



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

JAMES H. TROGDON, III  
SECRETARY

October 31, 2017

**Addendum No. 1**

RE: Contract # C203979

WBS # 34839.3.GV6

F. A. # NHP-0918(062)

**Forsyth County (U-2579C)**

Winston-Salem Northern Beltway (Eastern Section) From US-311

To US-158 (Future I-74)

**November 21, 2017 Letting (Advertisement Extended from October 17, 2017 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 Roadway plans:

Sheet No.	Revisions
Title Sheet	Revised to reflect the change in the letting date.
3B-3	Revised Summary Of Earthwork to reflect cutting off the project at Station 392+50
X-1B	Revised the Cross Section Summary to reflect the change in the earthwork

Please void the Title Sheet, Sheet 3B-3 and Sheet X-1B in your plans and staple the revised sheets thereto.

The Earthwork Balance Sheet in the online Digital Files folder has been revised to reflect these changes in the earthwork.

The following revisions have been made to the Structure plans:

Sheet No.	Revisions
Title Sheet	Revised to reflect the change in the letting date.

Please void the Title sheet in your plans and staple the revised Title sheet thereto.

Mailing Address:  
NC DEPARTMENT OF TRANSPORTATION  
CONTRACT STANDARDS AND DEVELOPMENT  
1591 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1591

Telephone: (919) 707-6900  
Fax: (919) 250-4127  
Customer Service: 1-877-368-4968

Location:  
1020 BIRCH RIDGE DR.  
RALEIGH, NC 27610

Website: [www.ncdot.gov](http://www.ncdot.gov)

The following revisions have been made to the proposal:

<b>Page No.</b>	<b>Revisions</b>
Proposal Cover	Note added that reads "Includes Addendum No. 1 Dated 10-31-2017".
Table of Contents	Revised to show the addition of the project special provisions entitled "Bonus Clause For Substantial Completion Of Intermediate Contract Time Number 1" and "Planned Construction Revision"
G-1	Revised the availability date within the project special provisions entitled "Contract Time and Liquidated Damages". Revised the availability date and LD's within the project special provision entitled "Intermediate Contract Time Number 1 and Liquidated Damages".
New G-1A	New Page to add the project special provision entitled "Bonus Clause For Substantial Completion of Intermediate Contract Time #1".
G-3	Revised the second paragraph of the project special provision entitled "Intermediate Contract Time Number 3 and Liquidated Damages"
G-5 and New G-5A	Updated the list of parcels and dates within the project special provisions entitled "Delay In Right Of Entry" and "Delay In Right of Way"
G-6	Revised the line #'s within the project special provision entitled "Major Contract Items". Also, updated the base index price for Diesel fuel within the project special provision entitled "Fuel Price Adjustment"
G-7	Revised the percentages within the project special provision entitled "Schedule Of Estimated Completion Progress"
G-10	Revised the DBE goal within the project special provision entitled "Disadvantaged Business Enterprise"
G-38	Revised to add the project special provision entitled "Planned Construction Revision"
R-2 thru R-6	Revised to remove the project special provisions entitled "Coal Combustion Products In Embankments" and "Manufactured Quarry Fines In Embankments". The remaining pages in this section will be renumbered appropriately in the final contract.
R-21	Revised to update the base index price for asphalt binder within the project special provision entitled "Price Adjustment- Asphalt Binder For Plant Mix"
UbO-1 thru UbO-3	Revised to make various changes to the project special provisions for Utilities By Others

Please void the above listed pages in your proposal and staple the revised pages thereto.

On the item sheets the following pay items have been revised, added or deleted:

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
012-0106000000-E-230	Borrow Excavation	1,700,000 CY	<b>DELETED</b>
014-0134000000-E-240	Drainage Ditch Excavation	19,500 CY	7,500 CY
020-0196000000-E-270	Geotextile For Soil Stabilization	48,600 SY	47,300 SY
044-0576000000-E-310	60"CS Pipe Culverts, 0.138" Thick	1,144 LF	<b>DELETED</b>
123-3656000000-E-876	Geotextile For Drainage	25,050 SY	24,700 SY
204-6000000000-E-1650	Temporary Silt Fence	92,500 LF	53,500 LF
205-6006000000-E-1610	Stone For Erosion Control, Class A	2,250 TON	1,750 TON
206-6009000000-E-1610	Stone For Erosion Control, Class B	41,000 TON	12,000 TON
207-6012000000-E-1610	Sediment Control Stone	34,885 TON	19,720 TON
208-6015000000-E-1615	Temporary Mulching	302.5 ACR	226.5 ACR
209-6018000000-E-1620	Seed For Temporary Seeding	12,800 LB	10,500 LB
210-6021000000-E-1620	Fertilizer For Temporary Seeding	65.5 TON	54.5 TON
211-6024000000-e-1622	Temporary Slope Drains	32,500 LF	11,000 LF
213-6030000000-E-1630	Silt Excavation	385,600 CY	321,500 CY
214-6036000000-E-1631	Matting For Erosion Control	420,500 SY	282,775 SY
215-6037000000-E-SP	Coir Fiber Mat	750 SY	550 SY
217-6042000000-E-1632	¼" Hardware Cloth	7,500 LF	5,600 LF
221-6071012000-E-SP	Coir Fiber Wattle	9,500 LF	7,300 LF
222-6071020000-E-SP	Polyacrylamide (PAM)	8,550 LB	6,300 LB
223-6071030000-E-1640	Coir Fiber Baffle	33,500 LF	17,500 LF
224-6071050000-E-SP	1-1/2" Skimmer	28 EA	21 EA
225-6071050000-E-SP	2" Skimmer	14 EA	12 EA

<u>Item</u>	<u>Description</u>	<u>Old Quantity</u>	<u>New Quantity</u>
226-6071050000-E-SP	2-1/2" Skimmer	10 EA	7 EA
229-6084000000-E-1660	Seeding and Mulching	250 ACR	147 ACR
230-6087000000-E-1660	Mowing	250 ACR	138 ACR
231-6090000000-E-1661	Seed For Repair Seeding	3,000 LB	2,300 LB
232-6093000000-E-1661	Fertilizer For Repair Seeding	12.75 TON	6.0 TON
233-6096000000-E-1662	Seed For Supplemental Seeding	7,075 LB	3,475 LB
234-6108000000-E-1665	Fertilizer Topdressing	211.75 TON	103.75 TON
236-6114500000-N-1667	Specialized Hand Mowing	130 MHR	120 MHR
237-6117000000-N-SP	Response For Erosion Control	125 EA	113 EA
239-6123000000-E-1670	Reforestation	10 ACR	7 ACR
296-1231000000-E-560	Shoulder Borrow (For Alternate 1)	<b>NEW ITEM</b>	18,000 CY
300-1231000000-E-560	Shoulder Borrow (For Alternate 2)	<b>NEW ITEM</b>	14,500 CY
340-1275000000-E-600	Prime Coat	<b>NEW ITEM</b>	3,150 GAL

Due to adding the new items for "Shoulder Borrow" the line code numbers for all items after that have shifted.

The contract will be prepared accordingly.

**Please ensure that you download and begin with the new EBS file listed for the November 21, 2017 letting. The Expedite Addendum File has been updated to reflect the above noted revisions. Please download the Expedite Addendum File and follow the instructions for applying the addendum. This will also revise the DBE goal within your electronic file. Bid Express will not accept your bid unless the new EBS file associated with the November 21, 2017 letting is used and the EBS addendum file has been applied.**

**The contract times were re-examined to consider the above noted changes and the Department has determined that the completion dates will remain the same.**

Sincerely,

DocuSigned by:

*Ronald E. Davenport, Jr.*

F81B6038A47A442...

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

RED/jag  
Attachments

cc: Mr. Lamar Sylvester, PE  
Mr. Pat Ivey, PE  
Mr. Chris Werner, PE  
Mr. Jon Weathersbee, PE  
Mr. Ken Kennedy, PE  
Mr. Mitchell Dixon  
Project File (2)

Mr. Ray Arnold, PE  
Ms. Theresa Canales, PE  
Mr. Mike Gwyn  
Ms. Lori Strickland  
Ms. Jaci Kincaid  
Ms. Penny Higgins

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

PROPOSAL

**INCLUDES ADDENDUM No. 1 DATED 10-31-2017**

DATE AND TIME OF BID OPENING: **NOVEMBER 21, 2017 AT 2:00 PM**

CONTRACT ID C203979  
WBS 34839.3.GV6

FEDERAL-AID NO. NHP-0918(062)  
COUNTY FORSYTH  
T.I.P. NO. U-2579C  
MILES 1.989  
ROUTE NO.  
LOCATION WINSTON-SALEM NORTHERN BELTWAY (EASTERN SECTION) FROM US-311  
TO US-158 (FUTURE I-74)  
TYPE OF WORK WIDEN, GRADING, PAVING, DRAINAGE, SIGNING, SIGNALS, & 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**

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**TABLE OF CONTENTS**

**COVER SHEET**  
**PROPOSAL SHEET**

**PROJECT SPECIAL PROVISIONS**

CONTRACT TIME AND LIQUIDATED DAMAGES: ..... G-1  
INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES: ..... G-1  
BONUS CLAUSE FOR SUBSTANTIAL COMPLETION OF INTERMEDIATE CONTRACT  
TIME NUMBER 1:..... G-1A  
INTERMEDIATE CONTRACT TIME NUMBER 2 AND LIQUIDATED DAMAGES: ..... G-2  
INTERMEDIATE CONTRACT TIME NUMBER 3 AND LIQUIDATED DAMAGES: ..... G-3  
INTERMEDIATE CONTRACT TIME NUMBER 4 AND LIQUIDATED DAMAGES: ..... G-3  
INTERMEDIATE CONTRACT TIME NUMBER 5 AND LIQUIDATED DAMAGES: ..... G-3  
PERMANENT VEGETATION ESTABLISHMENT:..... G-4  
DELAY IN RIGHT OF ENTRY:..... G-5  
DELAY IN RIGHT OF WAY:..... G-5A  
MAJOR CONTRACT ITEMS: ..... G-6  
SPECIALTY ITEMS:..... G-6  
FUEL PRICE ADJUSTMENT:..... G-6  
PAYOUT SCHEDULE: ..... G-7  
SCHEDULE OF ESTIMATED COMPLETION PROGRESS:..... G-7  
DISADVANTAGED BUSINESS ENTERPRISE: ..... G-8  
CERTIFICATION FOR FEDERAL-AID CONTRACTS: ..... G-20  
CONTRACTOR'S LICENSE REQUIREMENTS:..... G-21  
U.S. DEPARTMENT OF TRANSPORTATION HOTLINE: ..... G-21  
CARGO PREFERENCE ACT: ..... G-22  
SUBSURFACE INFORMATION:..... G-22  
LOCATING EXISTING UNDERGROUND UTILITIES:..... G-22  
VALUE ENGINEERING PROPOSAL: ..... G-22  
RESOURCE CONSERVATION AND ENV. SUSTAINABLE PRACTICES:..... G-23  
DOMESTIC STEEL:..... G-24  
MAINTENANCE OF THE PROJECT: ..... G-24  
COOPERATION BETWEEN CONTRACTORS:..... G-25  
BID DOCUMENTATION: ..... G-25  
TWELVE MONTH GUARANTEE:..... G-29  
IRAN DIVESTMENT ACT:..... G-29  
GIFTS FROM VENDORS AND CONTRACTORS:..... G-30  
LIABILITY INSURANCE:..... G-30  
EROSION AND SEDIMENT CONTROL/STORMWATER CERTIFICATION:..... G-31  
PROCEDURE FOR MONITORING BORROW PIT DISCHARGE:..... G-36  
EMPLOYMENT:..... G-37  
STATE HIGHWAY ADMINISTRATOR TITLE CHANGE:..... G-38  
SUBLETTING OF CONTRACT:..... G-38  
PLANNED CONSTRUCTION REVISION: ..... G-38

ROADWAY..... R-1

**STANDARD SPECIAL PROVISIONS**

AVAILABILITY 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-13  
 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONST. CONTRACTS ..... SSP-16  
 ON-THE-JOB TRAINING ..... SSP-25  
 NCDENR NAME CHANGE..... SSP-28  
 MINIMUM WAGES ..... SSP-29

**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  
 RAILROAD INSURANCE (Roadway) ..... RI-1  
 STRUCTURE / CULVERTS..... ST-1

**PERMITS** ..... P-1

**PROPOSAL ITEM SHEET**

ITEM SHEET(S) (TAN SHEETS)



**PROJECT SPECIAL PROVISIONS****GENERAL****CONTRACT TIME AND LIQUIDATED DAMAGES:**

(8-15-00) (Rev. 12-18-07)

108

SP1 G07 A

The date of availability for this contract is **January 2, 2018**, except that work in jurisdictional waters and wetlands shall not begin until a meeting between the DOT, Regulatory Agencies, and the Contractor is held as stipulated in the permits contained elsewhere in this proposal. This delay in availability has been considered in determining the contract time for this project.

The completion date for this contract is **November 28, 2021**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Two Hundred Dollars (\$ 200.00)** per calendar day. These liquidated damages will not be cumulative with any liquidated damages which may become chargeable under Intermediate Contract Time Number 1.

**INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:**

(7-1-95) (Rev. 2-21-12)

108

SP1 G13 A

Except for that work required under the Project Special Provisions entitled *Planting, Reforestation* and/or *Permanent Vegetation Establishment*, included elsewhere in this proposal, the Contractor will be required to complete all work included in this contract and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is **January 2, 2018**.

The completion date for this intermediate contract time is **June 1, 2021**.

The liquidated damages for this intermediate contract time are **Three Thousand Dollars (\$ 3,000.00)** per calendar day.

Upon apparent completion of all the work required to be completed by this intermediate date, a final inspection will be held in accordance with Article 105-17 and upon acceptance, the Department will assume responsibility for the maintenance of all work except *Planting, Reforestation* and/or *Permanent Vegetation Establishment*. The Contractor will be responsible for and shall make corrections of all damages to the completed roadway caused by his planting operations, whether occurring prior to or after placing traffic through the project.

**BONUS CLAUSE FOR SUBSTANTIAL COMPLETION OF INTERMEDIATE CONTRACT TIME NUMBER 1:**

The Department desires that Intermediate Contract Time Number 1 be substantially completed by December 15, 2020 and that the Contractor pursue the work with such labor, equipment and materials as necessary to ensure that the intermediate date will be met without regard to time extensions and time reliefs provided for in the Specifications. Therefore, as full compensation for all extra costs involved, the Department agrees to pay as a bonus, the sum of **One Million Dollars (\$ 1,000,000)** to the Contractor for substantially completing this intermediate contract work on or prior to **December 15, 2020**. Should the Contractor fail to substantially complete this intermediate contract work by this date, then normal time extension and time reliefs provided in the Specifications will apply and no bonus will be allowed. The minimum requirements for being considered substantially complete are:

1. The first layer of final surface pavement for all lanes and shoulders along the project or along the work required are complete.
2. All signs are complete and accepted except for the signs on intersecting roadways.
3. All guardrails, drainage devices, ditches, excavation and embankment are complete.
4. Remaining work along the project consists of permanent pavement markings, permanent pavement markers or incidental construction that is away from the paved portion of the roadway and final surface layer.
5. The work required is complete to the extent specified above, such that public traffic can be placed on the roadway, at the Engineer's option, and move unimpeded at the posted speed, and all lanes and shoulders are available for public use. Intersecting roads and service roads are complete to the extent that they provide the safe and convenient use of the facility by the public.

Upon apparent substantial completion of the work required, the Engineer will make an inspection of the work. If the inspection discloses the work required is substantially complete, the Engineer will notify the Contractor in writing that the work is substantially complete. If the inspection discloses the work required is not substantially complete, the Engineer will notify the Contractor in writing of the work that is not substantially complete. The work will not be considered substantially complete until all of the recommendations made at the time of the inspection have been satisfactorily completed.

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

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

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

The liquidated damages are **Two Hundred and Fifty Dollars (\$ 250.00)** per fifteen (15) minute time period.

**INTERMEDIATE CONTRACT TIME NUMBER 3 AND LIQUIDATED DAMAGES:**

(2-20-07) (Rev. 6-18-13)

108

SP1 G14 H

The Contractor shall complete the work required of **Phase I, Step #3** as shown on Sheet **TMP- 3** and shall place and maintain traffic on same.

The date of availability for this intermediate contract time is the date the Contractor elects to begin the work, but not before March 15, 2019.

The completion date for this intermediate contract time is the date which is **thirty (30)** consecutive calendar days after and including the date the Contractor begins this work.

The liquidated damages are **Two Thousand Five Hundred Dollars (\$ 2,500.00)** per calendar day.

**INTERMEDIATE CONTRACT TIME NUMBER 4 AND LIQUIDATED DAMAGES:**

(2-20-07) (Rev. 6-18-13)

108

SP1 G14 F

The Contractor shall complete the work required of **Phase III, Step #1A** as shown on Sheet **TMP-3** and shall place and maintain traffic on same.

The time of availability for this intermediate contract time is the **Friday at 6:00 PM** that the Contractor elects to begin the work.

The completion time for this intermediate contract time is the following **Monday at 6:00 AM** after the time of availability.

The liquidated damages are **Two Hundred and Fifty Dollars (\$ 250.00)** per fifteen (15) minute time period.

**INTERMEDIATE CONTRACT TIME NUMBER 5 AND LIQUIDATED DAMAGES:**

(2-20-07) (Rev. 6-18-13)

108

SP1 G14 F

The Contractor shall complete the work required of **Phase III, Step #1B** as shown on Sheet **TMP-3** and shall place and maintain traffic on same.

**DELAY IN RIGHT OF ENTRY:**

(7-1-95) (Rev. 7-15-14)

108

SP1 G22

The Contractor will not be allowed right of entry to the following parcel(s) prior to the listed date(s) unless otherwise permitted by the Engineer.

<b><u>Parcel No.</u></b>	<b><u>Property Owner</u></b>	<b><u>Date</u></b>
1	Oak Grove Moravian Church	10/15/18
2	MDC Investments	10/15/18
5	Oak Grove Moravian Church	10/15/18
9	Margaret H. Hoerner and Helen Hammock, et. Al	3/1/18
10	The Chapman Family Trust	5/1/18
11	Robert B. Stimpson, et. al	5/1/18
12	Andrew Marshall	3/1/18
22	Larry & Patsy Inman	3/1/18
25	Bobby Thore	5/1/18
26	Manyon Idol	3/1/18
27	Manyon Idol	3/1/18
33	Melvin R. Caldwell Jr. & Sherie F. Caldwell	5/1/18
37	Matthew McKinney	5/1/18
38	Carl Miller Revocable Family Trust	3/1/18
39	Judy Dillon	3/1/18
49	Dale C. & Cathy S. Vanhoy	5/1/18
54	Sherrell Whicker	3/1/18
70	Donna Decker aka Donna Miller	3/1/18
79	Ferrell Construction Co.	5/1/18
81	Christopher R. Rothrock	3/1/18
88	Jerry Lewis	3/1/18
94	Linda R. Shaw	10/15/18
95	Mt. Pleasant Holiness Church	10/15/18
96	Lutheran Home W S Prop.	10/15/18
97	Maryann B. Sweat	10/15/18
98	Shannon S. Maloney	10/15/18
99	Walter & Marilyn Sawyers	10/15/18

**DELAY IN RIGHT OF WAY:**

The Contractor shall take no action that will result in unnecessary inconvenience, disproportionate injury or any action coercive in nature to occupants of residences, businesses, farms, or non-profit organizations who have not yet moved from the right of way of the parcels below:

<b><u>Parcel No.</u></b>	<b><u>Property Owner</u></b>	<b><u>Estimated Vacating Date</u></b>
22	Larry & Patsy Inman	2/1/18
25	Bobby Thore	4/1/18
26	Manyon Idol	2/1/18
27	Manyon Idol	2/1/18
33	Melvin R. Caldwell Jr. & Sherie F. Caldwell	4/1/18
37	Matthew McKinney	4/1/18
49	Dale C. & Cathy S. Vanhoy	4/1/18
54	Sherrell Whicker	2/1/18
95	Mt. Pleasant Holiness Church	10/15/18

Extension of contract time may be granted in accordance with Article 108-10(B)3 for delays caused by interferences beyond such estimated vacating date.

**MAJOR CONTRACT ITEMS:**

(2-19-02)

104

SP1 G28

The following listed items are the major contract items for this contract (see Article 104-5 of the 2012 Standard Specifications):

Line #	Description
6	Unclassified Excavation
295	Aggregate Base Course
or	
6	Unclassified Excavation
301	Asphalt Concrete Base Course, Type B25.0C

**SPECIALTY ITEMS:**

(7-1-95)(Rev. 1-17-12)

108-6

SP1 G37

Items listed below will be the specialty items for this contract (see Article 108-6 of the 2012 Standard Specifications).

Line #	Description
105-114	Guardrail
115-117	Fencing
124-146, 179, 184	Signing
158-162, 168-170	Long-Life Pavement Markings
177-178	Permanent Pavement Markers
185-203	Utility Construction
204-238, 240	Erosion Control
239	Reforestation
241-294	Signals/ITS System
310-312, 314-316	Drilled Piers

**FUEL PRICE ADJUSTMENT:**

(11-15-05) (Rev. 2-18-14)

109-8

SP1 G43

Revise the 2012 Standard Specifications as follows:

**Page 1-83, Article 109-8, Fuel Price Adjustments**, add the following:

The base index price for DIESEL #2 FUEL is \$ **1.9815** per gallon. Where any of the following are included as pay items in the contract, they will be eligible for fuel price adjustment.

The pay items and the fuel factor used in calculating adjustments to be made will be as follows:

Description	Units	Fuel Usage Factor Diesel
Unclassified Excavation	Gal/CY	0.29
Borrow Excavation	Gal/CY	0.29
Class IV Subgrade Stabilization	Gal/Ton	0.55
Aggregate Base Course	Gal/Ton	0.55
Sub-Ballast	Gal/Ton	0.55
Asphalt Concrete Base Course, Type _____	Gal/Ton	2.90

Asphalt Concrete Intermediate Course, Type _____	Gal/Ton	2.90
Asphalt Concrete Surface Course, Type _____	Gal/Ton	2.90
Open-Graded Asphalt Friction Course	Gal/Ton	2.90
Permeable Asphalt Drainage Course, Type _____	Gal/Ton	2.90
Sand Asphalt Surface Course, Type _____	Gal/Ton	2.90
Aggregate for Cement Treated Base Course	Gal/Ton	0.55
Portland Cement for Cement Treated Base Course	Gal/Ton	0.55
____ " Portland Cement Concrete Pavement	Gal/SY	0.245
Concrete Shoulders Adjacent to ____ " Pavement	Gal/SY	0.245

**PAYOUT SCHEDULE:**

(1-19-10) (Rev. 1-17-12)

108

SP1 G57

Submit an Anticipated Monthly Payout Schedule prior to beginning construction. The Anticipated Monthly Payout Schedule will be used by the Department to monitor funding levels for this project. Include a monthly percentage breakdown (in terms of the total contract amount) of the work anticipated to be completed. The schedule should begin with the date the Contractor plans to begin construction and end with the anticipated completion date. Submit updates of the Anticipated Monthly Payout Schedule on March 15, June 15, September 15, and December 15 of each calendar year until project acceptance. Submit the original Anticipated Monthly Payout Schedule and all subsequent updates to the Resident Engineer with a copy to the State Construction Engineer at 1 South Wilmington Street, 1543 Mail Service Center, Raleigh, NC 27699-1543.

**SCHEDULE OF ESTIMATED COMPLETION PROGRESS:**

(7-15-08) (Rev. 5-16-17)

108-2

SP1 G58

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

	<b><u>Fiscal Year</u></b>	<b><u>Progress (% of Dollar Value)</u></b>
2018	(7/01/17 - 6/30/18)	<b>22%</b> of Total Amount Bid
2019	(7/01/18 - 6/30/19)	<b>36%</b> of Total Amount Bid
2020	(7/01/19 - 6/30/20)	<b>26%</b> of Total Amount Bid
2021	(7/01/20 - 6/30/21)	<b>16%</b> of Total Amount Bid

The Contractor shall also furnish his own progress schedule in accordance with Article 108-2 of the *2012 Standard Specifications*. Any acceleration of the progress as shown by the Contractor's progress schedule over the progress as shown above shall be subject to the approval of the Engineer.

**DISADVANTAGED BUSINESS ENTERPRISE:**

(10-16-07)(Rev. 1-17-17)

102-15(J)

SP1 G61

**Description**

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with Federal funds. This provision is guided by 49 CFR Part 26.

**DBE Goal**

The following DBE goal for participation by Disadvantaged Business Enterprises is established for this contract:

Disadvantaged Business Enterprises **10.0%**

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

**Directory of Transportation Firms (Directory)**

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as DBE certified shall be used to meet the DBE goal. The Directory can be found at the following link. [https:// www.ebs.nc.gov/VendorDirectory/default.html](https://www.ebs.nc.gov/VendorDirectory/default.html)

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

**Listing of DBE Subcontractors**

At the time of bid, bidders shall submit all DBE participation that they anticipate to use during the life of the contract. Only those identified to meet the DBE goal will be considered committed, even though the listing shall include both committed DBE subcontractors and additional DBE subcontractors. Additional DBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goal. Only those firms with current DBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of DBE participation. The Contractor shall indicate the following required information:

**(A) Electronic Bids**

Bidders shall submit a listing of DBE participation in the appropriate section of Expedite, the bidding software of Bid Express®.

- (1) Submit the names and addresses of DBE firms identified to participate in the contract. If the bidder uses the updated listing of DBE firms shown in Expedite, the bidder may use the dropdown menu to access the name and address of the DBE firm.



**STATE HIGHWAY ADMINISTRATOR TITLE CHANGE:**

(9-18-12)

SP1 G185

Revise the *2012 Standard Specifications* as follows:

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

**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.

**PLANNED CONSTRUCTION REVISION:**

The Department has determined that the work currently shown in the plans from Station 373+00 to approximately Station 392+50 will be eliminated from this project. The earthwork summary on sheet 3B-3 of the plans has been revised to reflect this change and the pay item quantity for “Borrow Excavation” has been eliminated. The pay item for 60 inch CS Pipe Culverts has been eliminated and erosion control pay item quantities have been adjusted to reflect these changes. The other revisions to the plans and pay quantities necessary to modify this portion of the project will be made by a future construction plan revision. Any additional compensation related to future line item quantity adjustments will only be provided as allowed by Articles 104-5 and 104-6 of the Standard Specifications. Compensation for any items of work required by the future construction plan revision that are not identified in the proposal will be provided for as extra work in accordance with Article 104-7 of the Standard Specifications.

