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TIP PROJECT: U-5887

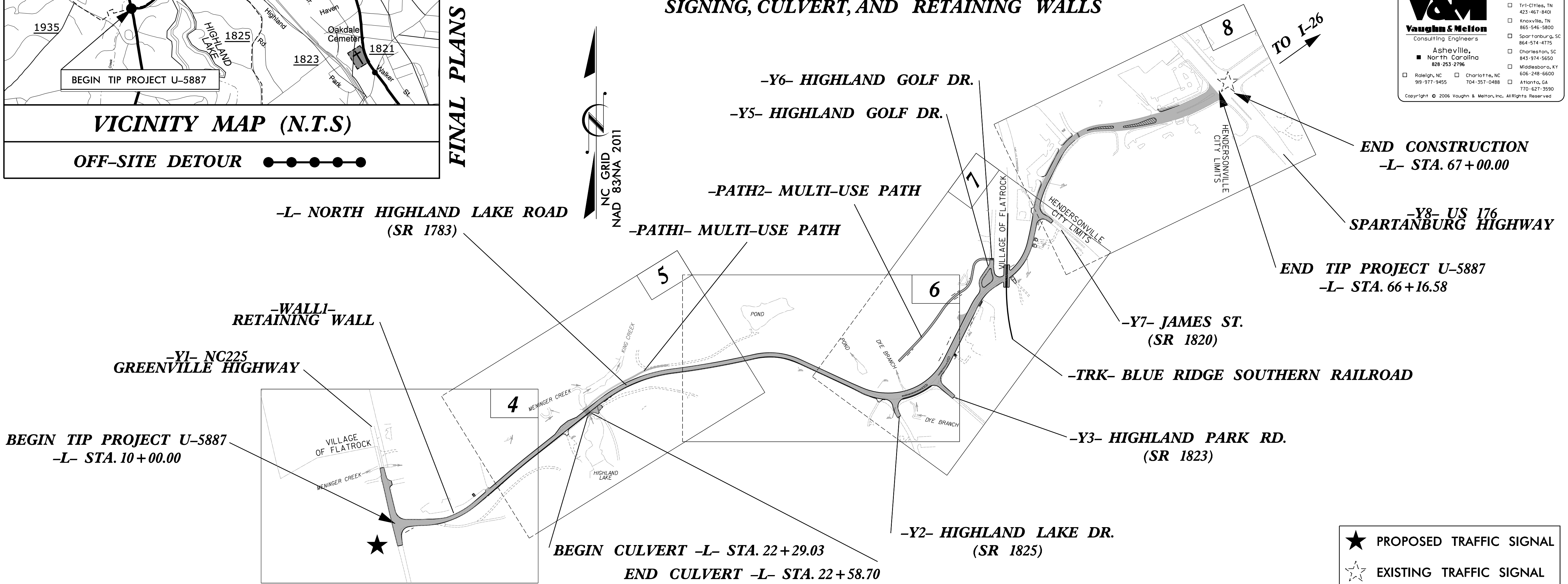
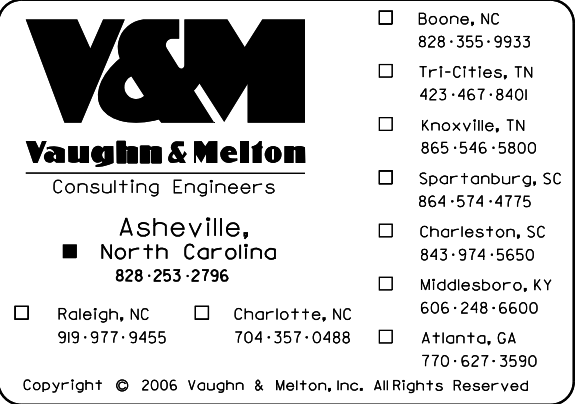
CONTRACT: DN00720

FINAL PLANS

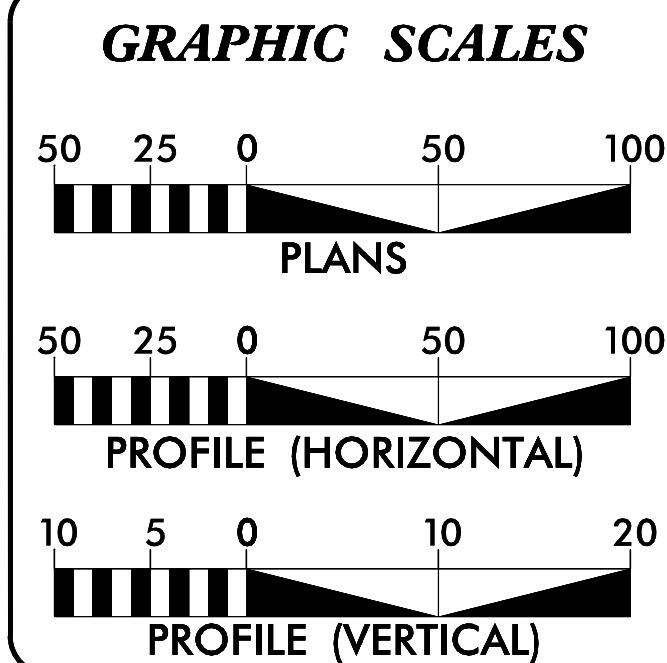
HENDERSON COUNTY

***TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS,
SIGNING, CULVERT, AND RETAINING WALLS***

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5887	1	-
STATE PROJ.NO.	F.A. PROJ.NO.	DESCRIPTION	
44634.1.1	NA	PE	
44634.2.1	NA	R/W UTIL.	
44634.3.1	NA	CONST.	



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



DESIGN DATA
 ADT 2010 = 6700
 ADT 2040 = 7200
 T = 5 % *
 V = 35 MPH
 * TTST = 2% DUAL 3%
 K = 9 %
 D = 55 %
 FUNC CLASS =
 MAJOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5887 = 1.058 MILES

LENGTH CULVERT TIP PROJECT U-5887 = 0.006 MILES

TOTAL LENGTH OF TIP PROJECT U-5887 = 1.064 MILES

Prepared in the Office of:
VAUGHN & MELTON, INC.
18-F PATTON AVENUE ASHEVILLE, NC 28806 PHONE (828)253-2796

2018 STANDARD SPECIFICATIONS	
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RIGHT OF WAY DATE:
JUNE 30, 2010

REECE M. SCHULER, P.E., P.L.S.
PROJECT ENGINEER

JARED PHILPOT, E.I.
PROJECT DESIGN ENGINEER

BARRY MOSTELLER
PROJECT TEAM LEAD

HYDRAULICS ENGINEER

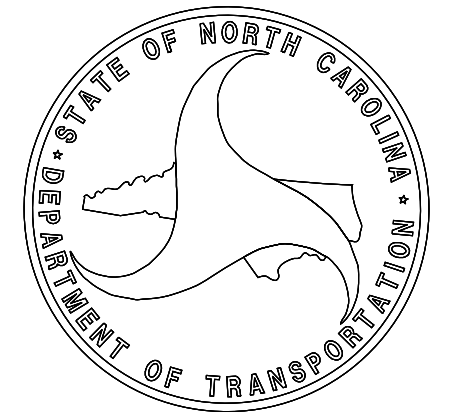
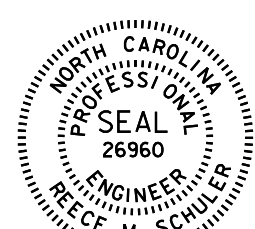
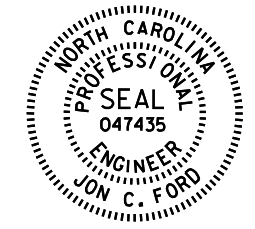
DocuSigned by:

AB9DF2E27A8C43C
SIGNATURE:

**ROADWAY DESIGN
ENGINEER**

DocuSigned by:
Reece M. Schuler
16634024C7824FC...

SIGNATURE:



PROJECT REFERENCE NO.	SHEET NO.
U-5887	1A
ROADWAY DESIGN ENGINEER 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

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...\\Roadway\Proj\U5887_psh_1A.dgn
\\user:icah; not

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	
Computed Property Corner	
Property Monument	
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:

Secondary Horiz and Vert Control Point	
Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Exist Permanent Easment Pin and Cap	
New Permanent Easement Pin and Cap	
Vertical Benchmark	
Existing Right of Way Marker	
Existing Right of Way Line	
New Right of Way Line	
New Right of Way Line with Pin and Cap	
New Right of Way Line with Concrete or Granite R/W Marker	
New Control of Access Line with Concrete C/A Marker	
Existing Control of Access	
New Control of Access	
Existing Easement Line	
New Temporary Construction Easement	
New Temporary Drainage Easement	
New Permanent Drainage Easement	
New Permanent Drainage /Utility Easement	
New Permanent Utility Easement	
New Temporary Utility Easement	
New 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	

*S.U.E. = Subsurface Utility Engineering

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:

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 LOS B (S.U.E.*)	
U/G Power Line LOS C (S.U.E.*)	
U/G Power Line LOS D (S.U.E.*)	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Cable LOS B (S.U.E.*)	
U/G Telephone Cable LOS C (S.U.E.*)	
U/G Telephone Cable LOS D (S.U.E.*)	
U/G Telephone Conduit LOS B (S.U.E.*)	
U/G Telephone Conduit LOS C (S.U.E.*)	
U/G Telephone Conduit LOS D (S.U.E.*)	
U/G Fiber Optics Cable LOS B (S.U.E.*)	
U/G Fiber Optics Cable LOS C (S.U.E.*)	
U/G Fiber Optics Cable LOS D (S.U.E.*)	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line LOS B (S.U.E.*)	
U/G Water Line LOS C (S.U.E.*)	
U/G Water Line LOS D (S.U.E.*)	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Cable LOS B (S.U.E.*)	
U/G TV Cable LOS C (S.U.E.*)	
U/G TV Cable LOS D (S.U.E.*)	
U/G Fiber Optic Cable LOS B (S.U.E.*)	
U/G Fiber Optic Cable LOS C (S.U.E.*)	
U/G Fiber Optic Cable LOS D (S.U.E.*)	

GAS:

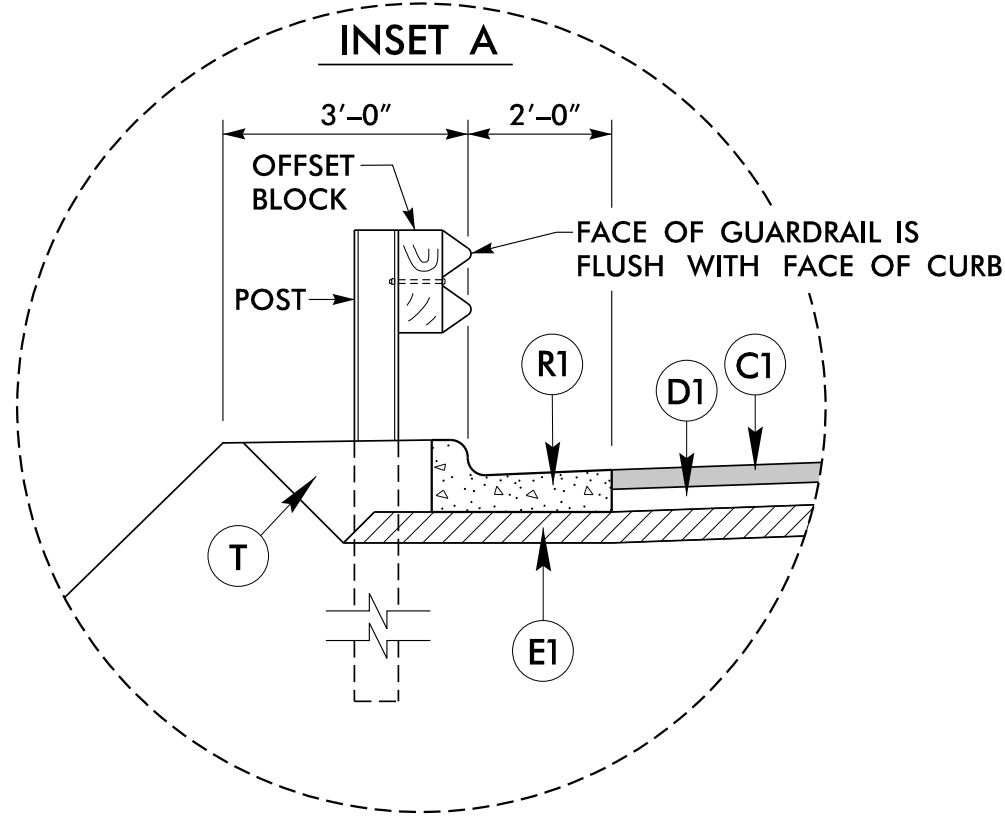
Gas Valve	
Gas Meter	
U/G Gas Line LOS B (S.U.E.*)	
U/G Gas Line LOS C (S.U.E.*)	
U/G Gas Line LOS D (S.U.E.*)	
Above Ground Gas Line	

SANITARY SEWER:

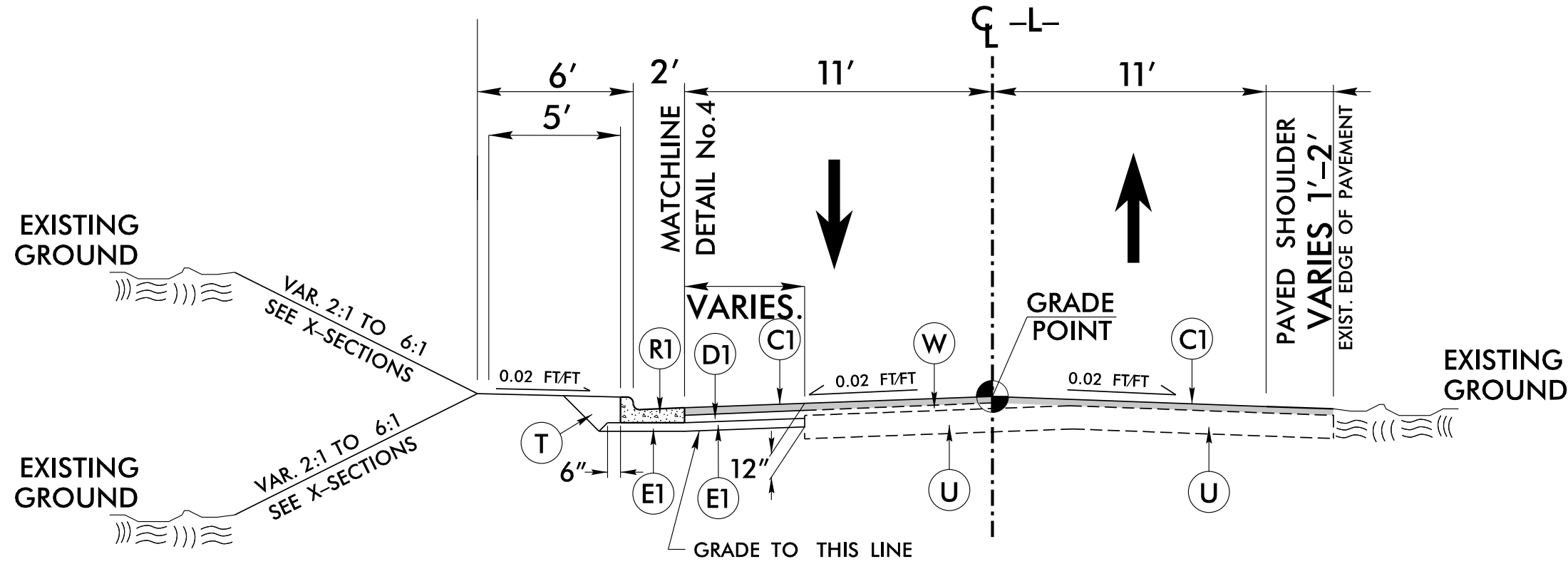
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Forced Main Line LOS B (S.U.E.*)	
SS Forced Main Line LOS C (S.U.E.*)	
SS Forced Main Line LOS D (S.U.E.*)	

MISCELLANEOUS:

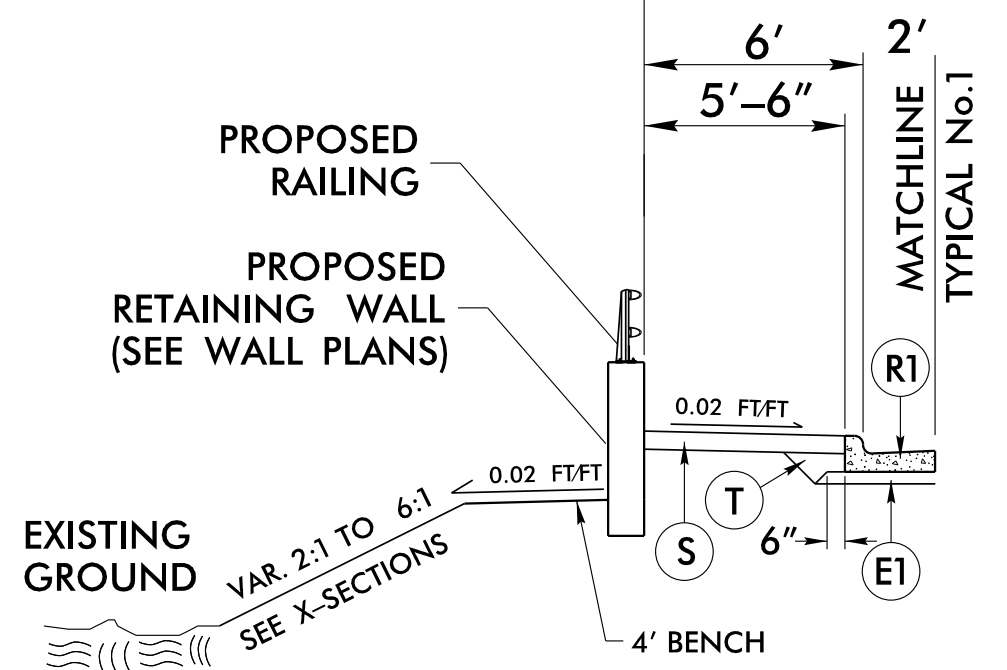
Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line LOS B (S.U.E.*)	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
U/G Test Hole LOS A (S.U.E.*)	
Abandoned According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



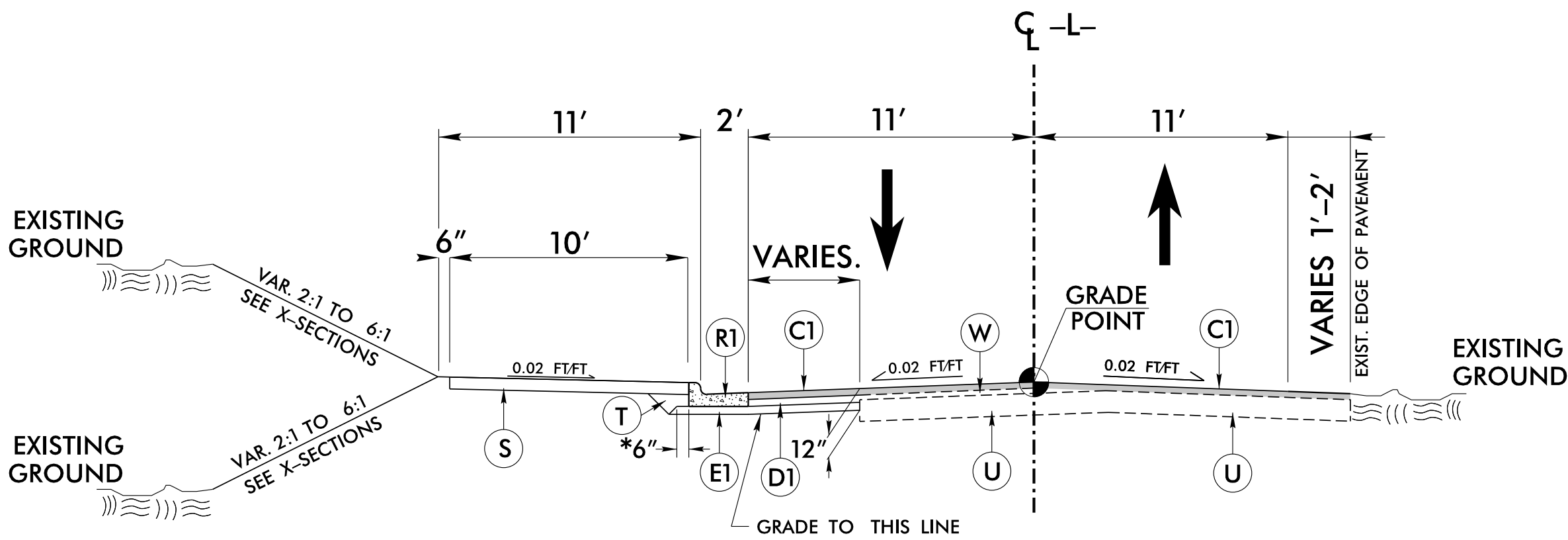
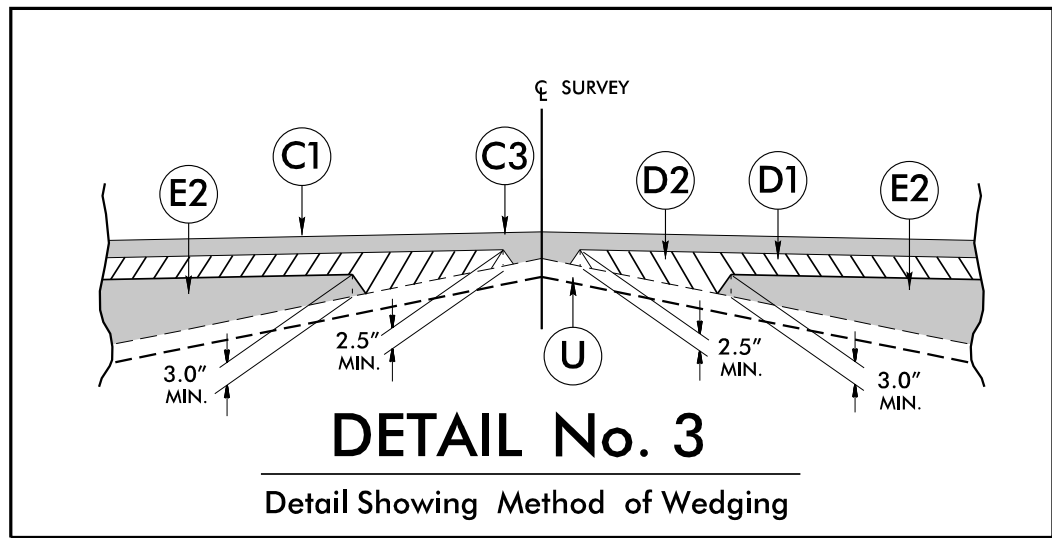
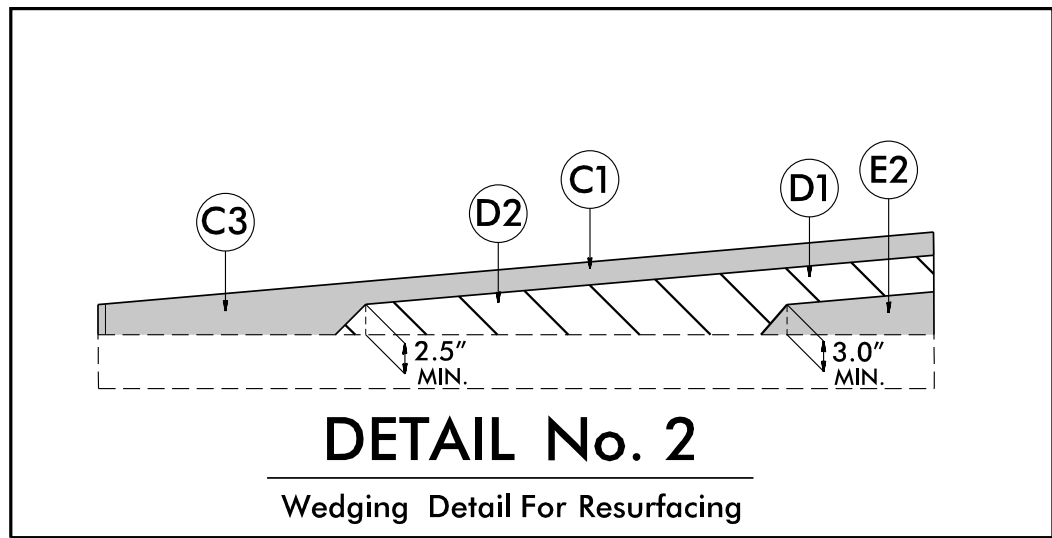
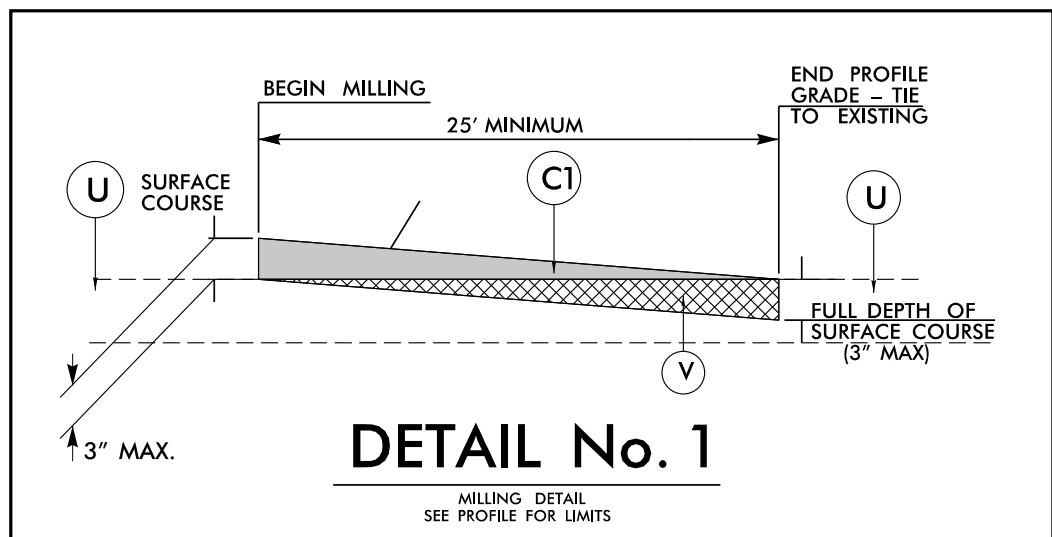
INSET A
NOT TO SCALE
-L- STA. 24+90.79 TO -L- STA. 40+42.90 LT
-L- STA. 58+35.48 TO -L- STA. 60+47.89 LT
NOTE: WHEN NEW FULL DEPTH PAVEMENT IS ADJACENT TO
EXISTING PAVEMENT AND WIDTH OF (E1) IS 6' OR GREATER,
USE (J1) IN LIEU OF (E1)



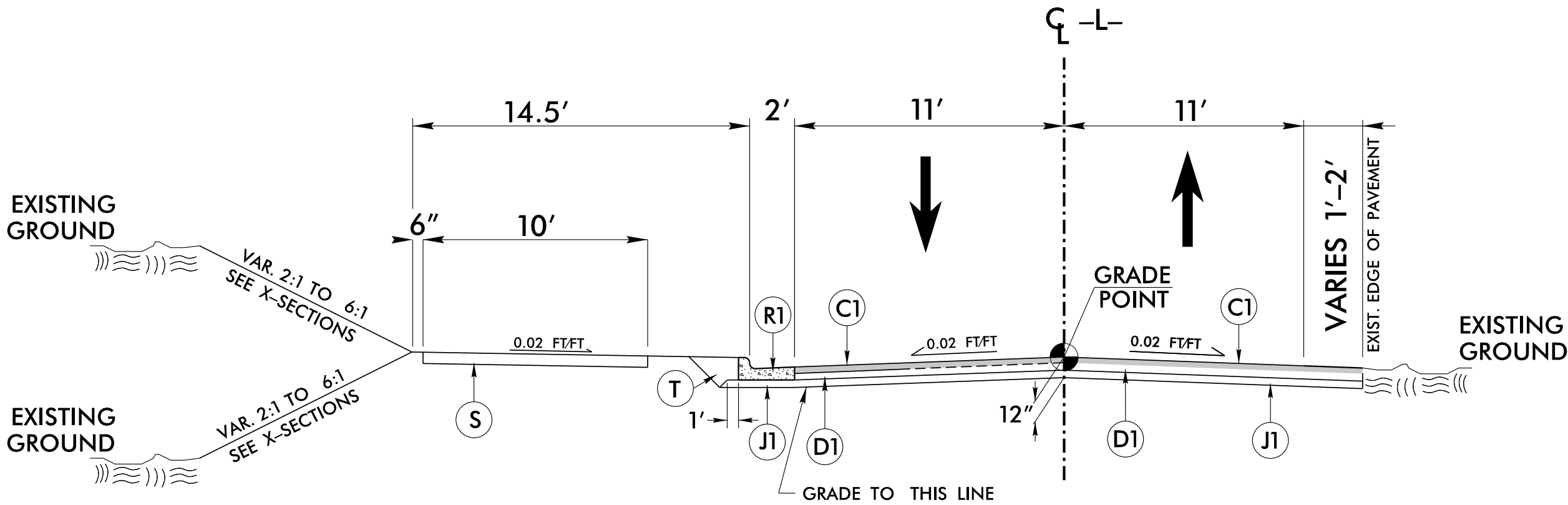
TYPICAL SECTION NO. 1
-L- STA. 10+00.00 TO 15+59.71
* NOTE: 1' IF USING J1



-L- STA. 11+25.00 TO -L- STA. 11+81.65 OFFSET IS 30'-0"
-L- STA. 11+81.65 TO -L- STA. 12+81.65 OFFSET VARIES FROM 30'-0" TO 19'-0"
-L- STA. 12+81.65 TO -L- STA. 13+30.00 OFFSET IS 19'-0"
NOTE: SEE WALL AND ROADWAY PLANS FOR FULL EXTENT OF RETAINING WALL.



TYPICAL SECTION NO. 2
-L- STA. 15+59.71 TO 22+75.00
SIDEWALK THROUGH -L- STA. 22+29.49 TO 22+75.00 LT. ONLY
* NOTE: 1' IF USING J1

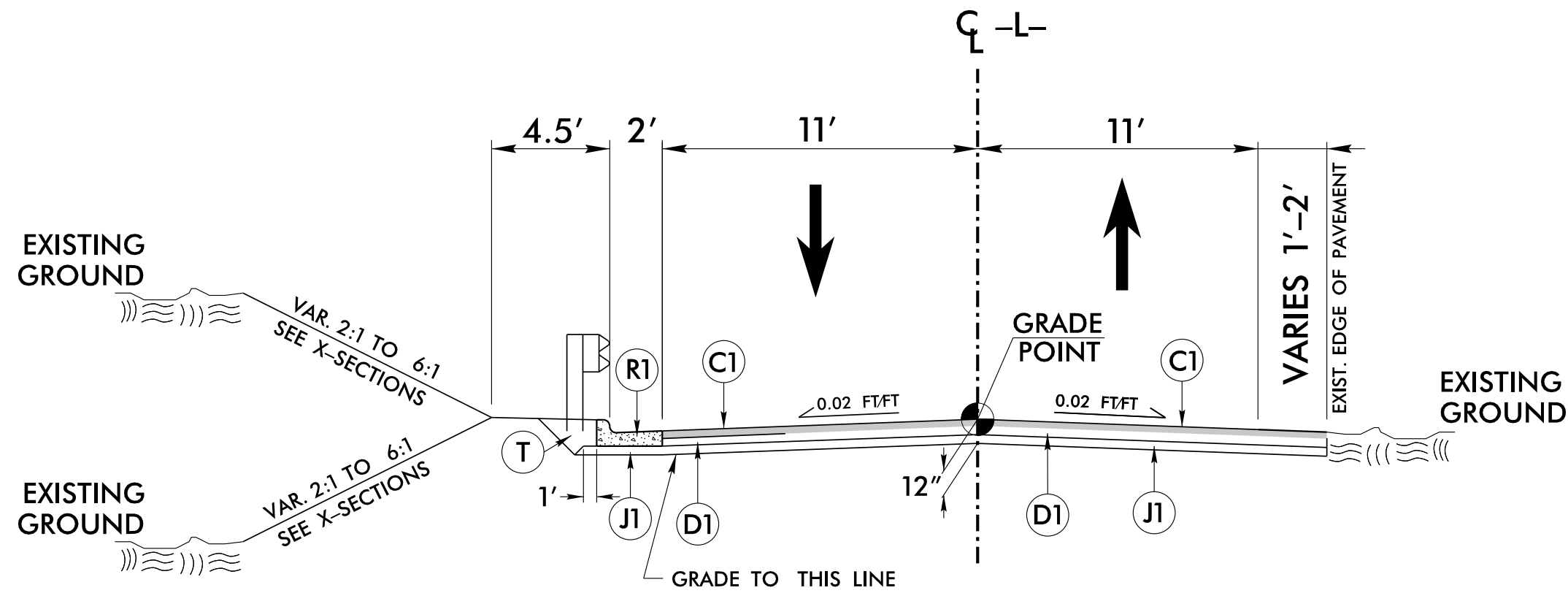


TYPICAL SECTION NO. 3
-L- STA. 22+75.00 TO 24+86.34

FINAL
PAVEMENT
SCHEDULE

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C 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 I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
J1	5" AGGREGATE BASE COURSE.
K	SELECT GRANULAR MATERIAL (TYPE III)
N	GEOTEXTILE FOR SOIL STABILIZATION (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	5" MONOLITHIC CONCRETE ISLAND.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	VAR. MILLING BITUMINOUS PAVEMENT, 0" TO 3".
V1	MILLING BITUMINOUS PAVEMENT, 2" DEPTH.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAILS).

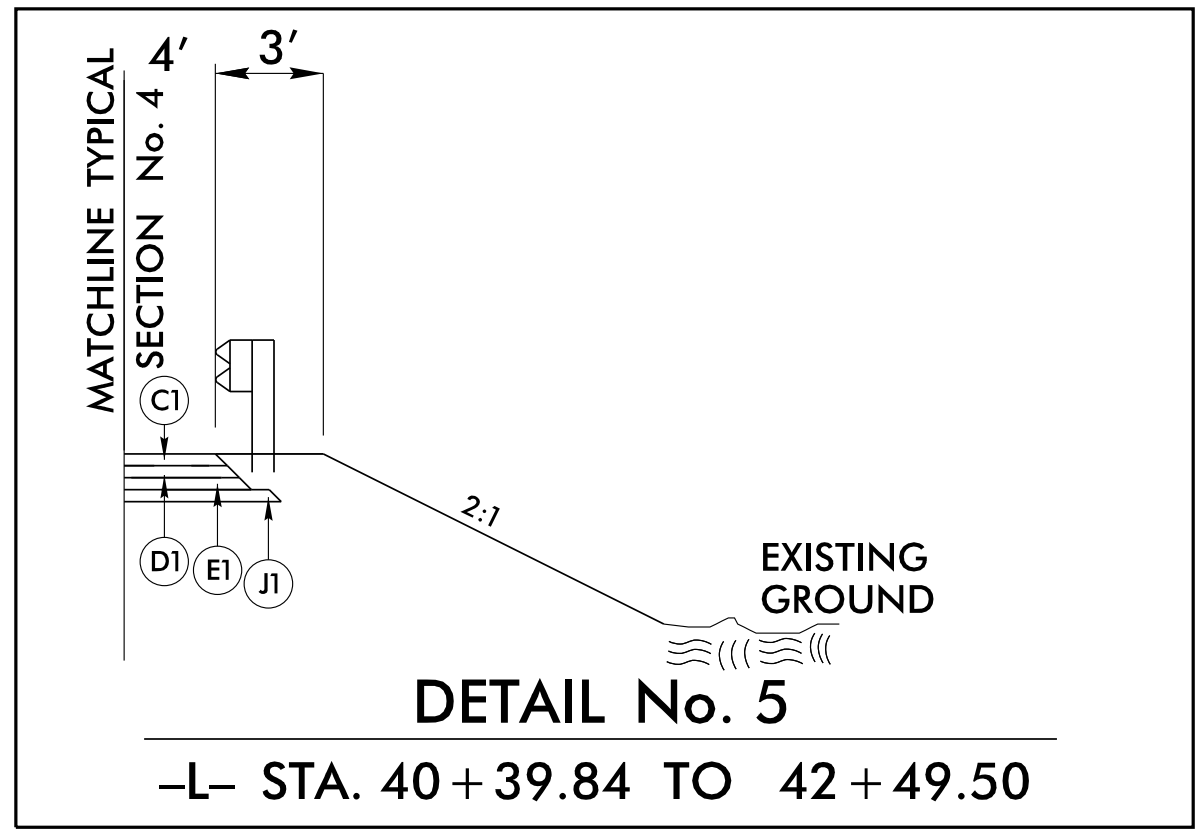
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 4

-L- STA. 24+86.34 TO 31+70.00

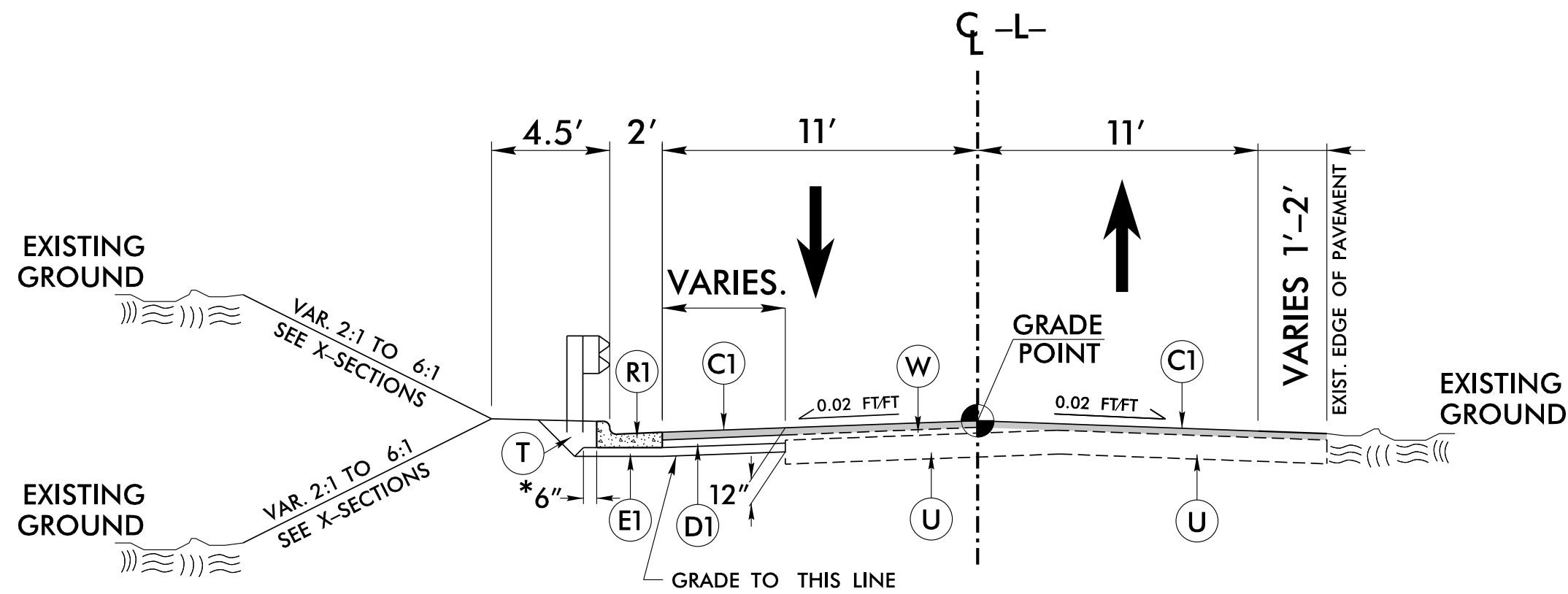
-L- STA. 34+10.00 TO 40+39.84



DETAIL No. 5

-L- STA. 40+39.84 TO 42+49.50

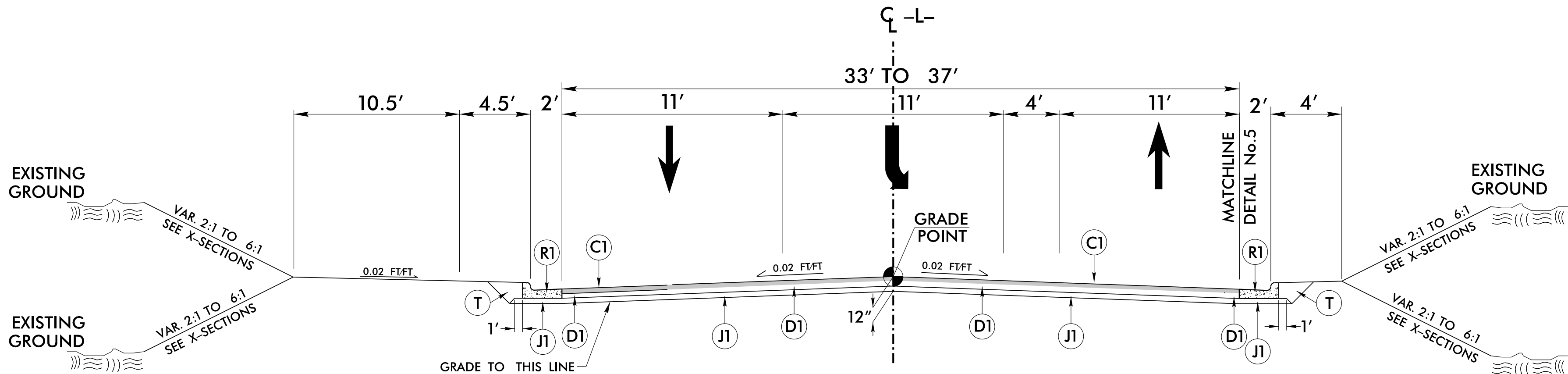
NOTE: WHEN NEW FULL DEPTH PAVEMENT IS ADJACENT TO EXISTING PAVEMENT AND WIDTH OF (E1) IS 6' OR GREATER, USE (J1) IN LIEU OF (E1)



TYPICAL SECTION NO. 5

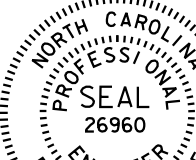
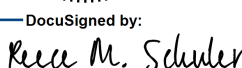
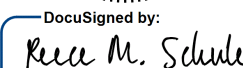
-L- STA. 31+70.00 TO 34+10.00

* NOTE: 1' IF USING J1



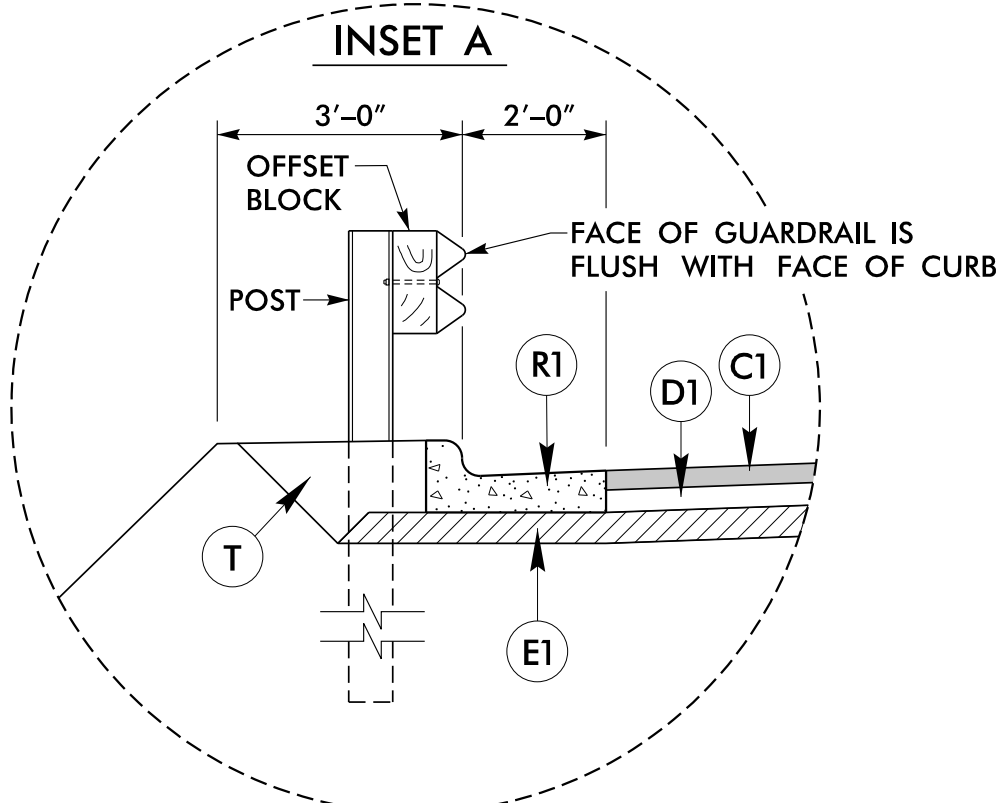
TYPICAL SECTION NO. 6

-L- STA. 40+39.84 TO 44+00.00

PROJECT REFERENCE NO.		SHEET NO.	
U-5887		2A-2	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
			
DocuSigned by: 		DocuSigned by: 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

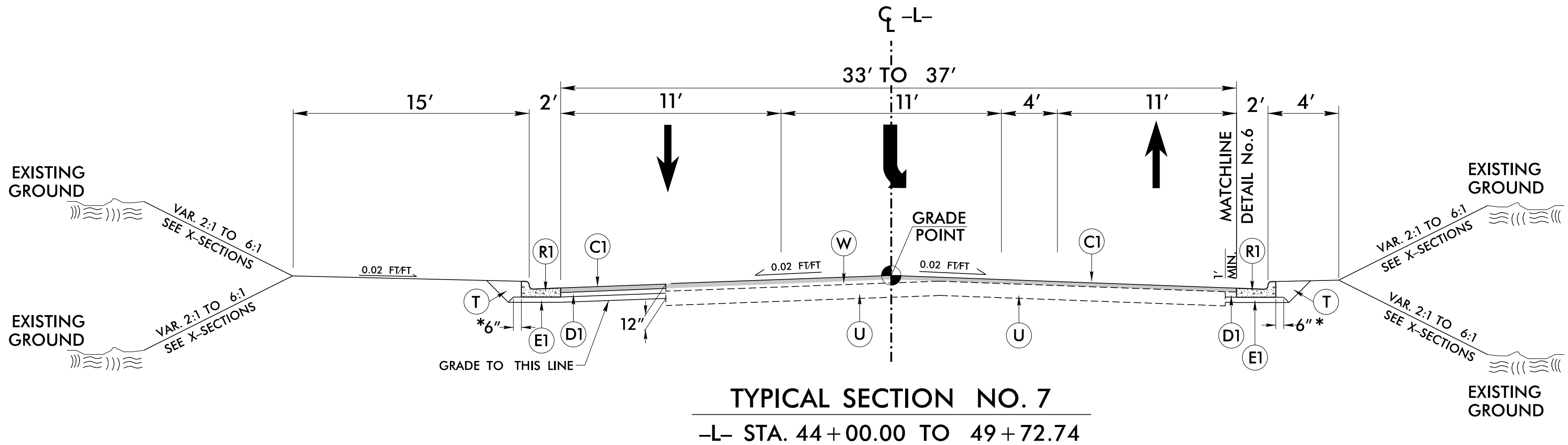
FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

