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TIP PROJECT: W-5601DUB

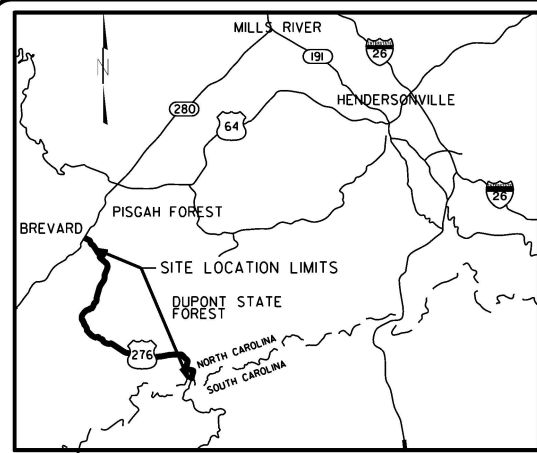
CONTRACT: DN000623

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5601DUB	1	8
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50138.3.252	HSIP-0276(016)	CONSTRUCTION	

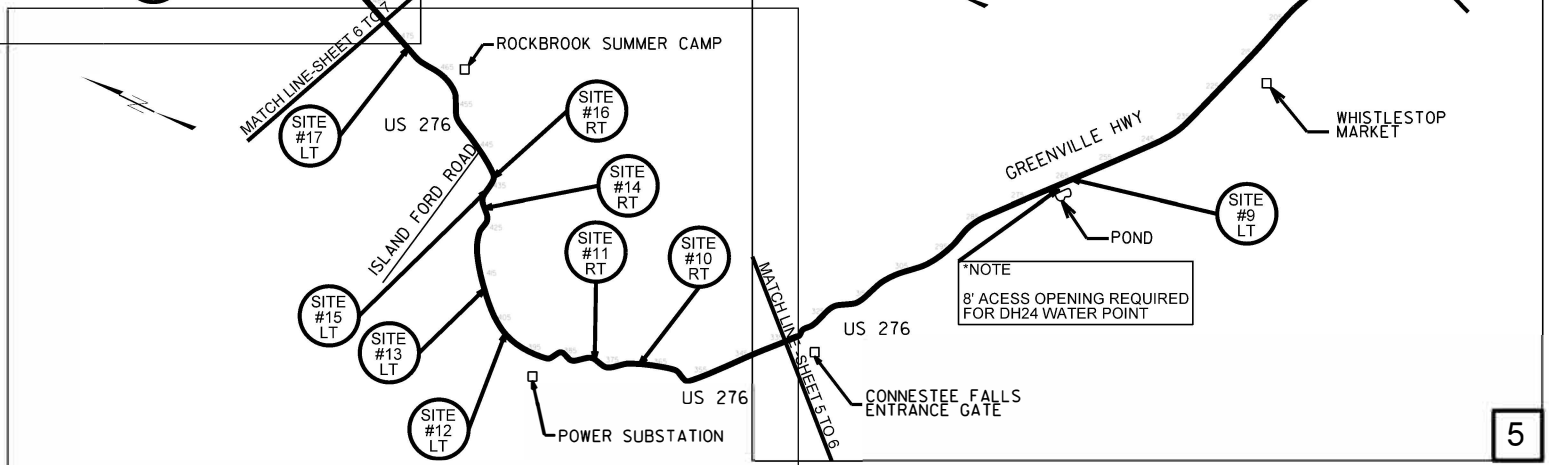
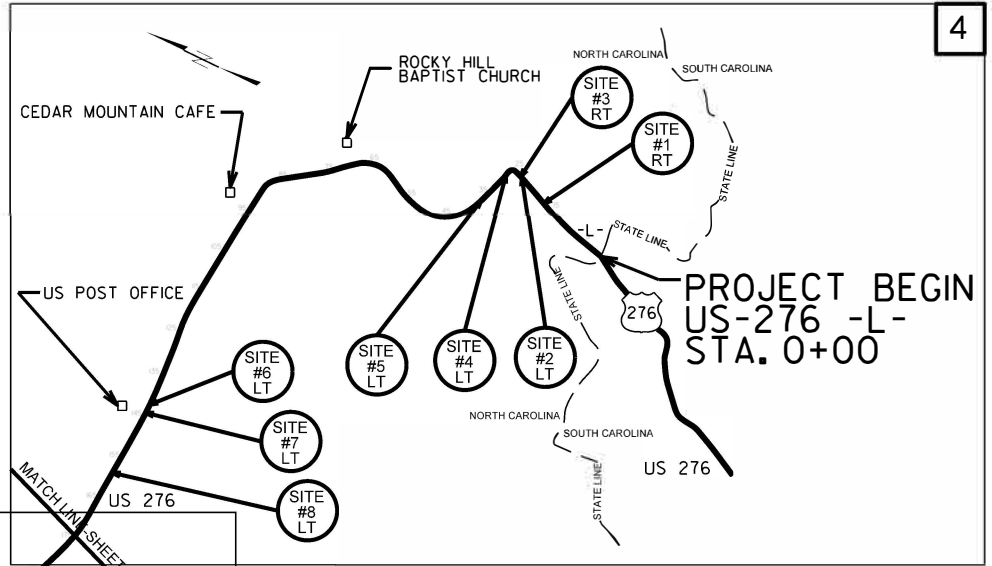
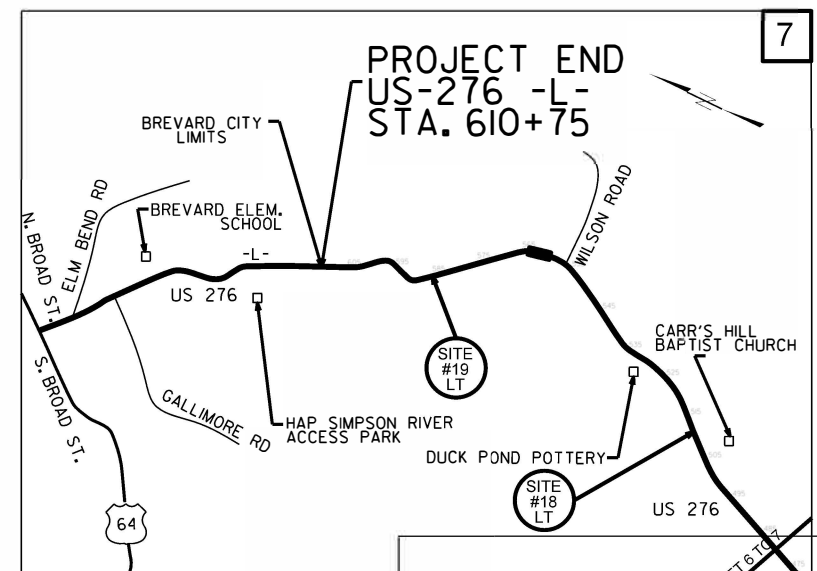
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**TRANSYLVANIA COUNTY**

