



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

February 11, 2011

**Addendum No. 2**

Contract No.: C 202615  
TIP No.: R-2583  
County: Hertford  
Project Description: US 158 Widening from the Murfreesboro Bypass to US 13 west of Winton

RE: Addendum No. 2 to Final RFP

**March 24, 2011 Letting**

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated January 5, 2011 recently furnished to you on the above project. We have since incorporated changes and have attached a copy of Addendum No. 2 for your information. Please note that all revisions have been highlighted in gray and are as follows:

The first and second pages of the Table of Contents have been revised. Please void the first and second pages in your proposal and staple the revised first and second pages thereto.

Page Nos. 1, 6, 12, 45 and 46 of the *Project Special Provisions* have been revised. Please void Page Nos. 1, 6, 12, 45 and 46 in your proposal and staple the revised Page Nos. 1, 6, 12, 45 and 46 thereto.

Page Nos. 59 and 60 of the *General Section* have been revised. Please void Page Nos. 59 and 60 in your proposal and staple the revised Page Nos. 59 and 60 thereto.

Page Nos. 67 and 68 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 67 and 68 in your proposal and staple the revised Page Nos. 67 and 68 thereto.

Page No. 73 of the *Pavement Management Scope of Work* has been revised. Please void Page No. 73 in your proposal and staple the revised Page No. 73 thereto.

Page No. 87 of the *Hydraulics Scope of Work* has been revised. Please void Page No. 87 in your proposal and staple the revised Page No. 87 thereto.

MAILING ADDRESS:  
NC DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION PROGRAM MANAGEMENT  
1595 MAIL SERVICE CENTER  
RALEIGH NC 27699-1595

TELEPHONE: 919-250-4234  
FAX: 919-212-5711

WEBSITE:  
WWW.NCDOT.GOV

LOCATION:  
CENTURY CENTER COMPLEX  
ENTRANCE B-1  
1020 BIRCH RIDGE DRIVE  
RALEIGH NC

Page Nos. 89 and 93 of the *Environmental Permits Scope of Work* have been revised. Please void Page Nos. 89 and 93 in your proposal and staple the revised Page Nos. 89 and 93 thereto.

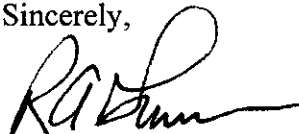
Page No. 97 of the *Traffic Management Scope of Work* has been revised. Please void Page No. 97 in your proposal and staple the revised Page No. 97 thereto.

Page No. 110 of the *Pavement Markings Scope of Work* has been revised. Please void Page No. 110 in your proposal and staple the revised Page No. 110 thereto.

Page Nos. 130 and 131 of the *Public Information Scope of Work* have been revised. Please void Page Nos. 130 and 131 in your proposal and staple the revised Page Nos. 130 and 131 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 250-4128.

Sincerely,



R.A. Garris, P.E.  
Contract Officer

RAG/JEA

Cc: Mr. Victor Barbour, PE    Mr. Jerry Jennings, PE    Ms. Teresa Bruton, PE  
Mr. Rodger Rochelle, PE    Ms. Jackie Armstrong, PE    File

**TABLE OF CONTENTS**

**COVER SHEET**

**PROPOSAL SHEETS**

<b>PROJECT SPECIAL PROVISIONS</b>	(GREEN SHEETS)	<i>PAGE NO.</i>
<b>Contract Time and Liquidated Damages</b> .....		1
Other Liquidated Damages .....		1
Progress Schedule .....		2
Payout Schedule.....		3
Mobilization.....		4
Substantial Completion.....		4
<b>Submittal of Quantities, Fuel Base Index Price and Opt-Out Option</b> .....		5
Execution of Bid, Non-Collusion Affidavit, Debarment Certification and Gift Ban Certification .....		6
Submission of Design-Build Proposal.....		7
Alternative Technical Concepts and Confidential Questions .....		7
Value Analysis.....		12
<b>Schedule of Estimated Completion Progress</b> .....		12
Minority Business Enterprise and Women Business Enterprise.....		12
Contractor’s License Requirements.....		23
Subsurface Information.....		24
Cooperation between Contractors.....		24
Bid Documentation .....		24
Twelve Month Guarantee .....		27
Outsourcing Outside the USA .....		28
Clearing and Grubbing.....		28
SHPO Documentation for Borrow / Waste Sites.....		29
Erosion & Sediment Control / Stormwater Certification.....		30
Procedure for Monitoring Borrow Pit Discharge.....		35
Building and Appurtenance Removal / Demolition.....		37
Culvert Pipe .....		37
Drainage Pipe.....		38
Pipe Installation and Pipe Culverts .....		40
<b>** NOTE ** Deleted Cement and Lime Stabilization of Sub-Grade Soils</b>		
<b>Price Adjustments for Asphalt Binder</b> .....		45
Material Transfer Vehicle .....		46
Price Adjustments - Asphalt Concrete Plant Mix .....		46
Field Office .....		46
Safety Fence.....		49
<b>GENERAL</b>	(GREEN SHEETS)	51

**SCOPES OF WORK** (GREEN SHEETS)

Roadway .....66  
Pavement Management.....73  
Structures .....76  
Geotechnical Engineering.....78  
Hydraulics.....87  
Environmental Permits.....89  
Traffic Management.....94  
Pavement Markings .....109  
Right of Way.....111  
Utilities Coordination .....114  
Signing .....120  
Erosion and Sedimentation Control.....123  
Public Information .....130