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

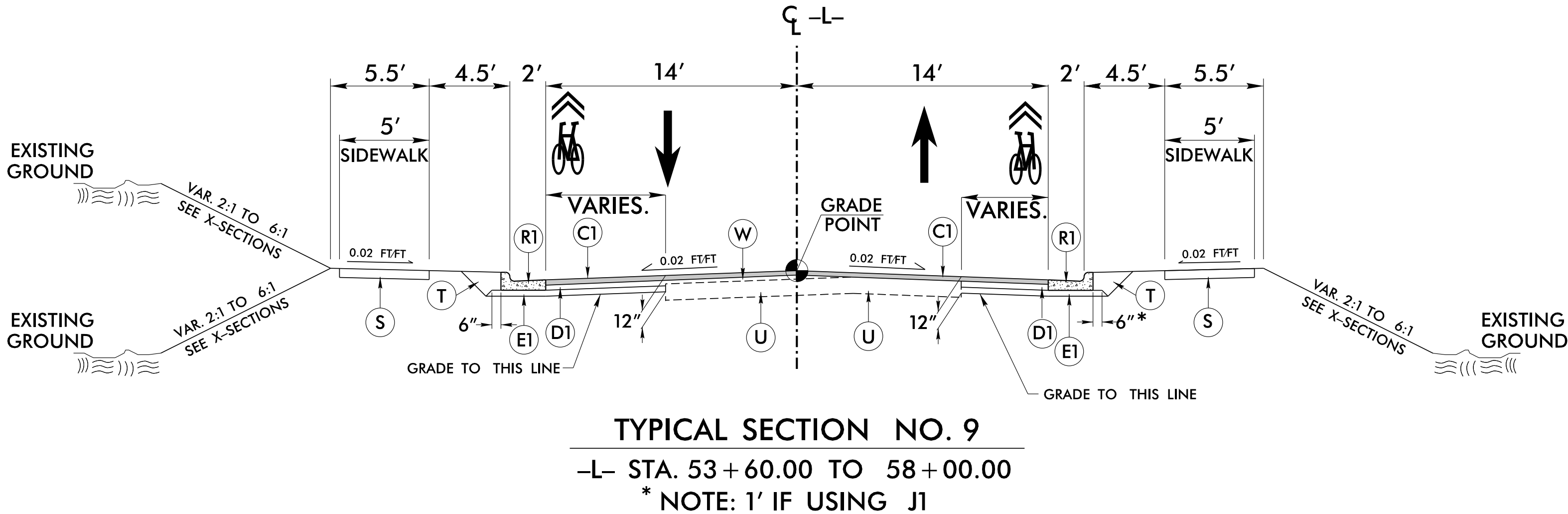
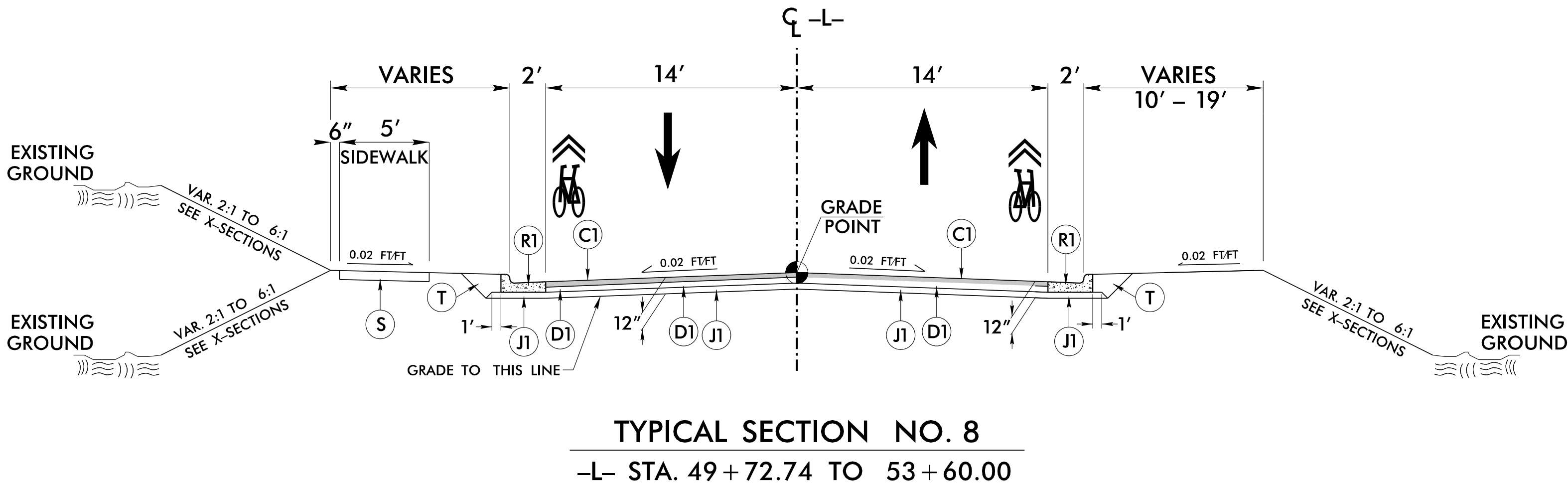


INSET A
NOT TO SCALE
-L- STA. 24+90.79 TO -L- STA. 40+42.90 LT
-L- STA. 58+35.48 TO -L- STA. 60+47.89 LT

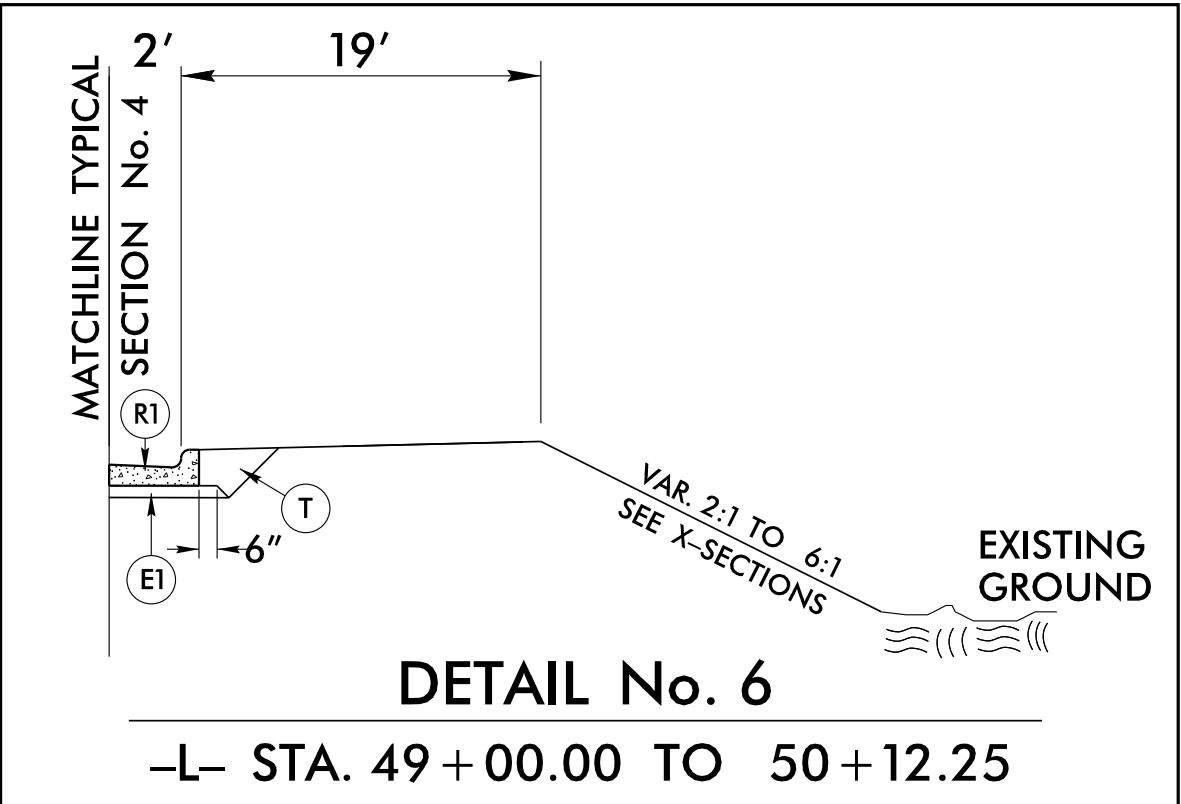
NOTE: WHEN NEW FULL DEPTH PAVEMENT IS ADJACENT TO EXISTING PAVEMENT AND WIDTH OF (E) IS 6' OR GREATER, USE (J) IN LIEU OF (E)



* NOTE: 1' IF USING J1



* NOTE: 1' IF USING J1



FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

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

PROJECT REFERENCE NO.
U-5887

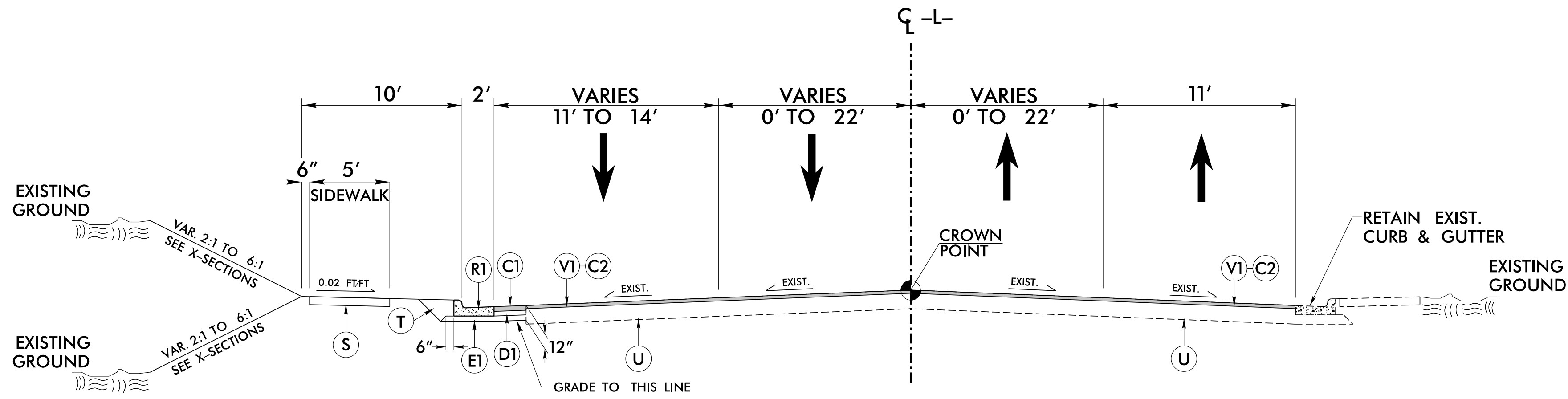
SHEET NO.
2A-3

RW SHEET NO.

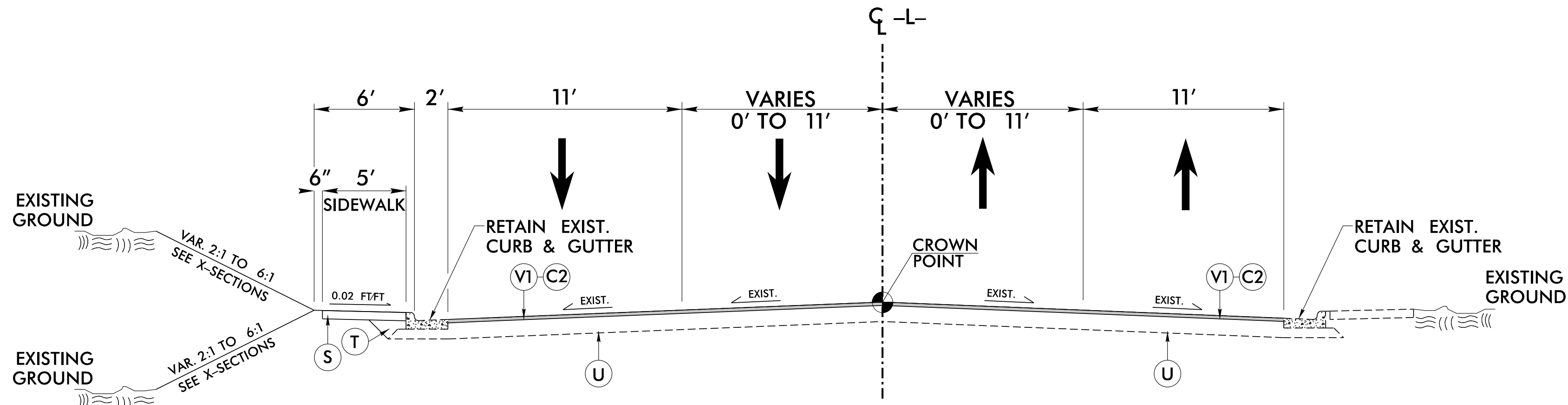
ROADWAY DESIGN ENGINEER

PAVEMENT DESIGN ENGINEER

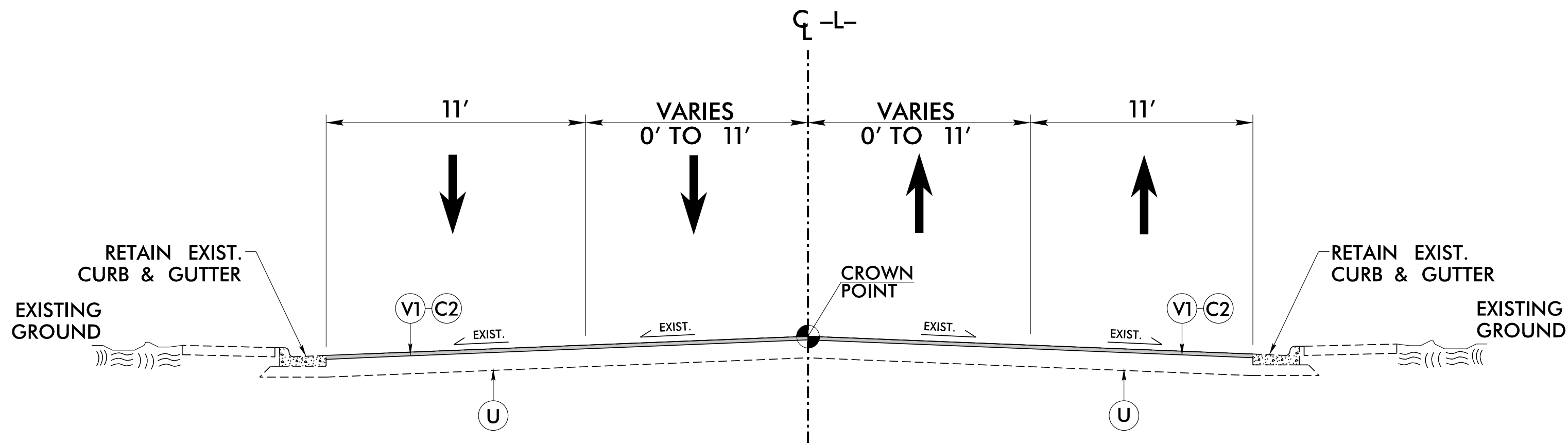
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UNLESS ALL SIGNATURES COMPLETED



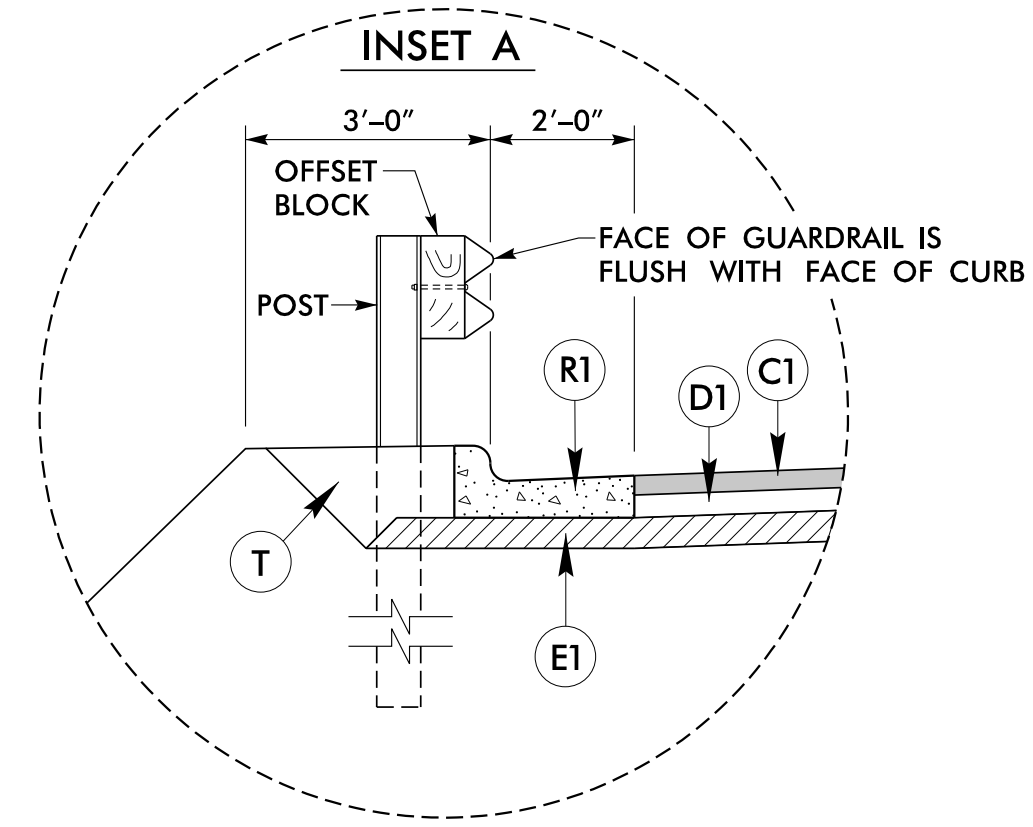
TYPICAL SECTION NO. 10
-L- STA. 58+00.00 TO 62+46.39



TYPICAL SECTION NO. 11
-L- STA. 62+46.39 TO 64+11.04



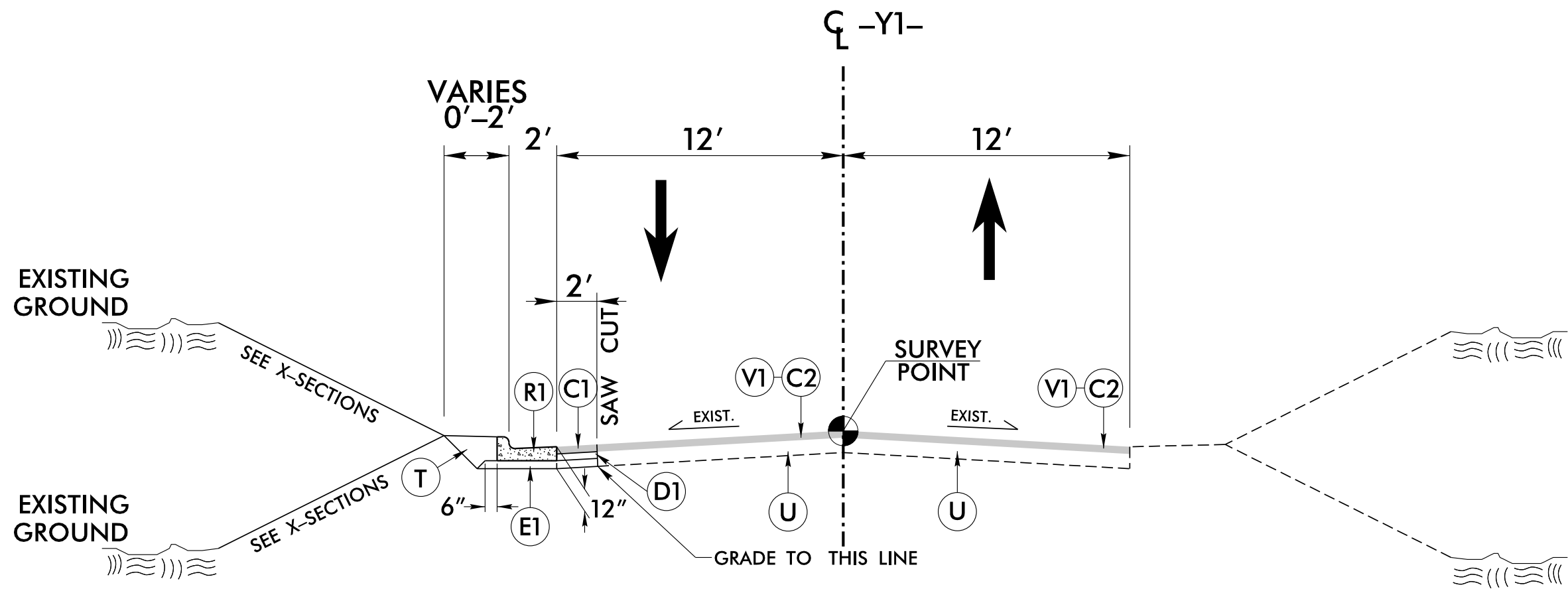
TYPICAL SECTION NO. 12
-L- STA. 64+11.04 TO 66+16.58



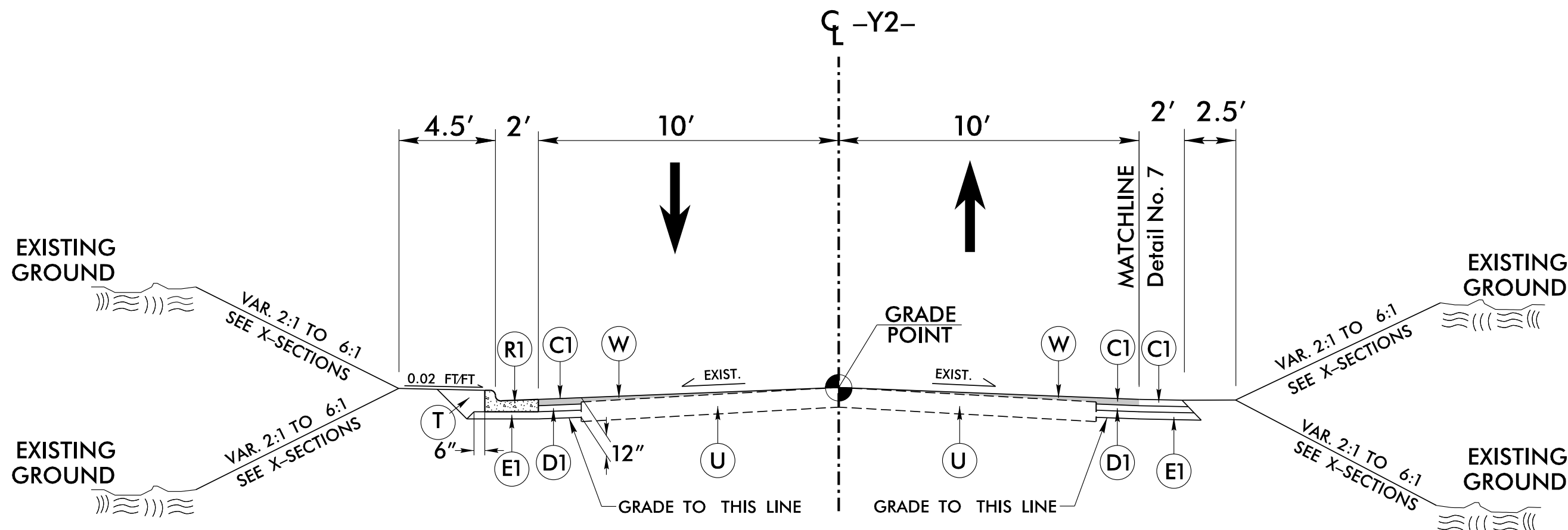
INSET A
NOT TO SCALE
-L- STA. 24+90.79 TO -L- STA. 40+42.90 LT
-L- STA. 58+35.48 TO -L- STA. 60+47.89 LT
NOTE: WHEN NEW FULL DEPTH PAVEMENT IS ADJACENT TO EXISTING PAVEMENT AND WIDTH OF (E) IS 6' OR GREATER, USE (J) IN LIEU OF (E)

FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

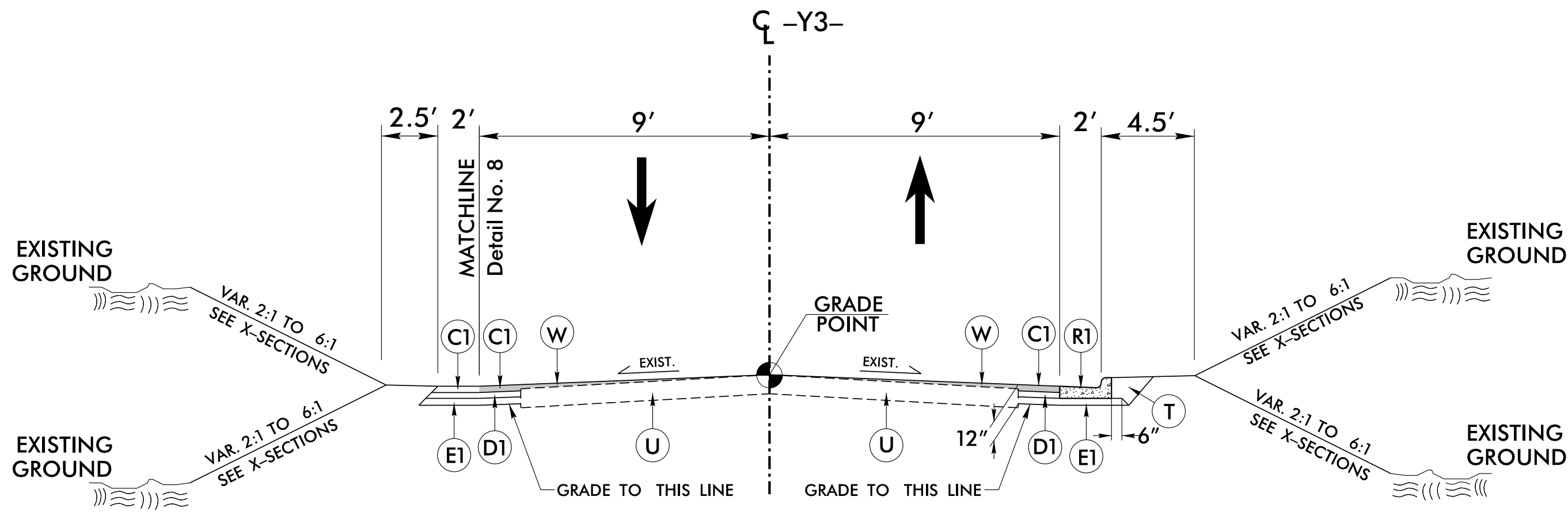
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



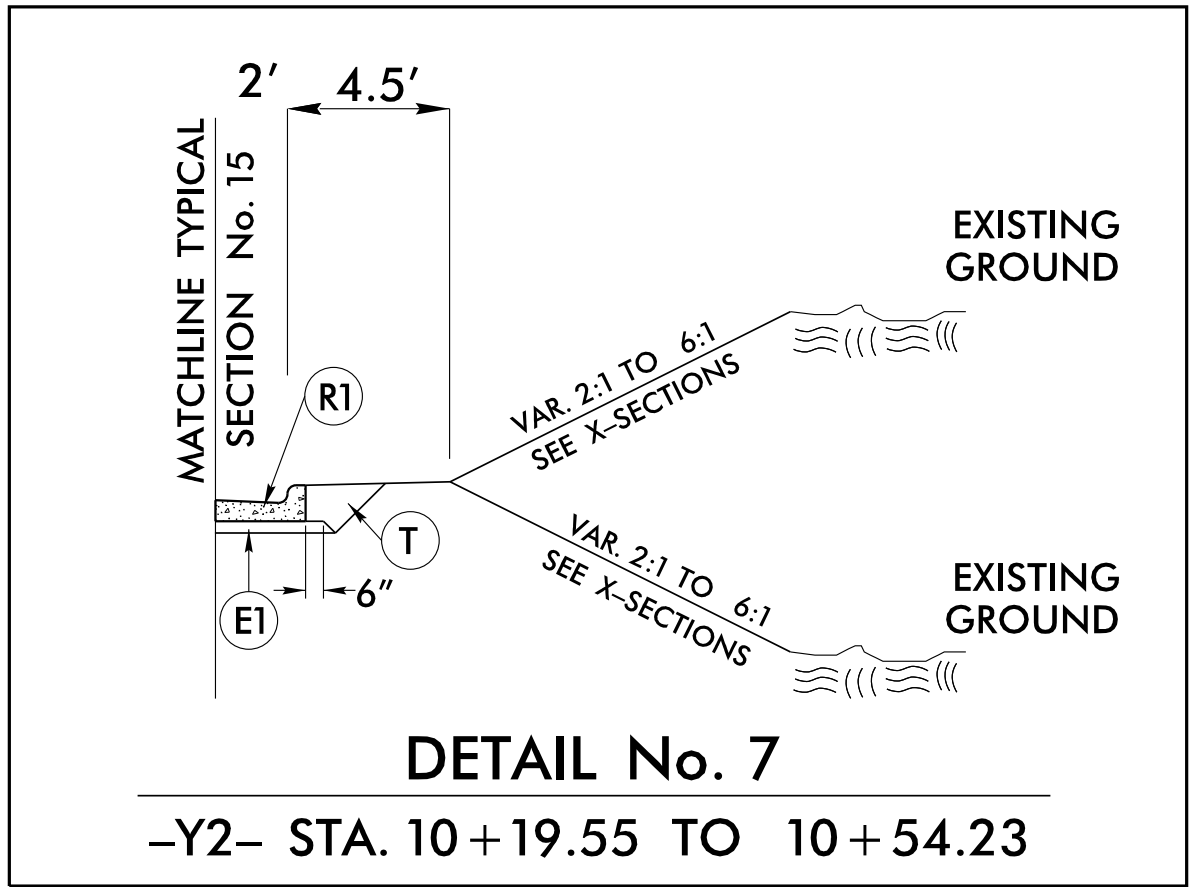
TYPICAL SECTION NO. 13
-Y1- STA. 12 + 29.64 TO 16 + 61.80



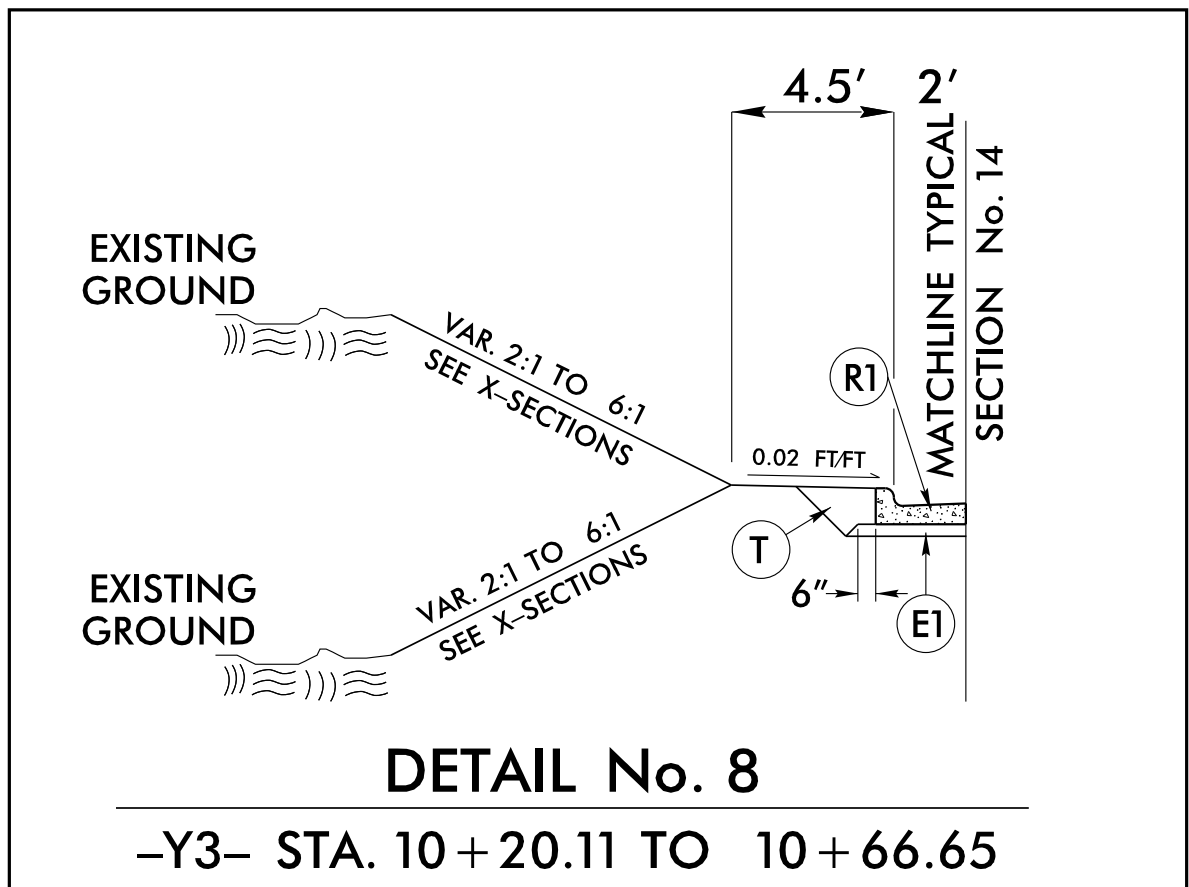
TYPICAL SECTION NO. 14
-Y2- STA. 10 + 19.55 TO 11 + 17.59



TYPICAL SECTION NO. 15
-Y3- STA. 10 + 20.11 TO 11 + 50.00



DETAIL No. 7
-Y2- STA. 10 + 19.55 TO 10 + 54.23

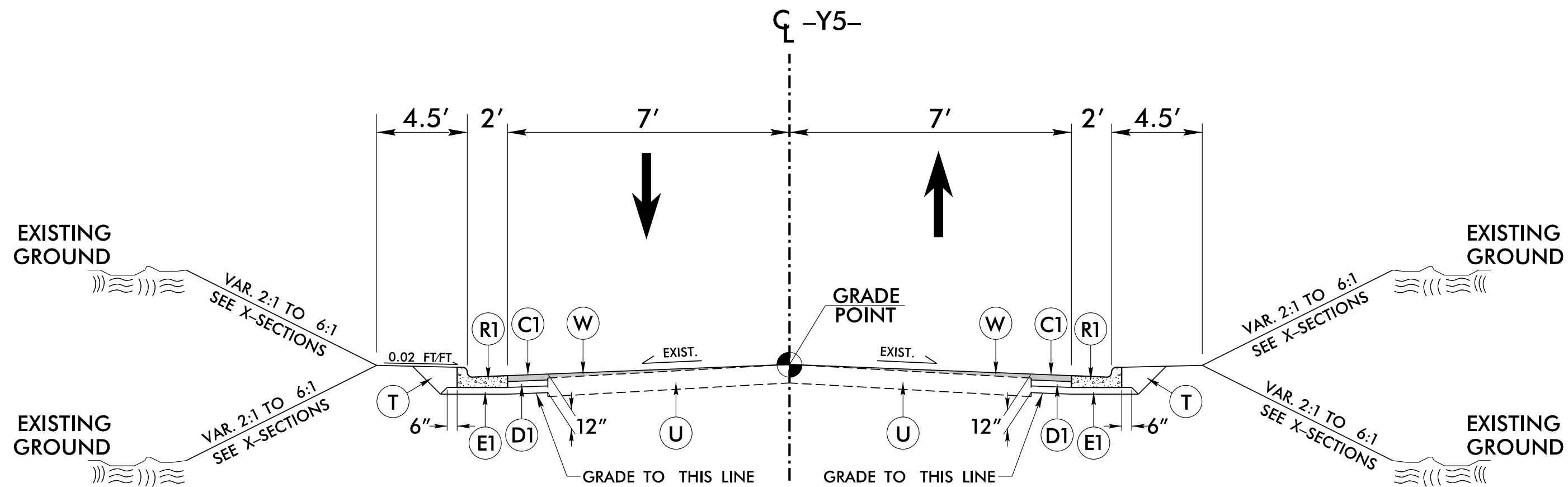


DETAIL No. 8
-Y3- STA. 10 + 20.11 TO 10 + 66.65

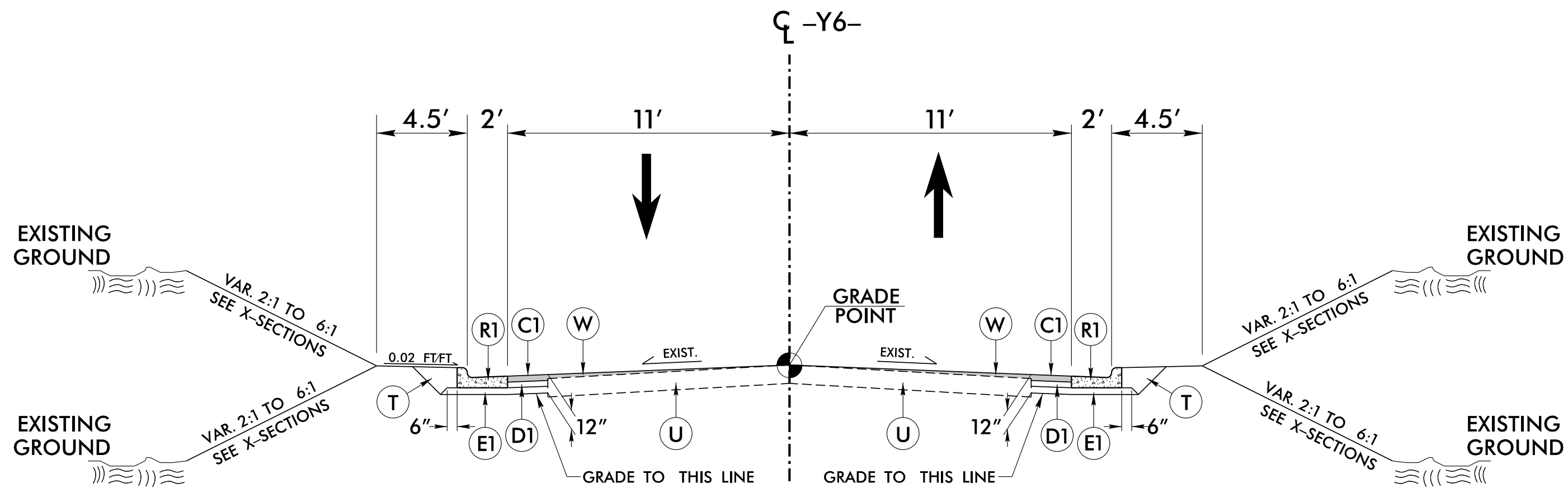
PROJECT REFERENCE NO.		SHEET NO.	
U-5887		2A-5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
 Rebecca M. Schuler 16634024C7824FC		 Rebecca M. Schuler 16634024C7824FC	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

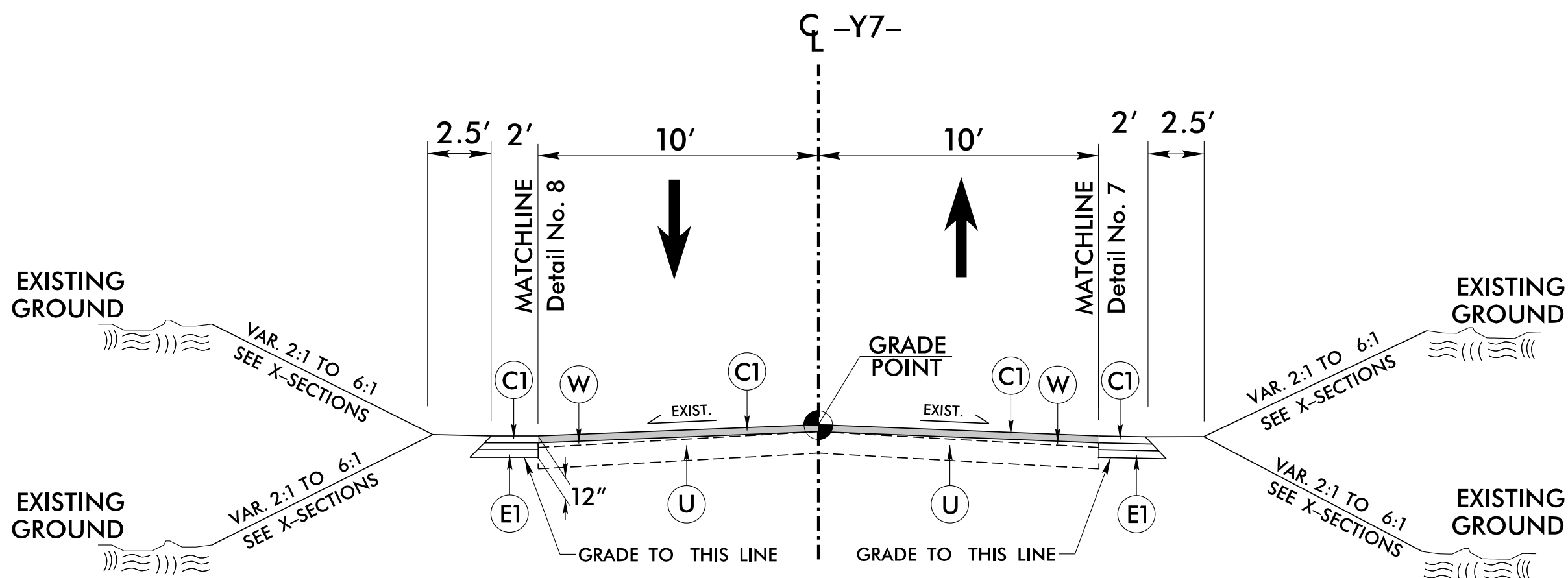
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



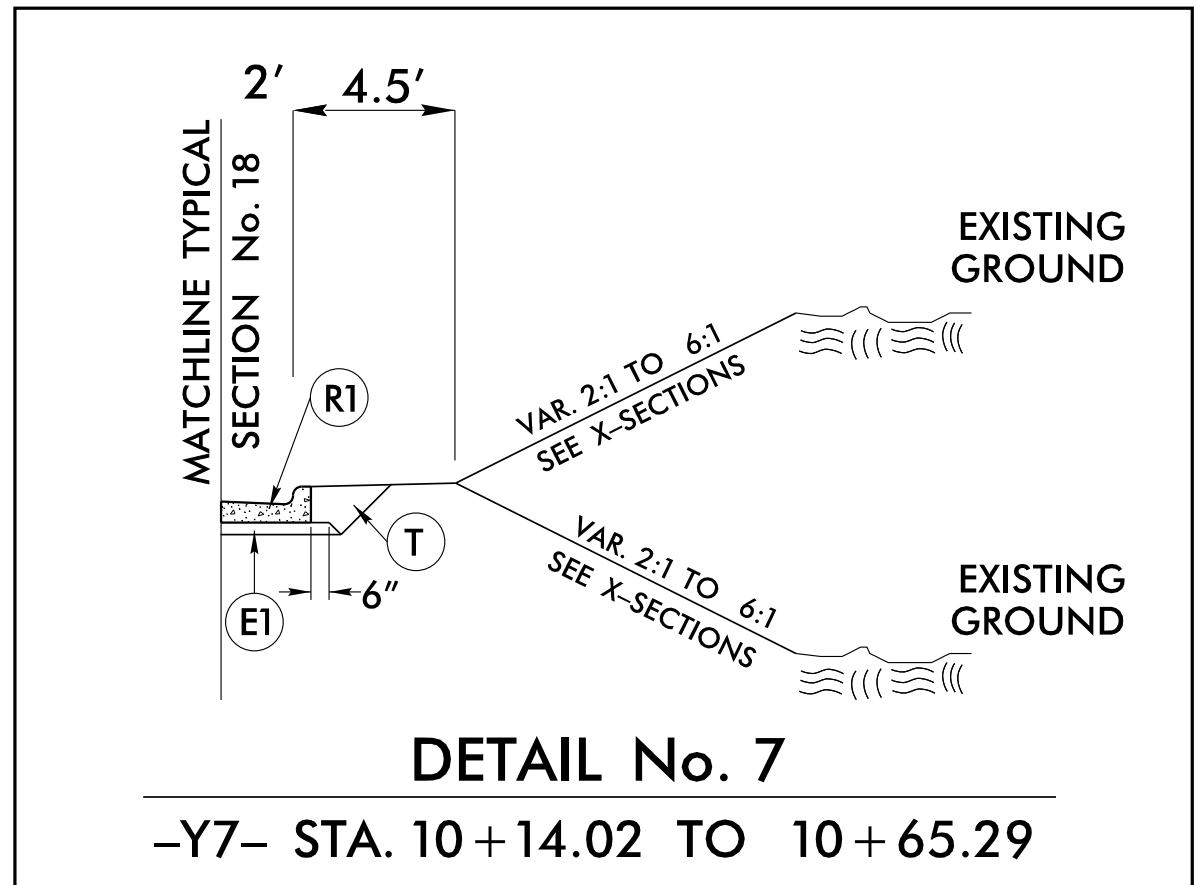
TYPICAL SECTION NO. 16
-Y5- STA. 10 + 31.04 TO 12 + 14.07



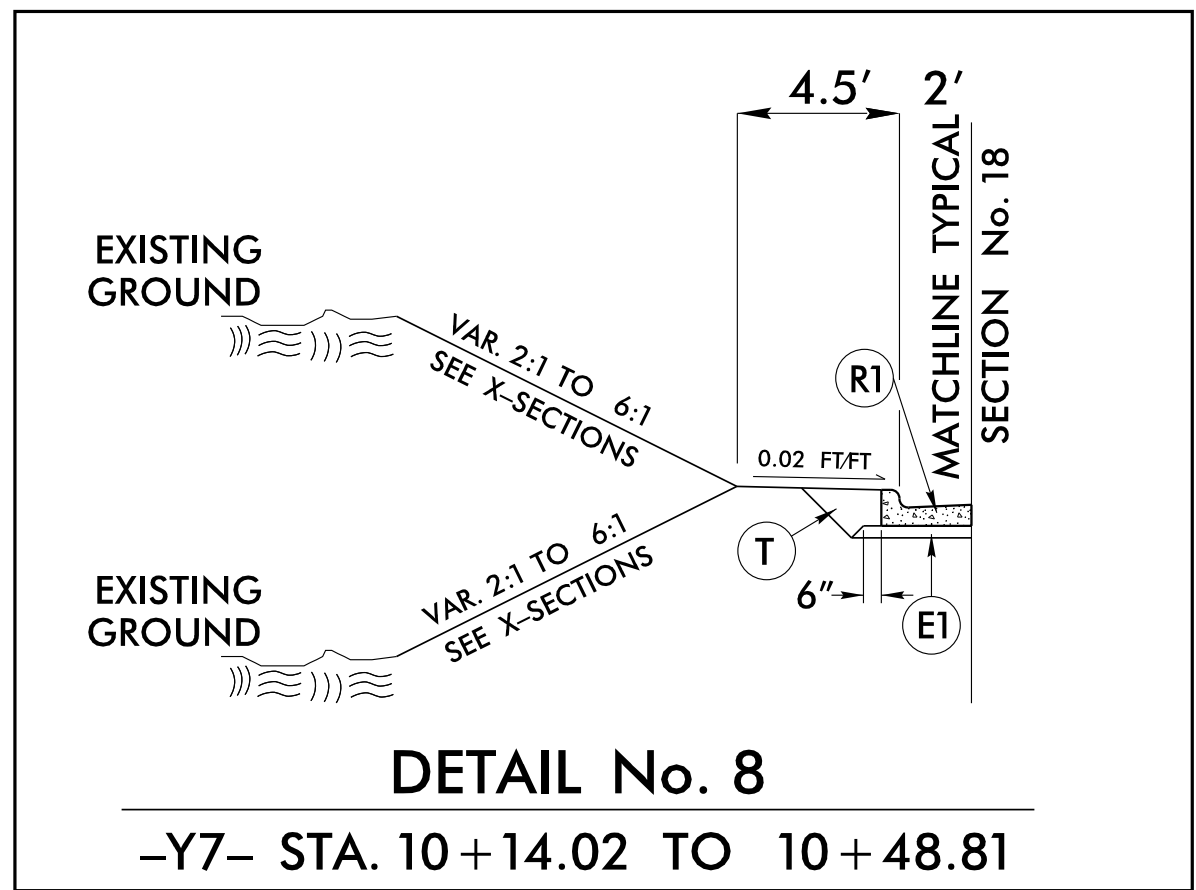
TYPICAL SECTION NO. 17
-Y6- STA. 11 + 60.00 TO 12 + 80.71



TYPICAL SECTION NO. 18
-Y7- STA. 10 + 14.02 TO 11 + 00.00



DETAIL No. 7
-Y7- STA. 10 + 14.02 TO 10 + 65.29



DETAIL No. 8
-Y7- STA. 10 + 14.02 TO 10 + 48.81

PROJECT REFERENCE NO. U-5887		SHEET NO. 2A-6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
DocuSigned by: Rebecca M. Schuler 19834024C7824FC		DocuSigned by: Rebecca M. Schuler 19834024C7824FC	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

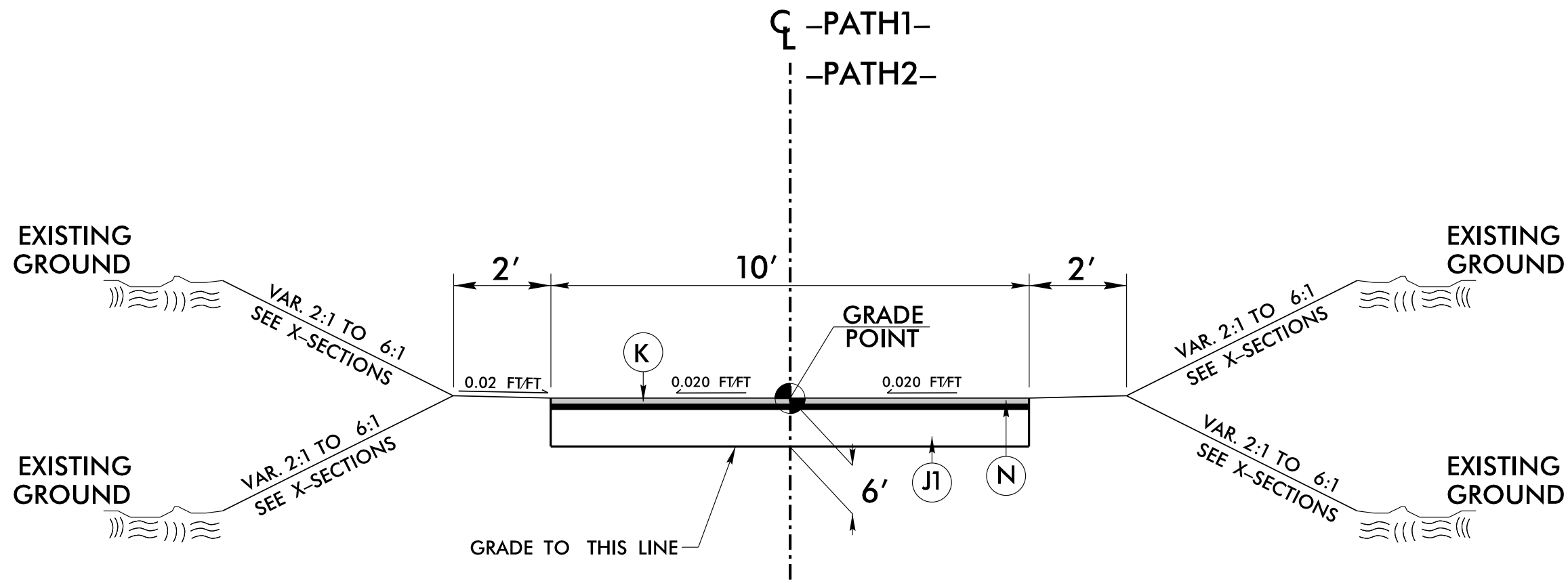
FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

