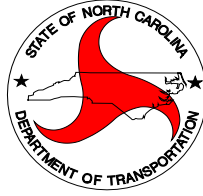


STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION



DIVISION FIVE

CONTRACT PROPOSAL
PURCHASE ORDER CONTRACT

WBS ELEMENT: 21IM.05

COUNTY: Durham, Wake

**DESCRIPTION: D5POC037, Annual Needs for Microwave Detector Calibration,
Maintenance and Replacement**

BID OPENING: 2:00 p.m., Wednesday November 9, 2016

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. THESE LAWS REQUIRE THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR GENERAL 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. NOT WITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING, REGARDLESS OF FUNDING SOURCES.

NAME OF BIDDER

N.C. CONTRACTOR'S LICENSE NUMBER

ADDRESS OF BIDDER

RETURN BIDS TO:

**NC DEPARTMENT OF TRANSPORTATION
Michael J. Kneis, PE
Project Development Engineer
North Carolina Department of Transportation
2612 N Duke Street
Durham, NC 27704**

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NCDOT DIV. 5 DETECTOR LOCATIONS WAKE/DURHAM COUNTY

- LISTING OF MBE/WBE SUBCONTRACTORS**
- ADDENDUMS**
- AWARD LIMITS ON MULTIPLE PROJECTS**

**EXECUTION OF BID – NON-COLLUSION AFFIDAVIT, DEBARMENT
CERTIFICATION AND GIFT BAN CERTIFICATION
DEBARMENT CERTIFICATION
PURCHASE ORDER CONTRACT BID FORM**

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 shall cause the bid to be considered irregular and shall 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. All entries on the itemized proposal sheet (bid form) shall be written in ink or typed.
3. 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 TWO decimal places.
4. 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.
5. 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.
6. 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.
7. The bid shall be properly executed on the included **Execution of Bid – Non-collusion Affidavit, Debarment Certification 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 should include it on the bid.
 - 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.
 - d. Completed attestation by Notary Public**Note: Signer, Witness and Notary Public must be different individuals.**
8. The bid shall not contain any unauthorized additions, deletions, or conditional bids.
9. 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.
10. **THE PROPOSAL WITH THE BID FORM STILL ATTACHED SHALL BE PLACED IN A SEALED ENVELOPE AND SHALL HAVE BEEN DELIVERED TO AND RECEIVED IN THE NCDOT DIV. FIVE OFFICE, 2612 North Duke Street Durham, NC 27704 BY 2:00 p.m. on Wednesday, November 9, 2016.**
11. The sealed bid must display the following statement on the front of the sealed envelope:
“Quotation for Annual Needs for Microwave Detector, Calibration, Maintenance and Replacement in Durham and Wake Counties to be opened at 2:00 p.m., on Wednesday, November 9, 2016.”
12. 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

Attn: Michael J. Kneis, PE

2612 N Duke Street

Durham, NC 27704

AWARD OF CONTRACT

The award of the contract, if it be awarded, will be made to the lowest responsible Bidder in accordance with Section 102 (*excluding 102-10*) of the Standard Specifications for Roads and Structures 2012. The lowest responsible will be notified that his bid has been accepted and that he has been awarded the contract. NCDOT reserves the right to reject all bids.

PURCHASE ORDER CONTRACT

Standard Provisions

GENERAL

This contract is for the calibration, maintenance and repair of microwave detector units associated with Intelligent Transportation System installations, to be performed on an annual basis in the Triangle Region. The work is to be performed at various locations in Durham and Wake counties on I-85, NC 147 (Durham Freeway), US 64 and US 264.

All work and materials shall be in accordance with the provisions of the General Guidelines of this contract, the Project Special Provisions, the North Carolina Department of Transportation Standard Specifications for Roads and Structures 2012, the North Carolina Department of Transportation 2012 Roadway Standard Drawings, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD), with the exception that bid bonds are *not* required.

The quantities stated in the Bid Form are estimates and are not guaranteed.

The Contractor shall keep himself fully informed of all Federal, State and local laws, ordinances, and regulations, and shall comply with the provisions of Section 107 of the Standard Specifications.

CONTRACT TIME AND LIQUIDATED DAMAGES

The date of availability for this project is January 1, 2017.

No work will be permitted and no purchase order will be issued until all required bonds and prerequisite conditions and certifications have been satisfied.

The completion date for this project is December 31, 2017. The Contractor shall submit his bid for one year.

TERM OF THE CONTRACT

The Contractor shall submit his bid for one year. At the option of the Department, this contract may be extended for two (2) additional periods of one (1) year each (maximum three year total). The year for the renewal periods shall begin January 1 and end December 31 of the following year. No changes in the unit prices, 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 November 1 if the contract may be extended. The Contractor must notify the Engineer in writing by November 15 of his acceptance or rejection of this offer. Failure on the part of the Contractor to reply will be received as a rejection of the contract extension.

INTERMEDIATE CONTRACT TIME NUMBER (1) AND LIQUIDATED DAMAGES

For Interstate, controlled access (freeway) routes, and two-lane two-way facilities, NCDOT will provide traffic control. The Contractor shall coordinate with NCDOT about the required work and the time limitations/requirements for the work to be performed. **The detector calibration/maintenance operation should not prevent the NCDOT and/or their Contractor from removing the lane closures by the established time restriction.** Liquidated damages

will be assessed if the detector calibration/maintenance prevents the NCDOT and/or their Contractor from clearing the lanes and placing traffic in the existing traffic pattern.

For other multi-lane divided and undivided facilities, the Contractor shall not close or narrow a lane of traffic during the following time restrictions:

DAY AND TIME RESTRICTIONS

MONDAY THRU FRIDAY	6:00 AM to 9:00 AM
MONDAY THRU FRIDAY	4:00 PM to 7:00 PM.

In addition, the Contractor shall not close or narrow a lane of traffic on any route, detain and/or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer.
2. For **New Year's Day**, between the hours of **4:00 p.m.** December 31st and **9:00 a.m.** January 2nd. If New Year's Day is on a Friday, Saturday, Sunday or Monday, then until **9:00 a.m.** the following Tuesday.
3. For **Easter**, between the hours of **4:00 p.m.** Thursday and **9:00 a.m.** Monday.
4. For **Memorial Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
5. For **Independence Day**, between the hours of **4:00 p.m.** the day before Independence Day and **9 a.m.** the day after Independence Day.

If **Independence Day** is on a Friday, Saturday, Sunday or Monday, then between the hours of **4:00 p.m.** the Thursday before Independence Day and **9:00 a.m.** the Tuesday after Independence Day.

6. For **Labor Day**, between the hours of **4:00 p.m.** Friday and **9:00 a.m.** Tuesday.
7. For **Thanksgiving Day**, between the hours of **4:00 p.m.** Tuesday and **9:00 p.m.** Monday.
8. For **Christmas**, between the hours of **4:00 p.m.** the Friday before the week of Christmas Day and **9:00 a.m.** the following Tuesday after the week of Christmas Day.

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

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

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

The liquidated damages for Intermediate Contract Time #1 are **Two Hundred Fifty Dollars (\$ 250.00)** per **fifteen (15) minutes** or any portion thereof.

INTERMEDIATE CONTRACT TIME NUMBER 2 AND LIQUIDATED DAMAGES

The Contractor shall begin work within seven (7) calendar days from the date of notification for calibrating each detection channel, and for upgrading detector channel communications to Ethernet and shall complete all the required work for each detection channel within forty-five (45) consecutive calendar days from the date of notification. The Contractor shall be notified of work needed to upgrade detector channel communications to Ethernet by the Regional ITS Engineer or his representative by telephone, fax or e-mail.

The Contractor shall notify Mr. Ben Griffin, PE, Regional ITS Engineer, by telephone, at (919) 825-2635, by fax at (919) 715-5339, or by e-mail at brgriffin@ncdot.gov when the assigned work has been completed.

In the event that the Contractor fails to complete the required work within **forty-five (45)** consecutive calendar days, liquidated damages of **One Hundred Dollars (\$100.00)** per calendar day will be assessed to the Contractor for each day, or portion thereof, that the Contractor has failed to complete the work required by NCDOT.

AUTHORITY OF THE ENGINEER

The Engineer for this project shall be the Regional ITS Engineer, Division 5, Division of Highways, North Carolina Department of Transportation, acting directly or through his duly authorized representatives. The Engineer will decide all questions which may arise as to the quality and acceptability of work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the contract; and all questions as to the acceptable fulfillment of the contract on the part of the Contractor. His decision shall be final and he shall have executive authority to enforce and make effective such decisions and orders as the Contractor fails to carry out promptly.

BIDS

In accordance with GS 136-28.1(b), if the total bid amount of the contract exceeds \$5,000,000, the bid will not be considered for award.

NOTIFICATION OF OPERATIONS

The Contractor shall notify the Regional ITS Engineer 48 hours prior to the start of work commencing, and the locations where work is to be performed.

PROGRESS AND PROSECUTION

The Contractor shall pursue the work diligently with workmen in sufficient numbers, abilities, and supervision, and with equipment, materials, and methods of construction as may be required

to complete the work described in the contract by the completion date and in accordance with Section 108 of the Standard Specifications.

The Contractor's operations are restricted to daylight hours. No work may be performed on Sundays and legal State holidays, without prior written approval from the Engineer. Work shall only be performed when weather and visibility conditions allow safe operations.

MATERIALS AND TESTING (STEEL)

The Engineer reserves the right to perform all sampling and testing in accordance with Section 106 of the Standard Specifications and the Department's "Materials and Test Manual." However the Engineer may reduce the frequency of sampling and testing where he deems it appropriate for the project under construction.

All steel products which are permanently incorporated into this project shall be domestically produced. The Contractor shall furnish a notarized certification certifying that steel products conform to this requirement.

