5C

DISADVANTAGED BUSINESS ENTERPRISE (LOCAL GOVERNMENT AGENCIES):

(10-16-07)(Rev. 8-17-21) 102-15(J) SPI G63

Description

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with Federal funds. This provision is guided by 49 CFR Part 26.

Definitions

Additional DBE Subcontractors - Any DBE submitted at the time of bid that will <u>not</u> be used to meet the DBE goal. No submittal of a Letter of Intent is required.

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Committed DBE Subcontractor - Any DBE submitted at the time of bid that is being used to meet the DBE goal by submission of a Letter of Intent. Or any DBE used as a replacement for a previously committed DBE firm.

Contract Goal Requirement - The approved DBE participation at time of award, but not greater than the advertised contract goal.

DBE Goal - A portion of the total contract, expressed as a percentage, that is to be performed by committed DBE subcontractor(s).

Disadvantaged Business Enterprise (DBE) - A firm certified as a Disadvantaged Business Enterprise through the North Carolina Unified Certification Program.

Goal Confirmation Letter - Written documentation from **Town of Lewisville** to the bidder confirming the Contractor's approved, committed DBE participation along with a listing of the committed DBE firms.

Local Government Agencies (LGA) - The entity letting the contract.

Manufacturer - A firm that operates or maintains a factory or establishment that produces on the premises, the materials or supplies obtained by the Contractor.

Regular Dealer - 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. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease 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 and operates distribution equipment for the products. Brokers and packagers are not regarded as manufacturers or regular dealers within the meaning of this section.

Replacement / Substitution - A full or partial reduction in the amount of work subcontracted to a committed (or an approved substitute) DBE firm.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for DBE certification, such that an applicant is required to apply only once for a DBE certification that will be honored by all recipients of USDOT funds in the state and not limited to the Department of Transportation only. The Certification Program is in accordance with 49 CFR Part 26.

Standard Specifications - The general term comprising all directions, provisions, and requirements contained or referred to in the North Carolina Department of Transportation Standard Specifications for Roads and Structures and any subsequent revisions or additions to such book.

United States Department of Transportation (USDOT) - Federal agency responsible for issuing regulations (49 CFR Part 26) and official guidance for the DBE program.

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Forms and Websites Referenced in this Provision

DBE Payment Tracking System - On-line system in which the Contractor enters the payments made to DBE subcontractors who have performed work on the project. https://apps.dot.state.nc.us/Vendor/PaymentTracking/

DBE-IS Subcontractor Payment Information - Form for reporting the payments made to all DBE firms working on the project. This form is for paper bid projects only. https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf

RF-1 *DBE Replacement Request Form* - Form for replacing a committed DBE. http://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Request%20Form.pdf

SAF *Subcontract Approval Form* - Form required for approval to sublet the contract. http://connect.ncdot.gov/projects/construction/Construction%20Forms/Subcontract%20Approval%20Form%20Rev.%202012.zip

JC-1 *Joint Check Notification Form* - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks.

http://connect.ncdot.gov/projects/construction/Construction% 20 Forms/Joint% 20 Check% 20 Notification% 20 Form.pdf

Letter of Intent - Form signed by the Contractor and the DBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed DBE for the estimated amount (based on quantities and unit prices) listed at the time of bid. http://connect.ncdot.gov/letting/LetCentral/Letter%20of%20Intent%20to%20Perform%20as%20 a%20Subcontractor.pdf

Listing of DBE Subcontractors Form - Form for entering DBE subcontractors on a project that will meet this DBE goal. This form is for paper bids only.

http://connect.ncdot.gov/municipalities/Bid%20 Proposals%20 for %20 LGA%20 Content/08%20 DBE%20 Subcontractors%20 (Federal).docx

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where DBEs quoted on the project. This sheet is submitted with good faith effort packages.

http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls

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DBE Goal

The following DBE goal for participation by Disadvantaged Business Enterprises is established for this contract:

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Disadvantaged Business Enterprises 5.0 %

- (A) If the DBE goal is more than zero, the Contractor shall exercise all necessary and reasonable steps to ensure that DBEs participate in at least the percent of the contract as set forth above as the DBE goal.
- (B) If the DBE goal is zero, the Contractor shall make an effort to recruit and use DBEs during the performance of the contract. Any DBE participation obtained shall be reported to **Town of Lewisville**.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the NCDOT and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as DBE certified shall be used to meet the DBE goal. The Directory can be found at the following link. https://www.ebs.nc.gov/VendorDirectory/default.html

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

Listing of DBE Subcontractors

At the time of bid, bidders shall submit <u>all</u> DBE participation that they anticipate to use during the life of the contract. Only those identified to meet the DBE goal will be considered committed, even though the listing shall include both committed DBE subcontractors and additional DBE subcontractors. Additional DBE subcontractor participation submitted at the time of bid will be used toward the overall race-neutral goal. Only those firms with current DBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of DBE participation. The Contractor shall indicate the following required information:

- (A) If the DBE goal is more than zero,
 - (1) Bidders, at the time the bid proposal is submitted, shall submit a listing of DBE participation, including the names and addresses on *Listing of DBE Subcontractors* contained elsewhere in the contract documents in order for the bid to be considered responsive. Bidders shall indicate the total dollar value of the DBE participation for the contract.
 - (2) If bidders have no DBE participation, they shall indicate this on the *Listing of DBE Subcontractors* by entering the word "None" or the number "0." This form shall be completed in its entirety. **Blank forms will not be deemed to represent zero**

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participation. Bids submitted that do not have DBE participation indicated on the appropriate form will not be read publicly during the opening of bids. **Town of Lewisville** will not consider these bids for award and the proposal will be rejected.

- (3) The bidder shall be responsible for ensuring that the DBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that DBE's participation will not count towards achieving the DBE goal.
- (B) If the DBE goal is zero, entries on the Listing of DBE Subcontractors are not required, however any DBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

DBE Prime Contractor

When a certified DBE firm bids on a contract that contains a DBE goal, the DBE firm is responsible for meeting the goal or making good faith efforts to meet the goal, just like any other bidder. In most cases, a DBE bidder on a contract will meet the DBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the DBE bidder and any other DBE subcontractors will count toward the DBE goal. The DBE bidder shall list itself along with any DBE subcontractors, if any, in order to receive credit toward the DBE goal.

For example, if the DBE goal is 45% and the DBE bidder will only perform 40% of the contract work, the prime will list itself at 40%, and the additional 5% shall be obtained through additional DBE participation with DBE subcontractors or documented through a good faith effort.

DBE prime contractors shall also follow Sections A or B listed under *Listing of DBE Subcontractor* just as a non-DBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each DBE that will be used to meet the DBE goal of the contract, indicating the bidder's commitment to use the DBE in the contract. This documentation shall be submitted on the NCDOT's form titled *Letter of Intent*.

The documentation shall be received in the office of the **Town of Lewisville** no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the **Town Manager or Duly authorized agent** no later than 10:00 a.m. on the next official state business day.

If the bidder fails to submit the Letter of Intent from each committed DBE to be used toward the DBE goal, or if the form is incomplete (i.e. both signatures are not present), the DBE participation will not count toward meeting the DBE goal. If the lack of this participation drops the commitment below the DBE goal, the Contractor shall submit evidence of good faith efforts, completed in its entirety, to the **Town Manager or Duly authorized agent** no later than 2:00 p.m. on the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an

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official state holiday. In that situation, it is due in the office of the **Town Manager or Duly authorized agent** no later than 10:00 a.m. on the next official state business day.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the DBE goal, the apparent lowest responsive bidder shall submit to **Town of Lewisville** documentation of adequate good faith efforts made to reach the DBE goal.

One complete set and **five** (5) copies of this information shall be received in the office of the **Town Manager or Duly authorized agent** no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the **Town Manager or Duly authorized agent** no later than 10:00 a.m. on the next official state business day.

Note: Where the information submitted includes repetitious solicitation letters, it will be acceptable to submit a representative letter along with a distribution list of the firms that were solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Consideration of Good Faith Effort for Projects with DBE Goals More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be expected to obtain sufficient DBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought DBE participation. Mere *pro forma* efforts are not considered good faith efforts.

Town of Lewisville will consider the quality, quantity, and intensity of the different kinds of efforts a bidder has made. Listed below are examples of the types of actions a bidder will take in making a good faith effort to meet the goal and are not intended to be exclusive or exhaustive, nor is it intended to be a mandatory checklist.

(A) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising, written notices, use of verifiable electronic means through the use of the NCDOT Directory of Transportation Firms) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the DBEs to respond to the solicitation. Solicitation shall provide the opportunity to DBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

- (B) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - (2) Negotiate 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 (2nd and 3rd tier subcontractors).
- (C) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (D) (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidding contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- (E) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (F) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

- (H) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; Federal, State, and local minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs. Contact within 7 days from the bid opening NCDOT's Business Opportunity and Work Force Development Unit at BOWD@ncdot.gov to give notification of the bidder's inability to get DBE quotes.
- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the DBE goal.

In addition, **Town of Lewisville** may take into account the following:

- (1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the DBE goal.
- (2) The bidders' past performance in meeting the DBE goals.
- (3) The performance of other bidders in meeting the DBE goal. For example, when the apparent successful bidder fails to meet the DBE goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the DBE goal, but meets or exceeds the average DBE participation obtained by other bidders, **Town of Lewisville** may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If **Town of Lewisville** does not award the contract to the apparent lowest responsive bidder, **Town of Lewisville** reserves the right to award the contract to the next lowest responsive bidder that can satisfy to **Town of Lewisville** that the DBE goal can be met or that an adequate good faith effort has been made to meet the DBE goal.

Non-Good Faith Appeal

The **Town Manager or Duly authorized agent** will notify the contractor verbally and in writing of non-good faith. A contractor may appeal a determination of non-good faith made by the Goal Compliance Committee. If a contractor wishes to appeal the determination made by the Committee, they shall provide written notification to the **Town Manager or Duly authorized agent**. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

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Counting DBE Participation Toward Meeting DBE Goal

(A) Participation

The total dollar value of the participation by a committed DBE will be counted toward the contract goal requirement. The total dollar value of participation by a committed DBE will be based upon the value of work actually performed by the DBE and the actual payments to DBE firms by the Contractor.

(B) Joint Checks

Prior notification of joint check use shall be required when counting DBE participation for services or purchases that involves the use of a joint check. Notification shall be through submission of Form JC-1 (*Joint Check Notification Form*) and the use of joint checks shall be in accordance with the NCDOT's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A DBE may enter into subcontracts. Work that a DBE subcontracts to another DBE firm may be counted toward the contract goal requirement. Work that a DBE subcontracts to a non-DBE firm does <u>not</u> count toward the contract goal requirement. 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 standard industry practices, it shall be presumed that the DBE is not performing a commercially useful function. The DBE may present evidence to rebut this presumption to **Town of Lewisville**. **Town of Lewisville**'s decision on the rebuttal of this presumption is subject to review by the Federal Highway Administration but is not administratively appealable to USDOT.

(D) Joint Venture

When a DBE performs as a participant in a joint venture, the Contractor may count toward its contract goal requirement 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.

(E) Suppliers

A contractor may count toward its DBE requirement 60 percent of its expenditures for materials and supplies required to complete the contract and obtained from a DBE regular dealer and 100 percent of such expenditures from a DBE manufacturer.

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(F) Manufacturers and Regular Dealers

A contractor may count toward its DBE requirement the following expenditures to DBE firms that are not manufacturers or regular dealers:

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- (1) 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, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.
- (2) With respect to materials or supplies purchased from a DBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Commercially Useful Function

(A) DBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to DBEs that perform a commercially useful function in the work of a contract. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE shall also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, **Town of Lewisville** 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 any other relevant factors.

(B) DBE Utilization in Trucking

The following factors will be used to determine if a DBE trucking firm is performing a commercially useful function:

(1) The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there shall not be a contrived arrangement for the purpose of meeting DBE goals.

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- (2) The DBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- (3) The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.
- (4) The DBE may subcontract the work to another DBE firm, including an owner-operator who is certified as a DBE. The DBE who subcontracts work to another DBE receives credit for the total value of the transportation services the subcontracted DBE provides on the contract.
- (5) The DBE may also subcontract the work to a non-DBE firm, including from an owner-operator. The DBE who subcontracts the work to a non-DBE is entitled to credit for the total value of transportation services provided by the non-DBE subcontractor not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement. The value of services performed under subcontract agreements between the DBE and the Contractor will not count towards the DBE contract requirement.
- (6) A DBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the DBE has exclusive use of and control over the truck. This requirement does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. This type of lease may count toward the DBE's credit as long as the driver is under the DBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the DBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

DBE Replacement

When a Contractor has relied on a commitment to a DBE subcontractor (or an approved substitute DBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the DBE subcontractor for convenience. This includes, but is not limited to, instances in which the Contractor seeks to perform the work of the terminated subcontractor with another DBE subcontractor, a non-DBE subcontractor, or with the Contractor's own forces or those of an affiliate.

The Contractor must give notice in writing both by certified mail and email to the DBE subcontractor, with a copy to the **Town Manager or Duly authorized agent** of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor must give the DBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request

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Termination and/or Substitution. If the DBE subcontractor objects to the intended termination/substitution, the DBE, within five (5) business days must advise the Contractor and the **Town of Lewisville** of the reasons why the action should not be approved. The five-day notice period shall begin on the next business day after written notice is provided to the DBE subcontractor.

A committed DBE subcontractor may only be terminated after receiving the **Town of Lewisville**'s written approval based upon a finding of good cause for the proposed termination and/or substitution. For purposes of this section, good cause shall include the following circumstances:

- (a) The listed DBE subcontractor fails or refuses to execute a written contract;
- (b) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness:
- (e) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1,200 or applicable state law;
- (f) The listed DBE subcontractor is not a responsible contractor;
- (g) The listed DBE voluntarily withdraws from the project and provides written notice of withdrawal;
- (h) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (i) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (j) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime contractor can self-perform the work for which the DBE contractor was engaged or so that the prime contractor can substitute another DBE or non-DBE contractor after contract award.

The Contractor shall comply with the following for replacement of a committed DBE:

(A) Performance Related Replacement

When a committed DBE is terminated for good cause as stated above, an additional DBE that was submitted at the time of bid may be used to fulfill the DBE commitment. A good faith effort will only be required for removing a committed DBE if there were no additional DBEs submitted at the time of bid to cover the same amount of work as the DBE that was terminated.

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If a replacement DBE is not found that can perform at least the same amount of work as the terminated DBE, the Contractor shall submit a good faith effort documenting the steps taken. Such documentation shall include, but not be limited to, the following:

- (1) Copies of written notification to DBEs that their interest is solicited in contracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.
- (2) Efforts to negotiate with DBEs for specific subbids including, at a minimum:
 - The names, addresses, and telephone numbers of DBEs who were (a) contacted.
 - A description of the information provided to DBEs regarding the plans and (b) specifications for portions of the work to be performed.
- (3) A list of reasons why DBE quotes were not accepted.
- (4) Efforts made to assist the DBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

(B) **Decertification Replacement**

- (1) When a committed DBE is decertified by the NCDOT after the SAF (Subcontract Approval Form) has been received by the Town of Lewisville, the Town of **Lewisville** will not require the Contractor to solicit replacement DBE participation equal to the remaining work to be performed by the decertified firm. participation equal to the remaining work performed by the decertified firm will count toward the contract goal requirement.
- (2) When a committed DBE is decertified prior to the **Town of Lewisville** receiving the SAF (Subcontract Approval Form) for the named DBE firm, the 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 DBE goal requirement. If a DBE firm is not found to do the same amount of work, a good faith effort must be submitted to Town Manager or Duly authorized **agent** (see A herein for required documentation).
- (3) Exception: If the DBE's ineligibility is caused solely by its having exceeded the size standard during the performance of the contract, the Town of Lewisville will not require the 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 requirement and overall goal.

All requests for replacement of a committed DBE firm shall be submitted to the **Town Manager** or Duly authorized agent for approval on Form RF-1 (DBE Replacement Request). If the

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Contractor fails to follow this procedure, the Contractor may be disqualified from further bidding for a period of up to 6 months

Changes in the Work

When the **Town Manager or Duly authorized agent** makes changes that result in the reduction or elimination of work to be performed by a committed DBE, the Contractor will not be required to seek additional participation. When the **Town Manager or Duly authorized agent** makes changes that result in additional work to be performed by a DBE based upon the Contractor's commitment, the DBE shall participate in additional work to the same extent as the DBE participated in the original contract work.

When the **Town Manager or Duly authorized agent** makes changes that result in extra work, which has more than a minimal impact on the contract amount, the Contractor shall seek additional participation by DBEs unless otherwise approved by the **Town Manager or Duly authorized agent**.

When the **Town Manager or Duly authorized agent** makes changes that result in an alteration of plans or details of construction, and a portion or all of the work had been expected to be performed by a committed DBE, the Contractor shall seek participation by DBEs unless otherwise approved by the **Town Manager or Duly authorized agent**.

When the Contractor requests changes in the work that result in the reduction or elimination of work that the Contractor committed to be performed by a DBE, the Contractor shall seek additional participation by DBEs equal to the reduced DBE participation caused by the changes.

Reports and Documentation

A SAF (*Subcontract Approval Form*) shall be submitted for all work which is to be performed by a DBE subcontractor. **Town of Lewisville** reserves the right to require copies of actual subcontract agreements involving DBE subcontractors.

When using transportation services to meet the contract commitment, the Contractor shall submit a proposed trucking plan in addition to the SAF. The plan shall be submitted prior to beginning construction on the project. The plan shall include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, as well as the individual truck identification numbers, and the line item(s) being performed.

Within 30 calendar days of entering into an agreement with a DBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the **Town Manager or Duly authorized agent** a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for DBE credit.

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Reporting Disadvantaged Business Enterprise Participation

The Contractor shall provide the **Town Manager or Duly authorized agent** with an accounting of payments made to all DBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the **Town Manager or Duly authorized agent** for any given month by the end of the following month. Failure to submit this information accordingly may result in the following action:

- (A) Withholding of money due in the next partial pay estimate; or
- (B) Removal of an approved contractor from the prequalified bidders' list or the removal of other entities from the approved subcontractors list.

While each contractor (prime, subcontractor, 2nd tier subcontractor) is responsible for accurate accounting of payments to DBEs, it shall be the prime contractor's responsibility to report all monthly and final payment information in the correct reporting manner.

Failure on the part of the Contractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from further bidding until the required information is submitted.

Failure on the part of any subcontractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from being approved for work on future projects until the required information is submitted.

Contractors reporting transportation services provided by non-DBE lessees shall evaluate the value of services provided during the month of the reporting period only.

At any time, the **Town Manager or Duly authorized agent** can request written verification of subcontractor payments.

The Contractor shall report the accounting of payments on the NCDOT's DBE-IS (*Subcontractor Payment Information*) with each invoice. Invoices will not be processed for payment until the DBE-IS is received.

Failure to Meet Contract Requirements

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the 2018 Standard Specifications may be cause to disqualify the Contractor.

CERTIFICATION FOR FEDERAL-AID CONTRACTS

(3-21-90) SPI G85

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

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- No Federal appropriated funds have been paid or will be paid, by or on behalf of the (A) 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.

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.

CONTRACTOR'S LICENSE REQUIREMENTS: 102-14

SP1 G88

If the successful bidder does not hold the proper license to perform any plumbing, heating, air conditioning, or electrical work in this contract, he will be required to sublet such work to a contractor properly licensed in accordance with Article 2 of Chapter 87 of the General Statutes (licensing of heating, plumbing, and air conditioning contractors) and Article 4 of Chapter 87 of the *General Statutes* (licensing of electrical contractors).

USE OF UNMANNED AIRCRAFT SYSTEM (UAS)

(8-20-19)SP1 G092

The Contractor shall adhere to all Federal, State and Local regulations and guidelines for the use of Unmanned Aircraft Systems (UAS). This includes but is not limited to US 14 CFR Part 107 Small UAS Rule, NC GS 15A-300.2 Regulation of launch and recovery sites, NC GS 63-95 Training required for the operation of unmanned aircraft systems, NC GS 63-96 Permit required for commercial operation of unmanned aircraft system, and NCDOT UAS Policy. The required operator certifications include possessing a current Federal Aviation Administration (FAA) Remote Pilot Certificate, a NC UAS Operator Permit as well as operating a UAS registered with the FAA.

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Prior to beginning operations, the Contractor shall complete the NCDOT UAS – Flight Operation Approval Form and submit it to the Engineer for approval. All UAS operations shall be approved by the Engineer prior to beginning the operations.

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All contractors or subcontractors operating UAS shall have UAS specific general liability insurance to cover all operations under this contract.

The use of UAS is at the Contractor's discretion. No measurement or payment will be made for the use of UAS. In the event that the Department directs the Contractor to utilize UAS, payment will be in accordance with Article 104-7 Extra Work.

EQUIPMENT IDLING GUIDELINES

(1-19-21) 107 SPI G096

Exercise reduced fuel consumption and reduced equipment emissions during the construction of all work associated with this contract. Employees engaged in the construction of this project should turn off vehicles when stopped for more than thirty (30) minutes and off-highway equipment should idle no longer than fifteen (15) consecutive minutes.

These guidelines for turning off vehicles and equipment when idling do not apply to:

- 1. Idling when queuing.
- 2. Idling to verify the vehicle is in safe operating condition.
- 3. Idling for testing, servicing, repairing or diagnostic purposes.
- 4. Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane, mixing concrete, etc.).
- 5. Idling required to bring the machine system to operating temperature.
- 6. Emergency vehicles, utility company, construction, and maintenance vehicles where the engines must run to perform needed work.
- 7. Idling to ensure safe operation of the vehicle.
- 8. Idling when the propulsion engine is providing auxiliary power for other than heating or air conditioning. (such as hydraulic systems for pavers)
- 9. When specific traffic, safety, or emergency situations arise.
- 10. If the ambient temperature is less than 32 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants (e.g. to run the heater).
- 11. If the ambient temperature is greater than 90 degrees Fahrenheit. Limited idling to provide for the safety of vehicle occupants of off-highway equipment (e.g. to run the air conditioning) no more than 30 minutes.
- 12. Diesel powered vehicles may idle for up to 30 minutes to minimize restart problems. Any vehicle, truck, or equipment in which the primary source of fuel is natural gas or electricity is exempt from the idling limitations set forth in this special provision.

U.S. DEPARTMENT OF TRANSPORTATION HOTLINE

U-5617 Williams Road Gateway Project

(11-22-94) 108-5 SPI G100

February 2022

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.

CARGO PREFERENCE ACT

(2-16-16)

Privately owned United States-flag commercial vessels transporting cargoes are subject to the Cargo Preference Act (CPA) of 1954 requirements and regulations found in 46 CFR 381.7. Contractors are directed to clause (b) of 46 CFR 381.7 as follows:

- (b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees-
 - "(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
 - (2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
 - (3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."

SUBSURFACE INFORMATION

(7-1-95) 450 SPI G112 B

Subsurface information is available on the roadway portion of this project only.

TWELVE MONTH GUARANTEE – LGA Projects

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(10-7-13) 108 SPI G146

- (A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to **Town of Lewisville**. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of **Town of Lewisville**, and/or for use in excess of the design.
- (B) Where items of equipment or material carry a manufacturer's guarantee for any period in excess of twelve months, then the manufacturer's guarantee shall apply for that particular piece of equipment or material. **Town of Lewisville**'s first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor's responsibility shall be limited to the term of the manufacturer's guarantee. **Town of Lewisville** would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that **Town of Lewisville** would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION

(1-16-07) (Rev 12-15-20) (KH Rev 12-1-20)

105-16, 225-2, 16

SP1 G180

February 2022

General

Schedule and conduct construction activities in a manner that will minimize soil erosion and the resulting sedimentation and turbidity of surface waters. Comply with the requirements herein regardless of whether or not a National Pollution discharge Elimination System (NPDES) permit for the work is required.

Establish a chain of responsibility for operations and subcontractors' operations to ensure that the *Erosion and Sediment Control/Stormwater Pollution Prevention Plan* is implemented and maintained over the life of the contract.

(A) Certified Supervisor - Provide a certified Erosion and Sediment Control/Stormwater Supervisor to manage the Contractor and subcontractor operations, insure compliance with Federal, State and Local ordinances and regulations, and manage the Quality Control Program.

- (B) *Certified Foreman* Provide a certified, trained foreman for each construction operation that increases the potential for soil erosion or the possible sedimentation and turbidity of surface waters.
- (C) Certified Installer Provide a certified installer to install or direct the installation for erosion or sediment/stormwater control practices.
- (D) *Certified Designer* Provide a certified designer for the design of the erosion and sediment control/stormwater component of reclamation plans and, if applicable, for the design of the project erosion and sediment control/stormwater plan.

Roles and Responsibilities

- (A) Certified Erosion and Sediment Control/Stormwater Supervisor The Certified Supervisor shall be Level II and responsible for ensuring the erosion and sediment control/stormwater plan is adequately implemented and maintained on the project and for conducting the quality control program. The Certified Supervisor shall be on the project within 24 hours notice from initial exposure of an erodible surface to the project's final acceptance. Perform the following duties:
 - (1) Manage Operations Coordinate and schedule the work of subcontractors so that erosion and sediment control/stormwater measures are fully executed for each operation and in a timely manner over the duration of the contract.
 - (a) Oversee the work of subcontractors so that appropriate erosion and sediment control/stormwater preventive measures are conformed to at each stage of the work.
 - (b) Prepare the required National Pollutant Discharge Elimination System (NPDES) Inspection Record and submit to the Engineer.
 - (c) Attend all weekly or monthly construction meetings to discuss the findings of the NPDES inspection and other related issues.
 - (d) Implement the erosion and sediment control/stormwater site plans requested.
 - (e) Provide any needed erosion and sediment control/stormwater practices for the Contractor's temporary work not shown on the plans, such as, but not limited to work platforms, temporary construction, pumping operations, plant and storage yards, and cofferdams.
 - (f) Acquire applicable permits and comply with requirements for borrow pits, dewatering, and any temporary work conducted by the Contractor in jurisdictional areas.
 - (g) Conduct all erosion and sediment control/stormwater work in a timely and workmanlike manner.

