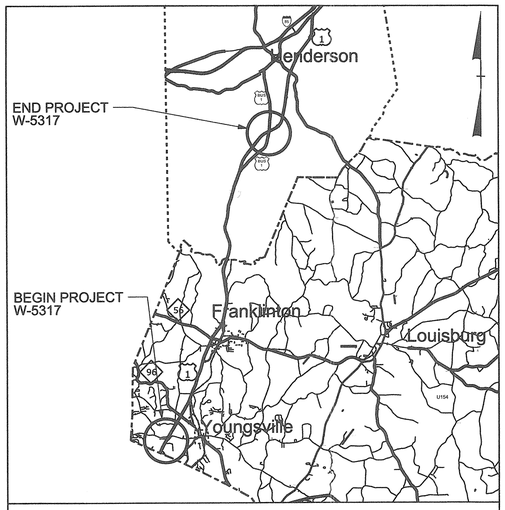
PROJECT: W-5317

CONTRACT: C203387

See Sheet 1-A For Index of Sheets



VICINITY MAP SHOWING
LOCATION OF PROJECT W-5317

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

FRANKLIN / VANCE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5317	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46140.1.1	STPNHS-0001(140)	PE
46140.3.FS1	STPNHS-0001(140)	CONST.

LOCATION: US-1 FROM SR 1135 (WALL RD, FRANKLIN COUNTY) TO US-1 BUSINESS (VANCE COUNTY)

TYPE OF WORK: INSTALL MEDIAN CABLE GUIDERAIL AND GUARDRAIL

BEGIN PROJECT
W-5317
US-1 AT WALL RD
(FRANKLIN COUNTY)

END PROJECT
W-5317
US-1 AT US-1B
(VANCE COUNTY)

DESIGN DATA

ADT (2012) = 10,000–39,000

PROJECT LENGTH

Length Roadway Project W-5317 = 19.461 Miles

Prepared In the Office of:
DIVISION OF HIGHWAYS
2612 N. Duke St., Durham, NC 27704

2012 STANDARD SPECIFICATIONS

BEN J. UPSHAW, P.E.
PROJECT ENGINEER

SUNIL PATEL
PROJECT DESIGN ENGINEER

LETTING DATE:
SEPTEMBER 17, 2013

DIVISION DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

6/20/13

SIGNATURE: *P.E.*

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

FIFTH DIVISION
J. Wally Bowman, P.E.
DIVISION ENGINEER

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8/17/99

PROJECT REFERENCE NO.	SHEET NO.
W-5317	1-A

ROADWAY DESIGN ENGINEER

6/20/13

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	DETAILS OF STRUCTURE ANCHOR UNITS
3	SUMMARY OF QUANTITIES
3-A	SUMMARY OF CABLE GUIDERAIL & STEEL BEAM GUARDRAIL
4 THRU 14	PLAN SHEET
TMP-1 THRU TMP-3	TRAFFIC CONTROL PLANS

GENERAL NOTES

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

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.

SUBSURFACE PLANS:

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

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 - INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units (Details in Lieu of Standard Drawing as March 2013 Letting)
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
865.01	Cable Guiderail

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12/05/11

PROJECT REFERENCE NO.	SHEET NO.
W-5317	1-B

Note: Not to Scale

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

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

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

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

RAILROADS:

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

RIGHT OF WAY:

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

ROADS AND RELATED FEATURES:

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

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:

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

MINOR:

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

UTILITIES:

POWER:

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

TELEPHONE:

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

WATER:

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

TV:

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

GAS:

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

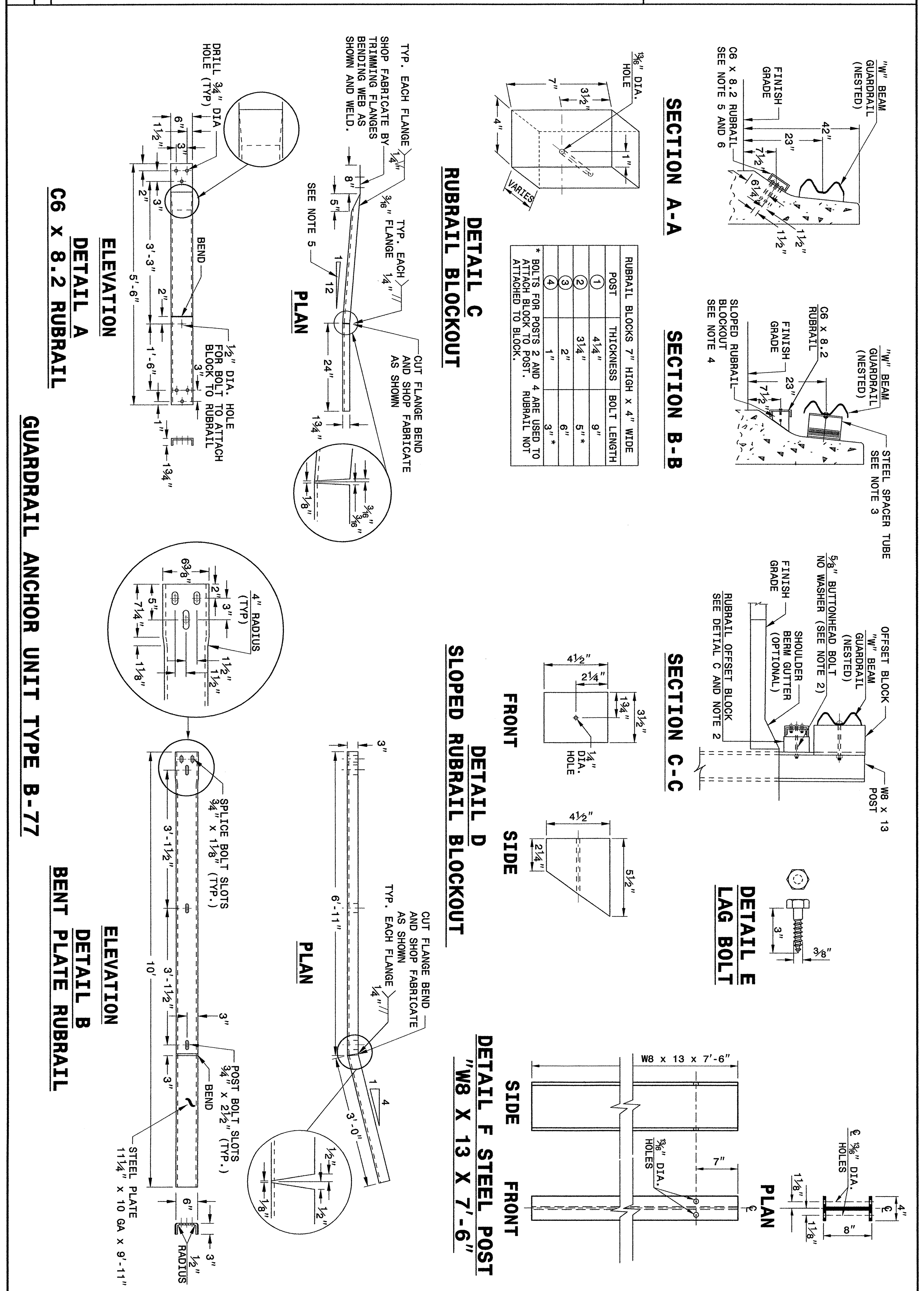
SANITARY SEWER:

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

MISCELLANEOUS:

