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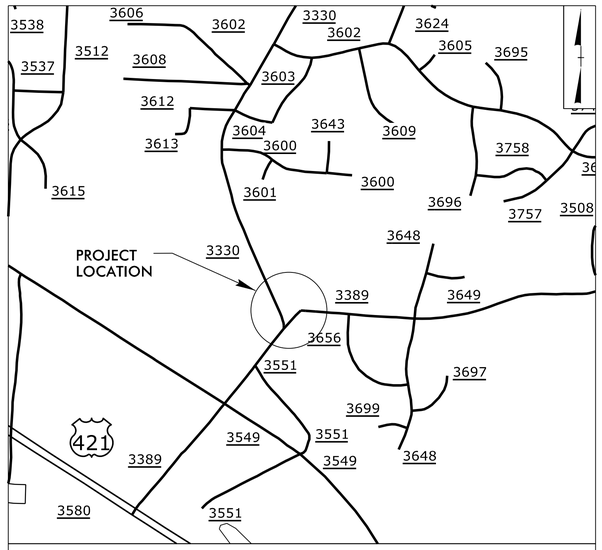
09/08/99

WBS NUMBER: 7C.041253

CONTRACT:

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional symbols
See Sheet 1C For Survey Control Sheet



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUILFORD COUNTY

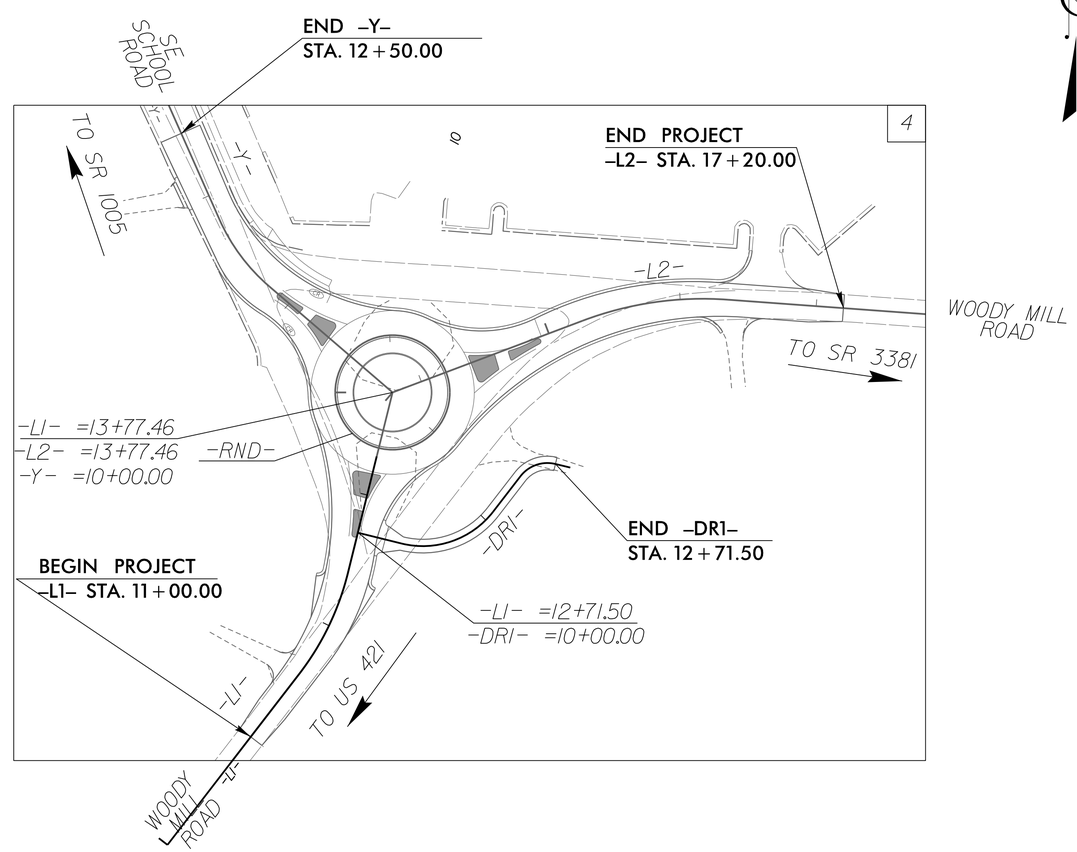
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	7C.041253	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
7C.041038	N/A	PE
7C.041253		CONST.

LOCATION: INTERSECTION OF SOUTHEAST SCHOOL ROAD AND WOODY MILL ROAD

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

NAD 83



THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2011 = 6,900
ADT 2024 = 9,500
DHV = %
D = 50 %
T = 6 % *
V = 35 MPH
* TTST = 2, DUAL = 4
FUNC CLASS = MAJOR COLLECTOR
DESIGN VEHICLE = WB-62

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT 7C.041253 = 0.117 MI

Prepared in the Office of:

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

BEN CRAWFORD, PE
PROJECT ENGINEER

MATTHEW COPPLE, PE
PROJECT DESIGN ENGINEER

CHRIS SMITHERMAN, PE
NCDOT CONTACT

HYDRAULICS ENGINEER

5/8/2015

DocuSigned by:
Elizabeth G. Dinkelle
274A2109D0C24A0...

SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 42066 ENGINEER ELIZABETH G. DINKELLE P.E.

ROADWAY DESIGN ENGINEER

5/8/2015

DocuSigned by:
Matthew Copple
C5BA8B9DE1B41E...

SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER MATTHEW B. COPPLE P.E.

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

5/7/2015
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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	1A

ROADWAY DESIGN ENGINEER
5/8/2015
NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER MATTHEW COPPLE
Matthew Copple
23BABBC6F43F41E...

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C	SURVEY CONTROL SHEET
2A-1	PAVEMENT SCHEDULE, TYPICAL SECTIONS, MILLING AND WEDGING DETAILS
2B-1	ROUNDABOUT DETAIL
3B-1	EARTHWORK SUMMARY AND ASPHALT PAVEMENT REMOVAL SUMMARY
3D-1	SUMMARY OF DRAINAGE QUANTITIES
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-5	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-7	SIGNING PLANS
X-1 THRU X-10	CROSS-SECTIONS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07/30/12

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 CENTERLINE 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 II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICL 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.

SHOULDER DRAINS:

SHOULDER DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 816.03 AND DETAILS IN PLANS AT LOCATIONS DIRECTED BY ENGINEER.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3' RADII OR RADII AS SHOWN ON THE PLANSE. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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	
200.02	Method of Clearing - Method II
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
310.02	Parallel Pipe End Section - Precast Concrete Section for 15" to 24" Pipe
310.03	Cross Pipe End Section - Precast Concrete Section for 18" to 30" Pipe
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	
840.00	Concrete Base Pad for Drainage Structures
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.20	Frames and Wide Slot Flat Grates
840.22	Frames and Wide Slot Sag Grates
840.24	Frames and Narrow Slot Sag Grates
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.05	Curb Ramp - Proposed Curb & Gutter
852.01	Concrete Islands
876.02	Guide for Rip Rap at Pipe Outlets

5/7/2015
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12/05/11

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	1B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line
- Designated U/G Water Line (S.U.E.*)
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

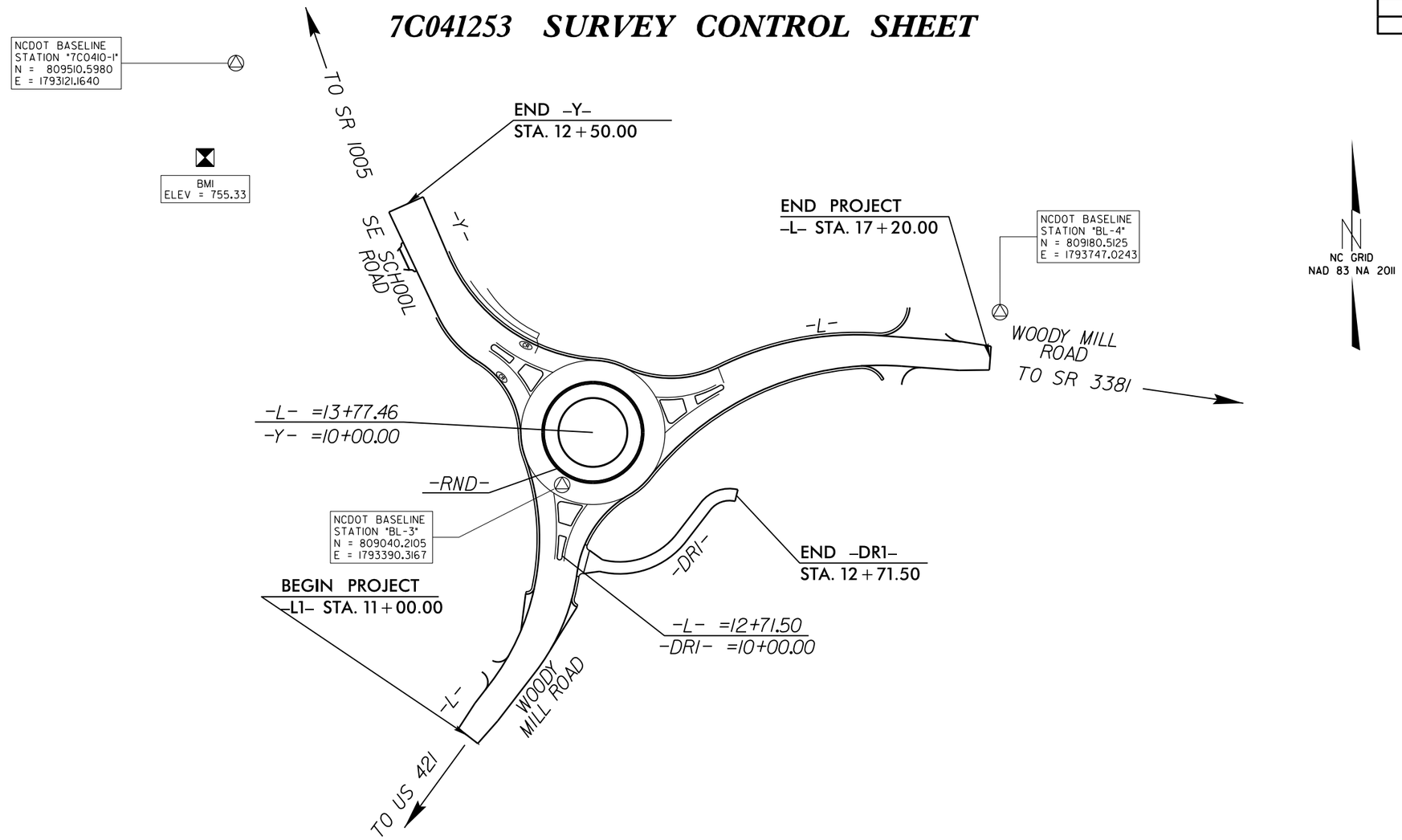
- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	1C
Location and Surveys	

7C041253 SURVEY CONTROL SHEET



NOTES

1. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:*
   HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/

   THE FILES TO BE FOUND ARE AS FOLLOWS:
   b4131_ls_control_051201.txt

   SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

◎ *INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.*
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "7C0410-1"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 809510.5980(ft) EASTING: 1793121.1640(ft)
ELEVATION: 763.77'(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999198344
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "7C0410-1" TO -L- STATION 11+00.00 IS
S 15°17'11" E 706.76'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

BASELINE DATA

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
2	7C0410-2	810374.5640	1792822.1650	796.28	13+77.46	1421.07 RT
1	7C0410-1	809510.5980	1793121.1640	763.77	13+77.46	518.13 RT
3	BL-3	809040.2105	1793390.3167	759.19	13+32.35	10.68 LT
4	BL-4	809180.5125	1793747.0243	763.18	17+22.03	37.49 LT

BENCHMARK DATA

BM1 ELEVATION = 755.33
N 809437 E 1793094
BL STATION 14+64.00 60 RIGHT
151NSWEETGU

NOTE: DRAWING NOT TO SCALE

12/01/2005
11-MAY-2015 16:24
S:\DOC\3-Guilford\Roundabout, S.E. School @ Woody Mill Rd\Roadway\Proj\Survey Control Sheet\7c041253_ls_lc_150511.dgn
programmeckt at 07/20/2017/16

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8/17/99

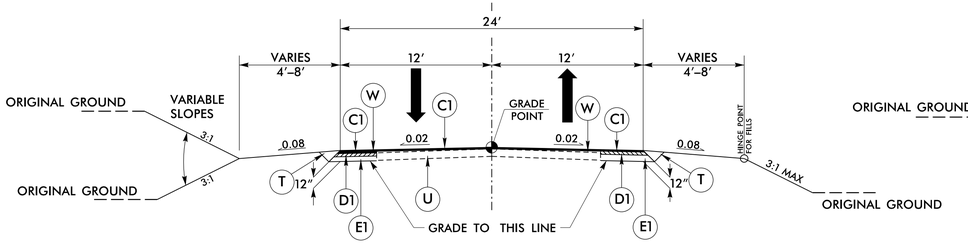
PROJECT REFERENCE NO.	SHEET NO.
7C.041253	2A-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
5/8/2015	5/11/2015

NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER MATTHEW L. CORYL
DocuSigned by: Matthew Coryl
23BABBC6F43F41E...

NORTH CAROLINA PROFESSIONAL SEAL 30995 ENGINEER CHRISTOPHER A. SMITHER
DocuSigned by: Chris Smither
EA7926E3CDA446A...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Phone: 919-789-8953
Fax:919-789-9591
License: C-2107

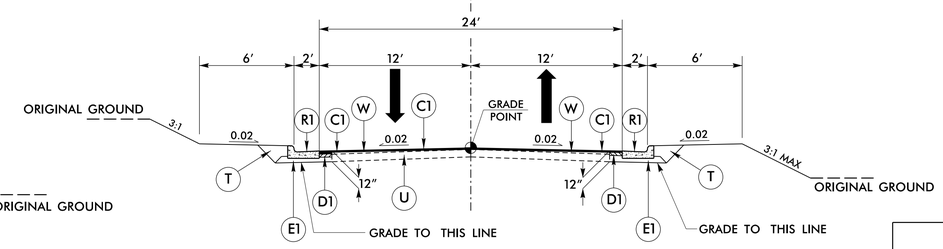
℄ –L1–, –L2–



ROADWAY TYPICAL SECTION NO. 1

–L1– STA. 11+00.00 TO 12+34.13
–L2– STA. 16+32.69 TO 17+20.00 RT
–L2– STA. 16+50.16 TO 17+20.00 LT

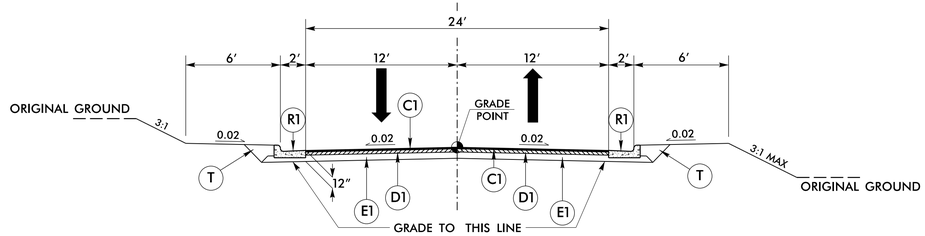
℄ –L1–, –L2–, –Y–



ROADWAY TYPICAL SECTION NO. 2

–L1– STA. 12+34.13 TO 12+75.00
–L2– STA. 15+25.00 TO 16+32.69 RT
–L2– STA. 15+25.00 TO 16+50.16 LT
–Y– STA. 10+60.00 TO 12+50.00

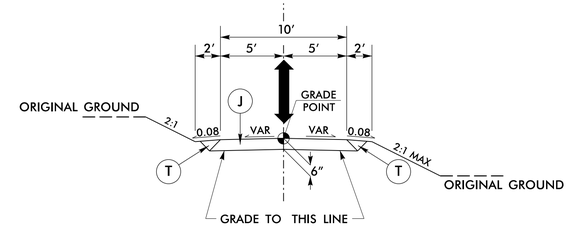
℄ –L1–, –L2–



ROADWAY TYPICAL SECTION NO. 3

–L1– STA. 12+75.00 TO 13+17.46
–L2– STA. 14+37.46 TO 15+25.00

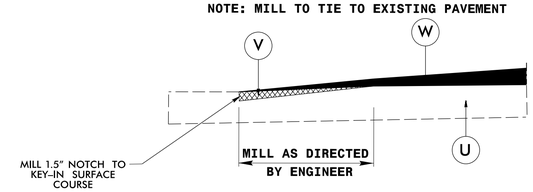
℄ –DR1–



ROADWAY TYPICAL SECTION NO. 4

–DR1– STA. 10+22.69 TO 11+69.78

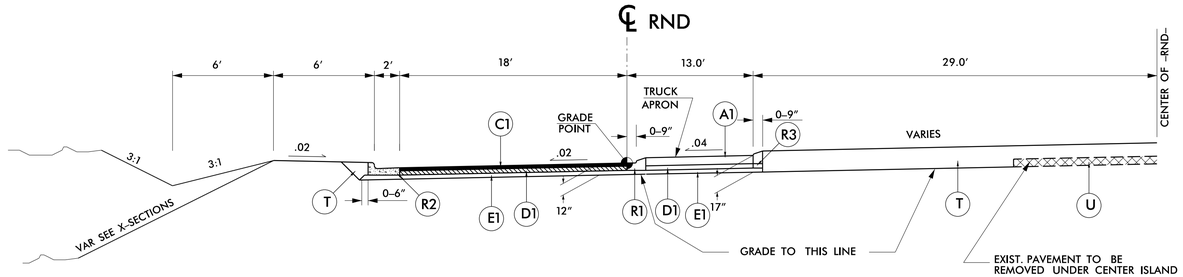
NOTE: MILL TO TIE TO EXISTING PAVEMENT



INCIDENTAL MILLING DETAIL

–L1– 11+00.00
–L2– 17+20.00
–Y– 12+50.00

℄ RND



Roundabout
TYPICAL SECTION 5

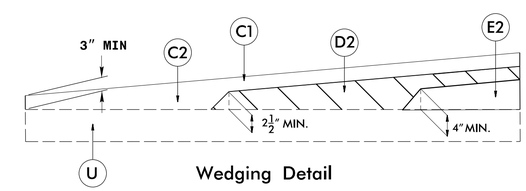
–RND– STA. 10+00.00 TO 12+63.89

PAVEMENT SCHEDULE

(FINAL PAVEMENT DESIGN)

A1	8″ PORTLAND CEMENT CONCRETE TRUCK APRON.
C1	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2″ IN DEPTH.
D1	PROP. APPROX. 4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.
E1	PROP. APPROX. 5″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 4″ IN DEPTH OR GREATER THAN 5½″ IN DEPTH.
J	PROP 6″ AGGREGATE BASE COURSE
R1	1′-6″ CONCRETE CURB AND GUTTER.
R2	2′-6″ CONCRETE CURB AND GUTTER.
R3	9″X18″ CONCRETE CURB.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	VARIABLE MILLING.
W	WEDGING (SEE STANDARD WEDGING DETAIL)

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



Wedging Detail

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PROJECT REFERENCE NO.	SHEET NO.
7C.041253	2B-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/8/2015
NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER MATTHEW B. COPPLE
Matthew Copple
23BABBC6F63F41E...