The Contractor shall furnish the applicable certifications and documentation for all materials as required by the Standard Specifications. Material which is not properly certified will not be accepted.

SUBMITTAL REQUIREMENTS

Before beginning installation of any component, submit manufacturer's specifications, catalog cut sheets (as applicable), for each proposed material. Forward submittals to the Engineer for approval. Once materials have been approved, begin installation. Provide three (3) copies of each submittal for review. Submittals will be reviewed by the Engineer and returned to the Contractor within fifteen (15) working days.

UTILITY CONFLICTS

It shall be the responsibility of the Contractor to contact all affected utility owners and determine the precise locations of all utilities prior to beginning construction. Utility owners shall be contacted a minimum of 48 hours prior to the commencement of operations. Special care shall be used in working around or near existing utilities, protecting them when necessary to provide uninterrupted service. In the event that any utility service is interrupted, the Contractor shall notify the utility owner immediately and shall cooperate with the owner, or his representative, in the restoration of service in the shortest time possible. Existing fire hydrants shall be kept accessible to fire departments at all times.

The Contractor shall adhere to all applicable regulations and follow accepted safety procedures when working in the vicinity of utilities in order to insure the safety of construction personnel and the public.

SAFETY VESTS

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

SUPERVISION BY CONTRACTOR

At all times during the life of the project the Contractor shall provide one permanent employee who shall have the authority and capability for overall responsibility of the project and who shall

be personally available at the work site within 24 hours notice. Such employee shall be fully authorized to conduct all business with the subcontractors, to negotiate and execute all supplemental agreements, and to execute the orders or directions of the Engineer.

At all times that work is actually being performed, the Contractor shall have present on the project one competent individual who is authorized to act in a supervisory capacity over all work on the project, including work subcontracted. The individual who has been so authorized shall be experienced in the type of work being performed and shall be fully capable of managing, directing, and coordinating the work; of reading and thoroughly understanding the contract; and receiving and carrying out directions from the Engineer or his authorized representatives. He shall be an employee of the Contractor unless otherwise approved by the Engineer.

The Contractor may, at his option, designate one employee to meet the requirements of both positions. However, whenever the designated employee is absent from the work site, an authorized individual qualified to act in a supervisory capacity on the project shall be present.

WORK SITE CLEANUP

The Contractor shall the clean the work sites of all debris, excess excavations, waste packing material, scraps, etc. At the end of each work day the site shall be clear and clean. The Contractor shall not throw any waste material in any storm sewers or streams. All disturbed areas of vegetation shall be graded, seeded and mulched as required in the Standard Specifications for Roads and Structures 2012. The Contractor shall be responsible for damage to private and/or public property resulting from the work.

BOND REQUIREMENTS – No Bonds Required

(06-01-16)

SPD 01-420B

The provisions of Articles 102-10 and 103-7 of the 2012 Standard Specifications for Roads and Structures are waived for this project. No bonds required.

LIABILITY INSURANCE

The Contractor shall provide liability insurance conforming to the requirements of Article of 107-15 of the Standard Specifications.

Revise the *2012 Standard Specifications* as follows:

Page 1-60, Article 107-15 LIABILITY INSURANCE, line 16, add the following as the second sentence of the third paragraph:

Prior to beginning services, all contractors shall provide proof of coverage issued by a workers' compensation insurance carrier, or a certificate of compliance issued by the Department of Insurance for self-insured subcontractors, irrespective of whether having regularly in service fewer than three employees.

BANKRUPTCY

The Department of Transportation, at its option, may terminate the contract upon filing by the Contractor of any petition for protection under the provisions of the Federal Bankruptcy Act.

SUBLETTING OF CONTRACT

The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of this contract or any portion thereof; or his right, title, or interest therein; without written consent of the Engineer. Subletting of this contract or any portion of the contract shall conform to the requirements of Article of 108-6 of the Standard Specifications.

DEBARMENT STATEMENT

The Contractor certifies and understands that by his/her signature on the Bid Form that he/she and the contracting firm he/she represents has not been banned, debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency.

DEFAULT OF CONTRACT

The Department of Transportation shall have the right to declare a default of contract for breach by the Contractor of any material term or condition of the contract. Default of contract shall be in accordance with the terms, conditions, and procedures of Article 108-9 of the Standard Specifications.

PROMPT PAYMENT

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

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

This provision for prompt payment shall be incorporated into each subcontract or second tier subcontract issued for work performed on the project or for services provided. Failure of any entity to make prompt payment as defined herein may result in (1) withholding of money due to that entity in the next partial payment until such assurances are made satisfactory to this provision; or (2) removal of an approved contractor from the pre-qualified bidders list or the removal of other entities from the approved subcontractors list.

PAYMENT AND RETAINAGE

The Contractor may submit requests for partial payments on a monthly basis, or other interval as approved by the Engineer. Compensation for all pay items shall be in accordance with the Standard Specifications. The amount of partial payments will be based on the work accomplished and accepted by the last day of the approved pay period.

Requests for payment shall be made by Contractor's Invoice. All invoice items and unit costs shall correspond to contract pay items. In the event of error or discrepancy in items or unit costs, the Department may return the invoice to the contractor for correction. The invoice shall be completely and legibly filled out with all appropriate information and shall be signed by an authorized representative of the Contractor.

The Contractor shall notify Mr. Ben Griffin, PE, Regional ITS Engineer, by telephone at (919) 825-2635, by fax at (919) 715-5339, or by e-mail at brgriffin@ncdot.gov when the assigned work has been completed. All work shall be inspected and approved prior to payment. Send invoices to:

Mr. Ben Griffin, PE
Triangle Transportation Management Center
MSC 1533
Raleigh, North Carolina 27699-1533
Or electronically
brgriffin@ncdot.gov

Due to the nature of the contract, no retainage will be withheld. However, the Department reserves the right to withhold payment for a specific location until after successful completion of the work as verified by the final inspection of that location.

MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE (DIVISIONS)

(10-16-07)(Rev. 7-19-16)

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 either the MBE or WBE goal. No submittal of a Letter of Intent is required.

Committed MBE/WBE Subcontractor - Any MBE/WBE submitted at the time of bid that is being used to meet either the MBE or 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 Goals Requirement - The approved MBE and WBE participation at time of award, but not greater than the advertised contract goals for each.

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

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

MBE Goal - A portion of the total contract, expressed as a percentage, that is 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, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Brokers and packagers are not regarded as manufacturers or regular dealers within the meaning of this section.

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 Goal - A portion of the total contract, expressed as a percentage, that is 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.
<http://www.ncdot.org/doh/forms/files/DBE-IS.xls>

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

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

JC-1 Joint Check Notification Form - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks.
<http://connect.ncdot.gov/projects/construction/Construction%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 amount 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 this MBE and WBE goals. 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>

MBE and WBE Goal

The following goals for participation by Minority Business Enterprises and Women Business Enterprises are established for this contract:

(A) Minority Business Enterprises 0 %

- (1) *If the MBE goal 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 as the MBE goal.
- (2) *If the MBE goal 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 %

- (1) *If the WBE goal 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 as the WBE goal.
- (2) *If the WBE goal 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.

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 MBE and WBE goals respectively. The Directory can be found at the following link.
<https://partner.ncdot.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 MBE goal and the 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 submitted at the time of bid will be used toward 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) *If either the MBE or WBE goal is more than zero,*
- (1) 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.
 - (2) 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.
 - (3) 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 corresponding goal.
- (B) *If either the MBE or 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 MBE and WBE goals, the firm is responsible for meeting the goals or making good faith efforts to meet the goals, just like any other bidder. In most cases, a MBE or WBE bidder on a contract will meet one of the goals 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.

For example, on a proposed contract, the WBE goal is 10%, and the MBE goal is 8%. A WBE bidder puts in a bid where they will perform 40% of the contract work and have a WBE subcontractor which will perform another 5% of the work. Together the two WBE firms submit on the *Listing of MBE and WBE Subcontractors* a value of 45% of the contract which fulfills the WBE goal. The 8% MBE goal shall be obtained through MBE participation with MBE certified subcontractors or documented through a good faith effort. It should be noted that you cannot combine the two goals to meet an overall value. The two goals shall remain separate.

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 MBE and WBE goals 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 12:00 noon of the sixth calendar day following opening of bids, unless the sixth 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 12:00 noon 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 MBE and WBE goals, or if the form is incomplete (i.e. both signatures are not present), the MBE/WBE participation will not count toward meeting the MBE/WBE goal. If the lack of this participation drops the commitment below either the MBE or 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 12:00 noon 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 12:00 noon on the next official state business day.

Submission of Good Faith Effort

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

One complete set and **nine** copies of this information shall be received in the office of the Engineer no later than 12:00 noon of the sixth calendar day following opening of bids, unless the sixth 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 12:00 noon 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 MBE/WBE Goals More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be expected to obtain sufficient 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 MBE and WBE goals 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 contract MBE/WBE goals 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 contract goals 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 contract MBE or WBE goals, 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 NCDOT's Business Development Manager in the Business Opportunity and Work Force Development Unit 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 MBE and WBE 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 MBE and WBE goals.
- (2) The bidders' past performance in meeting the MBE and WBE goals.
- (3) The performance of other bidders in meeting the MBE and WBE goals. For example, when the apparent successful bidder fails to meet the goals, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goals. If the apparent successful bidder fails to meet the MBE and WBE goals, 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 MBE and WBE goals can be met or that an adequate good faith effort has been made to meet the MBE and WBE goals.

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 MBE/WBE Goals

(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 actually 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 MBE contract goal requirement. The same holds for work that a WBE subcontracts to another WBE firm. Work that a MBE subcontracts to a non-MBE firm does not count toward the MBE contract goal requirement. Again, the same holds true for the work that a WBE subcontracts to a non-WBE firm. 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. The MBE/WBE may present evidence to rebut this presumption to the Department. The Department's decision on the rebuttal of this presumption may be subject to review by the Office of Inspector General, NCDOT.