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

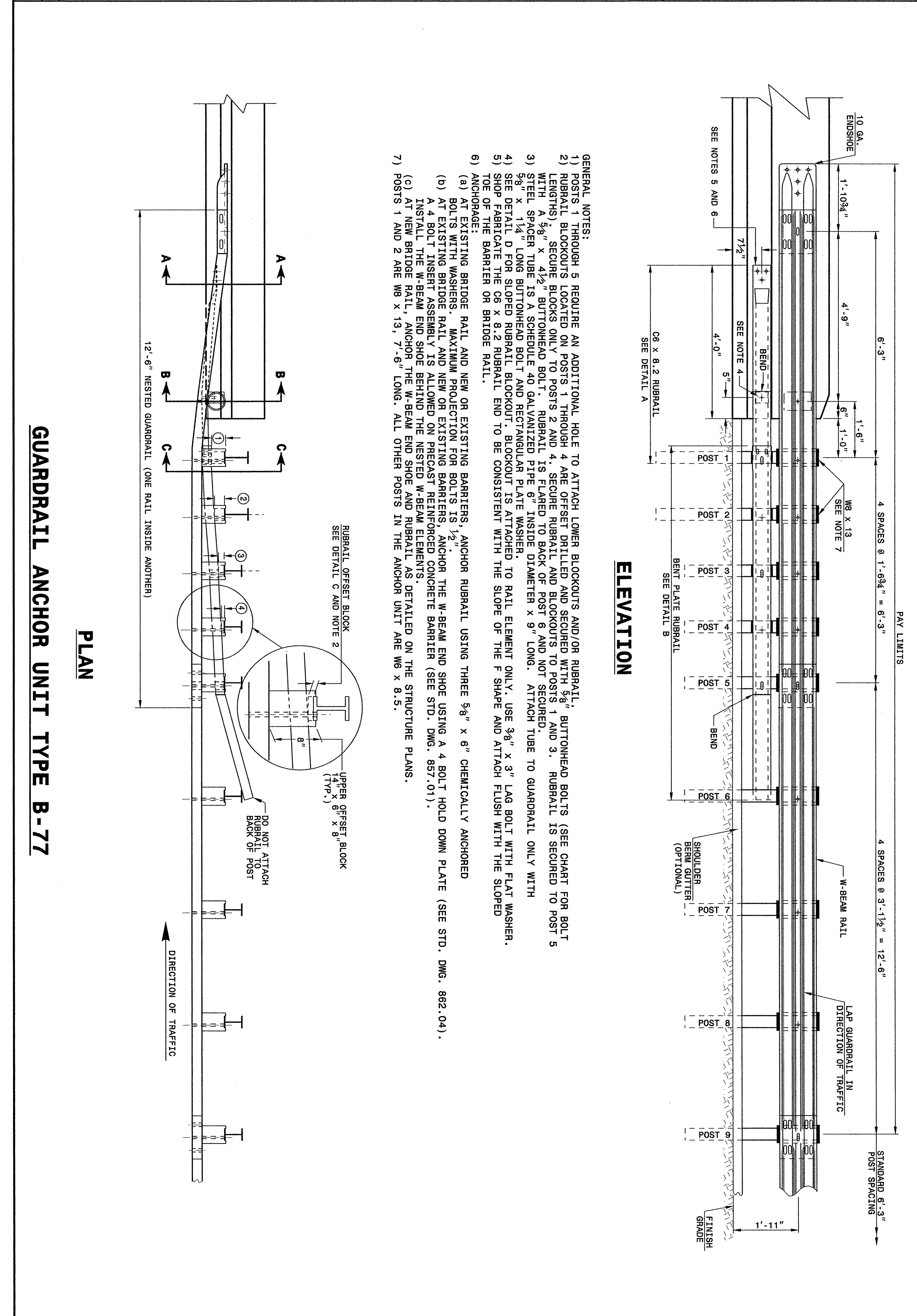
PROJECT REFERENCE NO.	SHEET NO.
W-5317	2



SHEET 5 OF 7	862D03

ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

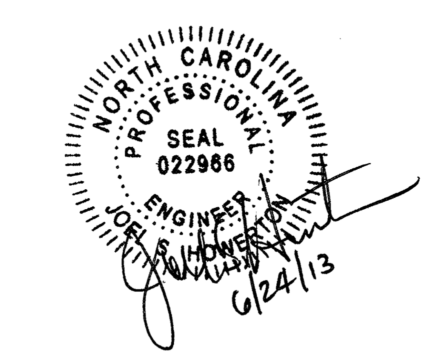
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.



SHEET 4 OF 7	862D03

ENGLISH DETAIL DRAWING FOR
STRUCTURE ANCHOR UNIT
GUARDRAIL ANCHOR UNIT TYPE B-77
FOR F-SHAPE BARRIER

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



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.:

PROJECT REFERENCE NO.	SHEET NO.
W-5317	3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203387

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
3030000000-E	862	10,875	LF	STEEL BM GUARDRAIL
3150000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS
3210000000-N	862	6	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
3270000000-N	SP	8	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3285000000-N	SP	2	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350
3317000000-N	862	2	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
3360000000-E	863	100	LF	REMOVE EXISTING GUARDRAIL
3389200000-E	865	20,558	LF	CABLE GUIDERAIL
3389400000-E	865	48,472	LF	DOUBLE FACED CABLE GUIDERAIL
3389600000-N	865	122	EA	CABLE GUIDERAIL ANCHOR UNITS
4405000000-E	1110	576	SF	WORK ZONE SIGNS (PORTABLE)
4415000000-N	1115	3	EA	FLASHING ARROW BOARD
4420000000-N	1120	3	EA	PORTABLE CHANGEABLE MESSAGE SIGN
4430000000-N	1130	314	EA	DRUMS
4480000000-N	1165	3	EA	TMA
6084000000-E	1660	2	ACR	SEEDING & MULCHING
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING

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COMPUTED BY: SUNIL PATEL DATE: 06 / 2013
CHECKED BY: BOB WILLIAMS DATE: 06 / 2013

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
W-5317	3-A

GUARDRAIL SUMMARY

NO.	LOCATION	NB / SB	LENGTH (FT)			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350					REMOVE EXISTING GUARDRAIL	REMARKS
			STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GRAU 350	CAT-1	B-77	M-350					NO.	PERMITTED G	PERMITTED NG				
1	PLAN SHEET 6	NB	4600											3	3													
2	PLAN SHEET 6	SB	4043											1			1											
3	PLAN SHEET 7	NB	612.5											1	1	1											50'	REMOVE EXIST. ANCHOR UNIT
4	PLAN SHEET 7	SB	862.5											2	1	1	1										50'	REMOVE EXIST. ANCHOR UNIT
5	PLAN SHEET 8	NB	1300											1	1													
		SUBTOTAL	11,418											8	6	2	2										100'	
	LESS DEDUCTIONS FOR ANCHORS:	GRAU-350	-400																									
		CAT-1	-37.5																									
		B-77	-37.5																									
		M-350	-75																									
		TOTAL	10,868																									
		SAY	10,875																									
	ADDITIONAL GUARDRAIL POSTS = 10 EACH																											

CABLE GUIDERAIL SUMMARY

NO.	LOCATION	LENGTH (DOUBLE FACED)	LENGTH (SINGLE FACED)	END ANCHOR UNIT	INTERMEDIATE ANCHOR UNIT	COMMENTS
1	PLAN SHEET 4	6513		10		DOUBLE FACE
2	PLAN SHEET 5	4004		8		DOUBLE FACE
3	PLAN SHEET 5		1785	2		NB - SINGLE FACE
4	PLAN SHEET 5		1840	2		SB - SINGLE FACE
5	PLAN SHEET 6	577		2		DOUBLE FACE
6	PLAN SHEET 6		4600	2	4	NB - SINGLE FACE
7	PLAN SHEET 6		7446	6	4	SB - SINGLE FACE
8	PLAN SHEET 7	4971		10		DOUBLE FACE
9	PLAN SHEET 8	4736		8		DOUBLE FACE
10	PLAN SHEET 8		1372	2		SB - SINGLE FACE
11	PLAN SHEET 9	6915		10	2	DOUBLE FACE
12	PLAN SHEET 10	4565		12		DOUBLE FACE
13	PLAN SHEET 11	1525		2		DOUBLE FACE
14	PLAN SHEET 11		840	4		NB - SINGLE FACE
15	PLAN SHEET 11		919	4		SB - SINGLE FACE
16	PLAN SHEET 12	5304		8		DOUBLE FACE
17	PLAN SHEET 13	5812		8		DOUBLE FACE
18	PLAN SHEET 14	5650		6	2	DOUBLE FACE
19	PLAN SHEET 14		1174	2		NB - SINGLE FACE
20	PLAN SHEET 14		1232	2		SB - SINGLE FACE
	SUBTOTAL:	50,572	21,208	110	12	
LESS TERMINAL ANCHOR UNITS		-2,100	-650			
	GRAND TOTALS:	48,472	20,558	110	12	
	SAY:	48,472	20,558	110	12	

