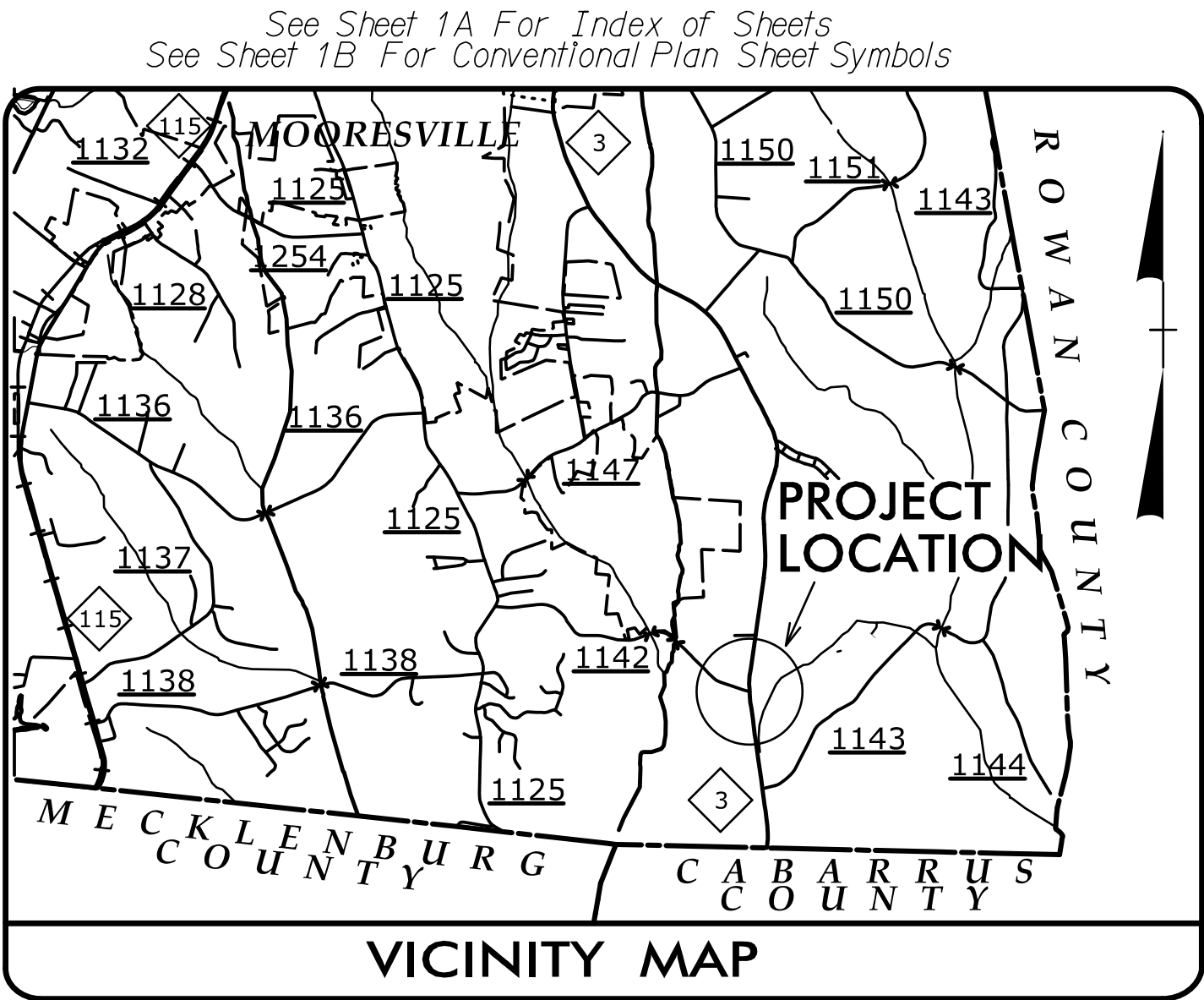


09/08/25

TIP PROJECT: SM-5712C

CONTRACT: DL00364



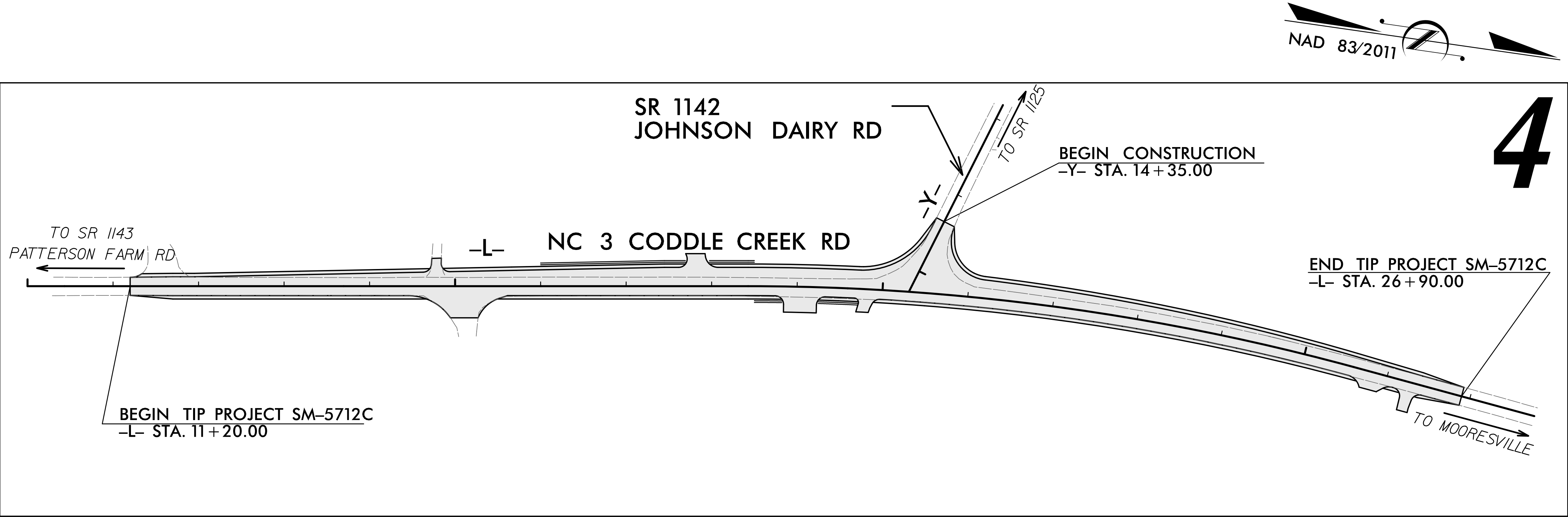
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

LOCATION: NC 3 (CODDLE CREEK HWY) AND
SR 1142 (JOHNSON DAIRY RD) INTERSECTION IMPROVEMENTS

TYPE OF WORK: GRADING, PAVING, DRAINAGE & SIGNAL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SM-5712C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48271.1.1	N/A	PE	
48271.2.1	N/A	ROW	
48271.3.1	N/A	CONST	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

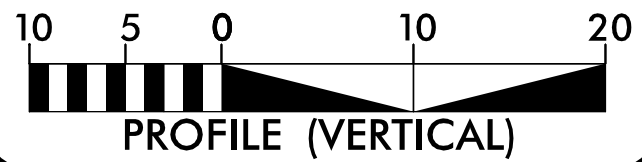
GRAPHIC SCALES



PLANS



PROFILE (HORIZONTAL)



PROFILE (VERTICAL)

DESIGN DATA

ADT 2025 = 11,967
ADT 2045 = 14,602
V = 60 MPH

FUNC CLASS =
MAJOR (RURAL) COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT SM-5712C = 0.297 MILES
TOTAL LENGTH TIP PROJECT SM-5712C = 0.297 MILES

NCDOT CONTACT: BRYAN SOWELL, PE

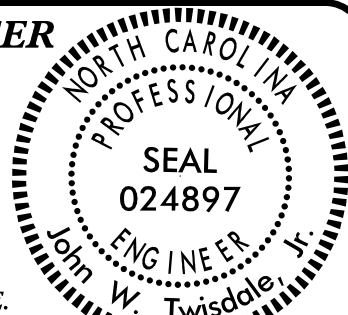
PLANS PREPARED BY:	PLANS PREPARED FOR:
TGS ENGINEERS 201 W. MARION ST SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 12 1710 E. MARION ST SHELBY, NC 28150
RIGHT OF WAY DATE: OCT. 21, 2024	JIMMY L. TERRY, PE PROJECT ENGINEER
LETTING DATE: NOV. 25, 2025	CLINTON B. PRUETT, PE PROJECT DESIGN ENGINEER
2024 STANDARD SPECIFICATIONS	

HYDRAULICS ENGINEER

9/10/2025

Signed by:
John W. Twissdale, Jr.
P.E.

SIGNATURE

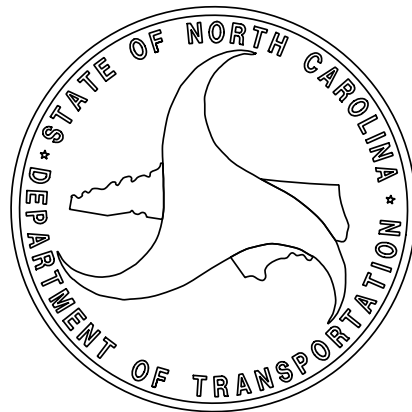
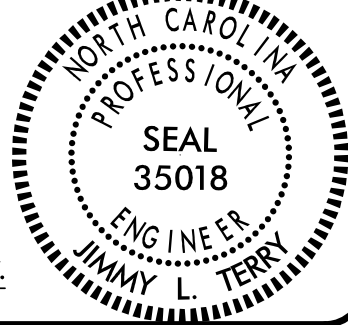


ROADWAY DESIGN
ENGINEER

9/9/2025

Signed by:
Jimmy L. Terry
P.E.

SIGNATURE



8/17/99

7/24/2025
X:\K\000\K\SM-5712C_Roadway\Proj\SM-5712C_Rdy_tsh.dgn
User:smelwin

TGS

ENGINEERS

TGS ENGINEERS

201 W. MARION ST., STE 200

SHELBY, NC 28150

PH (704) 476-0003

CORP. LICENSE NO.: C-0275

PROJECT REFERENCE NO.	SHEET NO.
SM-5712C	1A

ROADWAY DESIGN
ENGINEER

NORTH CAROLINA

REGISTERED

SEAL

35018

ENGINEER

JIMMY L. TERRY

9/9/2025

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SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1 THRU 2C-2	SPECIAL DETAILS - METHOD OF PIPE INSTALLATION
3B-1	ROADWAY AND DRAINAGE SUMMARIES
4	PLAN SHEET
5	PROFILE SHEET
RW-01 THRU RW-04A	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-7	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
SIG-1 THRU SIG-1.2	SIGNAL PLANS
X-1	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-7	CROSS-SECTIONS

GENERAL NOTES:

2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

GRADE LINE:

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 II.

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.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS 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:

UTILITY OWNERS ON THIS PROJECT ARE DUKE AND WINDSTREAM

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 OTHERS.

2024 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2024
REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 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 (Use Details in Lieu of Standards for Sheets 1 and 2 of 2)
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 8 - INCIDENTALS	
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drainage Structures
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
846.02	Drop Inlet Installation in Expressway Gutter
876.02	Guide for Rip Rap at Pipe Outlets

05/20/24

Note: Not to Scale

BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin (EIP)	
Computed Property Corner	
Existing Concrete Monument (ECM)	
Parcel / Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Secondary Horiz and Vert Control Point	
Vertical Benchmark	
Existing Right of Way Monument	
Proposed Right of Way Monument (Rebar and Cap)	
Proposed Right of Way Monument (Concrete)	
Existing Permanent Easement Monument	
Proposed Permanent Easement Monument (Rebar and Cap)	
Existing C/A Monument	
Proposed C/A Monument (Rebar and Cap)	
Proposed C/A Monument (Concrete)	
Existing Right of Way Line	
Proposed Right of Way Line	
Existing Control of Access Line	
Proposed Control of Access Line	
Proposed ROW and CA Line	
Existing Easement Line	
Proposed Temporary Construction Easement	
Proposed Temporary Drainage Easement	
Proposed Permanent Drainage Easement	
Proposed Permanent Drainage/Utility Easement	
Proposed Permanent Utility Easement	
Proposed Temporary Utility Easement	
Proposed Aerial Utility Easement	

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
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	

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

* SUE - Subsurface Utility Engineering
LOS - Level of Service - A,B,C or D (Accuracy)

POWER:

Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line Test Hole (SUE - LOS A)*	
U/G Power Line (SUE - LOS B)*	
U/G Power Line (SUE - LOS C)*	
U/G Power Line (SUE - LOS D)*	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Test Hole (SUE - LOS A)*	
U/G Telephone Cable (SUE - LOS B)*	
U/G Telephone Cable (SUE - LOS C)*	
U/G Telephone Cable (SUE - LOS D)*	
U/G Telephone Conduit (SUE - LOS B)*	
U/G Telephone Conduit (SUE - LOS C)*	
U/G Telephone Conduit (SUE - LOS D)*	
U/G Fiber Optics Cable (SUE - LOS B)*	
U/G Fiber Optics Cable (SUE - LOS C)*	
U/G Fiber Optics Cable (SUE - LOS D)*	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line Test Hole (SUE - LOS A)*	
U/G Water Line (SUE - LOS B)*	
U/G Water Line (SUE - LOS C)*	
U/G Water Line (SUE - LOS D)*	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Test Hole (SUE - LOS A)*	
U/G TV Cable (SUE - LOS B)*	
U/G TV Cable (SUE - LOS C)*	
U/G TV Cable (SUE - LOS D)*	
U/G Fiber Optic Cable (SUE - LOS B)*	
U/G Fiber Optic Cable (SUE - LOS C)*	
U/G Fiber Optic Cable (SUE - LOS D)*	

GAS:

Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	
U/G Gas Line (SUE - LOS C)*	
U/G Gas Line (SUE - LOS D)*	
Above Ground Gas Line	

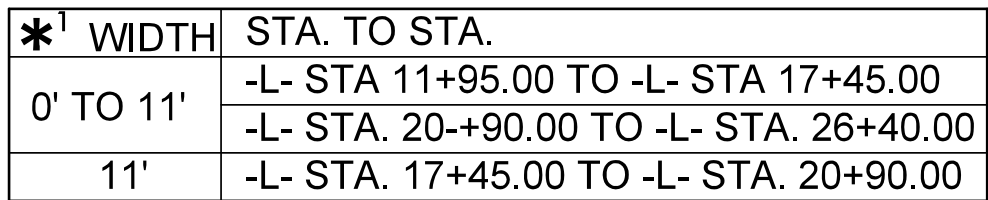
SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE - LOS A)*	
SS Force Main Line (SUE - LOS B)*	
SS Force Main Line (SUE - LOS C)*	
SS Force Main Line (SUE - LOS D)*	

MISCELLANEOUS:

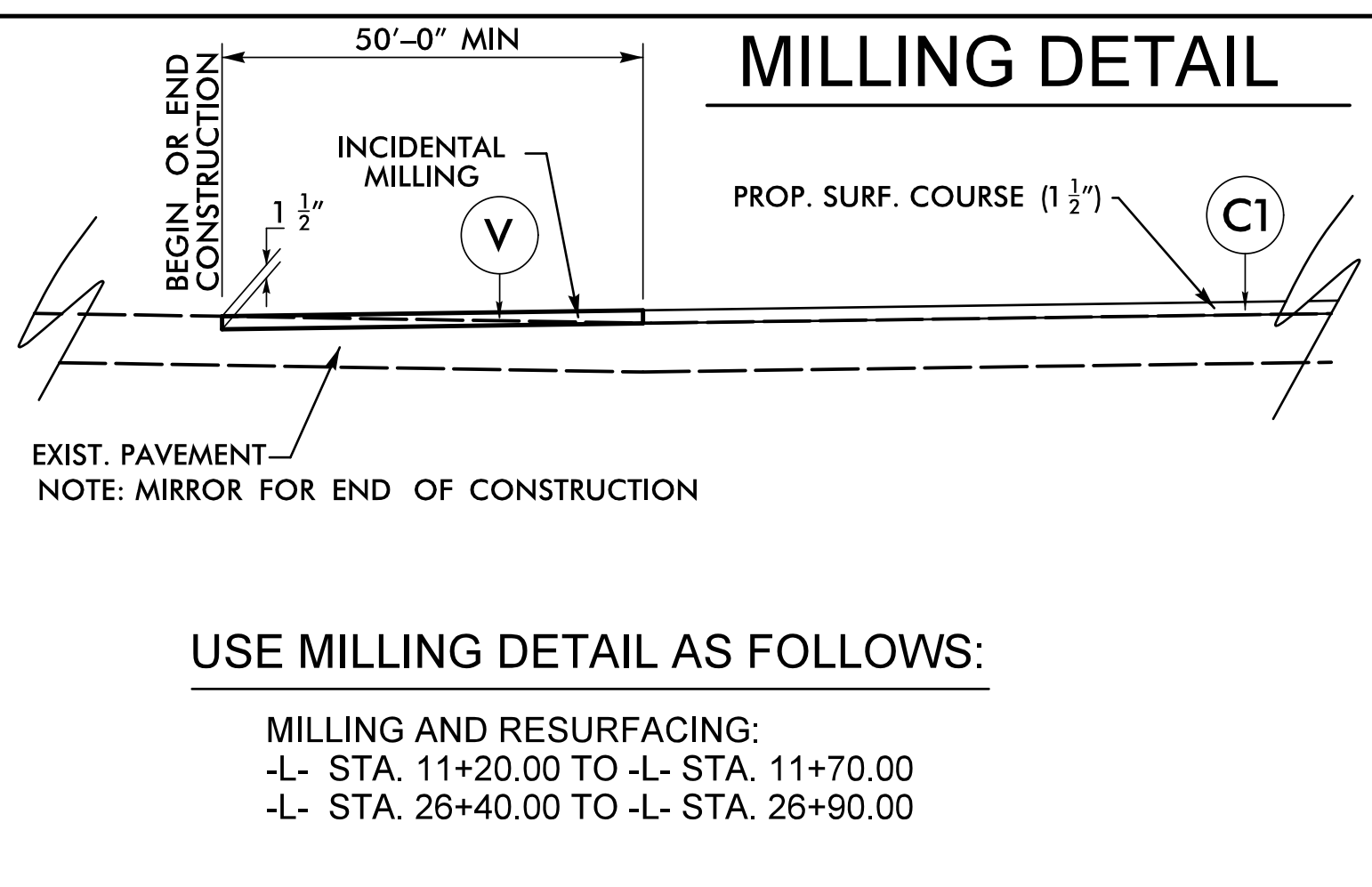
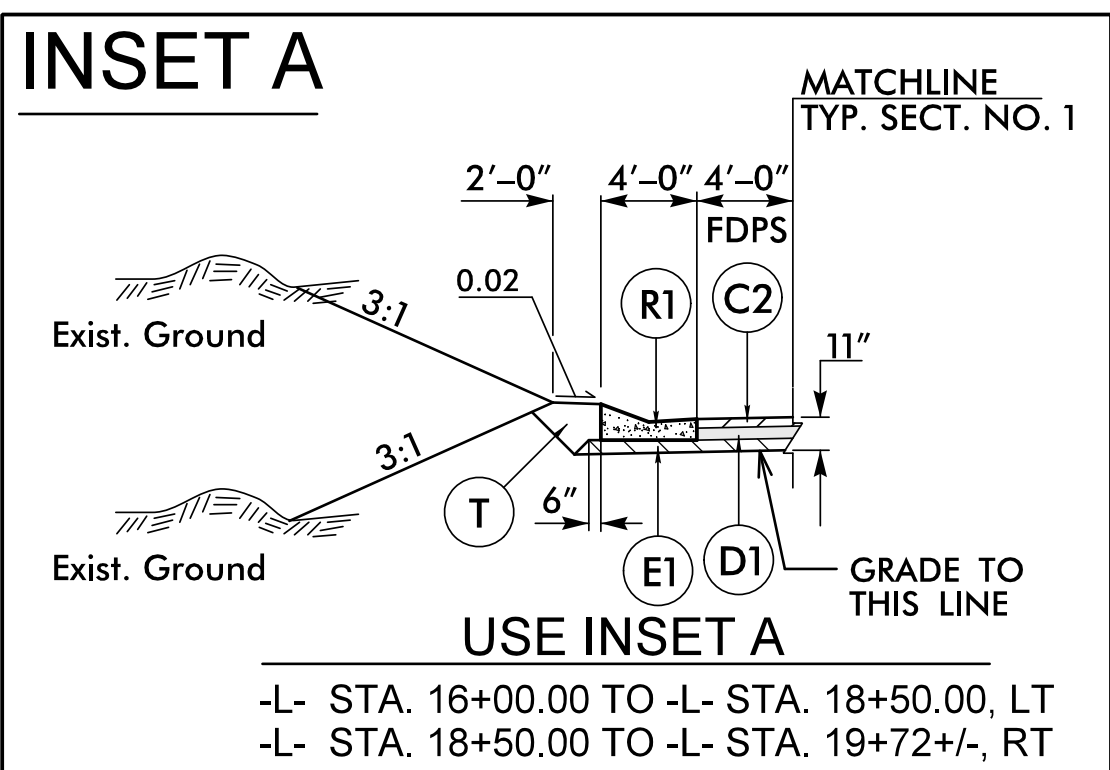
Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line (SUE - LOS B)*	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
Abandoned According to Utility Records	
End of Information	

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE SHOWN.



-L- STA. 11+70.00 TO -L- STA. 26+40.00

-L- STA. 11+20.00 TO -L- STA. 11+70.00
-L- STA. 26+40.00 TO -L- STA. 26+90.00



STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
METHOD OF PIPE INSTALLATION
FLEXIBLE PIPE

SHEET 1 OF 2
300.01

Diagram showing a pipe in a trench with normal earth foundation. The pipe is surrounded by compacted material. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, NORMAL EARTH FOUNDATION.

Diagram showing a pipe in a trench with a rock foundation. The pipe is surrounded by compacted material, with a rock layer below. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, ROCK, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., UNSUITABLE MATERIAL FOUNDATION.

Diagram showing a pipe in a trench with an unsuitable material foundation. The pipe is surrounded by compacted material, with a layer of unsuitable material below. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, EARTH, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., UNSUITABLE MATERIAL FOUNDATION.

Diagram showing a pipe above ground with normal earth foundation. The pipe is surrounded by compacted material. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, NORMAL EARTH FOUNDATION.

Diagram showing a pipe above ground with a rock foundation. The pipe is surrounded by compacted material, with a rock layer below. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, ROCK, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, UNSUITABLE MATERIAL FOUNDATION.

Diagram showing a pipe above ground with an unsuitable material foundation. The pipe is surrounded by compacted material, with a layer of unsuitable material below. Labels include: TOP OF FILL, GROUND LINE, MIN. O.D., H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, EARTH, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, UNSUITABLE MATERIAL FOUNDATION.

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS
AND DEVELOPMENT UNIT

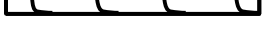
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN	DATE: 7-25-2024
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

	SPRINGLINE OF PIPE
	SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.
	UNDISTURBED EARTH MATERIAL
	SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

Professional Engineer Seal for Nicole M. Hackler, State of North Carolina, License No. 033144, expires 06/30/2020.

