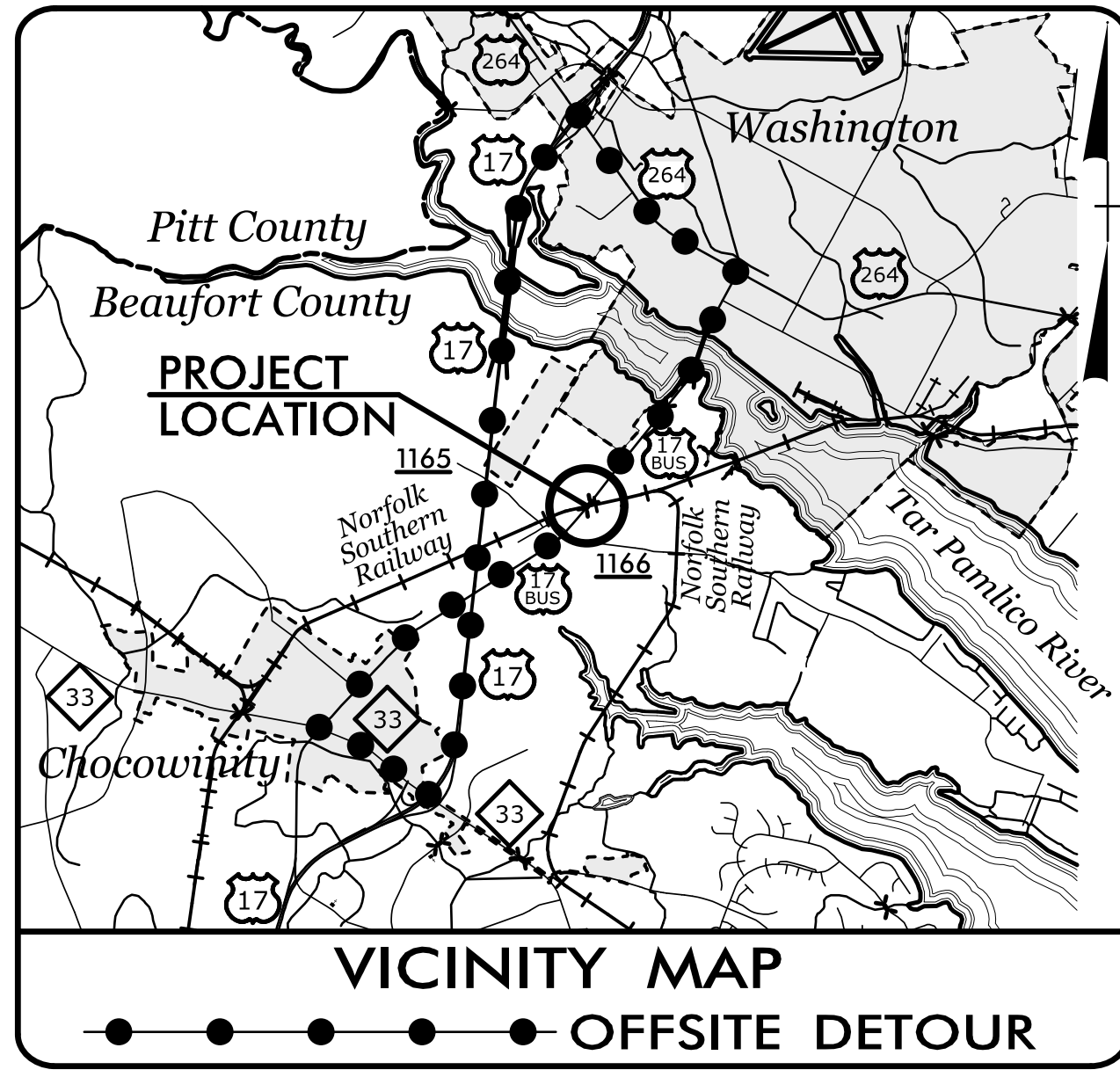


09\_08/2019

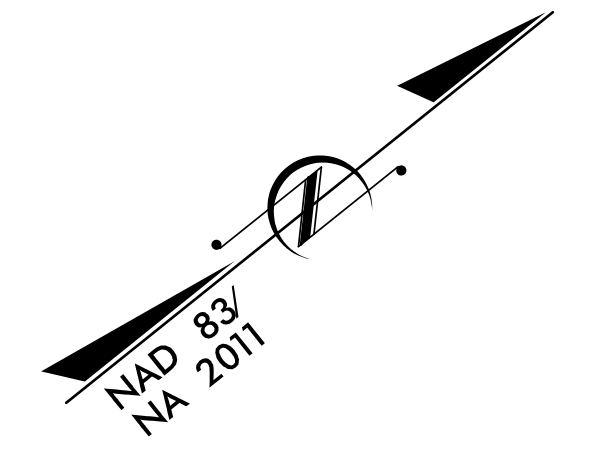
See Sheet 1A For Index of Sheets  
 See Sheet 1B For Conventional Plan Sheet Symbols  
 See Sheet 1C-1 Through 1C-2 For Survey Control Sheets



STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**BEAUFORT COUNTY**

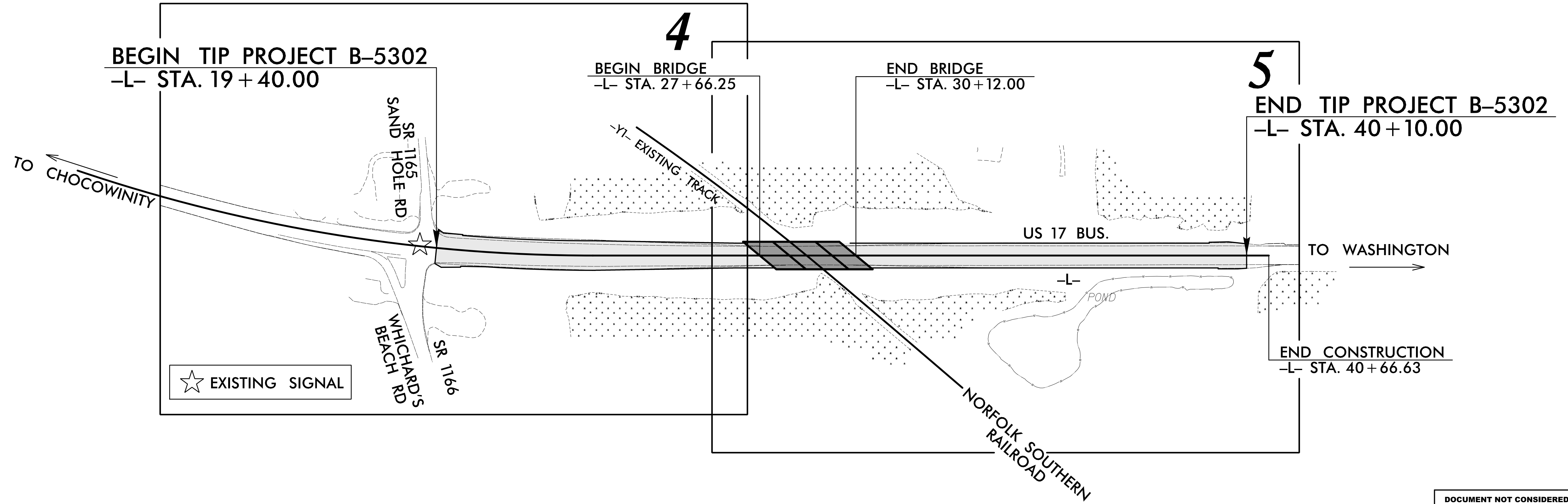
**LOCATION: REPLACE BRIDGE NO. 3 OVER NORFOLK SOUTHERN RAILROAD ON US 17 BUS.**  
**BRIDGE NO. 25 ON US 17 BUS. OVER PAMLICO RIVER**  
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURES**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5302 /15BPR.42	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46016.1.1	BRNHPP-0017(127)	PE (B-5302)	
46016.2.1		RW & UTIL (B-5302)	
46016.3.2 /15BPR.42		CONST. (B-5302)	

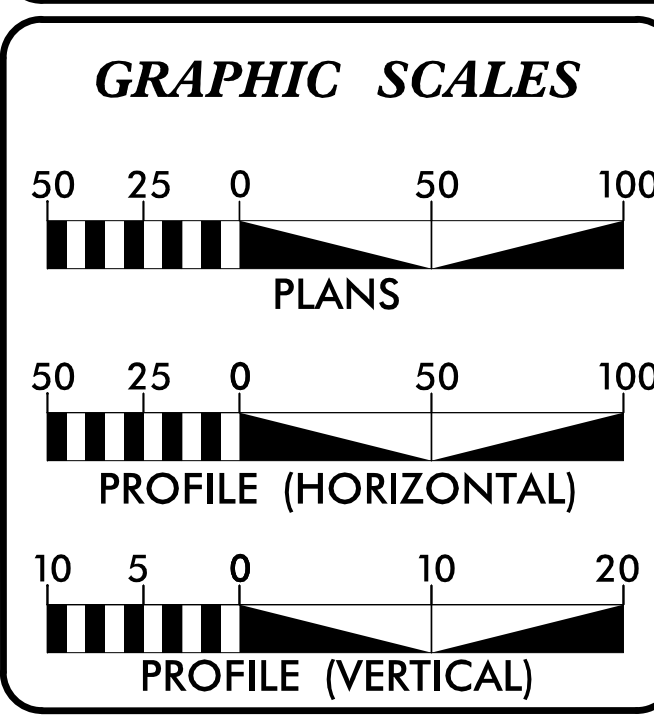


**TIP PROJECT: B-5302**

**CONTRACT: C204594**



DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED



**DESIGN DATA**

ADT 2019 =	14,909
ADT 2039 =	20,273
K =	9 %
D =	60 %
T =	8 % *
V =	60 MPH
* TTST =	4% DUAL = 4%
FUNC CLASS =	RURAL MINOR ARTERIAL
	REGIONAL TIER

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT B-5302	=	0.345 mile
LENGTH STRUCTURES TIP PROJECT B-5302	=	0.047 mile
TOTAL LENGTH TIP PROJECT B-5302	=	0.392 mile

Prepared For:  
**DIVISION OF HIGHWAYS**  
 1000 Birch Ridge Dr., Raleigh NC, 27610