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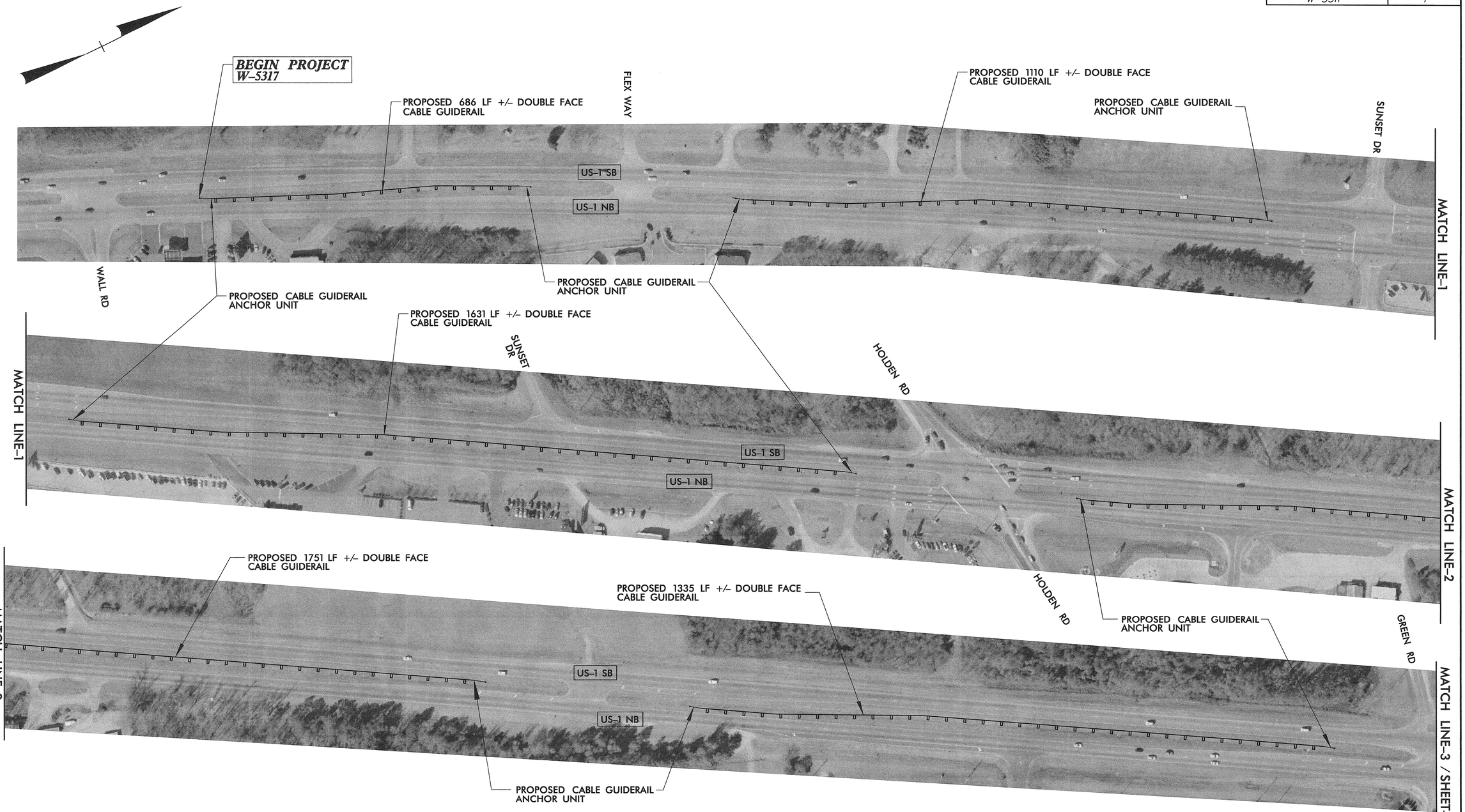
PROJECT REFERENCE NO.	SHEET NO.
W-5317	4



NOTES:
1). UNLESS OTHERWISE NOTED, ALL DOUBLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 12' FROM EOT.
2). UNLESS OTHERWISE NOTED, ALL SINGLE FACE CABLE GUIDERAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.
3). UNLESS OTHERWISE NOTED, ALL STEEL BEAM GUARDRAIL IS TO BE PLACED AT AN OFFSET OF 8' FROM EOT.

DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW 6/20/19 P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

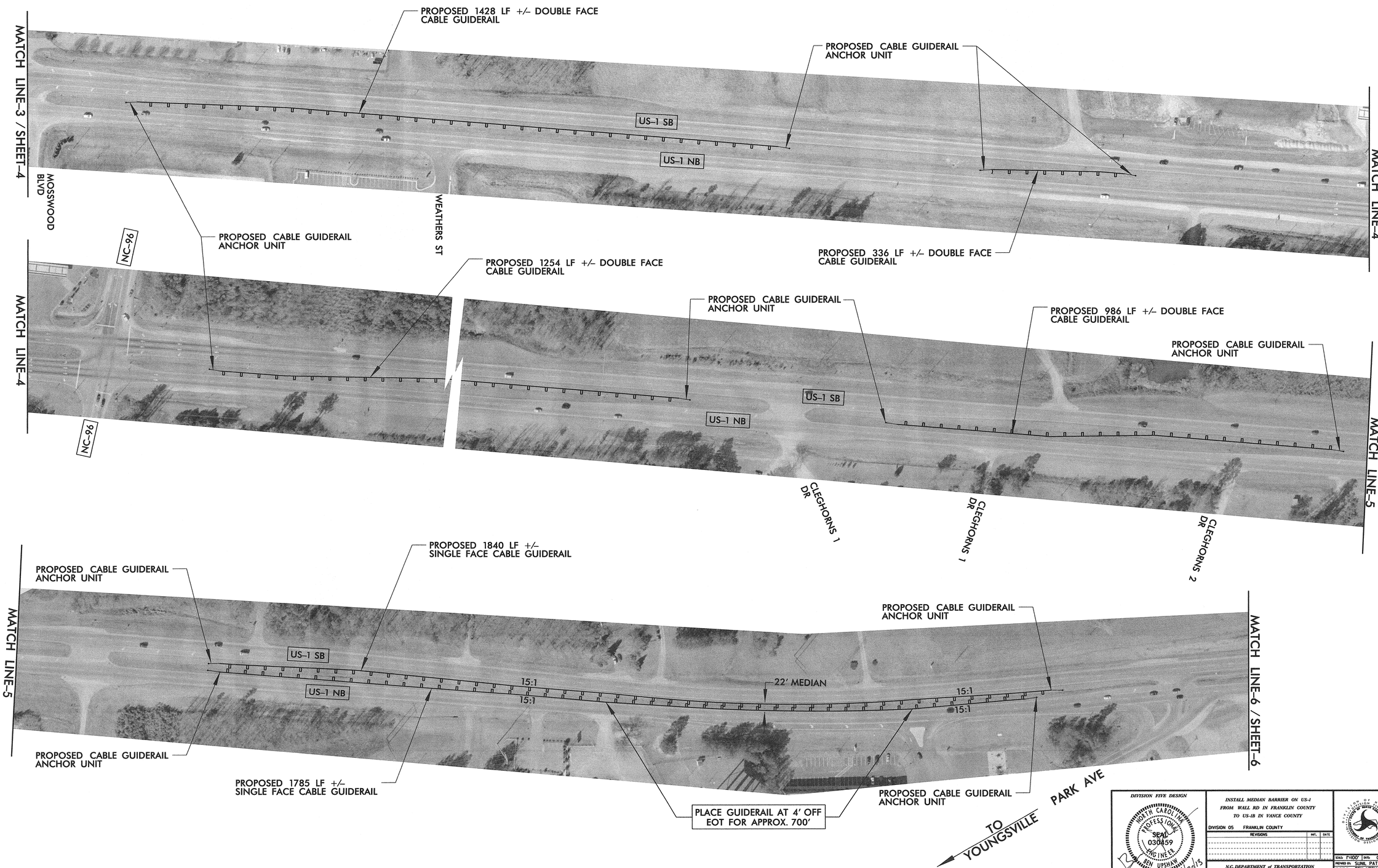
DIVISION 05 FRANKLIN COUNTY

REVISIONS	INT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE: 1"=100'	DATE: 05/2019
PREPARED BY: SUNIL PATEL	
REVIEWED BY: BEN UPSHAW	
REVISED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	5



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW P.E.

