



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

September 30, 2014

Addendum No. 1

RE: Contract ID C203484

WBS # 34839.3.GVS4

F. A. # NHF-0918(93)

Forsyth County (U-2579B)

Winston-Salem Northern Beltway (Eastern Section) From
US-158 To I-40 BUS/US-421

October 21, 2014 Letting

To Whom It May Concern:

Reference is made to the plans and proposal form furnished to you on this project.

The following revisions have been made to the Structure plans:

Sheet No.	Revisions
S-298	Corrected the quantities of Drilled Piers Not In Soil and Drilled Piers In Soil
S-342	Corrected the quantities of Drilled Piers Not In Soil and Drilled Piers In Soil
S-379	Corrected Class AA Concrete quantities in the Superstructure Bill Of Material
S-628	Sheet was inadvertently omitted from the original plan set. Please add after Sheet No. S-627
S-629	Sheet was inadvertently omitted from the original plan set. Please add after Sheet No. S-628

Please void the above listed sheets in your plans and staple the revised sheets thereto.

The following revisions have been made to the proposal:

Page No.	Revisions
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 9-30-14"
Table of Contents	The second page of the Table of Contents has been revised to include the below mentioned provision being added on Pg. G-39

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
CONTRACT STANDARDS AND DEVELOPMENT UNIT
1591 MAIL SERVICE CENTER
RALEIGH NC 27699-1591

TELEPHONE: 919-707-6900
FAX: 919-250-4119

WEBSITE: www.NCDOT.GOV

LOCATION:
CENTURY CENTER COMPLEX
ENTRANCE B-2
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Page No.	Revisions
G-39	Added the project special provision entitled "Subletting Of Contract"
R-11 and R-12	The revision date of the project special provision entitled "Asphalt Pavements-Superpave" has been changed. Also, "Table 610-5 Placement Temperatures For Asphalt" has been revised within the same project special provision
R-53 and New Page R-54	Added project special provision entitled "Automated Machine Guidance"
UBO-1 and UBO-2	Project special provisions entitled "Utilities By Others" have been revised to add information concerning "City of Winston-Salem-Sewer"
ST-53 thru ST-68	Added project special provisions for Protection Of Railway Interest (New Pages)

Please void the above listed pages in your proposal and replace with the attached revised pages. For new pages please insert after the previous existing page.

On the item sheets the following pay item quantities have been revised or added:

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
003-0000500000-N-801	Supplemental Field Surveying	1 HR	DELETED
426-8126000000-N-414	Culvert Excavation, Station(616+45.00-L-)	LS	LS
	Only change is the station		
461-8105500000-E-411	4'-6" Dia. Drilled Piers In Soil	71.8 LF	454.8 LF
464-8105560000-E-411	4'-0" Dia. Drilled Piers In Soil	820 LF	437 LF
465-8105600000-E-411	4'-6" Dia. Drilled Piers Not In Soil	65 LF	132 LF
468-8105660000-E-411	4'-0" Dia. Drilled Piers Not In Soil	219 LF	152 LF
469-8111000000-E-411	Permanent Steel Casing For 4'-6" Dia. Drilled Pier	51 LF	292.6 LF
471-8111600000-E-411	Permanent Steel Casing For 4'-0" Dia. Drilled Pier	345.6 LF	104 LF
504-8364000000-E-450	HP 12X53 Steel Piles	33,074 LF	37,197 LF
506-8391000000-N-450	Steel Pile Points	265 EA	247 EA
511-8531000000-E-462	4" Slope Protection	9,172 SY	9,157 SY
522-8111000000-E-411	Permanent Steel Casing For 5'-6" Dia. Drilled Pier	NEW ITEM	48.6 LF

The Contractor's bid must be based on these revised pay item quantities and include the new pay item. The contract will be prepared accordingly.

C203484

U-2579B
Forsyth County

The Expedite File has been updated to reflect this revision. Please download the Expedite Addendum File and follow the instructions for applying the addendum. Bid Express will not accept your bid unless the addendum has been applied.

Sincerely,

^{DS}


R. A. Garris, PE
Contract Officer

RAG/jag
Attachments

cc: Mr. Ron Hancock, PE
Mr. S. P. Ivy, PE
Ms. D. M. Barbour, PE
Mr. Rodger Rochelle, PE
Mr. R.E. Davenport, PE
Mr. G. R. Perfetti, PE
Project File (2)

Mr. Ray Arnold, PE
Ms. Natalie Roskam, PE
Mr. Ronnie Higgins
Mr. Mike Gwyn
Ms. Marsha Sample
Ms. Lori Strickland
Ms. Jaci Kincaid

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH, N.C.

PROPOSAL

INCLUDES ADDENDUM No.1 DATED 9-30-14

DATE AND TIME OF BID OPENING: **OCTOBER 21, 2014 AT 2:00 PM**

CONTRACT ID C203484
WBS 34839.3.GVS4

FEDERAL-AID NO. NHF-0918(93)

COUNTY FORSYTH

T.I.P. NO. U-2579B

MILES 4.057

ROUTE NO.

LOCATION WINSTON-SALEM NORTHERN BELTWAY (EASTERN SECTION) FROM
US-158 TO I-40 BUS/US-421.

TYPE OF WORK GRADING, DRAINAGE, PAVING, SIGNING, SIGNALS, ITS, AND STRS.

NOTICE:

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

BIDS WILL BE RECEIVED AS SHOWN BELOW:

THIS IS A ROADWAY & STRUCTURE PROPOSAL

5% BID BOND OR BID DEPOSIT REQUIRED

NOTE TO CONTRACTOR G-39
 SUBLETTING OF CONTRACT: G-39
 ROADWAY..... R-1

STANDARD SPECIAL PROVISIONS

AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS SSP-1
 NCDOT GENERAL SEED SPECIFICATION FOR SEED QUALITY SSP-2
 ERRATA..... SSP-5
 PLANT AND PEST QUARANTINES SSP-7
 AWARD OF CONTRACT..... SSP-8
 MINORITY AND FEMALE EMPLOYMENT REQUIREMENTS SSP-9
 REQUIRED CONTRACT PROVISIONS FEDERAL - AID CONSTRUCTION CONTRACTS
 SSP-12
 ON-THE-JOB TRAINING SSP-21
 MINIMUM WAGES SSP-24

UNIT PROJECT SPECIAL PROVISIONS

GEOTECHNICAL GT-0.1
 SIGNING..... SN-1
 TRAFFIC CONTROL TC-1
 UTILITY CONSTRUCTION..... UC-1
 UTILITY BY OTHERS UBO-1
 EROSION CONTROL EC-1
 TRAFFIC SIGNALS TS-1
 ITS ITS-1
 STRUCTURE / CULVERTS ST-1
 PERMITS P-1

PROPOSAL ITEM SHEET

ITEM SHEET(S) (TAN SHEETS)

E-VERIFY COMPLIANCE:

(2-18-14)

SP1 G200

Contractors and subcontractors shall comply with the E-Verify requirements of N.C.G.S. Chapter 64, Article 2. Contractors are directed to review the foregoing laws. By signing this bid, any awarded Contractor certifies its compliance with the E-Verify requirements and will do so on a periodic basis thereafter as may be required by the Department.

NOTE TO CONTRACTOR:

All streams temporarily impacted by this project shall be restored to existing flow lines.

SUBLETTING OF CONTRACT:

(11-18-2014)

108-6

SP1 G186

Revise the *2012 Standard Specifications* as follows:

Page 1-66, Article 108-6 Subletting of Contract, line 37, add the following as the second sentence of the first paragraph:

All requests to sublet work shall be submitted within 30 days of the date of availability or prior to expiration of 20% of the contract time, whichever date is later, unless otherwise approved by the Engineer.

Page 1-67, Article 108-6 Subletting of Contract, line 7, add the following as the second sentence of the fourth paragraph:

Purchasing materials for subcontractors is not included in the percentage of work required to be performed by the Contractor. If the Contractor sublets items of work but elects to purchase material for the subcontractor, the value of the material purchased will be included in the total dollar amount considered to have been sublet.

PREPARATION OF SUBGRADE AND BASE:

(1-16-96)

610

SP5 R05

On mainline portions and ramps of this project, prepare the subgrade and base beneath the pavement structure in accordance with the applicable sections of the *2012 Standard Specifications* except use an automatically controlled fine grading machine using string lines, laser controls or other approved methods to produce final subgrade and base surfaces meeting the lines, grades and cross sections required by the plans or established by the Engineer.

No direct payment will be made for the work required by this provision as it will be considered incidental to other work being paid for by the various items in the contract.

ASPHALT PAVEMENTS - SUPERPAVE:

(6-19-12) (Rev. 10-21-14)

605, 609, 610, 650, 660

SP6 R01

Revise the *2012 Standard Specifications* as follows:

Page 6-3, Article 605-7 APPLICATION RATES AND TEMPERATURES, replace this article, including Table 601-1, with the following:

Apply tack coat uniformly across the existing surface at target application rates shown in Table 605-1.

TABLE 605-1 APPLICATION RATES FOR TACK COAT	
Existing Surface	Target Rate (gal/sy)
	Emulsified Asphalt
New Asphalt	0.04 ± 0.01
Oxidized or Milled Asphalt	0.06 ± 0.01
Concrete	0.08 ± 0.01

Apply tack coat at a temperature within the ranges shown in Table 605-2. Tack coat shall not be overheated during storage, transport or at application.

TABLE 605-2 APPLICATION TEMPERATURE FOR TACK COAT	
Asphalt Material	Temperature Range
Asphalt Binder, Grade PG 64-22	350 - 400°F
Emulsified Asphalt, Grade RS-1H	130 - 160°F
Emulsified Asphalt, Grade CRS-1	130 - 160°F
Emulsified Asphalt, Grade CRS-1H	130 - 160°F
Emulsified Asphalt, Grade HFMS-1	130 - 160°F
Emulsified Asphalt, Grade CRS-2	130 - 160°F

Page 6-7, Article 609-3 FIELD VERIFICATION OF MIXTURE AND JOB MIX FORMULA ADJUSTMENTS, lines 35-37, delete the second sentence of the second paragraph.

Page 6-18, Article 610-1 DESCRIPTION, lines 40-41, delete the last sentence of the last paragraph.

Page 6-19, Subarticle 610-3(A) Mix Design-General, line 5, add the following as the first paragraph:

Warm mix asphalt (WMA) is allowed for use at the Contractor's option in accordance with the NCDOT Approved Products List for WMA Technologies available at:

<https://connect.ncdot.gov/resources/Materials/MaterialsResources/Warm%20Mix%20Asphalt%20Approved%20List.pdf>

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), replace Table 610-1 with the following:

**TABLE 610-1
DESIGN MIXING TEMPERATURE AT THE ASPHALT PLANT^A**

Binder Grade	HMA JMF Temperature	WMA JMF Temperature Range
PG 64-22	300°F	225 - 275°F
PG 70-22	315°F	240 - 290°F
PG 76-22	335°F	260 - 310°F

- A.** The mix temperature, when checked in the truck at the roadway, shall be within plus 15° and minus 25° of the temperature specified on the JMF.