**LOCATION: US-276 FROM SOUTH CAROLINA STATE LINE TO BREVARD CITY LIMITS**

**TYPE OF WORK: GUARDRAIL INSTALLATION AND TRAFFIC CONTROL**



HWY 276 VICINITY MAP  
NOT TO SCALE



HWY 276 SITE MAP  
NOT TO SCALE

GRAPHIC SCALES

NOTE:  
"PLANS"  
ARE NOT  
TO SCALE

DESIGN DATA

ADT=6800  
  
V=  
35-55 MPH

PROJECT LENGTH

W-5601DUB = 11.57 MILES

Prepared In the Office of:  
**DIVISION OF HIGHWAYS**

1000 Birch Ridge Dr., Raleigh NC, 27610

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
N/A

LETTING DATE:  
May 11, 2021

L.R. Watkins, PE  
PROJECT ENGINEER

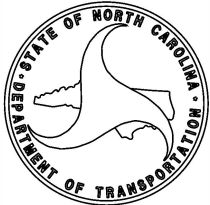
DocuSigned by:  
*R.H. Darnell*  
PROJECT DESIGN ENGINEER  
E3DD5A4810424B2...

HYDRAULICS ENGINEER

SIGNATURE: N/A

ROADWAY DESIGN ENGINEER

SIGNATURE: N/A



2222021

**INDEX OF SHEETS**

<b><u>SHEET NUMBER:</u></b>	<b><u>SHEET:</u></b>
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1B .....	CONVENTIONAL SYMBOLS
3B-1 .....	GUARDRAIL SUMMARY SHEET
4 .....	SITE LOCATIONS
5 .....	SITE LOCATIONS
6 .....	SITE LOCATIONS
7 .....	SITE LOCATIONS

**GENERAL NOTES:**

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

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

APPROXIMATE LOCATION FOR EACH OF THE GUARDRAIL SITES LISTED IN THESE PLANS HAVE BEEN IDENTIFIED AND MARKED IN THE FIELD PRIOR TO THE LET OF THIS CONTRACT.

THERE SHALL BE NO DEVIATIONS FROM THE STANDARD DRAWINGS WITHOUT PRIOR APPROVAL FROM THE ENGINNER.

