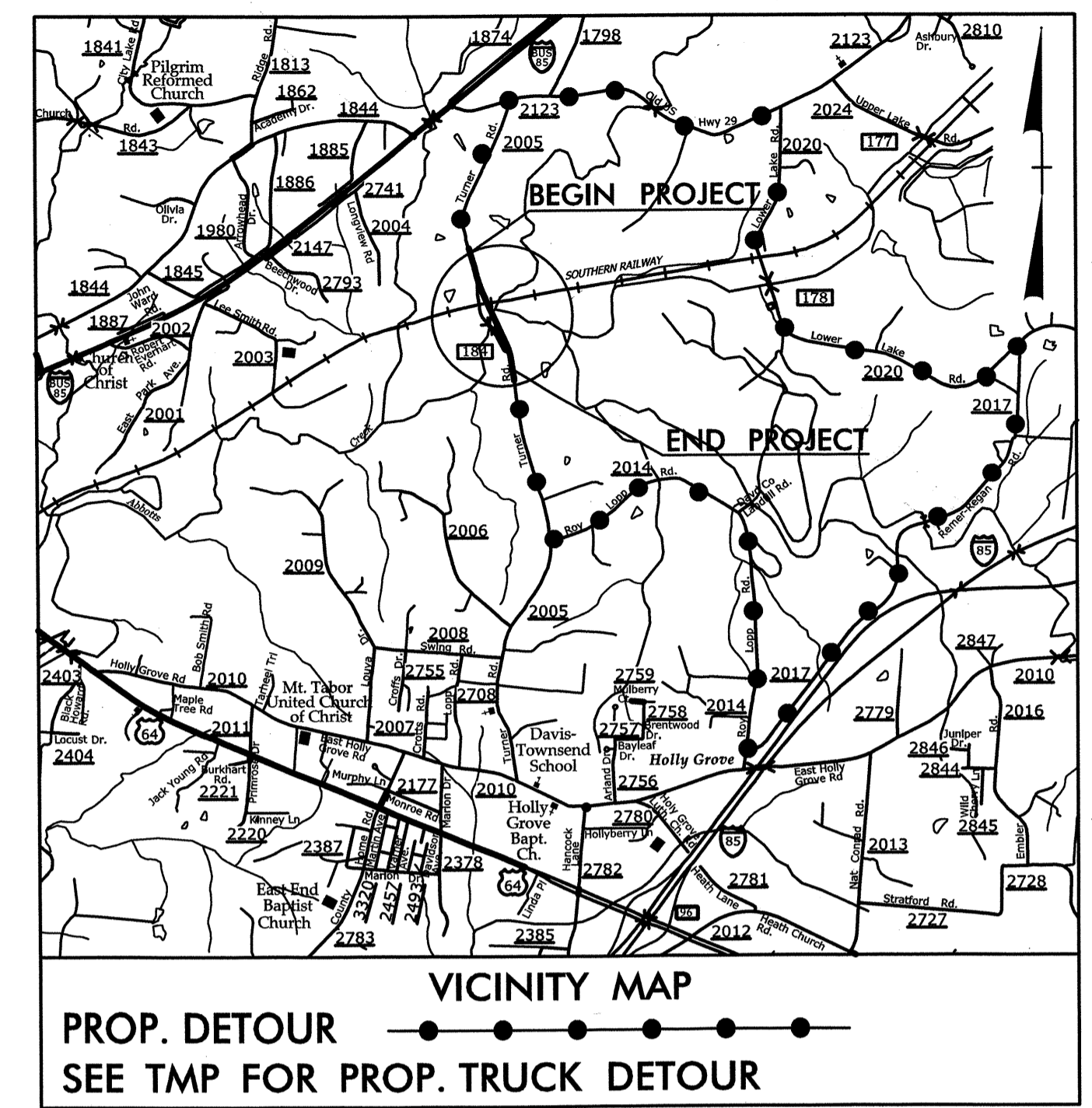


0271DEL\_P10c3

TIP PROJECT: C-4901C

CONTRACT: C203142

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



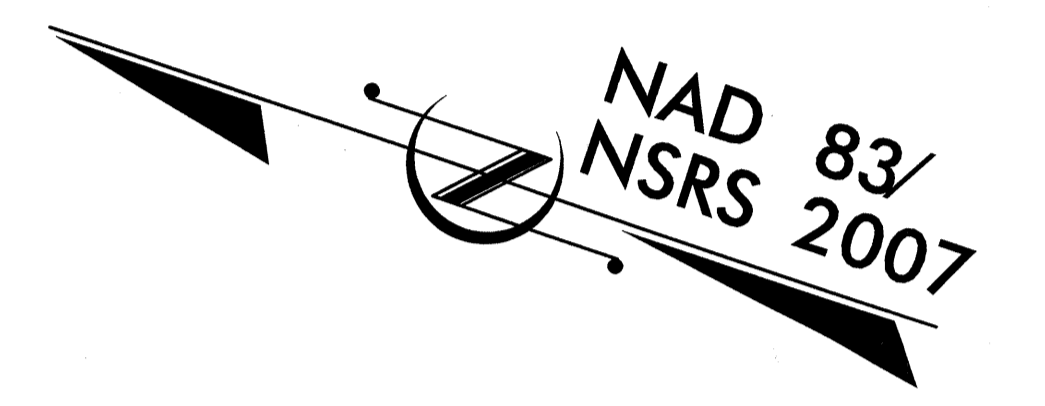
STATE OF NORTH CAROLINA  
RAIL DIVISION  