Page 6-21, Subarticle 610-3(C) Job Mix Formula (JMF), lines 4-6, delete first sentence of the second paragraph. Line 7, in the second sentence of the second paragraph, replace “275°F” with “275°F or greater.”

Page 6-22, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, lines 15-17, replace the second sentence of the first paragraph with the following:

Do not place asphalt material when the air or surface temperatures, measured at the location of the paving operation away from artificial heat, do not meet Table 610-5.

Page 6-23, Article 610-4 WEATHER, TEMPERATURE AND SEASONAL LIMITATIONS FOR PRODUCING AND PLACING ASPHALT MIXTURES, replace Table 610-5 with the following:

TABLE 610-5 PLACEMENT TEMPERATURES FOR ASPHALT	
Asphalt Concrete Mix Type	Minimum Surface and Air Temperature
B25.0B, C	35°F
I19.0B, C, D	35°F
SF9.5A, S9.5B	40°F ^A
S9.5C, S12.5C	45°F ^A
S9.5D, S12.5D	50°F

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

Page 6-26, Article 610-7 HAULING OF ASPHALT MIXTURE, lines 22-23, in the fourth sentence of the first paragraph replace “so as to overlap the top of the truck bed and” with “to”.

PERMANENT SEEDING AND MULCHING:

(7-1-95)

1660

SP16 R02

The Department desires that permanent seeding and mulching be established on this project as soon as practical after slopes or portions of slopes have been graded. As an incentive to obtain an early stand of vegetation on this project, the Contractor's attention is called to the following:

For all permanent seeding and mulching that is satisfactorily completed in accordance with the requirements of Section 1660 in the *2012 Standard Specifications* and within the following percentages of elapsed contract times, an additional payment will be made to the Contractor as an incentive additive. The incentive additive will be determined by multiplying the number of acres of seeding and mulching satisfactorily completed times the contract unit bid price per acre for Seeding and Mulching times the appropriate percentage additive.

Percentage of Elapsed Contract Time	Percentage Additive
0% - 30%	30%
30.01% - 50%	15%

Percentage of elapsed contract time is defined as the number of calendar days from the date of availability of the contract to the date the permanent seeding and mulching is acceptably completed divided by the total original contract time.

AUTOMATED MACHINE GUIDANCE

(1-2-11)

SPI 5-5

General

This Special Provision contains requirements to be followed if the Contractor elects to use Global Positioning System (GPS) machine control grading and shall be used in conjunction with Section 801 of the *Standard Specifications*. The use of this technology is referenced as Automated Machine Guidance (AMG).

All equipment using AMG shall be able to generate end results that meet the *Standard Specifications*. Perform test sections for each type of work to be completed with AMG to demonstrate that the system has the capability to achieve acceptable results. If acceptable results can not be achieved, conform to the requirements for conventional stakeout.

The Contractor shall be responsible for all errors resulting from the use of AMG and shall correct deficiencies to the satisfaction of the Engineer at no cost to the Department.

Submittals

If the Contractor elects to use AMG, a Digital Terrain Model (DTM) of the design surface and all intermediate surfaces shall be developed and submitted to the Engineer for review.

At least 90 days prior to beginning grading operations, the Contractor shall submit to the Engineer an AMG work plan to include, but not limited to, proposed equipment, control software manufacturer and version, types of work to be completed using AMG, project site calibration report, repetitive calibration methods for construction equipment and rover units to be used for

the duration of the project, and local GPS base station to be used for broadcasting differential correction data to rover units (this may include the NC Network RTK). All surveys must be tied to existing project control as established by NCDOT.

Inspection

The Engineer will perform quality assurance checks of all work associated with AMG. If it is determined that work is not being performed in a manner that will assure accurate results, the Engineer may require corrective action at no cost to the Department.

The Contractor shall provide the Engineer with one GPS rover unit for use during the duration of the contract. The rover will be loaded with the same model that is used with the AMG and have the same capability as rover units used by the Contractor. The rover will be kept in the possession of the Engineer and will be returned to the Contractor upon completion of the contract. Any maintenance or repairs required for the rover will be the responsibility of the Contractor. Formal training of at least 8 hours shall be provided to the Engineer by the Contractor on the use of the proposed AMG system.

Subgrade and Base Controls

If the Contractor elects to use AMG for fine grading and placement of base or other roadway materials, the GPS shall be supplemented with a laser or robotic total station. Include details of the proposed system in the AMG work plan. In addition, the following requirements apply for the use of AMG for subgrade and base construction.

Provide control points at intervals along the project not to exceed 1,000 feet. The horizontal position of these points shall be determined by static GPS sessions or by traverse connection from the original base line control points. The elevation of these control points shall be established using differential leveling from project benchmarks, forming closed loops where practical. A copy of all new control point information shall be provided to the Engineer prior to construction activities.

Provide control points and conventional survey grade stakes at 500 foot intervals and at critical points such as, but not limited to, PCs, PTs, superelevation transition points, and other critical points as requested by the Engineer.

Provide hubs at the top of the finished subgrade at all hinge points on the cross section at 500 foot intervals. These hubs shall be established using conventional survey methods for use by the Engineer to check the accuracy of construction.

Measurement and Payment

No direct payment will be made for work required to utilize this provision. All work will be considered incidental to various grading operations.

UBO-1

Project: U-2579B

County: Forsyth

PROJECT SPECIAL PROVISIONS

Utilities by Others

General:

The following utility companies have facilities that will be in conflict with the construction of this project:

- A. Duke Energy Progress - Power Distribution
- B. A T & T - Telephone
- C. CenturyLink - Telephone
- D. Time Warner Cable - Cable TV
- E. Piedmont Natural Gas - Natural Gas
- F. City of Winston-Salem – Sewer

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

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

Utilities Requiring Adjustment:

A. Duke Energy Progress - Power Distribution

- 1) Duke Energy Progress will remove its existing poles and overhead lines and install new poles and overhead lines within the project limits at the locations shown on the Utilities by Others Plans by August 1, 2015.
- 2) After completion of the bridge between -Y1- Station 32+92.05 and -Y1- Station 35+49.21 and after placement of fill along -Y1-, Duke will install a new overhead power pole line right of -Y1- see note on sheet UO-02.
- 3) Contact person for Duke Progress Energy is Ms. Paula Butner at 336-917-2525.

B. A T & T - Telephone

- 1) A T & T will remove its existing poles, overhead lines, and underground facilities and install new underground and overhead lines within the project limits at the locations shown on the Utilities by Others Plans by August 1, 2015.
- 2) Contact person for A T & T is Mr. Jim Brooks (Telics) 336-978-5627.

UBO-2

C. CenturyLink - Telephone

- 1) CenturyLink will remove its existing poles, underground, and overhead facilities and install new overhead lines and underground facilities within the project limits at the locations shown on the Utilities by Others Plans prior to date of availability.
- 2) Contact person for CenturyLink is Mr. Brian McNiff at 336-996-5999.

D. Time Warner Cable - Cable TV

- 1) Time Warner Cable will remove its existing overhead and underground facilities and install new overhead and underground facilities within the project limits at the locations shown on the Utilities by Others Plans by August 1, 2015.
- 2) Contact person for Time Warner Cable is Mr. Mike Westward at 336-382-3282.

E. Piedmont Natural Gas - Natural Gas

- 1) Piedmont Natural Gas will abandon its existing underground utilities and install new underground facilities within the project limits at the locations shown on the Utilities by Others Plans by March 31, 2015.
- 2) If any additional conflicts are found in the field, Piedmont will require one week notice and two weeks to make any necessary adjustments.
- 3) Contact person for Piedmont Natural Gas is Mr. David Robertson at 336-726-7769.

F. City of Winston-Salem - Sewer

- 1) The City of Winston-Salem will install a new gravity sewer line crossing line –L- at station 558+85 and will abandon the existing gravity sewer line crossing line – L- at Station 560+45 by June 1, 2015.
- 2) For all other City of Winston-Salem water and sewer conflicts, see the utility construction plans and special provisions.
- 3) Contact person for the City of Winston-Salem is Mr. David Doss at 336-727-8063.

ST-53

State Project: U-2579B

Forsyth County

SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTEREST

Under the terms of these provisions, the North Carolina Department of Transportation shall hereinafter be called "Department", and the Norfolk Southern Railway Company shall hereinafter be called "Railroad".

1. AUTHORITY OF RAILROAD ENGINEER AND DEPARTMENT ENGINEER:

The authorized representative of the Railroad, hereinafter referred to as Railroad Engineer, shall have final authority in all matters affecting the safe maintenance of Railroad traffic including the adequacy of the foundations and structures supporting the Railroad tracks.

The authorized representative of the North Carolina Department of Transportation, hereinafter referred to as the Department Engineer, shall have authority over all other matters as prescribed herein including Project Specifications, Special Provisions, and the plans.

2. NOTICE OF STARTING WORK:

A. The Contractor shall not commence any work on Railroad right of way until he has complied with the following conditions:

- (1) Give the Railroad written notice, with copy to the Department Engineer who is designated to be in charge of the work, at least ten (10) days in advance of the date he proposes to begin work on Railroad right of way to:

Office of Chief Engineer - Bridges & Structures
Norfolk Southern Corporation
1200 Peachtree Street NE
Internal Box 142
Atlanta, Georgia 30309

- (2) Obtain written approval from the Railroad of Railroad Protective Liability Insurance coverage as required by section 14 herein. The Railroad does not accept notation of Railroad protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. The policy will be reviewed for compliance prior to written approval. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for Railroad to review.
- (3) Obtain Railroad's Flagging Services as required by section 7 herein.

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Forsyth Co.

- (4) Obtain written authorization from the Railroad to begin work on Railroad's right of way, such authorization to include an outline of specific conditions with which he must comply.
 - (5) Furnish a schedule for all work within the Railroad right of way as required by section 7B1 herein.
- B. The Railroad's written authorization to proceed with the work will include the names, addresses, and telephone numbers of the Railroad's representatives who are to be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative will be specified.

3. INTERFERENCE WITH RAILROAD OPERATIONS:

- A. The Contractor shall so arrange and conduct his work that there will be no interference with Railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, wires, and other facilities of tenants on the right of way of the Railroad. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires flagging service or inspection service (watchman) shall be deferred by the Contractor until the flagging protection or inspection service required by the Railroad is available at the job site.
- B. Whenever work within Railroad's right of way is of such a nature that impediment to Railroad operations such as use of runaround tracks or necessity for reduced speed is unavoidable, the Contractor shall schedule and conduct his operations so that such impediment is reduced to the absolute minimum.
- C. Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in his absence, the Railroad's Division Engineer, such provision is insufficient, either may require or provide such provisions as he deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the Department.