9/10/2025

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

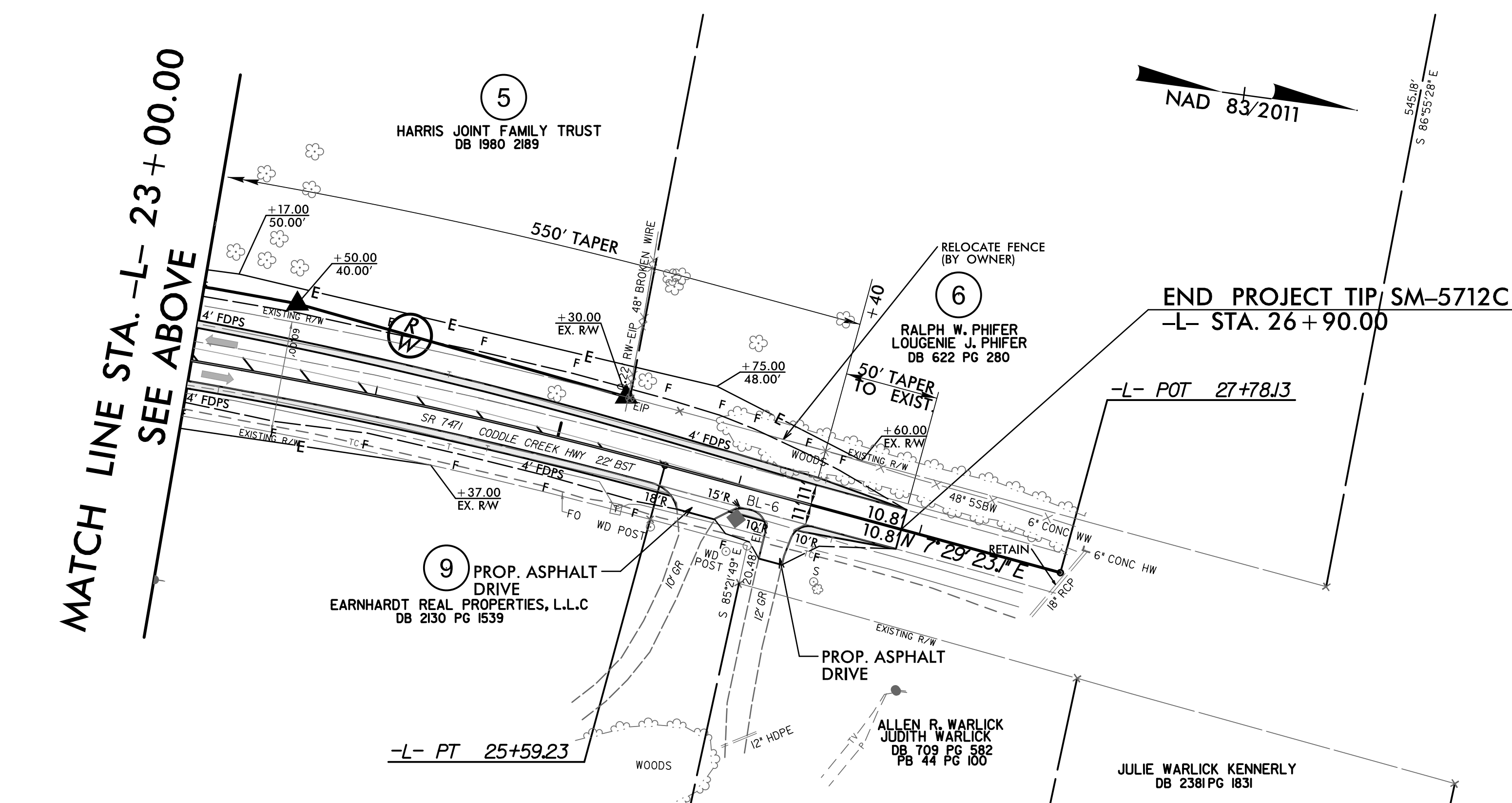
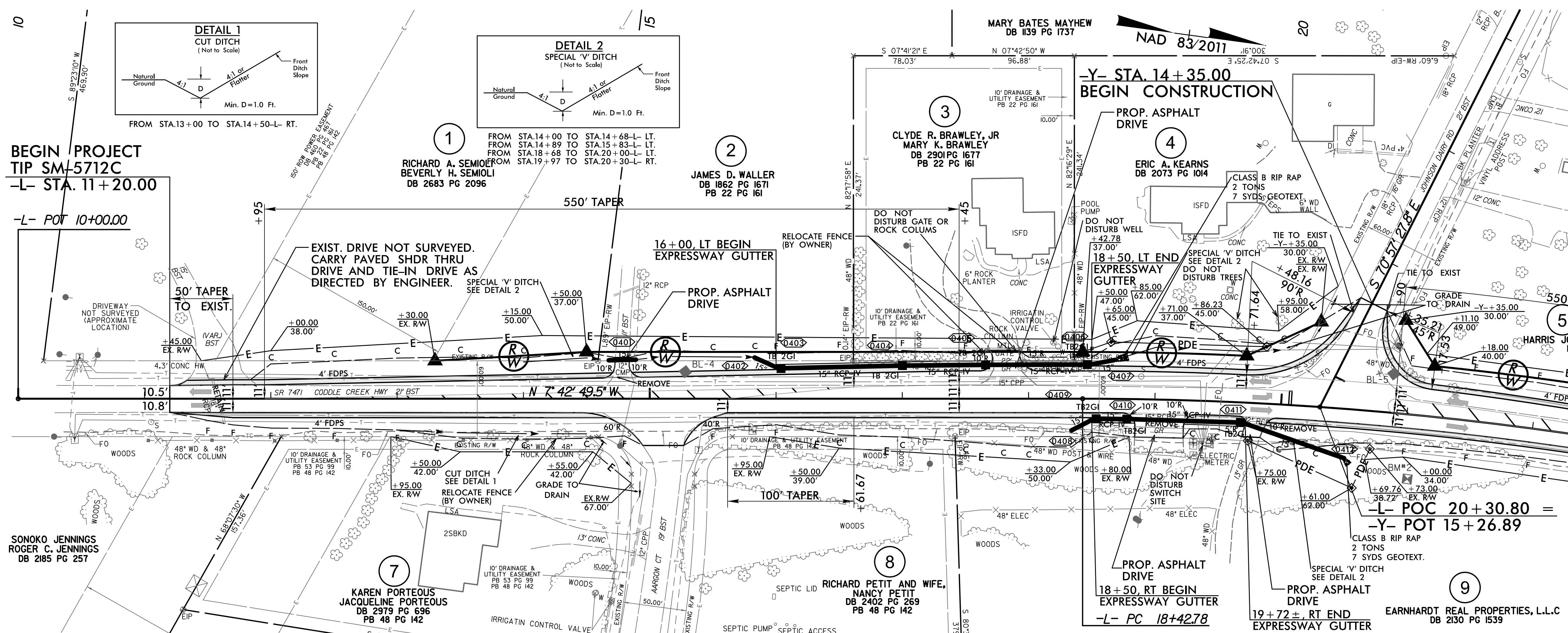
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

Office 919-707-6950 FAX 919-250-4119

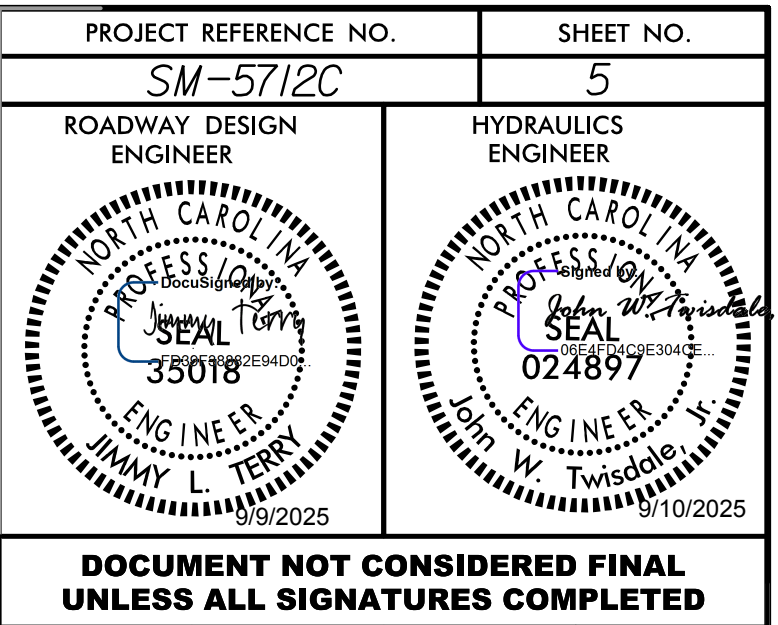
SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
 MODIFIED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC.: _____

PROJECT REFERENCE NO. SM-5712C		SHEET NO. 4	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
TGS ENGINEERS 201 W. MARION ST., STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			

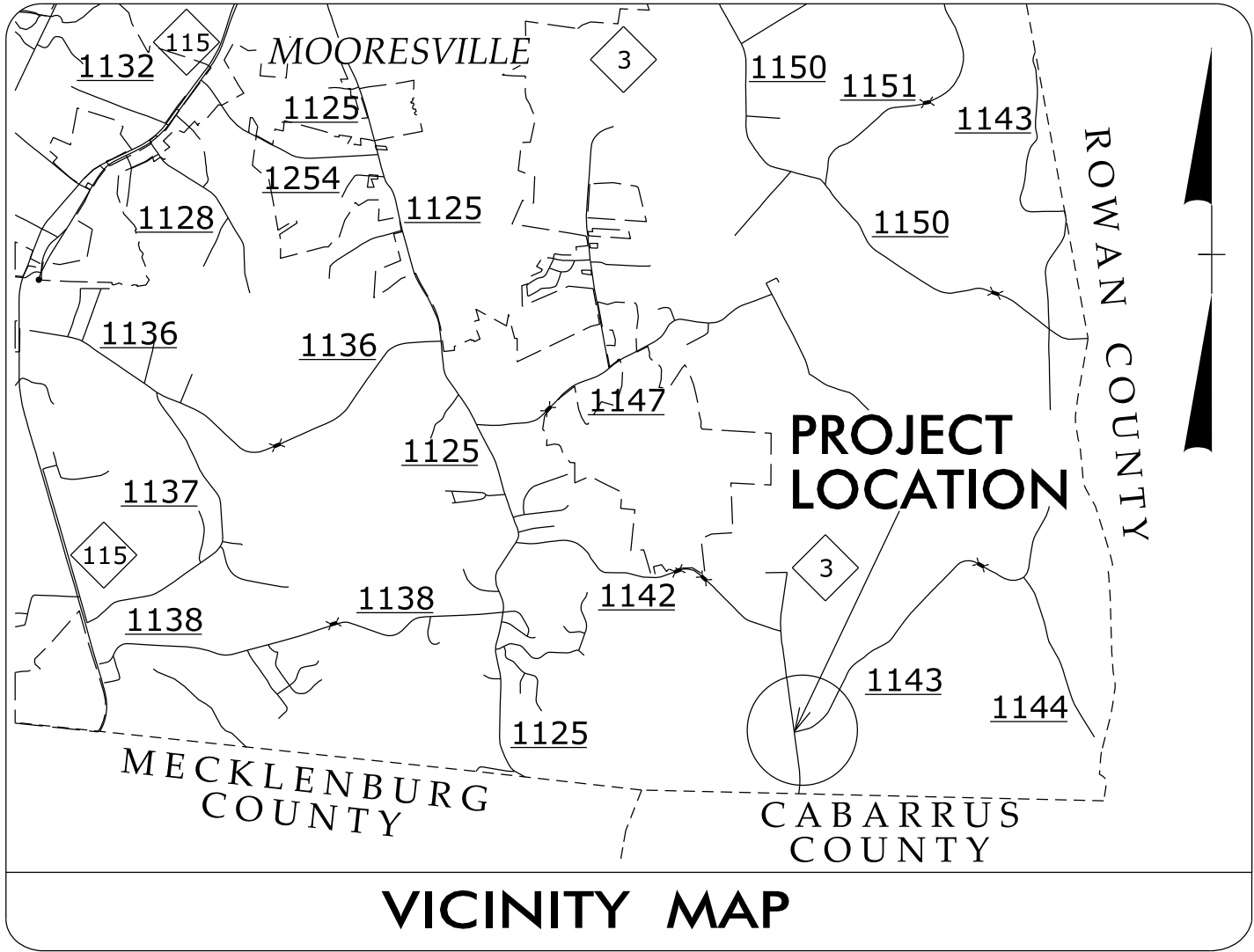


FOR -L- PROFILE, SEE SHEET NO. 5



09/08/2025

TIP PROJECT: SM-5712C



VICINITY MAP

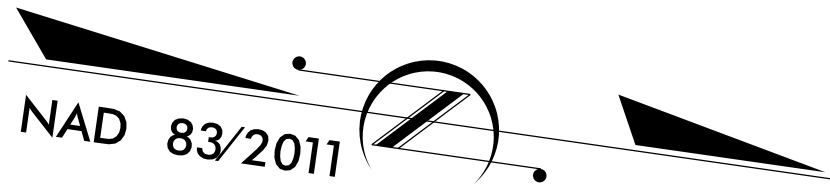
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SURVEY CONTROL, EXISTING CENTERLINES,
RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

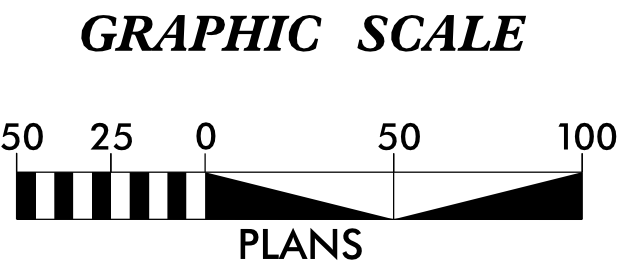
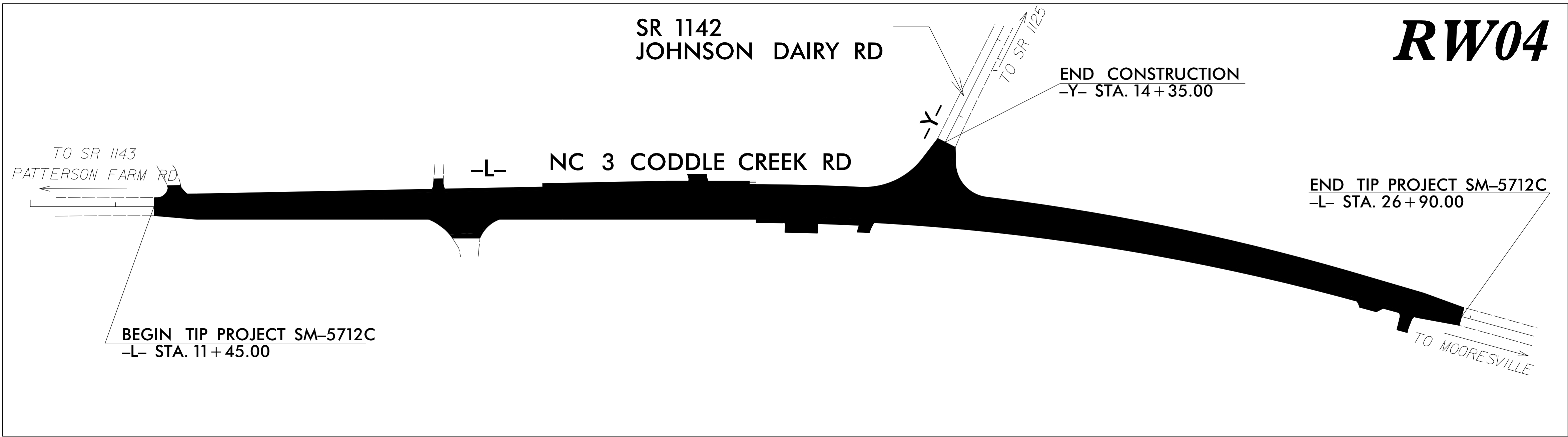
IREDELL COUNTY

LOCATION: NC 3 (CODDLE CREEK HWY) AND
SR 1142 (JOHNSON DAIRY RD) INTERSECTION IMPROVEMENTS

TYPE OF WORK: GRADING, PAVING, DRAINAGE & SIGNAL



RW04



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY McKIM & CREED FOR MONUMENT "SM5712C-1" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 649,188.6309(ft) EASTING: 1,472,012.2182(ft) ELEVATION: 739.82(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999853 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "SM5712C-1" TO -L- STATION 10+00 IS S 40° 29' 37.8" E 2,046.57(ft) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

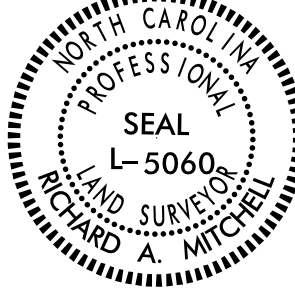


2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
10/21/2024

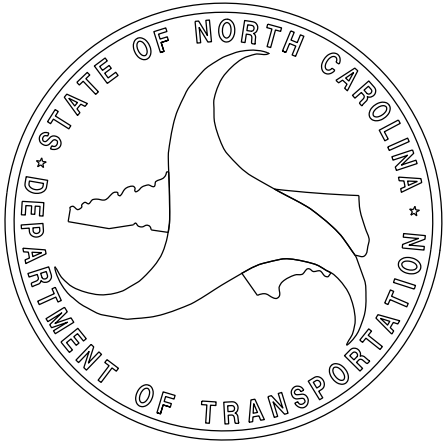
LETTING DATE:
11/25/2025

PROFESSIONAL LAND
SURVEYOR



Signed by:
Richard A. Mitchell
SIGNATURE

12/10/2024
Date:



5/12/22

REVISIONS

13-MAY-2022 09:51
I:\00482\1009\Geomatics\80-Drawings\sm5712c_1s_rw02c-1.dgn
At MC06988
Kelvington

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	647632.261	1473341.193							
LINE			N 07°42'49.5" W	842.78					
PC	648467.413	1473228.072							
CURVE			N 00°06'43.2" W	714.35	15°12'12.6"(RT)	02°07'19.4"	716.45	360.34	2700.00
PT	649181.759	1473226.676							
LINE			N 07°29'23.1" E	218.91					
POT	649398.800	1473255.210							

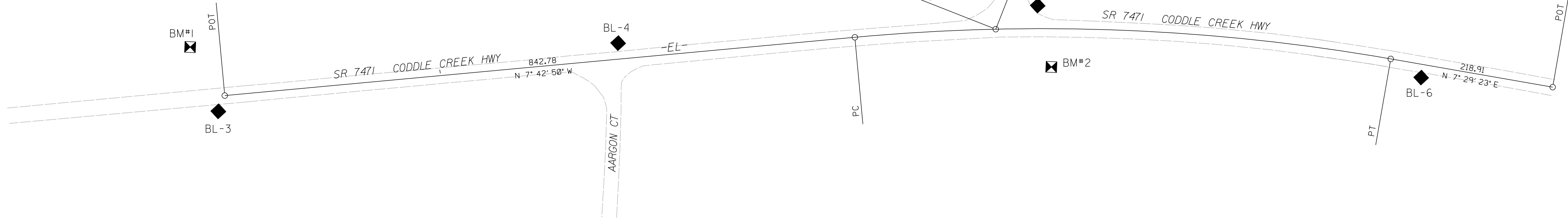
EY POINT	N	E	BEARING	DIST
POT	648826.368	1472711.284		
LINE			S 70°57'27.8" E	526.89
POT	648654.463	1473209.340		

BL POINT	DESC.	NORTH	EAST	ELEVATION
3	BL -3	647624.5800	1473362.4630	797.14
4	BL -4	648152.7330	1473249.1090	791.93
5	BL -5	648708.9210	1473175.5180	786.73
6	BL -6	649223.2480	1473249.7670	780.77

BY POINT	DESC.	NORTH	EAST	ELEVATION
1	SM5712-1	649188.6310	1472012.2180	739.82
2	SM5712-2	648843.1110	1472716.7410	768.11
A5	BL -5	648708.9210	1473175.5180	786.73

BM1 ELEVATION = 801.58
N 647583 E 1473279
BENCH TIE SET IN 10' SWEETGUM

BM2 ELEVATION = 780.46
N 648731 E 1473257
BENCH TIE SET IN 12' TWIN SWEETGUM



NOTES:

- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

PROJECT REFERENCE NO.
SM-5712C

SHEET NO.
RW02C-1

Location and Surveys

PROJECT SURVEYOR

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

I, Jeffrey D. Aker, PLS, certify that the Project Control was performed under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

Class of survey: AA
Type of GPS field procedure: RTN
Dates of survey: January 2019
Datum/Epoch: NAD 1983/NA 2011
Published/Fixed-control use: N/A
Localized around: SM5712C-1
Northing: 649188.6309
Easting: 1472012.2182
Combined grid factor: 0.999853
Geoid model: G18US
Units: USFT

I also certify that the Baseline Control for this project was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed in January 2019, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 13th day of May, 2022.

DocuSigned by:

Jeffrey D. Aker
Professional Land Surveyor L-4234

6/2/99

REVISIONS

PROPOSED ALIGNMENT CONTROL SHEET

I, Richard A. Mitchell, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 10th day of December, 2024.

Signed by: Richard A. Mitchell 12/10/2024
Professional Land Surveyor

L-5060
PLS #



Seal

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	647632.2613	1473341.1933
PC	18+42.78	648467.4134	1473228.0722
PT	25+59.23	649181.7595	1473226.6757
POT	27+78.13	649398.7998	1473255.2101

Y			
TYPE	STATION	NORTH	EAST
POT	10+00.00	648826.3684	1472711.2842
POT	15+26.89	648654.4625	1473209.3407

NOTES:

- 1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- 2. THE PROPOSED ALIGNMENT CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

PROJECT REFERENCE NO.
SM-5712C

SHEET NO.
RW02D

Location and Surveys

8020 TOWER POINT DR
CHARLOTTE, NC 28227
(P) 704-841-2588 (F) 704-841-2567

PROJECT SURVEYOR

RIGHT OF WAY CONTROL SHEET

I, Richard A. Mitchell, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 10th day of December, 2024.

Signed by:
Richard Mitchell
----- 12/10/2024 -----
Professional Land Surveyor

L-5060
PLS #



Seal

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+30.00	-30.00	647955.2484	1473267.1708
L	14+50.00	-37.00	648073.2230	1473244.1273
L	18+42.78	-37.00	648462.4471	1473191.4070
L	19+71.00	-37.00	648591.6154	1473177.0251
L	21+18.00	-40.00	648740.2460	1473165.1044
L	23+50.00	-40.00	648975.5982	1473167.5207
L	25+30.00	-30.00	649156.3512	1473193.2384

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y	14+35.00	-30.00	648712.8010	1473132.2681
Y	14+67.09	30.00	648645.6141	1473143.0272

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	18+65.00	-45.00	648483.7731	1473180.5392
L	19+75.00	30.00	648601.3873	1473243.4295
L	19+86.23	-45.00	648606.3443	1473167.7517
L	20+18.00	46.00	648644.8956	1473256.0902
L	20+23.00	30.00	648648.7135	1473239.7891

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 11/18/24 TO 11/20/24 .