**DAVIDSON COUNTY**

**LOCATION: TURNER ROAD (SR 2005) GRADE SEPARATION OVER  
HAMBY CREEK AND NS/NCRR RAILROAD**

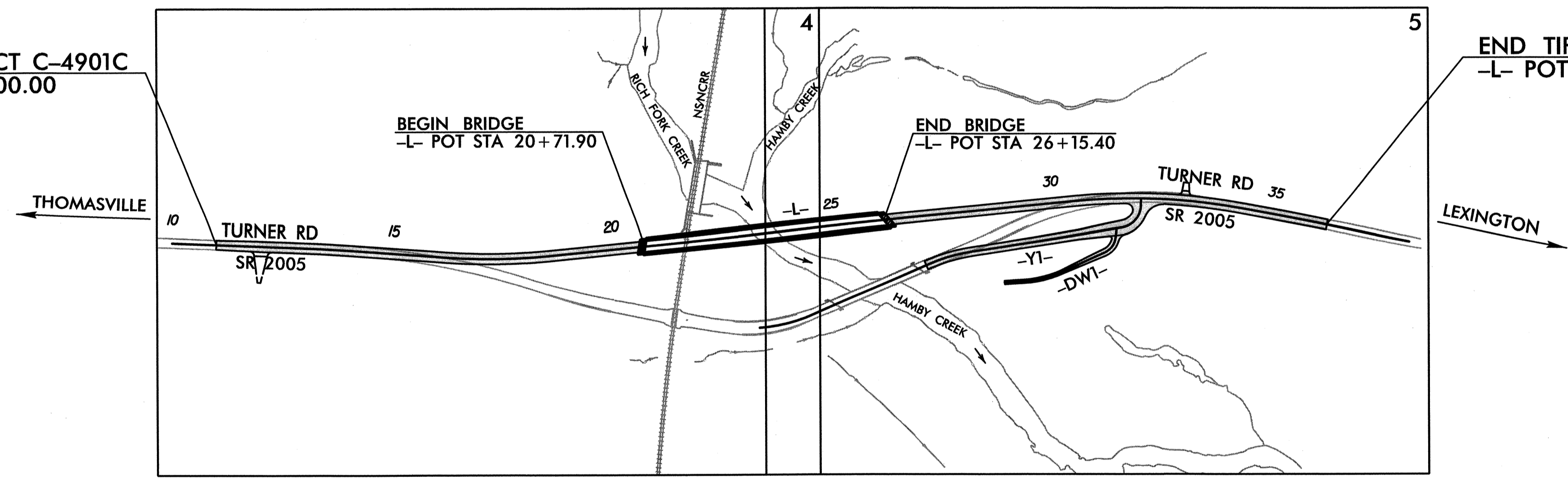
**TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND  
STRUCTURE**



