

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 8

ID/IQ PROPOSAL

DATE AND TIME OF BID OPENING: April 22, 2025 AT 2:00 PM

CONTRACT ID: D8.DW.POC.PR21169

WBS ELEMENT NO.: VARIOUS

FEDERAL AID NO.: STATE FUNDED

COUNTY: Chatham, Hoke, Lee, Montgomery, Moore, Randolph, Richmond and
Scotland Counties

TIP NO.: NONE

MILES: VARIOUS

ROUTE NO.: VARIOUS

LOCATION: DIVISION 8

TYPE OF WORK: SIGNAL MAINTENANCE

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

THIS IS A ROADWAY PROJECT.

BID BOND IS REQUIRED.

NAME OF BIDDER

ADDRESS OF BIDDER

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT No. D8.DW.POC.PR21169 IN DIVISION 8, NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION,
RALEIGH, NORTH CAROLINA**

The Bidder has carefully examined the location of the proposed work to be known as Contract No. D8.DW.POC.PR21169; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Department of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with the *2024 Standard Specifications for Roads and Structures* by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete Contract No. D8.DW.POC.PR21169 in Chatham, Hoke, Lee, Montgomery, Moore, Randolph, Richmond and Scotland Counties, for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The published volume entitled *North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2024* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

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

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

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

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

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INSTRUCTIONS TO BIDDERS

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

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement may cause the bid to be considered irregular and may be grounds for rejection of the bid.

TRADITIONAL PAPER BIDS:

1. Download the entire proposal from the Connect NCDOT website and return the entire proposal with your bid.
2. In accordance with Article 102-3 of the *Standard Specifications*, registration on the Interested Parties List is required unless SP1 G02 Interested Parties List Not Required provision is included in the proposal.
3. All entries on the itemized proposal sheet (bid form) shall be written in ink or typed.
4. The Bidder shall submit a unit price for every item on the itemized proposal sheet. The unit prices for the various contract items shall be written in figures. Unit prices shall be rounded off by the Bidder to contain no more than FOUR decimal places.
5. An amount bid shall be entered on the itemized proposal sheet 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" column of the form.
6. The total amount bid shall be written in figures in the proper place on the bid form. The total amount bid shall be determined by adding the amounts bid for each item.
7. Changes to 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 correction fluid, correction tape or similar product to make corrections.
8. The bid shall be properly executed on the included **Execution of Bid – Non-collusion, Debarment and Gift Ban Certification** form. All bids shall show the following information:
 - a. Name of corporation, partnership, Limited Liability Company, joint venture, individual or firm, submitting bid.
Corporations that have a corporate seal shall include it on the bid, otherwise write your corporations name in the seal location.
 - b. Name of individual or representative submitting bid and position or title held on behalf of the bidder.
 - c. Name, signature, and position or title of witness.
9. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
10. 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.
11. **THE PROPOSAL WITH THE ITEMIZED PROPOSAL SHEET ATTACHED SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL BE DELIVERED TO AND RECEIVED IN THE NCDOT DIVISION OFFICE, LOCATED AT 121 DOT Drive Carthage, NC 28327, BY 2:00 PM ON, April 22, 2025.**
12. The sealed bid must display the following statement on the front of the sealed envelope:

**QUOTATION FOR – CONTRACT ID D8.DW.POC.PR21169 – SIGNAL MAINTENANCE IN
DIVISION 8 TO BE OPENED AT 2:00 PM ON, April 22, 2025.**

As well as the following information:

- a. Name of corporation, partnership, Limited Liability Company, joint venture, individual or firm, submitting bid.
- b. Name of individual or representative submitting bid and position or title held on behalf of the bidder.
- c. Address of corporation, partnership, Limited Liability Company, joint venture, individual or firm, submitting bid.

- d. SAP Vendor Number of corporation, partnership, Limited Liability Company, joint venture, individual or firm, submitting bid.
 - e. Contractor License Number, if available, of corporation, partnership, Limited Liability Company, joint venture, individual or firm, submitting bid.
13. If delivered by mail, the sealed envelope shall be placed in another sealed envelope and the outer envelope shall be addressed as follows:

**N. C. DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS, DIVISION 8
ATTN: Chad Brown
121 DOT Drive
Carthage, NC 28327**

14. Questions should be emailed 7 calendar days prior to the bid opening to **Chad Brown** at **cgbrown1@ncdot.gov**. Contact with any other NCDOT personnel concerning this project is strictly prohibited, unless otherwise noted, and may result in bids being considered non-responsive.

PROJECT SPECIAL PROVISIONS**GENERAL****CONTRACTOR'S LICENSE REQUIREMENTS:**

Traffic signal installation is considered specialty work therefore; a general contractor's license is waived. However, an electrical contractors license is required for this contract.

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).

INTERESTED PARTIES LIST NOT REQUIRED:

(6-21-22)(Rev. 2-20-24)

102

SP1 G02

Revise the *Standard Specifications* as follows:

The *Interested Parties List* sign up process is not applicable to this contract.

Page 1-13, Article 102-3 PROPOSALS AND INTERESTED PARTIES LIST, lines 12-15, delete the first paragraph.

Page 1-14, Article 102-8 PREPARATION AND SUBMISSION OF BIDS, lines 43-44, delete the first sentence of the first paragraph.

BOND REQUIREMENTS:

(6-1-16)(Rev.1-16-24)

102-8, 102-10

SPD 01-420A

A Bid Bond is required in accordance with Article 102-10 of the *Standard Specifications for Roads and Structures*.

Contract Payment and Performance Bonds are required in accordance with Article 103-7 of the *Standard Specifications*.

HAUL ROADS:

(7-16-24)

105

SP1 G04

Revise the *Standard Specifications* as follows:

Page 1-45, Article 105-15 RESTRICTION OF LOAD LIMITS, line 31, add the following after second sentence of the second paragraph:

At least 30 days prior to use, the Contractor shall notify the Engineer of any public road proposed for use as a haul road for the project.

CONTRACT TIME AND LIQUIDATED DAMAGES:

(7-1-95) (Rev. 12-18-07)

108

SP1 G10 B

The date of availability for this contract is **July 1, 2025**

The completion date for this contract is **June 30, 2026**.

Liquidated damages of Five Hundred Dollars (\$ 500.00) per calendar day will be charged for each calendar day after the seventh day from notification when the Contractor fails to report to the project.

Unscheduled or emergency work will require that the Contractor to be on call 24 hours a day, seven days a week and be at the work site within four hours of notification. Each emergency call back will qualify the contractor for one payment of Emergency Call Back Response as quoted on the Bid Form. If the contractor is not on site after receiving the notice of what is need for the emergency repair with in the allotted 4 hours the contractor forfeits this Emergency Call Back Response and will be subject to liquidated damages in the amount of One Hundred Fifty dollars (\$150.00) per hour or partial hour of response time over the four hours allowed.

WORK ORDER ASSIGNMENT (SINGLE AWARDS) FOR ID/IQ:

(2-15-22)(Rev. 4-19-22)

SPD 01-800A

Work orders will be assigned by the Engineer. Failure to complete work in accordance with contract provisions and completion date may result in liquidated damages.

For federal ID/IQ contracts, all work orders will be assigned via the Work Order Assignment Form (Form IDIQ-1SA), and the Contractor is required to formally respond in writing for federal work orders within three working days, unless noted otherwise. The Work Order Assignment Form will also be used for any state ID/IQ contract.

The Contractor shall be required to prosecute the work in a continuous and uninterrupted manner from the time they begin the work until completion and final acceptance of the work order. Multiple failures of the Contractor to mobilize and begin work on the work order within the agreed upon time frame or failure to complete the work within the given time frame may result in the Contractor being excluded from future work on this contract in accordance with the *Standard Specifications*.

RENEWAL OF CONTRACT (CPI PRICE ADJUSTMENT) FOR ID/IQ:

(2-15-22)(Rev. 9-19-23)

SPD 01-840

The Contractor shall submit a bid for one year. At the option of the Department, this contract may be extended for **Two (2)** additional periods of one year each (maximum (3) three years total). Each year shall have a limit of **Five Million Dollars (\$5,000,000.00)**.

The compensation payable to the contractor shall be fixed for the first twelve months of this contract. However, upon an application of renewal of the contract, or thirty days prior to the end of each contract period, the renewal contract may be adjusted to reflect the adjustment in the Consumer Price Index over the latest twelve month period as published by the US Bureau of Labor and Statistics at <http://www.bls.gov/cpi> to be applied to new work order assignments. The Consumer Price Index for All Urban Consumers (CPI-U), US City Average, All Items, 1982-

84=100, not seasonally adjusted will be used. If the amount of the requested adjustment is more than ten percent, the Department of Transportation reserves the right to cancel this contract.

CPI adjustment values can be determined using the calculator on the NCDOT Construction website.

This price escalation method will not be applied to items of work that are separately covered under commodity price escalation clauses. No other changes in the terms, conditions, etc. of this contract will be made when an extension to the contract is implemented. The Engineer will notify the Contractor in writing by **March 1st** if the contract may be extended. The Contractor must notify the Engineer in writing by **March 15th** of his acceptance or rejection of this offer. Failure on the part of the Contractor to reply will be received as a rejection of contract extension.

DISPUTE RESOLUTION PROCESS FOR ID/IQ:

(2-15-22)(Rev. 1-16-24)

SPD 01-850

If a question should arise on the contract or assignment of a work order, the contractor should notify the Engineer noted on the assignment documentation or the Division Engineer within 48 hours after the scheduled time of bid opening or work order assignment. The following should be included in the notification if applicable:

- (A) the contract for which bids were solicited;
- (B) the particular law, regulation, or contract specification violated;
- (C) a detailed description of the alleged violation; and
- (D) any other information deemed to be relevant.

Once the initial evaluation has been completed, the contractor may be asked to attend a meeting for further discussion and clarification.

Once a determination has been made, the contractor will be notified of the decision by the Division Engineer. If the decision does not meet the satisfaction of the contractor, they have 24 hours from the Division Engineer's notification to elevate the dispute to the Chief Engineer. The Chief Engineer will make the final decision and will not be subject to further review by NCDOT.

NO MAJOR CONTRACT ITEMS:

(2-19-02) (Rev. 8-21-07)

104

SP1 G31

None of the items included in this contract will be major items.

NO SPECIALTY ITEMS:

(7-1-95)(Rev. 1-16-24)

108-6

SP1 G34

None of the items included in this contract will be specialty items (see Article 108-6 of the *Standard Specifications*).

MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE (DIVISIONS):

(10-16-07)(Rev. 5-9-24)

102-15(J)

SP1 G67

Description

The purpose of this Special Provision is to carry out the North Carolina Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with State funds.

Definitions

Additional MBE/WBE Subcontractors - Any MBE/WBE submitted at the time of bid that will not be used to meet the Combined MBE/WBE goal. No submittal of a Letter of Intent is required.

Combined MBE/WBE Goal: A portion of the total contract, expressed as a percentage that is to be performed by committed MBE/WBE subcontractors.

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

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

Goal Confirmation Letter - Written documentation from the Department to the bidder confirming the Contractor's approved, committed participation along with a listing of the committed MBE and WBE firms.

Manufacturer - A firm that owns (or leases) and operates or maintains a factory or establishment that produces on the premises, the materials or supplies obtained by the Contractor. A firm that makes minor modifications to the materials, supplies, articles, or equipment is not a manufacturer.

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

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

Regular Dealer - A firm that owns (or leases), and operates a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in sufficient quantities, 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, concrete or concrete products, gravel, stone, asphalt and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Any

supplement of regular dealers' own distribution equipment shall be by a long-term operating lease and not on an ad hoc or contract-by-contract basis.

Distributor – A firm that engages in the regular sale or lease of the items specified by the contract. A distributor assumes responsibility for the items it purchases once they leave the point of origin (e.g., a manufacturer's facility), making it liable for any loss or damage not covered by the carrier's insurance.

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

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for MBE/WBE certification. The MBE/WBE program follows the same regulations as the federal Disadvantaged Business Enterprise (DBE) program in accordance with 49 CFR Part 26.

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

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

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

Forms and Websites Referenced in this Provision

Payment Tracking System - On-line system in which the Contractor enters the payments made to MBE and WBE 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 MBE/WBE 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 MBE/WBE Replacement Request Form - Form for replacing a committed MBE or WBE.
<https://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Form%20and%20Instructions.pdf>

SAF Subcontract Approval Form - Form required for approval to sublet the contract.
<https://connect.ncdot.gov/projects/construction/Construction%20Forms/SAF%20Form%20-%20Subcontract%20Approval%20Form%20Revised%202004-19.xlsm>

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%20Forms/Joint%20Check%20Notification%20Form.pdf>

Letter of Intent - Form signed by the Contractor and the MBE/WBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed MBE/WBE 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%20a%20Subcontractor.pdf>

Listing of MBE and WBE Subcontractors Form - Form for entering MBE/WBE subcontractors on a project that will meet the Combined MBE/WBE goal. This form is for paper bids only.

[http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20\(State\).docx](http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/09%20MBE-WBE%20Subcontractors%20(State).docx)

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where MBEs and WBEs 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>

DBE Regular Dealer/Distributor Affirmation Form – Form is used to make a preliminary counting determination for each DBE listed as a regular dealer or distributor to assess its eligibility for 60 or 40 percent credit, respectively of the cost of materials or supplies based on its demonstrated capacity and intent to perform as a regular dealer or distributor, as defined in section 49 CFR 26.55 under the contract at issue. A Contractor will submit the completed form with the Letter of Intent.

<https://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20Regular%20Dealer-Distributor%20Affirmation%20Form%20-%20USDOT%202024.pdf>

Combined MBE/WBE Goal

The Combined MBE/WBE Goal for this project is **0.0 %**

The Combined Goal was established utilizing the following anticipated participation for Minority Business Enterprises and Women Business Enterprises:

(A) Minority Business Enterprises **0.0 %**

- (1) *If the anticipated MBE participation is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that MBEs participate in at least the percent of the contract as set forth above.
- (2) *If the anticipated MBE participation is zero*, the Contractor shall make an effort to recruit and use MBEs during the performance of the contract. Any MBE participation obtained shall be reported to the Department.

(B) Women Business Enterprises **0.0 %**

- (1) *If the anticipated WBE participation is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that WBEs participate in at least the percent of the contract as set forth above.
- (2) *If the anticipated WBE participation is zero*, the Contractor shall make an effort to recruit and use WBEs during the performance of the contract. Any WBE participation obtained shall be reported to the Department.

The Bidder is required to submit only participation to meet the Combined MBE/WBE Goal. The Combined Goal may be met by submitting all MBE participation, all WBE participation, or a combination of MBE and WBE participation.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as MBE and WBE certified shall be used to meet the Combined MBE / WBE 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 MBE/WBE Subcontractors

At the time of bid, bidders shall submit all MBE and WBE participation that they anticipate to use during the life of the contract. Only those identified to meet the Combined MBE/WBE goal will be considered committed, even though the listing shall include both committed MBE/WBE subcontractors and additional MBE/WBE subcontractors. Any additional MBE/WBE subcontractor participation above the goal will follow the banking guidelines found elsewhere in this provision. All other additional MBE/WBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goals. Only those firms with current MBE and WBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of MBE and WBE participation. The Contractor shall indicate the following required information:

(A) Electronic Bids

Bidders shall submit a listing of MBE and WBE participation in the appropriate section of the electronic submittal file.

- (1) Submit the names and addresses of MBE and WBE firms identified to participate in the contract. If the bidder uses the updated listing of MBE and WBE firms shown in the electronic submittal file, the bidder may use the dropdown menu to access the name and address of the firms.

- (2) Submit the contract line numbers of work to be performed by each MBE and WBE firm. When no figures or firms are entered, the bidder will be considered to have no MBE or WBE participation.
- (3) The bidder shall be responsible for ensuring that the MBE and WBE are 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 MBE's or WBE's participation will not count towards achieving the Combined MBE/WBE goal.

(B) Paper Bids

- (1) *If the Combined MBE/ WBE goal is more than zero,*
 - (a) Bidders, at the time the bid proposal is submitted, shall submit a listing of MBE/WBE participation, including the names and addresses on *Listing of MBE and WBE 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 MBE and WBE participation for the contract.
 - (b) If bidders have no MBE or WBE participation, they shall indicate this on the *Listing of MBE and WBE 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 participation.** Bids submitted that do not have MBE and WBE participation indicated on the appropriate form will not be read publicly during the opening of bids. The Department will not consider these bids for award and the proposal will be rejected.
 - (c) The bidder shall be responsible for ensuring that the MBE/WBE 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 MBE's or WBE's participation will not count towards achieving the Combined MBE/WBE goal.
- (2) *If the Combined MBE/WBE Goal is zero,* entries on the *Listing of MBE and WBE Subcontractors* are not required for the zero goal, however any MBE or WBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

MBE or WBE Prime Contractor

When a certified MBE or WBE firm bids on a contract that contains a Combined MBE/WBE Goal, the 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 MBE or WBE bidder on a contract will meet the Combined MBE/WBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the MBE or WBE bidder and any other similarly certified subcontractors will count toward the goal. The MBE or WBE bidder shall list itself along with any MBE or WBE subcontractors, if any, in order to receive credit toward the goals.

MBE/WBE prime contractors shall also follow Sections A or B listed under *Listing of MBE/WBE Subcontractors* just as a non-MBE/WBE bidder would.