**STANDARD SPECIAL PROVISIONS** (YELLOW SHEETS)

Liability Insurance .....132  
Plant and Pest Quarantines.....133  
Contractor Claim Submittal Form .....133  
Gifts from Vendors and Contractors.....134  
Embankments.....134  
Aggregate Subgrade .....135  
Flowable Fill .....135  
Bridge Approach Fills.....136  
Fine Grading Subgrade, Shoulders and Ditches .....138  
Aggregate Base Course .....138  
Preparation of Subgrade and Base.....138  
Asphalt Pavements – Superpave.....139  
Asphalt Pavements - Warm Mix Asphalt Superpave .....155  
Asphalt Binder Content of Asphalt Plant Mixes.....157  
Asphalt Plant Mixtures .....158  
Final Surface Testing – Asphalt Pavements .....158  
Subsurface Drainage .....161  
Remove and Stockpile Existing Guardrail.....163  
Guardrail Anchor Units Type M-350 .....163  
Guardrail Anchor Units, Type 350 .....164  
Fence.....165  
Preformed Scour Hole with Level Spreader Apron.....165  
Street Signs and Markers and Route Markers.....166  
Steel U-Channel Posts and Steel Square Tube Supports .....167  
Shipping Signs .....167  
Galvanized High Strength Bolts, Nuts and Washers .....168  
Galvanizing.....168  
Aggregate Production .....168

**\*\*\* PROJECT SPECIAL PROVISIONS \*\*\*****CONTRACT TIME AND LIQUIDATED DAMAGES**

07/12/07

DB1 G04A

The date of availability for this contract is **April 25, 2011**, except that the Design-Build Team shall not begin ground disturbing activities, including utility relocations and tree harvesting, until a meeting is held between the NCDOT, the regulatory agencies and the Design-Build Team; and the required permits have been acquired, as stipulated in the Environmental Permits Scope of Work contained elsewhere in this Request for Proposals (RFP). The Design-Build Team shall consider this factor in determining the proposed completion date for this project.

The completion date for this contract is defined as the date proposed in the Technical Proposal by the proposer who is awarded the project. The completion date thus proposed shall not be later than **December 1, 2014**.

When observation periods are required by the special provisions, they are not a part of the work to be completed by the completion date and / or intermediate contract times. Should an observation period extend beyond the final completion date, the acceptable completion of the observation period shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Two Thousand Eight Hundred Dollars (\$2,800.00)** per calendar day. As an exception to this amount, where the contract has been determined to be substantially complete as defined by the Special Provision entitled "Substantial Completion" found elsewhere in this RFP, the liquidated damages will be reduced to **Five Hundred Dollars (\$500.00)** per calendar day.

Where the Design-Build Team who is awarded the contract has proposed a completion date for the contract as required above, but also has proposed an earlier date for substantial completion, then both of these proposed dates will become contract requirements.

Liquidated damages of **Two Thousand Eight Hundred Dollars (\$2,800.00)** per calendar day will be applicable to the early date for substantial completion proposed by the Proposer. Liquidated damages of **Five Hundred Dollars (\$500.00)** per calendar day will be applicable to the final completion date proposed by the Proposer where the Design-Build Team has proposed an earlier date for substantial completion.

**OTHER LIQUIDATED DAMAGES**

(3/22/07) (Rev. 02/14/08)

DB1 G11

**Traffic Control**

Liquidated Damages for Intermediate Contract Time #1 for lane narrowing, lane closure, holiday and special event time restrictions for US 158 and US 13 are \$250.00 per 30-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #2 for road closure time restrictions for all roads are \$250.00 per 15-minute period or any portion thereof.

**(B) Base Index Price**

The Design-Build Team's Estimate of Quantities will be used on the various partial payment estimates to determine fuel price adjustments. The Design-Build Team shall submit a payment request for quantities of work completed based on the work completed for that estimate period. The quantities requested for partial payment shall be reflective of the work actually accomplished for the specified period. The Design-Build Team shall certify that the quantities are reasonable for the specified period. The base index price for DIESEL #2 FUEL is \$ **2.8363** per gallon.

**(C) Opt Out of Fuel Price Adjustment**

If the Design-Build Team elects not to pursue reimbursement for Fuel Price Adjustments, a quantity of zero shall be entered for all quantities in the *Fuel Usage Factor Chart and Estimate of Quantities* and the declination box shall be checked. Failure to complete this form will mean that the Design-Build Team is declining the Fuel Price Adjustments for this project.

**(D) Change Option**

The proposer will not be *permitted* to change the option after the Price Proposal and the copy of the *Fuel Usage Factor Chart and Estimate of Quantities* sheet are submitted.

**(E) Failure to Submit**

Failure to submit the completed *Fuel Usage Factor Chart and Estimate of Quantities* sheet separately and in the Price Proposal will result in the Technical and Price Proposal being considered irregular by the Department and the Technical and Price Proposal may be rejected.

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

(3-24-10)

DB1 G52

The Proposer's attention is directed to the various sheets in the Request for Proposals which are to be signed by the Proposer. A list of these sheets is shown below. The signature sheets are located behind the Itemized Proposal Sheet in this Request for Proposal. The NCDOT bid bond form is available on-line at:

**[http://www.ncdot.org/doh/preconstruct/altern/design\\_build/DesignbuildBidBond.pdf](http://www.ncdot.org/doh/preconstruct/altern/design_build/DesignbuildBidBond.pdf)**

or by contacting the Records and Documents office at 919-250-4124.