(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) Suppliers

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

(F) Manufacturers and Regular Dealers

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

- (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 nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Commercially Useful Function

(A) 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 actually 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

actually performing and the MBE/WBE credit claimed for its performance of the work, and any other relevant factors.

(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 MBE or 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 goal requirement. 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 liable for meeting the goal.
- (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 firm (or an approved substitute MBE or WBE firm) to meet all or part of a contract goal requirement, the contractor shall not terminate the MBE/WBE 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. A MBE/WBE may only be terminated after receiving the Engineer's written approval based upon a finding of good cause for the termination. The prime contractor must give the MBE/WBE firm five (5) calendar days to respond to the prime contractor's notice of termination and advise the prime contractor and the Department of the reasons, if any, why the firm objects to the proposed termination of its subcontract and why the Department should not approve the action.

All requests for replacement of a committed MBE/WBE firm shall be submitted to the Engineer for approval on Form RF-1 (*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.

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

(A) Performance Related Replacement

When a committed MBE is terminated for good cause as stated above, an additional MBE that was submitted at the time of bid may be used to fulfill the MBE commitment. The same holds true if a committed WBE is terminated for good cause, an additional WBE that was submitted at the time of bid may be used to fulfill the WBE goal. A good faith effort will only be required for removing a committed MBE/WBE if there were no additional MBEs/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 MBEs/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 MBEs/WBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of MBEs/WBEs who were contacted.
 - (b) A description of the information provided to MBEs/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 MBEs/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.
 - (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 similarly certified MBE/WBE subcontractor to perform at least the same amount of work to meet the 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).

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 *2012 Standard Specifications* may be cause to disqualify the Contractor.

RESOURCE CONSERVATION

(5-21-13)

104-13

SP1 G118

In accordance with North Carolina Executive Order 156, NCGS 130A-309.14(2), and NCGS 136-28.8, it is the policy of the Department to aid in the reduction of materials that become a part of our solid waste stream, to divert materials from landfills, and to find ways to recycle and reuse materials for the benefit of the Citizens of North Carolina.

Initiate, develop and use products and construction methods that incorporate the use of recycled or solid waste products in accordance with Article 104-13 of the *2012 Standard Specifications*. Report the quantities of reused or recycled materials either incorporated in the project or diverted from landfills on the Project Construction Reuse and Recycling Reporting Form.

A location-based tool for finding local recycling facilities and the Project Construction Reuse and Recycling Reporting Form are available at:

<http://connect.ncdot.gov/resources/Environmental/Pages/North-Carolina-Recycling-Locations.aspx>

DOMESTIC STEEL

(4-16-13)

106

SP1 G120

Revise the *2012 Standard Specifications* as follows:

Page 1-49, Subarticle 106-1(B) Domestic Steel, lines 2-7, replace the first paragraph with the following:

All steel and iron products that are permanently incorporated into this project shall be produced in the United States except minimal amounts of foreign steel and iron products may be used provided the combined material cost of the items involved does not exceed 0.1% of the total amount bid for the entire project or \$2,500, whichever is greater. If invoices showing the cost of the material are not provided, the amount of the bid item involving the foreign material will be used for calculations. This minimal amount of foreign produced steel and iron products permitted for use is not applicable to high strength fasteners. Domestically produced high strength fasteners are required.

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.

GIFTS FROM VENDORS AND CONTRACTORS

(12-15-09)

SP1 G152

By Executive Order 24, issued by Governor Perdue, and *N.C. G.S. § 133-32*, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e. Administration, Commerce, Correction, Crime Control and Public Safety, Cultural Resources, Environment and Natural Resources, Health and Human Services, Juvenile Justice and Delinquency Prevention, Revenue, Transportation, and the Office of the Governor). This prohibition covers those vendors and contractors who:

- (1) have a contract with a governmental agency; or
- (2) have performed under such a contract within the past year; or
- (3) anticipate bidding on such a contract in the future.

For additional information regarding the specific requirements and exemptions, vendors and contractors are encouraged to review Executive Order 24 and *G.S. § 133-32*.

Executive Order 24 also encouraged and invited other State Agencies to implement the requirements and prohibitions of the Executive Order to their agencies. Vendors and contractors should contact other State Agencies to determine if those agencies have adopted Executive Order 24.

EMPLOYMENT

(11-15-11) (Rev. 1-17-12)

108, 102

SP1 G184

Revise the *2012 Standard Specifications* as follows:

Page 1-20, Subarticle 102-15(O), delete and replace with the following:

- (O) Failure to restrict a former Department employee as prohibited by Article 108-5.

Page 1-65, Article 108-5 Character of Workmen, Methods, and Equipment, line 32, delete all of line 32, the first sentence of the second paragraph and the first word of the second sentence of the second paragraph.

STATE HIGHWAY ADMINISTRATOR TITLE CHANGE

(9-18-12)

SP1 G185

Revise the *2012 Standard Specifications* as follows:

Replace all references to “State Highway Administrator” with “Chief Engineer”.

IRAN DIVESTMENT ACT

(5-17-16)

SP01 G151

As a result of the Iran Divestment Act of 2015 (Act), Article 6E, N.C. General Statute § 147-86.55, the State Treasurer published the Final Divestment List (List) which includes the Final Divestment List-Iran, and the Parent and Subsidiary Guidance-Iran. These lists identify companies and persons engaged in investment activities in Iran and will be updated every 180 days. The List can be found at <https://www.nctreasurer.com/inside-the-department/OpenGovernment/Pages/Iran-Divestment-Act-Resources.aspx>

By submitting the Offer, the Contractor certifies that, as of the date of this bid, it is not on the then-current List created by the State Treasurer. The Contractor must notify the Department immediately if, at any time before the award of the contract, it is added to the List.

As an ongoing obligation, the Contractor must notify the Department immediately if, at any time during the contract term, it is added to the List. Consistent with § 147-86.59, the Contractor shall not contract with any person to perform a part of the work if, at the time the subcontract is signed, that person is on the then-current List.

During the term of the Contract, should the Department receive information that a person is in violation of the Act as stated above, the Department will offer the person an opportunity to respond and the Department will take action as appropriate and provided for by law, rule, or contract.

Special Provisions

DRIVEWAYS AND PRIVATE PROPERTY

The Contractor shall maintain access to driveways for all residents and property owners throughout the life of the project.

The Contractor shall not perform work for private citizens or agencies in conjunction with this project or within the project limits of this contract. Any driveway paved by a Contractor which ties into a NCDOT system road being paved by the Contractor must be paved either prior to the road paving project or after its completion.

TRAFFIC CONTROL AND WORK ZONE SAFETY

For Interstate, controlled access (freeway) routes, and two-lane two-way facilities, NCDOT will provide traffic control. The NCDOT and/or the Contractor shall maintain traffic during construction and provide, install, and maintain all traffic control devices in accordance with these project guidelines, the Project Traffic Control Plans, the Project Special Provisions, North Carolina Department of Transportation Standard Specifications for Roads and Structures 2012, and the current edition of the Manual of Uniform Traffic Control Devices (MUTCD).

The NCDOT and/or 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. **NCDOT will provide traffic control for lane closures on roads with two lane two way traffic.**

All personnel when working in traffic areas or areas in close proximity to traffic shall wear an approved safety vest, or shirt or jacket 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.

The Contractor's vehicles and equipment shall not be parked within the State Highway System right of way overnight or at other times when work has been suspended unless approved by the Engineer, and in no case within 30 feet of the edge of pavement. The Engineer may designate specific locations for parking equipment.

Payment for Traffic Control items required by the Specifications shall be considered incidental to the pay items in this 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 Subarticle 108-7(2) of the Standard Specifications.

WORK ZONE SIGNING

Where the Contractor is responsible for traffic control, signing shall be placed according to Standard 1101 as shown in the Roadway Standard Drawing and the contract plans. All work covered in this section shall be in accordance with Section 1110 of the 2012 Standard Specifications for Roads and Structures. **All** signing (both portable and stationary) shall be considered as incidental to the work required within the contract.

Project Special Provisions

Intelligent Transportation Systems

1.0 GENERAL REQUIREMENTS

1.1 General

Conform to these Project Special Provisions, Project Plans, and the *2012 Standard Specifications for Roads and Structures* (also referred to hereinafter as the “Standard Specifications”). The current edition of these specifications and publications in effect on the date of advertisement will apply.

In the event of a conflict between these Project Special Provisions and the Standard Specifications, these Project Special Provisions govern.

1.2 Scope

The scope of this project includes annual calibration of microwave detector units, and maintenance/replacement of defective units on an annual basis. The project also includes installation of serial-to-IP devices and LAN switches to for communications via Ethernet over fiber optic cable and conversion of serial communications to IP for long cable runs between detectors and cabinets. Replacement of defective detector units will be coordinated with Division 5 ITS staff, who will provide personnel to assist in the installation of the new detection device on the pole. The contractor shall be responsible for calibrating such device after it has been installed.

1.3 Qualified Products

Furnish new equipment, materials, and hardware unless otherwise required. Inscribe 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.

Furnish factory assembled cables without adapters, unless otherwise approved by the Engineer, for all cables required to interconnect any field or central equipment including but not limited to fiber optic transceivers.

Certain equipment listed in these Project Special Provisions must be pre-approved on the Department’s ITS & Signals Qualified Products List (QPL) by the date of installation. Equipment, material, and hardware not pre-approved when required will not be allowed for use on the project.