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Tel:919-789-9977
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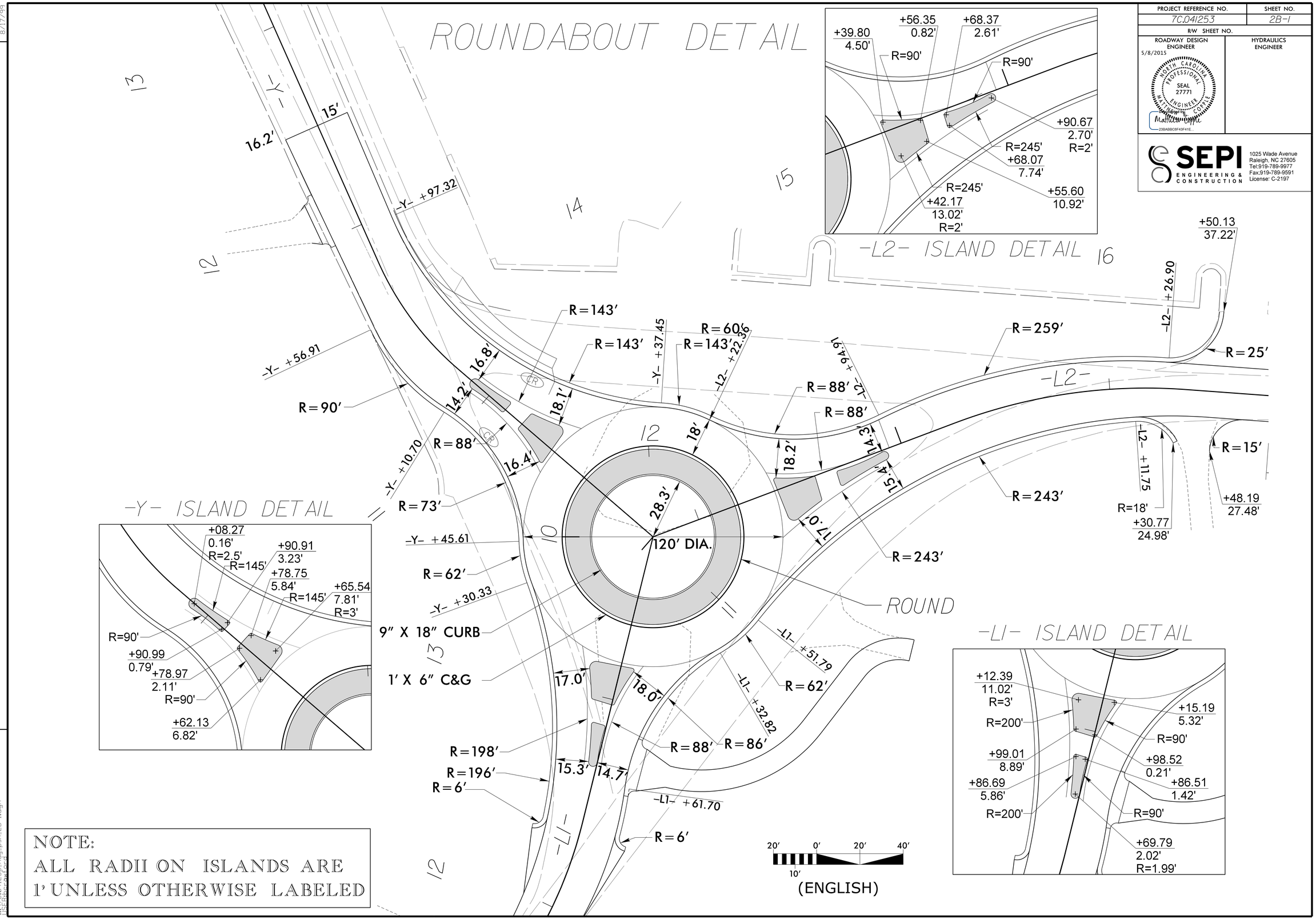

NOTE:
ALL RADII ON ISLANDS ARE 1' UNLESS OTHERWISE LABELED

REVISIONS

8/17/99

5/7/2015
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5/14/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	3B-1
R/W SHEET NO.	____

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASS EXCAV	UNDERCUT	EMBT+%	BORROW	WASTE
–L1– STA. 11+00.00 TO 13+00.00 (Roundabout)	22		296	274	
–L2– STA. 14+50.00 (Roundabout) TO 17+00.00	136		326	190	
–Y– STA. 11+00.00 (Roundabout) TO 12+50.00	25		212	187	
–RND– STA. 10+00.00 TO 12+50.00	5		2,322	2,317	
–DR1– STA. 10+25.00 TO 11+50.00	6		46	40	
SUBTOTAL	194		3,203	3,009	
TOTAL	194		3,203	3,009	
LOSS DUE TO CLEAR & GRUB. (DEPTH OF 2")					
WASTE IN LIEU OF BORROW					
ADDITIONAL UNDERCUT					
PROJECT TOTAL	194		3,203	3,009	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				150	
GRAND TOTAL	194		3,203	3,159	
SAY	200		3,250		

NOTE: EMBANKMENT INCLUDES UNDERCUT EXCAVATION

Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

SUMMARY OF PAVEMENT REMOVAL
IN SQUARE YARDS

LOCATION	ASPHALT REMOVAL
–L1– STA. 12+39.65 TO –L2– 15+25.29	311.35
–Y– STA. 10+59.90 TO –Y– 11+10.79	41.50
–Y– STA. 11+25.25 TO –L2– 15+40.03	459.93

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COMPUTED BY: Elizabeth (Liz) DiNatale, PE DATE: 5/1/2015

CHECKED BY: DATE:

PROJECT NO.	SHEET NO.
7C.041253	3D-1

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".**

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

(RCP, CSP, CAAP, HDPE, or PVC)

LINE & STATION SIZE THICKNESS OR GAUGE	OFFSET		STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %	12	15	18	24	30	36	42	48	54	60	66	72	78	84		DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
11+53 -Y-	19	LT	0419		759.6																							
			0419	0409		754.0	753.7																					
11+44 -Y-	19	RT	0407		759.0																							
11+36 -Y-	22	LT	0409		757.9						4																	
11+48 -Y-	31	RT	0408																									
			0408	0407		757.4	754.3				13													X		X	X	X
11+07 -Y-	53	RT	0415																									
			0415	0407		757.6	754.3			46															X	X	X	X
11+89 -Y-	16	RT	0418		758.8																							
			0418	0407		755.0	754.3																					
12+22 -Y-	32	LT	0413		758.0																							
			0413	0419		754.9	754.3			8															X	X	X	X
11+99 -Y-	16	RT	0421		758.8																							
			0421	0418		755.3	755.0																					
12+37 -Y-	19	LT	0410		759.2																							
			0410	0413		755.5	754.9			21															X	X	X	X
			1403	0421		756.4	755.3																					
10+66 -Y-	26	LT	0405		760.5																							
			0405	0414		755.5	751.5				45														X	X	X	X
10+77 -Y-	28	RT	0404		760.0																							
			0404	0405		756.4	755.8																					
10+25 -RND-	22	RT	0406		761.7																							
			0406	0405		756.4	755.5																					
11+75 -RND-	20	RT	0403		761.5																							
			0403	0404		757.8	756.4																					
13+21 -L-	32	RT	0401		761.8																							
			0401	0406		756.8	756.4																					
14+41 -L2-	37	RT	0402		761.7																							
			0403	0403		758.1	757.8																					
10+85 -DR1-	13	LT	0411		760.0																							
			0411	0401		757.1	757.0			44															X	X	X	X
15+17 -L2-	19	RT	0417		763.8																							
			0417	0402		759.7	758.1			78																		
10+50 -DR1-	14	RT	0420																									
			0420	0411		759.2	757.1																					
16+10 -L2-	15	RT	0416		764.2																							
			0416	0417		760.6	759.7			87																		
11+46 -L1-									24																			
14+30 -L2-																												
SHEET TOTALS									24	284	62																	
PROJECT TOTALS									24	284	62																	

R. C. PIPE CLASS IV; QUANTITIES FOR DRAINAGE STRUCTURES (NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)); FRAME, GRATES, AND HOOD STD. 840.03

LINE & STATION	FROM	TO	R.C. 12	R.C. 15	R.C. 18	R.C. 24	R.C. 30	R.C. 36	R.C. 42	R.C. 48	R.C. 54	R.C. 60	R.C. 66	R.C. 72	R.C. 78	R.C. 84	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	A: 0' THRU 5' EACH	B: 5' THRU 10' LIN. FT.	10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	GRATE TYPE E	GRATE TYPE F	GRATE TYPE G
11+53 -Y-	0419																						1	0.3					1
	0419	0409		19																									
11+44 -Y-	0407			8																			1					1	
11+36 -Y-	0409																						1						
11+48 -Y-	0408																												
	0408	0407																											
11+07 -Y-	0415																												
	0415	0407																											
11+89 -Y-	0418																						1				1		
	0418	0407		40																									
12+22 -Y-	0413																						1						
	0413	0419																											
11+99 -Y-	0421																						1						1
	0421	0418		10																									
12+37 -Y-	0410																						1				1		
	0410	0413																											
	1403	0421		69																									
10+66 -Y-	0405																						1						1
	0405	0414																											
10+77 -Y-	0404																						1					1	
	0404	0405		55																									
10+25 -RND-	0406																						1	1.3					1
	0406	0405			18																								
11+75 -RND-	0403																						1					1	
	0403	0404		75																									
13+21 -L-	0401																						1	0.1			1		
	0401	0406			76																								
14+41 -L2-	0402																						1				1		
	0403	0403		77																									
10+85 -DR1-	0411																						1						
	0411	0401																											
15+17 -L2-	0417																						1						1
	0417	0402																											
10+50 -DR1-	0420																												
	0420	0411		43																									
16+10 -L2-	0416																						1					1	
	0416	0417																											
11+46 -L1-																													
14+30 -L2-																													
SHEET TOTALS				396	94																		16	1.7			4	4	5
PROJECT TOTALS				396	94																		16	1.7			4	4	5

LINE & STATION	FROM	TO	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	CONCRETE TRANSITIONAL SECTION C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR STD. 840.26	G.D.I. TYPE "B" STD. 840.18 OR STD. 840.27	G.D.I. TYPE "D" STD. 840.19 OR STD. 840.28	G.D.I. (W.S. FLAT) FRAME WITH GRATE STD. 840.20	G.D.I. (W.S. FLAT) FRAME W/ 2 GRATES STD. 840.20	G.D.I. (W.S. SAG) FRAME W/ GRATE STD. 840.22	G.D.I. (W.S. SAG) FRAME W/ 2 GRATES STD. 840.22	G.D.I. (N.S. SAG) FRAME W/ GRATE STD. 840.24	G.D.I. (N.S. SAG) FRAME W/ 2 GRATES STD. 840.24	G.D.I. (N.S. FLAT) FRAME W/ GRATE STD. 840.29	G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES STD. 840.29	DRIVEWAY D.I. STD. 840.30	FRAME W/ GRATE FOR DRIVEWAY STD. 840.30	J.B. STD. 840.31 OR STD. 840.32	ANGLED VANE GRATES AND FRAMES STD. 840.33	T.B.J.B. STD. 840.34	T.B.D.I. STD. 840.35	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
11+53 -Y-	0419																													
	0419	0409																											18	REMOVE AND REPLACE PIPE
11+44 -Y-	0407																										0.8930		8	COLLAR AND EXTEND EXISTING PIPE
11+36 -Y-	0409																								1			0.4470		4	COLLAR AND EXTEND EXISTING PIPE
11+48 -Y-	0408																													
	0408	0407																											8	REMOVE EXISTING PIPE
11+07 -Y-	0415																													
	0415	0407																											43	REMOVE EXISTING PIPE
11+89 -Y-	0418																													
	0418	0407																											38	REMOVE EXISTING PIPE
12+22 -Y-	0413								1																					REMOVE EXISTING DI
	0413	0419																									0.8930		8	COLLAR AND EXTEND EXISTING PIPE
11+99 -Y-	0421																													
	0421	0418																											76	REMOVE EXISTING PIPE
12+37 -Y-	0410																													
	0410	0413																												
	1403	0421																												
																													69	
10+66 -Y-	0405																												83	REMOVE EXISTING PIPE AND CATCH BASIN
	0405	0414																												
10+77 -Y-	0404																													
	0404	0405																												
10+25 -RND-	0406																													
	0406	0405																												
11+75 -RND-	0403																													
	0403	0404																												
13+21 -L-	0401																													
	0401	0406																												
14+41 -L2-	0402																													
	0403	0403																												
10+85 -DR1-	0411															1														
	0411	0401																												
15+17 -L2-	0417																													
	0417	0402																												
10+50 -DR1-	0420																												86	REMOVE EXISTING PIPE AND BASIN
	0420	0411																												
16+10 -L2-	0416																													
	0416	0417																												
11+46 -L1-																													24	REMOVE AND REPLACE DRIVEWAY PIPE
14+30 -L2-																													30	REMOVE EXISTING DRIVEWAY PIPE
SHEET TOTALS								1							1									1			2.2330		495	
PROJECT TOTALS								1							1									1			2.2330		495	

ABBREVIATIONS

- **C.A.A.** CORRUGATED ALUMINIUM ALLOY
- **C.B.** CATCH BASIN
- **C.S.** CORRUGATED STEEL
- **D.I.** DROP INLET
- **G.D.I.** GRATED DROP INLET
- **H.D.P.E.** HIGH DENSITY POLYETHYLENE
- **J.B.** JUNCTION BOX
- **M.H.** MANHOLE
- **N.S.** NARROW SLOT
- **P.V.C.** POLYVINYL CHLORIDE
- **R.C.** REINFORCED CONCRETE
- **T.B.D.I.** TRAFFIC BEARING DROP INLET
- **T.B.J.B.** TRAFFIC BEARING JUNCTION BOX
- **W.S.** WIDE SLOT

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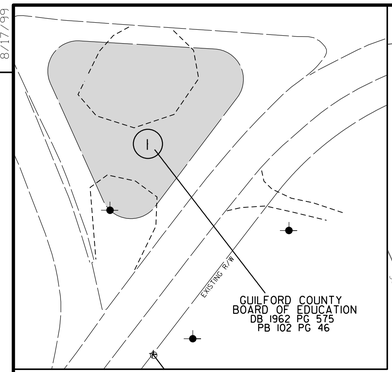
PROJECT REFERENCE NO.	SHEET NO.
7C.041253	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
5/8/2015
NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER
Matthew Coppa
DOCUSIGNATURE

HYDRAULICS ENGINEER
5/8/2015
NORTH CAROLINA PROFESSIONAL SEAL 42066 ENGINEER
Elizabeth G. Dilatis
DocuSigned by:
2F1A21D60CF5439...

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

PARCEL 1 DETAIL



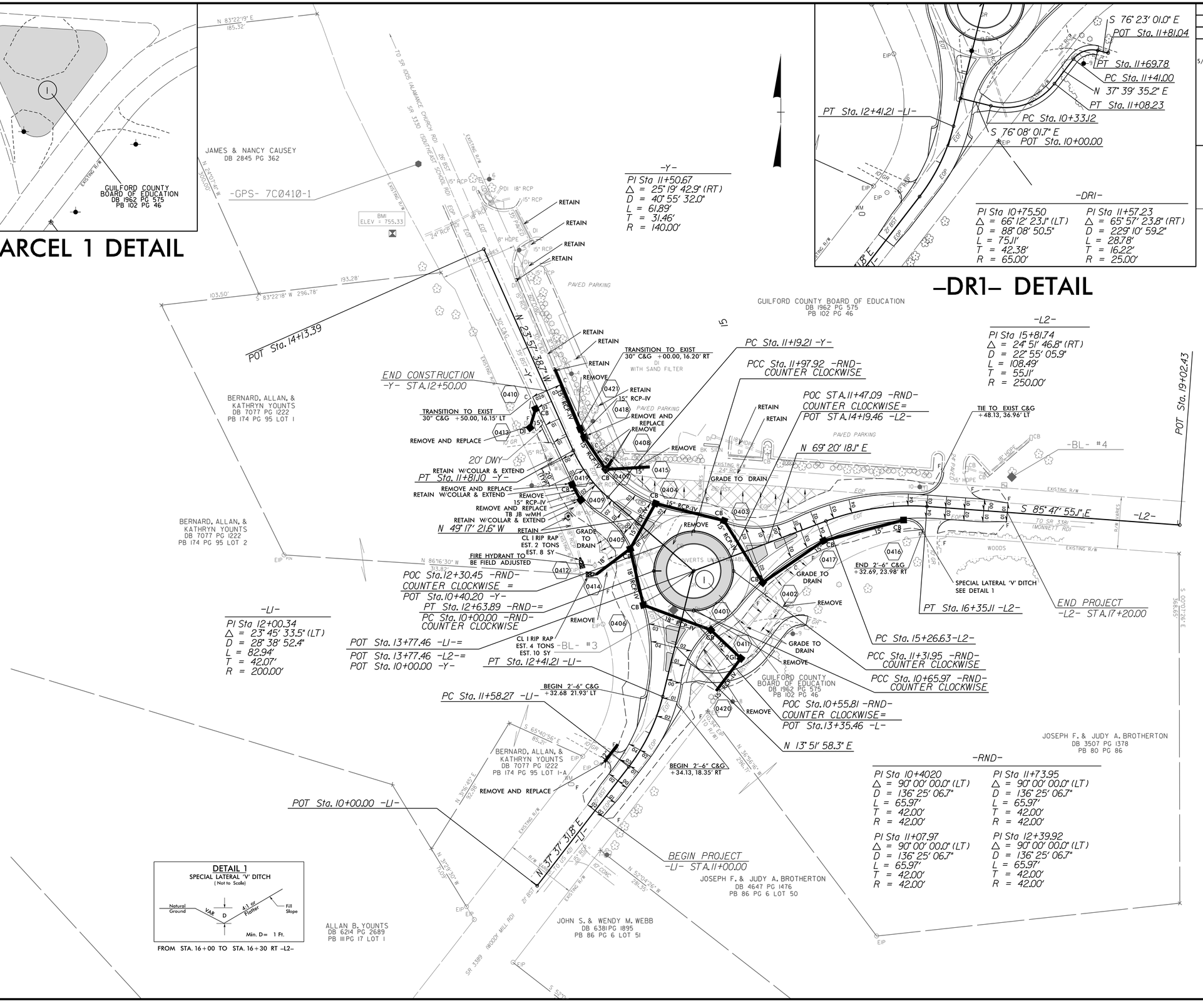
-DR1- DETAIL

-Y-
PI Sta 11+50.67
△ = 25° 19' 42.9" (RT)
D = 40° 55' 32.0"
L = 61.89'
T = 31.46'
R = 140.00'

-DR1-

PI Sta 10+75.50	PI Sta 11+57.23
△ = 66° 12' 23.1" (LT)	△ = 65° 57' 23.8" (RT)
D = 88° 08' 50.5"	D = 229° 10' 59.2"
L = 75.11'	L = 28.78'
T = 42.38'	T = 16.22'
R = 65.00'	R = 25.00'

-L2-
PI Sta 15+81.74
△ = 24° 51' 46.8" (RT)
D = 22° 55' 05.9"
L = 108.49'
T = 55.11'
R = 250.00'



-L1-
PI Sta 12+00.34
△ = 23° 45' 33.5" (LT)
D = 28° 38' 52.4"
L = 82.94'
T = 42.07'
R = 200.00'

-RND-

PI Sta 10+40.20	PI Sta 11+73.95
△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)
D = 136° 25' 06.7"	D = 136° 25' 06.7"
L = 65.97'	L = 65.97'
T = 42.00'	T = 42.00'
R = 42.00'	R = 42.00'

PI Sta 11+07.97	PI Sta 12+39.92
△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)
D = 136° 25' 06.7"	D = 136° 25' 06.7"
L = 65.97'	L = 65.97'
T = 42.00'	T = 42.00'
R = 42.00'	R = 42.00'

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM STA. 16+00 TO STA. 16+30 RT -L2-

SEE SHEET 2B-1 FOR DETAIL

SEE SHEET 5 FOR PROFILE

REVISIONS

8/17/99

5/7/2015
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PROJECT REFERENCE NO.	SHEET NO.
7C.041253	5

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
5/8/2015	5/8/2015
NORTH CAROLINA PROFESSIONAL SEAL 27771 ENGINEER MATTHEW C. CAPPLE	NORTH CAROLINA PROFESSIONAL SEAL 42066 ENGINEER ELIZABETH G. DIBATTISTA
DocuSigned by: Matthew C. Capple 990AB9BE4AF44E...	DocuSigned by: Elizabeth G. DiBattista 27D8A1B6BF9455...

