



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

September 28, 2017

Addendum No. 1

Contract No.: C204043
TIP No.: U-2519AA & AB
Counties: Cumberland and Robeson
Project Description: Future I-295 – Fayetteville Outer Loop from I-95 in Robeson County to south of SR 1003 (Camden Road) in Cumberland County

RE: Addendum No. 1 to Final RFP

November 21, 2017 Letting

To Whom It May Concern:

Reference is made to the Final Request for Proposals dated August 31, 2017 recently furnished to you on the above project. We have since incorporated changes, and have attached a copy of Addendum No. 1 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 No. 2 of the *Other Liquidated Damages and Incentives Project Special Provision* has been revised. Please void Page No. 2 in your proposal and staple the revised Page No. 2 thereto.

Page No. 4 of the *Submittal of Quantities, Fuel Base Index Price and Opt-Out Option Project Special Provision* has been revised. Please void Page No. 4 in your proposal and staple the revised Page No. 4 thereto.

Page No. 45 of the *Price Adjustment for Asphalt Binder Project Special Provision* has been revised. Please void Page No. 45 in your proposal and staple the revised Page No. 45 thereto.

Page Nos. 111 – 113 and 116 - 118 of the *Roadway Scope of Work* have been revised. Please void Page Nos. 111 – 113 and 116 - 118 in your proposal and staple the revised Page Nos. 111 – 113 and 116 - 118 thereto.

Page No. 124 of the *Pavement Management Scope of Work* has been revised. Please void Page No. 124 in your proposal and staple the revised Page No. 124 thereto.

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND
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Location:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610

Page Nos. 128 and 129 of the *Structures Scope of Work* have been revised. Please void Page Nos. 128 and 129 in your proposal and staple the revised Page Nos. 128 and 129 thereto.

Page Nos. 137 and 140 of the *Hydraulics Scope of Work* have been revised. Please void Page Nos. 137 and 140 in your proposal and staple the revised Page Nos. 137 and 140 thereto.

Page Nos. 158, 159, 164, and 165 of the *Transportation Management Scope of Work* have been revised. Please void Page Nos. 158, 159, 164, and 165 in your proposal and staple the revised Page Nos. 158, 159, 164, and 165 thereto.

Page No. 165A has been added to the *Transportation Management Scope of Work*. Please add Page No. 165A to your proposal.

Page Nos. 179 and 182 of the *Signing Scope of Work* have been revised. Please void Page Nos. 179 and 182 in your proposal and staple the revised Page Nos. 179 and 182 thereto.

Page No. 214 of the *Environmental Permits Scope of Work* has been revised. Please void Page No. 214 in your proposal and staple the revised Page No. 214 thereto.

Page No. 225 of the *Right of Way Scope of Work* has been revised. Please void Page No. 225 in your proposal and staple the revised Page No. 225 thereto.

If you have any questions or need additional information, I can be reached by telephone at (919) 707-6900.

Sincerely,



Ronald. E. Davenport, Jr., PE
State Contract Officer

RED/kbc

cc: Chris Werner, PE
Greg Burns, PE
Teresa Bruton, PE
Ron McCollum, PE
Karen Capps, PE
File

TABLE OF CONTENTS

COVER SHEET

PROPOSAL SHEETS

PROJECT SPECIAL PROVISIONS PAGE NO.

Contract Time and Liquidated Damages1
 Other Liquidated Damages and Incentives1
 Payout Schedule2
 Mobilization3
 Substantial Completion3
 Submittal of Quantities, Fuel Base Index Price and Opt-Out Option4
 Individual Meetings with Proposers5
 Execution of Bid, Non-Collusion Affidavit, Debarment Certification and Gift
 Ban Certification5
 Submission of Design-Build Proposal6
 Alternative Technical Concepts and Confidential Questions7
 Schedule of Estimated Completion Progress11
 Disadvantaged Business Enterprise12
 Certification for Federal-Aid Contracts25
 Contractor’s License Requirements26
 U. S. Department of Transportation Hotline26
 Cargo Preference Act26
 Resource Conversation and Environmentally Sustainable Practices27
 Subsurface Information27
 Domestic Steel28
 Cooperation between Contractors28
 Bid Documentation28
 Twelve Month Guarantee32
****NOTE** Deleted *Iran Divestment Act* Project Special Provision**
 Permanent Vegetation Establishment33
 Erosion & Sediment Control / Stormwater Certification33
 Procedure for Monitoring Borrow Pit Discharge38
 Clearing and Grubbing40
 Burning Restrictions40
 Building and Appurtenance Removal / Demolition40
 Pipe Installation41
 Reinforced Concrete Pipe Design41
 Drainage Pipe44
 Price Adjustments for Asphalt Binder44
 Price Adjustments - Asphalt Concrete Plant Mix45
 Field Office45
 Dynamic Message Sign (DMS)48
 Foundations and Anchor Rod Assembles for Metal Poles58

Overhead Sign Supports65
 Overhead and Dynamic Message Sign Foundations67
 Sound Barrier Wall69
 Architectural Concrete Surface Treatment72
 Mechanically Stabilized Earth Retaining Walls77

GENERAL90

SCOPES OF WORK

Roadway108
 Pavement Management.....123
 Structures128
 Railroad Coordination133
 Hydraulics137
 Geotechnical Engineering.....144
 Transportation Management.....156
 Signing175
 Pavement Markings183
 ITS.....185
 Erosion and Sedimentation Control190
 Utilities Coordination.....205
 Environmental Permits.....213
 Right of Way.....221
 Public Information226

STANDARD SPECIAL PROVISIONS

Railroad Grade Crossing.....228
 Value Engineering Proposals.....228
 Plant and Pest Quarantines.....229
 Gifts from Vendors and Contractors230
 Liability Insurance231
 State Highway Administrator Title Change.....231
 Subletting of Contract231
 Name Change for NCDENR231
 Select Granular Material231
 Rock and Broken Pavement Fills232
 Bridge Approach Fills.....232
 Preparation of Subgrade and Base234
 Class IV Aggregate Stabilization.....234
 Aggregate Base Course.....235
 Asphalt Pavements – Superpave.....235
 Asphalt Binder Content of Asphalt Plant Mixes240
 Asphalt Plant Mixtures240
 Final Surface Testing240

Addendum No. 1, September 28, 2017

C204043 (U-2519AA & AB)

Project Special Provisions

Cumberland & Roberson Counties

Liquidated Damages for Intermediate Contract Time #2 for lane narrowing, lane closure and holiday time restrictions for US 301, NC 71 and SR 1115 (Black Bridge Road) are \$500.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #3 for road closure time restrictions for I-95 are \$2,500.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #4 for road closure time restrictions for US 301 are \$1000.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #5 for road closure time restrictions for SR 1113 (Waldo's Beach Road), SR 1118 (Parkton Road) / SR 1717 (Leeper Road), and SR 1117 (Brisson Road) are \$500.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #6 for road closure time restrictions for NC 71 in proximity to SR 1717 (Leeper Road) are \$2,500.00 per calendar day or any portion thereof.

Liquidated Damages for Intermediate Contract Time #8 for road closure time restrictions for SR 1118 (Parkton Road) / SR 1717 (Leeper Road) are \$2,500.00 per calendar day or any portion thereof.

Liquidated Damages for Intermediate Contract Time #9 for road closure time restrictions for NC 71 in proximity to US 301 are \$2,500.00 per calendar day or any portion thereof.

Reference the ITS Scope of Work found elsewhere in this RFP for more information on the following time restrictions and liquidated damages:

Liquidated Damages for Intermediate Contract Time #7 for failure to relocate and return the existing DMS to service within 180 days of being taken out of service are \$2,500.00 per calendar day or any portion thereof.

Liquidated Damages for Erosion and Sedimentation Control efforts apply to this project.