PROJECT REFERENCE NO.
SM-5712C

SHEET NO.
RW03E

Location and Surveys



8020 TOWER POINT DR
CHARLOTTE, NC 28227
(P) 704-841-2588 (F) 704-841-2567

PROJECT SURVEYOR



6/2/99

REVISIONS

RIGHT OF WAY REVISION #1 - MARCH 7, 2025 - PDE REVISED ON PARCEL 9 TO ACCOMMODATE PIPE EXTENSION.

RIGHT OF WAY CONTROL SHEET

THE PURPOSE OF THIS ADDENDUM IS TO ADD
THE ADJUSTED PERMANENT DRAINAGE
EASEMENT FROM REVISION #1 DATED MARCH
7, 2025 FOUND ON SHEET RW04A

PROJECT REFERENCE NO.

SM-5712C

SHEET NO.

RW03E-1

Location and Surveys

NORTH CAROLINA DEPARTMENT OF TRANSPORTAION
DIVISION 12 LOCATION AND SURVEYS
2312 KINGS ROAD EXTENSION
SHELBY NC 28150

PROJECT SURVEYOR

SEAL
L-5298
LAND SURVEYOR
GAVIN D PROFFIT

DocuSigned by:
Gavin D. Proffit
282D412288164E7

ROW MARKER PERMANENT EASEMENT - E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	19+75.00	30.00	648601.3873	1473243.4295
L	20+61.00	62.00	648687.9425	1473269.4578
L	20+73.00	30.00	648698.0723	1473236.8923

I, Gavin D. Proffit, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (R/W Staking Revision) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

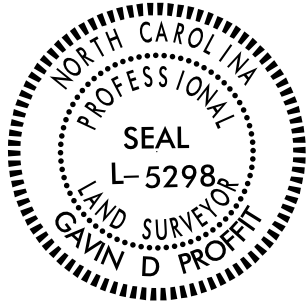
I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway plans. I also certify that the right of way and permanent easement points shown herein have been field monumented under my supervision from existing survey control provided by others; that the depicted property data shown herein were surveyed by others; and these monuments denote the right of way and easement boundaries at the time of staking which may be subject to change due to right of way revisions (See deeds for final determination).

Witness my original signature, registration number and seal this 17th day of March, 2025.

DocuSigned by:
Gavin D. Proffit
282D412288164E7

Professional Land Surveyor

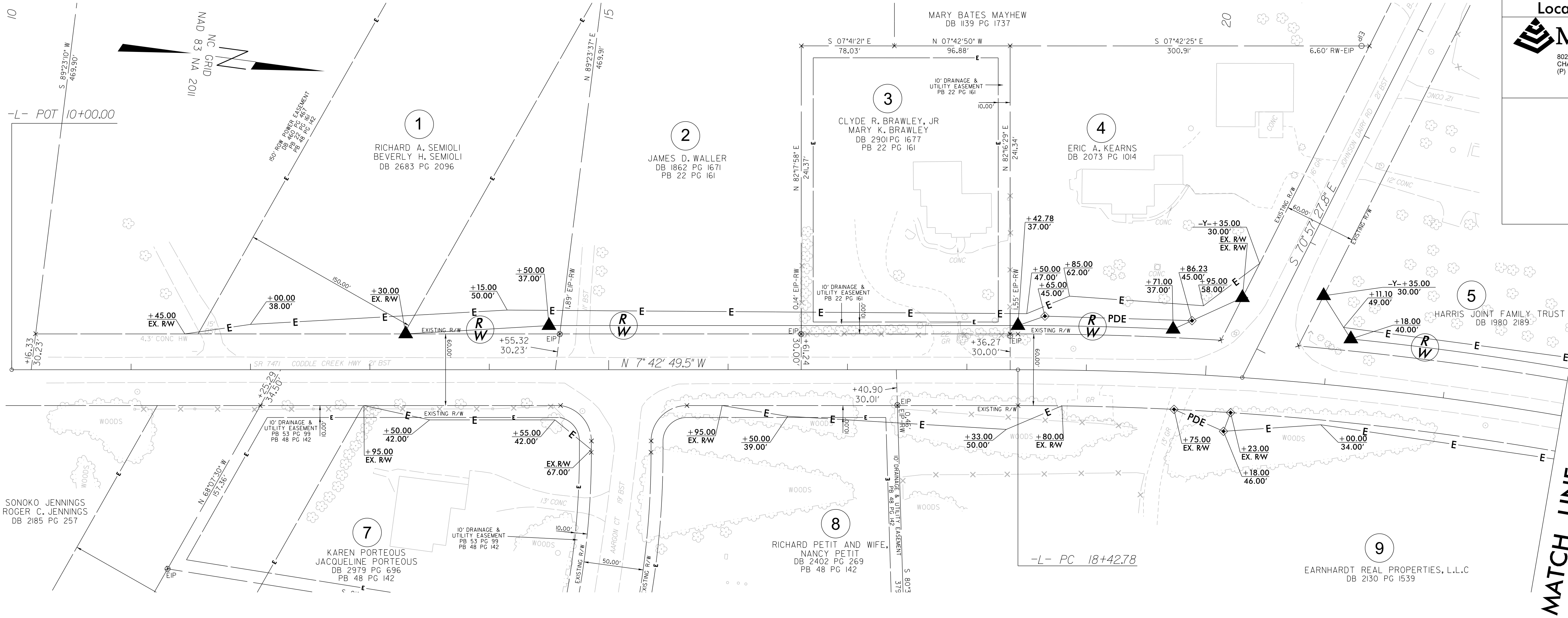
L-5298



NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 11/18/24 TO 11/20/24, REVISED 3/17/2025

REVISIONS



PROJECT REFERENCE NO.
SM-5712C

SHEET NO.
RW04

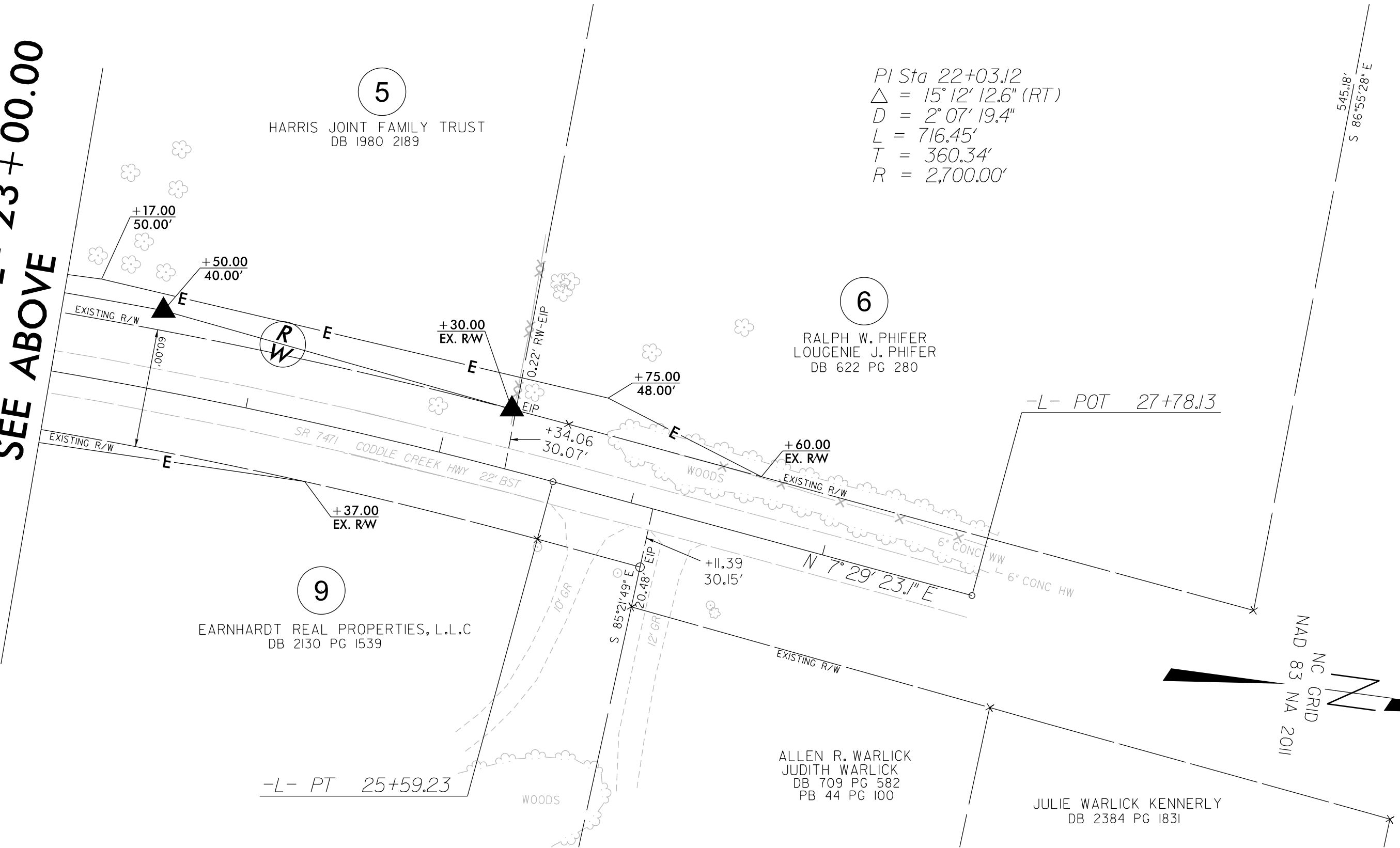
Location and Surveys

8020 TOWER POINT DR
CHARLOTTE, NC 28227
(P) 704-841-2588 (F) 704-841-2567

PROJECT SURVEYOR

MATCH LINE STA. -L- 23 + 00.00
SEE BELOW

MATCH LINE STA. -L- 23 + 00.00
SEE ABOVE



I, Richard A. Mitchell, a Professional Land Surveyor in the state of North Carolina hereby certify to the best of my knowledge and belief that the following work item(s) (Base map Compilation, R/W Staking) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

I further certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

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Witness my original signature, registration number and seal this 10th day of December, 2024.

Signed by:

Professional Land Surveyor

12/10/2024

L-5060
PLS #

Seal

NOTES:

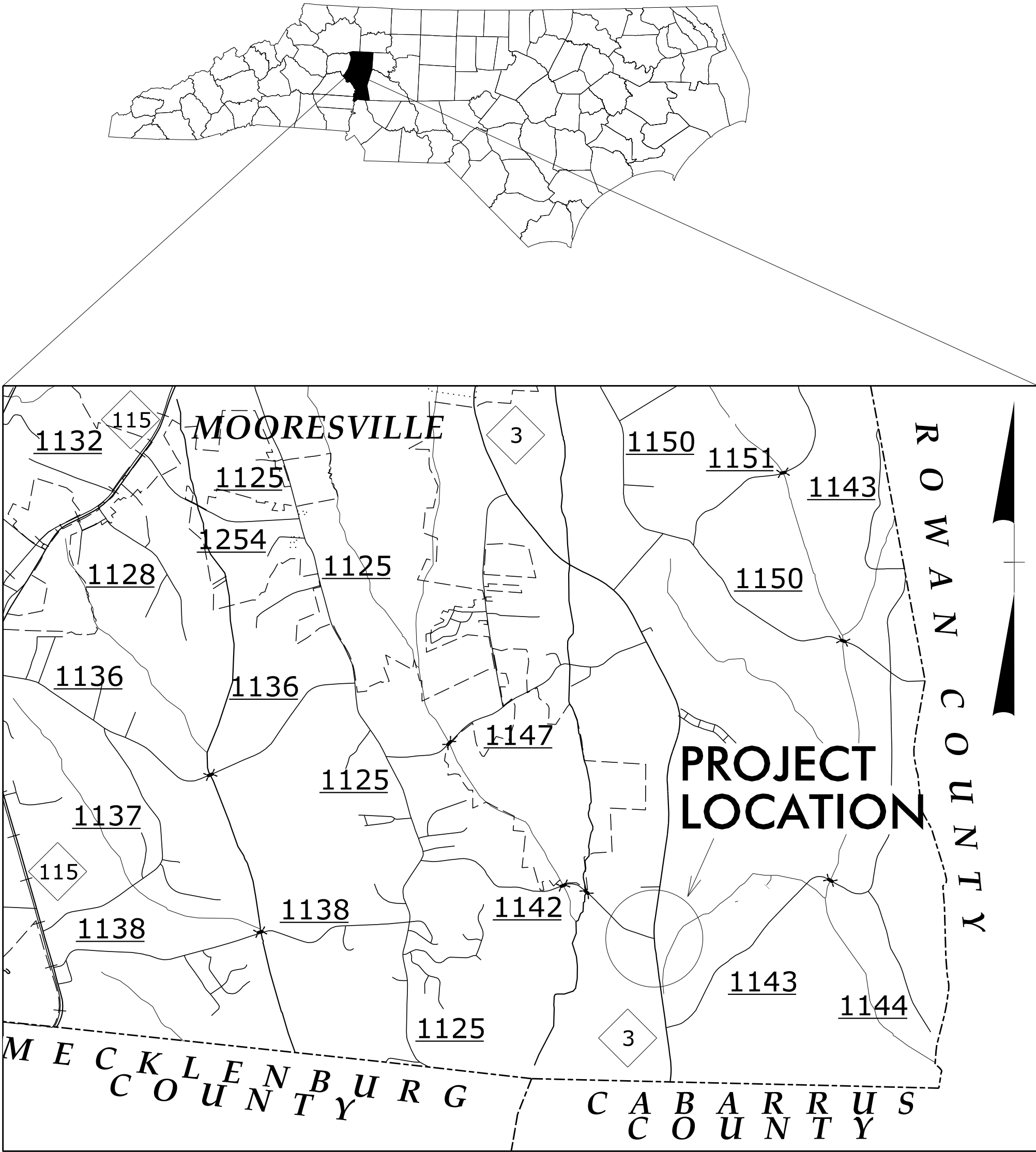
- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- RIGHT OF WAY MONUMENTATION ESTABLISHED 11/18/24 TO 11/20/24 .

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

IREDELL COUNTY

LOCATION: NC 3 (CODDLE CREEK HWY) AND SR 1142
(JOHNSON DAIRY RD) INTERSECTION IMPROVEMENTS

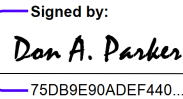


VICINITY MAP

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES AND GENERAL NOTES)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4 THRU TMP-5	TEMPORARY TRAFFIC CONTROL PHASE I
TMP-6 THRU TMP-7	TEMPORARY TRAFFIC CONTROL PHASE II

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

APPROVED: 
DATE: 9/10/2025



TIP PROJECT: SM-5712C

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1150.01	FLAGGERS
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
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

LEGEND

GENERAL

-  DIRECTION OF TRAFFIC FLOW
-  DIRECTION OF PEDESTRIAN TRAFFIC FLOW
-  EXIST. PVMT.
-  NORTH ARROW
-  PROPOSED PVMT.
-  TEMP. SHORING (LOCATION PURPOSES ONLY)



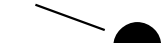
SIGNALS

-  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

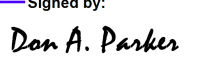
TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
P1	WHITE EDGETLINE (4")
P2	WHILE SOLID LANE LINE (4")
P4	3 FT.- 9 FT./SP WHITE MINISKIP (4")
P5	2 FT.- 6 FT./SP WHITE MINISKIP (4")
P13	YELLOW DOUBLE CENTER (4")
P52	YELLOW DIAGONAL (12")
P61	WHITE STOPBAR (24")
P70	LEFT TURN ARROW

TEMPORARY PAVEMENT MARKERS

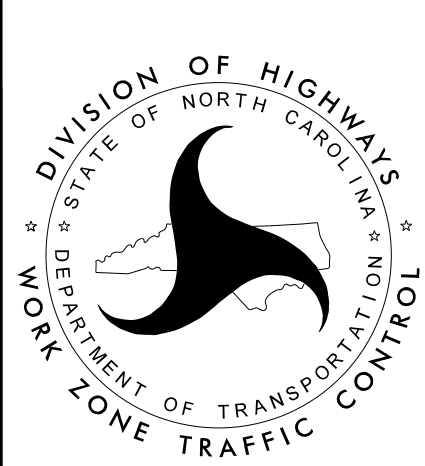
SYMBOL	DESCRIPTION
MA	TEMPORARY RAISED YELLOW & YELLOW

PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-1A
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

APPROVED: 
750B8E90ADE7440...

DATE: 9/10/2025





ROADWAY STANDARD
DRAWINGS & LEGEND

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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 UNDESIRE

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.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
-L- CODDLE CREEK RD AND -Y- JOHNSON DAIRY RD	MONDAY THRU FRIDAY 6:00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
-L- CODDLE CREEK RD -Y- JOHNSON DAIRY RD

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 7:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 7:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 7:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 7:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

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

- F) 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.
- G) 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

- H) 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

- I) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

- J) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- K) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

- L) 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

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

ROAD NAME	MARKING	MARKER
-L- CODDLE CREEK RD -Y- JOHNSON DAIRY RD	PAINT PAINT	TEMPORARY RAISED NONE

- N) 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.
- O) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- P) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

- Q) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-1B
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST, SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
LANE SHIFTS OR CLOSURES
SHOULDER CLOSURES
ONE-LANE, TWO WAY OPERATION (FLAGGING)
WEEKEND WORK
WORK HOUR RESTRICTIONS FOR PEAK TRAVEL

CONTRACTING & INNOVATIVE CONSTRUCTION STRATEGIES:
INTERMEDIATE CONTRACT TIMES / LIQUIDATED DAMAGES

APPROVED: Signed by: Don A. Parker 750B9E9DADEF440... DATE: 9/10/2025 NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	TRANSPORTATION OPERATIONS PLAN
---	---	---

PHASING

PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-3
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

NOTES:

1. CONTRACTOR SHALL MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.
2. CONTRACTOR SHALL CONDUCT OPERATIONS IN A MANNER THAT DOES NOT ALLOW WATER TO ACCUMULATE.
3. FOR ALL FLAGGING OPERATIONS, REFER TO RSD 1101.02, SHEET 1.

PHASE I

- STEP 1 -- INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH RSD 1101.01, SHEET 3, AND TMP-4 AND 5.
- STEP 2 -- USING FLAGGERS, CONTRACTOR MAY BEGIN CLEARING AND GRADING THROUGHOUT THE PROJECT LIMITS.
- STEP 3 -- USING FLAGGERS, CONSTRUCT LEFT SIDE WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 11+20 +/- TO STA. 26+90 +/- INCLUDING DRAINAGE STRUCTURES 401 THROUGH 407, AND EXPRESSWAY GUTTER (SEE TMP-4 AND 5).

PHASE II

- NOTE: WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEP 1 IN A SINGLE WORK PERIOD.
- STEP 1 -- USING FLAGGERS, REMOVE CONFLICTING PAVEMENT MARKING, INSTALL PHASE II TEMPORARY PATTERN (PAINT) AND TEMPORARY RAISED PAVEMENT MARKERS AND SHIFT TRAFFIC TO THE PHASE II TRAFFIC PATTERN (SEE TMP-6 AND 7).
- STEP 2 -- USING FLAGGERS, CONSTRUCT RIGHT SIDE WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE FROM -L- STA. 11+20 +/- TO STA. 26+90 +/- INCLUDING DRAINAGE STRUCTURES 408 THROUGH 412, AND EXPRESSWAY GUTTER (SEE TMP-6 AND 7).
- STEP 3 -- USING FLAGGERS, INSTALL PROPOSED SIGNAL AND SIGNAL WARNING SIGNS WITH HEADS AND SIGNS AND COVERED. (SEE SIGNAL PLANS AND SIGNING PLANS).
- STEP 4 -- INSTALL PCMS ON SHOULDER WITH MESSAGING REGARDING UPCOMING SIGNAL ACTIVATION 2 WEEKS PRIOR TO ACTIVATION. (SEE TMP-6 AND 7).

PHASE III

- NOTE: WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK OF STEP 1 IN A SINGLE WORK PERIOD.
- STEP 1 -- USING FLAGGERS, REMOVE CONFLICTING PAVEMENT MARKINGS AND INSTALL TEMPORARY PAVEMENT MARKINGS IN THE FINAL TRAFFIC PATTERN (PAINT) ON THE NEXT TO FINAL LAYER. UNCOVER WARNING SIGNS, ACTIVATE NEW SIGNAL AND SHIFT TRAFFIC TO THE SIGNALIZED FINAL TRAFFIC PATTERN. (SEE SIGNAL, SIGNING AND FINAL PAVEMENT MARKING PLANS).
- STEP 2 -- USING FLAGGERS AND LAW ENFORCEMENT, INSTALL THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS AND MARKERS THROUGHOUT THE PROJECT LIMITS. (SEE PAVEMENT MARKING PLAN).
- STEP 3 -- REMOVE ALL TRAFFIC CONTROL DEVICES.

APPROVED:

Signature

Don A. Parker

750B9E90ADEF440...