SEPI ENGINEERING & CONSTRUCTION
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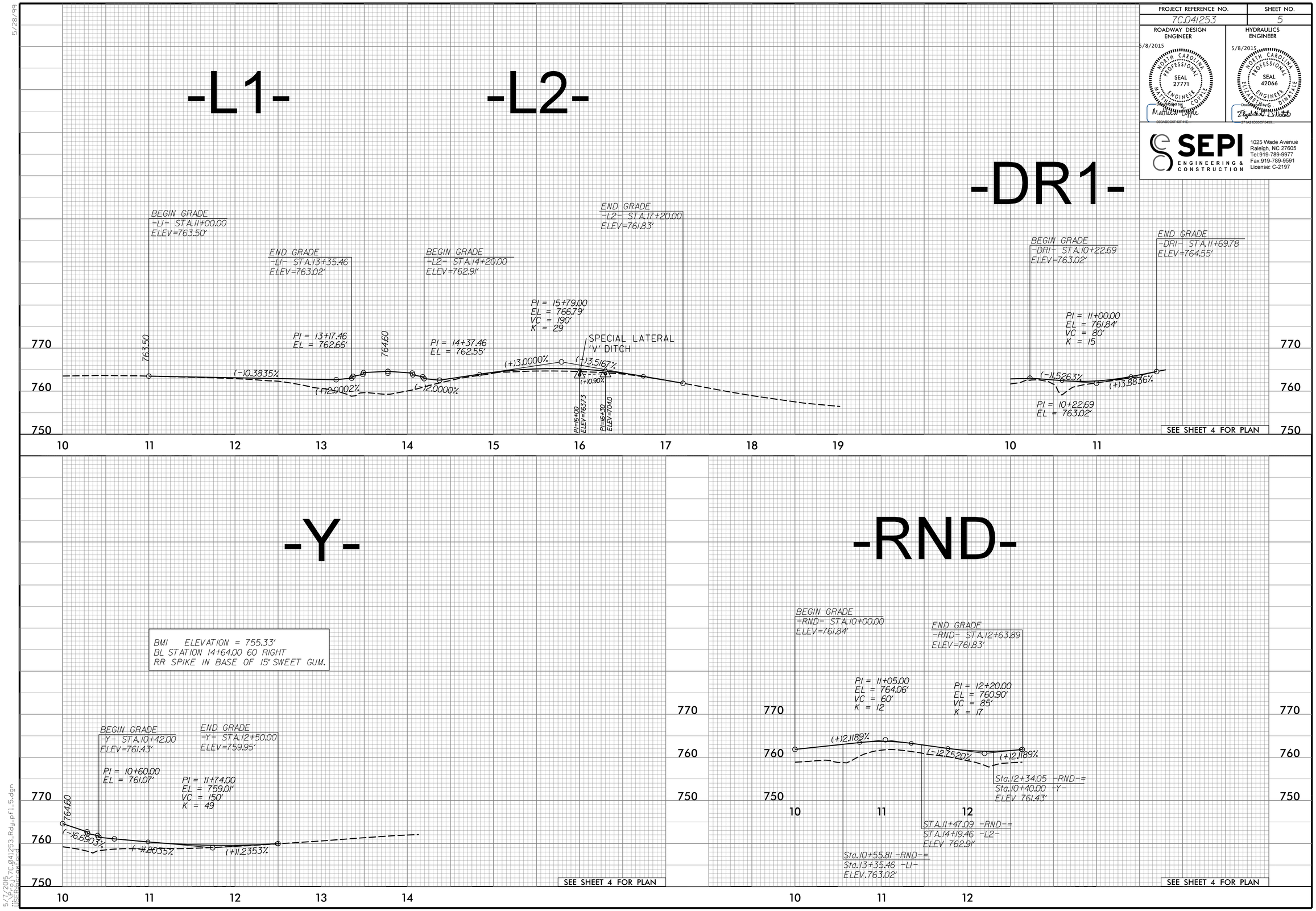

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USERNAME: cwford

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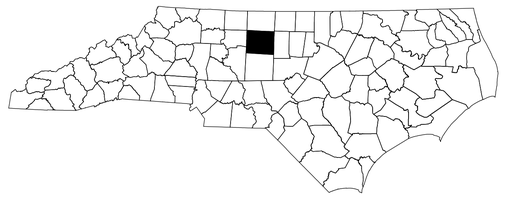
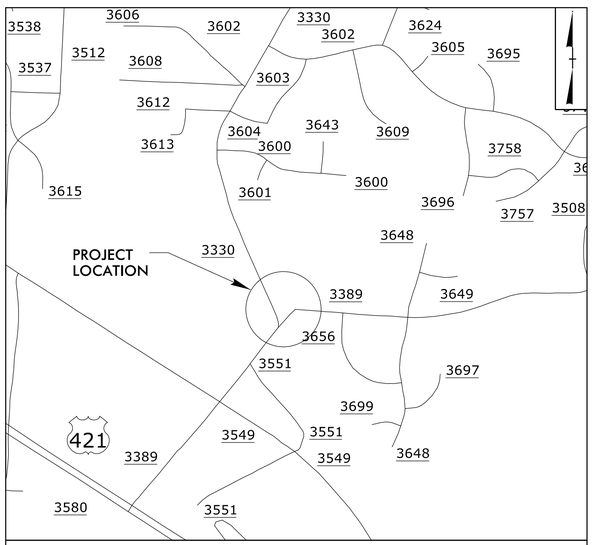
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

GUILFORD COUNTY





VICINITY MAP

LOCATION: INTERSECTION OF SOUTHEAST SCHOOL ROAD AND WOODY MILL ROAD

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING AND PAVEMENT MARKINGS

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND TEMPORARY PAVEMENT MARKING SCHEDULE
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND PHASING)
TMP-2	PHASE I
TMP-3	PHASE II
TMP-4	PHASE III
TMP-5	PHASE IV

SHEET NO.
TMP-1

7C.041253

PROJECT:

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. *STATE TRAFFIC MANAGEMENT ENGINEER*
D. W. BISSETTE, P.E. *TRAFFIC CONTROL PROJECT ENGINEER*
_____ *TRAFFIC CONTROL PROJECT DESIGN ENGINEER*
_____ *TRAFFIC CONTROL DESIGN ENGINEER*

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

Prepared In the Office of:
SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

APPROVED: DocuSigned by: Steve Miller 5ECEEB486...
DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

4/30/2015
G:\Roadway\R015.001.00_Woody_Mill_Roundabout\Traffic\Traffic Control\TMP-1.dgn
SMiller

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PROJ. REFERENCE NO.	SHEET NO.
7C.041253	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUM
1135.01	CONES
1145.01	BARRICADES - TYPE III
1150.01	FLAGGING DEVICES
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE
1264.01	OBJECT MARKERS - TYPES
1264.02	OBJECT MARKERS - INSTALLATION

LEGEND

GENERAL

DIRECTION OF TRAFFIC FLOW
DIRECTION OF PEDESTRIAN TRAFFIC FLOW
EXIST. PVMT.
NORTH ARROW
PROPOSED PVMT.
TEMP. SHORING (LOCATION PURPOSES ONLY)
WORK AREA
REMOVAL
WEDGING
USER DEFINED (IF NEEDED)

SIGNALS

EXISTING
PROPOSED
TEMPORARY

PAVEMENT MARKINGS

EXISTING LINES
TEMPORARY LINES

TRAFFIC CONTROL DEVICES

BARRICADE (TYPE III)
CONE
DRUM
SKINNY DRUM
TUBULAR MARKER
TEMPORARY CRASH CUSHION
FLASHING ARROW BOARD
FLAGGER
LAW ENFORCEMENT
TRUCK MOUNTED ATTENUATOR (TMA)
CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

PORTABLE SIGN
STATIONARY SIGN
STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

CRYSTAL/CRYSTAL
CRYSTAL/RED
YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING SCHEDULE

PAINT 4"

PA WHITE EDGELINE
PB YELLOW EDGELINE
PI DOUBLE YELLOW CENTERLINE

PAINT 12"

P10 3'-3' MINI SKIP
PS WHITE GORE LINE

PAINT 24"

P2 WHITE STOPBAR

PAVEMENT MARKERS

MH YELLOW/YELLOW TEMPORARY RAISED
MM CRYSTAL/CRYSTAL TEMPORARY RAISED

DocuSigned by:
APPROVED: Steve Miller DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

4/30/2015
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SMiller

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PROJ. REFERENCE NO.	SHEET NO.
7C.041253	TMP-1B

MANAGEMENT STRATEGIES

- LOCAL ACCESS TO ALL RESIDENCES, BUSINESSES, AND SCHOOL FACILITIES WILL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

F) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

TRAFFIC PATTERN ALTERATIONS

G) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

GENERAL NOTES

SIGNING

H) INSTALL ADVANCE WORK ZONE WARNING SIGNS NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

I) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

J) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FEET IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

K) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES), AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

L) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
SR 3330 (SE SCHOOL RD.)	PAINT	TEMPORARY
SR 3389 (WOODY MILL RD.)	PAINT	TEMPORARY

M) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

N) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

O) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

P) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS

MISCELLANEOUS

Q) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 200 FEET AND 400 FEET RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

R) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

S) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

PHASING

PHASE I

STEP 1: USING ROADWAY STANDARD DRAWING (RSD) 1101.01 SHEET 3 OF 3, INSTALL ADVANCE WARNING SIGNS ON SR 3330 (SE SCHOOL ROAD) AND SR 3389 (WOODY MILL ROAD).

STEP 2: USING RSD 1101.02 SHEET 1 OF 15 AND RSD 1101.04 SHEET 1 OF 1 AS NECESSARY PLACE TRAFFIC CONTROL DEVICES AS SHOWN ON TMP-2.

STEP 3: USING RSD 1101.02 SHEET 1 OF 15 AND RSD 1101.04 SHEET 1 OF 1 AS NECESSARY, BEGIN CONSTRUCTION FROM -L1- STA. 12+58± TO -L2- STA. 15+17± AND TO -Y- STA. 11+09± UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS SHOWN ON TMP-2. PLACE TEMPORARY PAVEMENT AS SHOWN ON TMP-3 FROM -L2- STA. 14+23± TO -L2- STA. 15+07±. ENSURE RUNOFF DRAINS AND PONDING IS PREVENTED.

STEP 4: USING RSD 1101.03 SHEET 2 OF 9 AND RSD 1101.02 SHEET 1 OF 15 PLACE TRAFFIC CONTROL DEVICES SHOWN ON TMP-3 AND CLOSE SR 3330 (SE SCHOOL ROAD) AND DETOUR TRAFFIC TO SR 3389 (WOODY MILL ROAD) AS SHOWN ON TMP-3.

PHASE II

STEP 1: USING RSD 1101.02 SHEET 1 OF 15 AND RSD 1101.04 SHEET 1 OF 1 AS NECESSARY, CONTINUE CONSTRUCTION FROM PHASE I UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS SHOWN ON TMP-3. ENSURE RUNOFF DRAINS AND PONDING IS PREVENTED.

STEP 2: USING RSD 1101.02, SHEET 1 OF 15, PERFORM THE FOLLOWING IN A CONTINUOUS MANNER:
-USE WEDGING TO CONSTRUCT A TIE-IN FROM THE PHASE II ALIGNMENT TO THE PHASE III ALIGNMENT SHOWN ON TMP-4.
-PLACE TRAFFIC CONTROL DEVICES AND TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-4.
-SHIFT TRAFFIC TO THE PHASE III PATTERN BY THE END OF THE WORK DAY.

PHASE III

STEP 1: USING RSD 1101.02 SHEET 1 OF 15 AND RSD 1101.04 SHEET 1 OF 1 AS NECESSARY, CONTINUE CONSTRUCTION FROM -L1- STA. 13+18± TO -L2- STA. 16+63± UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

STEP 2: USING RSD 1101.02 SHEET 1 OF 15, PERFORM THE FOLLOWING IN A CONTINUOUS MANNER:
-USE WEDGING TO CONSTRUCT A TIE-IN TO THE FINAL ALIGNMENT SHOWN ON TMP-5.
-PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON TMP-5.
-SHIFT TRAFFIC TO THE FINAL ALIGNMENT BY THE END OF WORK DAY.

PHASE IV

STEP 1: USING RSD 1101.02 SHEET 1 OF 15, COMPLETE CONSTRUCTION OF THE PROPOSED ROADWAY AS SHOWN ON TMP-5. REMOVE TEMPORARY PAVEMENT. PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AS SHOWN ON THE PAVEMENT MARKING PLANS.

STEP 2: REMOVE TRAFFIC CONTROL DEVICES AND OPEN SR 3330 (SE SCHOOL ROAD) AND SR 3389 (WOODY MILL ROAD) ROUNDABOUT TO TRAFFIC.

APPROVED: Steve Miller DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

4/30/2015
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SMiller

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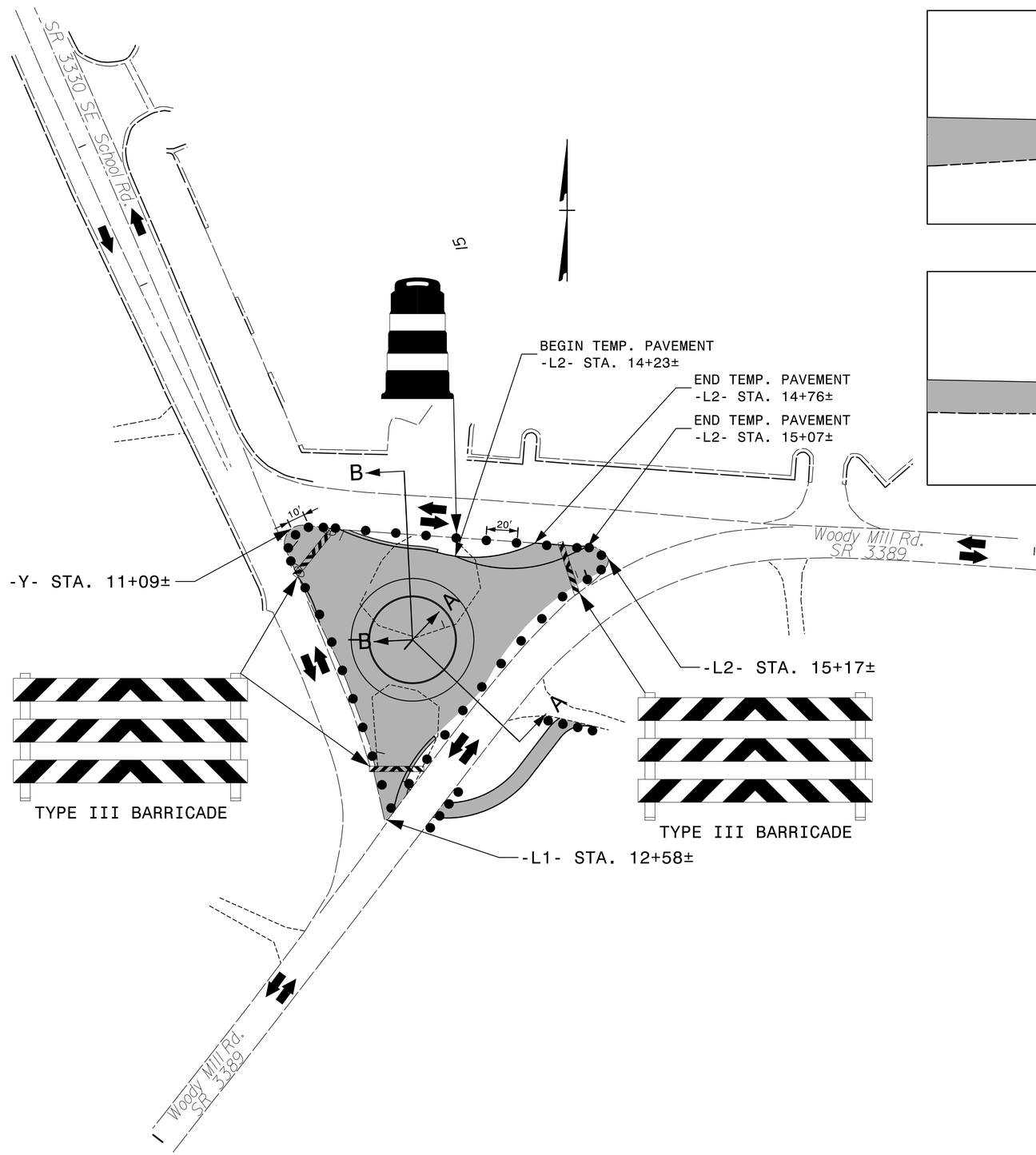
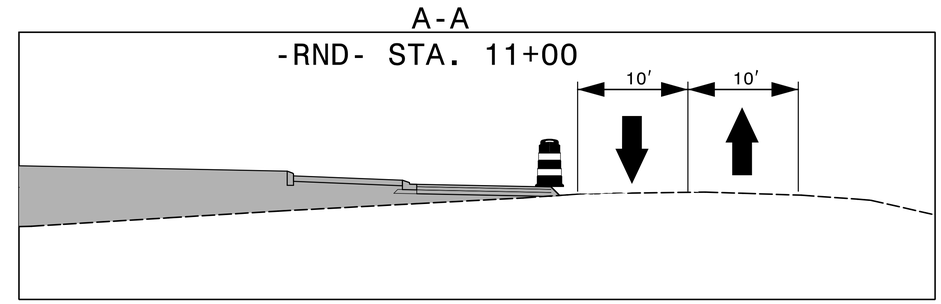
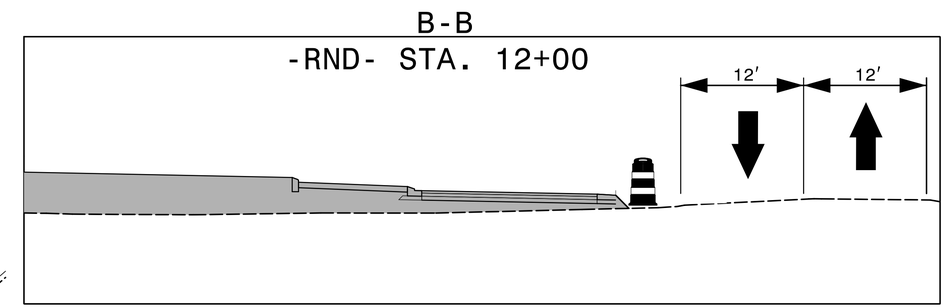
PROJ. REFERENCE NO.	SHEET NO.
7C.041253	TMP-2







APPROVED: DocuSigned by: Steve Miller DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE I