ALL TRAFFIC CONTROL DESIGN, PLACEMENT, OPERATION, MAINTENANCE, AND UNIFORMITY SHALL BE IN ACCORDANCE WITH THE MOST CURRENT PRACTICES DETAILED IN THE 2018 ROADWAY STANDARD DRAWINGS.

**NOTE TO CONTRACTOR:**

ALL NEW INSTALLATION OR REPLACEMENT OF GUARDRAIL AND MATERIALS ON THIS PROJECT SHALL BE FROM THE NuGuard-31 STRONG POST GUARDRAIL SYSTEM OR APPROVED EQUIVALENT. ALL END UNITS AND BRIDGE ATTACHMENTS FOR THESE SITES SHALL BE 31" MASH EQUIVALENT PRODUCTS.

UTILITY OWNERS ON THIS PROJECT ARE:

CITIZENS TELEPHONE COMPANY (COMPORIUM) (828-553-9599)  
PSNC ENERGY (877-776-2427)  
DUKE ENERGY (800-769-3766)

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-2018

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:

**DIVISION 8 - INCIDENTALS**

<b>STD.NO.</b>	<b>TITLE</b>
862.01	Guardrail Placement
862.02	Guardrail Installation
862D01	Guardrail Placement: 25' Clear Span

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

PROJECT REFERENCE NO. W-5601DUB	SHEET NO. 1B
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### BOUNDARIES AND PROPERTY:

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

### BUILDINGS AND OTHER CULTURE:

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

### HYDROLOGY:

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

### RAILROADS:

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

### RIGHT OF WAY & PROJECT CONTROL:

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

### ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	

### VEGETATION:

Single Tree	
Single Shrub	

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

Hedge	
Woods Line	
Orchard	
Vineyard	

### EXISTING STRUCTURES:

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

### UTILITIES:

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

### TELEPHONE:

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

### WATER:

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

### TV:

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

### GAS:

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

### SANITARY SEWER:

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

### MISCELLANEOUS:

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



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

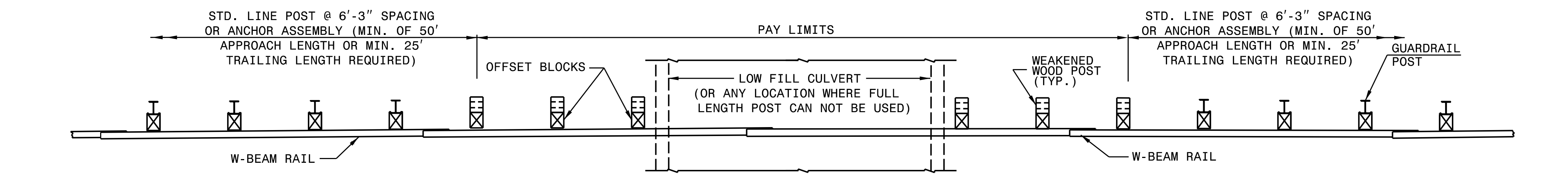
SPECIAL DETAIL FOR  
**GUARDRAIL PLACEMENT**  
25'-0" CLEAR SPAN

SHEET - OF -  
**862D01**

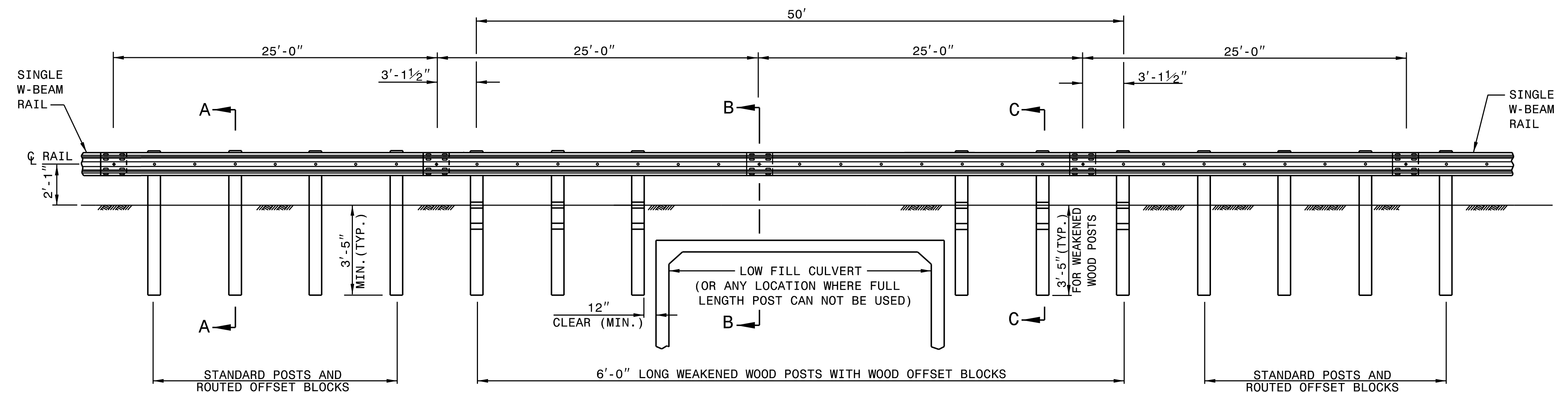
STATE OF NORTH CAROLINA  
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DIVISION OF HIGHWAYS  
RALEIGH, N.C.

