

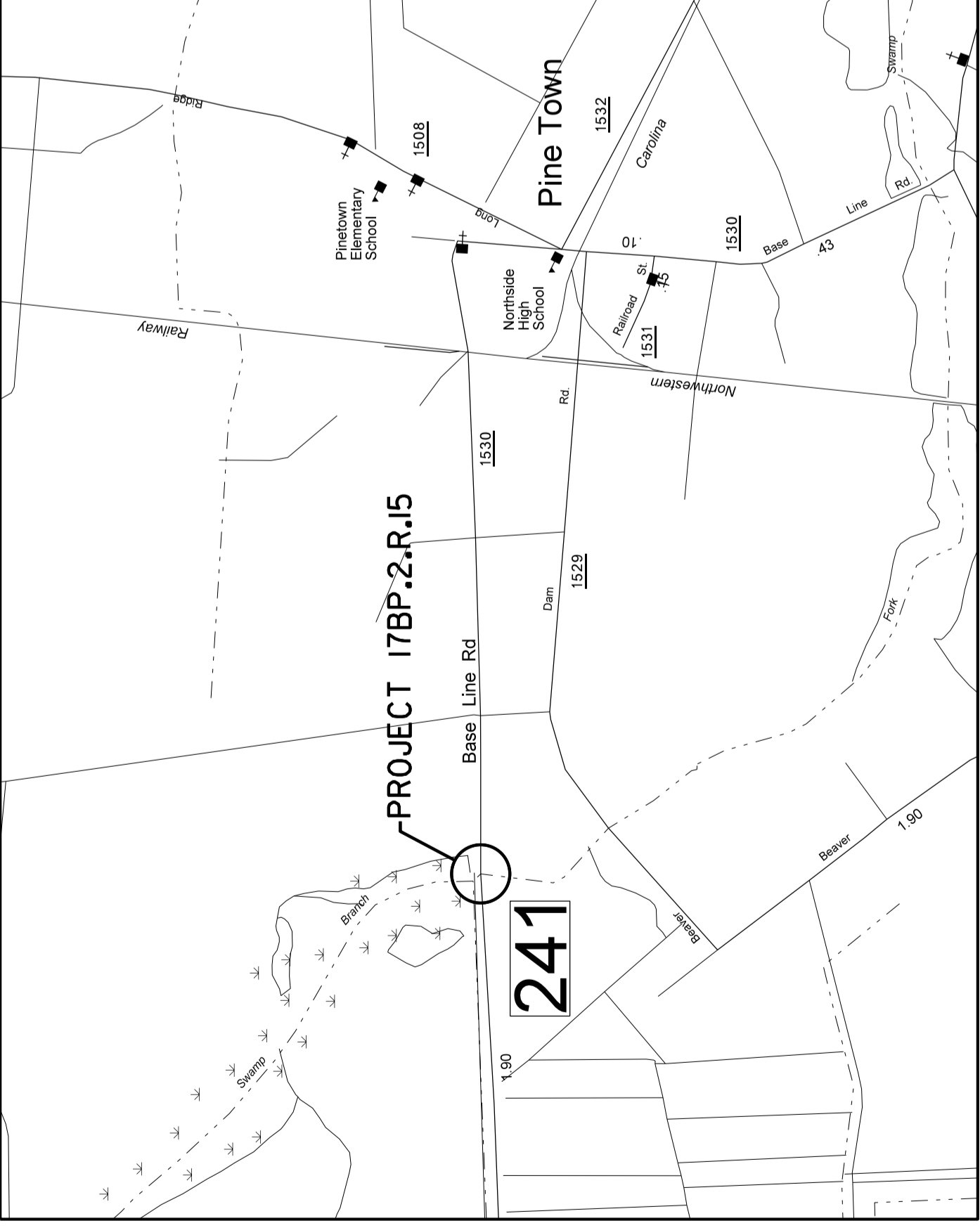
09/08/99

G:\PROJECTS\BEAUFORT\Beaufort 241\241-dcc2-ps1.dgn  
 \$\$\$USERNAME\$\$\$  
 08-FEB-2013 09:45

**PROJECT: 17BP.2.R.15**

**PROJECT:**

**CONTRACT:**

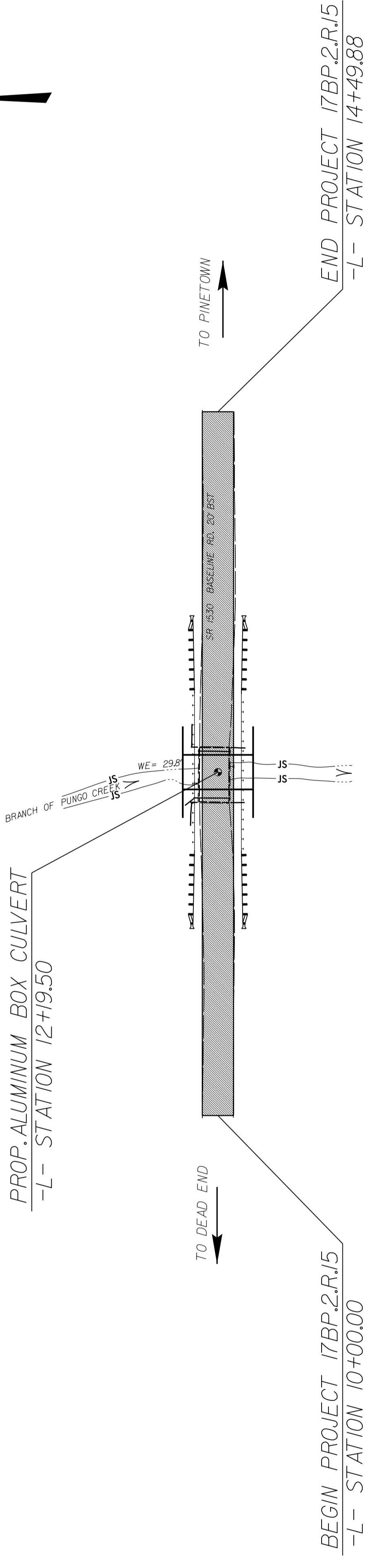
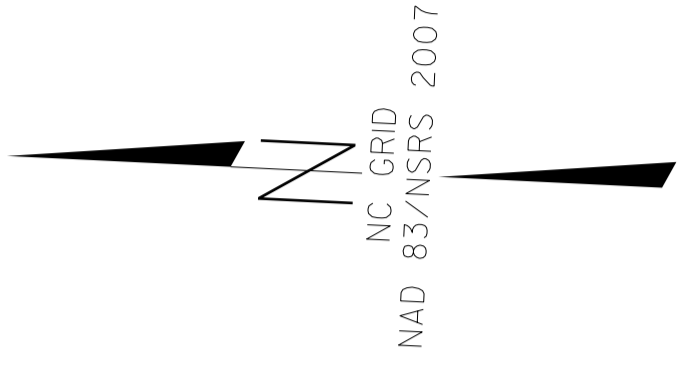


Vicinity Map  
 See Sheet 1-A For Index of Sheets

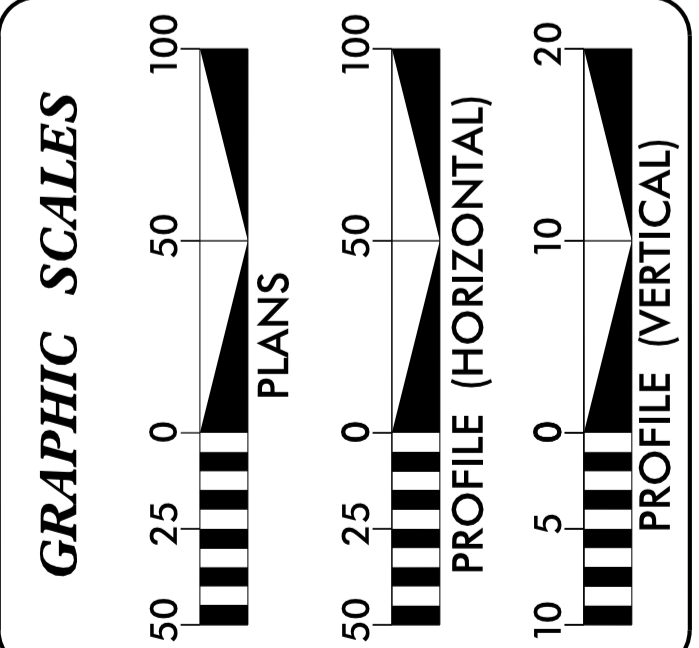
STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**BEAUFORT COUNTY**

**LOCATION: BRIDGE #241 OVER FORK SWAMP ON SR 1530**

**TYPE OF WORK: REMOVE EXISTING BRIDGE AND REPLACE WITH ALUMINUM BOX CULVERT, PAVING, GRADING AND DRAINAGE**



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.15	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



**DESIGN DATA**

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT 17BP.2.R.15 = 0.053 MILES  
 LENGTH STRUCTURE PROJECT 17BP.2.R.15 = 0.004 MILES  
 TOTAL LENGTH PROJECT 17BP.2.R.15 = 0.057 MILES

Prepared in the Office of:  
**DIVISION OF HIGHWAYS**  
 1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

<b>RIGHT OF WAY DATE:</b>	DWAYNE ALLIGOOD PROJECT ENGINEER
<b>LETTING DATE:</b>	LANG JONES PROJECT DESIGN ENGINEER
	FEBRUARY 2013

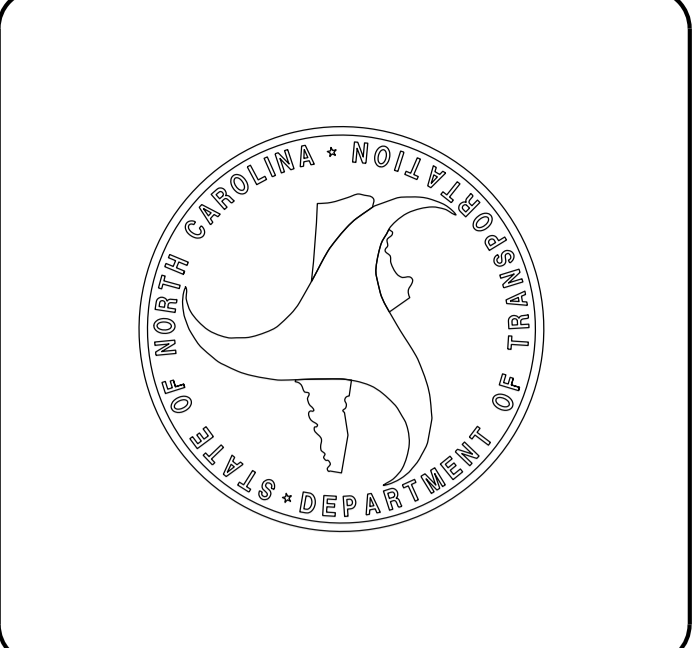
**HYDRAULICS ENGINEER**

Professional Seal: DWAYNE H. ALLIGOOD, PE, No. 16710, State of North Carolina, Exp. 02/27/2015

**ROADWAY DESIGN ENGINEER**

Professional Seal: DWAYNE H. ALLIGOOD, PE, No. 16710, State of North Carolina, Exp. 02/27/2015

SIGNATURE: DWAYNE H. ALLIGOOD, PE, 02/27/2015



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2	TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF EARTHWORK, PAVEMENT REMOVAL, GUARDRAIL AND DRAINAGE QUANTITIES
4	PLAN AND PROF-ILE SHEET
4A	RIGHT-OF-WAY PLAN
UC1-UC4	UTILITY CONSTRUCTION PLANS
TMP1-TMP2	TRAFFIC MANAGEMENT PLANS
EC1-EC3	EROSION CONTROL SHEETS
X1A	CROSS-SECTION SUMMARY
X1-X2	CROSS-SECTIONS

GENERAL NOTES:

2012 SPECIFICATIONS  
EFFECTIVE: 01-17-12  
REVISED: 11/01/11

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED GRADE. THE GRADE LINES SHALL BE ADJUSTED TO THE PROPOSED GRADE LINES AS SHOWN. THE PROFILES SHOWN ON THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PERFORMED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

GRADING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED GRADE. THE GRADE LINES SHALL BE ADJUSTED TO THE PROPOSED GRADE LINES AS SHOWN. THE PROFILES SHOWN ON THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PERFORMED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225-02 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560-01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THE CONTRACTOR WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UTILITIES:

ALL EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE.  
UTILITY OWNERS ON THIS PROJECT ARE AS FOLLOWS:  
BEAUFORT CO. WATER DEPT. (WATER) CONTACT: HERICK JENNINGS 252-402-6547  
TRI COUNTY TELECOM (PHONE/CATV) CONTACT: CECIL WALKER, JR. 252-964-8000  
TIDELAND EMC (ELECTRICAL) CONTACT: MICHAEL MARBLEMEIER 252-943-3066

RIGHT-OF-WAY MARKERS:

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

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. 2 - EARTHWORK

Method of Clearing - Method II  
Method of Grading Subgrade - Secondary and Local  
Method of Obtaining Subelevation - Two Lane Pavement

DIVISION 3 - PIPE CULVERTS

Method of Pipe Installation - Method 'A'

DIVISION 8 - INCIDENTALS

Guide for Rip-Rap at Pipe Outlets

REVISIONS

Note: Not to Scale

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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. *ITBP-2-RJ5*

SHEET NO. *18*

# CONVENTIONAL PLAN SHEET SYMBOLS

## BOUNDARIES AND PROPERTY:

- State Line \_\_\_\_\_
- County Line \_\_\_\_\_
- Township Line \_\_\_\_\_
- City Line \_\_\_\_\_
- Reservation Line \_\_\_\_\_
- Property Line \_\_\_\_\_
- Existing Iron Pin \_\_\_\_\_
- 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 \_\_\_\_\_
- Known Soil Contamination: Area or Site \_\_\_\_\_
- Potential Soil Contamination: Area or Site \_\_\_\_\_

## BUILDINGS AND OTHER CULTURE:

- Gas Pump \_\_\_\_\_
- Vent or UG 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:

- Baseline Control Point \_\_\_\_\_
- Existing Right of Way Marker \_\_\_\_\_
- Existing Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line \_\_\_\_\_
- Proposed Right of Way Line with Iron Pin and Cap Marker \_\_\_\_\_
- Proposed Right of Way Line with Concrete or Granite RW Marker \_\_\_\_\_
- Proposed Control of Access Line with Concrete CA Marker \_\_\_\_\_
- Existing Control of Access \_\_\_\_\_
- Proposed Control of Access \_\_\_\_\_
- Existing Easement Line \_\_\_\_\_
- Proposed Temporary Construction Easement \_\_\_\_\_
- Proposed Temporary Drainage Easement \_\_\_\_\_
- Proposed Permanent Drainage Easement \_\_\_\_\_
- Proposed Permanent Drainage / Utility Easement \_\_\_\_\_
- Proposed Permanent Utility Easement \_\_\_\_\_
- Proposed Temporary Utility Easement \_\_\_\_\_
- Proposed Aerial Utility Easement \_\_\_\_\_
- Proposed Permanent Easement with Iron Pin and Cap Marker \_\_\_\_\_

## 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 \_\_\_\_\_
- Hedge \_\_\_\_\_
- Woods Line \_\_\_\_\_

## WATER:

- Water Manhole \_\_\_\_\_
- Water Meter \_\_\_\_\_
- Water Valve \_\_\_\_\_
- Water Hydrant \_\_\_\_\_
- Recorded UG Water Line \_\_\_\_\_
- Designated UG Water Line (S.U.E.\*) \_\_\_\_\_
- Above Ground Water Line \_\_\_\_\_