DATE: 9/10/2025

NORTH CAROLINA

PROFESSIONAL

SEAL

043251

ENGINEER

DON A. PARKER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

WORK ZONE TRAFFIC CONTROL

PHASING

PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-4
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

10

15

20

-Y- SR 1142
JOHNSON DAIRY RD

DRUMS @ 90' SPACING

-Y- STA. 14+35±

②

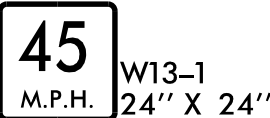
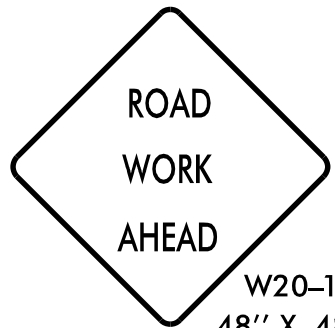
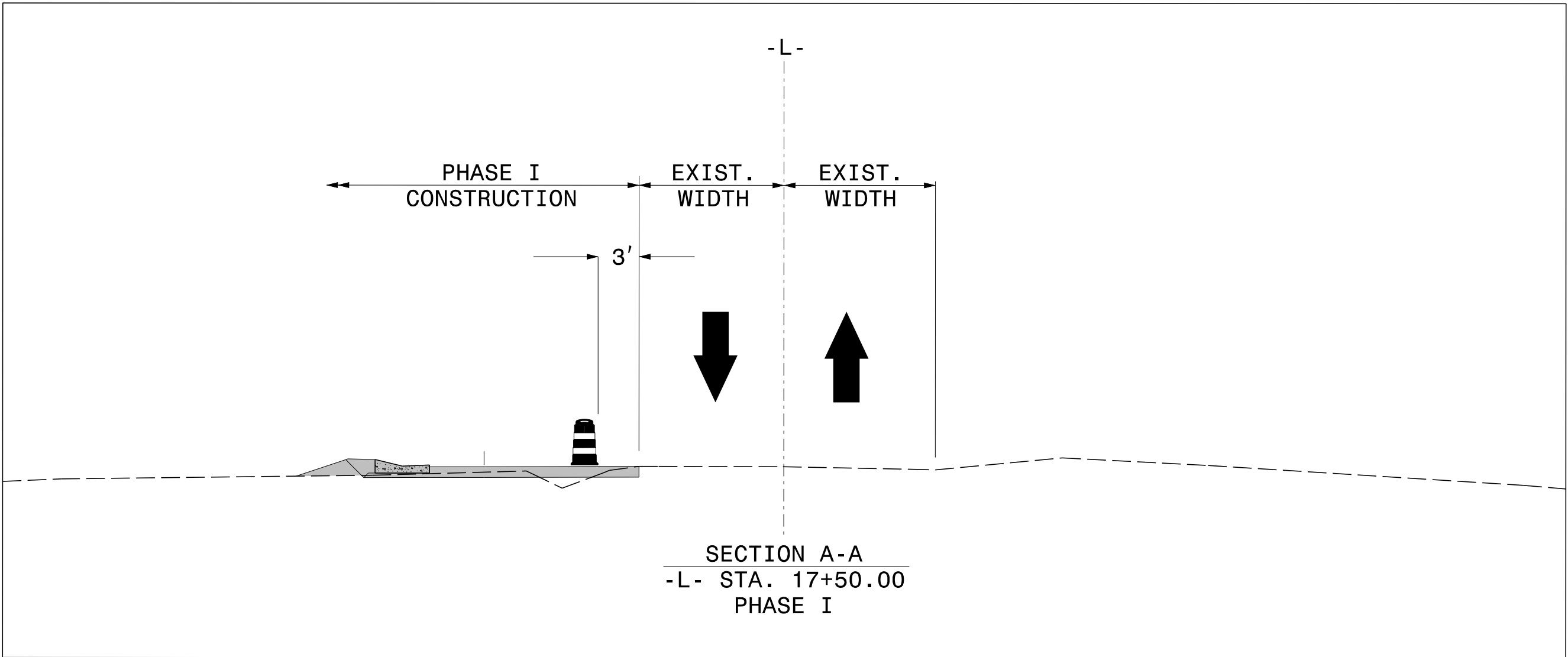
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1000'±

-L- STA. 11+20±
BEGIN LT WIDENING

-L- NC 3
CODDLE CREEK RD

MATCH LINE STA. -L- 23+00.00
SEE SHEET TMP-5

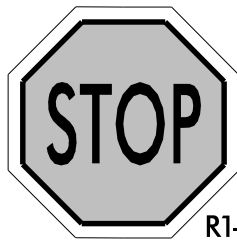


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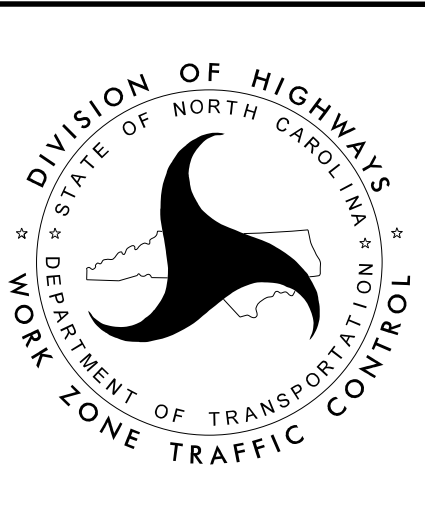
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G20-2 A
48" X 24"



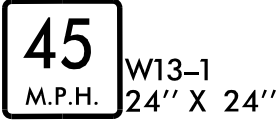
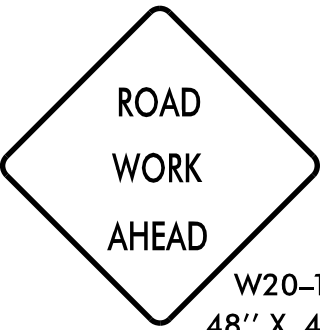
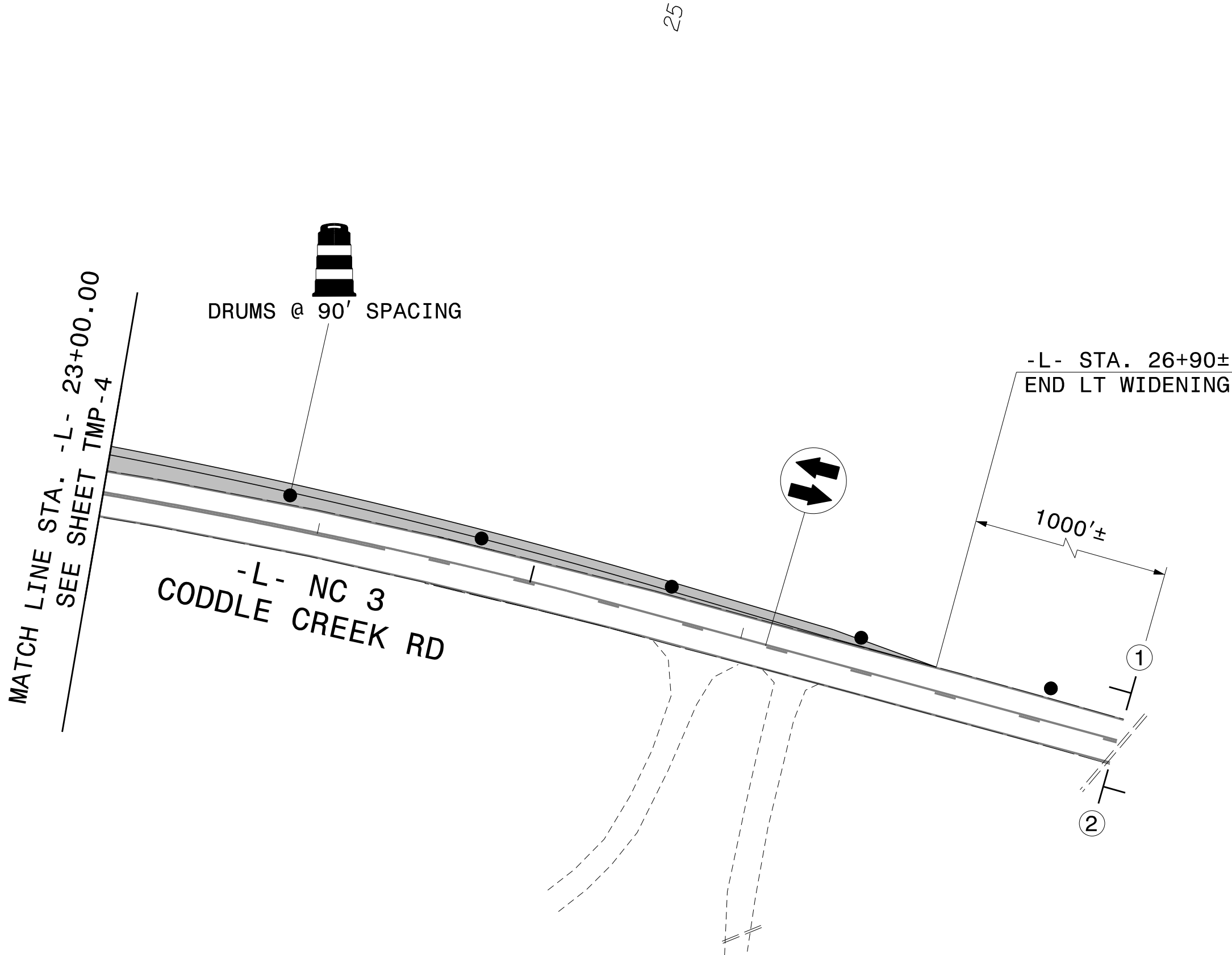
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APPROVED: <u>Don A. Parker</u> SIGNED BY: 750B0690ADEF440...
DATE: 9/10/2025
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PHASE I

PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-5
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



①



②

APPROVED:

Signed by:

Don A. Parker

75DB8B90ADEF440...

DATE: 9/10/2025

NORTH CAROLINA

PROFESSIONAL

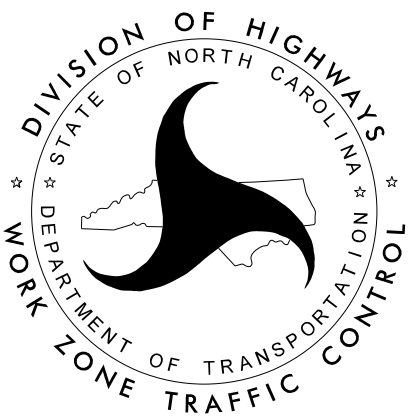
SEAL

043251

ENGINEER

DON A. PARKER

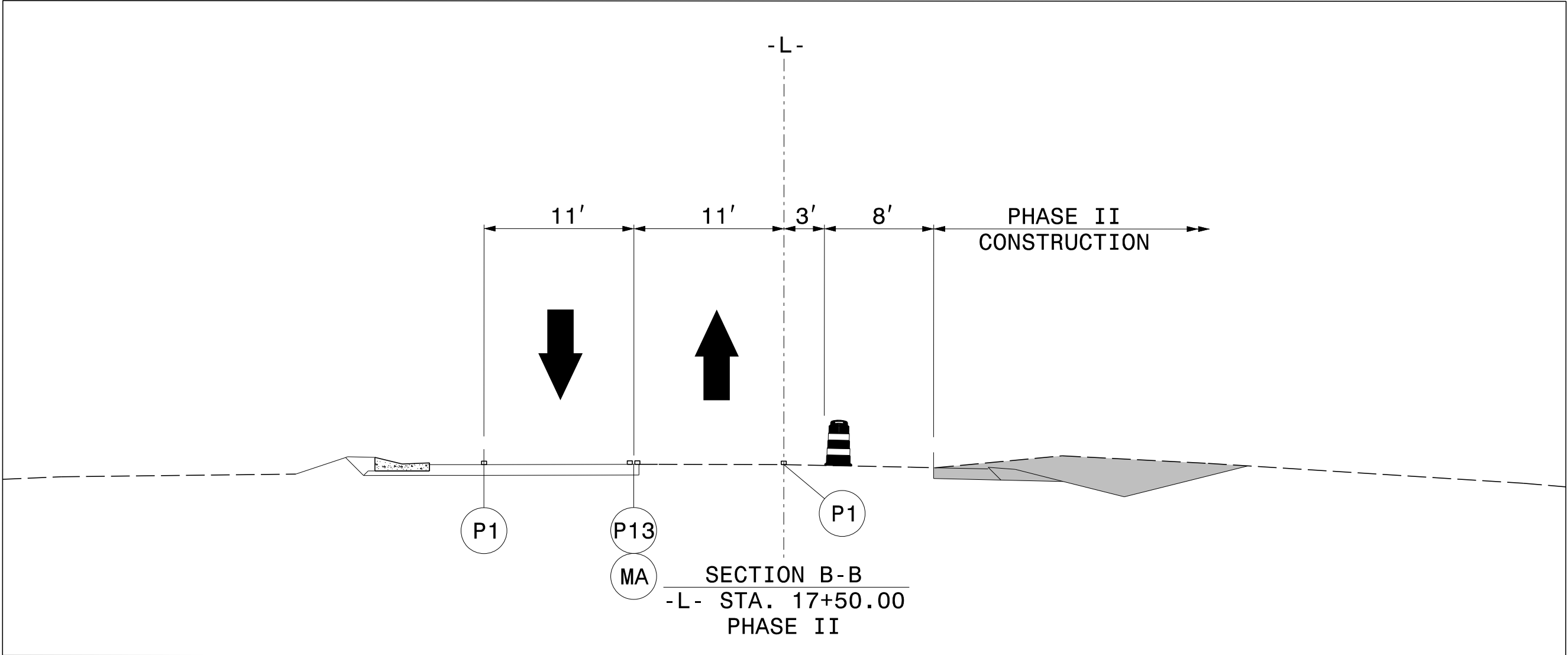
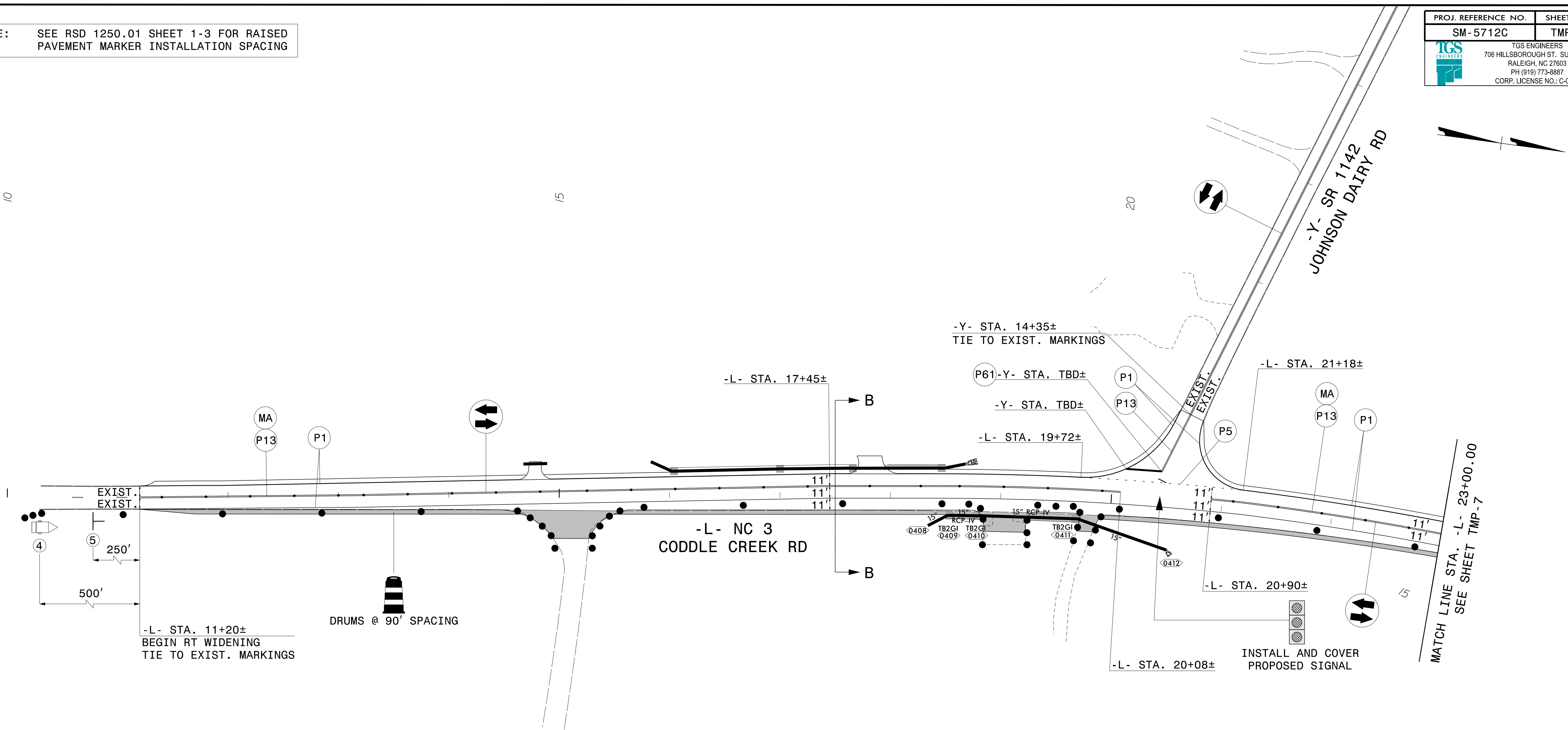
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UNLESS ALL SIGNATURES COMPLETED



PHASE I

NOTE: SEE RSD 1250.01 SHEET 1-3 FOR RAISED PAVEMENT MARKER INSTALLATION SPACING

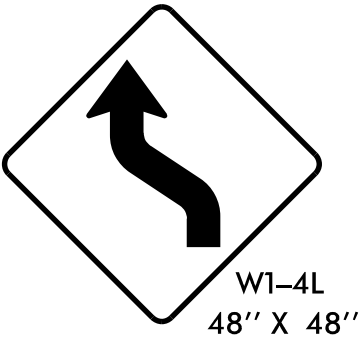
PROJ. REFERENCE NO.	SHEET NO.
SM-5712C	TMP-6
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
NEW TRAFFIC SIGNAL	BEGIN TRAFFIC (DATE) (TIME)	NEW TRAFFIC SIGNAL	BE PREPARED TO STOP
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
2 WEEKS PRIOR TO SIGNAL ACTIVATION		2 WEEKS FOLLOWING SIGNAL ACTIVATION	

4

5

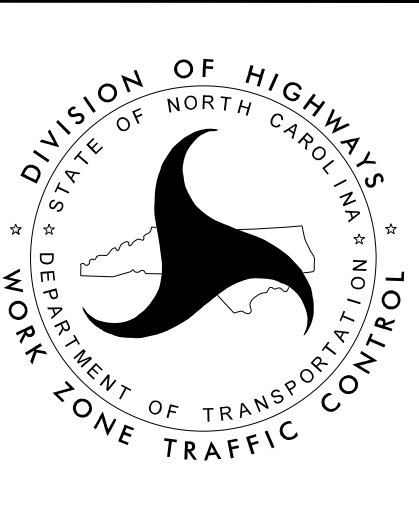


APPROVED: *Don A. Parker*
DATE: 9/10/2025

75DB8E90ADE7440...

SEAL 043251
ENGINEER
DON A. PARKER

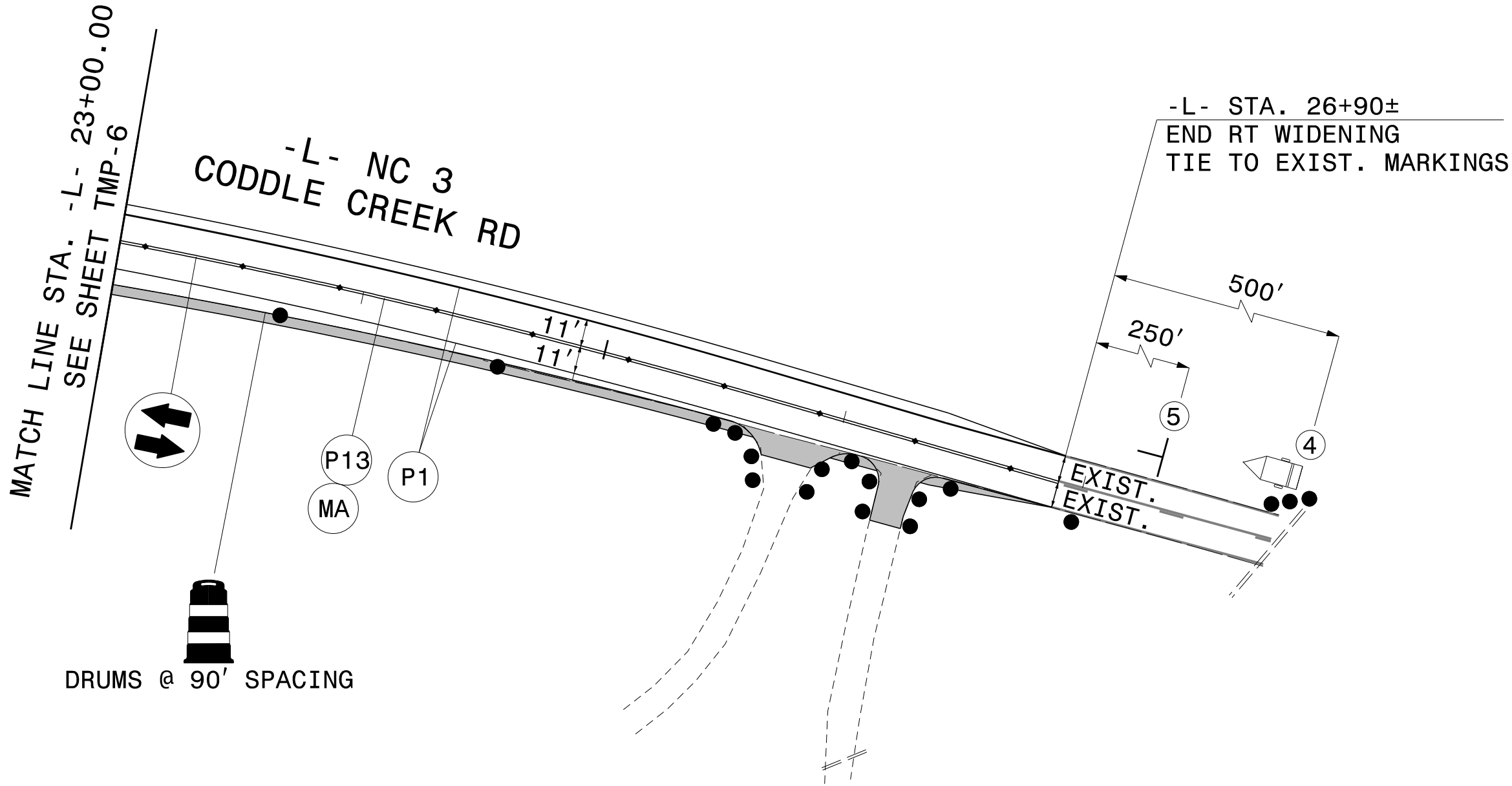
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PHASE II

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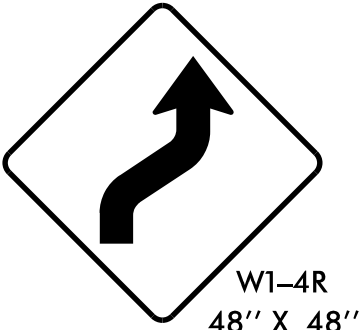
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SM-5712C	TMP-7
TGS ENGINEERS TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



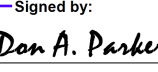
MESSAGE NO. 1	MESSAGE NO. 2	MESSAGE NO. 1	MESSAGE NO. 2
NEW TRAFFIC SIGNAL	BEGIN (DATE) (TIME)	NEW TRAFFIC SIGNAL	BE PREPARED TO STOP
CHANGEABLE MESSAGE SIGN		CHANGEABLE MESSAGE SIGN	
2 WEEKS PRIOR TO SIGNAL ACTIVATION		2 WEEKS FOLLOWING SIGNAL ACTIVATION	

④

⑤



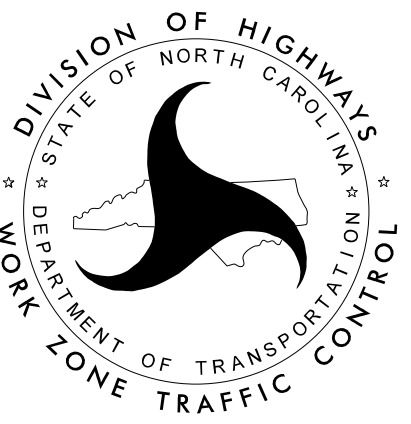
W1-4R
48" X 48"

APPROVED: 
75DB8E90ADE440...

