DocuSign Envelope ID: 94B1E7FA-14AD-4E4E-996D-9BBD6EDD205C

8/17/99

| PROJECT REFERENCE NO. | SHEET NO. |
|---|---|
| 17BP.8.R.115 | 1A |

CH ENGINEERING
3220 GLEN ROYAL RD. RALEIGH, NC 27617
TELE 919.788.0224 FAX 919.788.0232
NC LICENSE #P-0189

ROADWAY DESIGN ENGINEER
4/26/2017
NORTH CAROLINA PROFESSIONAL SEAL 16689 ENGINEER BRIAN ALLEN WILES
DocuSign Envelope ID: 889DD0FEA2E34D0E
Brian A Wiles

**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

INDEX OF SHEETS


| SHEET NUMBER | SHEET |
|---|---|
| 1 | TITLE SHEET |
| 1A | INDEX OF SHEETS, GENERAL NOTES AND STANDARD DRAWINGS |
| 1B | CONVENTIONAL SYMBOLS |
| 1C-1 | SURVEY CONTROL SHEETS |
| 2A-1 | PAVEMENT SCHEDULE, TYPICAL SECTIONS AND WEDGING DETAILS |
| 2C-1 | DETAIL OF STRUCTURE ANCHOR UNIT, TYPE III |
| 3B-1 | SUMMARIES OF EARTHWORK, ASPHALT PAVEMENT REMOVAL, SHOULDER BERM GUTTER AND GUARDRAIL |
| 3D-1 | LIST OF PIPES, ENDWALLS, ETC. (for PIPES 48" & UNDER) |
| 3G-1 | SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION |
| 4 | PLAN SHEET |
| 5 | PROFILE SHEET |
| TMP-1 THRU TMP-3 | TRAFFIC MANAGEMENT PLANS |
| EC-1 THRU EC-5 | EROSION CONTROL PLANS |
| UO-1 THRU UO-2 | UTILITIES BY OTHERS PLANS |
| X-1 THRU X-12 | CROSS-SECTIONS |
| S-1 THRU S-20 | STRUCTURE PLANS |


GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 01-24-2017

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Duke Energy Progress - Power, Randolph Telephone Membership Corporation - Telephone and Randolph Telephone Membership Corporation - CATV.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

EFF. 01-17-2012
REV. 02-29-2016

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

| STD.NO. | TITLE |
|---|---|
| DIVISION 2 - EARTHWORK | |
| 200.03 | Method of Clearing - Method III |
| 225.02 | Guide for Grading Subgrade - Secondary and Local |
| 225.04 | Method of Obtaining Superelevation - Two Lane Pavement |
| DIVISION 3 - PIPE CULVERTS | |
| 300.01 | Method of Pipe Installation |
| DIVISION 4 - MAJOR STRUCTURES | |
| 422.11 | Bridge Approach Fills - Sub Regional Tier |
| DIVISION 5 - SUBGRADE, BASES AND SHOULDERS | |
| 560.01 | Method of Shoulder Construction - High Side of Superelevated Curve - Method I |
| DIVISION 8 - INCIDENTALS | |
| 806.01 | Concrete Right-of-Way Marker |
| 806.02 | Granite Right-of-Way Marker |
| 840.00 | Concrete Base Pad for Drainage Structures |
| 840.25 | Anchorage for Frames - Brick or Concrete or Precast |
| 840.29 | Frames and Narrow Slot Flat Grates |
| 840.35 | Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates |
| 840.46 | Traffic Bearing Precast Drainage Structure |
| 840.66 | Drainage Structure Steps |
| 846.01 | Concrete Curb, Gutter and Curb & Gutter |
| 846.04 | Drop Inlet Installation in Shoulder Berm Gutter |
| 862.01 | Guardrail Placement |
| 862.02 | Guardrail Installation |
| 876.01 | Rip Rap in Channels |
| 876.02 | Guide for Rip Rap at Pipe Outlets |

4/3/2017
R:\Roadway\Proj\Ran128_Rdy_tsh_1A.dgn
ltrenkner