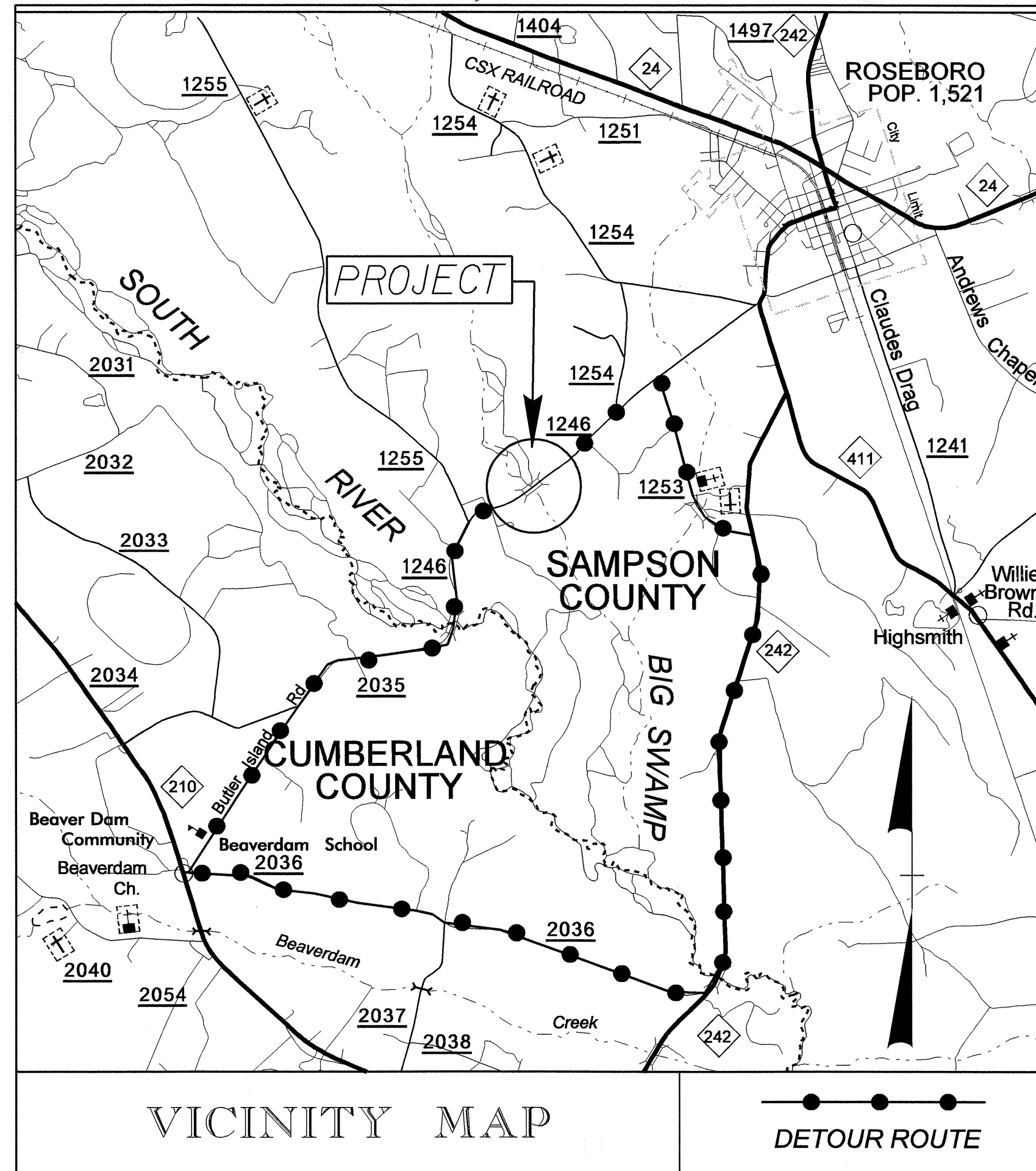


TIP PROJECT: B-4271

CONTRACT: C201499

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



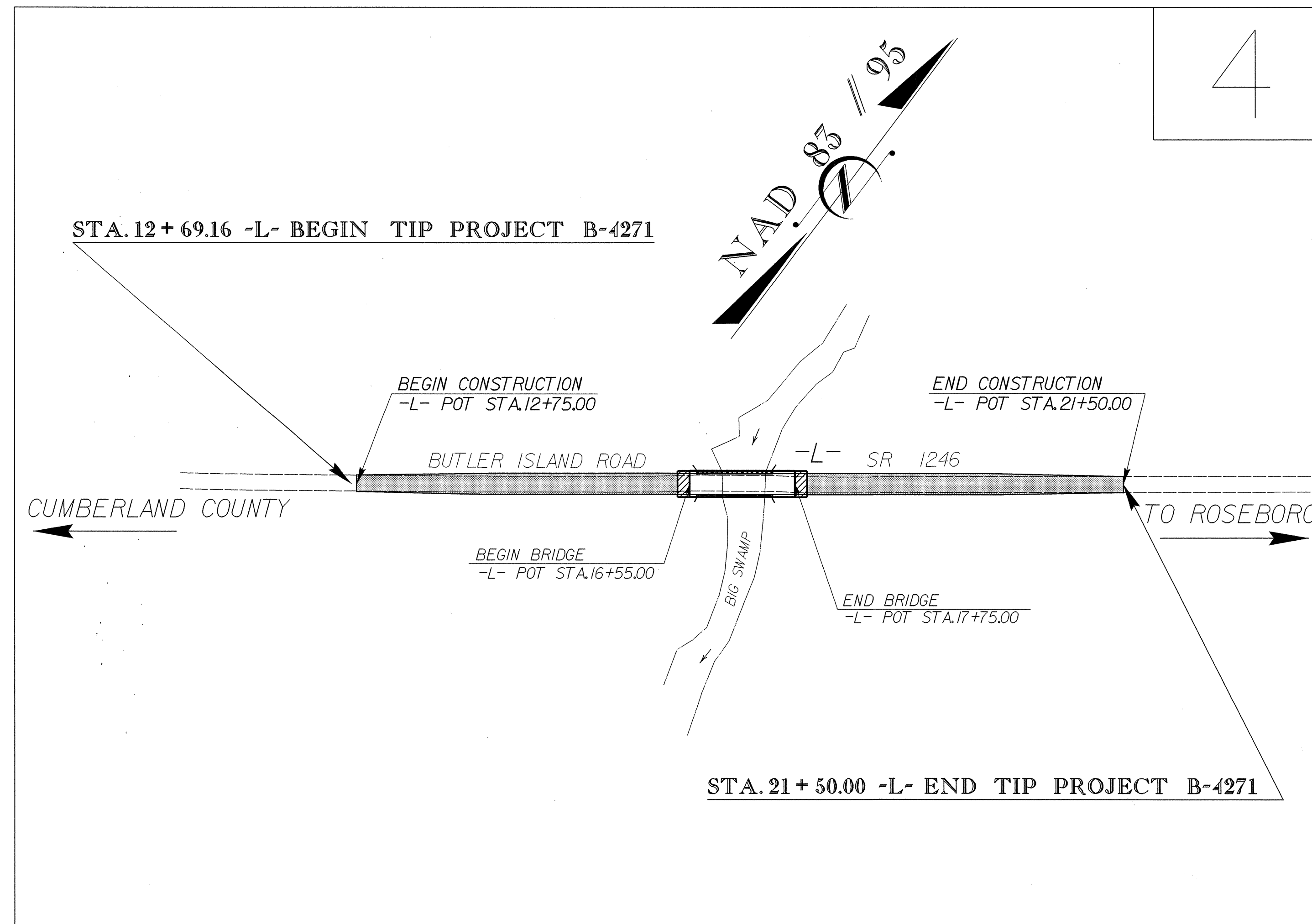
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# SAMPSON COUNTY

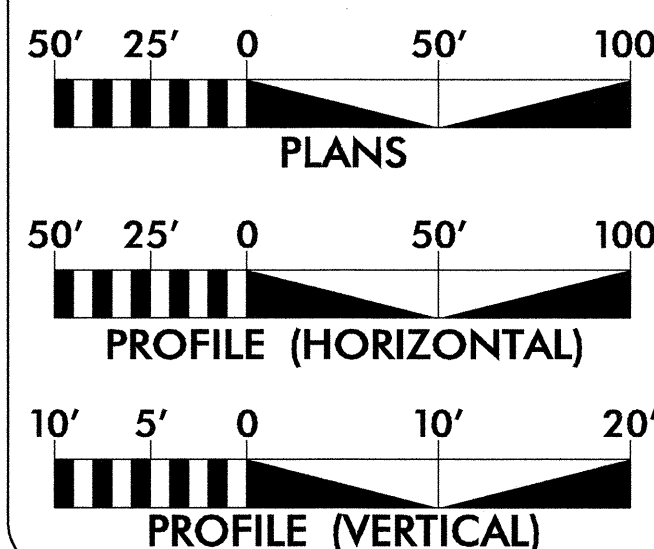
LOCATION: BRIDGE NO. 98 OVER BIG SWAMP ON SR 1246

TYPE OF WORK: GRADING, PAVING, DRAINAGE, & STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4271	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33612.1.1	BRZ-1246(2)	P.E.	
33612.2.1	BRZ-1246(2)	R / W & UTIL.	
33612.3.1	BRZ-1246(2)	CONST.	



GRAPHIC SCALES



DESIGN DATA

ADT 2007 = 1739  
ADT 2030 = 2840  
DHV = 12 %  
D = 60 %  
T = 6 % \*  
V = 60 MPH  
FUNC. CLASS: COLLECTOR  
\* TTST 4 % DUAL 2 %