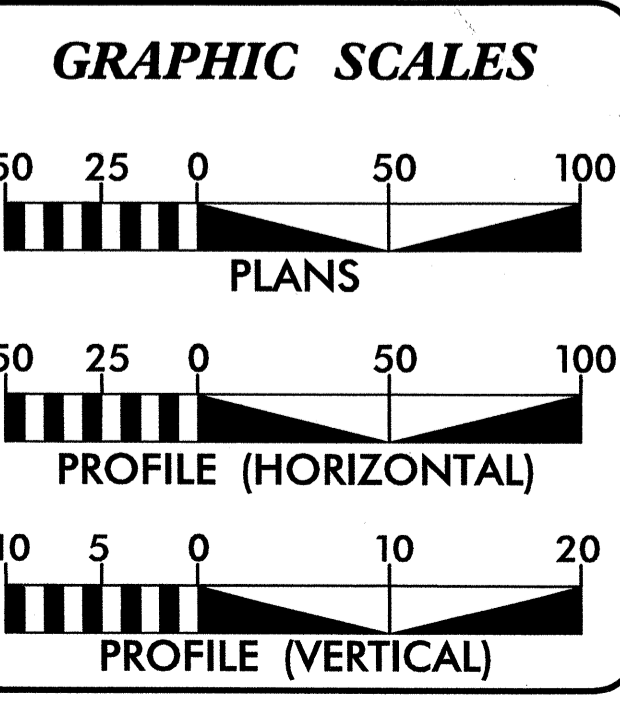
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	C-4901C	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49010.1.STR07T1B		PE, UTIL PE	
49010.1.STR08T3		PE, UTIL PE	
43219.2.STR02C4901		R/W	
49010.3.STR03T4E		UTIL CONST	
49010.3.STR03T4E	FRA-FR-HSR-0006-10-01-00	CONST	



BEGIN TIP PROJECT C-4901C  
-L- POT STA 11+00.00



END TIP PROJECT C-4901C  
-L- POT STA 36+25.00



**DESIGN DATA**

ADT 2013 =	1700
ADT 2033 =	2500
DHV =	9%
D =	60%
T =	15%*
V =	60 MPH
* TTST =	2% DUAL 13%
FUNC CLASS =	LOCAL
SUBREGIONAL TIER	

**PROJECT LENGTH**

LENGTH ROADWAY TIP PROJECT C-4901C	= =	0.375 MILES
LENGTH STRUCTURES TIP PROJECT C-4901C	= =	0.103 MILES
TOTAL LENGTH TIP PROJECT C-4901C	= =	0.478 MILES

**NCDOT CONTACT:** SANDRA STEPNEY, PE  
PROJECT ENGINEER

Prepared in the Office of:  
**AECOM**  
NC FIRM LICENSE No: F-0342  
701 Corporate Center Drive, Suite 475  
Raleigh, NC 27607  
(919) 854-6200 - (919) 854-6259(FAX)

FOR THE NORTH CAROLINA DEPT. OF TRANSPORTATION

2012 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:** APRIL 30, 2012

**LETTING DATE:** MARCH 19, 2013

**LEN HILL, PE**  
PROJECT ENGINEER

**CLAUDETTE M.K. ROQUE, PE**  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

SIGNATURE: *Len Hill* 1/3/13

**ROADWAY DESIGN ENGINEER**

SIGNATURE: *Claudette M.K. Roque* 1/3/13

NC DEPARTMENT OF TRANSPORTATION  
**RAIL DIVISION**

PLANNING AND DEVELOPMENT  
CAPITAL YARD  
104 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1044