Reference the Erosion and Sedimentation Control Scope of Work found elsewhere in this RFP for additional information under the Liquidated Damages Section.

PAYOUT SCHEDULE

(11-16-09)

DB1 G13

No later than 12:00 o'clock noon on the sixth day after the opening of the Price Proposal, the responsive proposer with the lowest adjusted price shall submit a proposed Anticipated Monthly Payout Schedule to the office of the State Contract Officer. The information shall be submitted in a sealed package with the outer wrapping clearly marked "Anticipated Monthly Payout Schedule" along with the Design-Build Team name and the contract number. The Anticipated Monthly Payout Schedule will be used by the Department to establish the monthly funding levels for this project. The Anticipated Monthly Payout Schedule shall parallel, and agree with, the project schedule the Design-Build Team submits as a part of their Technical Proposal. The schedule shall include a monthly percentage breakdown (in terms of the total contract amount percentages) of the work anticipated to be completed. The schedule shall begin with the Date of Availability and end with the Actual Completion Date proposed by the Design-Build Team. If the Payout Schedule is not submitted as stated herein, the Technical and Price Proposals will be considered irregular by the Department, and the bid may be rejected.

Submit updates of the Anticipated Monthly Payout Schedule on March 15, June 15, September 15, and December 15 of each calendar year until project acceptance. Submit all

substantially complete. If the inspection discloses the entire project or the work required by an intermediate contract time is not substantially complete, the Engineer will notify the Design-Build Team in writing of the work that is not substantially complete. The entire project or the work required by an intermediate contract time will not be considered substantially complete until all of the recommendations made at the time of the inspection have been satisfactorily completed.

SUBMITTAL OF QUANTITIES, FUEL BASE INDEX PRICE AND OPT-OUT OPTION

1/23/14

DB1 G43

(A) **Submittal of Quantities**

Submit quantities on the *Fuel Usage Factor Chart and Estimate of Quantities* sheet, located in the back of this RFP, following the Itemized Proposal Sheet.

The Design-Build Team shall prepare an Estimate of Quantities that they anticipate incorporating into the completed project and upon which the Price Proposal was based. The quantity breakdown shall include all items of work that appear in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet. Only those items of work which are specifically noted in the *Fuel Usage Factor Chart and Estimate of Quantities* sheet will be subject to fuel price adjustments.

Submittal The submittal shall be signed and dated by an officer of the Design-Build Team. The information shall be copied and submitted in a separate sealed package with the outer wrapping clearly marked "Fuel Price Adjustment" and shall be delivered at the same time and location as the Technical and Price Proposal. The original shall be submitted in the Price Proposal.

Trade Secret Information submitted on the *Fuel Usage Factor Chart and Estimate of Quantities* sheet will be considered "Trade Secret" in accordance with the requirements of G.S. 66-152(3) until such time as the Price Proposal is opened.

(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 **\$1.7069** 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* sheet and the declination box shall be checked. Failure to

The base price index for asphalt binder for plant mix is \$ **366.00** per ton.

This base price index represents an average of F.O.B. selling prices of asphalt binder at supplier's terminals on **September 1, 2017**.

PRICE ADJUSTMENTS - ASPHALT CONCRETE PLANT MIX

(9-1-11) (Rev. 3-13-13)

DB6 R26

Revise the 2012 *Standard Specifications for Roads and Structures* as follows:

Page 6-18, Article 609-11 and Page 6-35, Article 610-14

Add the following paragraph before the first paragraph:

The “Asphalt Price” used to calculate any price adjustments set forth in this section shall be \$40.00 per theoretical ton. This price shall apply for all mix types.

FIELD OFFICE

(6-1-07) (Rev. 6-22-15)

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 shall be erected and functional as an initial operation. Failure to have the field office functional when work 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.

Provide a field office that is weatherproof, tightly floored and roofed, constructed with an air space above the ceiling for ventilation, supported above the ground, has a width of at least ten feet, and the floor-to-ceiling height that is at least 7 feet 6 inches. Provide inside walls and a ceiling that are constructed of plywood, fiber board, gypsum board, or other suitable materials. Have the exterior walls, ceiling, and floor insulated.

Provide a field office with a minimum floor space of 500 square feet and that is equipped with the following:

- The Design-Build Team shall design and construct I-95 (-Y-) to meet a 70 mph design speed for a level rural freeway designed to interstate standards.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct -Y- Lines, ramps, service roads, and cul-de-sacs / turnarounds providing the same or better access, widening, improvements and traffic measures of effectiveness, in the Department's sole discretion, included in the Preliminary Roadway Plans 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.
- In lieu of designing and constructing the cul-de-sac left of Station 24+11.18 -Y3-, the cul-de-sac left of Station 25+11.68 -Y5-, -Y6-, and -Y7-, as shown U-2519AA Preliminary Plans provided by the Department, the Design Build Team shall design and construct the access, widening, improvements, and traffic measures of effectiveness as shown on the -Y6A- and -Y7A- Plan Sheet Markups provided by the Department.
- Excluding alignment shifts required solely to design and construct the roundabout at the US 301 / NC 71 intersection, the final US 301 horizontal alignment shall not vary from the existing US 301 horizontal alignment.
- From the proposed NC 71 roundabout to proposed SR 1120 (Natural View Drive), the Design-Build Team shall design and construct minimum 12-foot lanes and minimum eight-foot outside shoulders, five-foot of which shall be full depth paved shoulders along SR 1717 (Leeper Road) / SR 1118 (Parkton Road). (Reference the Pavement Management Scope of Work found elsewhere in this RFP)
- The Design-Build Team is advised that a new subdivision has been approved left of, and in proximity of, Station 85+00 -Y10-. To the greatest extent practicable, the Design-Build Team shall minimize / avoid impacts to lots located in this new subdivision.
- The Design-Build Team may utilize the service road design criteria found elsewhere in this RFP to design and construct -Y6A-, -Y7A-, -Y10B-, -Y11-, -Y14-, and -Y15-.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct bridge rail offsets as indicated in the NCDOT *Roadway Design Manual* or that are equal to the approach roadway paved shoulders, whichever is greater. Narrower bridge rail offsets based on bridge length will not be allowed. For all bridges on the mainline (-L-), the minimum median bridge rail offset shall be six feet.
- The Design-Build Team shall design and construct all -Y- Lines such that the through movement is not required to change lanes throughout the project limits.
- The Design-Build Team shall design and construct one-lane ramps that provide a minimum 16-foot lane width. The Design-Build Team shall design and construct two-lane ramps that provide minimum 12-foot lanes. All ramps shall have 14-foot outside shoulders, four-foot of which shall be full depth paved shoulder and 12-foot inside shoulders, four-foot of which shall be full depth paved shoulder.