4. TRACK CLEARANCES:

- A. The minimum track clearances to be maintained by the Contractor during construction are as follows:
 - (1) Horizontal clearance measured from centerline of track to falsework:

13'-0" on tangent track

14'-0" on curved track

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(2) Vertical clearance from top of rail to falsework: 22'-0"

B. However, before undertaking any work within Railroad's right of way, or before placing any obstruction over any track, the Contractor shall:

(1) Notify the Railroad Engineer at least 72 hours in advance of the work.

(2) Receive assurance from the Railroad Engineer that arrangements have been made for flagging service as may be necessary.

(3) Receive permission from the Railroad Engineer to proceed with the work.

(4) Ascertain that the Department Engineer has received copies of notice to the Railroad and of the Railroad's response thereto.

5. CONSTRUCTION PROCEDURES:

A. General:

Construction work and operations by the Contractor on Railroad's property shall be:

(1) Subject to the inspection and approval of the Railroad.

(2) In accord with the Railroad's written outline of specific conditions.

(3) In accord with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.

(4) In accord with these Special Provisions.

B. Excavation:

The subgrade of an operated track shall be maintained with edge of berm at least 10'-0" from centerline of track and not more than 24 inches below top of rail. The Contractor will not be required to make existing section meet this specification if substandard, in which case existing section will be maintained.

Additionally, the Railroad Engineer may require the Contractor to install orange construction safety fencing for protection of the work area.

C. Excavation for Structures:

The Contractor will be required to take special precaution and care in connection with excavating and shoring pits, and in driving piles or sheeting, for footings adjacent to tracks to provide adequate lateral support for the tracks and the loads which they carry, without

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Forsyth Co.

disturbance of track alignment and surface, and to avoid obstructing track clearances with working equipment, tools or other material. All plans and calculations for shoring shall be prepared and signed by a North Carolina Registered Professional Engineer. The Professional Engineer will be responsible for the accuracy for all controlling dimensions as well as the selection of soil design values which will accurately reflect the actual field conditions. The procedure for doing such work, including need of and plans for shoring, shall first be reviewed by the Department Engineer then reviewed and approved by the Railroad Engineer, but such approval shall not relieve the Contractor from liability.

Additionally, a walkway with handrail protection may be required as noted in section 11 herein.

D. Demolition, Erection, Hoisting:

- (1) Railroad tracks and other Railroad property must be protected from damage during the procedure.
- (2) The Contractor is required to submit a plan showing the locations of cranes, horizontally and vertically, operating radii, with delivery or disposal locations shown. The location of all tracks and other railroad facilities as well as wire lines, poles, adjacent structures, etc. must also be shown.
- (3) Crane rating sheets showing cranes to be adequate for 150% of the actual weight of the pick. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted.
- (4) Plans and computations showing the weight of the picks must be submitted. Calculations shall be made from plans of the existing and/or proposed structure showing complete and sufficient details with supporting data for the demolition or erection of the structure. If plans do not exist, lifting weights must be calculated from filed measurements. The field measurements are to be made under the supervision of the North Carolina Registered Professional Engineer submitting the procedure and calculations.
- (5) A data sheet must be submitted listing the types, size and arrangements of all rigging and connection equipment.
- (6) A complete written procedure is to be submitted, including the order of lifts, time required for each lift, and any repositioning or rehitching of the crane or cranes.
- (7) All erection or demolition plans, procedures, data sheets, etc. submitted must be prepared, signed and sealed by a North Carolina Registered Professional Engineer.
- (8) The Railroad Engineer or his designated representative must be present at the site during the entire demolition and erection procedure period.

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- (9) All procedures, plans and calculations shall first be reviewed by the Department Engineer and then approved by the Railroad Engineer, but such approval does not relieve the Contractor from liability.

E. Blasting:

- (1) The Contractor shall obtain advance approval of the Railroad Engineer and Department Engineer for use of explosives on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with the following:
 - (a) Blasting shall be done with light charges under the direct supervision of a responsible officer or employee of the Contractor and a licensed blaster.
 - (b) Electric detonating fuses shall not be used because of the possibility of premature explosions resulting from operation of two-way train radios.
 - (c) No blasting shall be done without the presence of the Railroad Engineer or his authorized representative. At least 72 hours advance notice to the person designated in the Railroad's notice of authorization to proceed (see section 2B above) will be required to arrange for the presence of an authorized Railroad representative and such flagging as the Railroad may require.
 - (d) Have at the job site adequate equipment, labor and materials and allow sufficient time to clean up debris resulting from the blasting without delay to trains, as well as correcting at his expense any track misalignment or other damage to Railroad property resulting from the blasting as directed by the Railroad Engineer. If his actions result in delay of trains, the Contractor shall bear the entire cost thereof.
- (2) The Railroad Engineer will:
 - (a) Determine the approximate location of trains and advise the Contractor the approximate amount of time available for the blasting operation and clean-up.
 - (b) Have the authority to order discontinuance of blasting if, in his opinion, blasting is too hazardous or is not in accord with these special provisions.

F. Maintenance of Railroad Facilities:

- (1) The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from his operations and provide and maintain any erosion control measures as required. The Contractor will promptly

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repair eroded areas within Railroad's right of way and repair any other damage to the property of the Railroad or its tenants.

- (2) All such maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

G. Storage of Materials and Equipment:

Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the right of way of the Railroad without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

All grading or construction machinery that is left parked near the track unattended by a watchman shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save Railroad, and any associated, controlled or affiliated corporation, harmless from and against all loss, costs, expenses, claim or liability for loss of or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

H. Cleanup:

Upon completion of the work, the Contractor shall remove from within the limits of the Railroad's right of way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of the Contractor, and leave said right of way in a neat condition satisfactory to the Chief Engineer of the Railroad or his authorized representative.

6. DAMAGES:

- A. The Contractor shall assume all liability for any and all damages to his work, employees, servants, equipment and materials caused by Railroad traffic.
- B. Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

7. FLAGGING SERVICES:

A. Requirements:

Flagging services will not be provided until the Contractor's insurance has been reviewed and approved by the Railroad.

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Under the terms of the agreement between the Department and Railroad, the Railroad has sole authority to determine the need for flagging required to protect its operations. In general, the requirements of such services will be whenever the Contractor's men or equipment are, or are likely to be, working on the Railroad's right of way, or across, over, adjacent to or under a track, or when such work has disturbed or is likely to disturb a Railroad structure, Railroad roadbed, or surface and alignment of any track to such extent that the movement of trains must be controlled by flagging.

Normally, the Railroad will assign one flagman to a project; but in some cases, more than one may be necessary, such as yard limits where three (3) flagmen may be required. However, if the Contractor works within distances that violate instructions given by the Railroad Engineer or performs work that has not been scheduled with the Railroad Engineer, a flagman or flagmen may be required full time until the project has been completed. Should such violations or unscheduled, unauthorized work by the Contractor result in full time flagging being required by the Railroad, the additional cost of such flagging above normal flagging cost shall be deducted from the final payment to the Contractor as provided in Article 109-9 of the Standard Specifications. Neither Department nor Railroad will be liable for damages resulting from unscheduled or unauthorized work.

B. Scheduling and Notification:

- (1) The Contractor's work requiring railroad flagging should be scheduled to limit the presence of a flagman at the site to a maximum of 50 hours per week. The Contractor shall receive Railroad approval of work schedules requiring a flagman presence in excess of 40 hours per week.
- (2) No later than the time that approval is initially requested to begin work on Railroad right of way, the Contractor shall furnish to the Department and Railroad a schedule for all work required to complete the portion of the project within Railroad right of way and arrange for a job site meeting between the Contractor, Department, and Railroad. Flagman or flagmen may not be provided until the job site meeting has been conducted and the Contractor's work scheduled.
- (3) The Contractor will be required to give the Railroad Engineer at least 10 working days of advance written notice of intent to begin work within Railroad's right of way in accordance with this special provision. Once begun, when such work is then suspended at any time, or for any reason, the Contractor will be required to give the Railroad Engineer at least 3 working days of advance notice before resuming work on Railroad's right of way. Such notices shall include sufficient details of the proposed work to enable the Railroad Engineer to determine if flagging will be required. If such notice is in writing, the Contractor shall furnish the Department Engineer a copy; if notice is given verbally, it shall be confirmed in writing with a copy to the Department Engineer.

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- (4) If flagging is required, no work shall be undertaken until the flagman, or flagmen, is present at the job site. It may take up to 30 days to obtain flagging initially from the Railroad. When flagging begins, the flagman is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and cannot be called for on a spot basis. If flagging becomes unnecessary and is suspended, it may take up to 30 days to again obtain from the Railroad. Due to labor agreements, it is necessary to give 5 working days notice before flagging service may be discontinued and responsibility for payment stopped.
- (5) If, after the flagman is assigned to the project site, emergencies arise which require the flagman's presence elsewhere, the Contractor shall delay work on Railroad right of way until such time as the flagman is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Department or Railroad.

C. Payment:

- (1) The Department will be responsible for paying the Railroad directly for any and all costs of flagging which may be required to accomplish the construction. The Contractor shall reimburse the Railroad for any costs of the flagging which is required for work for the benefit of the Contractor.
- (2) The estimated cost of flagging service is the current rate per day based on a 10-hour work day. This cost includes the base pay for each flagman, overhead, and a per diem charge for travel expenses, meals and lodging. The charge by the Railroad will be the actual cost based on the rate of pay for the Railroad's employees who are available for flagging service at the time the service is required.
- (3) Work by a flagman in excess of 8 hours per day or 40 hours per week, but not more than 12 hours a day will result in overtime pay at 1½ times the appropriate rate. Work by a flagman in excess of 12 hours per day will result in overtime pay at 2 times the appropriate rate. If work is performed on a holiday, the flagging rate is 2½ times the normal rate.
- (4) Railroad work involved in preparing and handling bills will also be charged to the Department. Charges to the Department by the Railroad shall be in accordance with applicable provisions of the Federal-Aid Policy Guide, Title 23 Subchapter B, Part 140I and Subchapter G, Part 646B issued by the Federal Highway Administration on December 9, 1991, including all current amendments. Flagging costs are subject to change. The above estimates of flagging costs are provided for information only and are not binding in any way.

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D. Verification:

- (1) Railroad's flagman will electronically enter flagging time via Railroad's electronic billing system. Any complaints concerning flagman or flagmen must be resolved in a timely manner. If need for flagman or flagmen is questioned, please contact Railroad's System Engineer of Public Improvements at (404) 529-1641. All verbal complaints must be confirmed in writing by the Contractor within 5 working days with copy to the Department Engineer. Address all written correspondence to:

Office of Chief Engineer-Bridges & Structures
Attn: System Engineer of Public Improvements
Norfolk Southern Corporation
1200 Peachtree St. NE
Internal Box 142
Atlanta, GA 30309

- (2) The Railroad flagman assigned to the project will be responsible for notifying the Department Engineer upon arrival at the job site on the first day (or as soon thereafter as possible) that flagging services begin and on the last day that he performs such services for each separate period that services are provided. The Department Engineer will document such notification and general flagging times for verification purposes in the project records. When requested, the Department Engineer will also sign the flagman's diary showing daily time spent and activity at the project site. Also if requested, the flagman will cooperate with the Department by submitting daily timesheets or signing the Department Engineer's diary showing daily time spent at the project site.