9:48:35 AM  
R:\Roadway\Proj\C4901C\_rdy\_tsh.dgn  
roque

















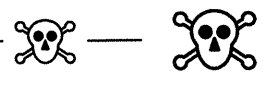
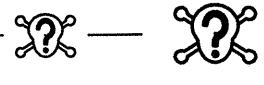
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS





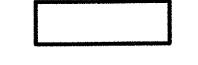
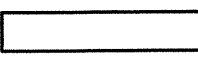
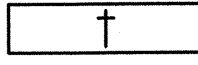
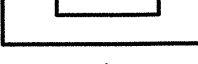

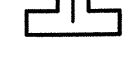

Note: Not to Scale

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

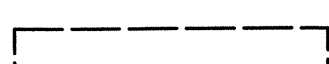







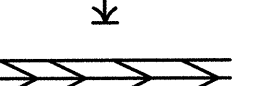
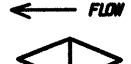
**BOUNDARIES AND PROPERTY:**

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	_____ 
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: Boundary or Site	_____ 
Potential Soil Contamination: Boundary or Site	_____ 


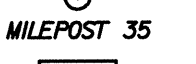



**BUILDINGS AND OTHER CULTURE:**

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





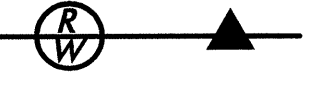
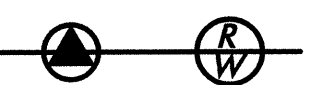










**HYDROLOGY:**

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	_____ 

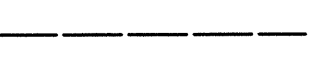
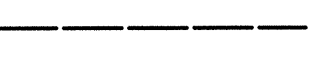




**RAILROADS:**

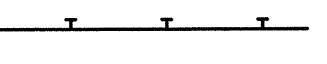
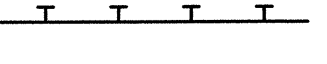
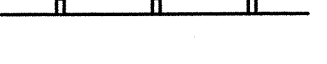


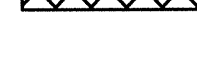
Standard Gauge	_____ 
RR Signal Milepost	_____ 
Switch	_____ 
RR Abandoned	_____ 
RR Dismantled	_____ 

**RIGHT OF WAY:**




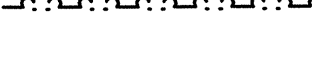
Baseline Control Point	_____ 
Existing Right of Way Marker	_____ 
Existing Right of Way Line	_____ 
Proposed Right of Way Line	_____ 
Proposed Right of Way Line with Iron Pin and Cap Marker	_____ 
Proposed Right of Way Line with Concrete or Granite Marker	_____ 
Existing Control of Access	_____ 
Proposed Control of Access	_____ 
Existing Easement Line	_____ 
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	_____ 



**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	_____ 
Existing Curb	_____ 
Proposed Slope Stakes Cut	_____ 
Proposed Slope Stakes Fill	_____ 
Proposed Curb Ramp	_____ 
Curb Cut Future Ramp	_____ 

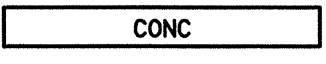
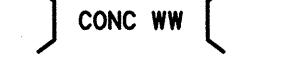
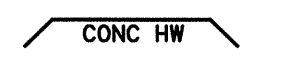
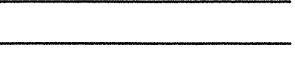
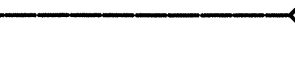

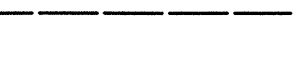


Existing Metal Guardrail	_____ 
Proposed Guardrail	_____ 
Existing Cable Guiderail	_____ 
Proposed Cable Guiderail	_____ 
Equality Symbol	_____ 
Pavement Removal	_____ 

**VEGETATION:**












Single Tree	_____ 
Single Shrub	_____ 
Hedge	_____ 
Woods Line	_____ 

Orchard	_____ 
Vineyard	_____ 














**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	_____ 
Recorded U/G Power Line	_____ 
Designated U/G Power Line (S.U.E.*)	_____ 