- The Design-Build Team shall design and construct loops that adhere to Table 3-29, Design Widths of Pavements for Turning Roadways, shown in the 2011 AASHTO *A Policy on Geometric Design of Highways and Streets* - Case II / Condition C for one-lane loops; Case III / Condition C for two-lane loops. All loops shall have 12-foot outside shoulders, four-foot of which shall be full depth paved shoulders. All loops shall have 2'-6" curb and gutter along the inside edge of pavement, with a 14-foot berm. The minimum loop design shall be 30-mph with a minimum 230-foot radius, including but not limited to the future ultimate I-95 improvements.
- The Design-Build Team shall design and construct all directional ramps with a minimum four-foot outside bridge rail offset and a 12' inside bridge rail offset. (Ramps -FLYBD- and -LPB- (from Station 10+00 -LPB- to approximately Station 26+60 -LPB-) are the only facilities defined as a directional ramp on the Preliminary Roadway Plans provided by the Department.) The minimum design speed for all directional ramps shall adhere to the middle range design speed noted in Table 10-1, *Guide Values for Ramp Design Speed as Related to Highway Design Speed* shown in AASHTO's *A Policy on Geometric Design of Highways and Streets* (2011). A 58-foot median width shall be provided between the directional ramps such that the -LPB- travel lane will be located at the same location as the future mainline median southbound travel lane should the Department add one additional 12-foot through lane in each direction of Future I-295 / Fayetteville Outer Loop within the mainline 70-foot grass median.
- Unless noted otherwise elsewhere in this RPF, all ramps at the Future I-295 (mainline) / I-95 interchange shall be designed and constructed to meet a minimum 60 mph design speed, including but not limited to the future ultimate I-95 improvements.
- In lieu of the -RPA- and -LPB- configurations shown on the Preliminary Roadway Plans provided by the Department, the Design-Build Teams shall design and construct -RPA- and -LPB- such that the two mainline southbound through lanes continue onto -RPA-, and -LPB- becomes a single lane left exit ramp.
- If the Design-Build Team elects to construct the mainline over US 301, the Future I-295 / I-95 Interchange Ramp D (-RPD-) may terminate prior to the mainline northbound bridge over US 301 provided **ALL** the requirements noted below are met:
 - The gap acceptance length (L_g) shall be a minimum of 500 feet.
 - The northern ramp terminus, including the minimum 300-foot ramp taper, shall be located a minimum of 300 feet south of the most southern point of the mainline northbound bridge over US 301.

If any of the -RPD- design parameters noted above cannot be adhered to, the -RPD- lane (12-foot width) shall traverse completely across the mainline northbound bridge over US 301.
- The Design-Build Team will not be required to design or construct ramps or bridges to accommodate future loops.
- 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 at a 0.025 cross slope.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct at-grade intersections with the lane configurations / roundabouts noted in the April 26, 2017 U-2519AA-AB Congestion Management Recommendations Update provided by the Department. At all intersections impacted by the Design-Build Team's design and / or construction, excluding resurfacing, the Design-Build Team shall design and construct turn lanes that adhere to the greater of the following:

- All turn lane lengths shall adhere to the NCDOT minimum turn lane lengths as defined in the NCDOT *Roadway Design Manual* (Reference Section 9-1, Figure 4).
- All lengths for the turn lanes required by the April 26, 2017 U-2519AA-AB Congestion Management Recommendations Update provided by the Department shall adhere to the NCDOT Recommended Treatment for Turn Lanes. These lengths shall be determined by adding the storage length defined in the aforementioned Memorandum; the minimum deceleration length, as defined in the NCDOT *Roadway Design Manual* (Reference Section 9-1, Figure F-4A); and the approach / departure taper.
- Right turn lanes / tapers shall be provided in accordance with the NCDOT Right Turn Lane Warrants, as defined in the NCDOT *Roadway Design Manual* (Reference Section 9-1, Figure F-4C).
- Unless noted otherwise elsewhere in this RFP, all roundabouts shall adhere to the design and operation parameters as detailed in NCHRP Report 672: *Roundabouts: An Informational Guide* - Second Edition. Prior to incorporating any roundabouts not required herein, the Design-Build Team shall provide a traffic analysis of the proposed roundabout(s), utilizing the 2040 Build Conditions traffic volumes specified in the June 10, 2015 *Traffic Forecast for TIP Project U-2519* provided by the Department, and SIDRA Intersection 5.1 or SIDRA Intersection 6.0 analysis software, for NCDOT review and acceptance. In addition to the requirements noted above all roundabouts shall adhere to the following:
 - The Design-Build Team shall design and construct all roundabouts to accommodate a WB-67.
 - The Department prefers that all roadway grades approaching a roundabout are 4.0% or less. Thus, justification, in the Department's sole discretion, shall be provided for all roadway approach grades that are steeper than 4.0%.
 - Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall design and construct chicanes along the approach roadway when the approach roadway design speed is greater than 50 mph. The Design-Build Team will not be required to provide chicanes between roundabouts located at adjacent ramp terminals.
 - The Design-Build Team shall design and construct five-inch keyed-in monolithic concrete islands for all roundabout approach / departure channelization islands, including the chicane islands. All roundabout approach / departure channelization islands shall be designed and constructed with red colored concrete that is stamped with a brick pattern. The Design-Build Team shall submit the red color to be used to the Engineer for review and approval prior to constructing the islands.
 - When two or more roundabouts are located along a facility and separated by less than 800' (measured center to center along the facility), the Design-Build Team shall design and construct a minimum four-foot wide concrete median island with nine-inch offsets to each adjacent travel lane along the facility between the roundabouts. The aforementioned median island shall be a five-inch keyed-in monolithic concrete island.

Addendum No. 1, September 28, 2017

C204043 (U-2519AA & AB)

Roadway Scope of Work

Cumberland & Robeson Counties

- If variations to the Department's proposed design and / or construction methods require additional service road(s), the service road(s) design and construction, as well as all associated NEPA requirements, shall be included in the Design-Build Team's lump sum bid for the entire project.
- The Design-Build Team shall design and construct all service roads to meet a minimum 40 mph design speed using the 0.04 superelevation chart. The Design-Build Team shall design and construct all service roads with two 12-foot lanes and six-foot minimum shoulders with a Type "B" ditch as per the NCDOT *Roadway Design Manual*.
- The Design-Build Team shall provide cul-de-sacs on all paved roads that are dead-ended. The Design-Build Team shall provide turnarounds on all nonpaved roads that are dead-ended. At a minimum, all cul-de-sacs and turnarounds shall accommodate a school bus design vehicle.
- Along the NC 71 gap between the most eastern construction limits of the proposed NC 71 / SR 1717 (Leeper Road) roundabout chicanes and the most western construction limits required to tie realigned NC 71 to existing NC 71 in proximity to US 301, the Design-Build Team shall design and construct a resurfacing grade that adheres to the vertical alignment design criteria. Throughout the aforementioned limits, the Design-Build Team will not be required to upgrade the typical section, but shall regrade the shoulders, as needed, to tie to the existing outside shoulder point.
- Excluding construction areas that consist solely of pavement marking obliterations / revisions, gravel / soil roads, and haul roads, the Design-Build Team shall design and construct resurfacing grades for all roadways impacted by construction. Excluding the limits of the aforementioned NC 71 gap, all resurfacing grades shall adhere to the design criteria and standards, provide all required pavement wedging (Reference the Pavement Management Scope of Work found elsewhere in this RFP) and adhere to the minimum requirements noted below:
 - The Design-Build Team shall resurface all lanes and shoulders of an undivided facility throughout the limits of proposed widening and construction.
 - The Design-Build Team shall resurface each one-way roadway of a divided facility throughout the limits of the one-way roadway widening and construction, allowing varying resurfacing limits for the opposing directions of travel.
 - Unless noted otherwise elsewhere in this RFP, for both divided and undivided facilities, the Design-Build Team shall resurface all lanes and shoulders within the outermost construction limits of all proposed widening and construction, including any gaps along the facility where construction activities are not required (e.g. along existing SR 1115 (Black Bridge Road) between the proposed cul-de-sacs).
 - ** NOTE ** - Deleted requirement to resurface all existing facilities to the limits of pavement marking obliterations / revisions.
- Excluding the modifications required herein, the Design-Build Team shall inform the Design-Build Unit, in writing, of all proposed design revisions, including but not limited to the following:
 - The Design-Build Team shall note in the Technical Proposal any proposed deviations to the preliminary design shown on the Preliminary Roadway Plans provided by the Department. The Design-Build Team shall be responsible for all activities, as deemed necessary by the Department or the FHWA, resulting from changes to the NCDOT preliminary design,

including but not limited to, public involvement, NEPA re-evaluation and / or coordination with other stakeholders. The Department shall not honor any requests for additional contract time or compensation for completion of the required activities resulting from changes to the NCDOT preliminary design.