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S.Miller

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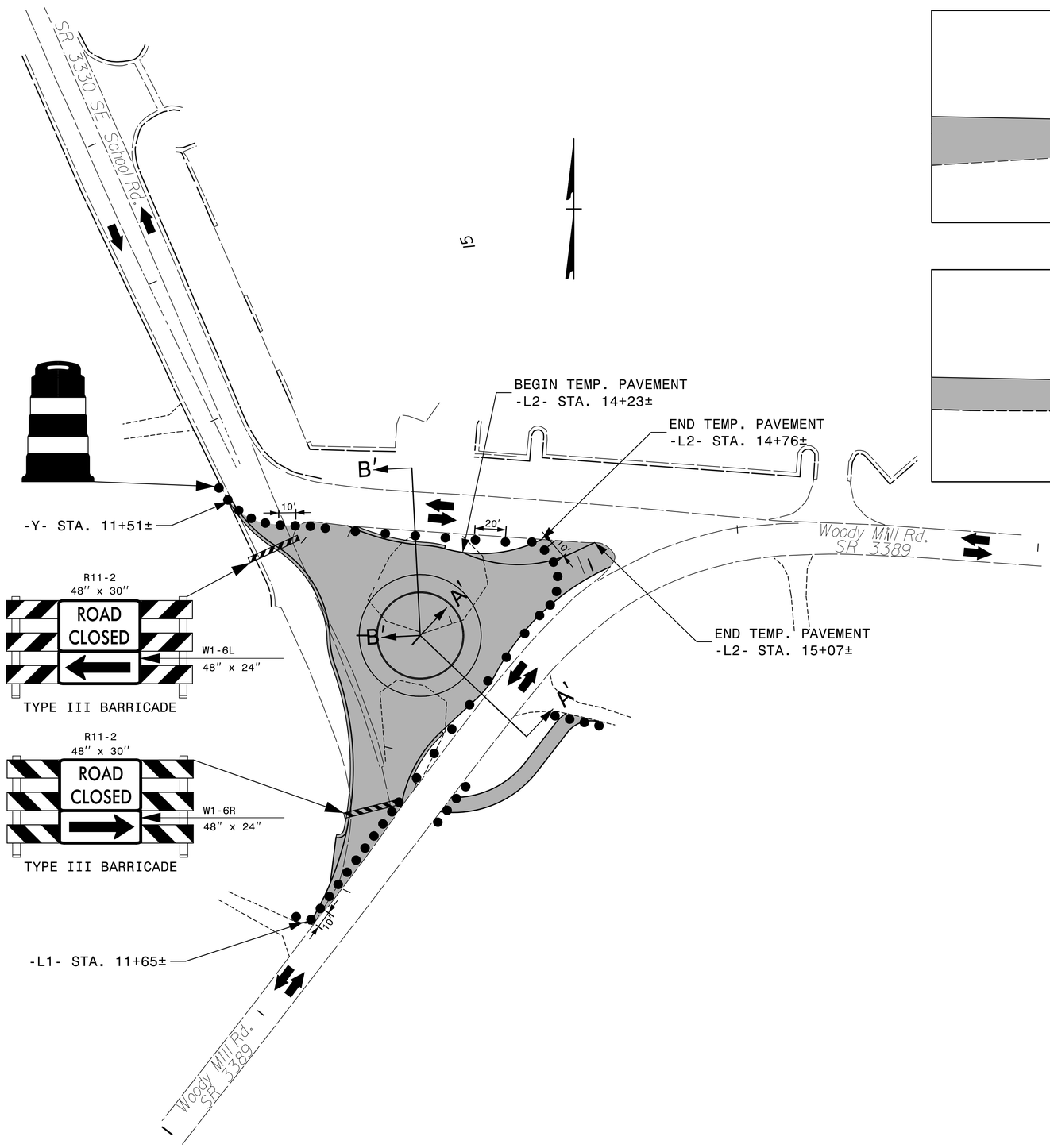
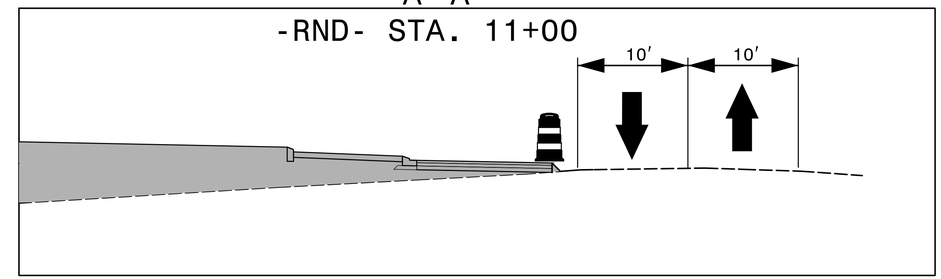
PROJ. REFERENCE NO.	SHEET NO.
7C.041253	TMP-3



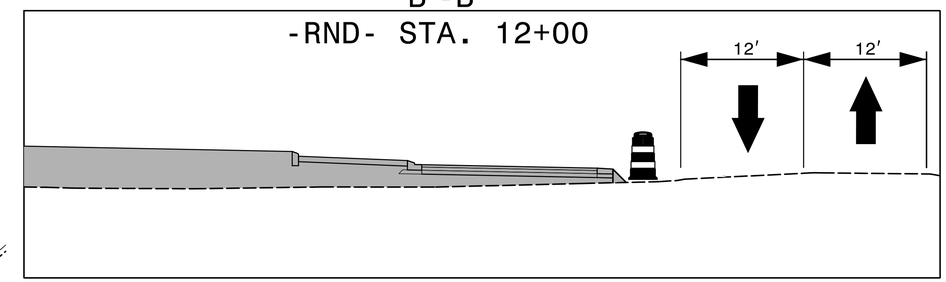
A'-A'

-RND- STA. 11+00



B'-B'

-RND- STA. 12+00



APPROVED: DocuSigned by: Steve Miller DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE II

4/30/2015
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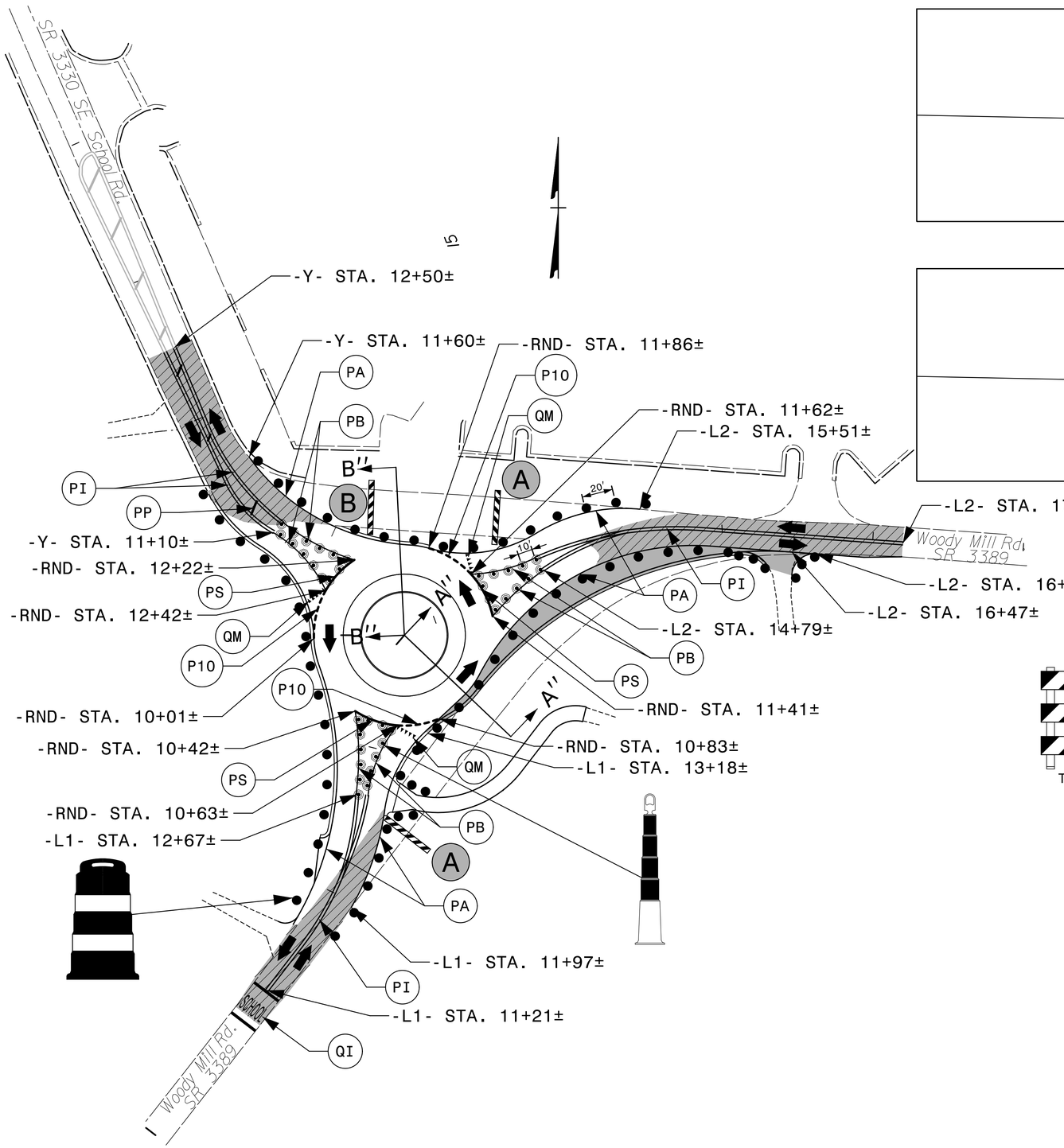
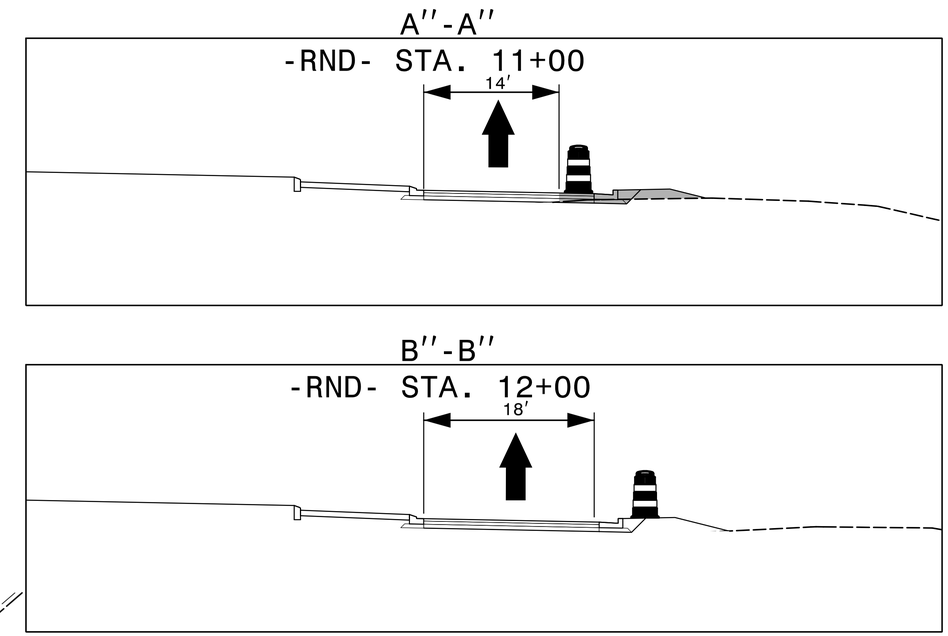
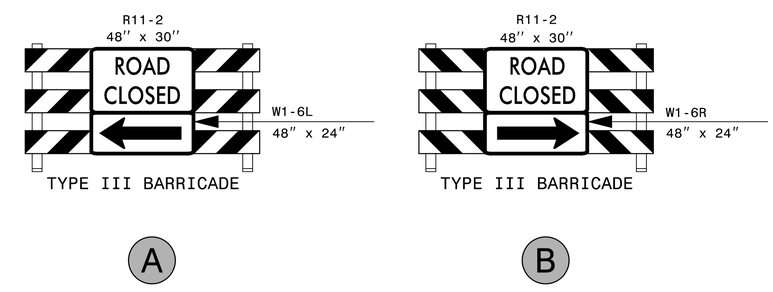
PROJ. REFERENCE NO.	SHEET NO.
7C.041253	TMP-4

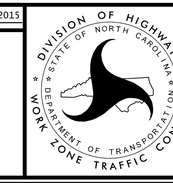






APPROVED: DocuSigned by: Steve Miller DATE: 5/8/2015

SEAL



PHASE III

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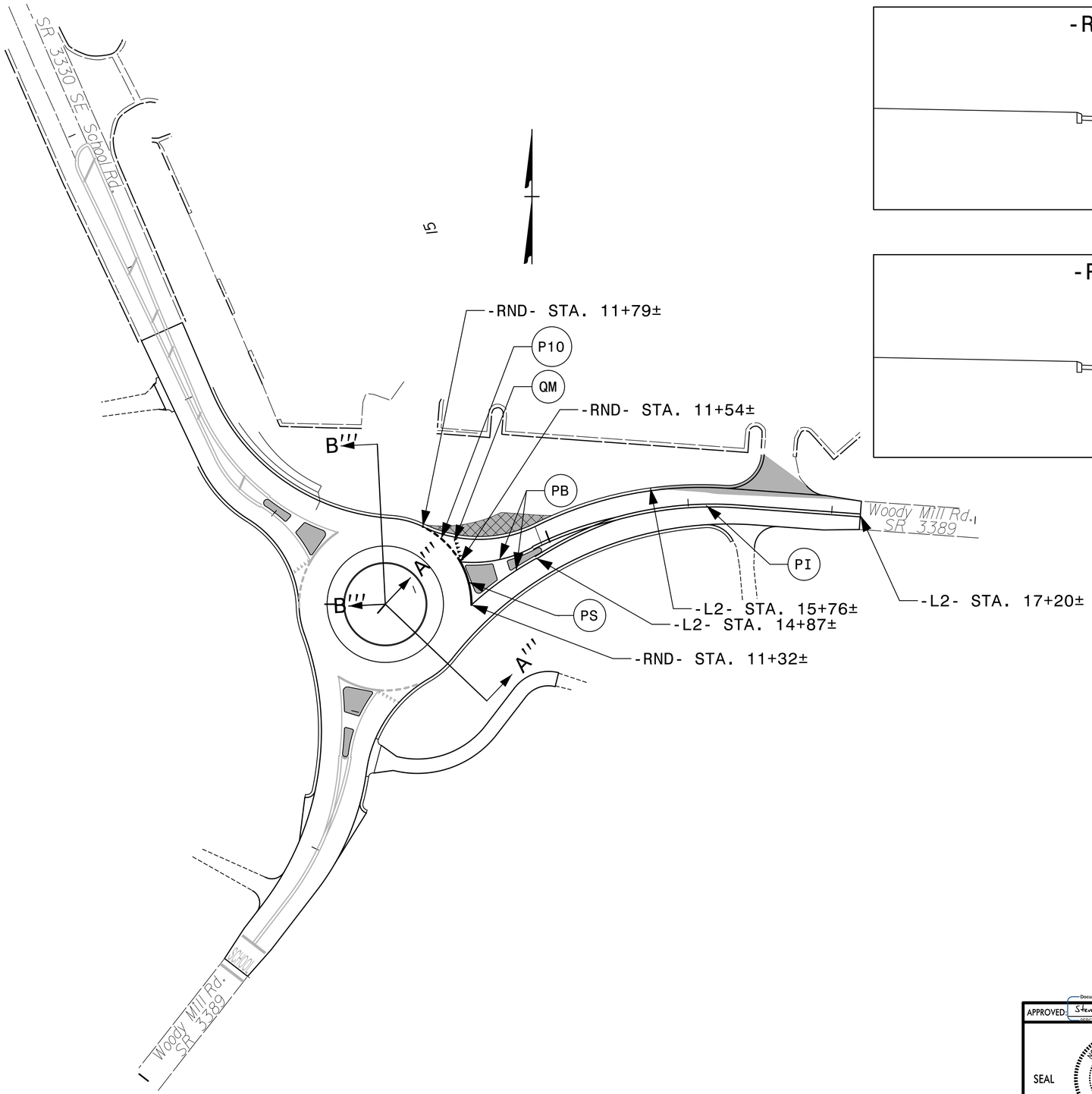

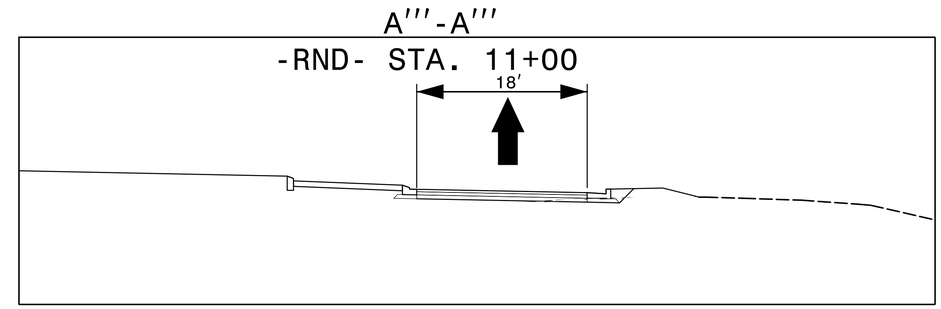

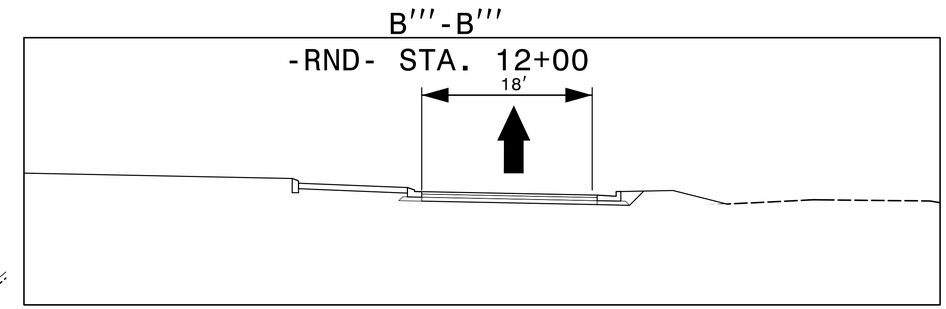

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SEAL

PHASE IV

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TIP NO.	SHEET NO.
7C.041253	PMP-1

APPROVED: Steve Miller (DocuSigned by: 9FBC6C15CEEB486...)

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
GUILFORD COUNTY

T.I.P.: 7C.041253

CONTRACT: DG00253

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2	PAVEMENT MARKING DETAIL

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	
T10	3 FT. - 3 FT./SP WHITE MINISKIP	THERMOPLASTIC(12", 120 MILS)
T2	WHITE STOPBAR	THERMOPLASTIC(24", 120 MILS)
TI	YELLOW DOUBLE CENTER	THERMOPLASTIC(4", 120 MILS)
TA	WHITE EDGELINE	THERMOPLASTIC(4", 90 MILS)
TB	YELLOW EDGELINE	
TN	WHITE GORELINE	THERMOPLASTIC(8", 90 MILS)
TP	YELLOW DIAGONAL	
UI	ALPHANUMERIC CHAR.	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)
UN	24" YIELD LINE TRIANGLE	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)
MA	YELLOW & YELLOW	PERMANENT RAISED PAVEMENT MARKERS
MB	CRYSTAL & RED	

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
SOUTHEAST SCHOOL RD	THERMOPLASTIC	PERMANENT RAISED
WOODY MILL RD	THERMOPLASTIC	PERMANENT RAISED

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

F) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF COLD APPLIED PLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS ON ASPHALT OR CONCRETE ROADWAYS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE COLD APPLIED PAY ITEM.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.10	PAVEMENT MARKINGS - SCHOOL AREAS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE
1267.01	FLEXIBLE DELINEATORS - INSTALLATION
1267.02	FLEXIBLE DELINEATORS - SPACING TABLES

PLAN REVIEWED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

RENEE B. ROACH, PE, CPM — SIGNING & DELINEATION REGIONAL ENGINEER

JAMES HAMBRIGHT — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: SEPI Engineering & Construction

STEVEN D MILLER, PE — SIGNING & DELINEATION ENGINEER

RICHARD DRAYTON — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

SEPI ENGINEERING & CONSTRUCTION

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Raleigh, NC 27605
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License: C-2197

5/7/2015
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User:bcrawford

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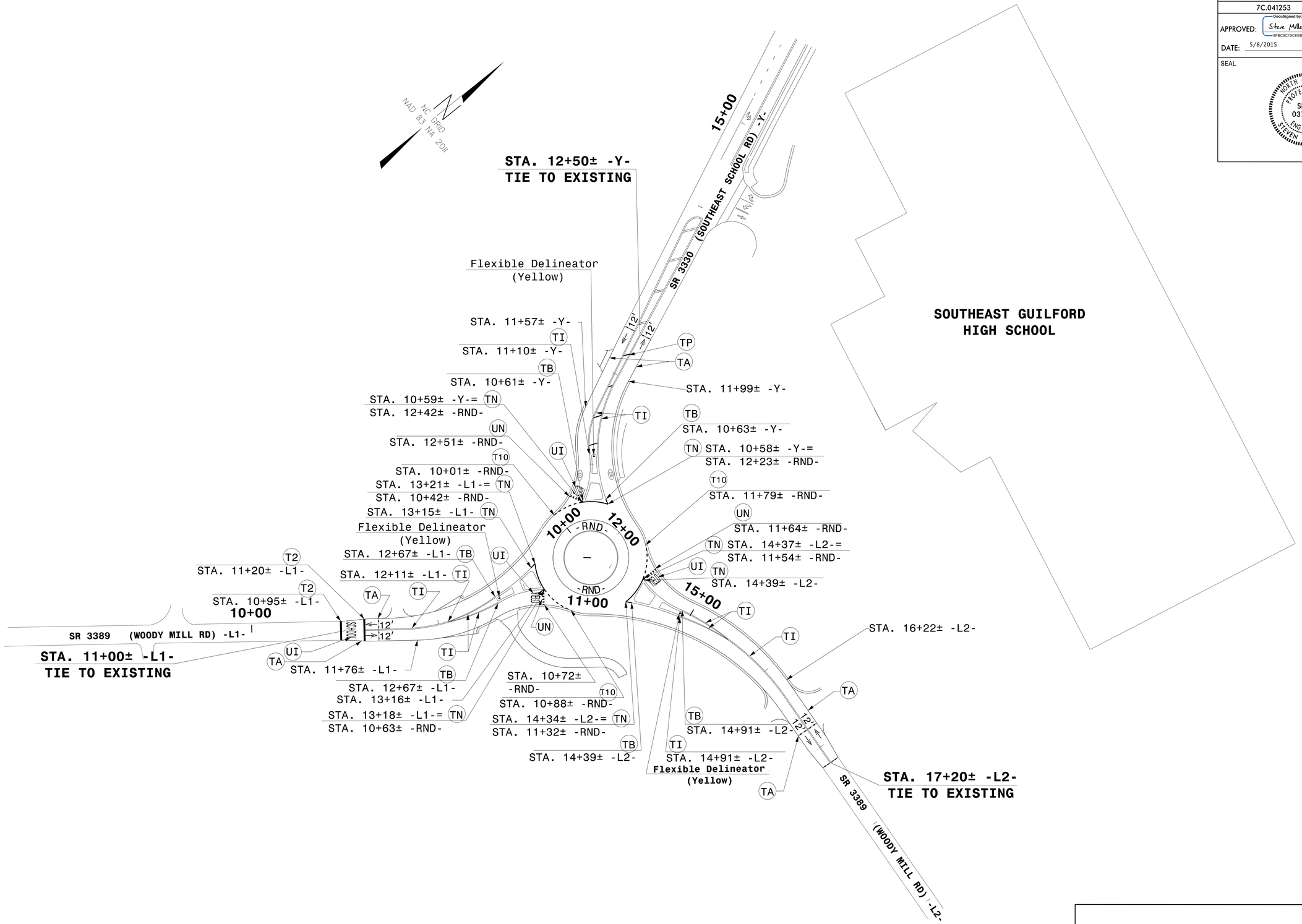
TIP NO.	SHEET NO.
7C.041253	PMP-2

APPROVED: DocuSigned by: Steve Miller 9FBC6C15CEEB486...