**TELEPHONE:**

Existing Telephone Pole	_____ 
Proposed Telephone Pole	_____ 
Telephone Manhole	_____ 
Telephone Booth	_____ 
Telephone Pedestal	_____ 
Telephone Cell Tower	_____ 
U/G Telephone Cable Hand Hole	_____ 
Recorded U/G Telephone Cable	_____ 
Designated U/G Telephone Cable (S.U.E.*)	_____ 
Recorded U/G Telephone Conduit	_____ 
Designated U/G Telephone Conduit (S.U.E.*)	_____ 
Recorded U/G Fiber Optics Cable	_____ 
Designated U/G Fiber Optics Cable (S.U.E.*)	_____ 






**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	_____ 







**TV:**

TV Satellite Dish	_____ 
TV Pedestal	_____ 
TV Tower	_____ 
U/G TV Cable Hand Hole	_____ 
Recorded U/G TV Cable	_____ 
Designated U/G TV Cable (S.U.E.*)	_____ 
Recorded U/G Fiber Optic Cable	_____ 
Designated U/G Fiber Optic Cable (S.U.E.*)	_____ 













**GAS:**

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

**SANITARY SEWER:**

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

**MISCELLANEOUS:**

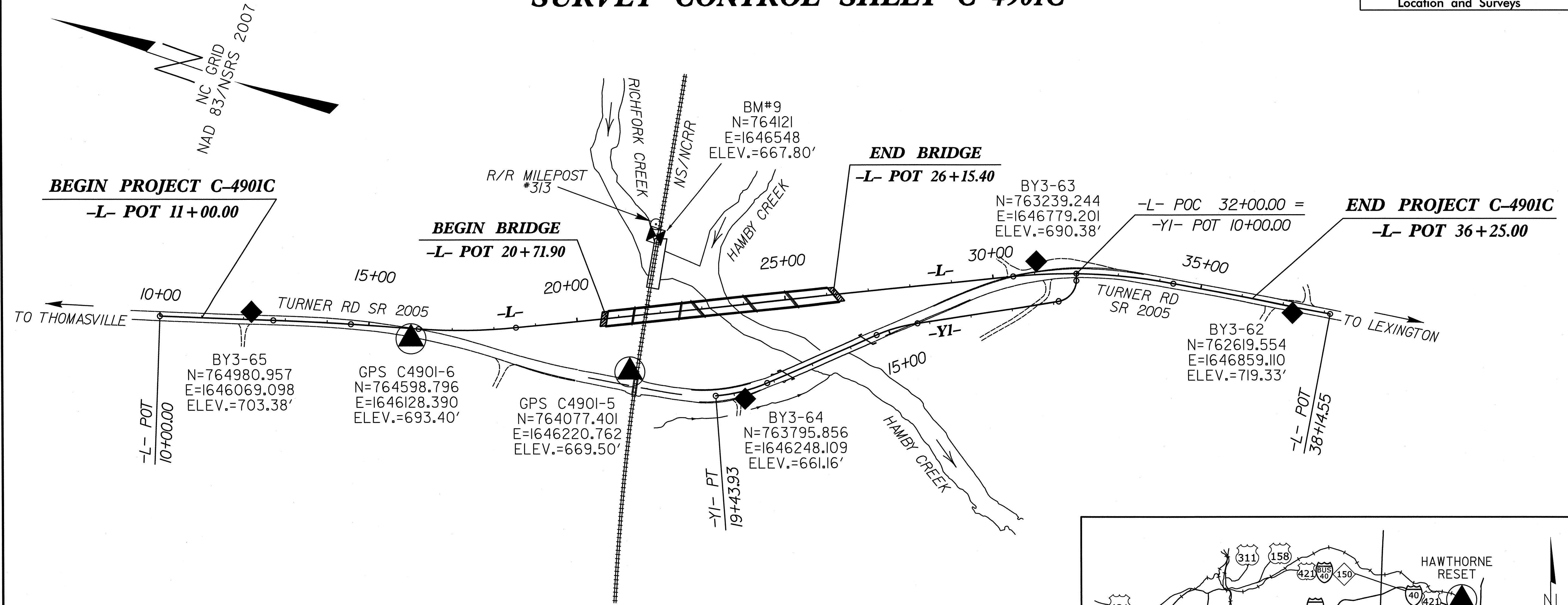
Utility Pole	_____ 
Utility Pole with Base	_____ 
Utility Located Object	_____ 
Utility Traffic Signal Box	_____ 
Utility Unknown U/G Line	_____ 
U/G Tank; Water, Gas, Oil	_____ 
Underground Storage Tank, Approx. Loc.	_____ 
A/G Tank; Water, Gas, Oil	_____ 
Geoenvironmental Boring	_____ 
U/G Test Hole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