**SHOULDER AND FILL SLOPE MATERIAL:**

(5-21-02)

235, 560

SP2 R45 B

**Description**

Perform the required shoulder and slope construction for this project in accordance with the applicable requirements of Section 560 and Section 235 of the *2012 Standard Specifications*.

**Measurement and Payment**

When the Contractor elects to obtain material from an area located beneath a proposed fill sections which does not require excavation for any reason other than to generate acceptable shoulder and fill slope material, the work of performing the excavation will be considered incidental to the item of *Borrow Excavation* or *Shoulder Borrow*. If there is no pay item for *Borrow* or *Shoulder Borrow* in the contract, this work will be considered incidental to *Unclassified Excavation*. Stockpile the excavated material in a manner to facilitate measurement by the Engineer. Fill the void created by the excavation of the shoulder and fill slope material with suitable material. Payment for material used from the stockpile will be made at the contract unit price for *Borrow Excavation* or *Shoulder Borrow*. If there is no pay item for *Borrow Excavation* or *Shoulder Borrow*, then the material will be paid for at the contract unit price for *Unclassified Excavation*. The material used to fill the void created by the excavation of the shoulder and fill slope material will be made at the contract unit price for *Unclassified Excavation*, *Borrow Excavation*, or *Shoulder Borrow*, depending on the source of the material.

Material generated from undercut excavation, unclassified excavation or clearing and grubbing operations that is placed directly on shoulders or slope areas, will not be measured separately for payment, as payment for the work requiring the excavation will be considered adequate compensation for depositing and grading the material on the shoulders or slopes.

When undercut excavation is performed at the direction of the Engineer and the material excavated is found to be suitable for use as shoulder and fill slope material, and there is no area on the project currently prepared to receive the material generated by the undercut operation, the Contractor may construct a stockpile for use as borrow at a later date. Payment for the material used from the stockpile will be made at the contract unit price for *Borrow Excavation* or *Shoulder Borrow*.

When shoulder material is obtained from borrow sources or from stockpiled material, payment for the work of shoulder construction will be made at the contract unit price per cubic yard for *Borrow Excavation* or *Shoulder Borrow* in accordance with the applicable provisions of Section 230 or Section 560 of the *2012 Standard Specifications*.

**EMBANKMENT SETTLEMENT GAUGES:**

(7-1-95) (Rev. 8-18-15)

235

SP2 R75

Revise the *2012 Standard Specifications* as follows:

**Page 2-22, Article 235-1 DESCRIPTION**, add the following:

Surcharges and waiting periods may be required for embankments and retaining walls to minimize and control the effects of settlement on structures, approach slabs, pavements, pipes, utilities, etc.

The base price index for asphalt binder for plant mix is \$ **364.00** per ton.

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

**SLUICE GATE:**

(7-1-95) (Rev. 3-17-09)

838

SP8 R20

**Description**

This work consists of the construction of a sluice gate on an endwall in accordance with the details in the plans, the applicable requirements of Section 838 of the *2012 Standard Specifications*, in accordance with the manufacturer's recommendations and as directed by the Engineer.

**Materials**

Sluice gates shall meet the manufacturer's recommendations for the corresponding pipe size. Due to variations in individual manufacturer's products, a slight variation from the size specified may be allowed. Submit the proposed catalog cut to the Engineer for approval prior to use.

**Construction Methods**

Provide a gate that forms a watertight seal when closed.

**Measurement and Payment**

\_\_\_\_\_ " *Sluice Gate* will be measured and paid as each for the actual number of sluice gates incorporated into the completed and accepted work. Such prices and payment will be full compensation for all materials, labor, tools, equipment and incidentals necessary to complete the work.

The endwall will be measured and paid in accordance with Article 838-4 of the *2012 Standard Specifications*.

Payment will be made under:

**Pay Item**

\_\_\_\_\_ " Sluice Gate

**Pay Unit**

Each

**GUARDRAIL END UNITS, TYPE - TL-2:**

(10-21-08) (Rev. 7-1-17)

862

SP8 R64

**Description**

Furnish and install guardrail end units in accordance with the details in the plans, the applicable requirements of Section 862 of the *2012 Standard Specifications*, and at locations shown in the plans.

**General:**

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

- A. Duke Energy – Power (Distribution)
- B. Duke Energy – Power (Transmission)
- C. ATT Distribution
- D. Century Link
- E. Time Warner
- F. Piedmont Natural Gas – Transmission
- G. Piedmont Natural Gas - Distribution

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:**

Utility relocations are shown on the Utility by Others Plans.

A) Duke Energy – Power (Distribution)

Contact Information: Patrick Sizemore  
336-917-2522  
Patrick.sizemore@duke-energy.com

- 1) See Utilities by Others Plans.
- 2) Duke Energy will complete relocations within each of the 3 sections as follows but poles will not be removed until all aerial utilities have completed their relocation work:
  - a. Williston Road (UO - 7 and 12)  
Relocation will be complete by 6/1/2018
  - b. New Walkertown (UO – 4,5,10 and 11)  
Relocation will be complete by 7/1/2018
  - c. Old Walkertown (UO – 2)  
Relocation will be complete by 11/15/2018

B) Duke Energy – Power (Transmission)

Contact Information: Jeremy Sabo  
526 South Church St.  
Charlotte, NC 28202

704-382-8396

Jeremy.sabo@duke-energy.com

1. See Utilities by Others Plans.
2. **Duke Energy Transmission has completed all relocations**
3. Duke Transmission has installed 199' poles to provide clearance requested by the Division.
4. Contractor must maintain a minimum of 15' of clearance from lowest conductor at all times. The contractor is advised of special conditions which will affect work at the site of this bridge. The contractor is responsible for meeting all OSHA (29 CFR 1926.1407-1411) requirements for working in the proximity of power lines.
5. Caution Note: Although the Transmission line may be de-energized during construction after proper notification to Duke Transmission, this line will remain in place and any caution will be needed when working in vicinity line. Minimum approach distances must be maintained at all times. The contractor shall place High Voltage Overhead Power signs inside the project limits. Do not assume the lines are grounded unless ground lines are in place and Duke Energy confirms lines are de-energized and grounded.

C) Time Warner Cable / Spectrum

Contact Information: Eric Vivod  
1410 Trade Mart Blvd.  
Winston Salem, NC 27127  
336-231-6109  
[Eric.vivod@twcable.com](mailto:Eric.vivod@twcable.com)

1. See Utilities by Others Plans.
2. Time Warner / Spectrum facilities will be joint use on Duke Distribution poles.
3. Time Warner / Spectrum will complete relocations within each of the 3 sections as follows:
  - a. Williston Road  
Relocation will be complete by 7/1/2018
  - b. New Walkertown  
Relocation will be complete by 7/11/2018
  - c. Old Walkertown  
Relocation will be complete by 11/28/2018

D) Century Link

Contact Information: Scott Bell  
622 Elm Street  
Eden, NC 27288  
336-627-6259  
[sbell@squan.com](mailto:sbell@squan.com)

1. See Utilities by Others Plans.
2. Century Link is joint use on Duke Energy's Distribution poles as well as some underground facilities.
3. Century Link will complete relocations within each of the 3 sections as follows:
  - a. Williston Road  
Relocation will be complete by 7/12/2018
  - b. New Walkertown  
Relocation will be complete by 7/22/2018
  - c. Old Walkertown  
Relocation will be complete by 12/8/2018

E) AT&T Distribution

Contact Information: Ron Stokes  
Telics  
5173 Gumtree Road  
Winston Salem, NC 27107  
336-682-1090  
[Rs7737@att.com](mailto:Rs7737@att.com)

2. See Utilities by Others Plans.
3. AT&T will be joint use onto Duke Energy Distribution poles.
4. AT&T will complete relocations within each of the 3 sections as follows:
  - a. Williston Road  
Relocation will be complete by 7/25/2018
  - b. New Walkertown  
Relocation will be complete by 8/14/2018
  - c. Old Walkertown  
Relocation will be complete by 12/31/2019

F) Piedmont Natural Gas (PNG) - Transmission

Contact Information: Jason Brown

Project: U-2579C

**UbO-4**

County: Forsyth

4720 Piedmont Row Drive  
Charlotte, NC 28210  
704-731-4681  
[jason.brown@piedmontng.com](mailto:jason.brown@piedmontng.com)

4. See Utilities by Others Plans.
5. **Piedmont Natural Gas has completed all relocations**

G) Piedmont Natural Gas Distribution

Contact Information: David Robertson  
2300 Lowery Street  
Winston-Salem, NC 27101  
336-726-7769  
[David.robertson@piedmontng.com](mailto:David.robertson@piedmontng.com)

1. Piedmont Natural Gas distribution is NOT in conflict with proposed construction.

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
<b>ROADWAY ITEMS</b>						
0001	0000100000-N	800	MOBILIZATION	Lump Sum	L.S.	
0002	0000400000-N	801	CONSTRUCTION SURVEYING	Lump Sum	L.S.	
0003	0001000000-E	200	CLEARING & GRUBBING .. ACRE(S)	Lump Sum	L.S.	
0004	0008000000-E	200	SUPPLEMENTARY CLEARING & GRUB- BING	4 ACR		
0005	0015000000-N	205	SEALING ABANDONED WELLS	8 EA		
0006	0022000000-E	225	UNCLASSIFIED EXCAVATION	1,350,000 CY		
0007	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (21+27.27 -Y2-)	Lump Sum	L.S.	
0008	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (29+24.97 -Y1-)	Lump Sum	L.S.	
0009	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (473+47.45 -L- LT)	Lump Sum	L.S.	
0010	0029000000-N	SP	REINFORCED BRIDGE APPROACH FILL, STATION ***** (473+47.45 -L- RT)	Lump Sum	L.S.	
0011	0036000000-E	225	UNDERCUT EXCAVATION	10,000 CY		
0013	0127000000-N	SP	EMBANKMENT SETTLEMENT GAUGES	2 EA		
0014	0134000000-E	240	DRAINAGE DITCH EXCAVATION	7,500 CY		
0015	0141000000-E	240	BERM DITCH CONSTRUCTION	1,060 LF		
0016	0156000000-E	250	REMOVAL OF EXISTING ASPHALT PAVEMENT	19,620 SY		
0017	0177000000-E	250	BREAKING OF EXISTING ASPHALT PAVEMENT	1,230 SY		
0018	0192000000-N	260	PROOF ROLLING	40 HR		
0019	0195000000-E	265	SELECT GRANULAR MATERIAL	35,900 CY		



County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0020	0196000000-E	270	GEOTEXTILE FOR SOIL STABILIZATION	47,300	SY	
0021	0318000000-E	300	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	2,029	TON	
0022	0320000000-E	300	FOUNDATION CONDITIONING GEOTEXTILE	6,911	SY	
0023	0342000000-E	310	*** SIDE DRAIN PIPE (36")	224	LF	
0024	0343000000-E	310	15" SIDE DRAIN PIPE	1,412	LF	
0025	0344000000-E	310	18" SIDE DRAIN PIPE	368	LF	
0026	0345000000-E	310	24" SIDE DRAIN PIPE	300	LF	
0027	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (15")	14	EA	
0028	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (18")	6	EA	
0029	0348000000-E	310	*** SIDE DRAIN PIPE ELBOWS (24")	2	EA	
0030	0354000000-E	310	**** RC PIPE CULVERTS, CLASS ***** (24", V)	228	LF	
0031	0366000000-E	310	15" RC PIPE CULVERTS, CLASS III	4,044	LF	
0032	0372000000-E	310	18" RC PIPE CULVERTS, CLASS III	1,628	LF	
0033	0378000000-E	310	24" RC PIPE CULVERTS, CLASS III	464	LF	
0034	0384000000-E	310	30" RC PIPE CULVERTS, CLASS III	1,200	LF	
0035	0390000000-E	310	36" RC PIPE CULVERTS, CLASS III	448	LF	
0036	0396000000-E	310	42" RC PIPE CULVERTS, CLASS III	220	LF	

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0037	0448000000-E	310	***** RC PIPE CULVERTS, CLASS IV (60")	260	LF	
0038	0448000000-E	310	***** RC PIPE CULVERTS, CLASS IV (72")	244	LF	
0039	0448200000-E	310	15" RC PIPE CULVERTS, CLASS IV	2,988	LF	
0040	0448300000-E	310	18" RC PIPE CULVERTS, CLASS IV	512	LF	
0041	0448400000-E	310	24" RC PIPE CULVERTS, CLASS IV	800	LF	
0042	0448600000-E	310	36" RC PIPE CULVERTS, CLASS IV	84	LF	
0043	0448700000-E	310	42" RC PIPE CULVERTS, CLASS IV	288	LF	
0045	0576000000-E	310	*** CS PIPE CULVERTS, ***** THICK (78", 0.138")	252	LF	
0046	0594000000-E	310	24" CS PIPE CULVERTS, 0.064" THICK	380	LF	
0047	0654000000-E	310	***** X ***** CS PIPE ARCH CULVERTS, ***** THICK (95" X 67", 0.109")	45	LF	
0048	0995000000-E	340	PIPE REMOVAL	1,940	LF	
0049	1000000000-E	462	6" SLOPE PROTECTION	500	SY	
0050	1011000000-N	500	FINE GRADING	Lump Sum	L.S.	
0051	1044000000-E	501	LIME TREATED SOIL (SLURRY METHOD)	64,560	SY	
0052	1066000000-E	501	LIME FOR LIME TREATED SOIL	650	TON	
0053	1077000000-E	SP	#57 STONE	20	TON	
0054	1099500000-E	505	SHALLOW UNDERCUT	5,000	CY	
0055	1099700000-E	505	CLASS IV SUBGRADE STABILIZATION	9,500	TON	