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

8/17/99

REVISIONS

6/9/2020 10:29:36 AM
\\Roadway\Proj\U5887.rdj_typ.dgn
User: jacobt



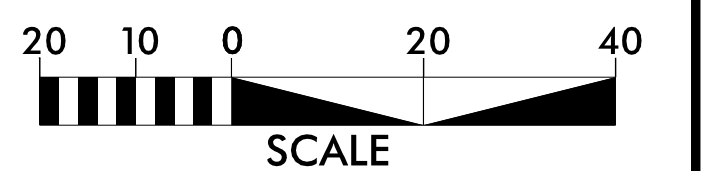
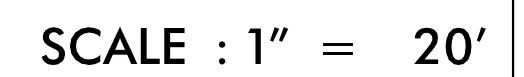
TYPICAL SECTION NO. 19
-PATH1- STA. 10 + 00.00 TO 12 + 70.14
-PATH2- STA. 10 + 00.00 TO 17 + 71.81

PROJECT REFERENCE NO. <i>U-5887</i>		SHEET NO. <i>2A-7</i>
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER	
DocuSigned by: <i>Reece M. Schuler</i> 16634024C77894FC	DocuSigned by: <i>Reece M. Schuler</i> 16634024C77894FC	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

FINAL PAVEMENT SCHEDULE	
C1	3" TYPE S9.5C
C2	2" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	5" TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	5" AGGREGATE BASE COURSE
K	SELECT GRANULAR MAT. (TYPE III)
N	GEO. FOR SOIL STAB. (TYPE IV)
R1	2'-6" CONCRETE CURB AND GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	VAR. MILLING
V1	2" MILLING
W	WEDGING

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


 26960
 DocuSigned by:
 [Signature]
 RECEIVED
 12/18/2020



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

SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

SHEET - OF -

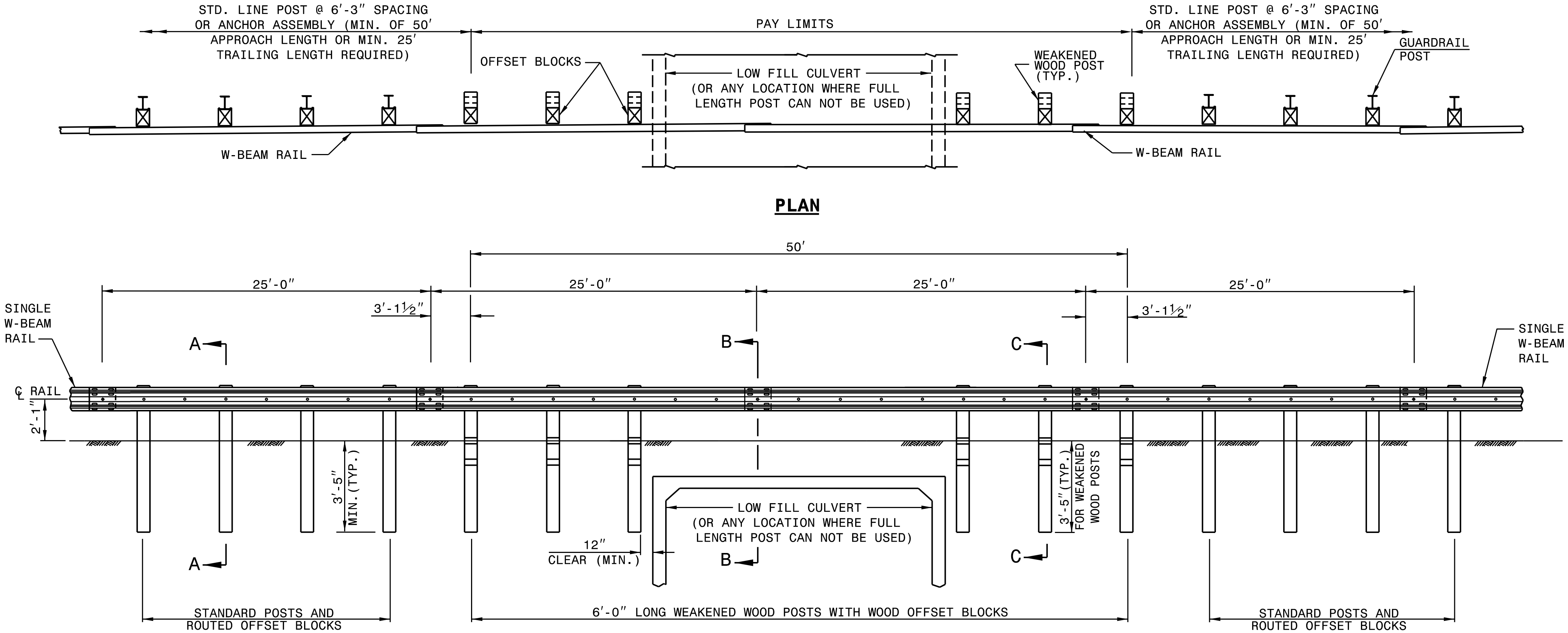
862D01

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

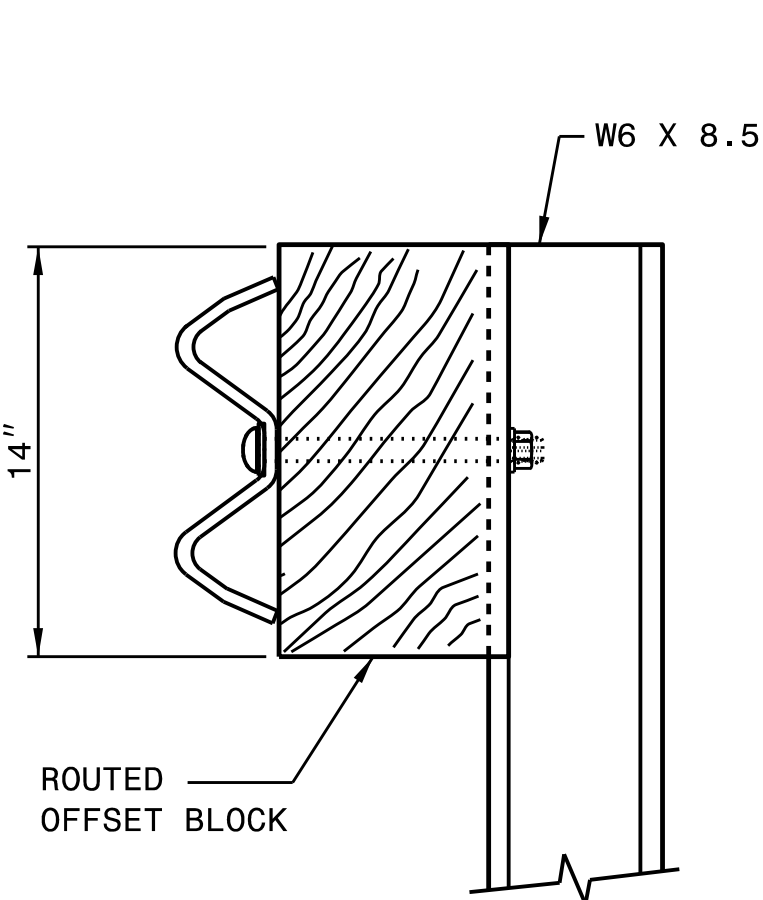
SPECIAL DETAIL FOR
GUARDRAIL PLACEMENT
25'-0" CLEAR SPAN

SHEET - OF -

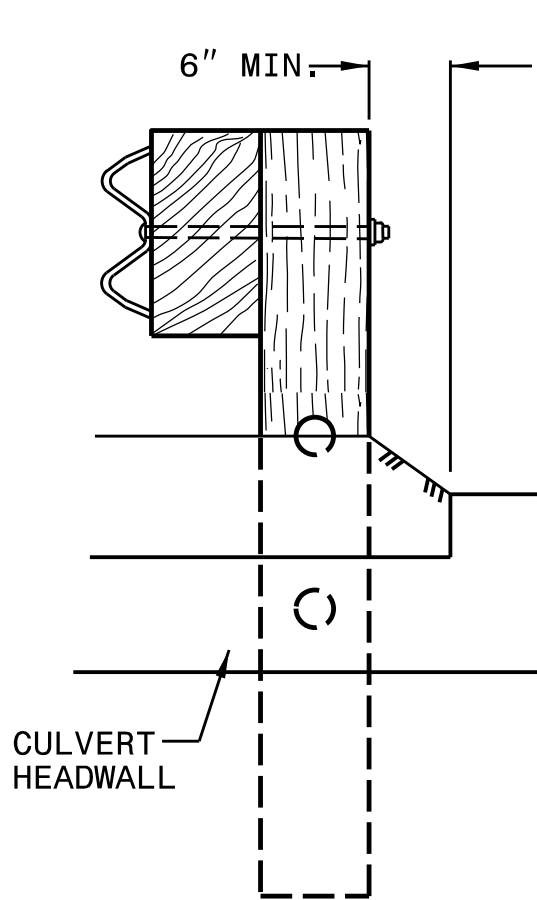
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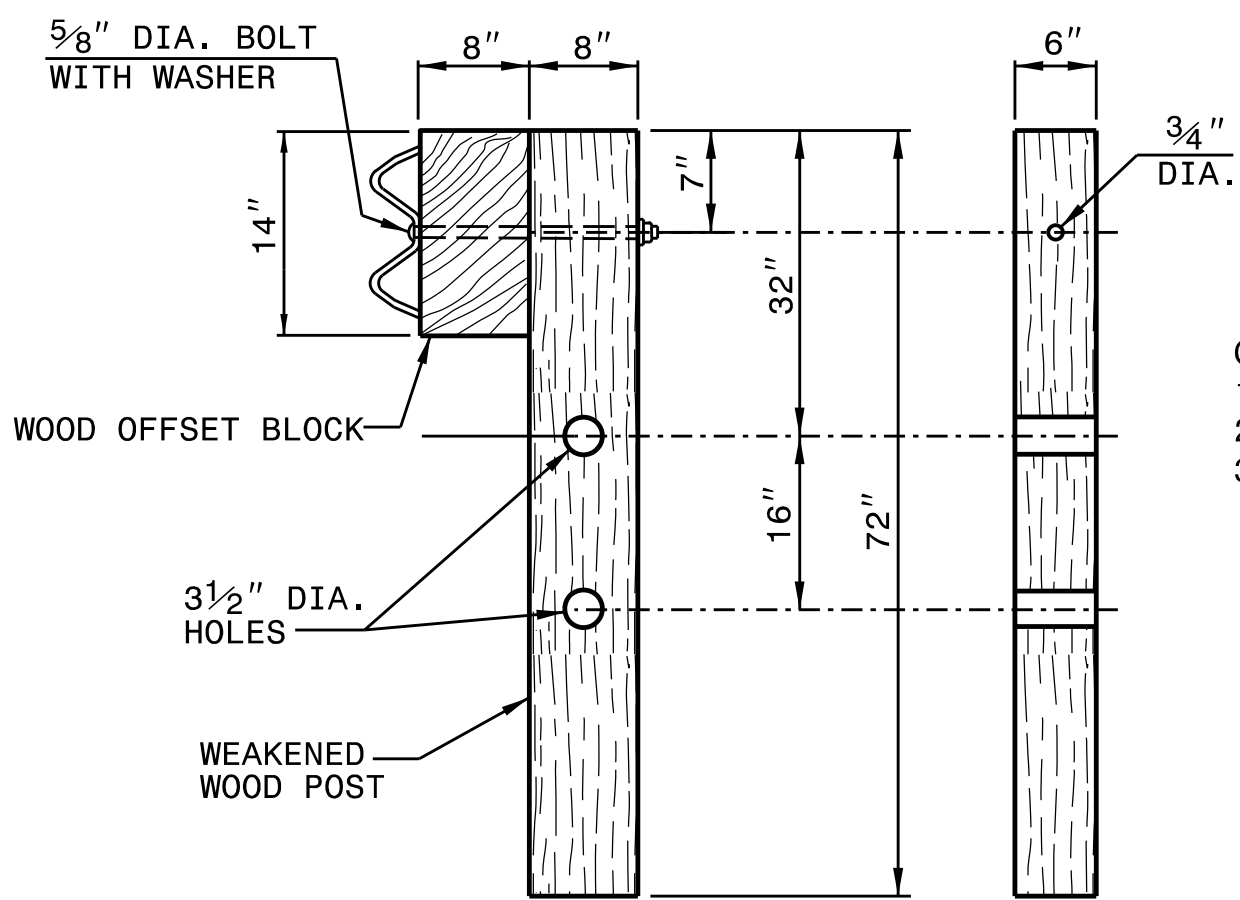
ELEVATION
25'-0" GUARDRAIL SPAN



SECTION A-A



SECTION B-B



SECTION C-C
FRONT
WEAKENED WOOD POST

- GENERAL NOTES:
1. LAP RAIL IN THE DIRECTION OF TRAFFIC FLOW.
 2. SEE ROADWAY PLANS FOR LOCATIONS AND CONTINUATION OF RAIL OR END SECTIONS.
 3. MINIMUM DISTANCE OF 5 FEET BEHIND THE GUARDRAIL SHOULD BE CLEAR OF ANY FIXED-OBJECT HAZARDS THAT COULD SNAG AN IMPACTING VEHICLE.



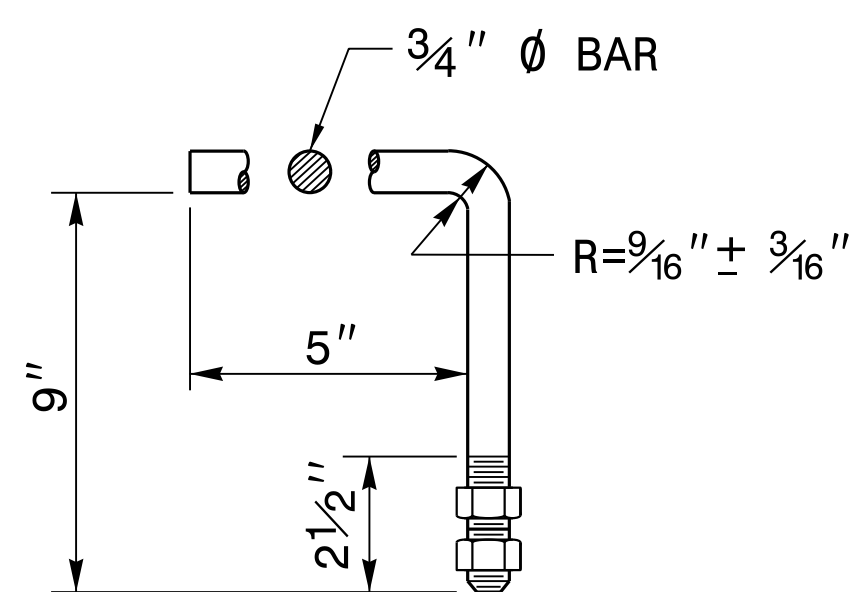
DocuSigned by:
Joel S. Howerton
873F3D17DCDC45F...
8/6/2020

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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**25'-0" CLEAR SPAN
GUARDRAIL PLACEMENT**

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



NOTE: CONSTRUCT HOOK BOLTS (ANCHORS) AT 2'-0" CTS. ALONG THE CIRCUMFERENCE OF THE 95"X 67" CMP. EMBED THE HOOK BOLTS 6" IN DEPTH. THE GALVANIZED 3/4" DIA. HOOK BOLTS MUST MEET ASTM A-307 OR ASTM A-836. BOTH BOLTS AND NUTS MUST BE IN ACCORDANCE WITH ASTM A-153 FOR GALVANIZING.

NOTES:

ALL CONCRETE TO BE CLASS "A".

ALL REINFORCING STEEL SHALL BE ASTM A615-GRADE 60.

ALL REINFORCING STEEL SHALL BE DEFORMED BARS. WHERE
SPLICING OF REINFORCEMENT IS NECESSARY, BARS ARE TO BE
LAPPED 45 DIAMETERS. ALL DIMENSIONS RELATIVE TO
REINFORCEMENT ARE TO CENTERS OF BARS.

THE FOOTING, CURTAIN WALL AND 4" OF WALL ARE TO BE
POURED IN ONE OPERATION ALLOWING NO TIME FOR INITIAL
SET TO TAKE PLACE BETWEEN THEM. THE REMAINING WALL
SHALL THEN BE POURED IN ONE OPERATION.

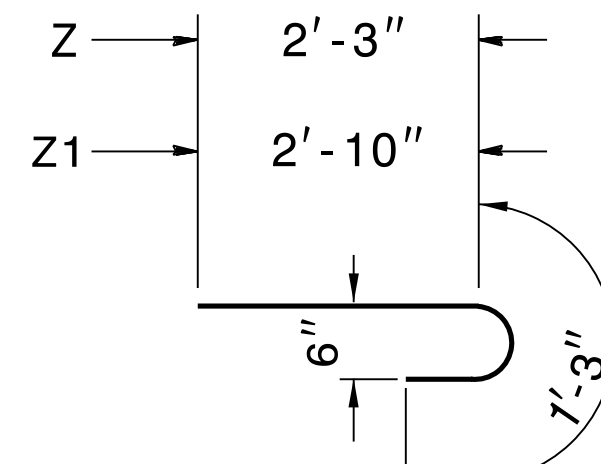
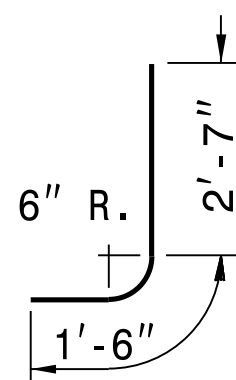
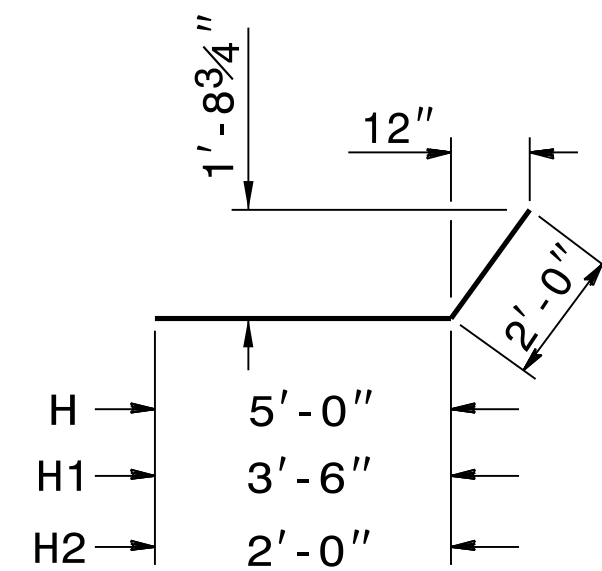
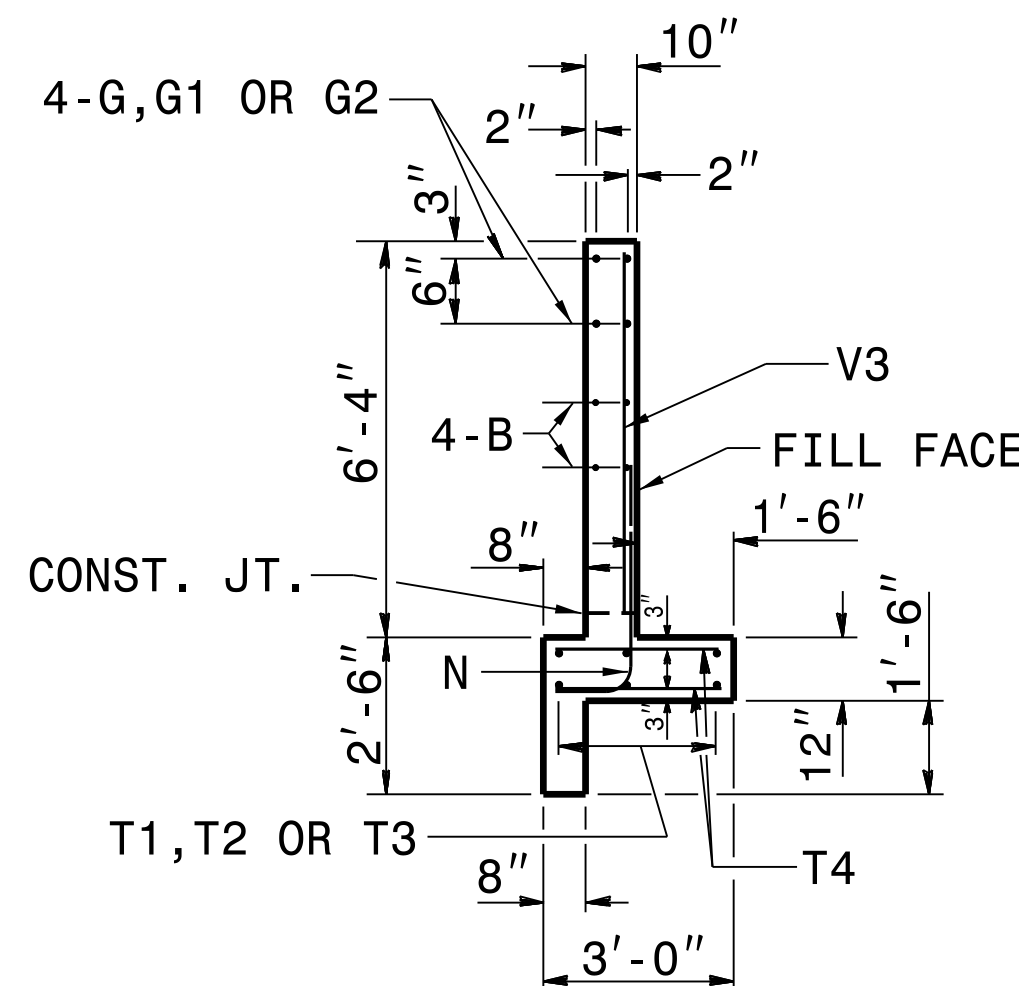
ALL EXPOSED CORNERS ARE TO BE CHAMFERED 1".

3" DIAMETER DRAINS SHALL BE PLACED IN WALL AS SHOWN
AND BE 6" ABOVE NORMAL FLOW LINE.

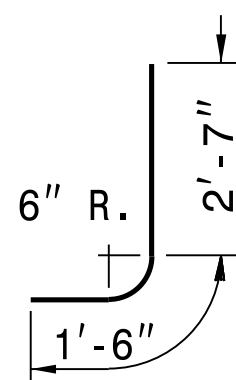
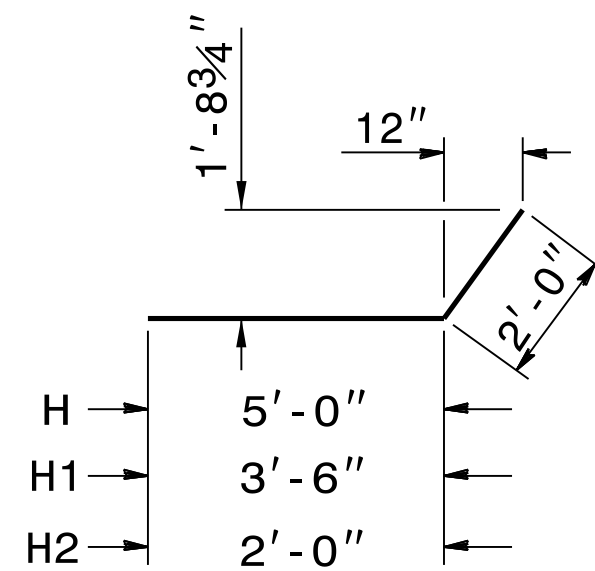
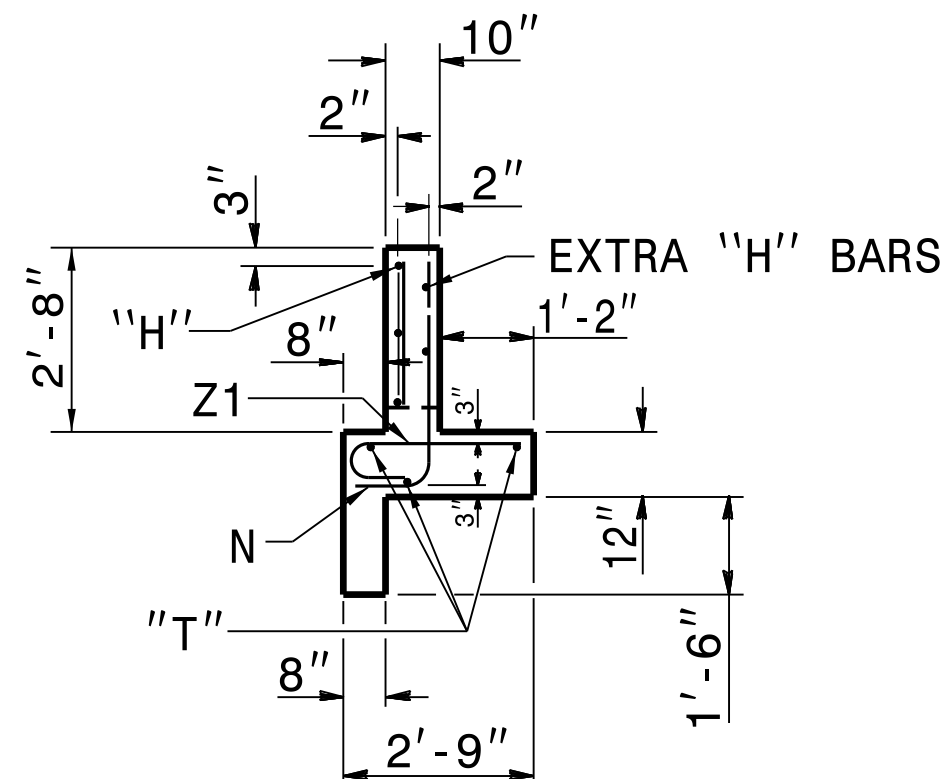
ALL MATERIAL AND WORKMANSHIP AS PER N.C.DEPARTMENT OF
TRANSPORTATION STANDARD SPECIFICATIONS.

THE EXTRA BARS ARE PROVIDED FOR HOLDING
REINFORCING STEEL IN CORRECT POSITION IN WING.

REINF. STEEL			1 PIPES		2 PIPES		3 PIPES	
BAR	SIZE	LENGTH	NO.	WEIGHT	NO.	WEIGHT	NO.	WEIGHT
B	#4	6' - 6"	8	35	16	69	24	104
G	#5	11' - 9"	4	49	-	-	-	-
G1	#5	12' - 6"	-	-	8	104	-	-
G2	#5	17' - 9"	-	-	-	-	8	148
H	#4	7' - 0"	10	47	10	47	10	47
H1	#4	5' - 6"	2	7	2	7	2	7
H2	#4	4' - 0"	4	11	4	11	4	11
N	#4	4' - 1"	16	44	20	55	24	65
T	#4	5' - 0"	6	20	6	20	6	20
T1	#4	15' - 0"	6	60	-	-	-	-
T2	#4	14' - 0"	-	-	12	112	-	-
T3	#4	18' - 3"	-	-	-	-	12	146
T4	#4	2' - 9"	4	7	7	13	10	18
V	#4	4' - 3"	6	17	6	17	6	17
V1	#4	3' - 0"	6	12	6	12	6	12
V2	-	-	-	-	-	-	-	-
V3	#4	5' - 10"	6	23	10	39	14	55
Z	#4	3' - 6"	6	14	6	14	6	14
Z1	#4	4' - 1"	4	11	4	11	4	11
REINF. STEEL LBS.			357	531	675			
CON./R.C. CU. YDS.			6.2	8.6	11.0			



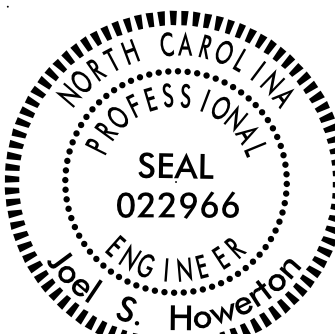
"H", "N", & "Z" BAR DIMENSIONS ARE OUT TO OUT.



"H", "N", & "Z" BAR DIMENSIONS ARE OUT TO OUT.

WING ELEVATION

END OF WING



DocuSigned by:
Joel S. Howerton
873F3D17DCDC45F...
8/6/2020

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

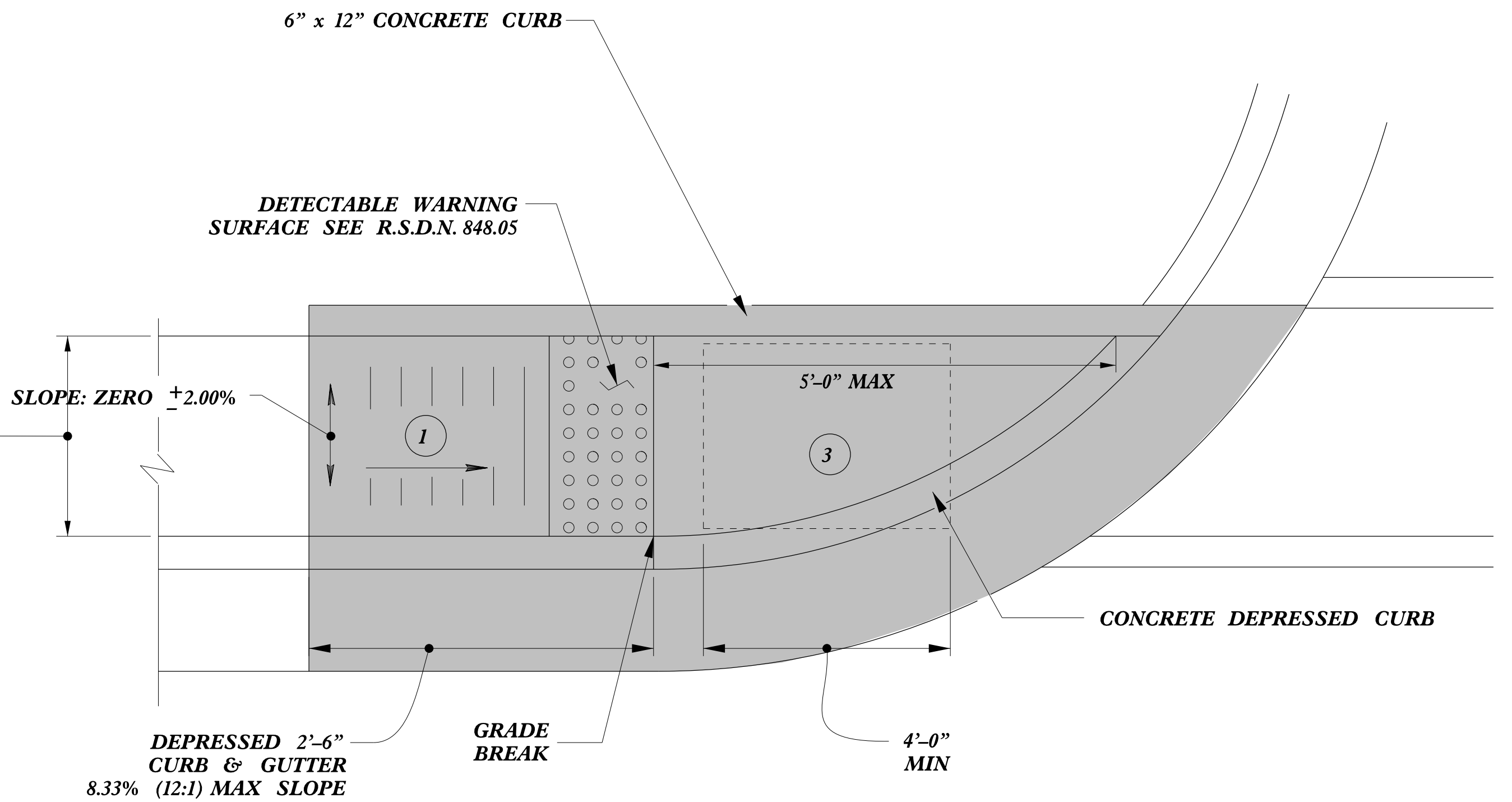
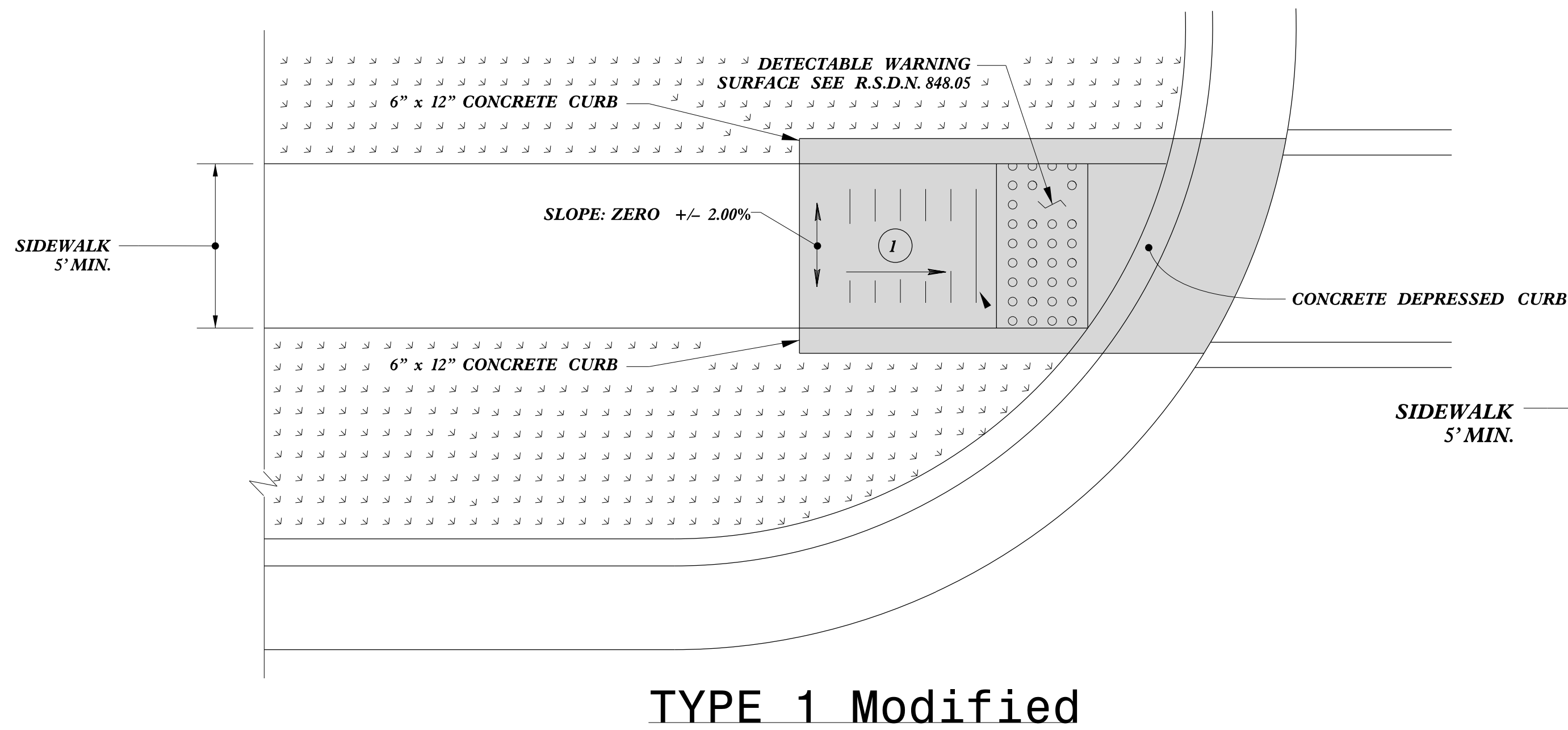
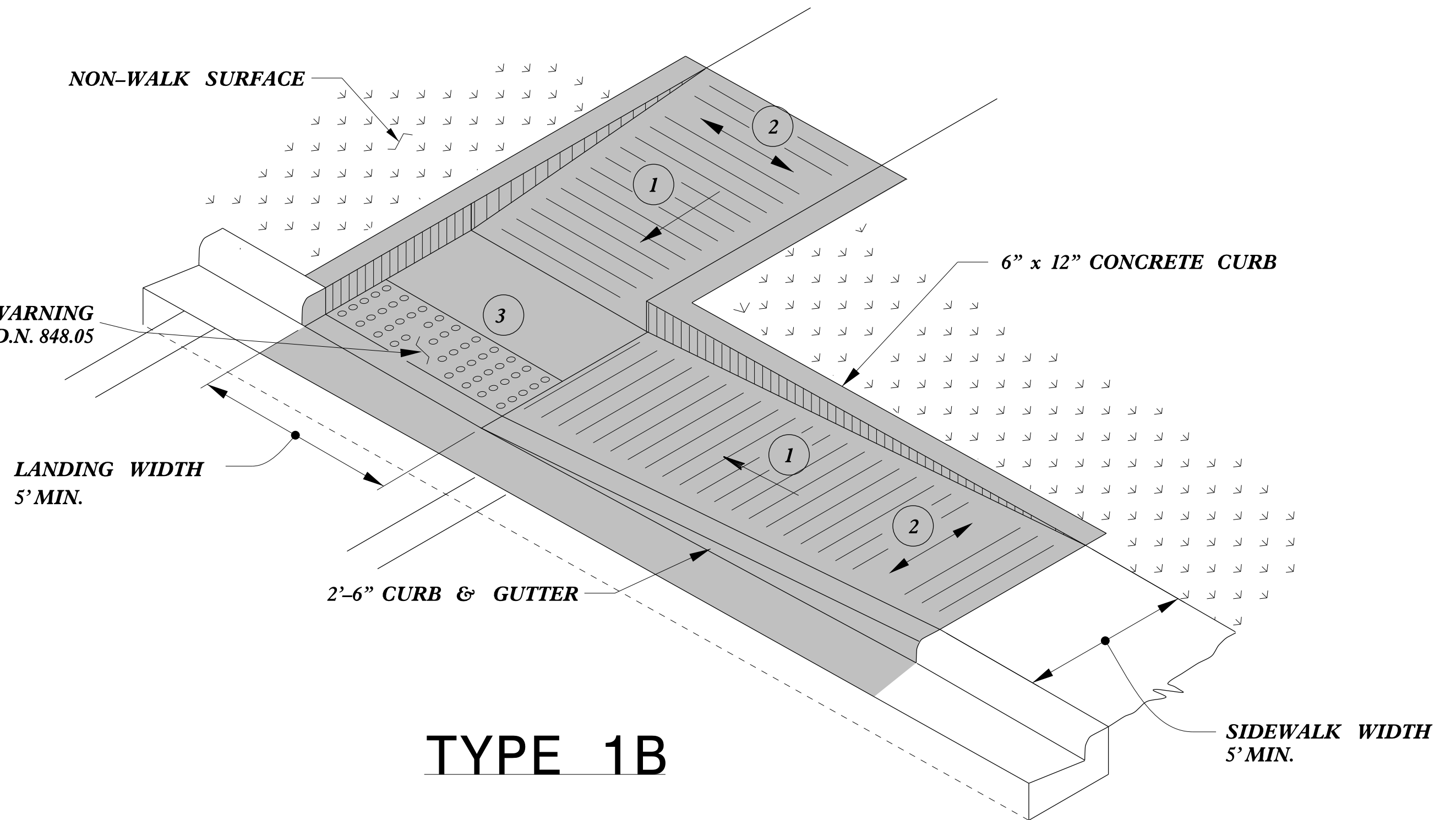
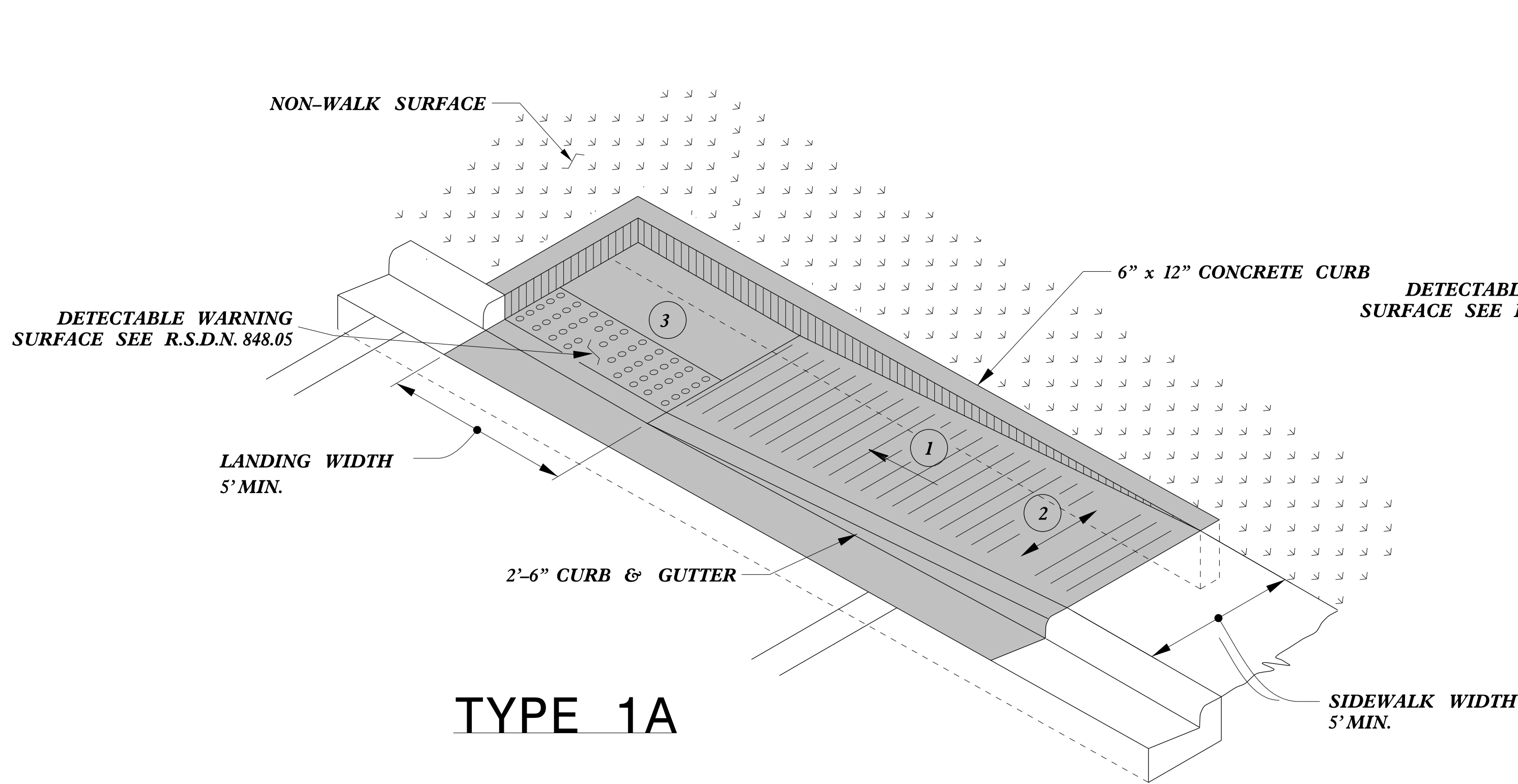
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**DETAIL OF REINFORCED
CONCRETE ENDWALL
FOR 95"X 67" (Pipe Arch)-90°**

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 5-04-07
CHECKED BY: _____ DATE: _____
FILE SPEC. details/nbritt/english/r4071endwpiparch95x67.dg

5/14/99

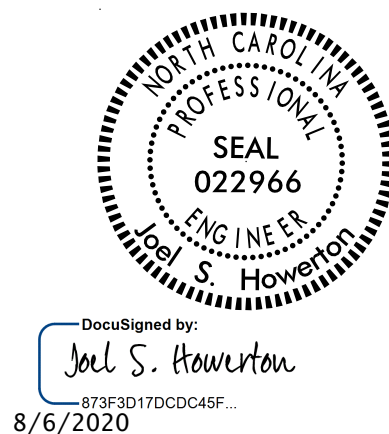
PROJECT REFERENCE NO.	SHEET NO.
U-5887	2C-1



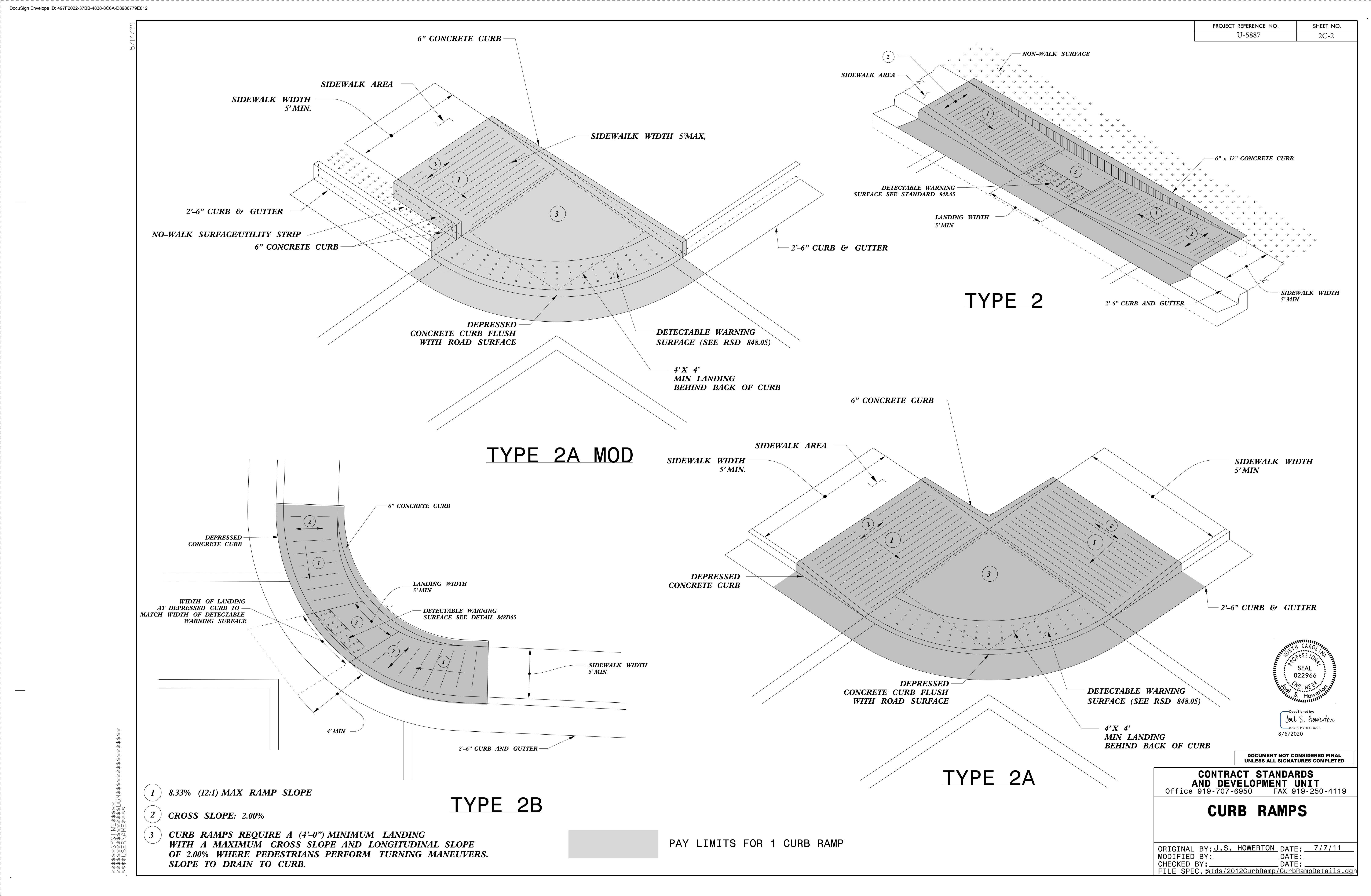
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.

PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119	
CURB RAMPS Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn	



GUARDRAIL SUMMARY

NOTES:

1. ALL GUARDRAIL ON PROJECT TO BE POWDER COATED BROWN.
2. OMIT ONE GUARDRAIL POST OVER THE PROPOSED CULVERT (-L- STA. 40+90 RT) AND PROVIDE 25' OF NESTED GUARDRAIL AS SHOWN ON STD DWG 846.03, SHEET 1 OF 3.