1. Applicable Signature Sheets: 1, 2, 3, 4, 5, or 6 (Bid)
2. Bid Bond dated the day of Technical and Price Proposal submission

will translate into a favorable response to a Formal ATC submittal. Likewise, a favorable response to a Preliminary ATC submittal is not sufficient to include the ATC in a Technical Proposal.

**VALUE ANALYSIS**

(1-5-07)

DB1 G57

Value Engineering Construction Proposals (VECP), as identified in Article 104-12 of 2006 *Standard Specifications for Roads and Structures* will be accepted. Only proposals, which alter the requirements of the RFP issued by the Department, will be considered as Value Engineering Construction Proposals.

**SCHEDULE OF ESTIMATED COMPLETION PROGRESS**

(07-15-08)

DB1 G58

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

<u>Fiscal Year</u>	<u>Progress (Dollar Value)</u>
2011 (07/01/10 – 06/30/11)	2 % of Total Amount Bid
2012 (07/01/11 – 06/30/12)	38 % of Total Amount Bid
2013 (07/01/12 – 06/30/13)	32 % of Total Amount Bid
2014 (07/01/13 – 06/30/14)	21 % of Total Amount Bid
2015 (07/01/14 – 06/30/15)	7 % of Total Amount Bid

The Design-Build Team shall also furnish its own progress schedule in accordance with Project Special Provision entitled "Progress Schedule" (found elsewhere in this RFP). Any acceleration of the progress as shown by the Design-Build Team's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

**MINORITY BUSINESS ENTERPRISE AND WOMEN BUSINESS ENTERPRISE**

(10-21-10)

DB1 G67

**Policy**

It is the policy of the North Carolina Department of Transportation that Minority Business Enterprises (MBEs) and Women Business Enterprise (WBEs) as defined in *GS 136-28.4* shall have the equal opportunity to compete fairly for and to participate in the performance of contracts financed in whole or in part by State Funds.

**Obligation**

The Design-Build Team, subcontractor, and sub-recipient shall not discriminate on the basis of race, religion, color, creed, national origin, sex, handicapping condition or age in the

**310-3 PIPE INSTALLATION**

Install pipe, pipe tees and elbows in accordance with Section 300 above.

**310-4 SIDE DRAIN PIPE**

Side drain pipe shall be defined as storm drain pipe running parallel to the roadway, to include pipe in medians, outside ditches, driveways, and under shoulder berm gutter along outside shoulders greater than four feet wide.

Where shown in the plans developed by the Design-Build Team, side drain pipe may be class II reinforced concrete pipe, aluminized corrugated steel pipe, corrugated aluminum alloy pipe, HDPE pipe or PVC pipe. Corrugated steel pipe shall be restricted in the counties listed in Article 310-2 above. Install side drain pipe in accordance with Section 300 above. Cover for side drain pipe shall be at least one foot.

**310-5 PIPE END SECTIONS**

Choose which material to use for the required end sections. Both corrugated steel and concrete pipe end sections will be allowed on concrete pipe, corrugated steel pipe and HDPE smooth lined corrugated plastic pipe.

**310-6 MEASUREMENT AND PAYMENT**

No separate payment will be made for items covered by this Special Provision. All material and labor, including but not limited to linear feet of pipe, select bedding, backfill material, pipe end sections, tees, elbows and eccentric reducers, shall be included in the lump sum price bid for the entire project.

**\*\* NOTE \*\* Deleted Cement and Lime Stabilization of Sub-Grade Soils Project Special Provision**

**PRICE ADJUSTMENTS FOR ASPHALT BINDER**

(7-21-09)

DB6 R25

Price adjustments for asphalt binder for plant mix will be made in accordance with Section 620 of the 2006 *Standard Specifications for Roads and Structures*.

When it is determined that the monthly selling price of asphalt binder on the first business day of the calendar month during which the last day of the partial payment period occurs varies either upward or downward from the Base Price Index, the partial payment for that period will be adjusted. The partial payment will be adjusted by adding the difference (+ or -) of the base price index subtracted from the monthly selling price multiplied by the total theoretical quantity of asphalt binder authorized for use in the plant mix placed during the partial payment period involved.

The base price index for asphalt binder for plant mix is \$ **486.00** per ton.



This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **February 1, 2011**.

### **MATERIAL TRANSFER VEHICLE**

Revise the 2006 *Standard Specifications for Roads and Structures* as follows:

**Page 6-45, Article 610-8, delete the third paragraph and replace with the following:**

Use a Material Transfer Vehicle (MTV) when placing surface course pavement for all mainline full width travel lanes and mainline shoulders, unless otherwise approved.

### **PRICE ADJUSTMENTS - ASPHALT CONCRETE PLANT MIX**

(04-03-07)

DB6 R26

Revise the 2006 *Standard Specifications for Roads and Structures* as follows:

**Page 6-27, Article 609-8 and Page 6-49, Article 610-13**

Add the following paragraph before the first paragraph:

The "Asphalt Price" used to calculate any price adjustments set forth in this section shall be \$35 per theoretical ton. This price shall apply for all mix types.