8. HAUL ACROSS RAILROADS:

- A. Where the plans show or imply that materials of any nature must be hauled across a Railroad, unless the plans clearly show that the Department has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad. The Contractor will be required to bear all costs incidental, including flagging, to such crossings whether services are performed by his own forces or by Railroad personnel.
- B. No crossing may be established for use of the Contractor for transporting materials or equipment across the tracks of the Railroad unless specific authority for its installation, maintenance, necessary watching and flagging thereof and removal, all at the expense of the Contractor, is first obtained from the Railroad Engineer. The approval process for a temporary private crossing agreement executed between the Contractor and Railroad normally takes 90 days.

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9. WORK FOR THE BENEFIT OF THE CONTRACTOR:

- A. All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans and included in the force account agreement between the Department and the Railroad; or will be covered by appropriate revisions to same which will be initiated and approved by the Department and/or Railroad.
- B. Should the Contractor desire any changes in addition to the above, then he shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

10. COOPERATION AND DELAYS:

- A. It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging his schedule he shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore. The Contractor shall cooperate with others in the construction of the project to the end that all work may be accomplished to the best advantage.
- B. No charge or claims of the Contractor against either the Department or Railroad will be allowed for hindrance or delay on account of railroad traffic, any work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic or for any delays due to compliance with these special provisions.
- C. The Contractor's attention is called to the fact that neither the Department nor Railroad assumes any responsibility for any work performed by others in connection with the construction of the project, and the Contractor shall have no claim whatsoever against the Department, or Railroad for any inconvenience, delay, or additional cost incurred by him on account of such operations by others.

11. TRAINMAN'S WALKWAYS:

Along the outer side of each exterior track of multiple operated tracks, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 10' from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's protective service is provided shall be removed before the close of each work day. If there is any excavation near the walkway, a handrail, with 10'-0" minimum clearance from centerline of track shall be placed.

12. GUIDELINES FOR PERSONNEL ON RAILROAD'S RIGHT OF WAY:

- A. All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen.

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Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip-on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots or boots cinched up with straps which fit snugly about the ankle are adequate. Wearing Safety boots is strongly recommended. In the vicinity of at-grade crossings, it is strongly recommended to wear reflective vests.

- B. No one is allowed within 25' of the centerline of track without specific authorization from the flagman.
- C. All persons working near track while train is passing are to lookout for dragging bands, chains and protruding or shifted cargo.
- D. No one is allowed to cross tracks without specific authorization from the flagman.
- E. All welders and cutting torches working within 25' of track must stop when train is passing.
- F. No steel tape or chain will be allowed to cross or touch rails without permission.

13. GUIDELINES FOR EQUIPMENT ON RAILROAD'S RIGHT OF WAY:

- A. No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15 ft. of centerline of track without specific permission from Railroad Engineer and flagman.
- B. No crane or boom equipment will be allowed to foul track or lift a load over the track without flag protection and track time.
- C. All employees will stay with their machines when crane or boom equipment is pointed toward track.
- D. All cranes and boom equipment under load will stop work while train is passing (including pile driving).
- E. Swinging loads must be secured to prevent movement while train is passing.
- F. No loads will be suspended above a moving train.
- G. No equipment will be allowed within 25' of centerline of track without specific authorization of the flagman.
- H. Trucks, tractors or any equipment will not touch ballast line without specific permission from railroad official and flagman.
- I. No equipment or load movement within 25' or above a standing train or railroad equipment without specific authorization of the flagman.

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- J. All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the flagman if the flagman views the operation to be dangerous to the passing train.
- K. All equipment, loads and cables are prohibited from touching rails.
- L. While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and flagman.
- M. No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.
- N. All unattended equipment that is left parked on Railroad's property shall be effectively immobilized so that it cannot be moved by unauthorized persons.
- O. All cranes and boom equipment will be turned away from track after each work day or whenever unattended by an operator.

14. INSURANCE:

- A. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to provide coverage conforming to the requirements of the Federal-Aid Policy Guide outlined under Title 23 Subchapter G, Part 646A for all work to be performed on Railroad's right of way by carrying insurance of the following kinds and amounts:
 - (1) **Commercial General Liability Insurance** having a combined single limit of not less than \$2,000,000 per occurrence for all loss, damage, cost and expense, including attorneys' fees, arising out of bodily injury liability and property damage liability during the policy period. Said policy shall include explosion, collapse, and underground hazard (XCU) coverage, shall be endorsed to name Railroad specified in section 14A2(c) below both as the certificate holder and as an additional insured, and shall include a severability of interests provision.
 - (2) **Railroad Protective Liability Insurance** having a combined single limit of not less than \$2,000,000 each occurrence and \$6,000,000 in the aggregate applying separately to each annual period. If the project involves track over which passenger trains operate, the insurance limits required are not less than a combined single limit of \$5,000,000 each occurrence and \$10,000,000 in the aggregate applying separately to each annual period. Said policy shall provide coverage for all loss, damage or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

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The standards for the Railroad Protective Liability Insurance are as follows:

- (a) The insurer must be rated A- or better by A.M. Best Company, Inc.
- (b) The policy must be written using one of the following combinations of Insurance Services Office ("ISO") Railroad Protective Liability Insurance Form Numbers:
 - (1) CG 00 35 01 96 and CG 28 31 10 93; or
 - (2) CG 00 35 07 98 and CG 28 31 07 98; or
 - (3) CG 00 35 10 01; or
 - (4) CG 00 35 12 04

- (c) The named insured shall read:

Norfolk Southern Railway Company
Three Commercial Place
Norfolk, Virginia 23510-2191
Attn: Risk Management

- (d) The description of operations must appear on the Declarations, must match the project description in this agreement, and must include the appropriate Department project and contract identification numbers.

The Description and Designation shall read:

Description and Designation: Construction of dual overhead bridges on the Winston-Salem Northern Beltway over West Mountain Road and the tracks of Norfolk Southern Railway Company near Milepost K-18.1 in Forsyth County, North Carolina identified as State TIP U-2579B and Federal Project NHF-0918(93).

- (e) The job location must appear on the Declarations and must include the city, state, and appropriate highway name/number.

NOTE: Do not include any references to milepost on the insurance policy.

- (f) The name and address of the prime contractor must appear on the Declarations.
- (g) The name and address of the Department must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."

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(h) Other endorsements/forms that will be accepted are:

- (1) Broad Form Nuclear Exclusion – Form IL 00 21
- (2) 30-day Advance Notice of Non-renewal or cancellation
- (3) 60-day written notice to the Department prior to cancellation or change
- (4) Quick Reference or Index Form CL/IL 240

(i) Endorsements/forms that are **NOT** acceptable are:

- (1) Any Pollution Exclusion Endorsement except CG 28 31
- (2) Any Punitive or Exemplary Damages Exclusion
- (3) Known injury or Damage Exclusion form CG 00 59
- (4) Any Common Policy Conditions form
- (5) Any other endorsement/form not specifically authorized in section 14A2(h) above.

B. If any part of the work is sublet, similar insurance, and evidence thereof as specified in section 14A1 above, shall be provided by or on behalf of the subcontractor to cover its operations on Railroad's right of way. As an alternative, the Prime Contractor may provide insurance for the subcontractor by means of separate and individual policies.

C. Prior to entry on Railroad's right of way, the original and one duplicate copy of the Railroad Protective Liability Insurance Policy shall be submitted by the Prime Contractor to the Department at the address below for its review and transmittal to the Railroad. In addition, certificates of insurance evidencing the Prime Contractor's and any subcontractors' Commercial General Liability Insurance shall be issued to the Department and Railroad at the addresses below, and one certified copy of the Prime Contractor and any Subcontractors policy is to be forwarded to the Department for its review and transmittal to the Railroad. All policies and certificates of insurance shall state that the insurance coverage will not be suspended, voided, canceled, or reduced in coverage or limits without (30) days advance written notice to the Department and Railroad. The Railroad will not permit any work on its right of way until it has reviewed and approved the evidence of insurance required herein.

DEPARTMENT:

NCDOT Rail Division
Engineering & Safety Branch
C/O State Railroad Agent
1556 Mail Service Center
Raleigh, NC 27699-1556

RAILROAD:

Risk Management
Norfolk Southern Railway Company
Three Commercial Place
Norfolk, Virginia 23510-2191

D. The insurance required herein shall in no way serve to limit the liability of Department or its Contractors under the terms of this agreement.

E. The insurance amounts specified are minimum amounts and the Contractor may carry insurance in larger amounts if he so desires. As to "aggregate limits", if the insurer

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establishes loss reserves equal to or in excess of the aggregate limit specified in any of the required insurance policies, the Contractor shall immediately notify the Department and shall cease all operations until the aggregate limit is reinstated. If the insurer establishes loss reserves equal to or in excess of one-half of the aggregate limit, the Contractor shall arrange to restore the aggregate limit to at least the minimum amount stated in these requirements. Any insurance policies and certificates taken out and furnished due to these requirements shall be approved by the Department and Railroad as to form and amount prior to beginning work on Railroad's right of way.

- F. All insurance herein before specified shall be carried until the final inspection and acceptance of the project by the Department and Railroad, or acceptance of that portion of the project within Railroad's right of way. At this point, no work or any other activities by the Contractor shall take place in Railroad's right of way without written permission from both the Department and Railroad.

15. FAILURE TO COMPLY:

- A. In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions:

- (1) The Railroad Engineer may require that the Contractor vacate Railroad's property.
- (2) The Department Engineer may withhold all monies due the Contractor on monthly statements.

Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Department Engineer and the Railroad Engineer.

16. PAYMENT FOR COST OF COMPLIANCE:

No separate payment will be made for any extra cost incurred on account of compliance with these special provisions. All such cost shall be included in the various prices bid to perform the work.

17. COMPLETION AND ACCEPTANCE:

Upon completion of the work, the Contractor shall remove from within the limits of the Railroad's right of way all machinery, equipment, surplus materials, rubbish or temporary buildings of the Contractor, and leave said right of way in a neat and orderly condition. After the final inspection has been made and work found to be completed in a satisfactory manner acceptable to the Department and Railroad, the Department will be notified of the Railroad's acceptance in writing by the Railroad's Chief Engineer or his authorized representative within ten (10) days or as soon thereafter as practicable.

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Railroad Site Data:

The following information was received from the Railroad, and is provided as a convenience to the Contractor in bidding this project. This information is subject to change and the Contractor may, at his discretion, contact the Railroad directly to verify its current accuracy. Since this information is shown as a convenience to the Contractor, but is subject to change, the Contractor shall have no claims whatsoever against either the Railroad or the Department of Transportation for any delays or additional costs incurred based on changes in this information which occur after the above date of receipt.

Type and number of tracks within 50 ft. of project (mainline, branchline, siding, yard, etc.).