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

CONTINGENCY ITEMS:
INCIDENTAL STONE = 25 TONS
UNDERCUT EXCAVATION = 25 CY
SELECT GRANULAR MATERIAL = 25 CY
CLASS IV SUBGRADE STABILIZATION = 25 TONS
GEOTEXTILE FOR SOIL STABILIZATION = 25 SY

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

IN SQUARE YARDS					
LINE	LOCATION	ASPHALT REMOVAL	ASPHALT BREAK-UP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	14 + 62.64 TO 23 + 27.90	288.11			
-L-	24 + 77.65 TO 26 + 17.73	17.22			
-L-	31 + 89.67 TO 38 + 17.06	83.11			
-L-	38 + 80.65 TO 40 + 23.33	227.33			
-L-	40 + 28.99 TO 42 + 52.15	461.33			
	TOTAL	1077.10			
	SAY	1080			

PARCEL NUMBER	PARCEL OWNER	PARCEL INFO.	PLAN SHEET
1	SUSAN T.RINDALL	DB 1534 PG 601	4
2	TRUSTEES OF PINECREST PRESBYTERIAN CHURCH	DB 812 PG 821 DB 822 PG 785	4,5
3	MARTHA WHALEY CORNWALL	DB 1679 PG 633	4
4	THE VILLAGE OF FLAT ROCK	DB 1538 PG 202	5,6,7
5	ADDISON BROWN	DB 1664 PG 371 DB 823 PG 95	5
6	KERRY P.LINDSEY	DB 1499 PG 564 DB 823 PG 95	5,6
7	HIGHLAND LAKE INC.	DB 999 PG 99	6,7
8	JIMMY DALE FREEMAN	DB 1250 PG 120	7
9	MILDRED H.COOPER	DB 1318 PG 562	7
10	VICTOR BULLARD	DB 1499 PG 600	7
11	JAMES GILLILAND	DB 1059 PG 646	7
12	CHARLES GUDGER	DB 1499 PG 600	7
13	MARK R.GMYREK	DB 1322 PG 368	7
14	INGLES MARKET INC.	DB 861 PG 253	7,8
15	ROWN LLC	DB 1383 PG 132	8
16	MEADOW GARDEN ASSOCIATES	DB 652 PG 157	8
17	SCP 2007-C27-079 A DELAWARE LL COMPANY	DB 1383 PG 132	8

PROJECT REFERENCE NO.
U-5887

SHEET NO.
3P-1

RW SHEET NO.

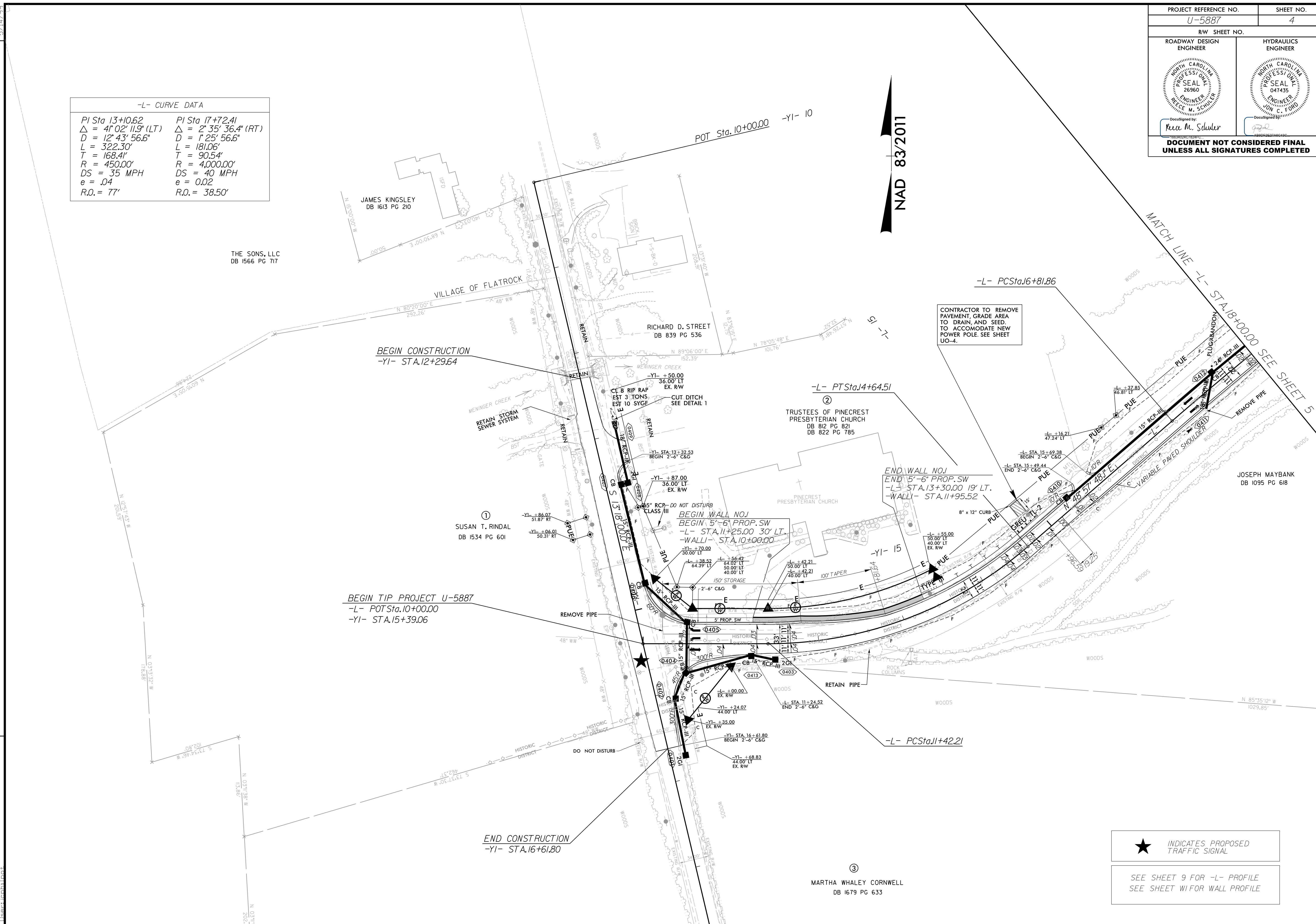
ROADWAY DESIGN
ENGINEER

Seal: NORTH CAROLINA
Professional Engineer
No. 26960
Name: REECE M. SCHULER

DocuSigned by:
Reece M. Schuler
18534024C7824FC...

★ INDICATES PROPOSED
TRAFFIC SIGNAL

SEE SHEET 9 FOR -L- PROFILE
SEE SHEET W1 FOR WALL PROFILE

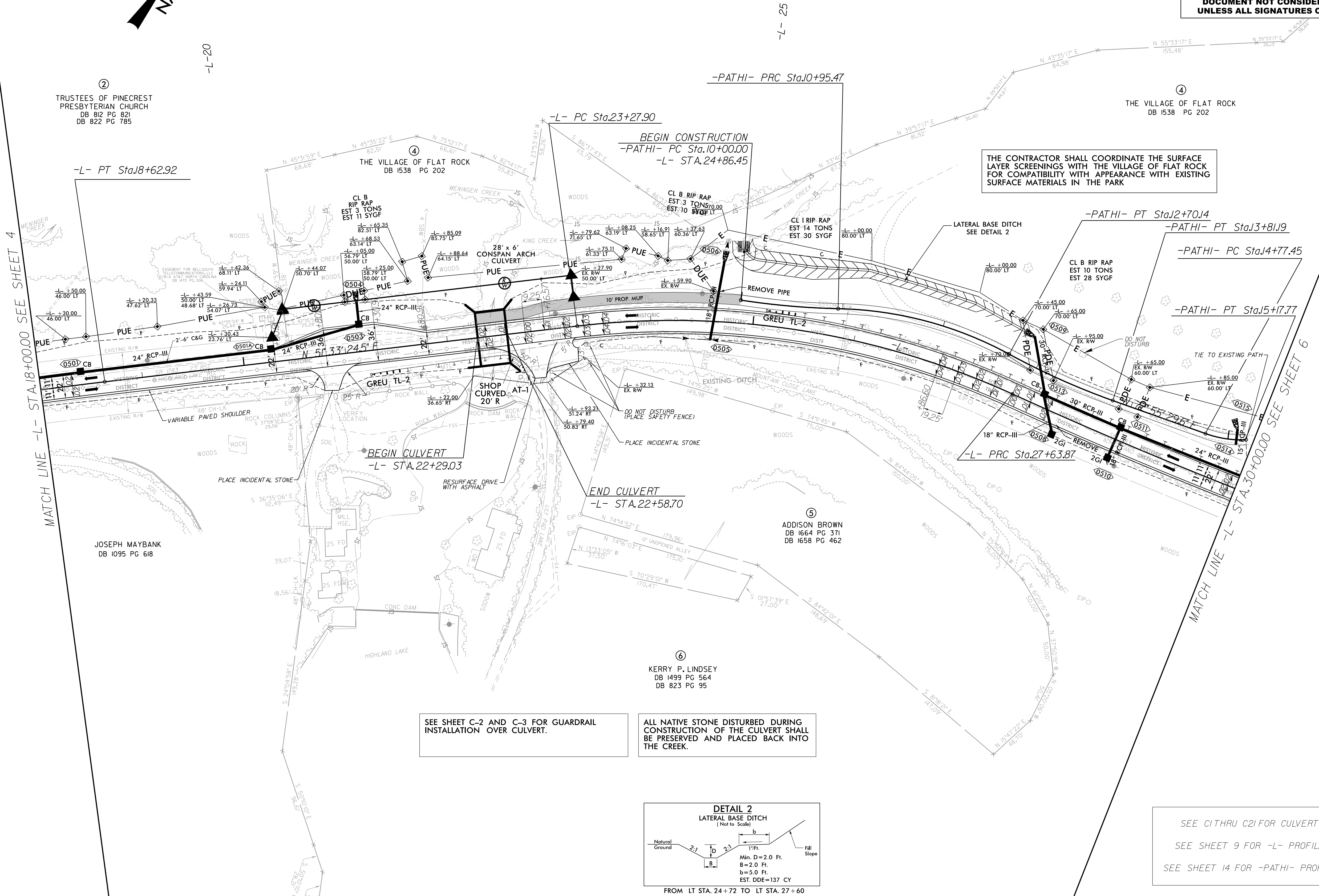


SEE C1THRU C21 FOR CULVERT
SEE SHEET 9 FOR -L- PROFILE
SEE SHEET 14 FOR -PATHI- PROFILE

DETAIL 2
LATERAL BASE DITCH
(Not to Scale)

The diagram illustrates a cross-section of a lateral base ditch. On the left, a horizontal line represents the "Natural Ground". The ditch has two sloped sides, both labeled "2:1". The top width of the ditch is labeled "B", and its depth is labeled "D". A dimension line above the right slope indicates a height of "1' Ft.". To the right of the ditch, the ground rises at a "Fill Slope". Key dimensions listed are:
Min. D = 2.0 Ft.
B = 2.0 Ft.
b = 5.0 Ft.
EST. DDE = 137 CY
The bottom of the ditch is shown as a flat area of width "b".

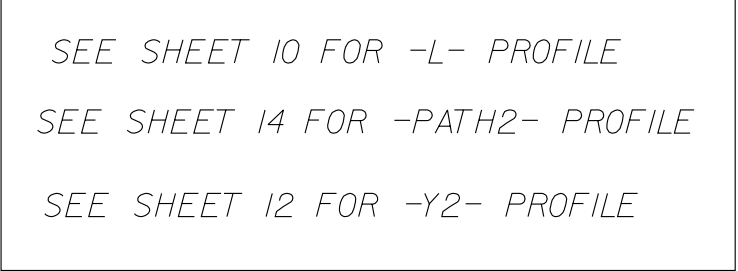
FROM LT STA. 24+72 TO LT STA. 27+60



FOR GUARDRAIL PLACEMENT ON THE
CULVERT (-L- STA. 40+83 +/- LT)
USE DETAILS ON SHEET 2B-2.
(GUARDRAIL PLACEMENT DETAIL)

OMIT ONE GUARDRAIL POST OVER THE PROPOSED
CULVERT (-L- STA 40+90 +/- RT) AND PROVIDE 25'
OF NESTED GUARDRAIL AS SHOWN ON
STD. DWG. 846.03, SHEET 1 OF 3.

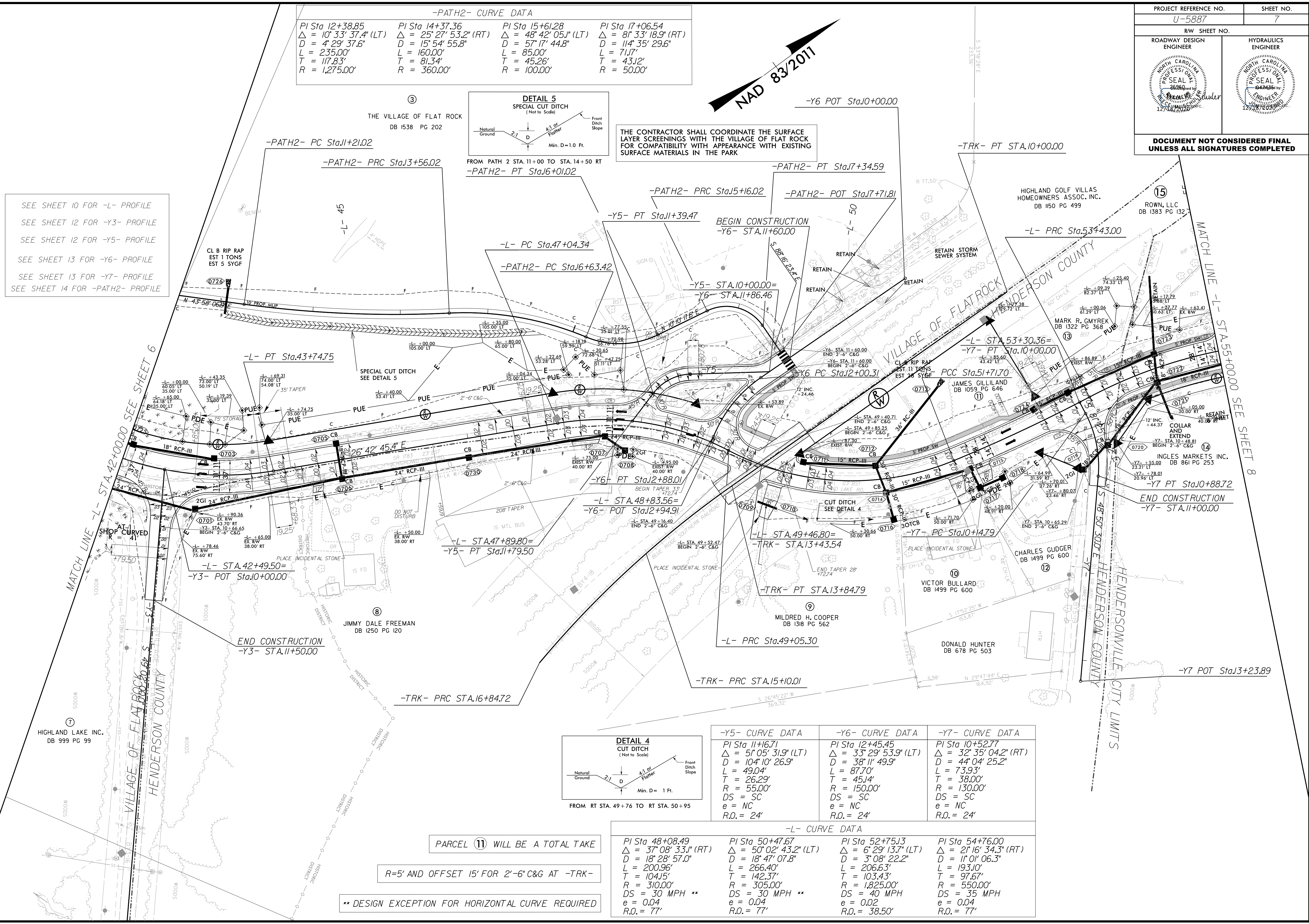
THE CONTRACTOR SHALL COORDINATE THE SURFACE
LAYER SCREENINGS WITH THE VILLAGE OF FLAT ROCK
FOR COMPATIBILITY WITH APPEARANCE WITH EXISTING
SURFACE MATERIALS IN THE PARK



xx DESIGN EXCEPTION FOR HORIZONTAL CURVE REQUIRED

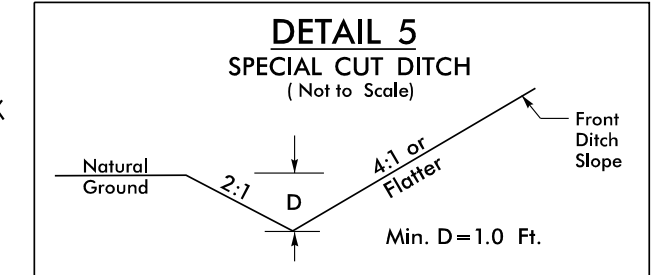
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REVISIONS

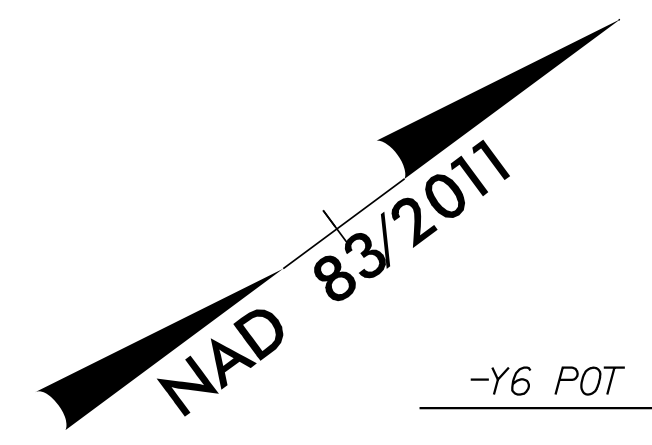


-PATH2- CURVE DATA

PI Sta 12+38.85 Δ = 10° 33' 37.4" (LT) D = 4° 29' 37.6" L = 235.00' T = 117.83' R = 1,275.00'	PI Sta 14+37.36 Δ = 25° 27' 53.2" (RT) D = 15° 54' 55.8" L = 160.00' T = 81.34' R = 360.00'	PI Sta 15+61.28 Δ = 48° 42' 05.1" (LT) D = 57° 17' 44.8" L = 85.00' T = 45.26' R = 100.00'	PI Sta 17+06.54 Δ = 8° 33' 18.9" (RT) D = 114° 35' 29.6" L = 71.17' T = 43.12' R = 50.00'
--	--	---	--



THE CONTRACTOR SHALL COORDINATE THE SURFACE LAYER SCREENINGS WITH THE VILLAGE OF FLAT ROCK FOR COMPATIBILITY WITH APPEARANCE WITH EXISTING SURFACE MATERIALS IN THE PARK



PROJECT REFERENCE NO. U-5887		SHEET NO. 7
RW SHEET NO.		HYDRAULICS
ROADWAY DESIGN ENGINEER	ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		

SEE SHEET 10 FOR -L- PROFILE
SEE SHEET 12 FOR -Y3- PROFILE
SEE SHEET 12 FOR -Y5- PROFILE
SEE SHEET 13 FOR -Y6- PROFILE
SEE SHEET 13 FOR -Y7- PROFILE
SEE SHEET 14 FOR -PATH2- PROFILE

-Y5- CURVE DATA	-Y6- CURVE DATA	-Y7- CURVE DATA
PI Sta 11+16.71 Δ = 5° 05' 31.9" (LT) D = 104° 10' 26.9" L = 49.04' T = 26.29' R = 55.00' DS = SC e = NC R.O. = 24'	PI Sta 12+45.45 Δ = 33° 29' 53.9" (LT) D = 38° 11' 49.9" L = 87.70' T = 45.14' R = 150.00' DS = SC e = NC R.O. = 24'	PI Sta 10+52.77 Δ = 32° 35' 04.2" (RT) D = 44° 04' 25.2" L = 73.93' T = 38.00' R = 130.00' DS = SC e = NC R.O. = 24'

-L- CURVE DATA		
PI Sta 50+47.67 Δ = 50° 02' 43.2" (LT) D = 18° 47' 07.8" L = 266.40' T = 142.37' R = 305.00' DS = 30 MPH ** e = 0.04 R.O. = 77'	PI Sta 52+75.13 Δ = 6° 29' 13.7" (LT) D = 3° 08' 22.2" L = 206.63' T = 103.43' R = 1,825.00' DS = 40 MPH e = 0.02 R.O. = 38.50'	PI Sta 54+76.00 Δ = 2° 16' 34.3" (RT) D = 1° 01' 06.3" L = 193.10' T = 97.67' R = 550.00' DS = 35 MPH e = 0.04 R.O. = 77'

PARCEL (11) WILL BE A TOTAL TAKE

R=5' AND OFFSET 15' FOR 2'-6" C&G AT -TRK-

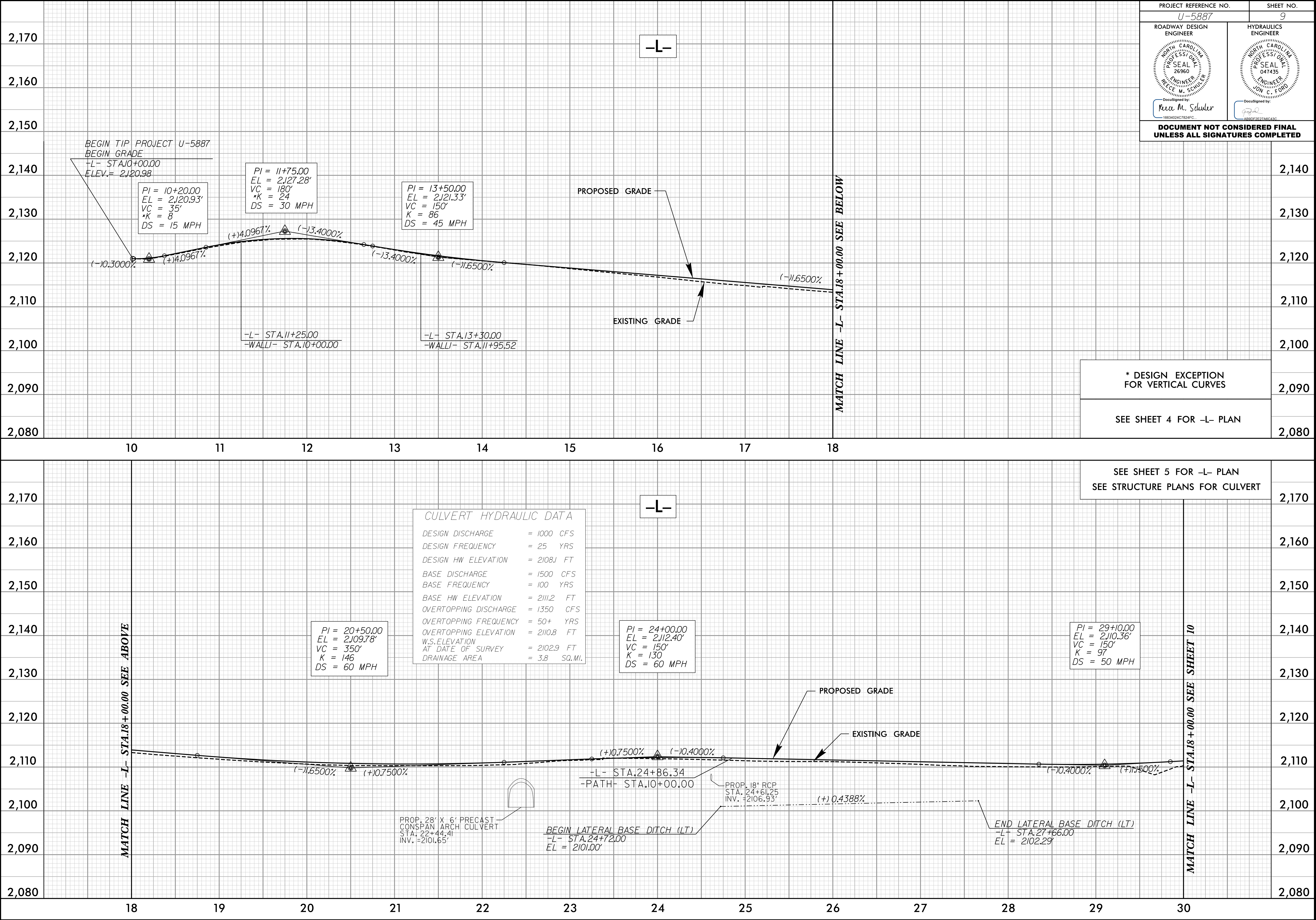
** DESIGN EXCEPTION FOR HORIZONTAL CURVE REQUIRED

N 85° 58' 00" E 71.73'



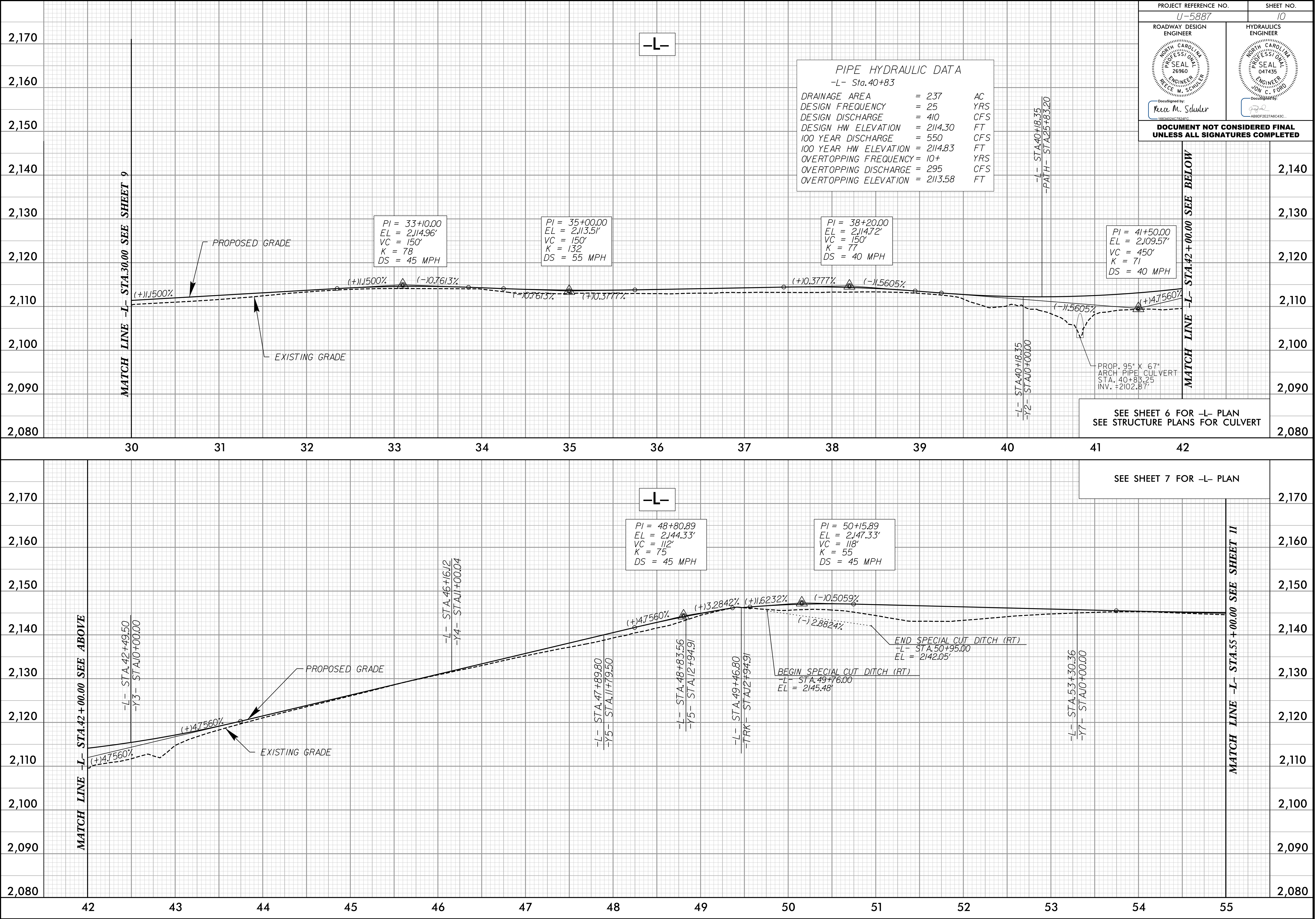
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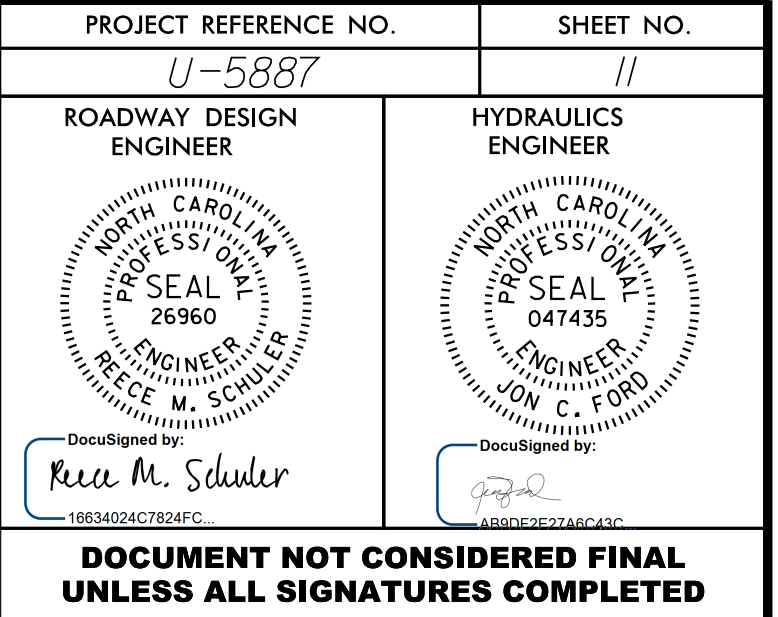
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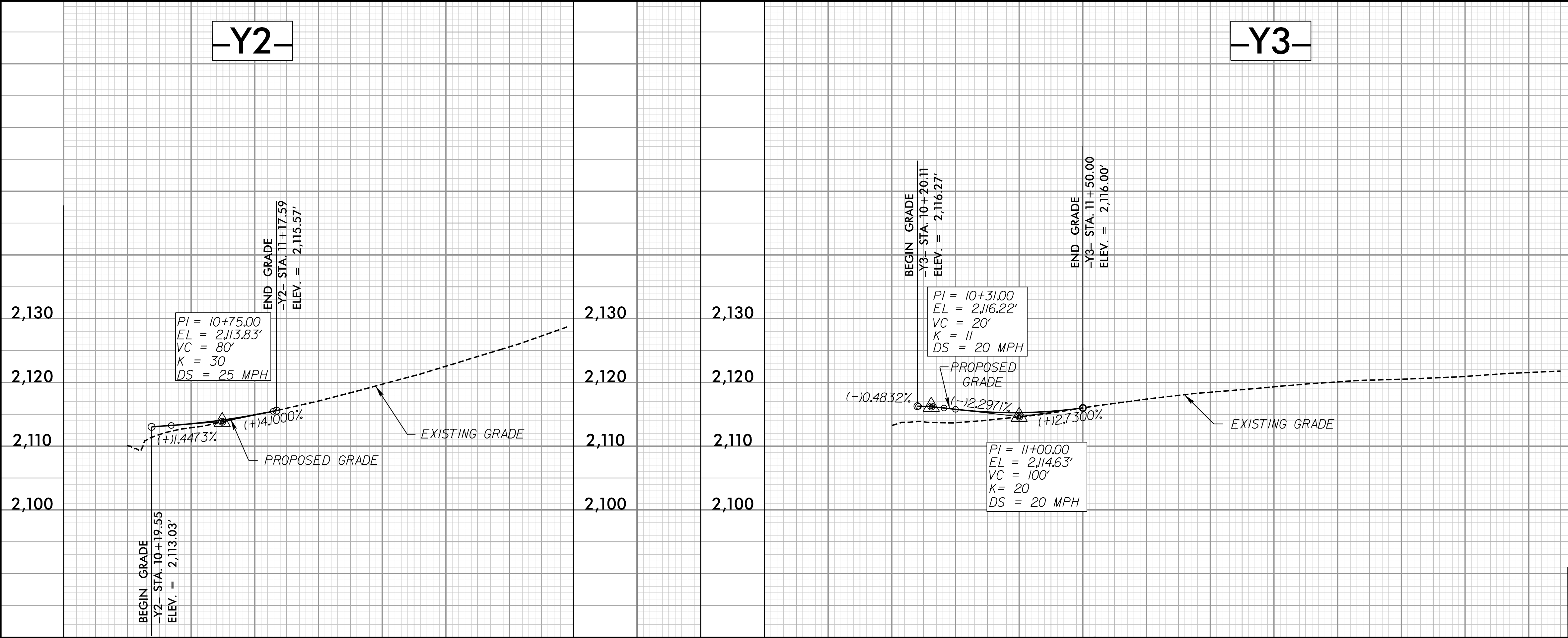
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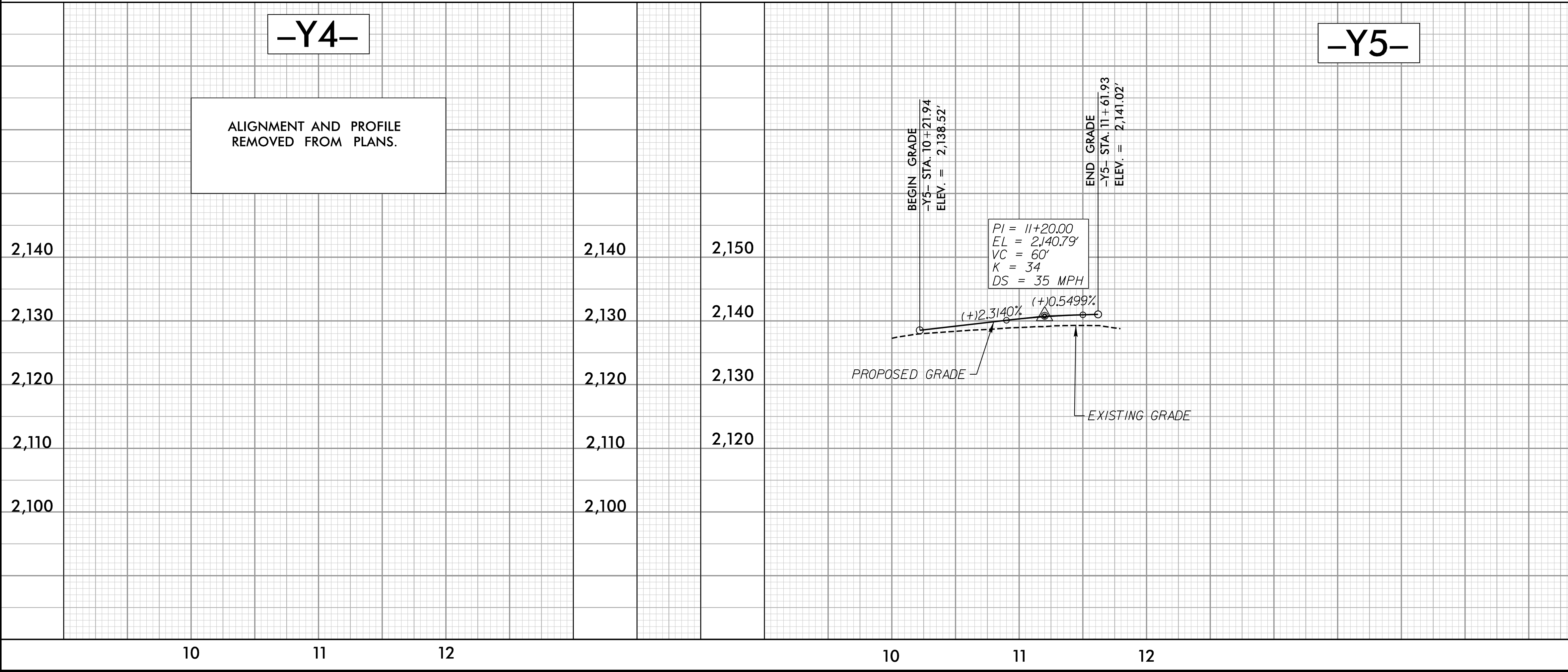
5/28/20



SEE SHEET 6 FOR -Y2- PLAN
SEE SHEET 7 FOR -Y3- & -Y5- PLAN

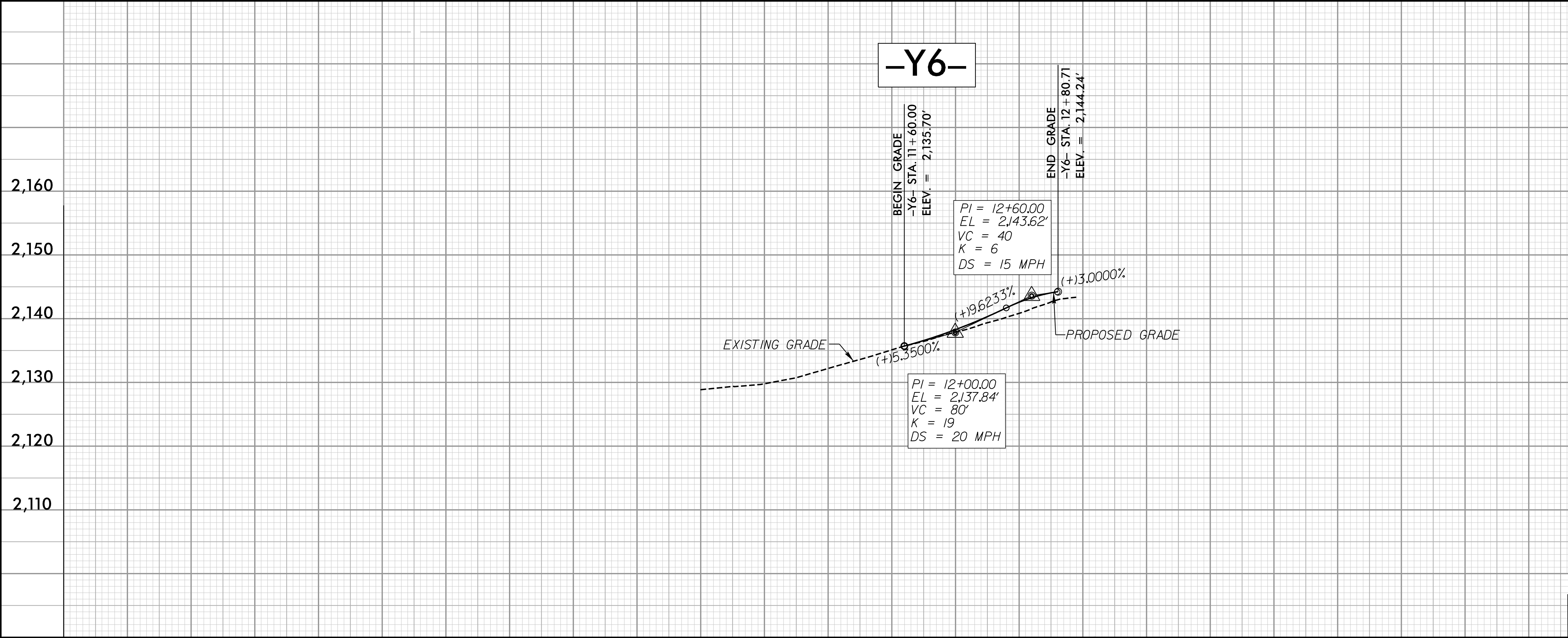
PROJECT REFERENCE NO. <i>U-5887</i>		SHEET NO. <i>12</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
11/3/2020		11/3/2020

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

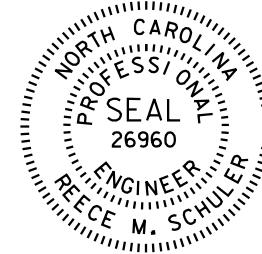
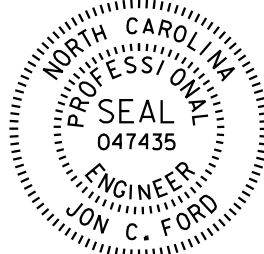


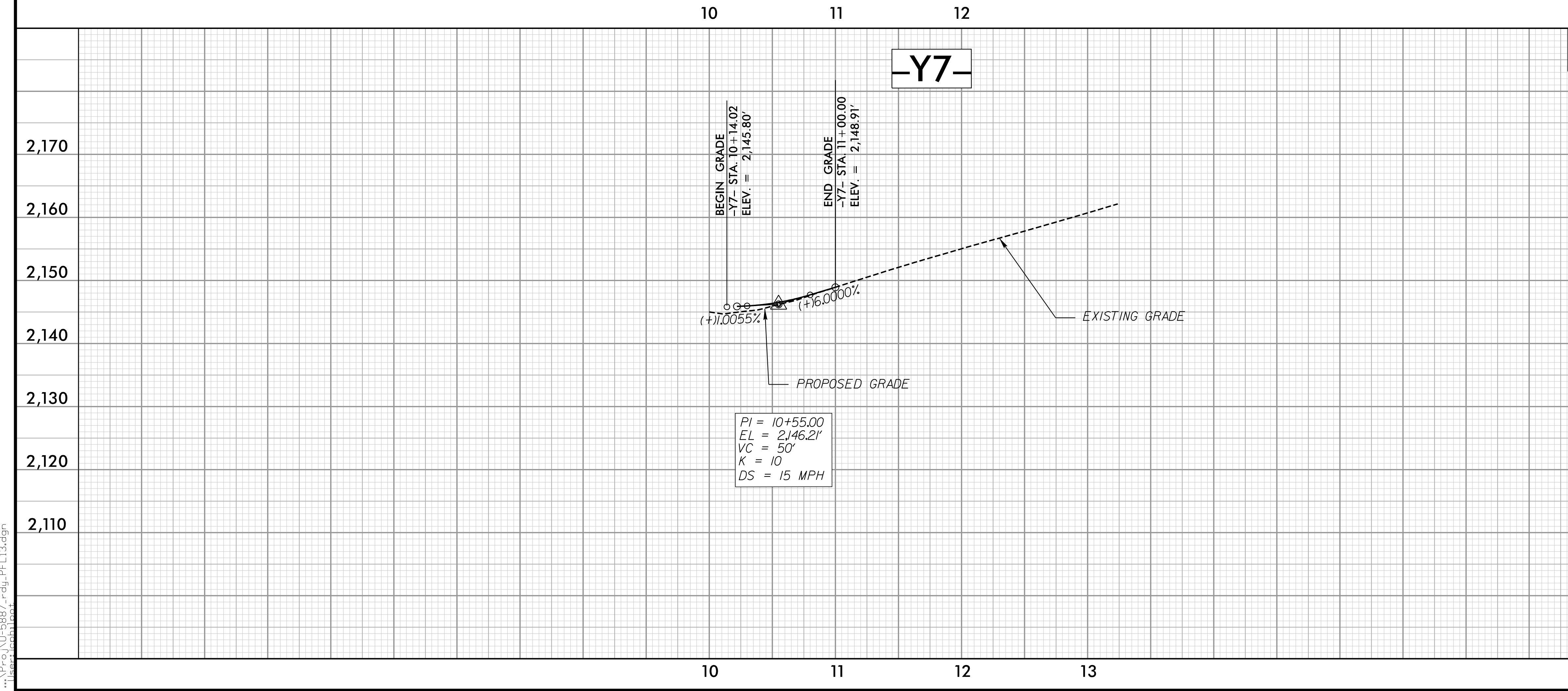
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5/28/20



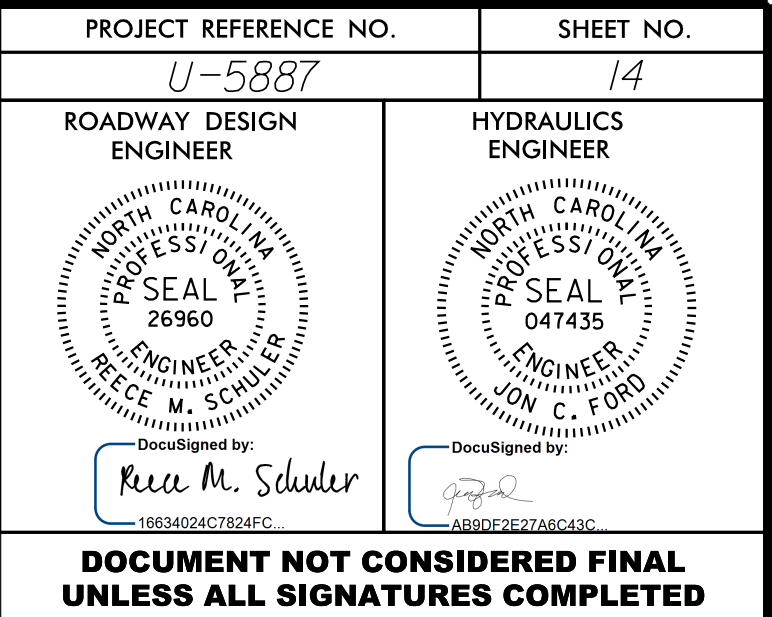
SEE SHEET 7 FOR -Y6- PLAN

PROJECT REFERENCE NO. <i>U-5887</i>		SHEET NO. <i>13</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
		
DocuSigned by: <i>Rebecca M. Schuler</i> 16016007C782A5F		
DocuSigned by: <i>Jon C. Ford</i> 16016007C782A5F		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



SEE SHEET 7 FOR -Y7- PLAN

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TIP PROJECT: U-5887

HENDERSON COUNTY

***TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS,
SIGNING, CULVERT, AND RETAINING WALLS***



THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCGS FOR MONUMENT "GPS-100"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 576,661.248(ft) EASTING: 972,523.298(ft)
ELEVATION: 2,121.410(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.9997750745
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"GPS-100" TO L- STATION 10+00.00 IS
S 15-03°44.9" E 470.02(ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

V&M
Vaughn & Melton

RIGHT OF WAY DATE:
JUNE 30, 2019

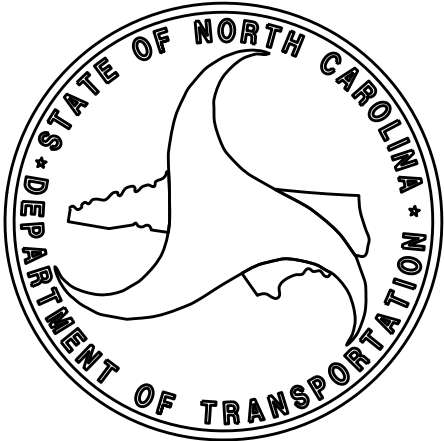
**PROFESSIONAL LAND
SURVEYOR**



DocuSigned by:

 F1570CB85C7248A...