- (h) Fully perform and install erosion and sediment control/stormwater work prior to any suspension of the work.
- (i) Coordinate with Department, Federal, State and Local Regulatory agencies on resolution of erosion and sediment control/stormwater issues due to the Contractor's operations.
- (j) Ensure that proper cleanup occurs from vehicle tracking on paved surfaces or any location where sediment leaves the Right-of-Way.
- (k) Have available a set of erosion and sediment control/stormwater plans that are initialed and include the installation date of Best Management Practices. These practices shall include temporary and permanent groundcover and be properly updated to reflect necessary plan and field changes for use and review by Department personnel as well as regulatory agencies.
- (2) Requirements set forth under the NPDES Permit The Department's NPDES Stormwater permit (NCS000250) outlines certain objectives and management measures pertaining to construction activities. The permit references NCG010000, General Permit to Discharge Stormwater under the NPDES, and states that the Department shall incorporate the applicable requirements into its delegated Erosion and Sediment Control Program for construction activities disturbing one or more acres of land. The Department further incorporates these requirements on all contracted bridge and culvert work at jurisdictional waters, regardless of size. Some of the requirements are, but are not limited to:
 - (a) Control project site waste to prevent contamination of surface or ground waters of the state, i.e. from equipment operation/maintenance, construction materials, concrete washout, chemicals, litter, fuels, lubricants, coolants, hydraulic fluids, any other petroleum products, and sanitary waste.
 - (b) Inspect erosion and sediment control/stormwater devices and stormwater discharge outfalls at least once every 7 calendar days and within 24 hours after a rainfall event equal to or greater than 1.0 inch that occurs within a 24 hour period. Additional monitoring may be required at the discretion of Division of Water Resources personnel if the receiving stream is 303(d) listed for turbidity and the project has had documented problems managing turbidity.
 - (c) Maintain an onsite rain gauge or use the Department's Multi-Sensor Precipitation Estimate website to maintain a daily record of rainfall amounts and dates.
 - (d) Maintain erosion and sediment control/stormwater inspection records for review by Department and Regulatory personnel upon request.
 - (e) Implement approved reclamation plans on all borrow pits, waste sites and staging areas.
 - (f) Maintain a log of turbidity test results as outlined in the Department's Procedure for Monitoring Borrow Pit Discharge.

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- (g) Provide secondary containment for bulk storage of liquid materials.
- (h) Provide training for employees concerning general erosion and sediment control/stormwater awareness, the Department's NPDES Stormwater Permit NCS000250 requirements, and the applicable requirements of the *General Permit*, NCG010000.
- (i) Report violations of the NPDES permit to the Engineer immediately who will notify the Division of Water Quality Regional Office within 24 hours of becoming aware of the violation.
- (3) Quality Control Program Maintain a quality control program to control erosion, prevent sedimentation and follow provisions/conditions of permits. The quality control program shall:
 - (a) Follow permit requirements related to the Contractor and subcontractors' construction activities.
 - (b) Ensure that all operators and subcontractors on site have the proper erosion and sediment control/stormwater certification.
 - (c) Notify the Engineer when the required certified erosion and sediment control/stormwater personnel are not available on the job site when needed.
 - (d) Conduct the inspections required by the NPDES permit.
 - (e) Take corrective actions in the proper timeframe as required by the NPDES permit for problem areas identified during the NPDES inspections.
 - (f) Incorporate erosion control into the work in a timely manner and stabilize disturbed areas with mulch/seed or vegetative cover on a section-by-section basis.
 - (g) Use flocculants approved by state regulatory authorities where appropriate and where required for turbidity and sedimentation reduction.
 - (h) Ensure proper installation and maintenance of temporary erosion and sediment control devices.
 - (i) Remove temporary erosion or sediment control devices when they are no longer necessary as agreed upon by the Engineer.
 - (j) The Contractor's quality control and inspection procedures shall be subject to review by the Engineer. Maintain NPDES inspection records and make records available at all times for verification by the Engineer.
- (B) *Certified Foreman* At least one Certified Foreman shall be onsite for each type of work listed herein during the respective construction activities to control erosion, prevent sedimentation and follow permit provisions:
 - (1) Foreman in charge of grading activities
 - (2) Foreman in charge of bridge or culvert construction over jurisdictional areas
 - (3) Foreman in charge of utility activities

The Contractor may request to use the same person as the Level II Supervisor and Level II Foreman. This person shall be onsite whenever construction activities as described above are taking place. This request shall be approved by the Engineer prior to work beginning.

The Contractor may request to name a single Level II Foreman to oversee multiple construction activities on small bridge or culvert replacement projects. This request shall be approved by the Engineer prior to work beginning.

- (C) Certified Installers - Provide at least one onsite, Level I Certified Installer for each of the following erosion and sediment control/stormwater crew:
 - (1) Seeding and Mulching
 - Temporary Seeding (2)
 - (3) **Temporary Mulching**
 - Sodding (4)
 - (5) Silt fence or other perimeter erosion/sediment control device installations
 - (6) Erosion control blanket installation
 - (7) Hydraulic tackifier installation
 - Turbidity curtain installation (8)
 - (9) Rock ditch check/sediment dam installation
 - (10)Ditch liner/matting installation
 - (11)Inlet protection
 - (12)Riprap placement
 - Stormwater BMP installations (such as but not limited to level spreaders, (13)retention/detention devices)
 - (14)Pipe installations within jurisdictional areas

If a Level I Certified Installer is not onsite, the Contractor may substitute a Level II Foreman for a Level I Installer, provided the Level II Foreman is not tasked to another crew requiring Level II Foreman oversight.

(D) Certified Designer - Include the certification number of the Level III Certified Designer on the erosion and sediment control/stormwater component of all reclamation plans and if applicable, the certification number of the Level III Certified Designer on the design of the project erosion and sediment control/stormwater plan.

Preconstruction Meeting

Furnish the names of the Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers and Certified Designer and notify the Engineer of changes in certified personnel over the life of the contract within 2 days of change.

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Ethical Responsibility

Any company performing work for the North Carolina Department of Transportation has the ethical responsibility to fully disclose any reprimand or dismissal of an employee resulting from improper testing or falsification of records.

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Revocation or Suspension of Certification

Upon recommendation of the Chief Engineer to the certification entity, certification for *Supervisor*, *Certified Foremen*, *Certified Installers* and *Certified Designer* may be revoked or suspended with the issuance of an *Immediate Corrective Action (ICA)*, *Notice of Violation (NOV)*, or *Cease and Desist Order* for erosion and sediment control/stormwater related issues.

The Chief Engineer may recommend suspension or permanent revocation of certification due to the following:

- (A) Failure to adequately perform the duties as defined within this certification provision.
- (B) Issuance of an ICA, NOV, or Cease and Desist Order.
- (C) Failure to fully perform environmental commitments as detailed within the permit conditions and specifications.
- (D) Demonstration of erroneous documentation or reporting techniques.
- (E) Cheating or copying another candidate's work on an examination.
- (F) Intentional falsification of records.
- (G) Directing a subordinate under direct or indirect supervision to perform any of the above actions.
- (H) Dismissal from a company for any of the above reasons.
- (I) Suspension or revocation of one's certification by another entity.

Suspension or revocation of a certification will be sent by certified mail to the certificant and the Corporate Head of the company that employs the certificant.

A certificant has the right to appeal any adverse action which results in suspension or permanent revocation of certification by responding, in writing, to the Chief Engineer within 10 calendar days after receiving notice of the proposed adverse action.

Chief Engineer 1536 Mail Service Center Raleigh, NC 27699-1536

Failure to appeal within 10 calendar days will result in the proposed adverse action becoming effective on the date specified on the certified notice. Failure to appeal within the time specified will result in a waiver of all future appeal rights regarding the adverse action taken. The certificant will not be allowed to perform duties associated with the certification during the appeal process.

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The Chief Engineer will hear the appeal and make a decision within 7 days of hearing the appeal. Decision of the Chief Engineer will be final and will be made in writing to the certificant.

If a certification is temporarily suspended, the certificant shall pass any applicable written examination and any proficiency examination, at the conclusion of the specified suspension period, prior to having the certification reinstated.

Measurement and Payment

Certified Erosion and Sediment Control/Stormwater Supervisor, Certified Foremen, Certified Installers and Certified Designer will be incidental to the project for which no direct compensation will be made.

In addition to the aforementioned information regarding erosion control, The Contractor should also review and be familiar the Town's erosion control requirements presented in the Town of Lewisville Unified Development Ordinance, Chapter C – Environmental Ordinance, Article IV – Erosion Control (https://library.municode.com/nc/lewisville/codes/unified_development_ordinance?nodeId=CHCENOR_ARTIVERCO) which applies to construction activities.

PROCEDURE FOR MONITORING BORROW PIT DISCHARGE

(2-20-07) (Rev. 4-5-19) 105-16, 230, 801 SPI G181

Water discharge from borrow pit sites shall not cause surface waters to exceed 50 NTUs (nephelometric turbidity unit) in streams not designated as trout waters and 10 NTUs in streams, lakes or reservoirs designated as trout waters. For lakes and reservoirs not designated as trout waters, the turbidity shall not exceed 25 NTUs. If the turbidity exceeds these levels due to natural background conditions, the existing turbidity level shall not be increased.

If during any operating day, the downstream water quality exceeds the standard, the Contractor shall do all of the following:

- (A) Either cease discharge or modify the discharge volume or turbidity levels to bring the downstream turbidity levels into compliance, or
- (B) Evaluate the upstream conditions to determine if the exceedance of the standard is due to natural background conditions. If the background turbidity measurements exceed the standard, operation of the pit and discharge can continue as long as the stream turbidity levels are not increased due to the discharge.
- (C) Measure and record the turbidity test results (time, date and sampler) at all defined sampling locations 30 minutes after startup and at a minimum, one additional sampling of all sampling locations during that 24-hour period in which the borrow pit is discharging.
- (D) Notify DWQ within 24 hours of any stream turbidity standard exceedances that are not brought into compliance.

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During the Environmental Assessment required by Article 230-4 of the 2018 Standard Specifications, the Contractor shall define the point at which the discharge enters into the State's surface waters and the appropriate sampling locations. Sampling locations shall include points upstream and downstream from the point at which the discharge enters these waters. Upstream sampling location shall be located so that it is not influenced by backwater conditions and represents natural background conditions. Downstream sampling location shall be located at the point where complete mixing of the discharge and receiving water has occurred.

The discharge shall be closely monitored when water from the dewatering activities is introduced into jurisdictional wetlands. Any time visible sedimentation (deposition of sediment) on the wetland surface is observed, the dewatering activity will be suspended until turbidity levels in the stilling basin can be reduced to a level where sediment deposition does not occur. Staining of wetland surfaces from suspended clay particles, occurring after evaporation or infiltration, does not constitute sedimentation. No activities shall occur in wetlands that adversely affect the functioning of a wetland. Visible sedimentation will be considered an indication of possible adverse impacts on wetland use.

The Engineer will perform independent turbidity tests on a random basis. These results will be maintained in a log within the project records. Records will include, at a minimum, turbidity test results, time, date and name of sampler. Should the Department's test results exceed those of the Contractor's test results, an immediate test shall be performed jointly with the results superseding the previous test results of both the Department and the Contractor.

The Contractor shall use the NCDOT Turbidity Reduction Options for Borrow Pits Matrix, available at https://connect.ncdot.gov/resources/roadside/FieldOperationsDocuments/TurbidityReductionOptionSheet.pdf to plan, design, construct, and maintain BMPs to address water quality standards. Tier I Methods include stilling basins which are standard compensatory BMPs. Other Tier I methods are noncompensatory and shall be used when needed to meet the stream turbidity standards. Tier II Methods are also noncompensatory and are options that may be needed for protection of rare or unique resources or where special environmental conditions exist at the site which have led to additional requirements being placed in the DWQ's 401 Certifications and approval letters, Isolated Wetland Permits, Riparian Buffer Authorization or a DOT Reclamation Plan's Environmental Assessment for the specific site. Should the Contractor exhaust all Tier I Methods on a site exclusive of rare or unique resources or special environmental conditions, Tier II Methods may be required by regulators on a case by case basis per supplemental agreement.

The Contractor may use cation exchange capacity (CEC) values from proposed site borings to plan and develop the bid for the project. CEC values exceeding 15 milliequivalents per 100 grams of soil may indicate a high potential for turbidity and should be avoided when dewatering into surface water is proposed.

No additional compensation for monitoring borrow pit discharge will be paid.

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MATERIALS SAMPLING AND TESTING

04/27/16

SP (Kimley-Horn and Associates, Inc.)

The Town will select an independent company for materials sampling and testing with a recognized and approved testing laboratory. The expense of such tests shall be borne by the Town unless otherwise specified. No direct payment will be made for coordination of these tests as such costs will be considered incidental to other work being paid for by the various items in the contract.

The Contractor shall schedule and coordinate each test with Town staff. The Town will schedule actual test with the independent company. The Contractor shall notify the Town 48 hours ahead of time of the scheduled test and shall supply all material to independent company for tests. The independent company will provide test results to the Town.

CONTAMINATED SOILS

4/6/20

SP (Kimley-Horn and Associates, Inc.)

If contaminated soil is encountered during construction, the Contractor must report it to the North Carolina Division of Waste Management (NCDWM) Underground Storage Tank (UST) Section within 24 hours.

If contaminated soil is moved or removed it must first be sampled for TPH-DRO and TPH-GRO to determine whether it needs to be disposed of off-site or can be returned to the place of excavation. TPH concentrations must be below the TPH action levels of 50 mg/kg (TPH-GRO) and 100 mg/kg (TPH-DRO).

If the soil requires off-site disposal, the disposal facility should require constituent specific analysis for volatile organic compounds (USEPA Method 8260), semi-volatile organic compounds (USEPA Method 8270), MADEP Methods volatile petroleum hydrocarbons (VPH), and extractable petroleum hydrocarbons (EPH).

In addition, if any stormwater conveyance channels are installed in contaminated soil, they will need to be sealed so that petroleum does not leach into or discharge to the channels or other structures.

TAXES & LICENSES

6/1/15

SP (Kimley-Horn and Associates, Inc.)

The Contractor will pay all sales, consumer, use and other similar taxes required by the law of the place where the project is performed. The Contractor shall provide along with each pay request a detailed list of all sales taxes paid along with a copy of all invoices, on forms approved by the Town, for all materials incorporated into this project and all consumable materials used in the construction of the project. The Contractor shall maintain on file for up to three (3) years a copy of all invoices and the list of sales tax paid on this project.

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SP (Kimley-Horn and Associates, Inc.)

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STORAGE OF MATERIALS

6/13/17 (Rev. 2/20/19)

In addition to Section 106-5 of the January 2018 North Carolina Department of Transportation Standards and Specifications for Roadways and Structures the following shall also apply:

Private property shall not be used for storage purposes without written permission of the Owner or lessee of such property. This does not apply to excavated and/or waste material from the project that shall be regulated by reclamation plans development and approval. The Contractor shall make all arrangements and bear all expenses for the storage of materials on private property. Upon request, the Contractor shall furnish the Town Manager a copy of the property owner's permission.

The Contractor shall restore the storage area to its original condition upon completion of the Project or at completion of using the private property. Such restorations shall be at no cost to the Town. Prior to final payment being made, the Contractor shall submit a copy of the release from the private property owner of the storage area utilized for the Project.

The Contractor should also review and be familiar the Town's Temporary Uses Requirements presented in the Town of Lewisville Unified Development Ordinance, Chapter B – Zoning Ordinance, Section 2-7 - Temporary Uses (https://library.municode.com/nc/lewisville/codes/unified_development_ordinance?nodeId=CHBZOOR) which applies to construction activities.

USE OF PREMISES

6/1/15

SP (Kimley-Horn and Associates, Inc.)

The Contractor shall confine his equipment, storage of materials, and construction operations to the contract limits as shown on the Drawings or if no contract limits are shown, to the right-of-way shown and as prescribed by ordinances or permits or as may be directed by the Town of Lewisville and shall not unreasonably encumber the site or public rights of way with his materials and construction equipment.

The Contractor shall comply with all reasonable instructions of the Town of Lewisville and the ordinances and codes of the Town of Lewisville, regarding signs, advertising, traffic, fires, explosives, danger signals, and barricades.

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ROADWAY

CLEARING AND GRUBBING - METHOD III

(4-6-06) (Rev.8-18-15) 200 SP2 R02B

Perform clearing on this project to the limits established by Method "III" shown on Standard Drawing No. 200.03 of the 2018 Roadway Standard Drawings. Conventional clearing methods may be used except where permit drawings or conditions have been included in the proposal which require certain areas to be cleared by hand methods.

INCIDENTAL STONE BASE:

(7-1-95) (Rev.8-21-12) 545 SP5 R28R

Description

Place incidental stone base on driveways, mailboxes, etc. immediately after paving and do not have the paving operations exceed stone base placement by more than one week without written permission of the Engineer.

Materials and Construction

Provide and place incidental stone base in accordance with Section 545 of the 2018 Standard Specifications.

Measurement and Payment

Incidental Stone Base will be measured and paid in accordance with Article 545-6 of the 2018 Standard Specifications.

PRICE ADJUSTMENT - ASPHALT BINDER FOR PLANT MIX

(11-21-00) SP6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the 2018 Standard Specifications.

The base price index for asphalt binder for plant mix is \$790.00 per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on 7/1/2022.

FINAL SURFACE TESTING NOT REQUIRED:

(5-18-04) (Rev. 2-16-16) SP6 R45

Final surface testing is not required on this project in accordance with Section 610-13, *Final Surface Testing and Acceptance*.

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MILLING ASPHALT PAVEMENT

(1-15-19) 607 SP6 R59

Revise the 2018 Standard Specifications as follows:

Page 6-5, Article 607-2, EQUIPMENT, lines 14-16, delete the seventh sentence of this Article and replace with the following:

Use either a non-contacting laser or sonar type ski system with a minimum of three referencing stations mounted on the milling machine at a length of at least 24 feet.

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ASPHALT CONCRETE PLANT MIX PAVEMENTS

(2-20-18) (Rev.1-15-19) 610, 1012 SP6 R65

Revise the 2018 Standard Specifications as follows:

Page 6-14, Table 609-3, LIMITS OF PRECISION FOR TEST RESULTS, replace with the following:

TABLE 609-3 LIMITS OF PRECISION FOR TEST RESULTS						
Mix Property	Limits of Precision					
25.0 mm sieve (Base Mix)	± 10.0%					
19.0 mm sieve (Base Mix)	± 10.0%					
12.5 mm sieve (Intermediate & Type P-57)	± 6.0%					
9.5 mm sieve (Surface Mix)	± 5.0%					
4.75 mm sieve (Surface Mix)	$\pm 5.0\%$					
2.36 mm sieve (All Mixes, except S4.75A)	± 5.0%					
1.18 mm sieve (S4.75A)	± 5.0%					
0.075 mm sieve (All Mixes)	± 2.0%					
Asphalt Binder Content	± 0.5%					
Maximum Specific Gravity (G _{mm})	± 0.020					
Bulk Specific Gravity (Gmb)	± 0.030					
TSR	\pm 15.0%					
QA retest of prepared QC Gyratory	± 0.015					
Compacted Volumetric Specimens						
Retest of QC Core Sample	± 1.2% (% Compaction)					
Comparison QA Core Sample	± 2.0% (% Compaction)					
QA Verification Core Sample	± 2.0% (% Compaction)					
Density Gauge Comparison of QC Test	± 2.0% (% Compaction)					
QA Density Gauge Verification Test	± 2.0% (% Compaction)					

Page 6-17, Table 610-1, MIXING TEMPERATURE AT THE ASPHALT PLANT, replace with the following:

TABLE 610-1						
MIXING TEMPERATURE AT THE ASPHALT PLANT						
Binder Grade JMF Temperature						
PG 58-28; PG 64-22	250 - 290°F					
PG 76-22	300 - 325°F					

Page 6-17, Subarticle 610-3(C), Job Mix Formula (JMF), lines 38-39, delete the fourth paragraph.

Page 6-18, Subarticle 610-3(C), Job Mix Formula (JMF), line 12, replace "SF9.5A" with "S9.5B".

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TOWN OF LEWISVILLE

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Page 6-18, Table 610-3, MIX DESIGN CRITERIA, replace with the following:

	TABLE 610-3 MIX DESIGN CRITERIA										
Mix	Design	Binder		Compaction Levels			Volumetric 1	olumetric Properties ^B			
Type	ESALs millions A	PG Grade	Gmm @		Gmm @		Rut Depth	VMA	VTM	VFA	%G _{mm}
	Illinous "	Grade	Nini Ndes (mm)	% Min.	%	MinMax.	@ Nini				
S4.75A	< 1	64 - 22	6	50	11.5	16.0	4.0 - 6.0	65 - 80	≤ 91.5		
S9.5B	0 - 3	64 - 22	6	50	9.5	16.0	3.0 - 5.0	70 - 80	≤ 91.5		
S9.5C	3 - 30	64 - 22	7	65	6.5	15.5	3.0 - 5.0	65 - 78	≤ 90.5		
S9.5D	> 30	76 - 22	8	100	4.5	15.5	3.0 - 5.0	65 - 78	≤ 90.0		
I19.0C	ALL	64 - 22	7	65	-	13.5	3.0 - 5.0	65 - 78	≤ 90.5		
B25.0C	ALL	64 - 22	7	65	-	12.5	3.0 - 5.0	65 - 78	≤ 90.5		
	Design Parameter						Design (Criteria			
All Mix	All Mix Dust to Binder Ratio (P _{0.075} / P _{be})						0.6 -	1.4 ^c			
Types	Tensi	le Strength Ra	atio (TSR)	D			85% N	∕Iin. ^E			

A. Based on 20 year design traffic.

- $\boldsymbol{B.}$ Volumetric Properties based on specimens compacted to N_{des} as modified by the Department.
- C. Dust to Binder Ratio $(P_{0.075} / P_{be})$ for Type S4.75A is 1.0 2.0.
- **D.** NCDOT-T-283 (No Freeze-Thaw cycle required).
- **E.** TSR for Type S4.75A & B25.0C mixes is 80% minimum.

Page 6-19, Table 610-5, BINDER GRADE REQUIREMENTS (BASED ON RBR%), replace with the following:

TABLE 610-5 BINDER GRADE REQUIREMENTS (BASED ON RBR%)									
Mix Type %RBR ≤ 20% 21% ≤ %RBR ≤ 30% %RBR > 30									
S4.75A, S9.5B, S9.5C, I19.0C, B25.0C	PG 64-22	PG 64-22 ^A	PG 58-28						
S9.5D, OGFC	PG 76-22 ^B	n/a	n/a						

A. If the mix contains any amount of RAS, the virgin binder shall be PG 58-28.

B. Maximum Recycled Binder Replacement (%RBR) is 18% for mixes using PG 76-22 binder.

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Page 6-20, Table 610-6, PLACEMENT TEMPERATURES FOR ASPHALT, replace with the following:

TABLE 610-6 PLACEMENT TEMPERATURES FOR ASPHALT						
Asphalt Concrete Mix Type Minimum Surface and Air Temperatu						
B25.0C	35°F					
I19.0C	35°F					
S4.75A, S9.5B, S9.5C	40°F ^A					
S9.5D	50°F					

A. For the final layer of surface mixes containing recycled asphalt shingles (RAS), the minimum surface and air temperature shall be 50°F.

Page 6-21, Article 610-8, SPREADING AND FINISHING, lines 34-35, delete the second sentence and replace with the following:

Use an MTV for all surface mix regardless of binder grade on Interstate, US Routes, and NC Routes (primary routes) that have 4 or more lanes and median divided.

Page 6-21, Article 610-8, SPREADING AND FINISHING, lines 36-38, delete the fourth sentence and replace with the following:

Use MTV for all ramps, loops, Y-line that have 4 or more lanes and are median divided, full width acceleration lanes, full width deceleration lanes, and full width turn lanes that are greater than 1000 feet in length.

Page 6-23, Table 610-7, DENSITY REQUIREMENTS, replace with the following:

TABLE 610-7 DENSITY REQUIREMENTS					
Mix Type	Minimum % G _{mm} (Maximum Specific Gravity)				
S4.75A	85.0 ^A				
S9.5B	90.0				
S9.5C, S9.5D, I19.0C, B25.0C	92.0				

A. Compaction to the above specified density will be required when the S4.75A mix is applied at a rate of 100 lbs/sy or higher.

Page 6-24, Article 610-13, FINAL SURFACE TESTING, lines 35-36, delete the second sentence and replace with the following:

Final surface testing is not required on ramps, loops and turn lanes.

Page 6-26, Subarticle 610-13(A)(1), Acceptance for New Construction, lines 29-30, delete the second sentence and replace with the following:

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Areas excluded from testing by the profiler may be tested using a 10-foot straightedge in accordance with Article 610-12.

Page 6-27, Subarticle 610-13(B), Option 2- North Carolina Hearne Straightedge, lines 41-46, delete the eighth and ninth sentence of this paragraph and replace with the following:

Take profiles over the entire length of the final surface travel lane pavement exclusive of structures, approach slabs, paved shoulders, tapers, or other irregular shaped areas of pavement, unless otherwise approved by the Engineer. Test in accordance with this provision all mainline travel lanes, full width acceleration or deceleration lanes and collector lanes.

Page 6-28, Subarticle 610-13(B), Option 2- North Carolina Hearne Straightedge, lines 1-2, delete these two lines.