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0056	1110000000-E	510	STABILIZER AGGREGATE	500 TON		
0057	1115000000-E	SP	GEOTEXTILE FOR PAVEMENT STA- BILIZATION	84,754 SY		
0058	1176000000-E	542	SOIL CEMENT BASE	96,840 SY		
0059	1187000000-E	542	PORTLAND CEMENT FOR SOIL CE- MENT BASE	2,670 TON		
0060	1209000000-E	543	ASPHALT CURING SEAL	24,210 GAL		
0061	1220000000-E	545	INCIDENTAL STONE BASE	1,000 TON		
0062	1489000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0B	2,620 TON		
0063	1498000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	1,230 TON		
0064	1503000000-E	610	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C	30,170 TON		
0065	1519000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	1,970 TON		
0066	1523000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE S9.5C	25,440 TON		
0067	1525000000-E	610	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	1,100 TON		
0068	1693000000-E	654	ASPHALT PLANT MIX, PAVEMENT REPAIR	90 TON		
0069	1840000000-E	665	MILLED RUMBLE STRIPS (ASPHALT CONCRETE)	36,200 LF		
0070	2000000000-N	806	RIGHT OF WAY MARKERS	114 EA		
0071	2022000000-E	815	SUBDRAIN EXCAVATION	5,024 CY		
0072	2033000000-E	815	SUBDRAIN FINE AGGREGATE	2,512 CY		
0073	2044000000-E	815	6" PERFORATED SUBDRAIN PIPE	14,950 LF		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0074	2070000000-N	815	SUBDRAIN PIPE OUTLET	30 EA		
0075	2077000000-E	815	6" OUTLET PIPE	180 LF		
0076	2099000000-E	816	SHOULDER DRAIN	7,360 LF		
0077	2110000000-E	816	4" SHOULDER DRAIN PIPE	7,360 LF		
0078	2121000000-E	816	4" OUTLET PIPE FOR SHOULDER DRAINS	270 LF		
0079	2132000000-N	816	CONCRETE PAD FOR SHOULDER DRAIN PIPE OUTLET	9 EA		
0080	2143000000-E	818	BLOTTING SAND	15 TON		
0081	2209000000-E	838	ENDWALLS	9 CY		
0082	2220000000-E	838	REINFORCED ENDWALLS	53 CY		
0083	2253000000-E	840	PIPE COLLARS	1 CY		
0084	2275000000-E	SP	FLOWABLE FILL	4 CY		
0085	2286000000-N	840	MASONRY DRAINAGE STRUCTURES	92 EA		
0086	2297000000-E	840	MASONRY DRAINAGE STRUCTURES	32 CY		
0087	2308000000-E	840	MASONRY DRAINAGE STRUCTURES	53.2 LF		
0088	2354000000-N	840	FRAME WITH GRATE, STD 840.22	1 EA		
0089	2364000000-N	840	FRAME WITH TWO GRATES, STD 840.16	3 EA		
0090	2364200000-N	840	FRAME WITH TWO GRATES, STD 840.20	31 EA		
0091	2365000000-N	840	FRAME WITH TWO GRATES, STD 840.22	50 EA		
0092	2367000000-N	840	FRAME WITH TWO GRATES, STD 840.29	2 EA		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0093	2374000000-N	840	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)	2 EA		
0094	2396000000-N	840	FRAME WITH COVER, STD 840.54	4 EA		
0095	2451000000-N	852	CONCRETE TRANSITIONAL SECTION FOR DROP INLET	3 EA		
0096	2462000000-E	SP	*** SLUICE GATE (8")	2 EA		
0097	2549000000-E	846	2'-6" CONCRETE CURB & GUTTER	1,110 LF		
0098	2556000000-E	846	SHOULDER BERM GUTTER	4,290 LF		
0099	2577000000-E	846	CONCRETE EXPRESSWAY GUTTER	640 LF		
0100	2612000000-E	848	6" CONCRETE DRIVEWAY	1,250 SY		
0101	2619000000-E	850	4" CONCRETE PAVED DITCH	42 SY		
0102	2655000000-E	852	5" MONOLITHIC CONCRETE ISLANDS (KEYED IN)	2,180 SY		
0103	2830000000-N	858	ADJUSTMENT OF MANHOLES	1 EA		
0104	2845000000-N	858	ADJUSTMENT OF METER BOXES OR VALVE BOXES	6 EA		
0105	3030000000-E	862	STEEL BM GUARDRAIL	28,000 LF		
0106	3105000000-N	862	STEEL BM GUARDRAIL TERMINAL SECTIONS	2 EA		
0107	3150000000-N	862	ADDITIONAL GUARDRAIL POSTS	10 EA		
0108	3210000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE CAT-1	17 EA		
0109	3215000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE III	5 EA		
0110	3287000000-N	SP	GUARDRAIL END UNITS, TYPE TL-3	23 EA		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0111	3288000000-N	SP	GUARDRAIL END UNITS, TYPE TL-2	4 EA		
0112	3317000000-N	862	GUARDRAIL ANCHOR UNITS, TYPE B-77	12 EA		
0113	3380000000-E	862	TEMPORARY STEEL BM GUARDRAIL	1,200 LF		
0114	3389150000-N	SP	TEMPORARY GUARDRAIL END UNITS, TYPE ***** (TL-3)	6 EA		
0115	3503000000-E	866	WOVEN WIRE FENCE, 47" FABRIC	24,560 LF		
0116	3509000000-E	866	4" TIMBER FENCE POSTS, 7'-6" LONG	1,520 EA		
0117	3515000000-E	866	5" TIMBER FENCE POSTS, 8'-0" LONG	440 EA		
0118	3628000000-E	876	RIP RAP, CLASS I	3,500 TON		
0119	3635000000-E	876	RIP RAP, CLASS II	800 TON		
0120	3642000000-E	876	RIP RAP, CLASS A	20 TON		
0121	3649000000-E	876	RIP RAP, CLASS B	5,400 TON		
0122	3651000000-E	SP	BOULDERS	15 TON		
0123	3656000000-E	876	GEOTEXTILE FOR DRAINAGE	24,700 SY		
0124	4054000000-E	902	PLAIN CONCRETE SIGN FOUNDATIONS	1 CY		
0125	4057000000-E	SP	OVERHEAD FOOTING	51 CY		
0126	4060000000-E	903	SUPPORTS, BREAKAWAY, STEEL BEAM	472 LB		
0127	4072000000-E	903	SUPPORTS, 3-LB STEEL U-CHANNEL	2,701 LF		
0128	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (410+00 -L-)	Lump Sum	L.S.	

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0129	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (458+00 -L-)	Lump Sum	L.S.	
0130	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (459+00 -L-)	Lump Sum	L.S.	
0131	4082100000-N	SP	SUPPORTS, OVERHEAD SIGN STRUCTURE AT STA ***** (481+00 -L-)	Lump Sum	L.S.	
0132	4096000000-N	904	SIGN ERECTION, TYPE D	7 EA		
0133	4102000000-N	904	SIGN ERECTION, TYPE E	83 EA		
0134	4108000000-N	904	SIGN ERECTION, TYPE F	15 EA		
0135	4109000000-N	904	SIGN ERECTION, TYPE *** (OVERHEAD) (A)	6 EA		
0136	4109000000-N	904	SIGN ERECTION, TYPE *** (OVERHEAD) (B)	1 EA		
0137	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (A)	2 EA		
0138	4110000000-N	904	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (B)	2 EA		
0139	4114000000-N	904	SIGN ERECTION, MILEMARKERS	6 EA		
0140	4115000000-N	904	SIGN ERECTION, OVERLAY (OVERHEAD)	16 EA		
0141	4116100000-N	904	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (D)	1 EA		
0142	4116100000-N	904	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (F)	3 EA		
0143	4116200000-N	904	SIGN ERECTION, REPOSITION OVERHEAD	4 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0144	4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	22 EA		
0145	4192000000-N	907	DISPOSAL OF SUPPORT, U-CHANNEL	2 EA		
0146	4234000000-N	907	DISPOSAL OF SIGN, A OR B (OVERHEAD)	4 EA		
0147	4400000000-E	1110	WORK ZONE SIGNS (STATIONARY)	833 SF		
0148	4405000000-E	1110	WORK ZONE SIGNS (PORTABLE)	192 SF		
0149	4410000000-E	1110	WORK ZONE SIGNS (BARRICADE MOUNTED)	342 SF		
0150	4422000000-N	1120	PORTABLE CHANGEABLE MESSAGE SIGN (SHORT TERM)	21 DAY		
0151	4430000000-N	1130	DRUMS	200 EA		
0152	4435000000-N	1135	CONES	50 EA		
0153	4445000000-E	1145	BARRICADES (TYPE III)	384 LF		
0154	4455000000-N	1150	FLAGGER	140 DAY		
0155	4516000000-N	1180	SKINNY DRUM	50 EA		
0156	4520000000-N	1266	TUBULAR MARKERS (FIXED)	18 EA		
0157	4650000000-N	1251	TEMPORARY RAISED PAVEMENT MARKERS	193 EA		
0158	4700000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (12", 90 MILS)	310 LF		
0159	4705000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (16", 120 MILS)	46 LF		
0160	4710000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)	256 LF		
0161	4721000000-E	1205	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)	2 EA		



County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0162	4725000000-E	1205	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)	57	EA	
0163	4810000000-E	1205	PAINT PAVEMENT MARKING LINES (4")	67,704	LF	
0164	4815000000-E	1205	PAINT PAVEMENT MARKING LINES (6")	14,090	LF	
0165	4825000000-E	1205	PAINT PAVEMENT MARKING LINES (12")	3,830	LF	
0166	4835000000-E	1205	PAINT PAVEMENT MARKING LINES (24")	10	LF	
0167	4845000000-N	1205	PAINT PAVEMENT MARKING SYMBOL	32	EA	
0168	4847000000-E	1205	POLYUREA PAVEMENT MARKING LINES (4", *****) (HIGHLY REFLECTIVE ELEMENTS)	31,888	LF	
0169	4847100000-E	1205	POLYUREA PAVEMENT MARKING LINES (6", *****) (HIGHLY REFLECTIVE ELEMENTS)	75,872	LF	
0170	4847120000-E	1205	POLYUREA PAVEMENT MARKING LINES (12", *****) (HIGHLY REFLECTIVE ELEMENTS)	4,324	LF	
0171	4850000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (4")	4,432	LF	
0172	4855000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (6")	23,230	LF	
0173	4860000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (8")	385	LF	
0174	4865000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (12")	3,150	LF	
0175	4870000000-E	1205	REMOVAL OF PAVEMENT MARKING LINES (24")	10	LF	
0176	4875000000-N	1205	REMOVAL OF PAVEMENT MARKING SYMBOLS & CHARACTERS	5	EA	
0177	4900000000-N	1251	PERMANENT RAISED PAVEMENT MARKERS	257	EA	