SIGNATURE:



6/2/99

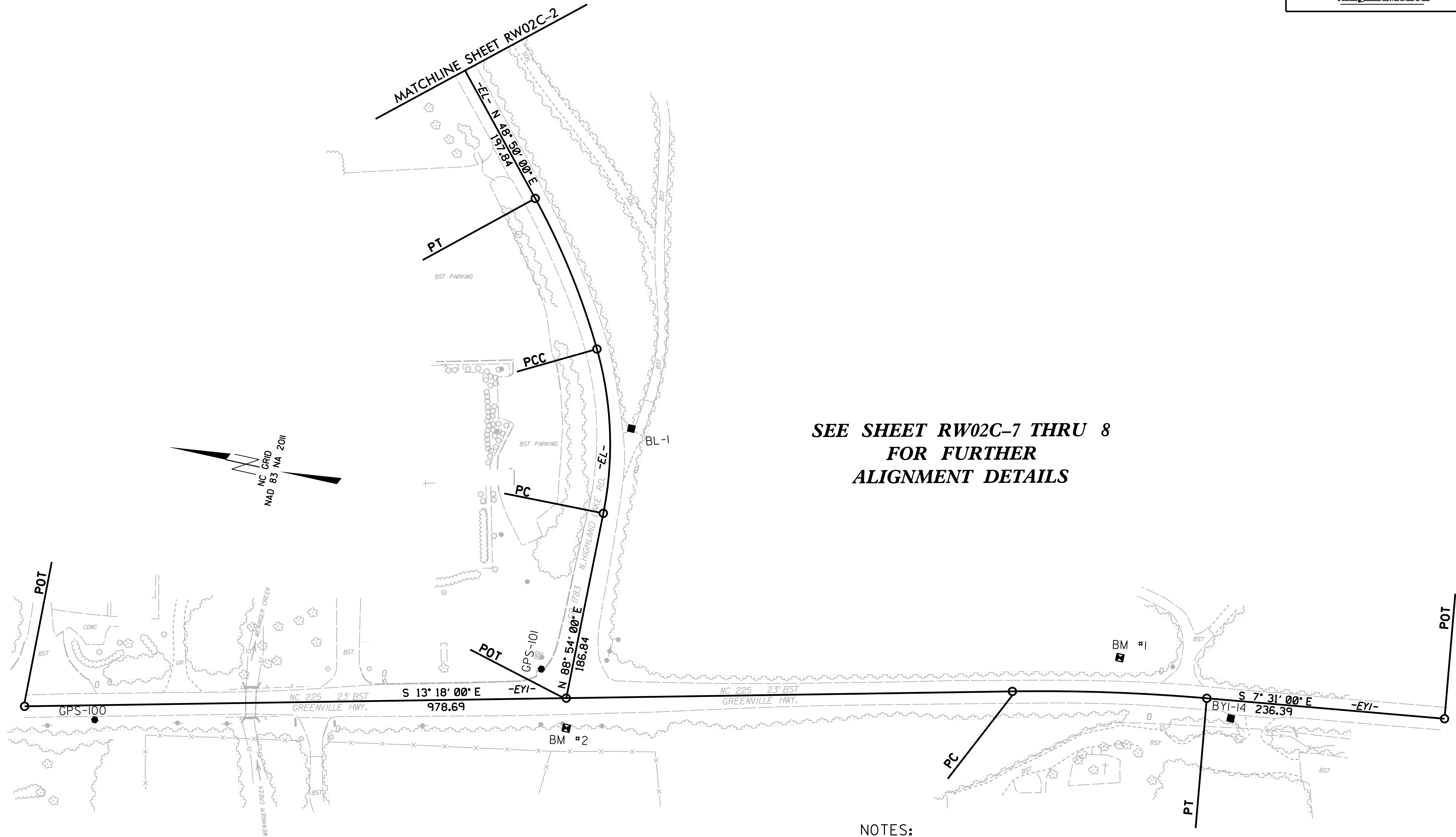
REVISIONS

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atobakova AT VOI-WKUEM-27

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-1
Location and Surveys	
	

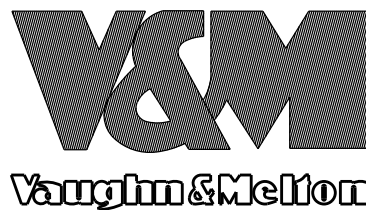


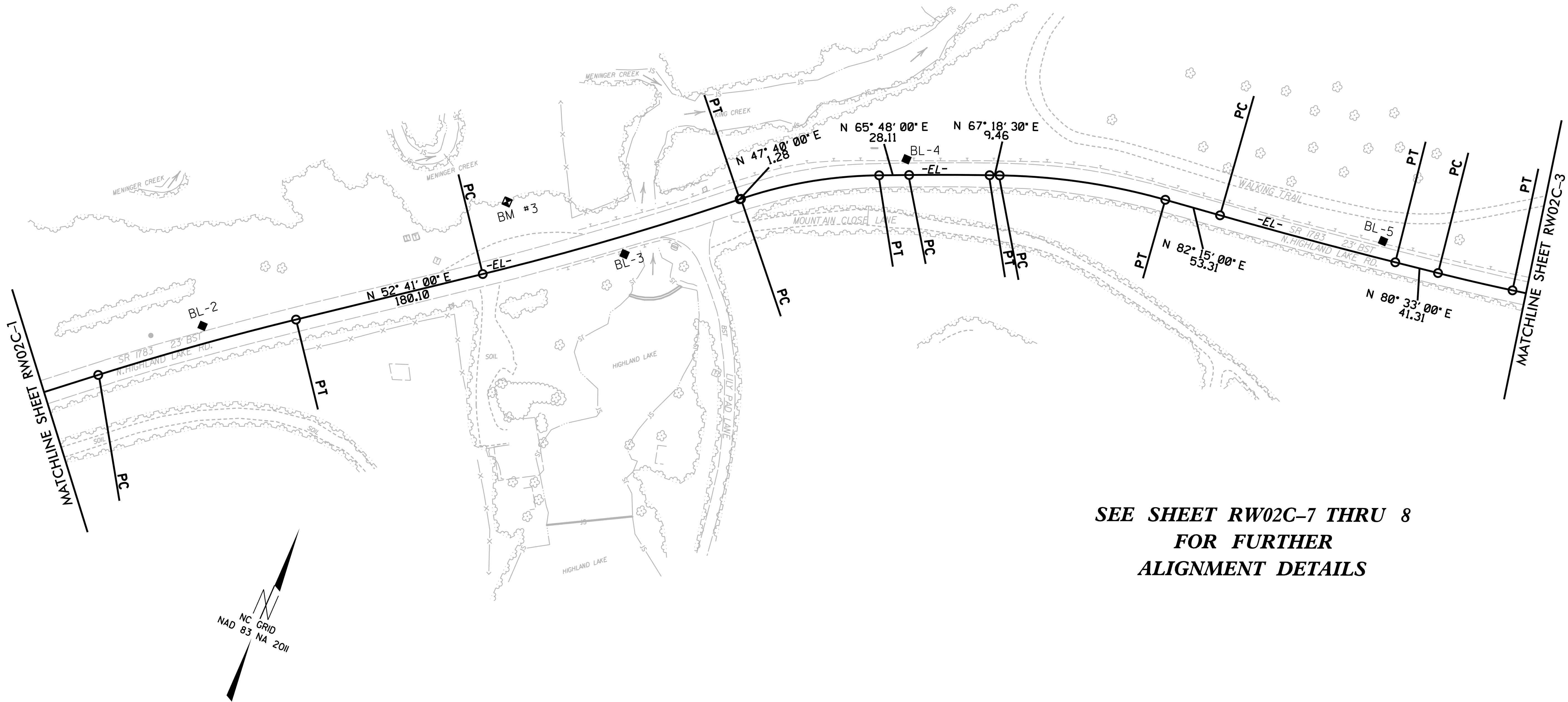
**SEE SHEET RW02C-7 THRU 8
FOR FURTHER
ALIGNMENT DETAILS**

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. 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.

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-2
Location and Surveys	
	



**SEE SHEET RW02C-7 THRU 8
FOR FURTHER
ALIGNMENT DETAILS**

- NOTES:**
1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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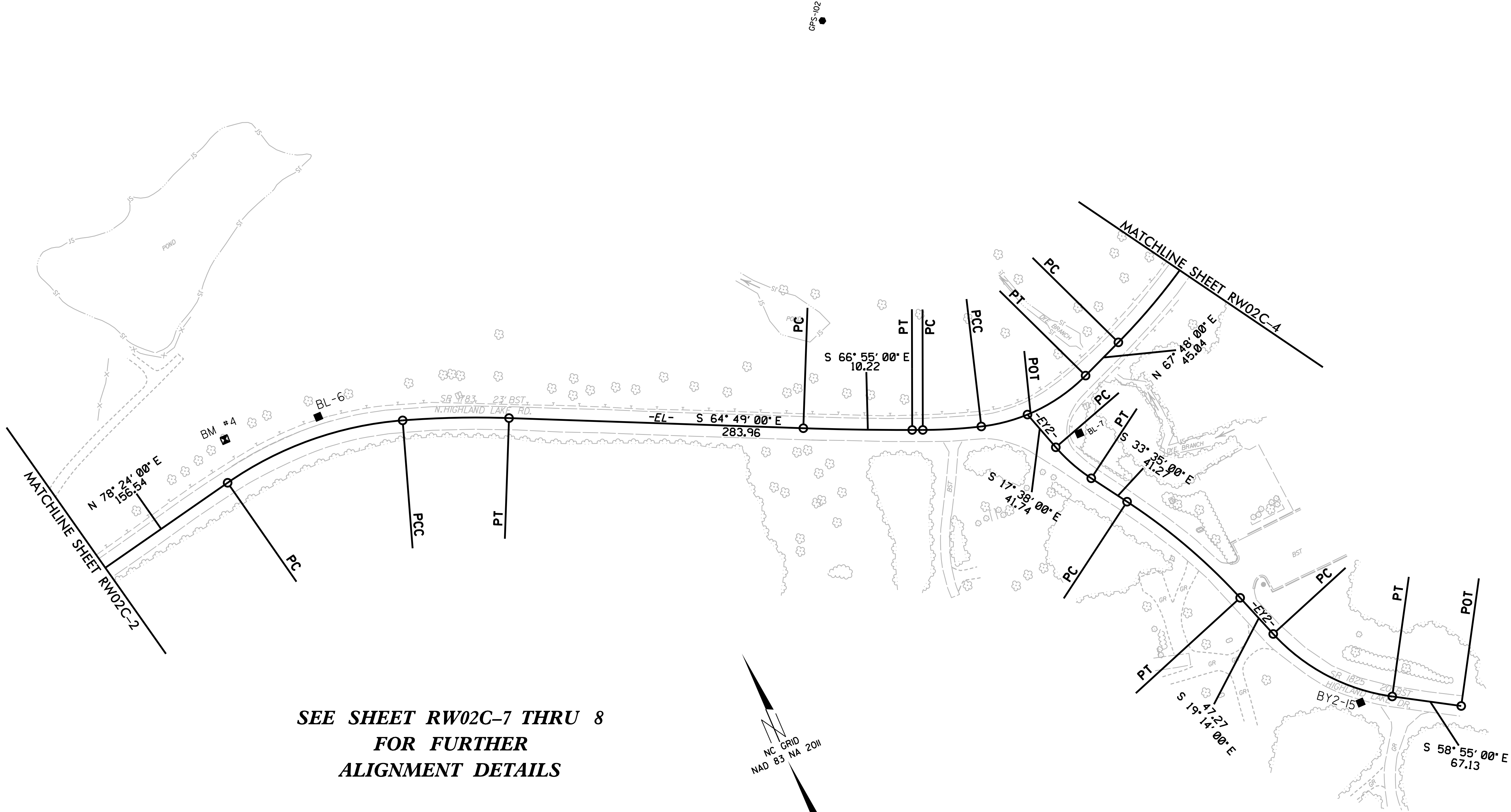
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atobakova AT VOT-WKUEM-27

REVISIONS

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-3
Location and Surveys	
	



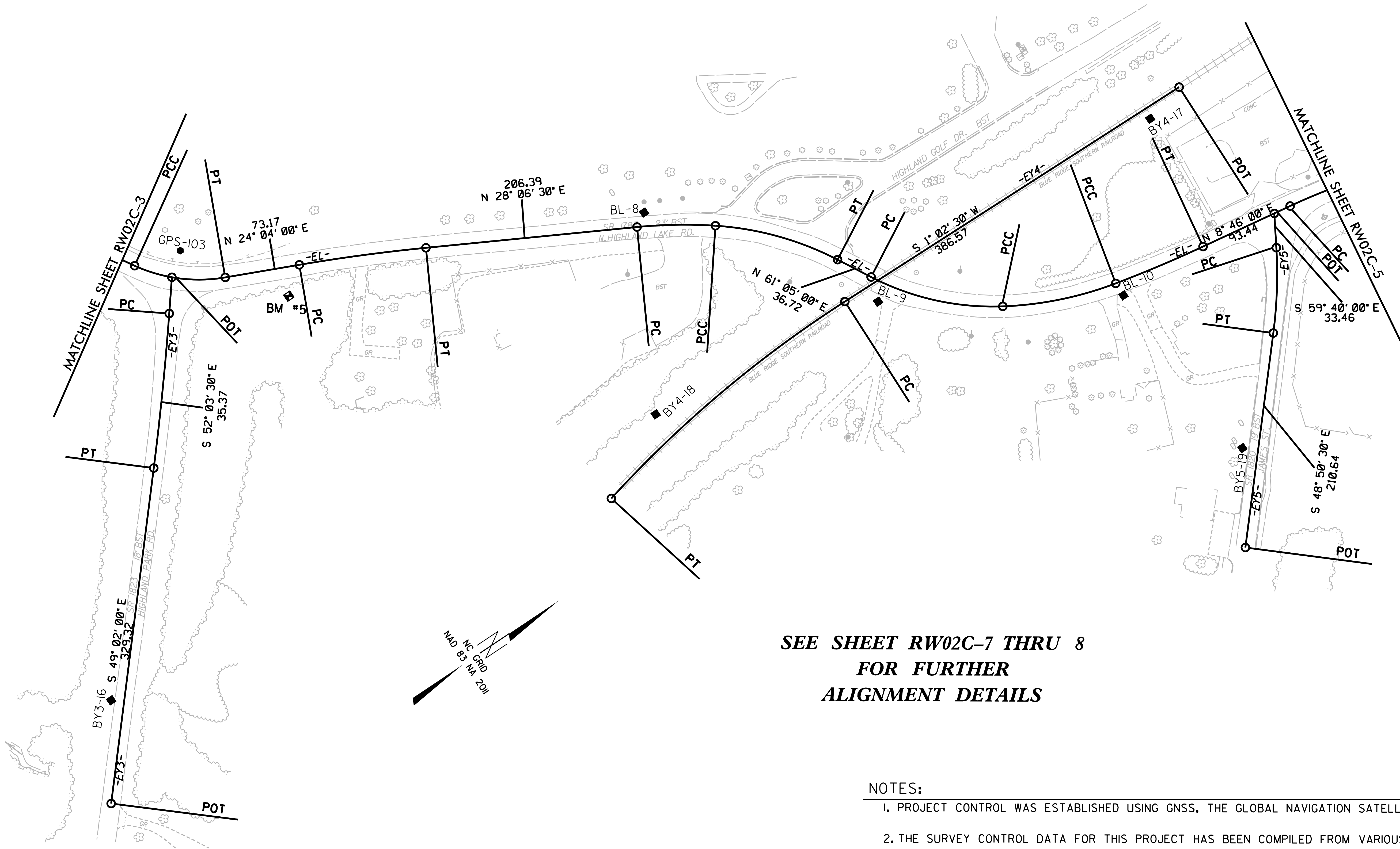
- NOTES:
1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
 2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

REVISIONS

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-4
Location and Surveys	
	

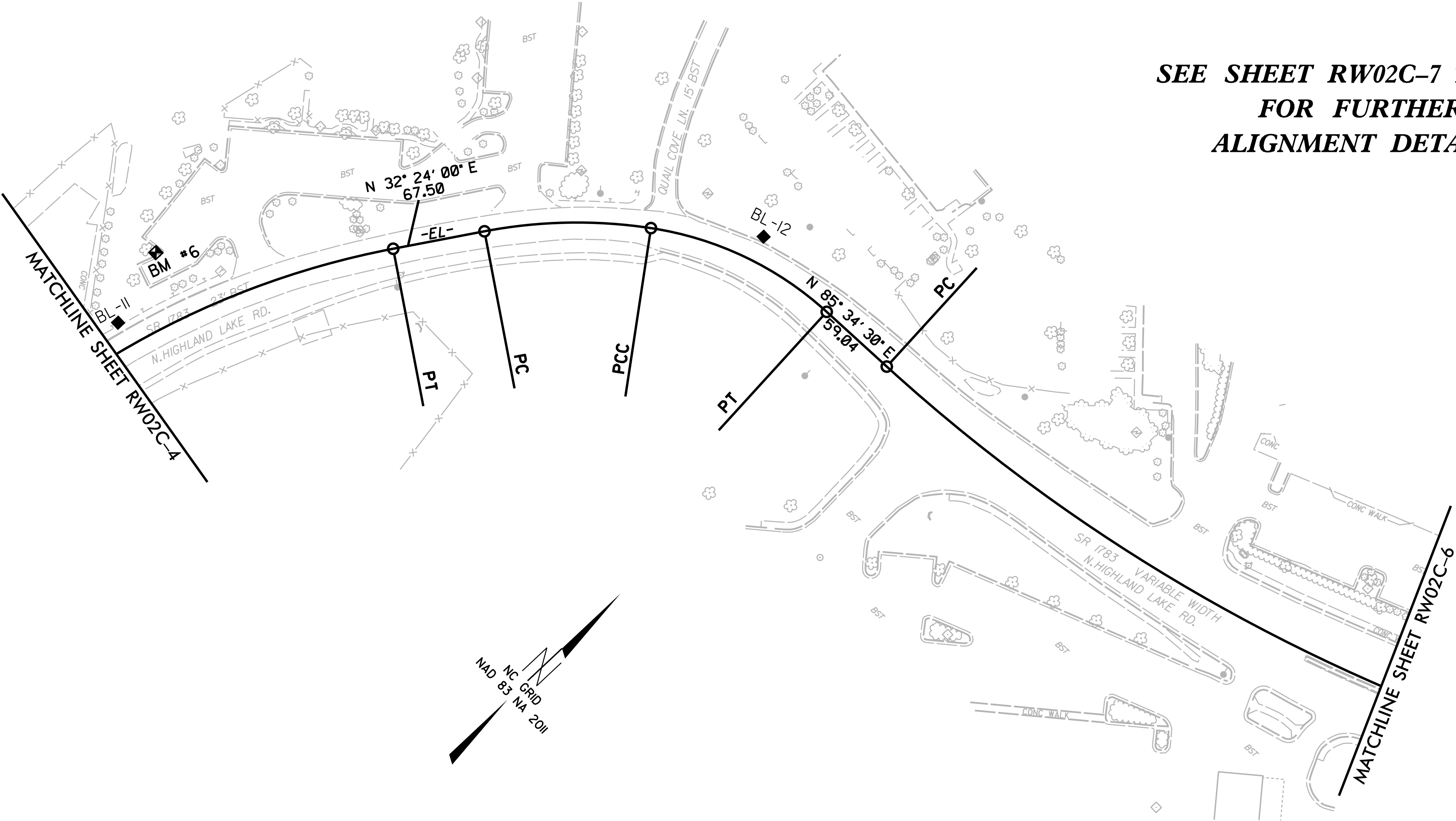


SEE SHEET RW02C-7 THRU 8
FOR FURTHER
ALIGNMENT DETAILS

- NOTES:
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SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-5
Location and Surveys	
	



**SEE SHEET RW02C-7 THRU 8
FOR FURTHER
ALIGNMENT DETAILS**

- NOTES:
1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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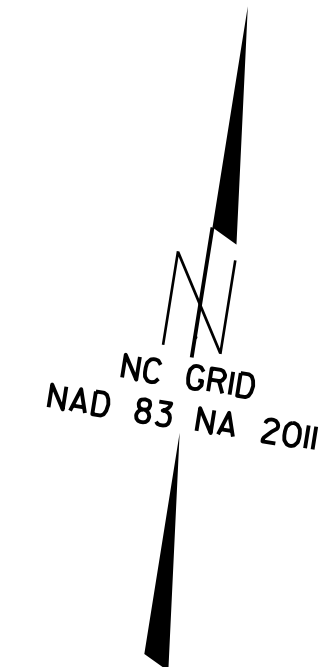
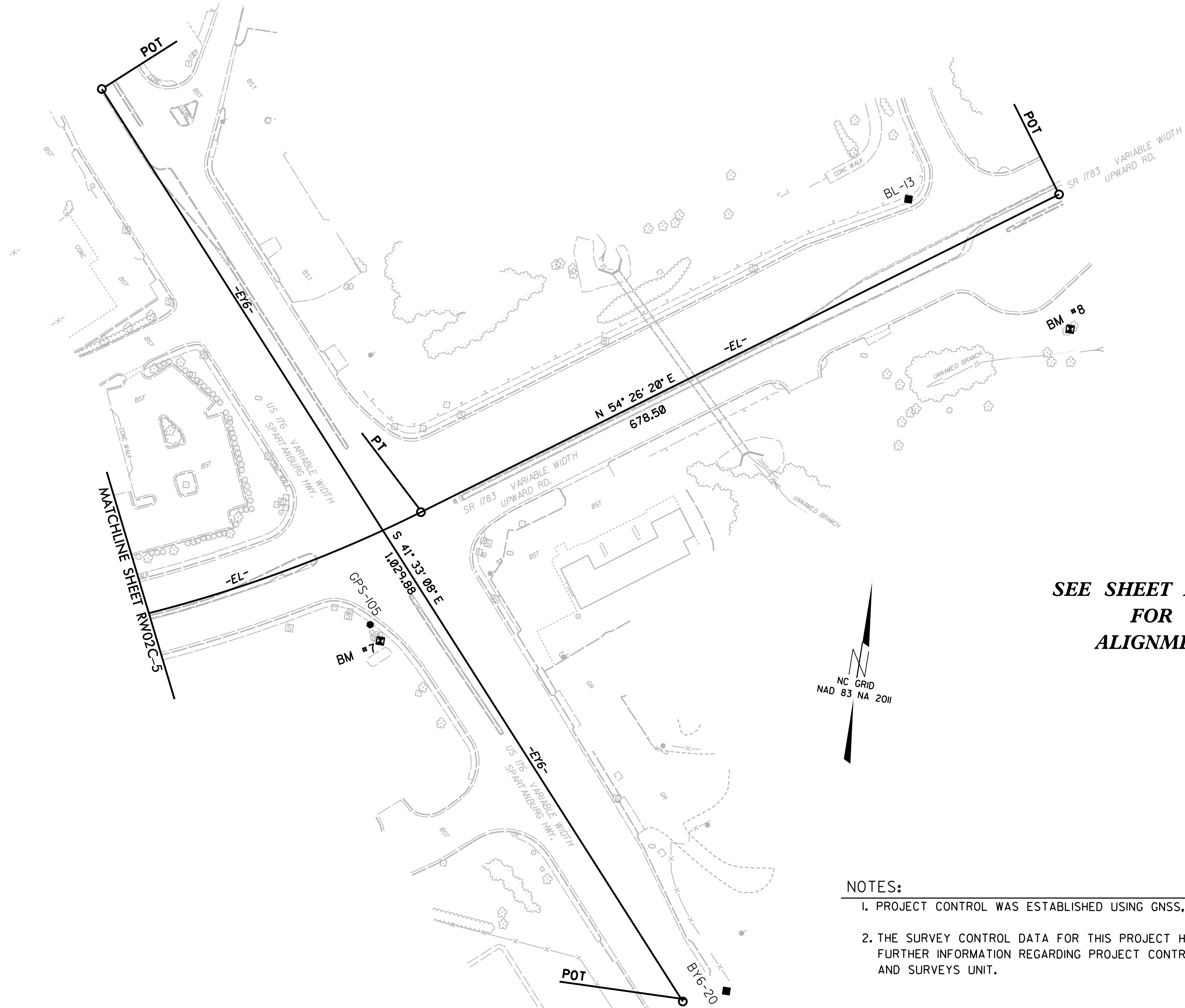
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GPS-104

SURVEY CONTROL SHEET

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-6
Location and Surveys	
	



**SEE SHEET RW02C-7 THRU 8
FOR FURTHER
ALIGNMENT DETAILS**

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
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REVISIONS

SURVEY CONTROL SHEET
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW02C-7
Location and Surveys	
	

BL				
POINT	DESC.	NORTH	EAST	ELEVATION
G101	GPS-101	576239.9860	972667.7330	2120.20
1	BL-1	576204.2237	972919.6734	2124.81
2	BL-2	576557.8761	973342.0540	2111.64
3	BL-3	576777.8272	973677.4836	2109.26
4	BL-4	576965.0496	973883.9578	2110.22
5	BL-5	577073.5251	974323.8562	2107.77
6	BL-6	577135.3522	974712.2600	2112.66
7	BL-7	576831.3744	975380.4291	2113.87
G103	GPS-103	576989.9030	975555.1430	2111.46
8	BL-8	577385.8593	975774.9903	2134.70
9	BL-9	577527.0194	975973.5925	2145.76
10	BL-10	577729.0518	976101.1317	2142.81
11	BL-11	577967.2449	976110.3354	2143.71
12	BL-12	578351.7844	976385.9469	2146.45
G105	GPS-105	578477.5470	977141.0120	2151.00
13	BL-13	578958.4099	977582.9472	2135.44

BY1				
POINT	DESC.	NORTH	EAST	ELEVATION
G100	GPS-100	576661.2480	972523.2980	2121.41
Y101	GPS-101	576239.9860	972667.7330	2120.20
14	BY1-14	575562.5156	972767.0074	2142.97

BY2				
POINT	DESC.	NORTH	EAST	ELEVATION
Y7	BL-7	576831.3744	975380.4291	2113.87
15	BY2-15	576485.8217	975527.2992	2137.71

BY3				
POINT	DESC.	NORTH	EAST	ELEVATION
Y103	GPS-103	576989.9030	975555.1430	2111.46
16	BY3-16	576690.8157	975881.9073	2120.02

BY4				
POINT	DESC.	NORTH	EAST	ELEVATION
17	BY4-17	577846.1819	975972.5261	2138.89
Y9	BL-9	577527.0194	975973.5925	2145.76
18	BY4-18	577286.1275	975944.6153	2149.34

BY5				
POINT	DESC.	NORTH	EAST	ELEVATION
Y11	BL-11	577967.2449	976110.3354	2143.71
19	BY5-19	577742.6986	976289.0449	2157.78

BY6				
POINT	DESC.	NORTH	EAST	ELEVATION
G104	GPS-104	579053.3030	976650.8770	2147.69
Y105	GPS-105	578477.5470	977141.0120	2151.00
20	BY6-20	578186.5351	977530.7572	2151.66

.....
BM1 ELEVATION = 2147.45
N 575683 E 972802
NAIL SET IN BASE OF 36" OAK
.....
BM2 ELEVATION = 2123.93
N 576203 E 972616
NAIL SET IN BASE OF 20" LOCUST
.....
BM3 ELEVATION = 2109.70
N 576779 E 973557
NAIL SET IN BASE OF 48" DBL. POPLAR
.....
BM4 ELEVATION = 2111.19
N 577151 E 974621
NAIL SET IN BASE OF 15" POPLAR
.....
BM5 ELEVATION = 2122.73
N 577053 E 975651
NAIL SET IN BASE OF 15" PINE
.....
BM6 ELEVATION = 2141.83
N 578022 E 976092
CHISELED 'X' IN BASE OF LIGHT POLE
.....
BM7 ELEVATION = 2152.09
N 578464 E 977153
BOLT IN SIGNAL POLE BASE
.....
BM8 ELEVATION = 2132.07
N 578861 E 977754
NAIL SET IN BASE OF 15" WALNUT
.....

- NOTES:
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REVISIONS

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.
U-5887

SHEET NO.
RW02C-8

Location and Surveys



EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	576209.699	972644.894							
LINE			N 88°54'00.0" E	186.84					
PC	576213.286	972831.700							
CURVE			N 75°20'04.9" E	162.90	27°07'50.1"(L T)	16°30'00.0"	164.43	83.79	347.25
PCC	576254.527	972989.289							
CURVE			N 55°18'04.9" E	161.36	12°56'09.9"(L T)	08°00'00.0"	161.70	81.20	716.20
PT	576346.381	973121.951							
LINE			N 48°50'00.0" E	197.84					
PC	576476.611	973270.886							
CURVE			N 50°45'30.0" E	192.46	03°51'00.0"(RT)	02°00'00.0"	192.50	96.29	2864.79
PT	576598.362	973419.946							
LINE			N 52°41'00.0" E	180.10					
PC	576707.540	973563.176							
CURVE			N 50°10'30.0" E	250.75	05°01'00.0"(L T)	02°00'00.0"	250.83	125.50	2864.79
PT	576868.134	973755.755							
LINE			N 47°40'00.0" E	1.28					
PC	576868.992	973756.698							
CURVE			N 56°44'00.0" E	131.33	18°08'00.0"(RT)	13°45'00.0"	131.88	66.50	416.70
PT	576941.031	973866.506							
LINE			N 65°48'00.0" E	28.11					
PC	576952.554	973892.145							
CURVE			N 66°33'15.0" E	75.41	01°30'30.0"(RT)	02°00'00.0"	75.42	37.71	2864.79
PT	576982.560	973961.333							
LINE			N 67°18'30.0" E	9.46					
PC	576986.208	973970.057							
CURVE			N 74°46'45.0" E	156.84	14°56'30.0"(RT)	09°30'00.0"	157.28	79.09	603.11
PT	577027.383	974121.391							
LINE			N 82°15'00.0" E	53.31					
PC	577034.573	974174.218							
CURVE			N 81°24'00.0" E	169.99	01°42'00.0"(L T)	01°00'00.0"	170.00	85.01	5729.58
PT	577059.993	974342.300							
LINE			N 80°33'00.0" E	41.31					
PC	577066.775	974383.045							
CURVE			N 79°28'30.0" E	71.66	02°09'00.0"(L T)	03°00'00.0"	71.67	35.84	1909.86
PT	577079.865	974453.502							
LINE			N 78°24'00.0" E	156.54					
PC	577111.341	974606.841							
CURVE			S 86°24'57.7" E	179.19	30°22'04.7"(RT)	16°45'00.0"	181.30	92.83	342.06
PCC	577100.140	974785.677							
CURVE			S 68°01'27.7" E	102.59	06°24'55.3"(RT)	06°15'00.0"	102.65	51.38	916.73
PT	577061.748	974880.816							
LINE			S 64°49'00.0" E	283.96					
PC	576940.919	975137.784							
CURVE			S 65°52'00.0" E	104.99	02°06'00.0"(L T)	02°00'00.0"	105.00	52.51	2864.79
PT	576897.991	975233.601							
LINE			S 66°55'00.0" E	10.22					
PC	576893.984	975243.003							
CURVE			S 70°10'06.9" E	56.52	06°30'13.9"(L T)	11°30'00.0"	56.56	28.31	498.22
PCC	576874.808	975296.176							
CURVE			N 87°11'23.1" E	111.89	38°46'46.1"(L T)	34°00'00.0"	114.06	59.31	168.52
PT	576880.294	975407.934							
LINE			N 67°48'00.0" E	45.04					
PC	576897.311	975449.633							
CURVE			N 62°57'42.5" E	104.49	09°40'34.9"(L T)	09°15'00.0"	104.61	52.43	619.41
PCC	576944.808	975542.698							
CURVE			N 41°05'42.5" E	88.89	34°03'25.1"(L T)	37°45'00.0"	90.22	46.49	151.78
PT	577011.801	975601.130							
LINE			N 24°04'00.0" E	73.17					
PC	577078.608	975630.967							
CURVE			N 26°05'15.0" E	124.33	04°02'30.0"(RT)	03°15'00.0"	124.36	62.21	1762.95
PT	577190.274	975685.642							
LINE			N 28°06'30.0" E	206.39					
PC	577372.320	975782.879							
CURVE			N 32°47'22.1" E	76.34	09°21'44.1"(RT)	12°15'00.0"	76.43	38.30	467.72
PCC	577436.497	975824.222							
CURVE			N 49°16'37.1" E	123.40	23°36'45.9"(RT)	19°00'00.0"	124.28	63.03	301.56
PT	577517.004	975917.743							
LINE			N 61°05'00.0" E	36.72					
PC	577534.760	975949.886							
CURVE			N 46°18'35.7" E	131.33	29°32'48.6"(L T)	22°15'00.0"	132.79	67.91	257.51
PCC	577625.476	976044.848							
CURVE			N 22°13'40.1" E	112.16	18°37'02.7"(L T)	16°31'35.9"	112.65	56.83	346.69
PCC	577729.297	976087.275							
CURVE			N 10°50'34.4" E	92.26	04°09'08.8"(L T)	04°30'00.0"	92.28	46.16	1273.24
PT	577819.906	976104.630							
LINE			N 08°46'00.0" E	93.44					
PC	577912.252	976118.871							
CURVE			N 20°35'00.0" E	253.69	23°38'00.0"(RT)	09°15'00.0"	255.50	129.59	619.41
PT	578149.746	976208.060							
LINE			N 32°24'00.0" E	67.50					
PC	578206.737	976244.228							
CURVE			N 42°07'27.9" E	120.97	19°26'55.9"(RT)	16°00'00.0"	121.56	61.37	358.10
PCC	578296.461	976325.369							
CURVE			N 68°42'42.9" E	141.45	33°43'34.1"(RT)	23°30'00.0"	143.52	73.90	243.81
PT	578347.816	976457.170							
LINE			N 85°34'30.0" E	59.04					
PC	578352.371	976516.029							
CURVE			N 70°00'24.8" E	697.80	31°08'10.3"(L T)	04°24'26.5"	706.46	362.19	1300.00
PT	578590.953	977171.773							
LINE			N 54°26'19.7" E	678.50					
POT	578985.551	977723.731							

EY1 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	576731.975	972521.433							
LINE			S 13°18'00.0" E	978.69					
PC	575779.532	972746.581							
CURVE			S 10°24'30.0" E	192.70	05°47'00.0"(RT)	03°00'00.0"	192.78	96.47	1909.86
PT	575590.007	972781.394							
LINE			S 07°31'00.0" E	236.39					
POT	575355.644	972812.318							

EY2 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	576867.822	975341.636							
LINE			S 17°38'00.0" E	41.74					
PC	576828.040	975354.281							
CURVE			S 25°36'30.0" E	45.42	15°57'00.0"(L T)	35°00'00.0"	45.57	22.93	163.70
PT	576787.077	975373.914							
LINE			S 33°35'00.0" E	41.27					
PC	576752.698	975396.741							
CURVE			S 26°24'30.0" E	143.13	14°21'00.0"(RT)	10°00'00.0"	143.50	72.13	572.96
PT	576624.509	975460.399							
LINE			S 19°14'00.0" E	47.27					
PC	576579.875	975475.971							
CURVE			S 39°04'30.0" E	129.65	39°41'00.0"(L T)	30°00'00.0"	132.28	68.92	190.99
PT	576479.225	975557.694							
LINE			S 58°55'00.0" E	67.13					
POT	576444.567	975615.185							

EY3 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	576968.748	975572.192							
LINE			S 52°03'30.0" E	35.37					
PC	576947.002	975600.085							
CURVE			S 50°32'45.0" E	151.23	03°01'30.0"(RT)	02°00'00.0"	151.25	75.64	2864.79
PT	576850.899	975716.856							
LINE			S 49°02'00.0" E	329.32					
POT	576634.993	975965.520							

EY4 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	577886.728	975962.613							
LINE			S 01°02'30.0" W	386.57					
PC	577500.218	975955.585							
CURVE			S 06°24'43.1" E	297.31	14°54'26.3"(L T)	05°00'00.0"	298.15	149.92	1145.92
PT	577204.773	975988.787							

EY5 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	577895.463	976116.282							
LINE			S 59°40'00.0" E	33.46					
PC	577878.566	976145.159							
CURVE			S 54°15'15.0" E	83.15	10°49'30.0"(RT)	13°00'00.0"	83.27	41.76	440.74
PT	577829.993	976212.641							
LINE			S 48°50'30.0" E	210.64					
POT	577691.362	976371.231							

EY6 POINT	N	E	BEARING	DIST
POT	578940.878	976808.302		
LINE			S 41°33'07.7" E	1029.88
POT	578170.162	977491.425		

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.

REVISIONS

6/2/19
U:\Projects\2019\31912-55 U-5887 Highland Lake ROW Stake\Work\U5887_1s_RWD2D-1.dgn
15-JUL-2019 12:37
V:\Users\leah\Documents\U5887_1s_RWD2D-1.dgn
leah

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.

U-5887

SHEET NO.

RW02D-1

Location and Surveys



L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	576207.3738	972645.4438
PC	11+42.21	576207.3738	972787.6543
PT	14+64.51	576317.9433	973083.0980
PC	16+81.86	576460.6442	973247.0447
PT	18+62.92	576576.3842	973386.2568
PC	23+27.90	576865.4830	973750.4442
PRC	27+63.87	577032.5609	974147.3008
PRC	32+15.06	577111.3423	974591.3679
PT	34+62.07	577086.1151	974832.6237
PC	38+36.41	576928.8624	975172.3284
PT	43+74.75	577089.1517	975632.0031
PC	47+04.34	577383.5654	975780.1590
PRC	49+05.30	577522.4973	975920.4745
PCC	51+71.70	577723.4871	976082.2622
PRC	53+43.00	577891.5089	976115.2902
PT	55+22.52	578061.6975	976169.8752
PC	56+73.60	578196.1494	976238.7773
PRC	59+87.97	578356.4626	976491.9973
PT	66+90.90	578577.3701	977148.7675
POT	73+96.02	578985.5511	977723.7314

Y1			
TYPE	STATION	NORTH	EAST
POT	5+00.00	577967.2449	976110.3354
EOB	45+12.60	575779.5324	972746.5812
EOA	19+78.69	575779.5324	972746.5812
PT	21+71.48	575589.9933	972781.3967
POT	24+07.86	575355.6436	972812.3180

Y2			
TYPE	STATION	NORTH	EAST
POT	10+00.00	576897.7851	975349.5295
PC	10+18.50	576879.2853	975349.9013
PRC	11+17.66	576785.1507	975375.1937
PT	12+99.79	576624.8601	975460.2759
POT	13+47.44	576579.8750	975475.9708

Y3			
TYPE	STATION	NORTH	EAST
POT	10+00.00	576989.6147	975557.0951
POT	15+40.90	576634.9931	975965.5202

Y4			
TYPE	STATION	NORTH	EAST
POT	10+00.00	577349.8389	975651.1956
POT	11+00.04	577304.7660	975740.5053

Y5			
TYPE	STATION	NORTH	EAST
POT	10+00.00	577613.4518	975875.6286
PC	10+90.42	577538.9056	975824.4531
PT	11+39.47	577492.0436	975817.0952
POT	11+79.50	577453.6818	975828.5480

Y6			
TYPE	STATION	NORTH	EAST
POT	10+00.00	577801.8274	975881.3077
PC	12+00.31	577601.6104	975875.2716
PT	12+88.01	577518.1104	975897.6802
POT	12+94.91	577512.2434	975901.3138

Y7			
TYPE	STATION	NORTH	EAST
POT	10+00.00	577879.0096	976113.3733
PC	10+14.79	577876.8044	976128.0000
PT	10+88.72	577846.1334	976194.1776
POT	13+23.89	577691.3618	976371.2314

Y8			
TYPE	STATION	NORTH	EAST
POT	10+00.00	578940.8780	976808.3019
POT	20+29.88	578170.1620	977491.4250

I, Mark A. Parris, 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 15th day of July, 2019.

Professional Land Surveyor

L-4529
PLS #

Seal

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 INFORMATINO REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

6/2/95

REVISIONS

15-JUL-2019 13:50
W:\projects\leak\15-JUL-2019\31912-55 U-5887 Highland Lake ROW Stake\Work\U5887_1s_RW03E-1.dgn
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location

RIGHT OF WAY CONTROL SHEET

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	10+56.25	-40.00	576247.3738	972701.6938
L	11+00.00	25.73	576181.6442	972745.4438
L	11+42.21	-40.00	576247.3738	972787.6543
L	13+55.00	-40.00	576292.3644	972974.3844
L	13+55.00	-29.63	576283.1287	972979.1092
L	20+22.90	-50.00	576715.0111	973480.4701
L	23+27.90	-50.00	576904.6442	973719.3573
L	23+27.90	-28.45	576887.7662	973732.7554
L	38+36.41	-35.00	576960.6244	975187.0313
L	38+36.41	-26.44	576952.8551	975183.4379
L	43+74.75	-35.00	577104.8848	975600.7385
L	47+04.34	-35.00	577399.2985	975748.8945
L	48+46.60	-24.54	577511.4141	975855.7719
L	48+53.89	-35.00	577524.5705	975856.0111
L	52+64.99	31.59	577808.6480	976133.2308
L	54+05.00	30.00	577944.4872	976156.8077
L	55+22.52	30.00	578048.0155	976196.5736
L	56+89.03	30.00	578194.6259	976272.1133

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y1	14+70.00	-30.00	576281.4821	972658.7521
Y1	16+35.00	-30.00	576120.9076	972696.7103

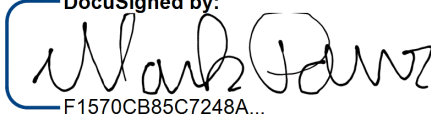
ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y7	10+55.00	-23.21	577885.6124	976176.4893
Y7	10+80.07	23.46	577832.9565	976173.2468

I, Mark A. Parris, 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 15th day of July, 2019.

DocuSigned by

F1570CB85C7248A
Professional Land Surveyor

L-4529
PLS #

Seal

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.

PROJECT REFERENCE NO.
U-5887

SHEET NO.
RW03E-1

Location and Surveys



PROJECT SURVEYOR



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

6/2/99

REVISIONS

I, Mark A Parris, 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) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

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 July, 2019.

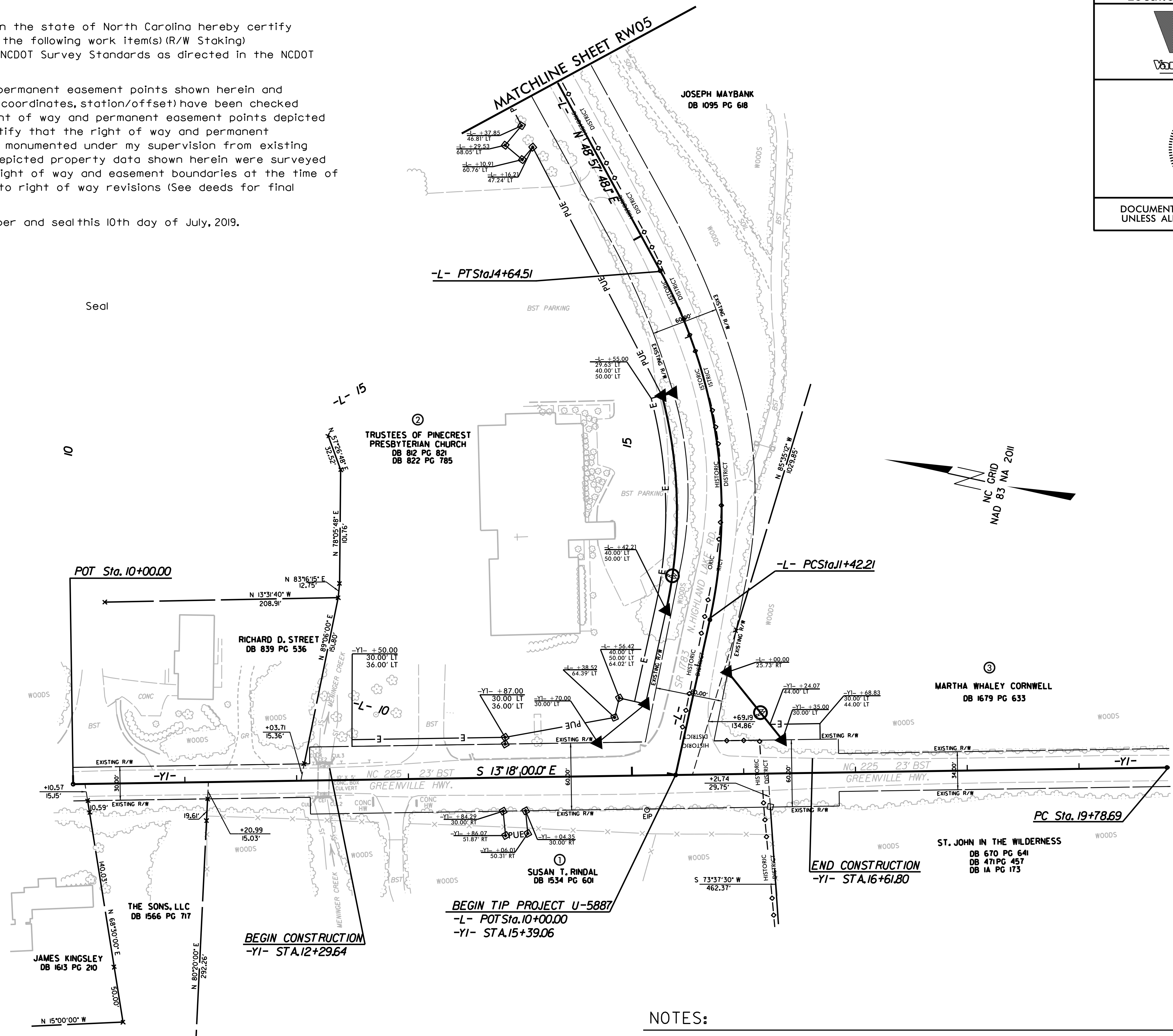
DocuSigned by:

 E1570CB85C7248A
 Professional Land Surveyor

L-4529
PLS #

Seal

-L- CURVE DATA	
PI Sta 13+106.2	PI Sta 17+72.41
$\Delta = 41^{\circ}02'11.9"$ (LT)	$\Delta = 2^{\circ}35'36.4"$ (RT)
$D = 12^{\circ}43'56.6"$	$D = 1^{\circ}25'56.6"$
$L = 322.30'$	$L = 181.06'$
$T = 168.41'$	$T = 90.54'$
$R = 450.00'$	$R = 4,000.00'$
$DS = 35$ MPH	$DS = 40$ MPH
$e = .04$	$e = 0.02$



NOTES:

I. 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.

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW04
Location and Surveys	
	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

16-JUL-2019 13:45
 @Asheville\surveys\2019\31912-55 U-5887 High1 and Lake ROW Stake\Work\U5887-1s-Rw04.dgn
 At VKUEN-27

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 July, 2019.

L-4529
PLS #

Seal



I. 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.

PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW05
Location and Surveys 	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

6/2/19

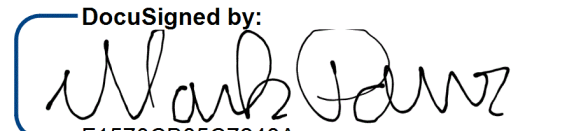
REVISIONS

18-JUL-2019 09:06
W:\Projects\2019\31912-55 U-5887 Highland Lake ROW Stake\Work\U5887_1s_RW06.dgn
AT:WML:ML:14
atbakova

I, Mark A. Parris, 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) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

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 11th day of July, 2019.

DocuSigned by:

F1570CB85C7248A...
Professional Land Surveyor

L-4529
PLS #

Seal

PROJECT REFERENCE NO.
U-5887

SHEET NO.
RW06

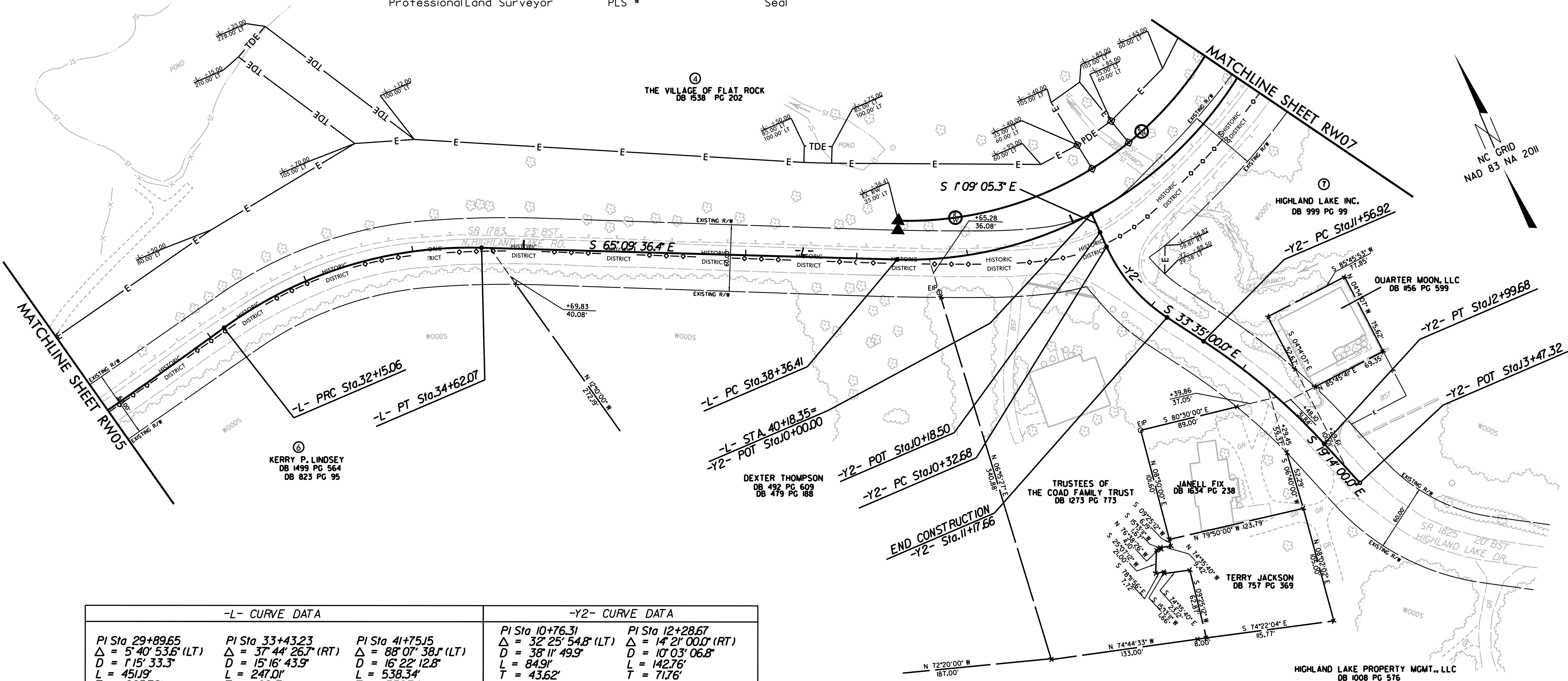
Location and Surveys



PROJECT SURVEYOR



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



-L- CURVE DATA			-Y2- CURVE DATA	
PI Sta 29+89.65	PI Sta 33+43.23	PI Sta 41+75.15	PI Sta 10+76.31	PI Sta 12+28.67
$\Delta = 5^{\circ}40'53.6"$ (LT)	$\Delta = 37^{\circ}44'26.7"$ (RT)	$\Delta = 88^{\circ}07'38.1"$ (LT)	$\Delta = 32^{\circ}25'54.8"$ (LT)	$\Delta = 14^{\circ}21'00.0"$ (RT)
D = 115' 33.3"	D = 15' 16' 43.9"	D = 16' 22' 12.8"	D = 38' 11' 49.9"	D = 10' 03' 06.8"
L = 451.9'	L = 247.01'	L = 538.34'	L = 84.91'	L = 142.76'
T = 225.78'	T = 128.17'	T = 338.74'	T = 43.62'	T = 71.76'
R = 4,550.00'	R = 375.00'	R = 350.00'	R = 150.00'	R = 570.00'
DS = 40 MPH	DS = 35 MPH	DS = 30 MPH **	DS = 15 MPH	DS = 15 MPH
e = NC	e = 0.04	e = 0.04	e = NC	e = NC

NOTES:

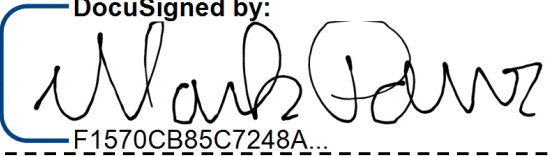
- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

REVISIONS

I, Mark A. Parris, 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) performed under my responsible charge meet NCDOT Survey Standards as directed in the NCDOT Location & Surveys guidelines and procedures.