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

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
 MAY 22, 2017

**LETTING DATE:**  
 APRIL 20, 2021

**V. MARCUS LOWERY, PE**  
 PROJECT ENGINEER

**DAVID STUTTS, PE**  
 NCDOT CONTACT

**HYDRAULICS ENGINEER**

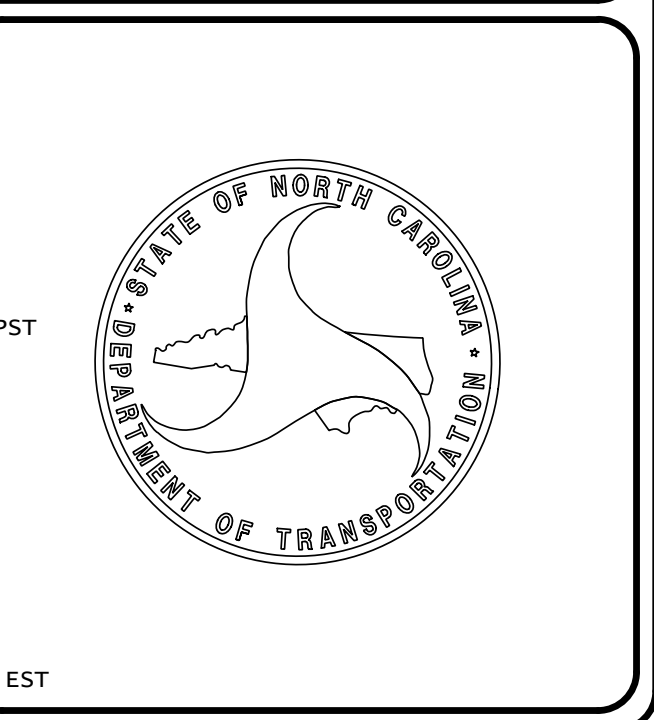
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 David B. Petty  
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P.E. 3/9/2021 | 8:44 AM PST

**ROADWAY DESIGN ENGINEER**

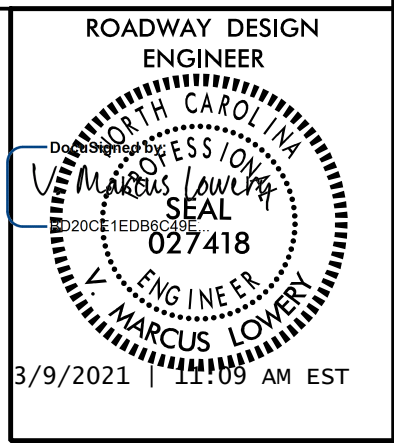
DocuSigned by:  
 V. Marcus Lowery  
 SIGNATURE

P.E. 3/9/2021 | 11:09 AM EST



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 User:vlwery

PROJECT REFERENCE NO.	SHEET NO.
B-5302 / 15BPR.42	1A
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



# INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND DETAIL SHOWING METHOD OF SHOULDER CONSTRUCTION
2C-1	DETAIL OF STRUCTURE ANCHOR UNITS: GUARDRAIL ANCHOR UNIT, TYPE III
2C-2	DETAIL FOR GUARDRAIL INSTALLATION
2C-3	COAL COMBUSTION PRODUCT PLACEMENT DETAIL
3B-1	SUMMARY OF EARTHWORK, PAVEMENT REMOVAL SUMMARY, SUMMARY OF BREAKING EXISTING ASPHALT PAVEMENT, SHOULDER BERM GUTTER SUMMARY, & GUARDRAIL SUMMARY
3D-1	DRAINAGE SUMMARY
3G-1	GEOTECHNICAL SUMMARY
4 THRU 5	PLAN SHEETS
6	PROFILE SHEET
RW01 THRU RW04	SURVEY CONTROL AND RIGHT OF WAY SHEETS
TMP-1 THRU TMP-9	TRANSPORTATION MANAGEMENT PLAN
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
SIG-1.0 THRU SIG-4.2	SIGNAL PLANS
UC-01 THRU UC-12	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-3	UTILITIES BY OTHERS PLANS
X-1A	CROSS SECTION EARTHWORK VOLUME SUMMARY
X-1 THRU X-12	CROSS SECTIONS
S-1 THRU S-43	B-5302 STRUCTURE PLANS
S-1 THRU S-58	15BPR.42 BRIDGE PRESERVATION PLANS

# GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS EFFECTIVE: 01-16-2018 REVISED:

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

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

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

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

SUBSURFACE DRAINS:  
SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

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

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

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

UTILITIES:  
UTILITY OWNERS ON THIS PROJECT ARE  
City of Washington (Water & Sewer), Town of Chocowinity (Sewer),  
Duke Energy (Power), CenturyLink (Tel), Suddenlink (CATV)  
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

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

# STANDARD DRAWINGS

2018 ROADWAY ENGLISH STANDARD DRAWINGS EFF. 01-16-2018 REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - 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
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 4 - MAJOR STRUCTURES	
422.01	Bridge Approach Fills - Type I Standard Approach Fill
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.02	Guide for Rip Rap at Pipe Outlets

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# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

## CONVENTIONAL PLAN SHEET SYMBOLS

*Note: Not to Scale*      \*S.U.E. = *Subsurface Utility Engineering*

04/06/15

### BOUNDARIES AND PROPERTY:

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	○ EIP
Property Corner	_____
Property Monument	□ ECM
Parcel/Sequence Number	⑩②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Existing Historic Property Boundary	-HPB-
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	○ S
Well	○ W
Small Mine	⋈
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	_____

### HYDROLOGY:

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

### RAILROADS:

Standard Gauge	_____
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	_____
RR Dismantled	_____

### RIGHT OF WAY:

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

### ROADS AND RELATED FEATURES:

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

### VEGETATION:

Single Tree	☀
Single Shrub	☀
Hedge	_____
Woods Line	_____

Orchard	_____
Vineyard	_____

### 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	□ CB
Paved Ditch Gutter	_____
Storm Sewer Manhole	○ S
Storm Sewer	-S-

### UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○ P
Power Line Tower	□
Power Transformer	□
U/G Power Cable Hand Hole	_____
H-Frame Pole	●
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	○ T
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	○ W
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	AATUR
End of Information	E.O.I.

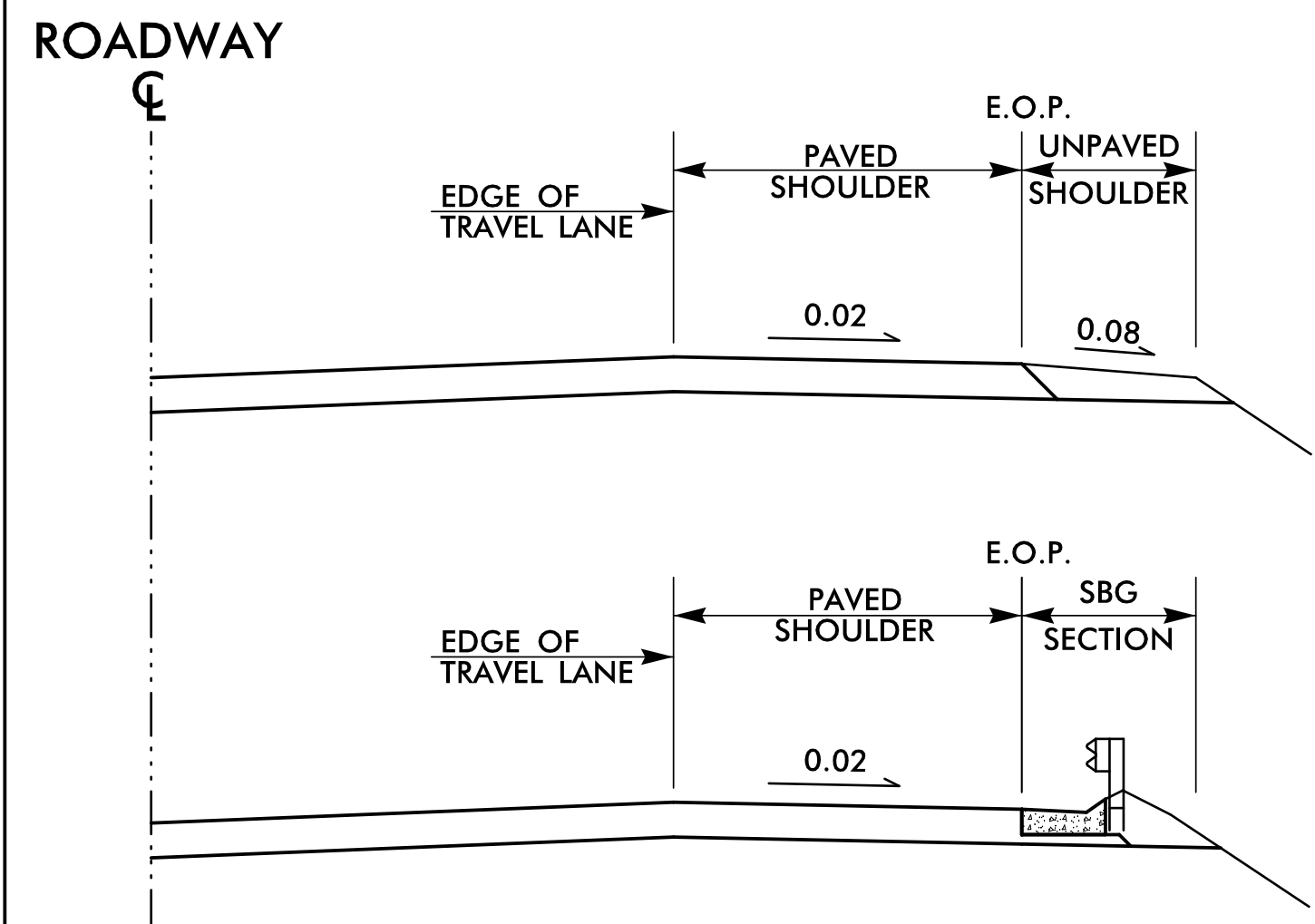
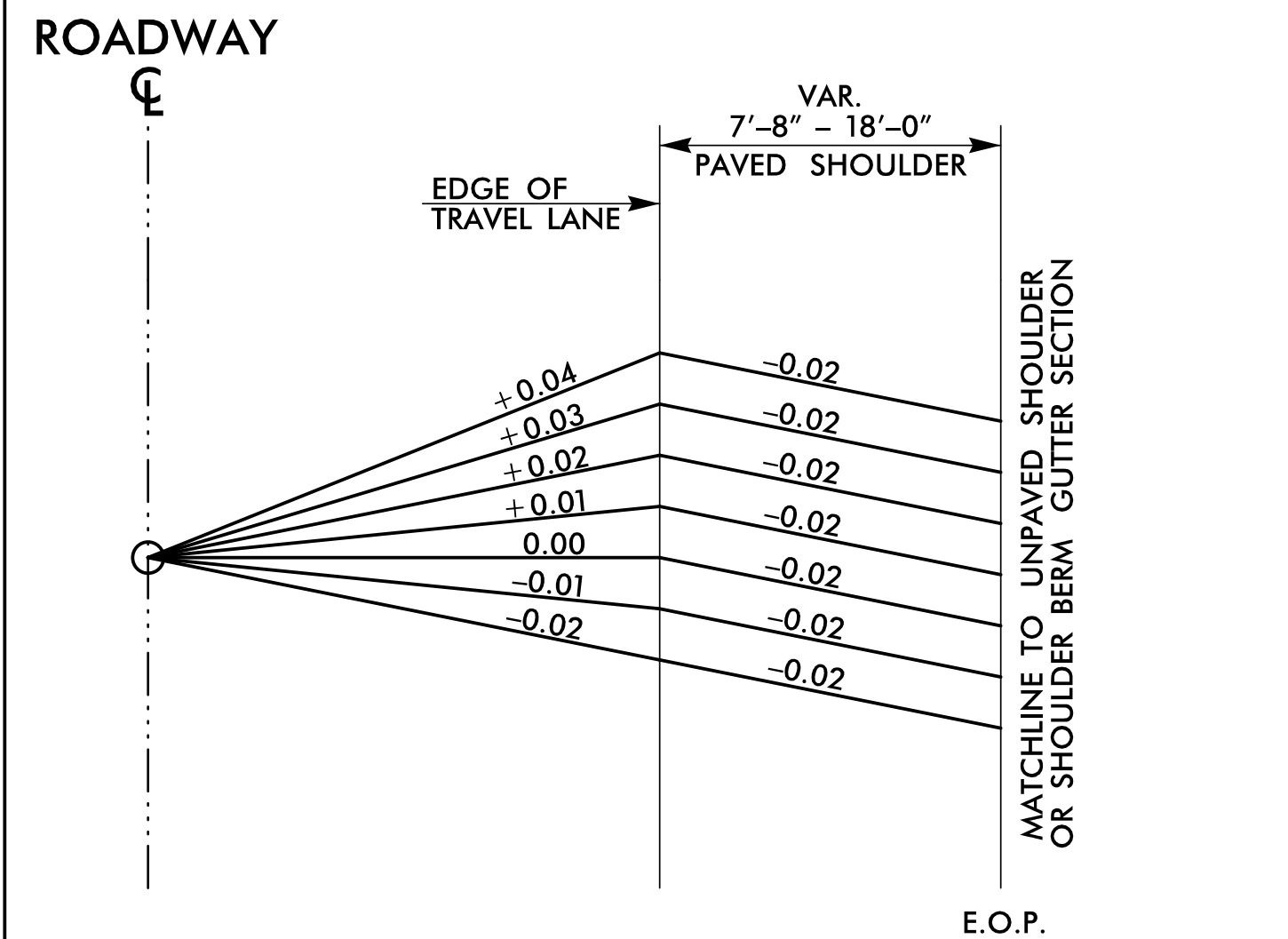
5/14/19