Page 6-32, Article 610-16 MEASUREMENT AND PAYMENT, replace with the following:

Pay Item	Pay Unit
Asphalt Concrete Base Course, Type B25.0C	Ton
Asphalt Concrete Intermediate Course, Type I19.0C	Ton
Asphalt Concrete Surface Course, Type S4.75A	Ton
Asphalt Concrete Surface Course, Type S9.5B	Ton
Asphalt Concrete Surface Course, Type S9.5C	Ton
Asphalt Concrete Surface Course, Type S9.5D	Ton

Page 10-30, Table 1012-1, AGGREGATE CONSENSUS PROPERTIES, replace with the following:

	TABLE 1012-1 AGGREGATE CONSENSUS PROPERTIES ^A								
Mix Type	Coarse Aggregate Angularity ^B	Fine Aggregate Angularity % Minimum	Sand Equivalent % Minimum	Flat and Elongated 5:1 Ratio % Maximum					
Test Method	ASTM D5821	AASHTO T 304	AASHTO T 176	ASTM D4791					
S4.75A; S9.5B	75 / -	40	40	-					
S9.5C; I19.0C; B25.0C	95 / 90	45	45	10					
S9.5D	100 / 100	45	50	10					
OGFC	100 / 100	45	45	10					
UBWC	100 / 85	45	45	10					

A. Requirements apply to the design aggregate blend.

B. 95 / 90 denotes that 95% of the coarse aggregate has one fractured face and 90% has 2 or more fractured faces.

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ROUNDABOUT REHABILITATION

SP (Kimley-Horn and Associates, Inc.)

Description

Rehabilitate the existing stamped asphalt treatment on two roundabouts at locations shown in the plans. This work consists of sealing cracks and installing a new decorative, stamped asphalt surfacing system to match the existing conditions.

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Materials

Asphalt Surface Coating: Use one of the following products: StreetBond-150 Asphalt Surfacing System, or an approved equal. Only one product will be permitted to be used on this project. Use a surface primer as recommended by the manufacturer to enhance the adhesion between the coating and the substrate. Color(s) are to be Terra Cotta and Pewter to match the existing asphalt treatment.

Crack Sealant: One-component, elastomeric gun-grade polyurethane sealant, with color to match adjacent stamped asphalt as closely as possible. Use one of the following products: MasterSeal NP1 by BASF, or an approved equal. Only one product will be permitted to be used on this project.

Construction Methods

The Contractor shall seal existing cracks with colored crack seal material (NP1 or approved equal) in a color that matches the existing stamped asphalt as closely as possible. Preparation and application shall be in accordance with *Section 657* of the *2018 NCDOT Standard Specifications*.

Thoroughly clean the asphalt surface using a broom, backpack blower or compressed air. If soil and debris are significant, use a power washer to remove them. Remove oils and chemical contaminants such as vehicle fluids with an environmentally friendly degreasing solution. Allow the surface to dry prior to application of the surfacing system.

Mark edges of the area to be coated with duct tape, painter's tape or a similar product. Mask off areas where coating or overspray is not desired using plastic sheeting, tarps, coating shield, paper, or other suitable products.

Furnish and install Asphalt Surfacing System according to the manufacturer's recommendations. The full work area shall receive two coatings, with a third coating in areas where the existing coatings are completely worn away.

Measurement and Payment

Roundabout Rehabilitation will be measured and paid for at the contract lump sum price. Such price and payment will be full compensation for all work covered by this section including but not limited to furnishing all materials required for installation, construction, and maintenance.

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Payment will be made under:

Pay Item Pay Unit

Generic Paving Item – Roundabout Rehabilitation

Lump Sum

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GUARDRAIL END UNITS, TYPE - TL-2

(10-21-08) (Rev. 7-1-17) 862 SP8 R64

Description

Furnish and install guardrail end units in accordance with the details in the plans, the applicable requirements of Section 862 of the 2018 Standard Specifications, and at locations shown in the plans.

Materials

Furnish guardrail end units listed on the NCDOT <u>Approved Products List</u> at https://apps.dot.state.nc.us/vendor/approvedproducts/ or approved equal.

Prior to installation the Contractor shall submit to the Engineer:

- (A) FHWA acceptance letter for each guardrail end unit certifying it meets the requirements of the AASHTO Manual for Assessing Safety Hardware, Test Level 2 in accordance with Article 106-2 of the 2018 Standard Specifications.
- (B) Certified working drawings and assembling instructions from the manufacturer for each guardrail end unit in accordance with Article 105-2 of the 2018 Standard Specifications.

No modifications shall be made to the guardrail end unit without the express written permission from the manufacturer. Perform installation in accordance with the details in the plans, and details and assembling instructions furnished by the manufacturer.

Construction Methods

Guardrail end delineation is required on all approach and trailing end sections for both temporary and permanent installations. Guardrail end delineation consists of yellow reflective sheeting applied to the entire end section of the guardrail in accordance with Article 1088-3 of the 2018 Standard Specifications and is incidental to the cost of the guardrail end unit.

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Measurement and Payment

Measurement and payment will be made in accordance with Article 862-6 of the 2018 Standard Specifications.

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Pay Unit

Each

Payment will be made under:

Pay Item
Guardrail End Units, Type TL-2

ADJUSTMENT TO MANHOLES:

(7-1-95) (Rev. 8-21-12) 858 SP8 R96R

The Contractor's attention is directed to Section 858-3 of the 2018 Standard Specifications.

Make adjustments to manholes on this project by using rings or rapid set (grout, mortar, or concrete) as approved by the Engineer.

PORTLAND CEMENT CONCRETE PRODUCTION AND DELIVERY

(9-15-20) 1000, 1014, 1024 SP10 R01

Revise the 2018 Standard Specifications as follows:

Page 10-6, Table 1000-1, REQUIREMENTS FOR CONCRETE, replace with the following:

	TABLE 1000-1 REQUIREMENTS FOR CONCRETE																			
							stency m Slump		Cement	Content										
Class of Concrete	Min. Compressive Strength at 28 days	Air-Entrained Concrete		Non-Air- Entrained Concrete		Vibrated			rated	Non-V	ibrated									
	in. (Stre	Rounded	Angular Aggregate	Rounded		/ibr NC	ibr X	Non-	/ibr	/ibr	/ibr No /ibr	/ibr	/ibr No /ibr	/ibr NG Vibr	Vibr	Vibr X				
	Z	Aggregate	Aggregate	Aggregate	Aggregate			Min.	Max.	Min.	Max.									
Units	psi					inch	inch	lb/cy	lb/cy	lb/cy	lb/cy									
AA	4500	0.381	0.426			3.5 ^A		639	715											
AA Slip Form	4500	0.381	0.426			1.5		639	715											
Drilled Pier	4500			0.450	0.450		5 – 7 dry 7 - 9 wet			640	800									
A	3000	0.488	0.532	0.550	0.594	3.5 A	4.0	564		602										
В	2500	0.488	0.567	0.559	0.630	1.5 machine placed 2.5 A hand placed	4.0	508		545										

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Sand Light- weight	4500		0.420			4.0 A		715			
Latex Modified	3000 (at 7 days)	0.400	0.400			6.0		658			
Flowable Fill excavatable	150 max. (at 56 days)	as needed	as needed	as needed	as needed		Flowable			40	100
Flowable Fill non- excavatable	125	as needed	as needed	as needed	as needed		Flowable			100	as needed
Pavement	4500 Design, field 650 flexural, design only	0.559	0.559			1.5 slip form 3.0 hand placed		526			
Precast	See Table 1077-1	as needed	as needed			6.0	as needed				
Prestressed	per contract	See Table 1078-1	See Table 1078-1			8.0		564	as needed		

A. The slump may be increased to 6 inches, provided the increase in slump is achieved by adding a chemical admixture conforming to Section 1024-3. In no case shall the water-cement ratio on the approved design be exceeded. Concrete exhibiting segregation and/or excessive bleeding will be rejected. Utilizing an Admixture to modify slump does not relinquish the contractor's responsibility to ensure the final product quality and overall configuration meets design specifications. Caution should be taken when placing these modified mixes on steep grades to prevent unintended changes to the set slope.

THERMOPLASTIC PAVEMENT MARKING MATERIAL – COLOR TESTING

3-19-19 1087 SP10 R05

Revise the 2018 Standard Specifications as follows:

Pages 10-183 and 10-184, Subarticle 1087-7(D)(1)(b) Yellow, lines 9-11, delete and replace with the following:

Obtain Color Values Y,x,y per ASTM E1349 using C/2° illuminant/observer. Results shall be $Y \ge 45\%$, and x,y shall fall within PR#1 chart chromaticity limits.

MATERIALS FOR PORTLAND CEMENT CONCRETE

(9-15-20) 1000, 1024 SP10 R24

Revise the 2018 Standard Specifications as follows:

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Page 10-52, Article 1024-4, WATER, lines 3-6, delete and replace with the following:

Test water from wells at all locations. Test public water supplies from all out of state locations and in the following counties: Beaufort, Bertie, Brunswick, Camden, Carteret, Chowan, Craven, Currituck, Dare, Gates, Hyde, New Hanover, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Tyrell and Washington unless the Engineer waives the testing requirements.

Page 10-52, Table 1024-2, PHYSICAL PROPERTIES OF WATER, replace with the following:

TABLE 1024-2 PHYSICAL PROPERTIES OF WATER							
Property Requirement Test Method							
Compression Strength, minimum percent of control at 3 and 7 days	90%	ASTM C1602					
Time of set, deviation from control	From 1:00 hr. earlier to 1:30 hr. later	ASTM C1602					
pН	4.5 to 8.5	ASTM D1293 *					
Chloride Ion Content, Max.	250 ppm	ASTM D512 *					
Total Solids Content (Residue), Max.	1,000 ppm	SM 2540B *					
Resistivity, Min.	0.500 kohm-cm	ASTM D1125 *					

^{*}Denotes an alternate method is acceptable. Test method used shall be referenced in the test report.

MONUMENT SIGNS

SUMMARY

Provide labor, material, equipment, related services, and supervision required to install all items associated with the monument signs as required for the complete performance of the work and as shown on the Construction Documents. Items included in this section include:

- 1. Stacked Stone Wall
- 2. Stone Veneer Column
- 3. Steel Sign Panel
- 4. Lighting

SUBMITTALS

- 1. Product Data: For each variety of manufactured product specified.
- 2. Samples: For each type of exposed finish, including stone veneer, stacked stone, mortar,

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- sign panel, and granite cap.
- 3. Shop Drawings: Contractor to provide a complete set of shop drawings, signed by a professional engineer certified in the state of North Carolina, showing the overall construction of the monument signs based off the design details provided. Drawings are to include the following:
 - a. Sign panel fabrication details confirming materials, dimensions, letter sizing, letter font, graphic cut out, sign finish, and sign anchorage into millstone.
 - b. Mill stone fabrication and anchorage details confirming millstone support brackets, footing connections, dimensions of millstone, stone type, and holes for sign panel support brackets.

MOCK UPS

1. Before installation, the contractor shall construct a sample section of the wall and column, minimum of 2' wide by 2' tall, to verify selections made under sample submittals and to demonstrate aesthetic effects and qualities of materials and execution. Work may be part of final product once accepted.

PRODUCT DELIVERY, STORAGE AND HANDLING

- 1. Deliver materials to project site in undamaged condition.
- 2. Store and handle materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breaking, chipping, or other causes.
- 3. Store cementitious materials off the ground, under cover and in a dry location.
- 4. Store aggregates covered and in a dry location, where grading and other required characteristics can be maintained and contamination avoided.

QUALITY ASSURANCE

- 1. Installer Qualifications: An experienced installer who has completed masonry installations similar in material, design, and extent to that is indicated for this Project and whose work has resulted in construction with a record of successful performance.
- 2. Source Limitations: Obtain ingredients of uniform quality for each cementitious component from a single manufacturer and each aggregate from one source or producer.

PROJECT CONDITIONS AND PROTECTION

- 1. Protection of stone veneer: During erection, cover tops of walls, projections and stills with waterproof sheeting at the end of each day's work. Cover partially completed stone veneer when construction is not in progress.
- 2. Stain Prevention: Immediately remove grout, mortar, epoxy and soil to prevent them from staining the face of the stone veneer. Protect base of walls from rain-splashed mud and mortar splatter.
- 3. Hot-Weather Requirements: Protect veneer work when temperature and humidity conditions produce excessive evaporation of water from mortar. Provide artificial shade

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- and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 100°F and above.
- 4. Cold-Weather Requirements: Do not use frozen materials or materials coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.
 - a. Cold-weather Mortar: heat mixing water and sand to produce mortar temperatures between 40 and 120 degrees F. Maintain mortar temperature above freezing.
 - b. Cold-weather Protection: Cover stone veneer with insulating blankets or provide enclosure and heat to maintain temperatures above 32 degrees F for 48 hours after construction. Use wind breaks when wind velocity exceeds 15 miles per hour.
 - c. Cold-weather Cleaning: Use liquid cleaning methods only when air temperature is 40 degrees F and above and will remain so until veneer has dried out.

PRODUCTS

1. CONCRETE FOOTING

- a. Ready mix concrete, reaching 3600 psi strength at 28 days.
- b. Reinforcing as shown in the drawings.

2. GRANITE WALL CAP (STONE-1)

- a. Supplier: The NC Granite Corporation (or approved equal), PO Box 151, Mount Airy, NC 27030, 1-800-227-6242, www.ncgranite.com
- b. Product: Mount Airy granite, or approved equal.
- c. Size: 3.5" thick, 36" square
- d. Color: Mount Airy White
- e. Finish: Thermal (flamed) finish on top, cold split on edges with drip edge as indicated on Landscape drawings, and sawn bottom finish.
- f. Additional Requirements: Drilled holes on bottom to receive anchor pins. Contractor to confirm size and location from field measurements of column prior to order.

3. COLUMN VENEER (STONE-2)

- a. Material: Cobble Stone
- b. Supplier: Southern Stone Supply or Approved Equal
 - i. 6909 Capital Blvd. Raleigh, NC 27616
- c. Product: Granite Cobble, or approved equal
- d. Color: Pewter
- e. Finish: Cut edges with tumbled finish
- f. Size: 4"x11"4 with variation of +/-1" max.
- g. Pattern: Stacked running bond with random soldier pieces.

4. WALL STONE (STONE-3)

- a. Material: Building Stone
- b. Supplier: Southern Stone Supply or Approved Equal
 - i. 6909 Capital Blvd. Raleigh, NC 27616

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- c. Product: Quarried Stone for Walls
- d. Color: Chocolate Gray
- e. Finish: Split finish
- f. Size: Blended, with at least following percentages:
 - i. 50% 4"x11"x4" with variation of $\pm -1"$ max.
 - ii. 20% 8"x11"4" with variation of up to +2" max
 - iii. 30% blended sizes to fill voids.
- g. Pattern: Stacked, random.

5. MILLSTONE (STONE-4)

- a. Material: Granite Mill Stone
- b. Supplier: Acceptable suppliers include
 - i. Meadows Mills, North Wilkesboro, NC, 800.626.2282
 - ii. Millstones.com, Chamblee, Georgia, 404.310.6490
 - iii. Or approved equal meeting product and size requirements within 200-mile radius.
- c. Product: Mill stone
- d. Finish: Millstone Patterning both sides, spiral style. Edges to be rough-hewn.
 All surfaces to be flame finished for "weathered look"
- e. Size: 60" outside diameter, 4" interior hole.

6. RIVER STONE (STONE-5)

- a. Material: Water-Worn River Stones
- b. Supplier: Southern Stone Supply or approved equal
 - i. 6909 Capital Blvd. Raleigh, NC 27616
- c. Product: Canyon River Stones
- d. Color: Range of tans and grays
- e. Size: 1" 3" size range
- f. Finish: Smooth surface
- g. Attachment: Mortared and grouted into place

7. STEEL SIGN

- a. Material: Galvanized steel
- b. Graphics: Laser Cut / plasma cut lettering and graphics as shown on plans. Graphics design is to be submitted to the Owner for approval prior to ordering.
- c. Finish: Powder Coat with color to look like Corten Weathering Steel
- d. Size: 18" height, sized to fit over mill stone. Contractor shall field measure mill stone prior to ordering sign.
- e. Thickness: 3/8"
- f. Anchors: Brackets to be welded to sign prior to powder coating. Use Galvanized Threaded Anchors embedded into mill stone.

8. ACCENT BAND

- a. Material: Galvanized steel
- b. Finish: Powder Coat with color to look like Corten Weathering Steel
- c. Size: 12" height, sized to fit columns. Contractor shall field measure column prior

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to ordering.

- d. Thickness: 3/8"
- e. Anchors: Stainless steel tapcon anchors as required to mount band to CMU block.

9. MORTAR

- a. Type S mortar mix, meeting or exceeding ASTM C1142.
- b. Water: Potable
- c. Mortar Color: Color shall match or complement stone color. Contractor shall provide samples from Manufacturer's full range for approval.

10. MASONRY WALL TIES

- a. Product: Tie-2R Anchor System, or approved equal.
- b. Supplier: Hohmann & Barnard, Inc. (www.h-b.com)
- c. Material: Stainless steel type 316.
- d. Wire Diameter: 9 Gauge
- e. Hook Size: 3/16" diameter x 4" long.

11. CONCRETE MASONRY UNITS

- a. Shapes: Provide block sizes as indicated.
- b. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 3750 psi.
- c. Density Classification: Medium weight.

12. EPOXY STONE ADHESIVE

a. Lataboxy 310 Stone Adhesive or equal approved by the Landscape Architect.

13. LIGHTING

- a. Acceptable Manufacturers:
 - i. Kim Lighting
 - ii. Performance in Lighting
 - iii. Vista-Pro
 - iv. Or approved equal
- b. Basis of Design: Furnish and install (3) micro flood lights at each sign location with all materials required for a ground mounted installation including box, concrete base, conduit for power, cut off at back of each sign, photo-sensor, and tie into Duke Energy Power circuit. Step-down transformer to be provided as required dependent on final circuit voltage.
 - i. Fixture: Kim Lighting Micro Flood
 - ii. Ordering Code: EL218-W-5-8L-4K-UV-DB-FH215DB
 - iii. Beam: Wide Flood Distribution
 - iv. Mounting: Ground Mounted Brass In-Grade Staked Junction Box JBR30
 - v. Voltage: 208v
 - vi. Transformer: in-grade (KLV660) 277V
 - vii. Cable- KLV432

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- c. Duke Energy Power Tie-In
 - i. The Town of Lewisville will coordinate with Duke Energy Power to establish a power source and associated meter for the monument signs. The Contractor will be required to coordinate with the Town and Duke Energy Power as needed to work through the logistics of the power circuit tie-in. The Contractor shall install the monument sign lighting in a manner that promotes power tie in as designated by the Town and Duke Energy Power.

EXECUTION

Fabrication and installation shall be in complete accordance with the Construction Documents, this special provision and the manufacturer's recommended method of installation.

Before beginning monument sign wall construction, remove the existing monument sign if applicable. The removal of the existing monument sign shall be considered incidental to the cost of grading (lump sum), Section 226 of the *Standard Specifications*. Contractor shall survey existing ground elevations along wall face locations and other elevations in the vicinity as needed. For proposed slopes above or below walls, survey existing ground elevations to at least 10 ft beyond slope stake points. Based on these elevations, finished grades and actual wall dimensions and details, submit shop drawings for acceptance. Use accepted shop drawings for construction.

Construction Methods

Control drainage during construction in the vicinity of the walls. Direct run off away from walls and backfill. Contain and maintain backfill and protect material from erosion.

Excavate as necessary for walls in accordance with the plans. Unless required otherwise in the plans, embed bottom of footings at least 2 ft below bottom of walls shown in the plans. If applicable and at the Contractor's option, use temporary shoring for wall construction instead of temporary slopes to construct walls. Define "temporary shoring for wall construction" as temporary shoring not shown in the plans or required by the Engineer including shoring for OSHA reasons or the Contractor's convenience.

Notify the Engineer when foundation excavation is complete. Do not place concrete for footings until excavation depth and foundation material are approved.

Construct walls for monument signs at elevations and with dimensions shown in the plans and in accordance with Section 420 of the *Standard Specifications*.

1. SETTING COLUMN VENEER (GENERAL)

- a. Arrange veneer for uniformity of appearance, with color and size variations uniformly dispersed for an evenly blended appearance.
- b. Anchor stone veneers to CMU columns with approved stone to CMU masonry type anchors in accordance with the manufacturer's instructions. Space anchors no more than 16" apart in the vertical direction. Set veneer accurately in locations

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- indicated with edges and faces aligned according to established relationships and indicated tolerances.
- c. Maintain uniform joint widths, except for minor variations required to maintain bond alignment, if any.

2. SETTING STACKED STONE (GENERAL)

- a. Arrange stones for random pattern balancing distribution of color and size variations uniformly dispersed over entire wall.
- b. Use mortar to secure each course of stone, raking all joints clean during construction.
- c. Maintain uniform joint widths, except for minor variations required to maintain bond alignment, if any.

3. SETTING ACCENT BAND

- a. Field measure column dimensions to determine accurate sizing for steel accent band.
- b. Lower accent band over top of the column so that it fits snugly over the top two courses of CMU units.
- c. Fasten the accent band to the column with stainless steel tapcon anchors as shown on the drawings. Each side of the band shall have a minimum of two anchors, and the top shall have a minimum of 4 anchors.

4. SETTING STONE CAP

- a. Install wall cap using stainless steel dowels as shown. Field measure column to determine hole locations.
- b. Set wall cap in non-shrink grout or epoxy in place with 1/2" bed.

5. SETTING RIVER STONES

- a. River stones are to be applied to the portion of the concrete footing that is not covered by the sign or wall stone. This area may be called the "exposed" area of the footing.
- b. Wash river stones to expose color variations. Allow stones to dry.
- c. Prepare mortar per manufacturer's recommendations and apply to the concrete area to a depth of 1.5 to 2 inches to create a setting bed for the river stones.
- d. Insert stones into mortar, pressing them into place. Arrange the stones in a manner such that the sizes and color are mixed evenly across the area. Embed each stone as much as possible.
- e. Lay a leveling board across the completed stones. Stand on the board to press stones into mortar.
- f. With a fine spray, wash displaced and excess mortar from the surface of the stones.
- g. Moisten the stones as required to achieve maximum strength.
- h. Seal joints with non-shrink grout.

6. LIGHTING

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- a. Execute the installation by a licensed electrician with experience in line voltage and low voltage lighting.
- b. Lighting is to be installed at each sign as shown on plans.
- c. Lighting controls are to be by photocell set to dusk-through-dawn operation.
- d. Transformers are to be located at each sign with a cutoff switch mounted to rear of column hidden from view. Transformers are to be in-grade.
- e. Adjust lighting to provide uniform lighting across sign and wall. Adjust dimming at transformer as necessary to create a balanced light level.
- f. Coordinate fixture and wiring installation with landscape contractor to prevent damage to low-voltage lighting lines.

7. ADJUSTING AND CLEANING

- a. Remove and replace veneer that is broken, chipped, stained or otherwise damaged. Veneer may be repaired if the methods and results are approved by the Landscape Architect prior to installation.
- b. Remove and replace defective joints.
- c. In-Progress Cleaning: Pressure wash veneer to remove any excess mortar, then brush excess mortar from stone.
- d. Protection: Provide final protection and maintain conditions in a manner acceptable to manufacturer and installer, ensuring that veneer is without damage and deterioration at the time of Substantial Completion.
- e. Final Cleaning: After mortar is thoroughly set and cured, remove large mortar particles with wooden paddles, nonmetallic scrape hoes or chisels. Clean granite veneer as follows:
 - i. Test cleaning methods on mock-up; leave one half of panel uncleaned for comparison purposes.
 - ii. Protect adjacent stone and non-masonry surfaces from contact with cleaner
 - iii. Wet all surfaces with water before applying cleaners; remove cleaners promptly by rinsing thoroughly with water.
 - iv. Clean granite by bucket and brush hand-cleaning method.

8. EXCESS MATERIALS AND WASTE

- a. Excess Veneer: Stack excess stone, brick or pavers where directed by Owner or Owner's Representative for Owner's use.
- b. Dispose of all waste associated with the construction of items.

9. CONSTRUCTION TOLERANCES

a. Variation from Plumb and Level: For vertical lines and surfaces, do not exceed 1/4" in 5 feet. For other conspicuous lines, do not exceed 1/4" in 10 feet.

WARRANTY

The Contractor shall provide a one-year warranty against defects in materials, installation, or workmanship. This warranty period shall begin at substantial completion of the project.

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MEASURE AND PAYMENT

The quantity of Landscape Planter will be paid for at the contract unit price using the units of measurement and pay items listed below. Unit price will be full compensation for all labor, materials, footings, equipment, adhesive, excavation, mortar, drainage system materials, substructure (such as concrete, aggregate base, reinforcing materials, etc.), hauling, delivery charges, tools, and any incidentals necessary to excavate, furnish, and the landscape planter as noted within the Construction Documents and this special provision.

Payment will be made under:

Pay ItemPay UnitGeneric Signing Item- MillstoneEachGeneric Signing Item- Steel Sign PanelEachGeneric Signing Item- Stone ColumnsEachGeneric Signing Item- FootingEachGeneric Signing Item- LightingEachGeneric Signing Item- Stacked Stone WallLinear Foot

MATERIAL AND EQUIPMENT STORAGE & PARKING OF PERSONAL VEHICLES

11-17-21(Rev. 8-16-22) 1101 SP11 R03

Revise the 2018 Standard Specifications as follows:

Page 11-2, Article 1101-8 MATERIAL AND EQUIPMENT STORAGE, line 35-38, delete and replace with the following:

When work is not in progress, keep all personnel, equipment, machinery, tools, construction debris, materials and supplies away from active travel lanes that meets Table 1101-1.

TABLE 1101-1 MATERIAL AND FOLUMENT STODACE FROM ACTIVE TRAVEL LANES							
MATERIAL AND EQUIPMENT STORAGE FROM ACTIVE TRAVEL LAN							
Posted Speed Limit (mph)	Distance (ft)						
40 or less	≥ 18						
45-50	≥ 28						
55	≥ 32						
60 or higher	≥ 40						

When vehicles, equipment and materials are protected by concrete barrier or guardrail, they shall be offset at least 5 feet from the barrier or guardrail.

Page 11-2, Article 1101-9 PARKING OF PERSONAL VEHICLES, line 40-41, delete and replace with the following:

Provide staging areas for personal vehicle parking in accordance with Article 1101-8 or as directed by the Engineer before use.