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 037026 ENGINEER STEVEN D. MILLER



PAVEMENT MARKING DETAIL

5/7/2015
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User:bcrawford

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

09/08/99

WBS NUMBER: 7C.041253

CONTRACT: _____

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional symbols
See Sheet 1C For Survey Control Sheet

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	7C.041253	1	

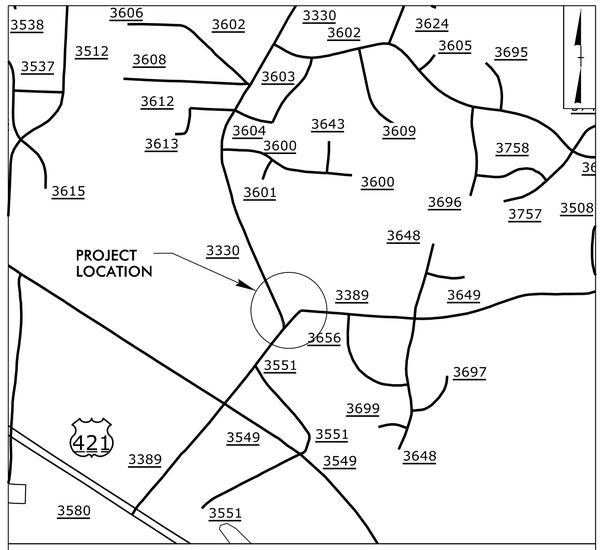
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
7C.041038	N/A	PE
7C.041253		CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

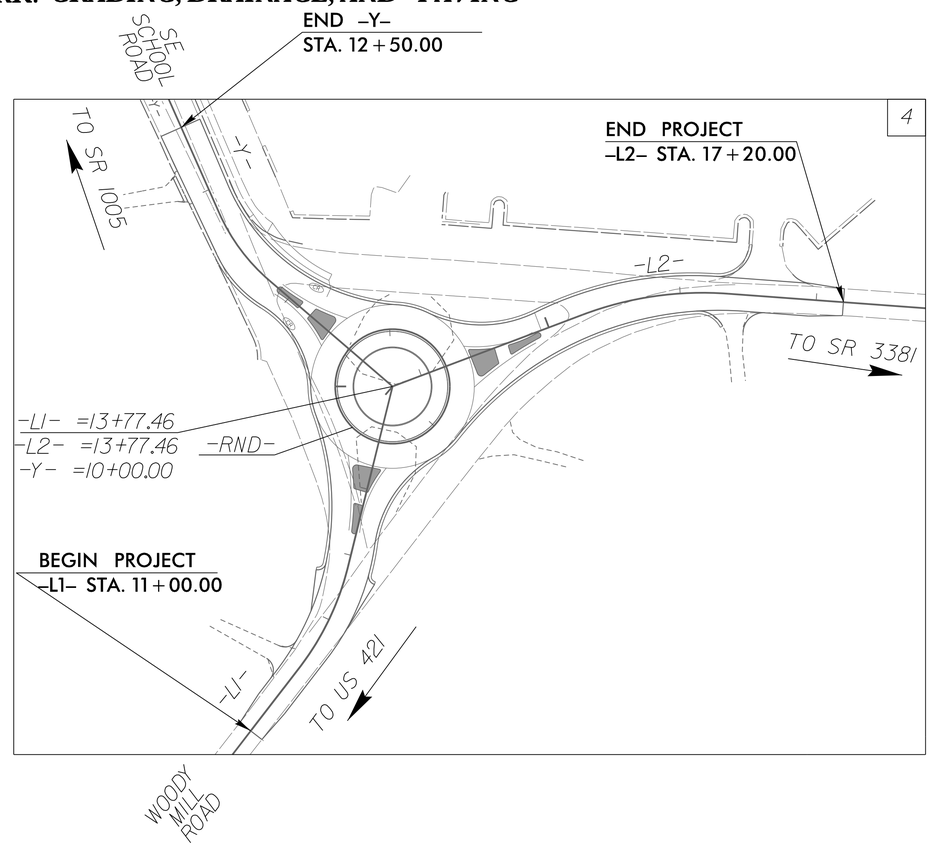
GUILFORD COUNTY

LOCATION: INTERSECTION OF SOUTHEAST SCHOOL ROAD AND WOODY MILL ROAD

TYPE OF WORK: GRADING, DRAINAGE, AND PAVING



VICINITY MAP



NAD 83

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle/ Coir Fiber Wattle	EW CFW
	Wattle/ Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	

Rock Inlet Sediment Trap:

1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

Skimmer Basin

Tiered Skimmer Basin

Infiltration Basin

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT IS NOT WITHIN MUNICIPAL BOUNDARIES
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

GRAPHIC SCALES

50 25 0 50 100

PLANS

ELIZABETH (LIZ) DINATALE, PE
LEVEL III DESIGNER OF EROSION AND SEDIMENT CONTROL PLANS
3480
LEVEL III CERTIFICATION NO.

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG–010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:

SEPI ENGINEERING & CONSTRUCTION
1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

ROADSIDE ENVIRONMENTAL UNIT
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

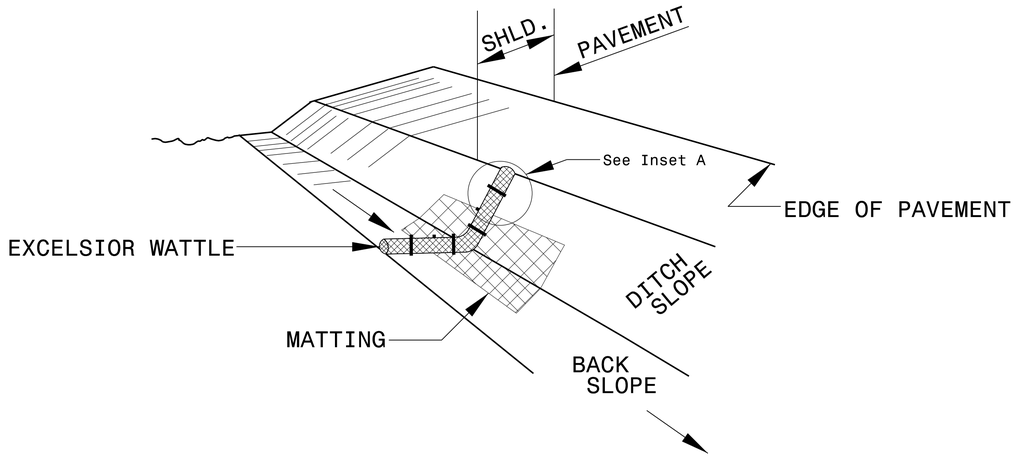
1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

4/20/2015
::\WOODY_EC_TITLE.dgn
USER:Keys

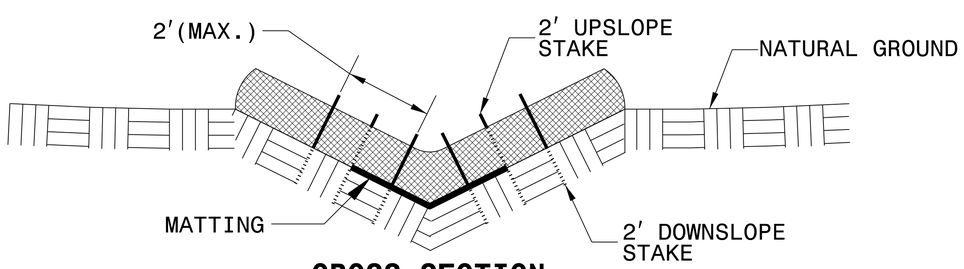
DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	EC-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

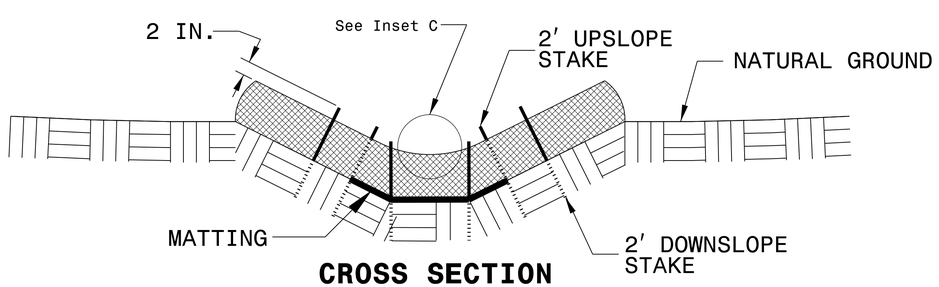
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

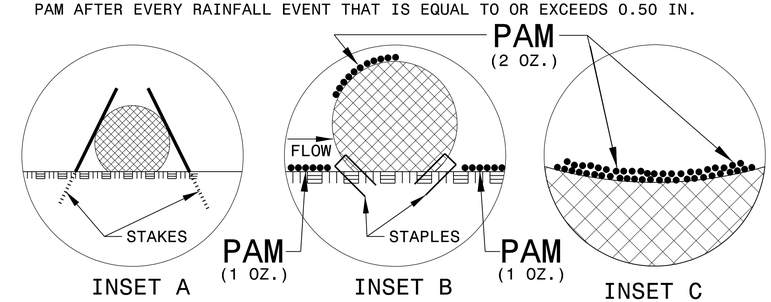
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

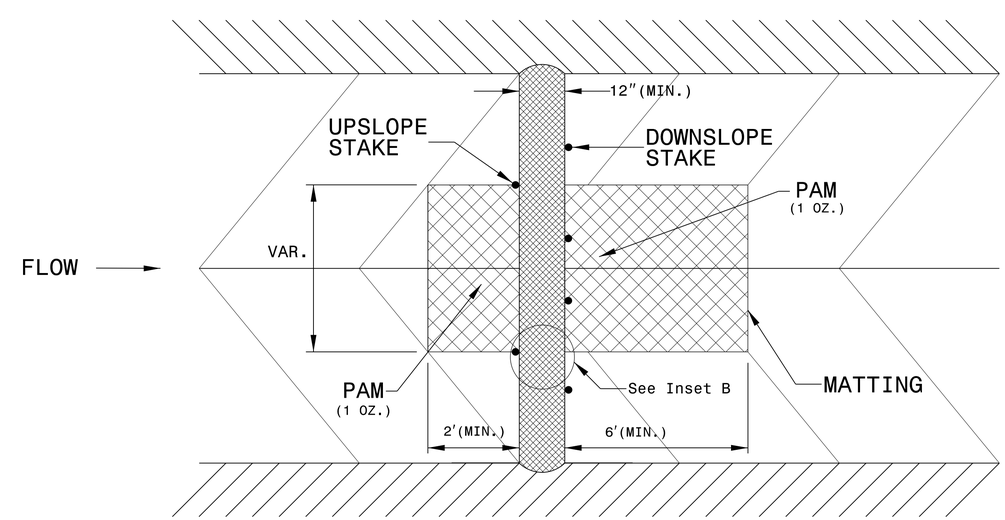
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.





TOP VIEW

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PROJECT REFERENCE NO.	SHEET NO.
7C.041253	EC-3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L1-	11+00	12+50	RT	65
				SUBTOTAL	65
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					181
				TOTAL	246
				SAY	270

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	EC-3A

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

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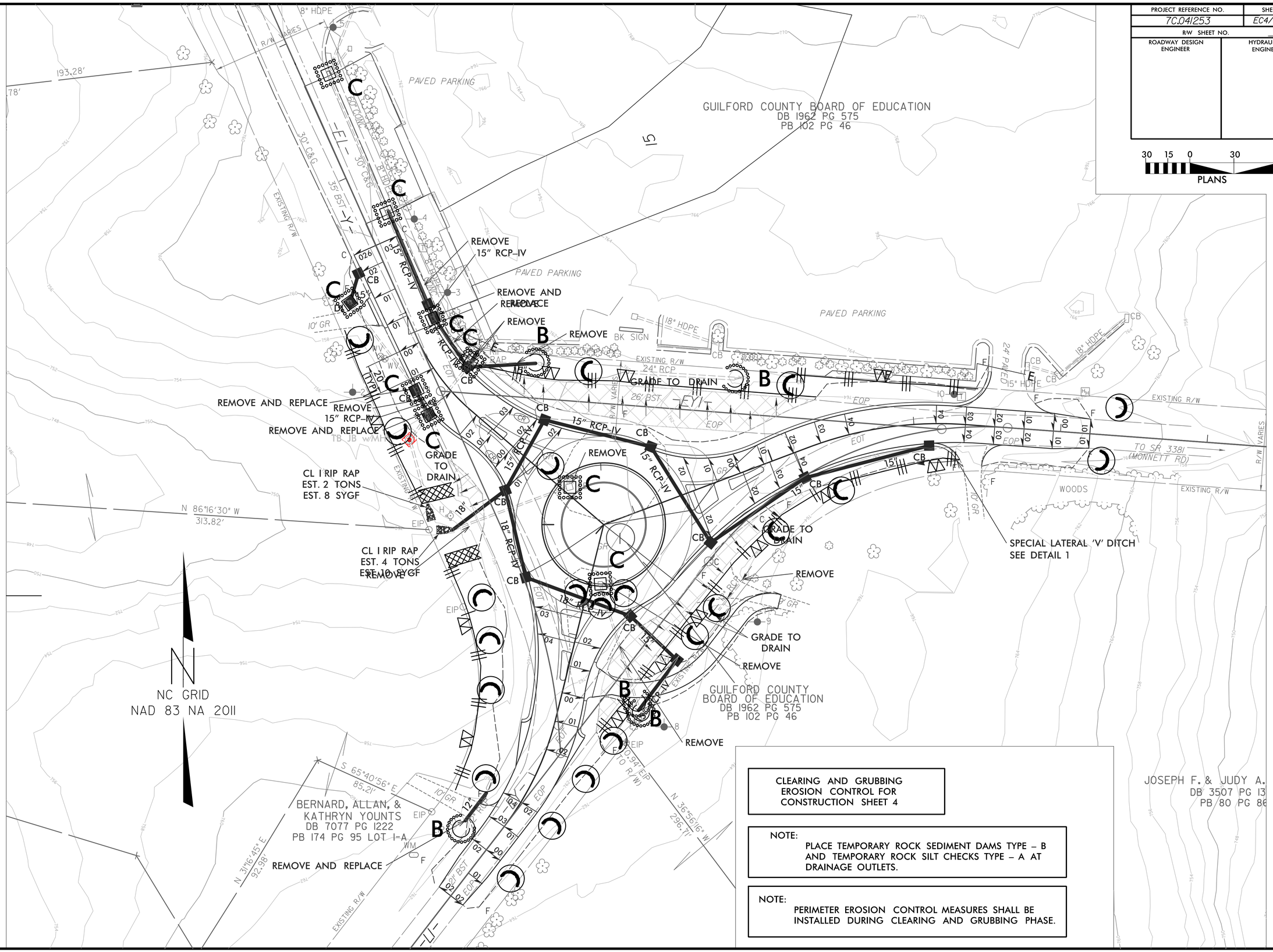
PROJECT REFERENCE NO.	SHEET NO.
7C.041253	EC4/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

30 15 0 30 60
PLANS



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

REVISIONS

8/17/99

SYSTIME
USERNAME

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	EC5/CONST.4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

30 15 0 30 60
PLANS

REVISIONS

8/17/99

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 11+63 to Sta. 13+06 LT –L1–
Sta. 12+50 to Sta. 13+15 RT –L1–
Sta. 10+00 to Sta. 12+50 RT/LT –RND–
Sta. 10+77 to Sta. 12+00 LT –Y–
Sta. 14+60 to Sta. 16+40 LT –L2–

GUILFORD COUNTY BOARD OF EDUCATION
DB 1962 PG 575
PB 102 PG 46

PAVED PARKING

REMOVE
15" RCP-IV

REMOVE AND REPLACE

REMOVE

REMOVE

REMOVE AND REPLACE

REMOVE
15" RCP-IV

REMOVE AND REPLACE

GRADE TO DRAIN

CL I RIP RAP
EST. 2 TONS
EST. 8 SYGF

CL I RIP RAP
EST. 4 TONS
EST. 10 SYGF

REMOVE

GRADE TO DRAIN

REMOVE

GRADE TO DRAIN

REMOVE

GUILFORD COUNTY
BOARD OF EDUCATION
DB 1962 PG 575
PB 102 PG 46

REMOVE

SPECIAL LATERAL 'V' DITCH
SEE DETAIL 1

TO SR 3381
(MONNETT RD)

WOODS

EXISTING R/W

R/W VARIES

N 86°16'30" W
313.82'

NC GRID
NAD 83 NA 2011

BERNARD, ALLAN, &
KATHRYN YOUNTS
DB 7077 PG 1222
PB 174 PG 95 LOT 1-A

REMOVE AND REPLACE

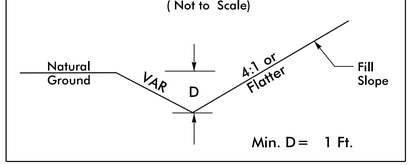
S 65°40'56" E
85.21'

N 31°16'45" E
92.98'

N 36°56'16" W
296.71'

JOSEPH F. & JUDY A.
DB 3507 PG 13
PB 80 PG 86

DETAIL 1
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



FROM STA. 16+00 TO STA. 16+30 RT –L2–

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

T.I.P.: 7C.041253

CONTRACT: DG00253

TIP NO.	SHEET NO.
7C.041253	SIGN-1

APPROVED: DocuSigned by: Benjamin R. Crawford DDTAEA7C9BC047F...

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 32606 ENGINEER BENJAMIN R. CRAWFORD

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
GUILFORD COUNTY

LOCATION: CONSTRUCT A ROUNDABOUT AT THE INTERSECTION OF SOUTHEAST SCHOOL ROAD AND WOODY MILL ROAD

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	E AND F SIGNS
SIGN-3	SIGN DESIGNS
SIGN-4	EXISTING & PROPOSED SIGN DETAIL SHEET
SIGN-5	PROPOSED SIGN DETAIL SHEET
SIGN-6	EXISTING & PROPOSED SIGN DETAIL SHEET
SIGN-7	EXISTING SIGN DETAIL SHEET

SUMMARY OF QUANTITIES

ITEM NO. DESC. NO.	ITEM NO. SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	456	L.F.
4096000000	904	SIGN ERECTION, TYPE D	3	EA.
4102000000	904	SIGN ERECTION, TYPE E	41	EA.
4108000000	904	SIGN ERECTION, TYPE F	1	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	22	EA.