- After the contract has been Awarded, the Design-Build Team shall inform the Design-Build Unit, in writing, of all proposed changes to the design shown in the Technical Proposal.
- After the Department has reviewed and accepted the Design-Build Team's design submittals, the Design-Build Team shall inform the Design-Build Unit, in writing, of any changes to previously reviewed submittals.

The proposed design revisions noted above shall be subject to the Department's review and acceptance.

- Design exceptions will not be allowed for the -L- Line, including all ramps and loops. NCDOT prefers not to have design exceptions for the -Y- Lines and service roads. If the Design-Build Team anticipates any design exceptions, they shall be clearly noted in the Technical Proposal. Prior to requesting / incorporating a design exception into the Final Plans, the Design-Build Team must obtain prior conceptual approval from the Design-Build Unit. If conceptual approval is obtained, the Design-Build Team shall be responsible for the development and approval of all design exceptions.
- For all parcels, the Design-Build Team shall locate and install iron pins and metal caps with fiberglass markers that delineate all proposed right of way and permanent easements within the project limits. The Design-Build Team shall replace all existing right of way and permanent easement markers / monuments damaged and / or relocated during construction. In accordance with NCDOT Policy, the Department will furnish the metal caps with fiberglass markers.
- The Design-Build Team shall develop the Design Noise Report (DNR) required for the project. The entity developing the DNR shall be prequalified with the Department for Discipline Code 441. The Design-Build Team shall perform a noise analysis and develop a DNR that is based on the Design-Build Team's design. The DNR shall be developed in accordance with the NCDOT 2011 Traffic Noise Policy and NCDOT 2011 Traffic Noise Manual; and be reviewed and approved by NCDOT and FHWA. The Department will be responsible for balloting the property owners / residents of all benefited receptors. The Design-Build Team should expect it to take four months from receipt of an approved DNR for the Department to complete the balloting process. The Department will not consider requests for contract time extensions or additional compensation if the Department completes the balloting process within the aforementioned four-month period. The Design-Build Team shall not construct any sound barrier walls until the Department has completed the balloting process and approved the walls to be constructed.

The Design-Build Team shall include all design costs for all sound barrier walls required by the approved DNR in the lump sum price bid for the entire project.

The required sound barrier wall construction costs will be paid for as extra work in accordance with Subarticle 104-8(A) of the 2012 *Standard Specifications for Roads and Structure* at the unit prices noted below:

- The unit price for sound barrier wall construction shall be \$40.00 per square foot.
- For sound barrier walls that are not located on the mainline shoulder, ramp shoulder or -Y- Line shoulder / berm, the unit price for incidental construction items shall be \$10.00 per linear foot of wall.
- For sound barrier walls that are located on the mainline shoulder, ramp shoulder or -Y- Line shoulder / berm, the unit price for incidental construction items shall be \$115.00 per linear foot of wall.

All work tasks required to construct the sound barrier walls, including but not limited to geotechnical investigations, traffic control, pavement, concrete barrier, and earthwork, shall be considered inclusive in the aforementioned unit prices.

At all sound barrier walls, the Design-Build Team shall provide 1) a four-foot berm between the wall and fill / cut slopes steeper than 6:1 and 2) a parallel concrete ditch at locations where the final grade slopes toward the wall.

Within 60 days after Project Acceptance, the Design-Build Team shall prepare and submit to NCDOT a summary of the sound barrier walls constructed on the project to satisfy FHWA's reporting requirements. At a minimum, the summary shall include the average sound barrier wall height, total sound barrier wall length, total sound barrier wall area (square foot), and average construction unit cost (dollars per square foot).

General

- Unless allowed otherwise elsewhere in this RFP, the design shall be in accordance with the 2011 AASHTO *A Policy on Geometric Design of Highways and Streets* and 2013 Errata, 2002 NCDOT *Roadway Design Manual*, including all revisions effective on the Technical Proposal submittal date, January 2012 NCDOT *Roadway Standard Drawings*, or as superseded by detail sheets located at <https://connect.ncdot.gov/resources/Specifications/Pages/2012-Roadway-Drawings.aspx>, *Roadway Design Policy and Procedure Manual*, *Roadway Design Guidelines for Design-Build Projects*, 2012 NCDOT *Standard Specifications for Roads and Structures* and the 2011 AASHTO *Roadside Design Guide*, 4th Edition and 2015 Errata.
- If the NCDOT *Roadway Design Manual*, including all revisions, the 2011 AASHTO *A Policy on Geometric Design of Highways and Streets* and 2013 Errata, the 2012 NCDOT *Roadway Standard Drawings* and / or any other guidelines, standards or policies have desirable and / or minimum values, the Design-Build Team shall use the desirable values unless noted otherwise elsewhere in this RFP. Similarly, in case of conflicting design parameters, and / or ranges, in the various resources, the proposed design shall adhere to the most conservative values, unless noted otherwise elsewhere in this RFP.
- At all intersections, the Design-Build Team shall not exceed a 0.05 roll-over between the outside edge of travel lane of the primary roadway and the beginning of the proposed grade for the secondary roadway.
- Unless noted otherwise elsewhere in this RFP, the maximum allowable cut and fill slope shall be 3:1. (Reference the Geotechnical Scope of Work found elsewhere in this RFP) The slopes in the interchange area shall follow the requirements set forth in the *Roadway Design Guidelines for Design-Build Projects* located on the Design-Build web site.
- Outside the project limits, the Design-Build Team will not be allowed to use the NCDOT right of way and / or property for borrow or waste sites. Within the project limits, the Design-Build Team shall adhere to the following:
 - Only clean waste material may be wasted within the NCDOT right of way or property.
 - Excluding crushed concrete, debris shall not be buried within the NCDOT right of way or property.
 - Normal grading operations shall occur, including but not limited to, removal of the existing embankments supporting all removed roadway sections.
- Unless noted otherwise elsewhere in this RFP, all guardrail / guiderail placement shall be in accordance with the NCDOT *Roadway Standard Drawings* and / or approved details in lieu

Addendum No. 1 September 28, 2017

C204043 (U-2519AA & AB)

Pavement Management Scope of Work

Cumberland & Robeson Counties

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

Line	Surface	Intermediate	Base	ABC
I-95 (-Y-), including I-95 (-Y-) median and outside shoulders	3.0" S9.5D	3.0" I19.0D	8.0" B25.0C	8.0"
-RPA- & -FLYBD-	3.0" S9.5C	2.5" I19.0C	3.0" B25.0C	8.0"
-Y7RPA-, -Y7RPB-, -Y7RPC-, -Y7RPD-, SR 1118 (Parkton Road, -Y7-), SR 1717 (Leeper Road, -Y7-), NC 71 (-Y5-), Three Roundabouts at Parkton / Leeper Road (-Y7-) and One Roundabout at NC 71 / US 301**	3.0" S9.5C	4.0" I19.0C	-	8.0"
-LPB-, -RPD-, and Shoulder Sections on the Following Routes: Black Bridge Road Realignment (-Y10-), and SR 1115 (Black Bridge Road (-Y12-))	3.0" S9.5B	2.5" I19.0B	-	8.0"
US 301 (-Y4-), -Y10RPA-, -Y10RPB-, -Y10RPC-, -Y10RPD-, and Curb and Gutter Sections on the Following Routes: -LPB-, Three Roundabouts on Black Bridge Road Realignment (-Y10-)**, Black Bridge Road Realignment (-Y10-), SR 1115 (Black Bridge Road (-Y12-)), and SR 1902 (Everest Road, -Y3-)	3.0" S9.5B	4.0" I19.0B	-	8.0"
SR 1978 (Buckhorn Road, -Y1-), SR 1718 (Green Springs Road, -Y2-), SR 1120 (Natural View Drive) SR 1902 (Everett Road, -Y3-), SR 1117 (Brisson Road, -Y8A-), SR 1116 (Lake Upchurch Road, -Y9-), SR 1288 (Lake Upchurch Road, -Y9A-), Old Plank Road (-Y10A-), SR 1113 (Waldos Beach Road, -Y13-), Service Roads (-Y6A-, -Y7A-, -Y10B, -Y11-, -Y14-, -Y15-, -Y16-)	2.5" SF9.5A	-	-	8.0" *
Cul-de-sacs on -Y6A- and -Y7A-	1.5" SF9.5A or 1.5" S9.5B	-	-	8.0" *
Turnarounds on soil / gravel roads	-	-	-	8.0"

* Use prime coat at normal application rate.