6/20/13

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH

SCALE: 1"=100'	DATE: 05/2013
REVIEWED BY:	SUNIL PATEL
REVIEWED BY:	BEN UPSHAW
REVIEWED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	6

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1068 LF +/- SINGLE FACE CABLE GUIDERAIL AT 6' OFFSET FROM EOT

MATCH LINE-6 / SHEET-5

PROPOSED GRAU-350 END UNIT

PROPOSED 1075 LF +/- SINGLE FACE STEEL BEAM GUARDRAIL AT 6' OFFSET FROM EOT

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

BERT WINSTON RD

US-1 SB

US-1 NB

PROPOSED CAT-1 END UNIT

PROPOSED 577 LF +/- DOUBLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED M-350 END UNIT

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED GRAU-350 END UNIT

PROPOSED GRAU-350 END UNIT

PROPOSED 2975 LF +/- SINGLE FACE STEEL BEAM GUARDRAIL AT 4' OFFSET FROM EOT

PROPOSED CAT-1 END UNIT

PROPOSED 1850 LF +/- SINGLE FACE STEEL BEAM GUARDRAIL AT 4' OFFSET FROM EOT

MATCH LINE-7

MATERIALS DR

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

MATCH LINE-7

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 4600 LF +/- SINGLE FACE CABLE GUIDERAIL AT 4' OFFSET FROM EOT

US-1 SB

US-1 NB

PROPOSED 4600 LF +/- SINGLE FACE CABLE GUIDERAIL AT 4' OFFSET FROM EOT

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

MATCH LINE-8

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1778 LF +/- SINGLE FACE CABLE GUIDERAIL AT 4' OFF EOT

US-1 SB

US-1 NB

PROPOSED 1675 LF +/- SINGLE FACE STEEL BEAM GUARDRAIL AT 4' OFF EOT

PROPOSED CAT-1 END UNIT

MATCH LINE-9 / SHEET-7

PROPOSED GRAU-350 END UNIT

US-1A (MAIN ST) TO FRANKLINTON

DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

6/20/15

P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1 FROM WALL RD IN FRANKLIN COUNTY TO US-1B IN VANCE COUNTY

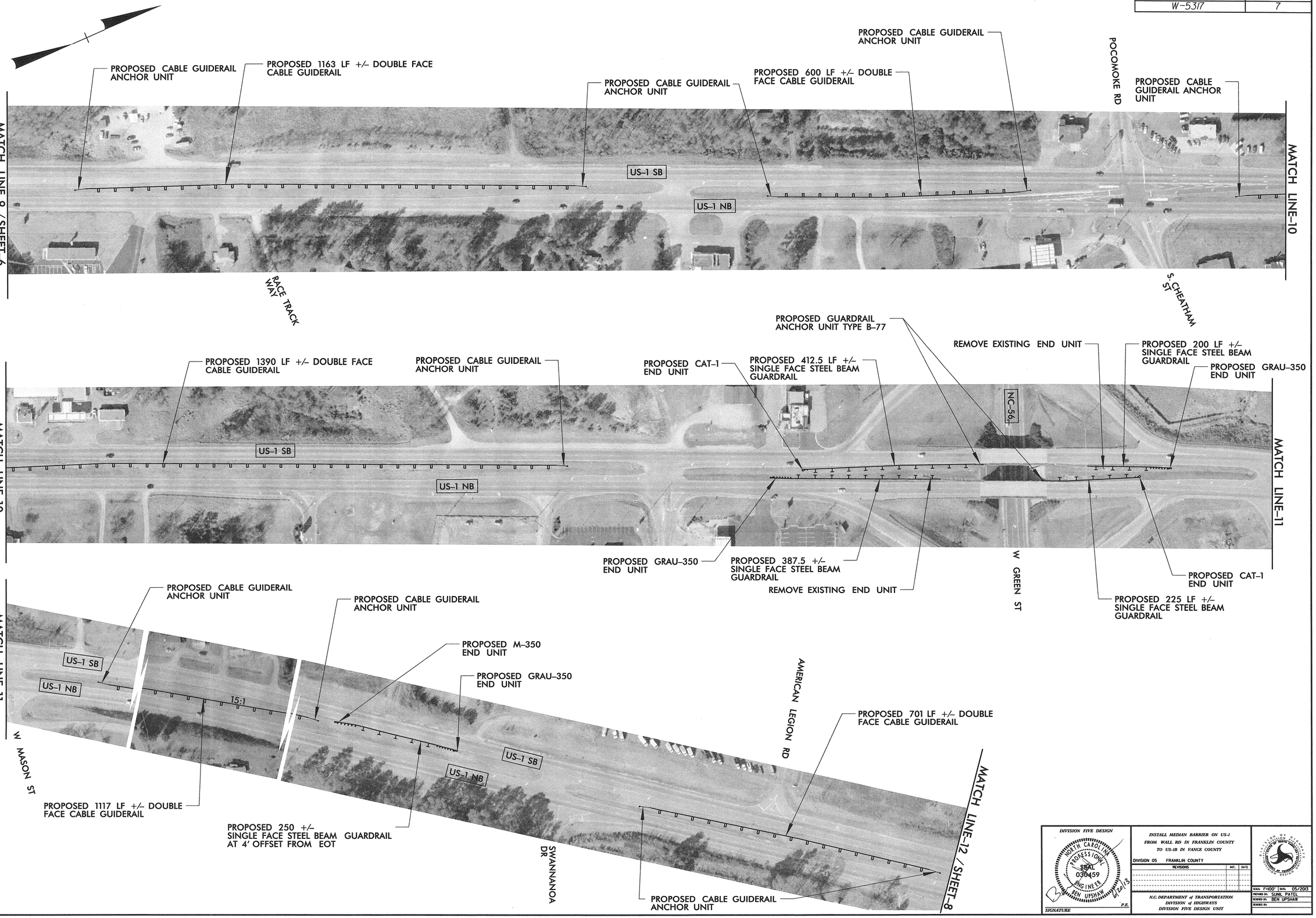
DIVISION 05 FRANKLIN COUNTY

REVISIONS	INT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE	1"=100'
DATE	05/2015
PREPARED BY	SUNIL PATEL
REVIEWED BY	BEN UPSHAW
REVISED BY	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	7



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW P.E.

SIGNATURE

2/13

INSTALL MEDIAN BARRIER ON US-1 FROM WALL RD IN FRANKLIN COUNTY TO US-1B IN VANCE COUNTY

DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE: 1"=100'	DATE: 05/2013
PREPARED BY: SUNIL PATEL	
REVIEWED BY: BEN UPSHAW	
REVIEWED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	8

MATCH LINE-12 / SHEET-7

N 1ST CHEATHAM

US-1 SB

US-1 NB

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1372 LF +/- SINGLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1162 LF +/- DOUBLE FACE CABLE GUIDERAIL

15:1

PROPOSED GRAU-350 END UNIT

PROPOSED 1300 LF +/- SINGLE FACE STEEL BEAM GUARDRAIL AT 6' OFF EOT

PROPOSED CAT-1 END UNIT

US-1A (N MAIN ST) TO FRANKLINTON

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

MATCH LINE-13

PROPOSED 1402 LF +/- DOUBLE FACE CABLE GUIDERAIL

15:1

MATCH LINE-14

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

US-1 SB

US-1 NB

MATCH LINE-13

PROPOSED 850 LF +/- DOUBLE FACE CABLE GUIDERAIL

CONE DR

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

MATCH LINE-15 / SHEET-9

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1322 LF +/- DOUBLE FACE CABLE GUIDERAIL

US-1 SB

US-1 NB

MATCH LINE-14

DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW 6/20/19 P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