0271DEL\_P10c3

9:48:37 AM  
P:\Roadway\Proj\4901C\_rdy\_tsh.dgn  
pduqec

# SURVEY CONTROL SHEET C-4901C

PROJECT REFERENCE NO. C-4901C	SHEET NO. 1-C
Location and Surveys	

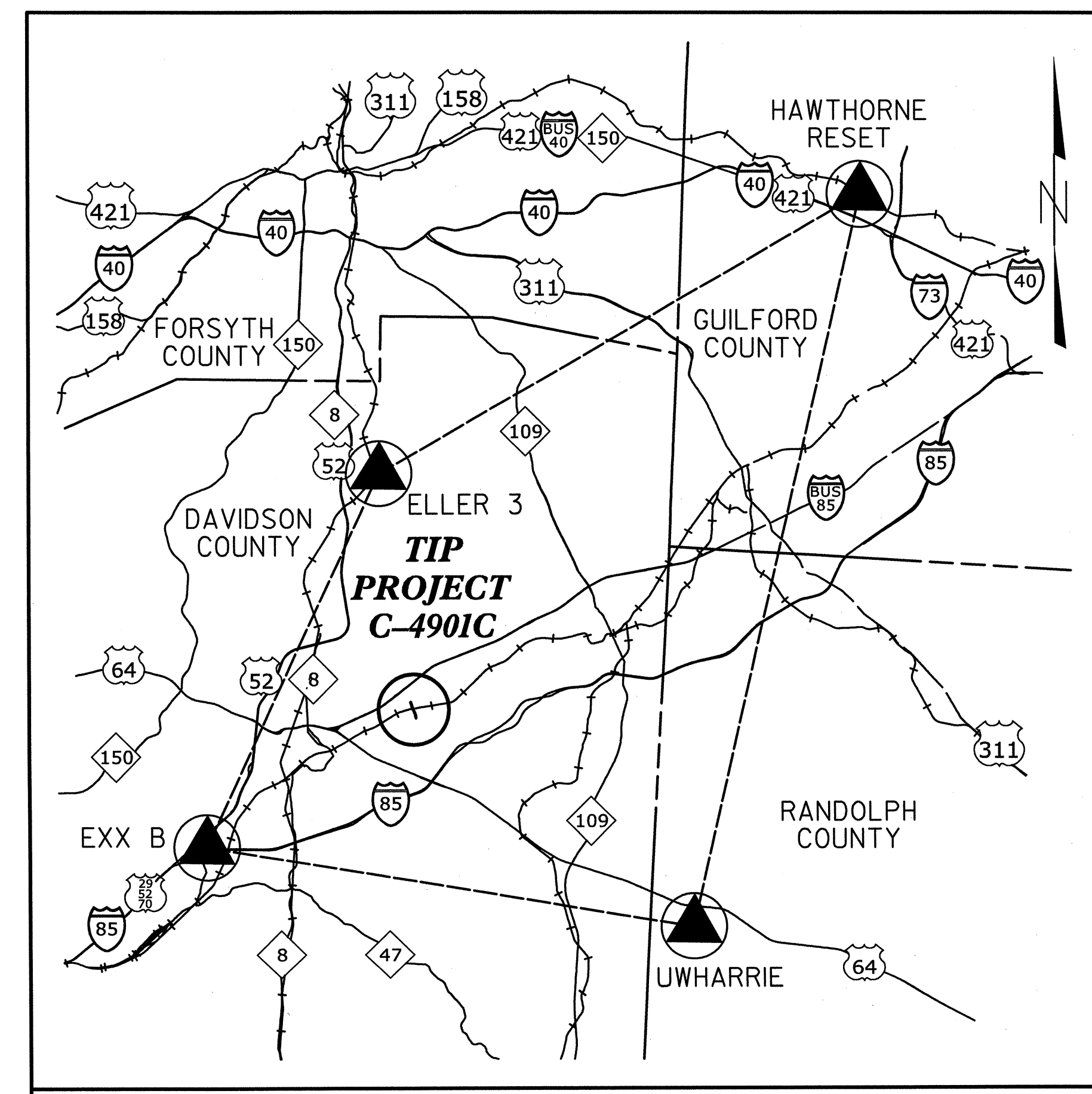


**NOTES:**

1. THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 83/NSRS 2007 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORK WITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.
  2. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/)  
THE FILES TO BE FOUND ARE AS FOLLOWS:  
C4901C-C4901\_LS\_GPSCALIB.HTML  
C4901C-C4901\_LS\_WGS84.TXT  
C4901C-C4901\_LS\_LOCAL.TXT  
C4901C\_LS\_CONTROL.TXT  
  
THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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 EXISTING HARN MONUMENTATION  
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "C4901-10" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF  
NORTHING: 763942.485(±) EASTING: 1652216.385(±)  
ELEVATION: 660.18(±)  
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99989917  
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "C4901-10" TO -L- STATION 10+00.00 IS  
N 78°42'53.2" W 6349.60'  
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
VERTICAL DATUM USED IS NAVD 88



**VICINITY MAP**

USER: rwwb  
DATE: 11/27/2012  
TIME: 9:40:07 AM  
JOB: F:\working\proj\C4901C\LS.dwg



# SURVEY CONTROL SHEET C-4901C

## GPS Calibration Report

Project : C4901Z  
 TIP Number C-4901  
 User name tbovender Date & Time 1:38:06 PM 3/5/2012  
 Coordinate System US State Plane 1983(at ground) Zone North Carolina 3200  
 Horizontal Datum NAD 1983 (Conus)  
