PROJECT REFERENCE NO.	SHEET NO.
R-29/5D	/Δ

ROADWAY DESIGN ENGINEER

CARO

SEESSION

12229/20145 EAL

034375

Docusinally C. Shirting

INDEX OF SHEETS SHEET NUMBER SHEET TITLE SHEET INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS CONVENTIONAL SYMBOLS 1C-1 THRU 1C-4 SURVEY CONTROL SHEETS 2A-1 THRU 2A-7 TYPICAL SECTIONS, PAVEMENT SCHEDULE, WEDGING DETAILS GEOTEXTILE FOR PAVEMENT STABILIZATION DETAILS, AND MILLING DETAIL DETAIL OF REINFORCED CONCRETE ENDWALL FOR 84" DIAMTER PIPE - 90DEG SKEW DETAIL OF PIPE COLLAR 2C-2 DETAIL OF 2'-9" CONCRETE CURB AND GUTTER 2C-4 DETAIL OF GUIDE FOR BERM DRAINAGE OUTLET - 36" PIPE 2C-5 DETAIL TO CONVERT EXISTING DI, CB, OTCB OR GI TO JUNCTION BOX DETAIL OF TRAFFIC BEARING DROP INLET UP TO 36" RCPS 2C-7 DETAIL OF 2'-9" TO FRAME AND GRATE 2C-8 DETAIL OF DROP INLETS IN MONOLITHIC ISLANDS DETAIL OF SPECIAL JUNCTION BOX 20-10 DETAIL OF TEMPORARY STEEL COVER 2D-1 DRAINAGE DETAIL SHEET STANDARD TEMPORARY SHORING DETAIL 2G-2 THRU 2G-3 STANDARD REINFORCED SOIL SLOPE SUMMARY OF GUARDAIL SUMMARIES OF PAVEMENT REMOVAL, EXPRESSWAY GUTTER, SHOULDER BERM GUTTER, AND FENCE SUMMARY OF EARTHWORK 3D-1 THRU 3D-9 DRAINAGE SUMMARIES GEOTECHNICAL SUMMARIES 3P-1 PARCEL INDEX SHEET 4 THRU 23 PLAN SHEETS 24 THRU 35 PROFILE SHEETS TMP-1 THRU TMP-81 TRANSPORTATION MANAGEMENT PLANS PMP-1 THRU PMP-19 PAVEMENT MARKING PLANS EC-1 THRU EC-43 EROSION CONTROL PLANS RF-1 THRU RF-3 REFORESTATION PLANS SIGN-1 THRU SIGN-22 SIGNING PLANS SIG-1.0 THRU SIG-6.2 SIGNAL PLANS METAL POLE STANDARD DRAWINGS SIG-MI THRU SIG-M9 UTILITIES CONSTRUCTION PLANS UC-1 THRU UC-12 UO-1 THRU UO-16 UTILITIES BY OTHERS PLANS INDEX OF CROSS-SECTIONS X-1A

CROSS-SECTION SUMMARY SHEET

CROSS-SECTIONS

CULVERT PLANS

GENERAL NOTES:

2012 SPECIFICATIONS

EFFECTIVE: 01-17-2012

REVISED: 07-30-2012

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED 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.

# BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

## UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

## 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 NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

## UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE BREMCO, SKYLINE SKYBEST, MORRIS BROADBAND, FRONTIER NATURAL GAS, AND CENTURY LINK.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

# RIGHT-OF-WAY MARKERS:

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

## ROCK

ROCK IS ANTICIPATED BETWEEN -L- 456+00 TO 460+00, -L- 558+50 TO 559+50, -L- 601+00 TO 604+50, -L- 630+50 TO 632+00. BLASTING MAY BE REQUIRED FOR EXCAVATION ON THE PROJECT. SEE SECTION 220 OF THE STANDARD SPECIFICATIONS AND IF APPLICABLE, ROCK BLASTING PROVISION.

EFF. 01-17-2012 REV. 10-30-2012

#### 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.
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
225.06 Method of Grading Sight Distance at Intersections
240.01 Guide for Berm Ditch Construction
DIVISION 3 - PIPE CULVERTS
300.01 Method of Pipe Installation
310.10 Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS
560.01 Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS
654.01 Pavement Repairs
DIVISION 8 - INCIDENTALS
815.03 Pipe Underdrain and Blind Drain
838.01 Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11 Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.27 Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
838.45 Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40
        Reinforced Brick Endwall - 60" Pipe 90 Skew
        Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70
        Precast Endwalls - 12" thru 72" Pipe 90 Skew
840.00
         Concrete Base Pad for Drainage Structures
840.01
        Brick Catch Basin – 12" thru 54" Pipe
        Concrete Catch Basin – 12" thru 54" Pipe
840.02
        Frame, Grates and Hood - for Use on Standard Catch Basin
840.03
        Concrete Open Throat Catch Basin - 12" thru 48" Pipe
        Concrete Drop Inlet – 12" thru 30" Pipe
        Brick Drop Inlet – 12″ thru 30″ Pipe
840.16
        Drop Inlet Frame and Grates – for use with Std. Dwg 840.14 and 840.15
        Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.17
        Concrete Grated Drop Inlet Type 'B' – 12" thru 36" Pipe
840.18
         Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
        Frames and Wide Slot Flat Grates
840.22 Frames and Wide Slot Sag Grates
840.24 Frames and Narrow Slot Sag Grates
840.25 Anchorage for Frames - Brick or Concrete or Precast
840.26 Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.27 Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.28 Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.29 Frames and Narrow Slot Flat Grates
840.31 Concrete Junction Box - 12" thru 66" Pipe
840.32 Brick Junction Box - 12" thru 66" Pipe
840.34 Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35 Traffic Bearing Grated Drop Inlet – for Cast Iron Double Frame and Grates
840.45 Precast Drainage Structure
840.46 Traffic Bearing Precast Drainage Structure
840.54 Manhole Frame and Cover
840.66 Drainage Structure Steps
840.71 Concrete and Brick Pipe Plug
        Concrete Curb, Gutter and Curb & Gutter
        Drop Inlet Installation in Shoulder Berm Gutter
850.01 Concrete Paved Ditches
850.10 Guide for Berm Drainage Outlet - 15" and 18" Pipe
850.11 Guide for Berm Drainage Outlet - 24" and 30" Pipe
852.01 Concrete Islands
        Method for Placement of Drop Inlets in Concrete Islands
852.06
852.10 Median Construction - with Curb and Gutter
862.01 Guardrail Placement
862.02 Guardrail Installation
866.02 Woven Wire Fence - with Wood Post
866.04 Barbed Wire Fence with Wood Posts (2 - 7 Strands)
876.01 Rip Rap in Channels
876.02 Guide for Rip Rap at Pipe Outlets
876.04 Drainage Ditches with Class 'B' Rip Rap
```

X-1B THRU X-1E

X-1 THRU X-215

C-1 THRU C-6