### **FIELD OFFICE**

(6-1-07)

DB 08-01

#### **Description**

This work consists of furnishing, erecting, equipping, and maintaining a field office for the exclusive use of Department Engineers and Inspectors at a location on the project approved by the Engineer. Provide a field office that complies with the current A.D.A. Design and Accessibility Standards, the National Electric Code, local, state, and federal regulations, and the following:

#### **Procedures**

The field office and equipment shall remain the property of the Design-Build Team upon completion of the contract. The field office must be separated from buildings and trailers used by the Design-Build Team and be erected and functional as an initial operation. Failure to have the field office functional when construction first begins on the project will result in withholding payment of the Design-Build Team's monthly progress estimate. The field office must be operational throughout the duration of the project and be removed upon completion and final acceptance of the project.

## 2. Responsiveness to RFP – 30 points

### *Natural Environmental Responsibility*

- Describe the Design-Build Team’s approach to addressing environmental concerns within the project boundaries.
- Identify efforts to minimize impacts on wetlands, streams, riparian buffers, and other environmentally sensitive areas.
- Identify innovative approaches to minimize any impacts in environmentally sensitive areas. Describe any temporary impacts and associated minimization approaches.
- Describe the Design-Build Team’s understanding of the overall approach to permitting and the Team’s comfort level with obtaining the required permits within the allowed timeframe.
- Identify methods of construction in wetlands, streams, and buffers.
- Describe any Notice of Violations (NOVs) the Design-Build team members have received from regulatory agencies in North Carolina or any other State and the disposition of each listed NOV.
- Describe the Design-Build Teams approach to Sedimentation and Erosion Control for the project.

### *Design Features*

- Show plan view of design concepts with key elements noted.
- Identify preliminary horizontal and vertical alignments of all roadway elements.
- Show typical sections for the mainline.
- Specify the mainline pavement alternate selected. Specify the base option chosen (ABC or base) for all -Y- Lines.
- Show proposed deviations to the preliminary design provided by the Department.
- Identify drainage designs to be implemented.
- Identify the appropriate design criteria for each feature.
- Identify all bridge types to be constructed, including any special design features or construction techniques needed.
- Identify the number, location and impacts of the proposed additional median U-Turn bulb-outs.
- Identify any deviations, including proposed design exceptions, from the established design criteria that will be utilized. Explain why the deviation is necessary.
- Describe any geotechnical investigations to be performed by the Design-Build Team and note any deviations to NCDOT requirements for subsurface investigations noted in the Geotechnical Scope of Work.
- Identify any special aesthetics considerations that will be part of the design.
- Describe how any utility conflicts will be addressed and any special utility design considerations. Describe how the Design-Build Team’s design and construction methods minimize the Department’s utility relocation costs.
- Identify the months the Department should schedule the 4B and 4C meetings.
- Describe how the design will affect the Department’s right of way costs.
- Identify types of any retaining walls, if applicable.
- Indicate all proposed milling details.

- Indicate if a project web site will be provided.

### 3. Long Term Maintenance – 5 points

- Describe any special materials, not referenced elsewhere in the contract, incorporated into the project that would result in long term reduction in maintenance.
- Describe any special designs or construction methods that would reduce future maintenance costs to the Department.
- Estimate a minimum ten-year cost saving resulting from incorporation of these special materials, design or construction methods into the project.

### 4. Schedule and Milestones – 25 points

- Provide a detailed schedule for the project including both design and construction activities. The schedule shall show the sequence and continuity of operations, as well as the month of delivery of usable segments of the project.
- The schedule shall also include the Design-Build Team's final completion date and, if proposed, their substantial completion date. **These dates shall be clearly indicated on the Project Schedule and labeled "Final Completion Date" and "Substantial Completion Date"**.

### 5. Innovation – 5 points

- Identify any aspects of the design or construction elements that the Design-Build Team considers innovative. Include a description of alternatives that were considered whether implemented or not.

### 6. Maintenance of Traffic and Safety Plan – 15 points

#### *Maintenance of Traffic*

- Describe any traffic control requirements that will be used for each construction phase.
- Describe how traffic will be maintained as appropriate and describe the Design-Build Team's understanding of any time restrictions noted in the RFP.
- Specifically describe how business, school and residential access will be maintained, if applicable.
- Address how hauling will be conducted, including but not limited to, hauling of materials to and from the site and hauling of materials within NCDOT right of way.
- If a temporary portable barrier system will be utilized, provide the type and why it is needed.
- If temporary shoring will be required, provide the type and why it is required.
- Include all proposed offsite detours; reason for need and duration.
- Indicate during what traffic operation the existing traffic signal at the US 158 / US 158 Business (Main Street) intersection will be removed.
- Address where and how law enforcement officers will be used.

