TIP PROJECTS: W-5708F - W-5708H - SS-4908BD

See Sheet 1-A For Index of Sheets
See Sheet 2 For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5708F, W-5708H, SS-4908BD	1	

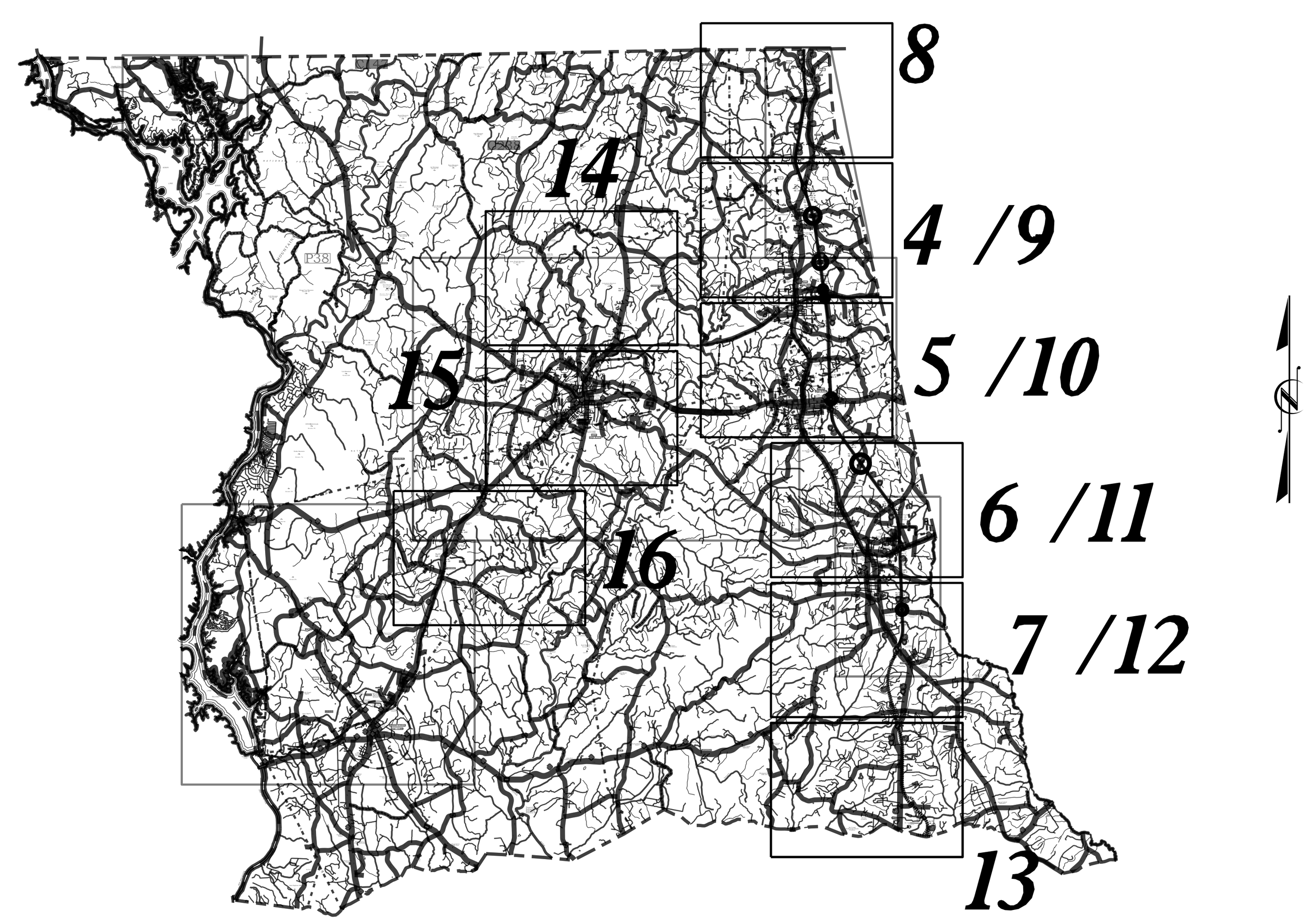
WBS ELEMENT	F. A. PROJ. NO.	DESCRIPTION
W-5708F 44854.3.6	HSIP-0073(048)	CONST.
W-5708H 44854.3.8	HSIP-0001(153)	CONST.
SS-4908BD 44890.3.1		CONST.

LEE & MONTGOMERY COUNTIES

PART I & II: PROJECTS W-5708F, SS-4908BD

LOCATION: US 220 /I-73 /I-74, NC 134, NC 109 & NC 24-27

TYPE OF WORK: INSTALL GUARDRAIL MEDIAN BRIDGE PIER PROTECTION AND REPLACE GUARDRAIL END UNITS

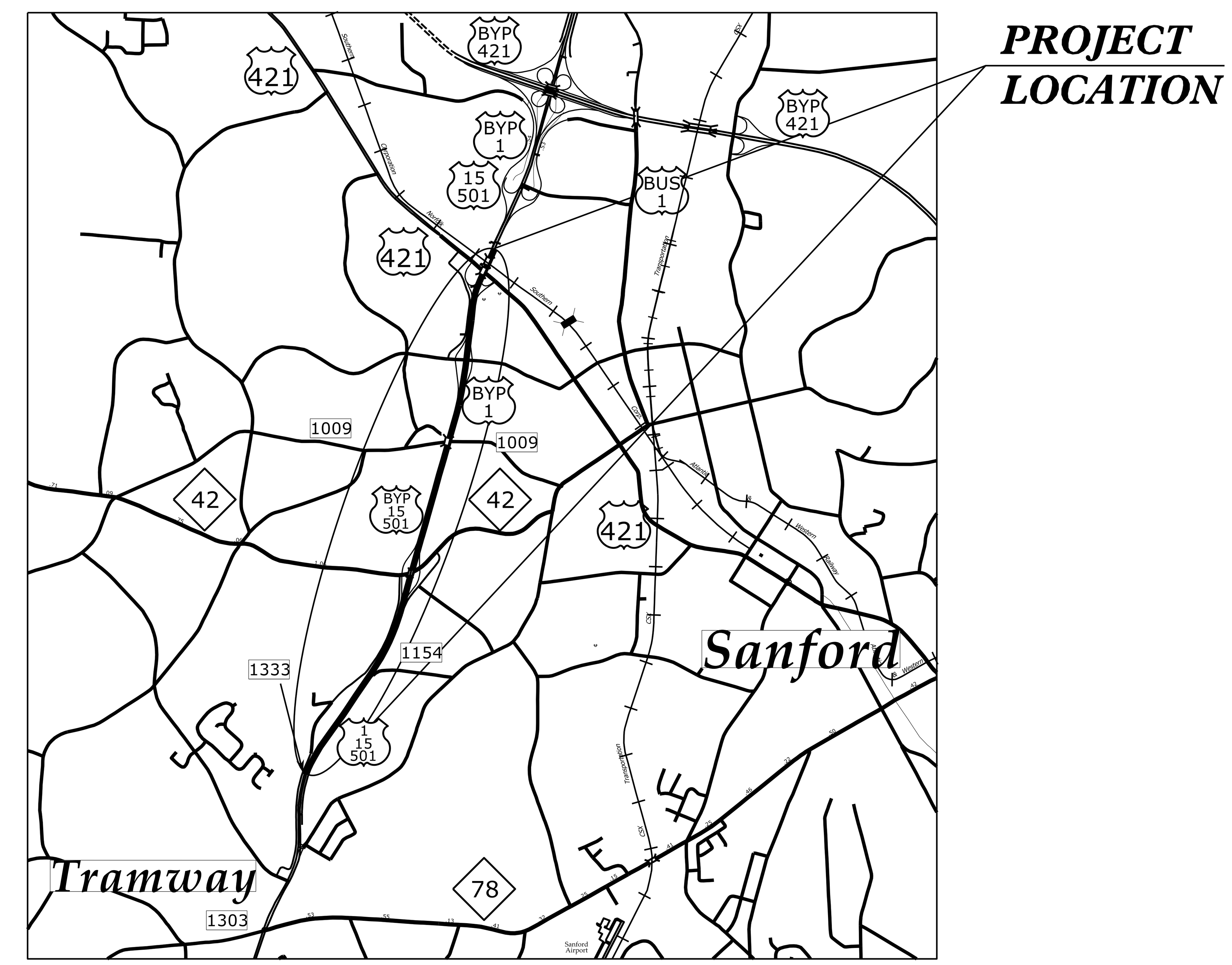


MONTGOMERY COUNTY

PART III : PROJECT W-5708H

LOCATION: US 1 FROM SR 1333 (WESTOVER RD) TO US 421 BUSINESS

TYPE OF WORK: MEDIAN GUARDRAIL REPLACEMENT



VICINITY MAP

PROJECT DATA

GUARDRAIL LOCATIONS SS-4908BD 62 LOCATIONS
GUARDRAIL LOCATIONS W-5708F 8 LOCATIONS
PROJECT LENGTH FOR W-5708H 3.32 MILES

Prepared in the Office of:

DIVISION OF HIGHWAYS

DIVISION 8
DESIGN & CONSTRUCT UNIT
902 N. SANDHILLS BLVD.
ABERDEEN NC 28315

DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DIVISION DESIGN ENGINEER

DocuSigned by: Greg S. Davis 5/17/2018 P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

17-MAY-2018 11:51
Z:\rdy\LEE\US_1_GRDR_70mph-US_421\W-5708F_Guardrail\Mont_co_guardrail(2017)_tsh.dgn
gsdavis AT DIV8-30481O

PROJECT REFERENCE NO.	SHEET NO.
W–5708F, W–5708H, SS–4908BD	1–A

DocuSigned by:
Greg S. Davis
33D47B5FD78F4A8...

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

5/18/2018

DIVISION DESIGN ENGINEER

INDEX OF SHEETS

PARTS I & II : W–5708F & SS–4908BD

PART III : W–5708H

2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – N. C. Department of Transportation – Raleigh, N. C., Dated January 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
862.01	GUARDRAIL PLACEMENT
862.02	GUARDRAIL INSTALLATION
862.03	STRUCTURE ANCHOR UNITS

8/17/99

18-MAY-2018 09:08
Z:\rdy\LEE\US_1_GRDR_70mph-US_421\W-5708F_Guardrail\Indexofshts_psh.dgn
asdavis AT DIV8-304810

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5708H, SS-4908BD	1-B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

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

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Computed Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil — S
- Potential Contamination Area: Soil — S
- Known Contamination Area: Water — W
- Potential Contamination Area: Water — W
- 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 — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — 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 — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

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

TELEPHONE:

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

WATER:

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

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

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

PROJECT NO.	SHEET NO.	TOTAL NO.
44854.3.6 (W-5708F), 44854.3.8 (W-5708H)	**3**	
44890.3.1 (SS-4908BD),		

S U M M A R Y   O F   Q U A N T I T I E S

								3000000000-N	**3030000000-E**	**3135000000-N**	**3150000000-N**	**3210000000-N**	**3287000000-N**	**3345000000-E**	**4457000000-N**
PROJECT NO	**COUNTY**	**MAP NO**	**ROUTE**	**DESCRIPTION**	**LANE TYPE**	**LENGTH**	**WIDTH**	**IMPACT ATTENUATOR UNIT, TYPE 350**	**STEEL BM GUARDRAIL**	**W-TR STEEL BEAM GUARDRAIL TRANSISTION SECTION**	**ADDITIONAL GUARDRAIL POSTS**	**GUARDRAIL END UNITS, TYPE CAT-1**	**GUARDRAIL END UNITS, TYPE TL-3**	**REMOVE & RESET EXISTING GUARDRAIL**	**TEMPORARY TRAFFIC CONTROL**
						MI	**FT**	**EA**	**LF**	**EA**	**EA**	**EA**	**EA**	**LF**	**LS**
44854.3.6 (W-5708F)	Montgomery	1	I-73 / I-74 / US 220	MEDIAN BRIDGE PIER PROTECTION	MD	12.3	33		1,950.00		10.00	16.00	16.00		
TOTAL FOR MAP NO. 1						**12.3**			**1,950.00**		**10.00**	**16.00**	**16.00**		*
TOTAL FOR PROJ NO. 44854.3.6 (W-5708F)						**12.3**			**1,950.00**		**10.00**	**16.00**	**16.00**		**1**
44854.3.8 (W-5708H)	Lee	3	US 1	US 1 MEDIAN FROM SR 1333 (WESTOVER RD) TO US 421 BUS.	MD	3.32	30	1.00		4.00	10.00	3.00	5.00	33,725.00	
TOTAL FOR MAP NO. 3						**3.32**		**1.00**		**4.00**	**10.00**	**3.00**	**5.00**	**33,725.00**	*
TOTAL FOR PROJ NO. 44854.3.8 (W-5708H)						**3.32**		**1.00**		**4.00**	**10.00**	**3.00**	**5.00**	**33,725.00**	**1**
44890.3.1 (SS-4908BD)	Montgomery	2	VAR NHS ROUTES	US 220 / I-73 / I-74 / NC 134 / NC 109 / NC 24-27	MD	50.56	33		250.00		10.00		86.00	250.00	
TOTAL FOR MAP NO. 2						**50.56**			**250.00**		**10.00**		**86.00**	**250.00**	*
TOTAL FOR PROJ NO. 44890.3.1 (SS-4908BD)						**50.56**			**250.00**		**10.00**		**86.00**	**250.00**	**1**
GRAND TOTAL						**66.18**		**1.00**	**2,200.00**	**4.00**	**30.00**	**19.00**	**107.00**	**33,975.00**	**1**

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

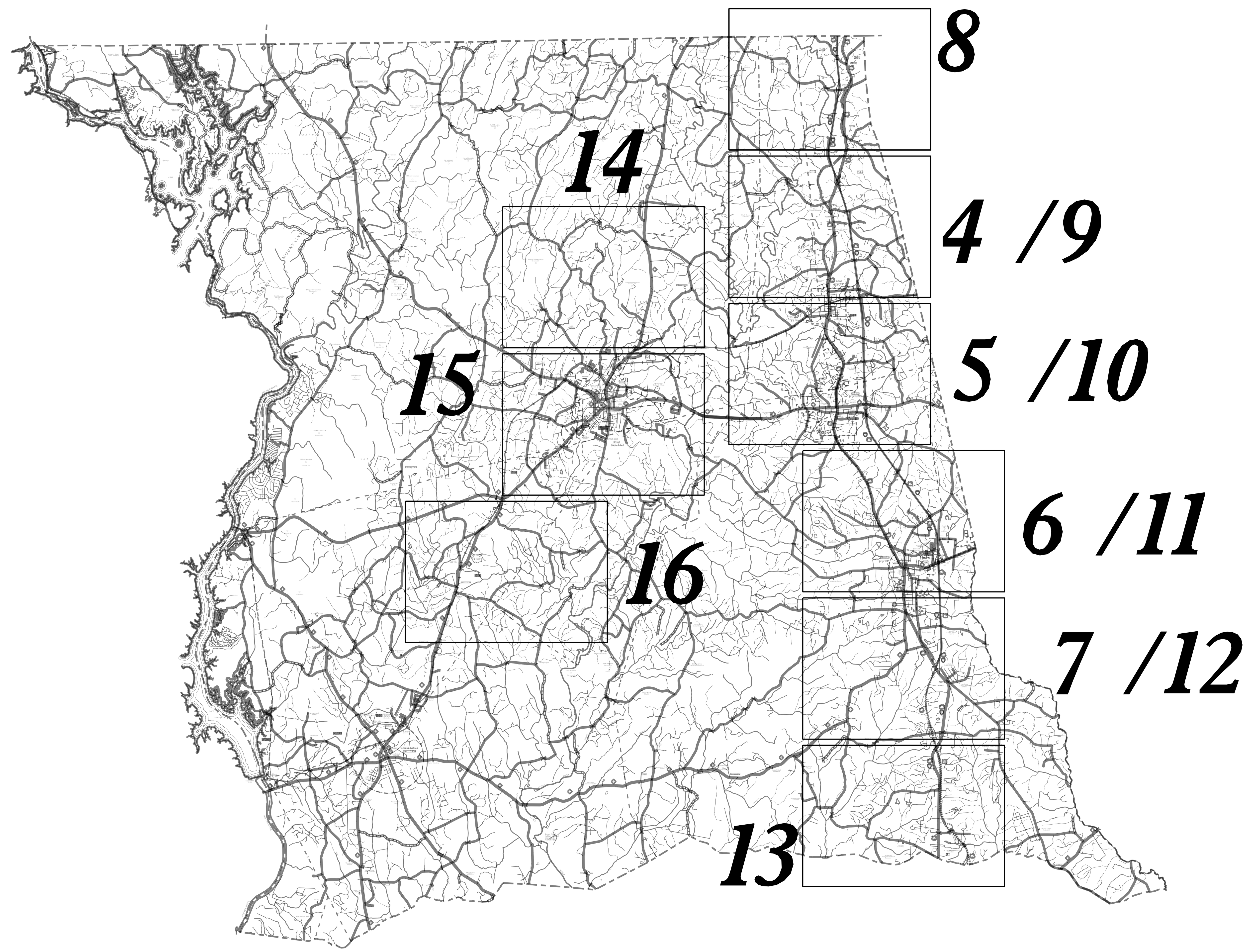
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W–5708F, SS–4908BD	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
W–5708F		
44854.1.6		PE
44854.3.6		CONST
SS–4908BD		
44890.1.1		PE
44890.3.1		CONST

MONTGOMERY COUNTY

LOCATION: US 220 /I–73 /I–74, NC 134, NC 109, & NC 24–27

TYPE OF WORK: INSTALL GUARDRAIL PROTECTION OF MEDIAN PIERS AND REPLACE GUARDRAIL END UNITS.



PROJECT: W–5708F, SS–4908BD

CONTRACT:

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

NTS

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION 8 DESIGN & CONSTRUCT UNIT
902 N. SANDHILLS BLVD.
ABERDEEN NC 28315
PLANS PREPARED BY: DDC

PROJECT LENGTH
ROADWAY: _____ MILES
STRUCTURE: _____ MILES
TOTAL: _____ MILES

DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

HYDRAULICS ENGINEER

P.E.
SIGNATURE:

DIVISION DESIGN ENGINEER

DocuSigned by:
Greg S. Davis
5/17/2018
P.E.
SIGNATURE:

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

17-MAY-2018 17:34
Z:\rdy\LEE\US_1_GRDR_70mph-US_421\Mont_co_guardrail(2017)\Mont_co_guardrail(2017)_tsh.dgn
gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W-5708F, SS-4908BD	2

R/W SHEET NO.