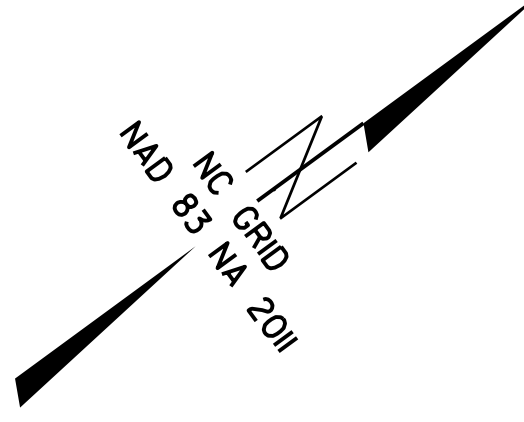
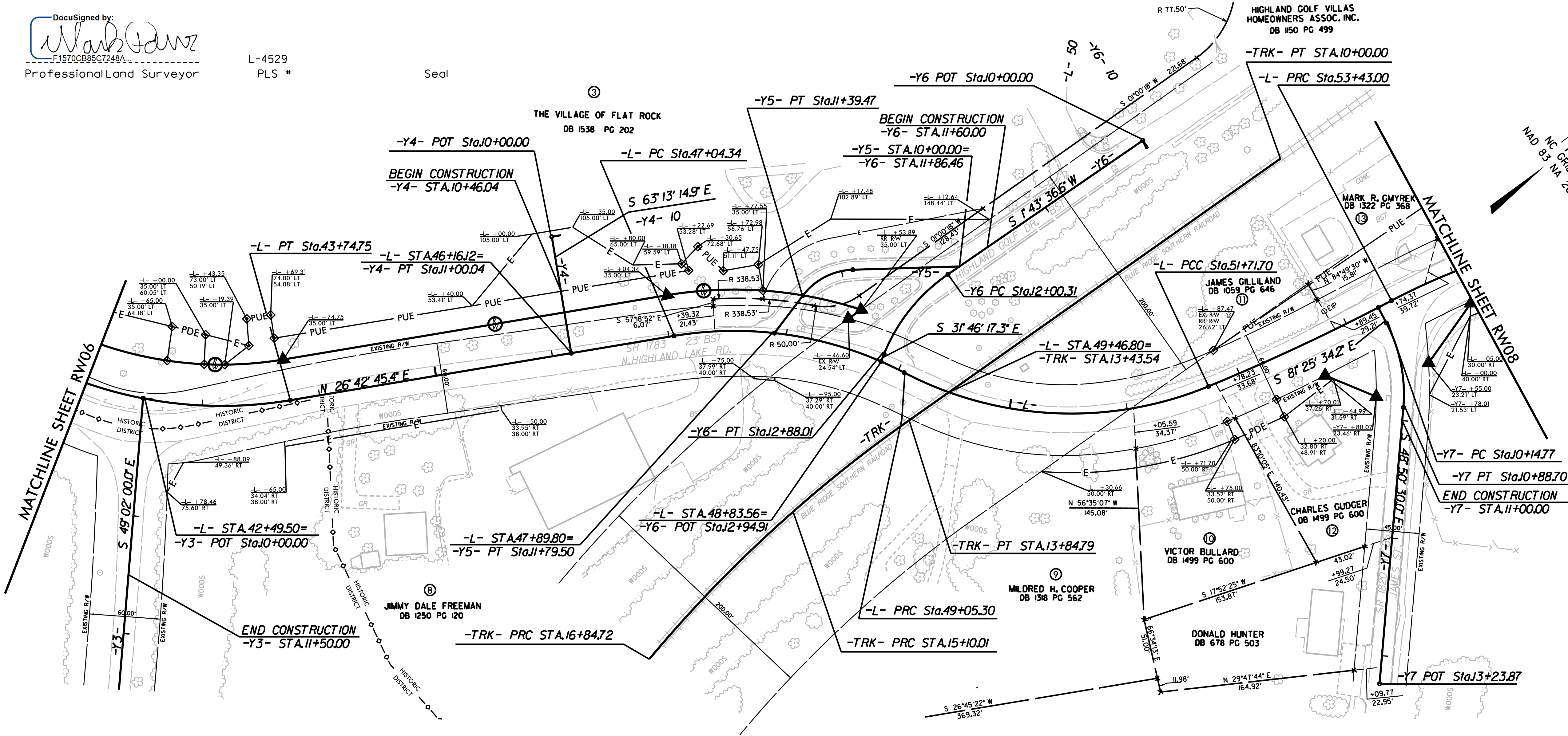
I further certify that the right of way and permanent easement points shown herein and outlined in the tables shown hereon (localized coordinates, station/offset) have been checked and are accurate representations of the right of way and permanent easement points depicted on the corresponding highway 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 15th day of July, 2019.

DocuSigned by:

F1570CB85C7248A
Professional Land Surveyor

L-4529
PLS *

Seal



-Y5- CURVE DATA	-Y6- CURVE DATA	-Y7- CURVE DATA
PI Sta 11+16.71 Δ = 51°05' 31.9" (LT) D = 104'10" 26.9" L = 49.04' T = 26.29' R = 55.00' DS = SC e = NC	PI Sta 12+45.45 Δ = 33°29' 53.9" (LT) D = 38'11" 49.9" L = 87.70' T = 45.14' R = 150.00' DS = SC e = NC	PI Sta 10+52.77 Δ = 32°35' 04.2" (RT) D = 44'04" 25.2" L = 73.93' T = 38.00' R = 130.00' DS = SC e = NC

-L- CURVE DATA			
PI Sta 48+08.49 Δ = 37°08' 33.1" (RT) D = 18'28" 57.0" L = 200.96' T = 104.15' R = 310.00' DS = 30 MPH ** e = 0.04	PI Sta 50+47.67 Δ = 50°02' 43.2" (LT) D = 18'47" 07.8" L = 266.40' T = 142.37' R = 305.00' DS = 30 MPH ** e = 0.04	PI Sta 52+75.13 Δ = 6°29' 13.7" (LT) D = 3'08" 22.2" L = 206.63' T = 103.43' R = 1825.00' DS = 40 MPH e = 0.02	PI Sta 54+76.00 Δ = 21°16' 34.3" (RT) D = 11'01" 06.3" L = 193.10' T = 97.67' R = 550.00' DS = 35 MPH e = 0.04

NOTES:

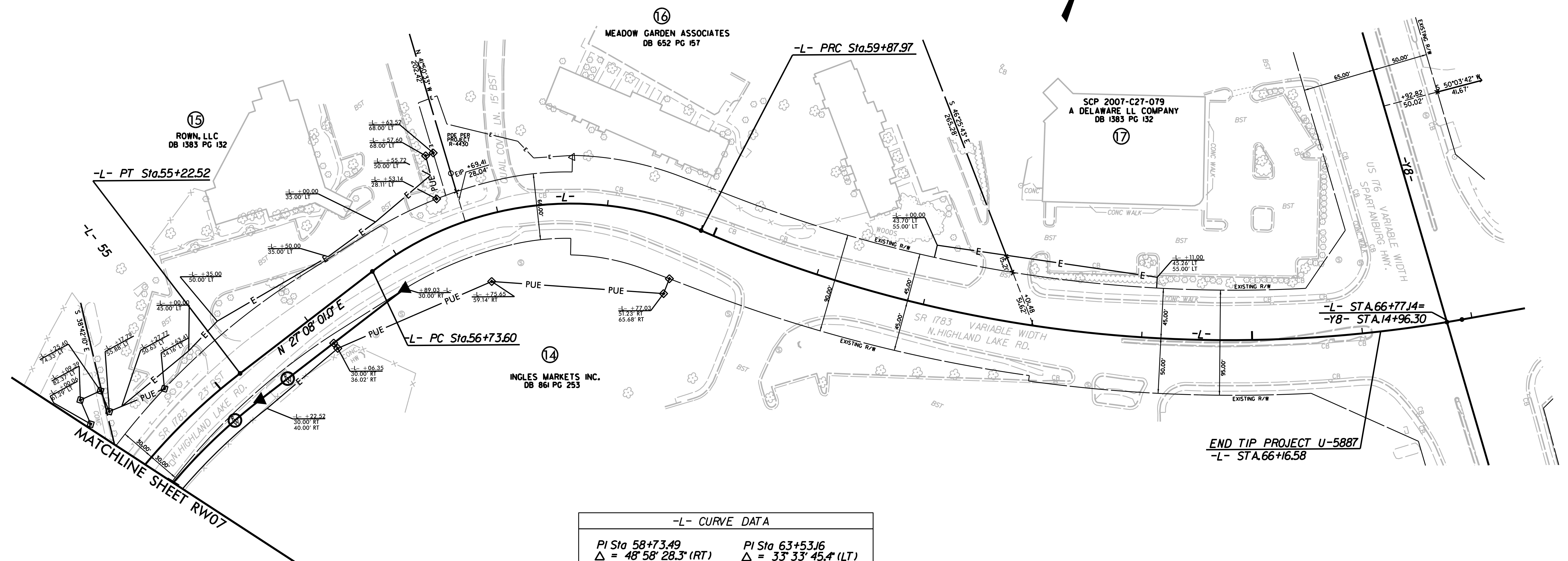
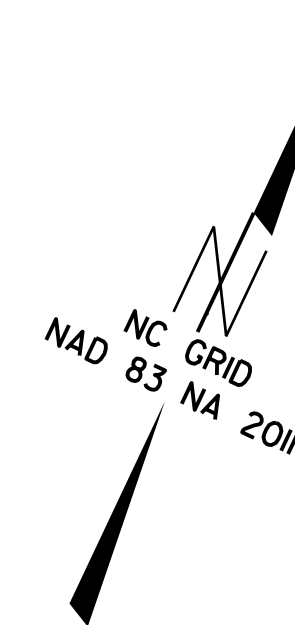
- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

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).

DocuSigned by:

 F1570CB85C7248A
 Professional Land Surveyor

Seal



-L- CURVE DATA	
PI Sta 58+73.49	PI Sta 63+53.16
$\Delta = 48^{\circ} 58' 28.3''$ (RT)	$\Delta = 33^{\circ} 33' 45.4''$ (LT)
D = 19' 25" 20.3"	D = 4' 46" 28.7"
L = 252.16'	L = 702.93'
T = 134.36'	T = 361.87'
R = 295.00'	R = 1,200.00'
DS = 20 MPH **	DS = 40 MPH
e = EXIST.	e = EXIST.

I. 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.

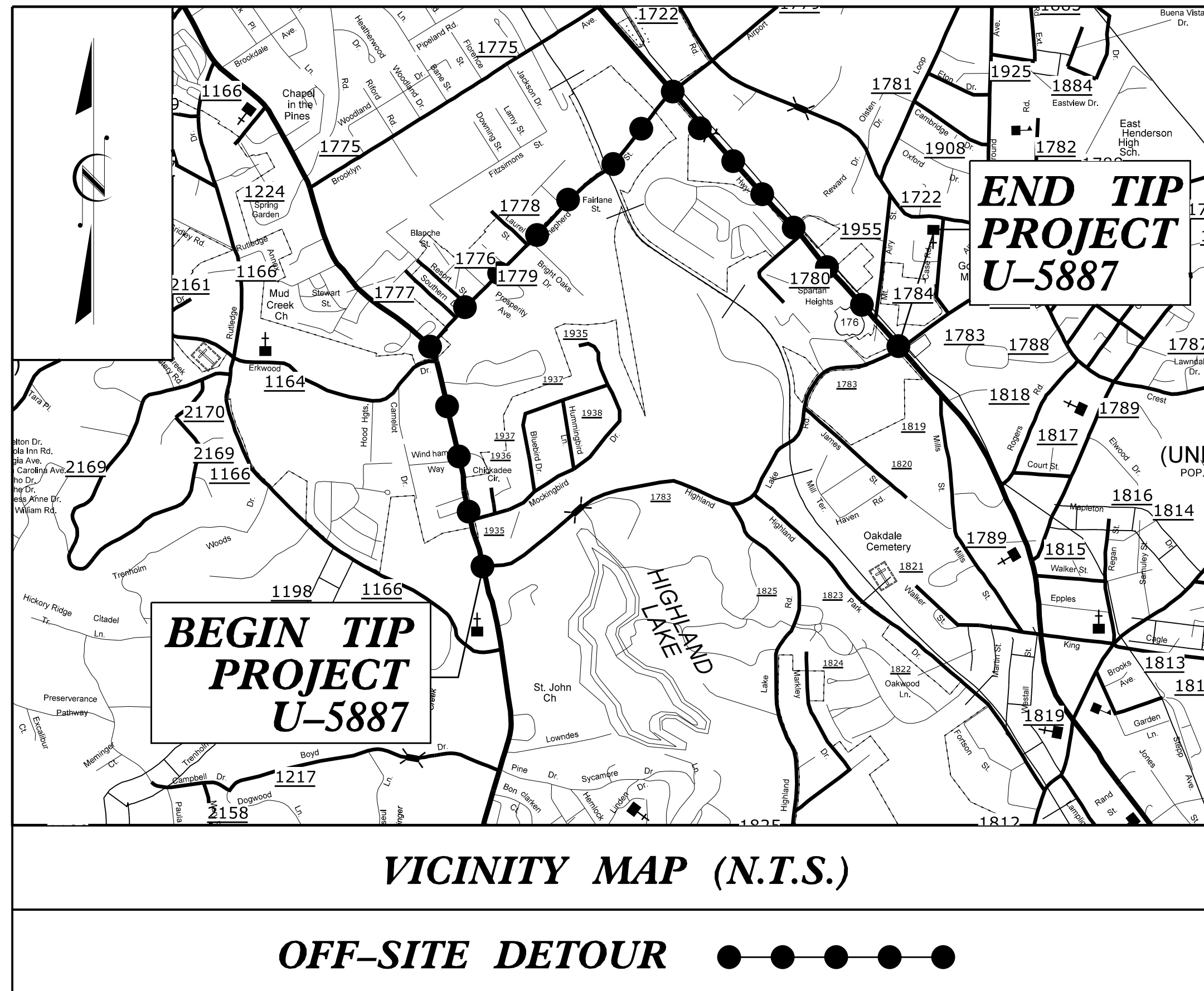
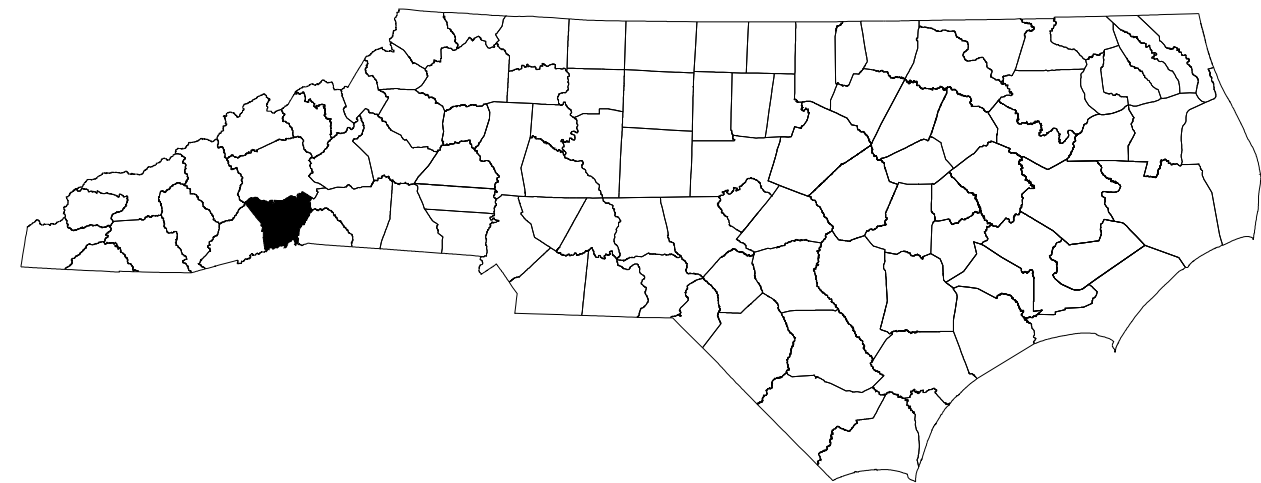
PROJECT REFERENCE NO.	SHEET NO.
U-5887	RW08
Location and Surveys	
	
PROJECT SURVEYOR 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

REVISIONS

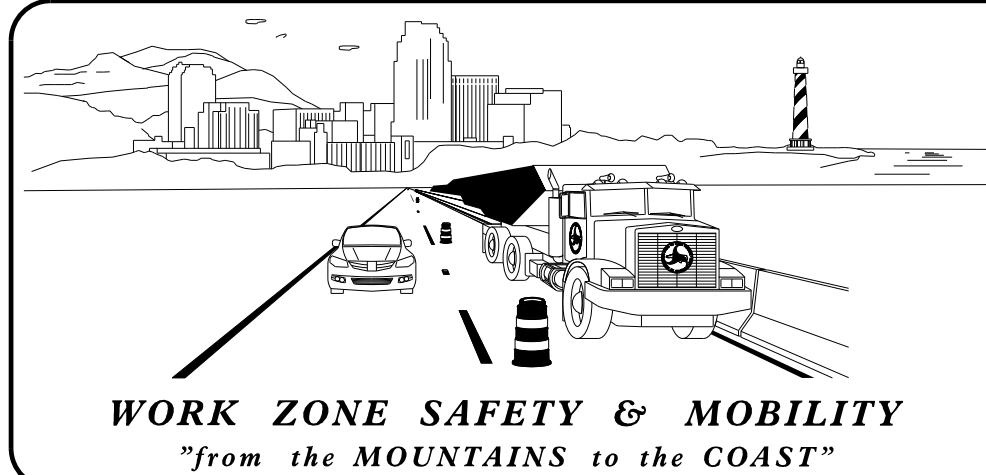
16-JUL-2019 14:09
 \\Asheville\surveys\2019\31912-55 U-5887 High1 and Lake ROW Stake\Work\U5887-1s-Rw08.dgn
 Atabekova AT VOL-WKUEM-27

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN
HENDERSON COUNTY



LOCATION: SR 1783 (NORTH HIGHLAND LAKE ROAD) FROM
NC225 TO WEST OF US 176



PLANS PREPARED BY:

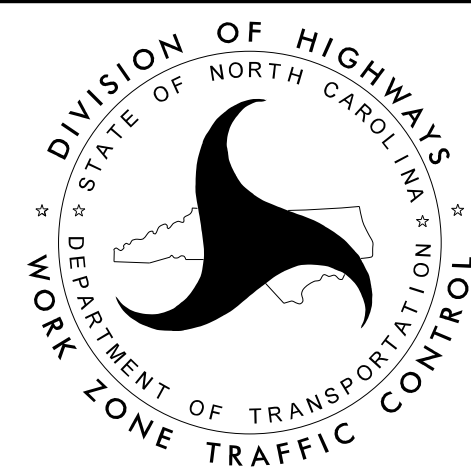
REECE SCHULER, PE, PLS
PROJECT ENGINEER

CHRIS MARTELL
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

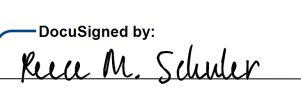
BARRY MOSTELLER
PROJECT ENGINEER

PROJECT DESIGN ENGINEER

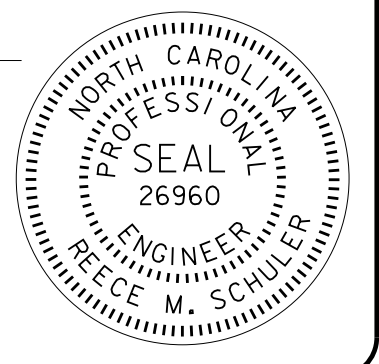


- ☐ Boone, NC 828-355-9933
- ☐ Tri-Cities, TN 423-467-8401
- ☐ Knoxville, TN 865-546-5800
- ☐ Spartanburg, SC 864-574-4775
- ☐ Charleston, SC 843-974-5650
- ☐ Middlesboro, KY 606-248-6600
- ☐ Raleigh, NC 919-977-9455
- ☐ Charlotte, NC 704-357-0488
- ☐ Atlanta, GA 770-627-3509

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UNLESS ALL SIGNATURES COMPLETED

APPROVED: 
DATE: 7/21/2020

SEAL



TIP PROJECT: U-5887

SHEET NO.
TMP-1

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 AND TMP-1C	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, GENERAL NOTES, AND LOCAL NOTES)
TMP-2 AND TMP-2A	TEMPORARY TRAFFIC CONTROL PHASING
TMP-2B	SPECIAL SIGN DESIGN
TMP-2C	TEMPORARY SHORING NOTES
TMP-3 THRU TMP-3A	OFF-SITE DETOUR AND SIGNING DETAIL
TMP-3B THRU TMP-3C	TEMPORARY TRAFFIC CONTROL FOR WATER LINE INSTALLATION
TMP-4 THRU TMP-8	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-9 THRU TMP-13	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL
TMP-14 THRU TMP-18	TEMPORARY TRAFFIC CONTROL PHASE III DETAIL

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 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
1101.03	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	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXITS AND ENTRANCE RAMPs
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.11	PAVEMENT MARKINGS - RAILROAD CROSSINGS
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

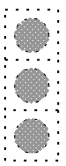
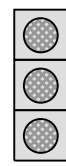
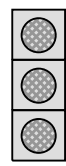
LEGEND

GENERAL

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



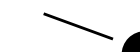
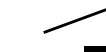
SIGNALS

-  EXISTING
-  PROPOSED
-  TEMPORARY

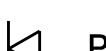
PAVEMENT MARKINGS

-  EXISTING LINES
-  TEMPORARY LINES
- TEMPORARY

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

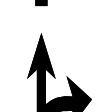
-  CRYSTAL/CRYSTAL
-  CRYSTAL/RED
-  YELLOW/YELLOW

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
PAVEMENT MARKING LINES		PAVEMENT MARKING SYMBOLS & CHARACTERS	
4" PAINT			
P1	WHITE EDGE LINE	P70	LEFT TURN ARROW
P2	WHITE SOLID LANE LINE	P71	RIGHT TURN ARROW
P4	3 FT. - 9 FT./SP WHITE MINISKIP	P72	STRAIGHT ARROW
P5	2 FT. - 6 FT./SP WHITE MINISKIP	P74	COMBO RIGHT/STRAIGHT ARROW
P10	YELLOW EDGE LINE		
P11	YELLOW SINGLE CENTER		
P12	10 FT. YELLOW SKIP		
P13	YELLOW DOUBLE CENTER		

- 8" PAINT
- P46 WHITE CROSSWALK LINE
- 16" PAINT
- P60 WHITE LINE, RR X
- 24" PAINT
- P61 WHITE STOPBAR

PAVEMENT MARKING SYMBOLS

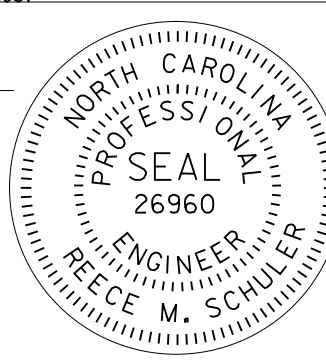
-  P70
-  P71
-  P72
-  P74

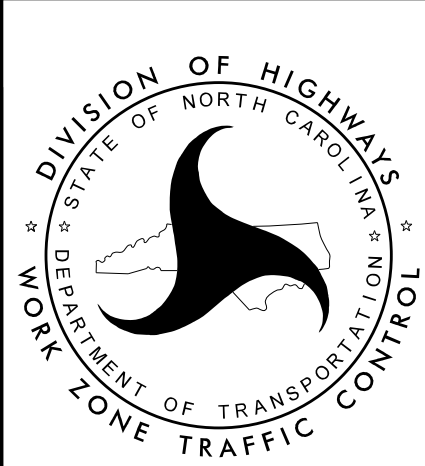
NOTE: FOR EACH PAINT PAVEMENT MARKING ITEM, REFER TO GENERAL NOTES FOR NUMBER OF APPLICATIONS.

APPROVED: 

DATE: 7/21/2020

SEAL





ROADWAY STANDARD DRAWINGS & LEGEND

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
ALL ROADS	MONDAY THRU FRIDAY, 6:00 AM TO 9:00 AM 4:00 PM TO 7:00 PM

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

ROAD NAME
ALL ROADS

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.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS	DURATION AND OPERATION
ALL ROADS	MONDAY THRU SUNDAY. 6:00 AM TO 7:00 PM	30 MIN., TIE-INS, PM PLACEMENT TRAFFIC SHFITS

D) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- E) 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.
- F) 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.
- G) 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.

H) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) 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.

J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

L) 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.

M) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

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

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

TRAFFIC BARRIER

Q) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS: (SEE ALSO 1101.05)

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45 - 50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

TRAFFIC CONTROL DEVICES

R) 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.

S) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

T) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES DRUMS PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

APPROVED: _____ DATE: _____ SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		TRANSPORTATION OPERATIONS PLAN
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7/21/2020
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GENERAL NOTES /
LOCAL NOTES

MANAGEMENT
STRATEGIES

PROJ. REFERENCE NO.	SHEET NO.
U-5887	TMP-1C

PAVEMENT MARKINGS AND MARKERS

- U) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|-----------|---------|--------|
| ALL ROADS | PAINT | NONE |
- V) 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.
- W) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- X) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- Y) TRACE THE EXISTING AND PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO REMOVAL AND INSTALLATION. PLACE DRUMS TO DELINEATE ANY EXISTING AND PROPOSED MONOLITHIC ISLANDS AFTER REMOVAL AND BEFORE INSTALLATION.

MISCELLANEOUS

- Z) LAW ENFORCEMENT SHALL BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- AA) 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 FT AND 200 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.
- BB) 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.
- CC) 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.).

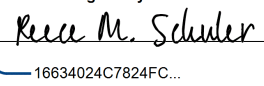
LOCAL NOTES:

- 1) EMERGENCY VEHICLE ACCESS MUST BE MAINTAINED AT ALL TIMES.
- 2) NOTIFY THE HENDERSON COUNTY SCHOOL BOARD 30 DAYS BEFORE ANY LANE CLOSURES.

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

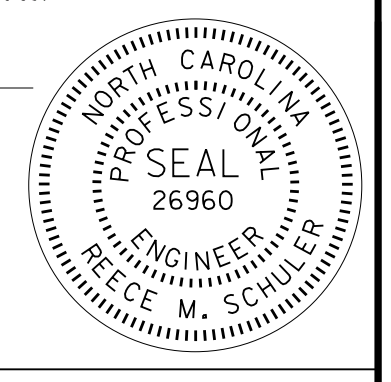
RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:
LANE SHIFTS OR CLOSURES
NIGHT WORK
PEDESTRIAN / BICYCLE ACCOMMODATIONS
OFF-SITE DETOURS / USE OF ALTERNATIVE ROUTES

APPROVED: 

DATE: 7/21/2020

SEAL



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



TRANSPORTATION
OPERATIONS
PLAN

PHASING

PHASE I

STEP 1: - ERECT WORK ZONE ADVANCED WARNING SIGNS USING RSD NO. 1101.01, SHEET 3 OF 3.

NOTE: STEPS 2 THRU 4 SHALL BE PERFORMED USING NIGHTLY LANE CLOSURES, FLAGGERS AS NECESSARY, AND LAW ENFORCEMENT. WORK CAN ONLY BE PERFORMED MONDAY-THURSDAY, FROM 10:00 P.M. TO 5:59 A.M, EIGHT (8) CONSECUTIVE HOURS PER DAY. ALL TRAFFIC DEVICES AND SIGNS SHALL BE REMOVED AND STORED IN A SAFE LOCATION, AND ALL EXCAVATION WITHIN THE TRAVEL WAY SHALL BE COVERED WITH STEEL PLATES BY 6:00 A.M.

STEP 2: - USING ROADWAY STANDARD DRAWINGS (RSD) NO. 1101.02, SHEETS 3 & 7 OF 14, BEGIN WATER LINE INSTALLATION AS SHOWN ON TMP-3B AND UTILITIES CONSTRUCTION PLANS.

NOTE: IN THE EVENT AN EXCAVATION WITHIN THE TRAVEL WAY NEEDS TO REMAIN OPEN FOR FURTHER WORK, COVER WITH STEEL PLATES BEFORE DIRECTING TRAFIC TO EXISTING TRAFFIC PATTERN, OTHERWISE, FILL EXCAVATION AND REPAIR PAVEMENT AS SHOWN ON THE ROADWAY PLANS.

STEP 3: - USING RSD NO. 1101.02, SHEETS 3 & 7 OF 14, REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, AND PLACE PAVEMENT MARKINGS AND MARKERS AS NEEDED.

- USING RSD NO. 1101.02, SHEETS 3 & 7 OF 14, CONTINUE WATER LINE INSTALLATION AS SHOWN ON TMP-3C AND UTILITIES CONSTRUCTION PLANS.

NOTE: IN THE EVENT AN EXCAVATION WITHIN THE TRAVEL WAY NEEDS TO REMAIN OPEN FOR FURTHER WORK, COVER WITH STEEL PLATES BEFORE DIRECTING TRAFIC TO EXISTING TRAFFIC PATTERN, OTHERWISE, FILL EXCAVATION, REPAIR PAVEMENT AND REPLACE ALL DAMAGED/REMOVED PAVEMENT MARKINGS.

STEP 4: - USING RSD NO. 1101.02, SHEETS 3 & 7 OF 14, REMOVE STEEL PLATES AND FILL EXCAVATION, REPAIR PAVEMENT AND REPLACE ALL DAMAGED/REMOVED PAVEMENT MARKINGS AND MARKERS PER RSD 1205.01, 1205.02, 1205.04, 1205.05, 1205.07, 1205.08, 1205.09, 1250.01 AND 1251.01.

NOTE: STEP 5 SHALL BE COMPLETED IN A CONTINUOUS OPERATION.

STEP 5: - USING RSD NO. 1101.02, SHEET 1 OF 14, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON -L- SR 1783 (NORTH HIGHLAND LAKE RD.) AND ALL -Y- ROADS:

- REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, AND PLACE TEMPORARY PAVEMENT MARKINGS.

- BEGIN ROAD WIDENING UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE

- BEGIN PROPOSED SIDEWALK AND MULTI-USE PATH CONSTRUCTION. SEE SHEETS TMP-4 THRU TMP-8.

NOTE: INSTALL PEDESTRIAN BARRICADES AND SIGNS, CLOSE PROPOSED SIDEWALKS AND MAINTAIN PEDESTRIAN TRAFFIC AS DIRECTED BY THE ENGINEER (SEE SHEETS TMP-6 THRU TMP-8). DO NOT MAINTAIN PEDESTRIAN TRAFFIC DURING THE CONSTRUCTION OF PROPOSED SIDEWALK FROM -L- STA. 11+25 +/- TO -L- STA. 13+30 +/-, AND DURING THE CONSTRUCTION OF -PATH1- (SEE SHEETS TMP-4 AND TMP-5).

- BEGIN PROPOSED DRAINAGE STRUCTURE AND DITCH CONSTRUCTION AND PIPE INSTALLATION. SEE ROADWAY PLANS.

NOTE: CONSTRUCT DRAINAGE STRUCTURES 0613, 0702, 0707, 0714, AND 0715 TO TEMPORARY ELEVATION AND COVER WITH STEEL PLATES. SEE SHEETS TMP-4 THRU TMP-8.

STEP 6: - INSTALL AND COVER OFF-SITE DETOUR NO.1 SIGNS (SEE SHEET TMP-2B AND SHEET TMP-3).

PHASE II

WORK IN A CONTINUOUS MANNER TO COMPLETE THE WORK REQUIRED IN PHASE II, STEPS 1 THRU 6, FOR 90 DAYS OR AS DIRECTED BY THE ENGINEER. SEE INTERMEDIATE CONTRACT TIME AND LIQUIDATED DAMAGES.

STEP 1: - USING RSD 1101.03, SHEET 1 OF 9, UNCOVER OFF-SITE DETOUR NO. 1 SIGNS, PLACE TYPE III BARRICADES AND CLOSE -L- SR 1783 (N. HIGHLAND LAKE RD.) AND DIRECT SR 1783 TRAFFIC TO OFF-SITE DETOUR. SEE SHEET TMP-3.

STEP 2: - RELOCATE, AS NECESSARY PEDESTRIAN BARRICADES AND SIGNS. SEE SHEETS TMP-9 THRU TMP-13.

STEP 3: - AWAY FROM TRAFFIC, CONSTRUCT TEMPORARY SHORING NO. 01 AND PROPOSED CULVERT NEAR -L- STA. 22+45 +/- . SEE SHEETS TMP-2C, TMP-3, TMP-10 AND STRUCTURE PLANS.

STEP 4: - RELOCATE OFF-SITE DETOUR NO. 1 SIGNS AND BARRICADES AS SHOWN ON OFF-SITE DETOUR NO. 2. SEE SHEET TMP-3A.

STEP 5: - AWAY FROM TRAFFIC, CONSTRUCT PROPOSED CULVERT NEAR -L- STA. 40+83 +/- . SEE SHEET TMP-3A AND STRUCTURE PLANS.

STEP 6: - REMOVE ALL TYPE III BARRICADES AND OFF-SITE DETOUR SIGNS.

NOTE: STEP 7 SHALL BE COMPLETED IN A CONTINUOUS OPERATION.

STEP 7: - USING RSD NO. 1101.02, SHEET 1 OF 14, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON -L- SR 1783 (NORTH HIGHLAND LAKE RD.) AND ALL -Y- ROADS:

- MILL AND WEDGE EXISTING ROADWAY UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

- REMOVE, AS NECESSARY, EXISTING PAVEMENT MARKINGS, AND PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON SHEETS TMP-9 THRU TMP-13.

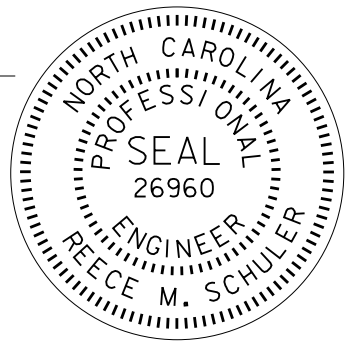
- COMPLETE ROAD WIDENING UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE.

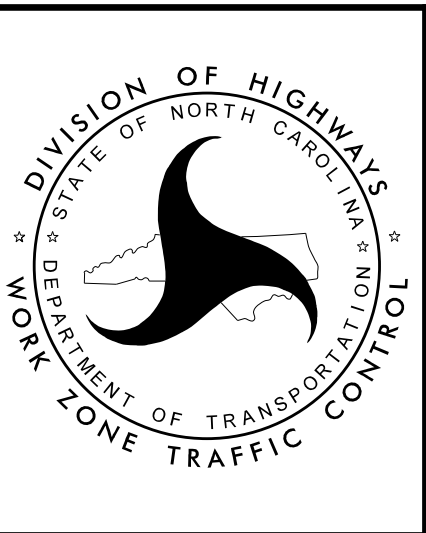
- COMPLETE PROPOSED SIDEWALK AND MULTI-USE PATH CONSTRUCTION. SEE SHEETS TMP-9 THRU TMP-13.

NOTE: INSTALL PEDESTRIAN BARRICADES AND SIGNS, CLOSE PROPOSED SIDEWALKS AND MAINTAIN PEDESTRIAN TRAFFIC AS DIRECTED BY THE ENGINEER. SEE SHEETS TMP-9 THRU TMP-13.

- COMPLETE PROPOSED DRAINAGE STRUCTURE AND DITCH CONSTRUCTION AND PIPE INSTALLATION. SEE ROADWAY PLANS.

STEP 8: - REMOVE ALL PEDESTRIAN BARRICADES AND SIGNS AND OPEN SIDEWALKS AND MULTI-USE PATH TO PEDESTRIAN TRAFFIC.

APPROVED: <i>Reese M. Schuler</i> DATE: 7/21/2020	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



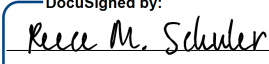
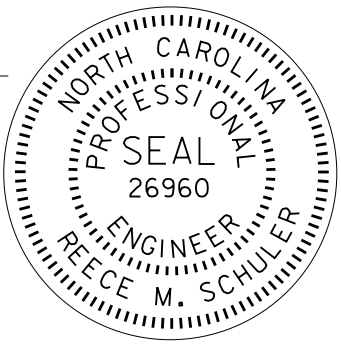
TEMPORARY TRAFFIC
CONTROL PHASING

PHASING

PHASE III

- NOTE: STEP 1 SHALL BE COMPLETED IN A CONTINUOUS OPERATION.
- STEP 1: - USING RSD NO. 1101.02, SHEETS 1 OF 14, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING:
- REMOVE CONFLICTING EXISTING PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS, AS NEEDED.
 - DELINEATE WITH SKINNY DRUMS AND INSTALL PROPOSED MONOLITHIC CONCRETE ISLANDS PER THE ROADWAY PLANS. SEE SHEETS TMP-16 AND TMP-17.
- STEP 2: - USING RSD NO. 1101.02, SHEET 1 OF 14, AND FLAGGERS AS NECESSARY, PLACE THE FINAL LAYER OF SURFACE COURSE AND FINAL PAVEMENT MARKINGS (PAINT) ON THE ENTIRE PROJECT. SEE SHEETS TMP-14 THRU TMP-18, ROADWAY AND PAVEMENT MARKING PLANS.
- STEP 3: - ONCE ALL CONSTRUCTION IS COMPLETE, REMOVE ALL SIGNS AND DEVICES, AND OPEN -L- SR 1783 (NORTH HIGHLAND LAKE RD.) AND ALL -Y- ROADS TO THEIR FINAL TRAFFIC PATTERN.

7/21/2020
V:\Asheville\Transportation\31535-06 U-5887\Traffic\TrafficControl\TCP\U5887_TMP_2.dgn
User: c:\mar-tell

APPROVED:  DATE: 7/21/2020 SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	 	TEMPORARY TRAFFIC CONTROL PHASING
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TEMPORARY SHORING NOTES

TEMPORARY SHORING LOCATION 01 (SEE SHEET TMP-10)

FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATION IN THE VICINITY OF SHORING LOCATION TO DETERMINE ACTUAL SHORING HEIGHTS.

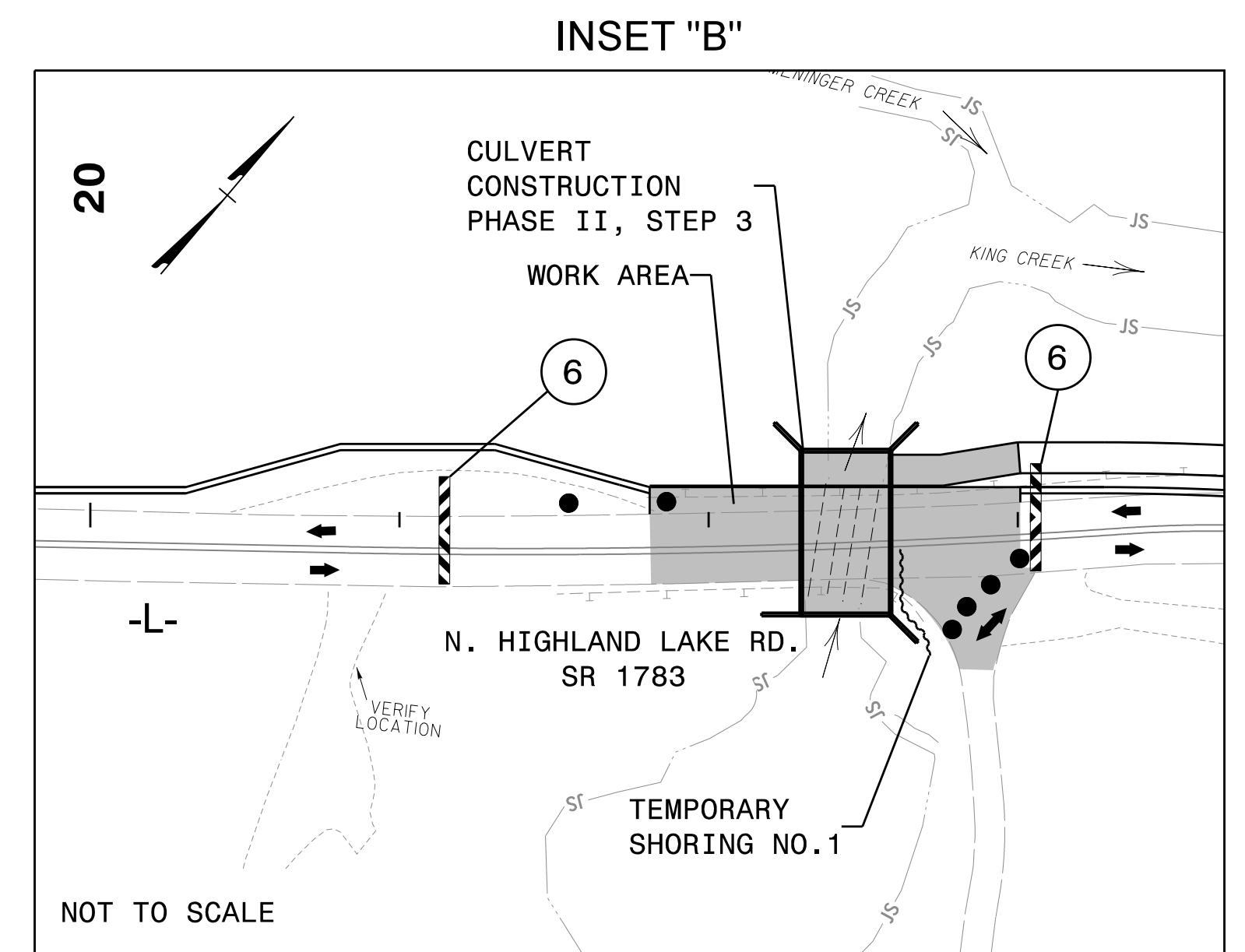
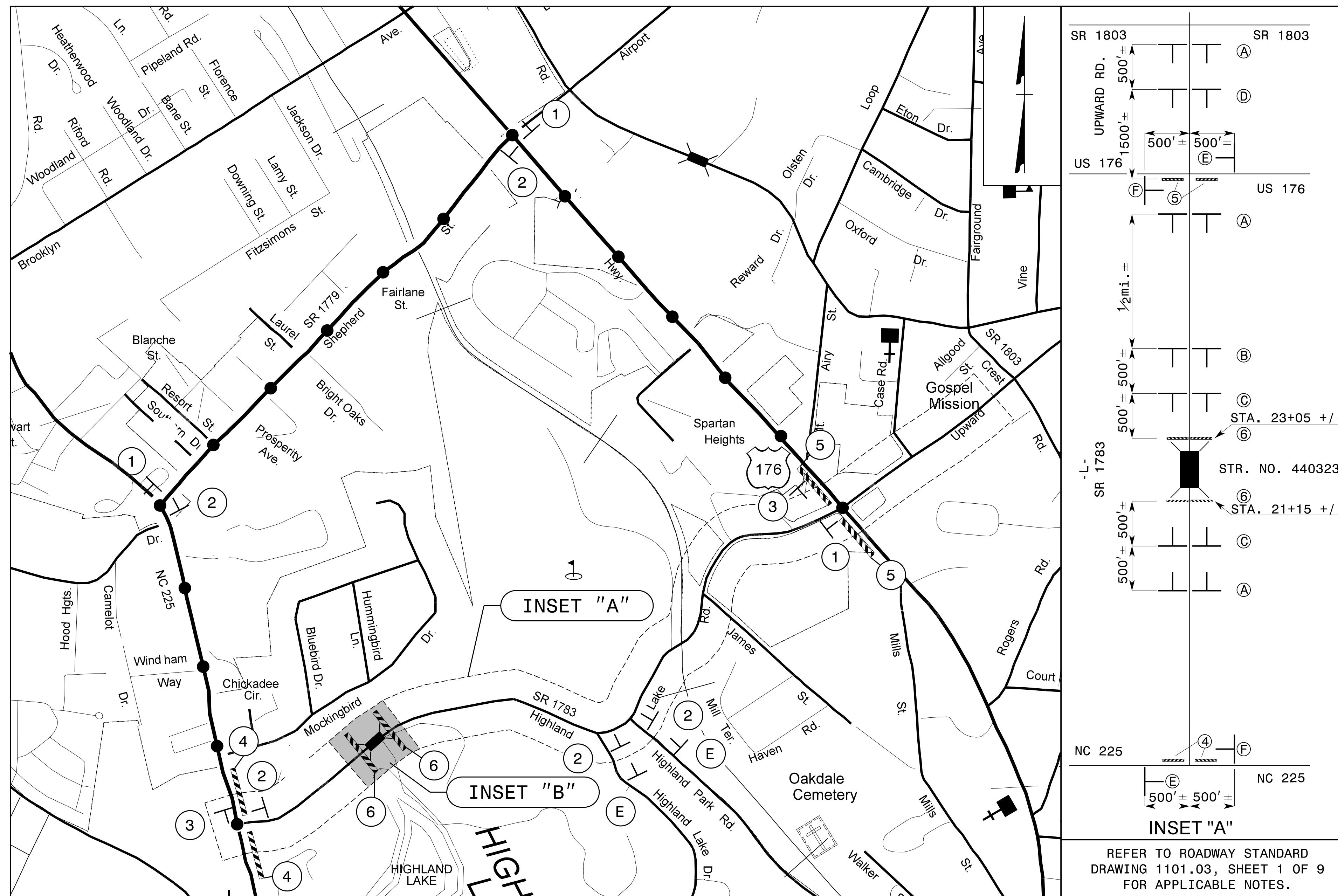
DESIGN TEMPORARY SHORING FROM -L- STA. 22+62 +/-, 7.0 FT (RT), TO -L- STA. 22+71 +/-, 41.5 FT (RT), FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (ϕ) = 130 PCF
FRICTION ANGLE (γ) = 40 DEGREES
COHESION (c) = 0 PSF
GROUNDWATER ELEVATION = 2097 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

AT THE CONTRACTOR'S OPTION, USE A STANDARD TEMPORARY WALL FOR TEMPORARY SHORING FROM -L- STA. 22+62 +/-, 7.0 FT (RT), TO -L- STA. 22+71 +/-, 41.5 FT (RT). SEE GEOTECHNICAL STANDARD DETAIL NO. 1801.02 FOR STANDARD TEMPORARY WALLS.

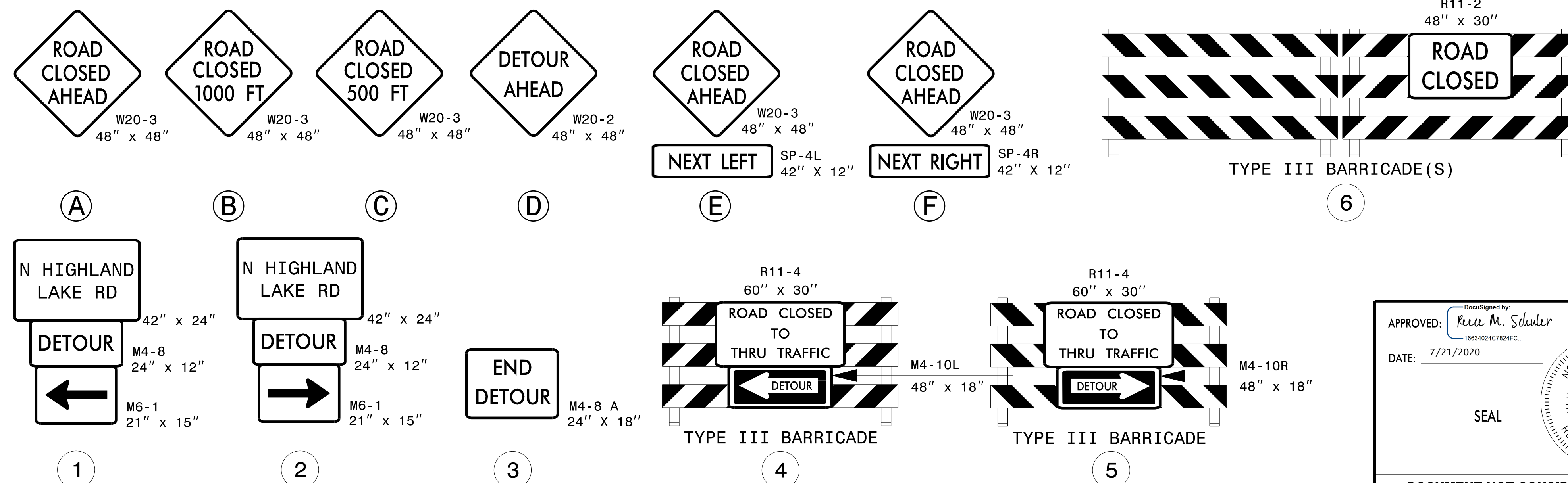
APPROVED: DocuSigned by: <i>Rece M. Schuler</i> 16634024C7824FC... DATE: 7/21/2020 SEAL DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER RECE M. SCHULER DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	TEMPORARY SHORING NOTES
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OFF-SITE DETOUR

NOTES:

- ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.
- ALL DETOUR SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
- TRAFFIC CONTROL DEVICES (A) THROUGH (F) SHALL BE INSTALLED ACCORDING TO ROADWAY STANDARD DRAWING 1101.03, SHEET 1 OF 9.
- TRAFFIC CONTROL DEVICES (1) THROUGH (6) SHALL BE INSTALLED AS PER ENGINEER'S INSTRUCTIONS, AND AS SHOWN HEREON.
- * SEE ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 1 OF 9, FOR ADDITIONAL WORK ZONE SIGNS.