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WORK ZONE INSTALLER

(7-20-21)(Rev. 8-16-22) 1101, 1150 SP11 R04

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Provide the service of at least one qualified work zone installer during the setup, installation, and removal of temporary traffic control within the highway right of way. The qualified work zone installer shall serve as crew leader and shall be on site and directing the installation and removal of temporary traffic control. If multiple temporary traffic control installations or removals are occurring simultaneously, then each shall have a qualified work zone installer.

The work zone installer shall be qualified by an NCDOT approved training agency or other NCDOT approved training provider in the safe and competent set up of temporary traffic control. For a complete listing of approved training agencies, see the Work Zone Safety Training webpage.

A work zone supervisor, in accordance with Article 1101-13 of the *Standard Specifications*, may fulfill the role of the work zone installer during the setup, installation, and removal of temporary traffic control within the highway right of way provided they are on site and directing the installation and removal of temporary traffic control.

All other individuals participating in the setup, installation, and removal of temporary traffic control within the highway right of way shall be certified as a qualified flagger in accordance with Article 1150-3 of the *Standard Specifications*, even if flagging is not being performed as part of the traffic control.

Provide the name and contact information of all qualified work zone installers to the Engineer prior to or at the preconstruction conference. Additionally, provide a qualification statement that all other individuals participating in the setup, installation, and removal of temporary traffic control are qualified flaggers that have been properly trained through an NCDOT approved training agency or other NCDOT approved training provider.

All certification records for qualified work zone installers and flaggers shall be uploaded by the approved training agency or other NCDOT approved training provider to the Department's Work Zone Education Verification App (WZ-EVA) prior to the qualified work zone installer or flagger performing any traffic control duties on the project. For more information about WZ-EVA, see the Work Zone Safety Training webpage.

TEMPORARY TRAFFIC CONTROL DEVICES

(1-17-12) 1105 SP11 R05

Revise the 2018 Standard Specifications as follows:

Page 11-5, Article 1105-6 Measurement and Payment, add the following paragraph after line 27:

Partial payments will be made on each payment estimate based on the following: 50% of the contract lump sum price bid will be paid on the first monthly estimate and the remaining 50% of the contract lump sum price bid will be paid on each subsequent estimate based on the percent of the project completed.

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EXTRUDED THERMOPLASTIC PAVEMENT MARKING THICKNESS

3-19-19 (Rev. 6-21-22) 1205 SP12 R05

Revise the 2018 Standard Specifications as follows:

Page 12-6, Subarticle 1205-4(A)(1) General, lines 5-8, delete the second sentence and replace with the following:

Use application equipment that provides multiple width settings ranging from 4 inches to 12 inches and multiple thickness settings to achieve the required thickness above the surface of the pavement as shown in Table 1205-3.

Page 12-7, Table 1205-3, THICKNESS REQUIREMENTS FOR THERMOPLASTIC, replace with the following:

TABLE 1205-3		
MINIMUM THICKNESS REQUIREMENTS FOR THERMOPLASTIC		
Thickness	Location	
240 mils	In-lane and shoulder-transverse pavement markings (rumble strips). May be	
	placed in 2 passes.	
90 mils	Center lines, skip lines, transverse bands, mini-skip lines, characters, bike lane	
	symbols, crosswalk lines, edge lines, gore lines, diagonals, and arrow symbols	

STREET LIGHT CONDUIT

KH 12-01-20

Description

This item consists of installment of Duke Energy Progress street lighting conduit for future installation of street lighting by Duke Energy Progress. The roadway contractor shall install street lighting conduit under proposed hard surfaces as indicated in the Utilities by Others Plans.

Materials

- 2" SCH 40 PVC (Gray) conduit material is the responsibility of the Contractor to supply and install via open trench methods as indicated on the plans.
- The conduit material shall be gray in color to indicate that it is electrical conduit.

Installation and Quality Assurance

• Conduit is to be installed via open trench methods per Duke Energy Progress's latest requirements at the locations indicated on the Utilities by Others Plans. Contractor to extend the conduit runs a minimum of 2 feet beyond the limits of the proposed hard surface on both ends of the conduit run.

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- Contractor is responsible for providing a workable conduit system with a pull wire or string suitable for pulling cable.
- Conduit shall be clear of blockages and breaks in the run.
- Contractor shall turn up both ends of the conduit runs at 90 degrees such that there is an exposed excess length of conduit on the ends. This will be done in a manner such that Duke Energy Progress can easily field identify the end of the installed conduit runs during their future street lighting installation work. The contractor shall cap the ends of the conduit at the time of installation to prevent blockage from debris.
- Conduit trenching must be a minimum of 30 inches deep below finished grade.
- Conduit must be compacted to original compaction to prevent settling.

Measurement and Payment

Payment for "Generic Lighting Item – Street Lighting Conduit, Open Trench Install, 2" SCH 40 PVC (Gray)" shall be at the contact unit price per linear foot designated on the Itemized Proposal and shall be in accordance with NCDOT and Duke Energy Progress specifications. The work associated with "Generic Lighting Item – Street Lighting Conduit, Open Trench Install, 2" SCH 40 PVC (Gray)" shall be full compensation for all labor, equipment, materials and incidentals necessary to install the conduit. No measurement will be made of paved or unpaved trenching, excavation, backfill graded stone, paved materials in addition to the proposed pavement section, miscellaneous fittings, wyes, tees, elbows, caps, markers, other materials, and coordination with utilities, as these will be considered incidental to the installation of conduit. Contractor must provide the 2" SCH 40 PVC (Gray) conduit material.

Payment will be made under:

Pay Item
Generic Lighting Item – Street Lighting Conduit, Open Trench Install,
Linear Feet
2" SCH 40 PVC (Gray)

UTILITIES BY OTHERS

KH 05-06-21

General:

- A) Duke Energy Progress (Power)
- B) Windstream (Communications)
- C) AT&T (Communications)
- D) Verizon (Communications)

The conflicting facilities of these concerns will be adjusted prior to the date of availability, unless otherwise noted and are therefore listed in these special provisions for the benefit of the Contractor. All utility work listed herein will be done by the utility owner. All utilities are shown on the plans from the best available information.

The Contractor's attention is directed to Article 105.8 of the Standard Specifications.

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Utilities Requiring Adjustment:

Utility relocations are shown on the Utilities by Others (UbO) Plans.

A) Duke Energy Progress (Power)

Duke Energy Progress owns overhead power lines that run along the west side of SR 1173 (Williams Road), with service drops to poles on the east side.

- Windstream Communications will coordinate with Duke Energy Progress on reattaching to Duke-owned pole near the Food Lion truck access driveway at the north end of the project corridor.
- 2) No further conflicts with Duke Energy are anticipated.
- 3) Work will be complete by the date of availability.
- 4) Contact person for Duke Energy Progress (Power): Patrick Sizemore, 336-917-2522

 Patrick.Sizemore@duke-energy.com

B) Windstream (Communications)

Windstream Communications owns underground copper communication cables that run along the west side of the project corridor and aerial lines that run along the east side of SR 1173 (Williams Road).

- 1) A span of underground cable will be installed along the northwest side of the Concord Church Road roundabout at the location and depth indicated on the UbO plans to avoid conflict with proposed curb and gutter and drainage. There is a proposed pedestal on the south end of the underground span and the north end of the span will tie to an existing cabinet. Existing cables between the pedestals will be abandoned. This work will be completed by the date of availability.
- 2) A span of underground cable will be installed along the northwest side of the US 421 roundabout, north of the US 421 on-ramp, at the location and depth indicated on the UbO plans to avoid conflict with proposed drainage. The existing stretch of cable in conflict will be abandoned. This work will be completed by the date of availability.
- 3) A span of underground cable will be installed along the west side of SR 1173 (Williams Road) across the street from the Shell gas station at the location and depth indicated on the UbO plans to avoid conflict with proposed curb and gutter and drainage. The existing stretch of cable in conflict will be abandoned. Additionally, an existing manhole will be relocated at this location out of conflict into the limits of the proposed sidewalk. This work will be completed to the extent possible by the date of availability. Windstream will need to coordinate with roadway contractor during construction on restoration of the large hole that will be left after they relocate their existing manhole.
- 4) Two new Windstream-owned poles will be installed along the east side of SR 1173 (Williams Road) to avoid conflict with the proposed sidewalk as indicated on the UbO plans. The existing poles will be removed, and the aerial lines will be restrung on the newly established pole line.
- 5) Contact person for Windstream (Communications): Jim Crumbley, 336-225-8133

 <u>James.Crumbley@windstream.com</u>

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C) AT&T (Communications)

AT&T owns underground cables and associated handholes on the west side of SR 1173 (Williams Road) at the northern end of the project corridor. The facilities within the limits of our project corridor were installed after we received project survey.

- 1) There was handhole conflict identified near the Food Lion truck access driveway at the north end of the project corridor. The handhole will be relocated out of conflict within the existing right-of-way.
- 2) Work will be complete by the date of availability.
- 3) Contact person for AT&T: Will Pace, 336-391-4843

wp678r@att.com

D) Verizon (Communications)

Verizon owns underground cables and associated handholes that run along the west side of the project corridor. The facilities within the limits of our project corridor were installed after we received project survey.

- 1) A span of underground cable will be installed along the northwest side of the Concord Church Road roundabout to avoid conflict with proposed curb and gutter and drainage. There is a proposed handhole on both the north and south end of the underground span. The proposed handhole on the south end will be adjacent to where the existing underground telecommunication cables cross SR 1173 (Williams Road) on the western leg of the roundabout. The proposed handhole on the north end will be adjacent to the existing Windstream-owned cabinet on the concrete pad southwest of the bridge over US 421. This work will be completed by the date of availability.
- 2) There was handhole conflict identified on the west side of SR 1173 (Williams Road) near the proposed cross walk at approximate -L- station 21+00 LT. The handhole will be relocated out of conflict adjacent to the existing Duke Power Pole to the west at the same approximate -L- station. This work will be completed by the date of availability.
- 3) Contact person for Verizon: Brian Nisinger (Engineering Associates, LLC)

678-619-0217

brian.nisinger@engineeringassociates.com

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EROSION CONTROL

ROADSIDE ENVIRONMENTAL UNIT

TEMPORARY PIPE FOR CONSTRUCTION ENTRANCE

SP (Kimley-Horn and Associates, Inc.)

Description

This work consists of furnishing, installing, maintaining and removing any and all temporary pipe used on this project in conjunction with the proposed temporary construction entrances/exits.

Construction Methods

The Contractor shall install temporary pipe in locations shown on the plans in such a manner approved by the Engineer. The temporary pipe shall provide a passageway for drainage to convey along the ditch grade or gutter line through the work-site. The minimum size requirements will be as stated on the erosion control plans.

Measurement and Payment

15" Temporary Pipe will be measured and paid for at the contract unit price per linear foot of temporary pipe approved by the Engineer and measured in place from end to end. Such price and payment will be full compensation for all work covered by this section including but not limited to furnishing all materials required for installation, construction, maintenance, and removal of temporary pipe.

Payment will be made under:

Pay Item Pay Unit

15" Temporary Pipe Linear Foot

CONCRETE WASHOUT STRUCTURE

Description

Concrete washout structures are watertight enclosures constructed above or below grade to contain concrete waste on construction sites. Concrete waste can include concrete waste water from washing out ready-mix trucks, drums, pumps, or other equipment. Concrete waste also includes concrete slurries from concrete saw cutting, coring, grinding, grooving operations, or hydro-concrete demolition. Concrete washouts must prevent the discharge of concrete waste materials to storm drainage systems, surface waters, wetlands, and buffers. Work for above grade washout structures includes gathering high cohesive and low infiltration soil to construct an above grade earthen berm basin. Work also includes preparing a rock and

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debris free soil base inside this earthen basin, installing a geomembrane liner in the basin, and then placing sandbags along the entire polypropylene liner basin perimeter. Work for below grade washout structures includes preparing a rock and debris free soil base, excavation of a basin with non- vertical side slopes, installing a geomembrane liner in the basin, and then placing sandbags along the entire polypropylene liner excavation perimeter. Construct a gravel pad with Class A stone and a geotextile under liner to provide a defined access path to the concrete washout structures. Install safety fence around the perimeter of the concrete washout structures.

Materials

Item	Section
Borrow Material	1018
Stone for Erosion Control, Class A	1042
Geotextile for Drainage, Type 2	1056

The geomembrane basin liner shall meet the following minimum physical properties for low permeability, polypropylene or polyethylene geomembranes:

Property	Test Method	Value	Unit
Thickness, nominal		10	mil
Weight		0.04	lbs./ft ²
*1" Tensile Strength	ASTM D-751	52	lbf.
Elongation at Break	ASTM D-751	600	%
*Grab Tensile	ASTM D-751	70	lbf.
*Trapezoid Tear	ASTM D-4533	55	lbf.
Hydrostatic Resistance	ASTM D-751	70	lb./in ²
Water Vapor Transmission Rate	ASTM E-96	0.03	gal/100in ² /day
-	Procedure B		
Perm Rating	ASTM E-96	0.066	U.S. Perms
-	Procedure B		

^{*}Tests are an average of diagonal directions.

Safety Fence shall meet the specifications as provided elsewhere in this contract.

Construction Methods

Above Grade Structures

Assemble high cohesive and low infiltration soil to build an enclosed earthen berm for an above grade concrete washout basin in accordance with the details and as directed. Construct the height, length, and width of the earthen berm according to the detail. Slope the interior and exterior walls of the earthen berm at 1:1 and then compact to provide structural stability and contain concrete washout liquids and solid materials until evaporation, curing, extraction, or final removal.

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The geomembrane liner will be of sufficient width and length so there will be no seams. Install the geomembrane lining by overlaying it in the basin to completely cover any exposed soil to create a water tight concrete washout basin. Extend the geomembrane lining from inside the basin floor, up the earth slope of the basin and extend, overlay, and wrap outside the earthen berm. Trench the toe of the geomembrane lining into an eight inch depth trench and then backfill and tamper with soil.

Below Grade Structures

Excavate an area for concrete washout in accordance with the details and as directed. Excavate to a minimum depth of 3 feet. Slope the interior walls of the excavated area at 1:1 and then compact to provide structural stability and contain concrete washout liquids and solid materials until evaporation, curing, extraction, or final removal.

The geomembrane liner will be of sufficient width and length so there will be no seams. Install the geomembrane lining by overlaying it in the excavated area to completely cover any exposed soil to create a watertight impoundment. Extend the geomembrane lining from the excavation floor, up the interior slope of the excavated basin and beyond the outside perimeter of the excavation.

Prepare the soil base to be free of rocks or other debris that may cause holes or tears in the geomembrane lining.

Install safety fence around the perimeter of the concrete washout structures in accordance with the *Safety Fence* special provision.

Construct a stone gravel pad with Class A stone (or other approved aggregate material) and a geotextile liner to provide a defined access path to the concrete washout structure. Construct the stone gravel pad according to *Roadway Standard Drawings* No. 1607.01 and Section 1607 of the *Standard Specifications*. Post a sign with the words "Concrete Washout" in close proximity of the concrete washout area, so it is clearly visible to site personnel.

The construction details for the above grade and below grade concrete washout structures can be found on the following web page link: https://connect.ncdot.gov/resources/roadside/ SoilWaterDocuments/ConcreteWashoutStructuredetail.pdf

Maintenance and Removal

Maintain the concrete washout structure(s) to provide adequate holding capacity plus a minimum freeboard of 12 inches. Remove and dispose of hardened concrete and return the structure to a functional condition after reaching 75% capacity.

Inspect concrete washout structures for damage (i.e. tears in geomembrane liner, missing sand bags) and maintain for effectiveness.

Remove the concrete washout structures and sign upon project completion. If appropriate and possible, reuse the geomembrane liner, the sandbags, orange safety fence, the Class A stone, and

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the geotextile. Otherwise, properly dispose of items. Grade the earth material to match the existing contours and permanently seed and mulch area.

Measurement and Payment

Concrete Washout Structure will be measured and paid for by counting the actual number of washout structures installed and maintained on the project. Such price and payment will be full compensation for all work including but not limited to furnishing materials, construction, maintenance and removal of concrete washout structures, grading and seeding and mulching area. The provisions of Article 104-5 of the *Standard Specifications* will not apply to this item of work.

Payment will be made under:

Pay Item Pay Unit

Concrete Washout Structure Each

STABILIZATION REQUIREMENTS

(3-11-16) (KH Rev. 10-02-19)

S-3

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Stabilization for this project shall comply with the time frame guidelines as specified by the NCG-010000 general construction permit effective April 1, 2019 issued by the North Carolina Department of Environment Quality Division of Energy, Mineral, and Land Resources. Temporary or permanent ground cover stabilization shall occur within 7 calendar days from the last land-disturbing activity, with the following exceptions in which temporary or permanent ground cover shall be provided in 14 calendar days from the last land-disturbing activity:

- Slopes between 2:1 and 3:1, with a slope length of 10 ft. or less
- Slopes 3:1 or flatter, with a slope of length of 50 ft. or less
- Slopes 4:1 or flatter

The stabilization timeframe for High Quality Water (HQW) Zones shall be 7 calendar days with no exceptions for slope grades or lengths. High Quality Water Zones (HQW) Zones are defined by North Carolina Administrative Code 15A NCAC 04A.0105 (25). Temporary and permanent ground cover stabilization shall be achieved in accordance with the provisions in this contract and as directed.

SEEDING AND MULCHING

(West)

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. All rates are in pounds per acre.

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Shoulder and Median Areas

August 1 - June 1		May 1 – S	May 1 – September 1	
20#	Kentucky Bluegrass	20#	Kentucky Bluegrass	
75#	Hard Fescue	75#	Hard Fescue	
25#	Rye Grain	10#	German or Browntop Millet	
500#	Fertilizer	500#	Fertilizer	
4000#	Limestone	4000#	Limestone	

Areas Beyond the Mowing Pattern, Waste and Borrow Areas:

August 1 - June 1		May 1 – September 1	
100#	Tall Fescue	100#	Tall Fescue
15#	Kentucky Bluegrass	15#	Kentucky Bluegrass
30#	Hard Fescue	30#	Hard Fescue
25#	Rye Grain	10#	German or Browntop Millet
500#	Fertilizer	500#	Fertilizer
4000#	Limestone	4000#	Limestone

Approved Tall Fescue Cultivars

06 Dust	Escalade	Justice	Scorpion
2 nd Millennium	Essential	Kalahari	Serengeti
3 rd Millennium	Evergreen 2		Shelby
Apache III	Falcon IV	Kitty Hawk 2000	Sheridan
Avenger	Falcon NG	Legitimate	Signia
Barlexas	Falcon V	Lexington	Silver Hawk
Barlexas II	Faith	LSD	Sliverstar
Bar Fa	Fat Cat	Magellan	Shenandoah Elite
Barrera	Festnova	Matador	Sidewinder
Barrington	Fidelity	Millennium SRP	Skyline
Barrobusto	Finelawn Elite	Monet	Solara
Barvado	Finelawn Xpress	Mustang 4	Southern Choice II
Biltmore	Finesse II	Ninja 2	Speedway
Bingo	Firebird	Ol' Glory	Spyder LS
Bizem	Firecracker LS	Olympic Gold	Sunset Gold
Blackwatch	Firenza	Padre	Taccoa
Blade Runner II	Five Point	Patagonia	Tanzania
Bonsai	Focus	Pedigree	Trio
Braveheart	Forte	Picasso	Tahoe II
Bravo	Garrison	Piedmont	Talladega
Bullseye	Gazelle II	Plantation	Tarheel
Cannavaro	Gold Medallion	Proseeds 5301	Terrano
Catalyst	Grande 3	Prospect	Titan ltd
Cayenne	Greenbrooks	Pure Gold	Titanium LS
Cessane Rz	Greenkeeper	Quest	Tracer

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Chipper	Gremlin	Raptor II	Traverse SRP
Cochise IV	Greystone	Rebel Exeda	Tulsa Time
Constitution	Guardian 21	Rebel Sentry	Turbo
Corgi	Guardian 41	Rebel IV	Turbo RZ
Corona	Hemi	Regiment II	Tuxedo RZ
Coyote	Honky Tonk	Regenerate	Ultimate
Darlington	Hot Rod	Rendition	Venture
Davinci	Hunter	Rhambler 2 SRP	Umbrella
Desire	Inferno	Rembrandt	Van Gogh
Dominion	Innovator	Reunion	Watchdog
Dynamic	Integrity	Riverside	Wolfpack II
Dynasty	Jaguar 3	RNP	Xtremegreen
Endeavor	Jamboree	Rocket	

Approved Kentucky Bluegrass Cultivars:

4-Season	Blue Velvet	Gladstone	Quantum Leap
Alexa II	Blueberry	Granite	Rambo
America	Boomerang	Hampton	Rhapsody
Apollo	Brilliant	Harmonie	Rhythm
Arcadia	Cabernet	Impact	Rita
Aries	Champagne	Jefferson	Royce
Armada	Champlain	Juliet	Rubicon
Arrow	Chicago II	Jump Start	Rugby II
Arrowhead	Corsair	Keeneland	Shiraz
Aura	Courtyard	Langara	Showcase
Avid	Delight	Liberator	Skye
Award	Diva	Madison	Solar Eclipse
Awesome	Dynamo	Mercury	Sonoma
Bandera	Eagleton	Midnight	Sorbonne
Barduke	Emblem	Midnight II	Starburst
Barnique	Empire	Moon Shadow	Sudden Impact
Baroness	Envicta	Moonlight SLT	Total Eclipse
Barrister	Everest	Mystere	Touche
Barvette HGT	Everglade	Nu Destiny	Tsunami
Bedazzled	Excursion	NuChicago	Unique
Belissimo	Freedom II	NuGlade	Valor
Bewitched	Freedom III	Odyssey	Voyager II
Beyond	Front Page	Perfection	Washington
Blacksburg II	Futurity	Pinot	Zinfandel
Blackstone	Gaelic	Princeton 105	
Blue Note	Ginney II	Prosperity	

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Approved Hard Fescue Cultivars:

Aurora II	Eureka II	Oxford	Scaldis II
Aurora Gold	Firefly	Reliant II	Spartan II
Berkshire	Granite	Reliant IV	Stonehenge
Bighorn GT	Heron	Rescue 911	
Chariot	Nordic	Rhino	

On cut and fill slopes 2:1 or steeper add 20# Sericea Lespedeza January 1 - December 31.

Fertilizer shall be 10-20-20 analysis. A different analysis of fertilizer may be used provided the 1-2-2 ratio is maintained and the rate of application adjusted to provide the same amount of plant food as a 10-20-20 analysis and as directed.

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LANDSCAPE ARCHITECTURE

EXTERIOR PLANTING

SUMMARY

Work of this section includes provision of plant material and supplementary items necessary to complete the work required for installation including:

- 1. Soil Preparation
- 2. Plant Installation
- 3. Warranty
- 4. Maintenance

QUALITY ASSURANCE

- 1. Plant names indicated comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed must conform to genus and species as accepted by the nursery trade. Provide stock true to botanical name and legibly tagged.
- 2. Comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock". A plant shall be dimensioned as it stands in its natural position.

SUBMITTALS

- 1. Plant materials:
 - a. Include sizes and source for plant materials.
 - b. Plant material photos with a measuring stick.
 - c. Plant labels/tags in photo.
- 2. Mulch: 1-quart sample.
- 3. Compost: 1-quart sample and product data.
- 4. Topsoil: 1-quart sample and analysis to include soil type, pH, organic content, and critical nutrient composition.
- 5. Product information for fertilizer products.

DELIVERY, STORAGE, AND HANDLING

- 1. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws if applicable.
- 2. Bulk Materials
 - a. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
 - b. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems or walkways.

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- c. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.
- 3. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scale, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
- 4. Handle planting stock by root ball.
- 5. Deliver plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.
 - a. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
 - b. Do not remove container-grown stock from containers before time of planting.
 - c. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root system in a moist, but not overly-wet condition.

PROJECT CONDITIONS

- 1. Field Measurements: Verify actual grade elevations, service and utility locations, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.
- 2. Interruption of Existing Services or Utilities: Do not interrupt services or utilities to facilities occupied by Owner or other unless permitted under the following conditions and then only after arranging to provide temporary services or utilities according to the requirements indicated:
 - a. Notify Owner's Representative no fewer than two days in advance of proposed interruption of each utility or service.
 - b. Do not proceed with interruption of services or utilities without Owner's written permission.
- 3. Planting restrictions: Plant during one of the following periods. If circumstances require planting outside the approved planting periods, written approval must be obtained from the Town and Landscape Architect. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
 - a. Spring Planting: March 1 June 15
 - b. Fall Planting: September 1 November 30
- 4. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.
- 5. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated. When planting trees, shrubs and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

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WARRANTY

- 1. Special Warranty: The Contractor agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.
 - a. Failures include, but are not limited to, the following:
 - i. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, lack of water, or neglect by Owner, or incidents that are beyond Contractor's control.
 - ii. Structural failures including plantings falling or blowing over.
 - b. Warranty Period from Date of Substantial Completion is 12 months for all trees, shrubs, ornamental grasses, and annuals.
 - c. Include the following remedial actions as a minimum:
 - i. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
 - ii. Replace plants that are more than 25% dead or in an unhealthy condition at end of warranty period
 - iii. A limit of one replacement of each plant will be required except for losses or replacements due to failure to comply with requirements.
 - iv. Provide extended warranty for period equal to original warranty period, for replaced plant material.
 - d. The Town will notify the Contractor in writing of plants to be replaced. Replacement dates shall be established by mutual agreement between the Town and the Contractor.
 - e. The Contractor shall be responsible for maintenance of plant material included in this special provision for 1 full year. Refer to section "Landscape Maintenance" Special Provision in this document for landscape maintenance activities.