## TV:

- TV Satellite Dish \_\_\_\_\_
- TV Pedestal \_\_\_\_\_
- TV Tower \_\_\_\_\_
- UG TV Cable Hand Hole \_\_\_\_\_
- Recorded UG TV Cable \_\_\_\_\_
- Designated UG TV Cable (S.U.E.\*) \_\_\_\_\_
- Recorded UG Fiber Optic Cable \_\_\_\_\_
- Designated UG Fiber Optic Cable (S.U.E.\*) \_\_\_\_\_

## GAS:

- Gas Valve \_\_\_\_\_
- Gas Meter \_\_\_\_\_
- Recorded UG Gas Line \_\_\_\_\_
- Designated UG Gas Line (S.U.E.\*) \_\_\_\_\_
- Above Ground Gas Line \_\_\_\_\_

## SANITARY SEWER:

- Sanitary Sewer Manhole \_\_\_\_\_
- Sanitary Sewer Cleanout \_\_\_\_\_
- UG Sanitary Sewer Line \_\_\_\_\_
- Above Ground Sanitary Sewer \_\_\_\_\_
- Recorded SS Forced Main Line \_\_\_\_\_
- Designated SS Forced Main Line (S.U.E.\*) \_\_\_\_\_

## MISCELLANEOUS:

- Utility Pole \_\_\_\_\_
- Utility Pole with Base \_\_\_\_\_
- Utility Located Object \_\_\_\_\_
- Utility Traffic Signal Box \_\_\_\_\_
- Utility Unknown UG Line \_\_\_\_\_
- UG Tank; Water, Gas, Oil \_\_\_\_\_
- Underground Storage Tank, Approx. Loc. \_\_\_\_\_
- AG Tank; Water, Gas, Oil \_\_\_\_\_
- Geoenvironmental Boring \_\_\_\_\_
- UG Test Hole (S.U.E.\*) \_\_\_\_\_
- Abandoned According to Utility Records \_\_\_\_\_
- End of Information \_\_\_\_\_

## TELEPHONE:

- Existing Telephone Pole \_\_\_\_\_
- Proposed Telephone Pole \_\_\_\_\_
- Telephone Manhole \_\_\_\_\_
- Telephone Booth \_\_\_\_\_
- Telephone Pedestal \_\_\_\_\_
- Telephone Cell Tower \_\_\_\_\_
- UG Telephone Cable Hand Hole \_\_\_\_\_
- Recorded UG Telephone Cable \_\_\_\_\_
- Designated UG Telephone Cable (S.U.E.\*) \_\_\_\_\_
- Recorded UG Telephone Conduit \_\_\_\_\_
- Designated UG Telephone Conduit (S.U.E.\*) \_\_\_\_\_
- Recorded UG Fiber Optics Cable \_\_\_\_\_
- Designated UG Fiber Optics Cable (S.U.E.\*) \_\_\_\_\_

## EXISTING STRUCTURES:

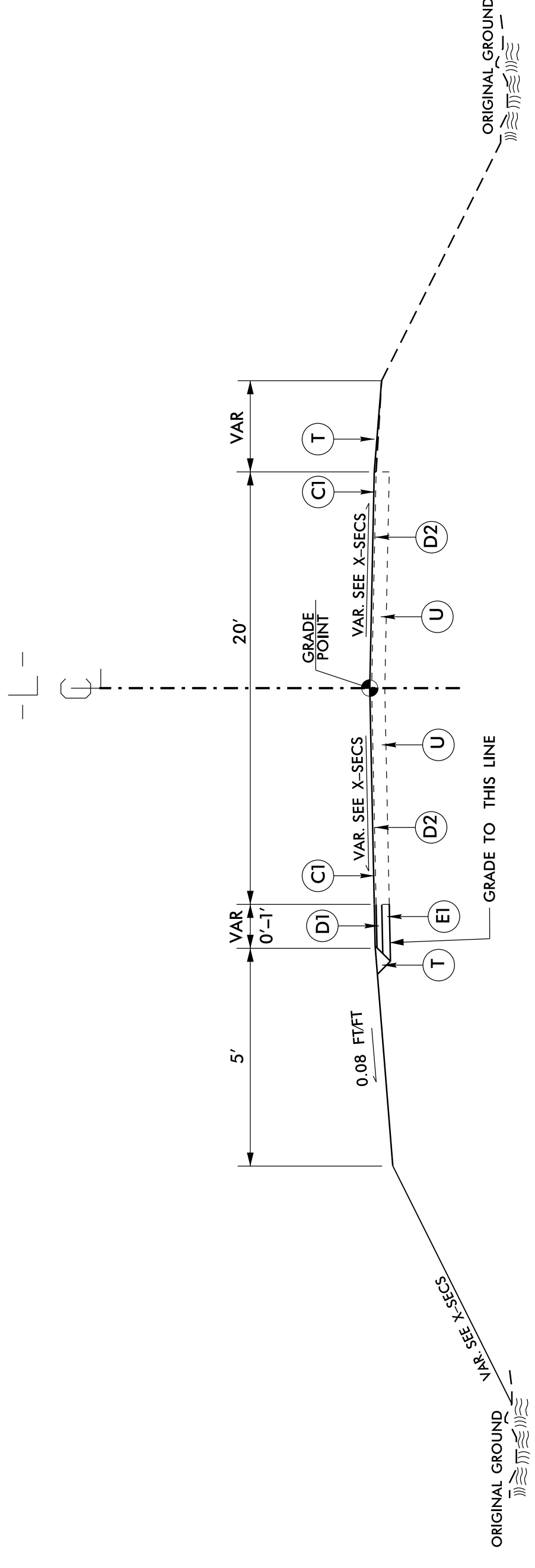
- MAJOR: Bridge, Tunnel or Box Culvert \_\_\_\_\_
- Bridge Wing Wall, Head Wall and End Wall \_\_\_\_\_
- MINOR: Head and End Wall \_\_\_\_\_
- Pipe Culvert \_\_\_\_\_
- Footbridge \_\_\_\_\_
- Drainage Box: Catch Basin, DI or JB \_\_\_\_\_
- Paved Ditch Gutter \_\_\_\_\_
- Storm Sewer Manhole \_\_\_\_\_
- 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 \_\_\_\_\_
- UG Power Cable Hand Hole \_\_\_\_\_
- H-Frame Pole \_\_\_\_\_
- Recorded UG Power Line \_\_\_\_\_
- Designated UG Power Line (S.U.E.\*) \_\_\_\_\_

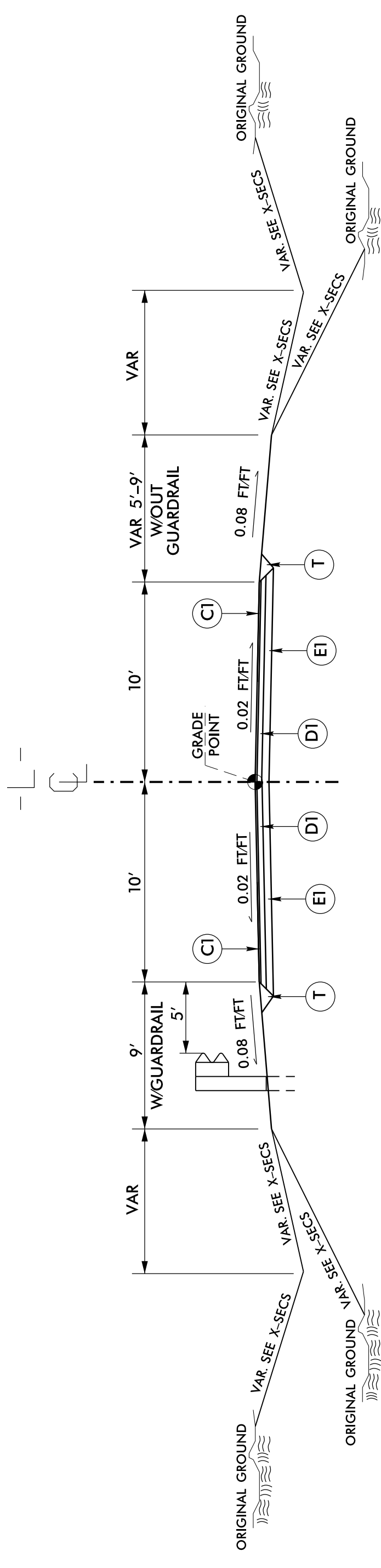
<b>C1</b>	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
<b>D1</b>	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
<b>D2</b>	PROP. VARIABLE DEPTH WEDGING ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B.
<b>E1</b>	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
<b>J</b>	APPROX. 12" AGGREGATE BASE COURSE
<b>T</b>	EARTH MATERIAL.
<b>U</b>	EXISTING PAVEMENT.
<b>V</b>	FILTER FABRIC
<b>Y</b>	#57 WASHED STONE

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



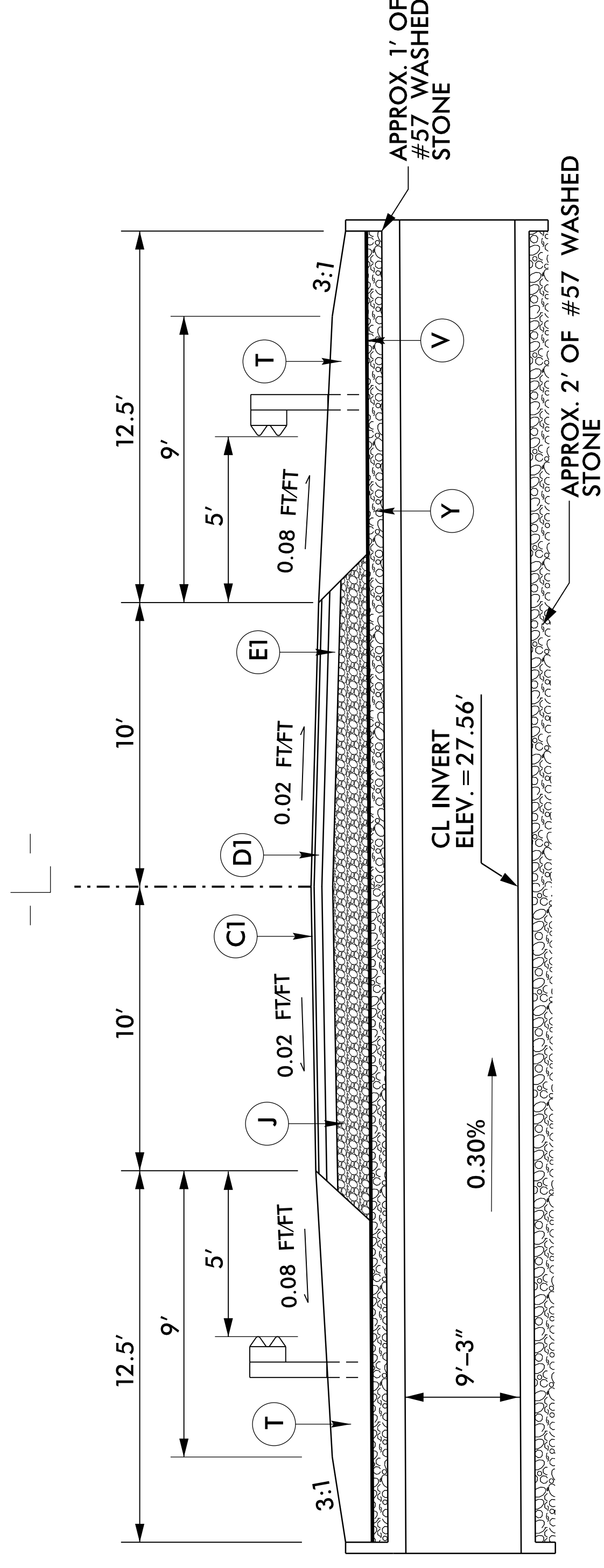
TYPICAL SECTION #1 (NTS)

-L- 10+00.00 - 11+00.00  
 -L- 13+50.00 - 14+49.88



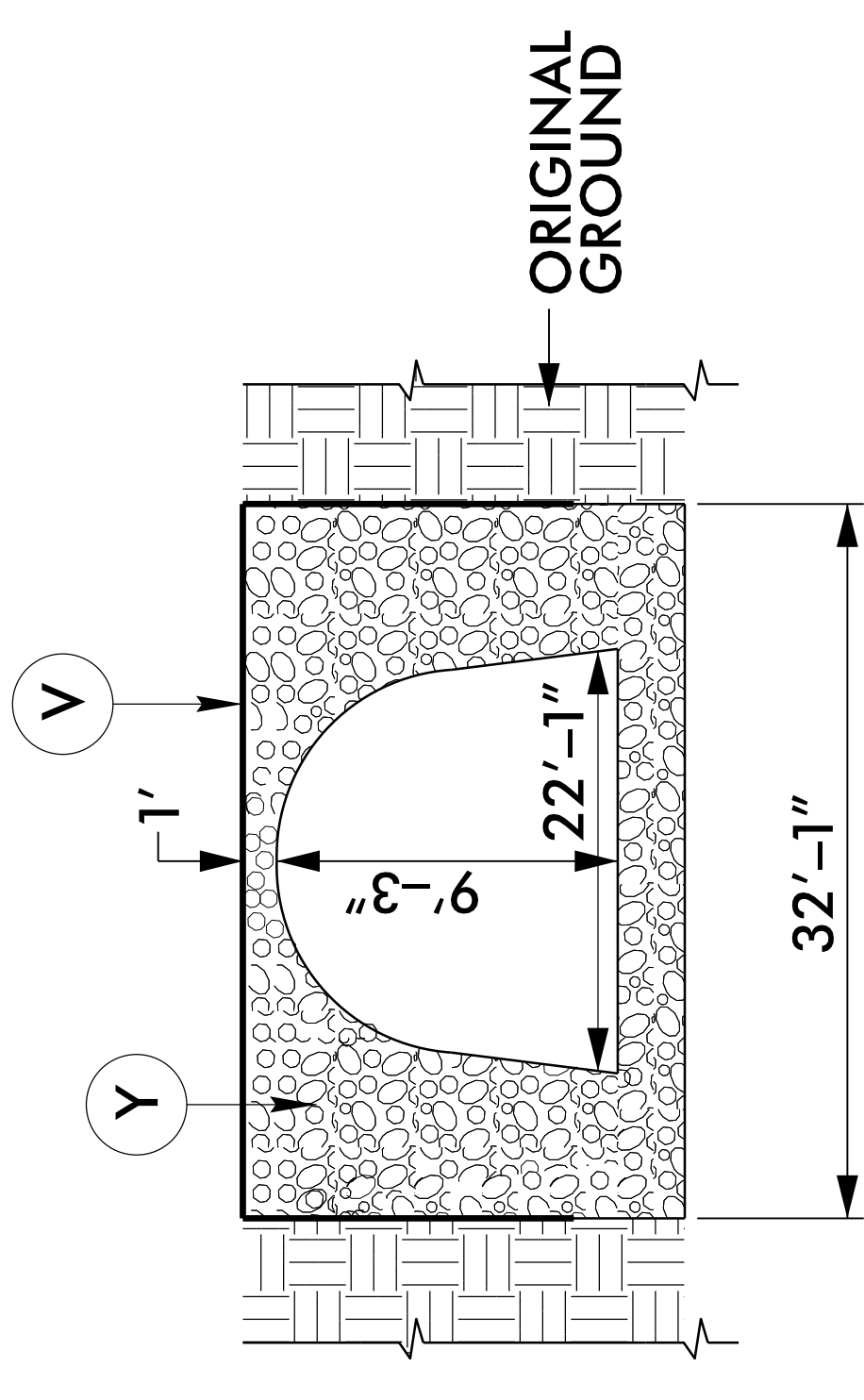
TYPICAL SECTION #2 (NTS)