### PAVEMENT SCHEDULE

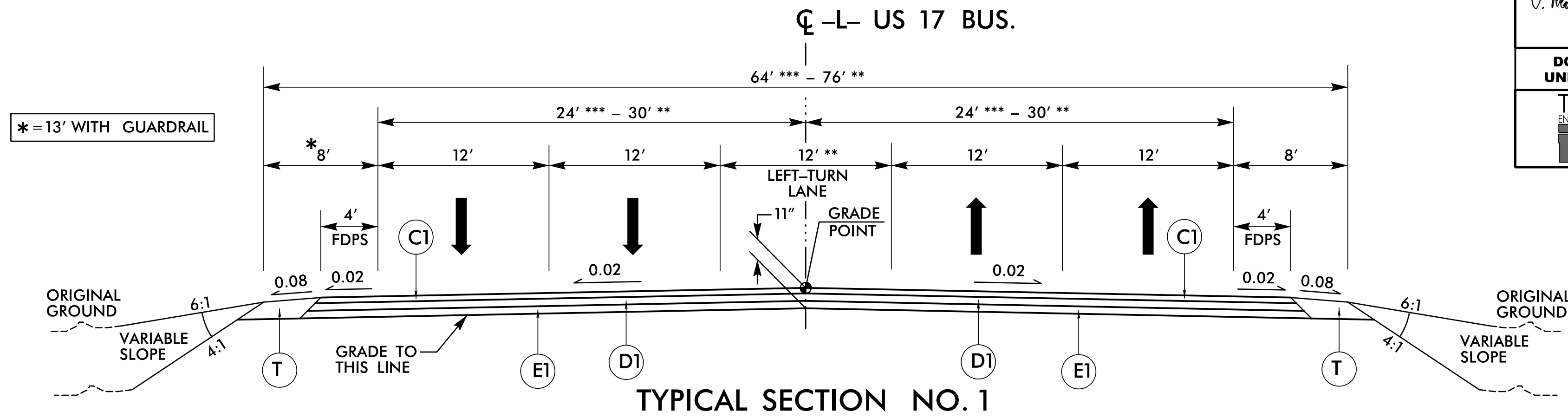
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL

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

### DETAIL SHOWING METHOD OF SHOULDER CONSTRUCTION (HIGH SIDE OF SUPERELEVATED CURVE)

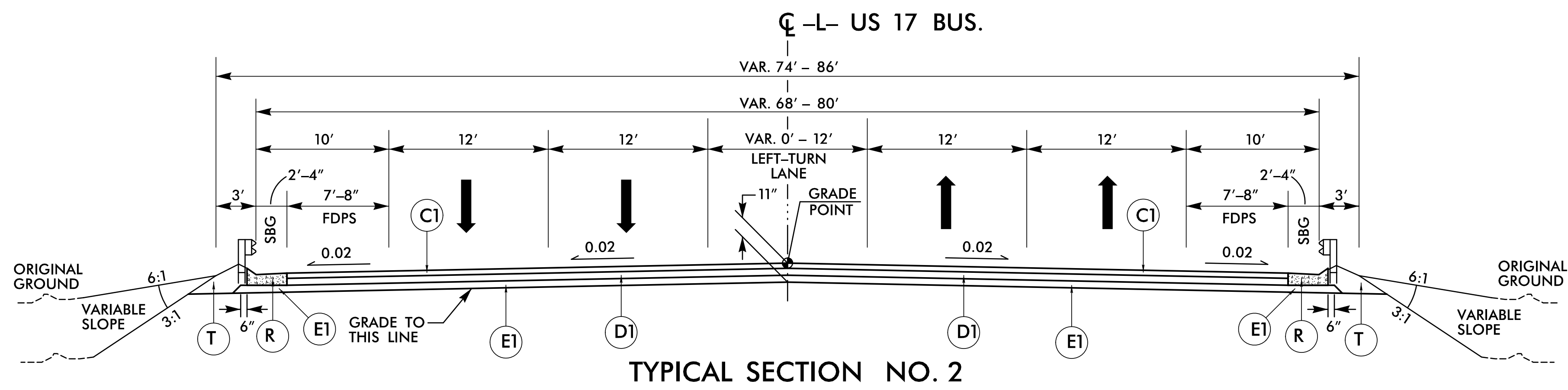


USE THIS DETAIL AS FOLLOWS:  
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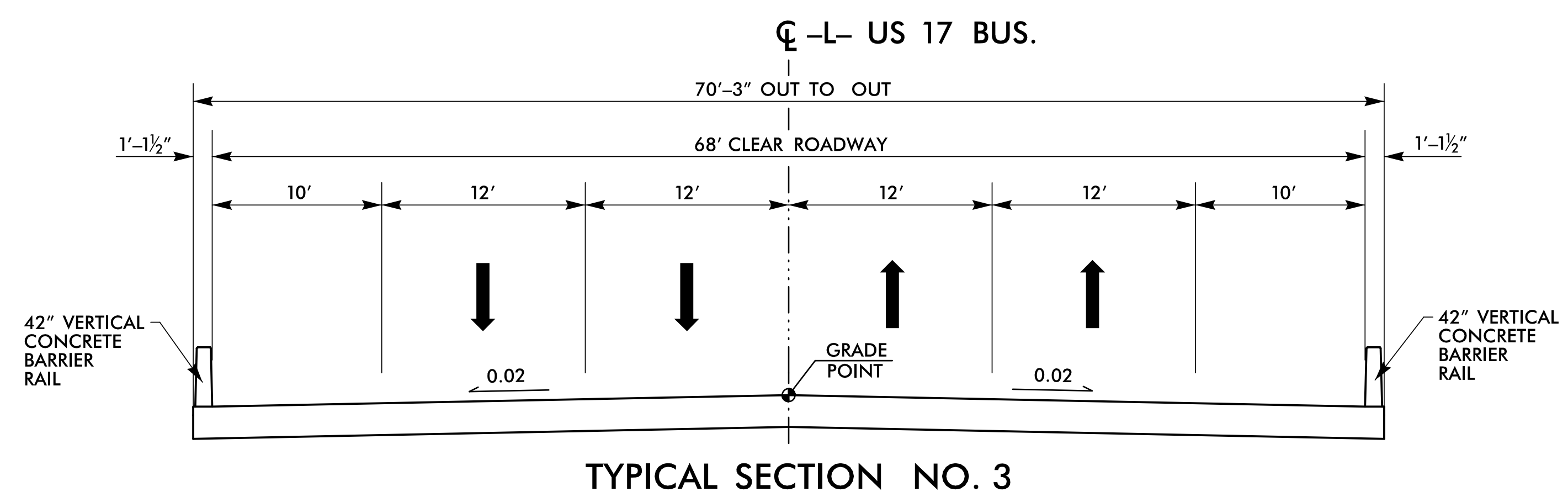


USE TYPICAL SECTION NO. 1 AS FOLLOWS:  
\*\* FROM -L- STA 19+40.00 TO STA 20+04.04 (LT.) & STA 20+04.51 (RT.)  
\*\*\* FROM -L- STA 39+14.55 (LT.) & STA 39+37.18 (RT.) TO STA 40+10.00

SBG=SHOULDER BERM GUTTER  
FDPS=FULL DEPTH PAVED SHOULDER



USE TYPICAL SECTION NO. 2 AS FOLLOWS:  
FROM -L- STA 20+04.04 (LT.) & STA 20+04.51 (RT.) TO STA 27+66.25 (BEGIN BRIDGE)  
FROM -L- STA 30+12.00 (END BRIDGE) TO STA 39+14.55 (LT.) & 39+37.18 (RT.)  
NOTE: TURN LANE TRANSITION -L- STA 23+45.00 TO STA 27+05.00



USE TYPICAL SECTION NO. 3 AS FOLLOWS:  
FROM -L- STA 27+66.25 (BEGIN BRIDGE) TO STA 30+12.00 (END BRIDGE)

PROJECT REFERENCE NO. B-5302	SHEET NO. 2A-1
RW SHEET NO.	
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TGS ENGINEERS 706 HILLSBOROUGH ST. SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	