PRODUCTS

- 1. FERTILIZER: Granular, 100% organic or palletized. Product shall meet requirements of soil test analysis report.
- 2. ORGANIC SOIL AMENDMENTS: Organic soil amendment material (compost) shall be a blend of composted manure, humus and well-aged pine bark. Materials shall be screened and free from lumps, stones, plant material and debris, free of weed seed and other material harmful to plant life. Soil amendment materials shall meet the following organic/chemical analysis:
 - a. Organic Matter Content: 50% to 80%
 - b. pH Range: 6.0-8.0
 - c. Ammonia Nitrogen: Maximum 500 ppm
 - d. Salt Content (Standard pace extract): Maximum 5.0 mmchis/cm
 - e. Carbon/Nitrogen Ratio: 15 30

3. MULCHES

a. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

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- i. Designer-grade double-shredded hardwood mulch
- ii. Or approved equal

4. SOILS

- a. Topsoil: Refer to section "Topsoil" Special Provisions.
- b. Soil Amendments: As required by soils analysis testing.
 - i. Top-dress fertilizer shall be complete fertilizer with 50% of the nitrogen to be derived from natural organic sources or urea form. Available phosphoric acid shall be from superphosphate, bone or tankage. Potash will be derived from muriate of potash containing 60% potash.
 - ii. Tree and shrub planting fertilizer shall be Agriform 20-20-5 formula 21-gram tablet or approved equal.

5. PLANTS

- a. Provide nursery grown plants typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems. Provide only solid, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, and frost cracks, abrasions of the bark, plant diseases, insect eggs, borers, fire ants, and all forms of infestation. All plants shall have a fully developed form without voids and open spaces. ALL PLANTS SHALL BE NURSERY GROWN AT A NORTH CAROLINA DEPARTMENT OF AGRICULTURE APPROVED NURSERY AND NOT FIELD COLLECTED.
- b. <u>B & B Stock:</u> Dig balled and burlapped plants with firm, natural balls of earth, of sufficient diameter and depth to encompass the fibrous and feeding root system necessary for full recovery of the plant. Provide ball sizes complying with the latest edition of the "American Standard for Nursery Stock". Cracked, mushroomed, or "manufactured", (including the addition of soil inside burlap to meet specifications), root balls are not acceptable.
 - i. <u>Matched Specimens:</u> Plants indicated on plans to be matched specimens shall have similar shape and form during installation. Any plants not meeting the standards of the matching plant material will be rejected.
- c. Container Grown Stock: Plants are to be grown in a container for sufficient length of time for the root system to have developed to hold its soil together, firm and whole. No plants shall be loose in the container. Container stock shall not be pot bound. Plants planted in rows shall be matched in form and shall meet the requirements for spread and height as indicated in the plant list. The measurements for height shall be taken from the ground level to the average height of the top branches of the plant, and not the longest branch. Single stemmed or thin plants will not be accepted. Side branches shall be generous, well twigged, and the plant, as a whole, well bushed to the ground. Plants shall be in a moist, vigorous condition, free from dead wood, bruises, or other root or branch injuries.

6. PLANTING ACCESSORIES

a. Anti-desiccant: The use of anti-desiccant is not allowed without prior approval of the Project Landscape Architect or Town.

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- b. Drainage Gravel: Washed, sound crushed stone or gravel complying with ASTM D 448 for Size No. 8.
- c. Planter Filter Fabric: Nonwoven geotextile manufactured for separation applications and made polypropylene, polyolefin or polyester fibers or combination of them.
- 7. WATER: Potable
- 8. PRE-EMERGENT HERBICIDE: Team-Pro 19-3-6, Lasso, Ronstar or approved equal shall be applied to plant beds in the late winter or early spring, prior to the emergence of any weed seeds, by the Contractor. Pre-emergent herbicide shall be applied at rates specified on the package and only as recommended by the manufacturer and approved by the Town.
- 9. HERBICIDE: "Round-Up" by Monsanto or approved equal, to be applied twice to all plant beds prior to planting by the contractor. Application rates are to be as recommended by manufacturer.
 - a. Four weeks prior to planting.
 - b. Two weeks prior to planting.

EXECUTION

1. EXAMINATION: Examine substrate surfaces to receive plant material and associated work and conditions under which work will be installed. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area. Do not proceed until unsatisfactory conditions have been corrected in a manner complying with the Contract Documents and acceptable to the Installer. Starting of work within a particular area will be construed as Installer's acceptance of surface conditions.

2. INSTALLATION OF PLANT MATERIALS

- a. <u>Utilities</u>: Notify utility companies of planting schedule and have existing utilities field located prior to excavation. Notify Town of potential conflicts.
- b. <u>Layout</u>: Stake plants as indicated on the drawings. Obtain approval of Town or Project Landscape Architect prior to any installation of plant material. If obstructions are encountered, do not proceed with planting operations until alternate plant locations have been selected and approved.
- c. Existing Plant Materials: Protect all existing plant materials from damage. Contractor will be responsible to replace or, if feasible, repair (by pruning according to the written instructions of a qualified arborist) any damages at his cost. Replacement values will be determined by the Town Staff through previously utilized methodologies.
- d. <u>Amendments of Planting Mixture:</u> The Contractor shall obtain a NC Department of Agriculture soils test for all areas to be planted. Contractor shall incorporate the recommended adjustments (from the soil analysis) into the top six inches of

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the planting mixture. After incorporation of the amendments the Contractor shall remove all stones and clods over one inch in diameter, roots, weeds and other extraneous materials. The Contractor shall bring all amended soil areas to finished grade.

e. Excavation:

- i. <u>Tree Pits:</u> Excavate tree pits with "rough," sides as indicated in plans. Provide pits at least 24" greater than the diameter of the root system. Depth of pit shall accommodate the root system. Contractor to loosen encircling roots from the soil so that they may extend outward from the ball, (both container and B&B material). In general, the depth of the hole shall be 2-3" less than the depth of the root ball. Scarify the sides of the pit. Avoid creating smooth or "glazed" sides of the pit. Dispose of any unsuitable subsoil removed from excavations. The bottom of the hole shall be flat and firm to prevent settling; do not dig or scarify.
- ii. Shrubs/Groundcover: Excavate planting areas with "rough," sides as indicated in plans. Provide pits at least twice as wide as the diameter of the root system. Depth of pit shall accommodate the root system. Contractor to loosen encircling roots from the soil so that they may extend outward from the ball, (both container and B&B material). In general, the depth of the hole shall be 1" less than the depth of the root ball. Scarify the sides of the pit. Avoid creating smooth or "glazed" sides of the pit. Dispose of any unsuitable subsoil removed from excavations. The bottom of the hole shall be flat and firm to prevent settling; do not dig or scarify.
- f. <u>Drainage:</u> Test each tree planting pit for adequate percolation. If subsoil conditions indicate retention of water in planting areas, or if seepage or other evidence indicating presence of underground water exists, notify Town before backfilling. Fill excavations with water and allow percolating out before setting trees and shrubs.

g. Preparation of Planting Pit:

- i. Trees: Backfill only with approved planting mixture. Should any "non-soil" materials be encountered (i.e. Building materials, construction debris, solid waste) or any other deleterious matter, those materials shall be completely removed and replaced with approved topsoil.
- ii. Shrubs/Groundcover: Excavate as necessary to remove all existing weeds, grass, and roots. Roto-till beds to depth of 6", add 3" of compost and Roto-till again. Rake beds to create a smooth level planting area. Apply pre-emergent to meet manufacturer recommendations prior to planting and mulching of the entire plant bed area.

h. Installation:

i. Set plant material in the planting pit as shown in Landscape drawings, sloping surrounding soil to meet the outside edge of the root ball. Use large equipment as needed to properly set trees in pits. Do not bend trunk or use trunk as lever to move tree in pit. ANY OPERATIONS OBSERVED USING THESE METHODS WOULD CAUSE IMMEDIATE REJECTION OF THAT PLANT MATERIAL. Set plants upright, plumb and faced to give the best appearance or relationship to

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- each other or adjacent structure. No filling will be permitted around trunks or stems. Root flare should be visible. Backfill the pit with planting mixture. Do not use frozen or muddy mixtures for backfilling. Form a ring of soil around the edge of each planting pit to retain water.
- ii. After balled and burlapped plants are set, muddle planting soil mixture around bases of balls and fill all voids. Remove all burlap, ropes and wires from the root balls per the project details.
- iii. Moisten shrub/groundcover areas prior to setting plants. Space ground cover plants in accordance with indicated dimensions. Adjust spacing as necessary to evenly fill planting bed with indicated quantity of plants. Plant to within 36" of the trunks of trees within planting bed.
- iv. Water trees, plants, and ground cover beds within the first 24 hours of initial planting.
- v. Insure that trunk flare is AT FINISH GRADE of the root ball at the time of delivery. Maximum buried trunk flare that will be acceptable is 2". Anything greater than 2" will be reason for rejection. Remove soil to expose root flare.
- i. <u>Mulching</u>: Mulch tree planting pits and shrub beds with required mulching material, 3" deep, as shown on drawings. Immediately after planting thoroughly water mulched areas. After watering, rake mulch to provide a uniform, finished surface. Keep mulch 6" away from tree trunk flare.
- j. Pruning:
 - i. Prune branches of deciduous stock after planting only to cut back broken branches. Proportion shall, in all cases, be subject to approval. Prune evergreens only to remove broken or damaged branches or if considered necessary to enhance survivability of B & B stock.
 - ii. Multiple Leader Plants: Prune only to remove broken or damaged branches or if considered necessary to enhance survivability.
- k. <u>Stake Plants</u>: Staking shall be completed immediately after planting. Plants shall stand plumb after staking. Only stake trees that are deemed top heavy. Contractor to remove when required so as to not girdle trees with staking and wires.
- 1. <u>Fertilizing Application:</u> Apply fertilizer to the surface of planting beds, at a rate of one pound per caliper of tree and one pound per square yard of shrub bed.
- m. Watering: Contractor to water all plant material until substantial completion.
- n. <u>Clean-up</u>: Upon completion of planting, the Contractor shall clean up all debris and remove any unused materials along with any remaining topsoil from the site. This clean up includes planting areas, lawn areas, rights-of-way adjacent to the site, and buffer areas.
- o. Final Acceptance:
 - i. Planted areas will be inspected at the Contractor's request upon completion of installation and a "punch list" will be prepared including items necessary to receive final acceptance. Inspection shall be by the Town, and Project Landscape Architect. Inspection to determine final acceptance of planted areas will be made upon Contractor's request. Provide notification at least 10 working days before requested inspection date.

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Planted areas will be accepted provided all requirements have been complied with and plant materials are alive and in a healthy, vigorous condition.

ii. Upon acceptance (as confirmed in writing by the Project Landscape Architect or Town) of the landscape operations, the contractor's one-year warranty and maintenance period shall begin.

3. MAINTENANCE

- a. Maintenance Period: One year from acceptance (as confirmed in writing by the Project Landscape Architect or Town) of the landscape operations
- b. Maintenance and protection of the work is the responsibility of the Contractor for the entire one-year maintenance period.
 - i. Maintenance of plantings shall consist of pruning, cultivating, watering weeding, fertilizing, mulching, restoring plant saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position and performing other operations as required to establish healthy, viable plantings. Spray or treat as required to keep trees and shrubs free of insects and disease.
 - ii. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.
 - iii. Apply treatments as required to keep plant materials, planted areas, and soils free of weeds, pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps and biological control agents.

MEASURE AND PAYMENT

The quantity of these items as described in this special provision section will be paid for at the contract unit price per cubic yard for "Mulch", and each for all other items, including plant material, which price will be full compensation for all labor, delivery fees, materials, equipment, tools, water, and any incidentals necessary to complete landscape installation. The maintenance of all plant material covered in this specification shall be paid for by a lump sum price which will be full compensation for labor and incidentals such as watering, weeding, pruning, treatment of pesticides, replacement mulch, and adjustments to plant material necessary to conduct one year of maintenance.

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Payment will be made under:

Pay ItemPay UnitMulch for PlantingCubic YardGeneric Planting Item- Monthly Landscape MaintenanceEachGeneric Planting Item- Lagerstroemia indica 'Sarah's Favorite'EachGeneric Planting Item- Juniperus chinensis 'Blue Point'EachGeneric Planting Item- Hydrangea paniculata 'Jane'EachGeneric Planting Item- Abelia x grandiflora 'Little Richard'EachGeneric Planting Item- Calamagrostis x acutiflora 'Karl Forester'EachGeneric Planting Item- Nassella tenuissima 'Pony Tails'EachGeneric Planting Item- Panicum virgatum 'Shenandoah'EachGeneric Planting Item- Schizachyrium scoparium 'Prairie Blues'Each

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LAWN

SUMMARY

Work of this section includes establishing sodded or seeded lawn in areas designated in the streetscape plans and supplementary items necessary to complete the work required for installation including:

- 1. Fine Grading
- 2. Soil Preparation
- 3. Sodding
- 4. Seed
- 5. Maintenance
- 6. Warranty

QUALITY ASSURANCE

Topsoil spreading, seeding and sodding work to be performed by firms specializing in this type of work.

DELIVERY, STORAGE, AND HANDLING

Harvest, deliver, store, and handle sod according to requirements in TPI's "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding" Deliver sod in time for planting within 24 hours of harvesting. Protect sod from breakage and drying.

Seed is to be delivered in original sealed, labeled, and undamaged containers. Seeding is to be performed during normal planting seasons for each seed type as directed in the plans. The seed is to be fresh, clean, dry, new-crop seed complying with the Association of Official Seed Analysts

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"Rules for Testing Seeds" for purity and germination tolerances. The seed mixture is to be comprised of seed of specified species, variety proportions by weight, and minimum percentages of purity, germination, and maximum percentage of weed seed as indicated on the drawings.

The area to be seeded is to be examined prior to seeding to ensure compliance with requirements and conditions for seed establishment. The Contractor will not proceed until unsatisfactory conditions have been corrected. Soil amendments shall be applied as directed by soil test.

SUBMITTALS

Contractor shall submit for inspection the following items:

- 1. Receipts for all fertilizer, seed and sod.
- 2. Submittals for mulch materials.
- 3. Topsoil: 1-quart sample and analysis to include soil type, pH, organic content, and critical nutrient composition.
- 4. Submittal of sod providing name of grower, certification of species, location of harvest, time duration from harvest to delivery.
- 5. Submittal of seed providing certification of species.

FINAL ACCEPTANCE

Provide a uniform stand of grass by planting, watering, mowing, and maintaining lawn areas until final acceptance. Re-apply with specified material all areas which fail to provide a uniform stand of grass until all affected areas are accepted.

PRODUCTS

1. FERTILIZER: Fertilizer shall be uniform and 100% organic in composition, free-flowing, pelleted, and suitable for application with approved equipment. Fertilizer shall meet the requirements of soil test.

2. SOD

- a. Sod shall be used in areas designated in the streetscape plans and for patching lawn areas along concrete sidewalks.
- b. The sod along edges of sidewalks shall be planted in a 3' wide strip (or the width of a roll of sod).
- c. Sod shall be fresh cut, not over 16 hours old, and consist of live, growing plants secured from sources where the soil is fertile and shall have a healthy, virile root system or dense, thickly matted roots throughout the soil of the sod for a minimum of one inch. Sod shall be free from noxious weeds or other grasses and shall not contain any matter deleterious to growth or which might affect its subsistence or hardiness when transplanted. ONLY SOD SECURED FROM NURSERIES APPROVED BY THE NORTH CAROLINA DEPARTMENT OF AGRICULTURE SHALL BE USED.
- d. Contractor shall install sod species as indicated on the landscape plans.
- e. Sod Type: SuperSod Elite Tall Fescue, or approved equal.

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3. SEED

- a. Seed shall be used in areas designated in the streetscape plans.
- b. Contractor shall install seed species as indicated on the landscape plans.
- c. Fescue Seed Blend by weight:75% Kentucky 31 Tall Fescue25% Fine Fescue
- d. Rate of application 8lbs per 1000 sq ft.
- 4. WATER: Free of substance harmful to plant growth. Hoses, pumps, sprinklers or other methods of transportation shall be furnished by contractor.

5. SOILS

- a. Topsoil: Refer to section "Topsoil" Special Provisions.
- b. Soil Amendments: As required by soils analysis testing.
 - i. Top-dress fertilizer shall be complete fertilizer with 50% of the nitrogen to be derived from natural organic sources or urea form. Available phosphoric acid shall be from superphosphate, bone or tankage. Potash will be derived from muriate of potash containing 60% potash.

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- ii. Tree and shrub planting fertilizer shall be Agriform 20-20-5 formula 21-gram tablet or approved equal.
- 6. PRE-EMERGENT HERBICIDE: Team-Pro 19-3-6, Lasso, Ronstar or approved equal shall be applied to plant beds in the late winter or early spring, prior to the emergence of any weed seeds, by the Contractor. Pre-emergent herbicide shall be applied at rates specified on the package and only as recommended by the manufacturer and approved by the Town.

EXECUTION

1. EXAMINATION: Examine substrate surfaces to receive Sod and associated work and conditions under which work will be installed. Do not proceed until unsatisfactory conditions have been corrected in a manner complying with the Contract Documents and acceptable to the installer. Starting of work within an area will be constructed as Installer's acceptance of surface conditions.

2. FINISH GRADING

- a. Prior in initiation work, the Landscape Contractor shall inspect site to assure sub grade is at the proper elevation so that grades are within 0.15 feet of finish grade after placement of 6" topsoil. Do not place topsoil until the previously established subgrade has been approved. Conduct all finish grading operations in such a manner as to avoid the lifting of subsoil or other unsuitable material. Do not place topsoil until the entire area to be covered has been shaped, trimmed, and cleaned up, and all construction or site improvement work in the area has been completed.
- b. Topsoil may be spread at the option of the Contractor at any time that will not cause a disruption of other construction or site improvement operations, provided

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- that it is thoroughly loosened to its full depth, and brought to a friable, mellow condition immediately prior to the start of planting operations. Topsoil shall measure 4" in depth after compaction over the entire area of the site designated to receive planting.
- c. Finished Grades: Shall be understood to be final spot grades and contours indicated on the contract drawings. Where final spot grades or new contours are not indicated, finished grades shall be uniformly level or sloping between points for which elevations are given or contours are shown.
- d. Tops and bottoms of all slopes: Round tops and bottoms of slopes and drainage swales. Adjust and warp slopes, at intersections of cuts and fills, to flow into each other or into the existing natural ground surface without noticeable break. Cuts and fills shall have a maximum slope of 3' horizontally to 1' vertically, unless otherwise shown on the contract drawings. The finished surface of all lawn areas after planting shall not be less than ½: below or more than ¾ below the finished grade of all walks or other surface areas.
- e. Fine Grading: Bring the grade of areas to receive turf to a uniform, level slope, as determined by the use of surveying instruments, by discing, harrowing and other methods approved by the Project Landscape Architect or Owner's Representative. When establishing finish grades, remove and dispose of all clods, hard lumps, rocks, roots, litter and other foreign matter not passing through the teeth of a hand iron rake. Tractor drawn raking equipment that compacts lawn areas will not be allowed. Where lawns are intended to drain across pavements, the uphill grade shall be flush with the pavement; the downhill grade shall be ½' to ¾" below the pavement grade.
- f. Settlement: Maintain ground surfaces to finish grades shown on the contract drawings, and deposit whatever additional topsoil that may be required to correct any settlement or erosion that occurs prior to the date of issuance of the Certificate of Final Acceptance. The surface upon which additional topsoil is to be deposited shall be raked or otherwise satisfactorily prepared to ensure a proper bond. Fill hollows that develop for settling, to the finished elevations, with approved topsoil. Finished lawn areas shall be left sufficiently high to meet all paved areas and catch basins after settlement.
- 3. WEED CONTROL: Apply pre-emergent according to manufacturer's instruction prior to seeding or sodding.

4. SODDING LAWN

- a. Examine finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected, and until Owner is ready to assume responsibility for lawn maintenance. Coordinate sod installation with other trades.
- b. Preparation:
 - i. Complete final grading activities as indicated above.
 - ii. Apply fertilizer at the rate recommended by the test reports. Apply fertilizer by mechanical rotary or drop type distributor, thoroughly and evenly, incorporated into the soil to a depth of 3" by discing or other

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- approved methods. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.
- iii. Dampen dry soil prior to sodding
- iv. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to sodding.

c. Installation

- Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides
 of sod strips. Do not overlay edges. Stagger strips to offset joints in
 adjacent courses. Remove excess sod to avoid smothering of adjacent
 grass. Provide sod pad top flush with adjacent curbs, sidewalks, drains,
 and seeded areas.
- ii. All sodded areas shall be knotted neatly and firmly together, allowing no spaces, gaps, voids, or depressions within sodded areas.
- iii. Do not lay dormant sod or install sod on saturated or frozen soil. Contractor shall not use sod from areas where the roots have dried because of exposure to air and sun, or from where grass has thinned from these or other reasons.
- iv. Install initial row of sod in a straight line, beginning at bottom of slopes, perpendicular to direction of the sloped area. Place subsequent rows parallel to and lightly against previously installed row.
- v. Water sod thoroughly, with a fine spray, immediately after laying.
- vi. Roll with light lawn roller to ensure contact with subgrade.
- vii. When laid on surfaces of slopes which may cause sod to slide due to the height and slope of the surface or due to the nature of the soil, sod shall be stabilized by a method acceptable to the Owner to ensure proper binding and to prevent slippage. Anchoring is best achieved by using wooden pegs to anchor the sod to the slope. To avoid interference with the future mowing operations, pegs shall be driven beneath the mower cutting height. Curvilinear shapes and forms shall be cut and trimmed with a sharp cutting tool to assure proper shapes and forms.

5. SEEDING LAWN

a. Examine finish surfaces, grades, topsoil quality and depth. Do not start sodding work until unsatisfactory conditions are corrected, and until Owner is ready to assume responsibility for lawn maintenance. Coordinate sod installation with other trades.

b. Preparation:

- i. Complete final grading activities as indicated above.
- ii. Apply fertilizer at the rate recommended by the test reports. Apply fertilizer by mechanical rotary or drop type distributor, thoroughly and evenly, incorporated into the soil to a depth of 3" by discing or other approved methods. Fertilize areas inaccessible to power equipment with hand tools and incorporate into soil.
- iii. Dampen dry soil prior to seeding
- iv. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to seeding.

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c. Installation

- i. Prepare seed bed by ripping surface layer and incorporating soil amendments using reverse tine rototiller.
- ii. Rake seed bed smooth using finishing tool, removing rocks >1.5" and breaking up soil clumps.
- iii. Distribute seed evenly across seed bed.
- iv. Mulch seeded areas using organic mulch and organic tackifiers. Asphalt tackifier is not approved.
- v. Water in all seed bed areas daily to achieve germination and establish lawn.
- vi. Areas of poor germination after 30 days are to be scarified and re-seeded. Areas exceeding an 8"x8" square of bare earth are to be re-seeded.
- vii. Seeded areas are to be mowed after 60 days of growth or when grass reaches 6 inches. Excessive cuttings and clumps are to be blown to distribute cuttings evenly.

6. LAWN AND MAINTENANCE

- a. Maintain sodded lawn areas, including watering, spot weeding, fertilizing, mowing, applications of herbicides, fungicides, insecticides until a full, uniform stand of grass free of weeds, undesirable grass species, disease and insects is achieved and accepted by the Landscape Architect at substantial completion.
- a. Maintain Seeded areas including watering, spot weeding, fertilizing and fungicides until a full stand of grass is achieved. Areas of poor germination at 30 days are to be top-dressed with compost and seeded until a healthy stand of lawn is achieved.
- b. Water daily to maintain adequate surface soil moisture to establish proper rooting of sod. Continue daily watering for not less than 30 days. Thereafter apply ½" of water twice weekly until substantial completion.
- c. Repair, re-work, re-seed, and re-sod all areas that are washed out, eroded, or do not catch, promptly until suitable cover is established.
- d. Fertilize with organic fertilizer after germination, but prior to first mowing.
- e. Mow Lawn areas as soon as lawn top growth exceeds a 3" height. Cut back to 2 ½" in height. Repeat mowing as required to maintain specified height.

7. SEEDING FOR EROSION CONTROL

- a. Provide and install seed at all areas susceptible to erosion, or areas susceptible to erosion, or areas of topsoil failure, including but not limited to swales and steep slopes.
- b. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after lawn is established.
- c. Remove non-degradable erosion control measures after grass establishment period.

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FINAL ACCEPTANCE

- 1. Inspection to determine final acceptance of lawn areas will be made upon contractor's request. Provide notification at least 10 working days before requested inspection date.
 - a. Sodded and seeded areas will be acceptable provided all requirements, including maintenance, have been completed and a healthy, uniform, close stand of the specified grass is established, free of weeds, undesirable grass species, disease and insects.
 - b. In areas requested to be inspected, no individual lawn areas shall have bare spots or unacceptable cover totaling more than 2% of the individual areas.
- 2. Upon final acceptance of the seeding and sodded operations and completion of the maintenance period, the owner will assume lawn maintenance.

MEASURE AND PAYMENT

The quantity of these items as described in this special provision section will be paid for at the contract unit price per square yard for "Sodding", or for "Seeding", which price will be full compensation for all labor, materials, equipment, tools, delivery charges, watering and any incidentals per this section.

Payment will be made under:

Pay Item	<u>Pay Unit</u>
Generic Planting Item- Sodding	Square Foot
Generic Planting Item- Seeding	Square Foot

TOPSOIL

MATERIALS

Topsoil materials shall be furnished by the Contractor from off-site sources in quantities sufficient to complete the requirements as specified. Topsoil shall be a sandy loam based mix. The topsoil material shall not contain slag, cinders, stones, lumps of soil, sticks, roots, trash, clay lumps, or other extraneous materials larger than 1 1/2 inches in diameter or length. Contractor shall ensure that these soils are free of plants or plant parts of quack grass, Johnson grass, nut sedge, poison ivy, or other noxious weeds. Proposed topsoil materials shall be subject to approval prior to installation by the Project Landscape Architect. These materials shall be placed in a 6" lifts for all landscaped areas including sodded lawn areas shown on the project plans and used as planting soil mix for holes dug for trees and large shrubs.

ANALYSIS

The Contractor shall submit for approval prior to installation the following: Proposed topsoil sample and analysis to include soil type, pH organic content, and critical nutrient composition (nitrogen, phosphorus, potassium). Topsoil analysis report shall be provided that includes recommendations for amending topsoil for suitable plant establishment and growth.