-L- 11+00.00 - 12+08.46  
 -L- 12+30.54 - 13+50.00



TYPICAL BOX CULVERT SECTION #3 (NTS)

-L- STATION 12+08.46 - 12+30.54



END VIEW BOX CULVERT (NTS)

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
SUMMARY OF QUANTITIES

SECT	QUANTITY	UNIT	ITEM DESCRIPTION
800	1	LS	MOBILIZATION
801	1	LS	CONSTRUCTION SURVEYING
SP	1	LS	GRADING
SP	100	CY	UNDERCUT EXCAVATION
520	45	TON	AGGREGATE BASE COURSE
610	190	TON	ASPHALT CONCRETE BASE COURSE,TYPE B25.0B
610	125	TON	ASPHALT CONCRETE INTERMEDIATE COURSE,TYPE I19.0B
610	100	TON	ASPHALT CONCRETE SURFACE COURSE,TYPE SF9.5A
620	25	TON	ASPHALT BINDER FOR PLANT MIX,GRADE P664-22
862	200	LF	STEEL BEAM GUARDRAIL
876	200	SY	GEOTEXTILE FOR DRAINAGE
SP	4	EA	GUARDRAIL ANCHOR UNITS,TYPE 350
1605	150	LF	TEMPORARY SILT FENCE
1610	10	TON	STONE FOR EROSION CONTROL,CLASS B
1610	10	TON	SEDIMENT CONTROL STONE
1615	0.5	ACRE	TEMPORARY MULCHING
1620	20	LB	SEED FOR TEMPORARY SEEDING
1620	0.1	TON	FERTILIZER FOR TEMPORARY SEEDING
1630	30	CY	SILT EXCAVATION
1631	1400	SY	MATTING FOR EROSION CONTROL
SP	350	LF	WATTLE
SP	10	LB	POLYACRYLAMIDE (PAM)
1632	100	LF	1/4" HARDWARE CLOTH
1660	1	ACRE	SEEDING AND MULCHING
1661	50	LB	SEED FOR REPAIR SEEDING
1661	0.2	TON	FERTILIZER FOR REPAIR SEEDING
SP	10	SY	TURBIDITY CURTAIN
SP	3	EA	RESPONSE FOR EROSION CONTROL
402	1	LS	REMOVAL OF EXISTING STRUCTURE AT -L- STATION 12+19.50
SP	1	LS	1 @ 9'-3" X 22'-1" CORRUGATED ALUMINUM BOX CULVERT WITH HEADWALLS AT -L- STATION 12+19.50
SP	1	LS	RELOCATE EXISTING 6" WATER MAIN

REVISIONS

STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS

**LIST OF PIPES, ENDWALLS, ETC.**

STATION	LOCATION (LT, RT, OR CL)	STRUCTURE NO.	TOP ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAP, HDPE or PVC)						ALUMINUM BOX CULVERT
						12" 15'	18" 24" 30"	36" 42" 48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAP	
-L- 12+19.50	CL 1		27.63	27.49	0.5%							1 @ 22'-1" X 9'-3" ABC
TOTALS												45'-0"

NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

**SUMMARY OF EARTHWORK  
 IN CUBIC YARDS**

LOCATION	UNCLASSIFIED EXCAVATION	STRUCTURE EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
-L- 10 + 00.00 - 14 + 49.88	315	1408	0	953	638	1408
UNDERCUT (CONTINGENCY)	0	0	100	120	120	100
SUB TOTAL	315	1408	100	1073	758	1508
SAY	320	1410	100	1080	760	1510

**PAVEMENT REMOVAL SUMMARY  
 IN SQUARE YARDS**

LINE	STATION - STATION	LOCATION	REMOVAL (SY)
-L-	11 + 00.00 - 11 + 99.65	CL	220
-L-	12 + 35.73 - 13 + 50.00	CL	258
TOTAL			478
SAY			480

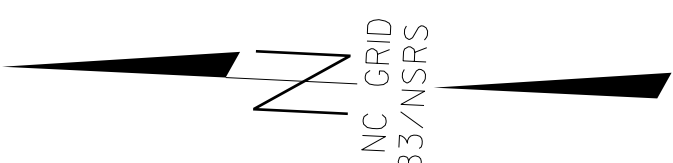
NOTE:

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, UNCLASSIFIED STRUCTURE EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING."

**GUARDRAIL SUMMARY**

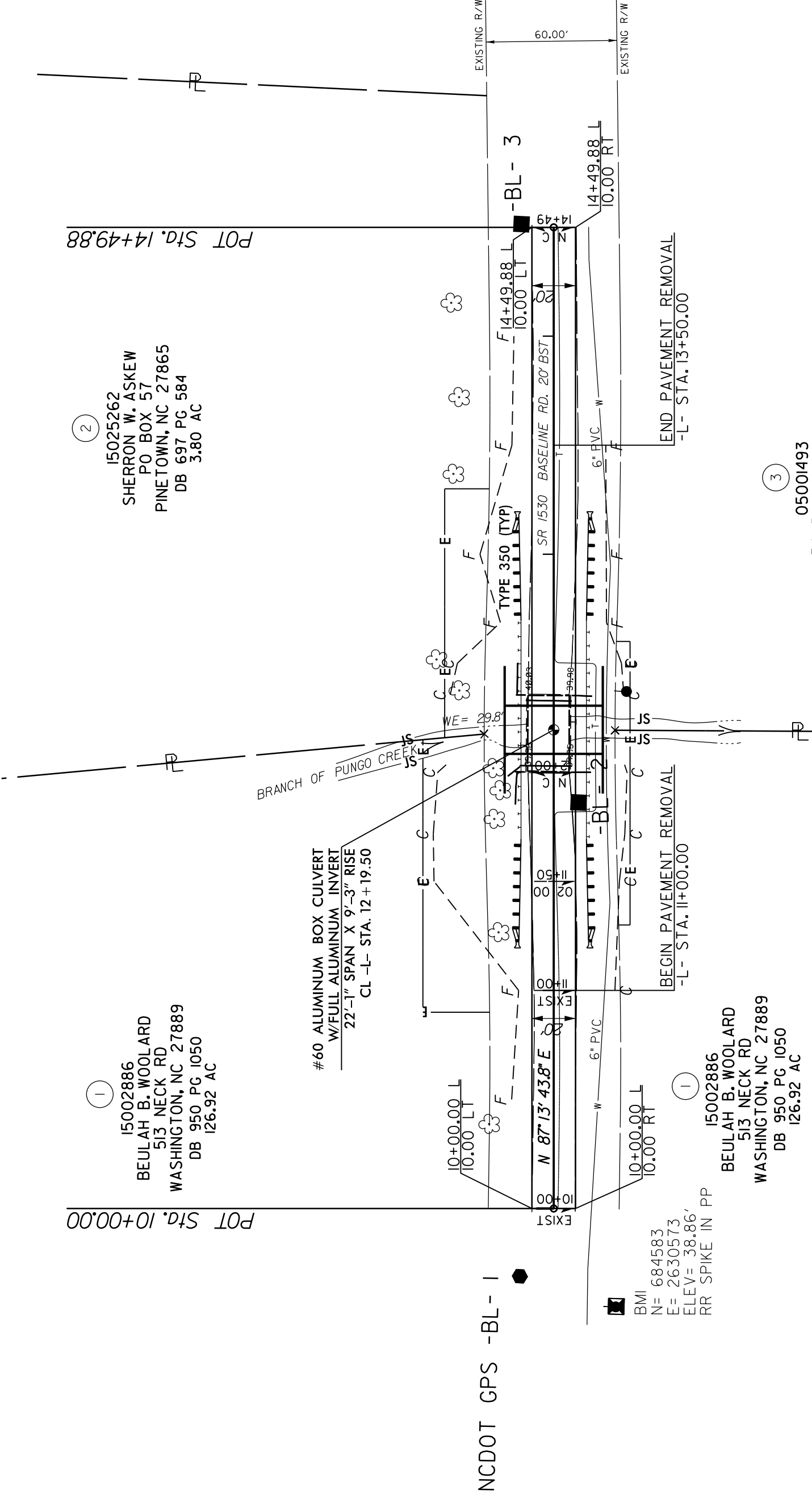
"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL  
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.  
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.  
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.  
 G = GATING IMPACT ATTENUATOR TYPE 350  
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH		WARRANT POINT		TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END		TRAILING END	APPROACH END	TRAILING END	TYPE 350	IMPACT ATTENUATOR TYPE 350 PERMITTED NO. G	IMPACT ATTENUATOR TYPE 350 NO. G	IMPACT ATTENUATOR TYPE 350 NG	
-L-	11+19.50	13+19.50	LT	100		13+19.50	11+19.50	9	50	50	1	1				
-L-	11+19.50	13+19.50	RT	100		11+19.50	13+19.50	9	50	50	1	1				
TOTAL				200												



NC GRID  
 NAD 83/NSRS 2007

**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "BL-1"  
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF  
 NORTHING: 684627.358(FT) EASTING: 2630585.086(FT)  
 ELEVATION: 39.681(FT)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999896220  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-1" TO -EL- STATION 10+00.00 IS  
 S 66°13'50.8" E 34.74'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88





15025262  
 SHERRON W. ASKEW  
 P.O. BOX 577865  
 PINE TOWN, NC 27865  
 DB 687 PG 384  
 3.80 AC

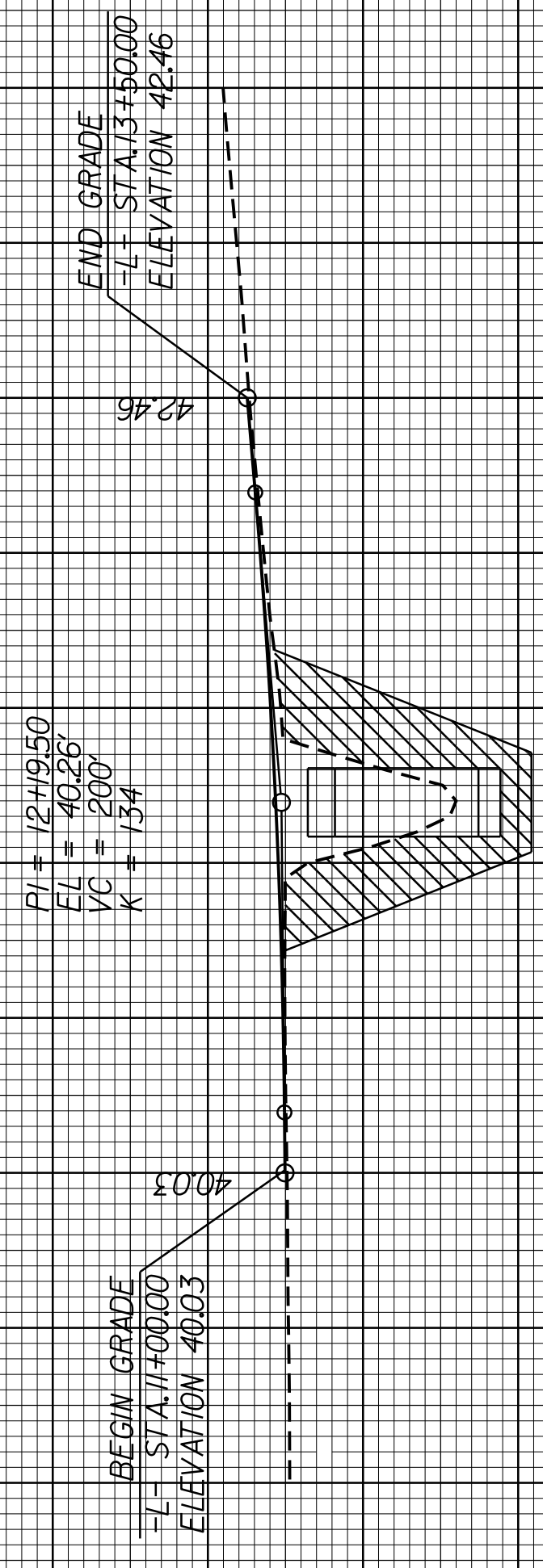
15002886  
 BEULAH BL WOOLARD  
 513 NECK RD  
 WASHINGTON, NC 27889  
 DB 950 PG 1050  
 126.92 AC

0500493  
 RALPH M. ROELOFS  
 P.O. BOX 12  
 PINE TOWN, NC 27865  
 DB 656 PG 138  
 2.36 AC

Point	North	East	Elevation	Description
BL1	684627.36	2630585.09	39.68	NCDOT GPS BL1
BL2	684610.96	2630803.33	39.02	BL-2
BL3	684649.91	2631066.95	43.35	BL-3
BMI	684582.57	2630573.38	38.86	RR SPIKE SET IN PP

**-L- PROFILE**  
 SCALE: 1" = 50' HORIZ.  
 1" = 10' VERT.

**LEGEND**  
 PROPOSED STRUCTURE  
 EXCAVATION



**HYDRAULIC DATA**

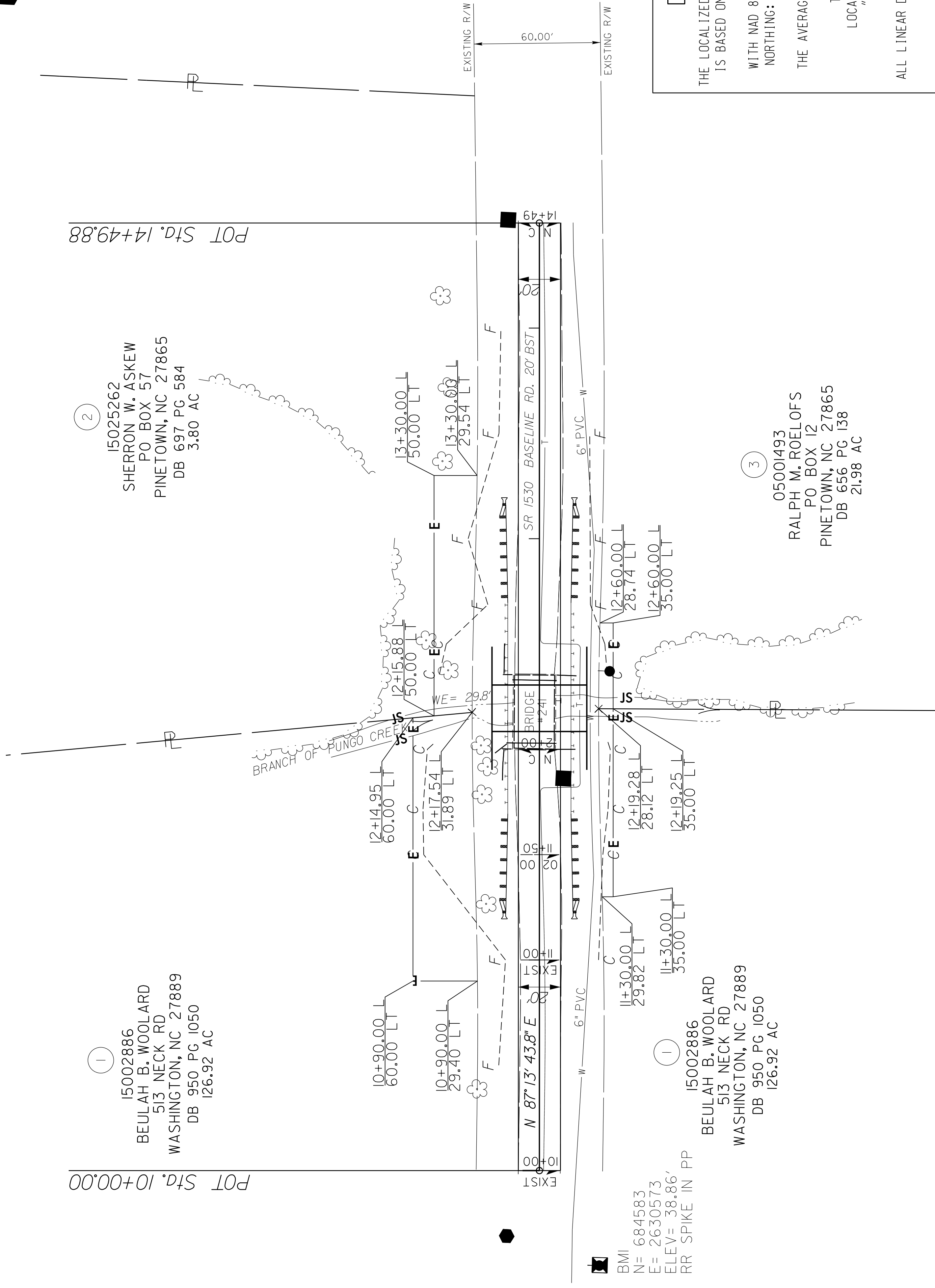
Design:	Discharge	400	c.f.s.	Frequency	25	yr.	Elev.	37.9'
Base Flood:	Discharge	650	c.f.s.	Frequency	100	yr.	Elev.	38.53'
Overtopping:	Discharge	1050	c.f.s.	Frequency	500	yr.	Elev.	39.8'