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

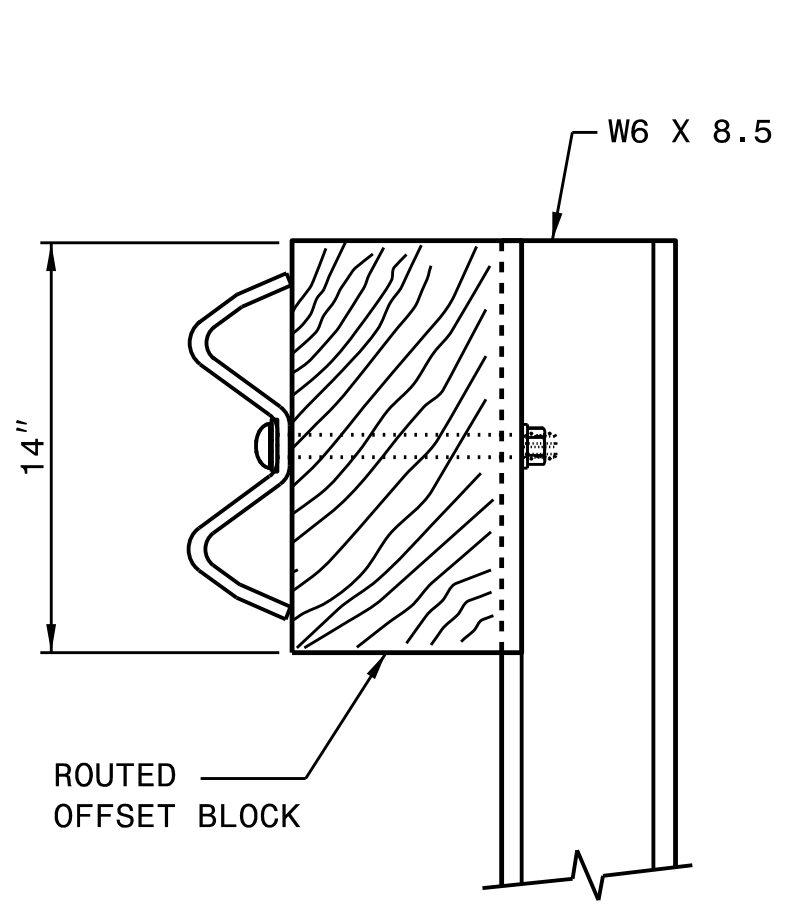
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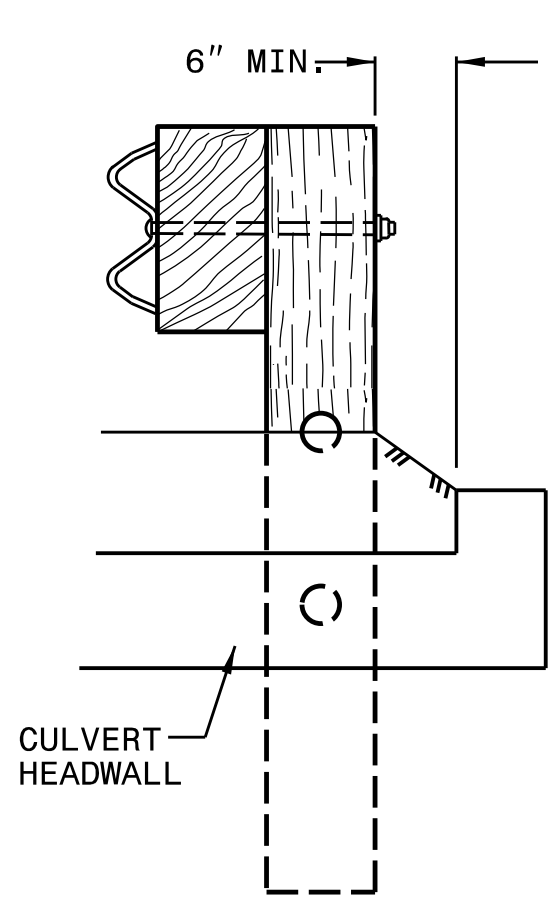
**PLAN**