Written Documentation – Letter of Intent

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

The documentation shall be received in the office of the Engineer 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 Engineer 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 MBE and WBE to be used toward the Combined MBE/WBE goal, or if the form is incomplete (i.e. both signatures are not present), the MBE/WBE participation will not count toward meeting the Combined MBE/WBE goal. If the lack of this participation drops the commitment below the Combined MBE/WBE goal, the Contractor shall submit evidence of good faith efforts for the goal not met, completed in its entirety, to the Engineer no later than 2:00 p.m. of the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

Banking MBE/WBE Credit

If the committed MBE/WBE participation submitted exceeds the algebraic sum of the Combined MBE/WBE goal by \$1,000 or more, the excess will be placed on deposit by the Department for future use by the bidder. Separate accounts will be maintained for MBE and WBE participation and these may accumulate for a period not to exceed 24 months.

When the apparent lowest responsive bidder fails to submit sufficient participation by MBE and WBE firms to meet the advertised goal, as part of the good faith effort, the Department will consider allowing the bidder to withdraw funds to meet the Combined MBE/WBE goal as long as there are adequate funds available from the bidder's MBE and WBE bank accounts.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the Combined MBE/WBE goal, the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach that specific goal.

One complete set and 7 copies of this information shall be received in the office of the Engineer 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 Engineer 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 MBE/WBE 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 a Combined MBE/WBE Goal 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 MBE/WBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought MBE/WBE participation. Mere *pro forma* efforts are not considered good faith efforts.

The Department 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 goals 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 MBEs/WBEs that are also prequalified subcontractors. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the MBEs/WBEs to respond to the solicitation. Solicitation shall provide the opportunity to MBEs/WBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the MBEs/WBEs are interested by taking appropriate steps to follow up initial solicitations.
- (B) Selecting portions of the work to be performed by MBEs/WBEs in order to increase the likelihood that the Combined MBE/WBE goal will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate MBE/WBE 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 advertised goal when the work to be sublet includes potential for MBE/WBE participation (2nd and 3rd tier subcontractors).
- (C) Providing interested certified MBEs/WBEs that are also prequalified subcontractors 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 MBEs/WBEs. It is the bidder's responsibility to make a portion of the work available to MBE/WBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available MBE/WBE subcontractors and suppliers, so as to facilitate MBE/WBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of MBEs/WBEs 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 MBEs/WBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including MBE/WBE subcontractors, and would take a firm's price and capabilities as well as the advertised goal into consideration. However, the fact that there may be some additional costs involved in finding and using MBEs/WBEs is not in itself sufficient reason for a bidder's failure to meet the advertised 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 MBEs/WBEs if the price difference is excessive or unreasonable.
- (E) Not rejecting MBEs/WBEs 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 MBEs/WBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested MBEs/WBEs 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 MBEs/WBEs. Contact within 7 days from the bid opening the Business Opportunity and Work Force Development Unit at

BOWD@ncdot.gov to give notification of the bidder's inability to get MBE or WBE quotes.

- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the advertised goal.

In addition, the Department may take into account the following:

- (1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the Combined MBE/WBE goal.
- (2) The bidders' past performance in meeting the contract goal.
- (3) The performance of other bidders in meeting the advertised goal. For example, when the apparent successful bidder fails to meet the 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 advertised goal, but meets or exceeds the average MBE and WBE participation obtained by other bidders, the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy to the Department that the Combined MBE/WBE goal can be met or that an adequate good faith effort has been made to meet the advertised goal.

Non-Good Faith Appeal

The Engineer 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 Engineer. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

Counting MBE/WBE Participation Toward Meeting the Combined MBE/WBE Goal

- (A) Participation

The total dollar value of the participation by a committed MBE/WBE will be counted toward the contract goal requirements. The total dollar value of participation by a committed MBE/WBE will be based upon the value of work performed by the MBE/WBE and the actual payments to MBE/WBE firms by the Contractor.

- (B) Joint Checks

Prior notification of joint check use shall be required when counting MBE/WBE 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 Department's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A MBE/WBE may enter into subcontracts. Work that a MBE subcontracts to another MBE firm may be counted toward the anticipated MBE participation. The same holds for work that a WBE subcontracts to another WBE firm. Work that a MBE/WBE subcontracts to a non-MBE/WBE firm does not count toward the contract goal requirement. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the MBE or WBE participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified firms and there is no interest or availability, and they can get assistance from other certified firms, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE breakdown. If a MBE or WBE 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 MBE or WBE is not performing a commercially useful function.

(D) Joint Venture

When a MBE or WBE 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 MBE or WBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the MBE or WBE performs with its forces.

(E) Manufacturer, Regular Dealer, Distributor

A Contractor may count toward its MBE/WBE requirement 40 percent of its expenditures for materials or supplies (including transportation costs) from a MBE/WBE distributor, 60 percent of its expenditures for materials or supplies (including transportation costs) from a MBE/WBE regular dealer and 100 percent of such expenditures obtained from a MBE/WBE manufacturer.

A Contractor may count toward its MBE/WBE requirement the following expenditures to MBE/WBE firms that are not manufacturers, regular dealers or distributors:

- (1) The fees or commissions charged by a MBE/WBE 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 MBE/WBE, which is neither a manufacturer, regular dealer, nor a distributor count the entire amount of fees or commissions charged that the Department deems to be reasonable, including transportation charges for the delivery of materials or supplies. Do not count any portion of the cost of the materials and supplies themselves.

A Contractor will submit a completed *DBE Regular Dealer/Distributor Affirmation Form* with the Letter of Intent to the Engineer. The Engineer will forward to the State Contractor Utilization Engineer or DBE@ncdot.gov. The State Contractor Utilization Engineer will make a preliminary assessment as to whether a MBE/WBE supplier has the demonstrated capacity to perform a commercially useful function (CUF) on a contract-by-contract basis *prior* to its participation.

Commercially Useful Function

(A) MBE/WBE Utilization

The Contractor may count toward its contract goal requirement only expenditures to MBEs and WBEs that perform a commercially useful function in the work of a contract. A MBE/WBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by performing, managing, and supervising the work involved. To perform a commercially useful function, the MBE/WBE 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 MBE/WBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is performing and the MBE/WBE credit claimed for its performance of the work, and any other relevant factors. If it is determined that a MBE or WBE is not performing a Commercially Useful Function, the contractor may present evidence to rebut this presumption to the Department.

(B) MBE/WBE Utilization in Trucking

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

- (1) The MBE/WBE 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 the Combined MBE/WBE goal.
- (2) The MBE/WBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

- (3) The MBE/WBE 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 MBE may subcontract the work to another MBE firm, including an owner-operator who is certified as a MBE. The same holds true that a WBE may subcontract the work to another WBE firm, including an owner-operator who is certified as a WBE. When this occurs, the MBE or WBE who subcontracts work receives credit for the total value of the transportation services the subcontracted MBE or WBE provides on the contract. It should be noted that every effort shall be made by MBE and WBE contractors to subcontract to the same certification (i.e., MBEs to MBEs and WBEs to WBEs), in order to fulfill the participation breakdown. This, however, may not always be possible due to the limitation of firms in the area. If the MBE or WBE firm shows a good faith effort has been made to reach out to similarly certified transportation service providers and there is no interest or availability, and they can get assistance from other certified providers, the Engineer will not hold the prime responsible for meeting the individual MBE or WBE participation breakdown.
- (5) The MBE/WBE may also subcontract the work to a non-MBE/WBE firm, including from an owner-operator. The MBE/WBE who subcontracts the work to a non-MBE/WBE is entitled to credit for the total value of transportation services provided by the non-MBE/WBE subcontractor not to exceed the value of transportation services provided by MBE/WBE-owned trucks on the contract. Additional participation by non-MBE/WBE 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 MBE/WBE and the Contractor will not count towards the MBE/WBE contract requirement.
- (6) A MBE/WBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the MBE/WBE 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 MBE/WBE, so long as the lease gives the MBE/WBE absolute priority for use of the leased truck. This type of lease may count toward the MBE/WBE's credit as long as the driver is under the MBE/WBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the MBE/WBE 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.

MBE/WBE Replacement

When a Contractor has relied on a commitment to a MBE or WBE subcontractor (or an approved substitute MBE or WBE subcontractor) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE subcontractor or any portion of its work 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 MBE/WBE subcontractor, a non-MBE/WBE 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 MBE/WBE subcontractor, with a copy to the Engineer of its intent to request to terminate a MBE/WBE subcontractor or any portion of its work, and the reason for the request. The Contractor must give the MBE/WBE subcontractor five (5) business days to respond to the Contractor's Notice of Intent to Request Termination and/or Substitution. If the MBE/WBE subcontractor objects to the intended termination/substitution, the MBE/WBE, within five (5) business days must advise the Contractor and the Department 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 MBE/WBE subcontractor.

A committed MBE/WBE subcontractor may only be terminated or any portion of its work after receiving the Department's written approval based upon a finding of good cause for the proposed termination and/or substitution. Good cause does not exist if the Contractor seeks to terminate a MBE/WBE or any portion of its work that it relied upon to obtain the contract so that the Contractor can self-perform the work for which the MBE/WBE was engaged, or so that the Contractor can substitute another MBE/WBE or non-MBE/WBE contractor after contract award. For purposes of this section, good cause shall include the following circumstances:

- (a) The listed MBE/WBE subcontractor fails or refuses to execute a written contract;
- (b) The listed MBE/WBE 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 MBE/WBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (c) The listed MBE/WBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
- (d) The listed MBE/WBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (e) The listed MBE/WBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR parts 180, 215 and 1200 or applicable State law;
- (f) The listed MBE/WBE subcontractor is not a responsible contractor;
- (g) The listed MBE/WBE voluntarily withdraws from the project and provides written notice of withdrawal;
- (h) The listed MBE/WBE is ineligible to receive MBE/WBE credit for the type of work required;
- (i) A MBE/WBE owner dies or becomes disabled with the result that the listed MBE/WBE contractor is unable to complete its work on the contract; and

- (j) Other documented good cause that compels the termination of the MBE/WBE subcontractor.

The Contractor shall comply with the following for replacement of a committed MBE/WBE:

(A) Performance Related Replacement

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

If a replacement MBE/WBE is not found that can perform at least the same amount of work as the terminated MBE/WBE, 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 MBE/WBEs that their interest is solicited in contracting the work defaulted by the previous MBE/WBE or in subcontracting other items of work in the contract.
- (2) Efforts to negotiate with MBE/WBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of MBE/WBEs who were contacted.
 - (b) A description of the information provided to MBE/WBEs regarding the plans and specifications for portions of the work to be performed.
- (3) A list of reasons why MBE/WBE quotes were not accepted.
- (4) Efforts made to assist the MBE/WBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.

(B) Decertification Replacement

- (1) When a committed MBE/WBE is decertified by the Department after the SAF (*Subcontract Approval Form*) has been received by the Department, the Department will not require the Contractor to solicit replacement MBE/WBE 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 but not the overall goal.
 - (i) If the MBE/WBE's ineligibility is caused solely by its having exceeded the size standard during the performance of the contract. The Department may

continue to count participation equal to the remaining work performed by the decertified firm which will count toward the contract goal requirement and overall goal.

- (ii) If the MBE/WBE's ineligibility is caused solely by its acquisition by or merger with a non- MBE/WBE during the performance of the contract. The Department may not continue to count the portion of the decertified firm's performance on the contract remaining toward either the contract goal or the overall goal, even if the Contractor has executed a subcontract with the firm or the Department has executed a prime contract with the MBE/WBE that was later decertified.
- (2) When a committed MBE/WBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named MBE/WBE firm, the Contractor shall take all necessary and reasonable steps to replace the MBE/WBE subcontractor with another MBE/WBE subcontractor to perform at least the same amount of work to meet the Combined MBE/WBE goal requirement. If a MBE/WBE firm is not found to do the same amount of work, a good faith effort must be submitted to NCDOT (see A herein for required documentation).

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 (*DBE Replacement Request*). If the 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 Engineer makes changes that result in the reduction or elimination of work to be performed by a committed MBE/WBE, the Contractor will not be required to seek additional participation. When the Engineer makes changes that result in additional work to be performed by a MBE/WBE based upon the Contractor's commitment, the MBE/WBE shall participate in additional work to the same extent as the MBE/WBE participated in the original contract work.

When the Engineer 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 MBEs/WBEs unless otherwise approved by the Engineer.

When the Engineer 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 MBE/WBE, the Contractor shall seek participation by MBEs/WBEs unless otherwise approved by the Engineer.

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 MBE/WBE, the Contractor shall seek additional participation by MBEs/WBEs equal to the reduced MBE/WBE 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 MBE/WBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving MBE/WBE 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 MBE/WBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the Engineer a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for MBE/WBE credit.

Reporting Minority and Women Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all MBE and WBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the Engineer 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 MBEs/WBEs, 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 further work on future projects until the required information is submitted.

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

At any time, the Engineer can request written verification of subcontractor payments. The Contractor shall report the accounting of payments through the Department's DBE Payment Tracking System.

Failure to Meet Contract Requirements

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

MULTI-YEAR MAINTENANCE CONTRACTS (ID/IQ):

(4-20-21) (Rev. 4-19-22)

SP1 G75

This contract is a multi-year maintenance contract let pursuant to the provisions of N.C. General Statute §136-28.1(b). No minimum quantity of services is guaranteed to be awarded bidders under this contract. In accordance with N.C. General Statute §136-28.1(b), an award in a maintenance contract may be for an amount less but shall not exceed \$5,000,000 per year. No payments in excess of this amount will be disbursed, in accordance with the Statute.

RESTRICTIONS ON ITS EQUIPMENT AND SERVICES:

(11-17-20)

SP01 G090

All telecommunications, video or other ITS equipment or services installed or utilized on this project must be in conformance with **UNIFORM ADMINISTRATIVE REQUIREMENTS, COST PRINCIPLES, AND AUDIT REQUIREMENTS FOR FEDERAL AWARDS 2 CFR, § 200.216 Prohibition on certain telecommunications and video surveillance services or equipment.**

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.

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.

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

SP1 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.

COOPERATION BETWEEN CONTRACTORS:

(7-1-95)(Rev. 1-16-24)

105-7

SP1 G133

The Contractor's attention is directed to Article 105-7 of the Standard Specifications.

The Contractor on this project shall cooperate with the Contractor working within or adjacent to the limits of this project to the extent that the work can be carried out to the best advantage of all concerned.

TWELVE MONTH GUARANTEE:

(7-15-03)

108

SP1 G145

- (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 the Department. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, 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. The Department'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. NCDOT 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 the Department 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.

To ensure uniform application statewide the Division Engineer will forward details regarding the circumstances surrounding any proposed guarantee repairs to the Chief Engineer for review and approval prior to the work being performed.

OUTSOURCING OUTSIDE THE USA:

(9-21-04) (Rev. 5-16-06)

SP1 G150

All work on consultant contracts, services contracts, and construction contracts shall be performed in the United States of America. No work shall be outsourced outside of the United States of America.

Outsourcing for the purpose of this provision is defined as the practice of subcontracting labor, work, services, staffing, or personnel to entities located outside of the United States.

The North Carolina Secretary of Transportation shall approve exceptions to this provision in writing.

APPROVAL OF PERSONNEL

The State shall have the right to approve or reject the project engineer and other supervisory personnel, assigned to a project.

The Engineers or any subcontractor for the Engineers which are employed to provide engineering services for this project shall not engage the services of any person or persons, now in the employment of the State during the time of this agreement, without written consent of the State.

In the event of engagement, the Engineers or their subcontractors shall restrict such person or persons from working on any of the engineers' contracted projects in which the person or persons were formerly involved while employed by the State. This restriction period shall be for the duration of the contracted project with which the person or persons was involved. "Involvement" shall be defined as active participation in any of the following activities:

- Drafting the contract;
- Defining the scope of the contract;
- Selection of the Engineers' firm for services;
- Negotiation of the cost of the contract (including calculating manhours or fees);
- and
- Administration of the contract.

An exception to these terms may be granted when recommended by the Secretary and approved by the Board of Transportation.

Failure to comply with the terms stated above in this section shall be grounds for termination of this contract.

QUALIFIED PRODUCTS

Furnish new equipment, materials, and hardware not specifically shown on the plans as being furnished by the Department. Permanently inscribe the manufacturer's name, model number, serial number, and any additional information needed for proper identification on each piece of equipment housed in a case or housing.

The Department has a signal equipment Qualified Products List (QPL) available for the contractor's use. The OPL web site is:

<http://www.ncdot.org/doh/preconstruct/traffic/ITSS/SMS/qpl/>

Attention is directed to the fact that certain signal and traffic management systems, equipment, material, and hardware are required to be pre-approved on the QPL by the date of advertisement of the project. Equipment, material, and hardware not pre-approved when required will not be allowed for use on the project.

TRAFFIC CONTROL AND WORK ZONE SAFETY

The Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Special Provisions, North Carolina Department of Transportation *Standard Specifications for Roads and Structures*, and the current edition of the *Manual of Uniform Traffic Control Devices* (MUTCD).

The Contractor shall utilize complete and proper traffic controls and traffic control devices during all operations. All traffic control and traffic control devices required for any operation shall be functional and in place prior to the commencement of that operation. Signs for temporary operations shall be removed during periods of inactivity. The Contractor is required to leave the project in a manner that will be safe to the traveling public and which will not impede motorists.