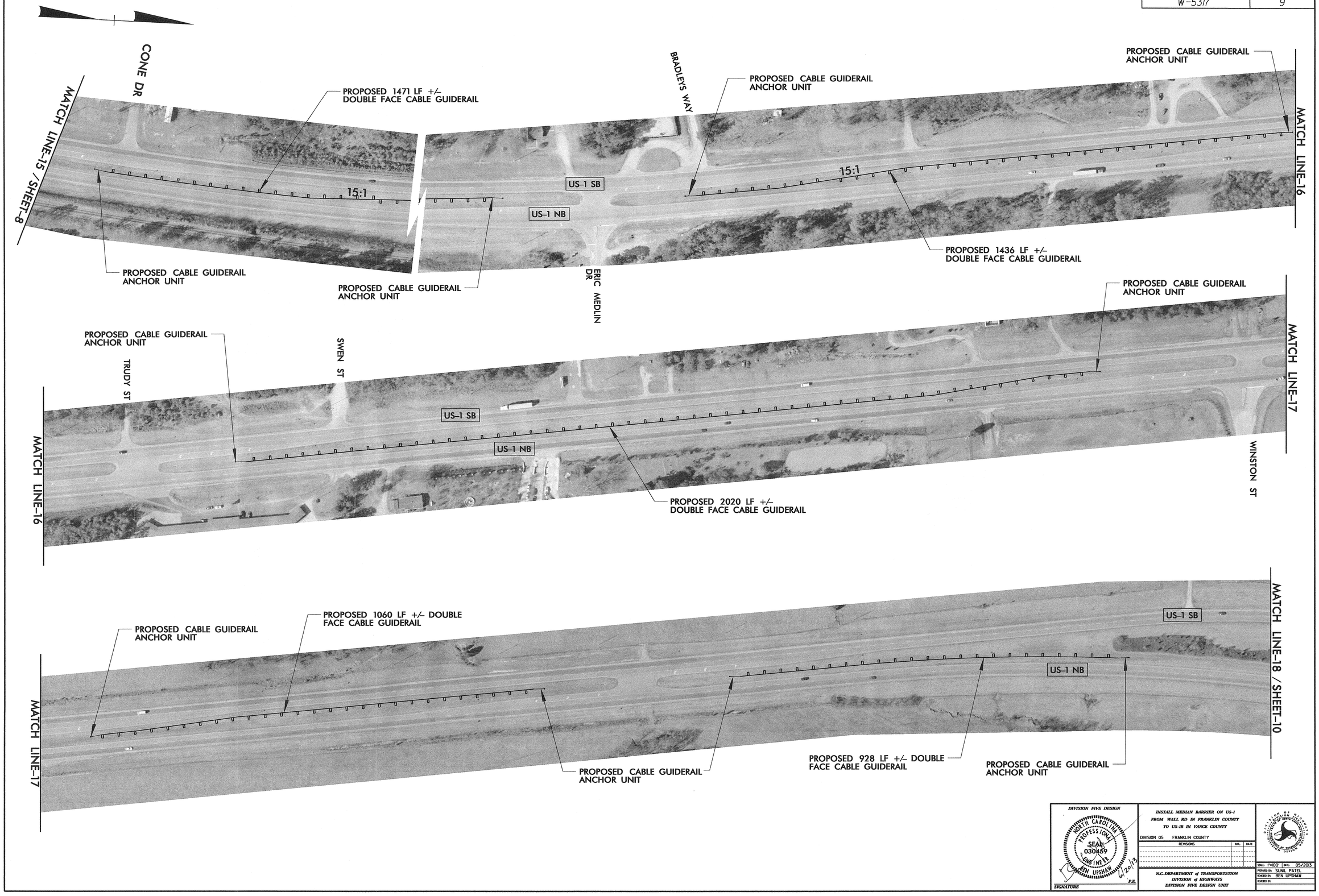
DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE	1"=100'
DATE	05/2013
PREPARED BY	SUNIL PATEL
REVIEWED BY	BEN UPSHAW
REVIEWED BY	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	9



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW 1/2013 P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1 FROM WALL RD IN FRANKLIN COUNTY TO US-1B IN VANCE COUNTY

DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH

Scale	1"=100'
Date	05/2013
PREPARED BY	SUNIL PATEL
REVIEWED BY	BEN UPSHAW
REVIEWED BY	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	10

MATCH LINE-18 / SHEET-9

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 650 LF +/- DOUBLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

VANCE COUNTY
FRANKLIN COUNTY

US-1 SB

US-1 NB

PROPOSED 335 LF +/- DOUBLE FACE CABLE GUIDERAIL

MATCH LINE-19

PLANTATION DR

MATCH LINE-19

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 845 LF +/- DOUBLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 1020 LF +/- DOUBLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

US-1 SB

15:1

US-1 NB

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

MATCH LINE-20

S CHAVIS RD

MATCH LINE-21 / SHEET-11

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

15:1

PROPOSED 1010 LF +/- DOUBLE FACE CABLE GUIDERAIL

PROPOSED CABLE GUIDERAIL ANCHOR UNIT

PROPOSED 705 LF +/- DOUBLE FACE CABLE GUIDERAIL

US-1 SB

US-1 NB

MATCH LINE-20

DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

6/4/13

P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

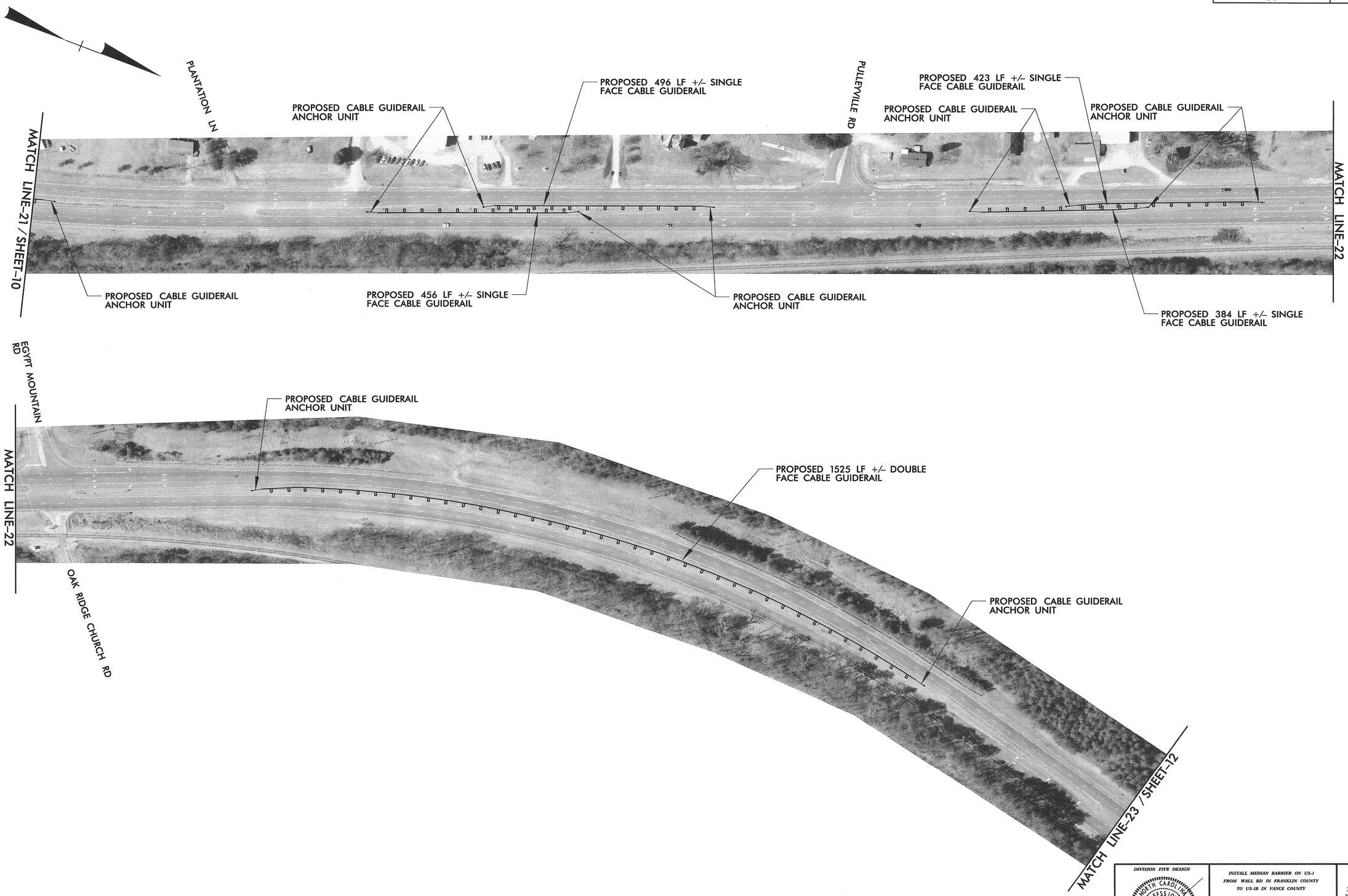
DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE	1"=100'
DATE	05/2013
PREPARED BY:	SUNIL PATEL
REVIEWED BY:	BEN UPSHAW
REVIEWED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	11



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

6/20/13

SIGNATURE P.E.