- pattern. This transition shall be designed and constructed to meet a 60-mph design speed for a level rural principal arterial.
- The Design-Build Team will not be responsible for the US 158 / Industrial Park (-Y10-, SR 1218) or US 158 - US 13 (-Y11-) / NC 45 (-Y12-) intersection improvements shown on the R-2583 Combined Public Hearing Map. If necessitated by the Design-Build Team's design and / or construction, the Design-Build Team shall be responsible for the US 158 / Industrial Park (-Y10-, SR 1218) intersection improvements required to tie to existing.
- The Design-Build Team shall coordinate with Project R-2507A design and construction to ensure accurate hydrology, capacity, and horizontal and vertical ties that adhere to the design criteria. The Design-Build Team shall not make any design or construction changes that affect the design or construction of Project R-2507A without prior written approval from the Transportation Program Management Director. (Reference the Cooperation Between Contractors Project Special Provision found elsewhere in this RFP)
- Along the -L- Line, the Design-Build Team shall design and construct eight-foot outside shoulders, four-foot of which shall be full depth paved shoulders. Along the -L- Line, the Design-Build Team shall design and construct six-foot inside shoulders, two-foot of which shall be full depth paved shoulders.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct -Y- Lines, service roads and cul-de-sacs providing the same or better access, widening, and improvements included in the R-2583 Combined Public Hearing Map provided by the Department. The limits of -Y- Line construction shall be of sufficient length to tie to existing based upon the current NCDOT guidelines and standards.
- The Design-Build Team shall not utilize the park and ride lot located at approximately Station 14+00 -Y12-, LT for any construction activity, including but not limited to, as a waste site, borrow pit or staging area. For the duration of this contract, a staging area shall be defined as the storage of equipment or materials that are not immediately needed for a construction activity and the placement of temporary offices and trailers.
- It is anticipated that a solar power station will be constructed on the Percy E. Bunch property located between approximately Station 26+00 -SVC- and Station 40+00 -SVC-, RT. The Design-Build Team shall not further impact this parcel beyond that shown on the R-2583 Combined Public Hearing Map.
- The Design-Build Team shall provide keyed-in concrete monolithic channelization islands at all at-grade intersections with restricted movements.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct at-grade intersections with the lane configurations shown on the R-2583 Combined Public Hearing Map. Using the 2030 projected traffic volumes provided in the September 1, 2005 Traffic Forecast Memo developed by the Traffic Forecasting Unit, the

Design-Build Team shall accommodate the right turn maneuver at all intersections in accordance with the NCDOT Roadway Design Manual (Reference Section 9-1, Figure F-4C). All turn lane lengths shall meet the current NCDOT standards where vehicle storage does not govern or the lengths required by the aforementioned Traffic Forecast Memo, whichever is greater. This determination shall be made by calculating the recommended treatment for turn lanes, incorporating the minimum deceleration lengths as defined in the NCDOT Roadway Design Manual, (Reference Section 9-1, Figure F-4A) and comparing the calculated values with the NCDOT minimum turn lane lengths.

- The mainline grade point shall be located at the median edge of the lane. In a normal crown section, the mainline lanes shall slope in the same direction from the pavement edge adjacent to the median shoulder to the outside edge of pavement. (Reference the Geotechnical Scope of Work for additional grade requirements)
- Unless noted otherwise elsewhere in this RFP, the design vehicle for all turning movements shall be a WB-65. At the -Y- Line directional crossovers, the design vehicle for mainline U-Turns shall be a passenger car.
- The Design-Build Team shall provide turn-arounds on all roads that are dead-ended.
- Functional classifications that have a defined usable shoulder width shall have the appropriately wider overall shoulder width.
- US 158 is a partial control of access facility. Prior to negotiating with property owners, the Design-Build Team shall delineate the control of access and associated break points on the Right of Way Plans for the Department's review and acceptance. All parcels with 2000 feet of frontage, or less, along US 158 shall be provided only one access point, unless otherwise approved by the Engineer. For those parcels with less than 2000 feet of frontage along US 158 and access along another roadway, access may be denied along US 158. For parcels currently without access points, the Design-Build Team shall only be responsible for providing control of access breaks, not for the construction of driveway stub-outs. The Design-Build Team shall be responsible for coordination with and approval by the NCDOT of the woven wire fence placement and access control break locations. The Design-Build Team shall be responsible for installation of the woven wire fence.
- The Design-Build Team shall not further impact any cultural, historical or otherwise protected landmark or topographic feature beyond that shown on the R-2583 Combined Public Hearing Map provided by the Department. The Design-Build Team shall not acquire right of way or easements from the aforementioned features unless shown on the R-2583 Combined Public Hearing Map.
- Unless noted otherwise in this RFP, all guardrail placement shall be in accordance with the July 2006 *NCDOT Standard Drawings* and / or approved details in lieu of standards. Along all 3:1 fill slopes, constructed at fill heights that are equal to or greater than 12 feet, the Design-Build Team shall install guardrail. Along all fill slopes steeper than 3:1, constructed at fill heights that are equal to or greater than six feet, the Design-Build Team

**PAVEMENT MANAGEMENT SCOPE OF WORK (2-11-11)**

Except in areas of pavement cuts along the existing mainline for utility and drainage installation, the pavement design for the mainline new pavement areas shall consist of one of the following alternates:

<b>Alternate 1</b>	<b>Alternate 2</b>
3.0" S9.5C	3.0" S9.5C
3.0" I19.0C	3.0" I19.0C
4.5" B25.0C	10.0" ABC

With the exception of areas less than 500 feet long required for maintenance of traffic, the Design-Build Team shall maintain the same pavement design for the mainline new location areas as identified above throughout the project. The Design-Build Team shall specify the pavement alternate to be used in the Technical Proposal.