Traffic movements through lane closures on roads with two way traffic shall be controlled by flaggers stationed at each end of the work zone. In situations where sight distance is limited, the Contractor shall provide additional means of controlling traffic, including, but not limited to, two-way radios, pilot vehicles, or additional flaggers. Flaggers shall be competent personnel, adequately trained in flagging procedures, and furnished with proper safety devices and equipment, including, but not limited to, safety vests and stop/slow paddles.

All personnel when working in traffic areas or areas in close proximity to traffic shall wear an approved safety vest, or shirt or jacket and hat or helmet which meets the color requirements of the *Manual of Uniform Traffic Control Devices* (MUTCD).

The Contractor shall comply with all applicable Federal, State, and local laws, ordinances, and regulations governing safety, health, and sanitation, and shall provide all safeguards, safety devices, and protective equipment, and shall take any other needed actions, on his own responsibility that are 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.

Failure to comply with any of the requirements for safety and traffic control of this contract shall result in suspension of work as provided in Article 108-7 of the *Standard Specifications*.

No direct payment shall be made for traffic control and work zone safety items, as they shall be considered incidental to other contract items.

PURCHASE ORDER CONTRACT
Special Provisions

SIGNALS

SPECIFICATIONS FOR SIGNAL WORK

All work shall conform to the signal design plans for the specific intersection if applicable, the Project Special Provisions, the *NC Department of Transportation Standard Specifications for Roads and Structures 2024*, the *North Carolina Department of Transportation Roadway Standards Drawings 2024*, the current edition of the *Manual on Uniform Traffic Control Devices* (MUTCD) as of contract award date. The Contractor is strongly urged to become familiar with the requirements of these specifications.

COORDINATION OF PLANS, TRAFFIC SIGNAL SPECIFICATIONS AND THE EXISTING INTERSECTION OPERATION:

In case of conflict among the Special Provisions, signal design plans, and the *Standard Specifications for Roads and Structures*, the requirements of the Special Provisions shall prevail over the signal design plans and *Standard Specifications for Roads and Structures*, and the signal design plans shall prevail over the *Standard Specifications for Roads and Structures*, unless directed otherwise by the Division Traffic Engineer.

CONTRACTOR'S CERTIFICATION

All work associated with Items 660 thru 710 shall be completed by an IMSA certified Level II signal technician. If the successful bidder does not hold the proper certification to perform this work, he will be required to sublet such work to a properly certified signal technician.

WORK TO BE PERFORMED BY THE CONTRACTOR

Under this contract, the Contractor is to install materials and traffic signal equipment listed on this document at the location(s) identified by the State in the counties listed in the quote document. Work to be performed to include new installations, revisions or modifications to existing signals, to include emergency repair or replacement due to weather related or vehicular damage. All cabinets, heads, hangers, pedestal poles, signs are to be supplied by the State. All other material is to be supplied by the Contractor and is to be on the QPL list

Contractor is to proceed with the installations when notified by the Department.

The Contractor shall furnish any tools and/or installation equipment not specifically shown as being furnished by the State in these Special Provisions.

ELECTRICAL REQUIREMENTS

All contractor supplied electrical materials and all work performed on the project shall meet the latest requirements of the National Electrical Code and all applicable local ordinances.

The Contractor shall comply with all applicable local ordinances and regulations prior to beginning any electrical work. He shall obtain all permits and licenses required by State and local agencies having jurisdiction in his area of work. After the completion of the work, he shall have the work inspected as required by local inspector(s) having jurisdiction in the area and receive written approval of his work from local electrical inspectors after any required inspections.

New service wire of the proper size as prescribed by the *Standard Specifications for Roads and Structures* or the National Electrical Code shall be installed from the new cabinet to the point of service delivery.

MATERIAL AND LABOR

The North Carolina Department of Transportation shall furnish all material except as listed herein. All material furnished by the State shall be new and totally operable at the time of issue to the Contractor. The material to be issued to the Contractor will be located at the following site in Division 8:

Traffic Services Unit
150 DOT Drive
Carthage, NC 28327
Phone: (910) 947-3930

Material may be obtained from this site during the following times: 8:00 am to 10:00 am, Monday thru Friday or at a time and date mutually agreed upon by the Contractor and the site operator. On the contract availability date, or shortly thereafter, the Contractor and NCDOT Traffic Services personnel shall jointly inventory the stated material to insure all items are accounted for. The Contractor will then sign for all the stated material. Upon taking possession of the State furnished material, the Contractor will be responsible for maintaining security of the stated material, obtaining security bonds, insurance, and/or any means deemed necessary to insure security and replacement of the material against loss, theft, vandalism or any other occurrence which would render the equipment inoperative. The State will warrant the material and the equipment with respect to parts and its workmanship necessary for proper operation until final acceptance of the individual intersections.

When, in the opinion of the Engineer, the lack of proper operation (failure) of the material and equipment is due to mis-application, cross-connection, improper wiring, physical abuse or damage, the cost of such repairs as may be necessary to render the equipment operable will be deducted from any money due the Contractor.

UNUSED MATERIALS

All unused materials furnished to the Contractor by the State shall remain the property of the State and shall be returned to the original point of delivery by the Contractor at the completion of the project. No direct payment will be made for the required return of the unused material as it will be considered incidental to work being paid for by the various items of the contract.

1. TRAFFIC SIGNAL SUPPORTS**1.1. METAL TRAFFIC SIGNAL SUPPORTS – ALL POLES****A. General:**

Furnish and install metal strain poles and metal poles with mast arms, grounding systems, and all necessary hardware. The work covered by this special provision includes requirements for the design, fabrication, and installation of both standard and custom/site specifically designed metal traffic signal supports and associated foundations.

Provide metal traffic signal support systems that contain no guy assemblies, struts, or stay braces. Provide designs of completed assemblies with hardware that equals or exceeds *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals* 6th Edition, 2013 (hereafter called 4th Edition AASHTO), including the latest interim specifications. Provide assemblies with a round or near-round (18 sides or more) cross-section, or a multi sided cross section with no less than six sides. The sides may be straight, convex, or concave.

Pole heights shown on signal plans are estimated from available data for bid purposes. Prior to furnishing metal signal poles, use field measurements and adjusted cross-sections to determine whether pole heights are sufficient to obtain required clearances. If pole heights are not sufficient, the Contractor should immediately notify the Engineer of the required revised pole heights.

Ensure that metal signal poles permit cables to be installed inside poles and any required mast arms. For holes in the poles and arms used to accommodate cables, provide full-circumference grommets. Arm flange plate wire access holes should be deburred, non grommets, and oversized to fit around the 2" diameter grommets shaft flange plate wire access hole.

After fabrication, have steel poles, required mast arms, and all parts used in the assembly hot-dip galvanized per section 1076. Design structural assemblies with weep holes large enough and properly located to drain molten zinc during galvanization process. Provide hot-dip galvanizing on structures that meets or exceeds ASTM Standard A-123. Provide galvanizing on hardware that meets or exceeds ASTM Standard A-153. Ensure that threaded material is brushed and retapped as necessary after galvanizing. Perform repair of damaged galvanizing that complies with the following:

Repair of GalvanizingArticle 1076-6

Standard Drawings for Metal Poles are available that supplement these project special provisions. These drawings are located on the Department's website:

<http://www.ncdot.gov/doh/preconstruct/traffic/ITSS/ws/mpoles/poles.html>

Comply with article 1098-1B “General Requirements” of the 2024 *STANDARD SPECIFICATIONS FOR ROADS & STRUCTURES*, hereinafter referred to as the *Standard Specifications* for submittal requirements. Furnish shop drawings for approval. Provide the copies of detailed shop drawings for each type of structure as summarized below. Ensure that shop drawings include material specifications for each component and identify welds by type and size on the drawing details, not in table format. Do not release structures for fabrication until shop drawings have been approved by NCDOT. Provide an itemized bill of materials for all structural components and associated connecting hardware on the drawings.

Comply with article 1098-1A “General Requirements” of the *Standard Specifications* for Qualified Products List (QPL) submittals. All shop drawings must include project location description, signal inventory number(s) and a project number or work order number on the drawings.

Summary of information required for metal pole review submittal:

Item	Hardcopy Submittal	Electronic Submittal	Comments / Special Instructions
Sealed, Approved Signal Plan/Loading Diagram	1	1	All structure design information needs to reflect the latest approved signal plans
Custom Pole Shop Drawings	4 sets	1 set	Submit drawings on 11” x 17” format media Show NCDOT inventory number(s) in or above the title block
Standard Pole Shop Drawings (from the QPL)	4 sets	1 set	Submit drawings on 11” x 17” format media Show NCDOT inventory number(s) in or above the title block
Structure Calculations	1 set	1 set	Not required for Standard QPL Poles
Standard Pole Foundation Drawings	1 set	1 set	Submit drawings on 11” x 17” format media. Submit a completed Standard Foundation Selection form for each pole using foundation table on Metal Pole Drawing M-8.
Custom Foundation Drawings	4 sets	1 set	Submit drawings on 11” x 17” format media. If QPL Poles are used, include the corresponding QPL pole shop drawings with this submittal.
Foundation Calculations	1	1	Not required for Standard QPL Poles
Soil Boring Logs and Report	1	1	Report should include a location plan and a soil classification report including soil capacity, water level, hammer efficiency, soil bearing pressure, soil density, etc. for each pole.

NOTE – All shop drawings and custom foundation design drawings must be sealed by a professional Engineer licensed in the state of North Carolina. All geotechnical information must be sealed by either a Professional Engineer or geologist licensed in the state of North Carolina. Include a title block and revision block on the shop drawings and foundation designs showing the NCDOT inventory number.

Shop drawings and foundation drawings may be submitted together or separately for approval. However, shop drawings must be approved before foundations can be reviewed. Foundation designs will be returned without review if the associated shop drawing has not been approved. Incomplete submittals will be returned without review.

B. Materials:

Fabricate metal pole and arm shaft from coil or plate steel to meet the requirements of ASTM A 595 Grade A tubes. For structural steel shapes, plates and bars use A572 Gr 50 min or ASTM A709 Gr 50 min.. Provide pole and arm shafts that are round in cross section or multisided

tubular shapes and have a uniform linear taper of 0.14 in/ft. Construct shafts from one piece of single ply plate or coil so there are no circumferential weld splices. Galvanize in accordance with AASHTO M 111 and/or ASTM A 123 or an approved equivalent.

Use the submerged arc process or other NCDOT previously approved process suitable for pole shaft and arms to continuously weld pole shafts and arm shafts along their entire length. The longitudinal seam weld will be finished flush to the outside contour of the base metal. Ensure shafts have no circumferential welds except at the lower end joining the shaft to the pole base and arm base. Provide welding that conforms to Article 1072-20 of the *Standard Specifications*, except that no field welding on any part of the pole will be permitted unless approved by a qualified engineer.

Refer to Metal Pole Standard Drawing Sheets M2 through M5 for fabrication details. Fabricate anchor bases from plate steel meeting, as a minimum, the requirements of ASTM A 36M or cast steel meeting the requirements of ASTM A 27M Grade 485-250, AASHTO M270 Gr 36 or an approved equivalent. Conform to the applicable bolt pattern and orientation as shown on Metal Pole Standard Drawing Sheet M2.

Ensure all hardware is galvanized steel or stainless steel. The Contractor is responsible for ensuring that the designer/fabricator specifies connecting hardware and/or materials that do not create a dissimilar metal corrosive reaction.

Unless otherwise required by the design, ensure each anchor rod is 2" diameter and 60" length. Provide 10" minimum thread projection at the top of the rod, and 8" minimum at the bottom of the rod. Use anchor rod assembly and drilled pier foundation materials that meet the *Foundations and Anchor Rod Assemblies for Metal Poles* provision.

For each structural bolt and other steel hardware, hot dip galvanizing shall conform to the requirements of AASHTO M 232 (ASTM A 153). Ensure end caps for poles or mast arms are constructed of cast aluminum conforming to Aluminum Alloy 356.0F.

Provide a circular anchor bolt lock plate that will be secured to the anchor bolts at the embedded end with 2 washers and 2 nuts. Provide a base plate template that matches the bolt circle diameter of the anchor bolt lock plate. Construct plates and templates from 1/4" minimum thick steel with a minimum width of 4". Galvanizing is not required.

Provide 4 heavy hex nuts and 4 flat washers for each anchor bolt. For nuts, use AASHTO M291 grade 2H, DH, or DH3 or equivalent material. For flat washers, use AASHTO M293 or equivalent material.

C. Construction Methods:

Erect signal support poles only after concrete has attained a minimum allowable compressive strength of 3000 psi. Install anchor rod assemblies in accordance with the *Foundations and Anchor Rod Assemblies for Metal Poles* provision.

For further construction methods, see construction methods for Metal Strain Pole, or Metal Pole with Mast Arm.

Connect poles to grounding electrodes and bond them to the electrical service grounding electrodes.

For holes in the poles used to accommodate cables, install grommets before wiring pole or arm. Do not cut or split grommets.

Attach the terminal compartment cover to the pole by a sturdy chain or cable. Ensure the chain or cable is long enough to permit the cover to hang clear of the compartment opening when

the cover is removed, and is strong enough to prevent vandalism. Ensure the chain or cable will not interfere with service to the cables in the pole base.

Attach cap to pole with a sturdy chain or cable. Ensure the chain or cable is long enough to permit the cap to hang clear of the opening when the cap is removed.

Perform repair of damaged galvanizing that complies with the *Standard Specifications*, Article 1076-6 "Repair of Galvanizing."

Install galvanized wire mesh around the perimeter of the base plate to cover the gap between the base plate and top of foundation for debris and pest control.

Install a ¼" thick plate for concrete foundation tag to include: concrete grade, depth, diameter, and reinforcement sizes of the installed foundation.

1.2. METAL STRAIN POLE

A. Materials:

Provide either steel or aluminum poles as indicated on the plans.

Comply with the following for Aluminum Poles:

- Have poles fabricated from Aluminum Association Alloy 6061-T6, 6063-T6, or approved equivalent. The structural requirement does not pertain to castings that are decorative only.
- Have shafts tapered by spinning and cold-working a seamless extruded tube of the aluminum alloy.
- Have shafts with no circumferential welds except at the lower end joining the shaft to the base.
- Ensure aluminum poles are properly protected from damage prior to shipment.
- Have bases of the shaft fabricated in accordance with the Aluminum Association Alloy 356.0-T6, and of adequate strength, shape and size, and capable of withstanding the design load of the shaft.
- Have aluminum surfaces in contact with concrete or dissimilar metal coated with bituminous paint.

Comply with the following for Steel Poles:

- Have shafts of the tapered tubular type and fabricated of steel conforming to ASTM A-595 Grade A or an approved equivalent.
- Have galvanization in accordance with AASHTO M 111 (ASTM A 123).
- Have shafts that are continuously welded for the entire length by the submerged arc process, and with exposed welds ground or rolled smooth and flush with the base metal. Provide welding that conforms to Article 1072-20 per *Standard Specification* except that no field welding on any part of the pole will be permitted.
- Have anchor bases for steel poles fabricated from plate steel meeting as a minimum the requirements of ASTM A 36M or cast steel meeting the requirements of ASTM A 27M Grade 485-250 or an approved equivalent.

For each strain pole, provide 2 messenger cable (span wire) clamps and associated hardware for attachment of support cable of the messenger cable suspension. Ensure that diameter of the

clamp is appropriate to its location on the pole and that the diameter of the clamps is appropriately designed to be adjustable from 1'-6" below the top, down to 6'-6" below the top of the pole. Do not attach more than one support cable to a messenger cable clamp.

For strain poles, provide a minimum of three (3) 2 inch (50 mm) holes equipped with an associated coupling and weather-head on the messenger cable load side of the pole to accommodate passage of signal cables from inside the pole to the suspension. Provide galvanized threaded plugs for all unused couplings at pole entrance points. Refer to Metal Pole Standard Drawing Sheet M3 for fabrication details.

Provide a grounding lug(s) in the approximate vicinity of the messenger cable clamp for bonding and grounding messenger cable. Lugs must accept #4 or #6 AWG wire to bond messenger cables to the pole in order to provide an effective ground fault circuit path. Refer to Metal Pole Standard Drawing Sheet M6 for construction details.

Have poles permanently stamped above the hand holes with the identification tag details as shown on Metal Pole Standard Drawing Sheet M2.

Provide liquid tight flexible metal conduit (Type LFMC), liquid tight flexible nonmetallic conduit (Type LFNC), high density polyethylene conduit (Type HDPE), or approved equivalent to isolate conductors feeding luminaires.

Fabricate poles from a single piece of steel or aluminum with single line seam weld with no transverse butt welds. Fabrication of two ply pole shafts is unacceptable with the exception of fluted shafts. Provide tapers for all shafts that begin at base and that have diameters which decrease uniformly at the rate of not more than 0.14 inch per foot (11.7 millimeters per meter) of length.

Ensure that allowable pole deflection does not exceed that allowed per 4th Edition AASHTO. For messenger cable poles (with primarily transverse loads), ensure that maximum deflection at the top of the pole does not exceed 2.5 percent of the pole height. For mast arm poles (with primarily moment loads), ensure that maximum angular rotation of the top of the pole does not exceed 1° 40'.

Provide four anchor nuts and four washers for each anchor bolt. Ensure that anchor bolts have required diameters, lengths, and positions, and will develop strengths comparable to their respective poles.

Provide a terminal compartment with cover and screws in each pole that encompasses the hand hole and contains a 12-terminal barrier type terminal block. Provide two terminal screws with a removable shorting bar between them for each termination. Furnish terminal compartment covers attached to the pole by a sturdy chain or cable approved by the Engineer. Ensure that the chain or cable is long enough to permit the cover to hang clear of the compartment opening when the cover is removed, and is strong enough to prevent vandals from being able to disconnect the cover from the pole. Ensure that the chain or cable will not interfere with service to the cables in the pole base.