ELEVATIONS FROM HEC R5 245 UPSTREAM TOE (40' FROM CENTERLINE)  
 OT OCCURS @ SAG -L-

**RIGHT OF WAY AREA SUMMARY**

PARCEL NO.	PROPERTY OWNER NAME	LOCATION	TOTAL PARCEL AREA (ACRES)	AREA TO BE DEDICATED (CONST. EASEMENT) (ACRES)	AREA TO BE PURCHASED (RIGHT OF WAY) (ACRES)	PARCEL AREA REMAINING (ACRES)
1	BULLAH B. WOOLARD	LT	126.92	0.085		126.82
2	SHERRON W. ASKEW	LT	3.80	0.050		3.75
3	RALPH M. ROELOFS	RT	21.98	0.006		21.97

NC GRID  
 NAD 83/NSRS 2007



①  
 15002886  
 BEULAH B. WOOLARD  
 513 NECK RD  
 WASHINGTON, NC 27889  
 DB 950 PG 1050  
 126.92 AC

②  
 15025262  
 SHERRON W. ASKEW  
 PO BOX 57  
 PINETOWN, NC 27865  
 DB 697 PG 584  
 3.80 AC

①  
 15002886  
 BEULAH B. WOOLARD  
 513 NECK RD  
 WASHINGTON, NC 27889  
 DB 950 PG 1050  
 126.92 AC

③  
 05001493  
 RALPH M. ROELOFS  
 PO BOX 12  
 PINETOWN, NC 27865  
 DB 656 PG 138  
 21.98 AC

**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "BL-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 684627.3581(ft) EASTING: 2630585.0861(ft) ELEVATION: 39.681(ft)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999896220  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-1" TO -EL- STATION 10+00.00 IS S 66°13'50.8" E 34.74'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

REVISIONS

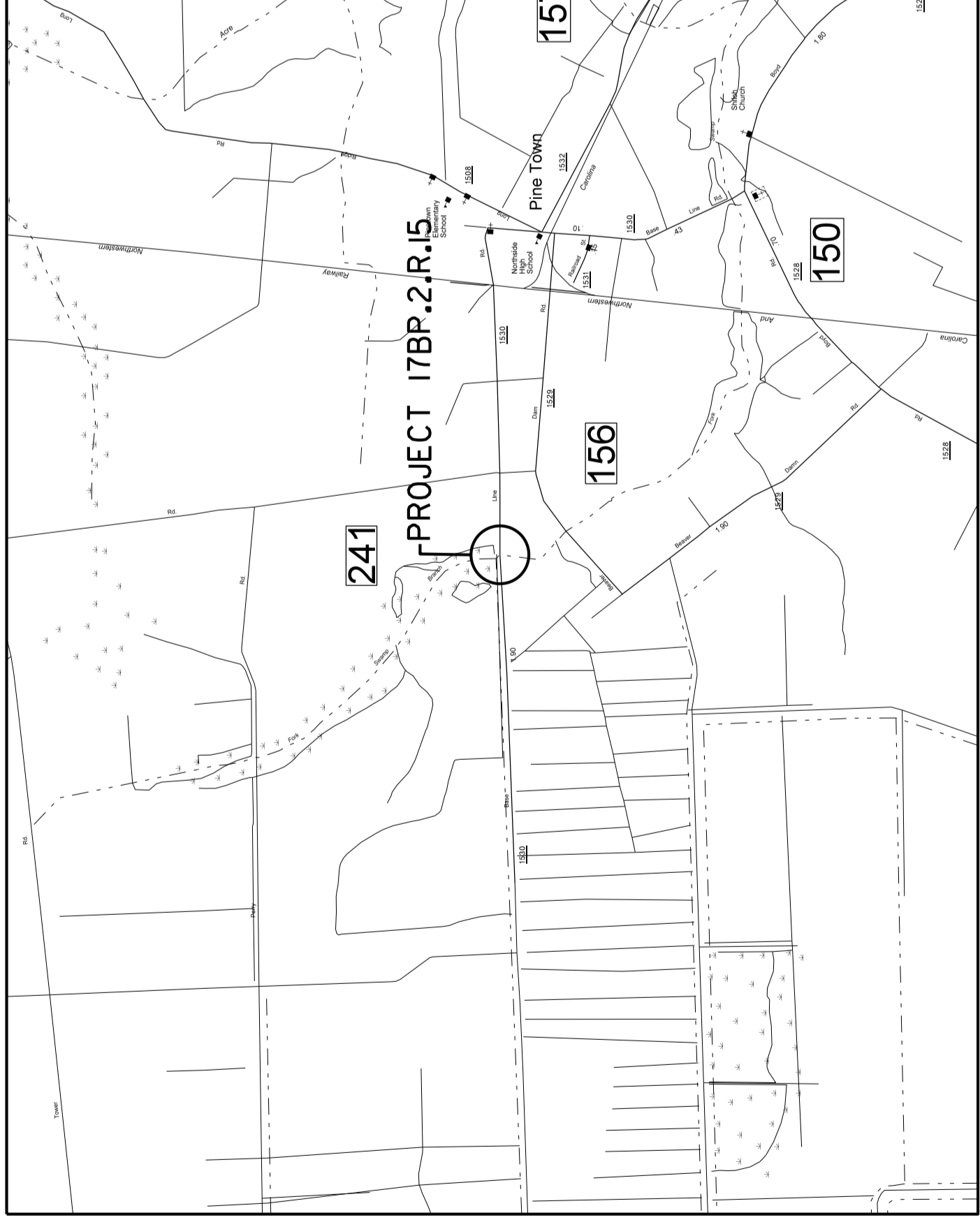


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

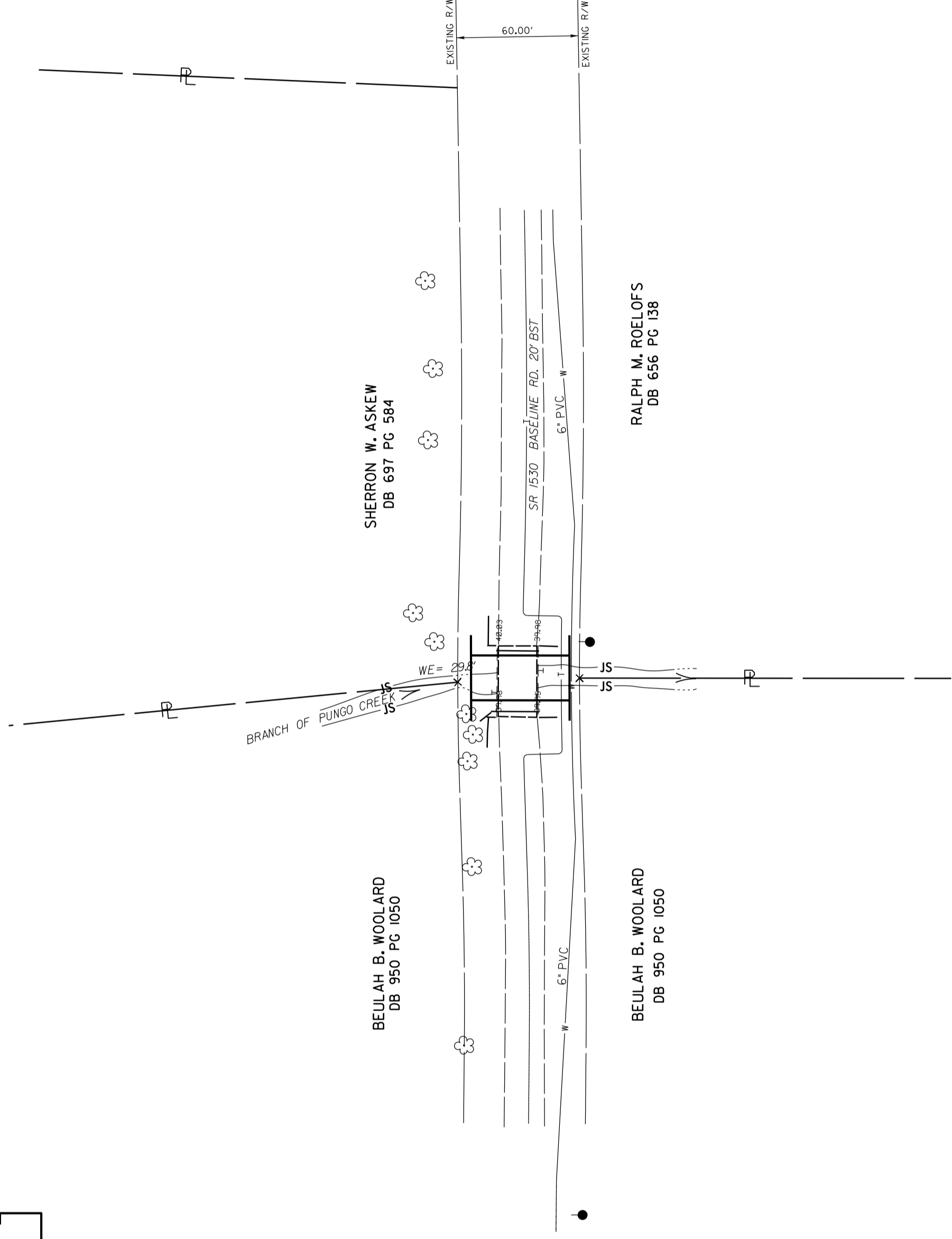
**BEAUFORT COUNTY**

**LOCATION: BRIDGE #241 OVER FORK SWAMP ON SR 1530**

**TYPE OF WORK: UTILITY CONSTRUCTION  
WATER MAIN RELOCATION**



Vicinity Map

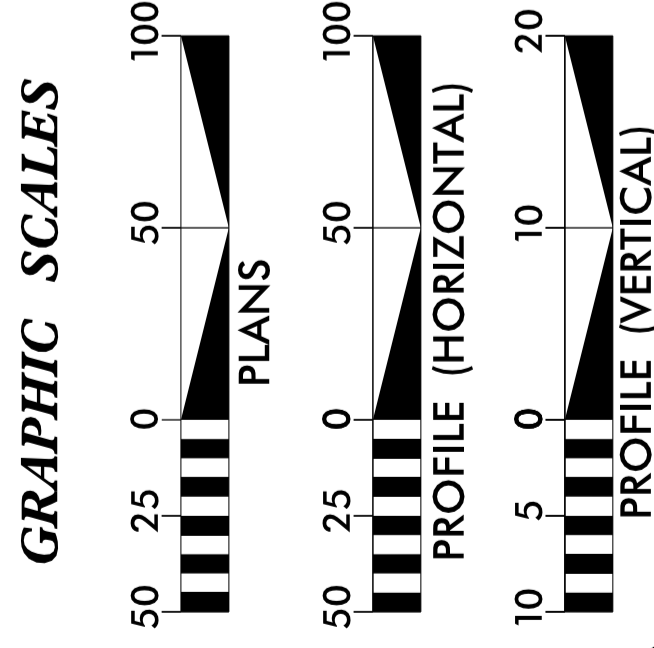


N  
NC GRID  
NAD 83/NSRS 2007

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.15	UC1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

**PROJECT: 17BP.2.R.15**

**CONTRACT:**



**DESIGN DATA**

**PROJECT LENGTH**

LENGTH ROADWAY PROJECT 17BP.2.R.15 = 0.053 MILES  
LENGTH STRUCTURE PROJECT 17BP.2.R.15 = 0.004 MILES  
TOTAL LENGTH PROJECT 17BP.2.R.15 = 0.057 MILES

Prepared in the Office of:

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

2012 STANDARD SPECIFICATIONS

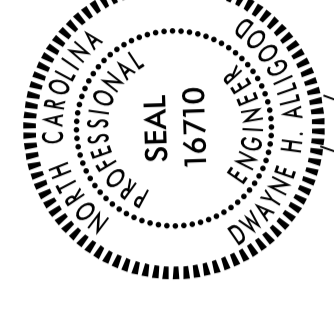
**RIGHT OF WAY DATE:**  
N/A

**LETTING DATE:**  
FEBRUARY, 2013

**DWAYNE ALLIGOOD**  
PROJECT ENGINEER

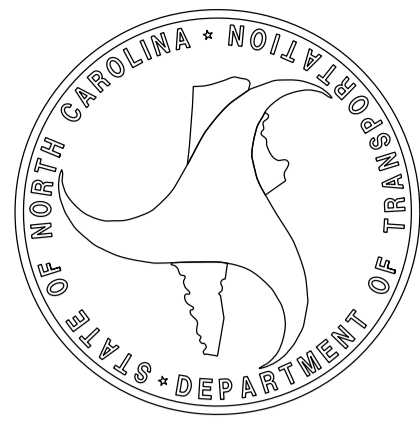
**LANG JONES**  
PROJECT DESIGN ENGINEER

UTILITIES ENGINEER



01/29/2015

*Dwayne H. Allgood*  
SIGNATURE: P.E.