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

DIVISION 05 FRANKLIN COUNTY

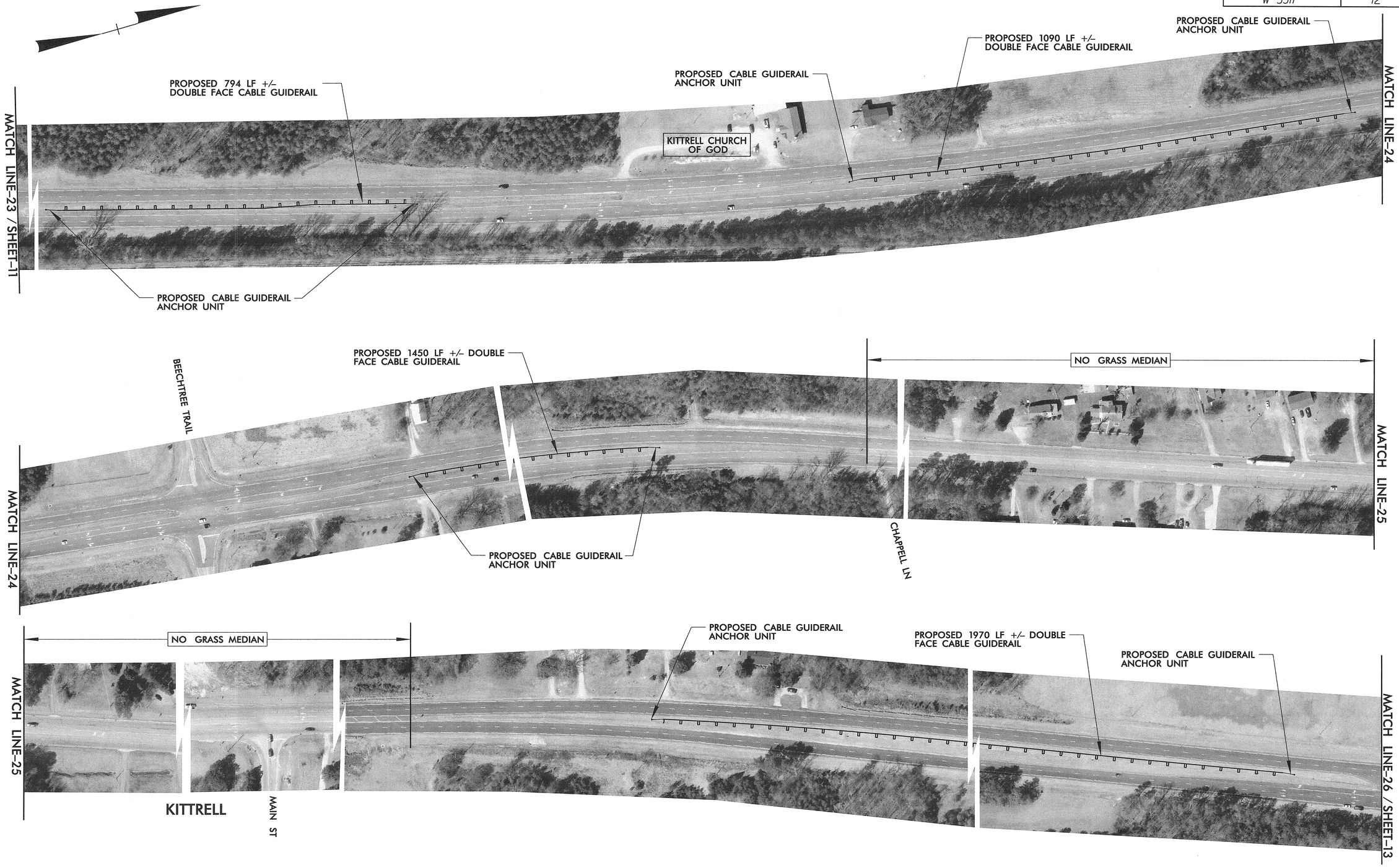
REVISIONS	INT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

DIVISION OF HIGHWAYS DIVISION FIVE DESIGN UNIT

SCALE: 1"=100' DATE: 05/2013
PREPARED BY: SUNIL PATEL
REVIEWED BY: BEN UPSHAW
REVIEWED BY:

PROJECT REFERENCE NO.	SHEET NO.
W-5317	12



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030439 ENGINEER BEN UPSHAW

SIGNATURE P.E.

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

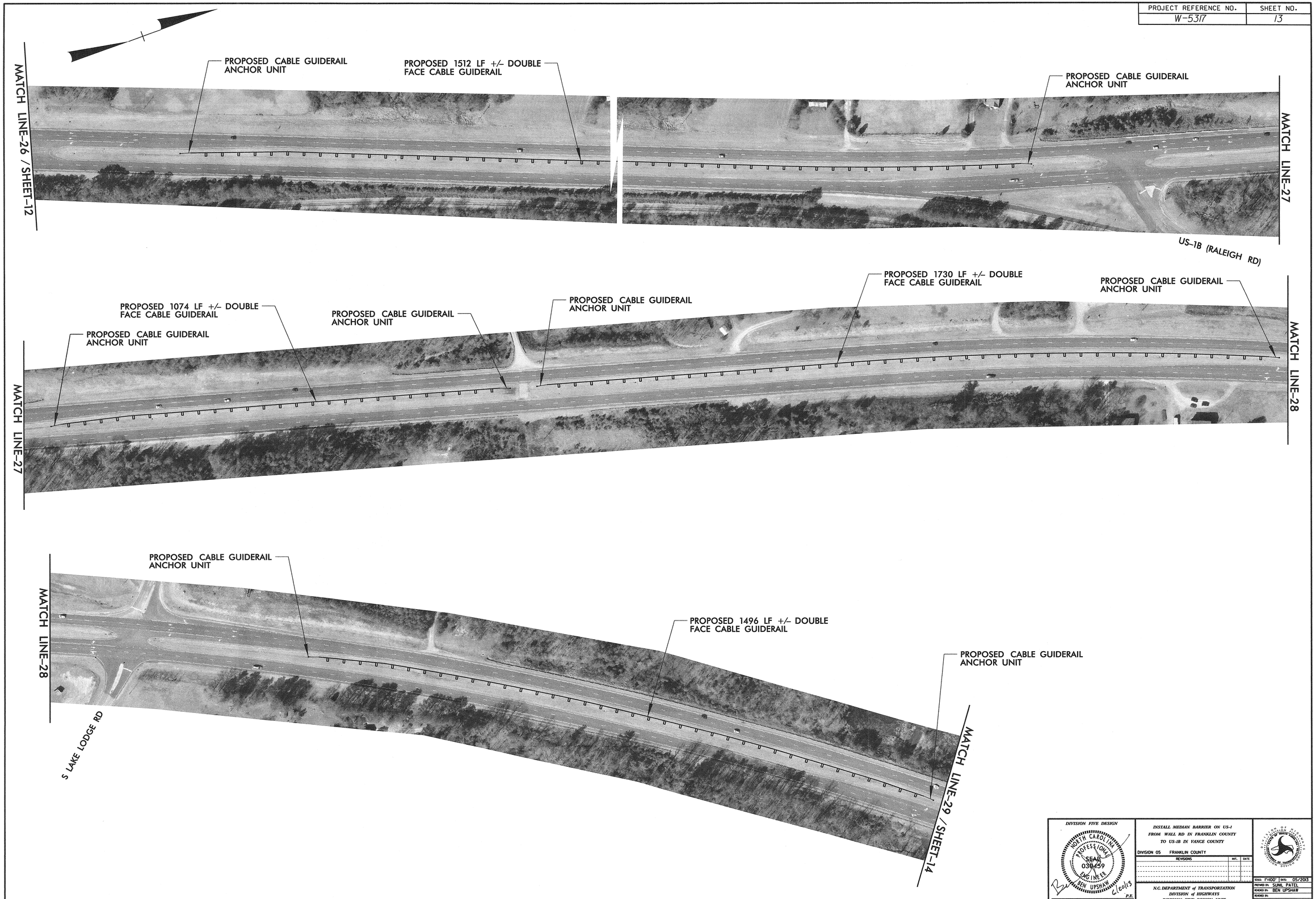
DIVISION 05 FRANKLIN COUNTY

REVISIONS	INIT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE:	1"=100'
DATE:	05/2013
PREPARED BY:	SUNIL PATEL
REVIEWED BY:	BEN UPSHAW
APPROVED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	13