Install grounding lugs that will accept #4 or #6 AWG wire to electrically bond messenger cables to the pole. Refer to Metal Pole Standard Drawing Sheet M6 for construction details.

For each pole, provide a 1/2 inch minimum thread diameter, coarse thread stud and nut for grounding which will accommodate #6 AWG ground wire. Ensure that the lug is electrically bonded to the pole and is conveniently located inside the pole at the hand hole.

Provide a removable pole cap with stainless steel attachment screws for the top of each pole. Ensure that the cap is cast aluminum conforming to Aluminum Association Alloy 356.0F. Furnish cap attached to the pole with a sturdy chain or cable approved by the Engineer. Ensure that the chain or cable is long enough to permit the cap to hang clear of the pole-top opening when the cap is removed.

When required by the plans, furnish couplings 42 inches above the bottom of the base for mounting of pedestrian pushbuttons. Provide mounting points consisting of 1-1/2 inch internally threaded half-couplings that comply with the NEC and that are mounted within the poles. Ensure that couplings are essentially flush with the outside surfaces of the poles and are installed before any required galvanizing. Provide a threaded plug in each mounting point. Ensure that the surface of the plug is essentially flush with the outer end of the mounting point when installed and has a recessed hole to accommodate a standard wrench.

B. Construction Methods:

Install metal poles, hardware, and fittings as shown on the manufacturer's installation drawings. Install metal poles so that when the pole is fully loaded it is within 2 degrees of vertical. Install poles with the manufacturer's recommended "rake." Use threaded leveling nuts to establish rake if required.

1.3. METAL POLE WITH MAST ARM

Provide signal support mast arm assemblies. Comply with the previous Section – Metal Strain Pole – except as noted herein.

Provide pole plates and associated gussets and fittings for attachment of required mast arms. As part of each mast arm attachment, provide a cable passage hole in the pole to allow passage of signal cables from the pole to the arm.

Ensure that allowable mast arm deflection does not exceed that allowed per 4th Edition AASHTO. Also when arm is fully loaded, tip of the arm shall not go below the arm attachment point with the pole for all load conditions per 4th Edition AASHTO.

Furnish all arm plates and necessary attachment hardware, including bolts and brackets.

Provide two extra bolts for each arm.

Provide grommet holes on the arms to accommodate cables for the signals.

Provide arms with weatherproof connections for attaching to the shaft of the pole.

Provide hardware that is galvanized steel, stainless steel, or corrosive-resistant aluminum.

Provide a removable end cap with stainless steel attachment screws for the end of each mast arm. Ensure that the cap is cast aluminum conforming to Aluminum Association Alloy 356.0F. Furnish cap attached to the arm with a sturdy chain or cable approved by the Engineer. Ensure that the chain or cable is long enough to permit the cap to hang clear of the arm end opening when the cap is removed.

Comply with the following for Aluminum Arms:

- Conform to Aluminum Association Alloy 6061-T6, 6063-T6 or approved equivalent.
- Conform to the welding requirements of the aluminum poles.
- Have satin brush finished and furnish individually wrapped.

Comply with the following for Steel Luminaire Arms:

- In addition to tapered tube, luminaire arms may be standard weight black steel pipe conforming to ASTM A 53-90a, Type E or Type S, Grade B or an approved equivalent.
- Conform to the welding requirements of the steel poles.
- After all fabricating, cutting, punching, and welding are completed, luminaire arms should be hot-dipped galvanized inside and outside.
- In accordance with the National Electrical Code (NEC) Article 230.2(E), provide identification of the electrical source provider for the luminaire feeder circuit with contact information on a permanent label located in the pole hand hole in the vicinity of the feeder circuit raceway.

A. Materials:

Fabrication of two ply pole shafts and arms is unacceptable with the exception of fluted members.

After all fabricating, cutting, punching, and welding are completed, hot-dip galvanize the structure in accordance with the AASHTO M 111 or equivalent.

B. Construction Methods:

Install horizontal-type arms with sufficient manufactured rise to keep arm from deflecting below the arm attachment height.

Attach cap to the mast arm with a sturdy chain or cable. Ensure that the chain or cable is long enough to permit the cap to hang clear of the arm opening when the cap is removed.

For mast arm poles, use full penetration welds with back-up ring at the pole base and at the arm base connection.

1.4. DRILLED PIER FOUNDATIONS FOR METAL TRAFFIC SIGNAL POLES

Analysis procedures and formulas shall be based on AASHTO, ACI code and per FHWA manuals. Design methods based on engineering publications or research papers needs to have prior approval from NCDOT. The Department reserves the right to accept or disapprove any method used for the analysis.

Use a Factor of Safety of 1.33 for torsion and 2.0 for bending for the foundation design.

Foundation design for lateral load shall not exceed 1" lateral deflection at top of foundation.

Design all custom foundations to carry the maximum capacity of each metal pole. For standard case strain poles only, if a custom foundation is designed, use the actual moment reactions from the Standard Foundation Selection Table shown on Standard Drawing No. M8.

When poor soil conditions are encountered which could create an excessively large foundation design, consideration may be given to allowing an exemption to the maximum capacity design. The contractor must gain approval from the engineer before reducing a foundation's capacity. On projects where poor soil is known to be present, it is advisable that the contractor consider getting foundations approved before releasing poles for fabrication.

The Contractor shall notify Traffic Services at 910-947-3930 a minimum of two (2) days prior to beginning the installation of foundations in order to arrange for inspection of the footings and concrete. Failure to

notify Traffic Services of the installation of the foundations shall result in the Contractor having to remove and replace the foundations at their expense.

A. Description:

Furnish and install foundations for NCDOT metal poles with all necessary hardware in accordance with the plans and specifications.

Metal Pole Standards have been developed and implemented by NCDOT for use at signalized intersections in North Carolina. If the plans call for a standard pole, then a standard foundation may be selected from the plans. However, the Contractor is not required to use a standard foundation. If the Contractor chooses to design a non-standard site-specific foundation for a standard pole or if the plans call for a non-standard site-specific pole, design the foundation to conform to the applicable provisions in the NCDOT Metal Pole Standards and Section B4 (Non-Standard Foundation Design) below. If non-standard site specific foundations are designed for standard QPL approved strain poles, the foundation designer must use the design moment specified by load case on Metal Pole Standard Drawing Sheet M8. Failure to conform to this requirement will be grounds for rejection of the design.

If the Contractor chooses to design a non-standard foundation for a standard pole and the soil test results indicate a standard foundation is feasible for the site, the Contractor will be paid the cost of the standard foundation (drilled pier and wing wall, if applicable). Any additional costs associated with a non-standard site-specific foundation including additional materials, labor and equipment will be considered incidental to the cost of the standard foundation. All costs for the non-standard foundation design will also be considered incidental to the cost of the standard foundation.

B. Soil Test and Foundation Determination:

General:

Drilled piers are reinforced concrete sections, cast-in-place against in situ, undisturbed material. Drilled piers are of straight shaft type and vertical.

Some standard drilled piers for supporting poles with mast arms may require wing walls to resist torsional rotation. Based upon this provision and the results of the required soil test, a drilled pier length and wing wall requirement may be determined and constructed in accordance with the plans.

For non-standard site-specific poles, the contractor-selected pole fabricator will determine if the addition of wing walls is necessary for the supporting foundations.

2. Soil Test:

Perform a soil test at each proposed metal pole location. Complete all required fill placement and excavation at each signal pole location to finished grade before drilling each boring. Soil tests performed that are not in compliance with this requirement may be rejected and will not be paid. Drill one boring to a depth of 26 feet within a 25 foot radius of each proposed foundation.

Perform standard penetration tests (SPT) in accordance with ASTM D 1586 at depths of 1, 2.5, 5, 7.5, 10, 15, 20 and 26 feet. Discontinue the boring if one of the following occurs:

- A total of 100 blows have been applied in any 2 consecutive 6-in. intervals.
- A total of 50 blows have been applied with < 3-in. penetration.

Describe each intersection as the “Intersection of (Route or SR #), (Street Name) and (Route or SR #), (Street Name), _____ County, Signal Inventory No. _____”. Label borings with “B-N, S, E, W, NE, NW, SE or SW” corresponding to the quadrant location within the intersection.

Pole numbers should be made available to the Drill Contractor. Include pole numbers in the boring label if they are available. If they are not available, ensure the boring labels can be cross-referenced to corresponding pole numbers. For each boring, submit a legible (hand written or typed) boring log signed and sealed by a licensed Geologist or Professional Engineer registered in North Carolina. Include on each boring the SPT blow counts and N-values at each depth, depth of the boring, and a general description of the soil types encountered.

3. Standard Foundation Determination:

Use the following method for determining the Design N-value:

$$N_{AVG} = \frac{(N@1' + N@2.5' + \dots + N@Deepest \text{ Boring Depth})}{\text{Total Number of N-values}}$$

$$Y = (N@1')^2 + (N@2.5')^2 + \dots + (N@Deepest \text{ Boring Depth})^2$$

$$Z = (N@1' + N@2.5' + \dots + N@Deepest \text{ Boring Depth})$$

$$N_{STD \text{ DEV}} = \left[\frac{(\text{Total Number of N-values} \times Y) - Z^2}{(\text{Total Number of N-values}) \times (\text{Total Number of N-values} - 1)} \right]^{0.5}$$

Design N-value equals lesser of the following two conditions:

$$N_{AVG} - (N_{STD \text{ DEV}} \times 0.45)$$

Or

$$\text{Average of First Four N-Values} = \frac{(N@1' + N@2.5' + N@5' + N@7.5')}{4}$$

Note: If less than 4 N-values are obtained because of criteria listed in Section 2 above, use average of N-values collected for second condition. Do not include the N-value at the deepest boring depth for above calculations if the boring is discontinued at or before the required boring depth because of criteria listed in Section 2 above. Use N-value of zero for weight of hammer or weight of rod. If N-value is greater than 50, reduce N-value to 50 for calculations.

If standard NCDOT strain poles are shown on the plans and the Contractor chooses to use standard foundations, determine a drilled pier length, "L," for each signal pole from the Standard Foundations Chart (sheet M 8) based on the Design N-value and the predominant soil type. For each standard pole location, submit a completed "Metal Pole Standard Foundation Selection Form" signed by the Contractor's representative. Signature on form is for verification purposes only. Include the Design N-value calculation and resulting drilled pier length, "L," on each form.

If non-standard site-specific poles are shown on the plans, submit completed boring logs collected in accordance with Section 2 (Soil Test) above along with pole loading diagrams from the plans to the contractor-selected pole fabricator to assist in the pole and foundation design.

If one of the following occurs, the Standard Foundations Chart shown on the plans may not be used and a non-standard foundation may be required. In such case, contact the Engineer.

- The Design N-value is less than 4.
- The drilled pier length, "L", determined from the Standard Foundations Chart, is greater than the depth of the corresponding boring.

In the case where a standard foundation cannot be used, the Department will be responsible for the additional cost of the non-standard foundation.

Foundation designs are based on level ground around the traffic signal pole. If the slope around the edge of the drilled pier is steeper than 8:1 (H:V) or the proposed foundation will be

less than 10 feet from the top of an embankment slope, the Contractor is responsible for providing slope information to the foundation designer and to the Engineer so it can be considered in the design.

The “Metal Pole Standard Foundation Selection Form” may be found at:

<http://www.ncdot.gov/doh/preconstruct/highway/geotech/formdet/misc/MetalPole.pdf>

If assistance is needed, contact the Engineer.

4. Non-Standard Foundation Design:

Design non-standard foundations based upon site-specific soil test information collected in accordance with Section 2 (Soil Test) above. Design drilled piers for side resistance only in accordance with Section 4.6 of the *AASHTO Standard Specifications for Highway Bridges*. Use the computer software LPILE version 5.0 or later manufactured by Ensoft, Inc. to analyze drilled piers. Use the computer software gINT version 8.0 or later manufactured by Bentley Systems, Inc. with the current NCDOT gINT library and data template to produce SPT boring logs. Provide a drilled pier foundation for each pole with a length and diameter that result in a horizontal lateral movement of less than 1 inch at the top of the pier and a horizontal rotational movement of less than 1 inch at the edge of the pier. Contact the Engineer for pole loading diagrams for standard poles to be used for non-standard foundation designs. Submit any non-standard foundation designs including drawings, calculations, and soil boring logs to the Engineer for review and approval before construction.

C. Drilled Pier Construction:

Construct drilled pier foundations in accordance with the *Foundations and Anchor Rod Assemblies for Metal Poles* provision.

1.5. CUSTOM DESIGN OF TRAFFIC SIGNAL SUPPORTS

A. General:

Design traffic signal supports with foundations consisting of metal strain poles or metal poles with mast arms.

The lengths of the metal signal poles shown on the plans are estimated from available data for bid purposes. Determine the actual length of each pole from field measurements and adjusted cross-sections. Furnish the revised pole heights to the Engineer. Use all other dimensional requirements shown on the plans.

Ensure each pole includes an identification tag with information and location positions as defined on Metal Pole Standard Drawing Sheets M2, M3 and M4. All pole shaft tags must include the NCDOT Inventory number followed by the pole number shown on the traffic signal or ITS (non-signalized locations) plan.

Design all traffic signal support structures using the following 4th Edition AASHTO specifications:

- Design for a 50 year service life as recommended by Table 3-3.
- Use the wind pressure map developed from 3-second gust speeds, as provided in Article 3.8.
- Ensure signal support structures include natural wind gust loading and truck-induced gust loading in the fatigue design, as provided for in Articles 11.7.3 and 11.7.4, respectively. Designs need not consider periodic galloping forces.

- Assume the natural wind gust speed in North Carolina is 11.2 mph. For natural wind fatigue stress calculations, utilize a drag coefficient (C_d) computed for 11.2 mph wind velocity and not the basic wind speed velocity.
- Design for Category II fatigue, as provided for in Article 11.6, unless otherwise specified.
- Calculate all stresses using applicable equations from Section 5. The Maximum allowable stress ratios for all signal support designs are 0.9.
- Conform to article 10.4.2 and 11.8 for all deflection requirements.

Ensure that the design permits cables to be installed inside poles and mast arms.

Unless otherwise specified by special loading criteria, the computed surface area for ice load on signal heads is:

- 3-section, 12-inch, Surface area: 26.0 ft² (17.0 ft² without back plate)
- 4-section, 12-inch, Surface area: 32.0 ft² (21.0 ft² without back plate)
- 5-section, 12-inch, Surface area: 42.0 ft² (29.0 ft² without back plate)

The ice loading for signal heads defined above includes the additional surface area that back plates will induce. Special loading criteria may be specified in instances where back plates will not be installed on signal heads. Refer to the Loading Schedule on each Metal Pole Loading Diagram for revised signal head surface areas. The pole designer should revise ice loads accordingly in this instance. Careful examination of the plans when this is specified is important as this may impact sizing of the metal support structure and foundation design which could affect proposed bid quotes. All maximum stress ratios of 0.9 still apply.

Assume the combined minimum weight of a messenger cable bundle (including messenger cable, signal cable and detector lead-in cables) is 1.3 lbs/ft. Assume the combined minimum diameter of this cable bundle is 1.3 inches.

Ensure that designs provide a removable pole cap with stainless steel attachment screws for each pole top and mast arm end.

B. Metal Poles:

Submit design drawings for approval including pre-approved QPL pole drawings. Show all the necessary details and calculations for the metal poles including the foundation and connections. Include signal inventory number on design drawings. Include as part of the design calculations the ASTM specification numbers for the materials to be used. Provide the types and sizes of welds on the design drawings. Include a Bill of Materials on design drawings. Ensure design drawings and calculations are signed, dated, and sealed by the responsible professional engineer licensed in the state of North Carolina. Immediately bring to the attention of the Engineer any structural deficiency that becomes apparent in any assembly or member of any assembly as a result of the design requirements imposed by these specifications, the plans, or the typical drawings. Said Professional Engineer is wholly responsible for the design of all poles and arms. Review and acceptance of these designs by the Department does not relieve the said Professional Engineer of his responsibility. Do not fabricate the assemblies until receipt of the Department's approval of the design drawings.

For mast arm poles, provide designs with provisions for pole plates and associated gussets and fittings for mast arm attachment. As part of each mast arm attachment, provide a grommeted 2" diameter hole on the shaft side of the connection to allow passage of the signal cables from the pole to the arm.

Where ice is present, assume wind loads as shown in Figure 3-5 of the 4th Edition AASHTO Specification for Group III loading.

For each strain pole, provide two messenger cable clamps and associated hardware to attach the messenger support cable. Ensure that the diameter of the clamps is appropriately designed to be adjustable from 18 inches below the top, down to 6'-6" below the top of the pole. Do not attach more than one messenger support cable to a messenger cable clamp.

Provide a grounding lug(s) in the approximate vicinity of the messenger cable clamp for bonding and grounding messenger cable. Lugs must accept #4 or #6 AWG wire to bond messenger cables to the pole in order to provide an effective ground fault circuit path. Refer to Metal Pole Standard Drawing Sheet M6 for construction details.

Design tapers for all pole shafts that begin at the base with diameters that decrease uniformly at the rate of 0.14 inch per foot of length.