DATE: 9/10/2025



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



PHASE II

5/21/2025 5:11:05 PM SM-5712C\\Traffic\\PMP\\SM-5712C_Sgn_PMP_01.dgn User: bbrannan

T.I.P.: SM-5712C

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
IREDELL COUNTY

LOCATION: NC 3 (CODDLE CREEK HWY) AND SR 1142
(JOHNSON DAIRY RD) INTERSECTION IMPROVEMENTS

TIP NO.	SHEET NO.
SM-5712C	PMP - 1
APPROVED: Signed by: Don A. Parker	
DATE: 9/10/2025	
SEAL	
STATE OF NORTH CAROLINA PROFESSIONAL SEAL 043251 ENGINEER DON A. PARKER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

INDEX

SHEET NO.	DESCRIPTION
PMP - 1	PAVEMENT MARKING PLAN TITLE, SCHEDULE SHEET, INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, GENERAL NOTES, AND FINAL PAVEMENT MARKING SCHEDULE
PMP-1A	REVISED NCDOT STANDARD DRAWING
PMP-2	PAVEMENT MARKING DETAIL

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 2024 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
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING

GENERAL NOTES

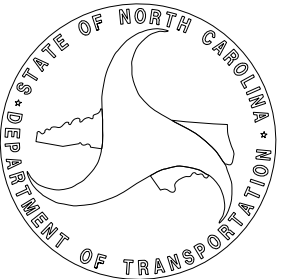
- THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|-----------------------------------|---------------|--|
| -L- NC 3
(CODDLE CREEK RD) | THERMOPLASTIC | POLYCARBONATE H-SHAPED SNOWPLOWABLE MARKERS
(SEE SPECIAL PROVISION) |
| -Y- SR 1142
(JOHNSON DAIRY RD) | THERMOPLASTIC | NONE |
- 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.

FINAL PAVEMENT MARKING
SCHEDULE

SYMBOL	DESCRIPTION
PAVEMENT MARKINGS	
THERMOPLASTIC (4",90 MILS)	
T1	(4") WHITE EDGELINE
T2	(4") WHITE SOLID LANE LINE
T4	(4") 3 FT.-9 FT./SP WHITE MINISKIP
T5	(4") 2 FT.-6 FT./SP WHITE MINISKIP
T13	(4") YELLOW DOUBLE CENTER
THERMOPLASTIC (12", 90 MILS)	
T52	(12") YELLOW DIAGONAL
THERMOPLASTIC GENERIC PAVEMENT MARKING ITEMS (1205)	
T61	WHITE STOPBAR (24", 90 MILS)
THERMOPLASTIC PAVEMENT MARKING SYMBOLS	
T70	LEFT TURN ARROW
PAVEMENT MARKERS	
ME	POLYCARBONATE H-SHAPED YELLOW & YELLOW
MF	POLYCARBONATE H-SHAPED CRYSTAL & RED

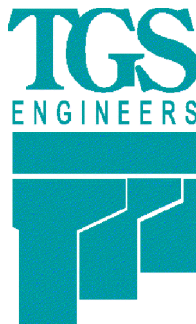
PLAN SUBMITTED TO: NCDOT

BRYAN SOWELL, P.E. DIVISION 12 PROJECT DEVELOPMENT ENGINEER



PLAN PREPARED BY: TGS ENGINEERS

DON A. PARKER, P.E. PROJECT ENGINEER
CODA BRANNAN, E.I. DESIGN ENGINEER

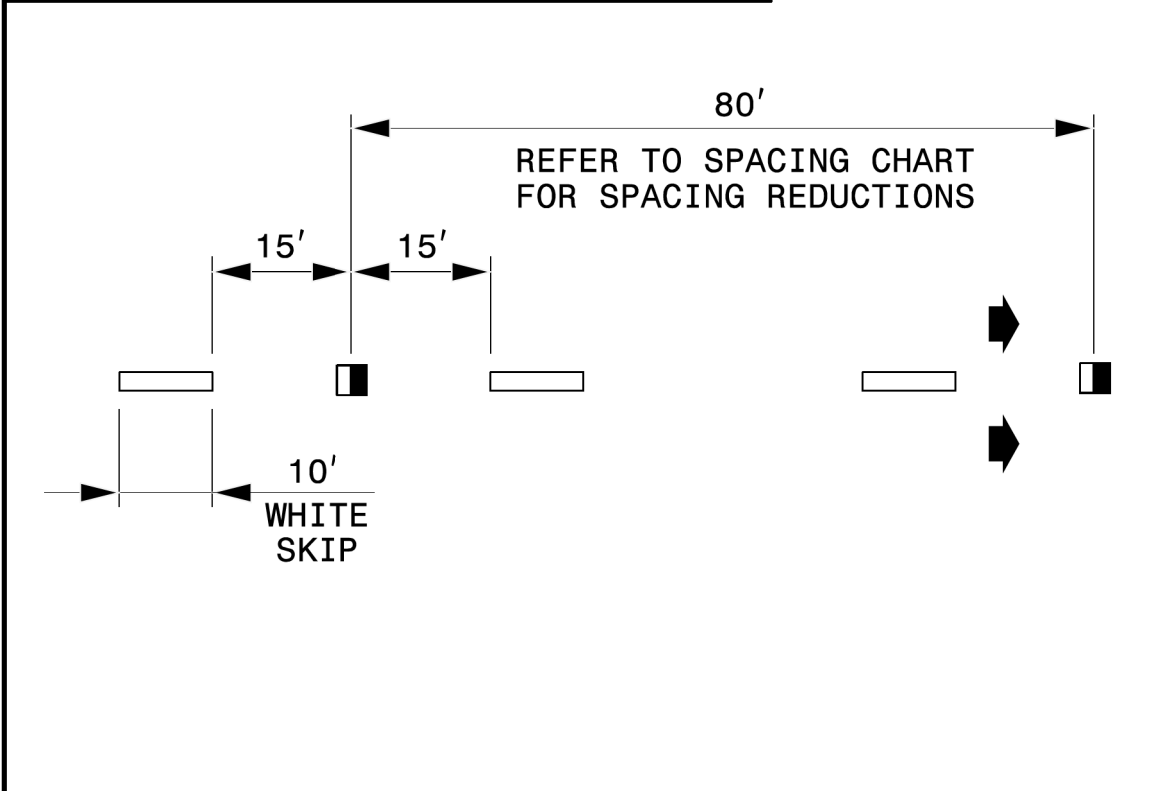


TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

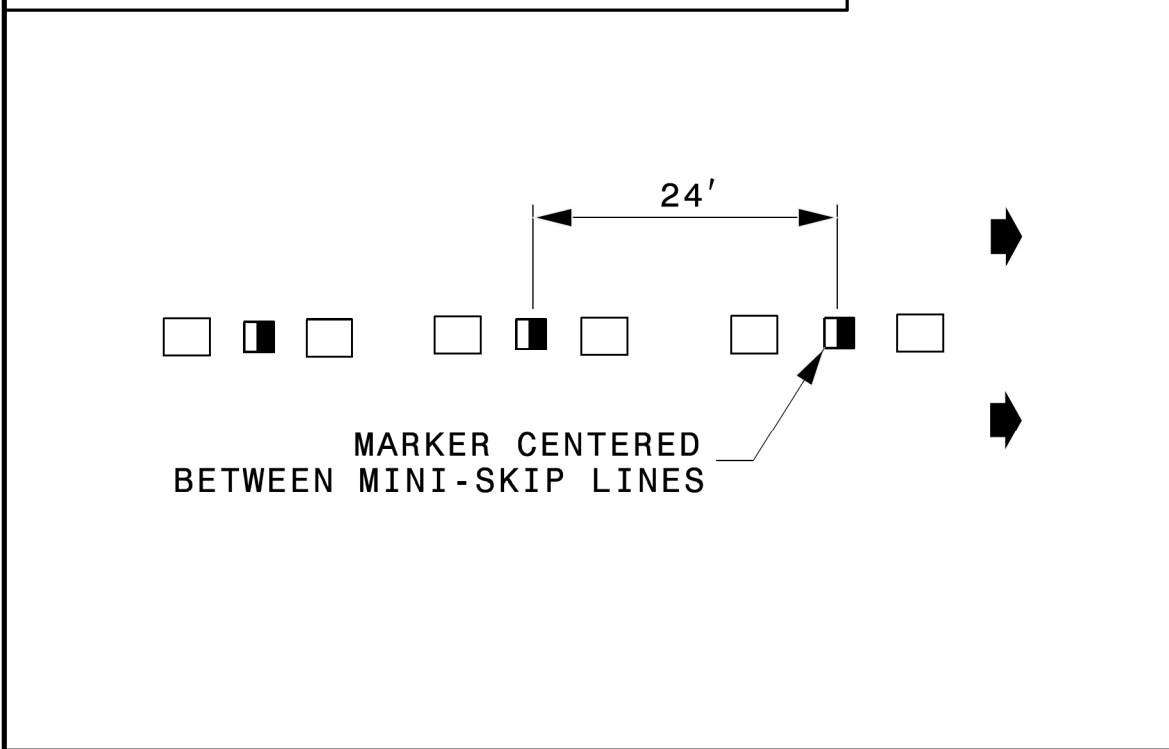
TIP NO.	SHEET NO.
SM-5712C	PMP-1A

PROJECT REFERENCE NO.	SHEET NO.

10'-30'/SP SKIP LINE



3'-9'/SP MINI-SKIP LINE



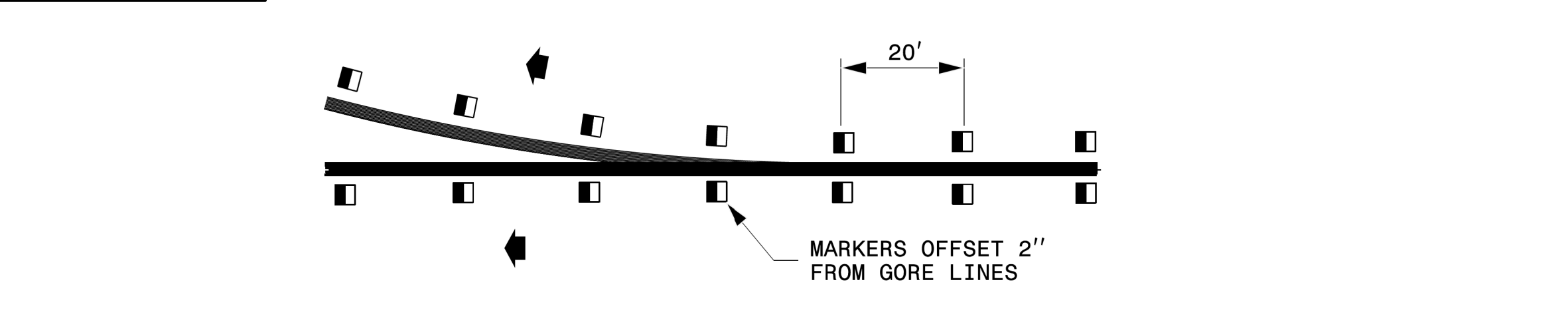
LEGEND

CRYSTAL/RED PAVEMENT MARKER

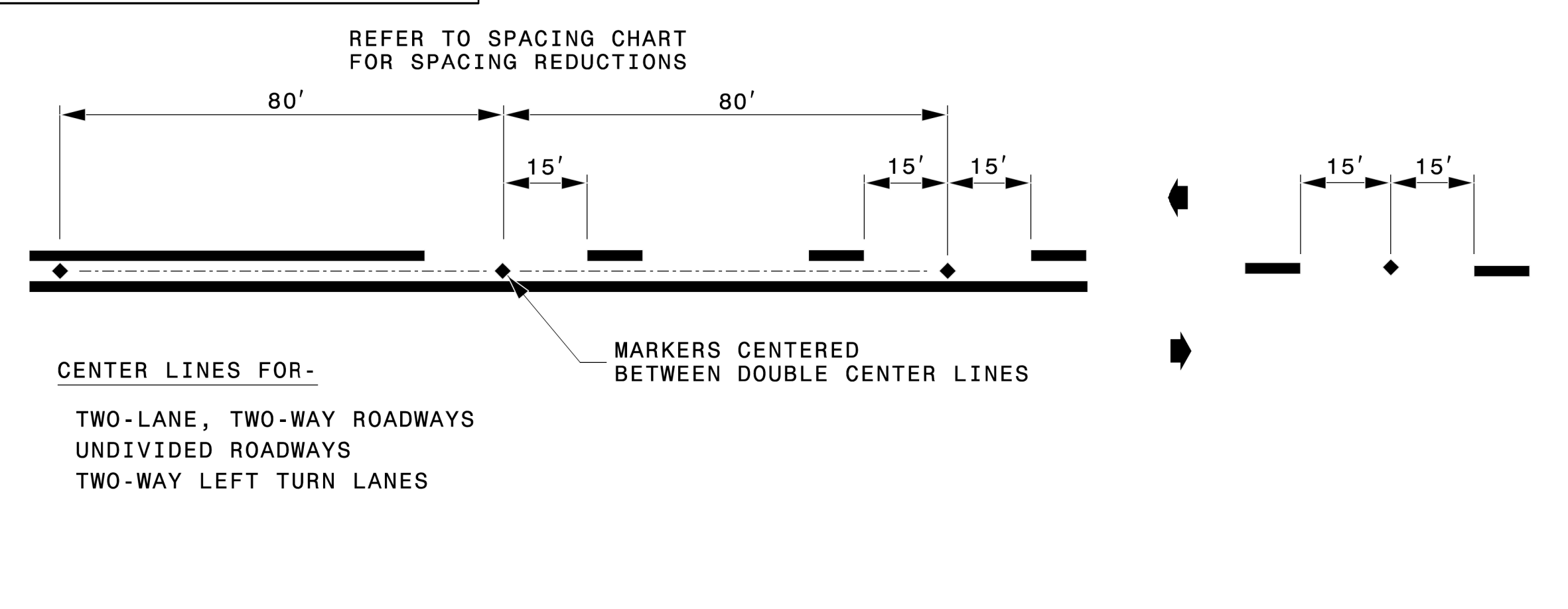
YELLOW/YELLOW PAVEMENT MARKER

DIRECTION OF TRAFFIC FLOW

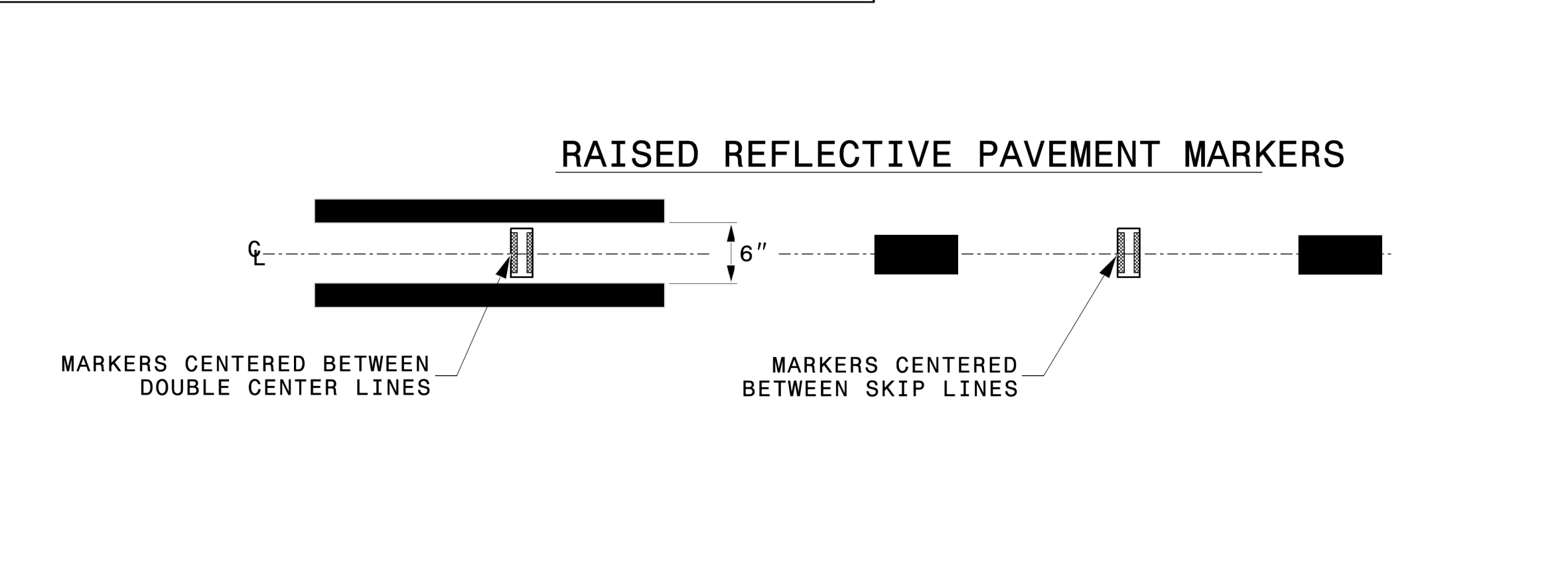
GORE LINES



YELLOW CENTER LINES



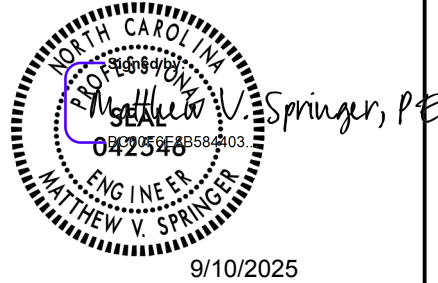
DETAIL OF PAVEMENT MARKER PLACEMENT



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
RAISED PAVEMENT MARKERS
INSTALLATION SPACING

SHEET 2 OF 3
1250D01



CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-8950 FAX 919-250-4119

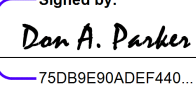
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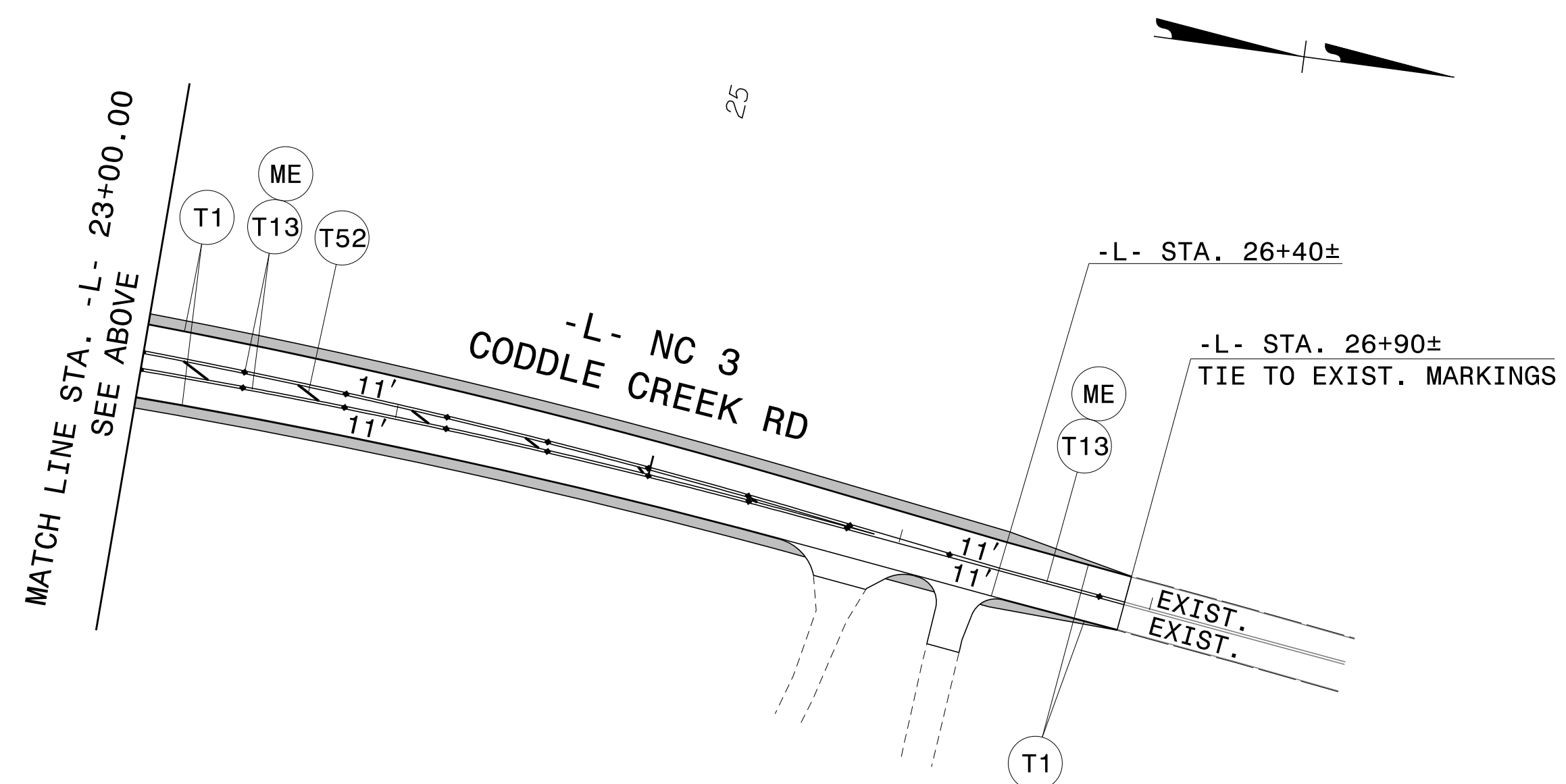
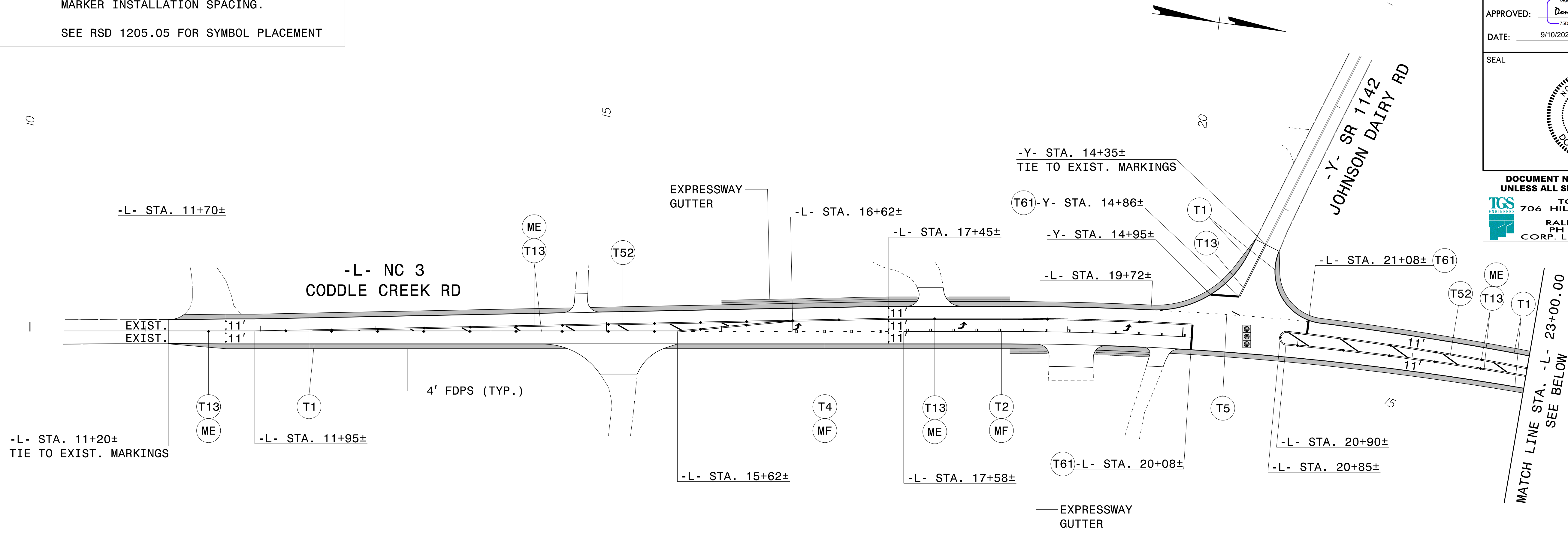
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MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.:

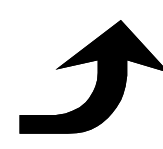
RAISED PAVEMENT MARKERS
INSTALLATION SPACING

NOTE: SEE RSD 1250.01 SHEET 1-3 FOR PAVEMENT MARKER INSTALLATION SPACING.