In areas of pavement cuts along the existing mainline for utility and drainage installation, the pavement repair design shall consist of a minimum of 1.5" S9.5C or 1.5" S9.5B; and 9.0" B25.0B, such that the top of the surface course is flush with the existing pavement. At no time, will traffic be allowed on the B25.0B layer. These pavement repair lengths shall be in accordance with Roadway Standard Drawing 654.01. The aforementioned pavement repair work shall be completed prior to placing the minimum resurfacing requirements noted below.

Other pavement designs for this project are listed in the table below:

LINE	Surface	Intermediate	Base	ABC
Mainline narrow widening areas	3.0" S9.5C	3.0" I19.0C	4.5" B25.0C	-----
-Y1- (US 158 Business)	3.0" S9.5B	-----	5.5" B25.0B	-----
-Y2- (SR 1178)	2.5" SF9.5A	-----	4.0" B25.0B	-----
-Y4SVC- (SR 1303)	2.5" SF9.5A	-----	-----	* 8.0"
-Y13SVC- (Old US 158)	2.5" SF9.5A	-----	4.0" B25.0B	-----
-Y5SVC- (SR 1167)	2.5" SF9.5A	-----	4.0" B25.0B	-----
-Y6L1- (SR 1176)	2.5" SF9.5A	-----	-----	* 8.0"
-Y7L1- (Old US 158)	2.5" SF9.5A	-----	-----	* 8.0"
-Y8- (SR 1174)	2.5" SF9.5A	-----	4.0" B25.0B	-----
-Y9- (SR 1175)	2.5" SF9.5A	-----	4.0" B25.0B	-----
* NOTE * Deleted -Y12- (NC 45)				

\* Prime coat required over ABC.

Warm mix asphalt will be allowed.

The Design-Build Team shall resurface all areas where the existing mainline pavement is maintained as mainline pavement with a minimum of 3.0 S9.5C. As an option, the Design-Build Team may mill any portion of the mainline, not to exceed a depth of 1.5", prior to placing the minimum 3.0" of S9.5C. The Design-Build Team shall indicate all proposed milling details in the Technical Proposal.

The Engineer may identify up to 5,000 square yards of highly distressed pavement for special treatment. In these areas, the Design-Build Team shall mill the existing pavement to a depth of at least 2.5" and construct a minimum 3.0" S9.5C and a minimum 2.5" I19.0C. The final pavement structure shall be a minimum of 1.5" thicker than the existing pavement structure. The Design-Build Team shall include the cost of milling, filling and resurfacing these areas of high distress in their lump sum bid for the entire project. In the event that high distress areas in excess of 5,000 square yards are identified, the additional required 2.5" milling and filling will be paid for as extra work in accordance with Section 104-8A of the July 2006 Standard Specifications for Roads and Structures.

The Design-Build Team shall resurface the existing -Y1- pavement with a minimum pavement depth that equals the full thickness of surface course as provided in the table above. For all other -Y- Lines, the Design-Build Team shall resurface the existing pavement with a minimum 1.25" SF9.5A or provide a uniform 1.25" SF9.5A overlay on the existing pavement as specified in the Roadway Scope of Work found elsewhere in this RFP.

**HYDRAULICS SCOPE OF WORK** (2-11-11)**Project Details**

The Design-Build Team shall:

- Employ a private engineering firm to perform hydraulic design for all work required under this contract. The private engineering firm must be prequalified for hydraulic design work under the NCDOT Hydraulic Unit's prequalification procedures.
- Upon acceptance of the Preliminary Roadway Plans, hold a pre-design meeting with the Transportation Program Management Director and the Hydraulic Review Engineer.
- Design stormwater controls and develop a Stormwater Management Plan using Best Management Practices
- Design and install all storm drainage systems within the project limits using Geopak Drainage.
- Not reduce the number of box culvert crossings in proximity to Mill Branch.
- Design all ditches with a minimum 0.3% grade and avoid constructing ditches in wetlands.
- Prepare Pre-Design and Post-Construction Analyses for increases in discharge and take appropriate action in accordance with the guidelines below to ensure additional drainage is adequately handled.
- Provide Culvert and Bridge Survey Reports for structures in accordance with the guidelines stated below.
- Provide a reinforced concrete box culvert, without supplemental pipes, for all hydraulic structures requiring conveyance greater than a single 72 inch pipe.
- Design the structures on this project to meet the requirements of the Memorandum of Agreement (MOA) between NCDOT and NC Floodplain Mapping Program (NCFMP) for the Department's submittal to FEMA. The Department shall review with NCFMP the eligibility of the MOA. The Design-Build Team shall note that the MOA allows for up to 180 days for the NCFMP review of a complete submittal. If the Design-Build Team's design can not meet the requirements of the MOA, then the Design-Build Team shall prepare a CLOMR package. No construction activity shall occur in FEMA regulated floodplains prior to obtaining written concurrence with the MOA or an approved CLOMR. The Department will be responsible for all associated fees.
- Provide sealed Record Drawings for structures in FEMA regulated floodplains that adhere to the approved FEMA submittal.
- East of -Y1- (US 158 Business), all drainage pipes, cross pipes and culverts under the mainline required for the final drainage pattern shall be new.