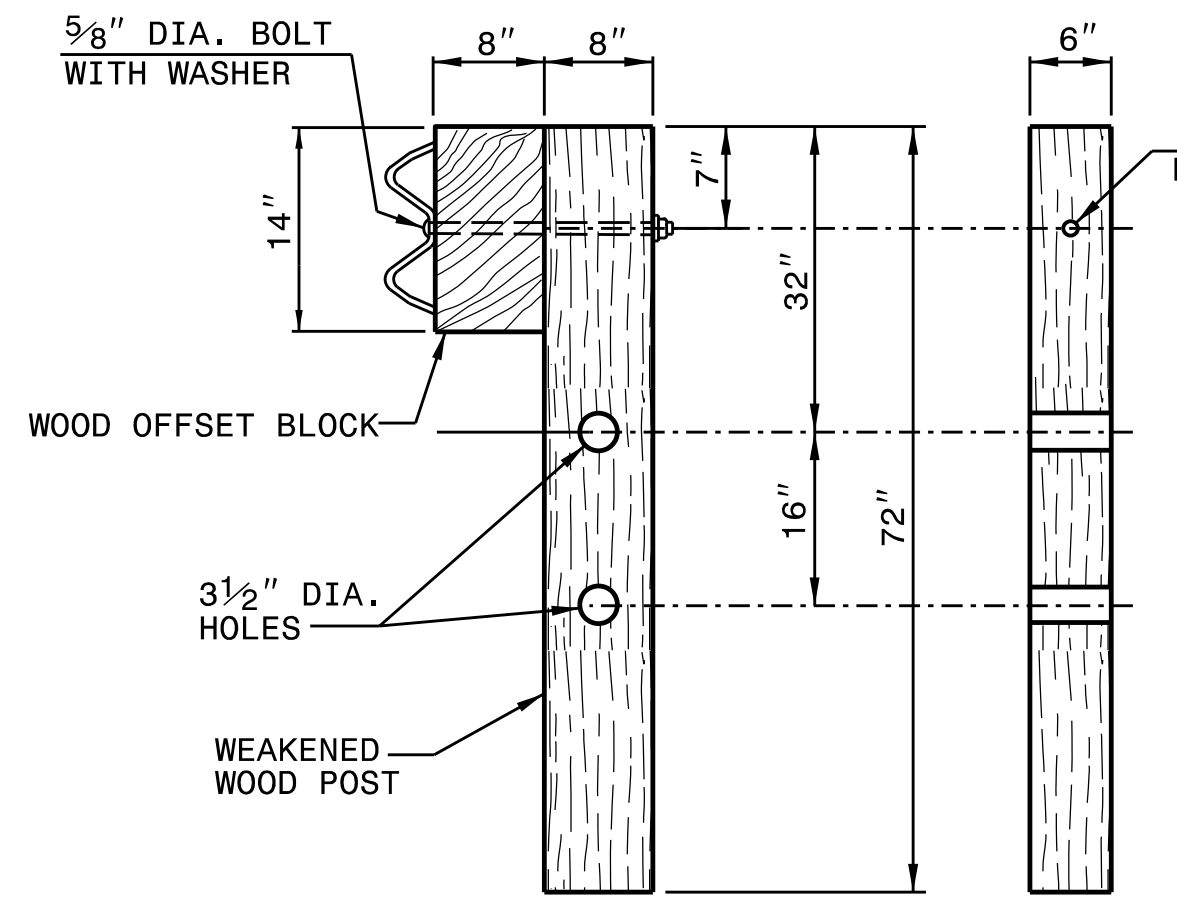
**ELEVATION  
25'-0" GUARDRAIL SPAN**



**SECTION A-A**



**SECTION B-B**



**SECTION C-C FRONT  
WEAKENED WOOD POST**

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



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

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

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: \_\_\_\_\_

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DIVISION OF HIGHWAYS  
RALEIGH, N.C.