1 – Mainline

Number of trains on affected track per day.

4 – Freight

Maximum authorized operating speed of trains.

35 mph

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0004	0000700000-N	SP	FIELD OFFICE	Lump Sum	L.S.	
0005	0001000000-E	200	CLEARING & GRUBBING .. ACRE(S)	Lump Sum	L.S.	
0006	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUB- BING	5 ACR		
0007	0015000000-N	205	SEALING ABANDONED WELLS	29 EA		
0008	0022000000-E	225	UNCLASSIFIED EXCAVATION	3,571,000 CY		
0009	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (17+10.18-Y4RPA-)	Lump Sum	L.S.	
0010	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (20+20.21-Y2-)	Lump Sum	L.S.	
0011	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (23+54.25-Y5-)	Lump Sum	L.S.	
0012	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (26+48.62-Y4RPBD-)	Lump Sum	L.S.	
0013	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (28+75.85-Y5-)	Lump Sum	L.S.	
0014	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (33+16.49-Y4CD-)	Lump Sum	L.S.	
0015	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (34+08.68-Y1-)	Lump Sum	L.S.	
0016	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (44+18.64-Y4RPBD-)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0017	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (46+83.44-Y4CD-)	Lump Sum	L.S.	
0018	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (53+21.16-Y4RPBD-)	Lump Sum	L.S.	
0019	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (556+85.00-L-LT)	Lump Sum	L.S.	
0020	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (556+85.00-L-RT)	Lump Sum	L.S.	
0021	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (584+17.77-L-LT)	Lump Sum	L.S.	
0022	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (584+24.18-L-RT)	Lump Sum	L.S.	
0023	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (628+57.75-L-RT)	Lump Sum	L.S.	
0024	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (628+74.47-L-LT)	Lump Sum	L.S.	
0025	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (642+75.24-L-LT)	Lump Sum	L.S.	
0026	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (642+80.18-L-RT)	Lump Sum	L.S.	
0027	0036000000-E	225	UNDERCUT EXCAVATION	7,500 CY		
0028	0106000000-E	230	BORROW EXCAVATION	2,900,000 CY		
0029	0134000000-E	240	DRAINAGE DITCH EXCAVATION	31,000 CY		
0030	0141000000-E	240	BERM DITCH CONSTRUCTION	2,860 LF		
0031	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	87,000 SY		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0032	0177000000-E	250	BREAKING OF EXISTING ASPHALT PAVEMENT	18,000 SY		
0033	0192000000-N	260	PROOF ROLLING	120 HR		
0034	0195000000-E	265	SELECT GRANULAR MATERIAL	23,000 CY		
0035	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	47,100 SY		
0036	0199000000-E	SP	TEMPORARY SHORING	6,000 SF		
0037	0220000000-E	SP	ROCK EMBANKMENTS	1,000 TON		
0038	0222000000-E	SP	GEOTEXTILE FOR ROCK EMBANKMENTS	820 SY		
0039	0223000000-E	275	ROCK PLATING	3,500 SY		
0040	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	6,836 TON		
0041	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	23,076 SY		
0042	0342000000-E	310	*** SIDE DRAIN PIPE (30")	4,352 LF		
0043	0342000000-E	310	*** SIDE DRAIN PIPE (36")	864 LF		
0044	0342000000-E	310	*** SIDE DRAIN PIPE (42")	2,172 LF		
0045	0342000000-E	310	*** SIDE DRAIN PIPE (48")	52 LF		
0046	0342000000-E	310	*** SIDE DRAIN PIPE (54")	84 LF		
0047	0342000000-E	310	*** SIDE DRAIN PIPE (60")	604 LF		
0048	0343000000-E	310	15" SIDE DRAIN PIPE	12,240 LF		
0049	0344000000-E	310	18" SIDE DRAIN PIPE	5,968 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0050	0345000000-E	310	24" SIDE DRAIN PIPE	4,348	LF	
0051	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (15")	72	EA	
0052	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (18")	20	EA	
0053	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (24")	7	EA	
0054	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (30")	7	EA	
0055	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (36")	2	EA	
0056	0350000000-E	SP	**** RC PIPE CULVERTS, CON- TRACTOR DESIGN (18")	484	LF	
0057	0350000000-E	SP	**** RC PIPE CULVERTS, CON- TRACTOR DESIGN (36")	380	LF	
0058	0350000000-E	SP	**** RC PIPE CULVERTS, CON- TRACTOR DESIGN (42")	1,308	LF	
0059	0350000000-E	SP	**** RC PIPE CULVERTS, CON- TRACTOR DESIGN (48")	1,276	LF	
0060	0350000000-E	SP	**** RC PIPE CULVERTS, CON- TRACTOR DESIGN (60")	308	LF	
0061	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (24", V)	408	LF	
0062	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (30", V)	460	LF	
0063	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (36", V)	472	LF	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0064	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (54", V)	368	LF	
0065	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (72", V)	324	LF	
0066	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	4,292	LF	
0067	0372000000-E	310	18" RC PIPE CULVERTS, CLASS III	2,644	LF	
0068	0378000000-E	310	24" RC PIPE CULVERTS, CLASS III	1,080	LF	
0069	0384000000-E	310	30" RC PIPE CULVERTS, CLASS III	1,064	LF	
0070	0390000000-E	310	36" RC PIPE CULVERTS, CLASS III	380	LF	
0071	0396000000-E	310	42" RC PIPE CULVERTS, CLASS III	104	LF	
0072	0402000000-E	310	48" RC PIPE CULVERTS, CLASS III	124	LF	
0073	0448000000-E	310	***** RC PIPE CULVERTS, CLASS IV (48")	528	LF	
0074	0448000000-E	310	***** RC PIPE CULVERTS, CLASS IV (60")	1,020	LF	
0075	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	3,780	LF	
0076	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	1,540	LF	
0077	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	404	LF	
0078	0448500000-E	310	30" RC PIPE CULVERTS, CLASS IV	880	LF	
0079	0448700000-E	310	42" RC PIPE CULVERTS, CLASS IV	504	LF	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0080	0576000000-E	310	*** CS PIPE CULVERTS, ***** THICK (36", 0.079")	172 LF		
0081	0576000000-E	310	*** CS PIPE CULVERTS, ***** THICK (42", 0.109")	28 LF		
0082	0576000000-E	310	*** CS PIPE CULVERTS, ***** THICK (54", 0.109")	260 LF		
0083	0582000000-E	310	15" CS PIPE CULVERTS, 0.064" THICK	1,256 LF		
0084	0588000000-E	310	18" CS PIPE CULVERTS, 0.064" THICK	588 LF		
0085	0594000000-E	310	24" CS PIPE CULVERTS, 0.064" THICK	368 LF		
0086	0600000000-E	310	30" CS PIPE CULVERTS, 0.079" THICK	164 LF		
0087	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (15", 0.064")	10 EA		
0088	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (18", 0.064")	3 EA		
0089	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (24", 0.064")	2 EA		
0090	0636000000-E	310	*** CS PIPE ELBOWS, ***** THICK (42", 0.109")	1 EA		
0091	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (30", 0.500")	92 LF		
0092	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (36", 0.500")	100 LF		
0093	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (42", 0.625")	348 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0094	0973100000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B IN SOIL (48", 0.625")	180 LF		
0095	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (30", 0.500")	92 LF		
0096	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (36", 0.500")	100 LF		
0097	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (42", 0.625")	348 LF		
0098	0973300000-E	330	*** WELDED STEEL PIPE, ***** THICK, GRADE B NOT IN SOIL (48", 0.625")	180 LF		
0099	0986000000-E	SP	GENERIC PIPE ITEM 8" DUCTILE IRON PIPE	548 LF		
0100	0995000000-E	340	PIPE REMOVAL	4,363 LF		
0101	1000000000-E	462	6" SLOPE PROTECTION	800 SY		
0102	1011000000-N	500	FINE GRADING	Lump Sum	L.S.	
0103	1044000000-E	501	LIME TREATED SOIL (SLURRY METHOD)	130,610 SY		
0104	1066000000-E	501	LIME FOR LIME TREATED SOIL	1,380 TON		
0105	1077000000-E	SP	#57 STONE	505 TON		
0106	1099500000-E	505	SHALLOW UNDERCUT	5,000 CY		
0107	1099700000-E	505	CLASS IV SUBGRADE STABILIZA- TION	9,500 TON		
0108	1110000000-E	510	STABILIZER AGGREGATE	1,000 TON		
0109	1115000000-E	SP	GEOTEXTILE FOR PAVEMENT STA- BILIZATION	275,035 SY		
0110	1121000000-E	520	AGGREGATE BASE COURSE	90,000 TON		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0111	1176000000-E	542	SOIL CEMENT BASE	195,910 SY		
0112	1187000000-E	542	PORTLAND CEMENT FOR SOIL CE- MENT BASE	5,486 TON		
0113	1209000000-E	543	ASPHALT CURING SEAL	48,980 GAL		
0114	1220000000-E	545	INCIDENTAL STONE BASE	2,000 TON		
0115	1275000000-E	600	PRIME COAT	2,240 GAL		
0116	1330000000-E	607	INCIDENTAL MILLING	2,650 SY		
0117	1489000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0B	57,000 TON		
0118	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	71,500 TON		
0119	1498000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	12,500 TON		
0120	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	40,000 TON		
0121	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	12,000 TON		
0122	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	51,000 TON		
0123	1525000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	23,000 TON		
0124	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	13,445 TON		
0125	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	235 TON		
0126	1840000000-E	665	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	48,100 LF		
0127	1847000000-E	710	***** PORT CEM CONC PAVEMENT, THROUGH LANES (WITH DOWELS) (12-1/2")	257,000 SY		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0128	1869000000-E	710	***** PORT CEM CONC PAVEMENT, MISCELLANEOUS (WITHOUT DOWELS) (12-1/2")	11,000 SY		
0129	1881000000-E	SP	GENERIC PAVING ITEM MILLED RUMBLE STRIPS (CONC. SHLD.)	41,100 LF		
0130	1891000000-E	SP	GENERIC PAVING ITEM NONWOVEN GEOTEXTILE INTERLAYER	39,000 SY		
0131	1902000000-N	710	SURFACE TESTING CONCRETE PAVEMENT	Lump Sum	L.S.	
0132	1913000000-E	720	CONCRETE SHOULDERS ADJACENT TO ***** PAVEMENT (12-1/2")	51,000 SY		
0133	1924000000-N	725	FIELD LABORATORY RENTAL, PORT CEM CONC PAVEMENT	Lump Sum	L.S.	
0134	2000000000-N	806	RIGHT OF WAY MARKERS	245 EA		
0135	2022000000-E	815	SUBDRAIN EXCAVATION	2,688 CY		
0136	2026000000-E	815	GEOTEXTILE FOR SUBSURFACE DRAINS	12,000 SY		
0137	2036000000-E	815	SUBDRAIN COARSE AGGREGATE	2,016 CY		
0138	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	12,000 LF		
0139	2070000000-N	815	SUBDRAIN PIPE OUTLET	24 EA		
0140	2077000000-E	815	6" OUTLET PIPE	144 LF		
0141	2099000000-E	816	SHOULDER DRAIN	22,800 LF		
0142	2110000000-E	816	4" SHOULDER DRAIN PIPE	22,800 LF		
0143	2121000000-E	816	4" OUTLET PIPE FOR SHOULDER DRAINS	840 LF		
0144	2132000000-N	816	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET	10 EA		
0145	2143000000-E	818	BLOTTING SAND	20 TON		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0146	2209000000-E	838	ENDWALLS	88.5 CY		
0147	2220000000-E	838	REINFORCED ENDWALLS	33 CY		
0148	2253000000-E	840	PIPE COLLARS	13 CY		
0149	2264000000-E	840	PIPE PLUGS	3 CY		
0150	2275000000-E	SP	FLOWABLE FILL	20 CY		
0151	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	365 EA		
0152	2297000000-E	840	MASONRY DRAINAGE STRUCTURES	34 CY		
0153	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	242 LF		
0154	2354000000-N	840	FRAME WITH GRATE, STD 840.22	6 EA		
0155	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	1 EA		
0156	2364200000-N	840	FRAME WITH TWO GRATES, STD 840.20	75 EA		
0157	2365000000-N	840	FRAME WITH TWO GRATES, STD 840.22	231 EA		
0158	2366000000-N	840	FRAME WITH TWO GRATES, STD 840.24	10 EA		
0159	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	18 EA		
0160	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)	5 EA		
0161	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)	3 EA		
0162	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	8 EA		
0163	2396000000-N	840	FRAME WITH COVER, STD 840.54	27 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0164	2407000000-N	840	STEEL FRAME WITH TWO GRATES, STD 840.37	2 EA		