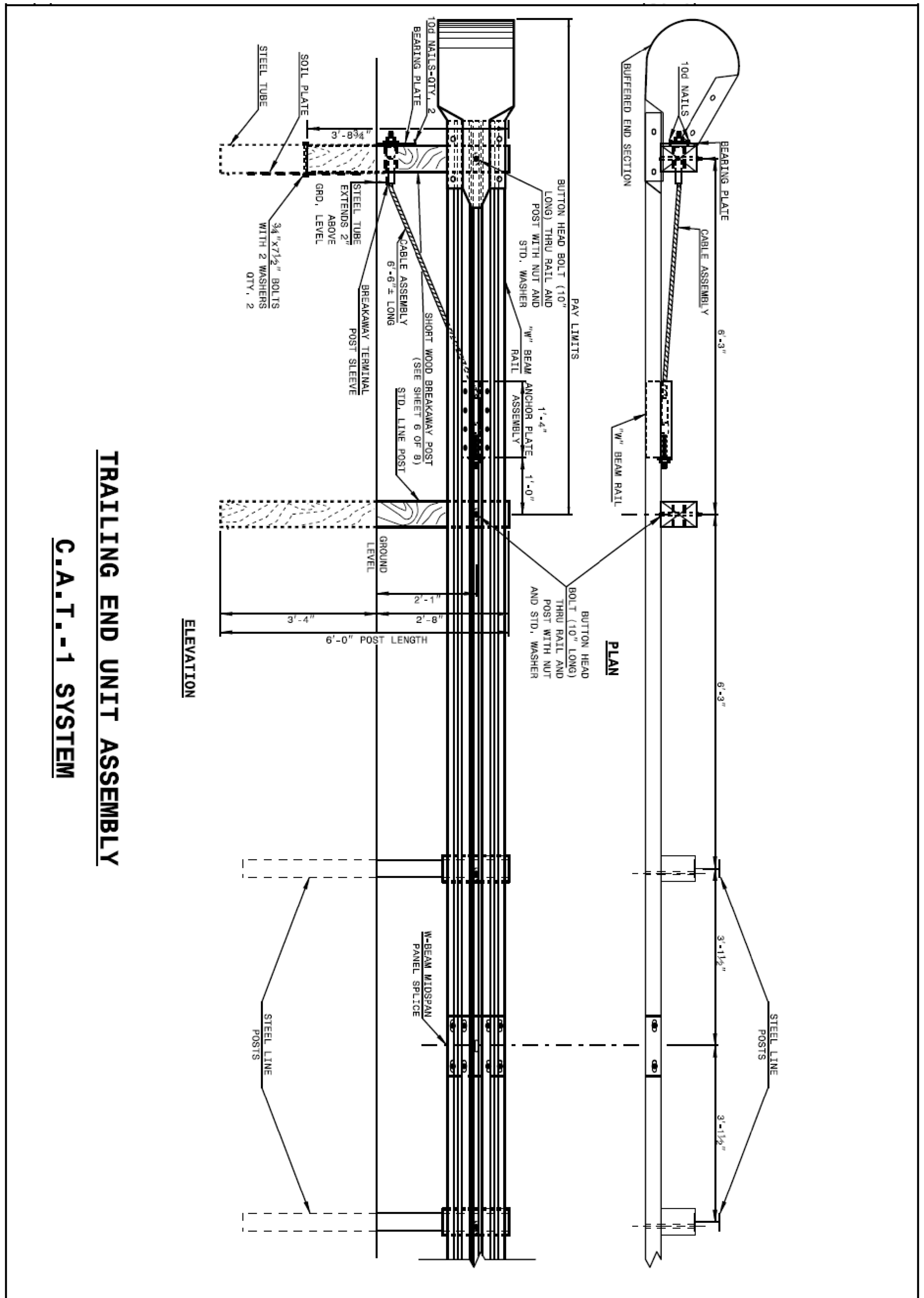
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS

8/17/99

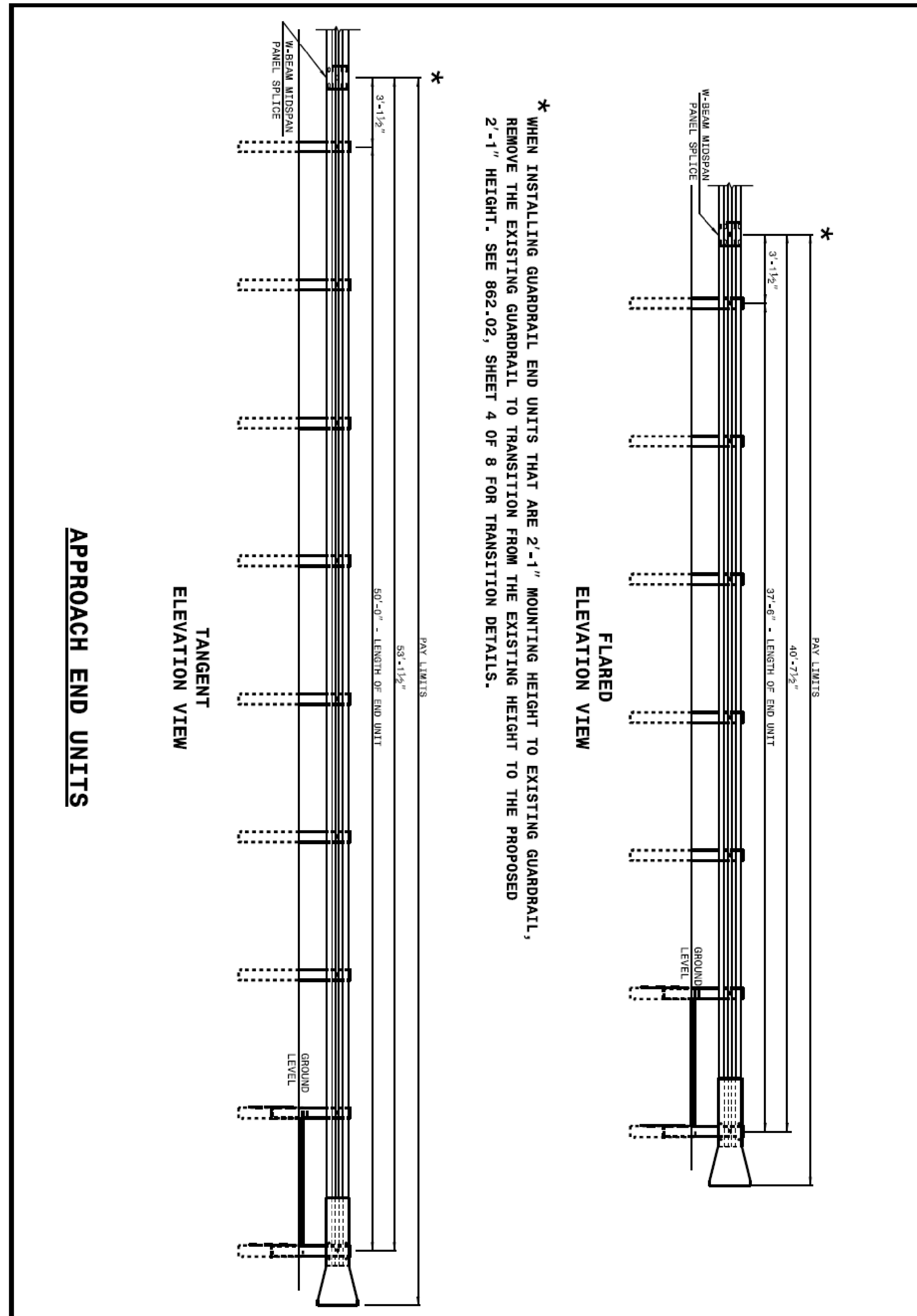
TRAILING END UNIT ASSEMBLY
C.A.T.-1 SYSTEM



SHEET 1 OF 8	ROADWAY STANDARD DRAWING FOR **GUARDRAIL INSTALLATION**	1-18	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

862.02

APPROACH END UNITS



* WHEN INSTALLING GUARDRAIL END UNITS THAT ARE 2'-1" MOUNTING HEIGHT TO EXISTING GUARDRAIL, REMOVE THE EXISTING GUARDRAIL TO TRANSITION FROM THE EXISTING HEIGHT TO THE PROPOSED 2'-1" HEIGHT. SEE 862.02, SHEET 4 OF 8 FOR TRANSITION DETAILS.

SHEET 2 OF 8	ROADWAY STANDARD DRAWING FOR **GUARDRAIL INSTALLATION**	1-18	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

862.02

DIV8-3019

COMPUTED BY: *MRT* **DATE:** *1-25-18*
CHECKED BY: *GSD* **DATE:** *5-15-2018*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
W-5708F	*3*

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
W = TOTAL WIDTH OF FLARE FROM BEGIN

GUARDRAIL SUMMARY

G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

Location	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350		SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GREU TL-3	MEDIAN TL-3	XIII	CAT-1	VI MOD	BIC		G	NG				
1			MEDIAN	210													2			2									
2			MEDIAN	210													2			2									
3			MEDIAN	270													2			2									
4			MEDIAN	190													2			2									
5			MEDIAN	420													2			2									
6			MEDIAN	210													2			2									
7			MEDIAN	210													2			2									
8			MEDIAN	210													2			2									
Subtotal				**1930**													16			16									
TOTAL				**1930**																									
SAY				**1950**																									
Additional GR Posts				10																									

COMPUTED BY:	DDC	DATE:	9/20/2017
CHECKED BY:	GSD	DATE:	10/25/2017

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	3-A

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL

GUARDRAIL SUMMARY

G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SITE #	ROUTE	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR OR TYPE 350		SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS
			STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU TL-3	Median TL-3	XIII	CAT-1	VI MOD	BIC		G	NG				
MONTGOMERY CO																												REPLACE END UNITS
9	I-73/74 SBL	RT														1												SHEET 8; 1 mile north of exit 58
10	I-73/74 SBL	LT														1												SHEET 8; Bridge over King Rd.
11	I-73/74 SBL	RT														1												SHEET 8; Exit 58
12	I-73/74 SBL	RT														1												SHEET 9; Bridge over US 220 Bus.
13	I-73/74 SBL	RT														1												SHEET 9; Exit 56
14	I-73/74 SBL	LT/RT																										SHEET 9; Bridge over 220 Bus.
15	I-73/74 SBL	RT														1												SHEET 9; Exit 56
16	I-73/74 SBL	RT														1												SHEET 9; Exit 56
17	I-73/74 SBL	RT														1												SHEET 9; Exit 52
18	I-73/74 SBL	RT														1												SHEET 10; 1.5 miles north of exit 49
19	I-73/74 SBL	RT														1												SHEET 10; South of exit 49
20	I-73/74 SBL	RT														1												SHEET 11; Mile marker 47
21	I-73/74 NBL	LT														1												SHEET 11; Just South of NC 211
22	I-73/74 NBL	LT														1												SHEET 11; Cole Road 4/12/2016 Accident Location
23	I-73/74 SBL	RT														1												SHEET 11; 1 mile north of NC 211
24	I-73/74 SBL	RT														1												SHEET 12; 1 mile north of exit 41
25	I-73/74 SBL	RT														1												SHEET 12; 0.5 mile north of exit 41
26	I-73/74 SBL	LT														1												SHEET 13; Just south of mile marker 36
27	I-73/74 NBL	LT														1												SHEET 13; Just south of mile marker 36
28	I-73/74 NBL	RT														1												SHEET 12; 2.5 miles south of exit 44
29	I-73/74 NBL	RT														1												SHEET 12; 1.5 miles south of exit 44
30	I-73/74 NBL	RT														1												SHEET 12; Mile marker 43
31	I-73/74 NBL	RT														1												SHEET 11; 1 mile south of exit 44
32	I-73/74 NBL	RT														1												SHEET 11; 1 mile south of exit 44
33	I-73/74 NBL	RT														1												SHEET 11; 1 mile north of exit 44
34	I-73/74 NBL	RT														1												SHEET 11; 1.5 miles north of exit 49
35	I-73/74 NBL	RT														1												SHEET 11; mile marker 48
36	I-73/74 NBL	LT														1												SHEET 10; mile marker 49
37	I-73/74 NBL	RT														1												SHEET 10; exit 49
38	I-73/74 NBL	RT														1												SHEET 10; mile marker 50
39	I-73/74 NBL	RT														1												SHEET 10; just south of mile marker 51
40	I-73/74 NBL	RT														1												SHEET 8; exit 52
41	I-73/74 NBL	RT														1												SHEET 8; mile marker 53
42	I-73/74 NBL	RT														1												SHEET 8; just south of mile marker 54
43	I-73/74 NBL	RT														1												SHEET 9; mile marker 55
44	I-73/74 NBL	RT														1												SHEET 9; exit 56
45	I-73/74 NBL	RT														1												SHEET 9; exit 56 ramp
46	I-73/74 NBL	RT														1												SHEET 9; Bridge over 220 Bus
47	I-73/74 NBL	RT														1												SHEET 8; mile marker 57
48	I-73/74 NBL	RT														1												SHEET 8; 0.5 mile south of exit 58
49	I-73/74 NBL	RT														1												SHEET 8; mile marker 58
50	I-73/74 NBL	RT														1												SHEET 8; exit 58 on ramp
51	I-73/74 NBL	RT														1												SHEET 8; mile marker 59
52	I-73/74 NBL	RT														1												SHEET 8; 1 mile south of rest area
53	I-73/74 NBL	RT														1												SHEET 8; just south of county line
54	NC 24/27 N/A	LT/RT														4												SHEET 15; Just west of Oscar Rd
55	NC 24/27 WBL	RT														1												SHEET 10; US 73 Bridge
56	NC 24/27 EBL	RT														1												SHEET 10; Skeen-Miller Rd.
57	NC 24/27 WBL	RT														1												SHEET 10; Skeen-Miller Rd.
58	US 220 BUS N/A	LT/RT														2												SHEET 10; Owen St.
59	US 220 BUS N/A	RT														3												SHEET 9; At US 73/74 under overpass
60	US 220 BUS N/A	RT														1												SHEET 11; Vivian St.
61	NC 109 S N/A	LT														2												SHEET 16; 300' Past Robedo Rd.
62	NC 109 S N/A	LT/RT														4												SHEET 16; Just before West Montgomery High School
63	NC 109 S N/A	LT/RT														4												SHEET 16; Rail road bridge
64	NC 109 S N/A	RT														1												SHEET 16; 500' past rail road bridge
65	NC 134 N/A	RT														1												SHEET 14; House # 2533
66	NC 134 N/A	LT/RT														4												SHEET 14; House #1909
67	NC 134 N/A	LT/RT														4												SHEET 14; House #1809
68	NC 134 N/A	RT														2												SHEET 14; House #1706
69	NC 134 N/A	LT/RT														4												SHEET 14; Denson Creek
70	NC 134 N/A	LT/RT														3												SHEET 14; First Wesleyan Church
TOTALS THIS SHEET																86												

PROJECT REFERENCE NO.	SHEET NO.
W-5708F	4
R/W SHEET NO.	

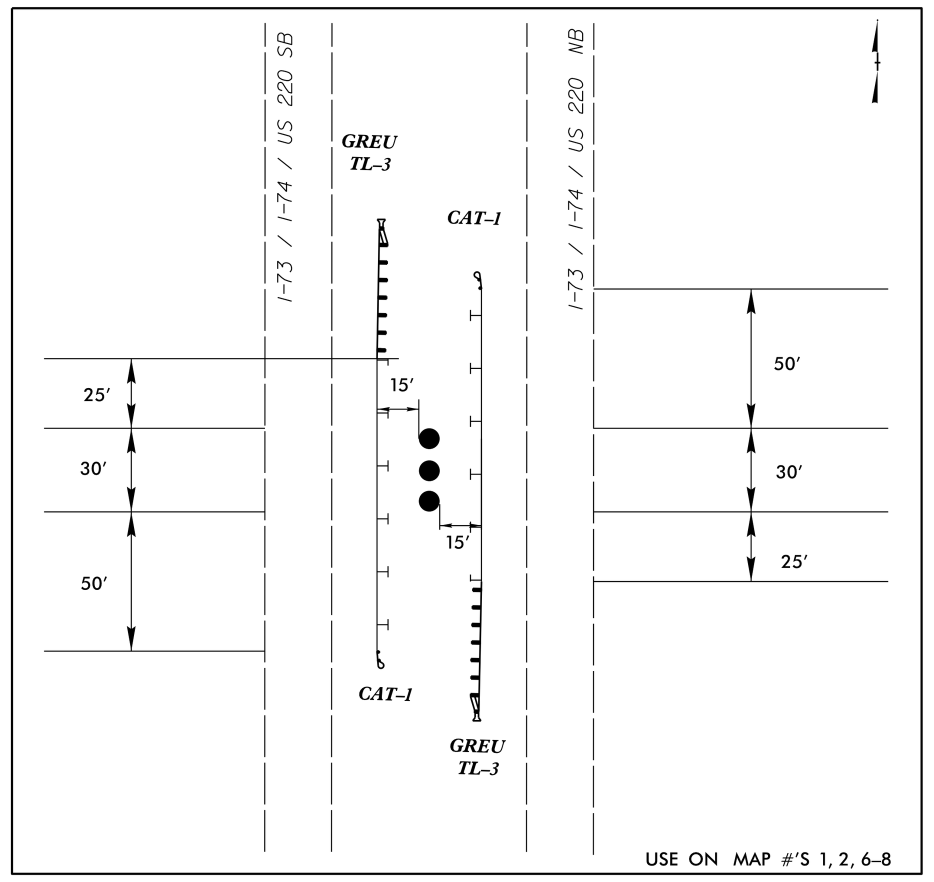
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