The QPL is available on the Department’s website. The QPL website is:

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

2.0 MICROWAVE DETECTOR CALIBRATION & MAINTENANCE

2.1 Description

Perform calibration of each microwave detector unit under live traffic conditions. Inspect detector unit, attachment to pole, steel bandings, detector lead-in cable and detector power supply. Repair and/or replace any defective parts. Confirm communication status from detector to cabinet and cabinet to cabinet throughout the detector channel to the TMC. Inspect and clean equipment cabinets that house the modems/switches as well as the detector access box

on individual detector poles. Report any major problems/malfunctions to the Engineer for further evaluation.

Furnish and install non-intrusive microwave or radar vehicle detectors (MVD) in accordance with these Project Special Provisions. Provide MVD units with RS-232/485 and TCP/IP ports and lead-in cable. The MVD devices will collect traffic data such as traffic volume, vehicle speed, average speed, lane occupancy, vehicle classification and presence.

Furnish new equipment and component parts, of the latest design and manufacture, and in operable condition at the time of delivery and installation. No part or attachment can be substituted or applied contrary to the manufacturer's recommendations and standard practices.

Provide equipment design that prevents reversed assembly or improper installation of connectors, fasteners, etc. Design each item of equipment to protect personnel from exposure to high voltage during equipment operation, adjustments, and maintenance.

2.2 Materials

A. Calibrate Microwave Vehicle Detector (MVD)

No materials required to be provided to perform detector calibration.

B. Replace Microwave Vehicle Detector (MVD)

For compatibility with existing equipment and software in the Region, furnish RTMS G4, or approved equivalent, with Ethernet communication modules and serial communication modules. Furnish MVDs with all necessary hardware, mounting brackets and outdoor rated cabling to provide a complete, integrated and fully functional system. The MVD must meet the following minimum functional requirements:

• Measured Quantities	Volume, speed, occupancy, classification
• Detection Zone	Up to 12 traffic lanes
• Zone Width	7 – 20 feet
• Detection Range	0 to 250 feet
• Zone Resolution	1.5 feet or less
• Communications	TCP/IP and RS-232 / RS-485
• Configuration	Automatic
• Management	Supports local and remote management
• Storage	8 Mb built-in memory, min.
• Power	12 – 24 VAC or DC
• Operating Temperature	-40°C to 75°C
• Humidity	Up to 95%, relative
• Vibration	0.5 g up to 300MHz
• Enclosure	NEMA 4X IP-65 polycarbonate
• MTBF	10 years min.

C. Power and Data Cable

Furnish and install power and data cable as recommended by the MVD manufacturer. Provide outdoor rated CAT 5e cable for LAN connection.

2.3 Construction Methods

A. Calibrate Microwave Vehicle Detector

At each MVD location, verify communications upstream and downstream from the detectors and from the cabinets to the TRTMC. Report any malfunctions to the Engineer for repair or replacement.

At each MVD location connect a laptop computer to the detector unit and check and verify all lane and configuration settings. Modify configuration for any changes in lanes for each detector unit and save to the detector. Notify the Engineer of any lane configuration changes immediately. Perform calibration testing on each detector unit to ensure count accuracy to within 5 % (50 vehicle minimum), speed accuracy within 10%, and verified with a certified radar gun. Follow manufacturer's guidelines in determining the minimum number of vehicles required to accurately calibrate the detector unit. Calibrate and verify vehicle classification accuracy within 10%, verified through visual field observation. All calibrations are to be performed on a lane by lane basis, and results shall be confirmed by the Engineer. Compile all adjustments and field observations and results on a standardized inspection sheet, to be provided by NCDOT.

B. Replace Microwave Vehicle Detector

After removing the defective MVD, mount the new MVDs in a side-fired configuration on the existing poles at the locations where directed by the Engineer using the mounting brackets supplied by the manufacturer with the new detector unit. Attach with stainless steel bands and adjust the detector unit orientation on the pole to be as close as possible to the orientation of the unit that was removed. Complete detector configuration and calibration per manufacturer's instructions, and these specifications.

Install the new MVDs at a height above the road surface so that the masking of vehicles is minimized and that all detection zones are contained within the specified elevation angle as suggested by the manufacturer. Install the new detector unit at the same height or higher in order to calibrate and accurately detector vehicles and speeds.

Set up each MVD detection zone using configuration software and a Notebook PC to collect and report vehicle count, speed, occupancy, and four vehicle classifications. Compile all adjustments and field observations on a standardized inspection sheet, to be provided by NCDOT.

C. Power and Data Cable

Install power and data cable per the manufacture recommendation.

2.4 Measurement and Payment

Calibrate Detector Unit will be measured and paid as the actual number of detector units calibrated, tested and results accepted. No separate measurement will be made for power and data cables, connectors, attachment assemblies, radar gun or other speed measuring device, laptop computer or any other equipment or labor required to calibrate the detector units.

Replace MVD assembly will be measured and paid as the actual number of MVD assemblies furnished, installed, integrated, and accepted. No separate measurement will be made for power and data cables, connectors, attachment assemblies, grounding equipment, surge protectors, or any other equipment or labor required to replace and install the MVD assembly.

Payment will be made under:

Pay Item

Calibrate Detector Unit	Each
Replace MVD Assembly, Serial com	Each
Replace MVD Assembly, Ethernet com	Each

3.0 FIBER OPTIC TRANSCEIVERS

3.1 Description

Furnish and install shelf-mounted fiber optic data transceivers in the field equipment cabinets at locations that serve as communication points for the detector channels. Furnish and install transceivers only at locations that the existing transceiver has failed, or as directed by the Engineer. For compatibility with existing equipment, furnish IFS D9130 drop and repeat transceivers.

3.2 Materials

Comply with the Standard Specifications:

Page 10-217, Article 1098-12 “Fiber Optic Transceivers”

Furnish and install a field hardened fiber optic transceiver that replaces existing modems that have been identified by the Engineer as being defective. Provide IFS model D 9130 unit for compatibility with existing equipment.

3.3 Construction Methods

Install fiber optic data transceiver as shown in the Plans and configure the unit to operate in the drop-and-repeat mode.

Comply with the Standard Specifications:

Page 17-28, Section 1732, “Fiber Optic Transceivers”

3.4 Measurement and Payment

Drop and Repeat Transceiver will be measured and paid as the actual number of drop and repeat fiber optic transceivers furnished, installed and accepted.

Payment will be made under:

Pay Item

Drop and Repeat Transceiver	Each
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4.0 MODIFY DETECTOR COMMUNICATIONS TO ETHERNET OVER FIBER

4.1 Description

Modify the existing serial communications for detector channels from serial (RS232 and/or RS 485) to Ethernet over fiber. Install new Serial to IP adapter units in existing cabinets

where existing communication is by the use of fiber optic data transceivers. Install Ethernet LAN switch in each cabinet and connect the Serial to IP adapters to the LAN switch. Connect the Gigabit Ethernet fiber optic ports to jumpers as designated by the Engineer. Modify the detection system database configuration to read the data from the detectors via the LAN, and not through serial interface.

4.2 Materials

A. Field Ethernet Switch

Furnish and install a field hardened managed Ethernet switch with a minimum long haul Gigabit range of 25 miles. Furnish the switch with a minimum of:

- Two (2) fiber optic Gigabit Ethernet ports to allow data transfer over a pair of single mode fiber for bidirectional communication.
- Eight (8) Fast Ethernet ports (10/100BaseTx)
- 24-48 VDC or 120VAC Power Supply, 10 Watts max.
- -40 – 185 °F temperature range
- Galvanized steel enclosure
- DIN rail or panel mounted
- Store & Forward switching mode with $\leq 10 \mu$ Sec. latency
- ≥ 5 Gbps switching bandwidth
- 128, 256, 512 kbps, 4, 8 Mbps port rate limiting
- ≥ 32 kbytes MAC table
- ≥ 2 Mbit Frame buffer memory
- ≥ 4 Priority queues
- ≥ 255 Vlans
- Network management through graphical web-base HTTP with SSL 128-bit encryption, SNMP v3 with 56-bit encryption, Telnet, VT100, SSH/SFTP with 128-bit encryption, Command Line Interface, RSA Key Management with 1024 bit key
- TACACS+, RADIUS client, PPP Authentication and Accounting

Ensure the switch complies with all applicable IEEE networking standards, including but not limited to:

- IEEE 802.3
- IEEE 802.3u, .3x, .3z
- IEEE 802.3ab, .ad
- IEEE 802.1d MAC Bridges, and STP
- IEEE 802.1p, .1w, .1x
- IEEE 802.1Q, .1Q-2005

Ensure the switch complies with the following IETF RFCs:

- RFC768, 783, 791, 792, 793, 826, 854, 894, 1112, 1519, 1541, 2030, 2068, 2236, 2284, 2475, 2865, 3414, 3415
- RFC1493, 1907, 2012, 2013, 2578, 2579, 2819, 2863

B. Ethernet Hub Switch

Furnish and install a field hardened managed Ethernet Hub switch with a minimum long haul Gigabit range of 43 miles that meets the requirements above, providing sixteen (16) Fast Ethernet 10/100BaseTx RJ-45 ports and two (2) Gigabit fiber optic ports.