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4271 = 0.144 MI.  
LENGTH STRUCTURE TIP PROJECT B-4271 = 0.023 MI.  
TOTAL LENGTH OF TIP PROJECT B-4271 = 0.167 MI.

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

1000 Birch Ridge Dr.  
Raleigh, NC 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:  
JUNE 14, 2005

LETTING DATE:  
AUGUST 21, 2007

ROGER D. THOMAS, P.E.  
PROJECT ENGINEER

MICHAEL W. LITTLE, P.E.  
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER  
SEAL 16600  
RANDALL C. HENNING  
6-19-07

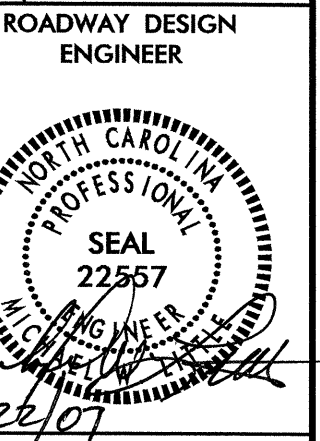
ROADWAY DESIGN ENGINEER  
NORTH CAROLINA PROFESSIONAL ENGINEER  
SEAL 2257  
MICHAEL W. LITTLE  
6-19-07

DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

ant m. miller P.E.