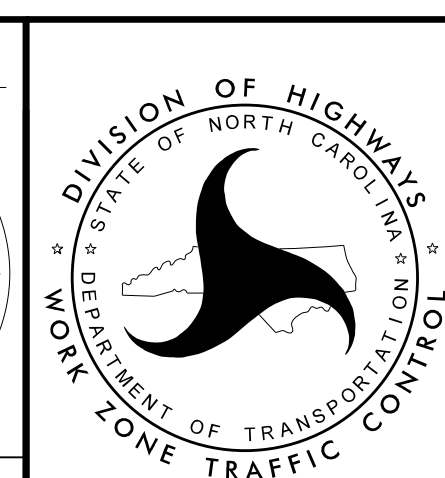
Co-Signed by:
APPROVED: *Kara M. Schuler*
18634024C7B24FC

DATE: 7/21/2020

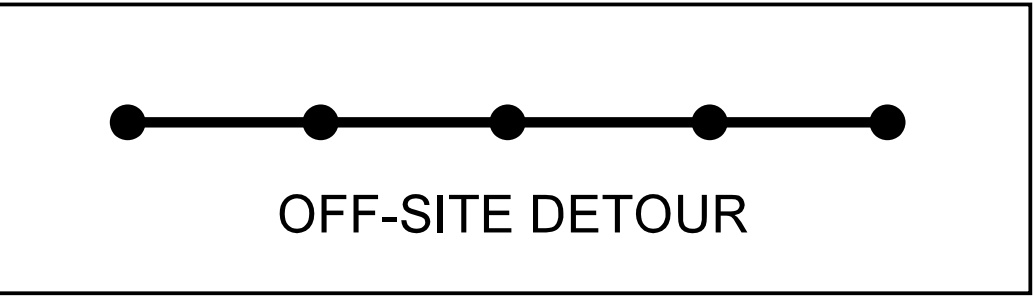
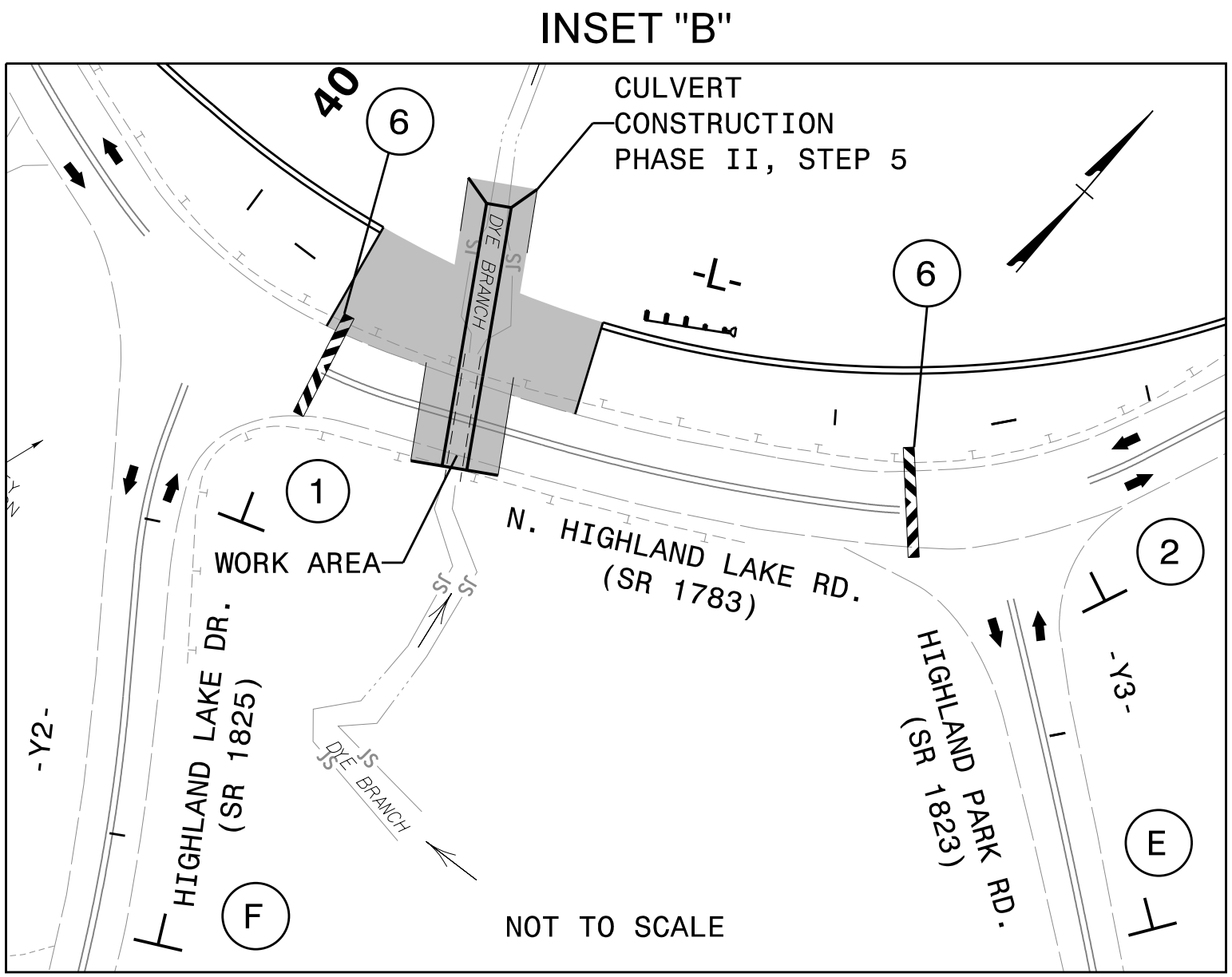
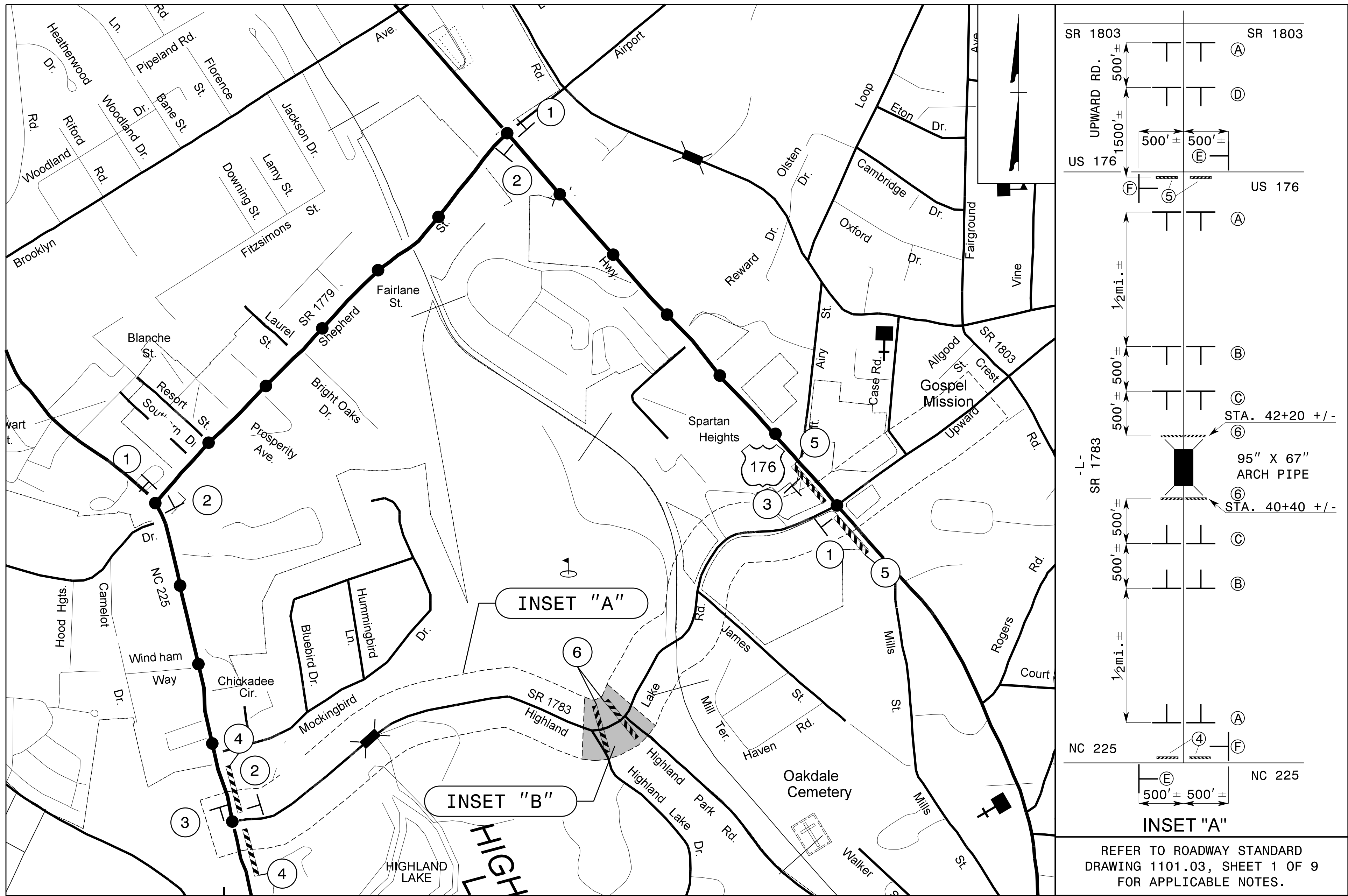
SEAL

NORTH CAROLINA
PROFESSIONAL
SEAL
26960
ENGINEER
KARA M. SCHULER

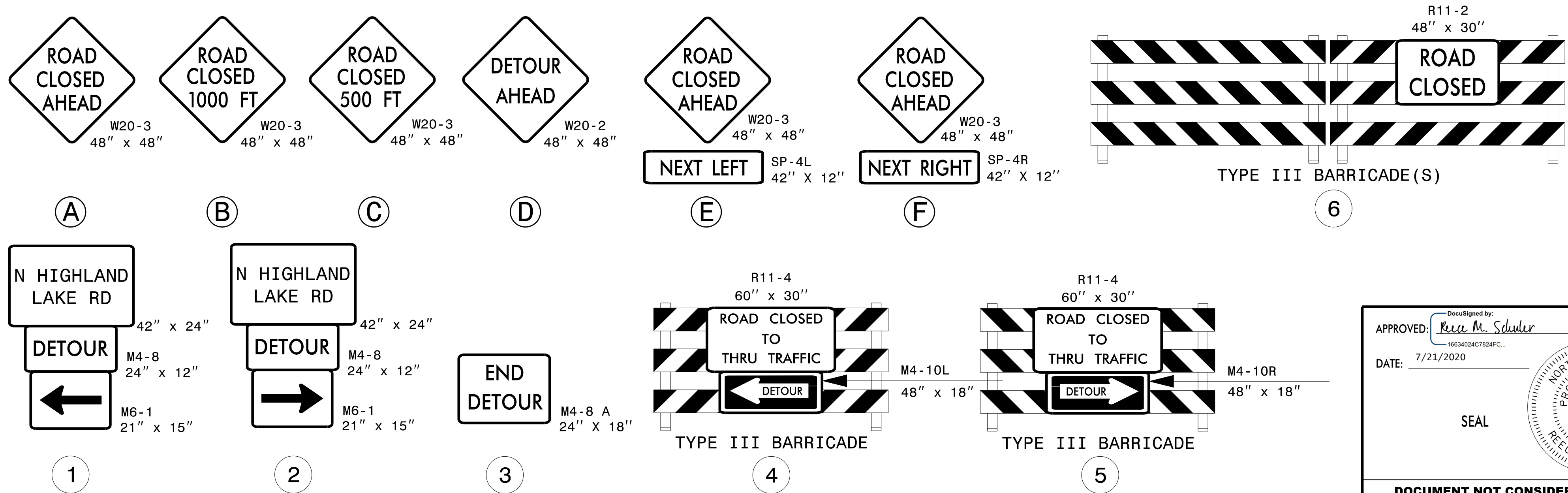
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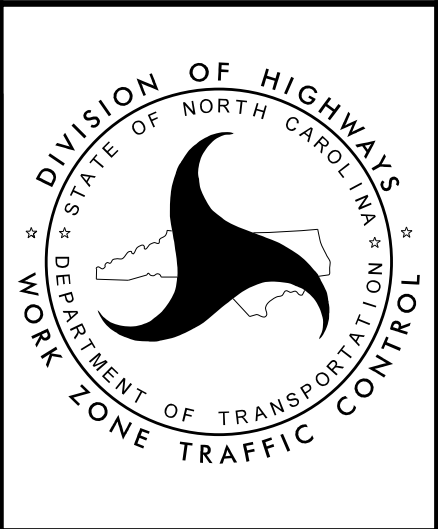
OFF-SITE DETOUR NO. 1
AND SIGNING DETAIL
FOR CULVERT
CONSTRUCTION
(-L- STA. 22+45)



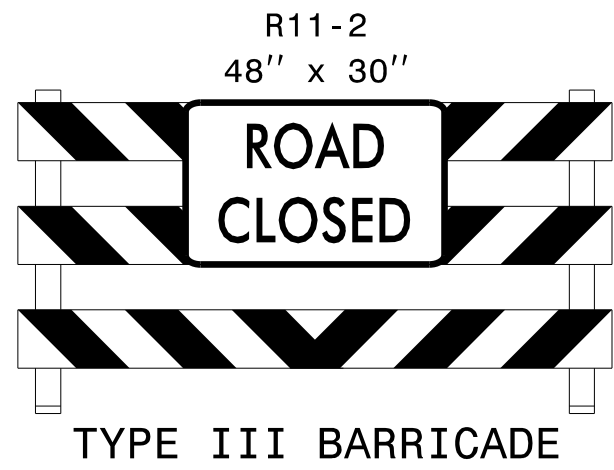
- NOTES:
- ALL DETOUR SIGN LOCATIONS ARE APPROXIMATE.
 - ALL DETOUR SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE NOTED.
 - TRAFFIC CONTROL DEVICES (A) THROUGH (F) SHALL BE INSTALLED ACCORDING TO ROADWAY STANDARD DRAWING 1101.03, SHEET 1 OF 9.
 - TRAFFIC CONTROL DEVICES (1) THROUGH (6) SHALL BE INSTALLED AS PER ENGINEER'S INSTRUCTIONS, AND AS SHOWN HEREON.
 - * SEE ROADWAY STANDARD NO. 1101.03, SHEET 1 OF 9, FOR ADDITIONAL WORK ZONE SIGNS.



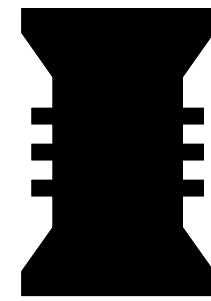
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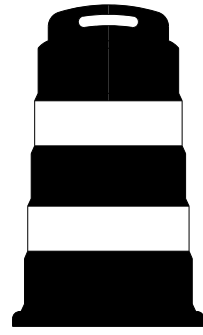
OFF-SITE DETOUR NO. 2
AND SIGNING DETAIL
FOR 95" X 67" ARCH PIPE
INSTALLATION
(-L- STA. 40+83)



(A)



(B)



(C)

MESSAGE NO. 1	UTILITY NO. 1	DATE	TO
CHANGEABLE MESSAGE SIGN	DATE	DATE	DATE

UPWARD RD.
SR 1722

-L-

176

LEFT LANE
MUST
TURN LEFT
30' X 30'

(C)

25'
TYP.

LEFT LANE
MUST
TURN LEFT
30' X 30'

WATER LINE
INSTALLATION

SPARTANBURG HWY.

N. HIGHLAND LAKE RD.
SR 1783

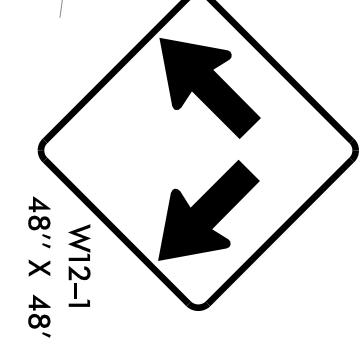
176

245'
MERGING TAPER

MESSAGE NO. 1	UTILITY NO. 1	DATE	TO
CHANGEABLE MESSAGE SIGN	DATE	DATE	DATE

SEE RSD 1101.02
(SHEET 3 OF 14)
FOR TC SIGNS AND
DEVICES

MESSAGE NO. 1	UTILITY NO. 1	DATE	TO
CHANGEABLE MESSAGE SIGN	DATE	DATE	DATE



* INSTALL TRAFFIC CONTROL DEVICES AND/OR SIGNS
AS DIRECTED BY THE ENGINEER.

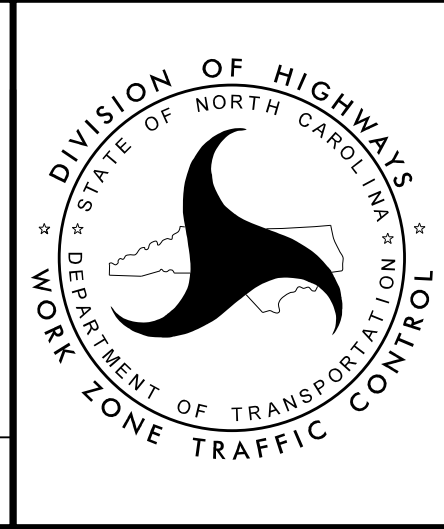
NOTES:

- COVER ALL OPEN EXCAVATIONS NEAR TRAFFIC WITH STEEL PLATES.
- MAINTAIN DRIVEWAY ACCESS AT ALL TIMES.
- ALL WORK SHALL BE CONDUCTED USING NIGHTLY LANE CLOSURES, WITH FLAGGERS AS NECESSARY, AND WITH LAW ENFORCEMENT.

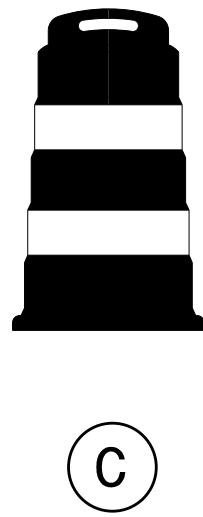
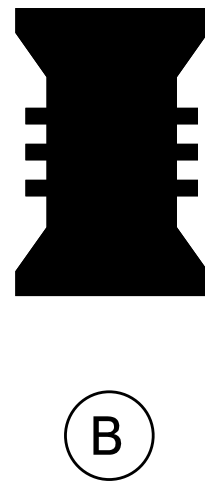
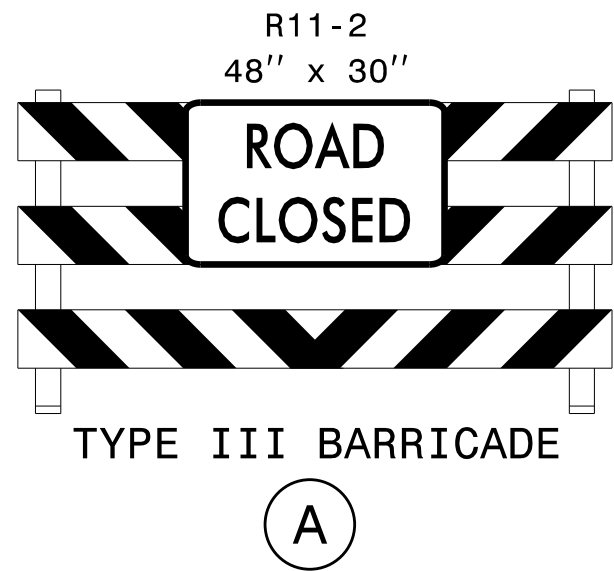
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DATE: 7/21/2020

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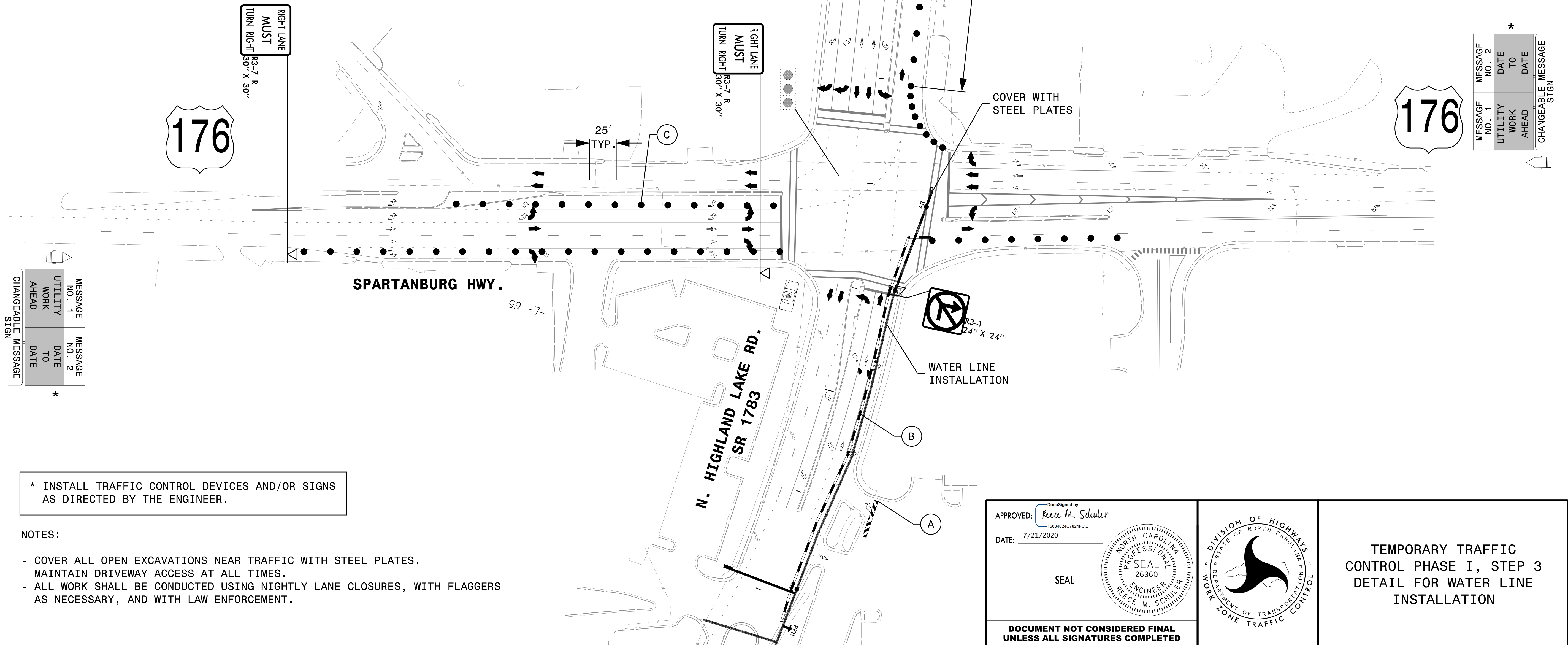
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TEMPORARY TRAFFIC
CONTROL PHASE I, STEP 2
DETAIL FOR WATER LINE
INSTALLATION



MESSAGE NO. 1	UTILITY NO. 1	WORK AHEAD	DATE TO	CHANGEABLE SIGN
MESSAGE NO. 2	UTILITY NO. 2	WORK AHEAD	DATE TO	CHANGEABLE SIGN



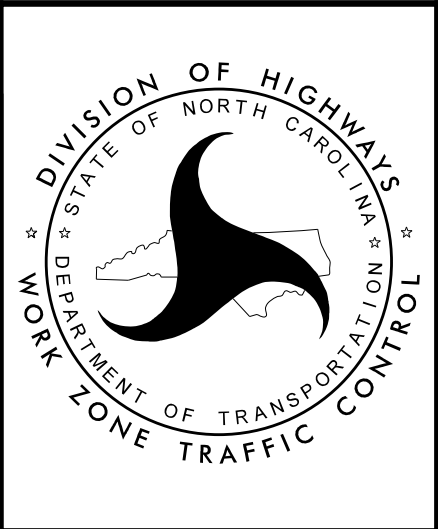
* INSTALL TRAFFIC CONTROL DEVICES AND/OR SIGNS AS DIRECTED BY THE ENGINEER.

- NOTES:
- COVER ALL OPEN EXCAVATIONS NEAR TRAFFIC WITH STEEL PLATES.
 - MAINTAIN DRIVEWAY ACCESS AT ALL TIMES.
 - ALL WORK SHALL BE CONDUCTED USING NIGHTLY LANE CLOSURES, WITH FLAGGERS AS NECESSARY, AND WITH LAW ENFORCEMENT.

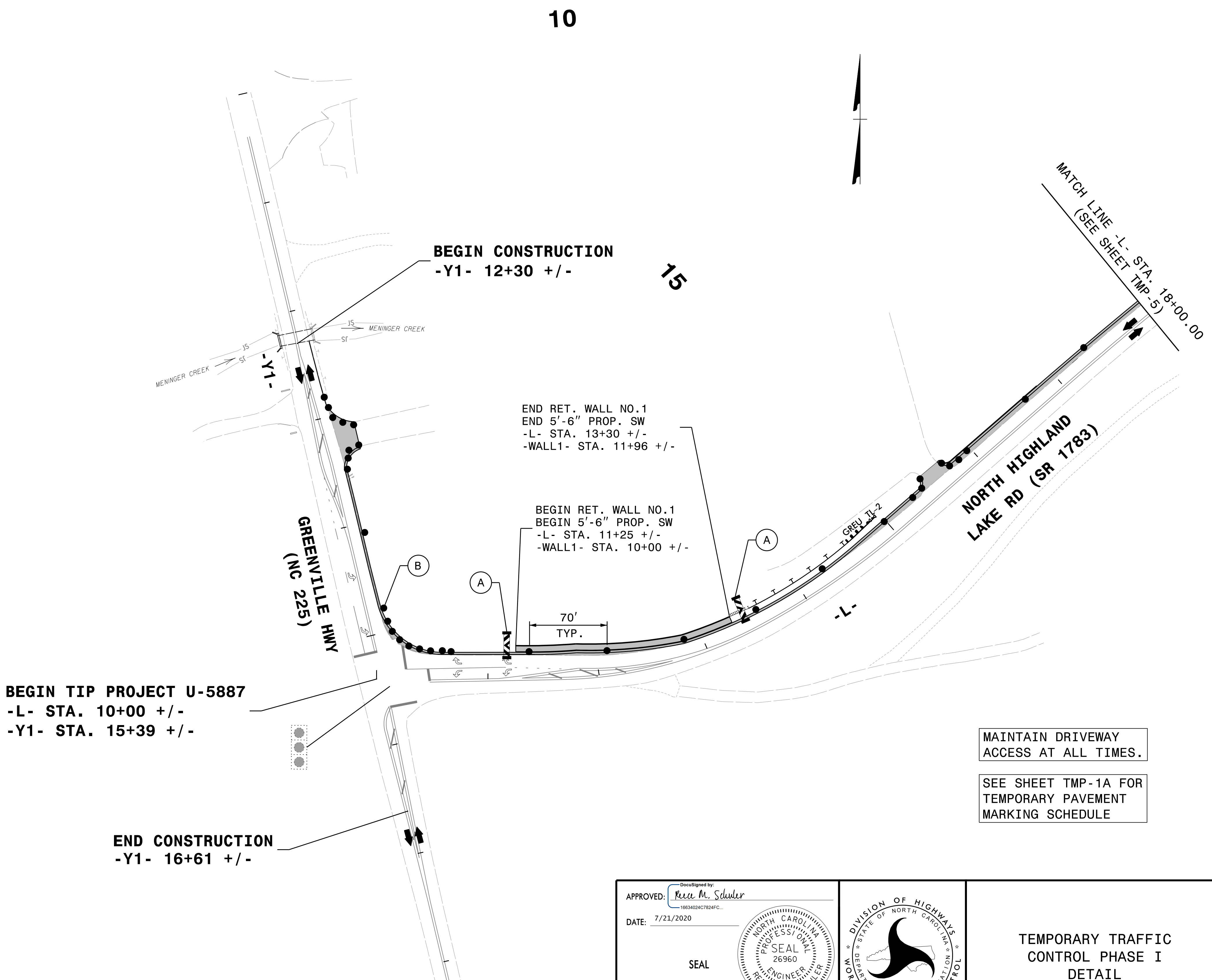
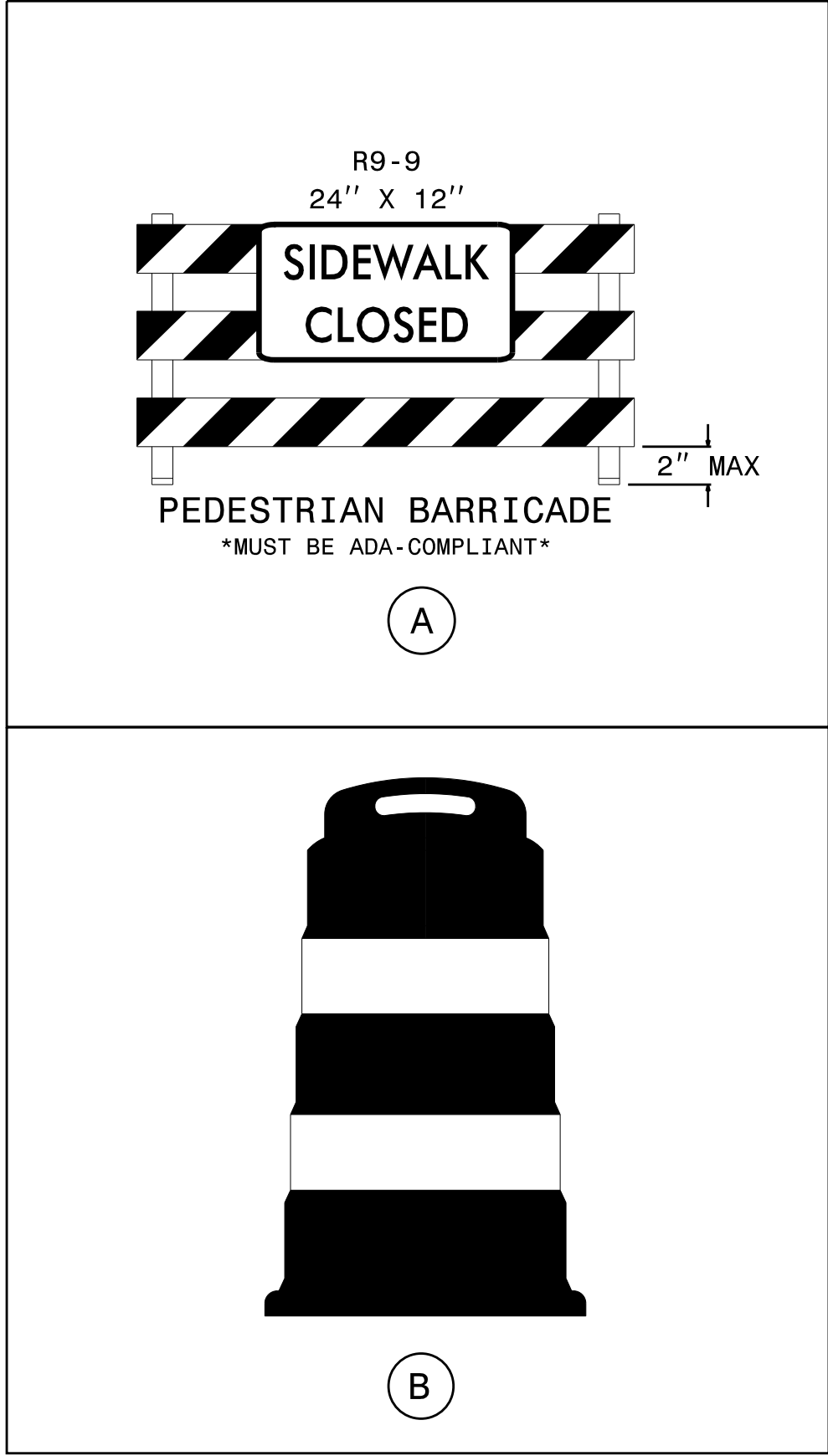
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DATE: 7/21/2020

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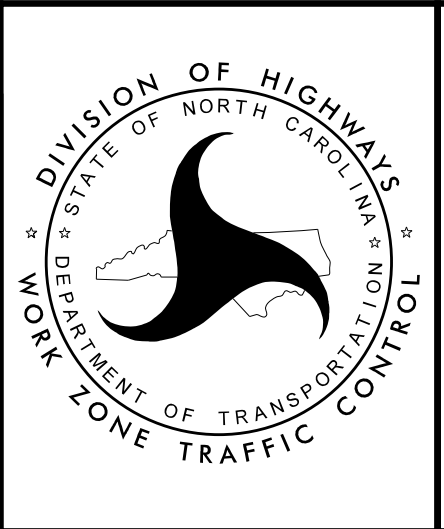
TEMPORARY TRAFFIC CONTROL PHASE I, STEP 3
DETAIL FOR WATER LINE
INSTALLATION



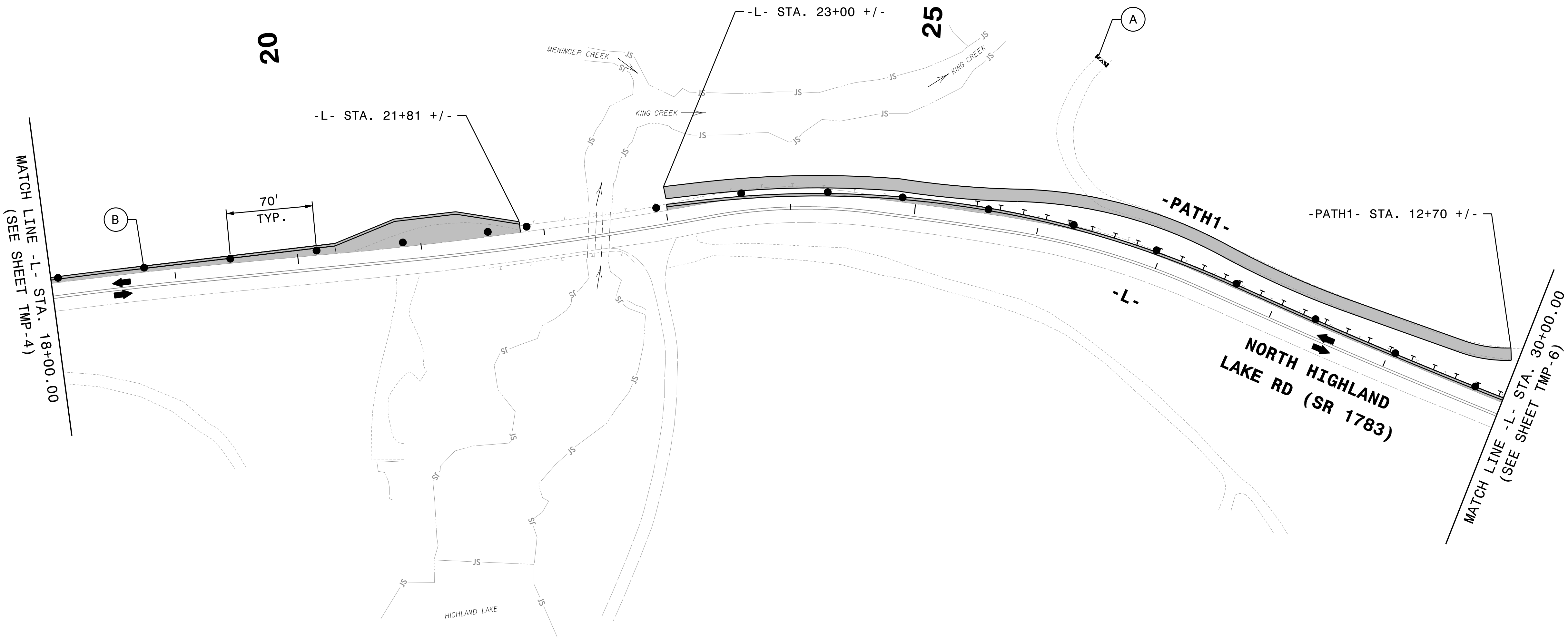
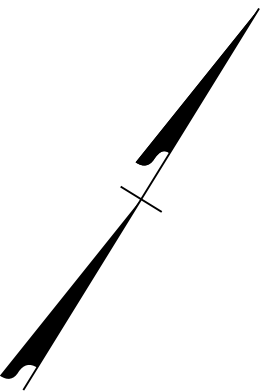
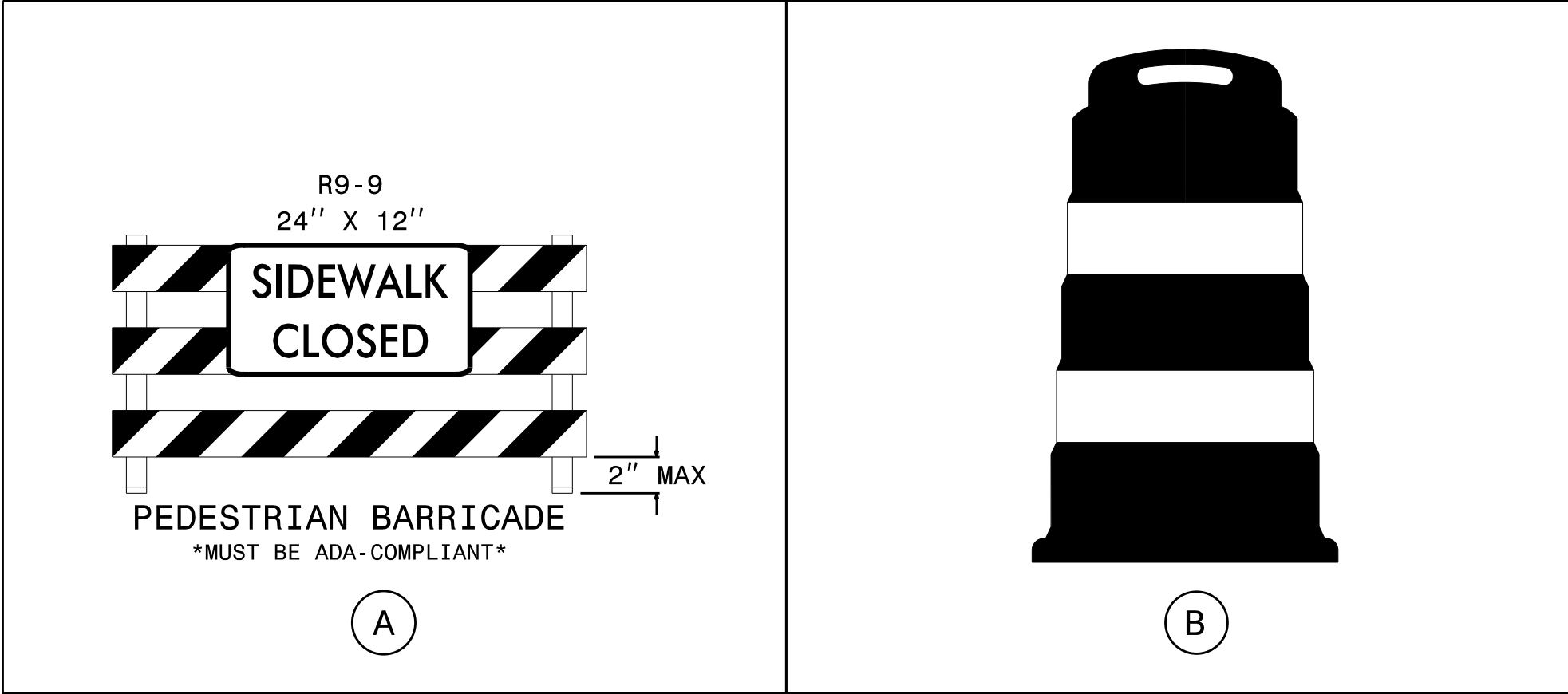
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DATE: 7/21/2020
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TEMPORARY TRAFFIC
CONTROL PHASE I
DETAIL



MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE

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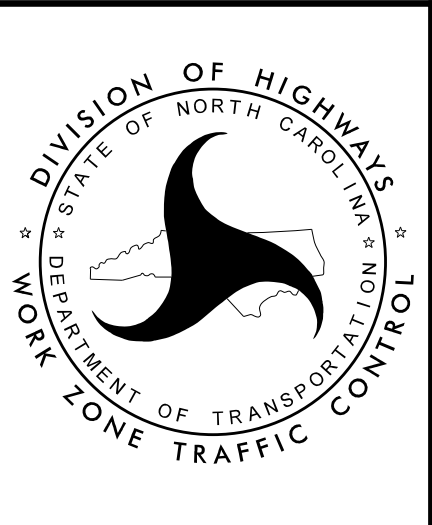
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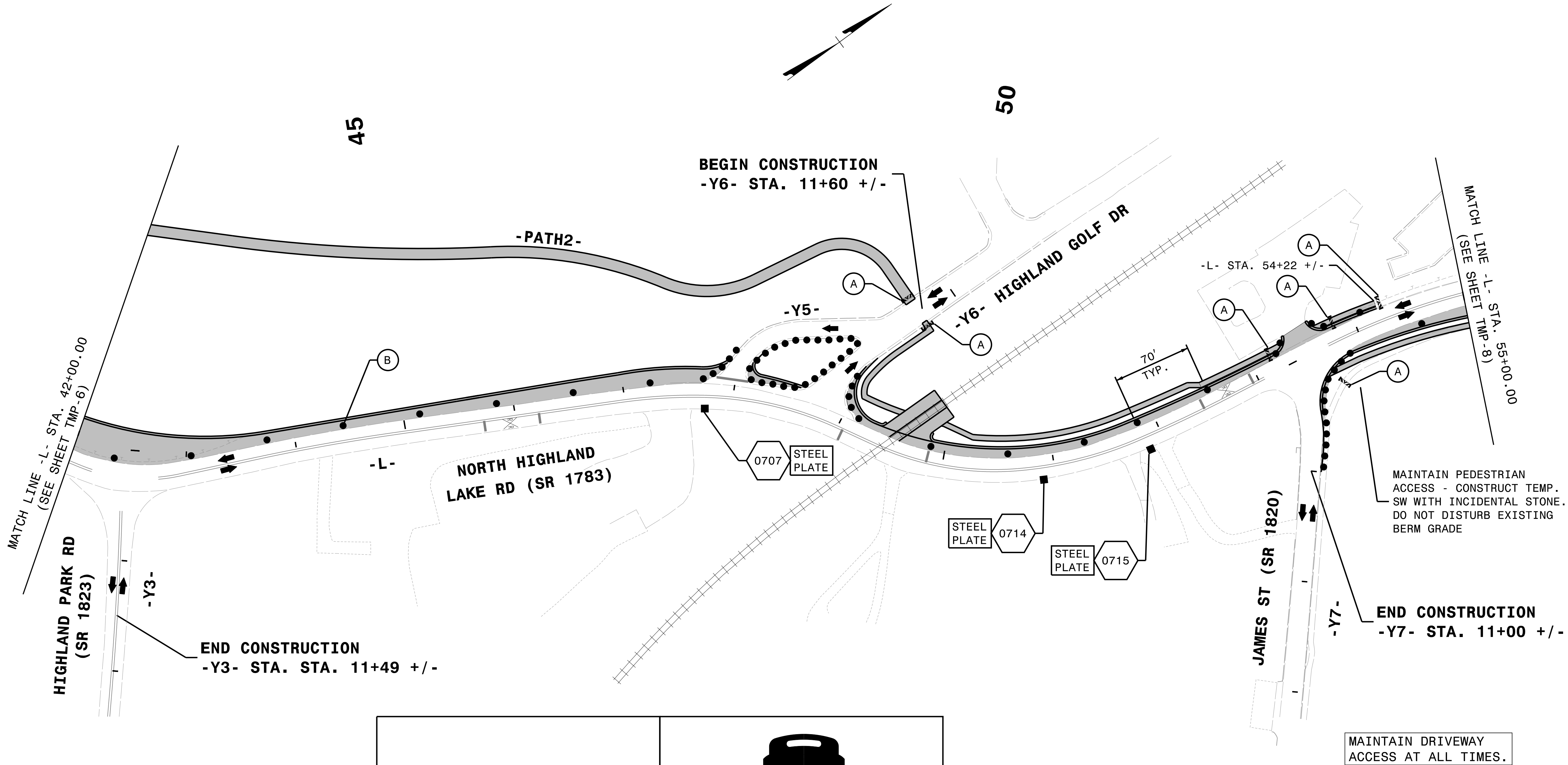
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Rece M. Schuler
18634024C7B24FC...