C. Serial To IP Adapter

Furnish and install a Serial to IP adapter at each existing cabinet where multiple detector units stream data to a fiber optic data transceiver. Provide an environmentally hardened adapter that has the following characteristics:

- 32 bit NET+ARM high performance RISC processor (NS7520 55 MHz)
- 4 MB Flash and 16 MB RAM
- RS-232 or switch selectable RS-232/422/485 serial interface through DB-9M connector
 - Throughput up to 230,400 bps
 - 7/8 data bits
 - 1/1.5/2 stop bits
 - None/Even/Odd parity
 - Full signal support with software/hardware flow control
- Auto-sensing 10/100 MB Ethernet interface and network link
- Flexible 9-30 VDC power supply (@ 370 mA), 120 VAC input
- LED indicators for network link, Ethernet activity, and power
- Operating temperature 32°F to 140°F, storage temperature -40°F to 194°F
- Relative humidity 5% to 90% condensing

The Serial to IP Adapter shall meet the following Regulatory Approvals:

- FCC Part 15, Class A
- EN 55022
- EN5J024
- VCCI
- AS 3548
- UL60950
- CSA 22.2 NO. 60950
- EN 60950

The Serial to IP Adapter shall be provided with software that allows configuration of the device through a laptop connection, and meets the following requirements:

- Automated security alerts via e-mail and SNMP traps
- IPv6 support for compatibility with next generation networks
- Easy to Use plug and play firmware that allows complete serial-to-network connectivity and unique product customization flexibility
- Strong SSL/TLS encryption with NIST-certified AES encryption for security sensitive environments
- Robust on board TCP/IP stack with built-in web server
- Universal IP address assignment, including Static IP, DHCP, and Auto IP
- Dynamic DNS support (DHCP option 12)
- Secure web user interface (HTTP/HTTPS)
- Pre-defined and custom device profiles

- Customizable web interface with optional Java applet support
 - File system w/512 kb user space
- Telnet command line interface
- Modem emulation with port logging
- Serial configuration interface (command line, XML remote command interface (RCI))
- User defined network service/port configuration
 - HTTP/HTTPS, Telnet, Rlogin, ADDP, SNMP, RealPort, SSL/TLS, TCP/UDP
- TCP/UDP forwarding characteristics
 - Bytes, idle time, data pattern
- User configurable TCP/UDP socket ID
- Data pattern event notification via e-mail/SNMP traps
- Intelligent SNMP device management
- Strong SSL/TLS based encryption
 - DES (56 bit), 3DES (168 bit), AES (128/256 bit)

4.3 Construction Methods

A. Field Ethernet Switch

Install a Field Ethernet switch at the CCTV camera and/or MVD site. Connect the Serial to IP adapter to one of the 10/100 ports of the switch using outdoor rated CAT 5e LAN cable. If present, connect other Serial to IP adapters to subsequent LAN ports. Connect the fiber optic jumpers to the Gigabit ports. Mount the Ethernet switch either on a fixed shelf in the cabinet or mounted to the DIN rail inside the cabinet.

B. Ethernet Hub Switch

Install an Ethernet Hub switch at locations as directed by the Engineer. Connect Ethernet devices to the 10/100 ports of the switch using outdoor rated CAT 5e LAN cable. Connect the fiber optic jumpers to the Gigabit ports. Mount the Ethernet Hub switch either on a fixed shelf in the cabinet or mounted to the DIN rail inside the cabinet.

C. Serial to IP Adapter

Install one Serial to IP adapter per MVD unit in each cabinet where fiber optic communications is present. Connect the existing MVD cable in the cabinet to the Serial side of the Adapter (using RS-485 communications). Configure the Serial to IP Adapter for Ethernet communications using an IP address approved by the Engineer. Confirm connectivity to the MVD unit through the Serial to IP adapter using Ethernet communications connected to a laptop. Configure the Detection database server to communicate with the MVD device through the Ethernet port and not the serial port.

4.4 Measurement and Payment

Field Ethernet Switch will be measured and paid as the actual number of Field Ethernet Switches furnished, installed, integrated, and accepted. No separate measurement will be made for power and/or Ethernet cables, connectors, surge protectors, or any other equipment or labor required to install the Field Ethernet Switch.

Ethernet Hub Switch will be measured and paid as the actual number of Ethernet Hub Switches furnished, installed, integrated, and accepted. No separate measurement will be made

for power and/or Ethernet cables, connectors, surge protectors, or any other equipment or labor required to install the Ethernet Hub Switch.

Serial to IP Adapter will be measured and paid as the actual number of Serial to IP Adapters furnished, installed, integrated, and accepted. No separate measurement will be made for power and/or Ethernet cables, connectors, surge protectors, or any other equipment or labor required to install and integrate the Serial to IP Adapter.

Payment will be made under:

Pay Item

Field Ethernet Switch.....	Each
Ethernet Hub Switch.....	Each
Serial to IP Adapter.....	Each

5.0 UNINTERRUPTABLE POWER SUPPLY (UPS)

5.1 Description

At each MVD cabinet or equipment cabinet that does not contain a UPS, or at cabinets where an existing UPS has failed, furnish and install one rack mounted UPS in each cabinet, as needed, or directed by the Engineer.

5.2 Materials

Furnish and install a rack mounted uninterruptable power supply, with AC cord and rack screws, that meets the following requirements:

Output

Output Power Capacity	480 Watts / 750 VA
Max Configurable Power	480 Watts / 750 VA
Nominal Output Voltage	120V
Output Voltage Distortion	Less than 5% at full load
Output Frequency (sync to mains)	57 - 63 Hz for 60 Hz nominal
Crest Factor	up to 5:1
Waveform Type	Sine wave
Output Connections	(4) NEMA 5-15R

Input

Nominal Input Voltage	120V
Input Frequency	50/60 Hz +/- 3 Hz (auto sensing)
Input Connections	NEMA 5-15P
Cord Length	6 feet

Input voltage range for main operations	82 - 144V
Input voltage adjustable range for mains operation	75 – 154 V

Battery Type

Maintenance-free sealed Lead-Acid battery with suspended electrolyte, leak-proof.

Typical recharge time	2 hours
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Communications & Management

Interface Port(s)	DB-9 RS-232, USB
Control panel battery	LED status display with load and bar-graphs

Surge Protection and Filtering

Surge energy rating	480 Joules
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Environmental

Operating Environment	32 - 104 °F
Operating Relative Humidity	0 - 95%
Storage Temperature	5 - 113 °F
Storage Relative Humidity	0 - 95%

Conformance

Regulatory Approvals	FCC Part 15 Class A,UL 1778
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5.3 Construction Method

Install the UPS in each cabinet as directed and power all CCTV cameras, MVDs, and communications equipment in the cabinet from the UPS.

5.4 Measurement and Payment

Uninterruptable Power Supply will be measured and paid as the actual number of uninterruptable power supplies furnished, installed and accepted.

No payment will be made for the cabling, connectors, cabinet attachment assemblies, or any other equipment or labor required to install the UPS as these are considered incidental to the UPS unit installation.

Payment will be made under:

Pay Item

Uninterruptable Power Supply.....	Each
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6.0 SERIAL DATA SURGE PROTECTION

6.1 Description

At each MVD cabinet and at each detector head location, or at locations where an existing serial data surge unit has failed, furnish and install one serial data surge protection unit, as needed, or directed by the Engineer.

6.2 Materials

Furnish and install a serial data surge protection unit that meets the following requirements:

Video Band Pass	0 Hz – 8 MHz
Impedance:	75 Ohms BNC/100 Ohms Terminal
Insertion Loss:	< 2 dB to 8 MHz
Return Loss:	> 15 dB to 8 MHz
Common Mode Rejection:	> 40 dB @ 8 MHz
Modes Protected: Video	Positive – G; Shield - G
Mode Protected: Data	All lines to ground
Temperature Range:	-40 F to + 158 F
Video requirements:	
Connection Method:	BNC to #22 - #14 AWG terminals
Service Voltage:	< 5 V peak-peak
Response Time:	< 1 picosecond
Clamping:	6.8 VDC
Surge Current:	114 A/pair (10/1000 microsec)
Power requirements:	
Service Voltage:	24 V AC/DC
Response Time:	< 5 nanoseconds
Clamping:	33 VAC / 47 VDC
Surge Current:	2,000 Amps/pair (8/20 microsec)
Data requirements:	
Connection Method:	Screw Terminals (#22 - #14 AWG)
Service Voltage:	< 5 VDC
Response Time:	< 1 picosecond
Clamping:	6.8 VDC
Surge Current:	114 A/pair (10/1000 microsec)

6.3 Construction Method

Install the serial data surge protection unit in each cabinet, and/or at each detector head location as directed and connect the power and data cables for the detector heads through the serial data surge protection unit at each location.

6.4 Measurement and Payment

Serial Data Surge Protection will be measured and paid as the actual number of serial data surge protection devices furnished, installed and accepted.

No payment will be made for the cabling, connectors, cabinet attachment assemblies, or any other equipment or labor required to install the surge protection devices as these are considered incidental to the installation.

Payment will be made under:

Pay Item

Serial Data Surge Protection.....Each

7.0 DETECTOR DATABASE SOFTWARE MAINTENANCE

7.1 Description

At each MVD cabinet and at each detector head location, or at locations where an existing serial data surge unit has failed, furnish and install one serial data surge protection unit, as needed, or directed by the Engineer.

7.2 Materials

Provide any and all materials necessary to investigate, review code, compile and modify the detector database located on the server in Raleigh NC.

7.3 Construction Method

Perform tasks as needed to add, delete, modify and compile all necessary detector information from all detection sources in the database, including outside 3rd party live feeds. Software maintenance can be performed on site or remotely, with prior approval from the Engineer. Perform all required tasks as necessary to archive any required data onto the requested format or other drive location as directed by the Engineer. Perform all tasks necessary to modify, re-configure and calibrate any inbound and outbound XML streams for 3rd party feeds.

7.4 Measurement and Payment

Detector Database Software Maintenance will be measured and paid as the actual number of hours worked on coding, programming compiling and compressing files on the detector database in order to maintain its stability and capability.

No payment will be made for any cabling, remote connections, compact disks, DVS disks, flash drives or any other equipment or labor required to maintain the detector database as these are considered incidental to the work performed under this pay item.

Payment will be made under:

Pay Item

Detector Database Software Maintenance Hour

AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS

(5-20-08)

Z-2

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

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Subarticle 108-13(E) of the *2012 Standard Specifications*.