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

PROJECT NOTES

1.) DISPOSAL OF SIGN SYSTEM, U-CHANNEL

2.) ADD VERTICAL REFLECTIVE ★ YELLOW STRIPS ON SIGN POSTS FOR ALL WARNING SIGNS AND ★★ RED REFLECTIVE STRIPS ON ALL YEILD SIGNS

PLAN REVIEWED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

RENEE B. ROACH, PE, CPM — SIGNING & DELINEATION REGIONAL ENGINEER

JAMES HAMBRIGHT — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PLAN PREPARED BY: SEPI Engineering & Construction

BEN CRAWFORD, PE — SIGNING & DELINEATION ENGINEER

RICHARD DRAYTON — SIGNING & DELINEATION PROJECT DESIGN ENGINEER

SEPI ENGINEERING & CONSTRUCTION

1025 Wade Avenue
Raleigh, NC 27605
Tel:919-789-9977
Fax:919-789-9591
License: C-2197

$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

TIP NO.	SHEET NO.
7C.041253	SIGN-2

APPROVED: Benjamin R. Crawford

DocuSigned by:
DD1AEA1C9BC047F...

DATE: 5/8/2015

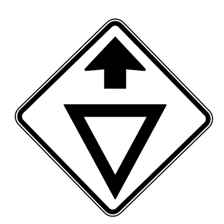
SEAL

(401) QUANTITY REQ'D 3

36 X 36
W2-6

ONE "U" POST PER SIGN

(402) QUANTITY REQ'D 6



36 X 36
W3-2

ONE "U" POST PER SIGN

(403) QUANTITY REQ'D 3

24 X 8
S4-3

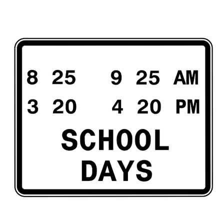
MOUNT ABOVE SIGN 404
IN 3 INSTALLATIONS

(404) QUANTITY REQ'D 5

24 X 30
R2-1

ONE "U" POST PER SIGN

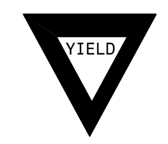
(405) QUANTITY REQ'D 1



24 X 24
S4-1a

MOUNT BELOW SIGN 404
IN 3 INSTALLATIONS

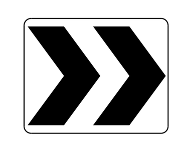
(406) QUANTITY REQ'D 6



36 X 36 X 36
R1-2

ONE "U" POST PER SIGN

(407) QUANTITY REQ'D 3



30 X 24
R6-4

ONE "U" POST PER SIGN

(409) QUANTITY REQ'D 1

24 X 30
S5-2

MOUNT ABOVE SIGN 404
IN 1 INSTALLATION

(410) QUANTITY REQ'D 3

36 X 36
W23-2

ONE "U" POST PER SIGN

(411) QUANTITY REQ'D 2

36 X 36
S1-1

ONE "U" POST PER SIGN

(412) QUANTITY REQ'D 3

24 X 12
W16-17P

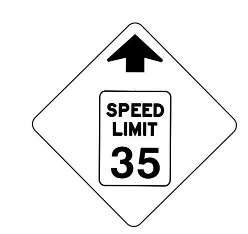
MOUNT BELOW SIGN 401
IN 3 INSTALLATIONS

(413) QUANTITY REQ'D 3

18 X 18
W13-1P

MOUNT BELOW SIGN 412
IN 3 INSTALLATIONS

(414) QUANTITY REQ'D 2



36 X 36
W3-5

ONE "U" POST PER SIGN

(501) QUANTITY REQ'D 1

1-24" X 12"
1-36" X 24"
1-21" X 15"

ONE "U" POST PER SIGN

TYPE "E" & "F" SIGNS

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$
$$$$$USERNAME$$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

TIP NO.	SHEET NO.
7C.041253	SIGN-3

APPROVED: Benjamin R. Crawford (DocuSigned by: BD1AEA1C9BC0477...)

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 32606 BENJAMIN R. CRAWFORD

SIGN NUMBER: 301
TYPE: D
QUANTITY: 1
SIGN WIDTH: 7'-0"
HEIGHT: 3'-6"
TOTAL AREA: 24.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.75"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

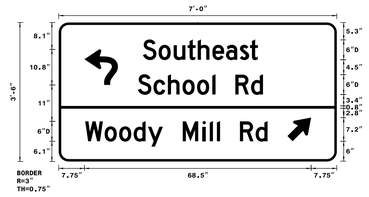
SYMBOL	X	Y	WID	HT
AR_FISHOOK	7.8	23.1	10.1	10.8
AR_Type D	69.1	6.1	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: R. Drayton
PROJECT ID: 7C.041253
CHECKED BY: B Crawford
DIV: 7
DATE: Apr 20, 2015

USE NOTES: 1,2

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.



Panel Style: guide_con_circular.ssi
M.U.T.C.D.: 2009 Edition

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		S	o	u	t	h	e	a	s	t																	D 2000
	25.4	4.7	4.6	4.2	3.1	4.4	4.1	4.2	3.1	2.4	23.8																34.7
		S	c	h	o	o	l		R	d																	D 2000
	23.9	4.7	4.3	4.4	4.4	4.6	1	6	4.7	3.6	22.3																37.8
		W	o	o	d	y		M	i	l	l		R	d													D 2000
	8	5.9	4.4	4.4	4.3	4.5	6	6	2.2	2.2	1	6	4.7	3.6	20.9												55.1

FILENAME: Sign Designs

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 302
TYPE: D
QUANTITY: 1
SIGN WIDTH: 7'-0"
HEIGHT: 3'-6"
TOTAL AREA: 24.5 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.75"
RADII: 3"
NO. Z BARS:
LENGTH:

BACKG COLOR: Green
COPY COLOR: White

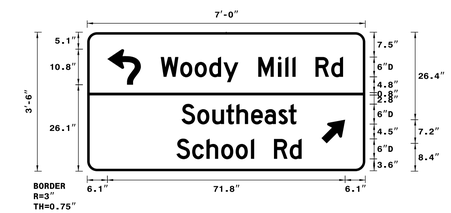
SYMBOL	X	Y	WID	HT
AR_FISHOOK	6.1	26.1	10.1	10.8
AR_Type D	70.8	8.4	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: R. Drayton
PROJECT ID: 7C.041253
CHECKED BY: B Crawford
DIV: 7
DATE: Apr 20, 2015

USE NOTES: 1,2

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.



Panel Style: guide_con_circular.ssi
M.U.T.C.D.: 2009 Edition

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		W	o	o	d	y		M	i	l	l		R	d													D 2000
	22.2	5.9	4.4	4.4	4.3	4.5	6	6	2.2	2.2	1	6	4.7	3.6	6.7												55.1
		S	o	u	t	h	e	a	s	t																	D 2000
	28.5	4.7	4.6	4.2	3.1	4.4	4.1	4.2	3.1	2.4	20.8																34.7
		S	c	h	o	o	l		R	d																	D 2000
	27	4.7	4.3	4.4	4.4	4.6	1	6	4.7	3.6	19.2																37.8

FILENAME: Sign Designs

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN NUMBER: 303
TYPE: B
QUANTITY: 1
SIGN WIDTH: 7'-6"
HEIGHT: 4'-6"
TOTAL AREA: 33.8 Sq.Ft.
BORDER TYPE: FLUSH
RECESS: 0"
WIDTH: 0.75"
RADII: 3"
NO. Z BARS: 2
LENGTH: 82.0

BACKG COLOR: Green
COPY COLOR: White

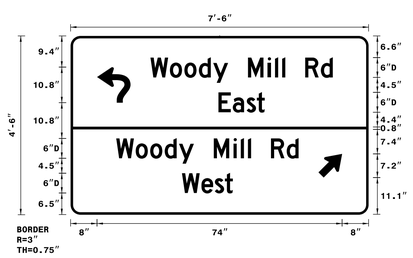
SYMBOL	X	Y	WID	HT
AR_FISHOOK	8	33.8	10.1	10.8
AR_Type D	74.9	11.2	6	9

MAT'L: 0.125" (3.2 mm) ALUMINUM

DESIGN BY: R. Drayton
PROJECT ID: 7C.041253
CHECKED BY: B Crawford
DIV: 7
DATE: Apr 20, 2015

USE NOTES: 1,2

1. Legend and border(except those that are colored black) shall be direct applied Grade C sheeting.
2. Background shall be Grade C reflective sheeting.



Panel Style: guide_con_circular.ssi
M.U.T.C.D.: 2009 Edition

Spacing Factor is 1 unless specified otherwise

LETTER POSITIONS

Letter spacings are to start of next letter

																											Series/Size Text Length
		W	o	o	d	y		M	i	l	l		R	d													D 2000
	24.1	5.9	4.4	4.4	4.3	4.5	6	6	2.2	2.2	1	6	4.7	3.6	10.8												55.1
		E	a	s	t																						D 2000
	44.7	4.3	4.2	3.1	2.4	31.4																					14
		W	o	o	d	y		M	i	l	l		R	d													D 2000
	13.8	5.9	4.4	4.4	4.3	4.5	6	6	2.2	2.2	1	6	4.7	3.6	21.1												55.1
		W	e	s	t																						D 2000
	33.6	5.9	4	3.1	2.4	41																					15.4

FILENAME: Sign Designs

NORTH CAROLINA D.O.T. SIGN DETAIL

SIGN DESIGNS

$$$$SYSTIME$$$$
USERNAME$$$$DGN$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

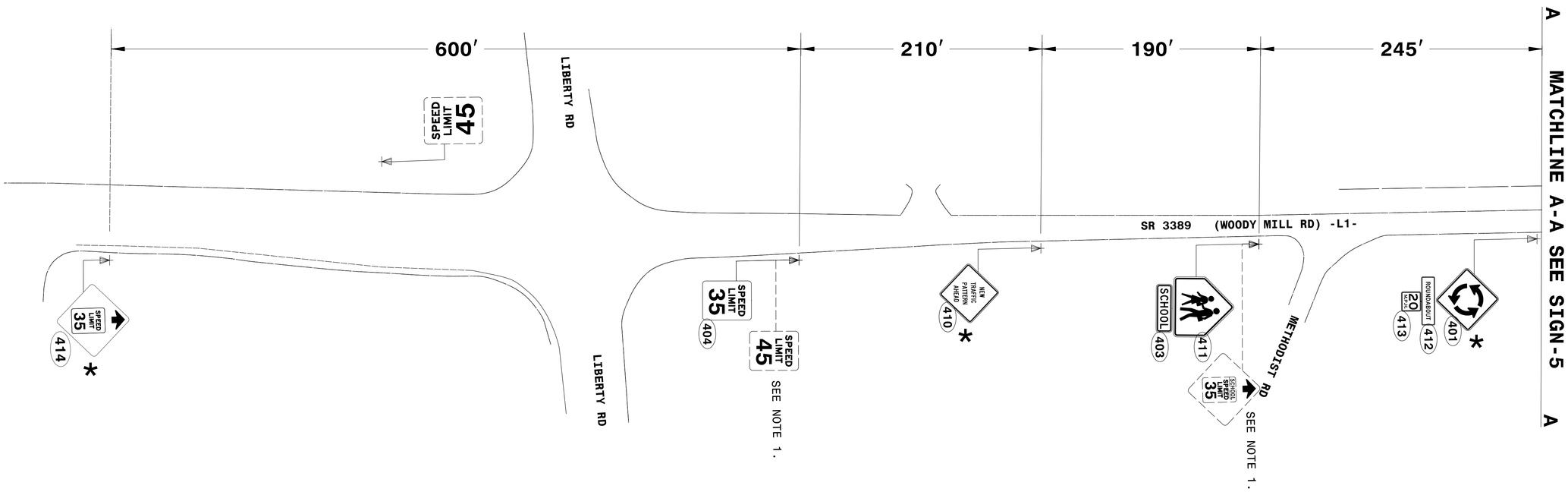
TIP NO.	SHEET NO.
7C.041253	SIGN-4

APPROVED: DocuSigned by: Benjamin R. Crawford DD1AEA1C9BC047F...

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 32606 ENGINEER BENJAMIN R. CRAWFORD



NOTES:

1.) DISPOSAL OF SIGN SYSTEM, U-CHANNEL

2.) ADD VERTICAL REFLECTIVE * YELLOW STRIPS ON SIGN POSTS FOR ALL WARNING SIGNS AND ** RED REFLECTIVE STRIPS ON ALL YEILD SIGNS

EXISTING & PROPOSED SIGN DETAIL SHEET

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

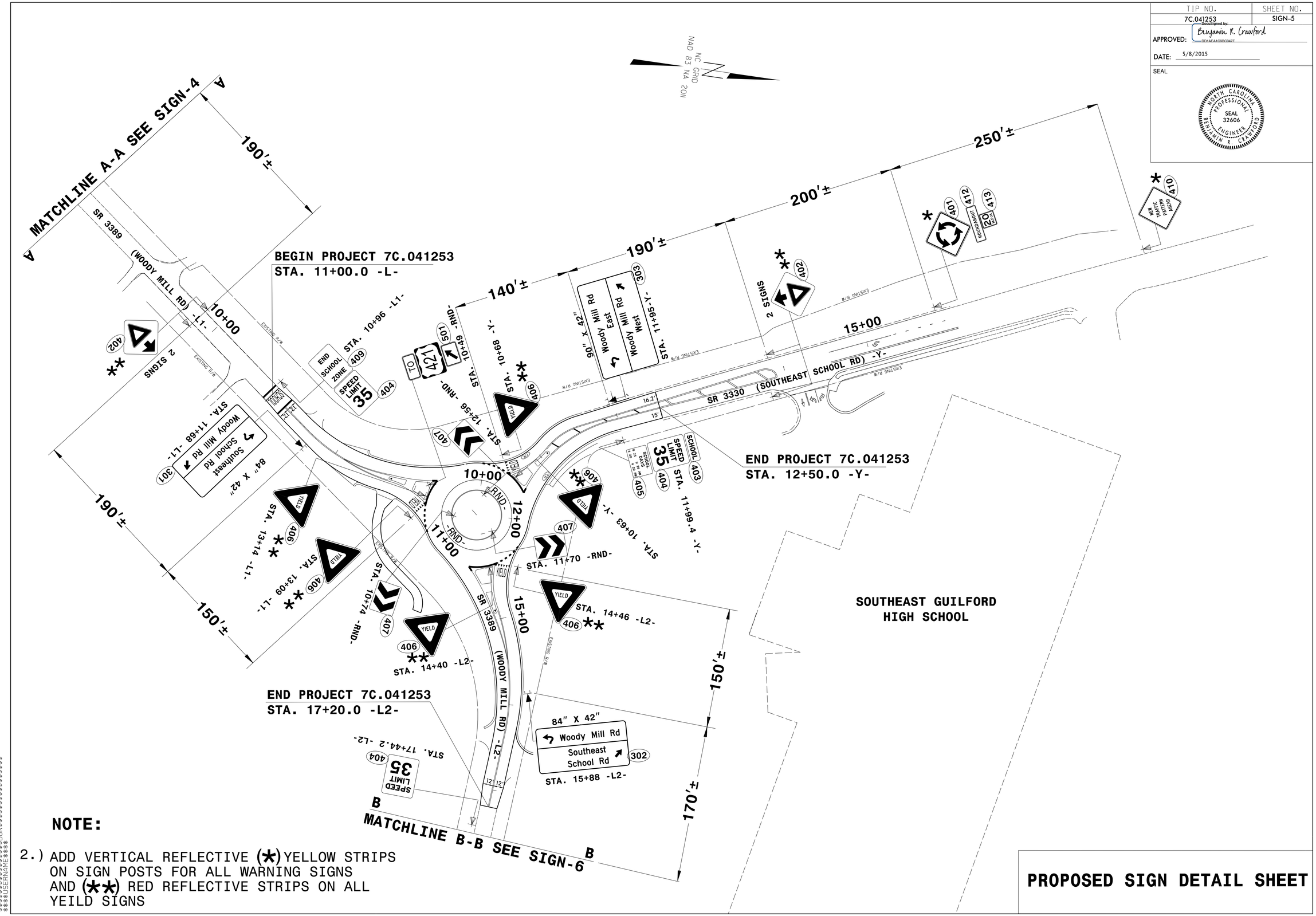
TIP NO.	SHEET NO.
7C.041253	SIGN-5

APPROVED: Benjamin R. Crawford (DocuSigned by: DD1AEA1C9BC047F...)

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 32606 BENJAMIN R. CRAWFORD



NOTE:

2.) ADD VERTICAL REFLECTIVE (*) YELLOW STRIPS ON SIGN POSTS FOR ALL WARNING SIGNS AND (**) RED REFLECTIVE STRIPS ON ALL YEILD SIGNS

PROPOSED SIGN DETAIL SHEET

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$USERNAME$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

TIP NO.	SHEET NO.
7C.041253	SIGN-6

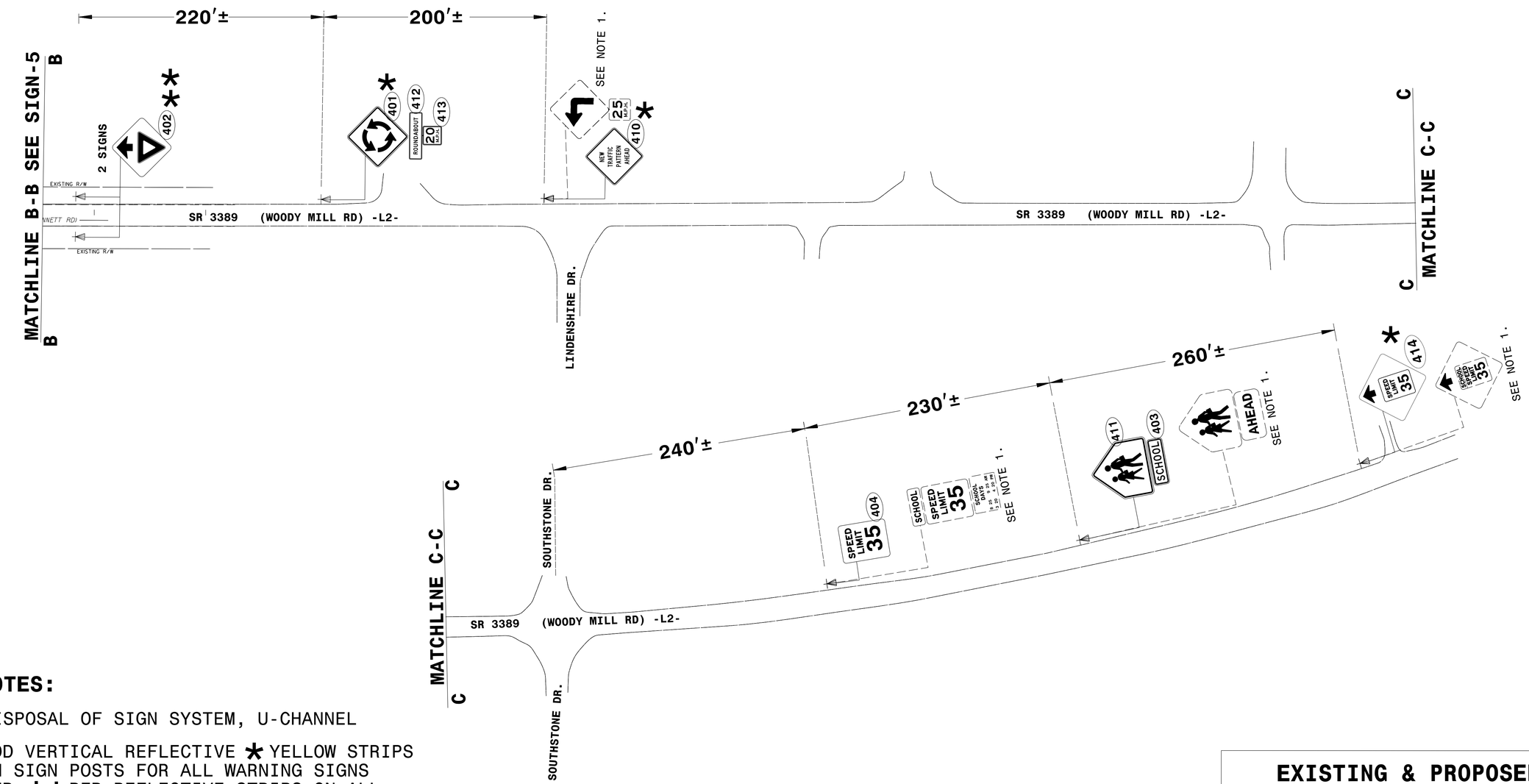
APPROVED: Benjamin K. Crawford (DocuSigned by: DD1AEA1C9BC047F...)