STATE DESIGN ENGINEER  
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED  
DIVISION ADMINISTRATOR  
DATE



SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL SHEET
2	TYPICAL SECTIONS
2-A	DETAIL OF ANCHORAGE FOR FRAMES - BRICK/CONCRETE/PRECAST CONCRETE
3	SUMMARY OF QUANTITIES
3-A	LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER) GUARDRAIL SUMMARY
3-B	SUMMARIES OF EARTHWORK, SHOULDER BERM GUTTER, AND PAVEMENT REMOVAL
4	PLAN SHEET
5	PROFILE SHEET
TCP-1 THRU TCP-3	TRAFFIC CONTROL PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
RF-1	WETLAND REFORESTATION DETAIL SHEET
UD-1 THRU UD-2	UTILITIES BY OTHERS PLANS
X-1A	CROSS-SECTION SUMMARY
X-1 THRU X-5	CROSS-SECTIONS
S-1 THRU S-20	STRUCTURE PLANS

GENERAL NOTES: 2006 SPECIFICATIONS  
EFFECTIVE: 07-18-06  
REVISED: 07-18-06

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

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

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

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

UNDERDRAINS:  
UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

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

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

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

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

UTILITIES:  
UTILITY OWNERS ON THIS PROJECT ARE  
SOUTH RIVER EMC - POWER (DISTRIBUTION)  
STAR TELEPHONE MEMBERSHIP CORP.  
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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

2006 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
816.04	Markers for Drainage Structure and Concrete Pad
840.00	Concrete Base Pad for Drainage Structures
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.02	Guide for Rip Rap at Pipe Outlets

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	□ EDM
Parcel/Sequence Number	⑩ 23
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing High Quality Wetland Boundary	----- HQ WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB

## BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or UG Tank Cap	○
Sign	○
Well	○ W
Small Mine	⊗
Foundation	□
Area Outline	□
Cemetery	⊕
Building	□
School	□
Church	⊕
Dam	-----

## HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
River Basin Buffer	----- RBB
Flow Arrow	-----
Disappearing Stream	-----
Spring	○
Swamp Marsh	-----
Proposed Lateral, Tail, Head Ditch	-----
False Sump	-----

## RAILROADS:

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

## RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Utility Easement	----- PUE

## ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Wheel Chair Ramp	----- WCRP
Curb Cut for Future Wheel Chair Ramp	----- CCFR
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	⊕
Storm Sewer	----- S

## 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 U/G Power Line	----- P
Designated U/G Power Line (S.U.E.*)	----- P

## TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Booth	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
UG Telephone Cable Hand Hole	⊕
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	⊕
Water Meter	⊕
Water Valve	⊕
Water Hydrant	⊕
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	----- A/G Water

## TV:

TV Satellite Dish	⊕
TV Pedestal	⊕
TV Tower	⊕
UG TV Cable Hand Hole	⊕
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:

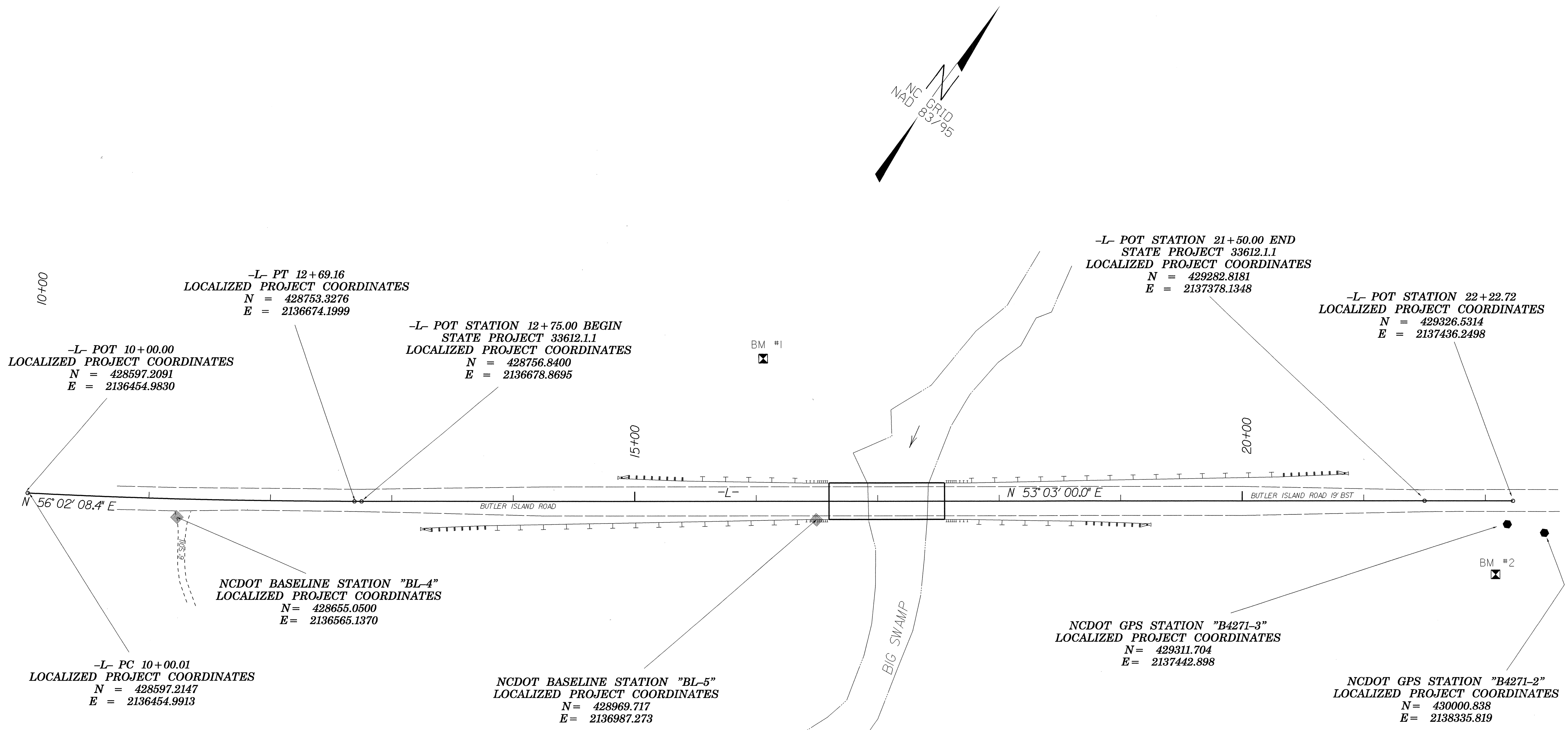
Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
UG Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
Recorded SS Forced Main Line	----- FSS
Designated SS Forced Main Line (S.U.E.*)	----- FSS

## MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	----- UTL
UG Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
UG Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

# SURVEY CONTROL SHEET

PROJECT REFERENCE NO. B-4271	SHEET NO. 1-C
Location and Surveys	



**CONTROL DATA**

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
4	BL-4		428655.0500	2136565.1370	85.18	11+23.33	15.04 RT
5	BL-5		428969.7170	2136987.2730	84.98	16+49.43	15.26 RT
3	B4271-3		429311.7040	2137442.8980	83.83	22+19.12	15.85 RT
2	B4271-2		430000.8380	2138335.8190	94.68		OUTSIDE PROJECT LIMITS

```

.....
BM1  ELEVATION = 80.35
N 429051  E 2136873
L STATION 16+07 118 LEFT
RAILROAD SPIKE SET IN 22' OAK
.....

.....
BM2  ELEVATION = 86.16
N 429400  E 2137632
L STATION 22+23
N 69° 30' 41.3" E DIST 208.76
RAILROAD SPIKE SET IN 20' PINE
.....
    
```

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4271-3"

WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 429311.704(1) EASTING: 2,137,442.898(1)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999889253

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4271-3" TO L- STATION 10+00.00 IS S 54°07'27.2" W 1,219.2125

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

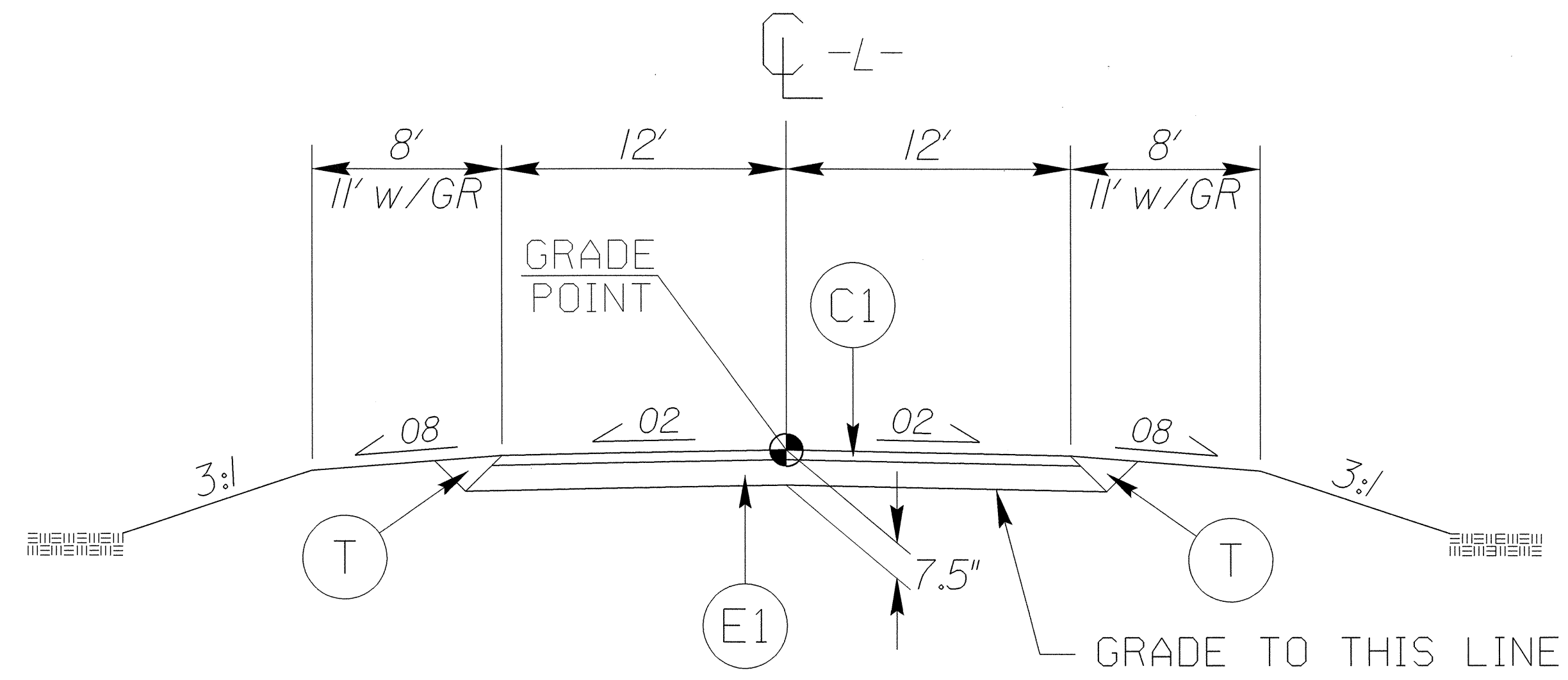
**NOTES:**

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT](http://www.doh.dot.state.nc.us/preconstruct/highway/location/project)  
FILE NAME: B4271\_LS\_CONTROL\_050210.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- ⊗ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
- NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING USER SERVICE (OPUS)