 Vertical Datum NAVD 88 Geoid Model G03NC  
 Coordinate Units US survey feet  
 Distance Units US survey feet  
 Height Units US survey feet

Point GPS C4901-5  
 Latitude 35°50'36.79563"N  
 Longitude 80°11'37.39860"W  
 Height 566.843sft

Northing 764077.403sft  
 Easting 1646220.764sft  
 Elevation 669.496sft  
 Horz error 0.002sft  
 Vert error 0.000sft  
 3D error 0.002sft

Point 5  
 Northing 764077.401sft  
 Easting 1646220.762sft  
 Elevation 669.496sft  
 Utilized Horz and Vert  
 Quality Adjusted quality

### BENCHMARKS (NAVD 88)

\*\*\*\*\*  
 BM\*9 ELEVATION = 667.80'  
 N 764121 E 1646548  
 L STATION 22+08 184' LEFT  
 CHISELED SQUARE IN NE CORNER OF  
 HEADWALL OF RR BRIDGE. NEAR MILE  
 MARKER 313  
 \*\*\*\*\*

LOCAL SITE INFORMATION  
 Localized around  
 Latitude 35°50'36.16842"N  
 Longitude 80°10'24.56378"W  
 Site Scale Factor 1.0001008430  
 Height 557.829sft

Point GPS C4901-6  
 Latitude 35°50'41.94038"N  
 Longitude 80°11'38.59661"W  
 Height 590.719sft

Northing 764598.798sft  
 Easting 1646128.391sft  
 Elevation 693.401sft  
 Horz error 0.002sft  
 Vert error 0.000sft  
 3D error 0.002sft

Point 6  
 Northing 764598.796sft  
 Easting 1646128.390sft  
 Elevation 693.402sft  
 Utilized Horz and Vert  
 Quality Adjusted quality

The North Carolina Department of Transportation uses a Localized Coordinate System which is very similar to North Carolina Zone 3200 from which it is derived. Please take care in utilizing these coordinates to eliminate confusion of the two systems. This file is to aid in the use of Real Time Kinematic (RTK) GPS during construction layout.