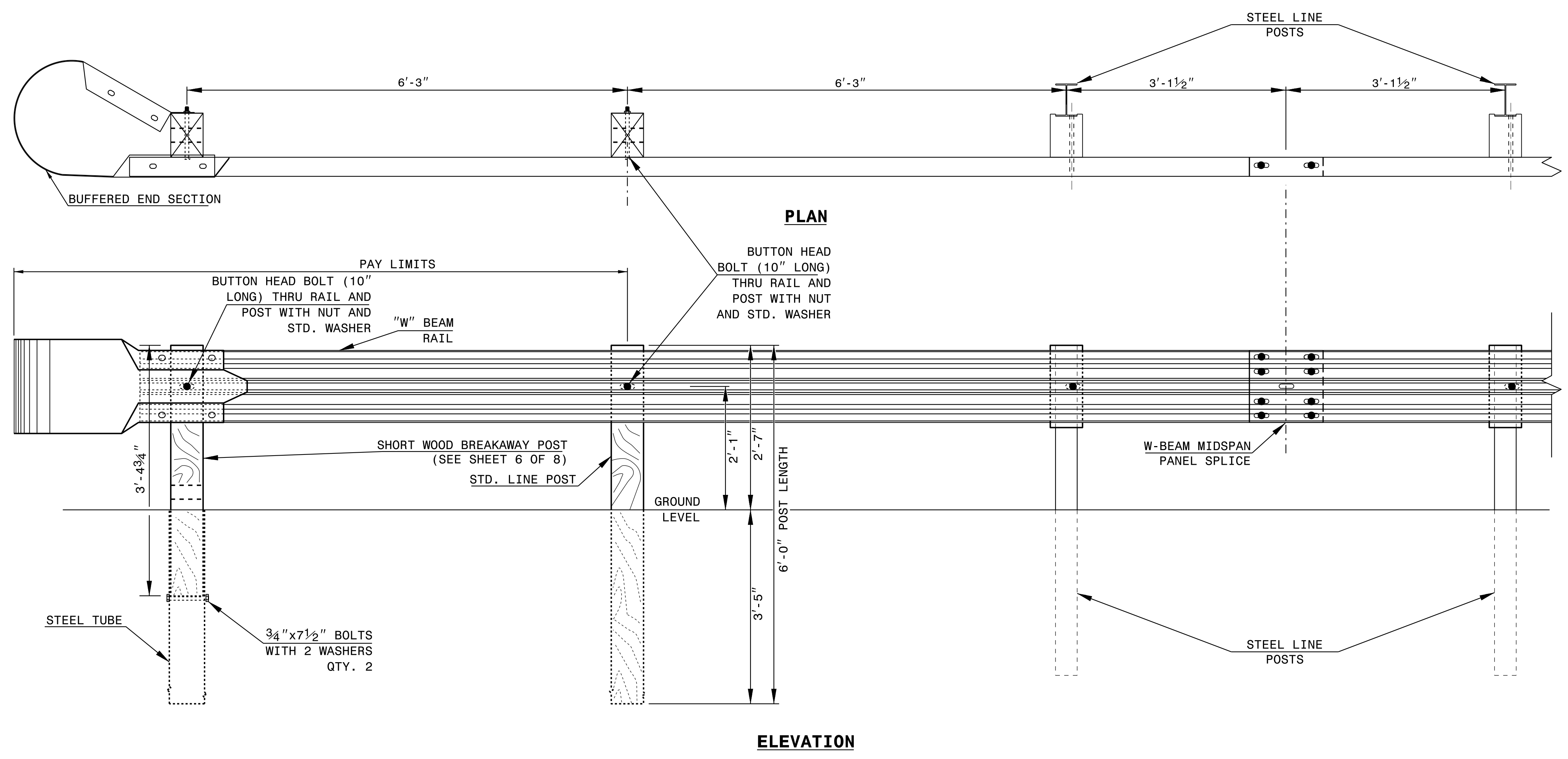
ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET OF