**ENVIRONMENTAL PERMITS SCOPE OF WORK** (2-11-11)**General**

The Design-Build Team shall be responsible for preparing all documents necessary for the Department to obtain the environmental permits for construction requirement of this project. Permit applications shall be required for the: US Army Corps of Engineers (USACE) Section 404 Permit, NC Department of Natural Resources (DENR) Division of Water Quality (DWQ) Section 401 Water Quality Certification, DENR Division of Coastal Management (DCM) Coastal Area Management Act (CAMA) Major Development Permit and NC Department of Natural Resources (DENR) State Stormwater Permit. The Design-Build Team shall not begin ground-disturbing activities, including utility relocation in jurisdictional areas, until the environmental permits have been issued (this does not include investigative borings covered under Nationwide Permit # 6). The Design-Build Team will not be allowed to operate under the Department's Nationwide Permit #6.

Except to obtain a Nationwide Permit #6 for investigative borings, the Department will allow no direct contact between the Design-Build Team and environmental agency representatives. No contact between the Design-Build Team and the environmental agencies shall be allowed either by phone, e-mail or in person, without representatives of the Department's Project Development & Environmental Analysis (PDEA) Branch and / or the Division's Environmental Officer present. A representative from the Transportation Program Management shall be included on all correspondence.

The Design-Build Team may begin utility relocation work prior to obtaining the aforementioned permits provided that (1) the Department is notified in writing prior to these activities; (2) such activities are outside jurisdictional resources, including but not limited to areas of environmental concern; (3) the Design-Build Team coordinates with DENR Division of Coastal Management, via the Department's PDEA Branch, and obtains a CAMA General Permit, if required. Upon consultation with the NCDOT Natural Environment Unit, a meeting may be required with the permitting agencies prior to beginning work.

The Department has reached Concurrence Point 4A in the Merger Process used by the environmental agencies and the Department to obtain environmental permits for projects. The Design-Build team is required to participate and present information for concurrence point 4B and 4C that are necessary to complete the Merger process. Any variations in the Department's proposed design and / or construction methods that nullify any concurrence points obtained or decisions reached between the Department and the environmental agencies; and / or require additional coordination with the Environmental Agencies shall be the sole responsibility of the Design-Build Team. The Department will not allow any contract time extensions associated with this additional coordination. The Design-Build Team is directed to follow the appropriate details in the document titled "Merger Implementation Team – Merger Process Information" which will be provided to the short-listed Design-Build Teams.

Unless otherwise stipulated in the Technical Proposal, the Department will schedule the 4B and 4C meeting for R-2583 for August 2011 and November 2011, respectively. The Design Build Team shall clearly identify in their Technical Proposal what months they would like the Department to



**Commitments**

The NCDOT is committed to incorporating all reasonable and practicable design features to avoid and minimize wetland impacts and to provide full compensatory mitigation of all remaining wetland impacts. Avoidance measures were taken during the planning and NEPA phases and minimization measures were incorporated as part of the preliminary design. The Design-Build Team shall incorporate these avoidance and minimization features plus any minimization identified during the 4B and 4C process into the design.

The Design-Build Team shall adhere to the National Marine Fisheries Service (NMFS) construction moratorium for all in-stream work between February 15 and June 15 to avoid impacts to anadromous fish.

All work by the Design-Build Team must be accomplished in strict compliance with the plans submitted with the Section 404, and 401 permit applications and in compliance with all conditions of the permits and certifications issued by the agencies. The Design-Build Team shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of the permits.

The Design-Build Team shall strictly adhere to these commitments, as well as others, including but not limited to, those made as part of the EA, FONSI, all permits, and Merger meetings.

**Archaeology**

According to the Project Commitments (SFONSI Green Sheets - Signed June 3, 2008), an archaeological commitment was made for data recovery on Site 31HF268. Data recovery will be conducted by the Department. Construction activities of any kind shall not take place within Site 31HF268 until all data recovery efforts have been completed by either the NCDOT Archaeology Unit or one of their consultants. Every effort shall be made by the Design-Build Team to purchase as early as possible the right of way required to conduct said data recovery. Once right of way has been acquired, the Design-Build Team shall provide written notification to the Department to initiate data recovery efforts. After receipt of written notification that all required right of way has been acquired, a maximum of six (6) months will be required to complete said data recovery efforts. The Department will not be held responsible for any delays or costs attributable to this data recovery provided the data recovery efforts are completed prior to the six (6) month timeframe. The Design-Build Team shall provide concurrent written notification that all required right of way has been acquired to Mr. Matthew Wilkerson, NCDOT Archaeology [mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov), the Resident Engineer and the Transportation Program Management Director.

If the Design-Build Team discovers any previously unknown historic or archeological remains while accomplishing the authorized work, he shall immediately notify NCDOT Staff Archaeologist and / or NCDOT Project Development Engineer, as listed below, who will initiate the required State / Federal coordination. All questions regarding these sites should be addressed to Mr. Matthew Wilkerson, NCDOT Archaeology at [mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov), or Mr. Charles Cox, NCDOT Project Development Engineer at [ccox@ncdot.gov](mailto:ccox@ncdot.gov).

- The Design-Build Team shall show approximate CMS locations, along with the respective messages, in the Traffic Control Plans.
14. On all roads, the Design-Build Team shall make all modifications to existing pavement markings, markers and / or signing located outside the project limits that are necessitated by the Traffic Management Plans.
  15. The Design-Build Team shall take steps to minimize disruptions to existing roadway facilities during construction and shall demonstrate how the traffic control phasing, minimizes inconvenience to the motorist on all roads.
  16. As required by the Design-Build Team's Traffic Control Plans, the existing traffic signal at the **US 158 / US 158 Business (Main Street)** intersection shall be operational. The Design-Build Team shall maintain this traffic signal during the required traffic operations and remove the traffic signal and associated hardware once its operation is no longer required. The Design-Build Team shall transfer the signal heads and cabinet to the NCDOT and retain or dispose of all other traffic signal hardware. The Design-Build Team shall indicate in the Technical Proposal during what traffic control operation this traffic signal will be removed.