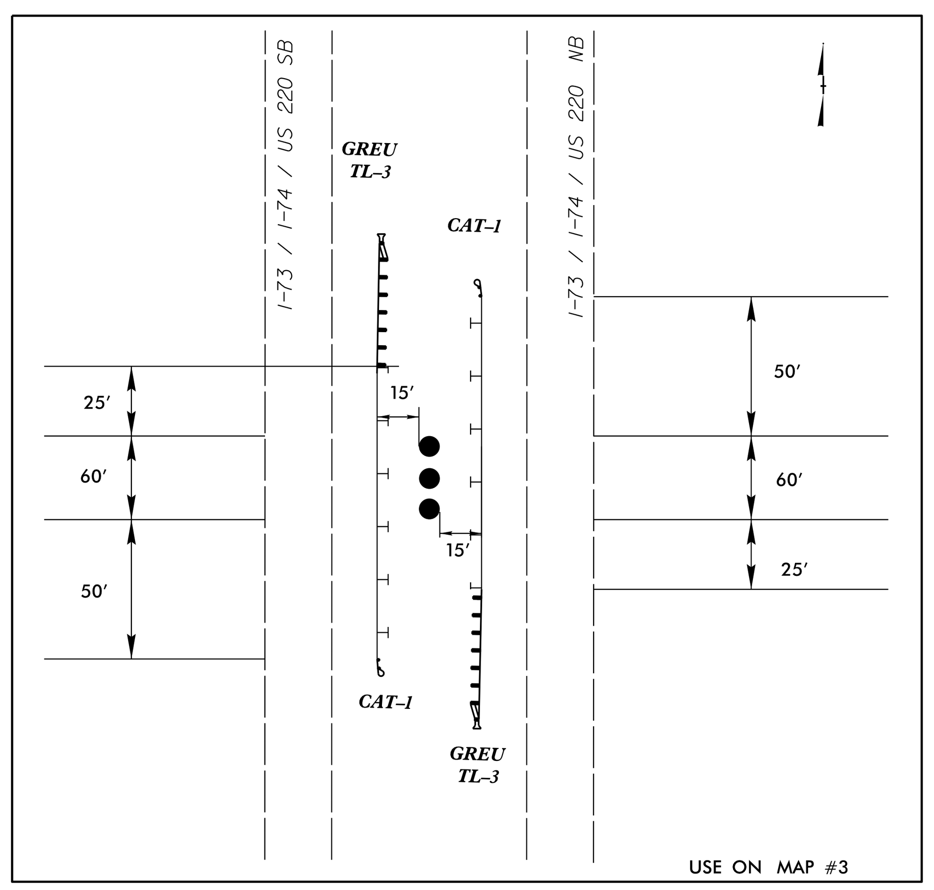
DocuSigned by: Greg S. Davis

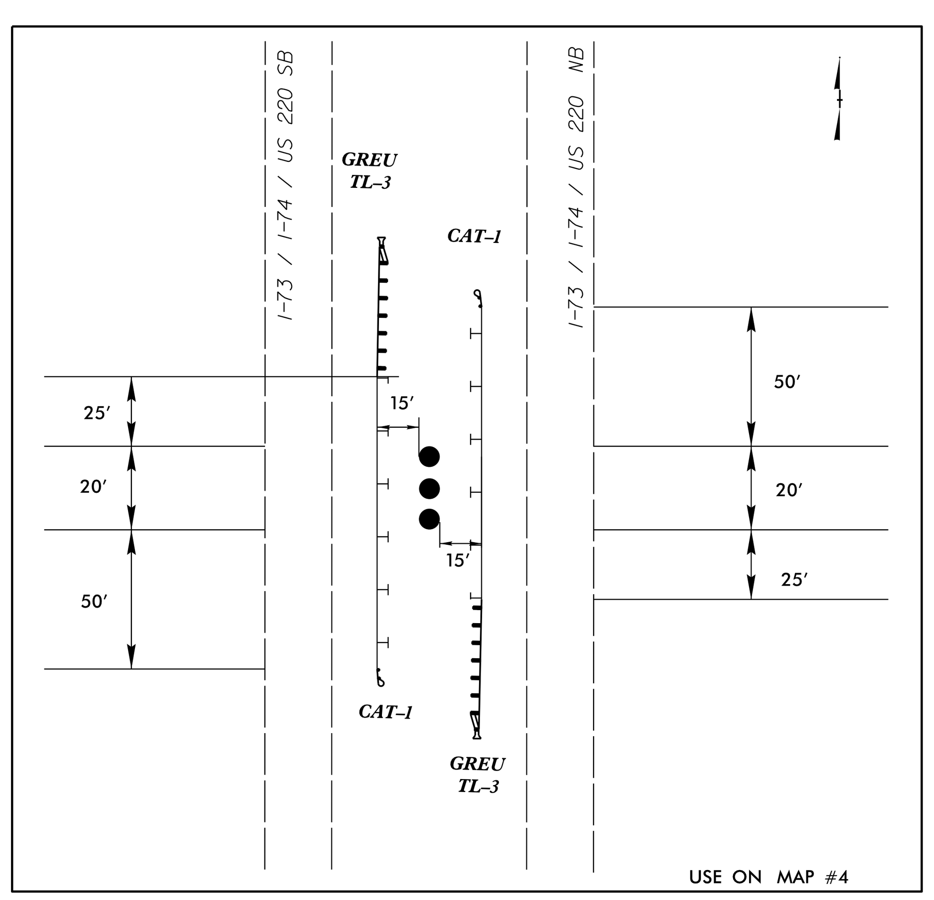
5/17/2018

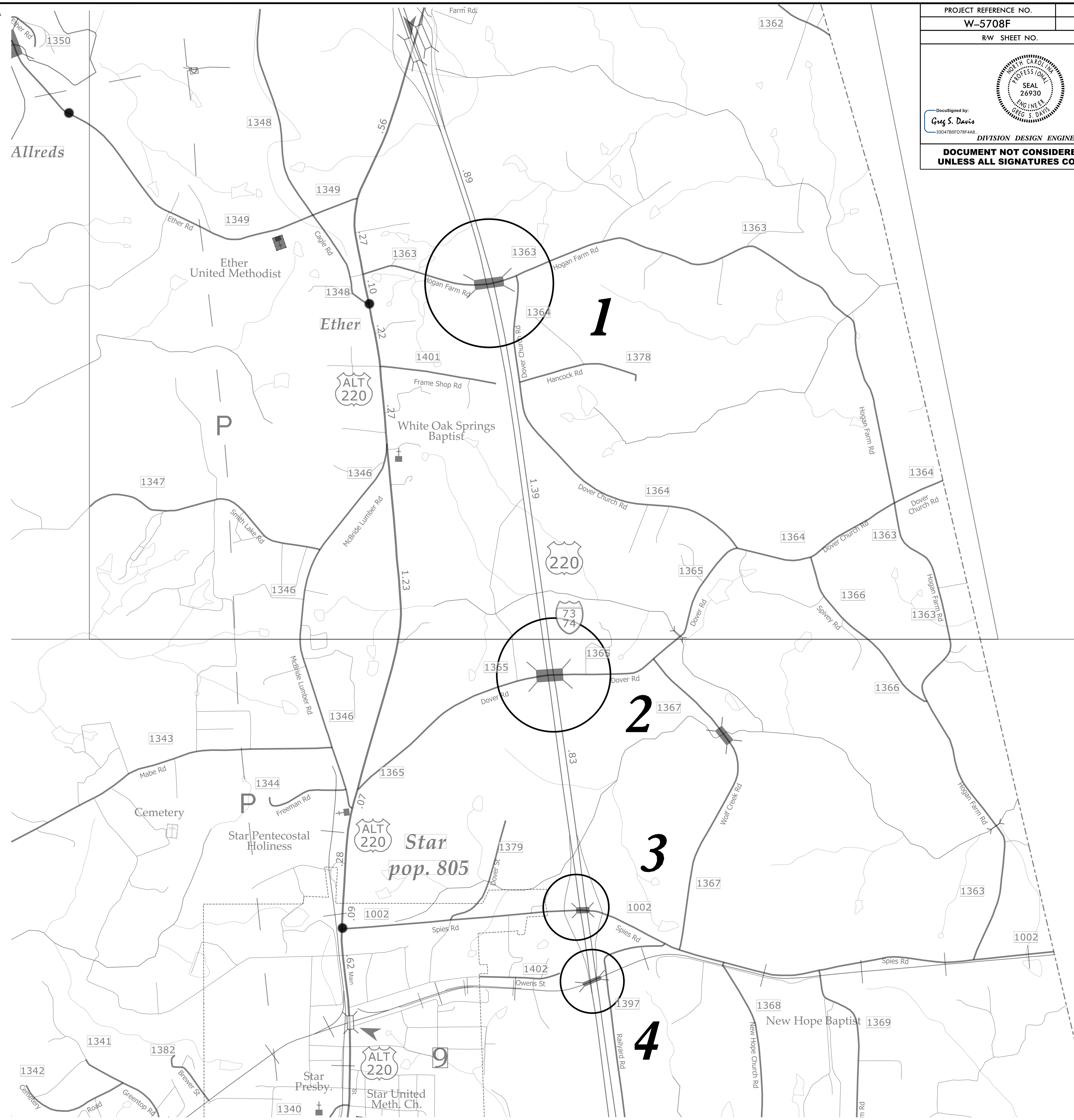
DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED









PROJECT REFERENCE NO.	SHEET NO.
W-5708F	5
R/W SHEET NO.	

SEAL 26930

DocuSigned by: Greg S. Davis

DIVISION DESIGN ENGINEER

5/17/2018

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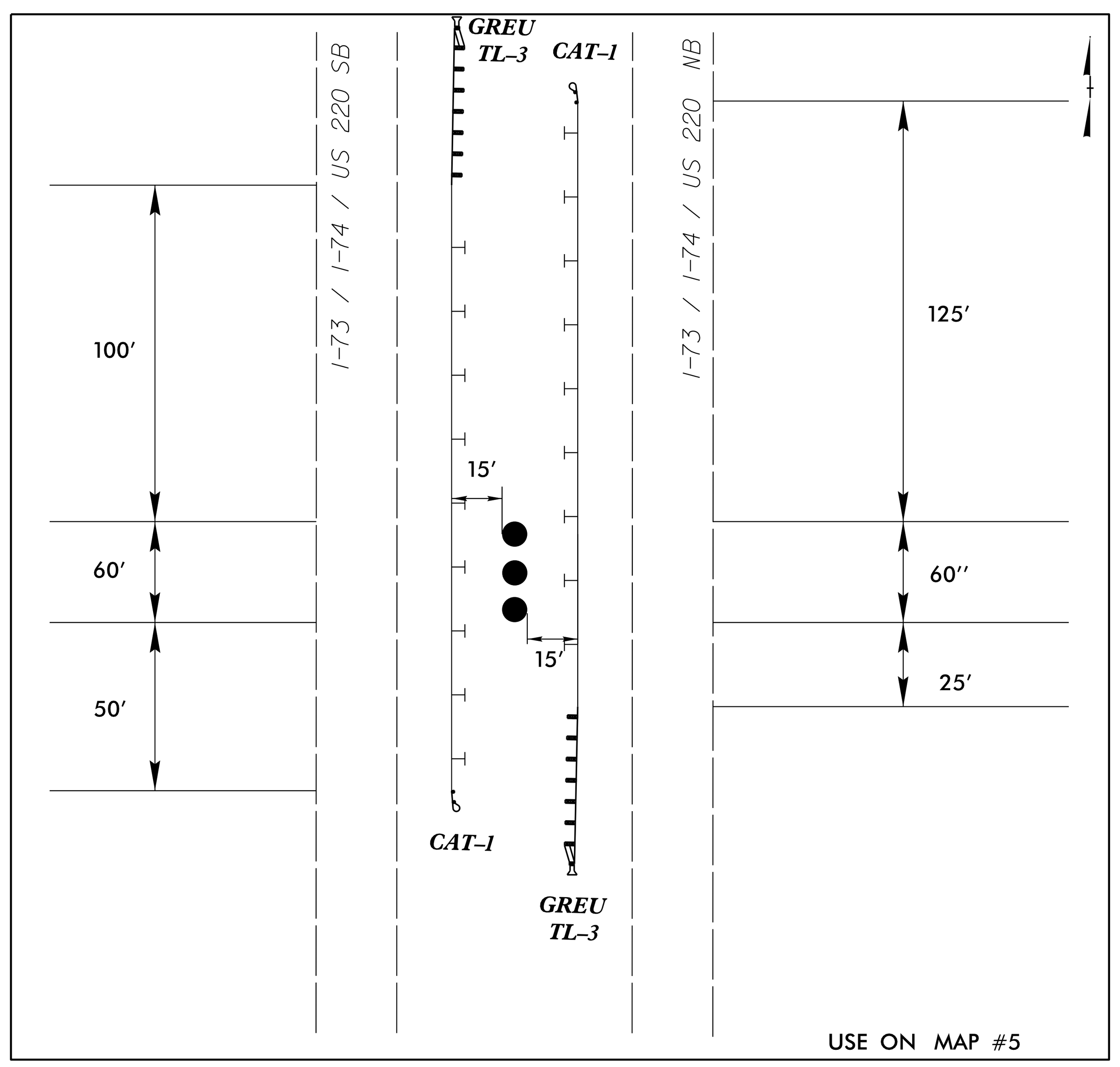

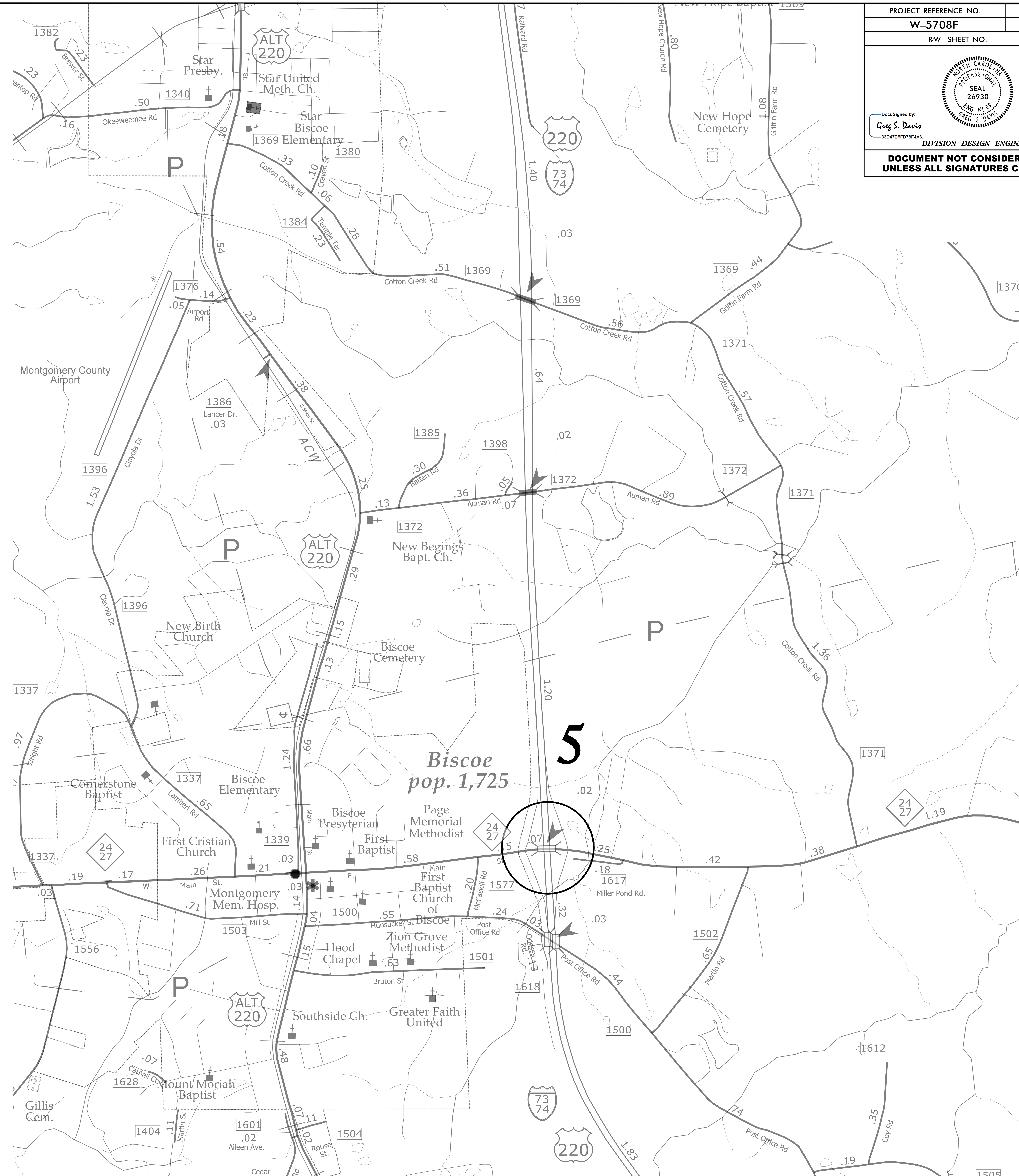

PROJECT REFERENCE NO.	SHEET NO.
W-5708F	6
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis

5/17/2018

DIVISION DESIGN ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
W-5708F	7
R/W SHEET NO.	

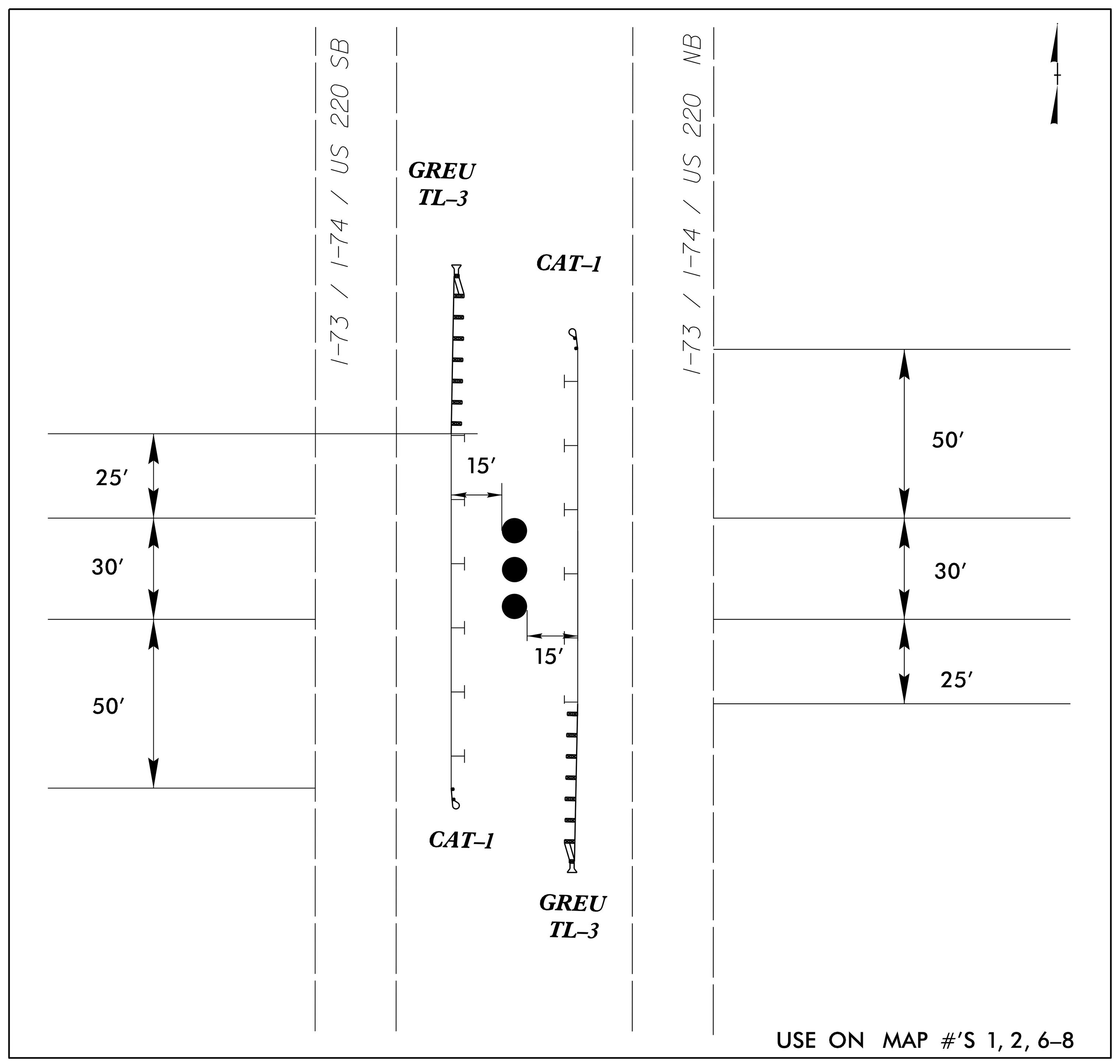
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

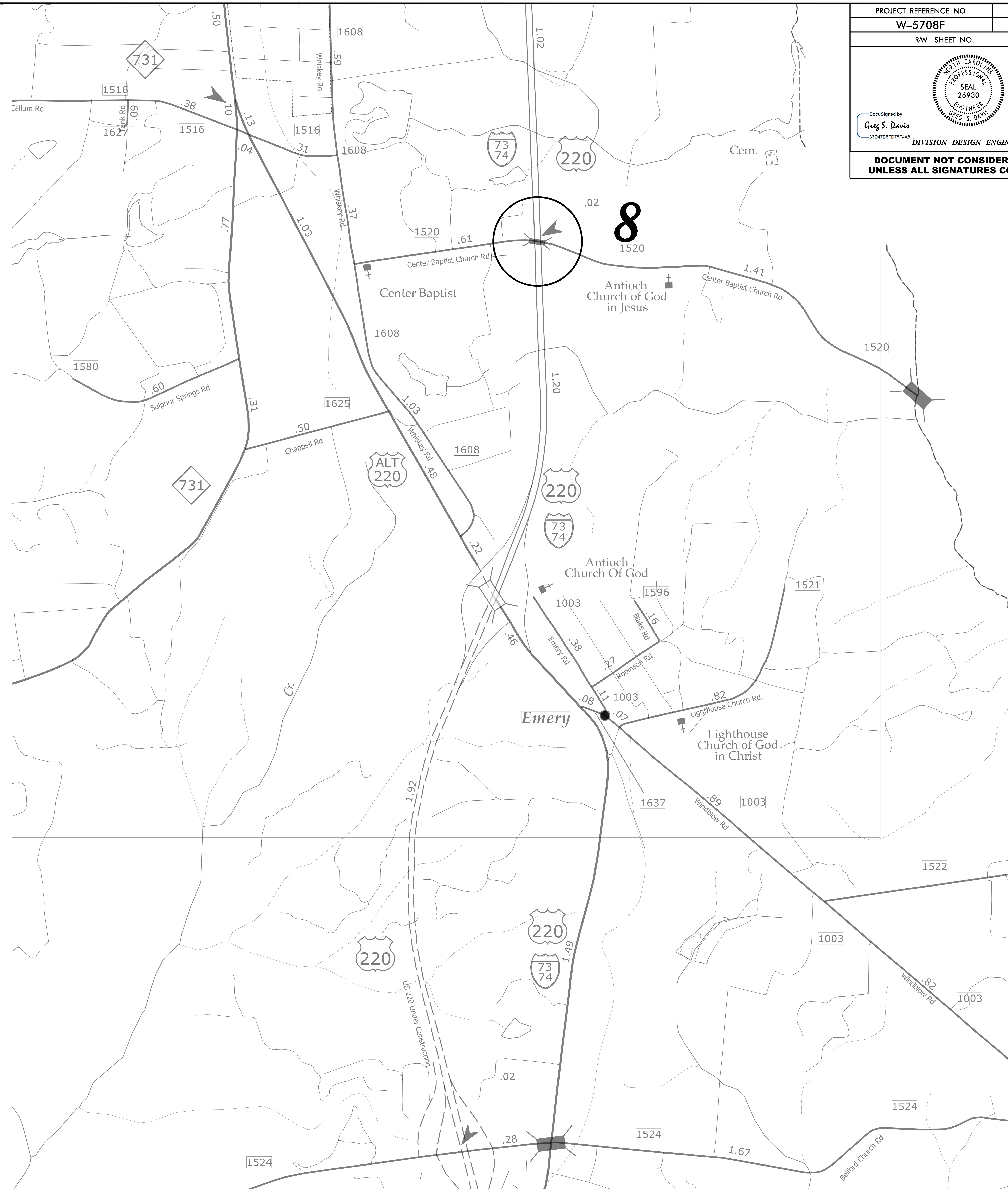
DocuSigned by: Greg S. Davis 33D47B5FD78F4A8

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED





PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	8
R/W SHEET NO.	