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0178	4905000000-N	1253	SNOWPLOWABLE PAVEMENT MARKERS	1,247 EA		
0179	4915000000-E	1264	7' U-CHANNEL POSTS	3 EA		
0180	4935000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL)	65 EA		
0181	4940000000-N	1267	FLEXIBLE DELINEATORS (YELLOW)	62 EA		
0182	4945000000-N	1267	FLEXIBLE DELINEATORS (CRYSTAL & RED)	10 EA		
0183	4950000000-N	1267	FLEXIBLE DELINEATORS (YELLOW & RED)	55 EA		
0184	4955000000-N	1264	OBJECT MARKERS (END OF ROAD)	3 EA		
0185	5326200000-E	1510	12" WATER LINE	1,452 LF		
0186	5326600000-E	1510	16" WATER LINE	2,245 LF		
0187	5329000000-E	SP	DUCTILE IRON WATER PIPE FITTINGS	8,030 LB		
0188	5572200000-E	1515	12" TAPPING VALVE	2 EA		
0189	5572600000-E	1515	16" TAPPING VALVE	2 EA		
0190	5589100000-E	1515	1" AIR RELEASE VALVE	2 EA		
0191	5606600000-E	1515	6" BLOW OFF	1 EA		
0192	5648000000-N	1515	RELOCATE WATER METER	8 EA		
0193	5672000000-N	1515	RELOCATE FIRE HYDRANT	5 EA		
0194	5801000000-E	1530	ABANDON 8" UTILITY PIPE	222 LF		
0195	5804000000-E	1530	ABANDON 12" UTILITY PIPE	440 LF		
0196	5810000000-E	1530	ABANDON 16" UTILITY PIPE	355 LF		
0197	5815000000-N	1530	REMOVE WATER METER	4 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0198	5815500000-N	1530	REMOVE FIRE HYDRANT	2 EA		
0199	5816000000-N	1530	ABANDON UTILITY MANHOLE	2 EA		
0200	5828000000-N	1530	REMOVE UTILITY MANHOLE	1 EA		
0201	5836000000-E	1540	24" ENCASEMENT PIPE	210 LF		
0202	5836200000-E	1540	30" ENCASEMENT PIPE	305 LF		
0203	5882000000-N	SP	GENERIC UTILITY ITEM ABANDON SEWER CONNECTION	2 EA		
0204	6000000000-E	1605	TEMPORARY SILT FENCE	53,500 LF		
0205	6006000000-E	1610	STONE FOR EROSION CONTROL, CLASS A	1,750 TON		
0206	6009000000-E	1610	STONE FOR EROSION CONTROL, CLASS B	12,000 TON		
0207	6012000000-E	1610	SEDIMENT CONTROL STONE	19,720 TON		
0208	6015000000-E	1615	TEMPORARY MULCHING	226.5 ACR		
0209	6018000000-E	1620	SEED FOR TEMPORARY SEEDING	10,500 LB		
0210	6021000000-E	1620	FERTILIZER FOR TEMPORARY SEED- ING	54.5 TON		
0211	6024000000-E	1622	TEMPORARY SLOPE DRAINS	11,000 LF		
0212	6029000000-E	SP	SAFETY FENCE	14,000 LF		
0213	6030000000-E	1630	SILT EXCAVATION	321,500 CY		
0214	6036000000-E	1631	MATTING FOR EROSION CONTROL	282,775 SY		
0215	6037000000-E	SP	COIR FIBER MAT	550 SY		
0216	6038000000-E	SP	PERMANENT SOIL REINFORCEMENT MAT	2,500 SY		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0217	6042000000-E	1632	1/4" HARDWARE CLOTH	5,600 LF		
0218	6045000000-E	SP	*** TEMPORARY PIPE (18")	230 LF		
0219	6046000000-E	1636	TEMPORARY PIPE FOR STREAM CROSSING	200 LF		
0220	6070000000-N	1639	SPECIAL STILLING BASINS	24 EA		
0221	6071012000-E	SP	COIR FIBER WATTLE	7,300 LF		
0222	6071020000-E	SP	POLYACRYLAMIDE (PAM)	6,300 LB		
0223	6071030000-E	1640	COIR FIBER BAFFLE	17,500 LF		
0224	6071050000-E	SP	*** SKIMMER (1-1/2")	21 EA		
0225	6071050000-E	SP	*** SKIMMER (2")	12 EA		
0226	6071050000-E	SP	*** SKIMMER (2-1/2")	7 EA		
0227	6071050000-E	SP	*** SKIMMER (3")	2 EA		
0228	6071050000-E	SP	*** SKIMMER (4")	1 EA		
0229	6084000000-E	1660	SEEDING & MULCHING	147 ACR		
0230	6087000000-E	1660	MOWING	138 ACR		
0231	6090000000-E	1661	SEED FOR REPAIR SEEDING	2,300 LB		
0232	6093000000-E	1661	FERTILIZER FOR REPAIR SEEDING	6 TON		
0233	6096000000-E	1662	SEED FOR SUPPLEMENTAL SEEDING	3,475 LB		
0234	6108000000-E	1665	FERTILIZER TOPDRESSING	103.75 TON		
0235	6111000000-E	SP	IMPERVIOUS DIKE	547 LF		

County: Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0236	6114500000-N	1667	SPECIALIZED HAND MOWING	120 MHR		
0237	6117000000-N	SP	RESPONSE FOR EROSION CONTROL	113 EA		
0238	6120000000-E	SP	CULVERT DIVERSION CHANNEL	1,244 CY		
0239	6123000000-E	1670	REFORESTATION	7 ACR		
0240	6132000000-N	SP	GENERIC EROSION CONTROL ITEM CONCRETE WASHOUT STRUCTURE	10 EA		
0241	7060000000-E	1705	SIGNAL CABLE	1,700 LF		
0242	7120000000-E	1705	VEHICLE SIGNAL HEAD (12", 3 SECTION)	12 EA		
0243	7132000000-E	1705	VEHICLE SIGNAL HEAD (12", 4 SECTION)	1 EA		
0244	7252000000-E	1710	MESSENGER CABLE (1/4")	300 LF		
0245	7264000000-E	1710	MESSENGER CABLE (3/8")	1,025 LF		
0246	7279000000-E	1715	TRACER WIRE	9,500 LF		
0247	7300000000-E	1715	UNPAVED TRENCHING (***** (1,2")	1,700 LF		
0248	7300000000-E	1715	UNPAVED TRENCHING (***** (2,2")	9,100 LF		
0249	7300000000-E	1715	UNPAVED TRENCHING (***** (3,2")	100 LF		
0250	7301000000-E	1715	DIRECTIONAL DRILL (***** (2,2")	300 LF		
0251	7301000000-E	1715	DIRECTIONAL DRILL (***** (4,2")	400 LF		
0252	7312000000-N	1716	JUNCTION BOX (***** (SPECIAL OVER-SIZED HEAVY DUTY)	2 EA		
0253	7324000000-N	1716	JUNCTION BOX (STANDARD SIZE)	25 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0254	7348000000-N	1716	JUNCTION BOX (OVER-SIZED, HEAVY DUTY)	22 EA		
0255	7360000000-N	1720	WOOD POLE	2 EA		
0256	7372000000-N	1721	GUY ASSEMBLY	2 EA		
0257	7432000000-E	1722	2" RISER WITH HEAT SHRINK TUBING	2 EA		
0258	7444000000-E	1725	INDUCTIVE LOOP SAWCUT	860 LF		
0259	7456000000-E	1726	LEAD-IN CABLE (***** (14-2)	3,350 LF		
0260	7516000000-E	1730	COMMUNICATIONS CABLE (**FIBER) (72)	9,900 LF		
0261	7528000000-E	1730	DROP CABLE	700 LF		
0262	7540000000-N	1731	SPLICE ENCLOSURE	3 EA		
0263	7541000000-N	1731	MODIFY SPLICE ENCLOSURE	1 EA		
0264	7552000000-N	1731	INTERCONNECT CENTER	5 EA		
0265	7566000000-N	1733	DELINEATOR MARKER	24 EA		
0266	7575142000-N	1736	900MHZ RADIO	2 EA		
0267	7576000000-N	SP	METAL STRAIN SIGNAL POLE	8 EA		
0268	7613000000-N	SP	SOIL TEST	10 EA		
0269	7614100000-E	SP	DRILLED PIER FOUNDATION	58 CY		
0270	7636000000-N	1745	SIGN FOR SIGNALS	8 EA		
0271	7684000000-N	1750	SIGNAL CABINET FOUNDATION	2 EA		
0272	7756000000-N	1751	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)	2 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0273	7780000000-N	1751	DETECTOR CARD (TYPE 2070L)	9 EA		
0274	7901000000-N	1753	CABINET BASE EXTENDER	2 EA		
0275	7980000000-N	SP	GENERIC SIGNAL ITEM 5/8" X 10' GROUNDING ELECTRODE	16 EA		
0276	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV CAMERA ASSEMBLY	2 EA		
0277	7980000000-N	SP	GENERIC SIGNAL ITEM CCTV METAL POLE	2 EA		
0278	7980000000-N	SP	GENERIC SIGNAL ITEM CENTRAL MEDIA CONVERTER	2 EA		
0279	7980000000-N	SP	GENERIC SIGNAL ITEM DIGITAL HARDWARE VIDEO DECODER	2 EA		
0280	7980000000-N	SP	GENERIC SIGNAL ITEM DMS	2 EA		
0281	7980000000-N	SP	GENERIC SIGNAL ITEM DMS ACCESS LADDER	2 EA		
0282	7980000000-N	SP	GENERIC SIGNAL ITEM DMS PEDESTAL STRUCTURE	2 EA		
0283	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET FOUNDATION	1 EA		
0284	7980000000-N	SP	GENERIC SIGNAL ITEM EQUIPMENT CABINET DISCONNECT	4 EA		
0285	7980000000-N	SP	GENERIC SIGNAL ITEM ETHERNET EDGE SWITCH	4 EA		
0286	7980000000-N	SP	GENERIC SIGNAL ITEM FIBER-OPTIC SPLICE CABINET	1 EA		
0287	7980000000-N	SP	GENERIC SIGNAL ITEM FIELD EQUIPMENT CABINET	2 EA		
0288	7980000000-N	SP	GENERIC SIGNAL ITEM METER BASE/DISCONNECT COMBINA- TION PANEL	2 EA		
0289	7980000000-N	SP	GENERIC SIGNAL ITEM WOOD PEDESTAL	2 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0290	7985000000-N	SP	GENERIC SIGNAL ITEM INTEGRATION AND CONFIGURATION	Lump Sum	L.S.	
0291	7990000000-E	SP	GENERIC SIGNAL ITEM #4 SOLID BARE GROUNDING CON- DUCTOR	60 LF		
0292	7990000000-E	SP	GENERIC SIGNAL ITEM 3-WIRE COPPER FEEDER COND- UCTORS	300 LF		
0293	7990000000-E	SP	GENERIC SIGNAL ITEM 4-WIRE COPPER FEEDER COND- UCTORS	600 LF		
0294	7992000000-E	SP	GENERIC SIGNAL ITEM OVERHEAD DMS STRUCTURE FOOT- INGS	16 CY		

\*\*\*\*\* BEGIN SCHEDULE AA \*\*\*\*\*  
\*\*\*\*\* ( 2 ALTERNATES ) \*\*\*\*\*

0295	1121000000-E	520	AGGREGATE BASE COURSE	80,300		
<b>AA1</b>				TON		
0296	1231000000-E	560	SHOULDER BORROW	18,000		
<b>AA1</b>				CY		
0297	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	33,300		
<b>AA1</b>				TON		
0298	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	4,785		
<b>AA1</b>				TON		

\*\*\* OR \*\*\*

0299	1121000000-E	520	AGGREGATE BASE COURSE	4,020		
<b>AA2</b>				TON		
0300	1231000000-E	560	SHOULDER BORROW	14,500		
<b>AA2</b>				CY		
0301	1491000000-E	610	ASPHALT CONC BASE COURSE, TYPE B25.0C	78,860		
<b>AA2</b>				TON		
0302	1575000000-E	620	ASPHALT BINDER FOR PLANT MIX	6,790		
<b>AA2</b>				TON		

\*\*\*\*\* END SCHEDULE AA \*\*\*\*\*



County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0340	1275000000-E	600	PRIME COAT	3,150 GAL		
<b>CULVERT ITEMS</b>						
0303	8126000000-N	414	CULVERT EXCAVATION, STA ***** (397+73.00 -L-)	Lump Sum	L.S.	
0304	8126000000-N	414	CULVERT EXCAVATION, STA ***** (437+96.50 -L-)	Lump Sum	L.S.	
0305	8133000000-E	414	FOUNDATION CONDITIONING MATERIAL, BOX CULVERT	974 TON		
0306	8196000000-E	420	CLASS A CONCRETE (CULVERT)	1,609.4 CY		
0307	8245000000-E	425	REINFORCING STEEL (CULVERT)	130,376 LB		
<b>STRUCTURE ITEMS</b>						
0308	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 21+27.27 -Y2-)	Lump Sum	L.S.	
0309	8091000000-N	410	FOUNDATION EXCAVATION FOR BENT ** AT STATION ***** (1, 29+24.97 -Y1-)	Lump Sum	L.S.	
0310	8105540000-E	411	3'-6" DIA DRILLED PIERS IN SOIL	564 LF		
0311	8105640000-E	411	3'-6" DIA DRILLED PIERS NOT IN SOIL	270 LF		
0312	8111400000-E	411	PERMANENT STEEL CASING FOR 3'-6" DIA DRILLED PIER	128 LF		
0313	8112730000-N	450	PDA TESTING	4 EA		
0314	8113000000-N	411	SID INSPECTIONS	2 EA		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0315	8114000000-N	411	SPT TESTING	16 EA		
0316	8115000000-N	411	CSL TESTING	2 EA		
0317	8147000000-E	420	REINFORCED CONCRETE DECK SLAB	59,989 SF		
0318	8161000000-E	420	GROOVING BRIDGE FLOORS	58,288 SF		
0319	8182000000-E	420	CLASS A CONCRETE (BRIDGE)	807.3 CY		
0320	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (21+27.27 -Y2-)	Lump Sum	L.S.	
0321	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (29+24.97 -Y1-)	Lump Sum	L.S.	
0322	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (473+70.00 -L- LT)	Lump Sum	L.S.	
0323	8210000000-N	422	BRIDGE APPROACH SLABS, STATION ***** (473+70.00 -L- RT)	Lump Sum	L.S.	
0324	8217000000-E	425	REINFORCING STEEL (BRIDGE)	192,761 LB		
0325	8238000000-E	425	SPIRAL COLUMN REINFORCING STEEL (BRIDGE)	25,224 LB		
0326	8265000000-E	430	54" PRESTRESSED CONCRETE GIR- DERS	4,517.26 LF		
0327	8277000000-E	430	MODIFIED 72" PRESTRESSED CONC GIRDERS	2,180.17 LF		
0328	8328200000-E	SP	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (12 X 53)	84 EA		
0329	8328200000-E	SP	PILE DRIVING EQUIPMENT SETUP FOR *** STEEL PILES (14 X 73)	38 EA		
0330	8364000000-E	450	HP12X53 STEEL PILES	4,465 LF		
0331	8384000000-E	450	HP14X73 STEEL PILES	830 LF		