**NOTE: DRAWING NOT TO SCALE**

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	EARTH MATERIAL

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



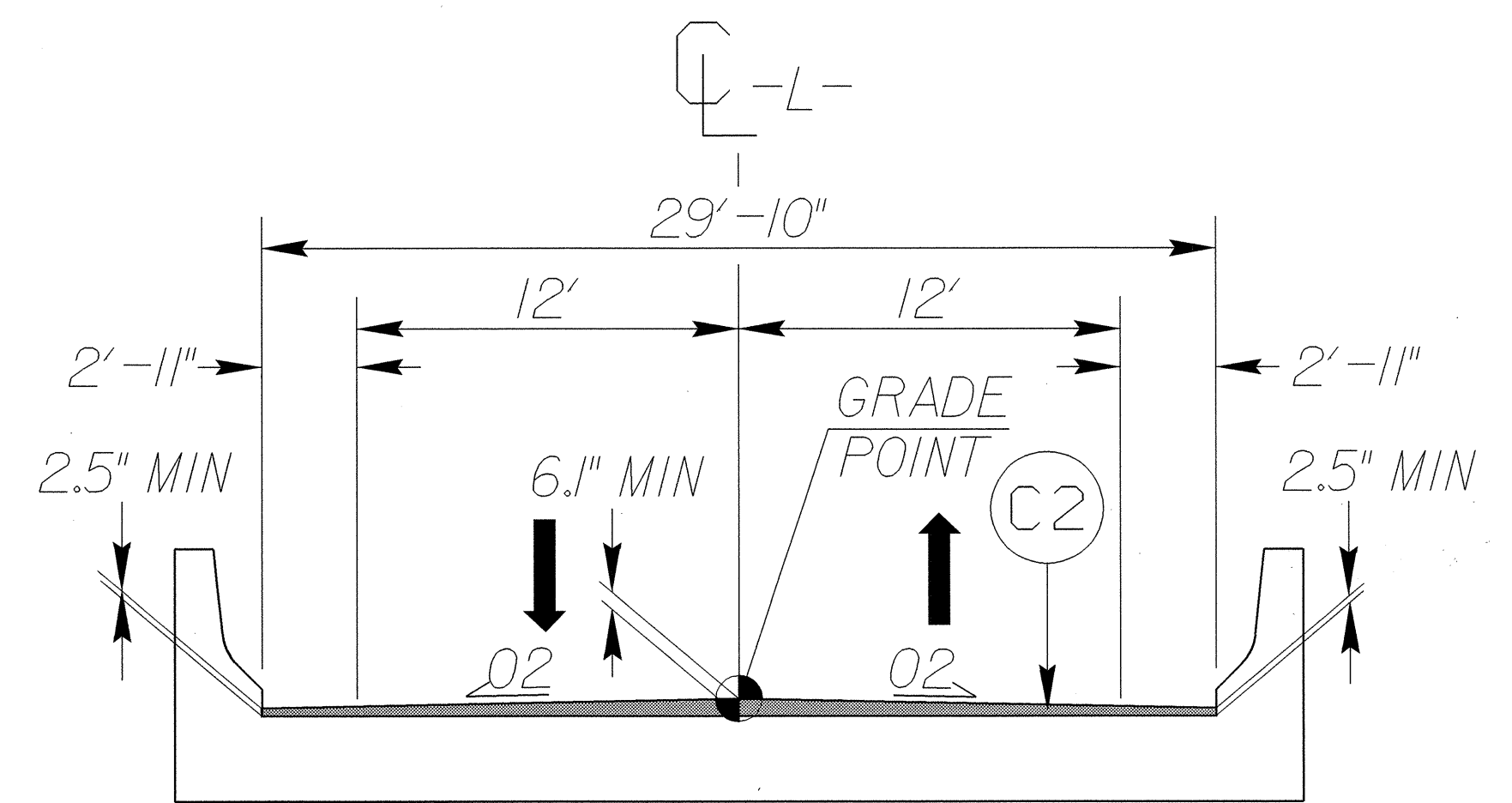
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 FOR:

- L- STA. 14+25.00 TO -L- STA. 16+55.00 (BEGIN BRIDGE)
- L- STA. 17+75.00 (END BRIDGE) TO -L- STA. 20+00.00

NOTES:

- TRANSITION FROM EXISTING TO T.S. NO. 1  
-L- STA. 12+75.00 TO -L- STA. 14+25.00
- TRANSITION FROM T.S. NO. 1 TO EXISTING  
-L- STA. 20+00.00 TO -L- STA. 21+50.00



Detail Showing Asphalt Wearing Surface on Cored Slab Bridge



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

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201499

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (17+15.00)
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB- BING
0057000000-E	226	200	CY	UNDERCUT EXCAVATION
0195000000-E	265	100	CY	SELECT GRANULAR MATERIAL
0196000000-E	270	100	SY	FABRIC FOR SOIL STABILIZATION
0318000000-E	300	10	TON	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRS
0708000000-E	310	100	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
1489000000-E	610	700	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1525000000-E	610	450	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
1560000000-E	620	60	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
2022000000-E	815	22.4	CY	SUBDRAIN EXCAVATION
2033000000-E	815	16.8	CY	SUBDRAIN FINE AGGREGATE
2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE
2055000000-E	815	3	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS
2066000000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
2077000000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)
2286000000-N	840	6	EA	MASONRY DRAINAGE STRUCTURES
2355000000-N	840	6	EA	FRAME WITH GRATE, STD 840.29
2556000000-E	846	644	LF	SHOULDER BERM GUTTER
3030000000-E	862	675	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350