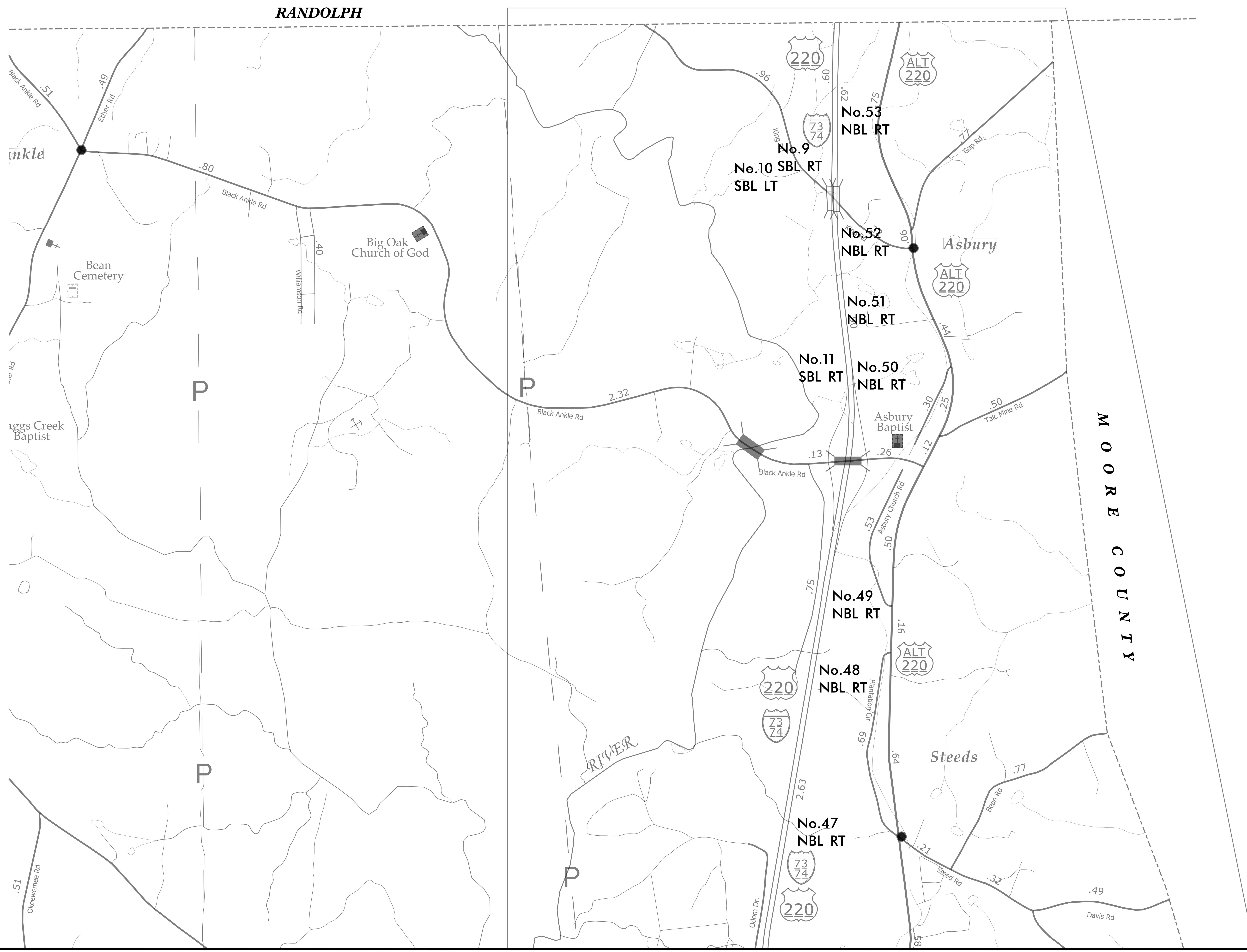
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by:
Greg S. Davis
33D47B5FD78F4A8...

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	9
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

DocuSigned by: Greg S. Davis 5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	10
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

DocuSigned by: Greg S. Davis

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	11
R/W SHEET NO.	

SEAL 26930

DocuSigned by: Greg S. Davis

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	12
R/W SHEET NO.	

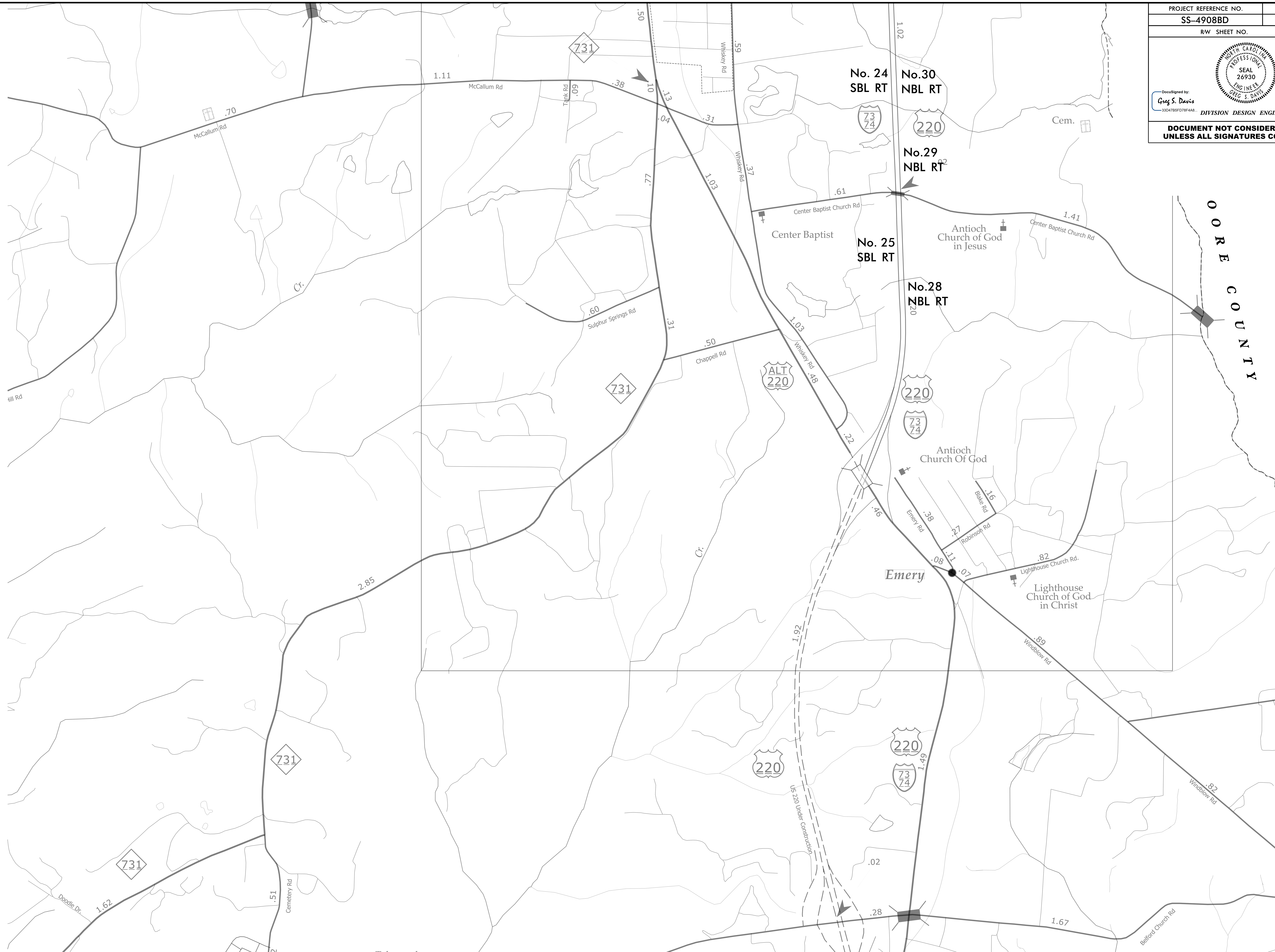
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



8/17/99

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	13
R/W SHEET NO.	

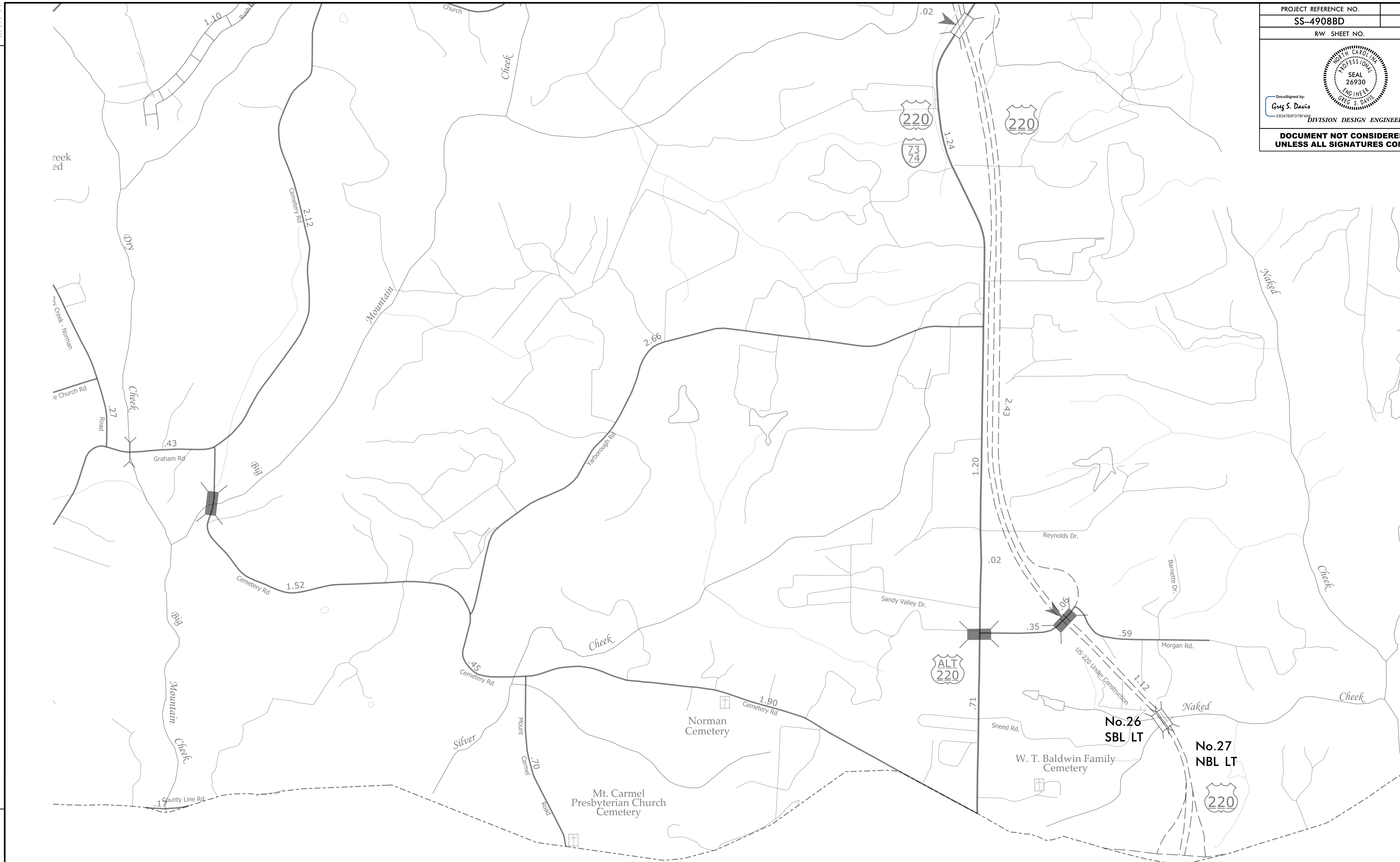
NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8...

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	14
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 26930 GREG S. DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8... 5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	15
R/W SHEET NO.	

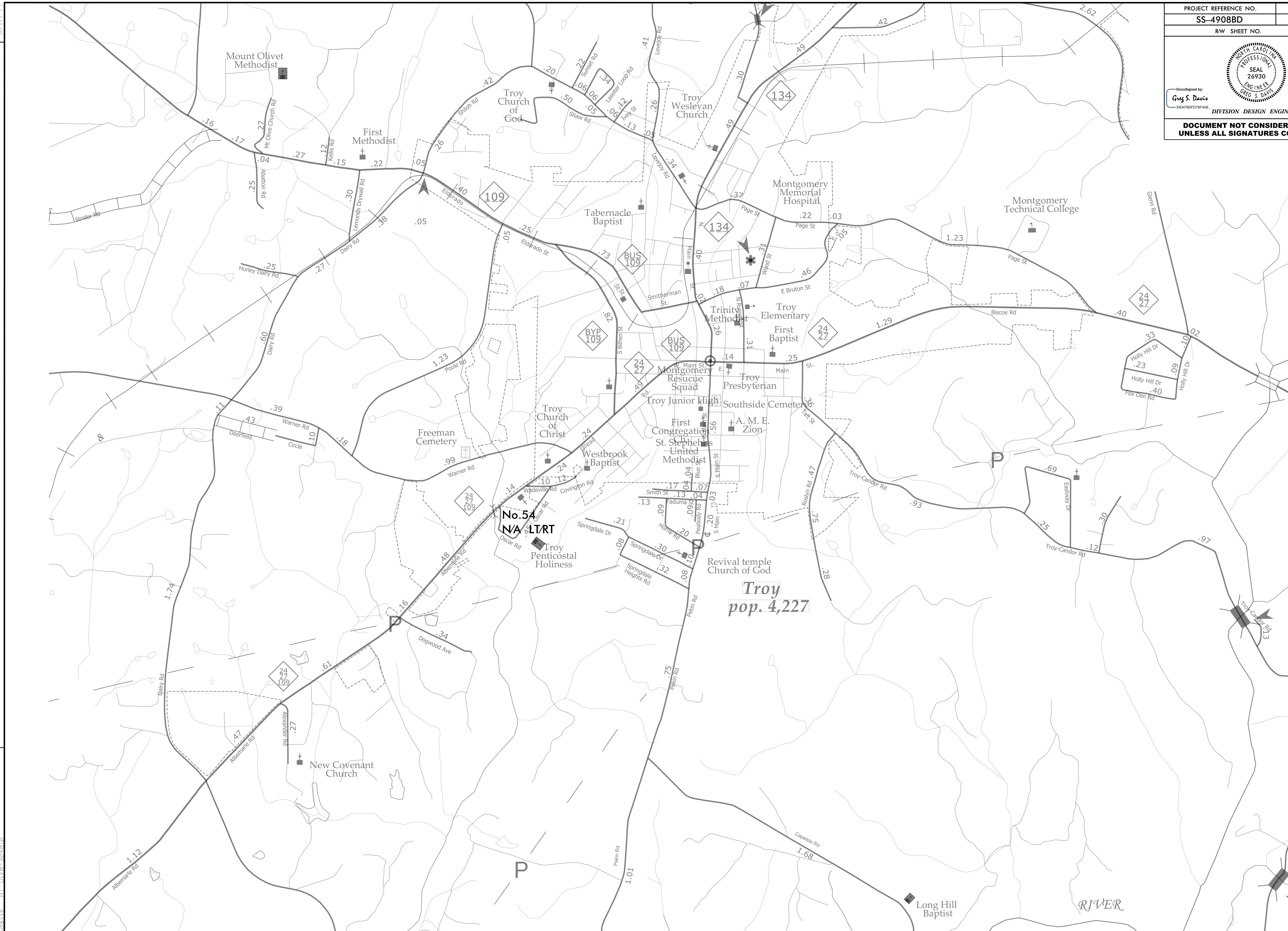
DocuSigned by: Greg S. Davis

SEAL 26930 NORTH CAROLINA PROFESSIONAL ENGINEER GREG S. DAVIS

5/17/2018

DIVISION DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO.	SHEET NO.
SS-4908BD	16
R/W SHEET NO.	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis 33D47B5FD78F4A8...

5/17/2018

DIVISION DESIGN ENGINEER

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PROJ. REFERENCE NO.	SHEET NO.
W-5708F SS-4908BD	TMP-1

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTION
I-73 /I-74 /US 220	MONDAY THRU FRIDAY 7:00 AM – 9:00 AM 4:00 PM – 6:00 PM
ALL OTHER ROUTES	MONDAY THRU FRIDAY 7:00 AM – 9:00 AM

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

ROAD NAME

ALL ROUTES

HOLIDAY

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

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 7:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

MANAGEMENT STRATEGIES

– UTILIZING LANE CLOSURES OR SHOULDER CLOSURES AS DIRECTED BY THE ENGINEER, REMOVE EXISTING GUARDRAIL END UNIT AND REPLACE WITH NEW END UNIT.

PHASING

STEP 1:
INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DRAWING NO. 1101.01. WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE SIGNS, AS DIRECTED BY THE ENGINEER.

STEP 2:

USING NCDOT STANDARD DRAWING NO. 1101.02 AND/OR NO. 1101.04 AS DIRECTED, REMOVE EXISTING GUARDRAIL ANCHOR UNIT AND REPLACE WITH NEW GUARDRAIL ANCHOR UNIT AS OUTLINED FOR EACH LOCATION.

STEP 3:

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN ALL MAPS TO FINAL TRAFFIC PATTERN.