** All roundabouts shall include a 7.0" jointed concrete truck apron that includes a 4 x 4 W3.5 x W3.5 wire mesh reinforcement.

For the -Y- Lines, ramps, loops and service road pavement designs noted in the table above, the Design-Build Team may substitute an asphalt base course layer for the ABC layer. If such an alternative is proposed, the Design-Build Team shall use an asphalt base course mix that

STRUCTURES SCOPE OF WORK (9-27-17)**Project Details**

The Design-Build Team shall be responsible for all structures necessary to complete the project, including but not limited to, the following:

- Dual bridges on the Future I-295 / Fayetteville Outer Loop over I-95
- Bridge on SR 1718 (Green Springs Road) over I-95
- Bridge(s) at US 301 and Future I-295 / Fayetteville Outer Loop
- Bridge(s) at SR 1118 (Parkton Road) and Future I-295 / Fayetteville Outer Loop
- Dual bridges on Future I-295 / Fayetteville Outer Loop over CSXT Railroad and SR 1117 (Brisson Road)
- Bridge(s) at -Y10- (Black Bridge Road Realignment) and Future I-295 / Fayetteville Outer Loop
- Bridge on -Y10- (Black Bridge Road Realignment) over wetland system
- Bridge(s) at existing SR 1116 (Old Plank Road) and Future I-295 / Fayetteville Outer Loop
- Dual bridges on Future I-295 / Fayetteville Outer Loop over Rockfish Creek
- Bridge(s) at SR 1113 (Waldo's Beach Road) and Future I-295 / Fayetteville Outer Loop
- All retaining walls required by the Design-Build Team's design
- All sound barrier walls required by the Design-Build Team's design (Reference the Roadway Scope of Work found elsewhere in this RFP)
- All reinforced concrete box culverts / reinforced concrete box culvert extensions required by the Design-Build Team's design

All bridges shall meet approved roadway typical sections and grades. Bridge geometry (width, length, skew, span arrangement, etc.) shall be in accordance with the accepted Structure Recommendations and / or the accepted Hydraulic Bridge Survey Reports prepared by the Design-Build Team.

The minimum vertical clearance for bridges constructed over all interstates, freeways and arterials shall be 17'-0". Unless noted otherwise elsewhere in this RFP, the minimum vertical clearance for bridges constructed over all local roads and collector roads shall be 15'-6". The minimum vertical clearance for bridges constructed over US 301 shall be 17'-0". The minimum vertical clearance for bridges constructed over the railroad (existing and future tracks) shall be 23'-0", as measured from the highest existing or future track rail. The minimum vertical clearance for bridges constructed over wetlands shall be 4'-0".

The dual bridges on the Future I-295 / Fayetteville Outer Loop over I-95 and the bridge on SR 1718 (Green Springs Road) over I-95 shall allow for the future construction of the ultimate I-95 typical section provided by the Department without the need to 1) reconstruct any of the provided substructure elements, including but not limited to slope protection and retaining walls located at the end bents or 2) obtain a future design exception (excluding median shoulder width adjacent to median bridge piers) for the proposed and / or future I-95 construction. (Reference the Roadway Scope of Work found elsewhere in this RFP)

New bridges constructed on the Future I-295 / Fayetteville Outer Loop shall allow for the future construction of one additional 12-foot through lane in each direction of Future I-295 / Fayetteville Outer Loop within the 70-foot grass median without the need for a future design exception, including but not limited to all minimum vertical clearance requirements noted elsewhere in this RFP.

New bridges constructed at the Future I-295 / Fayetteville Outer Loop and US 301, SR 1118 (Parkton Road) and / or -Y10- (Black Bridge Road Realignment) shall allow for the future construction of one additional 12-foot through lane in each direction, a four-foot concrete monolithic median island with nine-inch offsets to each adjacent travel lane, and 2'-6" curb and gutter with 12-foot berms and five-foot sidewalks along US 301, SR 1118 (Parkton Road) and / or -Y10- (Black Bridge Road Realignment) without the need to 1) reconstruct any of the provided substructure elements, including but not limited to slope protection and retaining walls located at the end bents or 2) obtain a future design exception, including but not limited to all minimum vertical clearance requirements noted elsewhere in this RFP.

Any new bridge constructed at the Future I-295 / Fayetteville Outer Loop and SR 1113 (Waldo's Beach Road) shall allow for the future construction of a 12-foot center turn lane (three 12-foot lanes total) and 2'-6" curb and gutter with 12-foot berms and five-foot sidewalks along SR 1113 (Waldo's Beach Road) without the need to 1) reconstruct any of the provided substructure elements, including but not limited to slope protection and retaining walls located at the end bents or 2) obtain a future design exception, including but not limited to all minimum vertical clearance requirements noted elsewhere in this RFP.

The minimum horizontal setbacks from the closest edge of travel lane to face of barrier in front of walls shall be 14'-0" for bridges over interstates, freeways, and arterials. The minimum horizontal setback from the closest face of curb and gutter to the face of barrier in front of walls shall be 12'-0" for bridges over all curb and gutter facilities. Bridges over waterways shall be designed and constructed with spill through slopes with rip rap protection. End bents and end slopes at each end of a bridge shall have the same appearance.

The Design-Build Team shall design and construct the proposed dual bridges over the CSXT railroad and SR 1117 (Brisson Road) to accommodate an additional track on both the east and west sides of the existing track at 15-foot centers. The Design-Build Team's bridge design and construction shall provide a minimum 25-foot horizontal clearance from the centerline of the existing and future tracks to the face of bridge bent. The Design-Build Team shall indicate in their Technical Proposal how the future tracks will be accommodated.

Excluding sections of wetlands impacted on the U-2519AA & AB Preliminary Roadway Plans, and / or unless noted otherwise elsewhere in this RFP, bridges spanning wetlands shall be of sufficient length to provide a minimum 15-foot horizontal clearance from the wetland boundary to the toe of the bridge end bent slope.

The north side of the dual bridges on the Future I-295 / Fayetteville Outer Loop over Rockfish Creek, located at approximately Station 250+00 -L- on the U-2519AB Preliminary Roadway Plans, shall be of sufficient length to accommodate a minimum 20-foot horizontal clearance from the wetland boundary to the toe of the bridge end bent slope. Within the aforementioned 20-foot width, the 15-foot width closest to the toe of the bridge end bent slope shall accommodate a future greenway. The minimum vertical clearance for the future greenway shall be ten feet, as measured from the existing natural ground surface.

Unless noted otherwise elsewhere in this RFP, all proposed bridge barrier rails shall be per Standard Drawing CBR1. Proposed bridge rails on SR 1118 (Parkton Road) over the Future I-295 / Fayetteville Outer Loop shall be per Standard Drawing BMR34.

HYDRAULICS SCOPE OF WORK (9-27-17)**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 Tier II hydraulic design work under the Department's normal prequalification procedures prior to the Technical Proposal submittal date.
- The Design-Build Team shall hold a pre-design meeting with the Design-Build Unit and Hydraulics Review Engineer upon acceptance of the Preliminary Roadway Plans developed by the Design-Build Team.