SEE RSD 1205.05 FOR SYMBOL PLACEMENT

TIP NO.	SHEET NO.
SM-5712C	PMP-2
APPROVED:  7508BE6ADEF440...	
DATE: 9/10/2025	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH STREET (SUITE 200) RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	





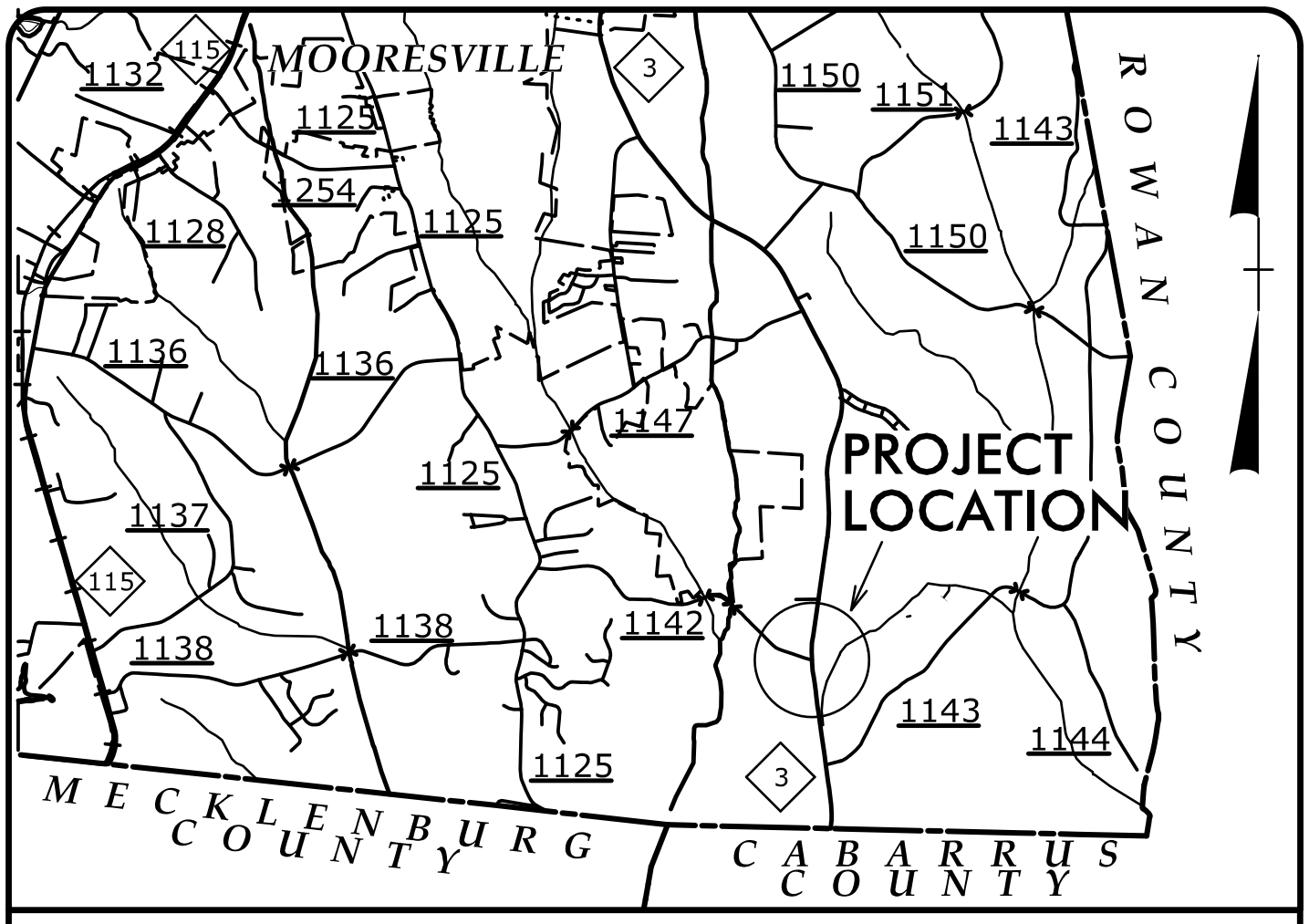


PAVEMENT MARKING DETAIL

\\SK-5712C\07\62024\erison Control\SM-5712C-EC.dwg, TSH.dgn
bertsmelin

CONTRACT: DL00364

TIP PROJECT: SM-5712C



VICINITY MAP
NOT TO SCALE

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

LOCATION: NC 3 (CIDDLE CREEK HWY) AND
SR 1142 (JOHNSON DAIRY ROAD) INTERSECTION IMPROVEMENTS

TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE, AND SIGNAL



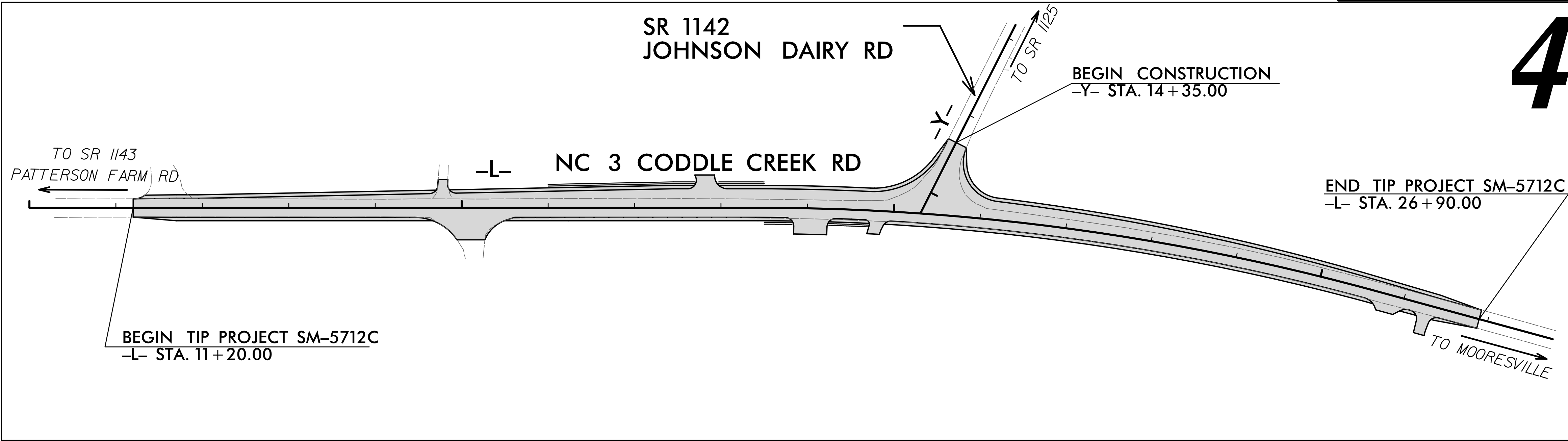
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	SM-5712C	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
48271.1.1.1	N/A	PE	
48271.1.2.1	N/A	ROW	
48271.1.3.1	N/A	CONST	

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

303(d) IMPAIRED WATER(S) EXIST
ON THIS PROJECT

303(d) Impaired Water Zone(s) Exist
From Sta. Begin
to Sta. End
Refer To E. C. Special Provisions
for Special Considerations.

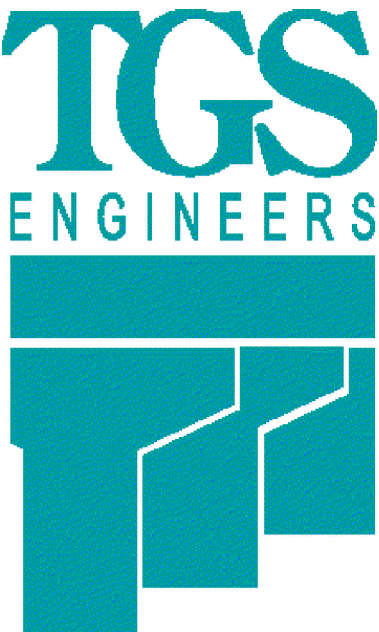
THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.



GRAPHIC SCALE



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE NCG 010000 GENERAL
STORMWATER CONSTRUCTION PERMIT ISSUED BY THE NORTH
CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION
OF ENERGY, MINERAL, AND LAND RESOURCES.



Prepared In the Office of:
TGS ENGINEERS
201 W. MARION ST-STE 200
SHELBY, NC 28150

Designed by:

Andrew H. Cochrane, PE
NAME

3015

LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C.
Department of Transportation - Raleigh, N. C., dated January 2024
and the latest revision thereto are applicable to this project and by
reference hereby are considered a part of these plans.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

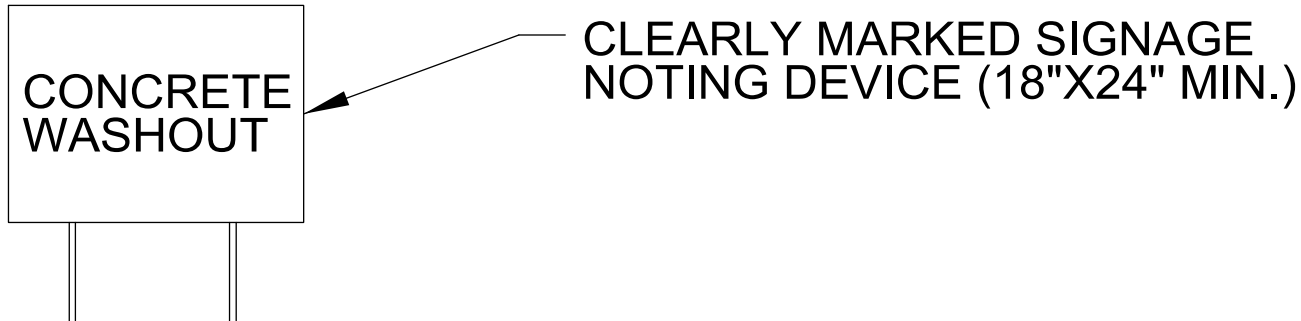
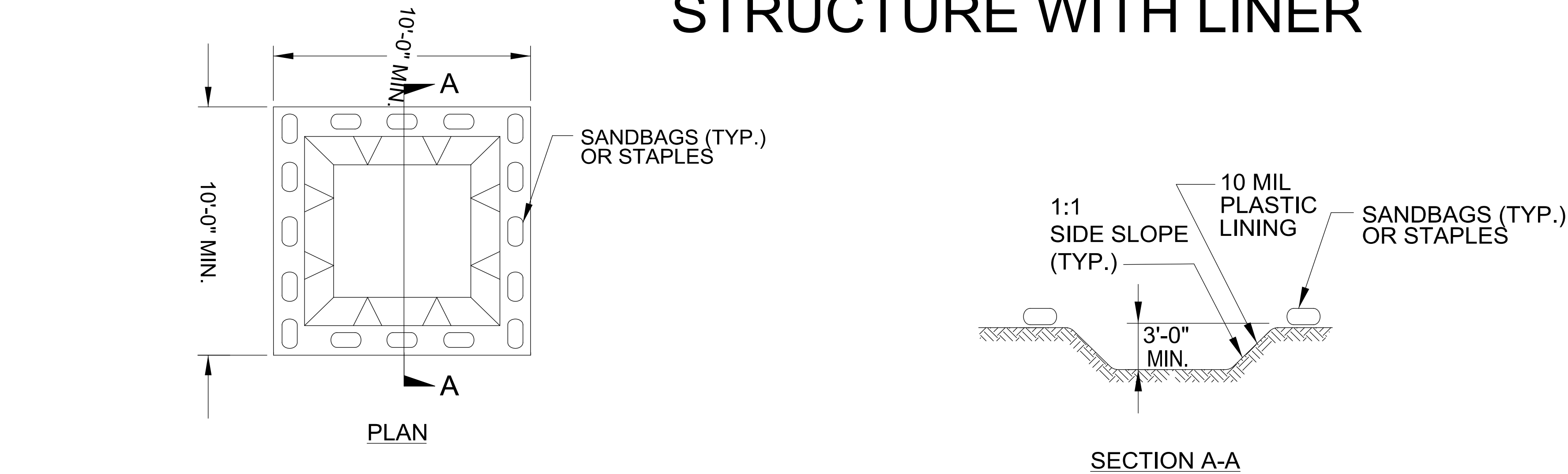
PROJECT REFERENCE NO.	SHEET NO.
SM-5712C	EC-02
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

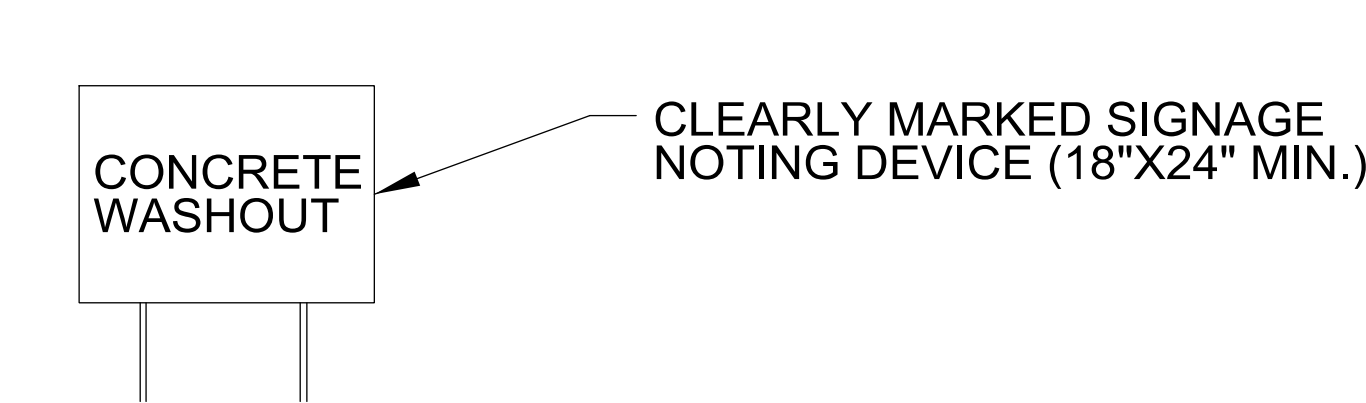
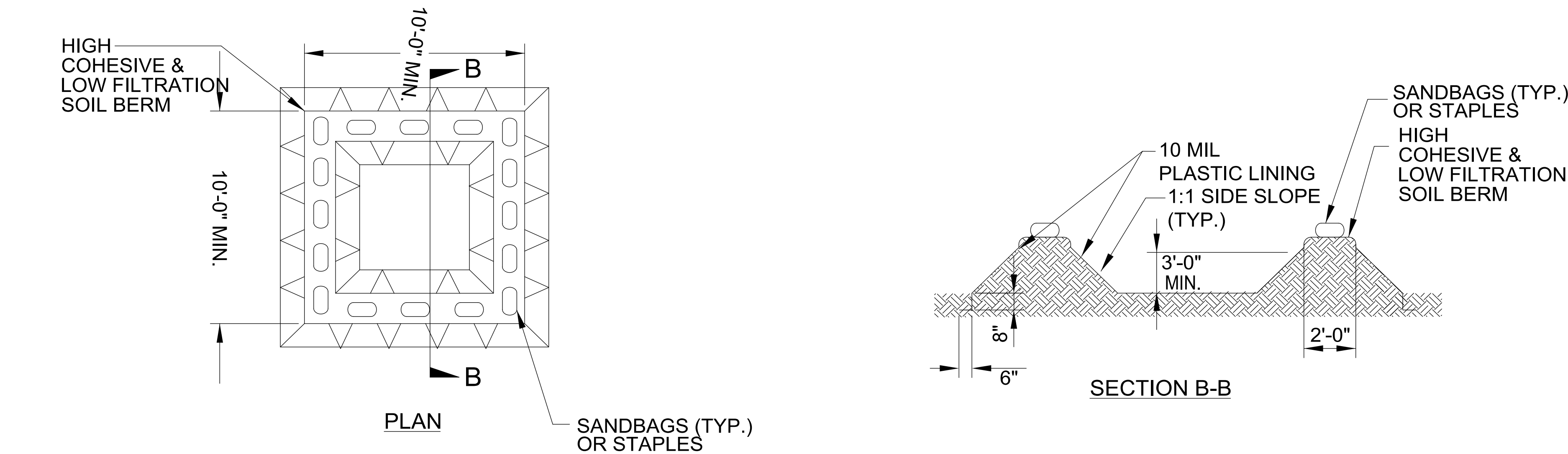
PROJECT REFERENCE NO.	SHEET NO.
SM-5712C	EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

PROJECT REFERENCE NO.	SHEET NO.
<i>SM-5712C</i>	<i>EC-3</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION SUMMARY SHEET

SLOPE STRAW MATTING FOR EROSION CONTROL

[illegible]

DITCHLINE EXCELSIOR MATTING FOR EROSION CONTROL

<i>CONST SHEET NO.</i>	<i>LINE</i>	<i>FROM STATION</i>	<i>TO STATION</i>	<i>SIDE</i>	<i>ESTIMATE (SY)</i>
	SLOPE STRAW MATTING SUBTOTAL				184
	DITCHLINE STRAW MATTING SUBTOTAL				1250
	DITCHLINE EXCEL\$IOR MATTING SUBTOTAL				0
	MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER				2000
				TOTAL	3434
				SAY	3434

DITCHLINE STRAW MATTING FOR EROSION CONTROL

4	L	12+00	14+50	LT	500
4	L	13+00	14+50	RT	150
4	L	16+50	18+00	RT	300
4	L	14+00	14+68	LT	70
4	L	14+89	15+83	LT	95
4	L	18+68	20+00	LT	135
	DITCHLINE STRAW MATTING SUBTOTAL				1250

DITCHLINE PSRM FOR EROSION CONTROL

[illegible]

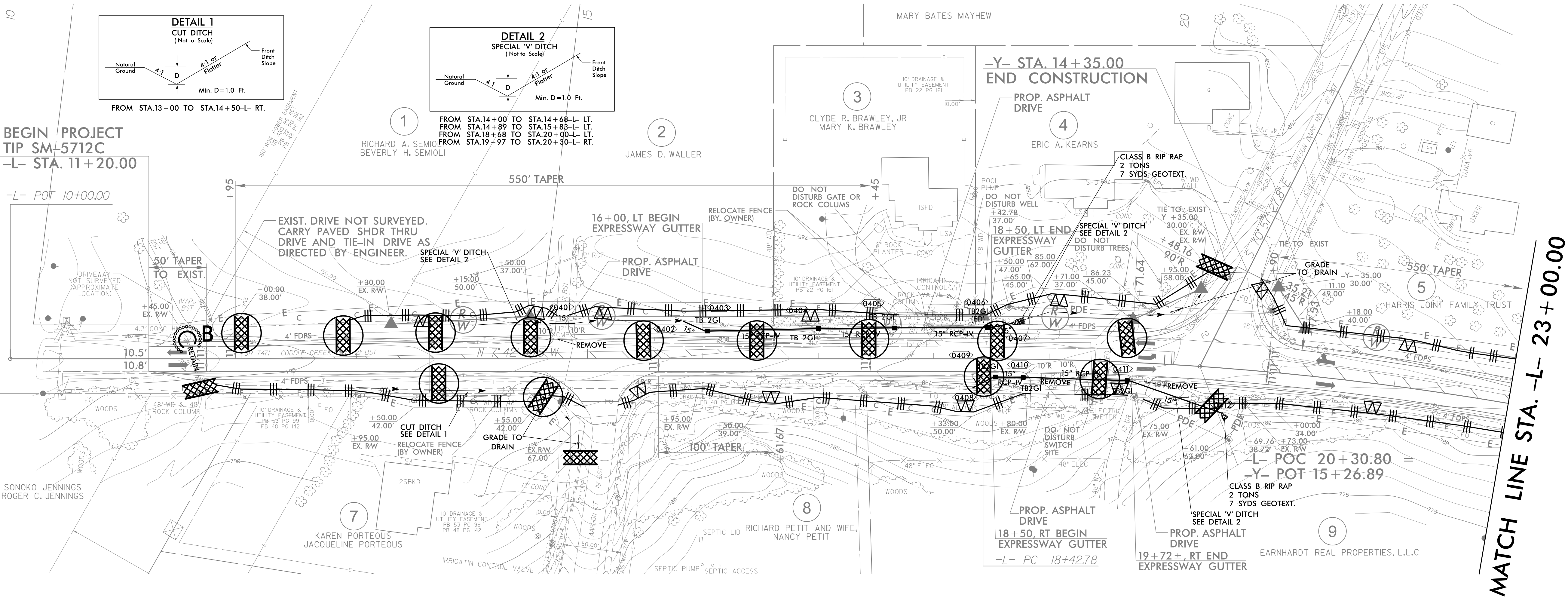
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
SM-5712C	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50’ IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

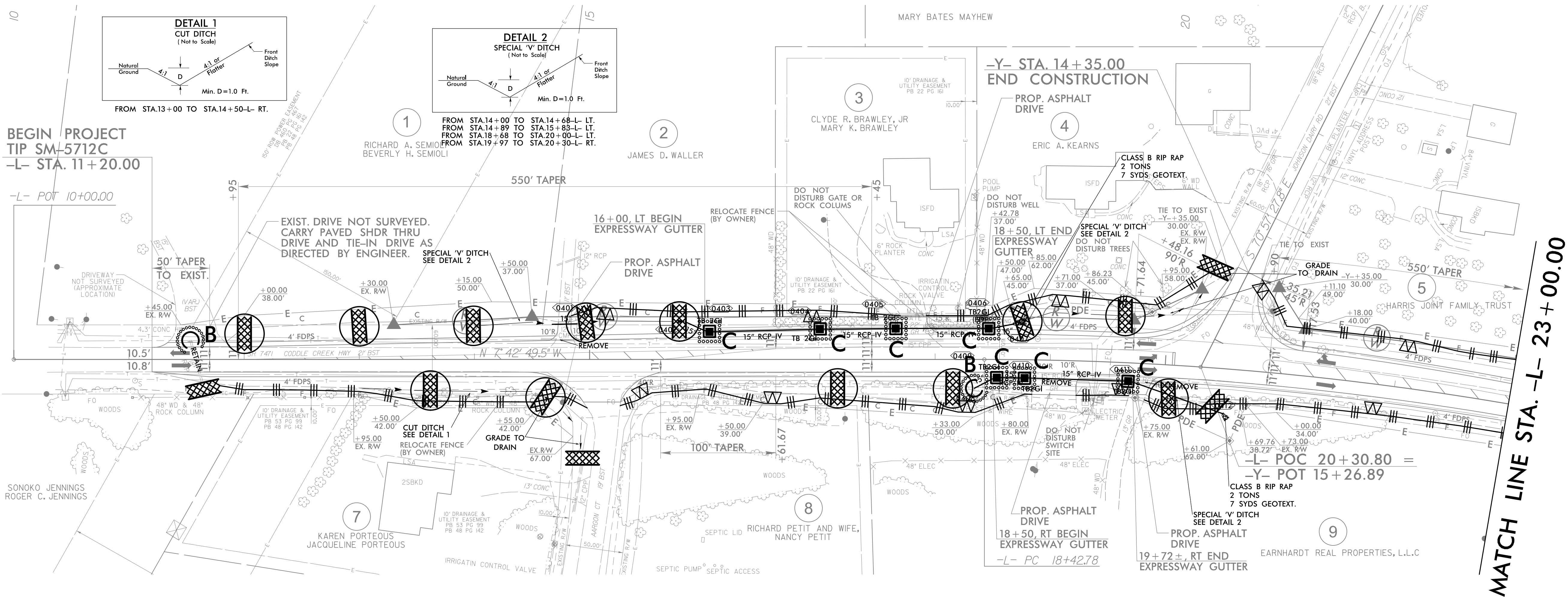
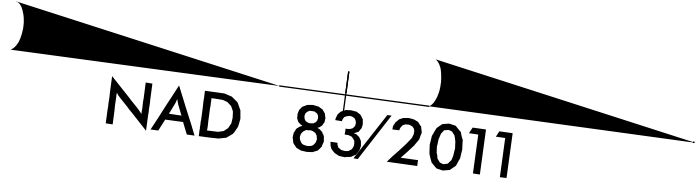
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SM-5712C		EC-4/CONST.4
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
TGS ENGINEERS TGS ENGINEERS 201 W. MARION ST-STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275		



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.