APPROVED: Greg S. Davis

DATE: 5/17/2018

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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

TRAFFIC MANAGEMENT PLAN

TIP PROJECT: W-5708H PROJECT: US 1 MEDIAN GUARDRAIL

See Sheet 1-A For Index of Sheets

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5708H	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
44854.1.8		PE	
44854.3.8		CONST	

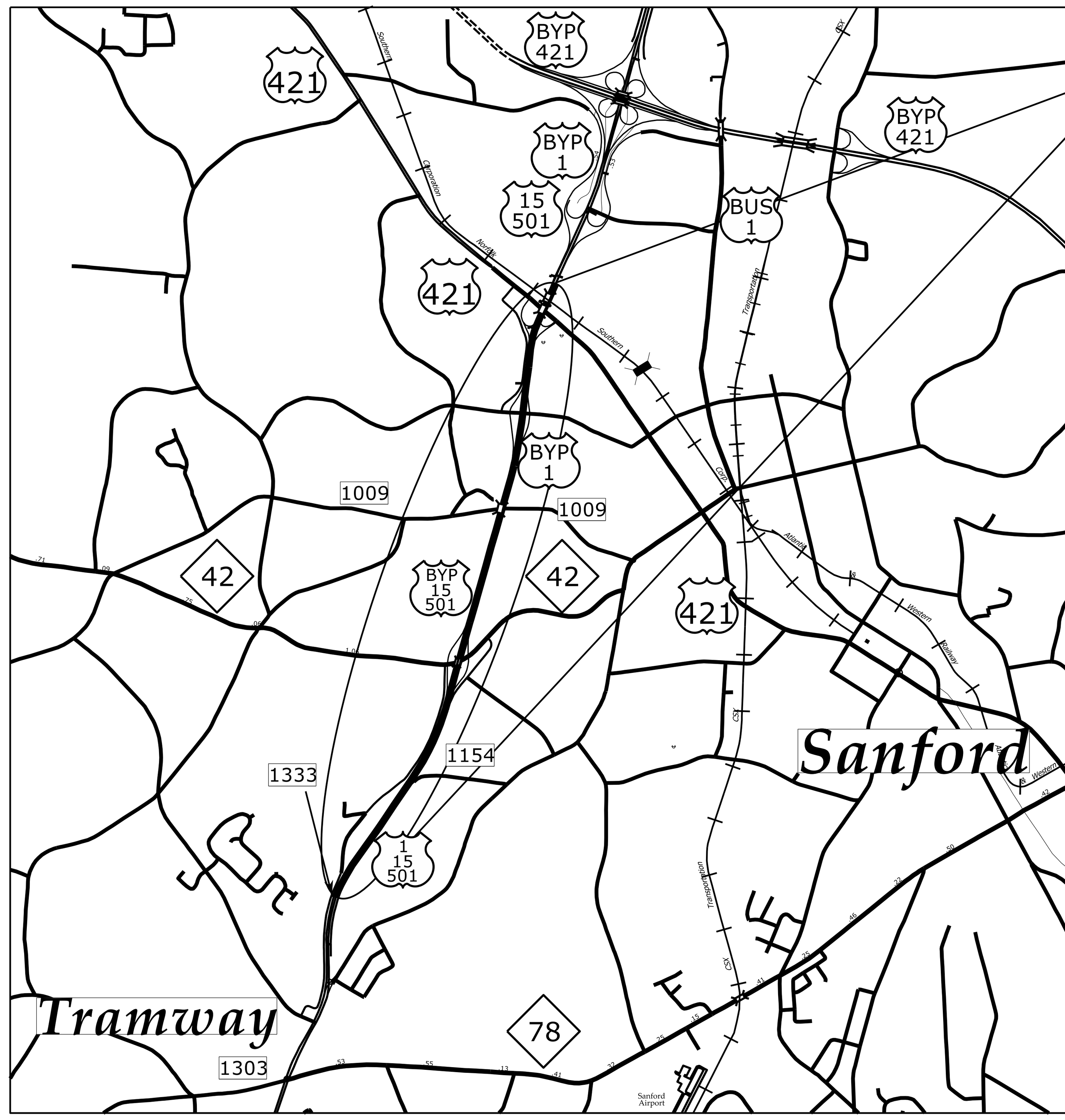
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LEE COUNTY

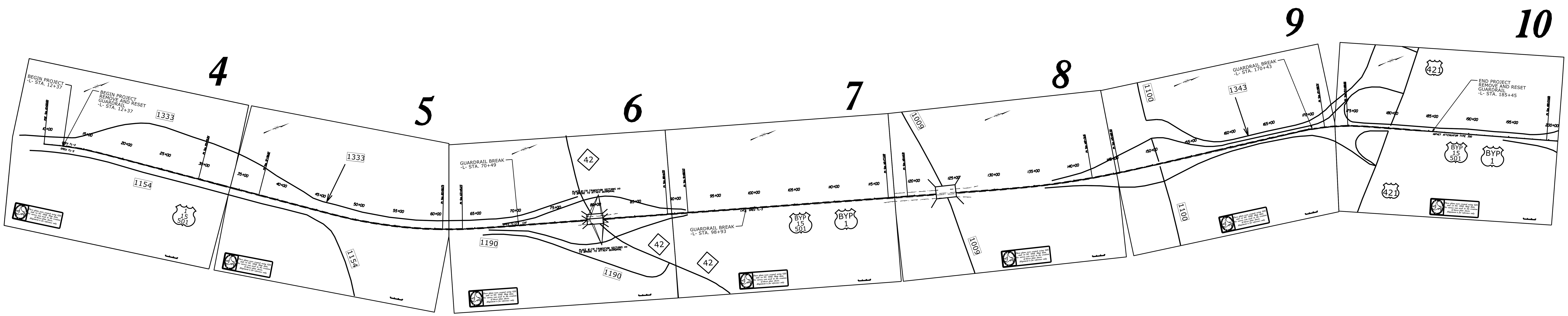
LOCATION: US 1 & US 15-501 IN LEE CO. NORTH OF TRAMWAY FROM SR 1333 (WESTOVER RD) TO US 421 BUS

TYPE OF WORK: MEDIAN GUARDRAIL REPLACEMENT

PROJECT LOCATION



VICINITY MAP



These plans were created using GIS and /or NC ONE Map data. No survey was used in the creation of theses plan sheets. Alignment is for reference only

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

100 0 100 200

PLANS

DESIGN DATA

ADT 2016 = 24,000

V = 70 MPH

Prepared In the Office of:

DIVISION OF HIGHWAYS
DIVISION 8 DESIGN & CONSTRUCT UNIT
902 N. SANDHILLS BLVD.
ABERDEEN NC 28315

PLANS PREPARED BY: ???

PROJECT LENGTH

ROADWAY: 3.32 MILES
STRUCTURE: ____ MILES
TOTAL: 3.32 MILES

DIVISION OF HIGHWAYS

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

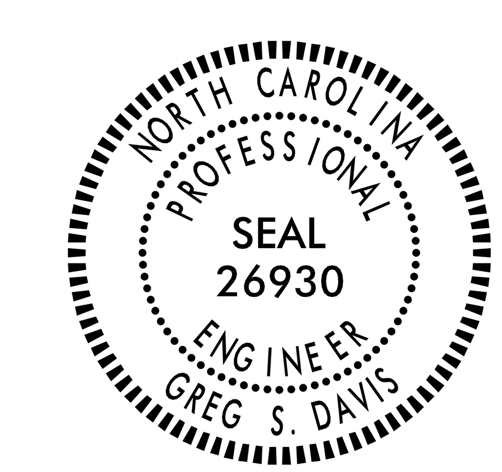
LETTING DATE:
MAY 8, 2018

DIVISION DESIGN ENGINEER

4/4/2018

DocuSigned by:
Greg S. Davis

SIGNATURE: P.E.



04-APR-2018 11:09
gsdavis AT DIV8-304810

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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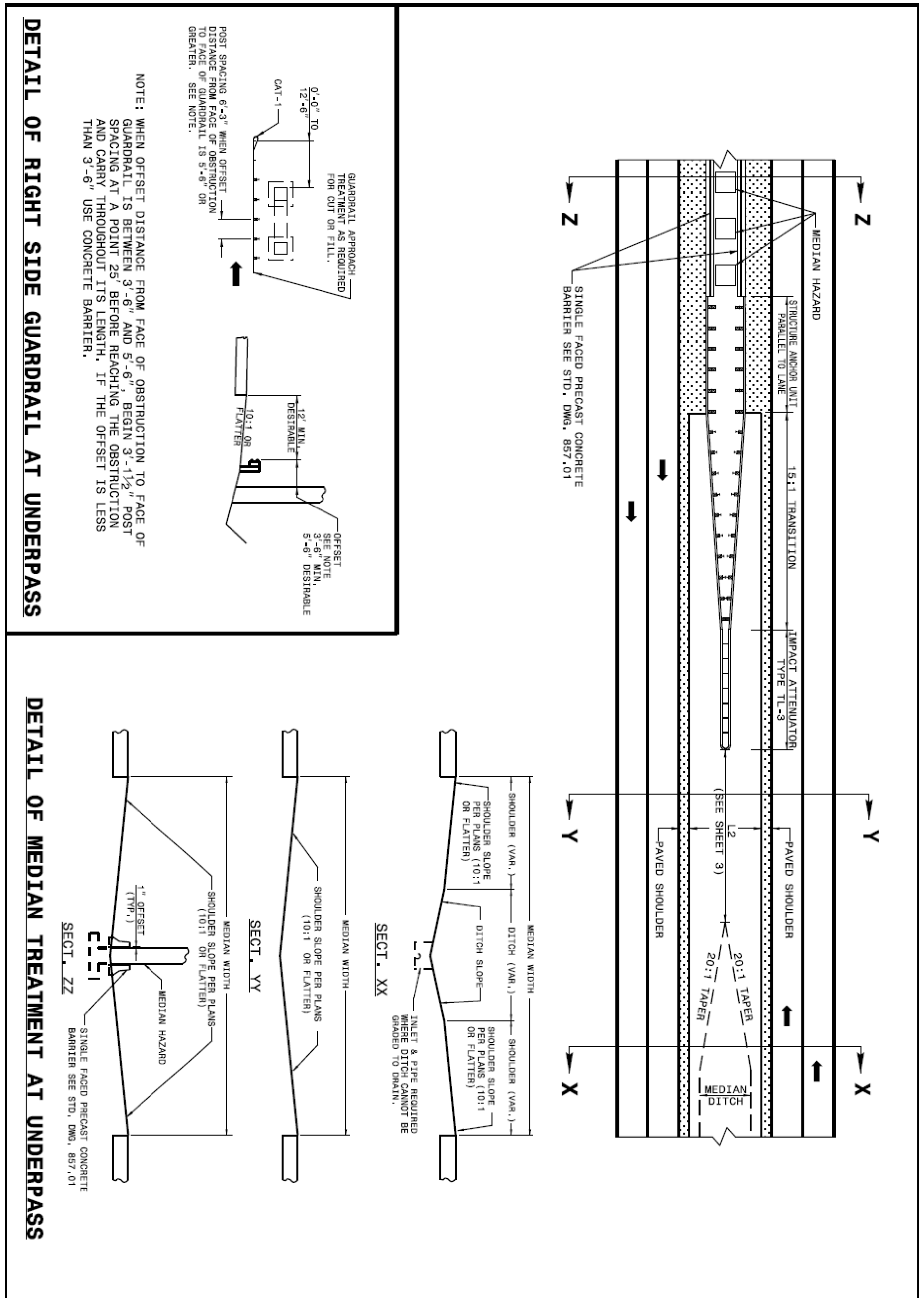
REVISIONS

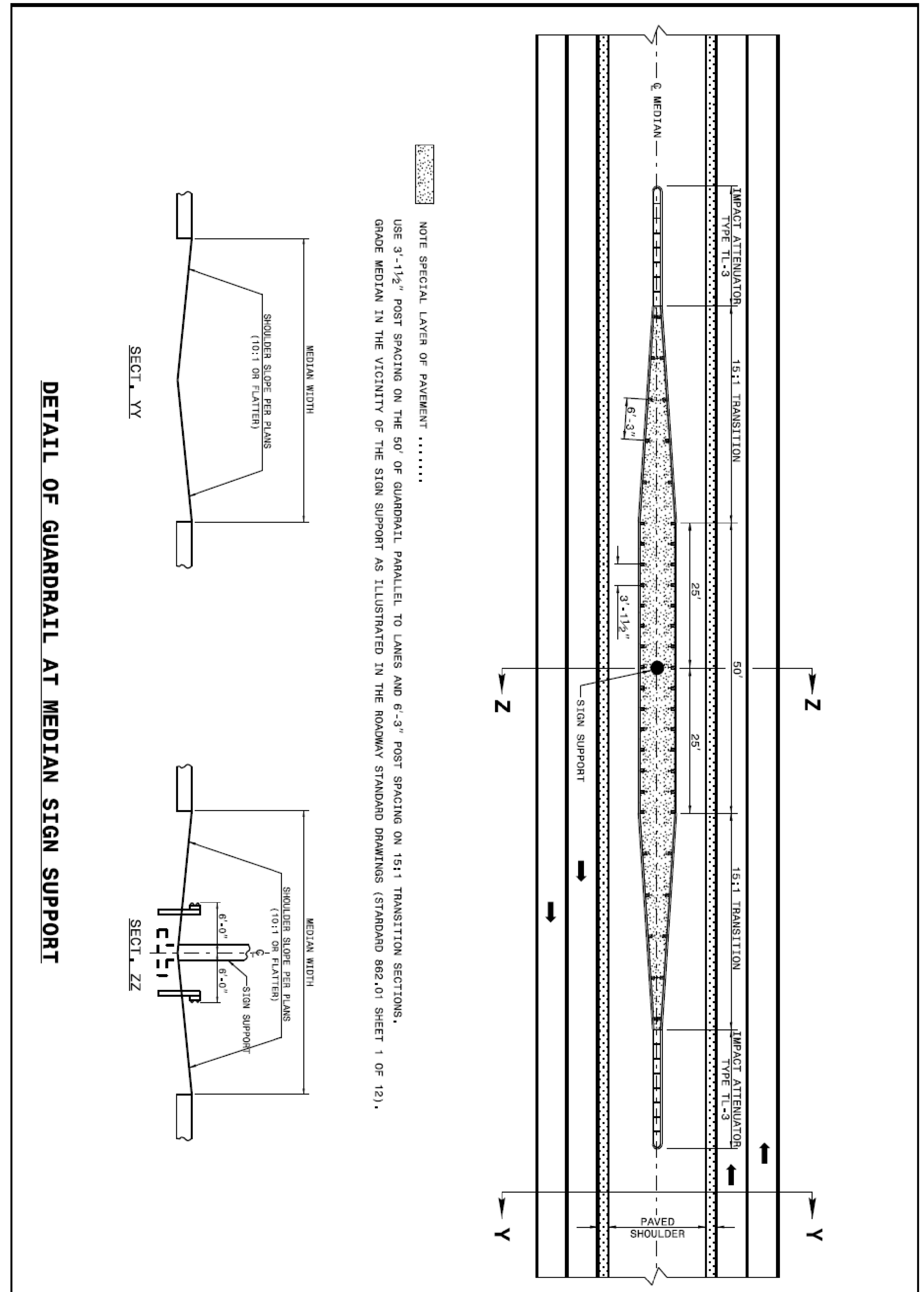


ROADWAY STANDARD DRAWING FOR
GUARDRAIL PLACEMENT

1-18

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

SHEET 1 OF 11
862.01



ROADWAY STANDARD DRAWING FOR
GUARDRAIL PLACEMENT

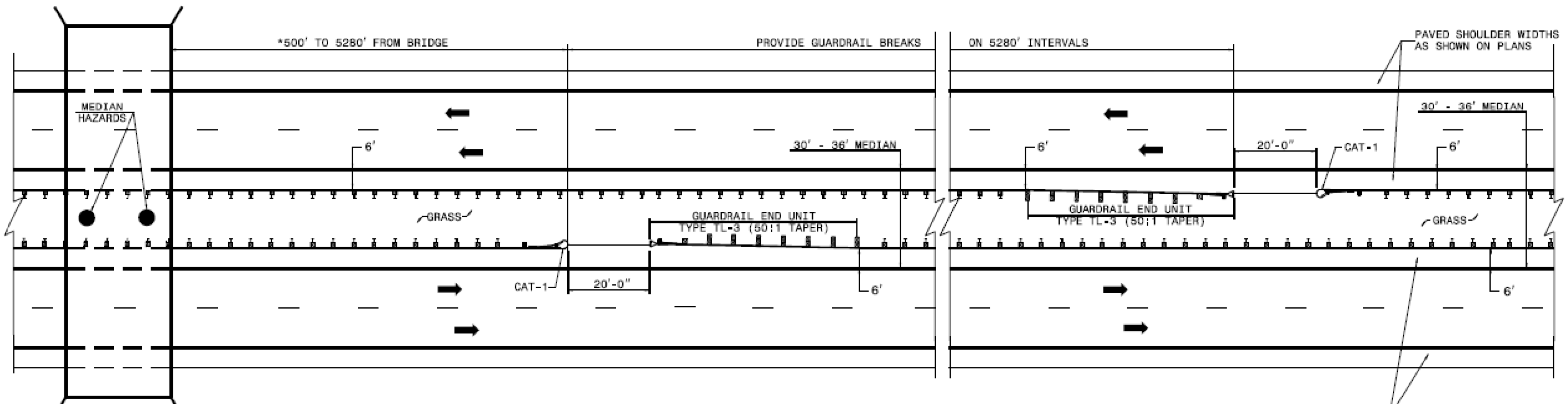
1-18

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

SHEET 2 OF 11
862.01

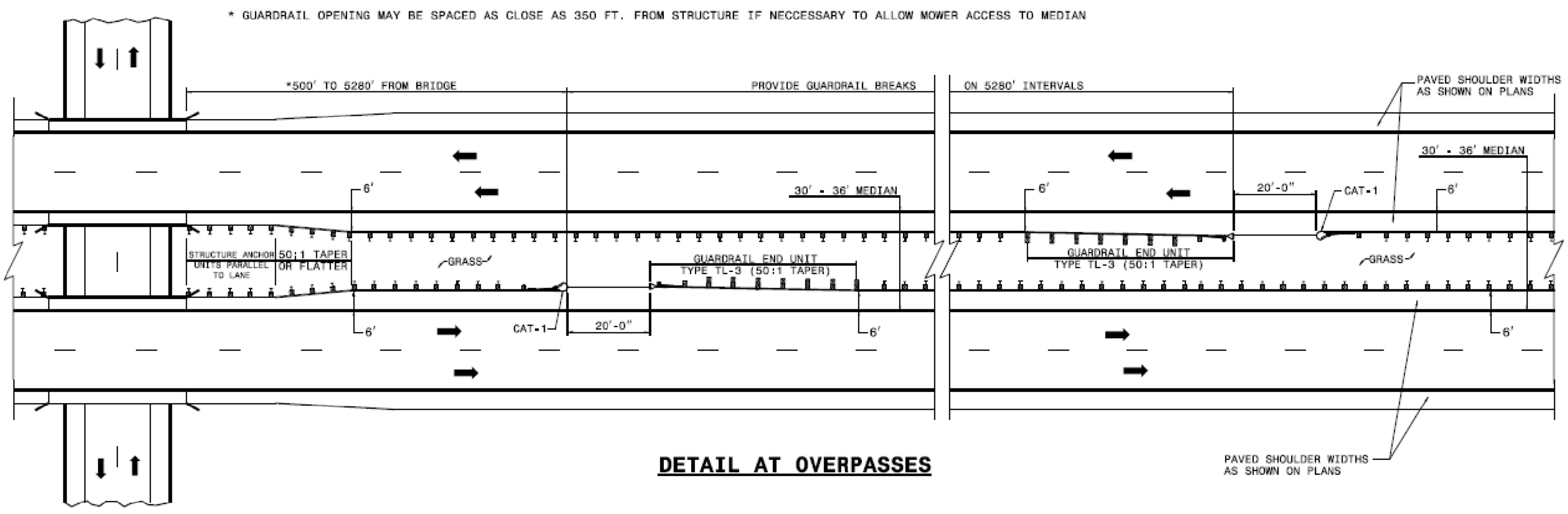
PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-A
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



DETAIL AT UNDERPASSES

* GUARDRAIL OPENING MAY BE SPACED AS CLOSE AS 350 FT. FROM STRUCTURE IF NECCESSARY TO ALLOW MOWER ACCESS TO MEDIAN



DETAIL AT OVERPASSES

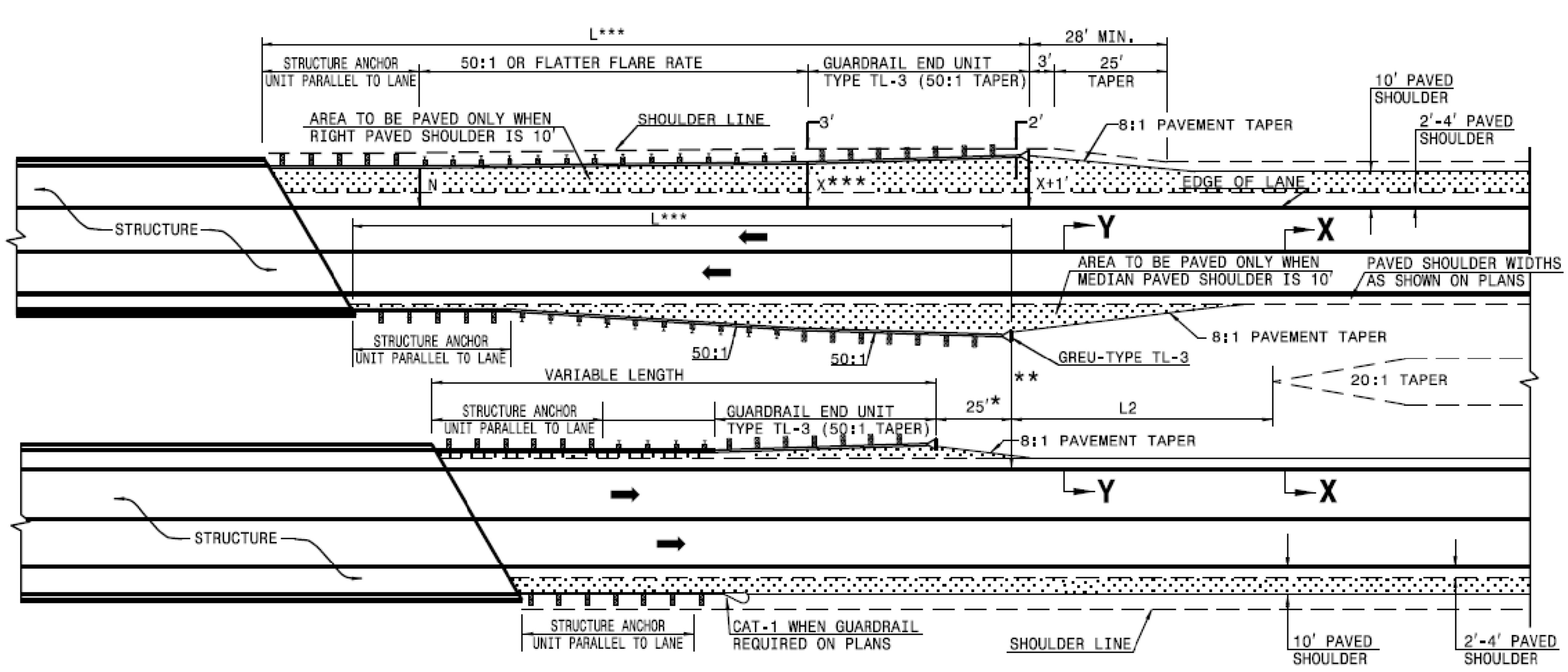
FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

GUARDRAIL BREAK INTERVALS WITH 30' - 36' MEDIANS

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **GUARDRAIL PLACEMENT**

SHEET 7 OF 11 **862.01**



FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DIMENSIONS FOR LENGTH OF GUARDRAIL APPROACHING DUAL LANE BRIDGES							
MEDIAN WIDTH	-L-***						-L2-
	70 MPH	60 MPH	50 MPH				DIM.
30'	300.0'	250.0'	150.0'				80.0'
36'	300.0'	250.0'	150.0'				60.0'
40' & ABOVE	300.0'	250.0'	150.0'				40.0'

NOTES: * MINOR VARIATION TO THE 25'-0" DIMENSION IS PERMISSIBLE TO ACCOMODATE THE 12'-6" IN GUARDRAIL LENGTHS.