Storm Drainage System Design

- The Design-Build Team shall design all storm drainage systems using Geopak Drainage, including but not limited to incorporating discharges from allowable routing programs.
- Raised median island cuts will not be allowed.
- All system improvements shall be contained within the right of way. Where downstream systems outside the right of way are found to be hydraulically deficient during the design storm, the Design-Build Team shall provide an OTCB or 2GI within the right of way limits.
- The Design-Build Team shall use a minimum ditch grade of 0.3% and avoid constructing ditches in wetlands.
- At a minimum, the Design-Build Team shall install traffic bearing grated drop inlets with steel frames and flat steel grates at the following locations:
 - Within a temporary travel lane
 - Within four feet of a temporary and / or permanent travel lane
- The Design-Build Team shall provide additional outlet protection at all pipe outlets with a ten-year partial flow velocity greater than 15 fps. The aforementioned outlet protection shall mitigate erosive velocities to receiving downstream channels.

Hydraulic Spread

- Excluding exclusive turn lanes and through lanes on curb and gutter facilities, the hydraulic spread shall not encroach into an operational permanent or temporary lane.
- The hydraulic spread shall not encroach more than a distance that equals half the lane width or six feet, whichever is less, into an operational permanent or temporary exclusive turn lane or through lane on a curb and gutter facility.

- to all other requirements as identified in Chapter 10 of the *Guidelines for Drainage Studies and Hydraulic Design*.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall remove or fill with flowable fill all pipes not retained for drainage purposes.
- Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall analyze all drainage structures for hydraulic and structural deficiencies that are located within the existing / proposed right of way of the project limits. In addition, from Leeper Road / Parkton Road to I-95, the Design-Build Team shall analyze all drainage structures that carry Horsepen Branch for hydraulic and structural deficiencies, excluding the existing box culvert located under I-95 at approximately Station 99+60 -Y-. The Design-Build Team will not be required to analyze drainage structures within any -Y- Line construction limits that consist solely of pavement marking obliterations / revisions. Using the hydraulic discharges for the future build-out land use projections, drainage structures that do not adhere to the requirements in Sections 9.5.1.3 and 9.5.2.3 of the *Guidelines for Drainage Studies and Hydraulic Design*, including all addenda, memos and revisions, and / or the freeboard and HW/D requirements noted above, shall be deemed hydraulically deficient. Based on these analyses, the following shall be adhered to:
 - The Design-Build Team shall provide the appropriate hydraulic mitigation for 1) all hydraulically deficient drainage structures and 2) all hydraulically and structurally deficient drainage structures, including but not limited to replacement. For major hydraulic crossings (crossings with a conveyance greater than the capacity of a single 72" diameter pipe), the Design-Build Team shall remove and replace all hydraulically, or hydraulically and structurally, deficient box culvert(s) and or / pipe(s). Inlet improvements outside the right of way shall not be allowed to mitigate for hydraulically deficient box culverts and / or pipes. Based on build-out discharges, the Design-Build Team shall identify all hydraulically deficient drainage structures and note their proposed mitigation in the Technical Proposal. At a minimum, in the Technical Proposal, Volume II, the Design-Build Team shall 1) identify all hydraulically deficient storm drainage systems and the proposed mitigation on the plans, and 2) provide a *Box Culverts and Cross Pipes Hydraulic Deficiency Assessment and Proposed Mitigation Table* that contains the box culvert and cross pipe attributes noted below:
 - Station
 - Existing Box Culvert / Cross Pipe Details
 - Drainage Area
 - Build-out Discharges (Design year and 100 year)
 - Hydraulically Deficient (Yes / No) for Build-out Discharges
 - Proposed Mitigation Structure(s) Details
 - HW/D for Build-out Discharges at Existing Structure without Mitigation
 - HW/D for Build-out Discharges at Existing Structure with Mitigation
 - Hydraulic Freeboard at Sag for Build-out Discharges at Existing Structure without Mitigation
 - Hydraulic Freeboard at Sag for Build-out Discharges at Existing Structure with Mitigation

- The Design-Build Team shall adhere to the AASHTO Roadside Design Guide in determining the length of need, flare rate and clear zone. The Design-Build Team shall adhere to the possible deflection of the proposed temporary barrier system in accordance with NCHRP-350 *Recommended Procedures for the Safety Performance Evaluation of Highway Features* deflections from crash testing. Providing less than the minimum deflection distance shall require the use of anchored temporary barrier systems in accordance with the NCDOT *Standard Specifications for Roads and Structures*.
- When temporary barrier is used continuously on one or both sides of a direction of I-95 travel for a distance greater than one mile, the Design-Build Team shall provide a paved motorist breakdown area on the right side of the I-95 travelway every mile, unless the outside paved useable shoulder width (clear distance between edge of travel lane and face of barrier) is ten feet or greater. All breakdown areas shall be a minimum of one thousand feet long and fourteen feet wide, ten feet of which shall be pavement. Prior to incorporation, the Design-Build Team shall submit a temporary pavement design for the breakdown areas. (Reference the Pavement Management Scope of Work found elsewhere in this RFP)
- The Design-Build Team shall not place temporary barrier systems utilized for traffic control on unpaved surfaces.
- The Design-Build Team shall not place temporary barrier along any merging taper, including but not limited to, existing and proposed ramp merges, lane drop merges, and / or temporary lane closure merges. All lanes shall first be closed using channelizing devices and pavement markings.
- The Design-Build Team shall not place temporary barrier along any shifting taper, including but not limited to, existing, temporary, and / or proposed shifting tapers.
- When barrier is placed on a roadway shoulder, the Design-Build Team shall install shoulder closure signs and devices in advance of the barrier in accordance with the NCDOT Roadway Standard Drawings.
- The Design-Build Team shall not place temporary barrier in the gore area. The Design-Build Team shall temporarily close the ramp or loop if the work cannot be safely performed without placing temporary barrier in the gore area.

Except as allowed otherwise elsewhere in this RFP, the design speed for temporary alignments of Interstates, US and NC routes shall not be lower than the current posted speed limit. The Design-Build Team will be allowed to design and construct temporary alignments along US 301 that meet a minimum 50 mph design speed. The minimum allowable design speed for temporary alignments on secondary roads shall be the higher of 10 mph below the posted speed limit or 35 mph.

The NCDOT Roadway Standard Drawing No. 1101.11 shall be used to calculate the length of temporary merges for lane closures and temporary traffic shifts. For temporary traffic patterns that will remain in place for a period longer than three days, including but not limited to traffic shifts, merges and temporary alignments, breaks in the superelevation and /

or crown breaks in a normal crown section will not be allowed within the shifting taper. Excluding the aforementioned temporary traffic patterns, breaks in the superelevation and / or breaks in a normal crown section shall only occur on a lane line or lane midpoint, and shall not exceed 0.04.

Temporary traffic shifts requiring vertical grades shall be considered a temporary alignment. All temporary alignments shall adhere to the NCDOT *Roadway Design Manual*, including all revisions, AASHTO, *A Policy on Geometric Design of Highways and Streets* and the Transportation Research Board *Highway Capacity Manual*.

Maintain access to all residences, schools, bus stops, mass transit facilities (park and ride lots), emergency services and businesses at all times. Prior to incorporation, obtain written approval from the Engineer on method to maintain access.

Through traffic traveling in the same direction shall not be split. (i.e. separation by any type of barrier, bridge piers, existing or proposed median, etc.).

Prior to incorporation, obtain written approval from the Engineer for all road and / or access point closures.