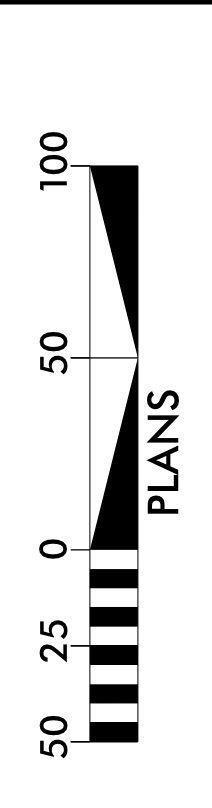
# UTILITY CONSTRUCTION

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS SUMMARY OF QUANTITIES

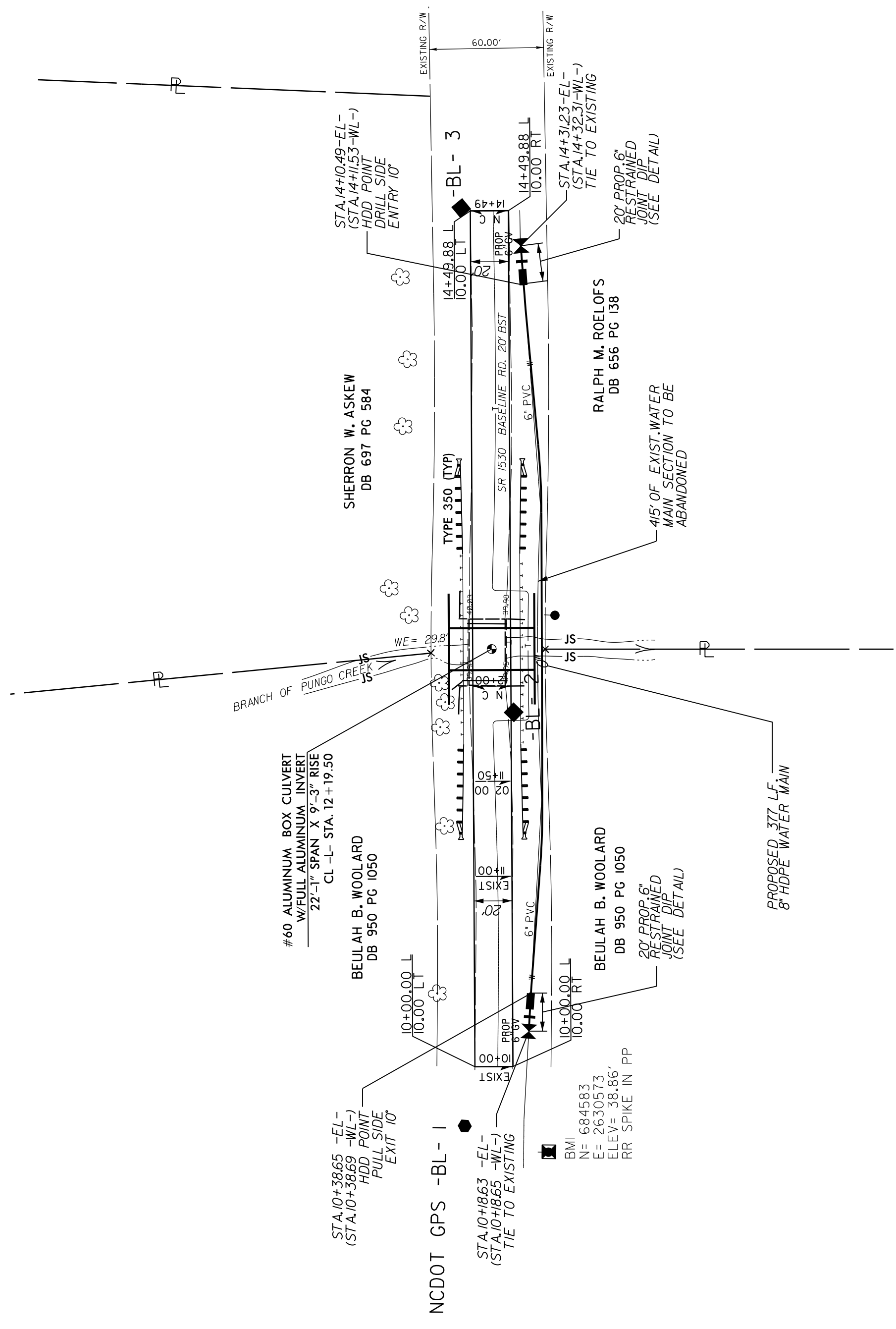
<u>WATER MAIN</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>ITEM DESCRIPTION</u>
	40	LF	6" DI PIPE
	377	LF	8" HDPE PIPE DR9 (AWWA C906)
	2	EA	6" GATE VALVE AND VALVE BOX
	2	EA	DI PIPE TO HDPE TRANSITION
	2	EA	CONCRETE THRUST COLLAR
	100	LF	TEMPORARY SILT FENCE
	0.2	ACRES	SEEDING AND MULCHING

REVISIONS

**LEGEND:**  
 Gate Valve .....  
 HDPE to DIP Transition .....  
 Thrust Collar .....



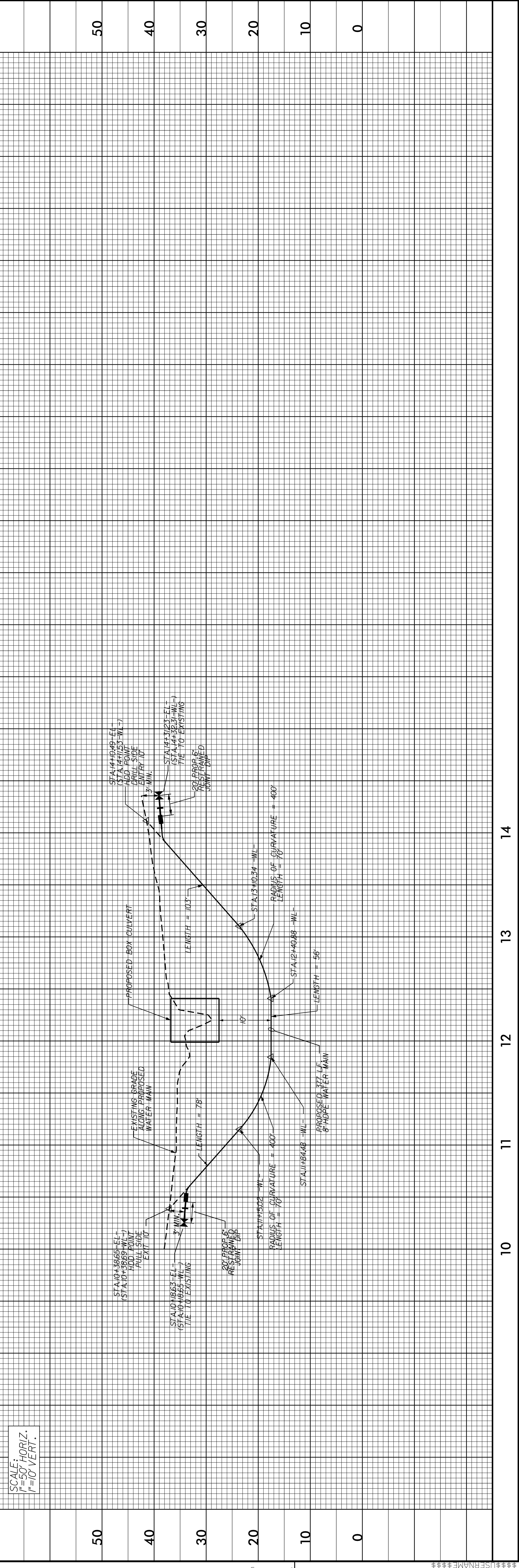
NC GRID  
 NAD 83/NSRS 2007



- NOTES:**
1. 8" HDPE WATER MAIN TO CONFORM TO THE FOLLOWING: AWWA C906, PRESSURE CLASS 200, DR9, DUCTILE IRON PIPE SIZE (DIPS) DIMENSIONS, AND MATERIAL DESIGNATION PE 3408 AND NSF APPROVED FOR POTABLE WATER.
  2. THE PROPOSED WATER MAIN RELOCATION DOES NOT IMPACT ANY ENVIRONMENTALLY SENSITIVE AREAS.
  3. LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR AND MAINTAIN 18" MINIMUM VERTICAL SEPARATION.

**DATUM DESCRIPTION**  
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "BL-1"  
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 684627.358(±) EASTING: 2630585.086(±) ELEVATION: 39.681(±)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999896220  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-1" TO -EL- STATION 10+00.00 IS S 66°13'50.8" E 34.74'  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

**PROFILE ALONG PROPOSED WATER MAIN -WL-**



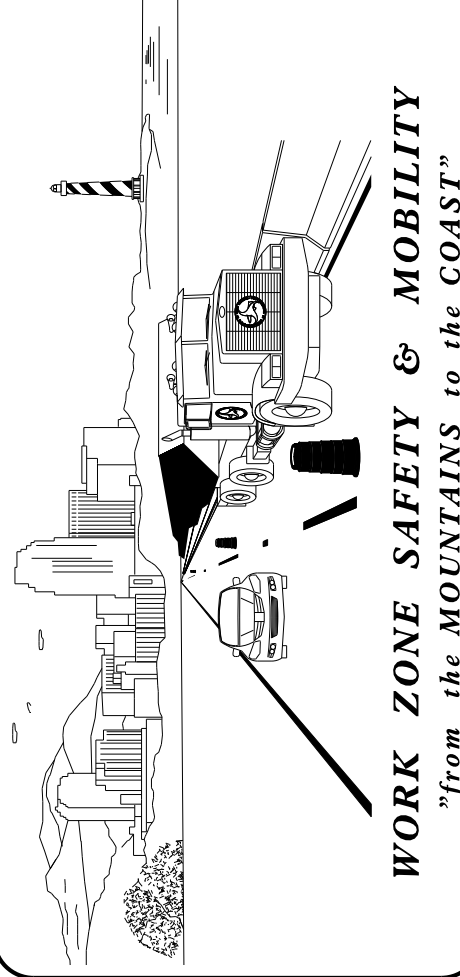
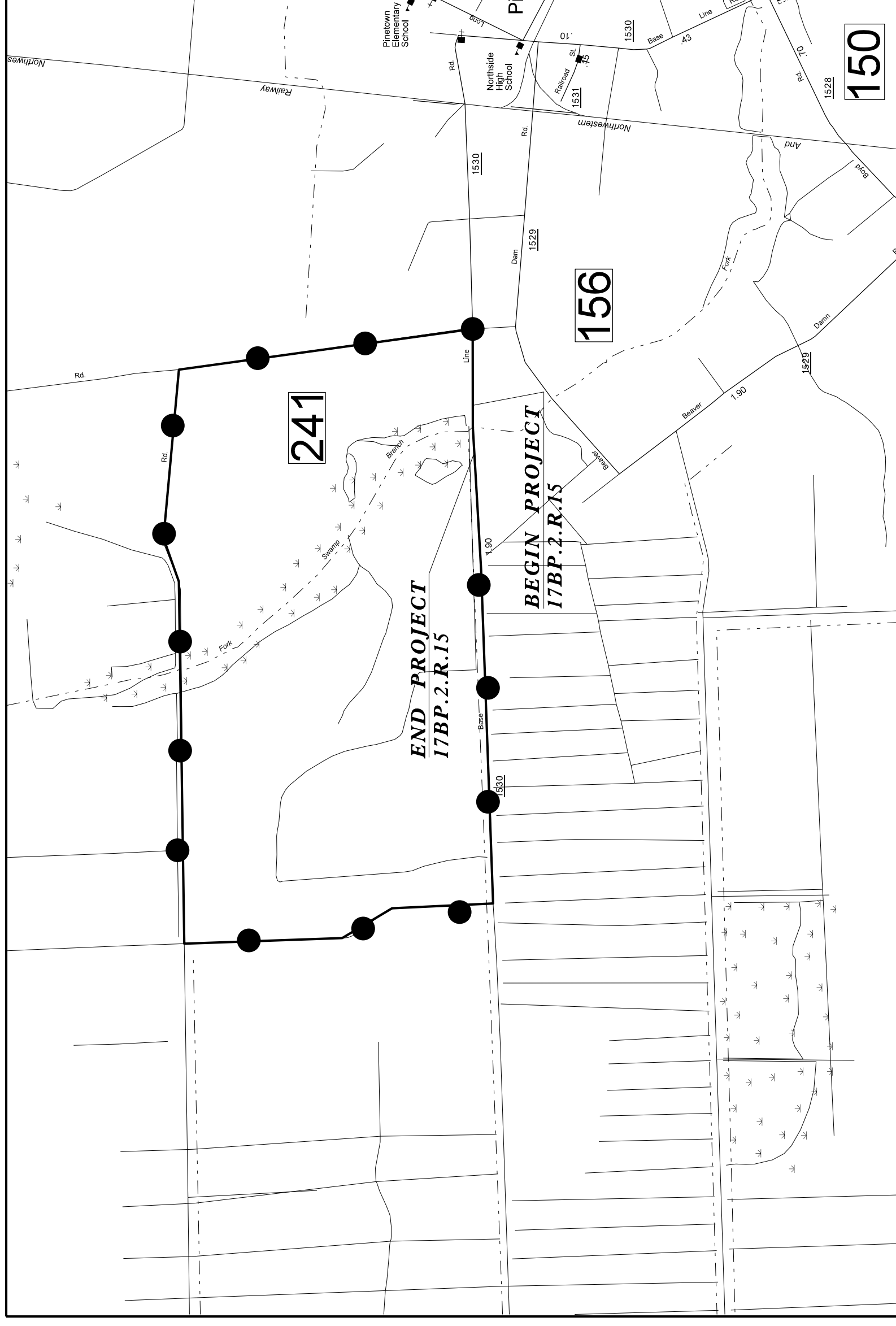
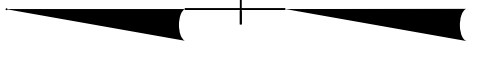
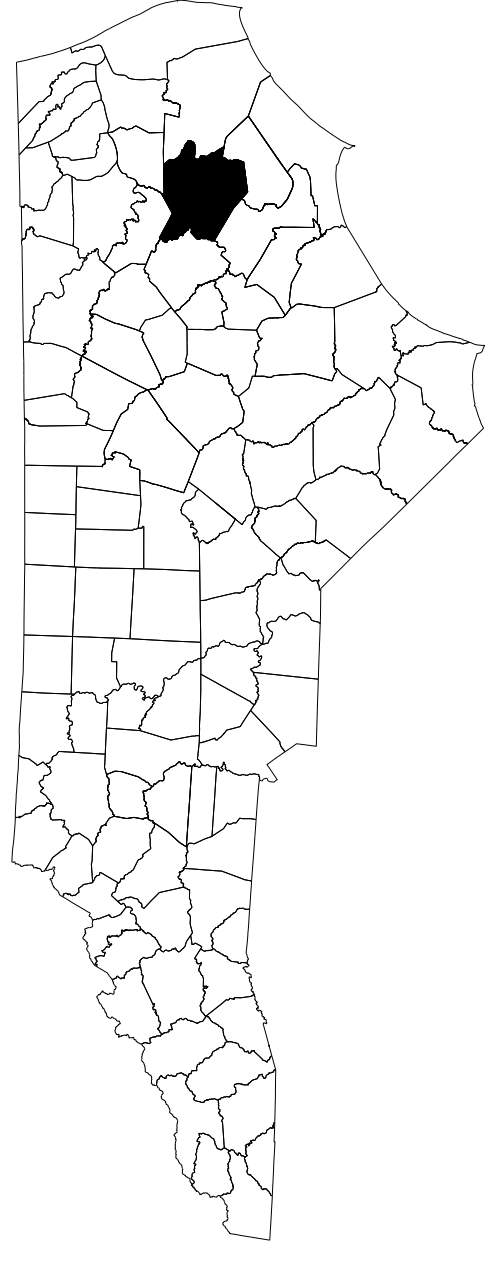
SCALE:  
 H=50' HORIZ.  
 V=10' VERT.

REVISIONS



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**TRANSPORTATION MANAGEMENT PLAN**  
**BEAUFORT COUNTY**



DWAYNE ALLIGOOD \_\_\_\_\_ TRAFFIC CONTROL PROJECT ENGINEER  
LANG JONES \_\_\_\_\_ TRAFFIC CONTROL PROJECT DESIGN ENGINEER  
LANG JONES \_\_\_\_\_ TRAFFIC CONTROL DESIGN ENGINEER

N.C.D.O.T. DIVISION TWO DDC  
P.O. BOX 1587  
GREENVILLE, NC 27835  
PHONE 252-439-2800



APPROVED: *Dwayne H. Alligood*  
DATE: *02/07/2013*

SEAL

**INDEX OF SHEETS**

SHEET NO. \_\_\_\_\_ TITLE \_\_\_\_\_

- TMP-1 TITLE SHEET, VICINITY MAP & INDEX OF SHEETS; LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS & LEGEND
- TMP-2 PROJECT NOTES, DETOUR AND PLANS.