ItemNumber	Sec #	Quantity	Unit	Description
3317000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
3649000000-E	876	6	TON	RIP RAP, CLASS B
3656000000-E	876	350	SY	FILTER FABRIC FOR DRAINAGE
4410000000-E	1110	20	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4445000000-E	1145	32	LF	BARRICADES (TYPE III)
4810000000-E	1205	7,200	LF	PAINT PAVEMENT MARKING LINES (4")
4900000000-N	1251	15	EA	PERMANENT RAISED PAVEMENT MARKERS
6000000000-E	1605	1,270	LF	TEMPORARY SILT FENCE
6006000000-E	1610	50	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	165	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	70	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	1.5	ACR	TEMPORARY MULCHING
6018000000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEED- ING
6024000000-E	1622	60	LF	TEMPORARY SLOPE DRAINS
6027000000-N	1622	3	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
6029000000-E	SP	200	LF	SAFETY FENCE
6030000000-E	1630	210	CY	SILT EXCAVATION
6036000000-E	1631	170	SY	MATting FOR EROSION CONTROL
6042000000-E	1632	120	LF	1/4" HARDWARE CLOTH
6071030000-E	SP	40	LF	COIR FIBER BAFFLES
6084000000-E	1660	1.5	ACR	SEEDING & MULCHING
6087000000-E	1660	1	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING

ItemNumber	Sec #	Quantity	Unit	Description
6108000000-E	1665	1	TON	FERTILIZER TOPDRESSING
6114000000-N	SP	2	HR	SPECIALIZED HAND MOWING
6117000000-N	SP	8	EA	RESPONSE FOR EROSION CONTROL
6129000000-E	1670	0.04	ACR	WETLAND REFORESTATION
6135000000-E	SP	0.06	ACR	GENERIC EROSION CONTROL ITEM DISKING
6135000000-E	SP	0.06	ACR	GENERIC EROSION CONTROL ITEM RIPPING





STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS  
**SUMMARY OF EARTHWORK**  
 IN CUBIC YARDS

STATION TO STATION	UNCLASSIFIED EXCAVATION	EMBANKMENT + %	BORROW	WASTE
-L- STA. 12+75.00 TO -L- STA. 16+55.00	84	458	374	
SUBTOTAL 1	84	458	374	
-L- STA. 17+75.00 TO -L- STA. 21+50.00	16	941	925	
SUBTOTAL 2	16	941	925	
PROJECT SUBTOTAL	100	1399	1299	
EST. 5% TO REPLACE TOPSOIL IN BORROW PIT			65	
PROJECT TOTAL	100	1399	1364	
SAY	150 CY		1400 CY	

EST. UNDERCUT EXCAVATION = 200 Cubic Yards

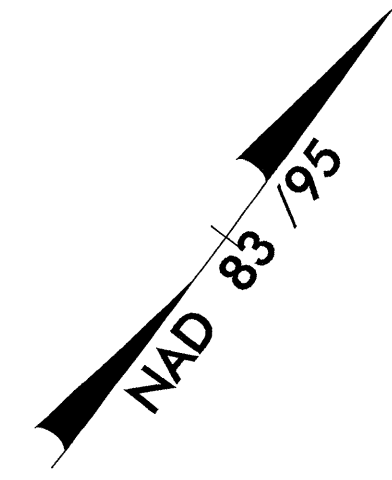
NOTE: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

**SUMMARY OF SHOULDER BERM GUTTER**  
 IN FEET

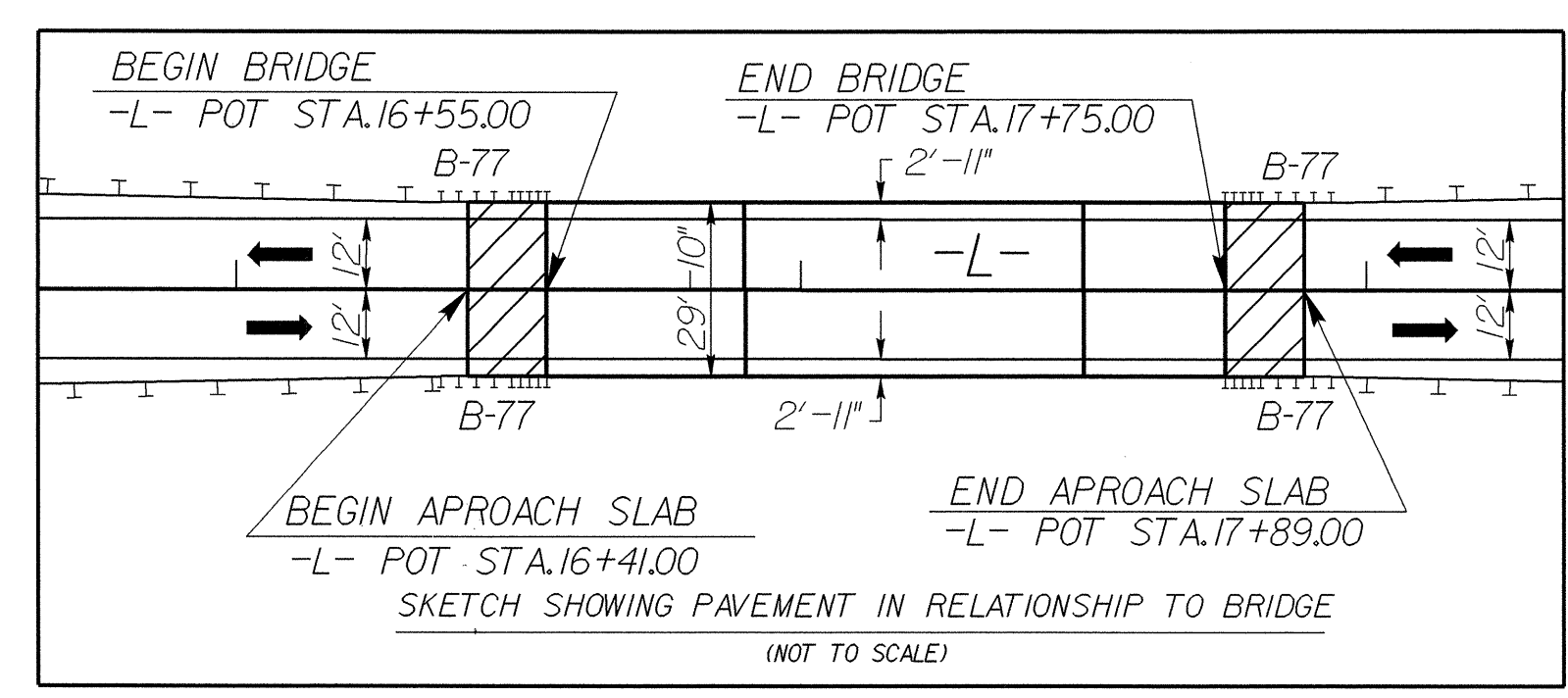
BEGINING STATION	ENDING STATION	LOCATION	LENGTH
-L- STA. 14+40.00	-L- STA. 16+41.00	RT.	201.00
-L- STA. 15+50.00	-L- STA. 16+41.00	LT.	91.00
-L- STA. 17+89.00	-L- STA. 18+90.00	RT.	101.00
-L- STA. 17+89.00	-L- STA. 20+40.00	LT.	251.00
TOTAL			644.00
SAY			644.00