0165	2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	1 EA		
0166	2542000000-E	846	1'-6" CONCRETE CURB & GUTTER	2,420 LF		
0167	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	5,260 LF		
0168	2556000000-E	846	SHOULDER BERM GUTTER	12,000 LF		
0169	2570000000-N	SP	MODIFIED CONCRETE FLUME	6 EA		
0170	2612000000-E	848	6" CONCRETE DRIVEWAY	140 SY		
0171	2619000000-E	850	4" CONCRETE PAVED DITCH	260 SY		
0172	2655000000-E	852	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	400 SY		
0173	2724000000-E	857	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED	12,970 LF		
0174	2830000000-N	858	ADJUSTMENT OF MANHOLES	4 EA		
0175	2860000000-N	859	CONVERT EXISTING CATCH BASIN TO JUNCTION BOX	3 EA		
0176	2995000000-N	SP	GENERIC DRAINAGE ITEM CONVERT EXISTING OTCB TO 2GI	14 EA		
0177	3000000000-N	SP	IMPACT ATTENUATOR UNIT, TYPE 350	1 EA		
0178	3030000000-E	862	STEEL BM GUARDRAIL	98,212.5 LF		
0179	3045000000-E	862	STEEL BM GUARDRAIL, SHOP CURVED	212.5 LF		
0180	3105000000-N	862	STEEL BM GUARDRAIL TERMINAL SECTIONS	16 EA		
0181	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	10 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0182	3210000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	44 EA		
0183	3215000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE III	8 EA		
0184	3270000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE 350	73 EA		
0185	3285000000-N	SP	GUARDRAIL ANCHOR UNITS, TYPE M-350	2 EA		
0186	3317000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE B-77	68 EA		
0187	3360000000-E	863	REMOVE EXISTING GUARDRAIL	37,138 LF		
0188	3503000000-E	866	WOVEN WIRE FENCE, 47" FABRIC	57,800 LF		
0189	3509000000-E	866	4" TIMBER FENCE POSTS, 7'-6" LONG	3,670 EA		
0190	3515000000-E	866	5" TIMBER FENCE POSTS, 8'-0" LONG	840 EA		
0191	3557000000-E	866	ADDITIONAL BARBED WIRE	500 LF		
0192	3628000000-E	876	RIP RAP, CLASS I	3,100 TON		
0193	3635000000-E	876	RIP RAP, CLASS II	1,250 TON		
0194	3642000000-E	876	RIP RAP, CLASS A	20 TON		
0195	3649000000-E	876	RIP RAP, CLASS B	5,940 TON		
0196	3651000000-E	SP	BOULDERS	135 TON		
0197	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	29,850 SY		
0198	3659000000-N	SP	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	11 EA		
0199	4048000000-E	902	REINFORCED CONCRETE SIGN FOUNDATIONS	10 CY		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0200	4057000000-E	SP	OVERHEAD FOOTING	406 CY		
0201	4060000000-E	903	SUPPORTS, BREAKAWAY STEEL BEAM	3,151 LB		
0202	4066000000-E	903	SUPPORTS, SIMPLE STEEL BEAM	4,261 LB		
0203	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	3,333 LF		
0204	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (A - 28+00 -Y1RPA-)	Lump Sum	L.S.	
0205	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (B - 502+50 -L-)	Lump Sum	L.S.	
0206	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (C - 531+00 -L-)	Lump Sum	L.S.	
0207	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (D - 586+50 -L-)	Lump Sum	L.S.	
0208	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (E - 595+00 -L-)	Lump Sum	L.S.	
0209	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (F - 610+00 -L-)	Lump Sum	L.S.	
0210	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (G -31+50 -Y4RPBD-)	Lump Sum	L.S.	
0211	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (H - 92+50 -Y4-)	Lump Sum	L.S.	
0212	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (I - 89+50 -Y4-)	Lump Sum	L.S.	
0213	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (J - 43+00 -Y4CD-)	Lump Sum	L.S.	
0214	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (K - 42+00 -Y4-)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0215	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (L - 72+00 -Y4-)	Lump Sum	L.S.	
0216	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (M - 113+00 -Y4-)	Lump Sum	L.S.	
0217	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (N - 322' FRM S MAIN ST EXIT)	Lump Sum	L.S.	
0218	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (O - 19+50 -Y4-)	Lump Sum	L.S.	
0219	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (P - 144' FROM LINVILLE RD EXIT)	Lump Sum	L.S.	
0220	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (Q - 280' +/- FROM ROUTE MARKERS)	Lump Sum	L.S.	
0221	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (R - 36+50 -Y1-)	Lump Sum	L.S.	
0222	4096000000-N	904	SIGN ERECTION, TYPE D	9 EA		
0223	4102000000-N	904	SIGN ERECTION, TYPE E	124 EA		
0224	4108000000-N	904	SIGN ERECTION, TYPE F	10 EA		
0225	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (A)	8 EA		
0226	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (B)	2 EA		
0227	4114000000-N	904	SIGN ERECTION, MILEMARKERS	16 EA		
0228	4116100000-N	904	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (D)	1 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0229	4143000000-N	907	DISPOSAL OF SUPPORT, OVERHEAD STRUCTURE	1 EA		
0230	4152000000-N	907	DISPOSAL OF SIGN SYSTEM, STEEL BEAM	8 EA		
0231	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	48 EA		
0232	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	2,342 SF		
0233	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	1,147 SF		
0234	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	1,183 SF		
0235	4415000000-N	1115	FLASHING ARROW BOARD	4 EA		
0236	4420000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN	14 EA		
0237	4422000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN (SHORT TERM)	379 DAY		
0238	4430000000-N	1130	DRUMS	880 EA		
0239	4435000000-N	1135	CONES	50 EA		
0240	4445000000-E	1145	BARRICADES (TYPE III)	1,200 LF		
0241	4450000000-N	1150	FLAGGER	2,224 HR		
0242	4465000000-N	1160	TEMPORARY CRASH CUSHIONS	10 EA		
0243	4470000000-N	1160	RESET TEMPORARY CRASH CUSHION	4 EA		
0244	4480000000-N	1165	TMA	4 EA		
0245	4485000000-E	1170	PORTABLE CONCRETE BARRIER	2,715 LF		
0246	4490000000-E	1170	PORTABLE CONCRETE BARRIER (ANCHORED)	23,400 LF		
0247	4505000000-E	1170	RESET PORTABLE CONCRETE BARRIER (ANCHORED)	5,270 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0248	4510000000-N	SP	LAW ENFORCEMENT	406	HR	
0249	4520000000-N	1266	TUBULAR MARKERS (FIXED)	120	EA	
0250	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	375	EA	
0251	4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	130	LF	
0252	4721000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	4	EA	
0253	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	60	EA	
0254	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	128,435	LF	
0255	4815000000-E	1205	PAINT PAVEMENT MARKING LINES (6")	300,040	LF	
0256	4820000000-E	1205	PAINT PAVEMENT MARKING LINES (8")	345	LF	
0257	4825000000-E	1205	PAINT PAVEMENT MARKING LINES (12")	7,982	LF	
0258	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	84	LF	
0259	4847000000-E	1205	POLYUREA PAVEMENT MARKING LINES (4", *****) (HIGHLY REFLECTIVE ELEMENTS)	32,503	LF	
0260	4847100000-E	1205	POLYUREA PAVEMENT MARKING LINES (6", *****) (HIGHLY REFLECTIVE ELEMENTS)	174,105	LF	
0261	4847120000-E	1205	POLYUREA PAVEMENT MARKING LINES (12", *****) (HIGHLY REFLECTIVE ELEMENTS)	5,570	LF	
0262	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	6,347	LF	
0263	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	156	EA	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0264	4905000000-N	1253	SNOWPLOWABLE PAVEMENT MARKERS	1,593 EA		
0265	4915000000-E	1264	7' U-CHANNEL POSTS	24 EA		
0266	4935000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL)	90 EA		
0267	4940000000-N	1267	FLEXIBLE DELINEATORS (YELLOW)	56 EA		
0268	4945000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL & RED)	5 EA		
0269	4950000000-N	1267	FLEXIBLE DELINEATORS (YELLOW & RED)	5 EA		
0270	4955000000-N	1264	OBJECT MARKERS (END OF ROAD)	24 EA		
0271	5255000000-N	1413	PORTABLE LIGHTING	Lump Sum	L.S.	
0272	5325600000-E	1510	6" WATER LINE	1,423 LF		
0273	5325800000-E	1510	8" WATER LINE	1,125 LF		
0274	5326200000-E	1510	12" WATER LINE	2,520 LF		
0275	5326600000-E	1510	16" WATER LINE	1,637 LF		
0276	5327000000-E	1510	20" WATER LINE	420 LF		
0277	5540000000-E	1515	6" VALVE	3 EA		
0278	5546000000-E	1515	8" VALVE	3 EA		
0279	5558000000-E	1515	12" VALVE	2 EA		
0280	5558600000-E	1515	16" VALVE	2 EA		
0281	5571600000-E	1515	6" TAPPING VALVE	3 EA		
0282	5589100000-E	1515	1" AIR RELEASE VALVE	3 EA		
0283	5648000000-N	1515	RELOCATE WATER METER	3 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0284	5672000000-N	1515	RELOCATE FIRE HYDRANT	8 EA		
0285	5691300000-E	1520	8" SANITARY GRAVITY SEWER	1,165 LF		
0286	5691600000-E	1520	16" SANITARY GRAVITY SEWER	511 LF		
0287	5691700000-E	1520	18" SANITARY GRAVITY SEWER	724 LF		
0288	5691900000-E	1520	24" SANITARY GRAVITY SEWER	1,554 LF		
0289	5692000000-E	1520	30" SANITARY GRAVITY SEWER	367 LF		
0290	5775000000-E	1525	4' DIA UTILITY MANHOLE	13 EA		
0291	5776000000-E	1525	5' DIA UTILITY MANHOLE	11 EA		
0292	5777000000-E	1525	6' DIA UTILITY MANHOLE	4 EA		
0293	5781000000-E	1525	UTILITY MANHOLE WALL, 4' DIA	40 LF		
0294	5782000000-E	1525	UTILITY MANHOLE WALL, 5' DIA	133 LF		
0295	5783000000-E	1525	UTILITY MANHOLE WALL, 6' DIA	16 LF		
0296	5801000000-E	1530	ABANDON 8" UTILITY PIPE	1,423 LF		
0297	5804000000-E	1530	ABANDON 12" UTILITY PIPE	100 LF		
0298	5810000000-E	1530	ABANDON 16" UTILITY PIPE	900 LF		
0299	5811000000-E	1530	ABANDON 18" UTILITY PIPE	1,003 LF		
0300	5812000000-E	1530	ABANDON 20" UTILITY PIPE	415 LF		
0301	5813000000-E	1530	ABANDON 24" UTILITY PIPE	1,333 LF		
0302	5814000000-E	1530	ABANDON 30" UTILITY PIPE	20 LF		
0303	5815000000-N	1530	REMOVE WATER METER	8 EA		
0304	5815500000-N	1530	REMOVE FIRE HYDRANT	7 EA		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0305	5816000000-N	1530	ABANDON UTILITY MANHOLE	7 EA		
0306	5828000000-N	1530	REMOVE UTILITY MANHOLE	13 EA		
0307	5835700000-E	1540	16" ENCASEMENT PIPE	810 LF		
0308	5836000000-E	1540	24" ENCASEMENT PIPE	300 LF		
0309	5836200000-E	1540	30" ENCASEMENT PIPE	810 LF		
0310	5888000000-E	SP	GENERIC UTILITY ITEM ANCHOR SEWER MAIN TO PROPOSED CULVERT	52 LF		
0311	5890000000-N	1510	GENERIC UTILITY ITEM REMOVE BLOWOFF ASSEMBLY	1 EA		
0312	6000000000-E	1605	TEMPORARY SILT FENCE	249,000 LF		
0313	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	5,375 TON		
0314	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	83,520 TON		
0315	6012000000-E	1610	SEDIMENT CONTROL STONE	51,665 TON		
0316	6015000000-E	1615	TEMPORARY MULCHING	500 ACR		
0317	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	82,400 LB		
0318	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEED- ING	357 TON		
0319	6024000000-E	1622	TEMPORARY SLOPE DRAINS	25,000 LF		
0320	6029000000-E	SP	SAFETY FENCE	65,400 LF		
0321	6030000000-E	1630	SILT EXCAVATION	168,600 CY		
0322	6036000000-E	1631	MATTING FOR EROSION CONTROL	600,000 SY		
0323	6037000000-E	SP	COIR FIBER MAT	3,150 SY		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0324	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	10,000	SY	
0325	6042000000-E	1632	1/4" HARDWARE CLOTH	16,350	LF	
0326	6046000000-E	1636	TEMPORARY PIPE FOR STREAM CROSSING	125	LF	
0327	6048000000-E	SP	FLOATING TURBIDITY CURTAIN	335	SY	
0328	6069000000-E	1638	STILLING BASINS	2,000	CY	
0329	6070000000-N	1639	SPECIAL STILLING BASINS	20	EA	
0330	6071012000-E	SP	COIR FIBER WATTLE	15,600	LF	
0331	6071020000-E	SP	POLYACRYLAMIDE (PAM)	11,150	LB	
0332	6071030000-E	1640	COIR FIBER BAFFLE	50,000	LF	
0333	6071050000-E	SP	*** SKIMMER (1-1/2")	131	EA	
0334	6071050000-E	SP	*** SKIMMER (2")	12	EA	
0335	6071050000-E	SP	*** SKIMMER (2-1/2")	2	EA	
0336	6084000000-E	1660	SEEDING & MULCHING	600	ACR	
0337	6087000000-E	1660	MOWING	300	ACR	
0338	6090000000-E	1661	SEED FOR REPAIR SEEDING	7,200	LB	
0339	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	28.75	TON	
0340	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	14,350	LB	
0341	6108000000-E	1665	FERTILIZER TOPDRESSING	430	TON	
0342	6111000000-E	SP	IMPERVIOUS DIKE	1,500	LF	