2/14/2019 10:04 AM EST  
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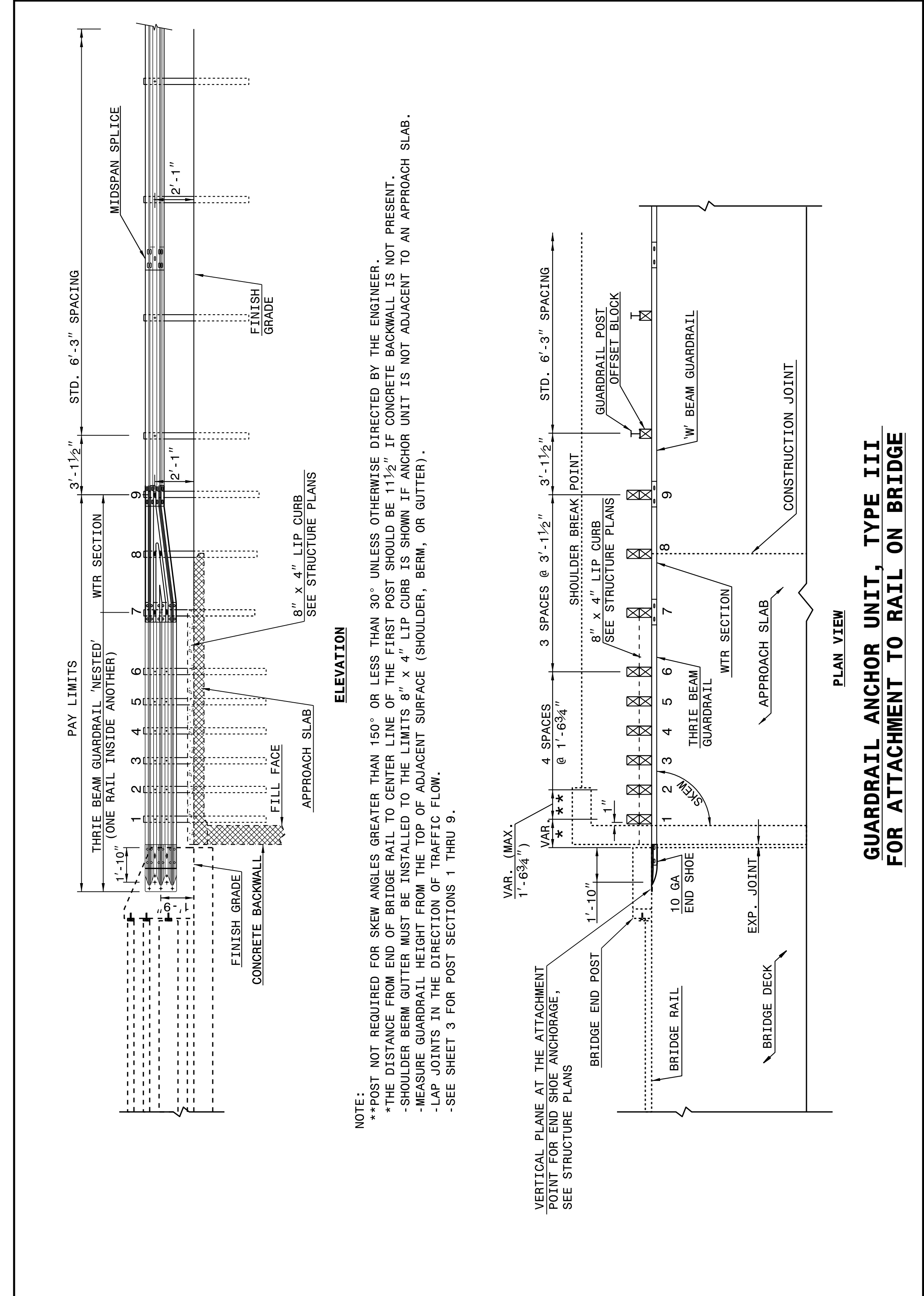
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**STRUCTURE ANCHOR UNITS**  
GUARDRAIL ANCHOR UNIT, TYPE III  
FOR ATTACHMENT TO RAIL ON BRIDGE

SHEET 1 OF 7  
**862D03**

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

**STRUCTURE ANCHOR UNITS**  
GUARDRAIL ANCHOR UNIT, TYPE III  
FOR ATTACHMENT TO RAIL ON BRIDGE



**NOTE:**  
 \*\*POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.  
 \*THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11 1/2" IF CONCRETE BACKWALL IS NOT PRESENT.  
 -SHOULDER BERM GUTTER MUST BE INSTALLED TO THE LIMITS 8" x 4" LIP CURB IS SHOWN IF ANCHOR UNIT IS NOT ADJACENT TO AN APPROACH SLAB.  
 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).  
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.  
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

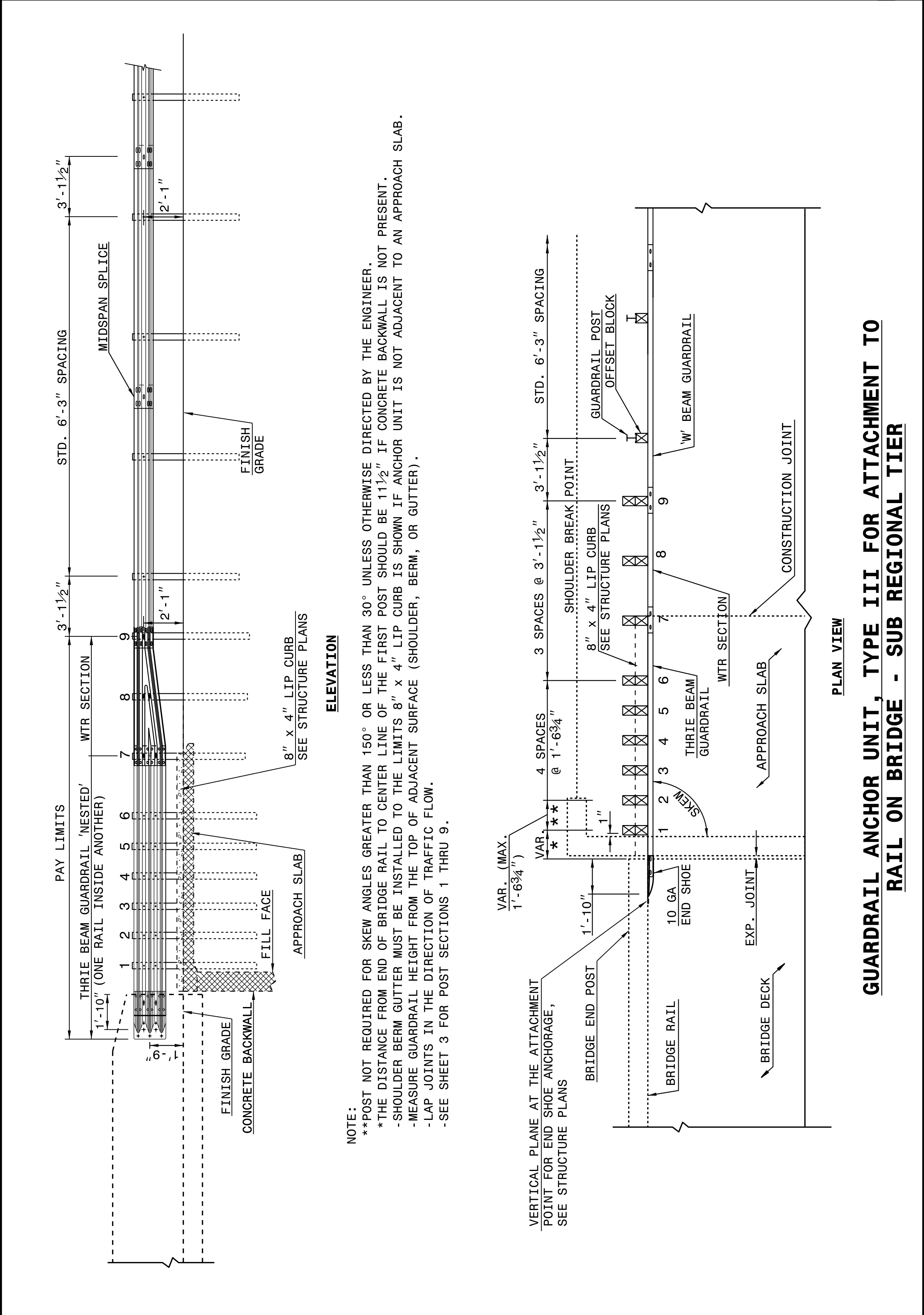
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**STRUCTURE ANCHOR UNITS**  
GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO  
RAIL ON BRIDGE - SUB REGIONAL TIER

SHEET 1 OF 7  
**862D03**

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

**STRUCTURE ANCHOR UNITS**  
GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO  
RAIL ON BRIDGE - SUB REGIONAL TIER



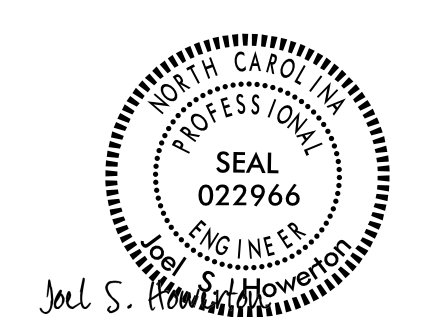
**NOTE:**  
 \*\*POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.  
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 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).  
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.  
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: J HOWERTON	DATE: 06-22-12
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	



2/19/2019 | 11:03 AM EST

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

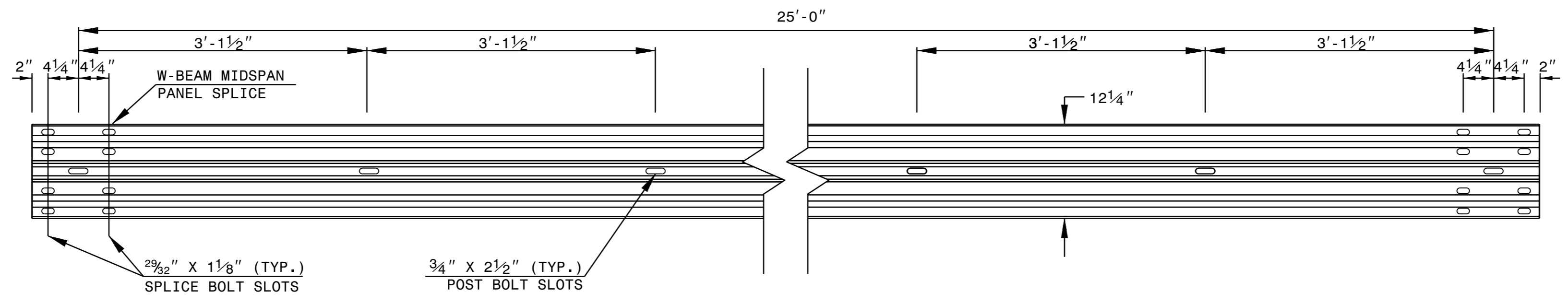
ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET 6 OF 8  
**862D02**