County : Forsyth

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0332	8391000000-N	450	STEEL PILE POINTS	38 EA		
0333	8475000000-E	460	TWO BAR METAL RAIL	423.76 LF		
0334	8503000000-E	460	CONCRETE BARRIER RAIL	1,451.1 LF		
0335	8517000000-E	460	1'-***X ***** CONCRETE PARA- PET (1'-2" X 3'-2 3/4")	439.13 LF		
0336	8531000000-E	462	4" SLOPE PROTECTION	1,489 SY		
0337	8608000000-E	876	RIP RAP CLASS II (2'-0" THICK)	2,000 TON		
0338	8622000000-E	876	GEOTEXTILE FOR DRAINAGE	2,220 SY		
0339	8657000000-N	430	ELASTOMERIC BEARINGS	Lump Sum	L.S.	
			<b>1102/Oct31/Q3827966.07/D1523608034000/E338</b>			
			<b>Total Amount Of Bid For Entire Project :</b>			

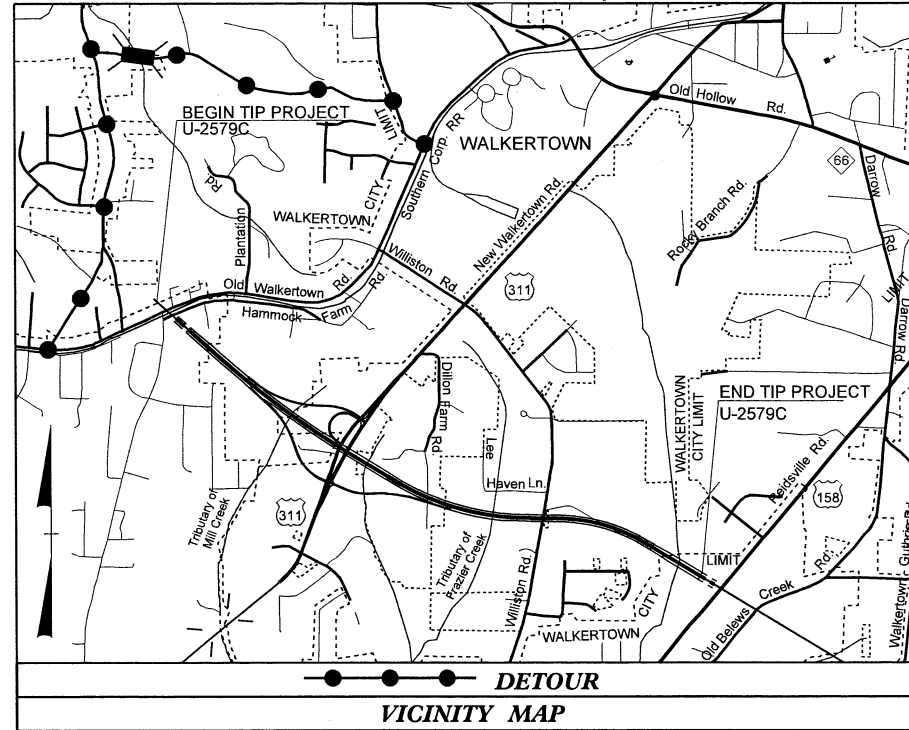
09/08/99

See Sheet 1A For Index of Sheets  
 See Sheet 1B For Conventional Symbols  
 See Sheets 1C-1 Thru 1C-7 For Survey Control Sheets

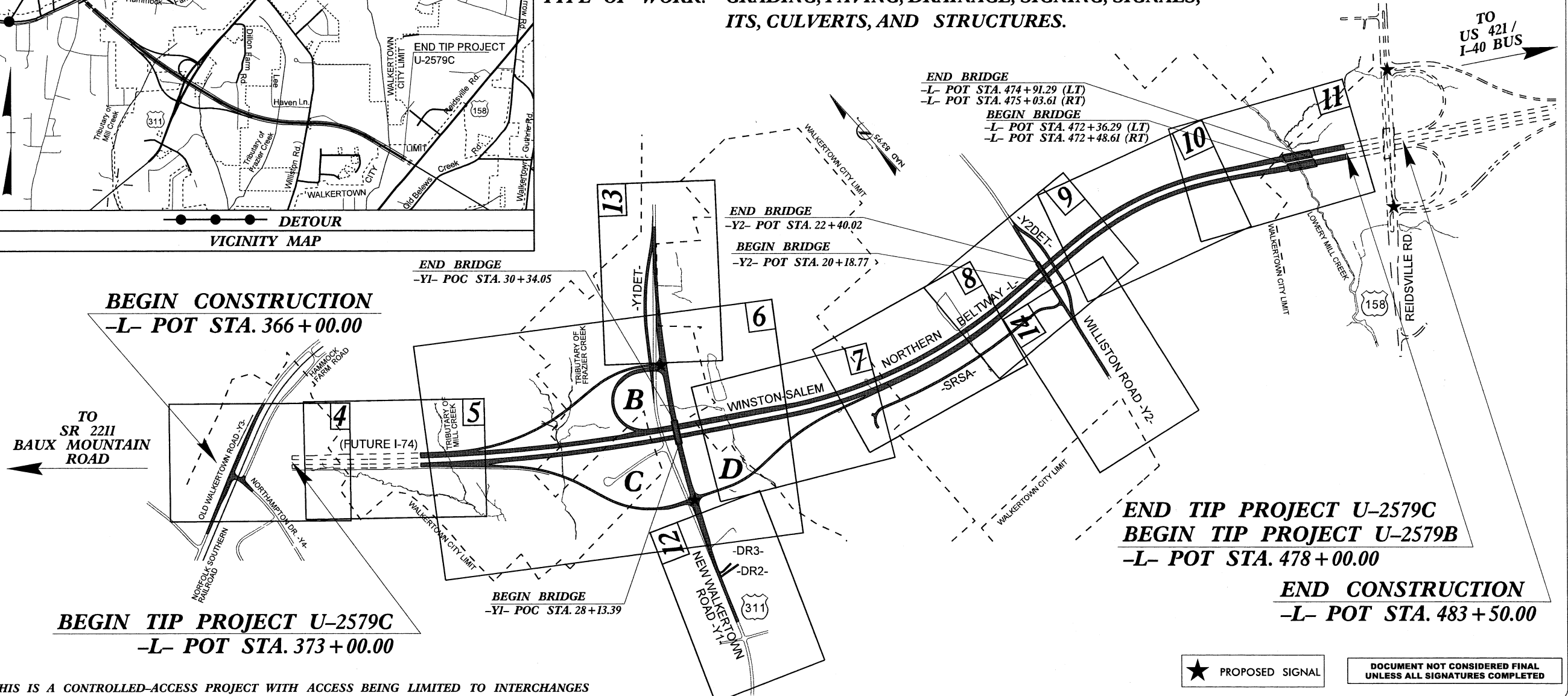
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**FORSYTH COUNTY**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2579C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34839.1.9	N/A	PE	
34839.2.6	N/A	RW	
34839.2.GV18	NHP-0918(062)	RW	
34839.2.16	N/A	UTIL	
34839.3.GV6	NHP-0918(062)	CONST.	

**TIP PROJECT: U-2579C**

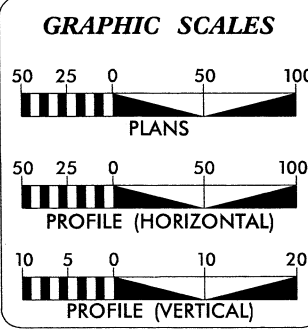


**LOCATION: WINSTON - SALEM NORTHERN BELTWAY (EASTERN SECTION)  
 FROM US 311 TO US 158 (FUTURE I-74)**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE, SIGNING, SIGNALS,  
 ITS, CULVERTS, AND STRUCTURES.**



**CONTRACT: C203979**

THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES



**DESIGN DATA**

ADT 2017 =	65,592
ADT 2037 =	93,112
K =	10 %
D =	60 %
T =	18 % *
V =	70 MPH
*(TTST=12% + DUAL=6%)	
FUNC CLASS=INTERSTATE STATEWIDE TIER	

**PROJECT LENGTH**

LENGTH OF ROADWAY PROJECT U-2579C	=	1.941 Miles
LENGTH OF STRUCTURE PROJECT U-2579C	=	0.048 Mile
TOTAL LENGTH OF TIP PROJECT U-2579C	=	1.989 Miles

PLANS PREPARED BY:  
**RS&H** & 8601 SIX FORKS RD, SUITE 260  
 RALEIGH, NC 27615  
 919-926-4100

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
 2012 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
 AUGUST 28, 2015

**LETTING DATE:**  
 NOVEMBER 21, 2017

**JASON TALLEY, PE**  
 PROJECT ENGINEER

**JARED BOND, PE**  
 PROJECT DESIGN ENGINEER

**TATIA L. WHITE, PE, PLS**  
 NCDOT CONTACT

★ PROPOSED SIGNAL

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

10/26/2017  
 SIGNATURE:

10/26/2017  
 SIGNATURE:

**HYDRAULICS ENGINEER**

**ROADWAY DESIGN ENGINEER**

**DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA**

23-OCT-2017 16:42  
 R:\ROADWAY\PROJ\U2579C\_rdy\_tsh.dgn  
 \$\$\$USERNAME\$\$\$

## DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA **SUMMARY OF EARTHWORK** IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
<b>SUMMARY NO. 1</b>					
-Y3- 13+25.00 TO 26+50.00	397		4,801	4,404	
-Y4- 10+10.00 TO 12+42.12	59		326	267	
-L- 392+50.00 TO 403+00.00	2,422		434,890	432,468	
-L- 403+00.00 TO 410+06.22	138,041		280		137,761
(INCLUDES PORTION OF -Y1RPB-, -Y1RPC-, & -Y1LPB-)					
-Y1RPB- 19+00.00 TO 32+00.00	61,361		117,251	55,890	
-Y1RPC- 18+35.00 TO 31+11.75	5,112		138,502	133,390	
-Y1LPB- 13+50.00 TO 18+00.00	20,095		46		20,049
-Y1- 10+75.00 TO 28+13.39	3,334		12,398	9,064	
-Y1- 30+34.05 TO 48+50.00	26,661		32,983	6,322	
(INCLUDES -Y1DET- REMOVAL)					
-DR2- 10+16.50 TO 12+10.00	25		1,030	1,005	
(INCLUDES -DR3-)					
-Y1DET- 15+93.03 TO 33+46.92	6,019		12,352	6,333	
SUBTOTAL	263,526		754,859	649,143	157,810
<b>SUMMARY NO. 2</b>					
-L- 410+06.22 TO 440+00.00	290,804		209,861		80,943
(INCLUDES PORTION OF -Y1RPD- & -SRSA-)					
-L- 440+00.00 TO 447+50.00	45,157		42,133		3,024
(INCLUDES PORTION OF -SRSA- & -Y2DET-)					
-Y1RPD- 18+60.00 TO 31+50.00	24,095		136,015	111,920	
-Y2- 10+00.00 TO 20+18.52	2,491		926		1,565
-Y2- 22+40.27 TO 26+50.00	575		1,152	577	
(INCLUDES -Y2DET- REMOVAL)					
-SRSA- 10+00.00 TO 12+00.00	493		13		480
-SRSA- 29+50.00 TO 31+00.00	438		20		418
-Y2DET- 15+00.00 TO 20+00.00	577		883	306	
-Y2DET- 23+00.00 TO 28+03.31	1,104		12		1,092
SUBTOTAL	365,734		391,015	112,803	87,522

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
<b>SUMMARY NO. 3</b>					
-L- 447+50.00 TO 472+42.45	691,856		17,192		674,664
SUBTOTAL	691,856		17,192		674,664
<b>SUMMARY NO. 4</b>					
-L- 474+97.45 TO 478+00.00	159		43,205	43,046	
SUBTOTAL	159		43,205	43,046	
TOTAL	1,321,275		1,206,271	804,992	919,996
LOSS DUE TO CLEARING & GRUBBING	-30,000				-30,000
WASTE IN LIEU OF BORROW				-804,992	-804,992
PROJECT TOTAL	1,291,275		1,206,271		85,004
GRAND TOTAL	1,291,275		1,206,271		85,004
SAY	1,350,000				
PAVEMENT STRUCTURE VOLUME	47,500				
<b>EARTHWORK TOTALS FOR ALTERNATE PAVEMENT DESIGN</b>					
ADJUSTMENT FOR ALTERNATE PAVEMENT DESIGN	-13,000		10,200	23,200	
LOSS DUE TO CLEARING & GRUBBING	-30,000				-30,000
WASTE IN LIEU OF BORROW				-828,192	-828,192
PROJECT TOTAL	1,278,275		1,216,471		61,804
GRAND TOTAL	1,278,275		1,216,471		61,804
SAY	1,350,000				
PAVEMENT STRUCTURE VOLUME	35,000				

QUANTITIES ARE APPROXIMATE ONLY. THE RESIDENT ENGINEER WILL RE-CROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT. THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID.

EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. UNDERCUT = 10,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. SELECT GRANULAR MATERIAL = 35,900 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. SHALLOW UNDERCUT = 5,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015.  
 EST. DDE = 7,500 CY  
 EST. PAVEMENT STRUCTURE VOLUME = 47,500 CY  
 EST. SHOULDER BORROW = 18,000 CY  
 EST. PAVEMENT STRUCTURE VOLUME FOR ALTERNATIVE PAVEMENT DESIGN = 35,000 CY  
 EST. SHOULDER BORROW FOR ALTERNATIVE PAVEMENT DESIGN = 14,500 CY

**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

PROJ. REFERENCE NO.	SHEET NO.
U-2579C	X-1B

**Quantities are approximate only. The Resident Engineer will re-cross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.**

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

**CROSS-SECTION SUMMARY**

Station	Uncl. Exc.	Embt	Station	Uncl. Exc.	Embt	Station	Uncl. Exc.	Embt	Station	Uncl. Exc.	Embt	Station	Uncl. Exc.	Embt	Station	Uncl. Exc.	Embt
L	(cu. yd.)	(cu. yd.)	L	(cu. yd.)	(cu. yd.)	L	(cu. yd.)	(cu. yd.)	L	(cu. yd.)	(cu. yd.)	L	(cu. yd.)	(cu. yd.)	Y1	(cu. yd.)	(cu. yd.)
373+00.00	0	0	397+00.00	0	19333	418+00.00	2438	11	441+50.00	45	7062	463+50.00	13296	0	18+00.00	38	110
373+50.00	0	0	397+50.00	0	24189	418+50.00	4801	0	441+77.34	38	3025	463+87.62	9952	0	18+50.00	76	365
374+00.00	0	0	398+00.00	0	28712	419+00.00	7660	0	442+00.00	18	1144	464+00.00	3310	0	18+78.66	38	263
374+50.00	0	0	398+50.00	0	30228	419+50.00	9814	0	442+50.00	172	1384	464+50.00	13399	0	19+00.00	30	207
374+77.67	0	0	399+00.00	0	28522	420+00.00	11122	0	443+00.00	405	1858	465+00.00	13216	0	19+50.00	55	521
375+00.00	0	0	399+50.00	0	23147	420+47.15	11592	0	443+50.00	591	614	465+50.00	13141	0	20+00.00	35	621
375+50.00	0	0	400+00.00	0	16176	420+61.30	3730	0	444+00.00	1144	161	466+00.00	13469	0	20+50.00	37	524
376+00.00	0	0	400+50.00	0	10701	421+00.00	10433	0	444+50.00	1854	21	466+50.00	13678	0	21+00.00	45	353
376+50.00	0	0	401+00.00	0	6443	421+50.00	13662	0	444+77.34	1287	0	467+00.00	13152	0	21+23.74	25	169
377+00.00	0	0	401+50.00	1	3222	422+00.00	14025	0	445+00.00	1350	0	467+50.00	11961	0	21+50.00	32	202
377+50.00	0	0	402+00.00	330	1160	422+50.00	16329	0	445+50.00	4277	0	468+00.00	10332	0	21+83.74	22	255
377+77.67	0	0	402+50.00	836	392	423+00.00	17976	0	446+00.00	6120	0	468+07.62	1402	0	22+00.00	0	114
378+00.00	0	0	403+00.00	1255	255	423+50.00	16826	0	446+50.00	7804	0	468+40.00	5349	0	22+50.00	0	272
378+50.00	0	0				424+00.00	15416	0	447+00.00	9195	0	468+50.00	1465	0	23+00.00	0	205
379+00.00	0	0	Station	Uncl. Exc.	Embt	424+50.00	14057	0	447+50.00	10708	0	469+00.00	6140	0	23+40.94	0	205
379+50.00	0	0				425+00.00	13165	0				469+50.00	4055	0	23+50.00	8	87
380+00.00	0	0	L	(cu. yd.)	(cu. yd.)	425+50.00	12307	0	Station	Uncl. Exc.	Embt	470+00.00	2033	20	23+64.30	27	184
380+26.43	0	0	403+00.00	0	0	426+00.00	10565	0				470+50.00	587	413	24+00.00	48	482
380+50.00	0	0	403+50.00	2131	130	426+50.00	8138	0	L	(cu. yd.)	(cu. yd.)	471+00.00	36	1636	24+24.30	13	348
381+00.00	0	0	404+00.00	3594	31	427+00.00	5180	0	447+50.00	0	0	471+40.00	0	2452	24+50.00	8	354
381+50.00	0	0	404+50.00	6118	0	427+50.00	2108	543	448+00.00	11923	0	471+50.00	0	740	25+00.00	166	527
382+00.00	0	0	405+00.00	9092	0	428+00.00	381	1986	448+50.00	12286	0	472+42.45	0	9250	25+50.00	396	325
382+50.00	0	0	405+50.00	11101	0	428+50.00	86	3170	448+86.48	8875	0				26+00.00	321	371
383+00.00	0	0	406+00.00	12458	0	429+00.00	411	2820	449+00.00	3332	0	Station	Uncl. Exc.	Embt	26+50.00	172	424
383+50.00	0	0	406+50.00	12862	0	429+50.00	1183	1324	449+50.00	12637	0				26+89.15	187	272
384+00.00	0	0	407+00.00	12941	0	430+00.00	1854	260	450+00.00	12461	0	L	(cu. yd.)	(cu. yd.)	27+50.00	431	243
384+50.00	0	0	407+50.00	12969	0	430+50.00	2002	36	450+50.00	12306	0	474+92.45	0	0	28+13.39	385	82
385+00.00	0	0	408+00.00	12128	0	431+00.00	1536	30	451+00.00	12277	0	475+50.00	0	9568			
385+50.00	0	0	408+50.00	11620	0	431+50.00	680	275	451+50.00	11807	0	476+00.00	0	8866	Station	Uncl. Exc.	Embt
386+00.00	0	0	409+00.00	10844	0	432+00.00	155	1107	452+00.00	11966	0	476+50.00	0	7442	Y1	(cu. yd.)	(cu. yd.)
386+24.41	0	0	409+50.00	9921	34	432+50.00	64	2423	452+50.00	13566	0	477+00.00	0	5168			
386+50.00	0	0	410+06.22	10262	38	433+00.00	43	3652	453+00.00	15924	0	477+50.00	0	3228	30+34.05	0	0
386+77.67	0	0				433+50.00	57	4181	453+06.48	2251	0	478+00.00	159	1732	30+78.60	0	1754
387+00.00	0	0	Station	Uncl. Exc.	Embt	434+00.00	45	4185	453+50.00	16371	0				31+00.00	0	1352
387+50.00	0	0				434+50.00	10	4054	454+00.00	20736	0	Station	Uncl. Exc.	Embt	31+50.00	0	4252
388+00.00	0	0	L	(cu. yd.)	(cu. yd.)	435+00.00	119	3829	454+50.00	21822	0				31+78.60	0	2774
388+50.00	0	0	410+06.22	0	0	435+50.00	568	4226	455+00.00	22059	0	Y1	(cu. yd.)	(cu. yd.)	32+00.00	0	1962
389+00.00	0	0	410+50.00	7329	0	436+00.00	1178	5375	455+50.00	21521	0	10+75.00	0	0	32+50.00	0	3505
389+50.00	0	0	411+00.00	7842	0	436+50.00	1332	6939	456+00.00	20943	0	11+50.00	19	77	33+00.00	0	2383
390+00.00	0	0	411+50.00	6794	0	437+00.00	820	10002	456+50.00	20785	0	12+00.00	22	152	33+50.00	0	1982
390+50.00	0	0	412+00.00	5957	0	437+50.00	251	14580	457+00.00	21092	0	12+50.00	28	205	33+84.15	0	1090
391+00.00	0	0	412+50.00	4668	0	438+00.00	80	19194	457+50.00	21370	0	13+00.00	36	258	34+00.00	0	405
391+50.00	0	0	413+00.00	2129	0	438+50.00	91	20062	458+00.00	21891	0	13+50.00	50	301	34+44.15	0	718
392+00.00	0	0	413+50.00	305	1046	439+00.00	68	17915	458+50.00	22435	0	14+00.00	49	227	34+50.00	0	46
392+50.00	0	0	414+00.00	0	3693	439+50.00	72	15816	459+00.00	22390	0	14+50.00	37	169	35+00.00	63	186
393+00.00	0	18347	414+50.00	0	4844	440+00.00	93	13255	459+50.00	21977	0	15+00.00	42	152	35+50.00	249	0
393+50.00	0	18606	415+00.00	133	3106				460+00.00	21293	0	15+50.00	53	139	36+00.00	617	0
394+00.00	0	19259	415+50.00	1188	909	Station	Uncl. Exc.	Embt	460+50.00	20219	0	15+98.74	65	132	36+50.00	1116	0
394+50.00	0	20124	416+00.00	3593	0				461+00.00	18853	0	16+00.00	2	3	36+51.92	53	0
395+00.00	0	21764	416+50.00	5707	0	L	(cu. yd.)	(cu. yd.)	461+50.00	17647	0	16+50.00	77	83	37+00.00	1778	0
395+50.00	0	25291	417+00.00	5738	0	440+00.00	0	0	462+00.00	16381	0	17+00.00	95	80	37+50.00	2471	0
396+00.00	0	25853	417+47.15	4006	25	440+50.00	83	10886	462+50.00	15240	0	17+50.00	107	152	38+00.00	2604	0
396+50.00	0	20684	417+61.30	892	11	441+00.00	56	8956	463+00.00	14140	0	17+78.66	57	117	38+50.00	2517	0

# Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: U-2579C

COUNTY: Forsyth

DATE: 10/23/2017

COMPILED BY: JMB

SHEET 1 OF 1

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +20%		ROCK	SUITABLE	UNSUIT.	TOTAL
-Y3- 13+25.00	-Y3- 26+50.00	397				397	4,001		4,001	4,801	4,404				
-Y4- 10+10.00	-Y4- 12+42.12	59				59	272		272	326	267				
-L- 392+50.00	-L- 403+00.00	2,422				2,422	362,408		362,408	434,890	432,468				
-L- 403+00.00	-L- 410+06.22	138,041				138,041	233		233	280			137,761		137,761
-Y1RPB- 19+00.00	-Y1RPB- 32+00.00	61,361				61,361	97,709		97,709	117,251	55,890				
-Y1RPC- 18+35.00	-Y1RPC- 31+11.75	5,112				5,112	115,418		115,418	138,502	133,390				
-Y1LPB- 13+50.00	-Y1LPB- 18+00.00	20,095				20,095	38		38	46			20,049		20,049
*-Y1- 10+75.00	-Y1- 28+13.39	3,334				3,334	10,332		10,332	12,398	9,064				
*-Y1- 30+34.05	-Y1- 48+50.00	26,661				26,661	27,486		27,486	32,983	6,322				
-DR2- 10+16.50	-DR2- 12+10.00	25				25	858		858	1,030	1,005				
-Y1DET- 15+93.03	-Y1DET- 33+46.92	6,019				6,019	10,293		10,293	12,352	6,333				
	<b>SUBTOTAL</b>	263,526				263,526	629,048		629,048	754,859	649,143			157,810	157,810
-L- 410+06.22	-L- 440+00.00	290,804				290,804	174,884		174,884	209,861				80,943	80,943
-L- 440+00.00	-L- 447+50.00	45,157				45,157	35,111		35,111	42,133				3,024	3,024
-Y1RPD- 18+60.00	-Y1RPD- 31+50.00	24,095				24,095	113,346		113,346	136,015	111,920				
*-Y2- 10+00.00	-Y2- 20+18.52	2,491				2,491	772		772	926				1,565	1,565
*-Y2- 22+40.27	-Y2- 26+50.00	575				575	960		960	1,152	577				
-SRSA- 10+00.00	-SRSA- 12+00.00	493				493	11		11	13				480	480
-SRSA- 29+50.00	-SRSA- 31+00.00	438				438	17		17	20				418	418
-Y2DET- 15+00.00	-Y2DET- 20+00.00	577				577	736		736	883	306				
-Y2DET- 23+00.00	-Y2DET- 28+03.31	1,104				1,104	10		10	12				1,092	1,092
	<b>SUBTOTAL</b>	365,734				365,734	325,847		325,847	391,015	112,803			87,522	87,522
-L- 447+50.00	-L- 472+42.45	691,856	1,107			690,749	14,511	1,107	13,404	17,192				674,664	674,664
	<b>SUBTOTAL</b>	691,856	1,107			690,749	14,511	1,107	13,404	17,192				674,664	674,664
-L- 474+97.45	-L- 478+00.00	159				159	36,004		36,004	43,205	43,046				
	<b>SUBTOTAL</b>	159				159	36,004		36,004	43,205	43,046				
<b>TOTAL</b>		1,321,275	1,107			1,320,168	1,005,410	1,107	1,004,303	1,206,271	804,992			919,996	919,996
LOSS DUE TO CLEARING & GRUBBING		-30,000				-30,000								-30,000	-30,000
WASTE IN LIEU OF BORROW											-804,992			-804,992	-804,992
<b>PROJECT TOTAL</b>		1,291,275	1,107			1,290,168	1,005,410	1,107	1,004,303	1,206,271				85,004	85,004
<b>GRAND TOTAL</b>		1,291,275	1,107			1,290,168	1,005,410	1,107	1,004,303	1,206,271				85,004	85,004
<b>SAY</b>		1,350,000													