PROJECT REFERENCE NO.		SHEET NO.	
SM-5712C		EC-6/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
TGS ENGINEERS TGS ENGINEERS 201 W. MARION ST-STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275			



IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C,
UTILIZE FABRIC INSERT INLET PROTECTION
DEVICES IN AREAS WHERE WATER MAY
POND ON ROAD OPEN TO LIVE TRAFFIC.

[illegible]

T.I.P.: SM-5712C

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

SIGNING PLAN
IREDELL COUNTY

LOCATION: NC 3 (CODDLE CREEK HWY) AND SR 1142
(JOHNSON DAIRY RD) INTERSECTION IMPROVEMENTS

TIP NO.
SM-5712C

SHEET NO.
SIGN - 1

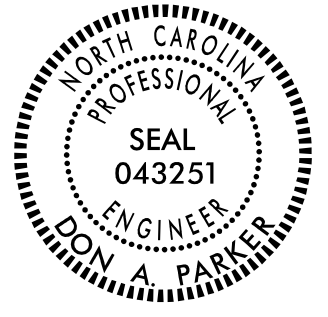
Signed by
Don A. Parker
750B8E90ADEFA40...

APPROVED:

9/10/2025

DATE:

SEAL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

- . SIGNS FURNISHED BY STATE
- . CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- . 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
- . ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- . THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

SUMMARY OF QUANTITIES

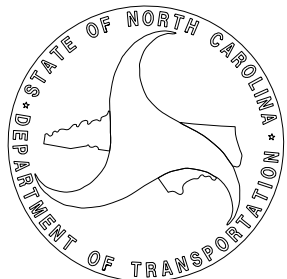
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DESC. NO.	SECT. NO.			
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4102000000	904	SIGN ERECTION, TYPE E	3	EA.
4108000000	904	SIGN ERECTION, TYPE F	2	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-2	TYPE E AND F SINGS
SIGN-3-4	EXISTING SIGN DETAIL

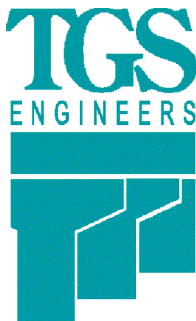
PLAN SUBMITTED TO: NCDOT

BRYAN SOWELL, P.E. DIVISION 12 PROJECT DEVELOPMENT ENGINEER



PLAN PREPARED BY: TGS ENGINEERS

DON A. PARKER, P.E. PROJECT ENGINEER
CODA BRANNAN, E.I. DESIGN ENGINEER



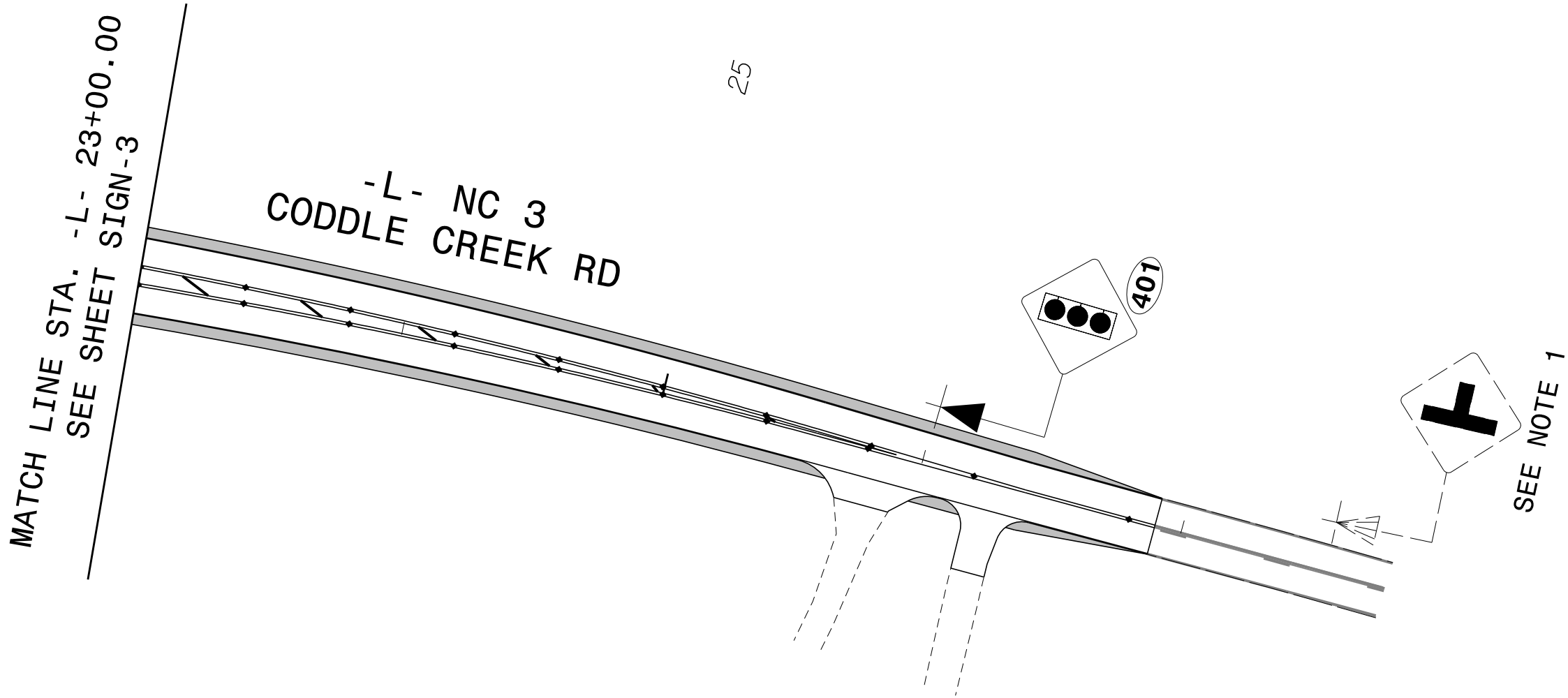
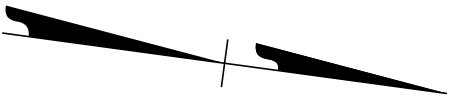
TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

TYPE "E" AND "F" SIGNS

PROJECT NOTES

EXISTING AND PROPOSED SIGNS

TIP NO.	SHEET NO.
SM-5712C	SIGN-4
Signed by: APPROVED: <u>Don A. Parker</u> 75DBRE90ADEF440.	
DATE: 9/10/2025	
SEAL	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH STREET (SUITE 200) RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



PROJECT NOTES

1. DISPOSAL OF SIGN SYSTEM, U-CHANNEL

**EXISTING AND PROPOSED
SIGNS**

PHASING DIAGRAM

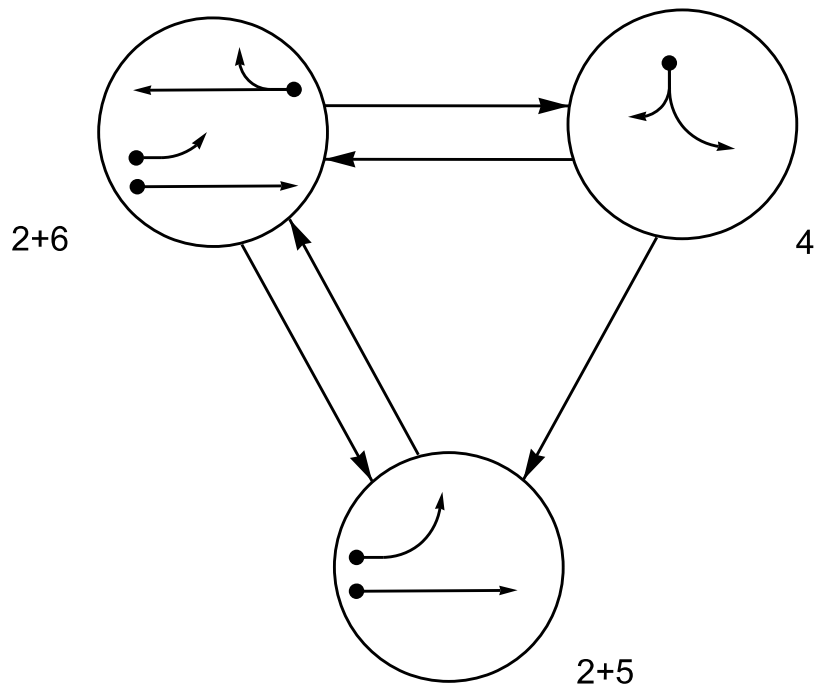
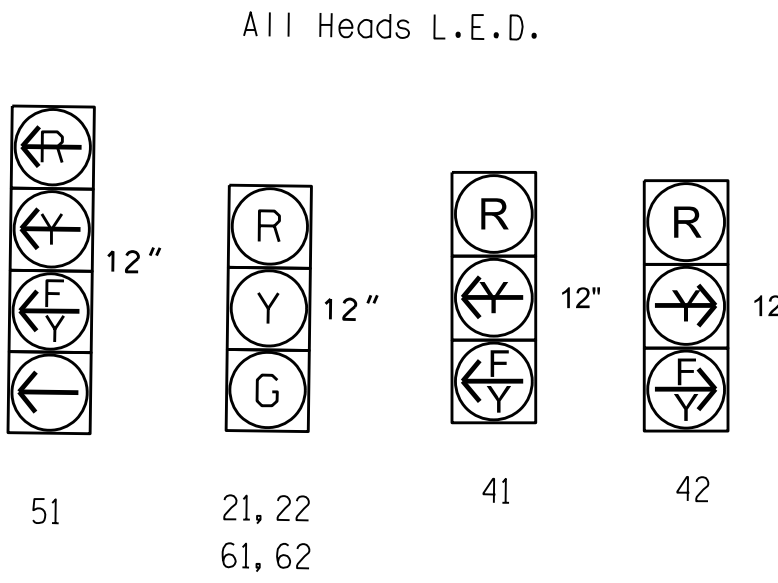


TABLE OF OPERATION					
SIGNAL FACE	2+5		2+6		FLASH
	5	6	5	6	
21, 22	G	G	R	R	
41	R	R	F	F	
42	R	R	F	F	
51	F	F	R	R	
61, 62	R	G	R	R	

SIGNAL FACE I.D.



MAXTIME DETECTOR INSTALLATION CHART

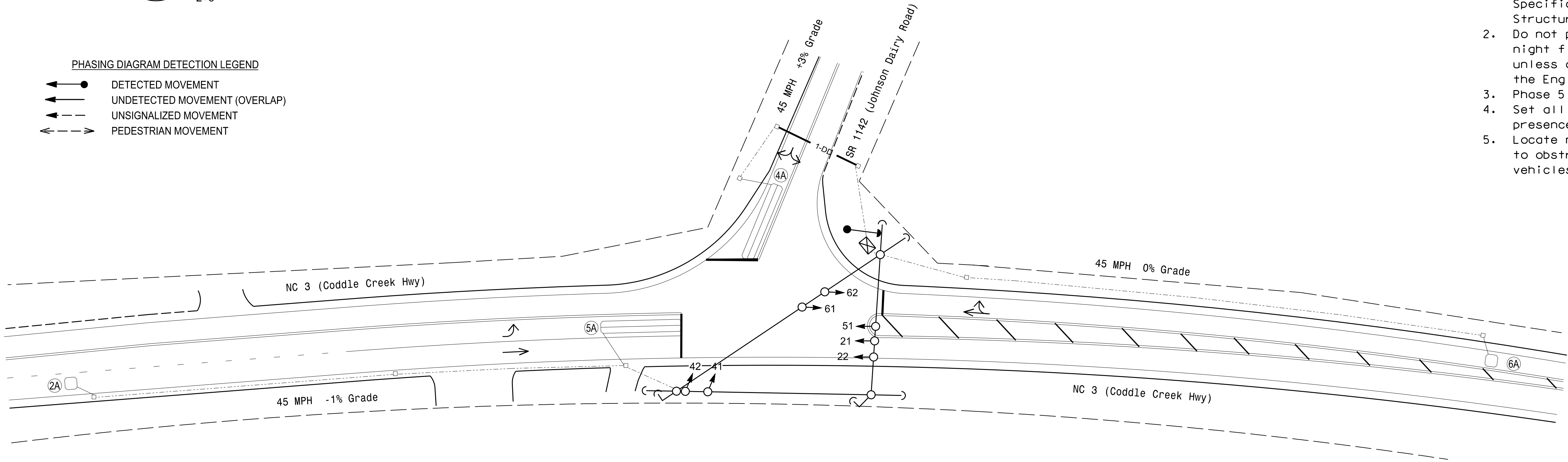
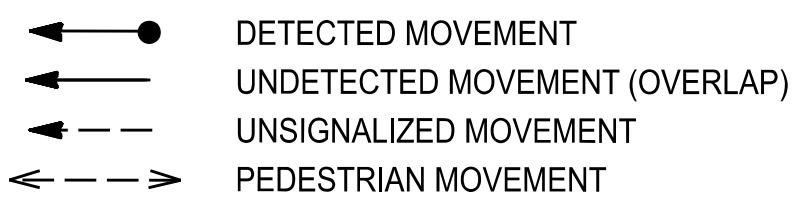
DETECTOR					PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOP LINE (FT)	TURNS	NEW LOOP	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL DELAY DURING GREEN	NEW CARD	
2A	6X6	300	5	X	2	-	-	X	X	X	-	X
4A	6X40	0	2-4-2	X	4	5.0	-	X	-	X	-	X
5A	6X40	0	2-4-2	X	5	15.0	-	X	-	X	-	X
6A	6X6	300	4	X	6	-	-	X	X	X	-	X

3 Phase
Fully Actuated
Isolated

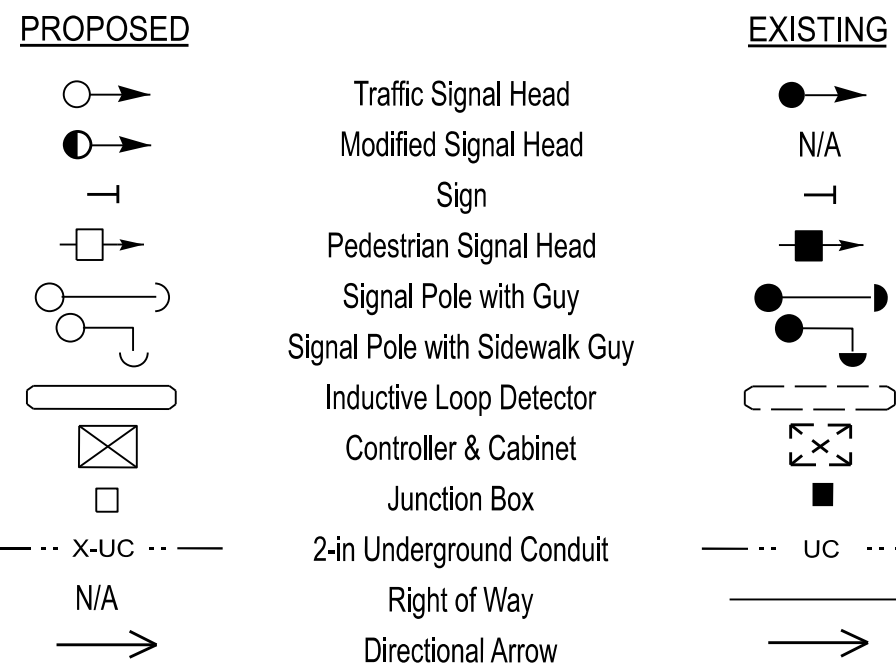
NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2024 and "Standard Specifications for Roads and Structures" dated January 2024.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.

PHASING DIAGRAM DETECTION LEGEND

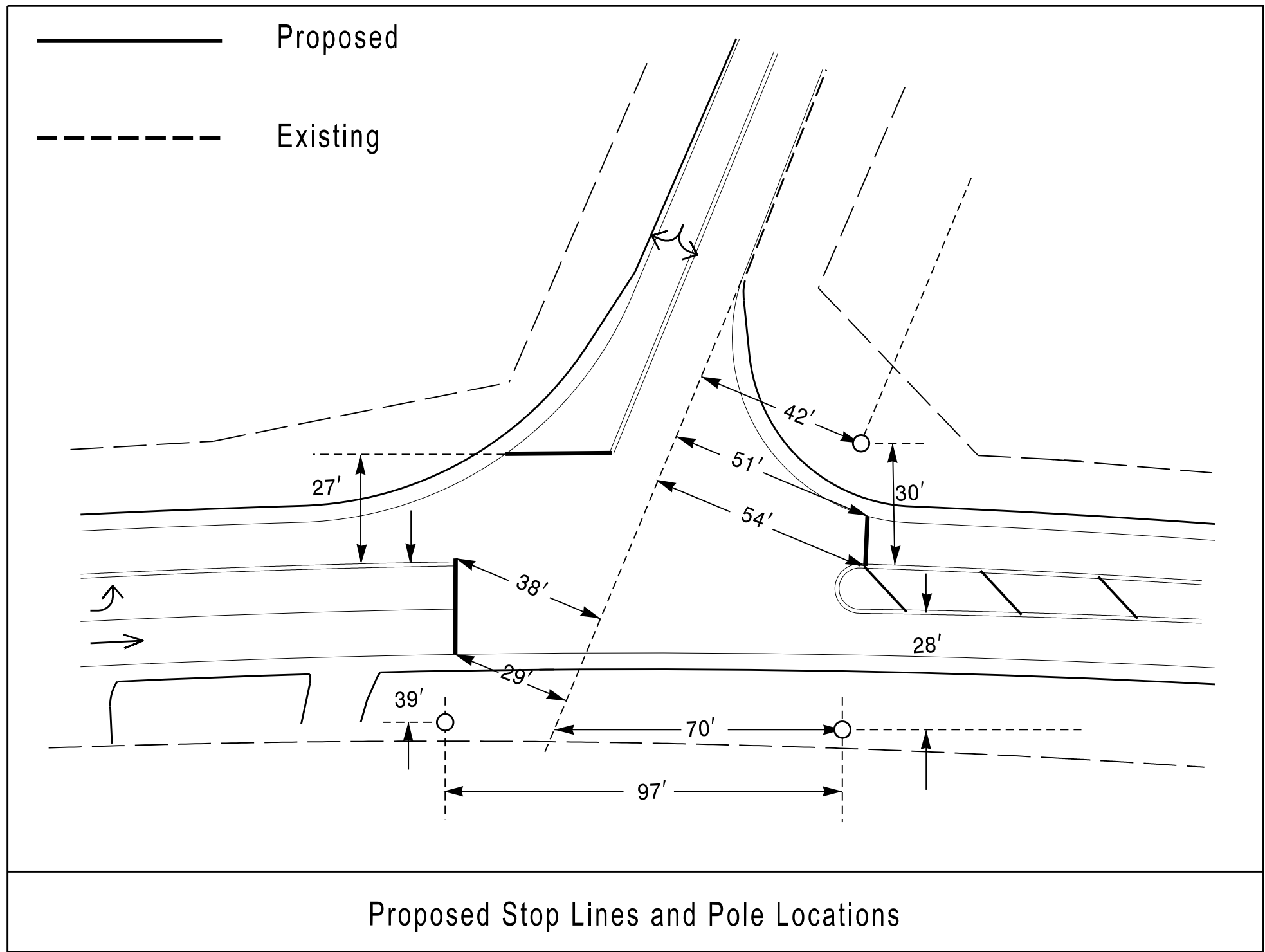


LEGEND



MAXTIME TIMING CHART				
FEATURE	PHASES			
	2	4	5	6
Walk *	-	-	-	-
Ped Clear	-	-	-	-
Min Green *	12	7	7	12
Passage *	6.0	2.0	2.0	6.0
Max 1 *	60	15	15	60
Yellow Change	4.6	3.0	3.0	4.6
Red Clear	1.6	3.1	1.4	1.6
Added Initial *	2.5	-	-	2.5
Maximum Initial *	34	-	-	34
Time Before Reduction *	15	-	-	15
Time To Reduce *	30	-	-	30
Minimum Gap	3.0	-	-	3.0
Advance Walk	-	-	-	-
Non Lock Detector	-	X	X	-
Vehicle Recall	MIN RECALL	-	-	MIN RECALL
Dual Entry	-	-	-	-

* These values may be field adjusted. Do not adjust Min Green and Passage times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



This plan supersedes the plan signed and sealed on 11/22/2019.