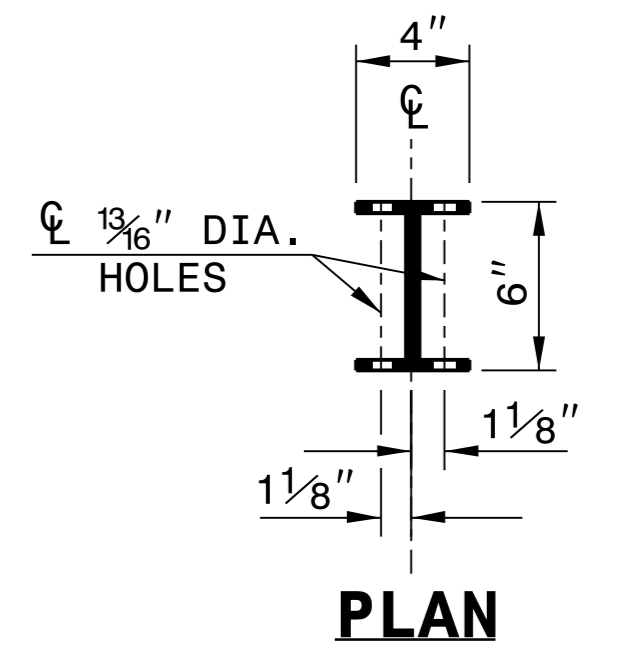
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

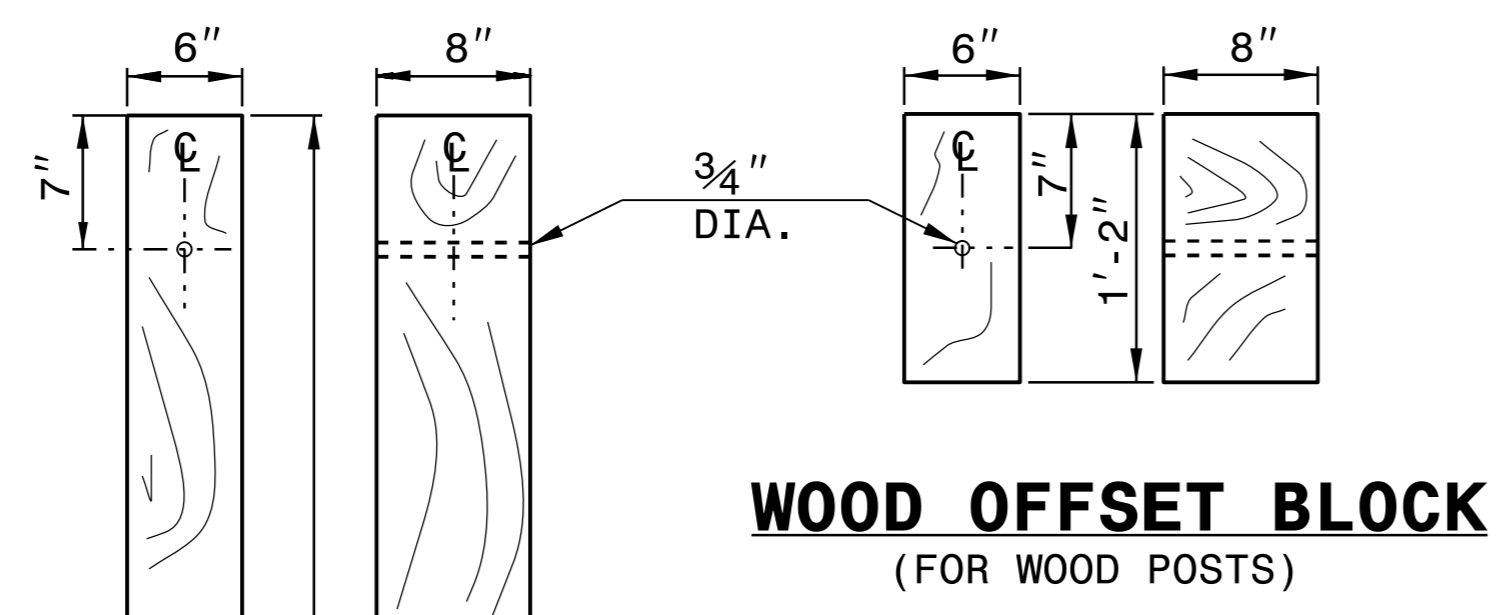
SHEET 6 OF 8  
**862D02**



**STANDARD W-BEAM GUARDRAIL**



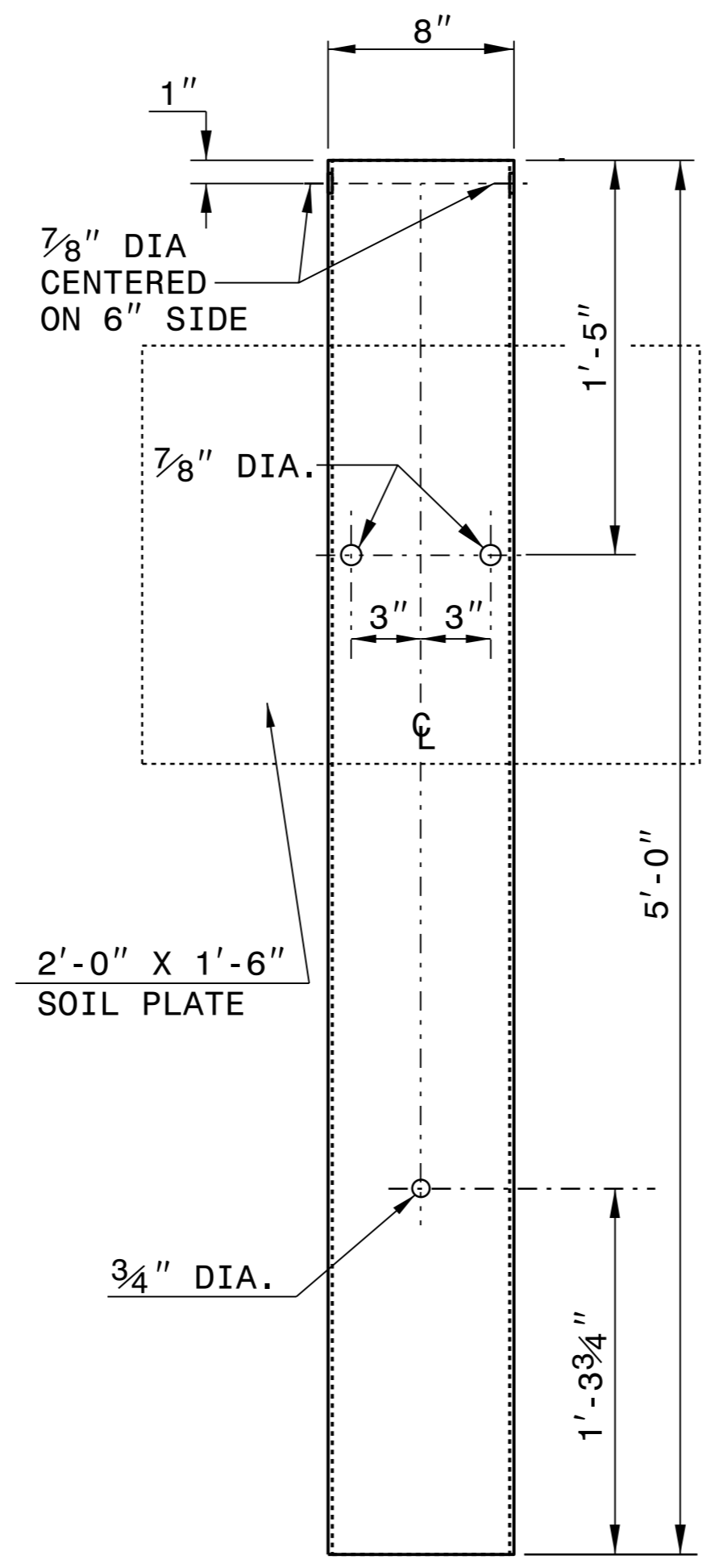
**PLAN**



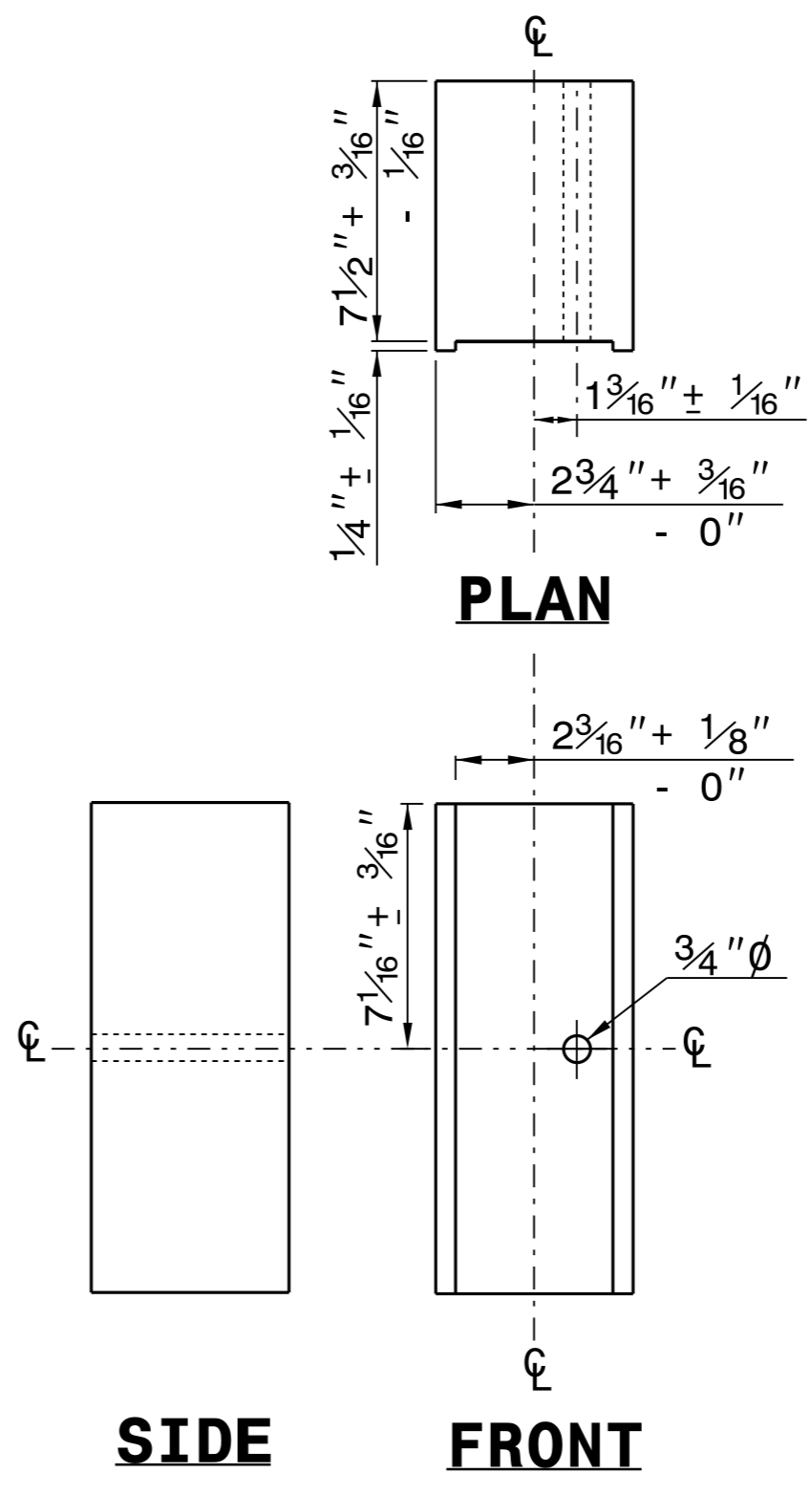
**WOOD OFFSET BLOCK  
(FOR WOOD POSTS)**