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

SIGNATURE

P.E.

INSTALL MEDIAN BARRIER ON US-1
FROM WALL RD IN FRANKLIN COUNTY
TO US-1B IN VANCE COUNTY

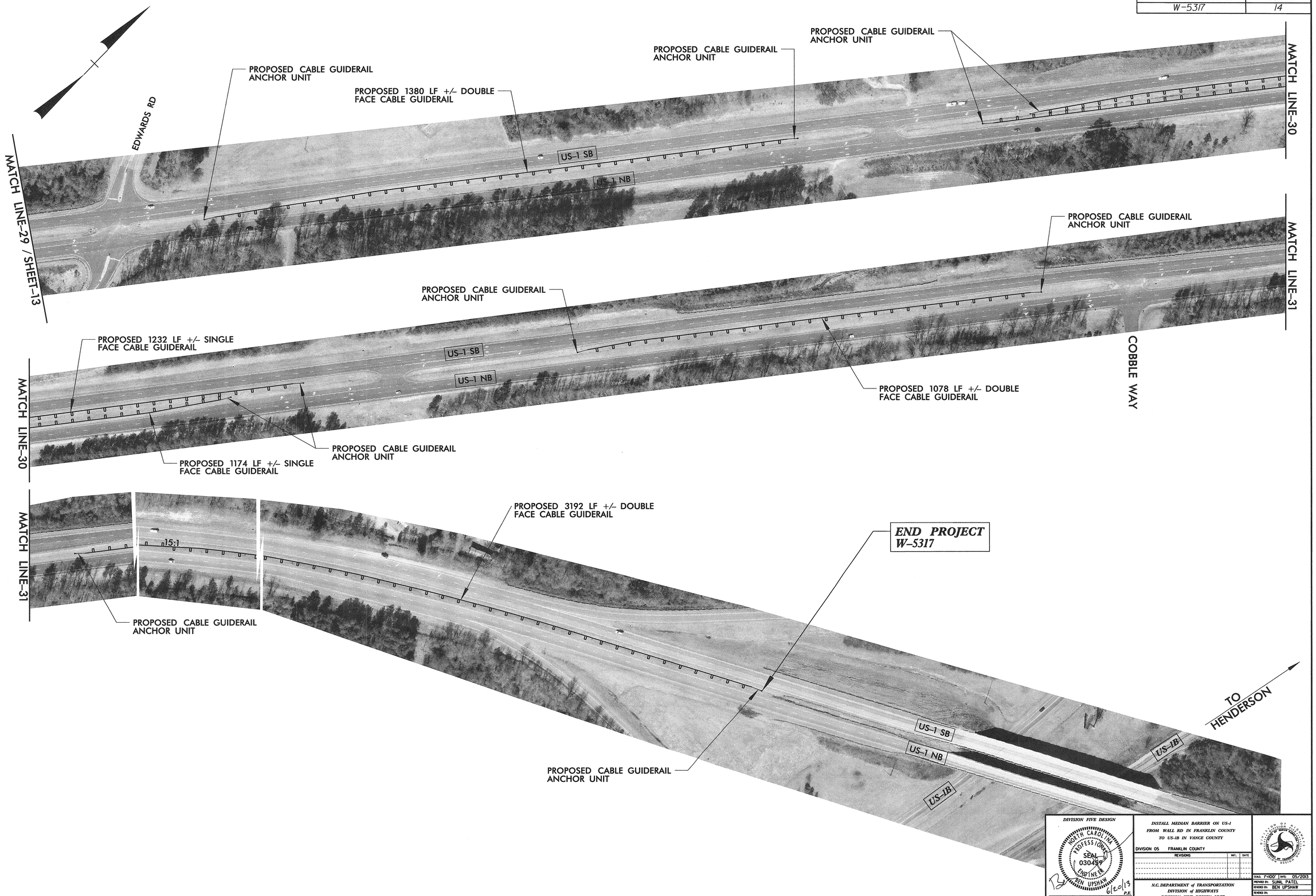
DIVISION 05 FRANKLIN COUNTY

REVISIONS	BY:	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

SCALE:	1"=100'
DATE:	05/2013
PREPARED BY:	SUNIL PATEL
REVIEWED BY:	BEN UPSHAW
REVIEWED BY:	

PROJECT REFERENCE NO.	SHEET NO.
W-5317	14



DIVISION FIVE DESIGN

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

6/20/13 P.E.

SIGNATURE

INSTALL MEDIAN BARRIER ON US-1 FROM WALL RD IN FRANKLIN COUNTY TO US-1B IN VANCE COUNTY

DIVISION 05 FRANKLIN COUNTY

REVISIONS	INT.	DATE

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION FIVE DESIGN UNIT

DIVISION OF HIGHWAYS DIVISION OF DESIGN AND CONSTRUCTION DIVISION OF TRANSPORTATION

SCALE: 1"=100' DATE: 05/2013
PREPARED BY: SUNIL PATEL
REVIEWED BY: BEN UPSHAW
REVIEWED BY:

STATE PROJECT REFERENCE NO.		SHEET NO.
W-5317		TMP-1
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46140.1.1	STPNHS-0001(140)	P.E.
46140.3.1	STPNHS-0001(140)	CONST.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
TRAFFIC CONTROL, MARKING & DELINEATION

FRANKLIN AND VANCE COUNTIES

TIP PROJECT: W-5317

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD.NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY - DRUM
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND AND INDEX OF SHEETS
TMP-2	PROJECT NOTES
TMP-3	TRAFFIC CONTROL DETAIL

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- NORTH ARROW
- PROPOSED PVMT. --------- EXIST. PVMT.
- WORK AREA
- REMOVAL OF EXISTING PAVEMENT

TRAFFIC CONTROL DEVICES

- TYPE I BARRICADE
- TYPE II BARRICADE
- TYPE III BARRICADE
- CONE
- DRUM
- FLASHING ARROW PANEL (TYPE C)
- TYPE 'B' WARNING LIGHT
- STATIONARY SIGN
- PORTABLE SIGN
- WARNING FLAGS
- CRASH CUSHION
- CHANGEABLE MESSAGE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- POLICE
- FLAGGER

PAVEMENT MARKINGS

- CRYSTAL PAVEMENT MARKER
- YELLOW/YELLOW PAVEMENT MARKER
- CRYSTAL/RED PAVEMENT MARKER
- PAVEMENT MARKING SYMBOLS

APPROVED: [signature]
DATE: 6/20/13

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

	TRAFFIC CONTROL ENGINEER
BEN UPSHAW	TRAFFIC CONTROL PROJECT ENGINEER
SUNIL PATEL	TRAFFIC CONTROL PROJECT DESIGN ENGINEER
	TRAFFIC CONTROL DESIGN ENGINEER

PROJ. REFERENCE NO.	SHEET NO.
W-5317	TMP-2

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABL 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 RESTRICTIONS
US-1(FROM WALL RD TO HOLDEN RD)	MONDAY THRU FRIDAY 6.00 AM TO 9:00 AM AND 4:00 PM TO 7:00 PM

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

ROAD NAME

US-1

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 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.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 7:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 7:00 P.M. TUESDAY.
5. 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.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 7:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 7:00 P.M. MONDAY.
8. 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 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

D) 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.