ERRATA

(1-17-12) (Rev. 04-21-15)

Z-4

Revise the *2012 Standard Specifications* as follows:

Division 2

Page 2-7, line 31, Article 215-2 Construction Methods, replace “Article 107-26” with “Article 107-25”.

Page 2-17, Article 226-3, Measurement and Payment, line 2, delete “pipe culverts,”.

Page 2-20, Subarticle 230-4(B), Contractor Furnished Sources, change references as follows: **Line 1**, replace “(4) Buffer Zone” with “(c) Buffer Zone”; **Line 12**, replace “(5) Evaluation for Potential Wetlands and Endangered Species” with “(d) Evaluation for Potential Wetlands and Endangered Species”; and **Line 33**, replace “(6) Approval” with “(4) Approval”.

Division 3

Page 3-1, after line 15, Article 300-2 Materials, replace “1032-9(F)” with “1032-6(F)”.

Division 4

Page 4-77, line 27, Subarticle 452-3(C) Concrete Coping, replace “sheet pile” with “reinforcement”.

Division 6

Page 6-7, line 31, Article 609-3 Field Verification of Mixture and Job Mix Formula Adjustments, replace “30” with “45”.

Page 6-10, line 42, Subarticle 609-6(C)(2), replace “Subarticle 609-6(E)” with “Subarticle 609-6(D)”.

Page 6-11, Table 609-1 Control Limits, replace “Max. Spec. Limit” for the Target Source of $P_{0.075}/P_{be}$ Ratio with “1.0”.

Page 6-40, Article 650-2 Materials, replace “Subarticle 1012-1(F)” with “Subarticle 1012-1(E)”

Division 7

Page 7-1, Article 700-3, CONCRETE HAULING EQUIPMENT, line 33, replace “competition” with “completion”.

Division 8

Page 8-23, line 10, Article 838-2 Materials, replace “Portland Cement Concrete, Class B” with “Portland Cement Concrete, Class A”.

Division 10

Page 10-166, Article 1081-3 Hot Bitumen, replace “Table 1081-16” with “Table 1081-2”, replace “Table 1081-17” with “Table 1081-3”, and replace “Table 1081-18” with “Table 1081-4”.

Division 12

Page 12-7, Table 1205-3, add “FOR THERMOPLASTIC” to the end of the title.

Page 12-8, Subarticle 1205-5(B), line 13, replace “Table 1205-2” with “Table 1205-4”.

Page 12-8, Table 1205-4 and 1205-5, replace “THERMOPLASTIC” in the title of these tables with “POLYUREA”.

Page 12-9, Subarticle 1205-6(B), line 21, replace “Table 1205-4” with “Table 1205-6”.

Page 12-11, Subarticle 1205-8(C), line 25, replace “Table 1205-5” with “Table 1205-7”.

Division 15

Page 15-4, Subarticle 1505-3(F) Backfilling, line 26, replace “Subarticle 235-4(C)” with “Subarticle 235-3(C)”.

Page 15-6, Subarticle 1510-3(B), after line 21, replace the allowable leakage formula with the following: $W = LD\sqrt{P} \div 148,000$

Page 15-6, Subarticle 1510-3(B), line 32, delete “may be performed concurrently or” and replace with “shall be performed”.

Page 15-17, Subarticle 1540-3(E), line 27, delete “Type 1”.

Division 17

Page 17-26, line 42, Subarticle 1731-3(D) Termination and Splicing within Interconnect Center, delete this subarticle.

Revise the 2012 Roadway Standard Drawings as follows:

1633.01 Sheet 1 of 1, English Standard Drawing for Matting Installation, replace “1633.01” with “1631.01”.

PLANT AND PEST QUARANTINES

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

(3-18-03) (Rev. 12-20-16)

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 <http://www.ncagr.gov/plantindustry/> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

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

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.

AWARD OF CONTRACT

(6-28-77)(Rev 2/16/2016)

Z-6

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

TITLE VI AND NONDISCRIMINATION

I. Title VI Assurance

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:

(1) Compliance with Regulations: The contractor shall comply with the Regulation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

(2) 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 either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) 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 Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

(4) Information and Reports: The contractor shall provide all information and reports required by the Regulations or 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 North Carolina Department of Transportation (NCDOT) or the Federal Highway Administration (FHWA) to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the NCDOT, or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the NCDOT shall impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

- (a) Withholding of payments to the contractor under the contract until the contractor complies, and/or
- (b) Cancellation, termination or suspension of the contract, in whole or in part.

(6) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The contractor shall take such action with respect to any subcontractor procurement as the NCDOT or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance: provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the

contractor may request the NCDOT to enter into such litigation to protect the interests of the NCDOT, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

II. Title VI Nondiscrimination Program

Title VI of the 1964 Civil Rights Act, 42 U.S.C. 2000d, provides that: “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” The broader application of nondiscrimination law is found in other statutes, executive orders, and regulations (see Section III, Pertinent Nondiscrimination Authorities), which provide additional protections based on age, sex, disability and religion. In addition, the 1987 Civil Rights Restoration Act extends nondiscrimination coverage to all programs and activities of federal-aid recipients and contractors, including those that are not federally-funded.

Nondiscrimination Assurance

The North Carolina Department of Transportation (NCDOT) hereby gives assurance that no person shall on the ground of race, color, national origin, sex, age, and disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity conducted by the recipient, as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and any other related Civil Rights authorities, whether those programs and activities are federally funded or not.

Obligation

During the performance of this contract, the Contractor and its subcontractors are responsible for complying with NCDOT’s Title VI Program. The Contractor must ensure that NCDOT’s Notice of Nondiscrimination is posted in conspicuous locations accessible to all employees and subcontractors on the jobsite, along with the Contractor’s own Equal Employment Opportunity (EEO) Policy Statement. The Contractor shall physically incorporate this “**TITLE VI AND NONDISCRIMINATION**” language, in its entirety, into all its subcontracts on federally-assisted and state-funded NCDOT-owned projects, and ensure its inclusion by subcontractors into all subsequent lower tier subcontracts. The Contractor and its subcontractors shall also physically incorporate the **FHWA-1273**, in its entirety, into all subcontracts and subsequent lower tier subcontracts on Federal-aid highway construction contracts only. The Contractor is also responsible for making its subcontractors aware of NCDOT’s Discrimination Complaints Process, as follows:

FILING OF COMPLAINTS

- 1. Applicability** – These complaint procedures apply to the beneficiaries of the NCDOT’s programs, activities, and services, including, but not limited to, members of the public, contractors, subcontractors, consultants, and other sub-recipients of federal and state funds.
- 2. Eligibility** – Any person or class of persons who believes he/she has been subjected to discrimination or retaliation prohibited by any of the Civil Rights authorities, based upon race, color, sex, age, national origin, or disability, may file a written complaint with NCDOT’s Civil Rights office. The law prohibits intimidation or retaliation of any sort. The complaint may be filed by the affected individual or a representative, and must be in writing.

3. Time Limits and Filing Options – A complaint must be filed no later than 180 calendar days after the following:

- The date of the alleged act of discrimination; or
- The date when the person(s) became aware of the alleged discrimination; or
- 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 other discrimination complaints may be submitted to the following entities:

- **North Carolina Department of Transportation**, Office of Equal Opportunity & Workforce Services (EOWS), External Civil Rights Section, 1511 Mail Service Center, Raleigh, NC 27699-1511; 919-508-1808 or toll free 800-522-0453
- **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

Federal Highway Administration, North Carolina Division Office, 310 New Bern Avenue, Suite 410, Raleigh, NC 27601, 919-747-7010

Federal Highway Administration, Office of Civil Rights, 1200 New Jersey Avenue, SE, 8th Floor, E81-314, Washington, DC 20590, 202-366-0693 / 366-0752

Federal Transit Administration, Office of Civil Rights, ATTN: Title VI Program Coordinator, East Bldg. 5th Floor – TCR, 1200 New Jersey Avenue, SE, Washington, DC 20590

Federal Aviation Administration, Office of Civil Rights, 800 Independence Avenue, SW, Washington, DC 20591, 202-267-3258

- **US Department of Justice**, Special Litigation Section, Civil Rights Division, 950 Pennsylvania Avenue, NW, Washington, DC 20530, 202-514-6255 or toll free 877-218-5228

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 EOWS at the phone number above 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, sex, age, or disability. The term “basis” refers to the complainant’s membership in a protected group category. Contact this office to receive a Discrimination Complaint Form.

Protected Categories	Definition	Examples	Applicable Statutes and Regulations	
			FHWA	FTA

Race	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	Title VI of the Civil Rights Act of 1964; 49 CFR Part 21; Circular 4702.1B
Color	Color of skin, including shade of skin within a racial group	Black, White, brown, yellow, etc.		
National Origin	Place of birth. Citizenship is not a factor. Discrimination based on language or a person's accent is also covered.	Mexican, Cuban, Japanese, Vietnamese, Chinese		
Sex	Gender	Women and Men	1973 Federal-Aid Highway Act	Title IX of the Education Amendments of 1972
Age	Persons of any age	21 year old person	Age Discrimination Act of 1975	
Disability	Physical or mental impairment, permanent or temporary, or perceived.	Blind, alcoholic, paraplegic, epileptic, diabetic, arthritic	Section 504 of the Rehabilitation Act of 1973; Americans with Disabilities Act of 1990	

III. 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:

- 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.
- 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);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- 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;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- 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);
- 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);

- 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;
- The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination 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;
- 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);
- 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).
- 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);
- 49 CFR Part 26, regulation to ensure nondiscrimination in the award and administration of DOT-assisted contracts in the Department's highway, transit, and airport financial assistance programs, as regards the use of Disadvantaged Business Enterprises (DBEs);
- Form FHWA-1273, “Required Contract Provisions,” a collection of contract provisions and proposal notices that are generally applicable to *all Federal-aid construction projects* and must be made a part of, and physically incorporated into, *all federally-assisted contracts*, as well as appropriate subcontracts and purchase orders, particularly Sections II (Nondiscrimination) and III (Nonsegregated Facilities).