**STANDARD  
LINE POST**

**SHORT WOOD  
BREAKAWAY POST**



**STEEL TUBE  
TS 6"x8"x0.1875"**

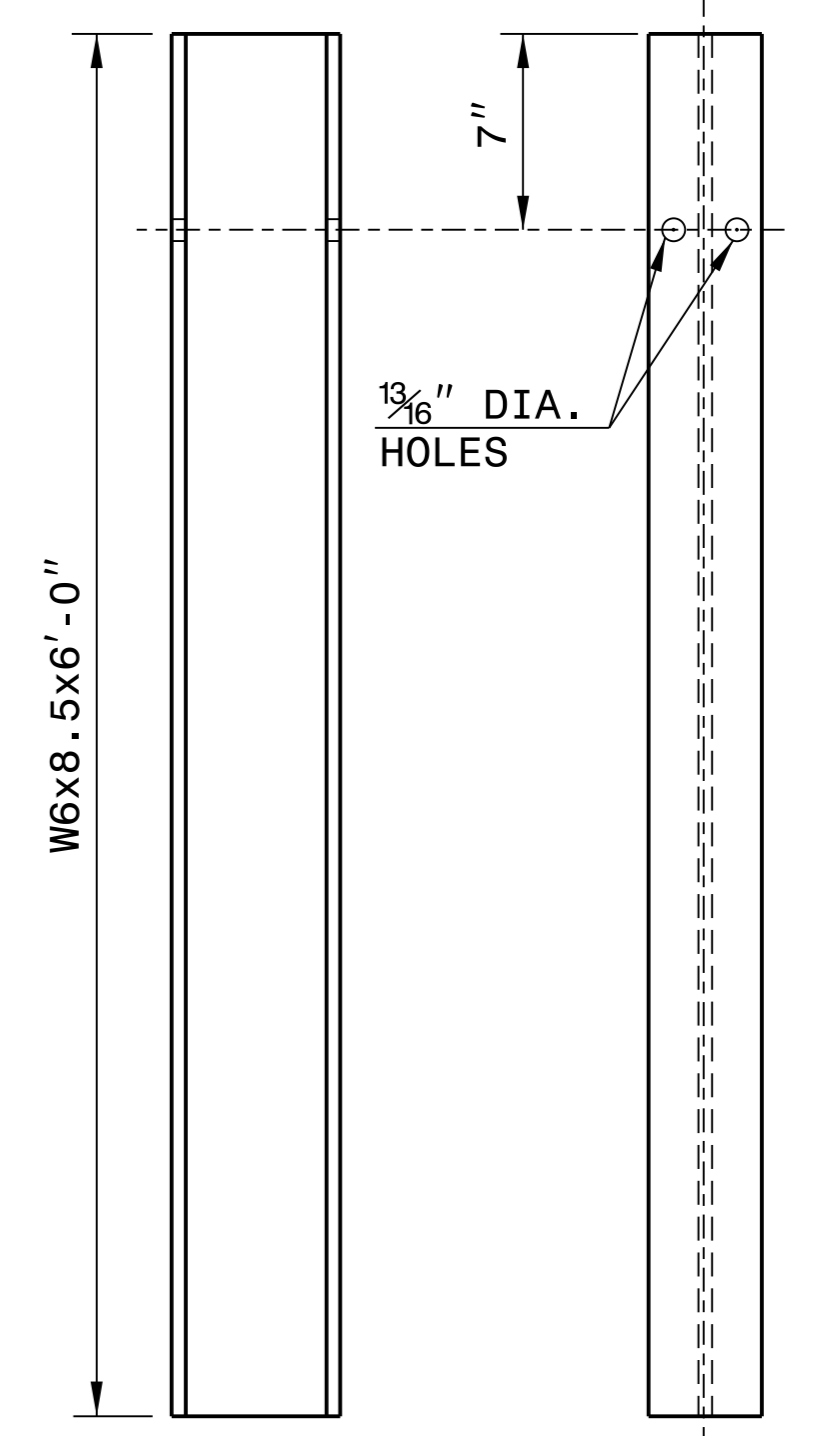


**PLAN**

**SIDE**

**FRONT**

**ROUTED  
OFFSET BLOCK**

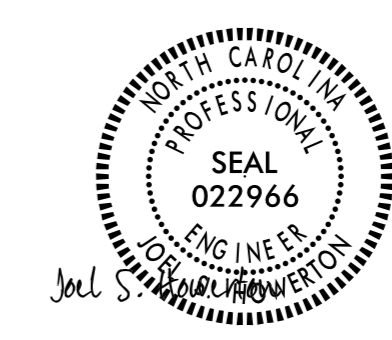


**SIDE**

**FRONT**

**"W6" STEEL POST**

**SYSTEM PARTS**



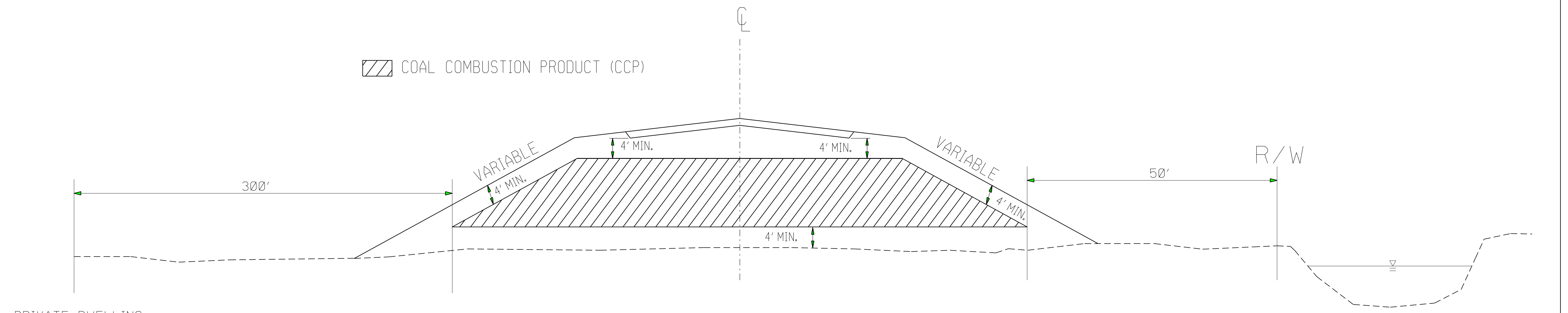
2/19/2019 | 11:03 AM EST

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

**SEE TITLE BLOCK**

ORIGINAL BY: J. HOWERTON	DATE: 3-7-2018
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.:	

# COAL COMBUSTION PRODUCT PLACEMENT



PRIVATE DWELLING OR WELL

PERENNIAL STREAM, OTHER SURFACE WATER BODY OR \*WETLAND

\*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

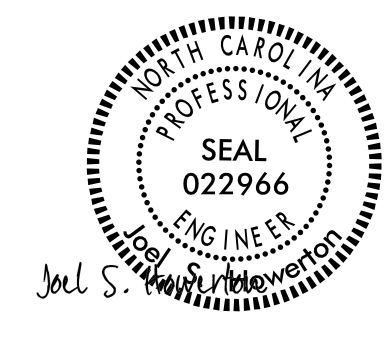
PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



2/19/2019 | 11:03 AM EST

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950 FAX 919-250-4119	
<b>COAL COMBUSTION PRODUCT PLACEMENT DETAIL</b>	
ORIGINAL BY: J.S.H.	DATE: 3/16/15
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: joel/coal combustion material detail.dgn	

07-SEP-2017 08:21 S:\Contracts\Projects\Special Details\Jhoverton\Coal Combustion Product Detail.dgn Jhoverton AT USD-232595









COMPUTED BY: VML DATE: 14 FEB 2019  
 CHECKED BY: ARM DATE: 14 FEB 2019

(2-16-16)

PROJECT NO.  
B-5302

SHEET NO.  
3G-1

**STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS**

**SUMMARY OF SUBSURFACE DRAINAGE**

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	200
				<b>TOTAL LF:</b>	200

\*UD = Underdrain  
 \*BD = Blind Drain  
 \*SD = Subsurface Drain

**SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION**

LINE	Station	Station	Aggregate Type* ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY					100	190	300		
					<b>TOTAL CY/TONS/SY:</b>	100	190	300**	0