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MEASURE AND PAYMENT

The quantity of replacement backfill material for landscape beds and tree planting areas and topsoil spread in lawn areas will be paid at the contract unit prices per cubic yard for "Topsoil Spread". These prices and payments will be full compensation for all work, equipment, excavation, hauling, testing, and materials required to furnish and place these materials per the project plans or as otherwise directed by the Town.

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Payment will be made under:

Pay Item	Pay Unit
Generic Planting Item- Topsoil / Soil Amendments	Cubic Yard

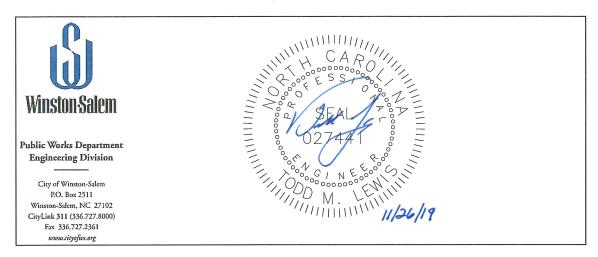
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PROJECT SPECIAL PROVISIONS

Utility Construction



Revise the 2018 Standard Specifications as follows:

Page 3-2, Article 300-4 Preparation of Pipe Foundation:

Delete the last 2 sentences of the second paragraph.

Page 3-3, Article 300-7 Backfilling:

add the following to line 39:

Flowable fill, if approved, must not come in contact with the pipe.

Page 10-61, Sub-article 1034-4 (A) Gravity Flow Sewer Pipe:

replace with the following:

Use ductile iron pipe and fittings in accordance with the ductile iron pipe and fitting specification contained herein.

Page 10-61, Section 1034 Sanitary Sewer Pipe and Fittings: add the following:

1034-5 Cast Iron Soil Pipe

All cast iron soil pipe and fittings will conform to ASTM A74 and be classified as SV (service weight). Single or double hub is acceptable. No-hub pipe shall not be used. All pipe and fittings shall be uniformly coated with bituminous coating. Joints will be rubber gasket. Rubber gaskets shall conform to ASTM C564. 4" x 4" combination wye and eighth bends shall be short pattern - Fig. No. SV-32 by Charlotte Pipe and Foundry (or approved equal). 4" cleanouts shall consist of a 4" service weight cast

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iron ferrule (with 3" iron pipe size tap) and a 3" brass plug. The plug shall have a low raised square head (Southern Code). Cleanouts shall be Part Number 184 by Jumbo Manufacturing Company (or approved equal).

Page 10-63, Article 1036-6 Fire Hydrants: add the following:

All fire hydrants shall be dry-barrel fire hydrants which comply with ANSI/AWWA C502. All hydrants will have a dry top with O-ring seals which permanently seal off the stem operating threads from water and keep the lubricant in. All hydrants shall be opened by turning the operating nut on top of the hydrant counterclockwise. The main valve shall be a compression type valve with a valve opening of $4\frac{1}{2}$ " or $5\frac{1}{4}$ " unless otherwise specified. Each hydrant will have two hose nozzles and one steamer nozzle. The 2 $\frac{1}{2}$ " hose nozzles and the 4 $\frac{1}{4}$ " steamer nozzle shall have Winston-Salem standard threads as shown on the City of Winston-Salem's detail drawings for "2 ½" Hose Nozzle for Hydrants" and "4 1/4" Steamer Nozzle for Hydrants". The nozzle shall be fastened into the hydrant barrel by mechanical means, but shall not be leaded into the barrel. Nozzle caps shall be chained to the barrel. All hydrants will be furnished with a breakable traffic feature that will break upon impact. The feature shall consist of a breakable safety flange on the barrel and a breakable safety coupling in the main valve stem. Hydrants must have a bronze main valve seat ring that threads into a bronze drain ring. Each hydrant shall have at least two bronze drain outlets. All hydrants will have 6" mechanical joint base connections unless otherwise specified by the Engineer. Hydrants shall be designed for a minimum working pressure of 250 psi. Assembled hydrants shall be subjected to hydrostatic tests of twice the rated working pressure in accordance with ANSI/AWWA C502. All exterior iron surfaces below ground level shall be covered with two coats of asphaltic varnish or fusion bonded epoxy. All exterior iron surfaces above ground level shall be painted yellow to the satisfaction of the Engineer. Yellow paint shall be Rust-Oleum 7446, Rust-Oleum V2148, or Kimball Midwest 80-942. All interior iron surfaces of the hydrant shoe which are in contact with water (including the lower valve plate and nut) shall be coated with a minimum of 8 mils of fusion bonded epoxy or liquid epoxy in accordance with ANSI/AWWA C550. All hydrants shall have a thrust or anti-friction washer in the operating area of the hydrant bonnet. A weather cap around the operating nut on top of the hydrant is required.

Hydrants accepted by the City of Winston-Salem are as follows (or approved equal):

- (1) Super Centurion 250, manufactured by Mueller Company
- (2) MK-73-5, manufactured by American Flow Control
- (3) K-81D Guardian, manufactured by Kennedy Valve Company
- (4) Medallion, manufactured by Clow Valve Company

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Page 10-63, Sub-article 1036-7 (A) Gate Valves:

replace with the following:

All gate valves shall be resilient-seated gate valves which meet the specifications of ANSI/AWWA C509 or ANSI/AWWA C515. The valve body, bonnet and seal plate shall be coated on all exterior and interior surfaces with a minimum of 8-10 mils of fusion bonded epoxy in accordance with ANSI/AWWA C550. The valve shall incorporate a guide system with guide lugs on the wedge or on the body. The wedge shall be gray or ductile iron, fully encapsulated with rubber (including guide lugs and stem nut holder). Non-rising stem valves shall have two O-ring seals above the stem thrust collar that can be replaced with the valve under pressure. Non-rising stem valves shall also have a thrust washer on the stem thrust collar. Valves used for buried service will have a non-rising stem, mechanical joint end connections, and a 2" square operating nut. The word "OPEN" and an arrow to indicate the direction of opening the valve shall be cast on the flanged base of the operating nut. Above ground valves, unless otherwise specified, will have an outside screw and yoke rising stem or a nonrising stem, flanged end connections, and a handwheel to operate the valve. The word "OPEN" and an arrow to indicate the direction of opening the valve shall be cast on the rim of the handwheel. All valves will open by turning the nut or handwheel counterclockwise. Valves installed in manholes will normally be considered to be buried service valves and valves installed in vaults will normally be considered to be above ground valves.

Resilient-seated gate valves shall be designed for a minimum working pressure of 250 psi. Each valve shall be seat tested at the rated working pressure and shell tested at twice the rated working pressure in accordance with ANSI/AWWA C509 - Section 5 or ANSI/AWWA C515 - Section 5. All valves shall be warranted for 10 years from date of purchase against defective materials and workmanship. Gate valves furnished under these specifications must be manufactured by one of the following or approved equal:

- (1) Clow Valve Company
- (2) M & H Valve Company
- (3) American Flow Control
- (4) U.S. Pipe and Foundry Company
- (5) Mueller Company
- (6) Kennedy Valve Company

Page 10-63, Sub-article 1036-7 (B) Bronze Gate Valves:

replace with the following:

The use of bronze gate valves shall not be permitted.

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Page 10-63, Sub-article 1036-7 (C) Tapping Valves:

replace with the following:

Use tapping valves conforming to the special provision above for gate valves. The valve shall have an inlet flange (with centering ring) for connection to the flanged sleeve outlet.

Tapping valves furnished under these specifications must be manufactured by one of the following or approved equal:

- (1) Clow Valve Company
- (2) M & H Valve Company
- (3) American Flow Control
- (4) U.S. Pipe and Foundry Company
- (5) Mueller Company
- (6) Kennedy Valve Company

Page 10-63, Sub-article 1036-8 (A) Tapping Sleeves:

replace with the following:

Tapping sleeves shall be a split sleeve with mechanical joint end connections and a flanged outlet. Sleeves shall be designed for a minimum working pressure of 200 psi.

Approved tapping sleeves are as follows (or approved equal):

- (1) Mueller Company
- (2) American Flow Control
- (3) Tyler Pipe Company
- (4) U.S. Pipe and Foundry Company
- (5) Kennedy Valve Company

Page 10-63, Article 1036-8 Sleeves, Couplings and Miscellaneous: add the following:

(C) Valve Boxes

Cast iron valve boxes will conform to ASTM A48, Class 30B. All boxes will conform to the shape and dimensions shown on the City of Winston-Salem detail drawing for "Cast Iron Valve Box" and will be free from holes, cracks or any other defects. All castings will be thoroughly coated with an asphaltic varnish. The name of the manufacturer shall be permanently cast on each piece. Valve boxes that do not meet

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specifications shall be rejected. Cast iron valve boxes furnished under these specifications shall be manufactured by one of the following or approved equal:

- (1) Sigma Corp.
- (2) SIP Industries
- (3) DSI International
- (4) Star Pipe Products

Page 10-63, Article 1036-8 Sleeves, Couplings and Miscellaneous: add the following:

(D) Check Valves

Check valves for use in Blow-Off Assemblies shall be Series 35 flanged check valves by Red Valve Company with stainless steel backup rings or approved equal.

Page 10-64, Article 1036-9 Service Line Valves and Fittings: replace with the following:

Use corporation stops and curb stops of all brass material in accordance with the brass specification contained herein. All corporation cocks shall also be of the ball valve type with AWWA inlet threads. All connections shall be per the appropriate City of Winston-Salem connection detail drawing.

Meter boxes for 5/8" and 1" meters shall be of cast iron conforming to ASTM A48, Class 30B and to the shape, dimensions and weights shown on the City of Winston-Salem detail drawing for "Cast Iron Meter Box for 5/8" and 1" Meters" and will be free from holes, cracks or any other defects. All boxes shall be thoroughly coated with an asphaltic varnish. The name of the manufacturer shall be permanently cast on each piece. Meter boxes that do not meet specifications shall be rejected. Cast iron meter boxes furnished under these specifications shall be manufactured by one of the following:

- (1) Sigma Corp.
- (2) SIP Industries
- (3) DSI International
- (4) Star Pipe Products

Meter boxes for 1 ½" and 2" meters shall be of polymer concrete and conform to the shape, dimensions and installation requirements shown on the City of Winston-Salem detail drawing for "Polymer Concrete Meter Box for 1 1/2" and 2" Meters". The box shall have two 4" x 4" mouse hole openings (one on each end) with a 4" x 4" knockout

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above each opening. The cover shall be non-locking with a 6" x 9" steel meter lid centered on the cover. The meter lid must open to at least the vertical position. The cover shall also have two pull slots (l" wide), a skid resistant surface and the word "Water" cast into the cover. Meter boxes that do not meet specifications shall be rejected.

Service saddles shall be used as follows:

Pipe Size	Maximum Size Direct Tap on Ductile Iron Pipe Without Saddle
4"	3/4"
6"	1"
8"	1"
12"	1 1/2"

For ductile iron pipe the saddle body shall be ductile iron with corrosion resistant paint. The body shall have a CC threaded outlet. Attached to the body shall be double U-bolt straps. Straps, washers and nuts shall be Type 305 or Type 316 stainless steel.

Page 10-119, Article 1074-8 Steps:

replace with the following:

All manhole steps shall conform to current OSHA standards and ASTM C478. The approved step shall conform to the City of Winston-Salem detail drawing for "Polypropylene Manhole Step". All other steps must be approved by the Engineer prior to being installed.

Page 15-1, Article 1500-2 Cooperation with the Utility Owner, paragraph 2: add the following sentences:

The utility owner is the Winston-Salem/Forsyth County Utilities Commission. The contact person is Ryan Newcomb and he can be reached by phone at (336) 727-8063.

The materials and appurtenances installed by the contractor shall require approval by both NCDOT and the utility owner prior to installation.

Page 15-3, Article 1505-2 Materials:

replace line 12 with the following:

Use Class VI select material for foundation conditioning and bedding.

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Page 15-3, Article 1505-3 Construction Methods:

Remove reference to Article 300-6.

Page 15-4, Sub-article 1505-3 (C), Bedding:

replace the first three (3) sentences with the following:

The limits for stone bedding will normally be shown on the profile of the Engineer's drawing. Stone bedding shall have a minimum thickness beneath the pipe of four inches (4") or one-eighth of the outside diameter of the pipe, whichever is greater. The required thickness shall be determined by the Engineer.

Page 15-4, Sub-article 1505-3 (E), Thrust Restraint:

replace the fourth paragraph with the following:

Concrete thrust blocks shall be constructed as directed by the Engineer at all bends, tees, tapping sleeves, tapping saddles, reducers, plugs, etc. to provide restraint against thrust resulting from internal pressure. Any exceptions to this such as restrained joints or mechanical joints with retainer glands will be noted on the Engineer's drawings or otherwise specified. Thrust blocks will not be required for restrained joint pipe (exception - blocking will be required when connecting restrained pipe to existing pipe).

All thrust blocks will be constructed of a minimum of Class A concrete. Thrust blocks for bends, fire hydrants, tees and stub-outs shall be constructed in accordance with the City of Winston-Salem thrust block detail drawings.

Polyethylene shall be placed over all fittings before the concrete is poured. All nuts and bolts shall be clear of concrete so that the joint will be accessible. Plywood shall be used as forms for blocking. Concrete is to be poured only against stable undisturbed soil and should be allowed to set prior to any backfilling. Thrust blocks should be allowed to cure two days prior to pressure testing the water main. Higher strength concrete may be required when it is necessary to pressure test prior to the end of the two day curing time.

Page 15-6, Sub-article 1510-3 (A), General:

replace the last paragraph with the following:

Install water lines to a depth as shown on the plans. Minimum cover will be 36 inches (36") unless otherwise approved by the Engineer.

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Page 15-8, Article 1515-3 Construction Methods:

add the following:

(H) Tapping Sleeves

Tapping sleeves and valves shall be used for "wet" taps into existing water mains as indicated on the Engineer's drawings. The Contractor shall verify the type of material, size, etc., of the existing main prior to ordering the sleeve. For taps on larger mains (24" and above), a saddle may be used in lieu of a sleeve, but only if the tap is less than or equal to half the size of the line to be tapped. All tapping sleeves and valves shall be water tested before the tap is made. Test pressure shall be 200 psi for 15 minutes without any drop in pressure. All tapping sleeves and valves shall be installed level. The Engineer must be present during the entire tapping and testing process.

Page 15-8, Sub-article 1515-3 (B), Meters:

add the following:

For relocated water meters the Contractor shall install a new meter box, angle valves, yoke, tee and ball valve as directed by the Engineer. The Contractor shall expose a portion of the water line from the dwelling or business to determine the material and have proper fittings for reconnection to the new meter box. At the approval of the Engineer, the Contractor shall remove the existing meter and install it in the new yoke. The Contractor shall reconnect the property side water line from the existing meter box to the new meter box. This reconnection shall be directed by the Engineer and performed in a timely manner so that the property is without water for a minimal amount of time. The Contractor shall remove and dispose of the existing meter box and yoke and backfill as shown on the plans or as directed by the Engineer.

Page 15-9, Article 1515-4 Measurement and Payment: add the following:

For new and relocated ³/₄" & 1" water connections, the Contractor shall install connection per the City of Winston-Salem detail drawing for "³/₄" & 1"Water Connection (Without Curb & Gutter / Single Family)".

Page 15-10, Article 1520-2 Materials:

add the following:

Use cast iron soil pipe for sanitary sewer clean-outs and sewer service lines.

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Page 15-10, Article 1520-3 Construction Methods:

add the following:

Sewer connections shall be installed as shown on the appropriate City of Winston-Salem detail drawing. Wyes or taps will not be allowed within 5 feet of a manhole. Only one bend will be allowed for connecting the sewer connection to the sewer main. If more than one bend is needed (Ex: bored sewer connection), the road shall be open cut and the connection installed properly. Sewer connections shall be a maximum of 75 feet from the sewer main to the cleanout. Cleanouts shall be installed between property corners of the lot for which the connection is intended. Connections into manholes will require a flexible sleeve at the manhole. If approved by the Engineer, four-inch (4") connections will be allowed to spill into deep manholes. For connections which spill, the 4" pipe shall protrude a minimum of 4" and a maximum of 6" beyond the inside wall of the manhole. Connections into manholes must be at least 6" from the nearest manhole step. Six-inch (6") connections must connect into a manhole.

When installing new sewer connections intended to replace existing ones, the new sewer connection shall be of like size to the existing. Reconnection of the old connection to the new shall be performed by a qualified utility contractor or by a licensed plumbing contractor. The Contractor shall be responsible for all permits and inspections required for the reconnection.

Page 15-11, Sub-Article 1520-3 (A), (2) Testing:

replace with the following:

A low-pressure air test shall be performed by the Contractor after the pipeline is completely backfilled and before being placed into service. The Engineer must be present during the entire testing process. Any work done without their supervision will not be accepted.

(a) Low Pressure Air Testing Requirements:

The Contractor shall use an approved pressure gauge and perform the test in accordance with ASTM C-828. Each section of pipeline (including connections) between manholes will be tested by plugging the upstream manhole and the downstream manhole. By using mirrors, lights, etc., the Contractor must show the Engineer that the 2 plugs are at the proper location and that the line is clear between the plugs. Air is added to the line until the pressure is between 3.0 psi and 4.0 psi. If the pressure drops more than 1.0 psi during the time shown on the chart below, the line is presumed to have failed the test. An obvious leak in any section will be corrected even if the section passes testing. The Contractor will be responsible for the complete removal of all plugs.

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Air test time shall be as follows:

Minimum Air Test Time

Main Size	Time (minutes per 100 feet of pipe)
8"	1.5
10"	1.8
12"	2.1
15"	2.4
18"	2.7
21"	3.3
24"	3.9
27"	4.5
30"	5.1
36"	6.3
42"	7.6

No direct payment will be made for acceptance testing, as such work will be incidental to the installation of the pipe and/or service connections.

(b) Video Inspection:

As a final measure required for acceptance, the Contractor shall clean and televise all sanitary sewer mains prior to requesting final inspection. The Contractor shall televise the entire sewer main and all service connections using standardized NASSCO (PACP, MACP, & LACP) practices, unless otherwise specified below. The process shall begin at the upstream manhole for each segment, and proceed to the downstream manhole for that same segment. Connections shall be televised from the cleanout to the main. Video inspection may occur only after Record Drawings are accepted and approved by the City of Winston-Salem. Prior to beginning the process, a 24 hour notice must be given by the Contractor to the Engineer. Prior to video inspection in paved areas, structures must be raised to final grade and 2" of asphalt must be in place. The City will not accept video that is more than 180 days old unless approved by the Engineer.

The cameras used for inspection shall be ones specifically designed and constructed for sanitary sewer pipeline inspection. Lighting for the cameras shall be suitable to provide a clear color picture of the entire periphery of the pipe. The cameras used for mains must be able to pan, tilt and zoom in order to allow for 360 degree viewing. The television system shall be equipped to indicate the camera travel distance in feet by display on the video viewing screen. All television equipment (camera, monitor, etc.) must be capable of producing picture quality which is satisfactory to the Engineer.

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Within 2 hours of the video inspection, the Contractor shall clean the sewer mains and service connections with a high velocity water jet. All debris shall be collected in the downstream manhole and removed by the Contractor. Debris shall not be released into the existing sewer system. During the entire video process, the distance counter must be set at zero at each upstream manhole for each segment (set the counter at zero at the ground for each service connection). The Contractor will be required to pan and tilt at each manhole and at each service connection. The interior of each manhole must be marked with the manhole station (or manhole number) with paint or some other legible identifier (6" - 12" high letters or numbers). Each cleanout stack must be marked with the house number or the lot number. For mains, the Contractor will also be required to pan, tilt and zoom at all couplings, at all dates for Protecto 401 lined ductile iron pipe, and when any potential problems or abnormalities are noticed or suspected. Travel speed for the camera will be 15 - 30 feet per minute. The following video screen data will be required:

- Project name and project number
- Date of inspection
- Travel distance and time
- Station of start and end manholes
- Depth of start and end manholes
- Size of main
- Type of pipe

All above data shall be shown at the start and end manholes of each segment. While the camera is moving through the main and service connections, distance shall be the only data shown on the screen (top left or top right of screen).

For mains, a stream of water approximately 1" in width must be flowing during the entire video process. For service connections, a minimum of 5 gallons of water must be introduced into each cleanout stack just prior to the video process. In all cases, the flow must be shown on the bottom of the video screen.

Two copies of the entire video inspection along with a properly formatted PACP standard exchange database shall be submitted to the Engineer on a data disc (DVD or flash drive). A "properly formatted PACP standard exchange database" includes properly PACP coded defects (NASSCO version 6.x), proper media paths to associated video files, and all asset IDs used in the inspection must match what the submitted record drawings indicate for each asset. The video file shall be formatted to MPEG-4 (MP4) with software compatible and readable by the City of Winston-Salem. The City of Winston-Salem shall not be responsible for purchasing additional software necessary to view the video file. Each inspection (manhole to

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manhole or cleanout to main) shall be separated into its own chapter or file. In the event of a main inspection, the chapter or file shall be named to indicate the upstream manhole station or number and then the downstream manhole station or number (e.g. MH1-MH2). In the event of a service connection inspection, the chapter or file shall be named to indicate the house number or lot number associated with the inspection. All file naming should match the identification numbers (manhole station or number, house number, or lot number) shown on the Record Drawings. The submitted video must have the ability to be viewed using fast forward and rewind.

Any video that does not clearly show the pipe and service connections will be rejected. In the event that repairs are made, the segment receiving the repairs shall be flushed and televised again. The Engineer must oversee the entire cleaning and televising process. Final approval of the video inspection will only be after the Engineer has reviewed the video in the office (videos will not be field approved).

No direct payment will be made for cleaning and video inspection, as such work will be incidental to the installation of the pipe and/or service connections.

Page 15-13, Sub-article 1520-4, Measurement and Payment: Add the following:

All materials, permits and work performed to reconnect existing sewer services to new cleanouts will be considered incidental to the installation of Sanitary Sewer Clean-Out.

Page 15-14, Article 1525-2, Materials, line 10:

add the following:

Connectors shall be manufactured by Press-Seal Gasket Corporation, Hamilton Kent, NPC Inc. or approved equal.

Page 15-14, Article 1525-2, Materials, lines 12-16:

replace with the following:

Type 1 manhole rings and covers will be made of cast iron and will conform to ASTM A48, Class 35B. In addition, all manhole rings and covers shall be designed to support an H-20 wheel load. All castings will conform to the shape and dimensions shown on the City of Winston-Salem detail drawing for "Manhole Ring and Cover (Type 1)" and will be free from holes, cracks or any other defects. Rings and covers will have machined seats so that the cover will not rattle. Rings will weigh a minimum of 190 pounds and covers a minimum of 120 pounds. The name of the manufacturer and the

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part number shall be cast permanently on the ring and the cover. Castings that do not meet specifications shall be rejected. Type 2 manhole rings and covers shall meet all specifications for Type 1 rings and covers and shall conform to the City of Winston-Salem detail drawing for "Manhole Ring and Cover (Type 2)". Type 3 manhole rings and covers shall meet all specifications for Type 1 rings and covers, except that rings will weigh a minimum of 136 pounds and covers a minimum of 120 pounds. All rings and covers shall conform to the City of Winston-Salem detail drawing for "Manhole Ring and Cover (Type 3)".

Page 15-15, Sub-Article 1525-3 (D), Testing: replace with the following:

Each manhole constructed by the Contractor shall be vacuum tested by the Contractor after assembly of the manhole. Prior to testing, and as directed by the Engineer, the Contractor shall clean out each manhole without foreign material being discharged into the existing sanitary sewer system. The test shall be conducted in accordance with ASTM C-1244. The test shall be performed after all grade rings and rings and covers have been installed. After the testing equipment is in place, a vacuum of 10 inches of mercury shall be drawn on the manhole. The time for the vacuum to drop to 9 inches of mercury must be greater than the minimum time listed below:

Minimum Vacuum Test Time (Seconds)

		Diameter of Manhole	
Manhole Depth	4'	5'	6'
0 - 10'	60 sec.	75 sec.	90 sec.
10 - 5'	75 sec.	90 sec.	105 sec.
15 - 25'	90 sec.	105 sec.	120 sec.
25 - 30'	105 sec.	120 sec.	135 sec.

The Engineer shall be present during the entire testing process. Any subsequent repairs to manholes which fail the vacuum test must be made on the inside and outside of each manhole. The Contractor will be responsible for the complete removal of all plugs.

No direct payment will be made for vacuum testing of manholes, as such work will be incidental to the installation of the manhole.

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Page 15-16, Sub-article 1530-3 (A), Abandoning Pipe:

add the following paragraph:

When abandoning water mains up to a main that is to remain in service, any valve or tee associated with the main to be abandoned shall be removed. A sleeve and any necessary piping shall be installed to reconnect the water main to remain in service. All other main line valves on abandoned water mains that are plugged and left in place shall be abandoned by removing the valve box. Hydrants connected to abandoned mains that are plugged and left in place shall also be abandoned by removing the hydrant and valve box. The work covered in this paragraph shall be considered incidental to the abandonment.

Page 15-17, Sub-article 1530-3 (C), Remove Water Meter:

replace the first sentence with the following:

Remove water meter by closing the corporation cock at the main and removing the lateral including the angle valve, setter and meter box.

Page 15-17, Sub-article 1530-3 (D), Remove Fire Hydrant:

replace the first paragraph with the following:

The work performed to remove a hydrant from a main to be left in service shall include removing the hydrant, valve box and hydrant tee. A sleeve and any necessary piping shall be installed to reconnect the water main to be left in service.

Page 15-16, Article 1530-3 Construction Methods:

add the following:

(E) Abandoning Sewer Connections

Sewer connections shall be abandoned by removing the cleanout stack (if one exists) and plugging the lateral at the base of the stack. If no cleanout exists, the Contractor shall plug the lateral at the right-of-way line.

Page 15-17, Article 1530-4 Measurement and Payment:

add the following:

Abandoned sewer connections will not be measured and paid.