**ROADWAY STANDARD DRAWINGS**

THE FOLLOWING ROADWAY STANDARDS AS SHOWN 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
- 1101.03 TEMPORARY ROAD CLOSURES
- 1101.04 TEMPORARY SHOULDER CLOSURES
- 1101.05 WORK ZONE VEHICLE ACCESSES
- 1101.06 WARNING SIGNS FOR BLASTING ZONES
- 1101.11 TRAFFIC CONTROL DESIGN TABLES
- 1110.01 STATIONARY WORK ZONE SIGNS
- 1110.02 PORTABLE WORK ZONE SIGNS
- 1115.01 FLASHING ARROW BOARDS
- 1130.01 DRUMS
- 1135.01 CONES
- 1145.01 BARRICADES
- 1150.01 FLAGGING DEVICES
- 1160.01 TEMPORARY CRASH CUSHION
- 1165.01 WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
- 1170.01 PORTABLE CONCRETE BARRIER
- 1180.01 SKINNY - DRUM

**LEGEND**

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
  - DIRECTION OF PEDESTRIAN TRAFFIC FLOW
  - EXIST. PVMT.
  - NORTH ARROW
  - PROPOSED PVMT.
  - WORK AREA

**TRAFFIC CONTROL DEVICES**

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER

**PROJECT:**

**17BP.2.R.15**

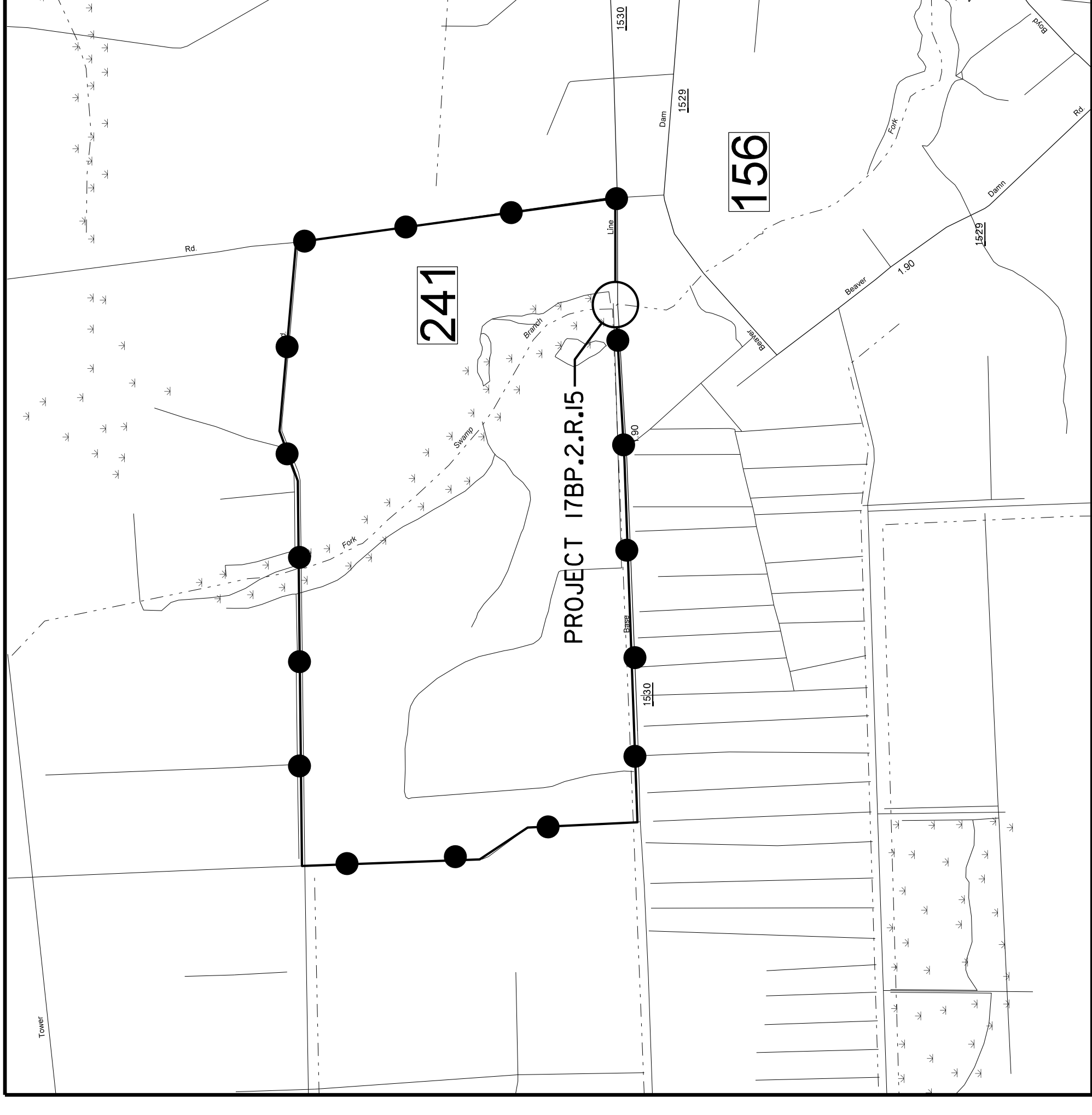
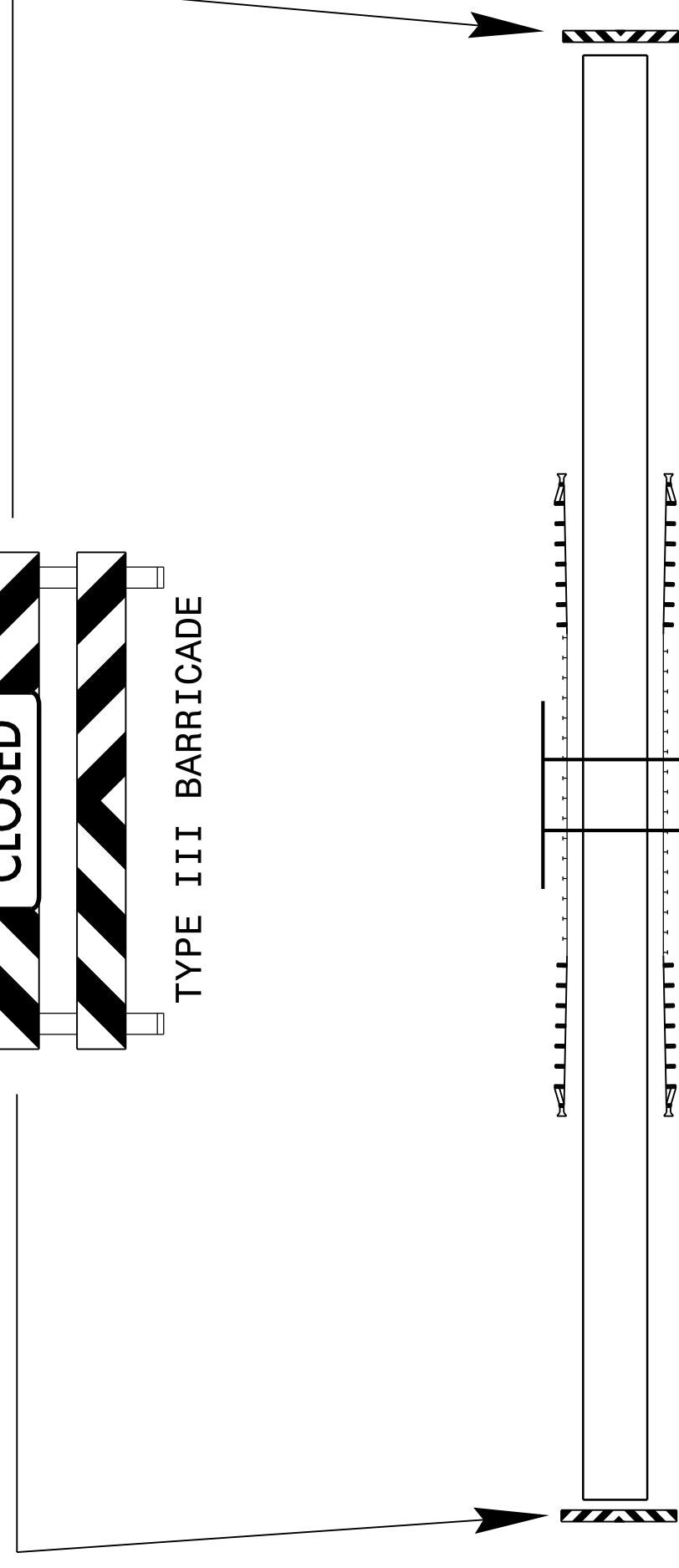
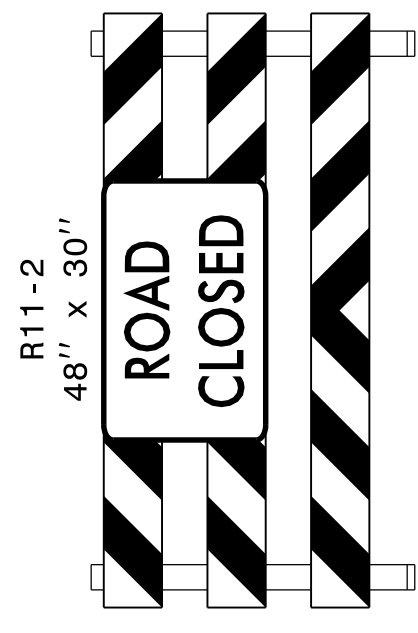
SHEET NO.  
TMP-1

# GENERAL NOTES

IMPLEMENT TRAFFIC CONTROL IN ACCORDANCE WITH THE ROADWAY STANDARD DRAWINGS LISTED ON TMP-1.

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.

STATE FORCES WILL INSTALL AND MAINTAIN THE PROJECT DETOUR AND THE TYPE III BARRICADES AT THE PROJECT LIMITS.  
STATE FORCES WILL INSTALL PAINT AND MARKERS ON THE FINISHED PROJECT.  
CALL JIM EVANS AT 252-830-3493 FOR COORDINATION.



REVISIONS

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C:\PROJECTS\15BP\2\DU\17BP\2\15R15.dgn

8/17/99



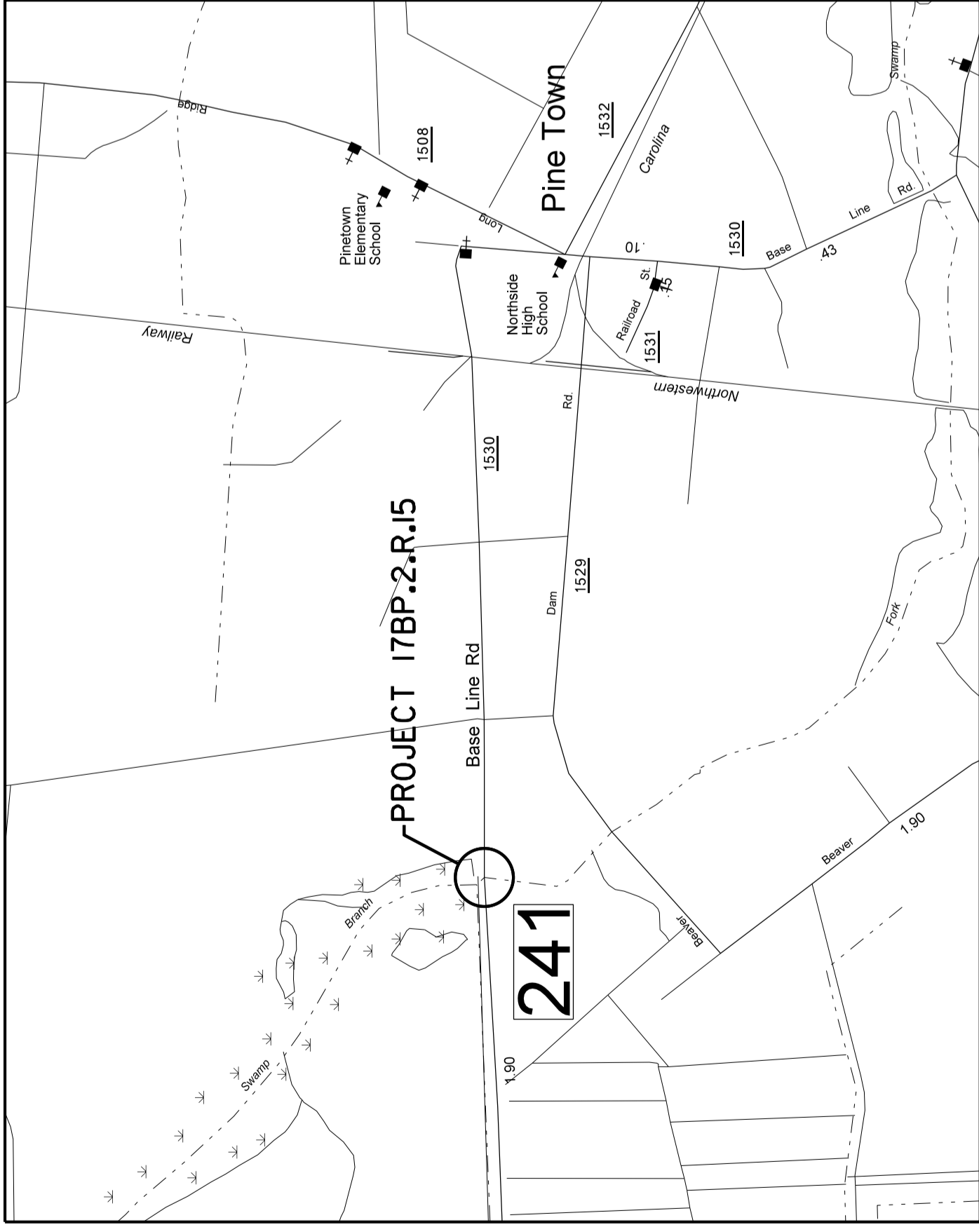
APPROVED: *Jim H. Evans* DATE: 02/07/2013