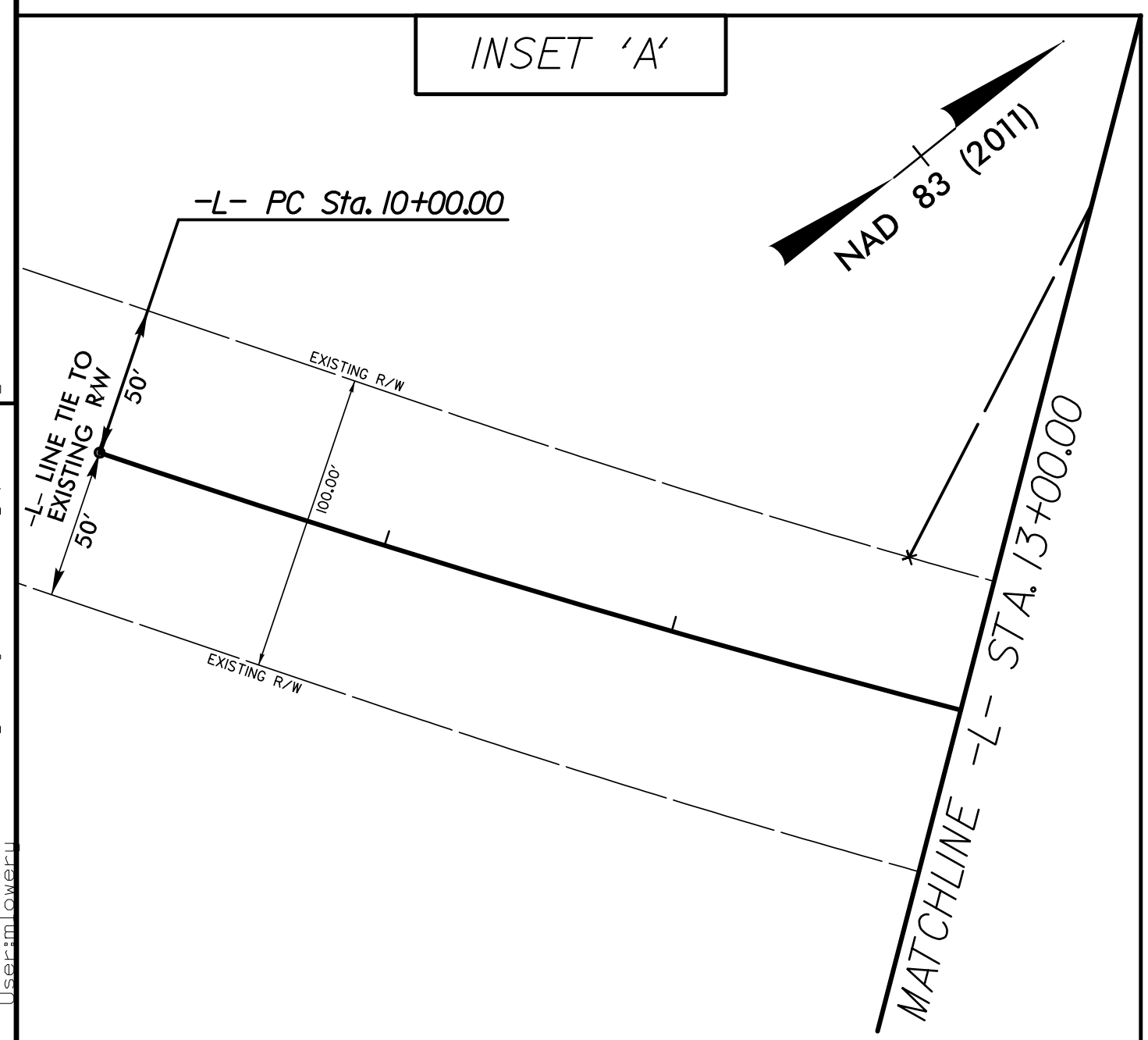
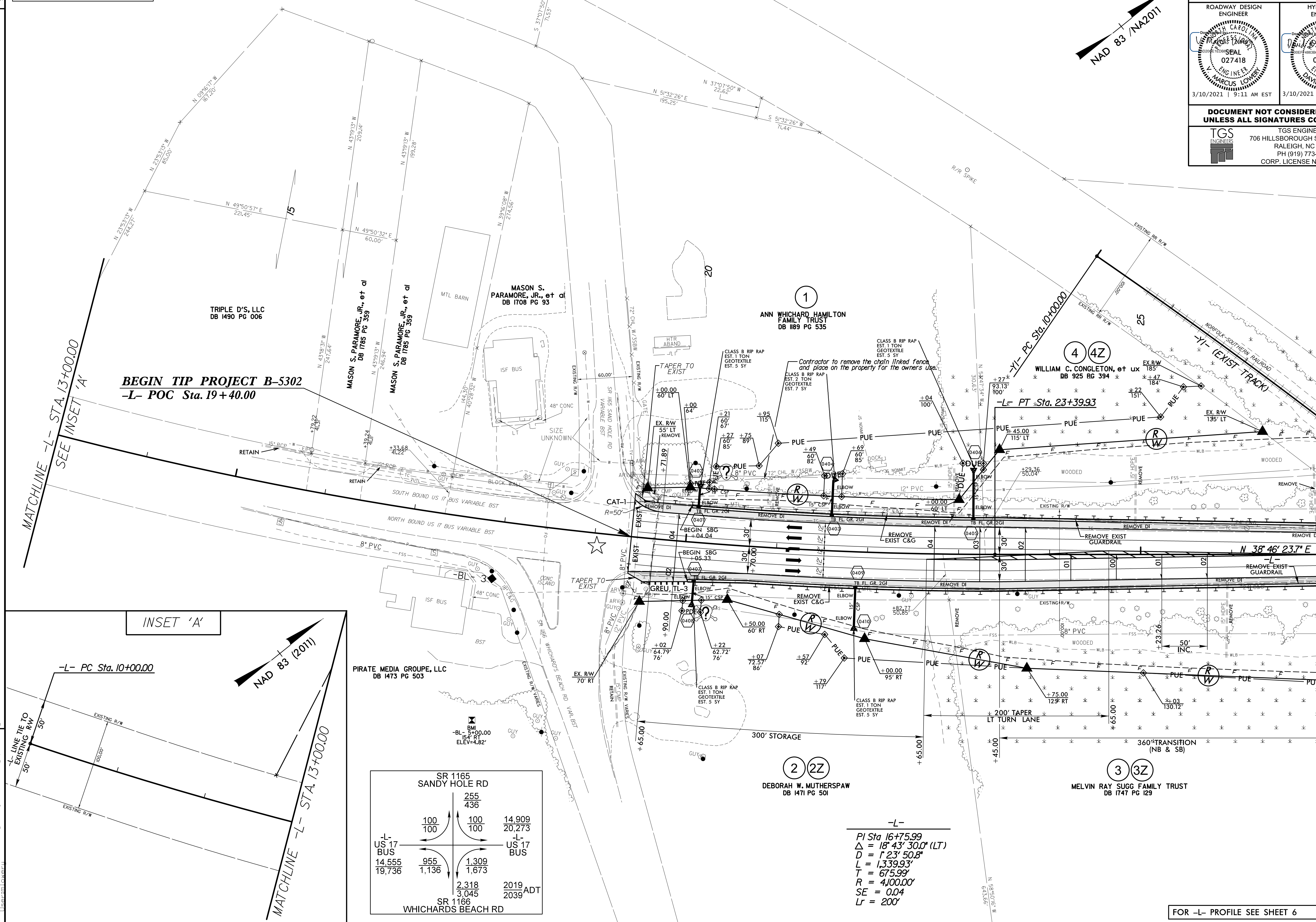
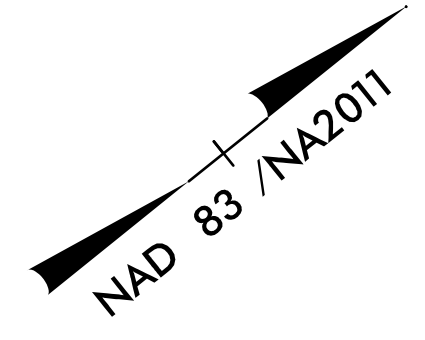
\*ASU = Aggregate Subgrade  
 \*AST = Aggregate Stabilization  
 \*\*Total square yards of "Geotextile for Soil Stabilization" is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.



5/14/2021

☆ EXISTING SIGNAL

PROJECT REFERENCE NO. <b>B-5302</b>		SHEET NO. <b>4</b>	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL	
3/10/2021   9:11 AM EST		3/10/2021   6:12 AM PST	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



SR 1165 SANDY HOLE RD			
	255 436		
100 100	100 100	14,909 20,273	
-L- US 17 BUS	955 1,136	1,309 1,673	-L- US 17 BUS
14,555 19,736			2,318 3,045
		2019 2039 ADT	
SR 1166 WHICHARDS BEACH RD			

-L-

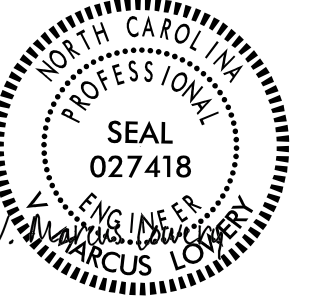

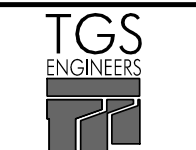
PI Sta 16+75.99  
 $\Delta = 18^\circ 43' 30.0''$  (LT)  
 $D = 123' 50.8''$   
 $L = 1,339.93'$   
 $T = 675.99'$   
 $R = 4,100.00'$   
 $SE = 0.04$   
 $Lr = 200'$