**SUMMARY OF PAVEMENT REMOVAL**  
 IN SQUARE YARDS

LOCATION	ASPHALT REMOVAL
-L- STA. 12+75.00 TO -L- STA. 16+63.00 LT. & RT.	819.11
-L- STA. 17+50.00 TO -L- STA. 21+50.00 LT. & RT.	844.44
PROJECT TOTAL	1,663.56
SAY	1,670.00

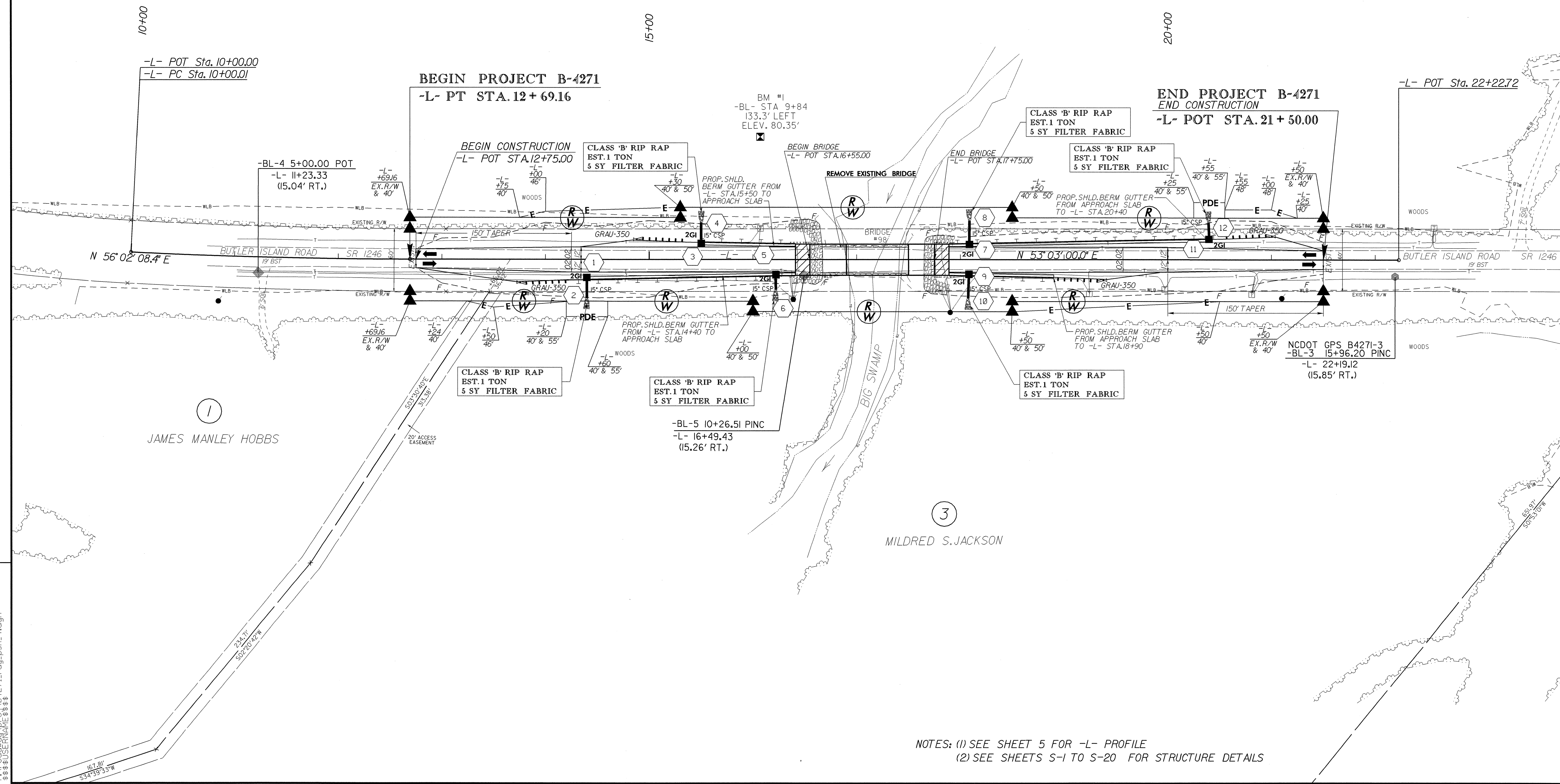


-L- CURVE DATA  
 PI Sta 11+34.61  
 $\Delta = 2' 59' 08.4''$  (LT)  
 $D = 1'06' 33.5''$   
 $L = 269.15'$   
 $T = 134.60'$   
 $R = 5,165.00'$   
 SE = EXISTING