** NO GUARDRAIL IS REQUIRED ON THE TRAILING END WHEN THIS DISTANCE EXCEEDS CLEAR ROADSIDE RECOVERY AREA FOR THE APPROPRIATE DESIGN SPEED.

*** BASED ON "X" OF 12'
USE FLARE RATE AS THE CONTROL IF THE "X" DISTANCE IS NOT OBTAINED. ("X" IS BASED ON SHOULDER WIDTHS IN THE HIGHWAY DESIGN BRANCH MANUAL, PART 1, 1-4B, F1A).

"N"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.

THE DESIGN LAYOUT FOR LENGTHS SHOWN ON THIS STANDARD ARE MINIMUM DESIGN LENGTHS.

SEE SHEET 1 OF 12 FOR SECTIONS XX, YY

SEE STD. 862.03 FOR STRUCTURE ANCHOR UNITS

DETAIL OF GUARDRAIL APPROACHING DUAL LANE BRIDGES

1-18 STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ROADWAY STANDARD DRAWING FOR **GUARDRAIL PLACEMENT**

SHEET 3 OF 11 **862.01**

REVISIONS

8/17/99

30-MAR-2018 10:02
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asdavis AT DIV8-304810

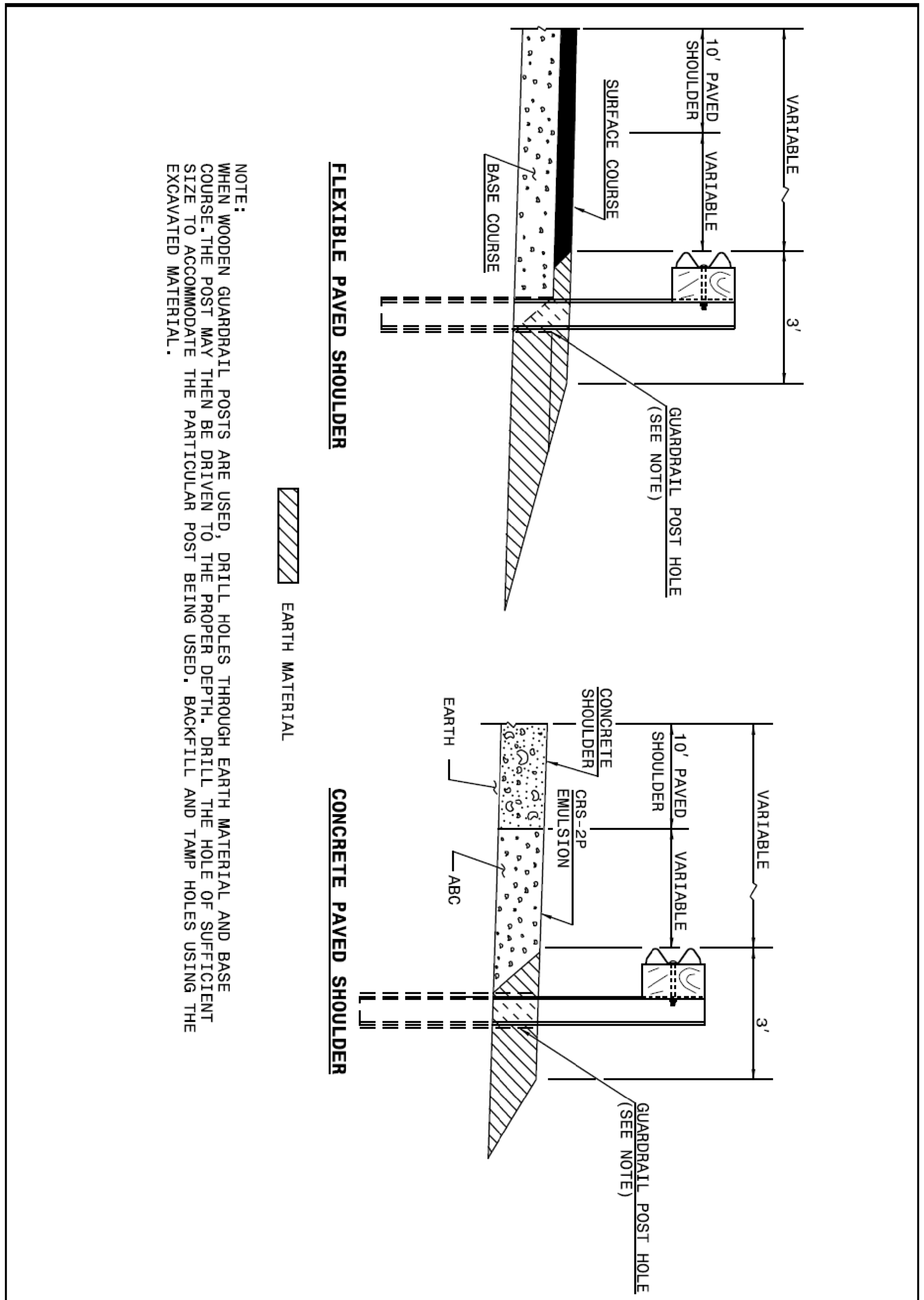
PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-B

R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS



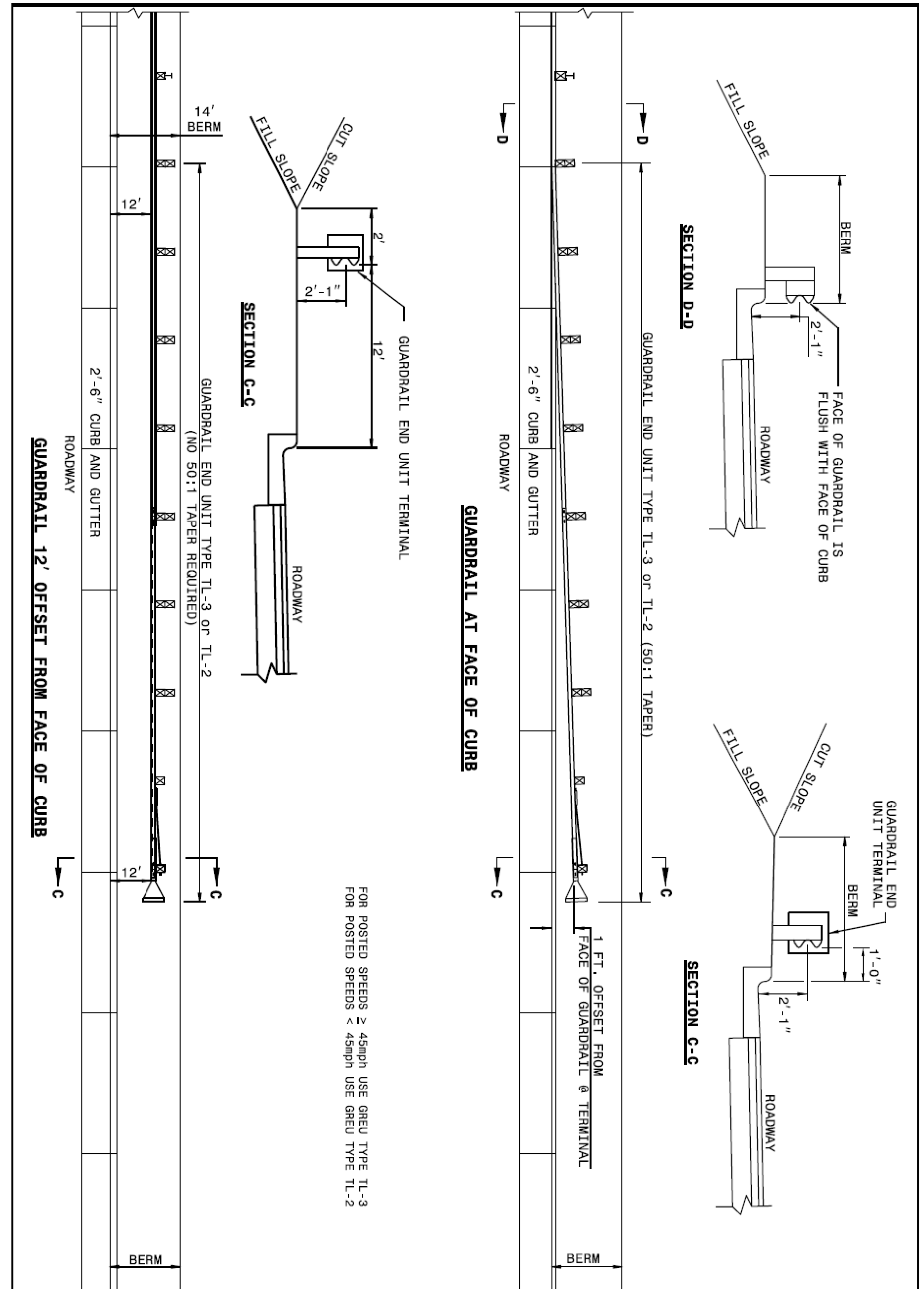
NOTE:
WHEN WOODEN GUARDRAIL POSTS ARE USED, DRILL HOLES THROUGH EARTH MATERIAL AND BASE COURSE.THE POST MAY THEN BE DRIVEN TO THE PROPER DEPTH. DRILL THE HOLE OF SUFFICIENT SIZE TO ACCOMMODATE THE PARTICULAR POST BEING USED. BACKFILL AND TAMP HOLES USING THE EXCAVATED MATERIAL.

SHEET 10 OF 11 — 862.01

ROADWAY STANDARD DRAWING FOR
GUARDRAIL PLACEMENT

1-18

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



SHEET 11 OF 11 — 862.01

ROADWAY STANDARD DRAWING FOR
GUARDRAIL PLACEMENT
GUARDRAIL TREATMENT AT CURB AND GUTTER

1-18

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

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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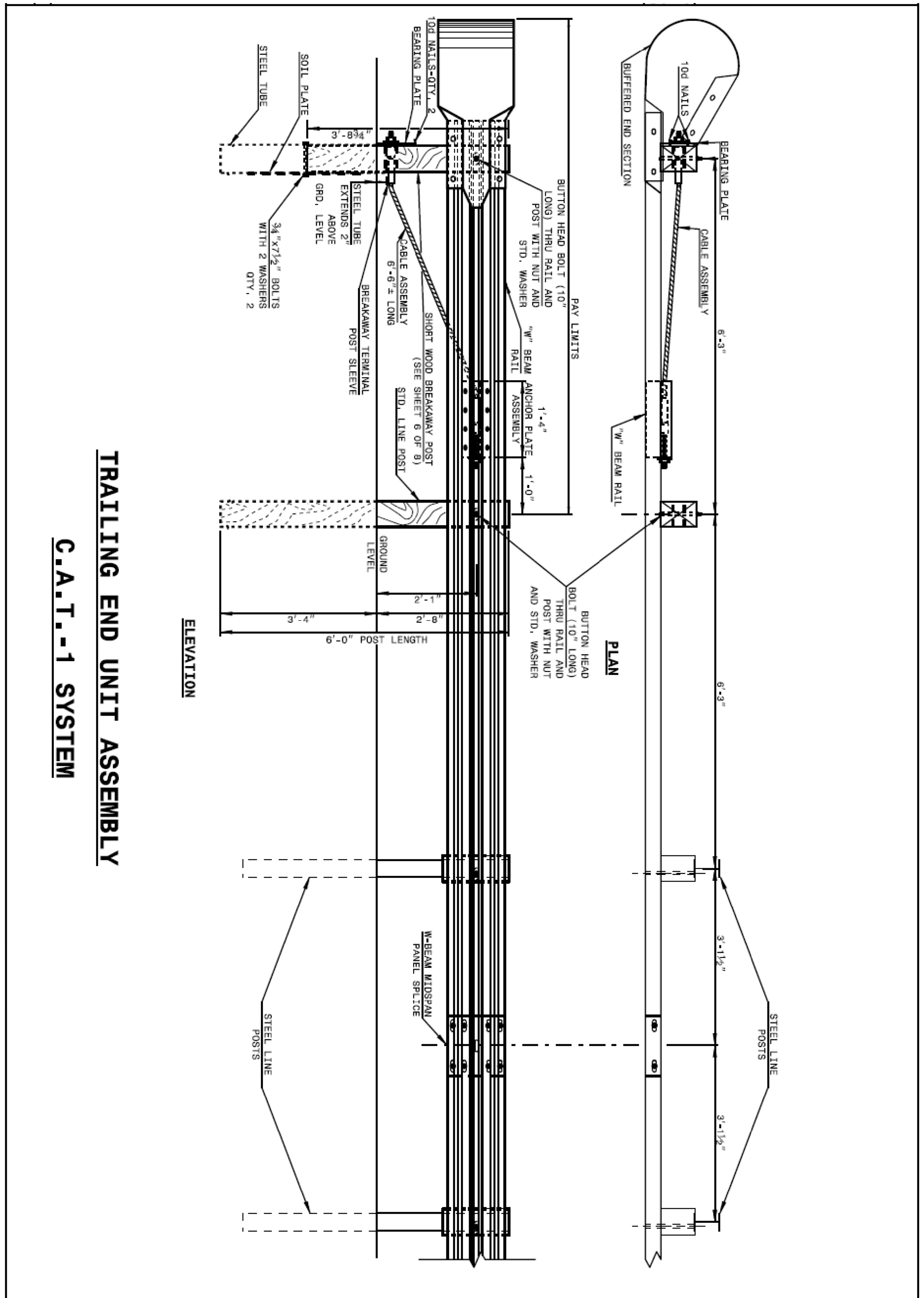
REVISIONS

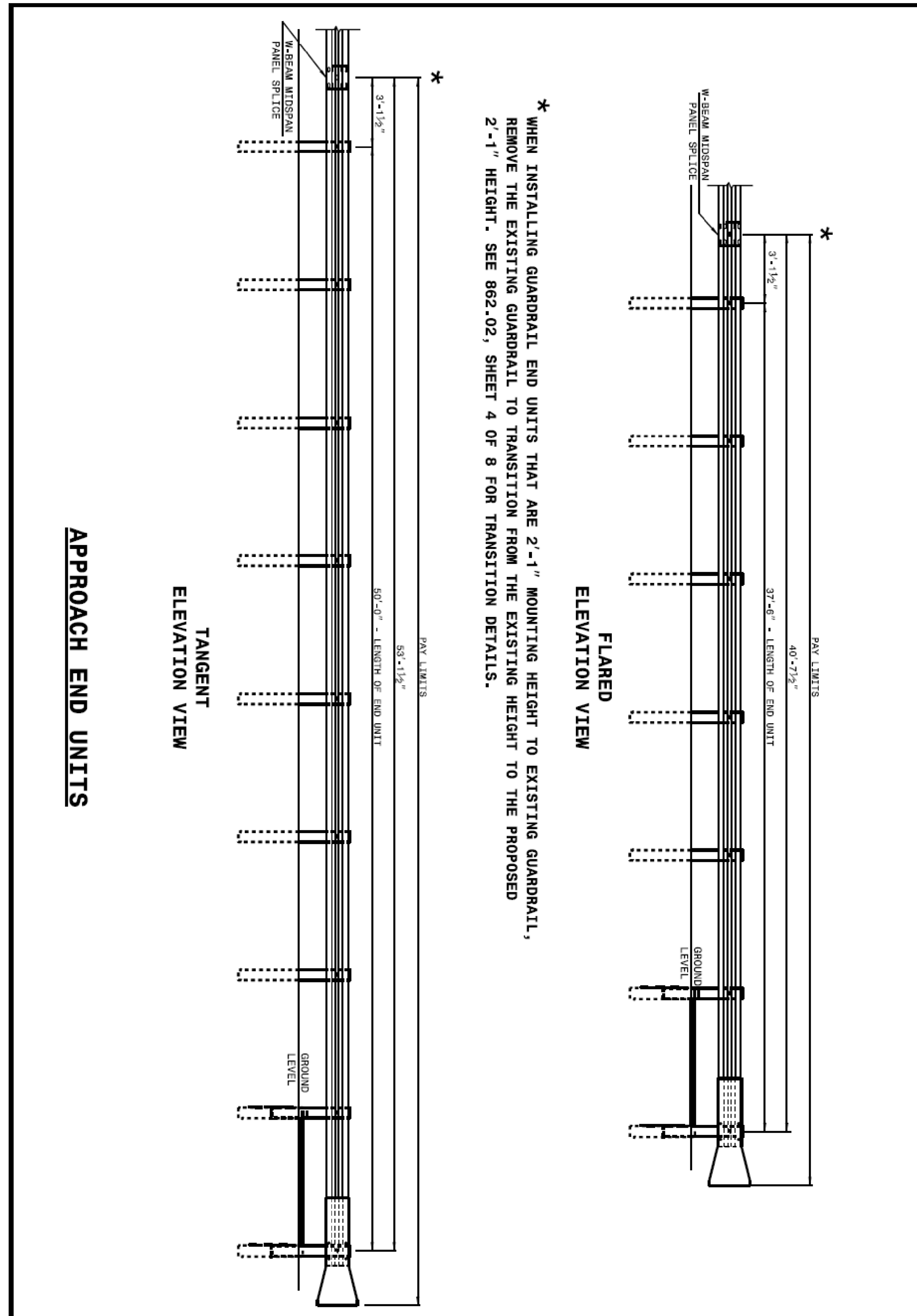


862.02

ROADWAY STANDARD DRAWING FOR
GUARDRAIL INSTALLATION

1-18

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



862.02

ROADWAY STANDARD DRAWING FOR
GUARDRAIL INSTALLATION

1-18

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

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-D

R/W SHEET NO.