New Installation

Prepared in the Offices of: 750 N. Greenfield Pkwy, Garner, NC 27529		NC 3 (Coddle Creek Hwy) at SR 1142 (Johnson Dairy Road) Division 12 Iredell County Mooresville		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PLAN DATE: April 2025		REVIEWED BY: R. N. Zinser			
PREPARED BY: Adja Fall		REVIEWED BY:			
REVISIONS		INIT.		DATE	
0		SCALE		1" = 30'	
30		DATE		05/20/2025	
SIG. INVENTORY NO.		12-1873			

20-MAY-2025 13:29
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OUTPUT CHANNEL CONFIGURATION

Front Panel
Main Menu >Controller >More>Channels>Channels Config

Web Interface
Home >Controller >Advanced IO>Channels>Channel Configuration

Channel Configuration

Channel	Control Type	Control Source	Flash Yellow	Flash Red	Flash Alt	MMU Channel
1	Phase Vehicle	1		X	X	1
2	Phase Vehicle	2		X		2
3	Phase Vehicle	3		X	X	3
4	Phase Vehicle	4		X		4
5	Phase Vehicle	5		X		5
6	Phase Vehicle	6		X	X	6
7	Phase Vehicle	7		X		7
8	Phase Vehicle	8		X	X	8
9	Overlap	1		X	X	9
10	Overlap	2		X	X	10
11	Overlap	3		X		11
12	Overlap	4		X		12
13	Phase Ped	2				13
14	Phase Ped	4				14
15	Phase Ped	6				15
16	Phase Ped	8				16
17	Overlap	5		X	X	17
18	Overlap	6		X		18

PROJECT REFERENCE NO.	SHEET NO.
SM-5712C	Sig.1.2

OVERLAP PROGRAMMING

Front Panel
Main Menu >Controller >Overlap >Overlap Parameters/Overlap Timings

Web Interface
Home >Controller >Overlap Configuration >Overlaps

Overlap Plan 1

Overlap	3	4
Type	FYA - 4 Section	FYA - 4 Section
Included Phases	6	4
Modifier Phases	5	-
Modifier Overlaps	-	-
Trail Green	0	0
Trail Yellow	0.0	0.0
Trail Red	0.0	0.0

MAXTIME STARTUP AND SOFTWARE FLASH PROGRAMMING DETAIL

Front Panel
Main Menu >Controller >Unit

Web Interface
Home >Controller >Unit

Modify parameters as shown below and save changes.

Start Up Parameters

StartUp Clearance Hold
6

Unit Flash Parameters

All Red Flash Exit Time
6

This plan supersedes the plan signed and sealed on 11/27/2019.

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 12-1873
DESIGNED: April 2025
SEALED: 05/20/2025
REVISED: N/A

Electrical Detail - Sheet 2 of 2

Electrical and Programming Details For:

Prepared in the Offices of:



750 N. Greenfield Pkwy, Garner, NC 27529

NC 3 (Coddle Creek Hwy)
at
SR 1142 (Johnson Dairy Road)

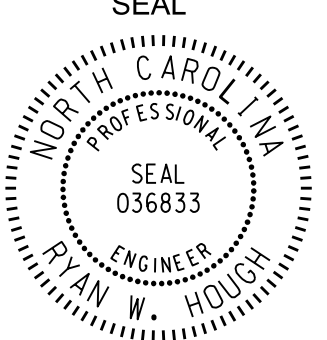
Division 12Iredell CountyMooreville

PLAN DATE: May 2025REVIEWED BY:

PREPARED BY: Sarah KirkpatrickREVIEWED BY:

REVISIONS	INIT.	DATE

SEAL



SEAL
036833
ENGINEER
RYAN W. HOUGH

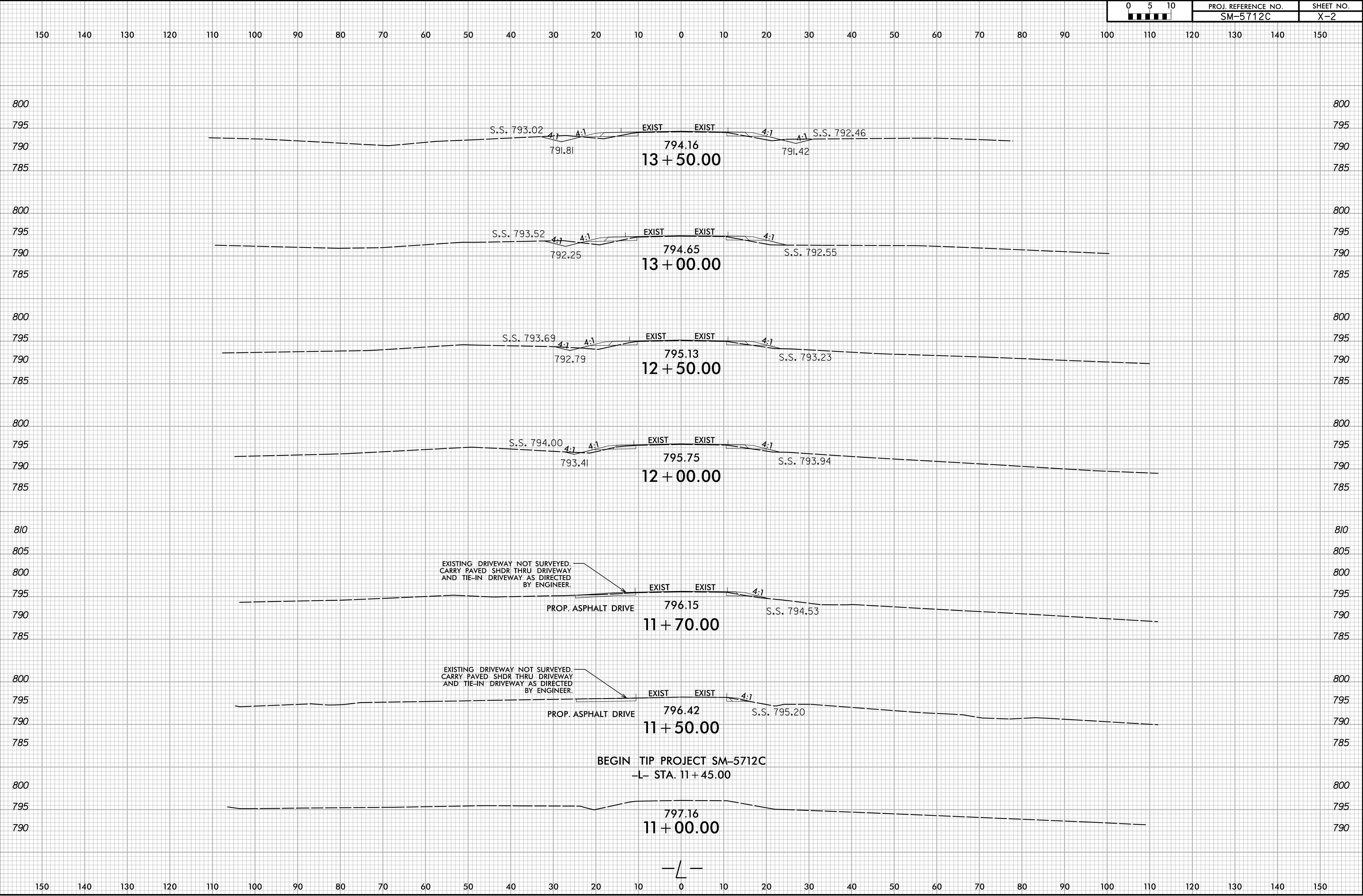
Signed by: Ryan W. Hough05/20/2025

430320F/A2804C3DATE

SIG. INVENTORY NO. 12-1873

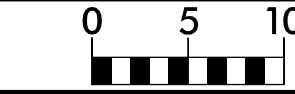
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	PROJ. REFERENCE NO.	SHEET NO.
	SM-5712C	X-2



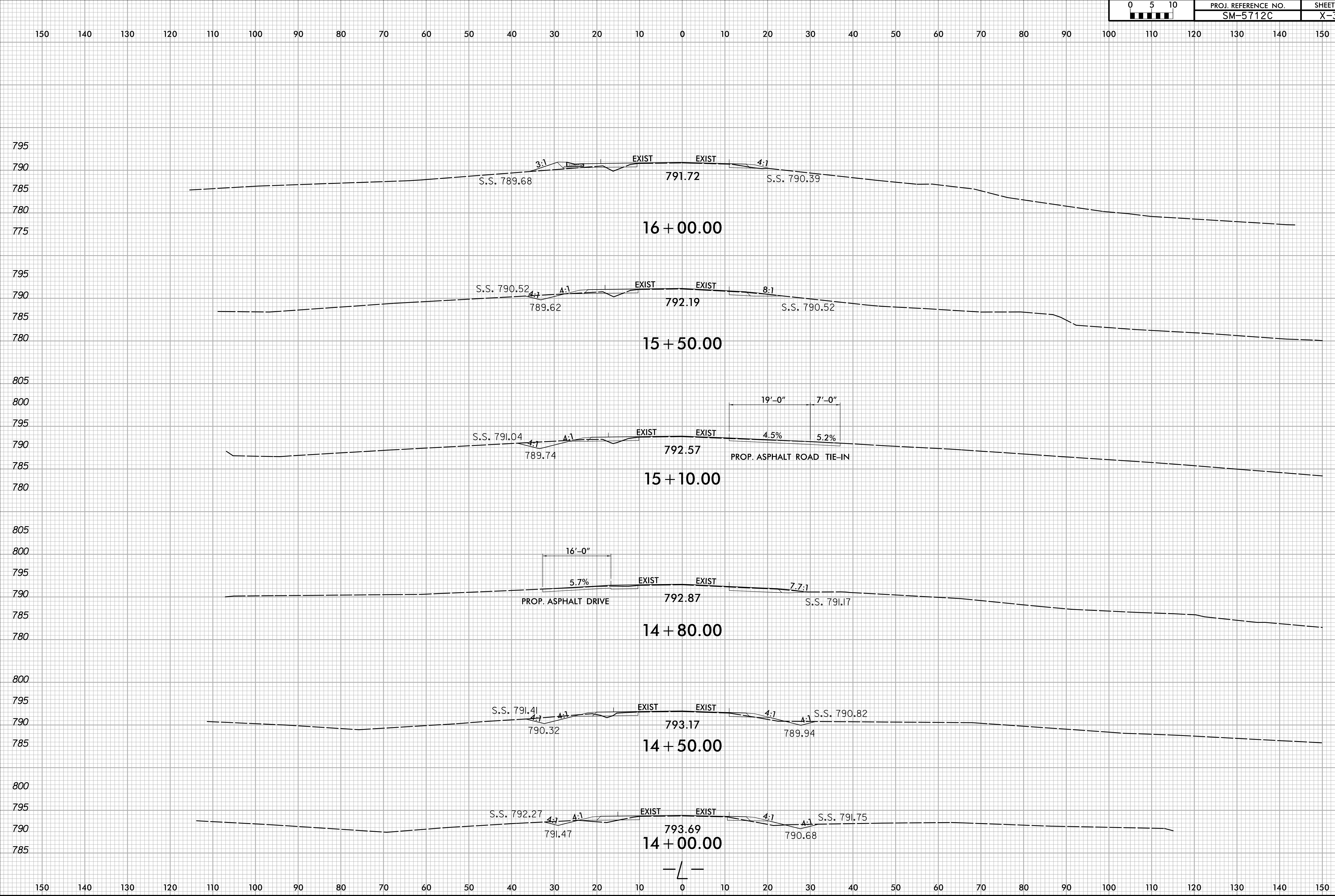
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6/23/16

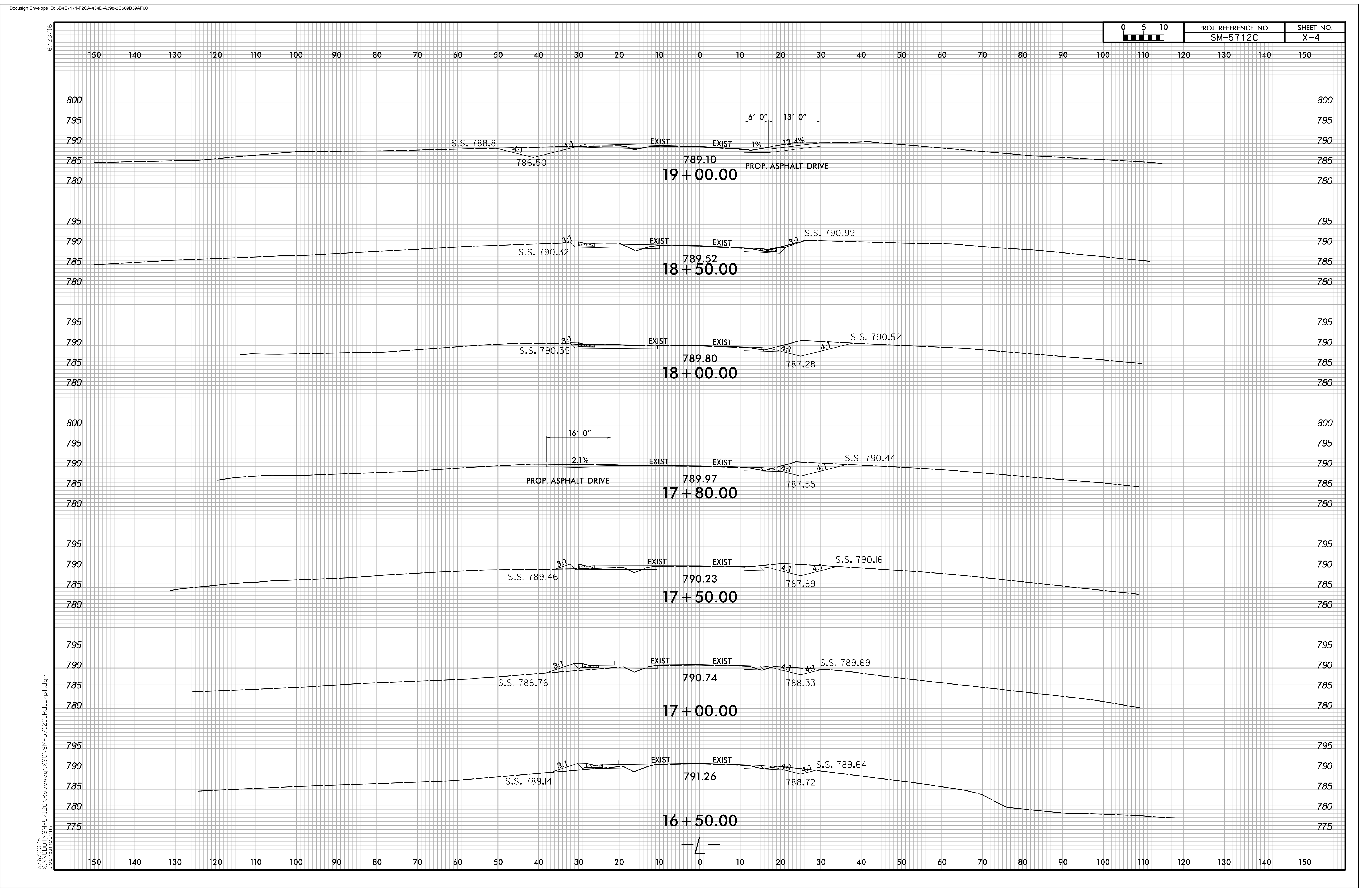


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SM-5712C

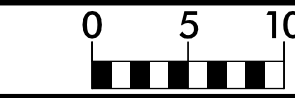
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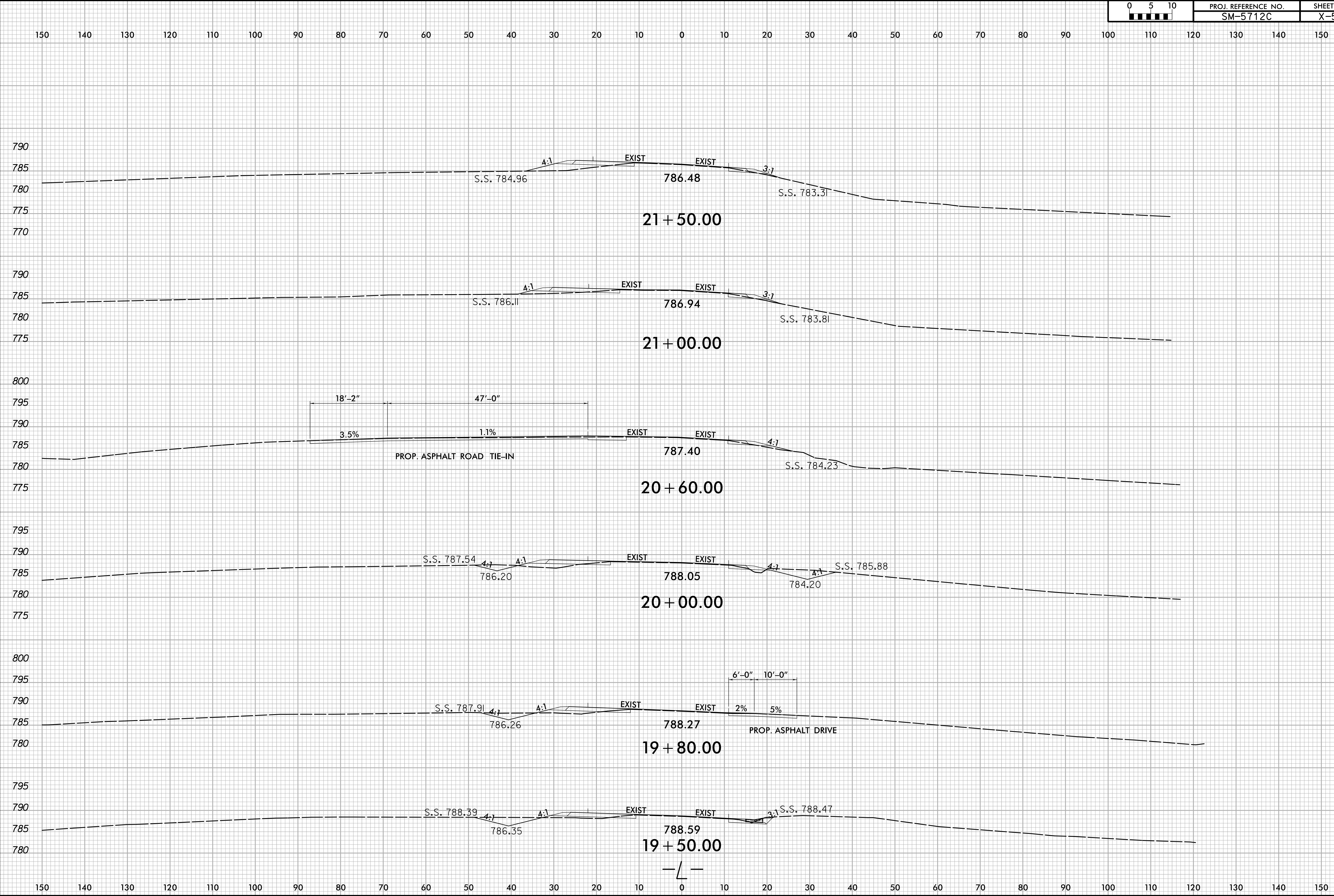


6/23/16



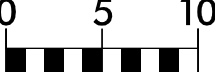
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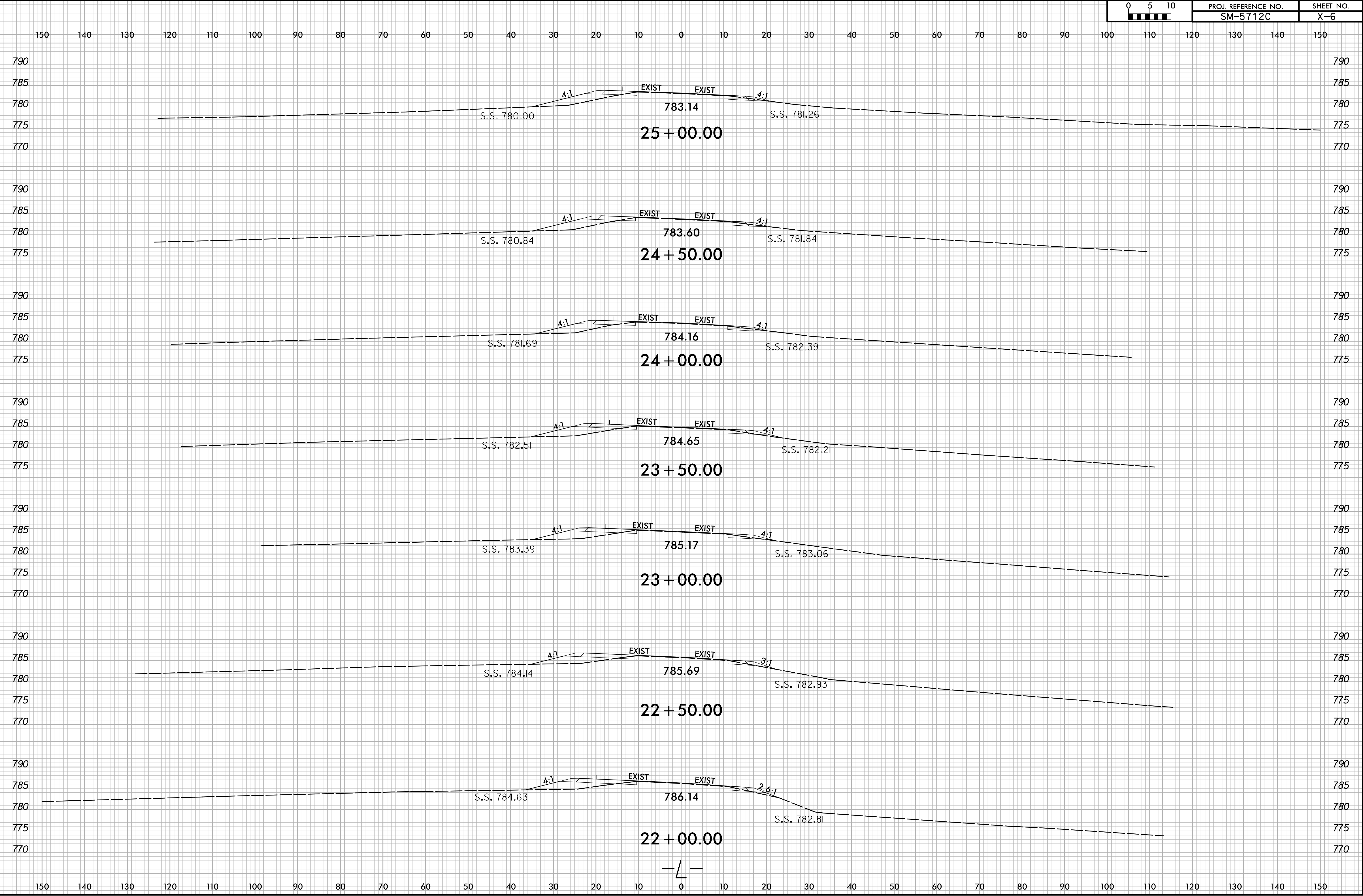
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X-5



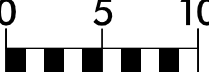
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6/23/16

	PROJ. REFERENCE NO.	SHEET NO.
	SM-5712C	X-6



6/23/16

	PROJ. REFERENCE NO.	SHEET NO.
	SM-5712C	X-7