E) 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.

F) 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.

G) 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.

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

I) DO NOT INSTALL MORE THAN TWO (2) MILES OF LANE CLOSURE ON US-1 MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.

J) DO NOT INSTALL MORE THAN THREE (3) SIMULTANEOUS LANE CLOSURES IN ANY ONE DIRECTION ON US-1.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

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

TRAFFIC CONTROL DEVICES

M) 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.

N) 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.

MISELLANEOUS

O) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA OR INTERSECTIONS AS DIRECTED BY YHE ENGINEER.

LOCAL NOTE:

P) ADVANCE WORK ZONE SIGNS SHALL BE PLACED ON PORTABLE SUPPORTS ACCORDING TO RSD 1101.01 WHERE "CONSTRUCTION LIMITS" WILL BE DEFINED AS THE AREA OF ACTIVE WORK (INCLUDING LANE CLOSURES AND SHOULDER CLOSURES) WITHIN 40 FEET FROM THE EDGE OF TRAVEL LANE.

APPROVED: _____ DATE: 6/20/13

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

PROJECT NOTES

SCALE:	NONE
DATE:	06 / 2013
DWG. BY:	
DESIGN BY:	SUNIL PATEL
REVIEWED BY:	BEN UPSHAW

DIVISION OF HIGHWAYS TRAFFIC ENGINEERING BRANCH

REVISIONS	
CADD FILE:	

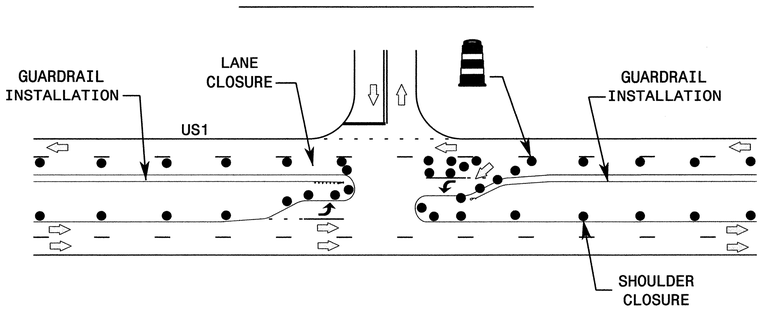
NOTES:
1) INSTALL PROPOSED GUARDRAIL WITH THE DIRECTION OF TRAFFIC FLOW.
2) MAY INSTALL PROPOSED GUARDRAIL IN BOTH DIRECTIONS AT THE SAME TIME.
3) COMPLETE ONE AREA OF PROPOSED GUARDRAIL INSTALLATION BEFORE ADVANCING TO THE NEXT AREA, AS DIRECTED BY THE ENGINEER.
4) LEAVE NO GUARDRAIL POSTS EXPOSED TO TRAFFIC. INSTALL A SHOULDER CLOSURE ON THE DIRECTION AFFECTED IF NO POSITIVE PROTECTION IS PRESENT TO SHIELD THE POSTS.
5) PROTECT ALL BLUNT ENDS OF PROPOSED GUARDRAIL WITH A TMIA.
6) LENGTH OF LANE CLOSURE SHOULD NOT EXCEED THE AMOUNT OF PROPOSED GUARDRAIL THAT CAN BE INSTALLED IN 1 DAY.
7) LANE CLOSURE NOT TO EXCEED 2 MILES MEASURED FROM BEGINNING OF MERGE TAPER TO LAST DRUM OF LANE CLOSURE.
8) NO MORE THAN 3 LANE CLOSURES ALLOWED PER DIRECTION AT A TIME.
9) LANE CLOSURES SHALL BE A MINIMUM OF 2 MILES APART AS MEASURED FROM THE LAST DRUM OF A LANE CLOSURE TO THE FIRST SIGN ASSOCIATED WITH THE NEXT LANE CLOSURE.
10) EACH LANE CLOSURE WILL REQUIRE A MINIMUM OF 1 CMS, 1 FAP, AND 1 TMIA. THE TMIA SHALL BE USED IN ADVANCE OF THE WORK TO PROTECT WORKERS. A SECOND TMIA WILL BE REQUIRED FOR OPPOSING TRAFFIC TO PROTECT WORKERS AND PROTECT TRAFFIC FROM BLUNT END OF GUARDRAIL, UNLESS POSITIVE PROTECTION IS IN PLACE OR A MEDIAN LANE CLOSURE IS ALSO INSTALLED FOR OPPOSING TRAFFIC.

PHASING

STEP 1)
INSTALL WORK ZONE ADVANCE WARNING SIGNS ON ALL ROADS IN ACCORDANCE WITH RSD 1101.01. WORK ZONE SIGNS MAY BE INSTALLED AS PORTABLE SIGNS AND POSITIONED/RELOCATED FOR EACH DAYS WORK, AS DIRECTED BY THE ENGINEER.

STEP 2)
USING ROADWAY STANDARD DRAWING 1101.02, SH. 3 OF 9, ROADWAY STANDARD DRAWING 1101.04, AND THE DRAWINGS SHOWN ON THIS SHEET, INSTALL PROPOSED GUARDRAIL ALONG US 1.

STEP 3)
REMOVE WORK ZONE ADVANCE WARNING SIGNS AND ANY REMAINING WORK ZONE TRAFFIC CONTROL DEVICES.

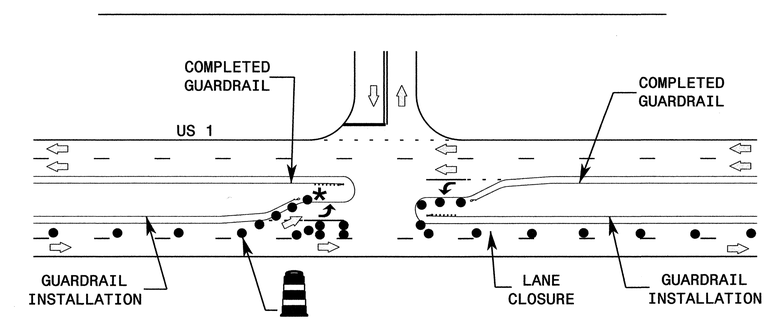


NOTES

-PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.

-PROTECT TRAILING END OF WORK FROM OPPOSING TRAFFIC WITH TMIA TRAVELLING BACKWARDS ON SAME SHOULDER AS THE WORK.

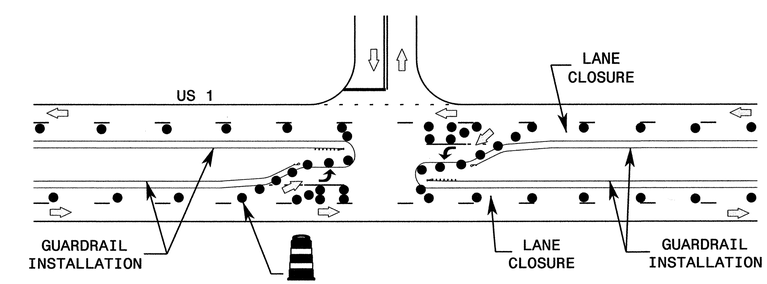
-KEEP SHOULDER CLOSED CONTINUOUSLY IF OFFSET TO GUARDRAIL POSTS IS LESS THAN 30 FEET, UNLESS POSITIVE PROTECTION IS USED.



NOTES

-PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.

*-PROTECT TRAILING END OF WORK FROM OPPOSING TRAFFIC, AS NEEDED, WITH TMIA TRAVELLING BACKWARDS ON SAME SHOULDER AS THE WORK.



NOTES

-PROTECT APPROACH END OF WORK WITH TMIA TRAVELLING IN SAME DIRECTION AS TRAFFIC.

APPROVED: DATE: 6/20/13

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 030459 ENGINEER BEN UPSHAW

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

TRAFFIC CONTROL DETAIL

14-JUN-2013 10:59
S:\DOC\Dist-3\Franklin\W5317\Roadway\Proj
$$$$USERNAME$$$$