(2)  
 JOHNNY L DUDLEY

REVISIONS

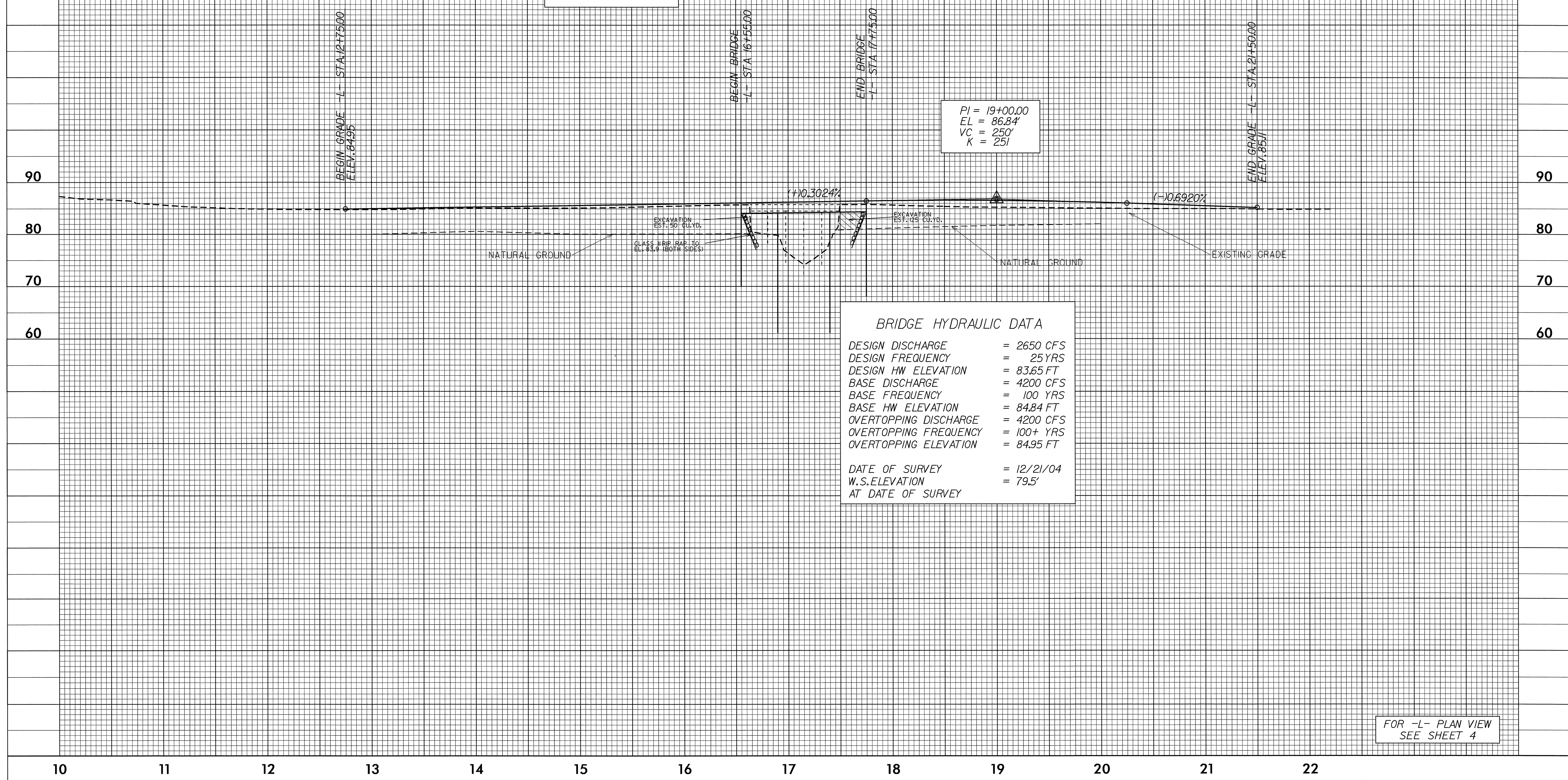


NOTES: (1) SEE SHEET 5 FOR -L- PROFILE  
 (2) SEE SHEETS S-1 TO S-20 FOR STRUCTURE DETAILS

07-JUN-2007 13:42  
 r:\x\osw\p\9\1\4271\rdy\_psh\_4.dgn  
 \$\$\$USER\$

BM #1  
ELEV. = 80.35'  
N 429050.9 E 2136873.2  
-BL- STA. 9+84 133.3' LT.  
-L- STA. 16+07.11 118.22' LT.  
RAILROAD SPIKE SET IN 22" OAK

-L-



BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 2650 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 83.65 FT
BASE DISCHARGE	= 4200 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 84.84 FT
OVERTOPPING DISCHARGE	= 4200 CFS
OVERTOPPING FREQUENCY	= 100+ YRS
OVERTOPPING ELEVATION	= 84.95 FT
DATE OF SURVEY	= 12/21/04
W.S. ELEVATION	= 79.5'
AT DATE OF SURVEY	

FOR -L- PLAN VIEW  
SEE SHEET 4