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 32606 ENGINEER BENJAMIN K. CRAWFORD

NC GRID
NAD 83 NA 2011



NOTES:

1.) DISPOSAL OF SIGN SYSTEM, U-CHANNEL

2.) ADD VERTICAL REFLECTIVE * YELLOW STRIPS ON SIGN POSTS FOR ALL WARNING SIGNS AND ** RED REFLECTIVE STRIPS ON ALL YEILD SIGNS

EXISTING & PROPOSED SIGN DETAIL SHEET

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

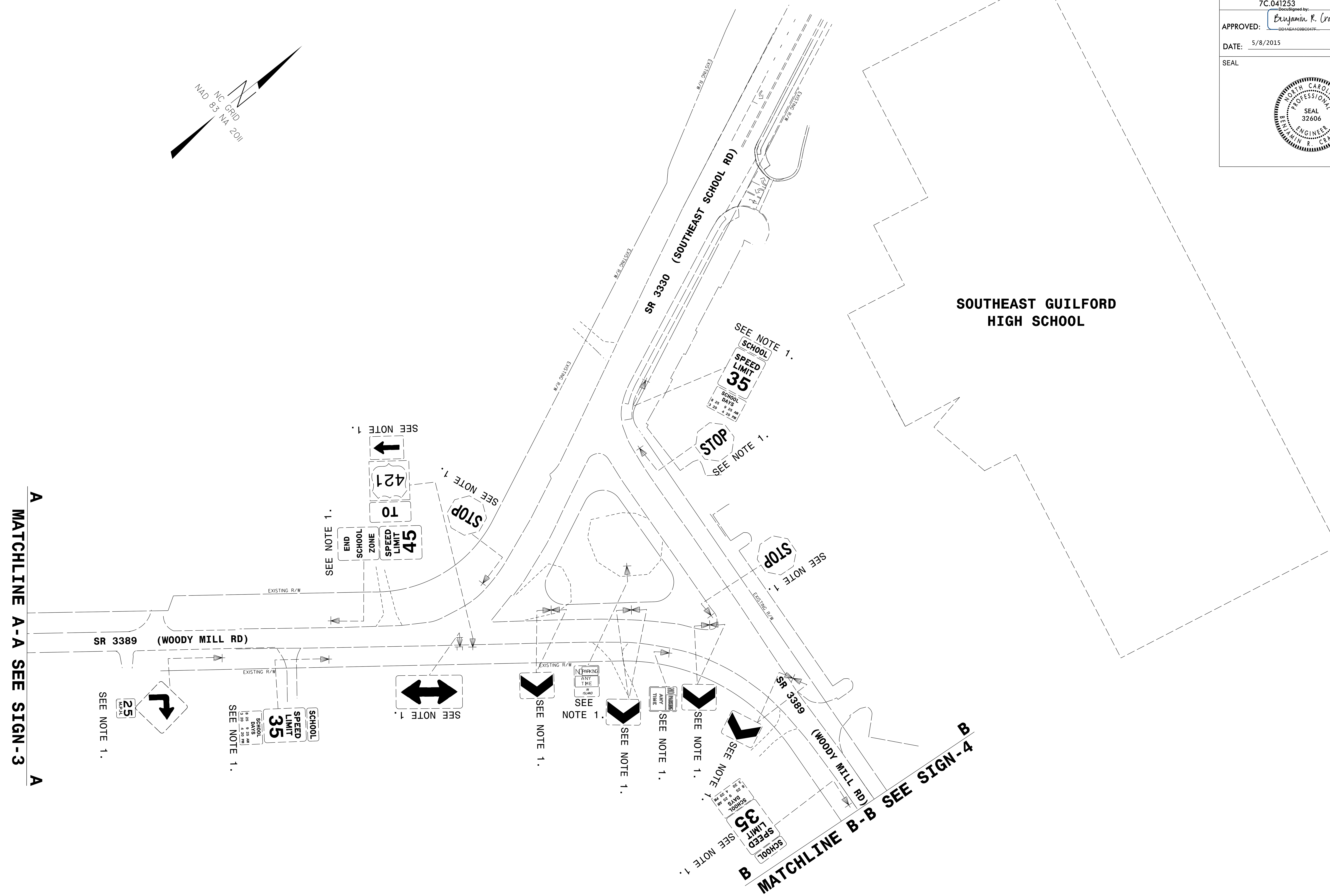
TIP NO.	SHEET NO.
7C.041253	SIGN-7

APPROVED: DocuSigned by: Benjamin R. Crawford DD1AEA1C9BC047F...

DATE: 5/8/2015

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 32606 ENGINEER BENJAMIN R. CRAWFORD



NOTE:

1.) DISPOSAL OF SIGN SYSTEM, U-CHANNEL

EXISTING SIGN DETAIL SHEET

$$$$$$$SYSTIME$$$$$$
$$$$$$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$$$$USERNAME$$$$$$

DocuSign Envelope ID: 0E0498B8-FF37-4376-A8B1-3696A49A78A2

PROJECT REFERENCE NO.	SHEET NO.
7C.041253	X-1

CROSS SECTION INDEX

X-1 CROSS SECTION INDEX

X-2 THRU X-3 -L1-

X-4 THRU X-5 -L2-

X-6 -Y-

X-7 THRU X-9 -RND-

X-10 -DR1-

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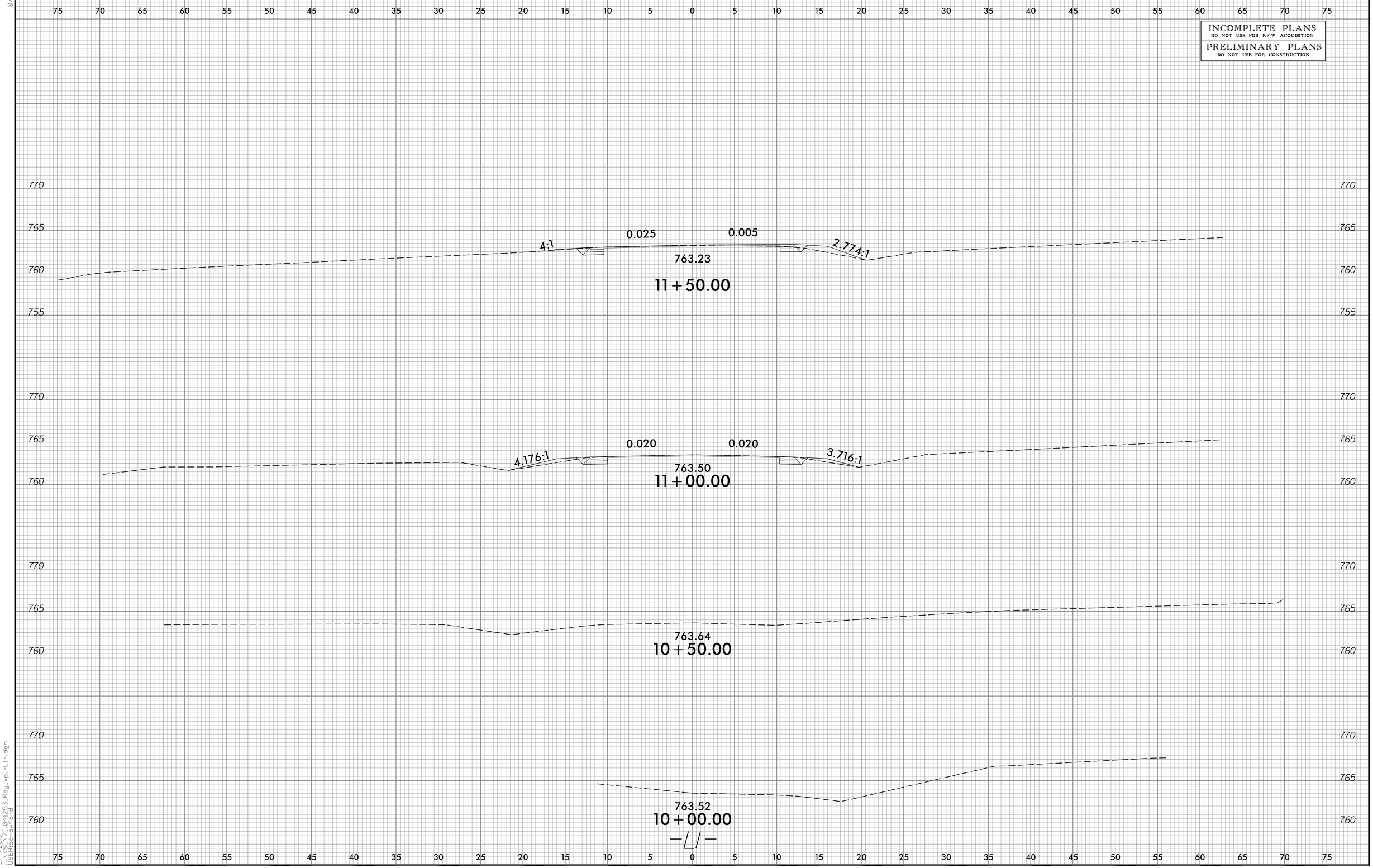
8/23/99

0 2.5 5

PROJ. REFERENCE NO.	SHEET NO.
7C.041253	X-2

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



5/7/2015
V8DGN 7C.041253.Rdy_xpl-L1-.dgn
USERbcrawford

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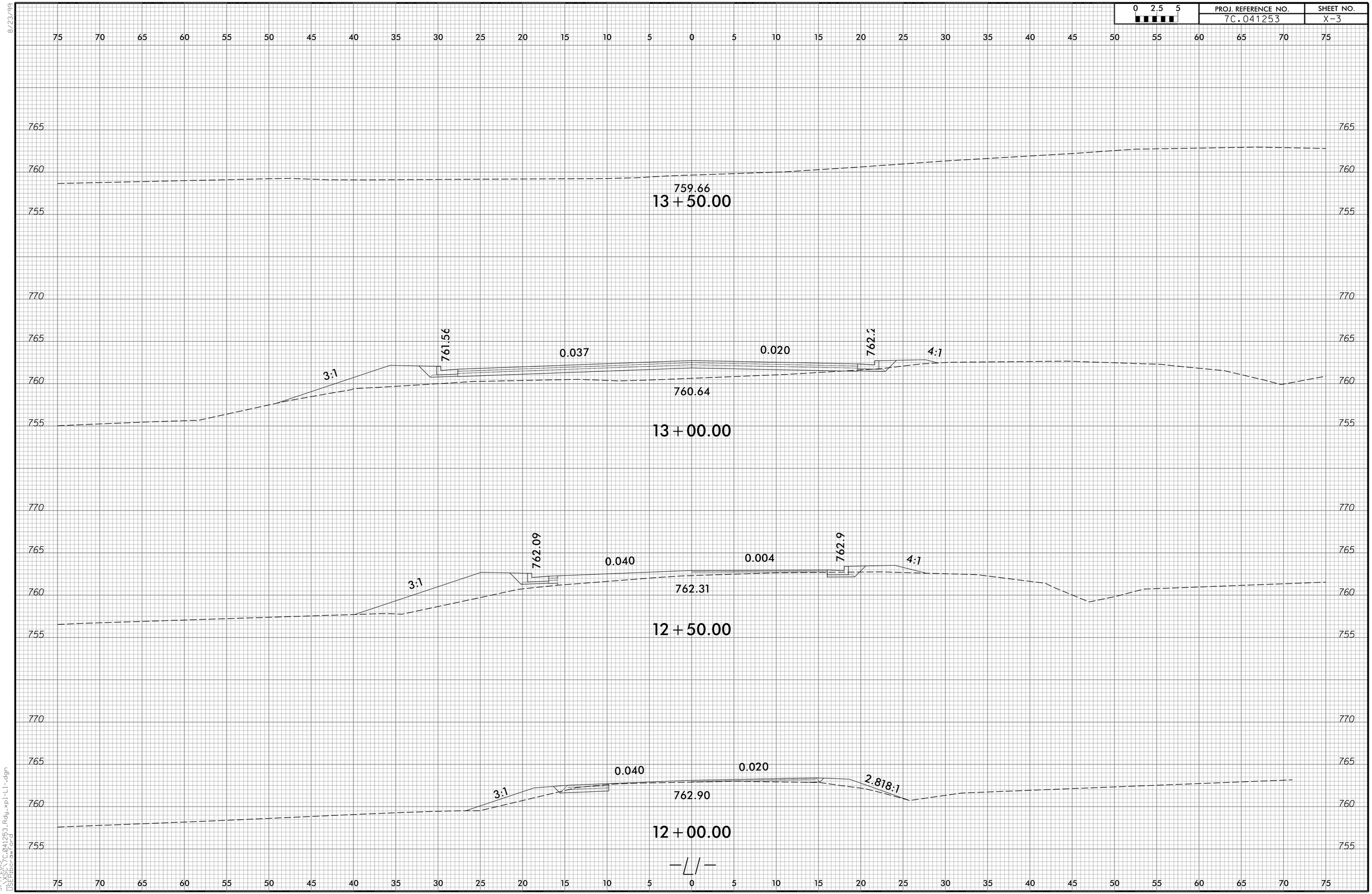
8/23/99

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	7C.041253	X-3



5/7/2015
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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
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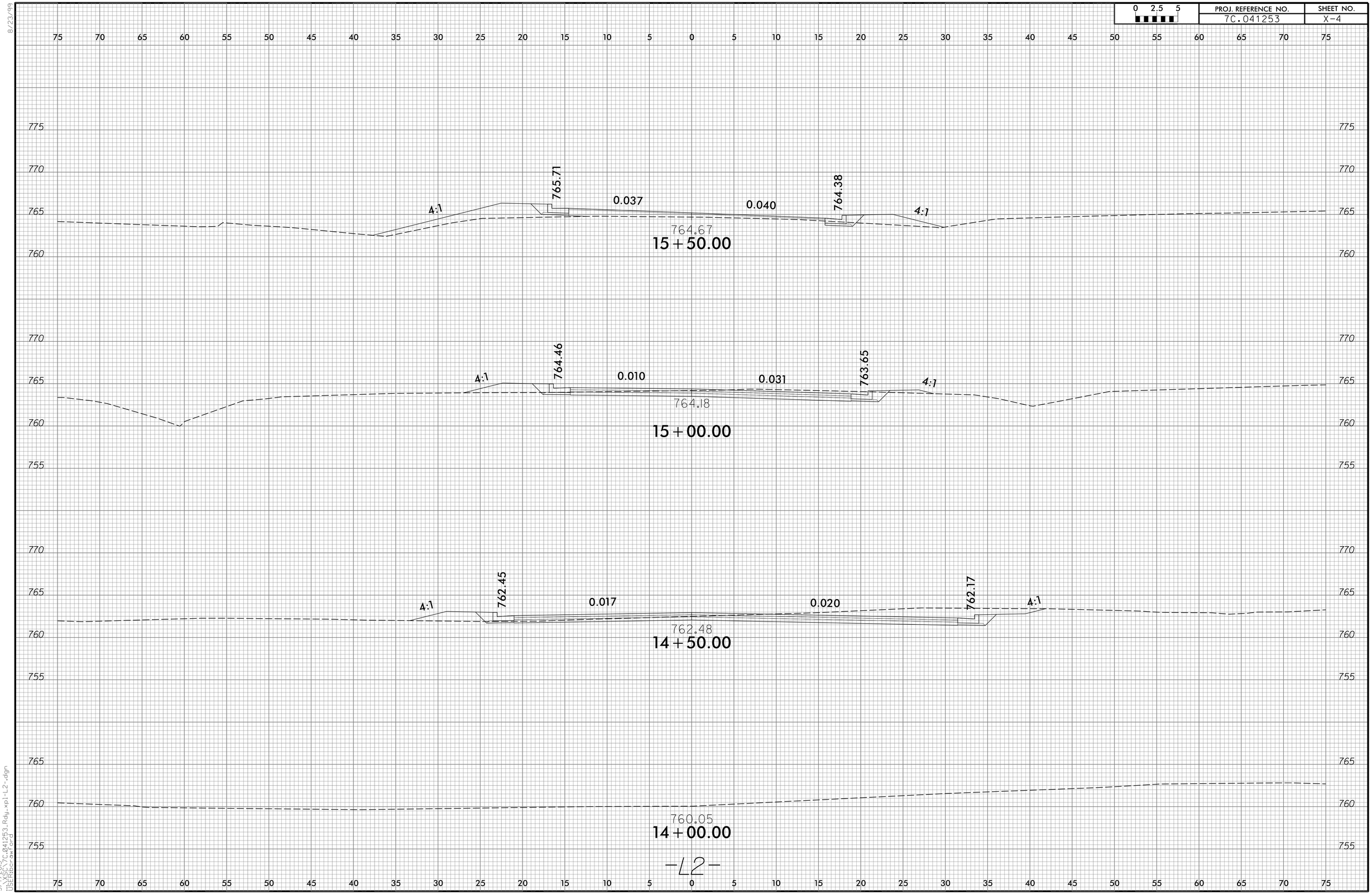

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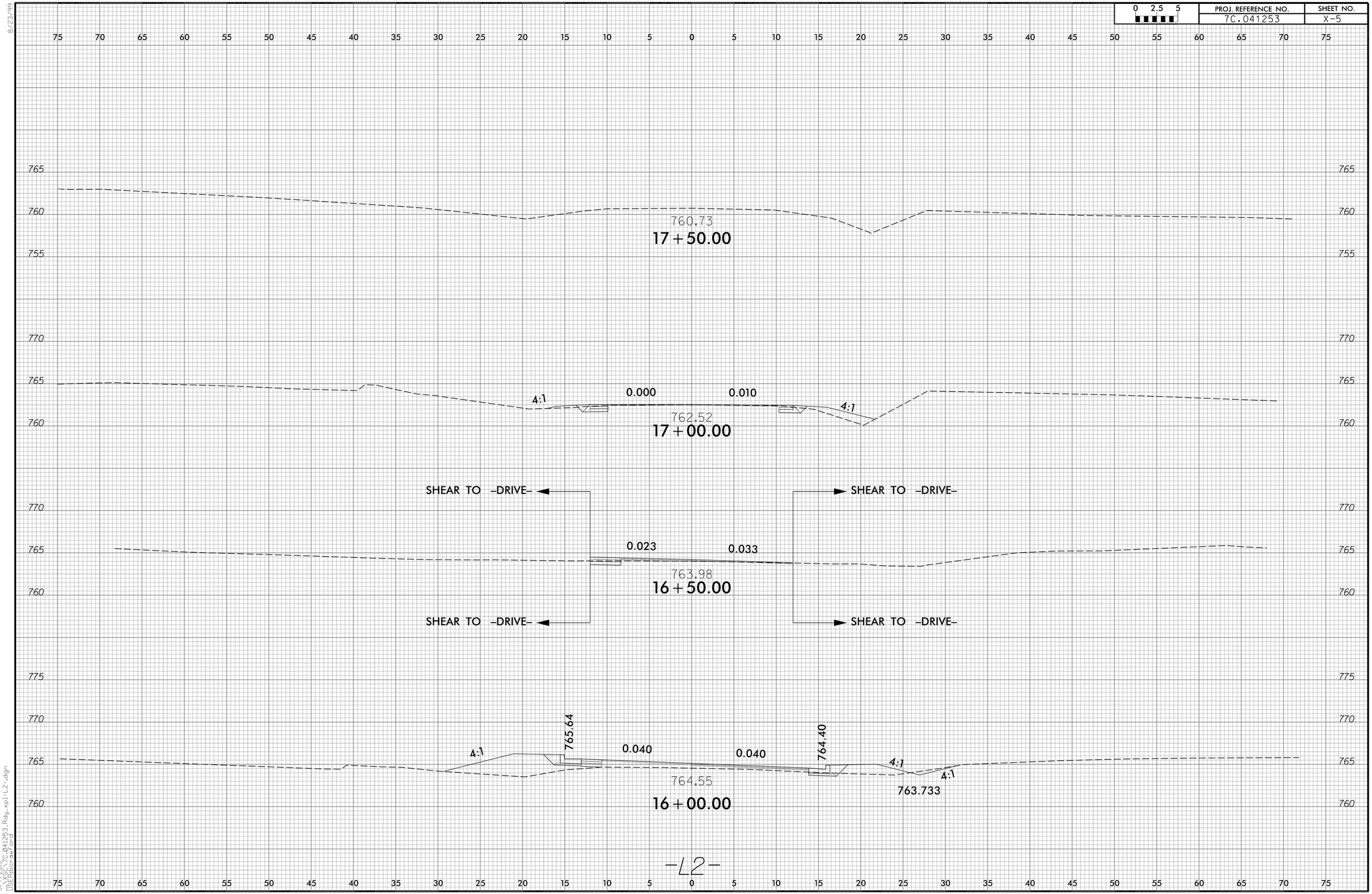