Prior to incorporation, all offsite detour routes shall receive Department written approval and shall adhere to the following requirements:

- Except as allowed in ICT #3, I-95 shall not be closed.
- Except as allowed in ICT #4, US 301 shall not be closed.
- Except as allowed in ICT #5, SR 1113 (Waldo's Beach Road) and SR 1117 (Brisson Road) shall not be closed.
- Except as allowed in ICT #5 and ICT #8, SR 1118 (Parkton Road) / SR 1717 (Leeper Road) shall not be closed.
- Except as allowed in ICT #6 and ICT #9, NC 71 shall not be closed.
- NC 71 and SR 1118 (Parkton Road) / SR 1717 (Leeper Road) shall not be closed simultaneously.
- The Design-Build Team shall not close SR 1116 (Lake Upchurch Drive) until -Y10- (Black Bridge Road Realignment) has been constructed and open to traffic. Once open to traffic, -Y10- (Black Bridge Road Realignment) shall not be closed.
- The Design-Build Team shall investigate all detour routes including but not limited to, analyzing traffic capacity, investigating impacts to emergency services and schools, analyzing design characteristics to ensure the design supports the traffic volumes (existing traffic volumes plus detoured traffic volumes), and investigating pavement structural adequacy including any bridge postings on the detour route. The Design-Build Team shall submit recommendations resulting from the aforementioned investigations / analyzes for the Department's review and acceptance.
- As determined by the Engineer, the Design-Build Team shall provide all improvements required to accommodate detoured traffic prior to utilizing detour routes.

advance warning signs, traffic shall be returned to the existing number of lanes in each direction until the traffic queue is depleted.

Road Name	Day	Time Restrictions
I-95	Monday through Thursday	6:00 a.m. to 9:00 p.m.
		Friday at 6:00 a.m. to Sunday at 9:00 p.m.
US 301 SR 1113 (Waldo’s Beach Road) SR 1118 (Parkton Road) / SR 1717 (Leeper Road) SR 1117 (Brisson Road)	Monday through Thursday	6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.
		Friday at 4:00 p.m. to Monday at 6:00 a.m.

For the operations noted below, the maximum road closure duration shall not exceed thirty (30) minutes without an approved offsite detour. The Design-Build Team shall reopen the travel lanes to traffic until any resulting traffic queue is depleted. With an approved offsite detour, the roadways listed may be closed Monday through Thursday from 12:00 a.m. (Midnight) to 6:00 a.m. for the operations listed below.

- Existing bridge demolition
- Girder, overhang, and falsework installation and / or removal
- Installation of overhead sign assemblies and / or work on existing overhead sign assemblies over travel lanes

Prior to incorporation in the TMP, the Design-Build Team shall obtain written approval from the Engineer for all road closures.

Liquidated Damages for Intermediate Contract Time #3 for the above road closure time restrictions for I-95 are \$2,500.00 per 15-minute period or any portion thereof.

Liquidated Damages for Intermediate Contract Time #4 for the above road closure time restrictions for US 301 are \$1,000.00 per 15-minute period, or any portion thereof.

Liquidated Damages for Intermediate Contract Time #5 for the above road closure time restrictions for SR 1113 (Waldo’s Beach Road), SR 1118

(Parkton Road) / SR 1717 (Leeper Road), and SR 1117 (Brisson Road) are \$500.00 per 15-minute period, or any portion thereof.

3. Intermediate Contract Time #6 for Roundabout Construction

With an approved offsite detour, NC 71 may be closed for the maximum duration listed below to construct the roundabout in proximity to SR 1717 (Leeper Road). The Design-Build Team shall not concurrently close NC 71 for the roundabout construction in proximity to SR 1717 (Leeper Road) and the roundabout construction in proximity to US 301.

Road Name	Day	Time Restriction
NC 71	Monday through Sunday	30 consecutive days

The time of availability for ICT #6 shall be 6:00 p.m. on the date the Design-Build Team elects to close NC 71. The Design-Build Team shall provide the Engineer a minimum of 21 days written notice prior to the time of availability. The time of completion shall be 7:00 a.m. on the date that corresponds to the number of calendar days proposed by the Design-Build Team in the Technical Proposal, and such number of calendar days proposed shall not be greater than 30 days.

Liquidated Damages for Intermediate Contract Time #6 for the above road closure time restrictions for NC 71 in proximity to SR 1717 (Leeper Road) are \$2,500.00 per calendar day or any portion thereof.

4. Intermediate Contract Time #8 for Pavement Reconstruction

With an approved offsite detour, SR 1118 (Parkton Road) / SR 1717 (Leeper Road) may be closed for the maximum duration listed below for pavement reconstruction.

Road Name	Day	Time Restriction
SR 1118 (Parkton Road) / SR 1717 (Leeper Road)	Monday through Sunday	60 consecutive days

The time of availability for ICT #8 shall be 6:00 p.m. on the date the Design-Build Team elects to close SR 1118 (Parkton Road) / SR 1717 (Leeper Road). The Design-Build Team shall provide the Engineer a minimum of 21 days written notice prior to the time of availability. The time of completion shall be 7:00 a.m. on the date that corresponds to the number of calendar days proposed by the Design-Build Team in the Technical Proposal, and such number of calendar days proposed shall not be greater than 60 days.

Liquidated Damages for Intermediate Contract Time #8 for the above road closure time restrictions for SR 1118 (Parkton Road) / SR 1717 (Leeper Road)

are \$2,500.00 per calendar day or any portion thereof.

5. Intermediate Contract Time #9 for Roundabout Construction

With an approved offsite detour, NC 71 may be closed for the maximum duration listed below to construct the roundabout in proximity to US 301. The Design-Build Team shall not concurrently close NC 71 for the roundabout construction in proximity to US 301 and the roundabout construction in proximity to SR 1717 (Leeper Road).

Road Name	Day	Time Restriction
NC 71	Monday through Sunday	30 consecutive days

The time of availability for ICT #9 shall be 6:00 p.m. on the date the Design-Build Team elects to close NC 71. The Design-Build Team shall provide the Engineer a minimum of 21 days written notice prior to the time of availability. The time of completion shall be 7:00 a.m. on the date that corresponds to the number of calendar days proposed by the Design-Build Team in the Technical Proposal, and such number of calendar days proposed shall not be greater than 30 days.

Liquidated Damages for Intermediate Contract Time #9 for the above road closure time restrictions for NC 71 in proximity to US 301 are \$2,500.00 per calendar day or any portion thereof.

B. Hauling Restrictions

The Design-Build Team shall adhere to the hauling restrictions noted in the NCDOT *Standard Specifications for Roads and Structures*.

The Design-Build Team shall conduct all hauling operations as follows:

- The Design-Build Team shall not conduct any hauling operations against the flow of traffic of an open travelway unless an approved temporary traffic barrier or guardrail separates the traffic from the hauling operation.
- All hauling entrances, exits and crossings shall be shown on the TMP and be in accordance with the NCDOT Roadway Standard Drawings.
- Haul vehicles shall not enter and / or exit an open travel lane at speeds more than 10 mph below the posted speed limit.
- Hauling operations that perpendicularly cross a roadway shall require Traffic Control Plans and shall be subject to the lane narrowing, lane closure and holiday time restrictions in ICT #1 and ICT #2.

<https://connect.ncdot.gov/resources/safety/Pages/Signing-and-Delineation.aspx>

Prior to installation, the Design-Build Team shall 1) field verify all Type A and B ground mounted sign supports, 2) recalculate the field verified S-Dimensions, using the latest edition of the design software on the website noted above, and 3) revise the beam sections, where applicable. The Design-Build Team shall use the most recent version of the ground mounted sign support selection workbook tool, in accordance with the submittal schedule outlined in the “Instructions” tab of the tool.

Unless otherwise approved by the Department, the vertical mounting height for ground mounted Type D, E and F signs shall be a minimum of seven feet and maximum of eight feet from the edge of the travel lane to the bottom of the sign.

On freeways and expressways, the minimum lateral offset for Type A and B ground mounted signs on breakaway supports shall be 30 feet, unless approved otherwise by the Department. The lateral offset shall be measured from the edge of the travel lane closest to the shoulder to the closest sign edge.

On freeways and expressways, all Type A and B ground mounted signs on simple (non-breakaway) supports shall be protected by guardrail, barrier or another form of approved positive protection. The minimum lateral distance between the face of guardrail and the closest sign edge shall be six feet.