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

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

SHEET OF



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

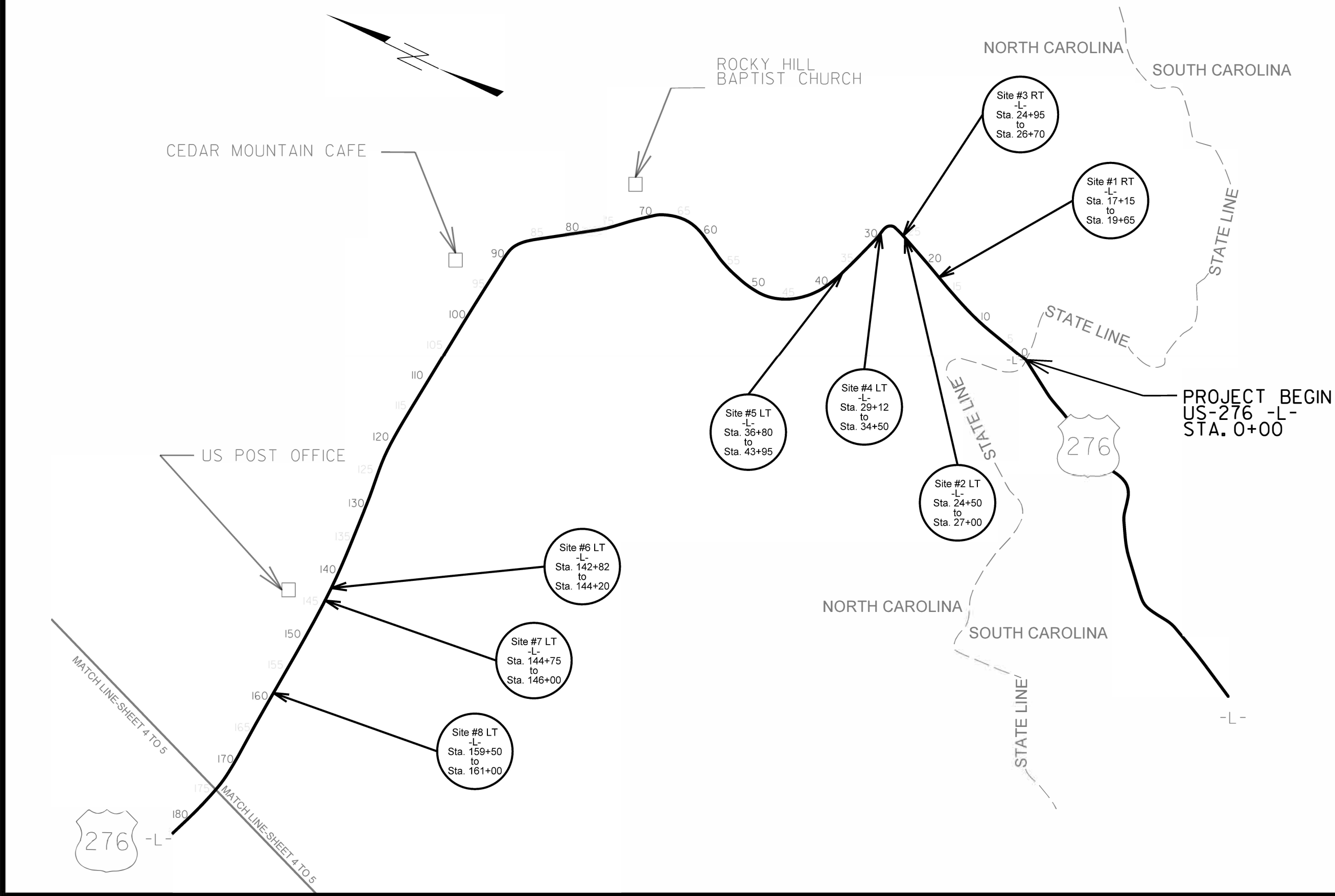


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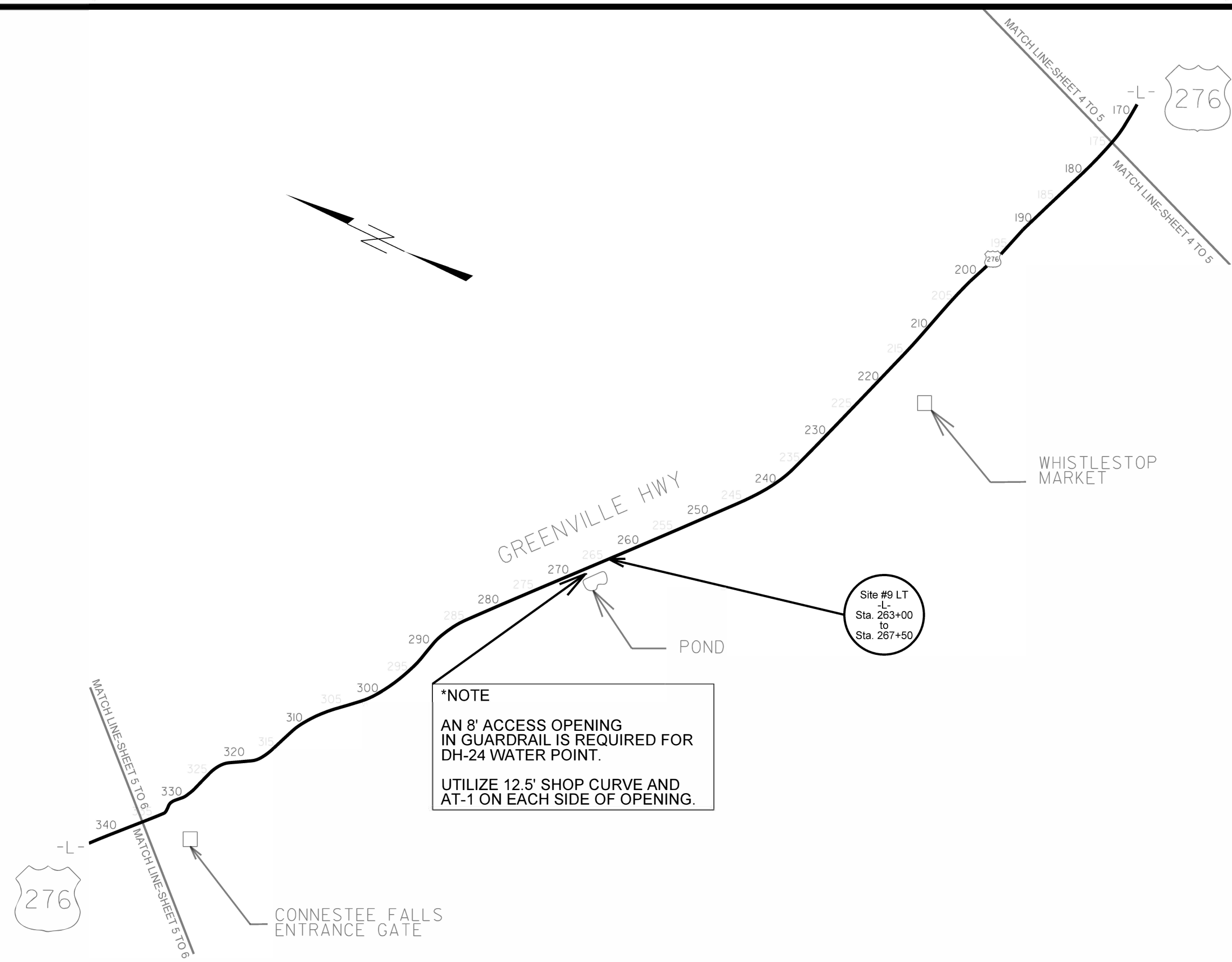
**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**A.T. - 1 SYSTEM**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: \_\_\_\_\_







Site #9 LT  
-L-  
Sta. 263+00  
to  
Sta. 267+50

**\*NOTE**  
AN 8' ACCESS OPENING  
IN GUARDRAIL IS REQUIRED FOR  
DH-24 WATER POINT.  
  
UTILIZE 12.5' SHOP CURVE AND  
AT-1 ON EACH SIDE OF OPENING.

CONNESTEE FALLS  
ENTRANCE GATE

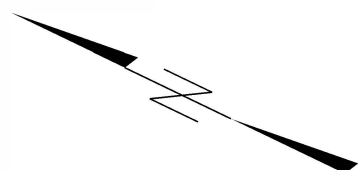
WHISTLESTOP  
MARKET

POND

GREENVILLE HWY

276

276