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STANDARD SPECIAL PROVISIONS

AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08) Z-2

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in General Statute 143C-6-11(c). Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project 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 transportation project contract, and any transportation project 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 scheduled 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 Subarticle 108-13(D) of the 2018 Standard Specifications.

NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY

(5-17-11) Z-3

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 re-labeling 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,

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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:

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

Seed of Pensacola Bahiagrass shall not contain more than 7% inert matter, Kentucky Bluegrass, Centipede 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 GIVEN BELOW:

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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)

Kobe Lespedeza

Bermudagrass

Browntop Millet

Korean Lespedeza German Millet – Strain R Weeping Lovegrass Clover – Red/White/Crimson

Carpetgrass

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.

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 noxious weed seed per pound. Seed less than 70% pure live seed will not be approved.

Centipedegrass Japanese Millet Crownvetch Reed Canary Grass

Pensacola Bahiagrass Zoysia

Creeping Red Fescue

Minimum 70% pure live seed; maximum 1% total weed seed; maximum 2% total other crop seed; maximum 5% inert matter; maximum 144 restricted noxious weed seed per pound.

Barnyard Grass Big Bluestem Little Bluestem Bristly Locust Birdsfoot Trefoil

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Indiangrass Orchardgrass Switchgrass Yellow Blossom Sweet Clover February 2022

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ERRATA

(10-16-18) (Rev. 8-16-22)

Z-4

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Revise the 2018 Standard Specifications as follows:

Division 4

Page 4-84, Article 458-5 MEASUREMENT AND PAYMENT, line 31, replace article number "454-1" with "458-1".

Division 6

Page 6-7, Article 609-1 DESCRIPTION, line 29, replace article number "609-10" with "609-9".

Page 6-26, Subarticle 610-13(A)(1) Acceptance for New Construction, line 31, replace Table number "610-7" with "610-8".

Page 6-29, Subarticle 610-13(B) North Carolina Hearne Straightedge, line 32, replace Table number "610-8" with "610-9".

Page 6-31, Article 610-14 DENSITY ACCEPTANCE, Specified Density prior to line 30 and line 32, replace Table number "610-6" with "610-7".

Division 7

Page 7-27, Article 725-1 MEASUREMENT AND PAYMENT, line 4, replace article number "725-1" with "724-4".

Page 7-28, Article 725-1 MEASUREMENT AND PAYMENT, line 10, replace article number "725-1" with "725-3".

Division 10

Page 10-37, Article 1012-4, LIGHTWEIGHT AGGREGATE, line 4, replace Table number "1012-8" with "1012-5".

Page 10-78, Article 1056-4 GEOTEXTILES, TABLE 1056-1, Permittivity, Type 2, replace "Table 6^D" with "Table 7^D" and Permittivity, Type 3^B, replace "Table 7^D" with "Table 8^D".

Page 10-121, Article 1076-7, REPAIR OF GALVANIZING, line 8, replace article number "1080-9" with "1080-7".

Page 10-162, Article 1080-50 PAINT FOR VERTICAL MARKERS, line 1, replace article number "1080-50" with "1080-10".

Page 10-162, Article 1080-61 EPOXY RESIN FOR REINFORCING STEEL, line 5, replace article number "1080-61" with "1080-11".

Page 10-162, Article 1080-72 ABRASIVE MATERIALS FOR BLAST CLEANING STEEL, line 22, replace article number "1080-72" with "1080-12".

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Page 10-163, Article 1080-83 FIELD PERFORMANCE AND SERVICES, line 25, replace article number "1080-83" with "1080-13".

Division 17

Page 17-15, Article 1715-4 MEASUREMENT AND PAYMENT, lines 42-44, replace the second sentence with the following:

An example is an installation of a single 1.25 inch HDPE conduit would be paid as:

Directional Drill (1)(1.25") Linear Foot

Page 17-15, Subarticle 1715-3(E) Bore and Jack, line 5, replace article number "1540-4" with "1550-4".

Page 17-15, Subarticle 1715-3(E) Bore and Jack, lines 10 & 11, replace "NCDOT Policies and Procedures for Accommodating Utilities on Highway Rights of Way" with "NCDOT Utilities Accommodations Manual".

PLANT AND PEST QUARANTINES

(Imported Fire Ant, Gypsy Moth, Witchweed, Emerald Ash Borer, Guava Root Knot Nematode, And Other Noxious Weeds)

(3-18-03) (Rev. 5-21-19) Z-04a

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, 919-707-3730, or https://www.ncagr.gov/plantindustry/Plant/quaran/table2.htm 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

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- 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, emerald ash borer, guava root knot nematode, or other noxious weeds.

TITLE VI AND NONDISCRIMINATION:

(6-28-77)(Rev 6/19/2018)

Z-6

Revise the 2018 Standard Specifications as follows:

Replace Article 103-4(B) with the following:

The North Carolina Department of Transportation is committed to carrying out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts.

The provisions of this section related to United States Department of Transportation (US DOT) Order 1050.2A, Title 49 Code of Federal Regulations (CFR) part 21, 23 United States Code (U.S.C.) 140 and 23 CFR part 200 (or 49 CFR 303, 49 U.S.C. 5332 or 49 U.S.C. 47123) are applicable to all North Carolina Department of Transportation (NCDOT) contracts and to all related subcontracts, material supply, engineering, architectural and other service contracts, regardless of dollar amount. Any Federal provision that is specifically required not specifically set forth is hereby incorporated by reference.

(1) Title VI Assurances (USDOT Order 1050.2A, Appendix A)

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(a) Compliance with Regulations

The contractor (hereinafter includes consultants) shall comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

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(b) Nondiscrimination

The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

(c) Solicitations for Subcontractors, Including Procurements of Materials and Equipment

In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

(d) Information and Reports

The contractor shall provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor shall so certify to the Recipient or the FHWA, as appropriate, and shall set forth what efforts it has made to obtain the information.

(e) Sanctions for Noncompliance:

In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it and/or the FHWA may determine to be appropriate, including, but not limited to:

- (i) Withholding payments to the contractor under the contract until the contractor complies; and/or
- (ii) Cancelling, terminating, or suspending a contract, in whole or in part.

(f) Incorporation of Provisions

The contractor shall include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor shall take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the

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interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

(2) Title VI Nondiscrimination Program (23 CFR 200.5(p))

The North Carolina Department of Transportation (NCDOT) has assured the USDOT that, as a condition to receiving federal financial assistance, NCDOT will comply with Title VI of the Civil Rights Act of 1964 and all requirements imposed by Title 49 CFR part 21 and related nondiscrimination authorities to ensure that no person shall, on the ground of race, color, national origin, limited English proficiency, sex, age, or disability (including religion/creed or income-level, where applicable), be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any programs, activities, or services conducted or funded by NCDOT. Contractors and other organizations under contract or agreement with NCDOT must also comply with Title VI and related authorities, therefore:

- (a) During the performance of this contract or agreement, contractors (e.g., subcontractors, consultants, vendors, prime contractors) are responsible for complying with NCDOT's Title VI Program. Contractors are not required to prepare or submit Title VI Programs. To comply with this section, the prime contractor shall:
 - 1. Post NCDOT's Notice of Nondiscrimination and the Contractor's own Equal Employment Opportunity (EEO) Policy in conspicuous locations accessible to all employees, applicants and subcontractors on the jobsite.
 - 2. Physically incorporate the required Title VI clauses into all subcontracts on federally-assisted and state-funded NCDOT projects, and ensure inclusion by subcontractors into all lower-tier subcontracts.
 - 3. Required Solicitation Language. The Contractor shall include the following notification in all solicitations for bids and requests for work or material, regardless of funding source:
 - "The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 US.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. In accordance with other related nondiscrimination authorities, bidders and contractors will also not be discriminated against on the grounds of sex, age, disability, low-income level, creed/religion, or limited English proficiency in consideration for an award."
 - 4. Physically incorporate the FHWA-1273, in its entirety, into all subcontracts and subsequent lower tier subcontracts on Federal-aid highway construction contracts only.

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- 5. Provide language assistance services (i.e., written translation and oral interpretation), free of charge, to LEP employees and applicants. Contact NCDOT OCR for further assistance, if needed.
- 6. For assistance with these Title VI requirements, contact the NCDOT Title VI Nondiscrimination Program at 1-800-522-0453.
- (b) Subrecipients (e.g. cities, counties, LGAs, planning organizations) may be required to prepare and submit a Title VI Plan to NCDOT, including Title VI Assurances and/or agreements. Subrecipients must also ensure compliance by their contractors and subrecipients with Title VI. (23 CFR 200.9(b)(7))
- (c) If reviewed or investigated by NCDOT, the contractor or subrecipient agrees to take affirmative action to correct any deficiencies found within a reasonable time period, not to exceed 90 calendar days, unless additional time is granted by NCDOT. (23 CFR 200.9(b)(15))
- (d) The Contractor is responsible for notifying subcontractors of NCDOT's External Discrimination Complaints Process.

1. Applicability

Title VI and related laws protect participants and beneficiaries (e.g., members of the public and contractors) from discrimination by NCDOT employees, subrecipients and contractors, regardless of funding source.

2. Eligibility

Any person—or class of persons—who believes he/she has been subjected to discrimination based on race, color, national origin, Limited English Proficiency (LEP), sex, age, or disability (and religion in the context of employment, aviation, or transit) may file a written complaint. The law also prohibits intimidation or retaliation of any sort.

3. Time Limits and Filing Options

Complaints may be filed by the affected individual(s) or a representative and must be filed no later than 180 calendar days after the following:

- (i) The date of the alleged act of discrimination; or
- (ii) The date when the person(s) became aware of the alleged discrimination; or
- (iii) Where there has been a continuing course of conduct, the date on which that conduct was discontinued or the latest instance of the conduct.

Title VI and related discrimination complaints may be submitted to the following entities:

- ➤ North Carolina Department of Transportation, Office of Civil Rights, Title VI Program, 1511 Mail Service Center, Raleigh, NC 27699-1511; toll free 1-800-522-0453
- Federal Highway Administration, North Carolina Division Office, 310 New Bern Avenue, Suite 410, Raleigh, NC 27601, 919-747-7010

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➤ US Department of Transportation, Departmental Office of Civil Rights, External Civil Rights Programs Division, 1200 New Jersey Avenue, SE, Washington, DC 20590; 202-366-4070

4. Format for Complaints

Complaints must be in writing and signed by the complainant(s) or a representative, and include the complainant's name, address, and telephone number. Complaints received by fax or e-mail will be acknowledged and processed. Allegations received by telephone will be reduced to writing and provided to the complainant for confirmation or revision before processing. Complaints will be accepted in other languages, including Braille.

5. Discrimination Complaint Form

Contact NCDOT Civil Rights to receive a full copy of the Discrimination Complaint Form and procedures.

6. Complaint Basis

Allegations must be based on issues involving race, color, national origin (LEP), sex, age, disability, or religion (in the context of employment, aviation or transit). "Basis" refers to the complainant's membership in a protected group category.

TABLE 103-1 COMPLAINT BASIS				
Protected Categories	Definition	Examples	Applicable Nondiscrimination Authorities	
Race and Ethnicity	An individual belonging to one of the accepted racial groups; or the perception, based usually on physical characteristics that a person is a member of a racial group	Black/African American, Hispanic/Latino, Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, White	Title VI of the Civil Rights Act of 1964; 49 CFR Part 21; 23 CFR 200; 49 U.S.C. 5332(b); 49 U.S.C. 47123. (Executive Order 13166)	
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.		
National Origin (Limited English Proficiency)	Place of birth. Citizenship is not a factor. (Discrimination based on language or a person's accent is also covered)	Mexican, Cuban, Japanese, Vietnamese, Chinese		
Sex	Gender. The sex of an individual. Note: Sex under this program does not include sexual orientation.	Women and Men	1973 Federal-Aid Highway Act; 49 U.S.C. 5332(b); 49 U.S.C. 47123.	
Age	Persons of any age	21-year-old person	Age Discrimination Act of 1975 49 U.S.C. 5332(b); 49 U.S.C. 47123.	

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Disability	Physical or mental impairment, permanent or temporary, or perceived.	Blind, alcoholic, para-amputee, epileptic, diabetic, arthritic	Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990
Religion (in the context of employment) (Religion/ Creed in all aspects of any aviation or transit-related construction)	An individual belonging to a religious group; or the perception, based on distinguishable characteristics that a person is a member of a religious group. In practice, actions taken as a result of the moral and ethical beliefs as to what is right and wrong, which are sincerely held with the strength of traditional religious views. <i>Note:</i> Does not have to be associated with a recognized religious group or church; if an individual sincerely holds to the belief, it is a protected religious practice.	Muslim, Christian, Sikh, Hindu, etc.	Title VII of the Civil Rights Act of 1964; 23 CFR 230; FHWA-1273 Required Contract Provisions. (49 U.S.C. 5332(b); 49 U.S.C. 47123)

(3) Pertinent Nondiscrimination Authorities

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest agrees to comply with the following non-discrimination statutes and authorities, including, but not limited to:

- (a) Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- (b) The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- (c) Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- (d) Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability) and 49 CFR Part 27;
- (e) The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- (f) Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- (g) The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

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- (h) Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- (i) The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- (j) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- (k) Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- (1) Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).
- (m)Title VII of the Civil Rights Act of 1964 (42 U.S.C. § 2000e et seq., Pub. L. 88-352), (prohibits employment discrimination on the basis of race, color, religion, sex, or national origin).

(4) Additional Title VI Assurances

- **The following Title VI Assurances (Appendices B, C and D) shall apply, as applicable
- (a) Clauses for Deeds Transferring United States Property (1050.2A, Appendix B)

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of Assurance 4.

NOW, THEREFORE, the U.S. Department of Transportation as authorized by law and upon the condition that the North Carolina Department of Transportation (NCDOT) will accept title to the lands and maintain the project constructed thereon in accordance with the North Carolina General Assembly, the Regulations for the Administration of the Federal-Aid Highway Program, and the policies and procedures prescribed by the Federal Highway Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the NCDOT all the right, title and interest of the U.S. Department of Transportation in and to said lands described in Exhibit A attached hereto and made a part hereof.

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(HABENDUM CLAUSE)

TO HAVE AND TO HOLD said lands and interests therein unto the North Carolina Department of Transportation (NCDOT) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the NCDOT, its successors and assigns.

The NCDOT, in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [,] [and]* (2) that the NCDOT will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended [, and (3) that in the event of breach of any of the above-mentioned nondiscrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the U.S. Department of Transportation and its assigns as such interest existed prior to this instruction].*

- (*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)
- (b) Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program (1050.2A, Appendix C)
 - The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(a):
 - 1. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:

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- (i.) In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a U.S. Department of Transportation activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Acts and Regulations (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
- 2. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued. *
- 3. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *
- (*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)
- (c) Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program (1050.2A, Appendix D)
 - The following clauses will be included in deeds, licenses, permits, or similar instruments/ agreements entered into by the North Carolina Department of Transportation (NCDOT) pursuant to the provisions of Assurance 7(b):
 - 1. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, "as a covenant running with the land") that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the Acts and Regulations, as amended, set forth in this Assurance.

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- 2. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above Non¬ discrimination covenants, the NCDOT will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued. *
- 3. With respect to deeds, in the event of breach of any of the above Nondiscrimination covenants, the NCDOT will there upon revert to and vest in and become the absolute property of the NCDOT and its assigns. *

(*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

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MINORITY AND FEMALE EMPLOYMENT REQUIREMENTS

Z-7

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 for 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.

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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

Area 025 23.5%

Washington County

Tyrrell County

Wayne County

Wilson County

Columbus County Duplin County Onslow County Pender County Area 026 33.5%
Bladen County
Hoke County
Richmond County
Robeson County
Sampson County
Scotland County

<u>Area 027 24.7%</u>

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

Area 0480 8.5%

Stanly County

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

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SMSA Areas

Area 5720 26.6% Area 6640 22.8% Area 3120 16.4% **Currituck County Durham County Davidson County Orange County** Forsyth County Area 9200 20.7% Wake County **Guilford County Brunswick County** Randolph County **New Hanover County** Area 1300 16.2% **Stokes County Alamance County** Yadkin County

Area 2560 24.2% Cumberland County

Area 1520 18.3%
Gaston County
Mecklenburg County
Union County

Goals for Female

Participation in Each Trade

(Statewide) 6.9%

REQUIRED CONTRACT PROVISIONS FEDERAL - AID CONSTRUCTION CONTRACTS

FHWA - 1273 Electronic Version - May 1, 2012

Z-8

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

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Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

- Subject to the applicability criteria noted in the following sections, 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.
- A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
- 4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts. In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

- 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, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) 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 provisions of the Americans with 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 contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.
 - b. The contractor will accept as its 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, pre-apprenticeship, and/or on-the-job training."
- EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program 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 minorities and women.
 - 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.
 - 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 minorities and women 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 minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

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- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such 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.
 - The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
 - c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
 - d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, 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 their avenues of appeal.

6. Training and Promotion

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- 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. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- 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 employees who are minorities and women 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 good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 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 good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
 - b. The contractor will use good faith 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 contracting agency 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 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 minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. 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 contracting agency.
- 8. **Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. 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. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
 - a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
 - b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
- b. The contractor or subcontractor 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 Part 26 in the award and administration of DOT-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 contracting agency deems appropriate.
- 11. **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 the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
 - a. The records kept by the contractor shall document the following:
 - (1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

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(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

- (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
- b. The contractors and subcontractors will submit an annual report to the contracting agency 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. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics 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 issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, 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 29 CFR 5.5(a)(4). 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. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) 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.

- b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (ii) The classification is utilized in the area by the construction industry; and
 - (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
 - (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), 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 Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The 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.
 - (3) In the event the contractor, the laborers or mechanics to be employed in the 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. The Wage and Hour 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.
 - (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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- c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as 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.
- 2. Withholding. The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor 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, so 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 contracting agency 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.

3. Payrolls and basic records

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of 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. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH—347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/ wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.
 - (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
 - (ii) That each 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 Regulations, 29 CFR part 3;
 - (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
 - (3) 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 3.b.(2) of this section.
 - (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, 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 FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action 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.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL). 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 U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

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The allowable ratio of apprentices to journeymen 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 worker 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 on 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 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's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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 journeymen 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 determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL). 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 U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman 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 wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
- d. 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.
- Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- 7. **Contract termination:** debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.
- 8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- 9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 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 U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment
 of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to
 work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half
 times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall

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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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys 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 (2.) of this section.
- 4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

- 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 contracting agency. 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 635.116).
 - a. The term "perform work with its own organization" refers to workers employed or leased 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 or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
 - (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
 - (2) the prime contractor remains responsible for the quality of the work of the leased employees;
 - (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
 - (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
 - 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 or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.
- The contract amount upon which the requirements set forth in paragraph (1) of Section VI 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 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 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 contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.
- 5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 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 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. 3704).
- 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.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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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, Form FHWA-1022 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:

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, 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 under this title or imprisoned not more than 5 years or both."

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

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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

- 1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
- 2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

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

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more - as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier 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 first tier 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 first tier 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 contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier 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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- f. The prospective first 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 entering into this transaction.
- g. The prospective first tier 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 Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- 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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.
- Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the
 certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is
 normally possessed by a prudent person in the ordinary course of business dealings.

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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.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - First Tier Participants:

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
 - (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
 - (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment 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;
 - (3) 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 (a)(2) of this certification; and
 - (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- b. Where the prospective 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 Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- 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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- 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 exceeding the \$25,000 threshold.
- 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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.
- 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 Participants:

- 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 participating in covered transactions by any Federal department or agency.
- 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.

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XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is 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 its bid or proposal that the participant 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.

ON-THE-JOB TRAINING

(10-16-07) (Rev. 4-21-15) Z-10

Description

The North Carolina Department of Transportation will administer a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternate OJT Program. All contractors (existing and newcomers) will be automatically placed in the Alternate Program. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level. Instead, these requirements will be applicable on an annual basis for each contractor administered by the OJT Program Manager.

On the Job Training shall meet the requirements of 23 CFR 230.107 (b), 23 USC – Section 140, this provision and the On-the-Job Training Program Manual.

The Alternate OJT Program will allow a contractor to train employees on Federal, State and privately funded projects located in North Carolina. However, priority shall be given to training employees on NCDOT Federal-Aid funded projects.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority and women as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Manager, will assign training goals for a calendar year based on the contractors' past three years' activity and the contractors' anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be

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contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from 1 to 15 per contractor per calendar year. The Contractor shall sign an agreement to fulfill their annual goal for the year.\

Training Classifications

The Contractor shall provide on-the-job training aimed at developing full journeyman level workers in the construction craft/operator positions. 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 Department has established common training classifications and their respective training requirements that may be used by the contractors. However, the classifications established are not all-inclusive. Where the training is oriented toward construction applications, training will be allowed in lower-level management positions such as office engineers and estimators. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance to FHWA the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and

The number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

The Contractor may allow trainees to be trained by a subcontractor provided that the Contractor retains primary responsibility for meeting the training and this provision is made applicable to the subcontract. However, only the Contractor will receive credit towards the annual goal for the trainee.

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 work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

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No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment, monthly and completion reports documenting company compliance under these contract documents. These documents and any other information as requested shall be submitted to the OJT Program Manager.

Upon completion and graduation of the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

All trainees enrolled in the program will receive an initial and Trainee/Post graduate interview conducted by the OJT program staff.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no instance shall a trainee be paid less than the local minimum wage. The Contractor shall adhere to the minimum hourly wage rate that will satisfy both the NC Department of Labor (NCDOL) and the Department.

Achieving or Failing to Meet Training Goals

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. Trainees will be allowed to be transferred between projects if required by the Contractor's scheduled workload to meet training goals.

If a contractor fails to attain their training assignments for the calendar year, they may be taken off the NCDOT's Bidders List.

Measurement and Payment

No compensation will be made for providing required training in accordance with these contract documents.

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MINIMUM WAGES GENERAL DECISION NC20220088 02/25/2022 NC88

Z-088

Date: February 25, 2022

General Decision Number: NC20220088 02/25/2022 NC88

Superseded General Decision Numbers: NC20210088

State: North Carolina

Construction Type: HIGHWAY

COUNTIES:

Alamance	Forsyth	Randolph
Anson	Gaston	Rockingham
Cabarrus	Guilford	Stokes
Chatham	Mecklenburg	Union
Davie	Orange	Yadkin
Durham	Person	

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance

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of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

 Modification Number
 Publication Date

 0
 01/07/2022

 1
 02/25/2022

SUNC2014-003 11/14/2014

	Rates	Fringes
BLASTER	18.64	Timges
CARPENTER	13.68 **	.05
CEMENT MASON/CONCRETE FINISHER	13.93 **	.03
ELECTRICIAN	13.75	
Electrician	18.79	2.72
Telecommunications Technician	15.19	1.25
IRONWORKER	13.30 **	
LABORER		
Asphalt Raker and Spreader	12.78 **	
Asphalt Screed/Jackman	14.50 **	
Carpenter Tender	12.51 **	.27
Cement Mason/Concrete Finisher Tender	11.04 **	
Common or General	10.40 **	.01
Guardrail/Fence Installer	13.22 **	
Pipelayer	12.43 **	
Traffic Signal/Lighting Installer	15.65	.24
PAINTER		
Bridge	23.77	
POWER EQUIPMENT OPERATORS		
Asphalt Broom Tractor	10.00 **	
Bulldozer Fine	16.13	
Bulldozer Rough	14.36 **	
Concrete Grinder/Groover	17.92	
Crane Boom Trucks	18.19	
Crane Other	19.83	
Crane Rough/All-Terrain	19.10	
Drill Operator Rock	14.28 **	
Drill Operator Structure	20.89	
Excavator Fine	16.95	
Excavator Rough	13.63 **	
Grader/Blade Fine	19.84	
Grader/Blade Rough	15.47	
Loader 2 Cubic Yards or Less	13.31 **	
Loader Greater Than 2 Cubic Yards	16.19	
Material Transfer Vehicle (Shuttle Buggy)	15.44	
Mechanic	17.51	
Milling Machine	15.22	
Off-Road Hauler/Water Tanker	11.83 **	

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February 2022

	Rates	Fringes
Oiler/Greaser	14.16 **	
Pavement Marking Equipment	12.05 **	
Paver Asphalt	15.97	
Paver Concrete	18.20	
Roller Asphalt Breakdown	12.79 **	
Roller Asphalt Finish	13.76 **	
Roller Other	12.08 **	
Scraper Finish	12.65 **	
Scraper Rough	11.50 **	
Slip Form Machine	19.60	
Tack Truck/Distributor Operator	14.82 **	
TRUCK DRIVER		
GVWR of 26,000 Lbs or Less	11.45 **	
GVWR of 26,001 Lbs or Greater	13.57 **	.03

Welders – Receive rate prescribed for craft performing operation to which welding is incidental.

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at http://www.dol.gov/agencies/whd/government-contracts.

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)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is

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February 2022

an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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 National Office because National Office has responsibility for the David-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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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

FORMS

EXECUTION OF BID

NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

CORPORATION

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Full name	of Corpor	ation
Address	as Prequal	ified
Attest Secretary/Assistant Secretary	_ By _	President/Vice President/Assistant Vice President
Secretary/Assistant Secretary Select appropriate title		President/Vice President/Assistant Vice President Select appropriate title
Print or type Signer's name		Print or type Signer's name
		CORPORATE SEAL
AFFIDAVIT MUS	T BE N	OTARIZED
Subscribed and sworn to before me this the		
day of20		
		NOTARY SEAL
Signature of Notary Public		
ofCounty		
State of		
My Commission Expires:		

EXECUTION OF BID NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

PARTNERSHIP

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Full Nan	ne of Partners	hip	
Address	as Prequalifi	ed	
	$\mathbf{D}_{\mathbf{x}_{I}}$		
Signature of Witness	_ ву	Signature of Partner	
Print or type Signer's name	_	Print or type Signer's name	
AFFIDAVIT MU	ST BE N	OTARIZED	
Subscribed and sworn to before me this the		NOTARY SEAL	
day of 20	<u>.</u> •		
Signature of Notary Public			
ofCounty			
State of	-		

EXECUTION OF BID NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

LIMITED LIABILITY COMPANY

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Full Name	of Firm
Address as P	requalified
Signature of Witness	Signature of Member/Manager/Authorized Agent Select appropriate title
Print or type Signer's name	Print or type Signer's Name
AFFIDAVIT MUST I	BE NOTARIZED
Subscribed and sworn to before me this the	NOTARY SEAL
day of 20	
Signature of Notary Public	
ofCounty	
State of	
My Commission Expires:	

EXECUTION OF BID NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

JOINT VENTURE (2) or (3)

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating N.C.G.S. § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

SIGNATURE OF CONTRACTOR

Instructions: **2 Joint Venturers** Fill in lines (1), (2) and (3) and execute. **3 Joint Venturers** Fill in lines (1), (2), (3) and (4) and execute. On Line (1), fill in the name of the Joint Venture Company. On Line (2), fill in the name of one of the joint venturers and execute below in the appropriate manner. On Line (3), print or type the name of the other joint venturer and execute below in the appropriate manner. On Line (4), fill in the name of the third joint venturer, if applicable and execute below in the appropriate manner.