Design a base plate on each pole. The minimum base plate thickness for all poles is determined by the following criteria:

Case 1 Circular or rectangular solid base plate with the upright pole welded to the top surface of base plate with full penetration butt weld, and where no stiffeners are provided. A base plate with a small center hole, which is less than 1/3 of the upright diameter, and located concentrically with the upright pole, may be considered as a solid base plate.

The magnitude of bending moment in the base plate, induced by the anchoring force of each anchor bolt is $M = (P \times D_1) / 2$, where

M = bending moment at the critical section of the base plate induced by one anchor bolt

P = anchoring force of each anchor bolt

D_1 = horizontal distance between the anchor bolt center and the outer face of the upright, or the difference between the bolt circle radius and the outside radius of the upright

Locate the critical section at the face of the anchor bolt and perpendicular to the bolt circle radius. The overlapped part of two adjacent critical sections is considered ineffective.

Case 2 Circular or rectangular base plate with the upright pole socketed into and attached to the base plate with two lines of fillet weld, and where no stiffeners are provided, or any base plate with a center hole that is larger in diameter than 1/3 of the upright diameter.

The magnitude of bending moment induced by the anchoring force of each anchor bolt is $M = P \times D_2$,

where P = anchoring force of each anchor bolt

D_2 = horizontal distance between the face of the upright and the face of the anchor bolt nut

Locate the critical section at the face of the anchor bolt top nut and perpendicular to the radius of the bolt circle. The overlapped part of two adjacent critical sections is considered ineffective.

If the base plate thickness calculated for Case 2 is less than Case 1, use the thickness calculated for Case 1.

The following additional owner requirements apply concerning pole base plates.

- Ensure that whichever case governs as defined above, the anchor bolt diameter is set to match the base plate thickness. If the minimum diameter required for the anchor bolt exceeds the thickness required for the base plate, set the base plate thickness equal to the required bolt diameter.

- For dual mast arm supports, or for single mast arm supports 50' or greater, use a minimum 8 bolt orientation with 2" diameter anchor bolts, and a 2" thick base plate.
- For all metal poles with mast arms, use a full penetration groove weld with a backing ring to connect the pole upright component to the base. Refer to Metal Pole Standard Drawing Sheet M4.

Ensure that designs have anchor bolt holes with a diameter 1/4 inch larger than the anchor bolt diameters in the base plate.

Ensure that the anchor bolts have the required diameters, lengths, and positions, and will develop strengths comparable to their respective poles.

Provide designs with a 6 x 12-inch hand hole with a reinforcing frame for each pole.

Provide designs with a terminal compartment with cover and screws in each pole that encompasses the hand hole and contains provisions for a 12-terminal barrier type terminal block.

For each pole, provide designs with provisions for a 1/2 inch minimum thread diameter, coarse thread stud and nut for grounding which will accommodate a #6 AWG ground wire. Ensure the lug is electrically bonded to the pole and is conveniently located inside the pole at the hand hole.

When required, design couplings on the pole for mounting pedestrian pushbuttons at a height of 42 inches above the bottom of the base. Provide mounting points consisting of 1-1/2 inch internally threaded half-couplings that comply with the NEC that are mounted within the poles. Ensure the couplings are essentially flush with the outside surfaces of the poles and are installed before any required galvanizing. Provide a threaded plug for each half coupling. Ensure that the surface of the plug is essentially flush with the outer end of the mounting point when installed and has a recessed hole to accommodate a standard wrench.

C. Mast Arms:

Design all arm plates and necessary attachment hardware, including bolts and brackets as required by the plans.

Design for grommets holes on the arms to accommodate the cables for the signals if specified.

Design arms with weatherproof connections for attaching to the shaft of the pole.

Always use a full penetration groove weld with a backing ring to connect the mast arm to the pole. Refer to Metal Pole Standard Drawing Sheet M5.

Capacity of tapped flange plate must be sufficient to develop the full capacity of the connecting bolts. In all cases the flange plate of both arm and shaft must be at least as thick as the arm connecting bolts are in diameter.

1.6. METAL SIGNAL POLE REMOVALS

A. Description:

Remove and dispose of existing metal signal poles including mast arms, and remove and dispose of existing foundations, associated anchor bolts, electrical wires and connections.

B. Construction Methods:

Foundations:

Remove and promptly dispose of the metal signal pole foundations including reinforcing steel, electrical wires, and anchor bolts to a minimum depth of two feet below the finished ground elevation. At the Contractor's option, remove the complete foundation.

2. Metal Poles:

Assume ownership of the metal signal poles, remove the metal signal poles, and promptly transport the metal signal poles from the project. Use methods to remove the metal signal poles and attached traffic signal equipment that will not result in damage to other portions of the project or facility. Repair damages that are a result of the Contractor's actions at no additional cost to the Department.

Transport and properly dispose of the materials.

Backfill and compact disturbed areas to match the finished ground elevation. Seed unpaved areas.

Use methods to remove the foundations that will not result in damage to other portions of the project or facility. Repair damages that are a result of the Contractor's actions at no cost to the Department.

1.7. POLE NUMBERING SYSTEM**A. New Poles**

Attach an identification tag to each pole shaft and mast arm section as shown on Metal Pole Standard Drawing Sheet M2 "Typical Fabrication Details Common To All Metal Poles".

B. Reused Poles

Do not remove the original identification tag(s) from the pole shaft and/or mast arm sections. Add a new identification tag based on the new location for any reused poles and/or mast arms.

1.8. REUSED POLE SHAFTS AND/OR MAST ARMS

Provide shop drawings along with new foundation designs for review and approval prior to furnishing and/or installing any reused metal poles and/or mast arms. Use the same requirements as specified for new materials as stated above in these Special Provisions.

For reused pole shaft and mast arm combinations, it is preferable to use the original shafts and arms that were used together at the time of original installation.

1.9. MEASUREMENT AND PAYMENT

Actual number of metal strain signal poles (without regard to height or load capacity) furnished, installed and accepted.

Actual number of metal poles with single mast arms furnished, installed, and accepted.

Actual number of metal poles with dual mast arms furnished, installed, and accepted.

Actual number of soil tests with SPT borings drilled furnished and accepted.

Actual linear feet of drilled pier foundation furnished, installed and accepted.

Actual linear feet of foundations with wing walls furnished, installed and accepted.

Actual number of designs for metal strain poles furnished and accepted.

Actual number of designs for mast arms with metal poles furnished and accepted.

Actual number of metal signal pole foundations removed and disposed.

Actual number of metal signal poles removed and disposed.

No measurement will be made for foundation designs prepared with metal pole designs, as these will be considered incidental to designing signal support structures.

Payment will be made under:

Install metal strain poles furnished by NCDOT	Each
Install metal pole w/mast arms furnished by NCDOT	Each
Furnish & install metal strain pole Case S26L1	Each
Furnish & install metal strain pole Case S30L1	Each
Furnish & install metal strain pole Case S35L1	Each
Furnish & install metal strain pole Case S30H1	Each
Furnish & install metal strain pole Case S35H1	Each
Furnish & install metal mast arm support pole for one mast arm	Each
Furnish & install metal mast arm support pole for two mast arm	Each
Furnish & install mast arm up to 30 LFT	Each
Furnish & install mast arm over 30 LFT	Each
Soil Test	Each
Drilled pier foundation	Linear Foot
Drilled pier foundation with wing walls	Linear Foot
Removal of foundation for metal poles	Each

FOUNDATIONS AND ANCHOR ROD ASSEMBLIES FOR METAL POLES:

(1-17-12) (Rev. 1-16-18)

9, 14, 17

SP9 R05

Description

Foundations for metal poles include foundations for signals, cameras, overhead and dynamic message signs (DMS) and high mount and light standards supported by metal poles or upright trusses. Foundations consist of footings with pedestals and drilled piers with or without grade beams or wings. Anchor rod assemblies consist of anchor rods (also called anchor bolts) with nuts and washers on the exposed ends of rods and nuts and a plate or washers on the other ends of rods embedded in the foundation.

Construct concrete foundations with the required resistances and dimensions and install anchor rod assemblies in accordance with the contract and accepted submittals. Construct drilled piers consisting of cast-in-place reinforced concrete cylindrical sections in excavated holes. Provide temporary casings or polymer slurry as needed to stabilize drilled pier excavations. Use a prequalified Drilled Pier Contractor to construct drilled piers for metal poles. Define “excavation” and “hole” as a drilled pier excavation and “pier” as a drilled pier.

This provision does not apply to foundations for signal pedestals; see Section 1743 of the *2024 Standard Specifications* and 2024 Roadway Standard Drawing No. 1743.01.

Materials

Refer to the *2024 Standard Specifications*.

Item	Section
Conduit	1091-3
Grout, Type 2	1003
Polymer Slurry	411-2(B)(2)
Portland Cement Concrete	1000
Reinforcing Steel	1070
Rollers and Chairs	411-2(C)
Temporary Casings	411-2(A)

Provide Type 3 material certifications in accordance with Article 106-3 of the *2024 Standard Specifications* for conduit, rollers, chairs and anchor rod assemblies. Store steel materials on blocking at least 12" above the ground and protect it at all times from damage; and when placing in the work make sure it is free from dirt, dust, loose mill scale, loose rust, paint, oil or other foreign materials. Load, transport, unload and store foundation and anchor rod assembly materials so materials are kept clean and free of damage. Bent, damaged or defective materials will be rejected.

Use conduit type in accordance with the contract. Use Class A concrete for footings and pedestals, Class Drilled Pier concrete for drilled piers and Class AA concrete for grade beams and wings including portions of drilled piers above bottom of wings elevations. Corrugated temporary casings may be accepted at the discretion of the Engineer. A list of approved polymer slurry products is available from:

connect.ncdot.gov/resources/Geological/Pages/Products.aspx

Provide anchor rod assemblies in accordance with the contract consisting of the following:

- (A) Straight anchor rods,
- (B) Heavy hex top and leveling nuts and flat washers on exposed ends of rods, and
- (C) Nuts and either flat plates or washers on the other ends of anchor rods embedded in foundations.

Do not use lock washers. Use steel anchor rods, nuts and washers that meet ASTM F1554 for Grade 55 rods and Grade A nuts. Use steel plates and washers embedded in concrete with a thickness of at least 1/4". Galvanize anchor rods and exposed nuts and washers in accordance with Article 1076-4 of the *2024 Standard Specifications*. It is not necessary to galvanize nuts, plates and washers embedded in concrete.

Construction Methods

Install the required size and number of conduits in foundations in accordance with the plans and accepted submittals. Construct top of piers, footings, pedestals, grade beams and wings flat, level and within 1" of elevations shown in the plans or approved by the Engineer. Provide an

Ordinary Surface finish in accordance with Subarticle 825-6(B) of the *2024 Standard Specifications* for portions of foundations exposed above finished grade. Do not remove anchor bolt templates or pedestal or grade beam forms or erect metal poles or upright trusses onto foundations until concrete attains a compressive strength of at least 3,000 psi.

(A) Drilled Piers

Before starting drilled pier construction, hold a predrill meeting to discuss the installation, monitoring and inspection of the drilled piers. Schedule this meeting after the Drilled Pier Contractor has mobilized to the site. The Resident or Division Traffic Engineer, Contractor and Drilled Pier Contractor Superintendent will attend this predrill meeting.

Do not excavate holes, install piles or allow equipment wheel loads or vibrations within 20 ft of completed piers until 16 hours after Drilled Pier concrete reaches initial set.

Check for correct drilled pier alignment and location before beginning drilling. Check plumbness of holes frequently during drilling.

Construct drilled piers with the minimum required diameters shown in the plans. Install piers with tip elevations no higher than shown in the plans or approved by the Engineer.

Excavate holes with equipment of the sizes required to construct drilled piers. Depending on the subsurface conditions encountered, drilling through rock and boulders may be required. Do not use blasting for drilled pier excavations.

Contain and dispose of drilling spoils and waste concrete as directed and in accordance with Section 802 of the *2024 Standard Specifications*. Drilling spoils consist of all materials and fluids removed from excavations.

If unstable, caving or sloughing materials are anticipated or encountered, stabilize holes with temporary casings and/or polymer slurry. Do not use telescoping temporary casings. If it becomes necessary to replace a temporary casing during drilling, backfill the excavation, insert a larger casing around the casing to be replaced or stabilize the excavation with polymer slurry before removing the temporary casing.

If temporary casings become stuck or the Contractor proposes leaving casings in place, temporary casings should be installed against undisturbed material. Unless otherwise approved, do not leave temporary casings in place for mast arm poles and cantilever signs. The Engineer will determine if casings may remain in place. If the Contractor proposes leaving temporary casings in place, do not begin drilling until a casing installation method is approved.

Use polymer slurry and additives to stabilize holes in accordance with the slurry manufacturer's recommendations. Provide mixing water and equipment suitable for polymer slurry. Maintain the required slurry properties at all times except for sand content.

Define a “sample set” as slurry samples collected from mid-height and within 2 ft of the bottom of holes. Take sample sets from excavations to test polymer slurry immediately after filling holes with slurry, at least every 4 hours thereafter and immediately before placing concrete. Do not place Drilled Pier concrete until both slurry samples from an excavation meet the required polymer slurry properties. If any slurry test results do not meet the requirements, the Engineer may suspend drilling until both samples from a sample set meet the required polymer slurry properties.

Remove soft and loose material from bottom of holes using augers to the satisfaction of the Engineer. Assemble rebar cages and place cages and Drilled Pier concrete in accordance with Subarticle 411-4(E) of the *2024 Standard Specifications* except for the following:

- (1) Inspections for tip resistance and bottom cleanliness are not required,
- (2) Temporary casings may remain in place if approved, and
- (3) Concrete placement may be paused near the top of pier elevations for anchor rod assembly installation and conduit placement or
- (4) If applicable, concrete placement may be stopped at bottom of grade beam or wings elevations for grade beam or wing construction.

If wet placement of concrete is anticipated or encountered, do not place Drilled Pier concrete until a concrete placement procedure is approved. If applicable, temporary casings and fluids may be removed when concrete placement is paused or stopped in accordance with the exceptions above provided holes are stable. Remove contaminated concrete from exposed Drilled Pier concrete after removing casings and fluids. If holes are unstable, do not remove temporary casings until a procedure for placing anchor rod assemblies and conduit or constructing grade beams or wings is approved.

Use collars to extend drilled piers above finished grade. Remove collars after Drilled Pier concrete sets and round top edges of piers.

If drilled piers are questionable, pile integrity testing (PIT) and further investigation may be required in accordance with Article 411-5 of the *2024 Standard Specifications*. A drilled pier will be considered defective in accordance with Subarticle 411-5(D) of the *2024 Standard Specifications* and drilled pier acceptance is based in part on the criteria in Article 411-6 of the *2024 Standard Specifications* except for the top of pier tolerances in Subarticle 411-6(C) of the *2024 Standard Specifications*.

If a drilled pier is under further investigation, do not grout core holes, backfill around the pier or perform any work on the drilled pier until the Engineer accepts the pier. If the drilled pier is accepted, dewater and grout core holes and backfill around the pier with approved material to finished grade. If the Engineer determines a pier is unacceptable, remediation is required in accordance with Article 411-6 of the *2024 Standard Specifications*. No extension of completion date or time will be allowed for remediation of unacceptable drilled piers or post repair testing.

Permanently embed a plate in or mark top of piers with the pier diameter and depth, size and number of vertical reinforcing bars and the minimum compressive strength of the concrete mix at 28 days.

(B) Footings, Pedestals, Grade Beams and Wings

Excavate as necessary for footings, grade beams and wings in accordance with the plans, accepted submittals and Section 410 of the *2024 Standard Specifications*. If unstable, caving or sloughing materials are anticipated or encountered, shore foundation excavations as needed with an approved method. Notify the Engineer when foundation excavation is complete. Do not place concrete or reinforcing steel until excavation dimensions and foundation material are approved.

Construct cast-in-place reinforced concrete footings, pedestals, grade beams and wings with the dimensions shown in the plans and in accordance with Section 825 of the *2024 Standard Specifications*. Use forms to construct portions of pedestals and grade beams protruding above finished grade. Provide a chamfer with a 3/4" horizontal width for pedestal and grade beam edges exposed above finished grade. Place concrete against undisturbed soil or backfill and fill in accordance with Article 410-8 of the *2024 Standard Specifications*. Proper compaction around footings and wings is critical for foundations to resist uplift and torsion forces.

(C) Anchor Rod Assemblies

Size anchor rods for design and the required projection above top of foundations. Determine required anchor rod projections from nut, washer and base plate thicknesses, the protrusion of 3 to 5 anchor rod threads above top nuts after tightening and the distance of one nut thickness between top of foundations and bottom of leveling nuts.

Protect anchor rod threads from damage during storage and installation of anchor rod assemblies. Before placing anchor rods in foundations, turn nuts onto and off rods past leveling nut locations. Turn nuts with the effort of one workman using an ordinary wrench without a cheater bar. Report any thread damage to the Engineer that requires extra effort to turn nuts.

Arrange anchor rods symmetrically about center of base plate locations as shown in the plans. Set anchor rod elevations based on required projections above top of foundations. Securely brace and hold rods in the correct position, orientation and alignment with a steel template. Do not weld to reinforcing steel, temporary casings or anchor rods.

Install top and leveling (bottom) nuts, washers and the base plate for each anchor rod assembly in accordance with the following procedure:

- (1) Turn leveling nuts onto anchor rods to a distance of one nut thickness between the top of foundation and bottom of leveling nuts. Place washers over anchor rods on top of leveling nuts.
- (2) Determine if nuts are level using a flat rigid template on top of washers. If necessary, lower leveling nuts to level the template in all directions or

if applicable, lower nuts to tilt the template so the metal pole or upright truss will lean as shown in the plans. If leveling nuts and washers are not in full contact with the template, replace washers with galvanized beveled washers.