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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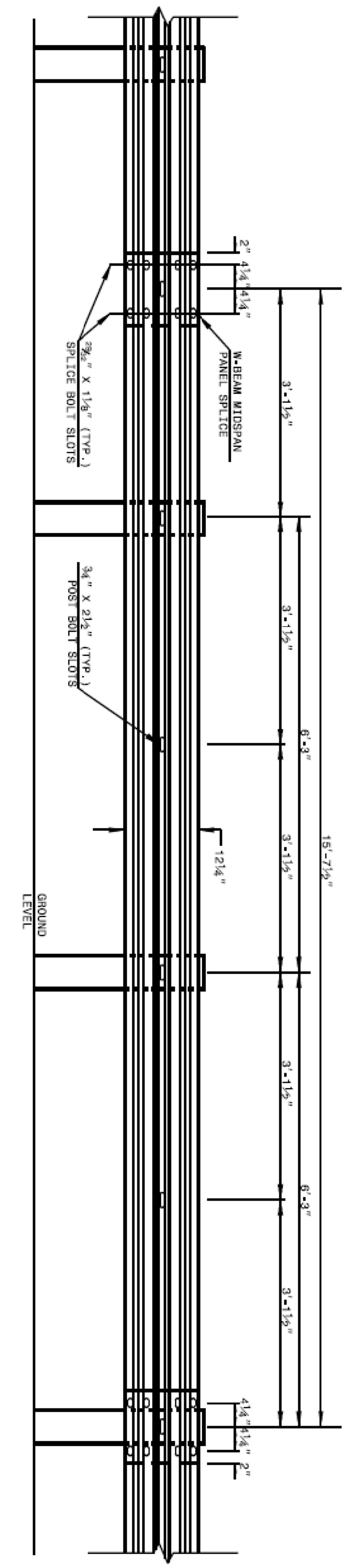
REVISIONS

15'-7½" W-BEAM GUARDRAIL PANEL

NOTE: USE 6-SPACE 15'-7½" W-BEAM GUARDRAIL PANEL AT THE DOWNSTREAM END OF AN END UNIT OR EXISTING GUARDRAIL THAT DOES NOT OFFSET THE W-BEAM PANEL SPLICE TO MIDSPAN



ROADWAY STANDARD DRAWING FOR
GUARDRAIL INSTALLATION

1-18

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

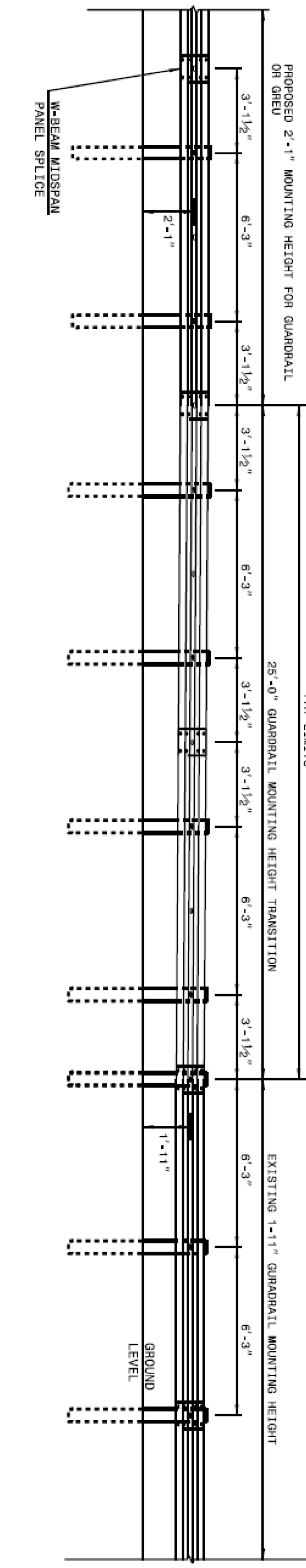
SHEET 3 OF 8

862.02

TRANSITION FROM OR 1'-11" TO 2'-1" W-BEAM GUARDRAIL MOUNTING HEIGHT

ELEVATION VIEW

NOTE: IF EXISTING GUARDRAIL IS LOWER THAN 1'-11", USE AN ADDITIONAL 12'-6" LONG SECTION OF GUARDRAIL, FOR EVERY 1" OF HEIGHT DIFFERENCE, TO TRANSITION FROM EXISTING GUARDRAIL TO PROPOSED 2'-1" GUARDRAIL.



ROADWAY STANDARD DRAWING FOR
GUARDRAIL INSTALLATION

1-18

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

SHEET 4 OF 8

862.02

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-E
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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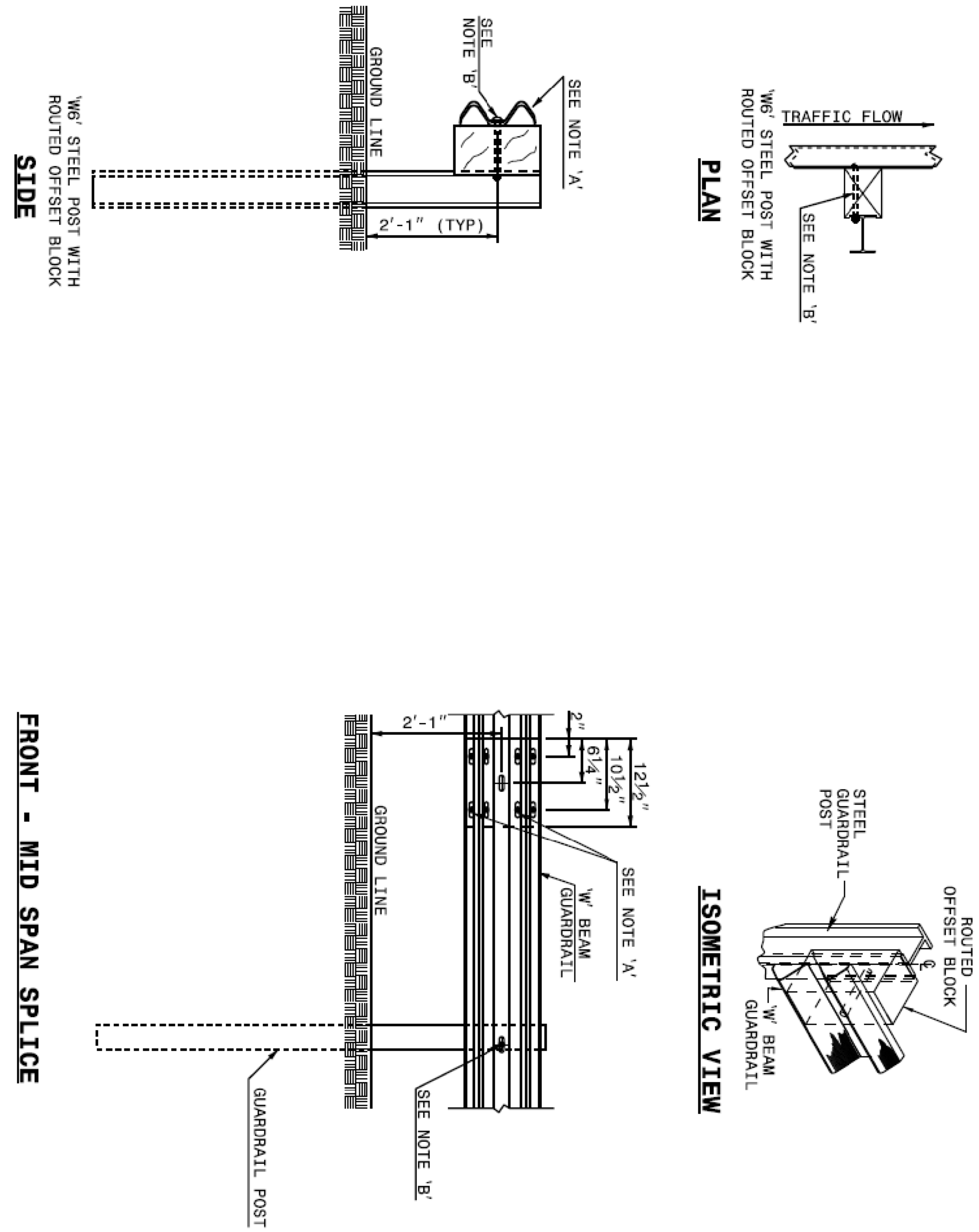
REVISIONS

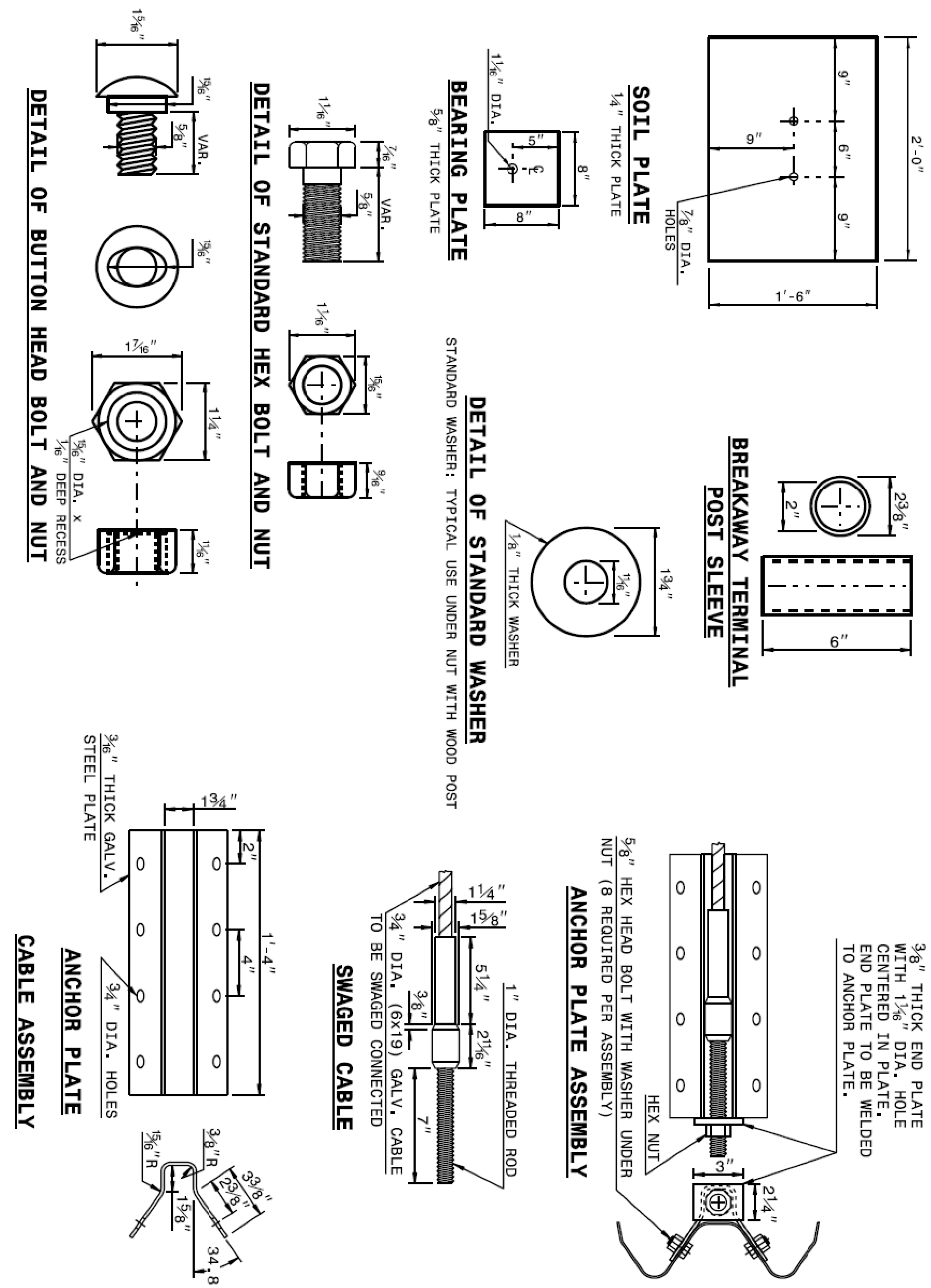
TYPICAL GUARDRAIL AND GUARDRAIL POST ALTERNATIVES



NOTES:
A - 5/8" DIA. BUTTON HEAD SPLICE BOLT 1¼" LONG (8 REQ. PER SPLICE JOINT).
B - 5/8" DIA. BUTTON HEAD BOLT 7½"/9" LONG WITH NUT FOR BOLTING 6"/8" ROUTED OFFSET BLOCK TO STEEL POSTS.
C - FIELD PUNCHING OF HOLES INTO GUARDRAIL AS DIRECTED BY THE ENGINEER.

SHEET 5 OF 8	ROADWAY STANDARD DRAWING FOR **GUARDRAIL INSTALLATION**	1-18	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
862.02			

SYSTEM PARTS



SHEET 7 OF 8	ROADWAY STANDARD DRAWING FOR **GUARDRAIL INSTALLATION**	1-18	STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.
862.02			

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	2-F
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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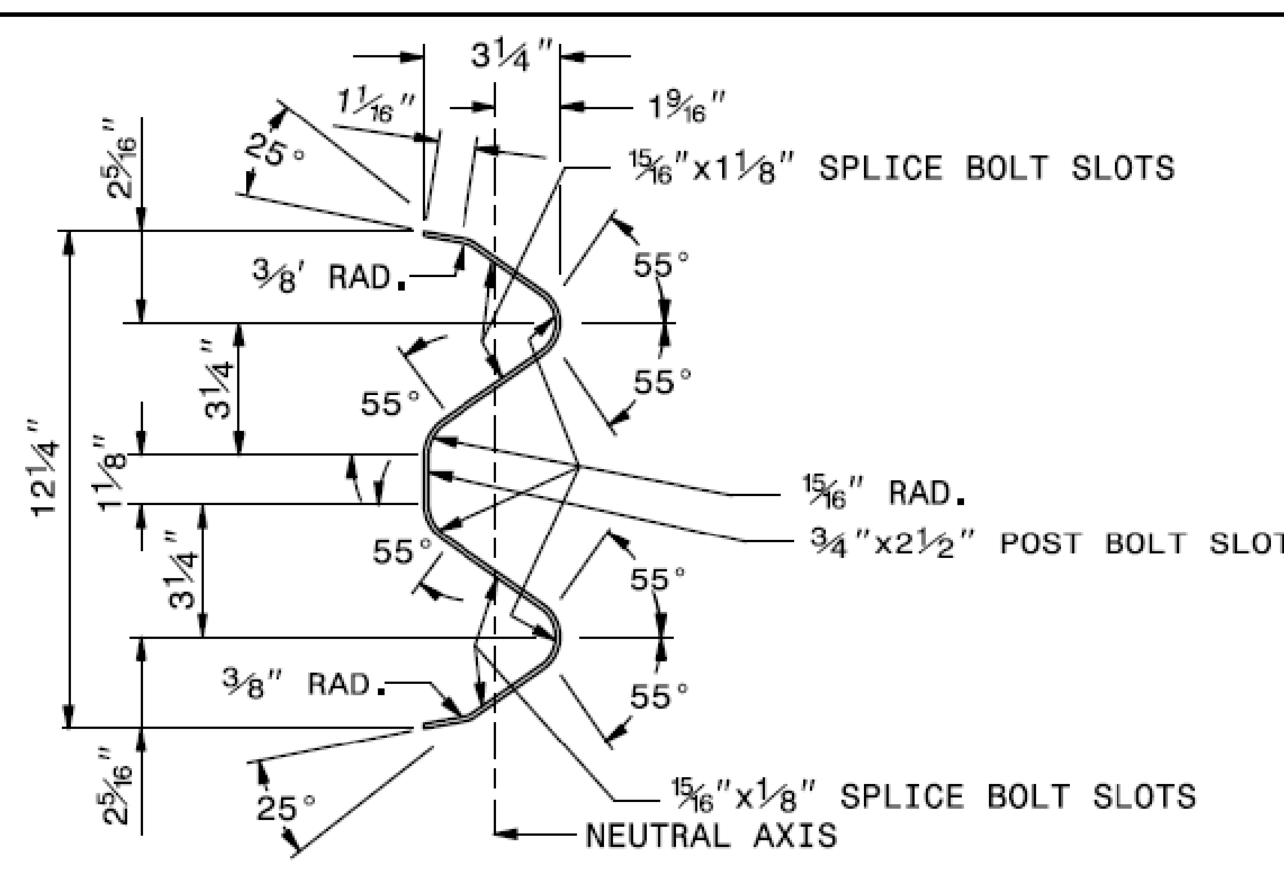
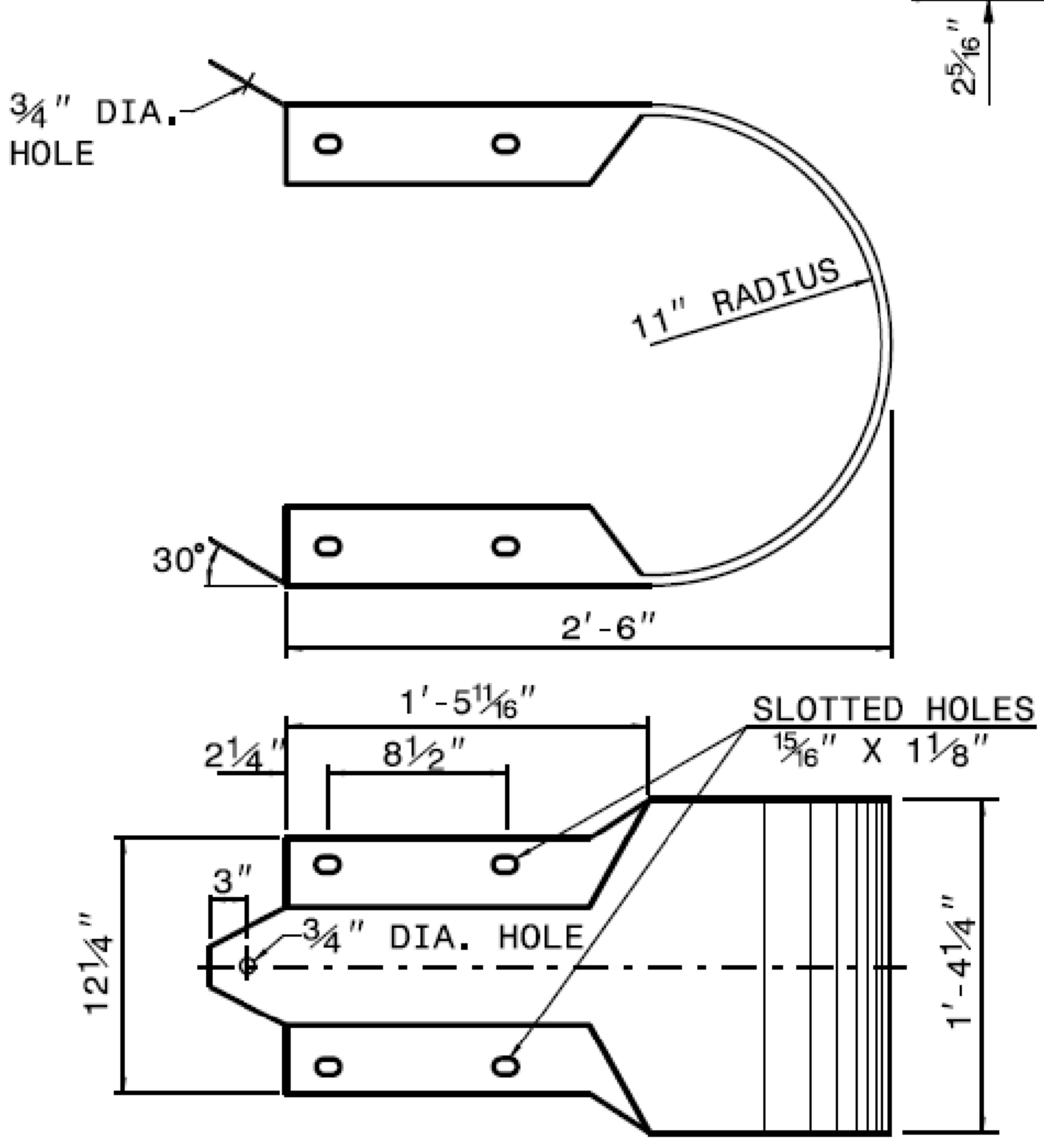
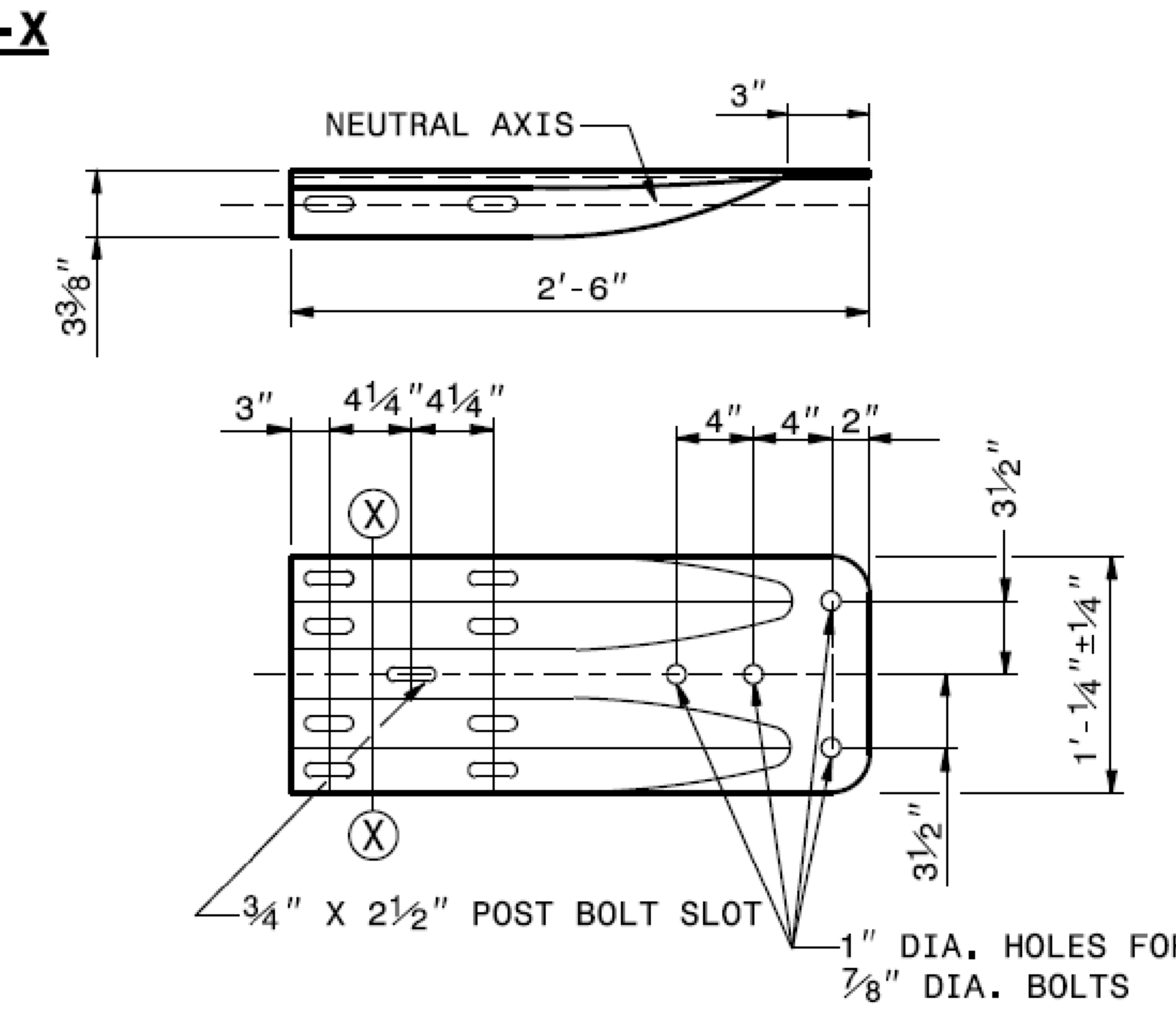