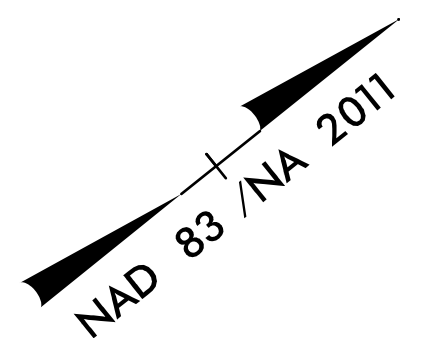
FOR -L- PROFILE SEE SHEET 6

REVISIONS

Project: NC000118\_5302\_2\_Roadway\Proj\B5302\_rdy\_psh\_4.dgn  
User: mlowe



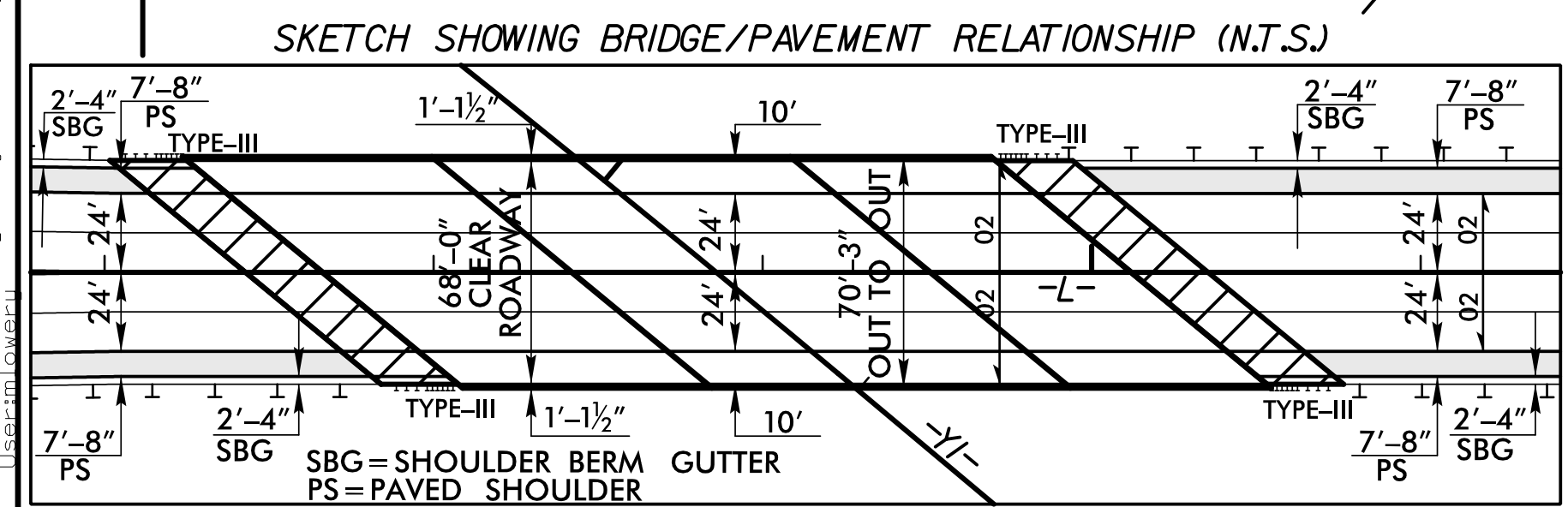
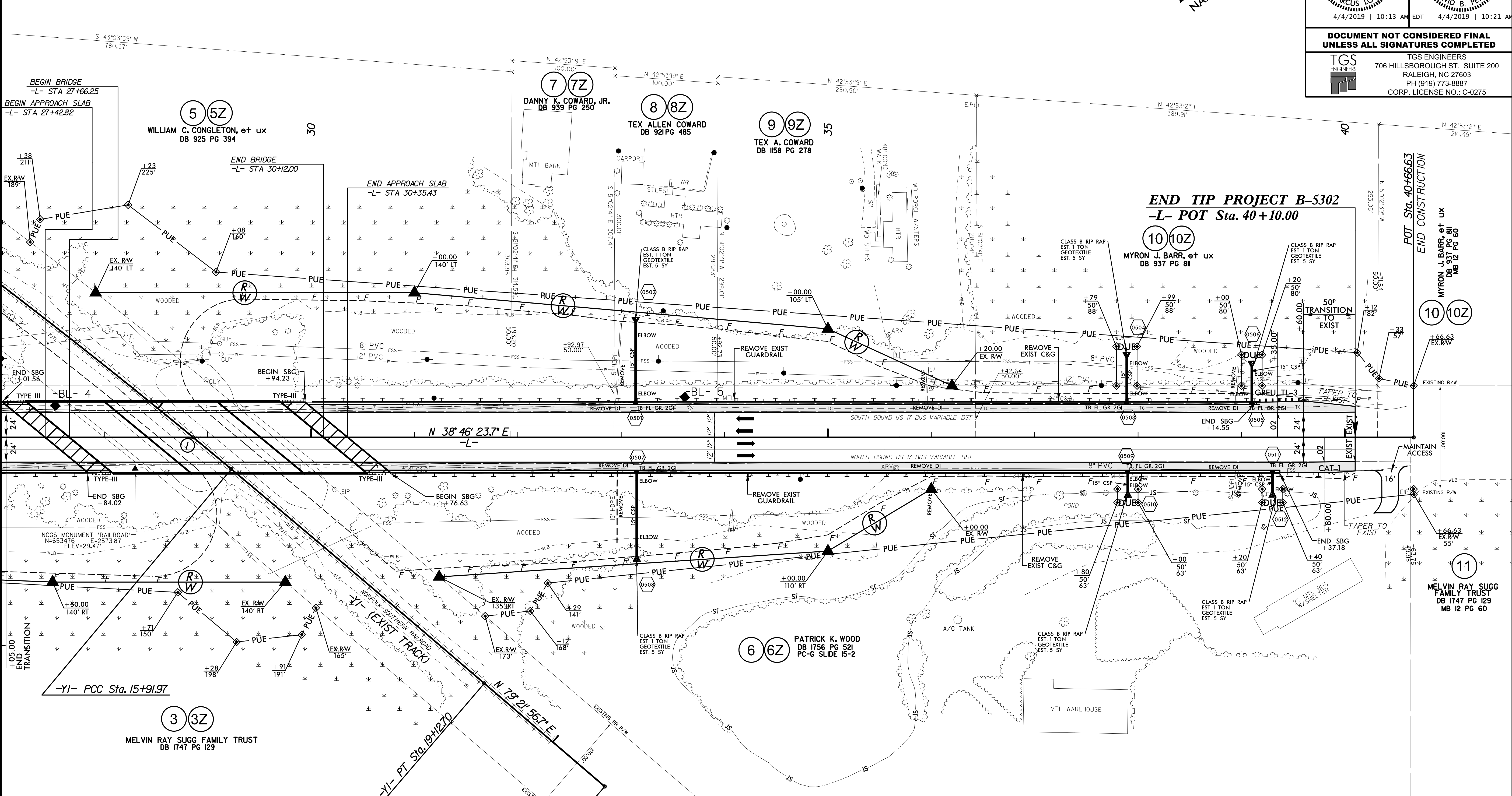
PROJECT REFERENCE NO. <b>B-5302</b>		SHEET NO. <b>5</b>	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
 WILLIAM C. CONGLETON, JR. DB 925 PG 394		 MYRON J. BARR, et ux DB 937 PG 811	
4/4/2019   10:13 AM EDT		4/4/2019   10:21 AM EDT	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			
		TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



-YI- (EXIST TRACK)	
PI Sta 12+96.20 Δ = 5' 24" 34.5" (RT) D = 0' 54" 49.8" L = 591.97' T = 296.20' R = 6,269.81'	PI Sta 17+52.33 Δ = 0' 37" 28.5" (RT) D = 0' 11" 41.0" L = 320.73' T = 160.37' R = 29,422.30'

① -L- POT Sta. 28+85.96 = -YI- POC Sta. 15+43.96

MATCHLINE -L- STA. 27+00.00 SEE SHEET 4



 BRIDGE APPROACH SLAB

FOR -L- PROFILE SEE SHEET 6

FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-43

REVISIONS

K:\NCD001\B-5302\Drawings\Proc\B5302\_rdy\_psh\_5.dgn

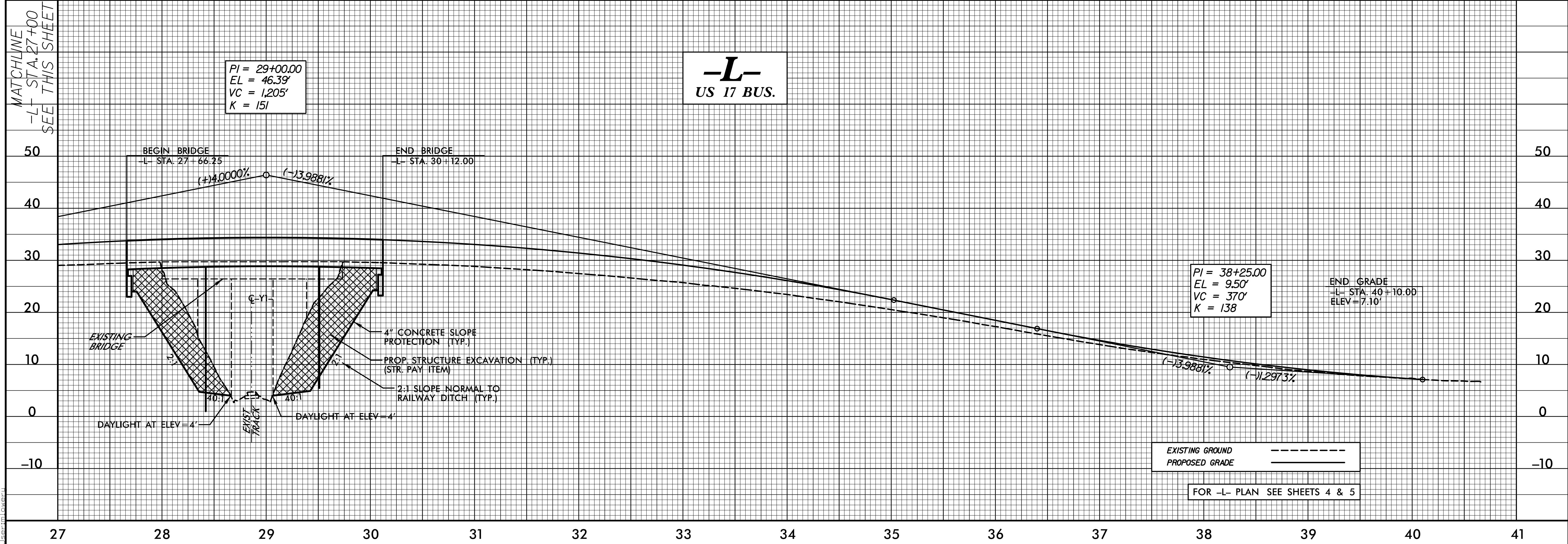
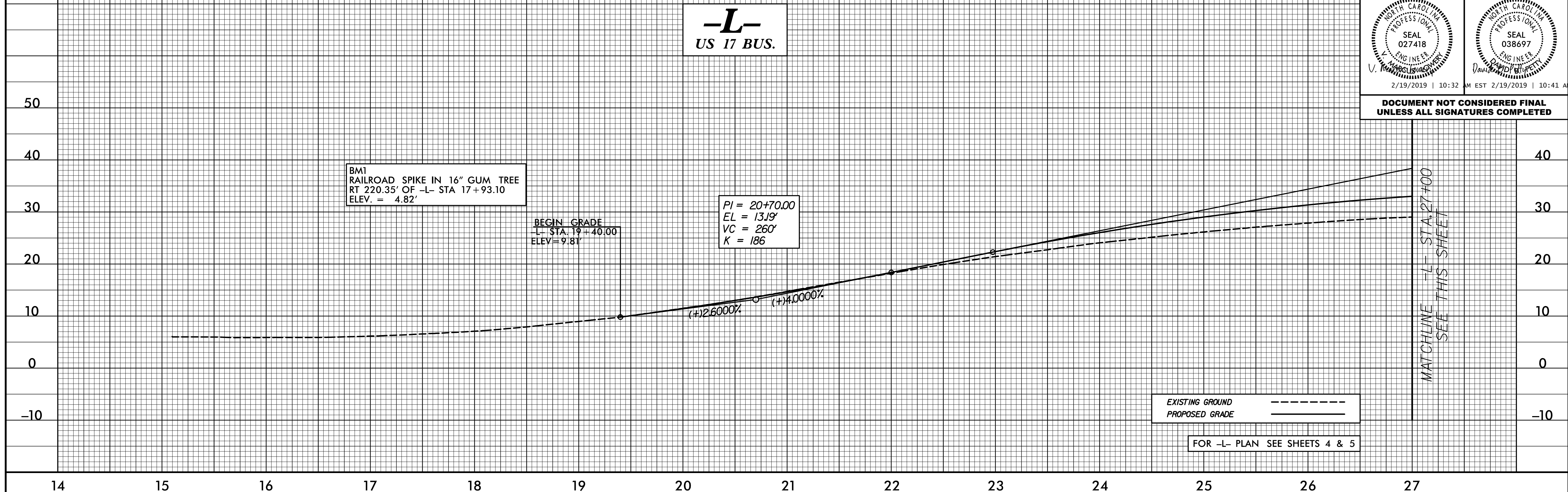


5/28/19

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

PROJECT REFERENCE NO. <b>B-5302</b>	SHEET NO. <b>6</b>
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
2/19/2019   10:32 AM EST 2/19/2019   10:41 AM EST	

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



2/14/2019  
\\srm\l\B-5302\Roadway\Proj\B5302\_rdy.plt.dgn  
User:cm.lawer