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0343	6114500000-N	1667	SPECIALIZED HAND MOWING	515	MHR	
0344	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	150	EA	
0345	6120000000-E	SP	CULVERT DIVERSION CHANNEL	7,000	CY	
0346	6123000000-E	1670	REFORESTATION	10	ACR	
0347	6126000000-E	SP	STREAMBANK REFORESTATION	1	ACR	
0348	7060000000-E	1705	SIGNAL CABLE	1,750	LF	
0349	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	13	EA	
0350	7252000000-E	1710	MESSENGER CABLE (1/4")	12,699	LF	
0351	7264000000-E	1710	MESSENGER CABLE (3/8")	1,200	LF	
0352	7276000000-E	1715	BORE & JACK (*****) (1, 6")	270	LF	
0353	7279000000-E	1715	TRACER WIRE	33,556	LF	
0354	7300000000-E	1715	UNPAVED TRENCHING (*****) (1, 2")	1,225	LF	
0355	7301000000-E	1715	DIRECTIONAL DRILL (*****) (1, 2")	386	LF	
0356	7301000000-E	1715	DIRECTIONAL DRILL (*****) (2, 2")	10,001	LF	
0357	7312000000-N	1716	JUNCTION BOX (*****) (SPECIAL SIZED)	11	EA	
0358	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	27	EA	
0359	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	45	EA	
0360	7360000000-N	1720	WOOD POLE	88	EA	
0361	7372000000-N	1721	GUY ASSEMBLY	40	EA	

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0362	7408000000-E	1722	1" RISER WITH WEATHERHEAD	2 EA		
0363	7420000000-E	1722	2" RISER WITH WEATHERHEAD	9 EA		
0364	7432000000-E	1722	2" RISER WITH HEAT SHRINK TUBING	6 EA		
0365	7444000000-E	1725	INDUCTIVE LOOP SAWCUT	1,350 LF		
0366	7456000000-E	1726	LEAD-IN CABLE (***** (14-2)	4,300 LF		
0367	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (144)	26,023 LF		
0368	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (72)	24,601 LF		
0369	7528000000-E	1730	DROP CABLE	1,639 LF		
0370	7540000000-N	1731	SPLICE ENCLOSURE	7 EA		
0371	7541000000-N	1731	MODIFY SPLICE ENCLOSURE	2 EA		
0372	7552000000-N	1731	INTERCONNECT CENTER	5 EA		
0373	7566000000-N	1733	DELINEATOR MARKER	49 EA		
0374	7575142000-N	1736	900MHZ RADIO	2 EA		
0375	7575142200-N	SP	NEW ELECTRICAL SERVICE	7 EA		
0376	7575160000-E	1734	REMOVE EXISTING COMMUNICATIONS CABLE	24,611 LF		
0377	7613000000-N	SP	SOIL TEST	4 EA		
0378	7614100000-E	SP	DRILLED PIER FOUNDATION	32 CY		
0379	7636000000-N	1745	SIGN FOR SIGNALS	5 EA		
0380	7684000000-N	1750	SIGNAL CABINET FOUNDATION	2 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0381	7756000000-N	1751	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)	2 EA		
0382	7780000000-N	1751	DETECTOR CARD (TYPE 2070L)	6 EA		
0383	7901000000-N	1753	CABINET BASE EXTENDER	2 EA		
0384	7980000000-N	SP	GENERIC SIGNAL ITEM 10KVA SINGLE PHASE TRANSFORMER	4 EA		
0385	7980000000-N	SP	GENERIC SIGNAL ITEM 5/8" X 10' GROUNDING ELECTRODE	27 EA		
0386	7980000000-N	SP	GENERIC SIGNAL ITEM CARD CAGES	1 EA		
0387	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV CABINET	5 EA		
0388	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV CAMERA ASSEMBLY	5 EA		
0389	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV CAMERA LOWERING SYSTEM	2 EA		
0390	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV EXTENSION POLE	1 EA		
0391	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV METAL POLE (50')	2 EA		
0392	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV METAL POLE (70')	2 EA		
0393	7980000000-N	SP	GENERIC SIGNAL ITEM COMMUNICATIONS RACK	1 EA		
0394	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL HARDWARE VIDEO DECODER	6 EA		
0395	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL HARDWARE VIDEO ENCODER	6 EA		
0396	7980000000-N	SP	GENERIC SIGNAL ITEM DMS	2 EA		
0397	7980000000-N	SP	GENERIC SIGNAL ITEM DMS ACCESS LADDER	3 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0398	7980000000-N	SP	GENERIC SIGNAL ITEM DMS OVERHEAD ASSEMBLY	1 EA		
0399	7980000000-N	SP	GENERIC SIGNAL ITEM DMS PEDESTAL ASSEMBLY	2 EA		
0400	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET BASE EXTEND- ER	2 EA		
0401	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET DISCONNECT	7 EA		
0402	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET FOUNDATION	2 EA		
0403	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	7 EA		
0404	7980000000-N	SP	GENERIC SIGNAL ITEM FURNISH CCTV ASSEMBLY	1 EA		
0405	7980000000-N	SP	GENERIC SIGNAL ITEM FURNISH DIGITAL HARDWARE VIDEO DECODER	2 EA		
0406	7980000000-N	SP	GENERIC SIGNAL ITEM FURNISH DIGITAL HARDWARE VIDEO ENCODER	2 EA		
0407	7980000000-N	SP	GENERIC SIGNAL ITEM FURNISH ETHERNET EDGE SWITCH	1 EA		
0408	7980000000-N	SP	GENERIC SIGNAL ITEM HUB CABINET	1 EA		
0409	7980000000-N	SP	GENERIC SIGNAL ITEM HUB SPLICE CENTER	1 EA		
0410	7980000000-N	SP	GENERIC SIGNAL ITEM MANAGED ETHERNET CORE SWITCH MODIFICATIONS	1 EA		
0411	7980000000-N	SP	GENERIC SIGNAL ITEM MANAGED ETHERNET ROUTING SWITCH	1 EA		
0412	7980000000-N	SP	GENERIC SIGNAL ITEM MODIFY NETWORK MANAGEMENT SOFTWARE	1 EA		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0413	7980000000-N	SP	GENERIC SIGNAL ITEM PORTABLE CCTV	1 EA		
0414	7980000000-N	SP	GENERIC SIGNAL ITEM PORTABLE CCTV LOWERING TOOL	1 EA		
0415	7980000000-N	SP	GENERIC SIGNAL ITEM SOLAR POWER ASSEMBLY	1 EA		
0416	7980000000-N	SP	GENERIC SIGNAL ITEM UPS	1 EA		
0417	7985000000-N	SP	GENERIC SIGNAL ITEM DMS (REMOVE AND REINSTALL)	Lump Sum	L.S.	
0418	7990000000-E	SP	GENERIC SIGNAL ITEM 3-WIRE FEEDER CONDUCTORS	3,178 LF		
0419	7990000000-E	SP	GENERIC SIGNAL ITEM 4-WIRE FEEDER CONDUCTORS	785 LF		
0420	7990000000-E	SP	GENERIC SIGNAL ITEM UNDERGROUND CONDUIT (1, 2")	2,655 LF		
0421	7990000000-E	SP	GENERIC SIGNAL ITEM UNDERGROUND CONDUIT (2, 2")	23,460 LF		
0422	7992000000-E	SP	GENERIC SIGNAL ITEM OVERHEAD SIGN ASSEMBLY FOOTINGS	16 CY		