- (3) Verify the distance between the foundation and leveling nuts is no more than one nut thickness.
- (4) Place base plate with metal pole or upright truss over anchor rods on top of washers. High mount luminaires may be attached before erecting metal poles but do not attach cables, mast arms or trusses to metal poles or upright trusses at this time.
- (5) Place washers over anchor rods on top of base plate. Lubricate top nut bearing surfaces and exposed anchor rod threads above washers with beeswax, paraffin or other approved lubricant.
- (6) Turn top nuts onto anchor rods. If nuts are not in full contact with washers or washers are not in full contact with the base plate, replace washers with galvanized beveled washers.
- (7) Tighten top nuts to snug-tight with the full effort of one workman using a 12" wrench. Do not tighten any nut all at once. Turn top nuts in increments. Follow a star pattern cycling through each nut at least twice.
- (8) Repeat (7) for leveling nuts.
- (9) Replace washers above and below the base plate with galvanized beveled washers if the slope of any base plate face exceeds 1:20 (5%), any washer is not in firm contact with the base plate or any nut is not in firm contact with a washer. If any washers are replaced, repeat (7) and (8).
- (10) With top and leveling nuts snug-tight, mark each top nut on a corner at the intersection of 2 flats and a corresponding reference mark on the base plate. Mark top nuts and base plate with ink or paint that is not water-soluble. Use the turn-of-nut method for pretensioning. Do not pretension any nut all at once. Turn top nuts in increments for a total turn that meets the following nut rotation requirements:

NUT ROTATION REQUIREMENTS (Turn-of-Nut Pretensioning Method)	
Anchor Rod Diameter, inch	Requirement
$\leq 1 \frac{1}{2}$	1/3 turn (2 flats)
$> 1 \frac{1}{2}$	1/6 turn (1 flat)

Follow a star pattern cycling through each top nut at least twice.

- (11) Ensure nuts, washers and base plate are in firm contact with each other for each anchor rod. Cables, mast arms and trusses may now be attached to metal poles and upright trusses.
- (12) Between 4 and 14 days after pretensioning top nuts, use a torque wrench calibrated within the last 12 months to check nuts in the presence of the Engineer. Completely erect mast arm poles and cantilever signs and attach any hardware before checking top nuts for these structures. Check that top nuts meet the following torque requirements:

TORQUE REQUIREMENTS	
Anchor Rod Diameter, inch	Requirement, ft-lb
7/8	180

1	270
1 1/8	380
1 1/4	420
$\geq 1\ 1/2$	600

If necessary, retighten top nuts in the presence of the Engineer with a calibrated torque wrench to within ± 10 ft-lb of the required torque. Do not overtighten top nuts.

- (13) Do not grout under base plate.

Measurement and Payment

Foundations and anchor rod assemblies for metal poles and upright trusses will be measured and paid for elsewhere in the contract.

No payment will be made for temporary casings that remain in drilled pier excavations. No payment will be made for PIT. No payment will be made for further investigation of defective piers. Further investigation of piers that are not defective will be paid as extra work in accordance with Article 104-7 of the *2024 Standard Specifications*. No payment will be made for remediation of unacceptable drilled piers or post repair testing.

CABINET

All wires shall be pulled into cabinet(s) and have sufficient length for proper connection (approximately seventy-two inches (72'') for both pole and base mount cabinets). These wires shall be identified by permanent labels. Electrical connections in cabinet shall be done by the Contractor.

All cabinets shall be installed with the back of the cabinet facing the roadway. The Engineer or Inspector shall approve all cabinet locations.

GROUNDING AND BONDING OF CABINETS AND POLES

All traffic signal cabinets, metal poles, wood poles and electrical service shall be grounded and bonded as per the North Carolina Department of Transportation *Standard Specifications for Roads and Structures*.

DISTANCE FROM UTILITIES

The Contractor shall maintain minimum clearances from existing utilities as required by the utility having jurisdiction over the pole to which the conductor's conduit, etc. are attached by the Contractor.

IDENTIFYING AND TAGGING OF CONTROLLER CABINET WIRING

All wires which are to be connected to the controller and/or cabinet shall be identified and tagged. All unused wires shall be labeled as spares.

No direct payment will be made for the required identifying and tagging of these wires as it will be considered incidental to work being paid for by the various cable installation items of the contract.

SPLICING OF SIGNAL AND DETECTOR LEAD-IN WIRES

All splices of signal lead-in wires shall be made inside the signal heads. All splices of detector lead-in wires shall be made in junction boxes as shown in the Traffic Signal Specifications or as allowed by the Engineer. Pole mounted junction boxes to be installed by the Contractor.

No direct payment will be made for the required splicing of these wires as it will be considered incidental to work being paid for by the various items of the contract.

BASE-MOUNTED CABINET CONCRETE PADS

Concrete used in the cabinet bases shall be "Class A" Concrete per the North Carolina Department of Transportation *Standard Specifications for Roads and Structures*, the North Carolina Department of Transportation *Roadway Standards Drawings*. Contractor has the option of providing preformed concrete cabinet pads.

The soil on which the concrete is to be placed shall be hand tamped before placement of the concrete.

All concrete shall be properly cured a minimum of 24 hours before installing the new cabinet.

The Contractor shall also be required to install the necessary masonry anchors and lag bolts to secure the new controller cabinet to the concrete base.

FINAL ACCEPTANCE OF WORK FOR PAYMENT

Payment may be made upon completion of all construction at each location as called for in these Special Provisions, intersection design plans and the *Standard Specifications*. After the signals have been inspected and approved if applicable, a thirty-day observation period may be required upon written notification to the Contractor by the Engineer.

The purpose of this observation period is to assess the adequacy of the installation and operation of the equipment. During this thirty-day observation period, the Contractor shall repair any defects in the installation work of the traffic signals performed by the Contractor, and make any adjustments deemed necessary by the Engineer. During this observation period the Contractor shall repair or replace any material and equipment furnished by him that becomes defective, lost, or damaged. The Contractor shall also, during the observation period, replace with State supplied material or equipment any defective material and equipment originally furnished by the State. Should any failures occur during this observation period, the Contractor shall begin to make necessary repairs within four (4) hours of notification. **Failure to do so will result in liquidated damages in the amount of one hundred fifty dollars (\$150.00) per hour.** Should such necessary repairs not be completed within twenty-four hours of notification, the observation period shall stop, and resume only after such repairs and replacement of materials and equipment have been made, inspected and approved.

Completion and final acceptance of the project shall be contingent upon successful completion of the Observation Period. The Observation Period shall be considered a part of the work required to be completed after final completion date specified herein. For inspection purposes, no more than five (5) locations will be under the thirty-day observation period at any one time.

No direct payment will be made for inventory storage, security, obtaining security bonds, insurance; etc. for the material, as the cost of the same shall be included in the various bid items for the contract.

The Contractor shall clean the site of all debris, excess excavation, waste packing material, wire, etc. At the end of each workday the site shall be clear and clean. The Contractor shall not throw any waste material in any storm sewers or streams. *The Contractor shall be responsible for the management and clean up of any hazardous material in accordance with state environmental policies and OSHA regulations.*

The Contractor shall be responsible for any damage to private and/or public property resulting from this work.

ITEMS OF WORK

Items 10 thru 60 - Furnish and install signal poles, anchors, and galvanized span wire and grounding of poles. Each pole to be grounded with a 10' copper ground rod and #6 solid copper wire. Wire will be required from the pole top to a copper clad steel-grounding electrode attached to the pole with wire staples. Grounding to be in accordance with the North Carolina Department of Transportation *Standard Specifications for Roads and Structures* and the North Carolina Department of Transportation *Roadway Standard Drawings*. After each pole is set in the ground, the space around the pole shall be backfilled with earth or sand, free of rocks or other deleterious materials, placed in layers approximately 1-foot thick. Each layer shall be moistened and thoroughly compacted. The Engineer shall determine the location of each pole and anchor.

Item 70 - Install metal strain pole(s). Poles, clamps, and anchor bolts will be furnished by NCDOT, which can be picked up by the Contractor at the Traffic Services Signal Shop, 150 DOT Drive, Carthage, NC for placement at various locations within Division Eight.

Item 80 - Install metal pole(s) with mast arm(s) furnished by NCDOT. Poles, arms, anchor bolts and all connecting hardware will be furnished by NCDOT, which can be picked up by the Contractor at the Traffic Services Signal Shop, 150 DOT Drive, Carthage, NC for placement at various locations within Division Eight.

Item 90 - Furnish and install 26' metal strain pole (Case S26L1). Contractor is to supply pole, anchors bolts, 2 span wire clamps per pole and all other materials necessary for a complete and fully functional strain pole installation. *1

Item 100 - Furnish and install 30' metal strain pole (Case S30L1). Contractor is to supply pole, anchors bolts, 2 span wire clamps per pole and all other materials necessary for a complete and fully functional strain pole installation. *1

Item 110 - Furnish and install 35' metal strain pole (Case S35L1). Contractor is to supply pole, anchors bolts, 2 span wire clamps per pole and all other materials necessary for a complete and fully functional strain pole installation. *1

Item 120 - Furnish and install 35' metal strain pole (Case S30H1). Contractor is to supply pole, anchors bolts, 2 span wire clamps per pole and all other materials necessary for a complete and fully functional strain pole installation. *1

Item 130 - Furnish and install 35' metal strain pole (Case S35H1). Contractor is to supply pole, anchors bolts, 2 span wire clamps per pole and all other materials necessary for a complete and fully functional strain pole installation. *¹

***¹ For installation and specifications requirements for metal strain poles, see provided structure design. Please note that installation of metal strain poles shall be completed within a reasonable amount of time as determined by the Engineer. Contractor will be notified in writing as to the location, size of pole needed and approximate date for installation of the metal strain poles for each location.**

Item 140 - Furnish and install metal mast arm support pole of various lengths for one mast arm attachment. Contractor is to supply pole, anchors bolts, and all other materials necessary for a complete and fully functional mast arm support pole installation. *²

Item 150 - Furnish and install metal mast arm support pole of various lengths for two mast arm attachments. Contractor is to supply pole, anchors bolts, and all other materials necessary for a complete and fully functional mast arm support pole installation. *²

Item 160 - Furnish and install up to a 30 linear foot metal mast arm to metal mast arm support pole. Contractor is to supply mast arm, attachment bolts, and all other materials necessary for a complete and fully functional mast arm installation. *²

Item 170 - Furnish and install over 30 linear foot metal mast arm to metal mast arm support pole. Contractor is to supply mast arm, attachment bolts, and all other materials necessary for a complete and fully functional mast arm installation. *²

***² For installation and specifications requirements for metal mast arm support poles and metal mast arms, see provided structure design. The contractor shall submit sealed metal mast arm support pole(s) and metal mast arm(s) designs for approval prior to ordering poles and arms. Please note that installation of metal mast arm support poles and metal mast arms shall be completed within a reasonable amount of time as determined by the Engineer. Contractor will be notified in writing as to the location, size of pole needed and approximate date for installation of the metal strain poles for each location.**

Item 180 - Contractor shall apply a "Color" finish to an existing metal strain pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 190 - Contractor shall apply a "Color" finish to a CONTRACTOR supplied metal strain pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 200 - Contractor shall apply a "Color" finish to an existing metal mast arm support pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 210 - Contractor shall apply a "Color" finish to a CONTRACTOR supplied metal mast arm support pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 220 - Contractor shall apply a "Color" finish to an existing metal mast arm. Specific color and color chip will be supplied to the contractor by the Department.

Item 230 - Contractor shall apply a "Color" finish to a CONTRACTOR supplied metal mast arm. Specific color and color chip will be supplied to the contractor by the Department.

Item 240-250 - Install foundation for metal strain poles and mast arm poles, with or without wing walls. Foundation and all reinforcing material are to be furnished by the contractor. All concrete foundations shall be constructed in accordance with Sections 825 and 1000 for the North Carolina Department of Transportation *Standard Specifications for Roads and Structures* and the North Carolina Department of Transportation *Roadway Standard Drawings*. Provide the mix design for drilled pier concrete for approval and, except as modified herein, meeting the requirements of Section 1000 of the North Carolina

Department of Transportation *Standard Specifications for Roads and Structures* and the North Carolina Department of Transportation *Roadway Standard Drawings*. Designate the concrete as Drilled Pier Concrete with a minimum compressive strength of 4500 psi at 28 days.

Item 260 - Provide soil testing and documentation as stated under the Contract Special Provisions.

Item 270 - Contractor shall completely remove metal pole foundation and back fill with approved material with earth or sand, free of rocks or other deleterious materials, placed in layers approximately 1-foot thick. Each layer shall be moistened and thoroughly compacted.

Item 280 - Furnish and install cross messenger clamps to attach two overhead aerial spans together.

Item 290 - Furnish and install three-way, dead-end clamps (crows foot) to attach two overhead aerial spans together.

Item 300 - Transfer all existing attachments including span wire, conduit, and down guys from existing pole to new pole.

Item 310 - Installation of vehicular signal head(s) on span wire. Electrical connections to be made in each signal head section or external connection by approval of the Department. Contractor required to install all hardware, lens, set balance adjuster and to install a back-plate where required on the signal design (typically East-West approaches). Contractor required to completely wire and assemble vehicular signal head to operate in accordance with approved signal design plans.

Item 320 - Installation of vehicular signal head(s) to mast arms. Electrical connections to be made in each signal head section or external connection by approval of the Department. Contractor required to install all hardware, lens, set balance adjuster and to install a back-plate where required on the signal design (typically East-West approaches). Contractor required to completely wire and assemble vehicular signal head(s) to operate in accordance with approved signal design plans.

Item 330 – Furnish and Install a 12" 3 section aluminum vehicular signal head on span wire or mast arm. Contractor will furnish the aluminum signal head, LED modules and all mounting hardware. Electrical connections to be made in each signal head section or external connection by approval of the Department. Contractor required to install all hardware, lens, set balance adjuster and to install a back-plate where required on the signal design (typically East-West approaches). Contractor required to completely wire and assemble vehicular signal head(s) to operate in accordance with approved signal design plans.

Item 340 – Furnish and Install a 12" 4 section aluminum vehicular signal head on span wire or mast arm. Contractor will furnish the aluminum signal head, LED modules and all mounting hardware. Electrical connections to be made in each signal head section or external connection by approval of the Department. Contractor required to install all hardware, lens, set balance adjuster and to install a back-plate where required on the signal design (typically East-West approaches). Contractor required to completely wire and assemble vehicular signal head(s) to operate in accordance with approved signal design plans.

Item 350 – Furnish and Install a 12" 5 section aluminum vehicular signal head on span wire or mast arm. Contractor will furnish the aluminum signal head, LED modules and all mounting hardware. Electrical connections to be made in each signal head section or external connection by approval of the Department. Contractor required to install all hardware, lens, set balance adjuster and to install a back-plate where required on the signal design (typically East-West approaches). Contractor required to completely wire and assemble vehicular signal head(s) to operate in accordance with approved signal design plans.

Item 360 - Installation of pedestrian signal head(s) on wood poles, steel strain poles or mast arms. The pedestrian heads and all mounting hardware will be supplied by NCDOT. Electrical connections to be made in each pedestrian signal head section or external connection by approval of the Department.

Contractor required to completely wire and assemble pedestrian signal head(s) to operate in accordance with approved signal design plans.

Item 370 – Furnish and Install pedestrian signal head(s) on wood poles, steel strain poles or mast arms. The pedestrian heads, LED Countdown modules and all mounting hardware will be supplied by the CONTRACTOR. Electrical connections to be made in each pedestrian signal head section or external connection by approval of the Department. Contractor required to completely wire and assemble pedestrian signal head(s) to operate in accordance with approved signal design plans.

Item 380 - Installation of pedestrian signal head(s) on pedestal poles. The pedestrian heads and all mounting hardware will be supplied by NCDOT. Electrical connections to be made in each pedestrian signal head section or external connection by approval of the Department. Contractor required to completely wire and assemble pedestrian signal head(s) to operate in accordance with approved signal design plans.

Item 390 – Furnish and Install pedestrian signal head(s) on pedestal poles. The pedestrian heads, LED Countdown modules and all mounting hardware will be supplied by the CONTRACTOR. Electrical connections to be made in each pedestrian signal head section or external connection by approval of the Department. Contractor required to completely wire and assemble pedestrian signal head(s) to operate in accordance with approved signal design plans.

Item 400 - Installation of pedestrian call push button and pedestrian sign on wood pole, metal strain pole, metal mast arm, or pedestal pole. The pedestrian call push button and sign will be supplied by NCDOT. The ½ inch conduit for the push button shall be included in the price for installation of the pedestrian call push button and sign. Electrical connections to be made in each pedestrian call push button. Contractor required to completely wire and assemble pedestrian call push button to operate in accordance with approved signal design plans.

Item 410 – Furnish and Install pedestrian call push button and pedestrian sign on wood pole, metal strain pole, metal mast arm, or pedestal pole. The pedestrian call push button and sign will be supplied by the CONTRACTOR. The ½ inch conduit for the push button shall be included in the price for installation of the pedestrian call push button and sign. Electrical connections to be made in each pedestrian call push button. Contractor required to completely wire and assemble pedestrian call push button to operate in accordance with approved signal design plans.