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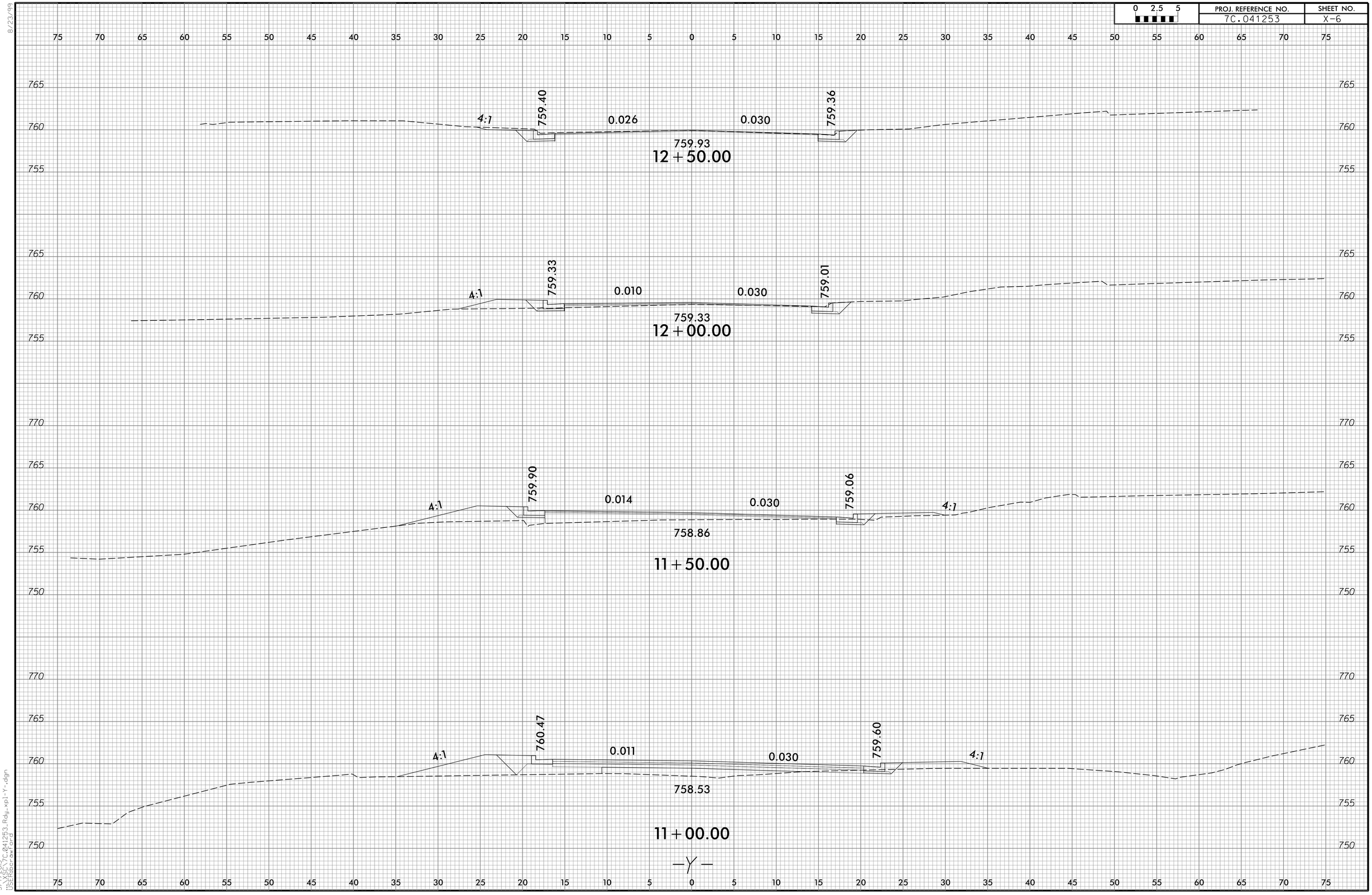

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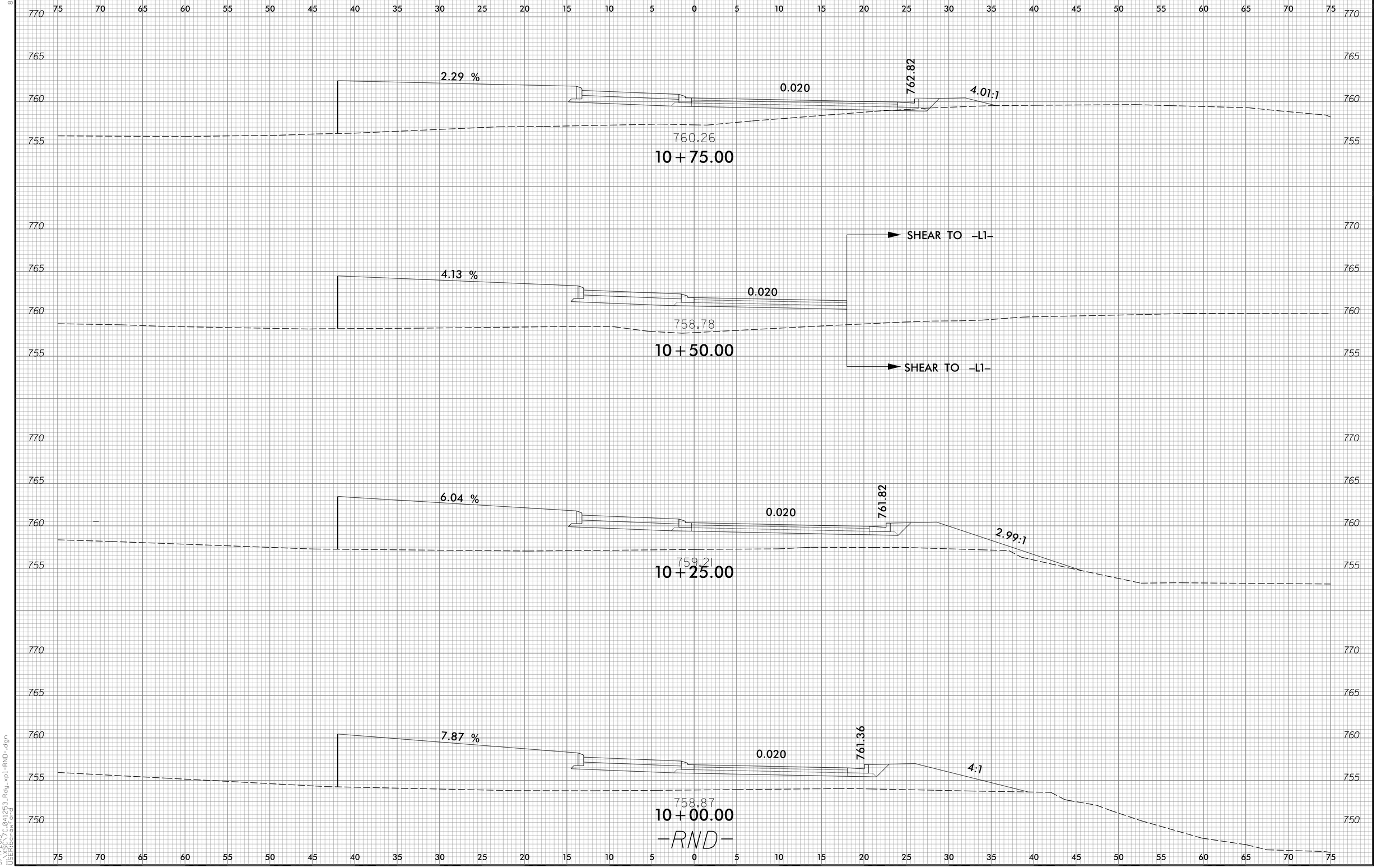

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USER:bcrawford

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8/23/99

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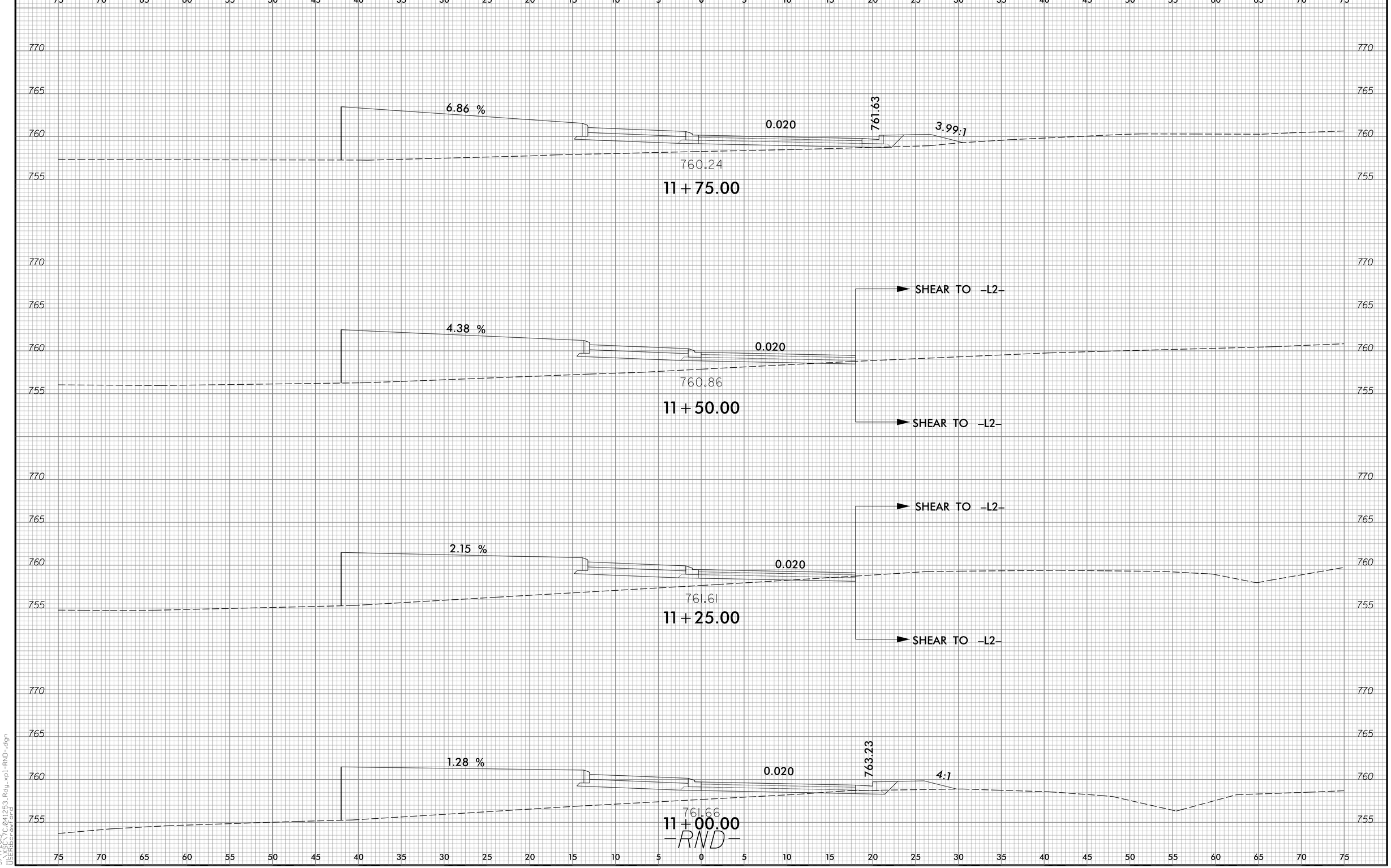

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0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
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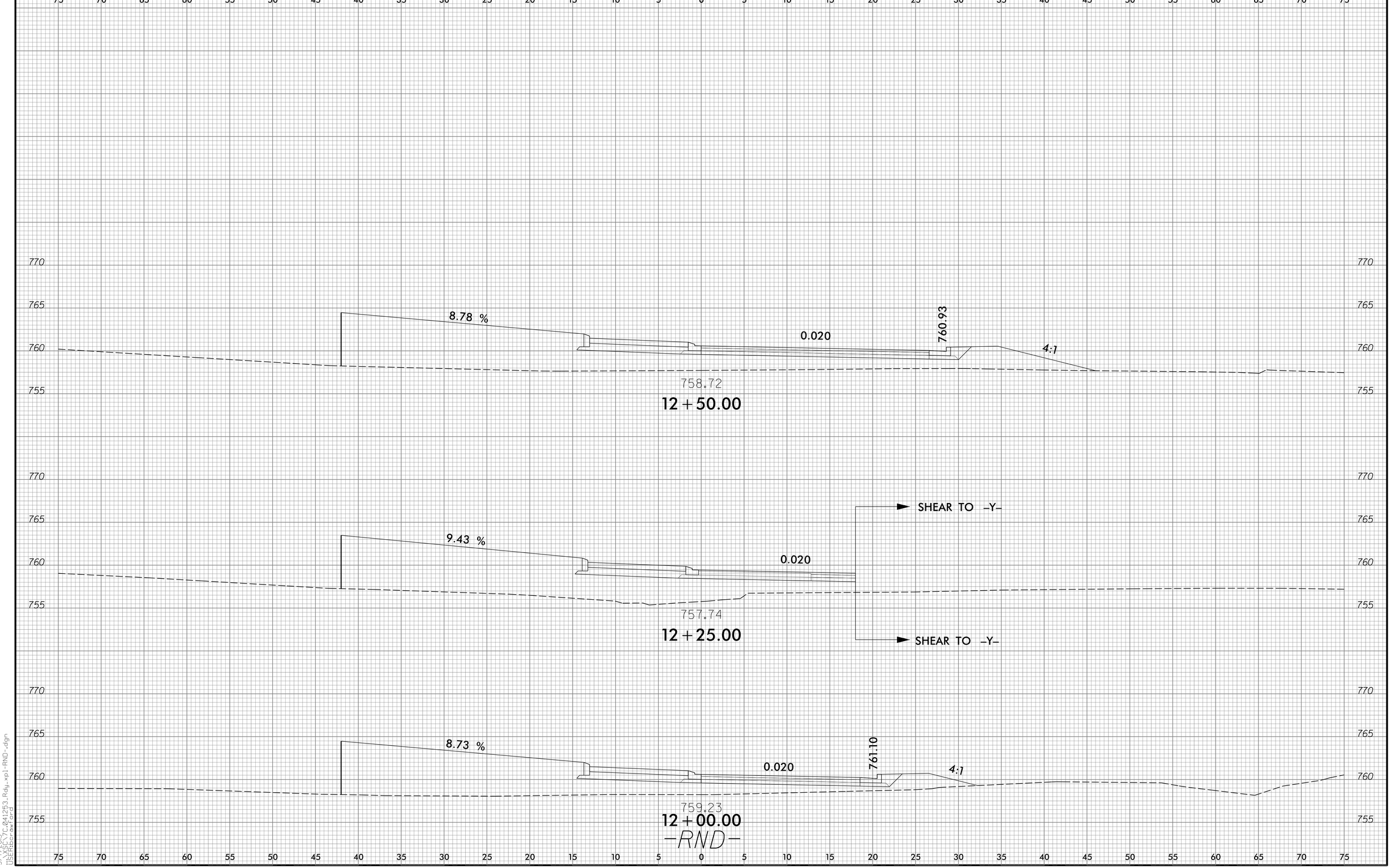

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0 2.5 5

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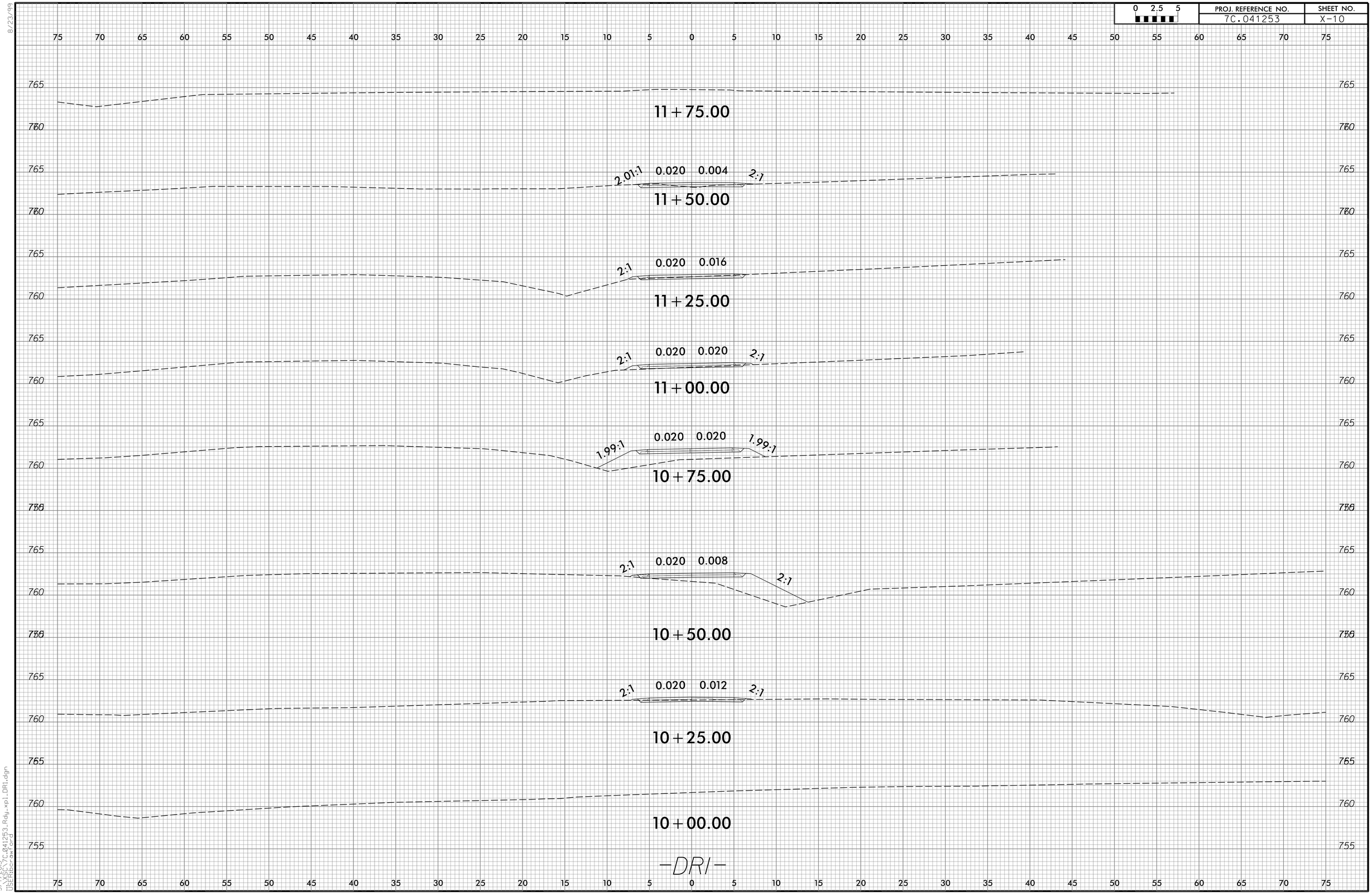

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USERbcrawford