NORTH CAROLINA
PROFESSIONAL
SEAL
26960
ENGINEER
RECE M. SCHULER



TEMPORARY TRAFFIC
CONTROL PHASE I
DETAIL

PROJ. REFERENCE NO.	SHEET NO.
U-5887	TMP-7



R9-9
24" X 12"

**SIDEWALK
CLOSED**

PEDESTRIAN BARRICADE
MUST BE ADA-COMPLIANT

2" MAX

(A)

(B)

APPROVED: _____

DATE: _____

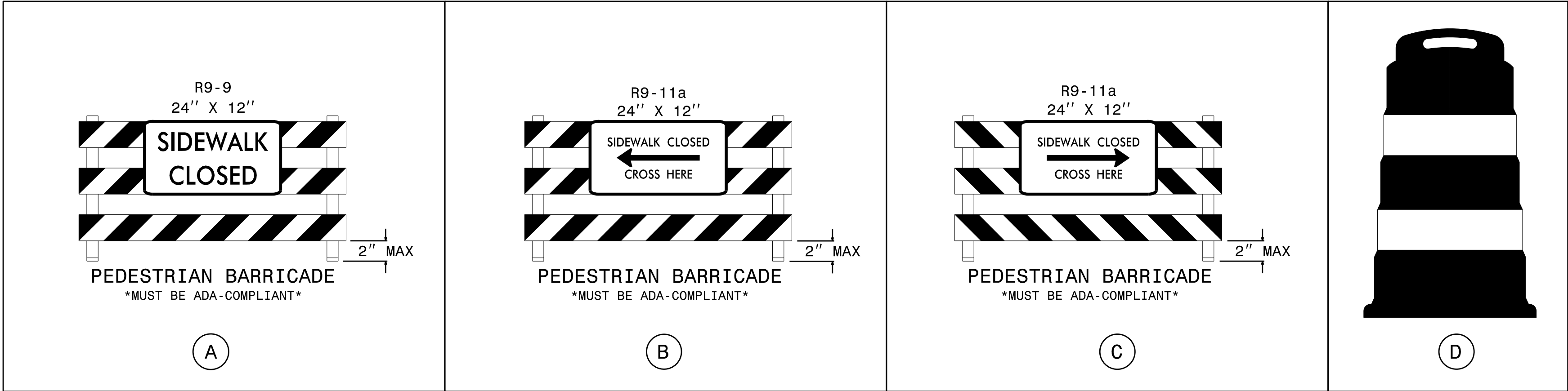
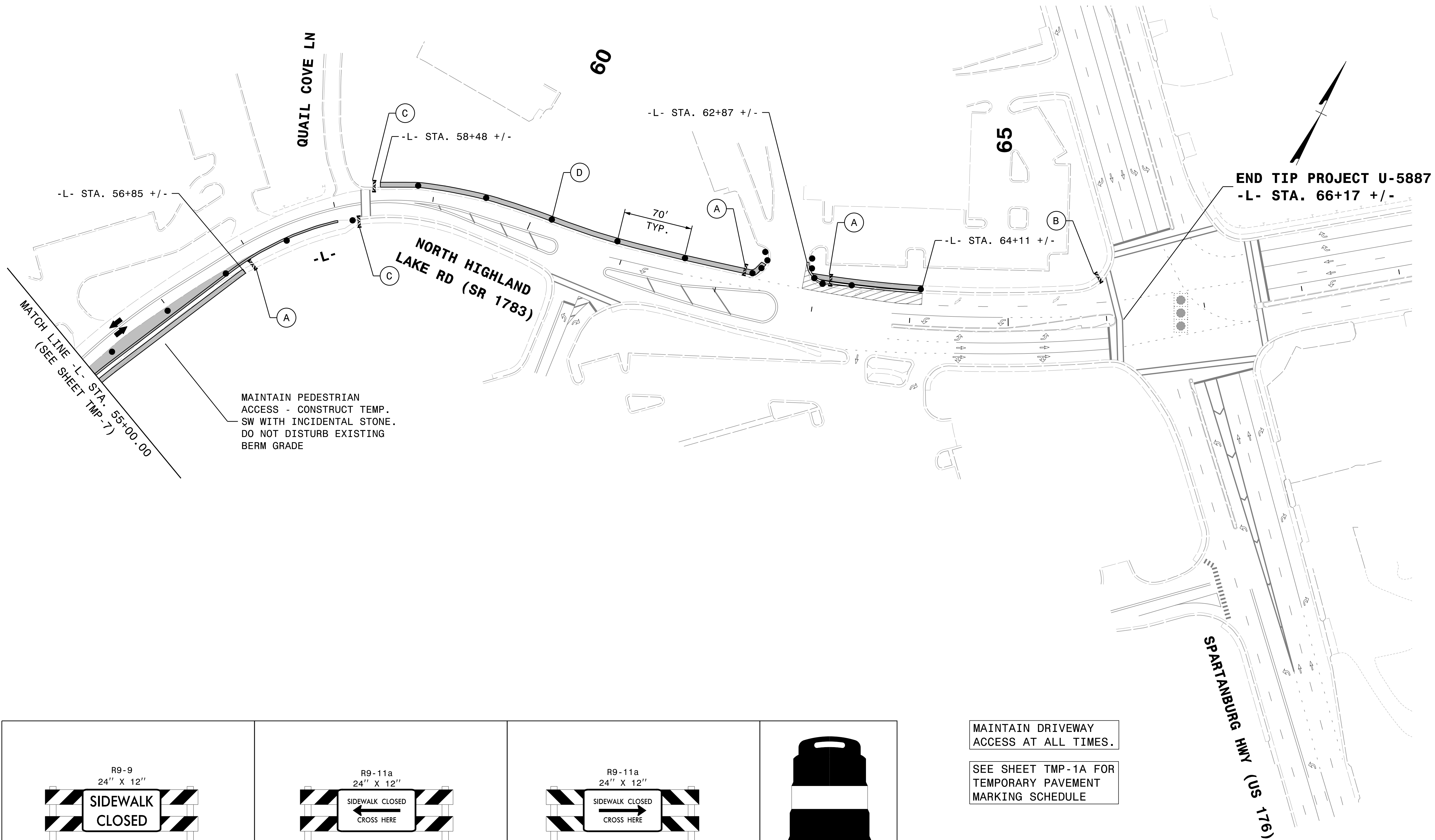
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SEAL

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

TEMPORARY TRAFFIC
CONTROL PHASE I
DETAIL



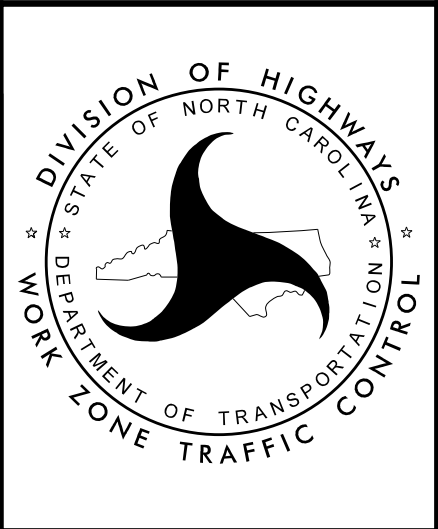
MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE

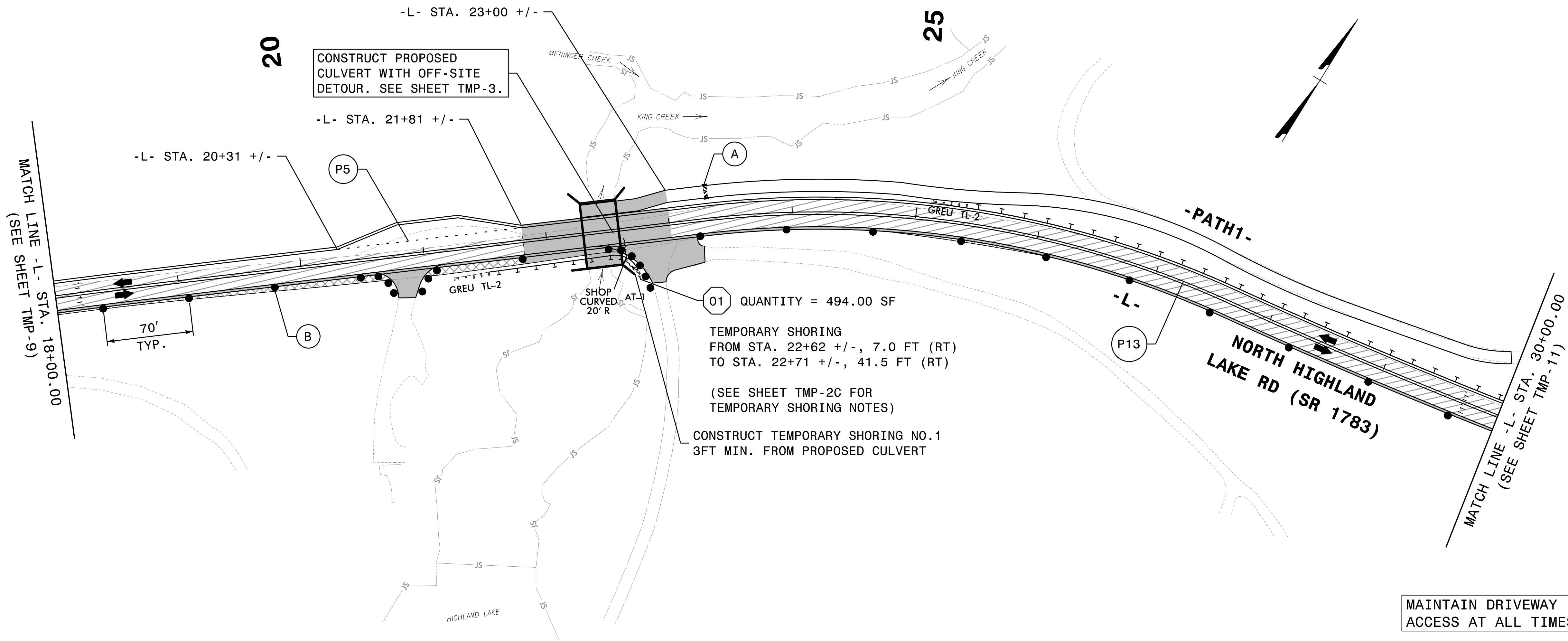
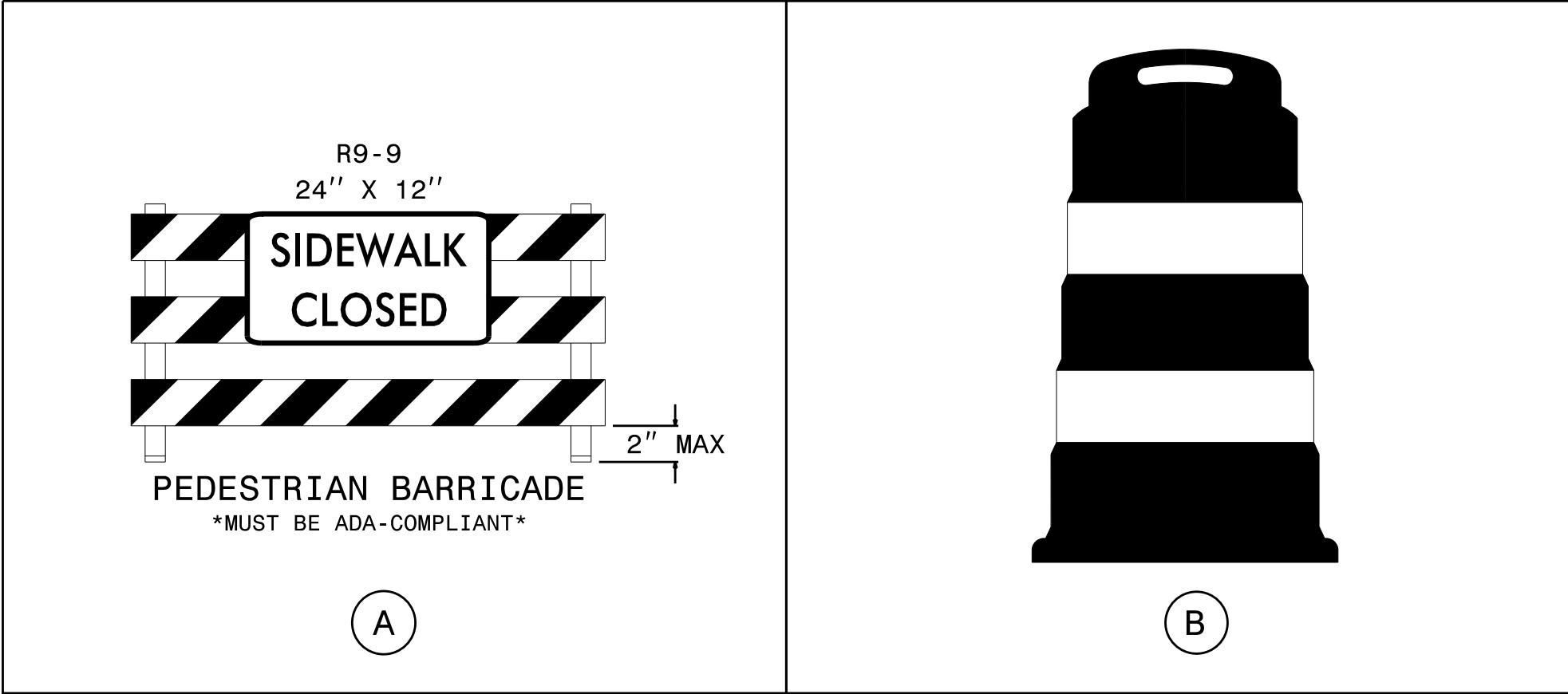
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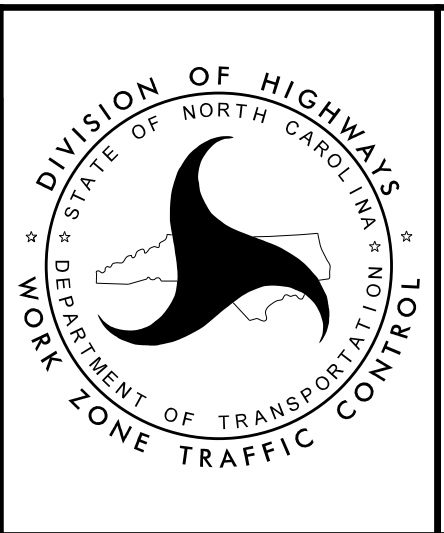
TEMPORARY TRAFFIC
CONTROL PHASE I
DETAIL



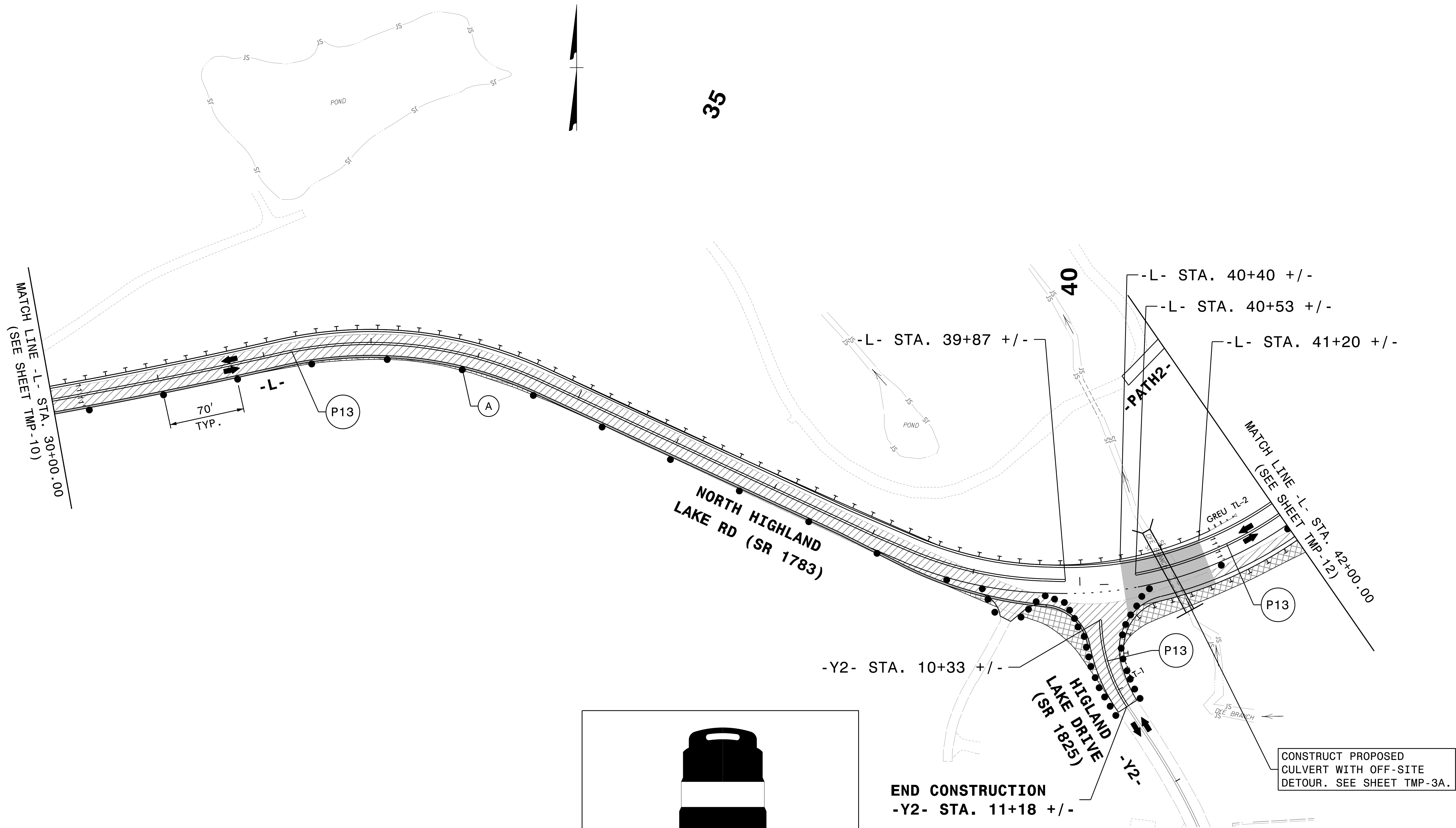
MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE

APPROVED:	DocuSigned by: Rebecca M. Schuler 19634024C7824FC...
DATE: 7/21/2020	
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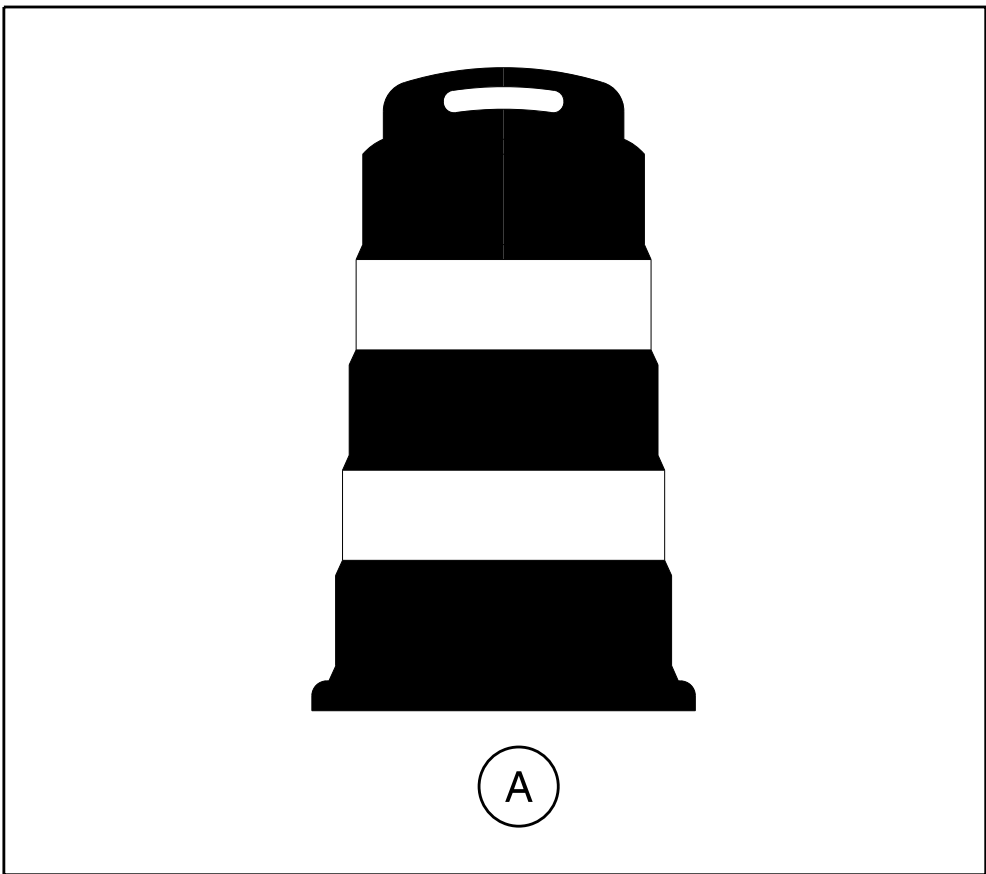


TEMPORARY TRAFFIC
CONTROL PHASE II
DETAIL



MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE



END CONSTRUCTION
-Y2- STA. 11+18 +/-

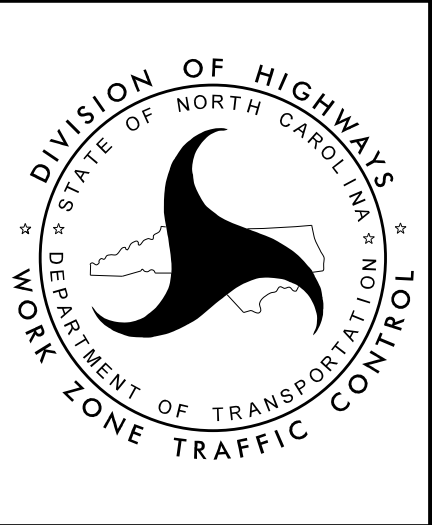
CONSTRUCT PROPOSED
CULVERT WITH OFF-SITE
DETOUR. SEE SHEET TMP-3A.

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DATE: 7/21/2020

SEAL

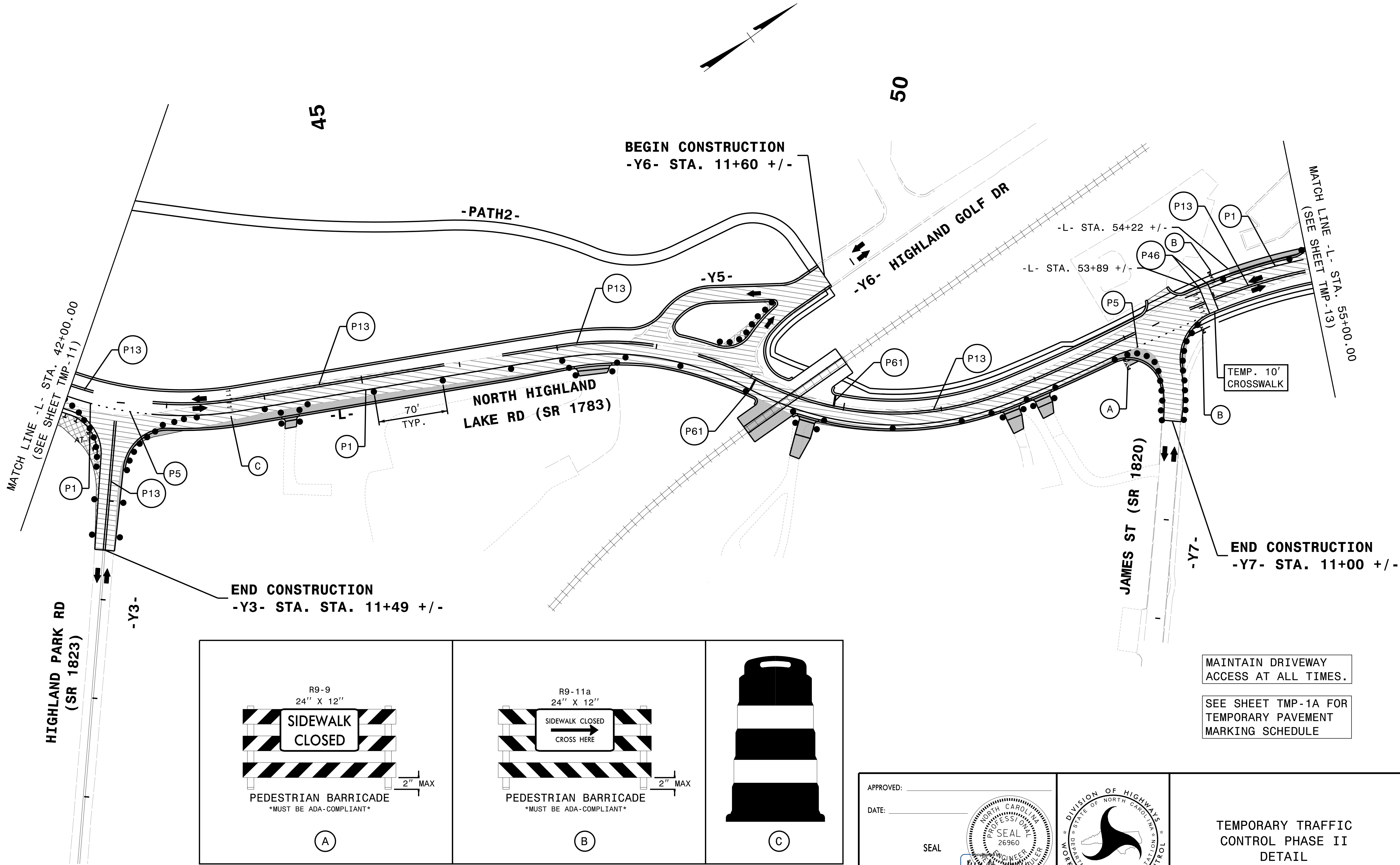
19634024C7824FC...
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PROFESSIONAL
ENGINEER
RECE M. SCHULER
26960

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TEMPORARY TRAFFIC
CONTROL PHASE II
DETAIL

PROJ. REFERENCE NO.	SHEET NO.
U-5887	TMP-12



R9-9
24" X 12"

SIDEWALK CLOSED

PEDESTRIAN BARRICADE
MUST BE ADA-COMPLIANT

A

R9-11a
24" X 12"

SIDEWALK CLOSED
CROSS HERE

PEDESTRIAN BARRICADE
MUST BE ADA-COMPLIANT

B

C

APPROVED: _____

DATE: _____

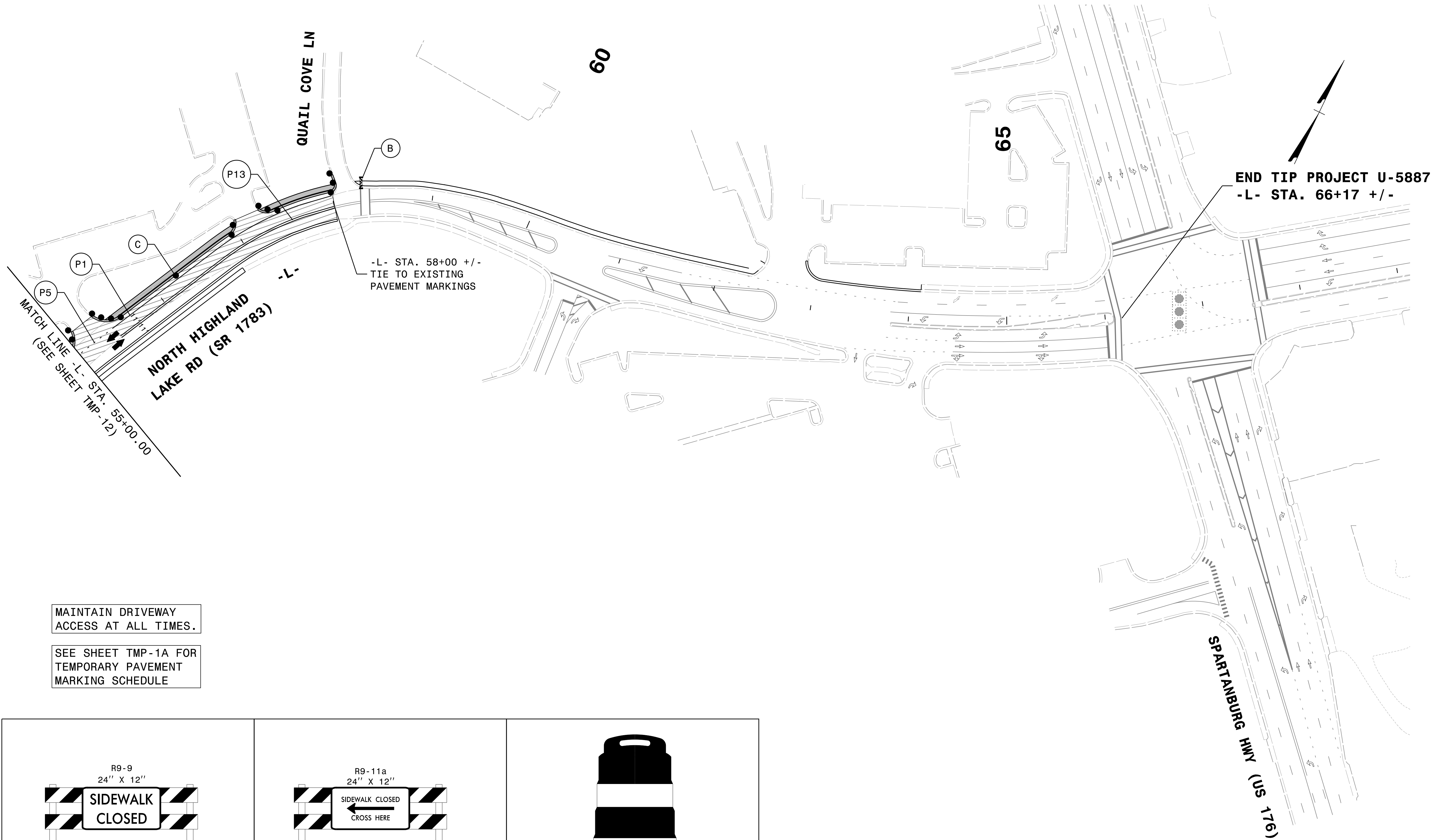
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12/18/2020

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

**TEMPORARY TRAFFIC CONTROL PHASE II
DETAIL**



MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

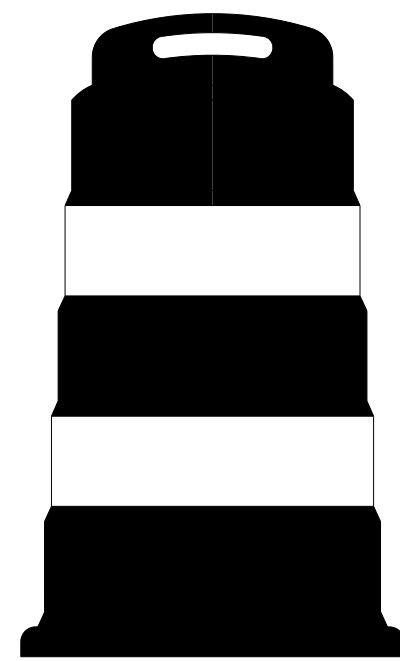
SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE



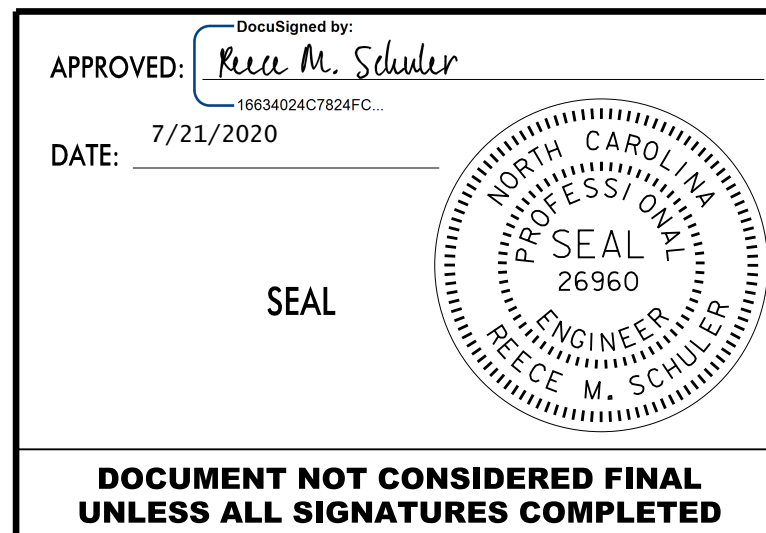
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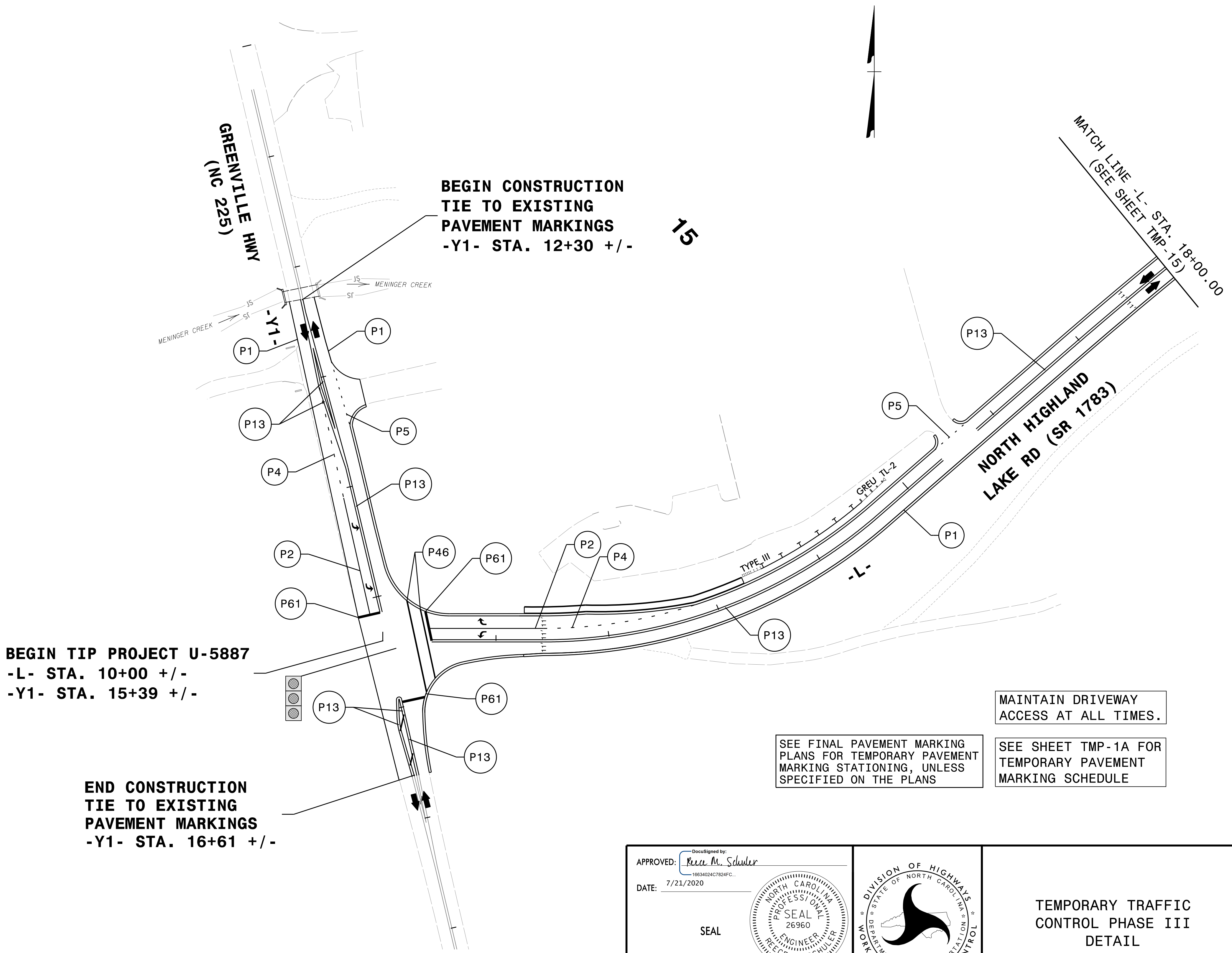


C



TEMPORARY TRAFFIC
CONTROL PHASE II
DETAIL

10



7/21/2020
V:\Asheville\Transportation\31535-06 U-5887\Traffic\TrafficControl\TCP\U5887_TMP_SHEET14.dgn
User: c:\mar-tell

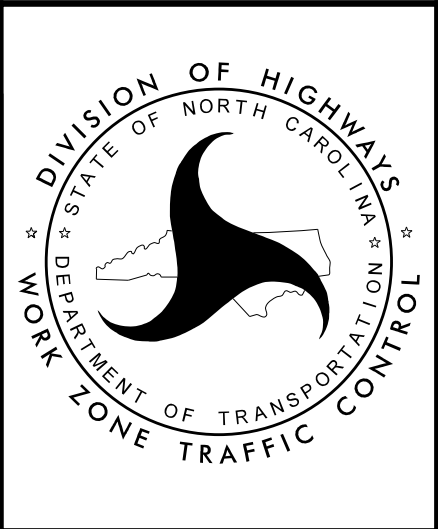
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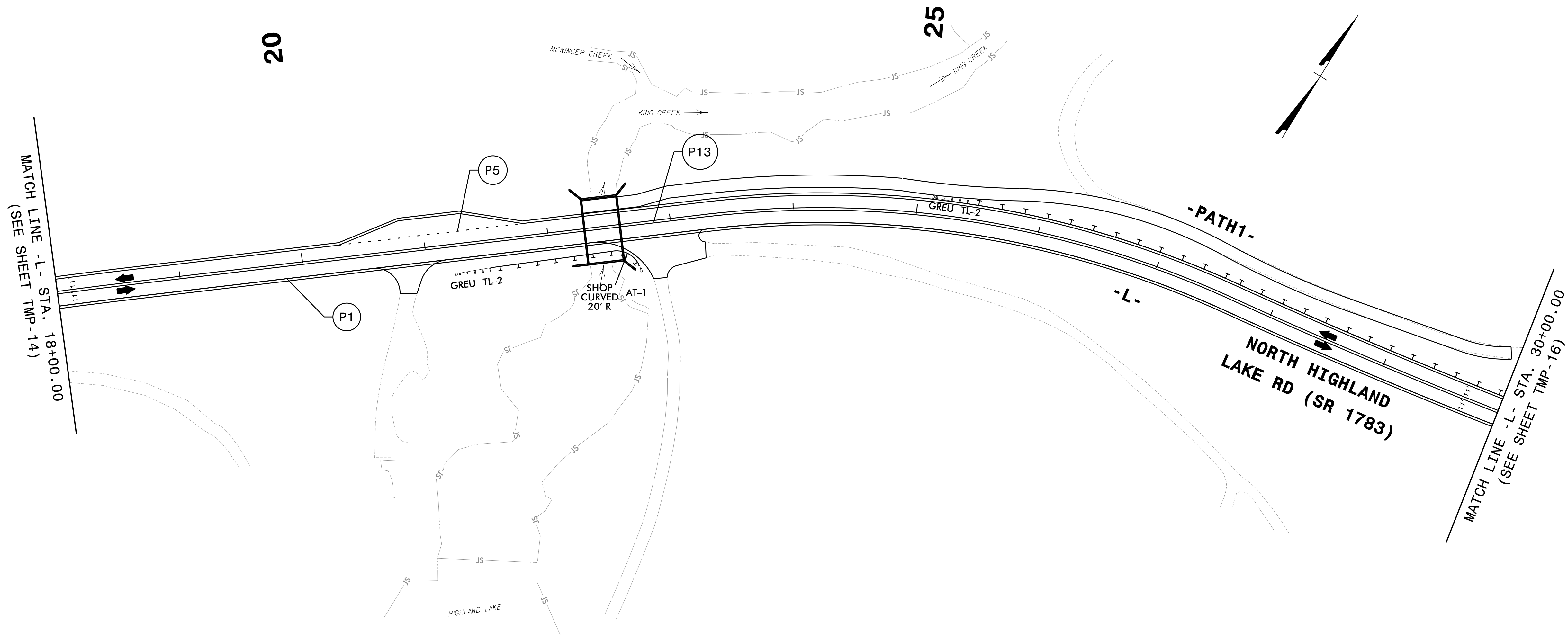
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TEMPORARY TRAFFIC
CONTROL PHASE III
DETAIL

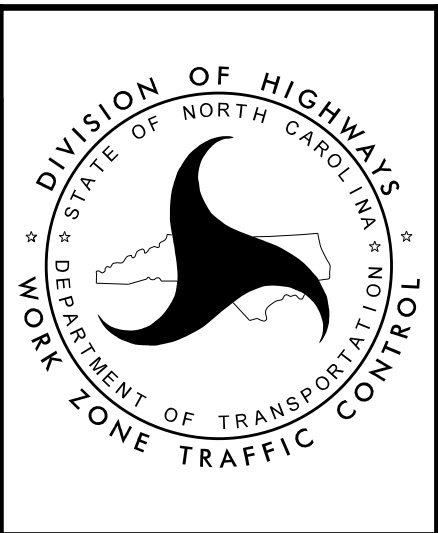


MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

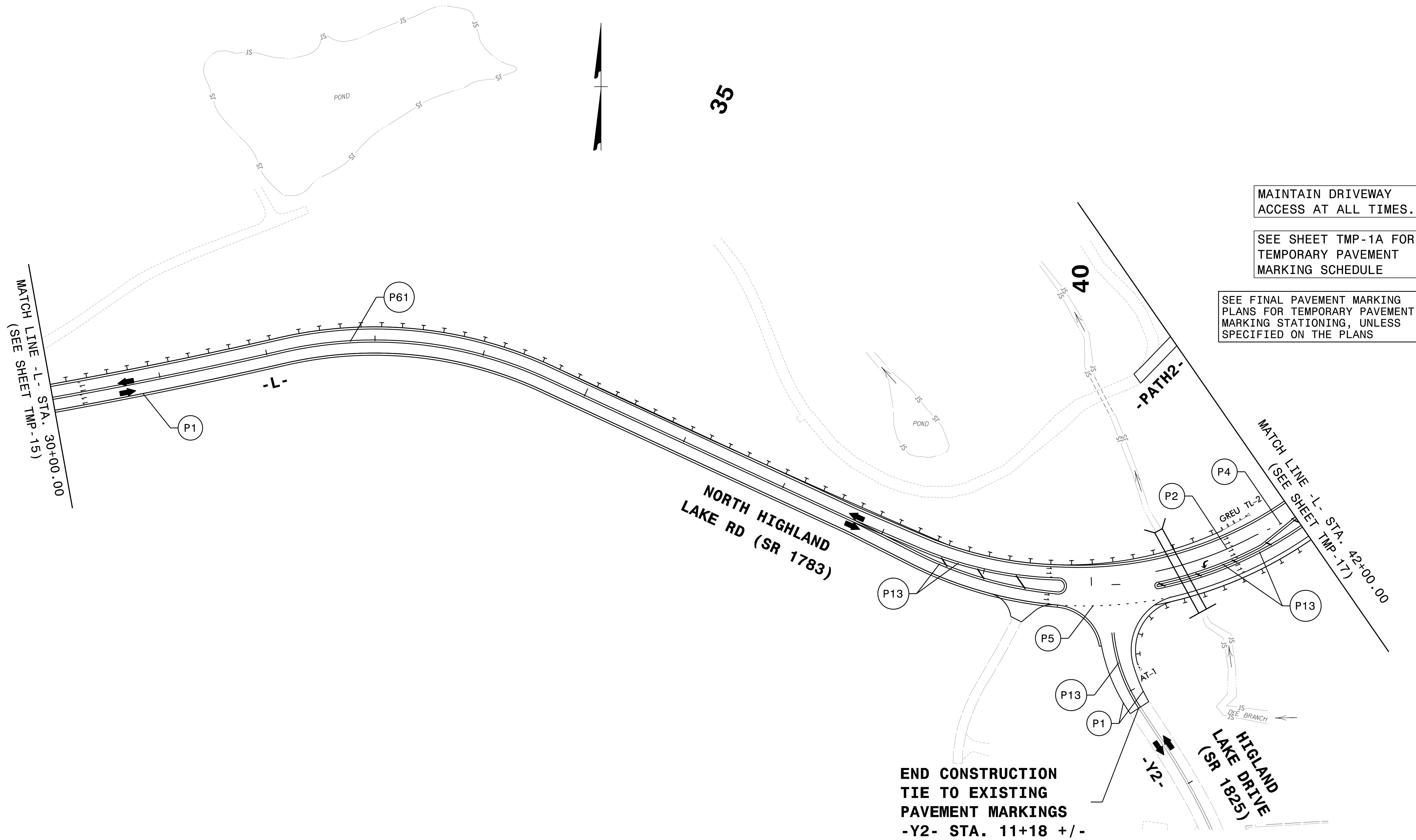
SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE

SEE FINAL PAVEMENT MARKING
PLANS FOR TEMPORARY PAVEMENT
MARKING STATIONING, UNLESS
SPECIFIED ON THE PLANS

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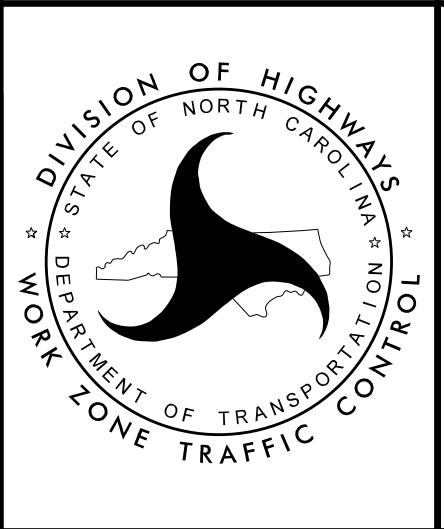
TEMPORARY TRAFFIC
CONTROL PHASE III
DETAIL



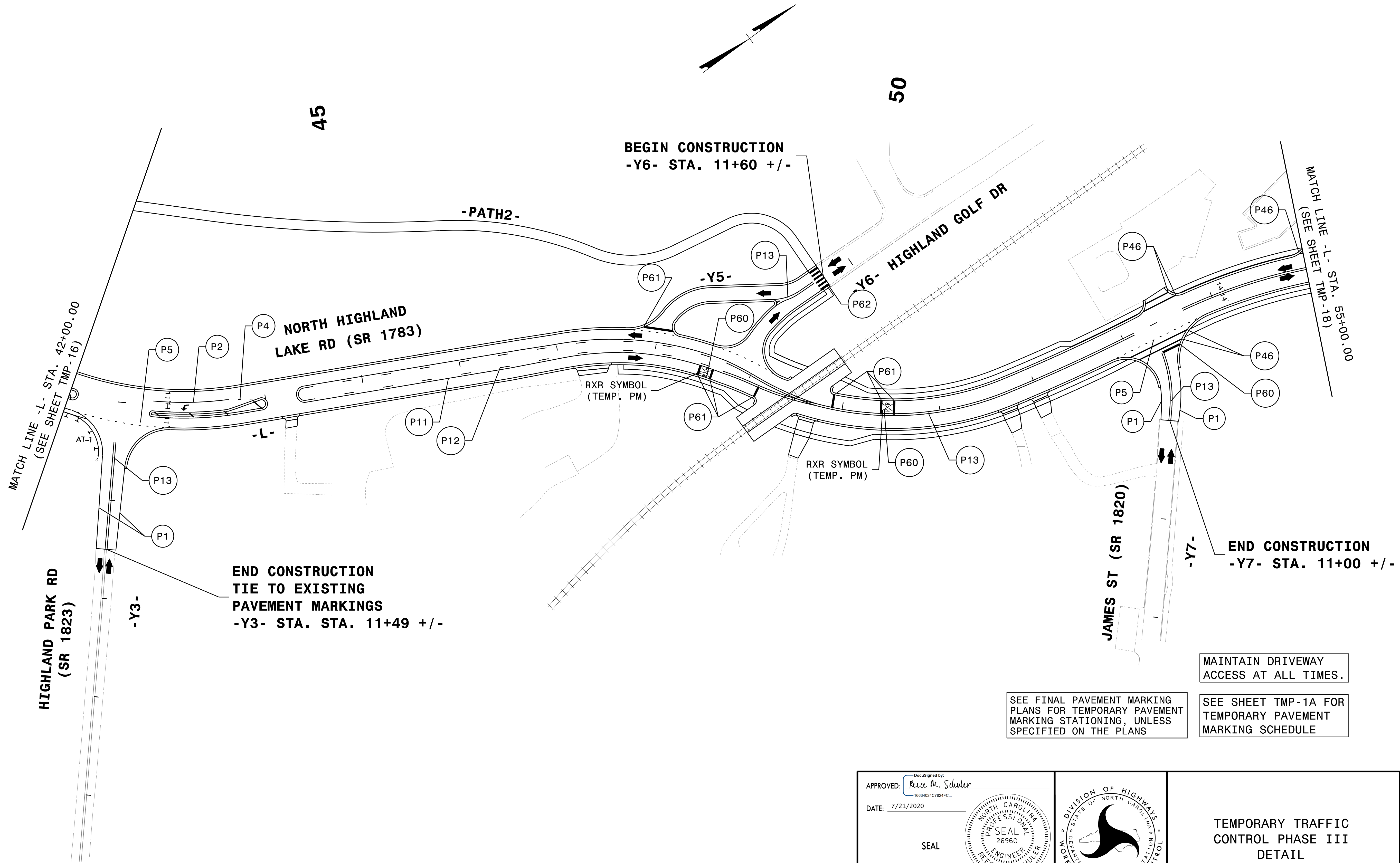
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TEMPORARY TRAFFIC CONTROL PHASE III DETAIL



SEE FINAL PAVEMENT MARKING PLANS FOR TEMPORARY PAVEMENT MARKING STATIONING, UNLESS SPECIFIED ON THE PLANS

SEE SHEET TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE

APPROVED: *Reece M. Schuler*

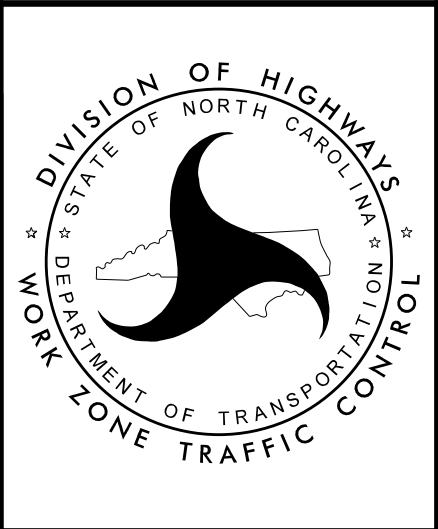
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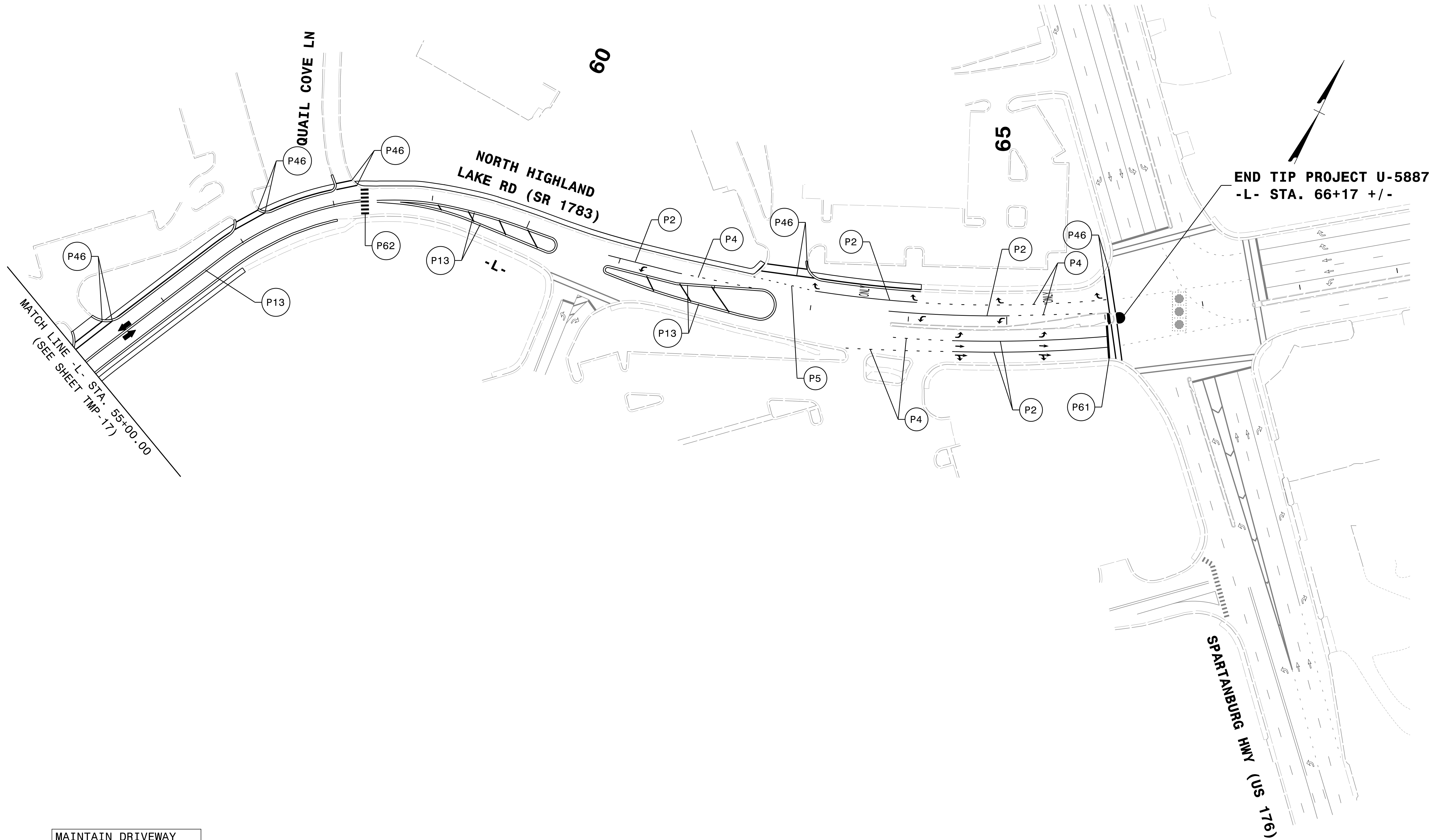
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TEMPORARY TRAFFIC CONTROL PHASE III
DETAIL



MAINTAIN DRIVEWAY
ACCESS AT ALL TIMES.

SEE SHEET TMP-1A FOR
TEMPORARY PAVEMENT
MARKING SCHEDULE

SEE FINAL PAVEMENT MARKING
PLANS FOR TEMPORARY PAVEMENT
MARKING STATIONING, UNLESS
SPECIFIED ON THE PLANS

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TEMPORARY TRAFFIC
CONTROL PHASE III
DETAIL