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.

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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.

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60 percent	of the journeyman wage for the first half of the training period
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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.

NAME CHANGE FOR NCDENR:

(1-19-16)

Z-11

Wherever in the 2012 Standard Specifications, Project Special Provisions, Standard Special Provisions, Permits or Plans that reference is made to "NCDENR" or "North Carolina Department of Environment and Natural Resources", replace with "NCDEQ" or North Carolina Department of Environmental Quality" respectively, as the case may be.

NCDOT Division 5

Detector Locations - WAKE and DURHAM COUNTIES

Communication Point	Detector Name	Roadway	Direction	MP	Detector Heads	Thru Lanes	Notes
I-85 SYSTEM - DURHAM COUNTY							
MVD 85-171 cabinet	D5 DET 85-171	I-85	NB	171	1	2	Cabinet on NB shoulder at County line
		I-85	SB			2	
MVD 85-172 cabinet	D5 DET 85-172	I-85	NB	172	1	3	Cabinet on NB shoulder where 147 veers off
CCTV 1108 cabinet	D5 DET 85-172.5	I-85	NB, SB	172.5	1	3, 3	Cabinet at top of bridge slope on 147 over 85
MVD 85-173 cabinet	D5 DET 85-173	I-85	NB, SB	173	1	3, 3	Cabinet on SB shoulder, just south of Cole Mill
CCTV 1109 cabinet	D5 DET 85-173.5	I-85	NB	173.5	1	3	NB shoulder of 85 under 15-501 bridge
		I-85	SB		1	3	
MVD 85-173.8 cabinet	D5 DET 85-173.8	I-85	NB, SB	173.8	2	5, 5	Both detectors on NB shoulder, south of Hillandale
MVD 85-174 cabinet	D5 DET 85-174	I-85	SB	174	1	5	Cabinet on SB shoulder, north of Hillandale
		I-85	NB		1	5	
MVD 85-175.1 cabinet	D5 DET 85-175	I-85	NB	175	1	5	Cabinet on pole on Northpointe Dr between Guess & Broad
		I-85	SB		1	5	Detectors on both shoulder just north of bridge over Guess
	D5 DET 85-175.4	I-85	NB	175.4	1	5	Detectors on oth shoulders south of Broad St bridge over 85
		I-85	SB		1	5	
CCTV 1111 cabinet	D5 DET 85-175.8	I-85	NB	175.8	1	5	Cabinet on top of slope between Duke & Gregson Sts.
		I-85	SB		1	5	Detectors on both shoulders near where C/D starts/ends
	D5 DET 85-176.2	I-85	NB	176.2	1	5	Detectors on both shoulders of CD north of Duke St
		I-85	SB		1	5	
MVD 85-176.6 cabinet	D5 DET 85-176.6	I-85	SB	176.6	1	5	Cabinet on SB shoulder north of 85 bridge over Club Blvd
		I-85	NB		1	5	
CCTV 1112 cabinet	D5 DET 85-177	I-85	SB	177	1	5	Cabinet on top of slope, NB shoulder at Avondale Dr
		I-85	NB		1	5	Detectors on both shoulders between Roxboro & Avondale
	D5 DET 85-177.6	I-85	NB	177.6	1	5	Detectors on both shoulders just south of 85 bridge over Camden Ave
		I-85	SB		1	5	
CCTV 1113 cabinet	D5 DET 85-178	I-85	NB	178	1	3	Cabinet on top of slope, middle of I-85/US 70 interchange at CCV pole
		I-85	SB		1	3	Detectors on both shoulders just south of US 70 flyover bridge over I-85
	D5 DET 178.6	I-85	SB	178.6	1	2	Detector on SB shoulder at start of I-85 widening, north of Midland Terr
CCTV 1316 cabinet	D5 DET 15501-108	US 15-501	NB	108	1	2	Cabinet on top of slope SB 147 bridge over US 15-501, west side
		US 15-501	SB		1	2	Detectors on both shoulders of C/D north of RR bridge over 15-501

NCDOT Division 5

Detector Locations - WAKE and DURHAM COUNTIES

Communication Point	Detector Name	Roadway	Direction	MP	Detector Heads	Thru Lanes	Notes
I-85 SYSTEM - DURHAM COUNTY (continued)							
MVD 70-283.5 cabinet	D5 DET 70-283.5	US 70	EB	283.5	1	4	Cabinet is on detector pole on EB shoulder
		US 70	WB		1	4	Detectors on both shoulders of US 70 east of bridge over Geer St.
CCTV 1114 cabinet	D5 DET 70-284	US 70	WB	284	1	4	Cabinet is on top of bridge slope Cheek Rd. over US 70, east side
		US 70	EB		1	4	Detectors on both shoulders of US 70 at Cheek Rd.
DMS 37 cabinet	D5 DET 70-284.5	US 70	WB	284.5	1	2	DMS cabinet is on WB shoulder of YS 70, west of NC 98
		US 70	EB		1	2	Detectors on both shoulders of US 70 between Cheek Rd and NC 98
CCTV 1115 cabinet	D5 DET 85-179	I-85	NB, SB	179	1	4	CCTV cabinet is on SB side of I-85 at bridge
MVD 85-181 cabinet	D5 DET 85-181	I-85	NB, SB	181	1	4	MVD cabinet on NB side of service road adjacent to I-85
CCTV 1117 cabinet	D5 DET 85-182	I-85	NB, SB	182	1	4	CCTV cabinet is on NB side of I-85 at bridge
MVD 85-183 cabinet	D5 DET 85-183	I-85	NB, SB	183	1	4	MVD cabinet is on SB side of I-85 at end of on ramp from exit 183
CCTV 1119 cabinet	D5 DET 85-184	I-85	NB, SB	184	1	4	CCTV cabinet is on NB side of I-85 just south of Falls Lake bridge
CCTV 1120 cabinet	D5 DET 85-186	I-85	NB, SB	186	1	4	CCTV cabinet is on top of bridge slope, US 15 over I-85, NB side
NC 147 SYSTEM - DURHAM COUNTY							
CCTV 1306 cabinet	D5 DET 147-6	NC 147	NB	6	1	2	CCTV cabinet is on NB shoulder of NC 147 at Cornwallis Rd.
		NC 147	SB		1	3	Detectors on both shoulders of NC 147 at Cornwallis Rd.
CCTV 1307 cabinet	D5 DET 147-7	NC 147	NB, SB	7	1	4	Cabinet on CCTV pole at Alexander Dr., detector unit on CCTV pole
CCTV 1308 cabinet	D5 DET 147-8	NC 147	NB	8	1	2	Cabinet is on CCTV pole on NB shoulder of NC 147 at Ellis Rd exit
		NC 147	SB		1	2	Detectors both on CCTV pole on NB side.
CCTV 1309 cabinet	D5 DET 147-9	NC 147	NB, SB	9	1	4	Cabinet is on CCTV pole at Glover Rd., detector unit on CCTV pole
CCTV 1310 cabinet	D5 DET 147-10	NC 147	NB, SB	10	1	4	Cabinet is on CCTV pole south of Briggs Ave., detector unit on CCTV pole
CCTV 1311 cabinet	D5 DET 147-11	NC 147	NB, SB	11	1	4	Cabinet is on CCTV pole at Alston Ave., detector unit on CCTV pole
CCTV 1312 cabinet	D5 DET 147-12	NC 147	NB, SB	12	1	4	Cabinet is on CCTV pole at Mangum St., detector unit on CCTV pole
CCTV 1313 cabinet	D5 DET 147-13	NC 147	NB, SB	13	1	4	Cabinet is on CCTV pole at Chapel Hill St., detector unit on CCTV pole
DMS 16 cabinet	D5 DET 147-14	NC 147	NB	14	1	2	DMS cabinet is in median of NC 147 just south of Swift Ave.
		NC 147	SB		1	2	Both detectors on sign structure upright in median