CULVERT ITEMS

0423	8056000000-N	402	REMOVAL OF EXISTING STRUCTURE AT STATION ***** (23+11.00-Y1-)	Lump Sum	L.S.	
0424	8126000000-N	414	CULVERT EXCAVATION, STA ***** (23+11.00-Y1-)	Lump Sum	L.S.	
0425	8126000000-N	414	CULVERT EXCAVATION, STA ***** (559+74.00-L-)	Lump Sum	L.S.	
0426	8126000000-N	414	CULVERT EXCAVATION, STA ***** (616+45.00-L-)	Lump Sum	L.S.	

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0427	8126000000-N	414	CULVERT EXCAVATION, STA ***** (667+15.00-L-)	Lump Sum	L.S.	
0428	8126000000-N	414	CULVERT EXCAVATION, STA ***** (STA. 45+65.43 -Y4-)	Lump Sum	L.S.	
0429	8133000000-E	414	FOUNDATION CONDITIONING MATERIAL, BOX CULVERT	3,438 TON		
0430	8196000000-E	420	CLASS A CONCRETE (CULVERT)	9,004 CY		
0431	8245000000-E	425	REINFORCING STEEL (CULVERT)	820,225 LB		
0432	8804000000-N	SP	GENERIC CULVERT ITEM PLACEMENT OF NATURAL STREAM BED MATERIAL	Lump Sum	L.S.	

WALL ITEMS

0433	8801000000-E	SP	MSE RETAINING WALL NO **** (1)	6,334 SF		
0434	8802014000-E	SP	SOLDIER PILE RETAINING WALLS	850 SF		
0435	8839000000-E	SP	GENERIC RETAINING WALL ITEM CONCRETE BARRIER RAIL WITH MOM ENT SLAB	500 LF		
0436	8847000000-E	SP	GENERIC RETAINING WALL ITEM ANCHORED SOLDIER PILE WALLS	7,900 SF		
0437	8847000000-E	SP	GENERIC RETAINING WALL ITEM SOUND BARRIER WALL	255,982 SF		

STRUCTURE ITEMS

0438	8084000000-N	410	FOUNDATION EXCAVATION FOR END BENT ** AT STATION ***** (2,52+94.28-Y4RPBD-)	Lump Sum	L.S.	
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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0439	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 17+10.00-Y4RPA-)	Lump Sum	L.S.	
0440	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 482+13.14 -L-)	Lump Sum	L.S.	
0441	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 516+31.30-L-)	Lump Sum	L.S.	
0442	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 584+36.24 -L-LT)	Lump Sum	L.S.	
0443	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 584+36.24-L-RT)	Lump Sum	L.S.	
0444	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,28+50.16-Y5-)	Lump Sum	L.S.	
0445	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,44+08.64-Y4RPBD-)	Lump Sum	L.S.	
0446	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,46+87.16-Y4CD-)	Lump Sum	L.S.	
0447	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,52+94.28-Y4RPBD-)	Lump Sum	L.S.	
0448	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,642+81.42-L-LT)	Lump Sum	L.S.	
0449	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1,642+81.42-L-RT)	Lump Sum	L.S.	
0450	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2, 584+36.24 -L-LT)	Lump Sum	L.S.	
0451	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2, 584+36.24-L-RT)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0452	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2, 628+65.50-L-LT)	Lump Sum	L.S.	
0453	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2, 628+65.50-L-RT)	Lump Sum	L.S.	
0454	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2,28+50.16-Y5-)	Lump Sum	L.S.	
0455	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2,33+15.67-Y4CD-)	Lump Sum	L.S.	
0456	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (2,52+94.28-Y4RPBD-)	Lump Sum	L.S.	
0457	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (3,28+50.16-Y5-)	Lump Sum	L.S.	
0458	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (4, 17+10.00-Y4RPA-)	Lump Sum	L.S.	
0459	8096000000-E	450	PILE EXCAVATION IN SOIL	64 LF		
0460	8097000000-E	450	PILE EXCAVATION NOT IN SOIL	78 LF		
0461	8105500000-E	411	***-*** DIA DRILLED PIERS IN SOIL (4'-6")	454.8 LF		
0462	8105500000-E	411	***-*** DIA DRILLED PIERS IN SOIL (5'-0")	260 LF		
0463	8105500000-E	411	***-*** DIA DRILLED PIERS IN SOIL (5'-6")	74.6 LF		
0464	8105560000-E	411	4'-0" DIA DRILLED PIERS IN SOIL	437 LF		
0465	8105600000-E	411	***-*** DIA DRILLED PIERS NOT IN SOIL (4'-6")	132 LF		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0466	8105600000-E	411	***-*** DIA DRILLED PIERS NOT IN SOIL (5'-0")	103 LF		
0467	8105600000-E	411	***-*** DIA DRILLED PIERS NOT IN SOIL (5'-6")	34 LF		
0468	8105660000-E	411	4'-0" DIA DRILLED PIERS NOT IN SOIL	152 LF		
0469	8111000000-E	411	PERMANENT STEEL CASING FOR ***-*** DIA DRILLED PIER (4'-6")	292.6 LF		
0470	8111000000-E	411	PERMANENT STEEL CASING FOR ***-*** DIA DRILLED PIER (5'-0")	204 LF		
0471	8111600000-E	411	PERMANENT STEEL CASING FOR 4'-0" DIA DRILLED PIER	104 LF		
0472	8112730000-N	450	PDA TESTING	12 EA		
0473	8113000000-N	411	SID INSPECTIONS	6 EA		
0474	8114000000-N	411	SPT TESTING	1 EA		
0475	8115000000-N	411	CSL TESTING	7 EA		
0476	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	225,152 SF		
0477	8154000000-E	420	REINFORCED CONCRETE DECK SLAB (SAND LIGHTWEIGHT CONC)	42,278 SF		
0478	8161000000-E	420	GROOVING BRIDGE FLOORS	285,922 SF		
0479	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	5,746.3 CY		
0480	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (17+10.00-Y4RPA-)	Lump Sum	L.S.	
0481	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (23+59.12-Y5-)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0482	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (26+60.00-Y4RPBD-)	Lump Sum	L.S.	
0483	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (28+50.16-Y5-)	Lump Sum	L.S.	
0484	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (33+15.67-Y4CD-)	Lump Sum	L.S.	
0485	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (44+08.64-Y4RPBD-)	Lump Sum	L.S.	
0486	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (46+87.16-Y4CD-)	Lump Sum	L.S.	
0487	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (482+13.14-L-)	Lump Sum	L.S.	
0488	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (516+31.30-L-)	Lump Sum	L.S.	
0489	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (52+94.28-Y4RPBD-)	Lump Sum	L.S.	
0490	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (556+85.00-L-LT)	Lump Sum	L.S.	
0491	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (556+85.00-L-RT)	Lump Sum	L.S.	
0492	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (584+36.24-L-LT)	Lump Sum	L.S.	
0493	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (584+36.24-L-RT)	Lump Sum	L.S.	
0494	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (628+65.50-L-LT)	Lump Sum	L.S.	

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0495	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (628+65.50-L-RT)	Lump Sum	L.S.	
0496	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (642+81.42-L-LT)	Lump Sum	L.S.	
0497	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (642+81.42-L-RT)	Lump Sum	L.S.	
0498	8217000000-E	425	REINFORCING STEEL (BRIDGE)	1,162,502 LB		
0499	8238000000-E	425	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	153,179 LB		
0500	8265000000-E	430	54" PRESTRESSED CONCRETE GIR- DERS	5,829.92 LF		
0501	8274000000-E	430	MODIFIED 63" PRESTRESSED CONC GIRDERS	8,411.03 LF		
0502	8277000000-E	430	MODIFIED 72" PRESTRESSED CONC GIRDERS	11,704.64 LF		
0503	8280000000-E	440	APPROX LBS STRUCTURAL STEEL	445,000 LS		
0504	8364000000-E	450	HP12X53 STEEL PILES	37,197 LF		
0505	8384000000-E	450	HP14X73 STEEL PILES	4,380 LF		
0506	8391000000-N	450	STEEL PILE POINTS	247 EA		
0507	8392500000-E	450	PREDRILLING FOR PILES	242 LF		
0508	8475000000-E	460	TWO BAR METAL RAIL	1,023.62 LF		
0509	8503000000-E	460	CONCRETE BARRIER RAIL	8,793.23 LF		
0510	8517000000-E	460	1'-**X ***** CONCRETE PARA- PET (1'-2" X 2'-6")	1,056 LF		
0511	8531000000-E	462	4" SLOPE PROTECTION	9,157 SY		

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Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0512	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	20,827 TON		
0513	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	23,135 SY		
0514	8654000000-N	SP	DISC BEARINGS	Lump Sum	L.S.	
0515	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
0516	8692000000-N	SP	FOAM JOINT SEALS	Lump Sum	L.S.	
0517	8706000000-N	SP	EXPANSION JOINT SEALS	Lump Sum	L.S.	
0518	8860000000-N	SP	GENERIC STRUCTURE ITEM SOUND BARRIER WALL (BRIDGE MOUNTED)	Lump Sum	L.S.	
0519	8892000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE SIMULATED STONE FORM LINER	3,592.2 SF		
0520	8892000000-E	SP	GENERIC STRUCTURE ITEM CONCRETE STAINING	18,581.1 SF		
0521	8897000000-N	SP	GENERIC STRUCTURE ITEM CONCRETE MEDALLION PANEL	8 EA		
0522	8111000000-E	411	PERMANENT STEEL CASING FOR ***_*** DIA DRILLED PIER (5'-6")	48.6 LF		

1550/Sep29/Q14598556.89/D2431543440200/E521

Total Amount Of Bid For Entire Project :