Item 420 - Installation of 1 to 8 sections traffic signal flasher assembly on span wire. All material for the flasher assembly such as heads, hangers, balance adjusters and 18" extensions will be supplied by NCDOT and will be completely assembled prior to being picked up by the Contractor. Payment to contractor will be for each section that is completely installed.

Item 430 - Installation of Contractor supplied #14-4 or #14-7 conductor cable from controller cabinet to signal head(s) on existing aerial spans. All overhead conductor cable shall be strapped to the span wire with support straps on fifteen (15) inch centers with a minimum of four (4) turns per strap. All conductor cables are to be pulled down pole through conduit to controller cabinet per North Carolina Department of Transportation *Standard Specifications for Roads and Structures* and with sufficient length of conductor left over for proper routing and termination in cabinet.

Item 440 - Furnish and install triplex service drop cable to supply power, usually from a pole-mounted transformer to the user's service head where connection to the service entrance cable is made. To be used at voltages of 600 volts or less phase to phase. All hardware to be supplied by the contractor.

Item 450 - Install overhead signs on span wire (lane use signs, standard signal signs, etc.). All signs to be properly placed according to intersection signal design and requirements of the *Manual on Uniform Traffic Control Devices (MUTCD)* and the North Carolina Supplement to the *Manual on Uniform Traffic Control Devices*.

Item 460 - Install overhead signs to mast arm utilizing Astro-Brac bracket (lane use signs, standard signal signs, etc.). All signs to be properly placed according to intersection signal design and requirements of

the *Manual on Uniform Traffic Control Devices (MUTCD)* and the North Carolina Supplement to the *Manual on Uniform Traffic Control Devices*.

Item 470 - Remove existing wood traffic signal poles with all attachments and disposition of poles as directed by the Engineer.

Item 480 - Removal of traffic signal and pedestrian heads. Any heads removed shall be the property of the CONTRACTOR unless notified by the Engineer that NCDOT wishes to have them delivered to a NCDOT yard.

Item 490 - Removal of existing traffic signal cable and attached span. This material shall become the property of the Contractor and shall be removed and/or disposed of by the Contractor.

Item 500 - Remove base mounted cabinet and transport to a location specified by North Carolina Department of Transportation Traffic Services personnel in Division Eight.

Item 510 - Remove base mounted cabinet concrete foundation and all attached conduit not to exceed a distance of one hundred (100) feet from the footing per conduit run. The removal of this footing and all attached conduits shall become the property of the Contractor shall be responsible for disposal of footing material.

Item 520 - Remove pole-mounted cabinet and all attached conduits not to exceed a distance of one hundred (100) feet per conduit run. The removed cabinet shall become the property of NCDOT and shall be transported to a location specified by NCDOT Traffic Services personnel in Division Eight. The Contractor shall be responsible for disposal of scrap conduit.

Item 530 - Removal of down guys and/ or sidewalk guys. The removal of this material shall become the property of the Contractor and shall be disposed of by them.

Item 540 - Adjust existing signal heads of various sizes and configurations while in service to conform to lane design changes.

Item 550 - Saw cut and install contractor furnished loop cable and sealant. If required NCDOT will pre-mark the location of each loop. The sealant used by the Contractor shall be on the QPL List. The installation of loops shall conform to the NCDOT *Standard Specifications for Roads and Structures*. Contractor is to take the loop to conduit/appleton box on nearest pole or junction box, either new or existing, and to make connections as directed by the Engineer or Inspector.

Item 560 - Furnish and install 2" PVC underground conduit for loop lead-in, to include Unpaved Trenching. Conduit joints to be properly cleaned and sealed prior to closing the trench. Trenching shall conform to Section 1715 of the NCDOT *Standard Specifications for Roads and Structures*.

Item 570 - Furnish and install 2" PVC underground conduit for loop lead-in, to include Paved Trenching. The existing asphalt shall be saw cut to form a neat, clean edge and shall be replaced with a minimum of 2 inches of surface course and an intermediate course the depth of the existing pavement or 6 inches which-ever is greater. The intermediate course shall be placed and compacted in layers not to exceed 3 inches. Conduit joints to be properly cleaned and sealed prior to closing the trench. Trenching shall conform to Section 1715 of the NCDOT *Standard Specifications for Roads and Structures*.

Item 580 - The Contractor shall furnish and install an in-ground pull/splice box at locations shown on the plan or as directed by the Engineer. Each box shall have a dry well 12" in depth. The material for the dry well shall be furnished by the Contractor and shall be 78M stone or approved equal. Junction boxes shall conform to Section 1716 of the NCDOT *Standard Specifications for Roads and Structures*.

Item 590 - Furnish and install ¼" galvanized span wire, to include all attachments of either Shielded 14-2 cable by aluminum ribbon or by double lashing fiber optic cable. Spans to be properly grounded.

Item 600 - Installation of Contractor supplied #14-2 shielded cable from controller cabinet to junction boxes or condulets on poles on existing aerial spans or inside metal strain poles and mast arm poles. All overhead conductor cable shall be strapped to the span wire with support straps on fifteen (15) inch centers with a minimum of four (4) turns per strap. All conductor cables are to be pulled down pole through conduit to controller cabinet per NCDOT *Standard Specifications for Roads and Structures* with sufficient length of conductor left over for proper routing and termination in cabinet.

Item 610-630 - Furnish and install one (1) inch, and two (2) inch size heavy wall rigid metallic galvanized conduit with weatherheads, condulets or sealing bushings where needed per NCDOT *Standard Specifications for Roads and Structures* or as directed by the Engineer or Inspector. Two hole straps on four (4) foot centers shall support all conduits. Conduit installation to include installation of all couplings, connectors, elbows, condulets, bonding bushings, LB's, sealing bushings, etc.

Item 640 - Furnish and install 240 VAC meter base with quick disconnect on traffic signal pole or on separate assembly, as directed by the Engineer. Contractor to have location inspected by the appropriate authority prior to NCDOT requesting electrical service. Grounding to be in compliance with the North Carolina Department of Transportation *Roadway Standard Drawings*. Refer to Standard Drawing 1700.01.

Item 650 - Construct concrete pad for base mounted cabinet per NCDOT *Standard Specifications for Roads and Structures*. TS-1, TS-2 and 170/2070 series. All concrete is to be Class "A" concrete and is to be provided by the Contractor. Contractor may use a preformed concrete pad that conforms to the above Standard.

Item 660 - Install base mounted cabinet and controller, to include grounding, in accordance with NCDOT *Standard Specifications for Roads and Structures*. Ground rod testing required (test requirements – 20 ohms or less). Controller will be pre-programmed by NCDOT. All wire to be pulled into cabinet to have sufficient length for proper routing and terminal connections in cabinet **(approx. 72 inches of spare wire per wire)**. Each wire pulled into the cabinet shall be labeled to identify its specific function at the intersection. All connections shall be made in the cabinet. Except for electrical meter service to the cabinet and grounding, all other electrical connections in the cabinet shall be performed by IMSA certified Level II Signal Technician. The contractor shall not activate the signal **unless a Department of Transportation electronics technician is present.**

Item 670 – Furnish and Install base mounted cabinet and controller, to include grounding, in accordance with NCDOT *Standard Specifications for Roads and Structures*. Ground rod testing required (test requirements – 20 ohms or less). Controller will be pre-programmed by the CONTRACTOR and reviewed and approved by NCDOT during installation. This will include all Load Switches, Detector Cards, Conflict Monitor and other miscellaneous items required to operate the signal in accordance with the signal plans. All wire to be pulled into cabinet to have sufficient length for proper routing and terminal connections in cabinet **(approx. 72 inches of spare wire per wire)**. Each wire pulled into the cabinet shall be labeled to identify its specific function at the intersection. All connections shall be made in the cabinet. Except for electrical meter service to the cabinet and grounding, all other electrical connections in the cabinet shall be performed by IMSA certified Level II Signal Technician. The contractor shall not activate the signal **unless a Department of Transportation electronics technician is present.**

Item 680 - Install pole mounted cabinet and controller, to include grounding, in accordance with NCDOT *Standard Specifications for Roads and Structures*. Ground rod testing required (test requirements – 20 ohms or less). Controller will be preprogrammed by NCDOT. All wire to be pulled into cabinet to have sufficient length for proper routing and terminal connections in cabinet **(approx. 72 inches of spare wire per wire)**. Each wire pulled into the cabinet shall be labeled to identify its specific function at the intersection. All connections shall be made in the cabinet. Except for electrical meter service to the cabinet and grounding, all other electrical connections in the cabinet shall be performed by IMSA certified Level II Signal Technician. The contractor shall not activate the signal **unless a Department of Transportation electronics technician is present.**

Item 690 – Furnish and Install pole mounted cabinet and controller, to include grounding, in accordance with NCDOT *Standard Specifications for Roads and Structures*. Ground rod testing required (test

requirements – 20 ohms or less). Controller will be pre-programmed by the CONTRACTOR and reviewed and approved by NCDOT during installation. This will include all Load Switches, Detector Cards, Conflict Monitor and other miscellaneous items required to operate the signal in accordance with the signal plans. All wire to be pulled into cabinet to have sufficient length for proper routing and terminal connections in cabinet (**approx. 72 inches of spare wire per wire**). Each wire pulled into the cabinet shall be labeled to identify its specific function at the intersection. All connections shall be made in the cabinet. Except for electrical meter service to the cabinet and grounding, all other electrical connections in the cabinet shall be performed by IMSA certified Level II Signal Technician. The contractor shall not activate the signal **unless a Department of Transportation electronics technician is present.**

Item 700 - Same as Item 680, except that the length of the spare wire will vary due to the various sizes of flasher cabinets. The Engineer will determine length of spare wire.

Item 710 - Same as Item 69, except that the length of the spare wire will vary due to the various sizes of flasher cabinets. The Engineer will determine length of spare wire.

Item 720 - Pedestal pole to be supplied by NCDOT. Contractor to provide all materials to install the pedestal pole, including concrete footing for pole, grounding and any other incidentals.

Item 730 - Furnish and install Aluminum pedestal pole and footing. Contractor to provide all materials to install the pedestal pole, including concrete footing for pole, grounding and any other incidentals.

Item 740 - Contractor shall apply a "Color" finish to an existing metal pedestal pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 750 - Contractor shall apply a "Color" finish to a CONTRACTOR supplied metal pedestal pole. Specific color and color chip will be supplied to the contractor by the Department.

Item 760 - LED's to be provided by NCDOT. Contractor to install these in LED's in existing traffic signal heads at locations determined by NCDOT. All electrical connections are to be made by the Contractor. Material removed by the Contractor such as lens, alzas, etc. shall become the property of the Contractor and shall be disposed of as directed by the Engineer.

Item 770 - Furnish and Install 15-year warrantied LED modules into existing signal heads as directed by the Engineer. This re-lamping can be to replace a burned-out LED module or to re-lamp the whole intersection. The installation date shall be written on the LED module and noted in the cabinet diary. All warranty paperwork shall be provided to our office. Use only NCDOT approved LED Modules for all display variants (Ball, Arrow, U-turn Arrow, etc.)

Item 780- Install Pedestrian Countdown LED Modules provided by NCDOT into existing pedestrian signal heads. This re-lamping can be to replace a burned-out LED module or to re-lamp the whole intersection. The installation date shall be written on the LED module and noted in the cabinet diary. All warranty paperwork shall be provided to our office. Use only NCDOT approved Pedestrian Countdown LED Modules

Item 790- Furnish and Install Pedestrian Countdown LED Modules into existing pedestrian signal heads. This re-lamping can be to replace a burned-out LED module or to re-lamp the whole intersection. The installation date shall be written on the LED module and noted in the cabinet diary. All warranty paperwork shall be provided to our office. Use only NCDOT approved Pedestrian Countdown LED Modules

Item 800 - Removal of overhead span wire or mast arm mounted signs, to be disposed of as directed by the Engineer.

Items 810-920 - The installation of these items, which relate to fiber optic, shall be in compliance with Section 17 of the NCDOT *Standard Specifications for Roads and Structures* and the North Carolina Department of Transportation *Roadway Standard Drawings*.

Item 930 - Contractor to furnish and install NEMA approved pole junction box for extending field wiring. This will include making all connections inside the junction box.

Item 940 - NCDOT to provide the fiber optic blank-out sign. Contractor to install sign and make all electrical connections.

Item 950 - Furnish & install delineator marker at locations shown on the plans or as directed by the Engineer. Each delineator marker is to have the following telephone number – **910-947-3930**.

Item 960 - Furnish & install tracer wire for fiber optic cables, which are installed inside underground conduits. Tracer wire is to be installed at locations shown on the plans or as directed by the Engineer.

Item 970 - Removal and replacement of sidewalk sections as directed by the Engineer, to be in compliance with the NCDOT *Standard Specifications for Roads and Structures*.

Item 980 - Adjust span and guy wire attachments. Contractor to furnish any material needed to make these adjustments.

Item 990 - Tighten span and guy wire to remove excess sag in cables.

Item 1000 - Jacking and boring or directional drilling by Contractor furnished 2" to 4" rigid conduit. Price is to include any fittings and clamps that are required for the installation of this conduit. The installation of this conduit shall be in compliance with the NCDOT *Standard Specifications for Roads and Structures*.

Item 1010-1020 - Installation of State furnished wood sign supports and signs. The Department will be responsible for any traffic control that is needed for the installation of these signs.

Item 1030-1040 - Perform Performance Operations Check on traffic signals in Division 8. Maintenance to be performed on a 6-month and 12-month cycle. Work to be in accordance with the items provided in this contract. A list of the intersections will be provided to the successful low bidder.

Item 1050 - Install State furnished back-plates for 3-section, 4-section, and 5-sections 12" signal heads.

Item 1060 – Furnish and Install back-plates for 3-section, 4-section, and 5-sections 12" signal heads.

Item 1070 – Install NCDOT supplied antenna and mounting hardware (YAGI or OMNI). Contractor is to supply all wire, connectors and miscellaneous hardware to complete installation from the top of the pole to the connection to the radio.

Item 1080 – Furnish and Install 900 MHz antenna and mounting hardware (YAGI or OMNI). Contractor is also to supply all wire, conduit, connectors, and miscellaneous hardware to complete installation from the top of the pole to the connection to the radio.

Item 1090 – Install and setup NCDOT supplied 900 MHz wireless radio. Contractor to fine tune a point antenna is insuring optimum reception.

Item 1100 – Furnish, install and setup CONTRACTOR supplied 900 MHz wireless radio. Contractor to fine tune a point antenna is insuring optimum reception.

Item 1110 – Furnish and install RF Antenna disconnect as per NCDOT standards including decal and sign.

Item 1120 – Furnish and install Emergency Vehicle Pre-emption system inside of signal cabinet that uses GPS signal and is compatible with the existing Opticom GPS Emergency Vehicle Pre-emption system.

Item 1130 – Furnish GPS Vehicle Kits for use with the GPS Emergency Vehicle Pre-emption system.

Item 1140 – Install the GPS Vehicle Kit for use with the GPS Emergency Vehicle Pre-emption System in the requesting agency's vehicle.

Item 1150 – Unscheduled or emergency work will require that the Contractor to be on call 24 hours a day, seven days a week and be on the work site within four hours of notification. Each emergency call back will qualify the contractor for one payment of Emergency Call Back Response as quoted on the Bid Form. If the contractor is not on site after receiving the notice of what is need for the emergency repair with in the allotted 4 hours the contractor forfeits this Emergency Call Back Response and will be subject to liquidated damages in the amount of **One Hundred Fifty dollars (\$150.00) per hour or partial hour of response time over the four hours allowed.**

STANDARD SPECIAL PROVISION
AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08)(Rev. 1-16-24)

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 *Standard Specifications*.

STANDARD SPECIAL PROVISION
ERRATA

(1-16-24) (Rev. 4-15-25)

Z-4

Revise the *2024 Standard Specifications* as follows:

Division 3

Page 3-5, Article 305-2 MATERIALS, after line 16, replace " 1032-3(A)(7)" with "1032-3" and add the item "Galvanized Corrugated Steel Pipe" with Section "1032-3".

Page 3-6, Article 310-2 MATERIALS, after line 9, add the item "Galvanized Corrugated Steel Pipe" with Section "1032-3".

Division 6

Page 6-31, Article 610-16 MEASUREMENT AND PAYMENT, line 13, replace "*Hot Mix Asphalt Pavement*" with "*Asphalt Concrete _____ Course, Type _____*".

Division 9

Page 9-17, Article 904-4 MEASUREMENT AND PAYMENT, prior to line 1, replace " Sign Erection, Relocate Type (Ground Mounted)" with "Sign Erection, Relocate Type ____ (Ground Mounted)".

Division 10

Page 10-51, Article 1024-4 WATER, prior to line 1, delete the "unpopulated blank row" in Table 1024-2 between "Time of set, deviation from control" and "Chloride Ion Content, Max.".

Page 10-170, Subarticle 1081-1(C) Requirements, line 4, replace "maximum" with "minimum".

Division 11

Page 11-15, Article 1160-4 MEASUREMENT AND PAYMENT, line 24, replace "Where barrier units are moved more than one" with "Where barrier units are moved more than once".

Division 15

Page 15-10, Article 1515-4 MEASUREMENT AND PAYMENT, lines 11, replace " All piping" with "All labor, the manhole, other materials, excavation, backfilling, piping".