MATCH LINE-SHEET 6 TO 7  
480  
475  
470  
465  
460

ROCKBROOK SUMMER CAMP

**\*NOTE**  
**SITE #16**  
UTILIZE 12.5' SHOP CURVE AND  
AT-1 ON EACH SIDE OF CREEK.

Site #16 RT  
-L-  
Sta. 437+05  
to  
Sta. 438+30

Site #17 LT  
-L-  
Sta. 471+95  
to  
Sta. 478+95

FRENCH BROAD RIVER

**\*NOTE**  
**SITE #15**  
UTILIZE 12.5' SHOP CURVE AND  
AT-1 ON EACH SIDE OF CREEK.

Site #15 LT  
-L-  
Sta. 433+80  
to  
Sta. 436+30

ISLAND FORD ROAD  
1110

Site #14 RT  
-L-  
Sta. 429+80  
to  
Sta. 431+80

DUNNS CREEK

Site #11 RT  
-L-  
Sta. 379+40  
to  
Sta. 382+65

Site #10 RT  
-L-  
Sta. 368+90  
to  
Sta. 370+65

Site #13 LT  
-L-  
Sta. 411+70  
to  
Sta. 414+20

Site #12 LT  
-L-  
Sta. 401+20  
to  
Sta. 406+07

POWER SUBSTATION

MATCH LINE-SHEET 5 TO 6  
MATCH LINE-SHEET 5 TO 6