(1)		Name of Joint Ventur	'A		
(2)	Name of Contractor				
		Name of Contractor			
		Address as Prequalifie	ed		
	Signature of Witness or Attest	Ву		Signature of Contractor	
	Print or type Signer's name			Print or type Signer's name	
	If Corporation, affix Corporate Seal	and			
(3)					
		Name of Contractor			
		Address as Prequalifie	ed		
	Signature of Witness or Attest	Ву		Signature of Contractor	
	Print or type Signer's name			Print or type Signer's name	
	If Corporation, affix Corporate Seal	and			
(4)		Name of Contractor (for 3 Joint V	Venture only)		
		Address as Prequalifie	ed		
	Signature of Witness or Attest	Ву		Signature of Contractor	
	Print or type Signer's name			Print or type Signer's name	
	If Corporation, affix Corporate Seal				
TARY SEA		NOTARY SEA	L		NOTARY SE
davit must be notarized for Line (2)		Affidavit must be notarized for I		Affidavit must be notarized j	. ,
	nd sworn to before me this	Subscribed and sworn to before		Subscribed and sworn to be	
day of_	20	day of	20	day of	20
	Notary Public	Signature of Notary Public		Signature of Notary Public	
	County	of		of	
e of		State of		State of	
Commissi	ion Expires:	My Commission Expires:		My Commission Expires:	

EXECUTION OF BID NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Name of Contractor		
		Individual name
Trading and doing business as		Full name of Firm
		run name of Firm
	Address as Prequ	alified
Signature of Witness		Signature of Contractor, Individually
Print or type Signer's name		Print or type Signer's name
AFFIDA	AVIT MUST BE	NOTARIZED
Subscribed and sworn to before me	this the	NOTARY SEAL
day of	20	
Signature of Notary Public		
of	County	
State of		
My Commission Expires:		

EXECUTION OF BID NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN CERTIFICATION

INDIVIDUAL DOING BUSINESS IN HIS OWN NAME

The person executing the bid, on behalf of the Bidder, being duly sworn, solemnly swears (or affirms) that neither he, nor any official, agent or employee of the bidder has entered into any agreement, participated in any collusion, or otherwise taken any action which is in restraint of free competitive bidding in connection with any bid or contract, that the bidder has not been convicted of violating *N.C.G.S.* § 133-24 within the last three years, and that the Bidder intends to do the work with its own bonafide employees or subcontractors and is not bidding for the benefit of another contractor.

In addition, execution of this bid in the proper manner also constitutes the Bidder's certification of status under penalty of perjury under the laws of the United States in accordance with the Debarment Certification attached, provided that the Debarment Certification also includes any required statements concerning exceptions that are applicable.

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Name of Contractor		
		Print or type Individual name
	Address as l	Prequalified
	-	Signature of Contractor, Individually
	_	Print or type Signer's Name
Signature of Witness		
Print or type Signer's name		
AFFIDAV	IT MUST	BE NOTARIZED
Subscribed and sworn to before me thi	is the	NOTARY SEAL
day of	20	
Signature of Notary Public		
of0	County	
State of		
My Commission Expires:		

DEBARMENT CERTIFICATION

Conditions for certification:

- 1. The prequalified bidder shall provide immediate written notice to the Municipality if at any time the bidder learns that his certification was erroneous when he submitted his debarment certification or explanation filed with the Municipality, or has become erroneous because of changed circumstances.
- 2. 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 provision, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. A copy of the Federal Rules requiring this certification and detailing the definitions and coverages may be obtained from the Municipality project representative.
- 3. The prequalified bidder agrees by submitting this form, that he will not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in Municipal contracts, unless authorized by the Municipality.
- 4. For Federal Aid projects, the prequalified bidder further agrees that by submitting this form he will include the Federal-Aid Provision titled *Required Contract Provisions Federal-Aid Construction Contract (Form FHWA PR* 1273) provided by the Municipality, without subsequent modification, in all lower tier covered transactions.
- 5. The prequalified bidder may rely upon a certification of a participant in a lower tier covered transaction that he is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless he knows that the certification is erroneous. The bidder may decide the method and frequency by which he will determine the eligibility of his subcontractors.
- 6. 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 provision. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 7. Except as authorized in paragraph 6 herein, the Municipality may terminate any contract if the bidder 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 by the Federal Government.

DEBARMENT CERTIFICATION

The prequalified bidder certifies to the best of his knowledge and belief, that he and his 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 three-year period preceding this proposal been convicted of or had a civil judgment 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 b. of this certification; and
- d. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- e. Will submit a revised Debarment Certification immediately if his status changes and will show in his bid proposal an explanation for the change in status.

If the prequalified bidder cannot certify that he is not debarred, he shall provide an explanation with this submittal. An explanation will not necessarily result in denial of participation in a contract.

Failure to submit a non-collusion affidavit and debarment certification will result in the prequalified bidder's bid being considered non-responsive.

Check here if an explanation is attached to this certification.
Check here if an explanation is attached to this certification.

Contract No.	Re	ev. 7-25-17
County		

STATE OF NORTH CAROLINA TOWN OF LEWISVILLE RALEIGH, NC

	RALEIG	H, NC
	BID BO	OND
Principal:		
Surety:	N	lame of Principal Contractor
Surety.		Name of Surety
Contract Number:		County:
Date of Bid:		
and SURETY above of five (5) percent of well and truly to be may firmly by these present NOW, THEREFORE after the opening of the OF LEWISVILLE written notice of awar performance of the composecution of the waccordance with the conditions and obligate makes a final determination the requirements set of in Article 103-3, or a required and to provishall be immediately IN TESTIMONY WE	named, are held and firmly bound unto the total amount bid by the Principal for ade, we bind ourselves, our heirs, execunts. In the condition of this obligation is: the ne bids, or within such other time period shall award a contract to the Principal red is received by him, provide bonds we contract and for the protection of all proork. In the event the Principal requiporovisions of Article 103-3 of the actions of this Bid Bond shall remain in fination to either allow the bid to be with its made to award the contract, the Principal vertical forms award of the contract has been made the required bonds within the time paid to the TOWN OF LEWISVILLI	e caused these presents to be duly signed and sealed.
	-	Surety
	_	
	Ву	General Agent or Attorney-in-Fact Signature

Print or type Signer's Name

Seal of Surety

contract No.		Rev. 7-25-17
	BID BOND	
	CORPORATION	
	SIGNATURE OF CONTRACTOR (P	rincipal)
	Full name of Corporation	on
	A 1 1	1
	Address as prequalified	1
	By Signature of President	dent, Vice President, Assistant Vice President Select appropriate title
		Print or type Signer's name
	Affix Corporate Seal	
Attest	Signature of Secretary, Assistant Secretary Select appropriate title	
	Print or type Signer's name	

Contract No.	
County	

BID BOND

LIMITED LIABILITY COMPANY

Name of Contractor

Full name of Firm

Address as prequalified

Signature of Member/
Manager/Authorized Agent

Individually

Print or type Signer's name

Contract No.	
County	

BID BOND

INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

SIGNATURE OF CONTRACTOR (Principal)

Name of Contractor	
	Individual Name
Trading and doing business as	
	Full name of Firm
	Address as prequalified
Signature of Contractor	
	Individually
	Print or type Signer's name
Signature of Witness	
Print or type Signer's name	

Contract No.	
County	

BID BOND

INDIVIDUAL DOING BUSINESS IN HIS OWN NAME

SIGNATURE OF CONTRACTOR (Principal)

Name of Contractor	
	Print or type Individual Name
	Address as prequalified
Signature of Contractor	Individually
	individually
	Print or type Signer's name
Signature of Witness	
Print or type Signer's nam	ue

County			Rev. /-25-1/
		BID BOND	
		PARTNERSHI	P
	SIGNATU	RE OF CONTRACTO	OR (Principal)
]	Full name of Partne	ership
		A 11	
		Address as prequa	lified
		Ву	Signature of Partner
			-
			Print or type Signer's name
	Signature of Witness		
Pri	nt or type Signer's name		

Contract No.	
County	

BID BOND JOINT VENTURE (2 or 3)

SIGNATURE OF CONTRACTORS (Principal)

Instructions to Bidders: **2 Joint Ventures**, Fill in lines (1), (2) and (3) and execute. **3 Joint Venturers** Fill in lines (1), (2), (3), (4) and execute. Line (1), print or type the name of Joint Venture. On line (2), print or type the name of one of the joint venturers and execute below in the appropriate manner required by Article 102-8 of the *Specifications*. On Line (3), print or type the name of second joint venturer and execute below in the appropriate manner required by said article of the Specifications. On Line (4), print or type the name of the third joint venturer, if applicable and execute below in the appropriate manner required by said article of the Specifications. This form of execution must be strictly followed.

	Name of Joint Ventur	e
	Name of Contractor	
	Address as prequalifie	d
	<u> </u>	
Signature of Witness or Attest	Ву	Signature of Contractor
District Girls		B
Print or type Signer's name		Print or type Signer's name
If Corporation, affix Corporate Seal		
1) Corporation, affix Corporate Seat		
	and	
	Name of Contractor	
	Address as prequalifie	d
Signature of Witness or Attest	By	Signature of Contractor
Print or type Signer's name		Print or type Signer's name
If Corporation, affix Corporate Seal		
	and	
Namo	e of Contractor (for 3 Joint V	Venture only)
	Address as prequalifie	d
	riddiess as piequalific	u
Signature of Witness or Attest		Signature of Contractor
	2)	2-5
Print or type Signer's name		Print or type Signer's name
Print or type Signer's name		

If Corporation, affix Corporate Seal

<u>LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR</u>

	CONTRACT:	NAME OF BIDDER:
	aned intends to perform work in connection he Local Public Agency as:	on with the above contract upon execution of the bid and subsequent award of
	BE/WBE/DBE Subcontractor	
City	State	Zip
	Minori Wome	Please check all that apply: ity Business Enterprise (MBE) n Business Enterprise (WBE) taged Business Enterprise (DBE)
above named sheet, in con The above national identified on	I subcontractor is prepared to perform the nection with the above contract upon exempted subcontractor is prepared to perform the MBE/WBE/DBE Commitment Item	
	t Items sheet:	nd Quantities on the "attached" MBE/WBE/DBE nt \$
commitment compensatio amount repre	total is based on estimated quantities on n will be based on actual quantities of we esents the entire dollar amount quoted ba	accepts the Commitment Total estimated for the Unit Prices and Quantities. This ly and most likely will vary up or down as the project is completed. Final ork performed and accepted during the pursuance of work. The above listed used on these estimated quantities. No conversations, verbal agreements, and/or e to add, delete, or modify the terms as stated.
		ctual subcontract between the two parties. A separate subcontractor agreement he bidder and the MBE/WBE/DBE subcontractor.
Affirmation		
The above navalue as state		ffirms that it will perform the portion(s) of the contract for the estimated dollar
Name of M	IBE/ WBE/ DBE Subcontractor	Name of Bidder
Signature /	/ Title	Signature / Title
Date		Date

LISTING OF DBE SUBCONTRACTORS Sheet of									
Firm Name and Address	Item No.	Item Description	* Agreed upon Unit Price	** Dollar Volume of Item					
Name									
Address									
Name									
Address									
Name									
Address									
Name									
Address									
Name									
Address									
Name									
Address									
Name									
Address									

^{*} The Dollar Volume shown in this column shall be the Actual Price Agreed Upon by the Prime Contractor and the DBE subcontractor, and these prices will be used to determine the percentage of the DBE participation in the contract.

If firm is a Material Supplier Only, show Dollar Volume as 60% of Agreed Upon Amount from Letter of Intent. If firm is a Manufacturer, show Dollar Volume as 100% of Agreed Upon Amount from Letter of Intent.

^{**} Dollar Volume of DBE Subcontractor Percentage of Total Contract Bid Price:

LISTING OF DBE	SUBCONTR	RACTORS	Sheet	of
Firm Name and Address	Item No.	Item Description	* Agreed upon Unit Price	** Dollar Volume of Item
Name				
Address				
Name				
Address				
audicos				
Name				
Address				
Name				
Address				
A.				
Name				
Address				
Name				
Address				
* The Dollar Volume shown in this column sh	nall be the	** Dollar Volume of DI	BE Subcontractor	.

DBE subcontractor, and these prices will be used to determine the percentage of the DBE participation in the contract.

** Dollar Volume of DBE Subcontractor	\$
Percentage of Total Contract Bid Price	%

^{**} Dollar Volume of DBE Subcontractor Percentage of Total Contract Bid Price: If firm is a Material Supplier Only, show Dollar Volume as 60% of Agreed Upon Amount from Letter of Intent. If firm is a Manufacturer, show Dollar Volume as 100% of Agreed Upon Amount from Letter of Intent.

TOWN OF LEWISVILLE

BID FORM

TIP No: U-5617 Date:

County: Forsyth

Description: Widen SR 1173 (Williams Road) and implement a complete street design from the roundabout at Concord Church Road south of the bridge over US 421 to the roundabout at SR 1001 (Shallowford Road) in Lewisville, NC.

Line Item	Item No.	Sec No.	Pay Item	Total	Unit	Unit Price	Amount Bid
1	0000100000 N	000	N. 1.22	1	T. C.	Φ.	Φ.
1	0000100000-N	800	Mobilization	1	LS	\$	\$
2	0000400000-N	801	Construction Surveying	1	LS	\$	\$
3	0043000000-N	226	Grading	1	LS	\$	\$
4	0050000000-E	226	Supplementary Clearing & Grubbing	0.50	ACR	\$	\$
5	0057000000-E	226	Undercut Excavation	250	CY	\$	\$
6	0134000000-E	240	Drainage Ditch Excavation	50	CY	\$	\$
7	0196000000-E	270	Geotextile for Soil Stabilization	250	SY	\$	\$
8	0318000000-Е	300	Foundation Conditioning Material, Minor Structures	210	TON	\$	\$
9	0320000000-E	300	Foundation Conditioning Geotextile	800	SY	\$	\$
10	0335200000-Е	305	15" Drainage Pipe	100	LF	\$	\$
11	0372000000-Е	310	18" RC Pipe Culverts, Class III	16	LF	\$	\$
12	0448200000-E	310	15" RC Pipe Culverts, Class IV	1140	LF	\$	\$
13	0448300000-E	310	18" RC Pipe Culverts, Class IV	84	LF	\$	\$
14	0582000000-E	310	15" CS Pipe Culverts, 0.064" Thick	60	LF	\$	\$
15	0588000000-E	310	18" CS Pipe Culverts, 0.064" Thick	16	LF	\$	\$
16	0636000000-E	310	15" CS Pipe Elbow, 0.064" Thick	2	EA	\$	\$
17	0636000000-E	310	18" CS Pipe Elbow, 0.064" Thick	2	EA	\$	\$
18	0995000000-E	340	Pipe Removal	467	LF	\$	\$
19	0996000000-E	350	Pipe Clean Out	2	EA	\$	\$
20	1220000000-E	545	Incidental Stone Base	100	TON	\$	\$
21	1297000000-E	607	Milling Asphalt Pavement, 1.5" Depth	240	SY	\$	\$
22	1330000000-E	607	Incidental Milling	620	SY	\$	\$
23	1491000000-E	610	Asphalt Concrete Base Course, Type B25.0C	520	TON	\$	\$
24	1503000000-E	610	Asphalt Concrete Intermediate Course, Type I19.0C	550	TON	\$	\$
25	1523000000-Е	610	Asphalt Concrete Surface Course, Type S9.5C	490	TON	\$	\$
26	1575000000-E	620	Asphalt Binder for Plant Mix	80	TON	\$	\$
27	1693000000-E	654	Asphalt Plant Mix, Pavement Repair	60	TON	\$	\$
28	1891500000-N	SP	Generic Paving Item - Roundabout Rehabilitation	1	LS	\$	\$
29	2190000000-N	828	Temporary Steel Plate Covers for Masonry Drainage Structures	4	EA	\$	\$
30	2209000000-Е	838	Endwalls	1	CY	\$	\$
31	2253000000-Е	840	Pipe Collars	1	CY	\$	\$
32	2286000000-N	840	Masonry Drainage Structures	19	EA	\$	\$

Line Item	Item No.	Sec No.	Pay Item	Total	Unit	Unit Price	Amount Bid
33	2364000000-N	840	Frame with Two Grates, STD 840.16	1	EA	\$	\$
34	2365000000-N	840	Frame with Two Grates, STD 840.22	1	EA	\$	\$
35	2374000000-N	840	Frame with Grate & Hood 840.03, Type E	4	EA	\$	\$
36	2374000000-N	840	Frame with Grate & Hood 840.03, Type F	6	EA	\$	\$
37	2374000000-N	840	Frame with Grate & Hood 840.03, Type G	7	EA	\$	\$
38	2396000000-N	840	Frame with Cover, STD 840.54	1	EA	\$	\$
39	2542000000-E	846	1'-6" Concrete Curb and Gutter	910	LF	\$	\$
40	2549000000-Е	846	2'-6" Concrete Curb and Gutter	2440	LF	\$	\$
41	2591000000-E	848	4" Concrete Sidewalk	1125	SY	\$	\$
42	2605000000-N	848	Concrete Curb Ramp	19	EA	\$	\$
43	2612000000-E	848	6" Concrete Driveways	300	SY	\$	\$
44	2655000000-E	852	5" Monolithic Concrete Islands (Keyed-In)	220	SY	\$	\$
45	2830000000-N	858	Adjustment of Manholes	4	EA	\$	\$
46	2845000000-N	858	Adjustment of Meter Boxes or Valve Boxes	1	EA	\$	\$
47	2860000000-N	859	Convert Existing Catch Basin to Junction Box	1	EA	\$	\$
48	3150000000-N	862	Additional Guardrail Posts	4	EA	\$	\$
49	3288000000-N	SP	Guardrail End Units, Type TL-2	2	EA	\$	\$
50	3345000000-Е	864	Remove and Reset Existing Guardrail	25	LF	\$	\$
51	3628000000-Е	876	Rip Rap, Class I	7	TON	\$	\$
52	3649000000-E	876	Rip Rap, Class B	40	TON	\$	\$
53	3656000000-E	876	Geotextile for Drainage	210	SY	\$	\$
54	4025000000-E	901	Contractor Furnished, Type E Sign	1020	SF	\$	\$
55	4072000000-E	903	Supports, 3-lb Steel U-Channel	330	LF	\$	\$
56	4096000000-N	904	Sign Erection, Type D	5	EA	\$	\$
57	4102000000-N	904	Sign Erection, Type E	30	EA	\$	\$
58	4155000000-N	907	Disposal of Sign System, U-Channel	2	EA	\$	\$
59	4192000000-N	907	Disposal of Support, U-Channel	9	EA	\$	\$
60	4360000000-N	SP	Generic Signing Item - Millstone	2	EA	\$	\$
61	4360000000-N	SP	Generic Signing Item - Steel Sign Panel	2	EA	\$	\$
62	4360000000-N	SP	Generic Signing Item - Stone Columns	2	EA	\$	\$
63	4360000000-N	SP	Generic Signing Item - Footing	2	EA	\$	\$
64	4360000000-N	SP	Generic Signing Item - Lighting	6	EA	\$	\$
65	4363000000-E	SP	Generic Signing Item - Stacked Stone Wall	30	LF	\$	\$
66	4457000000-N	SP	Temporary Traffic Control	1	LS	\$	\$
67	4685000000-E	1205	Thermoplastic Pavement Marking Lines (4", 90 Mils)	1420	LF	\$	\$
68	4695000000-E	1205	Thermoplastic Pavement Marking Lines (8", 90 Mils)	200	LF	\$	\$
69	4710000000-E	1205	Thermoplastic Pavement Marking Lines (24", 90 Mils)	220	LF	\$	\$
70	4725000000-E	1205	Thermoplastic Pavement Marking Symbol (90 Mils)	30	EA	\$	\$
71	5265000000-E	SP	Generic Lighting Item – Street Lighting Conduit, Open Trench Install, 2" SCH 40 PVC (Gray)	340	LF	\$	\$
72	5571600000-E	1515	6" Tapping Sleeve and Valve	1	EA	\$	\$
73	5643000000-E	1515	5/8" Water Meter	3	EA	\$	\$
74	5643150000-E	1515	1-1/2" Water Meter	1	EA	\$	\$
75	5666000000-N	1515	Fire Hydrant	1	EA	\$	\$
76	5673000000-E	1515	Fire Hydrant Leg	20	LF	\$	\$

Line Item	Item No.	Sec No.	Pay Item	Total	Unit	Unit Price	Amount Bid
77	5686500000-E	1515	Water Service Line	56	LF	\$	\$
78	5691300000-E	1520	8" Sanitary Gravity Sewer	514	LF	\$	\$
79	5709200000-E	1520	4" Force Main Sewer	40	LF	\$	\$
80	5768000000-N	1520	Sanitary Sewer Clean-out	3	EA	\$	\$
81	5768500000-E	1520	Sewer Service Line	124	LF	\$	\$
82	5775000000-E	1525	4' Dia Utility Manhole	3	EA	\$	\$
83	5781000000-E	1525	Utility Manhole Wall, 4' Dia	16	LF	\$	\$
84	5801000000-E	1530	Abandon 8" Utility Pipe	505	LF	\$	\$
85	5815500000-N	1530	Remove Fire Hydrant	1	EA	\$	\$
86	5816000000-N	1530	Abandon Utility Manhole	2	EA	\$	\$
	6000000000-Е	1605	Temporary Silt Fence	2500	LF	\$	\$
	6006000000-Е	1610	Erosion Control Stone, Class A	35	TON	\$	\$
89	6009000000-Е	1610	Erosion Control Stone, Class B	465	TON	\$	\$
90	6012000000-Е	1610	Sediment Control Stone	380	TON	\$	\$
91	6015000000-Е	1615	Temporary Mulching	2.5	ACR	\$	\$
92	6018000000-Е	1620	Seed for Temporary Seeding	200	LB	\$	\$
93	6021000000-Е	1620	Fertilizer for Temporary Seeding	1	TON	\$	\$
94	6024000000-E	1622	Temporary Slope Drains	200	LF	\$	\$
95	6030000000-Е	1630	Silt Excavation	550	CY	\$	\$
96	6036000000-Е	1631	Matting for Erosion Control	6300	SY	\$	\$
97	6042000000-E	1632	1/4" Hardware Cloth	415	LF	\$	\$
98	6045000000-E	SP	15" Temporary Pipe	28	LF	\$	\$
99	6087000000-E	1660	Mowing	3	ACR	\$	\$
100	6090000000-E	1661	Seed for Repair Seeding	50	LB	\$	\$
101	6093000000-Е	1661	Fertilizer for Repair Seeding	0.25	TON	\$	\$
102	6096000000-E	1662	Seed for Supplemental Seeding	75	LB	\$	\$
103	6108000000-E	1665	Fertilizer Topdressing	2	TON	\$	\$
104	6114500000-N	1667	Specialized Hand Mowing	10	MHR	\$	\$
105	6117000000-N	1675	Response for Erosion Control	13	EA	\$	\$
106	6117500000-N	SP	Concrete Washout Structure	1	EA	\$	\$
107	6645000000-N	SP	Generic Planting Item- Monthly Landscape Maintenance	12	EA	\$	\$
108	6645000000-N	SP	Generic Planting Item - Lagerstroemia indica 'Sarah's Favorite'	16	EA	\$	\$
109	6645000000-N	SP	Generic Planting Item - Abelia x grandiflora 'Little Richard'	25	EA	\$	\$
110	6645000000-N	SP	Generic Planting Item - Calamagrostis x acutiflora 'Karl Forester'	9	EA	\$	\$
111	6645000000-N	SP	Generic Planting Item - Hydrangea paniculata 'Jane'	9	EA	\$	\$
112	6645000000-N	SP	Generic Planting Item - Juniperus chinensis 'Blue Point'	6	EA	\$	\$
113	6645000000-N	SP	Generic Planting Item - Nassella tenuissima 'Pony Tails'	115	EA	\$	\$
114	6645000000-N	SP	Generic Planting Item - Panicum virgatum 'Shenandoah'	155	EA	\$	\$
115	6645000000-N	SP	Generic Planting Item - Schizachyrium scoparium 'Prairie Blues'	160	EA	\$	\$
116	6650000000-E	1670	Mulch for Planting	25	CY	\$	\$
117	6676000000-E	SP	Generic Planting Item - Sodding	25,480	SF	\$	\$
118	6676000000-E	SP	Generic Planting Item - Seeding	37,136	SF	\$	\$

Line Item	Item No.	Sec No.	Pay Item	Total	Unit		Unit Price	Amount Bid
119	6680000000-Е	SP	Generic Planting Item - Top Soil / Soil Amendments	175	CY	\$		\$
	Total Amount Bid \$							

Bidder_			
		(D	

(Print)

NOTE: PROPOSAL SIGNATURE REQUIRED ON EXECUTION OF BID, PAGES F-2 TO F-7. ALL PROPOSALS MUST BE PROPERLY EXECUTED TO BE CONSIDERED A VALID BID.