SECTION X-X



BUFFERED END SECTION



TYPICAL END SHOE

SYSTEM PARTS - GENERAL USE

ROADWAY STANDARD DRAWING FOR
GUARDRAIL INSTALLATION

1-18

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

SHEET 8 OF 8
862.02

REVISIONS

8/17/99

COMPUTED BY: MRT DATE: 1-25-18
CHECKED BY: GSD DATE: 3-13-2018

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	3

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

GUARDRAIL SUMMARY

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
W = TOTAL WIDTH OF FLARE FROM BEGIN

G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS									IMPACT ATTENUATOR TYPE 350		SINGLE FACED CONCRETE BARRIER	REMOVE & RESET EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GREU TL-3	M-350	XIII	CAT-1	VI MOD	BIC		G	NG				
L	12+78	70+49	MED LT	5771													3			1							5771		
L	12+37	79+12	MED RT	6675																							6675		
L	70+67	79+06	MED LT	839																							839		
L	81+46	170+43	MED LT	8897																							8897		
L	81+67	98+93	MED RT	1726																1							1726		
L	99+08	185+24	MED RT	8616													1										8616		
L	170+64	185+24	MED LT	1460													1			1					1		1460		
																	5			3					1				
																							Subtotal				33984		
																							Less Anchor		GREU TL-3 5 @ 50'		250		
																							Deductions		CAT-1 3 @6.25		18.75		
																							TOTAL				33715.25		
																							SAY				33725		

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	4
R/W SHEET NO.	

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by:
Greg S. Davis
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4/4/2018

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REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
W-5708H	5
R/W SHEET NO.	

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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REVISIONS

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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PROJECT REFERENCE NO.	SHEET NO.
W-5708H	6
R/W SHEET NO.	
DIVISION DESIGN ENGINEER	

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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5/17/2018

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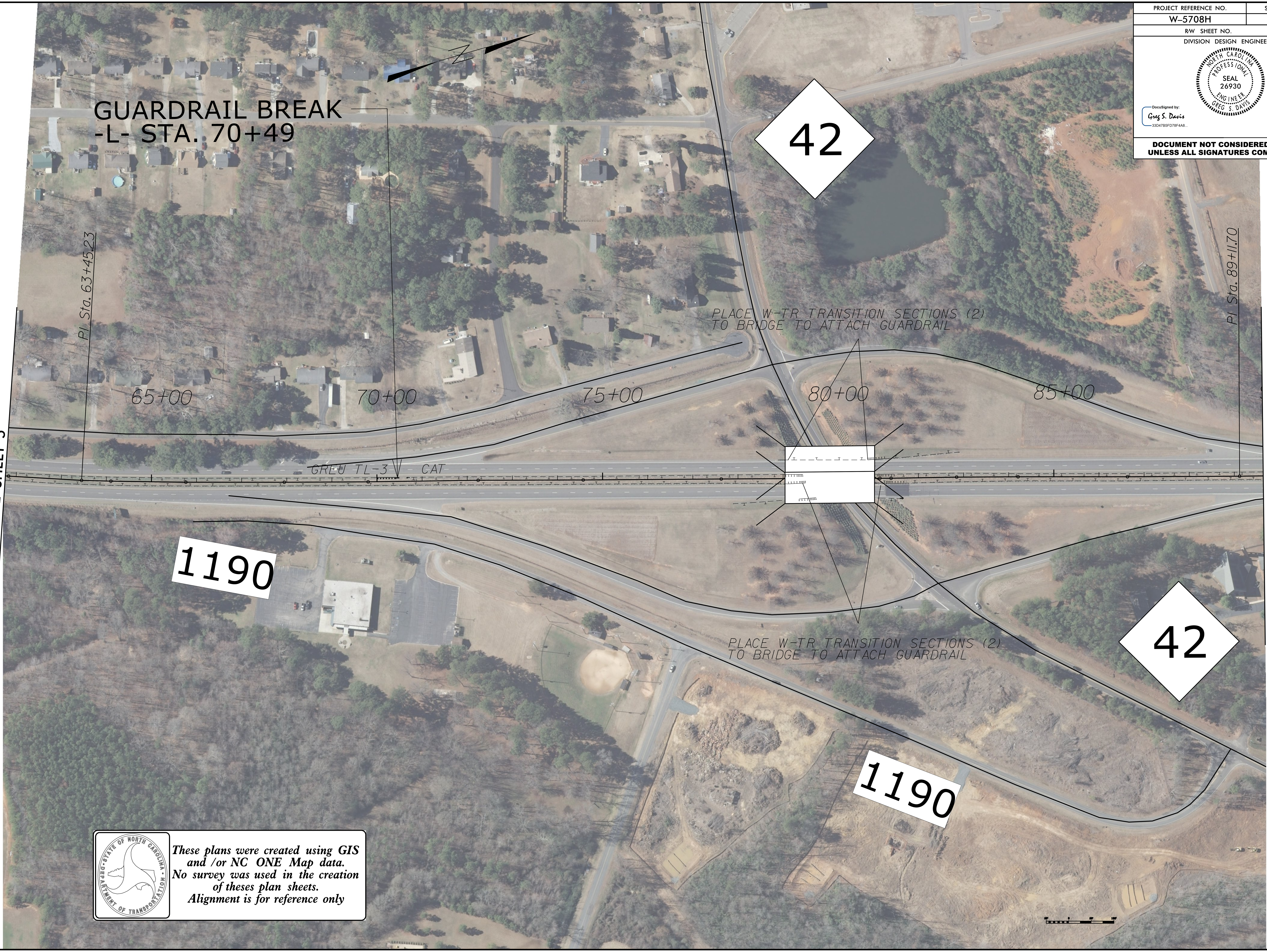

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REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	7
RW SHEET NO.	

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis

4/4/2018

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REVISIONS

MATCH LINE 89+64 SEE SHEET 6

MATCH LINE 117+52 SEE SHEET 8

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STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROJECT REFERENCE NO.	SHEET NO.
W-5708H	8
R/W SHEET NO.	

DIVISION DESIGN ENGINEER

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PROJECT REFERENCE NO.	SHEET NO.
W-5708H	9
R/W SHEET NO.	

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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Greg S. Davis
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4/4/2018

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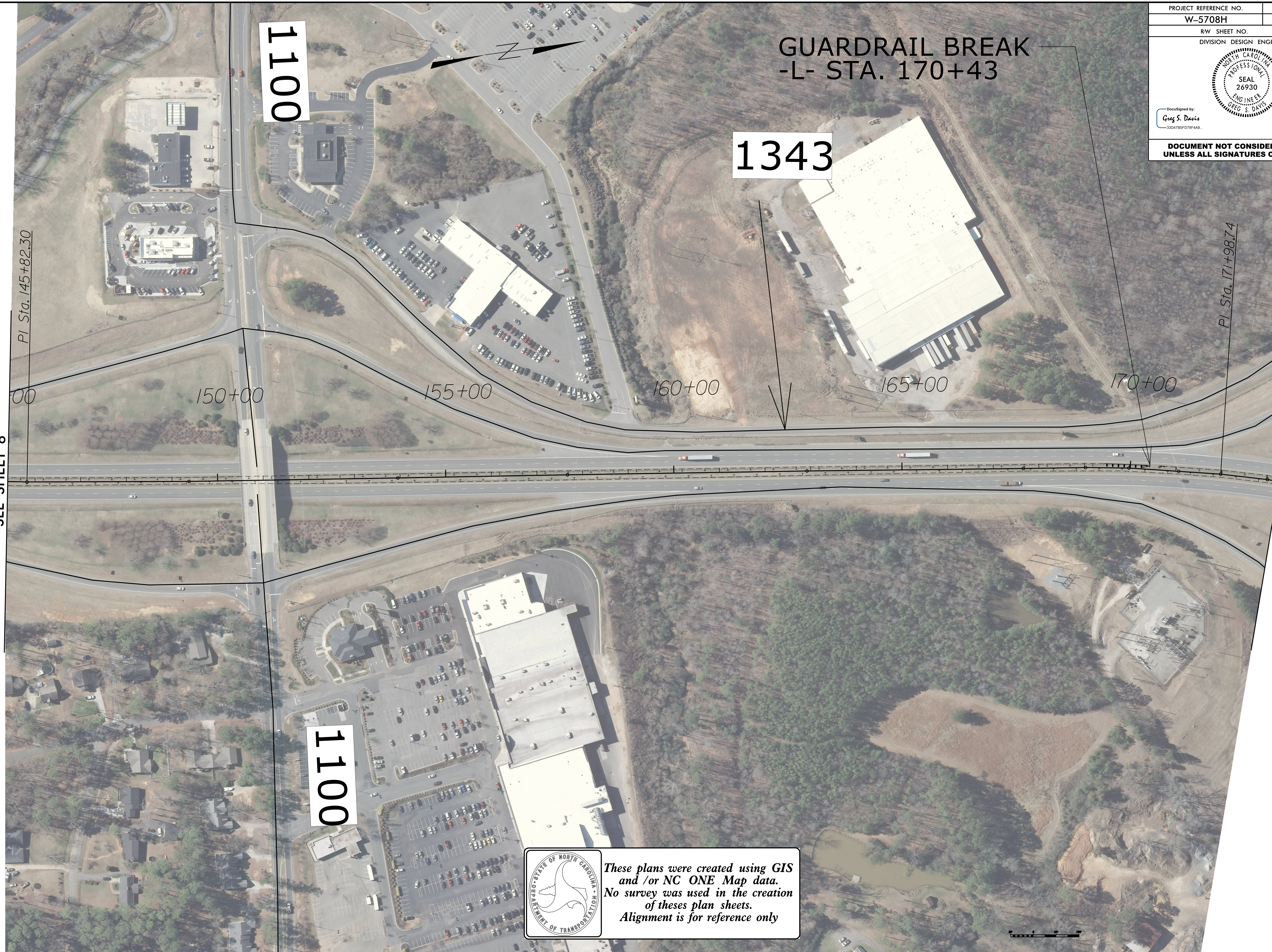

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REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
W-5708H	10
RW SHEET NO.	

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

DocuSigned by: Greg S. Davis

4/4/2018

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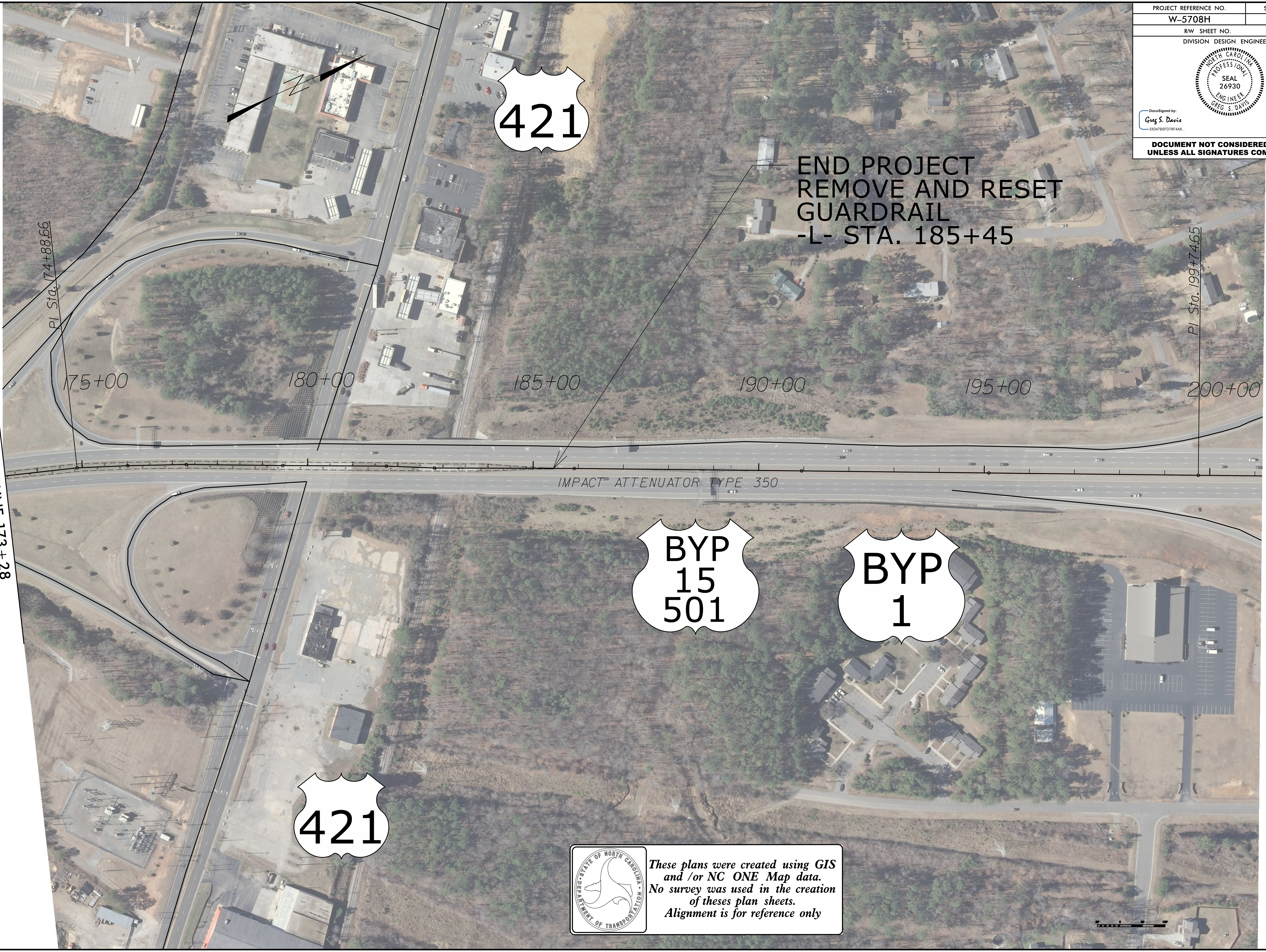
REVISIONS



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PROJ. REFERENCE NO.	SHEET NO.
W-5708H	TMP-1

GENERAL NOTES

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

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

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTION
US 1	MONDAY THRU FRIDAY 7:00 AM – 9:00 AM 4:00 PM – 6:00 PM

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

ROAD NAME

ALL ROUTES

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 7:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 7:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 7:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

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

6. FOR LABOR DAY, BETWEEN THE HOURS OF 7:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 7:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 7:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

MANAGEMENT STRATEGIES

– UTILIZING LANE CLOSURES OR SHOULDER CLOSURES AS DIRECTED BY THE ENGINEER, REMOVE AND RESET EXISTING MEDIAN GUARDRAIL TO NEW STANDARD HEIGHT.

PHASING

STEP 1:
INSTALL WORK ZONE ADVANCE WARNING SIGNS IN ACCORDANCE WITH NCDOT ROADWAY STANDARD DRAWING NO. 1101.01. WHEN NO WORK IS BEING CONDUCTED FOR A PERIOD LONGER THAN ONE WEEK, REMOVE OR COVER ALL ADVANCE WORK ZONE SIGNS, AS DIRECTED BY THE ENGINEER.

STEP 2:

USING NCDOT STANDARD DRAWINGS NO. 1101.02 (SHEET 4 OF 14) AND AS DIRECTED, REMOVE AND RESET EXISTING GUARDRAIL AND REPLACE WITH NEW GUARDRAIL ANCHOR UNIT FROM –L– STA. 12+37 TO –L– STA. 185+45

STEP 3:

REMOVE ALL WORK ZONE TRAFFIC CONTROL DEVICES AND OPEN ALL US 1 LANES TO TRAFFIC.

APPROVED: Greg S. Davis

DATE: 4/4/2018

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 26930 ENGINEER GREG S. DAVIS

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

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TRAFFIC MANAGEMENT PLAN

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