NCDOT Division 5

Detector Locations - WAKE and DURHAM COUNTIES

Communication Point	Detector Name	Roadway	Direction	MP	Detector Heads	Thru Lanes	Notes
NC 147 SYSTEM - DURHAM COUNTY (continued)							
CCTV 1315 cabinet	D5 DET 147-15	NC 147	NB	15	1	2	Cabinet is in median of NC 147 at bridge over Hillandale Rd/Fulton St
		NC 147	SB		1	2	Both detectors are mounted on CCTV pole in median
CCTV 1316 cabinet	D5 DET 147-16	NC 147	NB, SB	16	1	6	Cabinet is on CCTV pole at US 15-501., detector unit on CCTV pole
US 64 SYSTEM - WAKE COUNTY							
CCTV 1420 cabinet	D5 DET 64-420	US 64	EB, WB	420	1	6	CCTV cabinet is on EB side of US 64/264 just past bridge
DMS 20 cabinet	D5 DET 64-421	US 64	EB, WB	421	1	6	DMS cabinet is on WB side of US 64/264, near Neuse River bridge
CCTV 1422 cabinet	D5 DET 64-422	US 64	EB, WB	422	1	6	MVD cabinet is on pole west of Hodge Rd bridge, near ramp loop
CCTV 1226 cabinet	D5 DET 64-423	US 64	EB, WB	423	1	4	CCTV cabinet is on exit ramp from I-540 EB to US 64/264 EB at bridge
CCTV 1424 cabinet	D5 DET 64-424	US 64	EB, WB	424	1	4	CCTV cabinet is on WB side of US 64/264 just past bridge
CCTV 1425 cabinet	D5 DET 64-425	US 64	EB, WB	425	1	4	CCTV cabinet is on EB side of US 64/264 at bridge
MVD 64-426 cabinet	D5 DET 64-426	US 64	EB, WB	426	1	4	MVD cabinet is on pole on WB side of US 64/264 near guide sign
CCTV 1427 cabinet	D5 DET 64-427	US 64	EB, WB	428	1	4	CCTV cabinet is on WB side of US 64/264 just past bridge
CCTV 1428 cabinet	D5 DET 64-428	US 64	EB, WB	428	1	4	CCTV cabinet is on WB side of US 64/264 near on ramp from US 64 Bus.
CCTV 1431 cabinet	D5 DET 64-431	US 64	EB WB	431	1 1	2 2	CCTV cabinet is in median of US 64/264 at bridge
CCTV 1432 cabinet	D5 DET 64-432	US 64	EB WB	432	1 1	2 2	CCTV cabinet is in median of US 64/264 at bridge
CCTV 1434 cabinet	D5 DET 64-434	US 64	EB, WB	434	1	4	CCTV cabinet is on WB side of US 64/264 (solar site)
CCTV 1435 cabinet	D5 DET 64-435	US 64	EB WB	435	1 1	2 2	CCTV cabinet is in median of US 64/264 at bridge
CCTV 1437 cabinet	D5 DET 64-436	US 64	EB, WB	436	1	4	CCTV cabinet is on EB side of US 64 at bridge
CCTV 1438 cabinet	D5 DET 264-19.5	US 264	EB, WB	19.5	1	4	CCTV cabinet is on WB side of US 264 east of US 64 interchange

NCDOT Division 5

Detector Locations - WAKE and DURHAM COUNTIES

Communication Point	Detector Name	Roadway	Direction	MP	Detector Heads	Thru Lanes	Notes
I-540 SYSTEM - WAKE COUNTY							
CCTV 1217 cabinet	D5 DET 540-17	I-540	EB, WB	17	1	6	CCTV cabinet is on the WB side of I-540 at the bridge
CCTV 1218 cabinet	D5 DET 540-18	I-540	EB, WB	18	1	6	CCTV cabinet is on the top of slope near bridge at on ramp to 540 EB
DMS 27 cabinet	D5 DET 540-19	I-540	EB, WB	19	1	6	DMS cabinet is on WB side of I-540 near m m 19
CCTV 1220 cabinet	D5 DET 540-20	I-540	EB, WB	20	1	6	CCTV cabinet is on EB side of I-540 at top of slope at bridge
CCTV 1222 cabinet	D5 DET 540-22	I-540	EB, WB	22	1	6	CCTV cabinet is on WB side of I-540 at top of slope at bridge
CCTV 1224 cabinet	D5 DET 540-24	I-540	EB, WB	24	1	6	CCTV cabinet is on EB side of I-540 at top of slope at bridge
MVD 540-25 cabinet	D5 DET 540-25	I-540	EB, WB	25	1	6	MVD cabinet is on WB side of I-540 past end of on ramp for US 64 WB

FUTURE LOCATIONS - I-85 ORANGE COUNTY

CCTV 1101 cabinet	D5 DET 85-161	I-85	NB SB	161	1 1	4 4	Future location
CCTV 1102 cabinet	D5 DET 85-163	I-85	NB SB	163	1 1	3 3	Future location
	D5 DET 40-259	I-40	EB	259	1	2	
CCTV 1103 cabinet	D5 DET 85-164	I-85	NB, SB	164	1	4	Future location
CCTV 1104 cabinet	D5 DET 85-165	I-85	NB, SB	165	1	4	Future location
CCTV 1105 cabinet	D5 DET 85-167.5	I-85	NB SB	167.5	1 1	2 2	Future location
CCTV 1106 cabinet	D5 DET 85-169	I-85	NB, SB	169	1	4	Future location

MBE/WBE LISTING FORM

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				
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.

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 Subcontractor \$ _____

MBE Percentage of Total Contract Bid Price _____%

** Dollar Volume of WBE Subcontractor \$ _____

** Dollar Volume of MBE/WBE Subcontractor Percentage of Total Contract Bid Price:

WBE 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.

ADDENDUM(S)

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.

AWARD LIMITS ON MULTIPLE PROJECTS

It is the desire of the Proposer to be awarded contracts, the value of which will not exceed a total of \$ _____, for those projects indicated below on which bids are being opened on the same date as shown in the Proposal Form. Individual projects shall be indicated by placing the project number and county in the appropriate place below. Projects not selected will not be subject to an award limit.

(Project Number)

(County)

(Project Number)

(County)

(Project Number)

(County)

(Project Number)

(County)

*If a Proposer desires to limit the total amount of work awarded to him in this letting, he shall state such limit in the space provided above in the second line of this form.

It is agreed that in the event that I am (we are) the successful bidder on indicated projects, the total value of which is more that the above stipulated award limits, the Board of Transportation will award me (us) projects from among those indicated which have a total value not exceeding the award limit and which will result in the best advantage to the Department of Transportation.

**Signature of Authorized Person

**Only those persons authorized to sign bids under the provisions of Article 102-8, Item 7, shall be authorized to sign this form.

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

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

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

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

SIGNATURE OF CONTRACTOR

_____ Full name of Corporation

_____ Address as Prequalified

Attest _____
Secretary/Assistant Secretary
Select appropriate title

By _____
President/Vice President/Assistant Vice President
Select appropriate title

_____ Print or type Signer's name

_____ Print or type Signer's name

CORPORATE SEAL

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the

_____ day of _____ 20__.

NOTARY SEAL

_____ Signature of Notary Public

of _____ County

State of _____

My Commission Expires: _____

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

PARTNERSHIP

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

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

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

SIGNATURE OF CONTRACTOR

	By	
Signature of Witness		Signature of Partner
Print or type Signer's name		Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the _____ day of _____ 20__.

NOTARY SEAL

Signature of Notary Public

of _____ County

State of _____

My Commission Expires: _____

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

LIMITED LIABILITY COMPANY

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

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

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

SIGNATURE OF CONTRACTOR

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

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the

NOTARY SEAL

_____ day of _____ 20__.

Signature of Notary Public

of _____ County

State of _____

My Commission Expires: _____

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

JOINT VENTURE (2) or (3)

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

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

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

SIGNATURE OF CONTRACTOR

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

_____ Signature of Witness or Attest	By	_____ Signature of Contractor
_____ Print or type Signer's name		_____ Print or type Signer's name
<i>If Corporation, affix Corporate Seal</i>	and	
_____ Signature of Witness or Attest	By	_____ Signature of Contractor
_____ Print or type Signer's name		_____ Print or type Signer's name
<i>If Corporation, affix Corporate Seal</i>	and	
_____ Signature of Witness or Attest	By	_____ Signature of Contractor
_____ Print or type Signer's name		_____ Print or type Signer's name

If Corporation, affix Corporate Seal
NOTARY SEAL
Affidavit must be notarized for Line (2)
Subscribed and sworn to before me this _____ day of _____ 20____

Signature of Notary Public
of _____ County
State of _____
My Commission Expires: _____

NOTARY SEAL
Affidavit must be notarized for Line (3)
Subscribed and sworn to before me this _____ day of _____ 20____

Signature of Notary Public
of _____ County
State of _____
My Commission Expires: _____

NOTARY SEAL
Affidavit must be notarized for Line (4)
Subscribed and sworn to before me this _____ day of _____ 20____

Signature of Notary Public
of _____ County
State of _____
My Commission Expires: _____

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

INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME

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

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

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

SIGNATURE OF CONTRACTOR

Name of Contractor

_____ Individual name

Trading and doing business as

_____ Full name of Firm

Signature of Witness

Signature of Contractor, Individually

Print or type Signer's name

Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the

NOTARY SEAL

_____ day of _____ 20__.

Signature of Notary Public

of _____ County

State of _____

My Commission Expires: _____

**EXECUTION OF BID
NON-COLLUSION AFFIDAVIT, DEBARMENT CERTIFICATION AND GIFT BAN
CERTIFICATION
INDIVIDUAL DOING BUSINESS IN HIS OWN NAME**

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

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

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

SIGNATURE OF CONTRACTOR

Name of Contractor _____
Print or type Individual name

Address as Prequalified

Signature of Contractor, Individually

Print or type Signer's Name

Signature of Witness

Print or type Signer's name

AFFIDAVIT MUST BE NOTARIZED

Subscribed and sworn to before me this the _____ day of _____ 20__.

NOTARY SEAL

Signature of Notary Public

of _____ County

State of _____

My Commission Expires: _____

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 filed 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
PURCHASE ORDER CONTRACT BID FORM**

Work Order: 211M.05

Description: ANNUAL NEEDS FOR MICROWAVE DETECTOR

County: DURHAM AND WAKE

ITEM	SECT	DESCRIPTION	QTY	UNIT	UNIT PRICE (\$)	AMOUNT BID (\$)
1	SP	CALIBRATE DETECTOR UNIT	80	EA		
2	SP	REPLACE MVD ASSEMBLY, SERIAL COM	5	EA		
3	SP	REPLACE MVD ASSEMBLY, ETHERNET COM	5	EA		
4	SP	DROP AND REPEAT TRANSCEIVER	5	EA		
5	SP	FIELD ETHERNET SWITCH	15	EA		
6	SP	ETHERNET HUB SWITCH	2	EA		
7	SP	SERIAL TO IP ADAPTER	20	EA		
8	SP	SERIAL DATA SURGE PROTECTOR	20	EA		
9	SP	UNINTERUPTABLE POWER SUPPLY	15	EA		
10	SP	DETECTION DATABASE MAINTENANCE	100	HR		

TOTAL BID FOR PROJECT: _____