Unless noted otherwise elsewhere in this RFP, all Type D, E and F signs shall be installed on U-channel posts in accordance with the NCDOT Roadway Standard Drawings. Type D signs shall not exceed eight feet in width and / or 24 square feet. Unless positively protected, all Type D signs shall be installed on a maximum of two U-channel posts.

Proposed Overhead Sign Structures

The Design-Build Team shall consider the proposed roadway geometry, number of lanes, and all advisory signing needs when selecting the type of overhead signing for a given location. At a minimum, the Design-Build Team shall provide overhead signing at the locations identified in the MUTCD, Section 2E.24 – Signing for Interchange Lane Drops, Section 2A.17 - Overhead Sign Installations, Items A – M, and the following locations, unless allowed otherwise elsewhere in this RFP:

- An option lane at a freeway / expressway multi-lane exit or freeway / ramp split (use Arrow Per Lane signs)
- ****NOTE** Deleted bullet requiring overhead sign structures for a freeway ends and “All Traffic Must Exit” overhead signing**
- A freeway lane ends (freeway lane drop)
- Three or more lanes on a freeway ramp
- At the Future I-295 / I-95 Interchange - One full-span overhead sign assembly on Future I-295 southbound for the I-95 exit
- A minimum of two overhead sign structures (one cantilever, one full-span) for the “Exit Only” condition for the northbound movement at the I-95 / I-95 Business interchange

Removal and Disposal of Existing Signs

The Design-Build Team shall determine which existing signs, sign supports, overhead signs, and / or overhead sign supports will not be needed or relevant when the project is completed. The Design-Build Team shall remove and dispose of these signs and sign supports.

Temporary Sign and Support Design

The Design-Build Team shall locate, design and install all temporary signs and sign supports. (Reference the Signing Requirements Section of the Transportation Management Scope of Work found elsewhere in this RFP for additional temporary signing requirements)

Sign Maintenance

During project construction, the Design-Build Team shall maintain all existing signs within the project limits (including all temporary sign installations that may be required by the Transportation Management Plans) to ensure the signs are in good condition, perform as intended, and are visible to motorists. (Reference Articles 901-4 and 1092-2 of the NCDOT *Standard Specifications for Roads and Structures*) All signs and supports remaining / existing at the completion of this project shall be plumb, oriented correctly and adhere to AASHTO requirements.

Construction Revisions

After submittal of RFC Signing Plans, the Design-Build Team shall submit all construction revisions to the Department for review and acceptance prior to incorporation.

As-Built Plans

After project completion, the Design-Build Team shall provide final electronic Signing Plans to the Department. At a minimum, these Signing Plans shall include all revisions that occurred during construction, as well as field verifications for ground mounted sign supports and overhead structures. These Signing Plans shall be provided in .pdf and MicroStation format.

Control Cities and Destinations

The Design-Build Team shall follow the *List of Control Cities for Use in Guide Signs on Interstate Highways* published and available from the American Association of State Highway and Transportation Officials.

The Design-Build Team shall remove the “Fort Bragg” and “Pope AAF” destinations from the I-95 / I-95 Business interchange and include both destinations on the I-95 / NC 295 interchange guide signs.

The Department will allow no direct contact between the Design-Build Team and representatives of the environmental agencies. 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 Environmental Analysis Unit (EAU) - Environment Coordination and Permitting Group (ECAP) or the Division's Environmental Officer (DEO) present. A representative from the Design-Build Unit shall be included on all correspondence.

The Department has reached Concurrence Point 4A in the Merger Process used by the environmental agencies and the Department to obtain environmental permits. The Design-Build Team shall participate and present information for Concurrence Points 4B and 4C that are necessary to complete the Merger Process. The Design-Build Team shall follow the appropriate details on the Merger Information website referenced below:

<https://connect.ncdot.gov/resources/Environmental/Pages/Merger.aspx>

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 or compensation associated with this additional coordination.

Unless stipulated otherwise in the Technical Proposal, the Department will schedule the Concurrence Point 4B and 4C meetings for April 2018 and July 2018, respectively. The Design-Build Team shall clearly identify in their Technical Proposal what months they would like the Department to schedule these meetings. Failure on the part of the Design-Build Team to meet these dates shall place all responsibility for delays resulting from missing these dates solely in the hands of the Design-Build Team.

Unless noted otherwise elsewhere in this RFP, the Design-Build Team shall be bound by the terms of all signed planning documents, and approved minutes and commitments of all interagency / concurrence meetings. The Design-Build Team shall be held accountable for meeting all permit conditions, including but not limited to the use of work bridges. The Design-Build Team shall be required to staff any personnel necessary to provide permit compliance.

Unless noted otherwise elsewhere in this RFP, the Department will not honor any requests for additional contract time or compensation for any efforts required in order to obtain any permit or permit modification, including but not limited to public involvement, additional design effort, additional construction effort, and / or additional environmental agency coordination and approvals.

Permit Application Process

It shall be the Design-Build Team's responsibility to acquire information and prepare permit drawings that reflect the impacts and minimization efforts resulting from the Merger Process and

septic system inspections only if the Health Department approves the third-party consultant, in writing, prior to the inspections beginning. The Department will only be responsible for the Health Department fees and / or third-party fees associated with these determinations. The Design-Build Team shall determine the relocation / modification design and construction costs required for the septic systems to remain operational and include these costs in the property right of way appraisals. (Reference the Utilities Coordination Scope of Work found elsewhere in this RFP)

- All Claims for Payment involving relocation benefits must be submitted to the NCDOT Relocation Coordinator in the Right of Way Unit for approval and processing.
- At the conclusion of the right of way acquisition process, the Design-Build Team shall provide a right of way certification to the Division Right of Way Agent.
- The Design-Build Team shall prepare Right of Way Transmittal Summaries and / or Narrative Appraisals for all right of way, control of access and easement acquisitions. Claim Reports will not be allowed for any acquisition.

The Department will require 90 days from receipt of the information noted above to coordinate with the Council of State and obtain their approval for the acquisition of contaminated property.

- Regarding the Transportation Corridor Map Act ruling (Map Act), the Design-Build Team shall analyze the 1992 and the 2006 corridor protection maps for the project and provide the following:
 - Identify which properties are currently owned by the same individuals or their heirs as denoted on the corridor protection maps.
 - Submit a list of parcels and owners affected by the Transportation Corridor Map Act to the Department so that future mapping may be developed by the Department.
 - Obtain 30-year title opinions for those properties affected by the Transportation Corridor Map Act.
 - In accordance with the requirements herein, for all parcels that 1) consist of property that was in the corridor per the corridor protection map, 2) are owned by the same individuals, or their heirs, that owned the parcel at the time the corridor protection map was filed, and 3) require property acquisition for construction of the project, the Design-Build Team shall make initial Map Act offers and attempt to settle the Map Act portion of the claims. The Department prefers that the Design-Build Team attempt to settle the acquisition necessary for constructing the project and the Map Act concurrently. However, if the acquisition necessary for constructing the project is critical to the Design-Build Team's schedule, the Design-Build Team will not be required to negotiate both of the aforementioned claims at the same time. The NCDOT, or its agent, will provide all the Maps Act appraisals. The Design-Build Team shall send all Map Act appraisal requests to Mr. Richard Pegg, Area Appraiser, in the NCDOT Area 3 Appraisal Office located at 1605 Westbrook Plaza Drive, Suite 202 in Winston-Salem North Carolina. The Design-Build Team shall include the aforementioned 30-year title opinion with the corresponding Map Act appraisal request. The Design-Build Team should expect it to take a minimum of three months for the Department to provide an approved Map Act appraisal. If unsuccessful in settling the Map Act portion of the claims with the Map Act appraisals provided by the Department, the Design-Build Team shall notify the Department in writing. At that time, the Department will be responsible for all other services required to settle the Map Act claims.