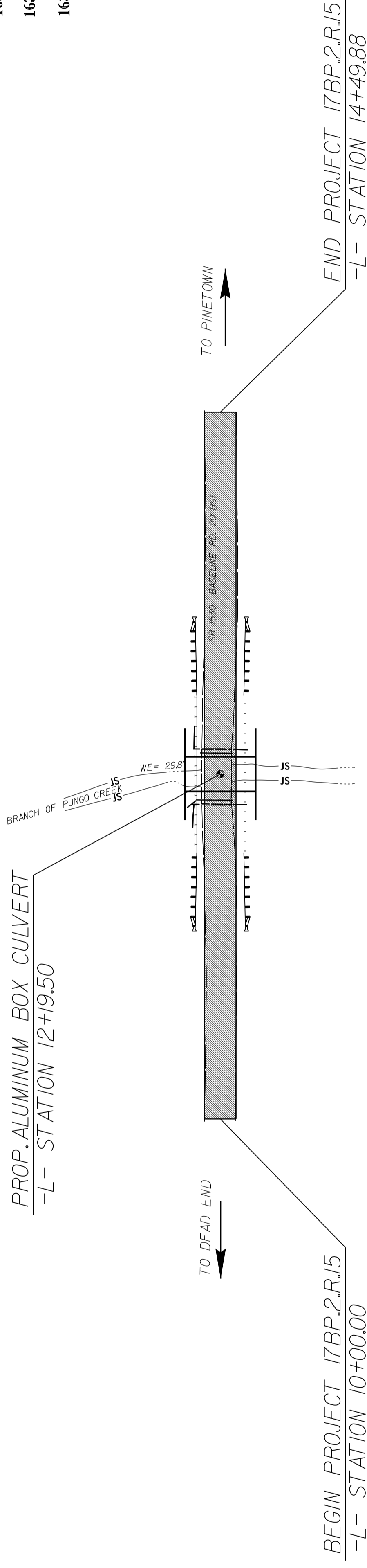
## PROJECT NOTES, DETOUR AND PLANS

# PROJECT: 17BP.2.R.15

## STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS PLAN FOR PROPOSED HIGHWAY EROSION CONTROL



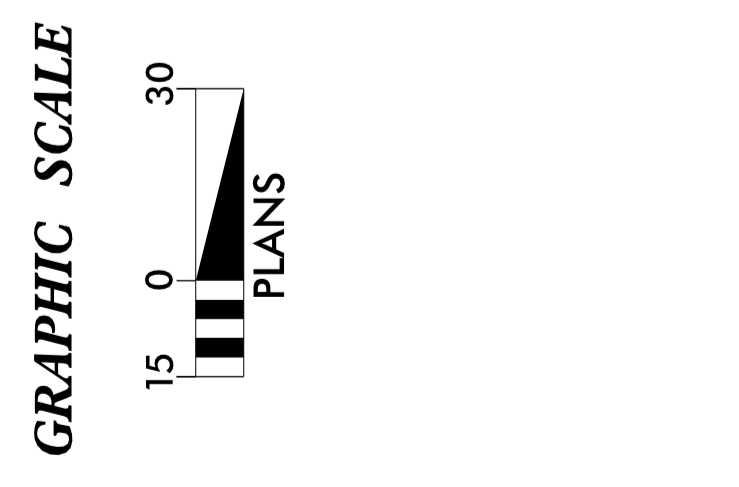
Vicinity Map



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.R.15	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	--- TD ---
1630.05	Temporary Diversion	--- TD ---
1605.01	Temporary Silt Fence	--- TD ---
1606.01	Special Sediment Control Fence	--- TD ---
1622.01	Temporary Berms and Slope Drains	--- TD ---
1630.02	Silt Basin Type B	--- TD ---
1633.01	Temporary Rock Silt Check Type-A	--- TD ---
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	--- TD ---
1633.02	Temporary Rock Silt Check Type-B	--- TD ---
	Wattle/Coir Fiber Wattle	--- TD ---
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	--- TD ---
1634.01	Temporary Rock Sediment Dam Type-A	--- TD ---
1634.02	Temporary Rock Sediment Dam Type-B	--- TD ---
1635.01	Rock Pipe Inlet Sediment Trap Type-A	--- TD ---
1635.02	Rock Pipe Inlet Sediment Trap Type-B	--- TD ---
1630.04	Stilling Basin	--- TD ---
1630.06	Special Skilling Basin	--- TD ---
	Rock Inlet Sediment Trap:	
1632.01	Type A	--- TD ---
1632.02	Type B	--- TD ---
1632.03	Type C	--- TD ---
	Skimmer Basin	--- TD ---
	Tiered Skimmer Basin	--- TD ---
	Infiltration Basin	--- TD ---

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.



DIVISION TWO DDC UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-00000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

2012 STANDARD SPECIFICATIONS

Prepared in the Office of:  
**DIVISION 2 DDC**  
PO Box 1587  
Greenville, NC 27835

Lang Jones, DDC Engineer  
Level IIIA  
Certification #274

Roadway Standard Drawings

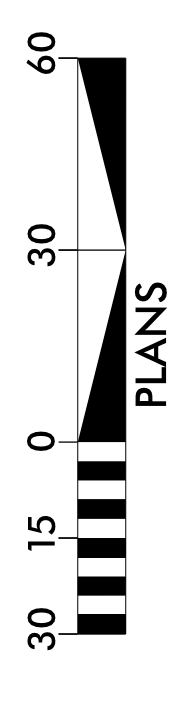
The following roadway english standards as appear in "Roadway Standard Drawings", Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Stilling Basin	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Temporary Diversion	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Special Stilling Basin	1640.01 Coir Fiber Baffle
1630.06 Matting Installation	1645.01 Temporary Stream Crossing

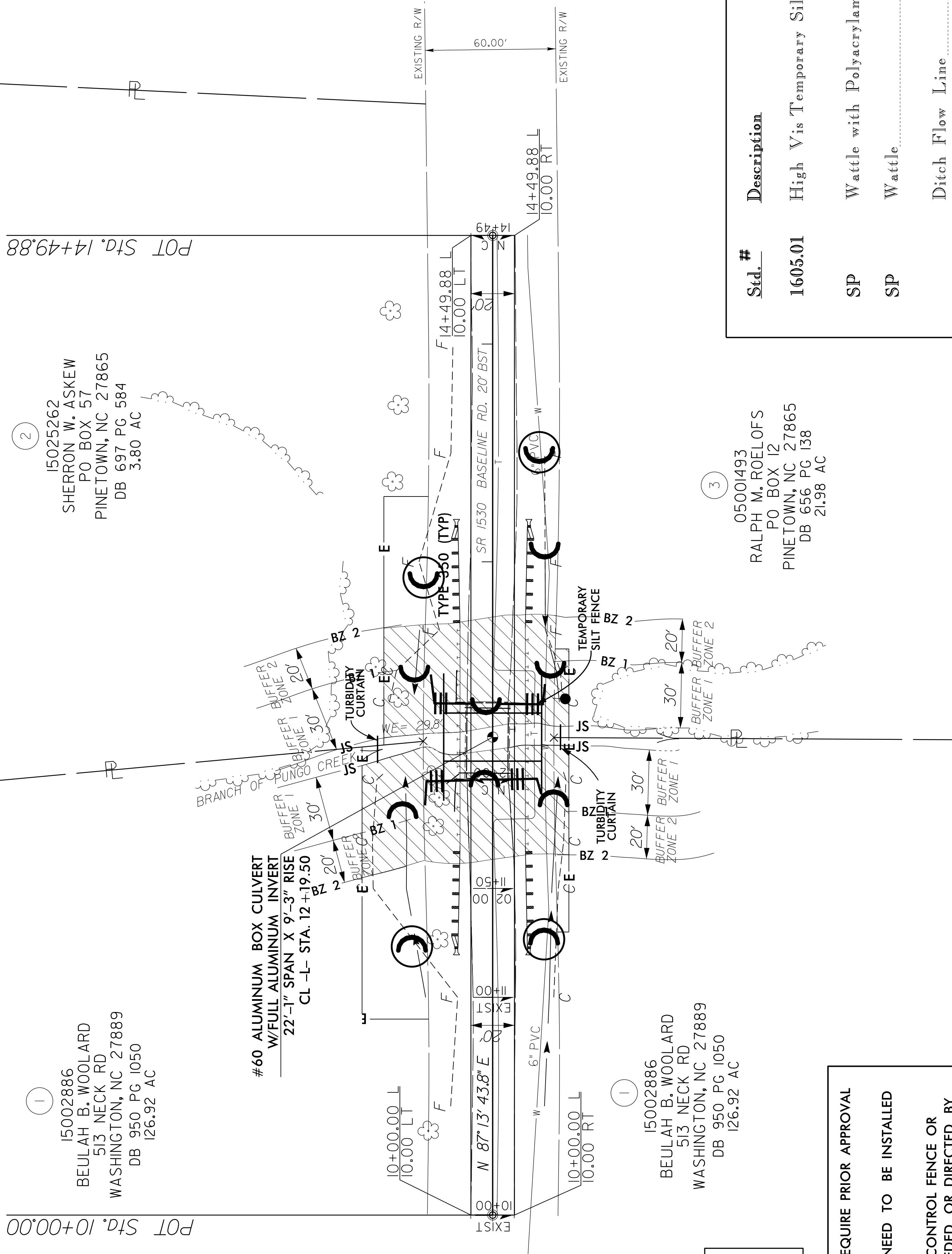
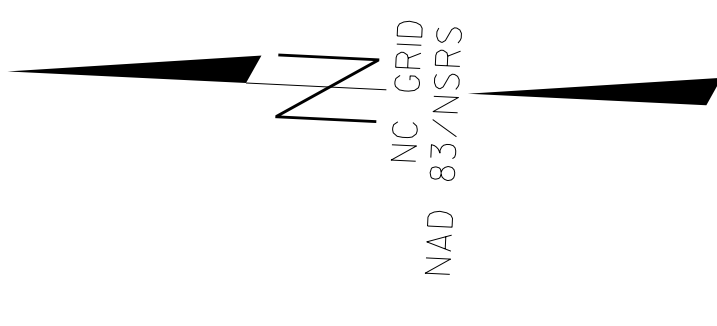
# SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HOW ZONES.

PROJECT REFERENCE NO. 17BP2R15  
SHEET NO. EC2



PLANS



ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.  
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.  
CONTRACTOR SHALL INSTALL SPECIAL SEDIMENT CONTROL FENCE OR WATTLES IN LOW AREAS OF SILT FENCE AS NEEDED OR DIRECTED BY THE ENGINEER.

Std. #	Description	Symbol
1605.01	High Vis Temporary Silt Fence	
SP	Wattle with Polyacrylamide	
SP	Wattle	
	Ditch Flow Line	

REVISIONS

08-FEB-2013 08:45  
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FORTRAN\Beaufort 241\241.ddd2 psh-ec2.dgn



# MATting INSTALLATION DETAIL

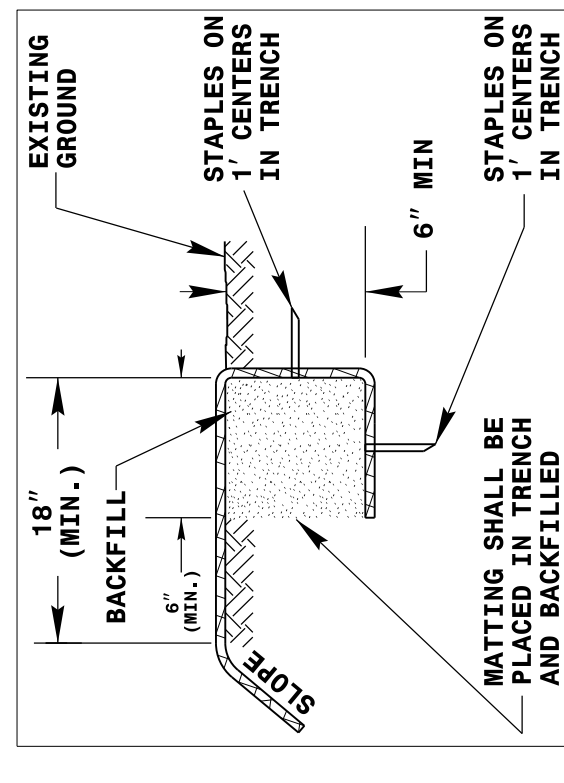


DIAGRAM A

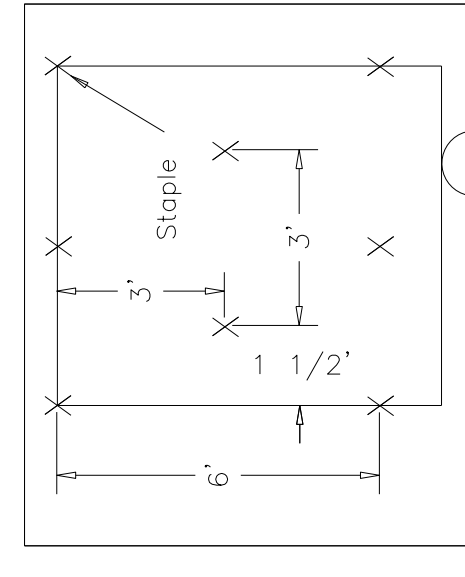


DIAGRAM B

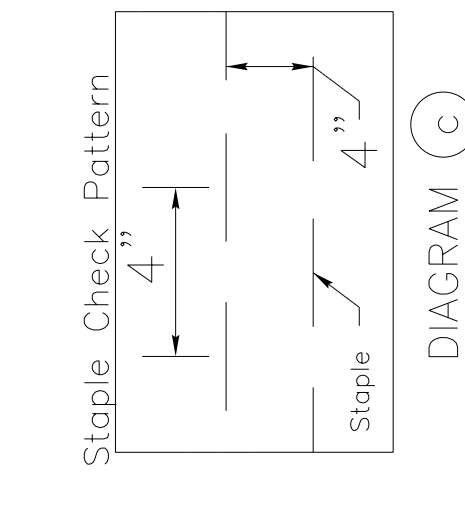
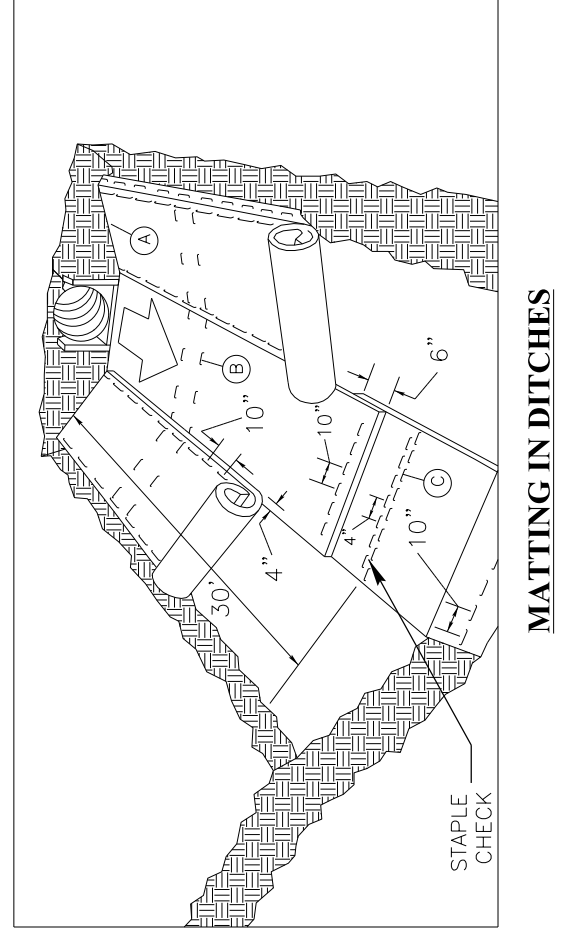
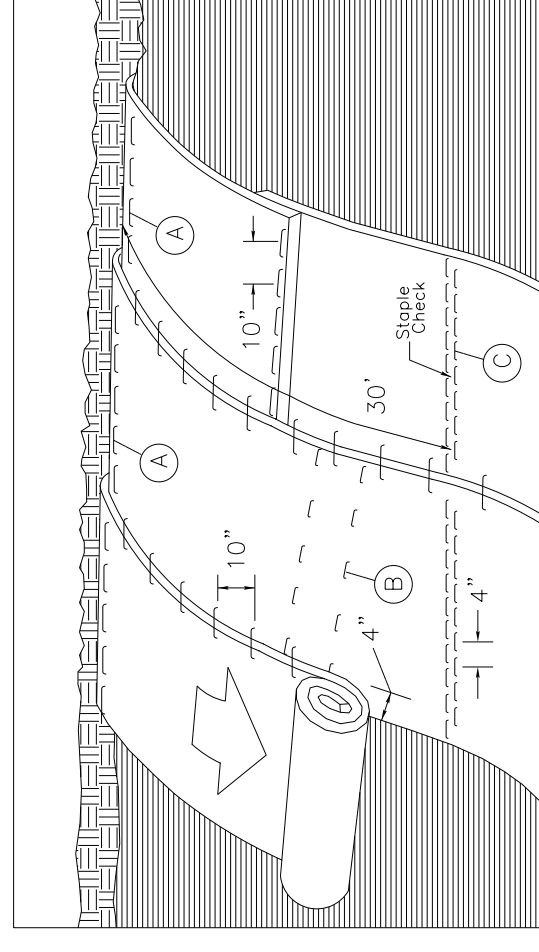


DIAGRAM C



MATting IN DITCHES



MATting ON SLOPES

NOTES:  
 THIS DETAIL APPLIES TO STRAW, EXCELSTOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.  
 THE MAT SHALL BE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1  
 SUCH AS NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

ENGLISH STANDARD DRAWING FOR  
**TEMPORARY SILT FENCE**

SHEET 1 OF 1  
**1605.01**

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

The drawing shows a cross-section of a temporary silt fence. It consists of a filter fabric supported by a wire. A steel post is driven into the trench, and the filter fabric is attached to it. The filter fabric is 8 feet wide (maximum) without wire. The middle and vertical wires shall be 12 1/2 gauge minimum. The filter fabric is 32 inches wide and has a minimum of 6 line wires with 12 inch stay spacing. The filter fabric is a minimum of 36 inches wide and is fastened adequately to the wire as directed by the engineer. Provide 30 degree self-fastener angle steel type.