Division 16

Page 16-14, Article 1633-5 MEASUREMENT AND PAYMENT, line 20-24 and prior to line 25, delete and replace with the following " *Flocculant* will be measured and paid in accordance with Article 1642-5 applied to the temporary rock silt checks."

Page 16-3, Article 1609-2 MATERIALS, after line 26, replace "Type 4" with "Type 4a".

Page 16-25, Article 1644-2 MATERIALS, after line 22, replace "Type 4" with "Type 4a".

STANDARD SPECIAL PROVISION**PLANT AND PEST QUARANTINES**

(Imported Fire Ant, Guava Root Knot Nematode, Spongy Moth (formerly known as gypsy moth), Witchweed, Cogon Grass, And Any Other Regulated Noxious Weed or Plant Pest)

(3-18-03)(Rev. 3-18-25)

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/divisions/plant-industry/plant-protection/plant-industry-plant-pest-quarantines> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

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

STANDARD SPECIAL PROVISION**MINIMUM WAGES**

(7-21-09)

Z-5

FEDERAL: The Fair Labor Standards Act provides that with certain exceptions every employer shall pay wages at the rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

STATE: The North Carolina Minimum Wage Act provides that every employer shall pay to each of his employees, wages at a rate of not less than SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all skilled labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

The minimum wage paid to all unskilled labor on this contract shall be SEVEN DOLLARS AND TWENTY FIVE CENTS (\$7.25) per hour.

This determination of the intent of the application of this act to the contract on this project is the responsibility of the Contractor.

The Contractor shall have no claim against the Department of Transportation for any changes in the minimum wage laws, Federal or State. It is the responsibility of the Contractor to keep fully informed of all Federal and State Laws affecting his contract.

STANDARD SPECIAL PROVISION**TITLE VI AND NONDISCRIMINATION:**

(6-28-77)(Rev 1/16/2024)

Z-6

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.

(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 (a) through (f) 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 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 U.S.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.
 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
- 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. (<i>Executive Order 13166</i>)
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.	
National Origin (<i>Limited English Proficiency</i>)	Place of birth. Citizenship is not a factor. (<i>Discrimination based on language or a person's accent is also covered</i>)	Mexican, Cuban, Japanese, Vietnamese, Chinese	
Sex	Gender. The sex of an individual. <i>Note:</i> 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.
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) (<i>Religion/ Creed in all aspects of any aviation or transit-related construction</i>)	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. (<i>49 U.S.C. 5332(b); 49 U.S.C. 47123</i>)

(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);
- (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);
- (l) 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.

(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, Non-discrimination 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:
 - (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.
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.)

STANDARD SPECIAL PROVISION**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 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.

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.

LISTING OF MBE/WBE SUBCONTRACTORS

Sheet _____ of _____

Firm Name and Address	Circle One	Item No.	Item Description	* Agreed upon Unit Price	** Dollar Volume of Item
Name Address	MBE WBE				
Name Address	MBE WBE				
Name Address	MBE WBE				
Name Address	MBE WBE				
Name Address	MBE WBE				
Name Address	MBE WBE				

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

** Dollar Volume of MBE/WBE 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.

LISTING OF MBE/WBE SUBCONTRACTORS

Sheet _____ of _____

Firm Name and Address	Circle One	Item No.	Item Description	* Agreed upon Unit Price	** Dollar Volume of Item
Name	MBE				
Address	WBE				
Name	MBE				
Address	WBE				
Name	MBE				
Address	WBE				
Name	MBE				
Address	WBE				
Name	MBE				
Address	WBE				

** Dollar Volume of MBE Subcontractor \$ _____

MBE Percentage of Total Contract Bid Price _____%

** Dollar Volume of WBE Subcontractor \$ _____

WBE Percentage of Total Contract Bid Price _____%

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

** Dollar Volume of MBE/WBE 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.

ADDENDA

ADDENDUM #1

I, _____
(SIGNATURE)

representing _____

Acknowledge receipt of Addendum #1.

ADDENDUM #2

I, _____
(SIGNATURE)

representing _____

Acknowledge receipt of Addendum #2.

ADDENDUM #3

I, _____
(SIGNATURE)

representing _____

Acknowledge receipt of Addendum #3.

NON-COLLUSION, DEBARMENT AND GIFT BAN CERTIFICATION**CORPORATION**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. §133-24* within the last three years, and that the prequalified bidder intends to do the work with his own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

Full name of Corporation

Address as prequalified

Attest _____
Signature of **Secretary, Assistant Secretary**
Select appropriate title

By _____
Signature of **President, Vice President, Assistant Vice President**
Select appropriate title

Print or type Signer's name

Print or type Signer's name

CORPORATE SEAL

NON-COLLUSION, DEBARMENT AND GIFT BAN CERTIFICATION**PARTNERSHIP**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

Full name of
Partnership

Address as
prequalified

Signature of Witness

Signature of Partner

Print or type Signer's name

Print or type Signer's name

NON-COLLUSION, DEBARMENT AND GIFT BAN CERTIFICATION**LIMITED LIABILITY COMPANY**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

Full name of Firm

Address as prequalified

Signature of Witness

Signature of **Member, Manager, Authorized Agent**
Select appropriate title

Print or type Signer's Name

Print or type Signer's Name

NON-COLLUSION, DEBARMENT AND GIFT BAN CERTIFICATION**JOINT VENTURE (2) or (3)**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

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 Venture
(2)		Name of Contractor
	Address as prequalified	
	By	
	Signature of Witness or Attest	Signature of Contractor
	Print or type Signer's Name	Print or type Signer's Name
	<i>If Corporation, affix Corporate Seal</i>	and
(3)		Name of Contractor
	Address as prequalified	
	By	
	Signature of Witness or Attest	Signature of Contractor
	Print or type Signer's Name	Print or type Signer's Name
	<i>If Corporation, affix Corporate Seal</i>	and
(4)		Name of Contractor
	Address as prequalified	
	By	
	Signature of Witness or Attest	Signature of Contractor
	Print or type Signer's Name	Print or type Signer's Name
	<i>If Corporation, affix Corporate Seal</i>	

CORPORATE SEAL(S)

NON-COLLUSION, DEBARMENT AND GIFT BAN CERTIFICATION**INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

Name of Prequalified Bidder

Print or type Individual Name

Trading and doing business as

Full name of Firm

Address as prequalified

Signature of Witness

Signature of Prequalified Bidder, Individual

Print or type Signer's Name

Print or type Signer's Name

NON-COLLUSION, DEBARMENT GIFT BAN CERTIFICATION**INDIVIDUAL DOING BUSINESS IN HIS OWN NAME**

The prequalified bidder, declares (or certifies, verifies, or states) under penalty of perjury under the laws of the United States that neither he, nor any official, agent or employee 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 prequalified bidder has not been convicted of violating *N.C.G.S. § 133-24* within the last three years, and that the prequalified bidder intends to do the work with its own bona fide employees or subcontractors and will not bid for the benefit of another contractor.

By submitting this non-collusion, debarment and gift ban certification, the prequalified bidder is attesting his 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 PREQUALIFIED BIDDER

Name of Prequalified Bidder

Print or type Individual Name

Address as prequalified

Signature of Prequalified Bidder, Individually

Print or type Signer's Name

Signature of Witness

Print or type Signer's name

DEBARMENT CERTIFICATION

Conditions for certification:

1. The prequalified bidder shall provide immediate written notice to the Department if at any time the bidder learns that his certification was erroneous when he submitted his debarment certification or explanation that is file with the Department, 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 Contract Officer of the Department.
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 NCDOT contracts, unless authorized by the Department.
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 Department, 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 Department 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.

North Carolina Department of Transportation BID FORM

WBS NUMBER: TBD**DESCRIPTION: Division 8 Signal Maintenance Contract****COUNTIES: Chatham, Hoke, Lee, Montgomery, Moore, Randolph, Richmond, Scotland**

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
10	SP	Furnish & install 45 ft. class 3 wood pole	4	EA		
20	SP	Furnish & install 40 ft. class 3 wood pole	50	EA		
30	SP	Furnish & install 35 ft. class 3 wood pole	4	EA		
40	SP	Furnish & install regular guy and anchor	15	EA		
50	SP	Furnish & install sidewalk guy and anchor	10	EA		
60	SP	Furnish & install 3/8" extra high streng	1,000.00	LFT		
70	SP	Install metal strain poles furnished by NCDOT	4	EA		
80	SP	Install metal pole w/mast arms furnished by NCDOT	3	EA		
90	SP	Furnish & install metal strain pole Case S26L1	1	EA		
100	SP	Furnish & install metal strain pole Case S30L1	1	EA		
110	SP	Furnish & install metal strain pole Case S35L1	1	EA		
120	SP	Furnish & install metal strain pole Case S30H1	1	EA		
130	SP	Furnish & install metal strain pole Case S35H1	1	EA		
140	SP	Furnish & install metal mast arm support 1 arm	1	EA		
150	SP	Furnish & install metal mast arm support 2 arm	1	EA		
160	SP	Furnish & install mast arm up to 30 LFT	1	EA		
170	SP	Furnish & install mast arm over 30 LFT	1	EA		
180	SP	Apply a "Color" finish to existing Metal Strain Pole	2	EA		

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
190	SP	Apply a "Color" finish to a Contractor supplied Metal Strain Pole	2	EA		
200	SP	Apply a "Color" finish to existing Mast Arm Support Pole	2	EA		
210	SP	Apply a "Color" finish to a Contractor supplied Mast Arm Support Pole	2	EA		
220	SP	Apply a "Color" finish to existing Mast Arm	2	EA		
230	SP	Apply a "Color" finish to a Contractor supplied Mast Arm	2	EA		
240	SP	Drilled pier foundation	7	LFT		
250	SP	Drilled pier foundation with wing walls	2	LFT		
260	SP	Soil Tests	9	EA		
270	SP	Removal of foundation for metal poles	3	EA		
280	SP	Furnish & install cross messenger clamps	20	EA		
290	SP	Furnish & install three-way, dead-end clamps	20	EA		
300	SP	Transfer all existing attachments	25	EA		
310	SP	Install vehicular signal heads	100	EA		
320	SP	Install signal head to mast arm	20	EA		
330	SP	Furnish & install Vehicle signal head (12" - 3 section)	1	EA		
340	SP	Furnish & install Vehicle signal head (12" - 4 section)	1	EA		
350	SP	Furnish & install Vehicle signal head (12' - 5 section)	1	EA		
360	SP	Install pedestrian signal heads on wood or metal poles	10	EA		
370	SP	Furnish & install pedestrian signal heads on wood or metal pole	5	EA		
380	SP	Install pedestrian signal heads on pedestal pole	10	EA		
390	SP	Furnish & install pedestrian signal head on pedestal pole	5	EA		
400	SP	Install pedestrian call push button and sign on wood or metal pole	15	EA		

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
410	SP	Furnish & install pedestrian call push button and sign on wood or metal pole	5	EA		
420	SP	Install 1 section to 8 section flasher assembly	10	EA		
430	SP	Furnish & install of #14-4, # 14-7 traffic signal cable	1,000.00	LFT		
440	SP	Furnish & install Triplex cable	150	LFT		
450	SP	Install overhead sign to messenger cable	5	EA		
460	SP	Install overhead sign to mast arm	5	EA		
470	SP	Removal of existing woods traffic signal	10	EA		
480	SP	Removal of existing signal heads and pedestrian heads	15	EA		
490	SP	Removal of existing traffic signal cable	250	LFT		
500	SP	Removal of base mounted cabinet	5	EA		
510	SP	Removal of concrete foundation & attached conduit	5	EA		
520	SP	Removal of pole mounted cabinet & attached conduit	4	EA		
530	SP	Removal of down guys and/or sidewalk guy	10	EA		
540	SP	Signal head Adjustments	20	EA		
550	SP	Saw cut & install contractor furnished loop cable & sealant	2,500.00	LFT		
560	SP	Furnish & install 2" PVC underground conduit unpaved trenching	40	LFT		
570	SP	Furnish & install 2" PVC underground conduit paved trenching	10	LFT		
580	SP	Furnish & install NCDOT approved inground pull/splice box	15	EA		
590	SP	Furnish & install 1/4" galvanized messenger cable	150	LFT		
600	SP	Furnish & install Type-2 shielded cable	500	LFT		
610	SP	Furnish & install 2" rigid galvanized conduit w/condulet & weatherhead	10	EA		
620	SP	Furnish & install 2" rigid galvanized conduit w/ weatherhead	10	EA		

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
630	SP	Furnish & install 1" rigid galvanized conduit w/ weatherhead	5	EA		
640	SP	Furnish & install 240 VAC meter service	5	EA		
650	SP	Furnish & install concrete foundation for base mount cabinet	5	EA		
660	SP	Install base mounted cabinet and ground per Spec.	5	EA		
670	SP	Furnish & install Controller with Cabinet (Type 2070L, Base Mounted)	1	EA		
680	SP	Install pole mounted cabinet to be ground per Spec.	4	EA		
690	SP	Furnish & install Controller with Cabinet (Type 2070L, Pole Mounted)	1	EA		
700	SP	Install pole mounted flasher cabinet	2	EA		
710	SP	Furnish & install pole mounted flasher cabinet	1	EA		
720	SP	Install NCDOT supplied aluminum pedestal	2	EA		
730	SP	Furnish & Install aluminum pedestal pole	4	EA		
740	SP	Apply a "Color" finish to existing pedes	2	EA		
750	SP	Apply a "Color" finish to a Contractor s	2	EA		
760	SP	Install 8" or 12" LED Modules	10	EA		
770	SP	Furnish & install 12" LED Modules (15 yr warranty)	10	EA		
780	SP	Install Pedestrian Countdown LED Module	10	EA		
790	SP	Furnish & install Pedestrian Countdown Module	10	EA		
800	SP	Removal of overhead sign	15	EA		
810	SP	Furnish & install 12 fiber SMFO cable to exiting or new messenger cable (double lashing)	250	LFT		
820	SP	Furnish & install 6 fiber SMFO cable to exiting or new messenger cable (double lashing)	400	LFT		
830	SP	Furnish & install SMFO cable in underground conduit	175	LFT		

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
840	SP	Furnish & install SMFO cable in riser w/ heat shrink tubing	100	EA		
850	SP	Furnish & install metallic snow shoes & store 100 lft of SMFO cable	15	EA		
860	SP	Furnish & install pole mounted splice cabinet	2	EA		
870	SP	Furnish & install SMFO Interconnect center in signal cabinet to include jumper, pig tails and connectors	4	EA		
880	SP	Furnish & install fiber distribution center in splice cabinet	2	EA		
890	SP	Per location set-up fee for splicing of fiber optic cable	3	EA		
900	SP	Per splice of fiber to include any tools, etc.	26	EA		
910	SP	Furnish & install oversized Pull Box	5	EA		
920	SP	Furnish & install SMFO IFS compatible transceiver	4	EA		
930	SP	Furnish & install Nema pole –top junction box	2	EA		
940	SP	Install fiber optic blank-out sign	2	EA		
950	SP	Furnish & install Delineator Marker	10	EA		
960	SP	Furnish & install tracer wire for Fiber	500	LFT		
970	SP	Removal and replacement of side walk sections	5	EA		
980	SP	Adjust messenger cable (span) and guy wire	10	EA		
990	SP	Tighten messenger cable (span) and guy wire	20	EA		
1000	SP	Jacking and boring or directional drilling	60	LFT		
1010	SP	Installation of NCDOT Furnished 6" X 6"	6	EA		
1020	SP	Installation of NCDOT furnished signs to	3	EA		
1030	SP	Traffic Signal 6-Month Performance Operations Checklist	100	EA		
1040	SP	Traffic Signal 12-Month Performance Operations Checklist	100	EA		
1050	SP	Install State Furnished Back-plates	10	EA		

ITEM	SECT	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT BID
1060	SP	Furnish & install backplates for 3, 4 & 5 section 12" signal heads	10	EA		
1070	SP	Install NCDOT Supplied Wireless Communication Antenna	5	EA		
1080	SP	Furnish & install Wireless Communication Antenna for signal communication	5	EA		
1090	SP	Install and setup NCDOT Supplied 900 MHz wireless radio	5	EA		
1100	SP	Furnish & install Contractor supplied 900 MHz wireless radio	5	EA		
1110	SP	Furnish & Install RF Disconnect switch	2	EA		
1120	SP	Furnish & Install Radio Unit - Emergency Vehicle Pre-emption	2	EA		
1130	SP	Furnish GPS Vehicle Kits	2	EA		
1140	SP	Install GPS Vehicle Kits	2	EA		
1150	SP	Emergency Call Back Response	1	EA		
1160	SP	Install Out of Street Vehicle Detector	16	EA		
1170	SP	F&I Type III Pedestal W/ Foundation	6	EA		
1180	SP	Detector Card (Type 2070)	100	EA		

**** These quantities are estimations used for determination of low bidder only. The actual contract quantities may vary. This estimate will not bind the Department or the Contractor to provide or install a set amount of material.**

TOTAL BID FOR PROJECT: _____

CONTRACTOR _____

ADDRESS _____

Federal Identification Number _____ Contractors License Number _____

Authorized Agent _____ Title _____

Signature _____ Date _____

Witness _____ Title _____

Signature _____ Date _____

CORPORATE SEAL



Execution of Contract

Contract No: D8.DW.POC.PR21169

**County: Chatham, Hoke, Lee, Montgomery, Moore, Randolph, Richmond and Scotland
Counties**

ACCEPTED BY THE DEPARTMENT

Proposals Engineer

Date

Signature Sheet (Bid) - ACCEPTANCE SHEET