#### **B. Traffic Management Plan Requirements:**

The Design-Build Team shall select a Private Engineering Firm (PEF) that has experience designing and sealing Traffic Management Plans for the North Carolina Department of Transportation (NCDOT) on comparable projects. The Design-Build Team shall list projects in the Technical Proposal that the Traffic Management Designer has developed. This list shall include a description and similarity to the subject project.

The Design-Build Team shall develop Traffic Management Plans that maintains all types of traffic (motorists, bicyclists and pedestrians within the highway, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130) as defined by the *Manual for Uniform Traffic Control Devices (MUTCD)*.

The Traffic Management Plans shall adhere to the "Design-Build Submittal Guidelines" and the "Guidelines for Preparation of Traffic Control and Pavement Marking Plans for Design-Build Projects", which by reference are incorporated herein and are a part of the contract. These documents are available on the Design-Build website.

The Work Zone Traffic Control website contains useful information that may be needed for the design of the Traffic Management Plans:

<http://www.ncdot.org/doh/preconstruct/wztc/>

The Staging Concept shall meet the Contract requirements and be accepted by the Department before the first phase can be submitted. Construction shall not begin until the

Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall install pavement markings and pavement markers on the final surface as follows:

Road	Marking	Marker
US 158 (-L-) and US 158 Business (-Y1-)	Polyurea with Highly Reflective Elements	Snowplowable
All Other Roads	Thermoplastic	Match Existing

At locations where the Engineer determines the Polyurea requirements noted above are not practical, such as stop bar, symbol, character and diagonal installations, the Design-Build Team shall use Heated-in-place Thermoplastic or Extruded Thermoplastic markings.

Six-inch wide markings, including but not limited to lane lines, edge lines and skips, shall be installed on all US routes.

The Design-Build Team shall remove all residue and surface laitance by water blasting or grinding on bridge deck(s) prior to placing Polyurea pavement markings.

The Design-Build Team shall tie proposed pavement markings to existing pavement markings.

The Design-Build Team shall replace any pavement markings that have been damaged by the end of each day's operation.

**PUBLIC INFORMATION SCOPE OF WORK** (2-11-11)

NCDOT will take the lead role on this project and be responsible for a portion of the public information efforts through the Department's **Communications Office**. Unless noted otherwise elsewhere in this RFP, the NCDOT responsibilities include:

- Organizing public meetings
- Providing media announcements
- Developing and producing informational print materials
- Soliciting and administering advertisements, as deemed necessary
- Mailings to the identified target audiences, including postage.

The Design-Build Team shall coordinate with the Department to promote public awareness for this project. The Design-Build Team's responsibilities shall include:

- Providing details surrounding the impacts to the public
- Providing advance notice to the Department of upcoming project impacts
- Assisting the Department in the development of the target audience list
- Attending and / or speaking at public meetings
- Hand delivery of time sensitive informational materials.

The Design-Build Team shall hold an initial project coordination meeting with NCDOT one month prior to start of construction to discuss project impacts to the public. This information will be used by the Department to create a Public Information Plan.

The Design-Build Team shall inform the Department at least three weeks in advance of any construction activity that will have significant impact on the public, including but not limited to, the start of construction, major traffic shifts, road closures, detours, night work and project completion.

NCDOT will develop, with the assistance of the Design-Build Team, the specific list of target audiences for this project. The following groups are identified as typical target audiences to receive informational materials:

- Governmental agencies
- Municipalities directly affected by construction
- Transportation services
- Emergency services
- Neighborhood groups and private homes
- Industry and businesses
- Chamber of Commerce
- Individual schools impacted by the project
- County / City school systems
- Any other organization as deemed necessary by the Department.

The amount of public involvement required for this project is directly based on the Design-Build Team's Traffic Control Plan and construction details. The minimum public information requirements solely associated with the Traffic Control Plans shall include, but not be limited to the following:

- Public Meetings – If Beginning of Construction meeting for area businesses and residents is held, attending and / or speaking at this event.
- Distribution of Informational Materials - For beginning of construction and for all road closures with detour routes, the Design-Build Team shall be responsible for delivering time sensitive informational material provided by the NCDOT directly to portions of the target audience. If the Design-Build Team informs the Department of the aforementioned activities less than three weeks in advance, the Design-Build Team shall hand deliver the informational materials to the impacted target audiences.

The Design-Build Team shall include in their Lump Sum Bid price for the project, all costs associated with their involvement in the Public Information Scope of Work.

A website is not required for this project. However, if the Design-Build Team proposes a project website, the website shall be housed on an NCDOT server. The project website shall use the current NCDOT Communications Office project web design template and adhere to current software development, security and technical infrastructure standards. All project website design and implementation shall be coordinated with Mr. Ryan Nolan, Internet Web Content Manager, NCDOT Web Services. The Design-Build Team shall indicate in their Technical Proposal their intent to utilize a website for this project. All costs associated with setting up and maintaining a project website shall be included in the lump sum price bid for the entire project.