NOTES:  
 USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.  
 USE FILTER FABRIC A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.  
 PROVIDE 30° SELF-FASTENER OF THE SELF-FASTENER ANGLE STEEL TYPE.

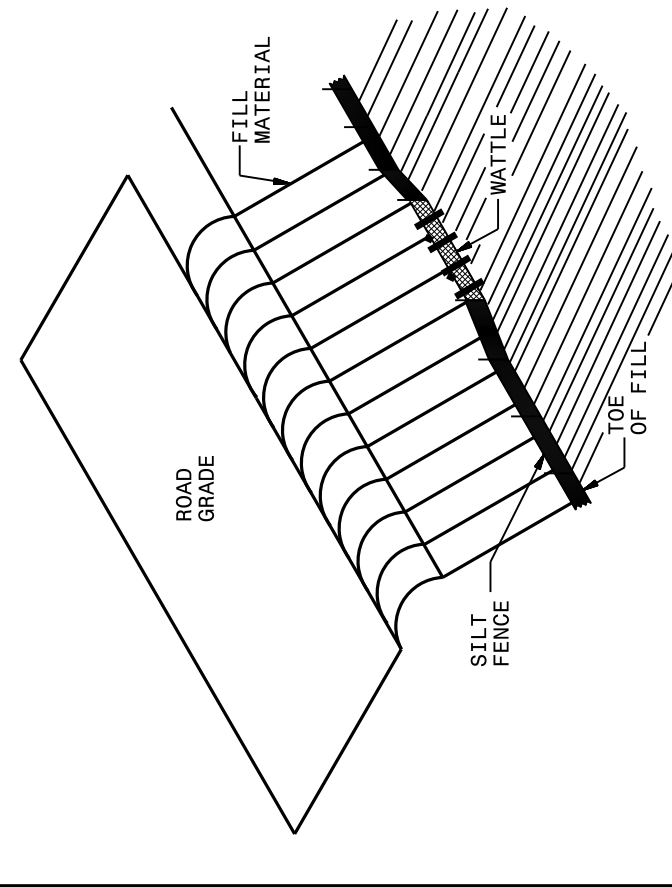
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ENGLISH STANDARD DRAWING FOR  
**TEMPORARY SILT FENCE**

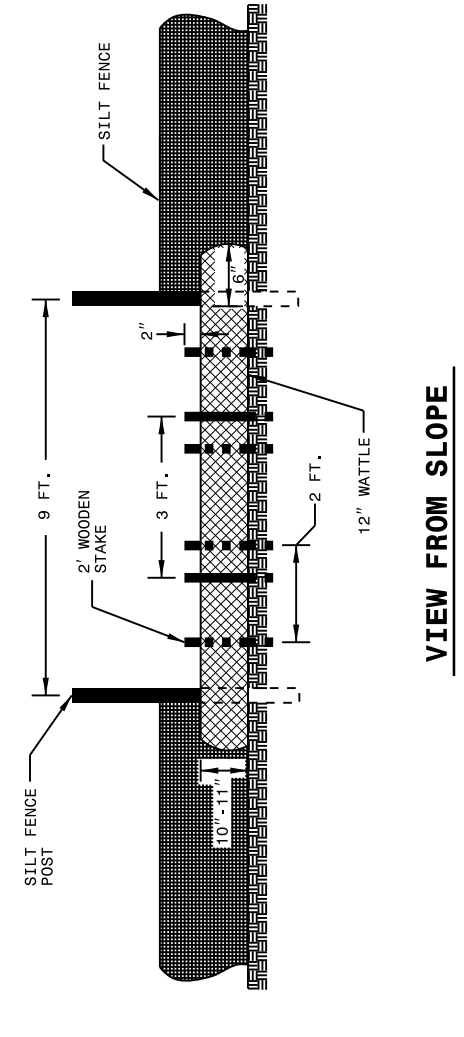
SHEET 1 OF 1  
**1605.01**

# SILT FENCE WATTLE BREAK DETAIL

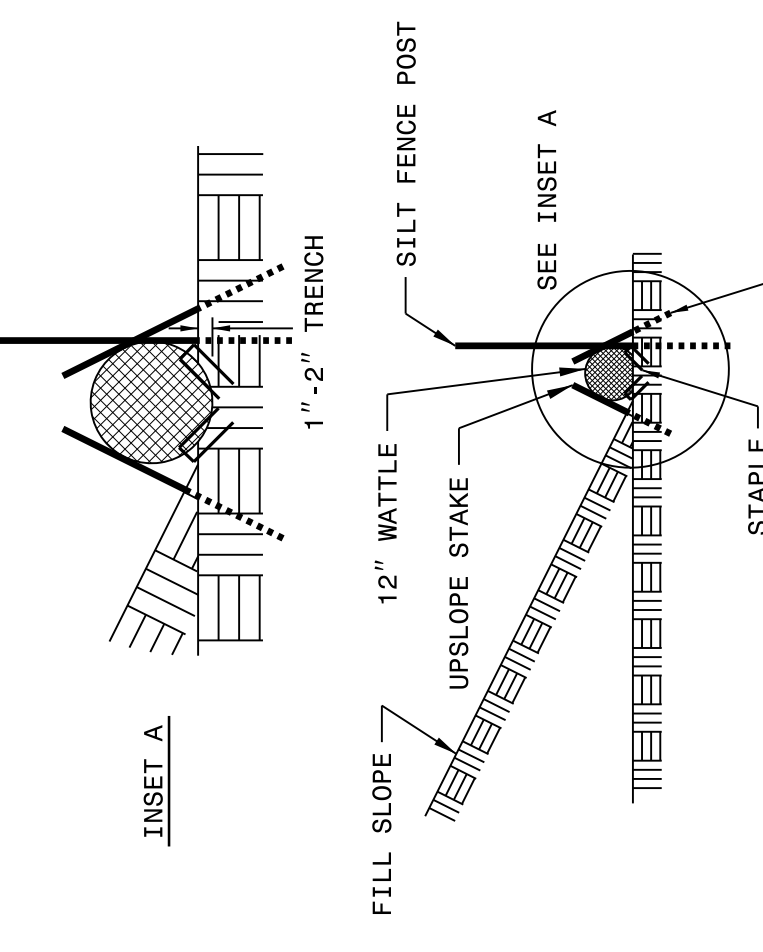
NOTES:  
 USE MINIMUM 12 IN. DIAMETER EXCELSTOR WATTLE AND LENGTH OF 10 FT.  
 EXCAVATE A 1 TO 2 TRENCH FOR WATTLE TO BE PLACED.  
 DO NOT PLACE WATTLE ON TOE OF SLOPE.  
 USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.  
 INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEAVE WATTLE TO GROUND.  
 PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.  
 INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.  
 WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.  
 INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.



ISOMETRIC VIEW



VIEW FROM SLOPE

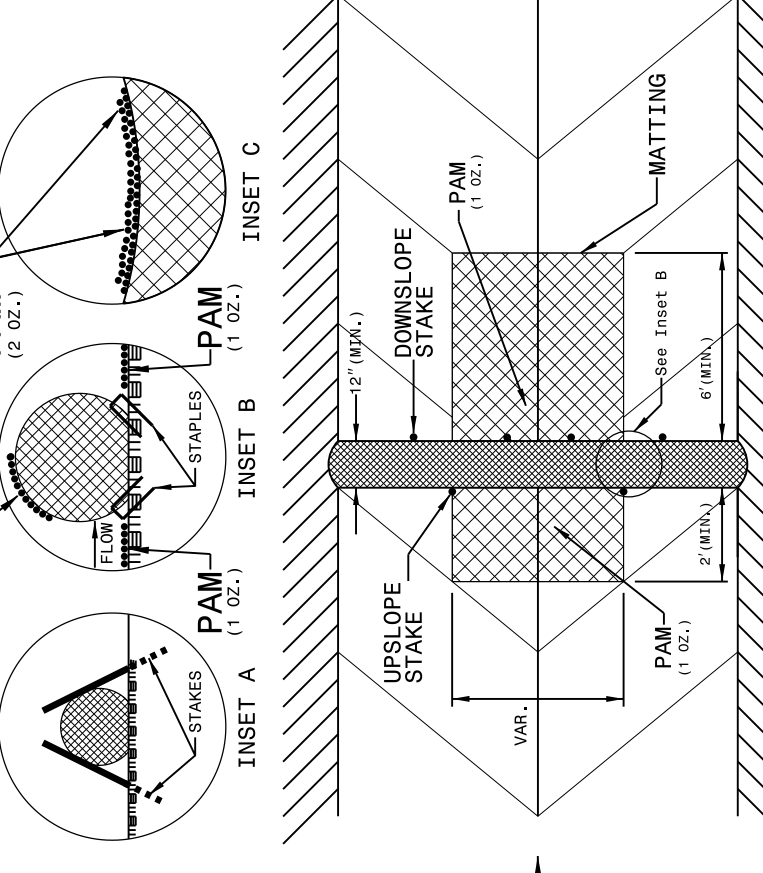


SIDE VIEW

NOT TO SCALE

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL

NOTES:  
 USE MINIMUM 12 IN. DIAMETER EXCELSTOR WATTLE.  
 USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.  
 ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SOIL DOWN SLOPES AND AS DIRECTED.  
 PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.  
 AND AT EACH END TO SECURE IT TO THE SOIL.  
 INSTALL WATTLE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.  
 PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PRODUCT LOCATION, AND FROM OPPOSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT INITIALY APPLY 2 ONCES OF ANIONIC OR NEUTRALY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATting ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVERY THAT IS EQUAL TO OR GREATER THAN 0.50 IN.



TOP VIEW

NOT TO SCALE

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

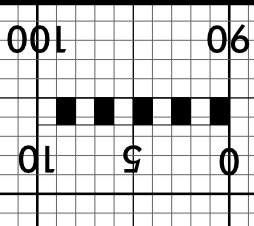
# CROSS-SECTION SUMMARY

IN CUBIC YARDS

LOCATION (+L)	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT	STRUCTURE EXCAVATION
10 + 50.00	0	0	0	0
11 + 00.00	3	0	13	0
11 + 50.00	75	0	72	0
11 + 71.66	76	0	65	0
12 + 00.00	101	0	119	326
12 + 03.46	9	0	26	72
12 + 19.50	18	0	223	240
12 + 35.54	7	0	175	301
12 + 50.00	10	0	43	310
12 + 68.70	8	0	22	159
13 + 00.00	5	0	13	0
13 + 50.00	1	0	14	0
14 + 00.00	2	0	10	0

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT.

NOTE:  
APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION,  
UNCLASSIFIED STRUCTURE EXCAVATION, BORROW EXCAVATION,  
FINE GRADING, CLEARING AND GRUBBING, AND REMOVAL OF  
EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP  
SUM PRICE FOR "GRADING."



10+00.00

10+50.00

11+00.00

11+50.00

11+71.66

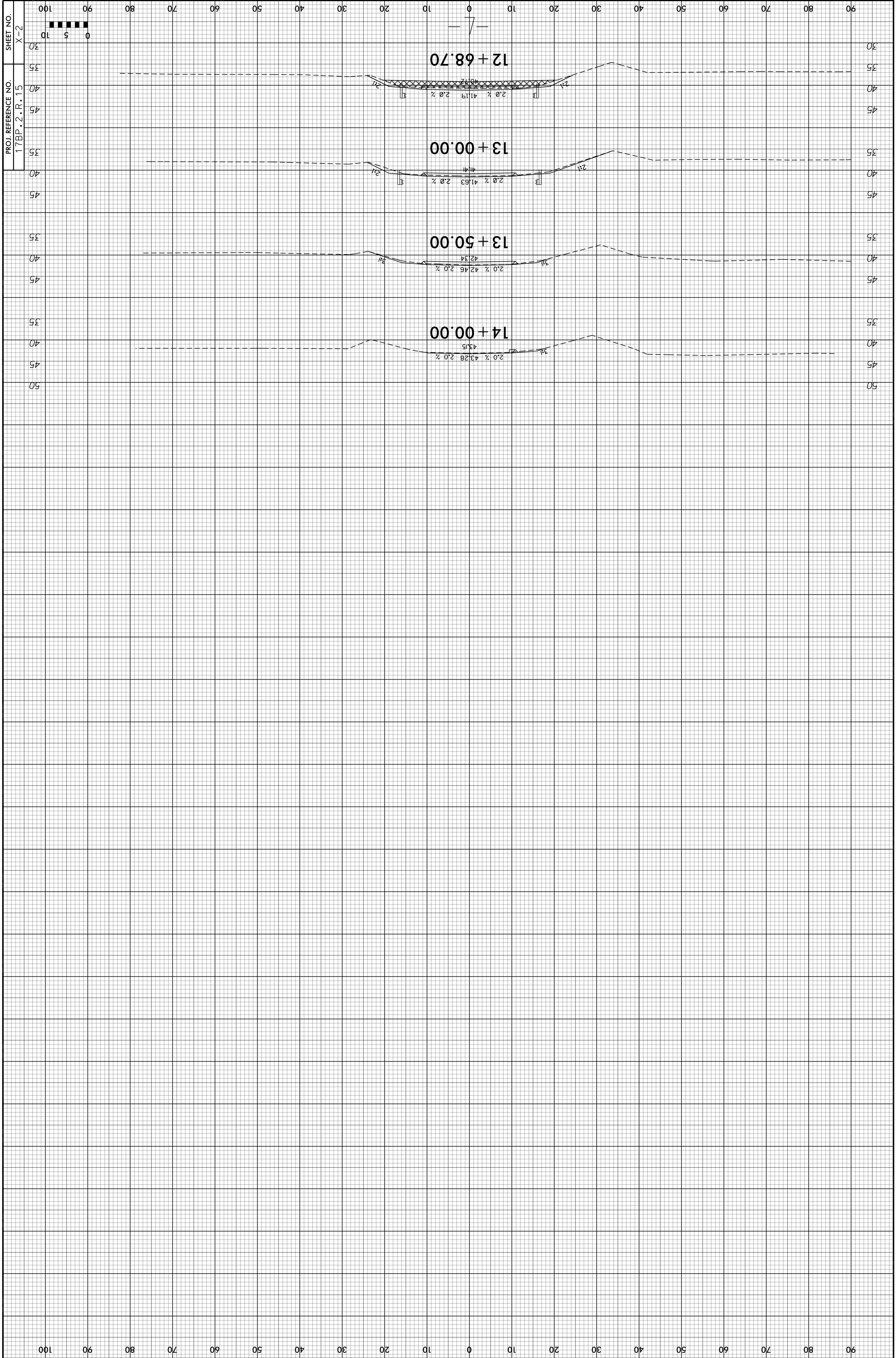
12+00.00

12+03.46

12+19.50

12+35.54

12+50.00



SHEET NO. X-2  
 PROJ. REFERENCE NO. 17BP.2.R.15