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. DDE = 7,500 CUBIC YARDS

EST. UNDERCUT = 10,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. SELECT GRANULAR MATERIAL = 35,900 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. SHALLOW UNDERCUT = 5,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. CLASS IV SUBGRADE STABILIZATION = 9,500 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. PAVEMENT STRUCTURE VOLUME = 47,500 CY

EST. SHOULDER BORROW = 18,000 CY

\* EXCAVATION INCLUDES DETOUR REMOVAL



# Earthwork Balance Sheet Alternative Pavement Design

Volumes in Cubic Yards

PROJECT: U-2579C

COUNTY: Forsyth

DATE: 10/23/2017

COMPILED BY: JMB

SHEET 1 OF 1

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +20%		ROCK	SUITABLE	UNSUIT.	TOTAL
-Y3- 13+25.00	-Y3- 26+50.00	397				397	4,001		4,001	4,801	4,404				
-Y4- 10+10.00	-Y4- 12+42.12	59				59	272		272	326	267				
-L- 392+50.00	-L- 403+00.00	2,422				2,422	362,408		362,408	434,890	432,468				
-L- 403+00.00	-L- 410+06.22	138,041				138,041	233		233	280			137,761		137,761
-Y1RPB- 19+00.00	-Y1RPB- 32+00.00	61,361				61,361	97,709		97,709	117,251	55,890				
-Y1RPC- 18+35.00	-Y1RPC- 31+11.75	5,112				5,112	115,418		115,418	138,502	133,390				
-Y1LPB- 13+50.00	-Y1LPB- 18+00.00	20,095				20,095	38		38	46			20,049		20,049
*-Y1- 10+75.00	-Y1- 28+13.39	3,334				3,334	10,332		10,332	12,398	9,064				
*-Y1- 30+34.05	-Y1- 48+50.00	26,661				26,661	27,486		27,486	32,983	6,322				
-DR2- 10+16.50	-DR2- 12+10.00	25				25	858		858	1,030	1,005				
-Y1DET- 15+93.03	-Y1DET- 33+46.92	6,019				6,019	10,293		10,293	12,352	6,333				
	<b>SUBTOTAL</b>	263,526				263,526	629,048		629,048	754,859	649,143			157,810	157,810
-L- 410+06.22	-L- 440+00.00	290,804				290,804	174,884		174,884	209,861			80,943		80,943
-L- 440+00.00	-L- 447+50.00	45,157				45,157	35,111		35,111	42,133			3,024		3,024
-Y1RPD- 18+60.00	-Y1RPD- 31+50.00	24,095				24,095	113,346		113,346	136,015	111,920				
*-Y2- 10+00.00	-Y2- 20+18.52	2,491				2,491	772		772	926			1,565		1,565
*-Y2- 22+40.27	-Y2- 26+50.00	575				575	960		960	1,152	577				
-SRSA- 10+00.00	-SRSA- 12+00.00	493				493	11		11	13			480		480
-SRSA- 29+50.00	-SRSA- 31+00.00	438				438	17		17	20			418		418
-Y2DET- 15+00.00	-Y2DET- 20+00.00	577				577	736		736	883	306				
-Y2DET- 23+00.00	-Y2DET- 28+03.31	1,104				1,104	10		10	12			1,092		1,092
	<b>SUBTOTAL</b>	365,734				365,734	325,847		325,847	391,015	112,803			87,522	87,522
-L- 447+50.00	-L- 472+42.45	691,856	1,107			690,749	14,511	1,107	13,404	17,192			674,664		674,664
	<b>SUBTOTAL</b>	691,856	1,107			690,749	14,511	1,107	13,404	17,192			674,664		674,664
-L- 474+97.45	-L- 478+00.00	159				159	36,004		36,004	43,205	43,046				
	<b>SUBTOTAL</b>	159				159	36,004		36,004	43,205	43,046				
<b>TOTAL</b>		1,321,275	1,107			1,320,168	1,005,410	1,107	1,004,303	1,206,271	804,992			919,996	919,996
ADJUST FOR ALTERNATIVE PAVEMENT DESIGN		-13,000				-13,000	8,500		8,500	10,200	23,200				
LOSS DUE TO CLEARING & GRUBBING		-30,000				-30,000								-30,000	-30,000
WASTE IN LIEU OF BORROW														-828,192	-828,192
<b>PROJECT TOTAL</b>		1,278,275	1,107			1,277,168	1,013,910	1,107	1,012,803	1,216,471				61,804	61,804
<b>GRAND TOTAL</b>		1,278,275	1,107			1,277,168	1,013,910	1,107	1,012,803	1,216,471				61,804	61,804
<b>SAY</b>		1,350,000													

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. DDE = 7,500 CUBIC YARDS

EST. UNDERCUT = 10,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 22, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. SELECT GRANULAR MATERIAL = 35,900 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 2, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. SHALLOW UNDERCUT = 5,000 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 2, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. CLASS IV SUBGRADE STABILIZATION = 9,500 CY CONTINGENCY PER GEOTECH RECOMMENDATIONS DATED SEPTEMBER 2, 2015 TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.

EST. PAVEMENT STRUCTURE VOLUME = 35,000 CY

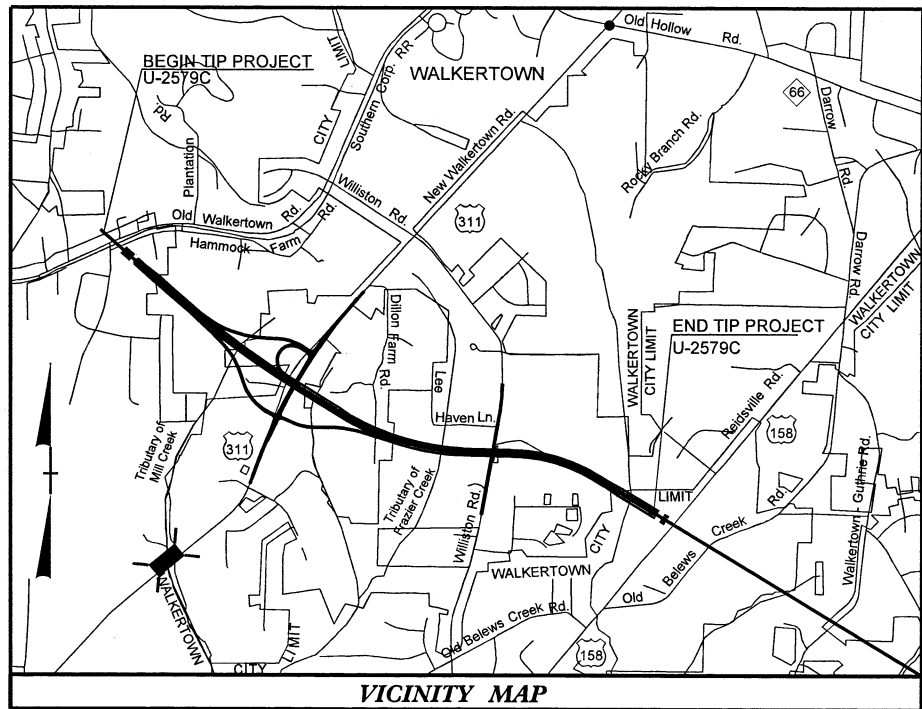
EST. SHOULDER BORROW = 14,500 CY

\* EXCAVATION INCLUDES DETOUR REMOVAL



**TIP PROJECT: U-2579C**

**CONTRACT: C203979**



**VICINITY MAP**

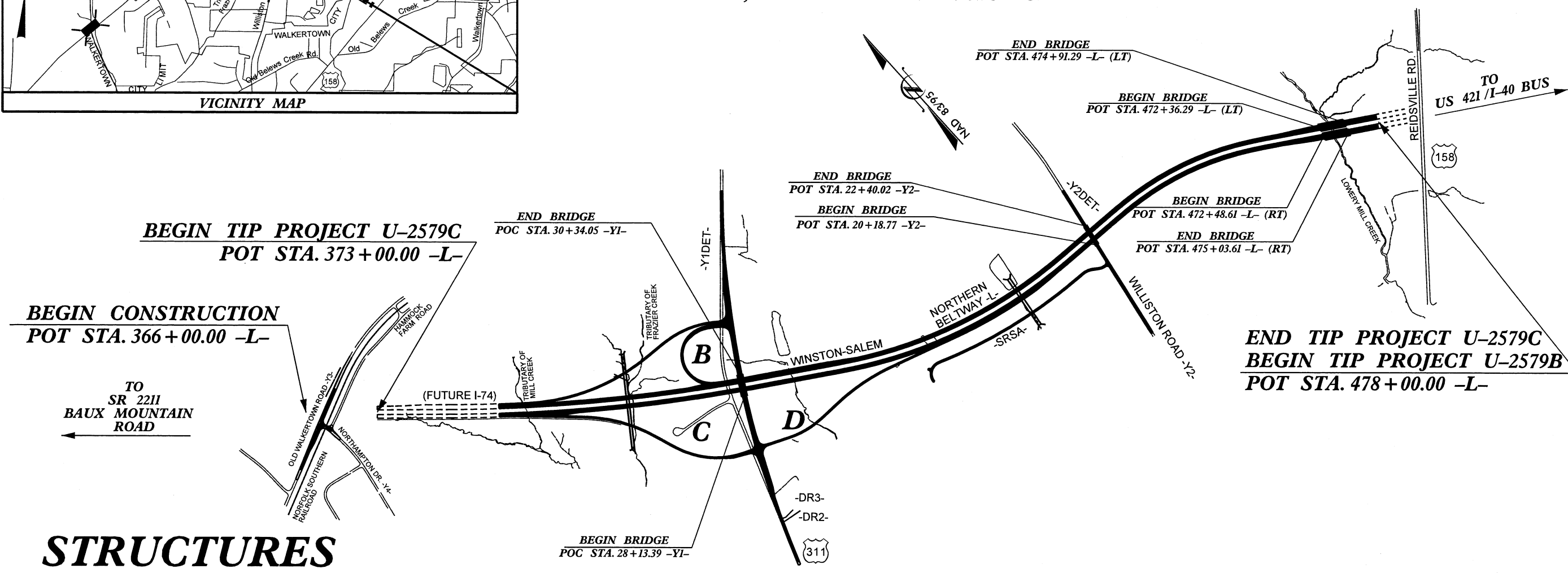
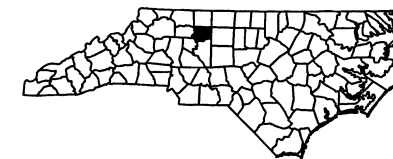
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# FORSYTH COUNTY

**LOCATION: WINSTON - SALEM NORTHERN BELTWAY (EASTERN SECTION)  
FROM US 311 TO US 158 (FUTURE I-74)**

**TYPE OF WORK: WIDENING, GRADING, PAVING, DRAINAGE, SIGNING, SIGNALS,  
ITS, CULVERTS AND STRUCTURES.**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2579C		
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34839.1.9	N/A	PE	
34839.2.6	N/A	R/W	
34839.2.GV18	N/A	R/W	
34839.2.16	N/A	UTIL	
34839.3.GV6	NHP-0918(062)	CONSTR.	



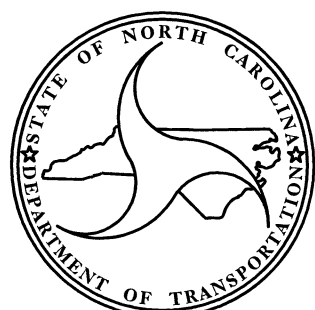
**BEGIN TIP PROJECT U-2579C  
POT STA. 373+00.00 -L-**

**BEGIN CONSTRUCTION  
POT STA. 366+00.00 -L-**

**TO  
SR 2211  
BAUX MOUNTAIN  
ROAD**

**END TIP PROJECT U-2579C  
BEGIN TIP PROJECT U-2579B  
POT STA. 478+00.00 -L-**

## STRUCTURES



**DESIGN DATA**

ADT 2017 = 65,592  
ADT 2037 = 93,112  
DHV = 10 %  
D = 60 %  
T = 18 % \*  
V = 70 MPH

\* TTST 12 % DUAL 6 %

**PROJECT LENGTH**

LENGTH OF ROADWAY PROJECT U-2579C = 1.941 Miles  
LENGTH OF STRUCTURE PROJECT U-2579C = 0.048 Mile  
TOTAL LENGTH OF TIP PROJECT U-2579C = 1.989 Miles

Prepared In the Office of:  
**DIVISION OF HIGHWAYS**  
STRUCTURES MANAGEMENT UNIT  
1000 BIRCH RIDGE DR.  
RALEIGH, N.C. 27610

2012 STANDARD SPECIFICATIONS

**LETTING DATE :**  
NOVEMBER 21, 2017

**A. KEITH PASCHAL, P.E.**  
PROJECT ENGINEER

**MARC G. CHEEK, P.E.**  
PROJECT DESIGN ENGINEER