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
43		BL-43	764194.7170	1647166.0590	668.73	23+96.41	777.72 LT
5		GPS C4901-5	764077.4010	1646220.7620	669.50	21+12.85	131.64 RT
44		BL-44	763816.9820	1645332.6740	666.86	19+83.25	1048.00 RT

### Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

### Horizontal Adjustment Parameters

Northing coordinate of rotation center 763951.961sft  
 Easting coordinate of rotation center 1647536.620sft  
 Rotation about the center point 0°00'00"  
 Translation north -0.001sft  
 Translation east -0.001sft  
 Scale factor 0.99999974

BY3	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
62		BY3-62	762619.5540	1646859.1100	719.33	37+25.75	14.19 RT
63		BY3-63	763239.2442	1646779.2012	690.38	31+05.46	32.05 LT
64		BY3-64	763795.8560	1646248.1087	661.16	23+80.56	223.01 RT
5		GPS C4901-5	764077.4010	1646220.7620	669.50	21+12.85	131.64 RT
6		GPS C4901-6	764598.7960	1646128.3900	693.40	16+02.62	24.15 RT
65		BY3-65	764980.9570	1646069.0980	703.38	12+18.28	18.44 LT

### Vertical Adjustment Parameters

Northing coordinate of origin point 767526.072sft  
 Easting coordinate of origin point 1654657.452sft  
 Vertical separation at origin 0.084sft  
 Slope north -0.086ppm  
 Slope east 1.335ppm

### Geoid Model Definition

G03NC

### Residual Differences Between GPS (WGS84) And Local Coordinates

#### Summary

	Maximum error	Root Mean Square error	Point
Horizontal	0.004sft	0.001	3_GPS
Vertical	0.002sft	0.000	9_GPS
Three-dimensional	0.004sft	0.001	3_GPS

### Datum Transformation Parameters

Datum Transformation computation not requested

## DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "C4901-10" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 763942.485(++) EASTING: 1652216.385(++) ELEVATION: 660.18(++)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99989917

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "C4901-10" TO -L- STATION 10+00.0 IS  
 N 78°42'53.2" W 6349.60'

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

### NOTES:

1. THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 83/NSRS 2007 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORK WITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.

2. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doh/preconstruct/highway/location/project/)

THE FILES TO BE FOUND ARE AS FOLLOWS:

- C4901C-C4901\_LS\_GPSCALIB.HTML
- C4901C-C4901\_LS\_WGS84.TXT
- C4901C-C4901\_LS\_LOCAL.TXT
- C4901C\_LS\_CONTROL.TXT

THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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 EXISTING HARN MONUMENTATION

SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

# SURVEY CONTROL SHEET C-4901C

## FINAL

PROJECT REFERENCE NO.	SHEET NO.
C-4901C	1-E
Location and Surveys	

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+00.00	29.78	765080.7183	1645989.3296
L	11+00.00	-30.22	765097.7235	1646046.8694
L	11+50.00	-50.00	765055.3810	1646080.0138
L	11+50.00	50.00	765027.0391	1645984.1141
L	12+71.33	-50.00	764939.0305	1646114.3996
L	12+71.33	50.00	764910.6886	1646018.5000
L	14+57.16	-50.00	764758.0855	1646164.2316
L	14+57.16	50.00	764733.3338	1646067.3433
L	16+19.16	-50.00	764601.1264	1646204.3294
L	16+19.16	50.00	764576.3747	1646107.4410
L	17+00.00	56.56	764493.7755	1646124.4158
L	18+52.74	-50.00	764389.3120	1646278.7628
L	20+00.00	-110.00	764279.9752	1646394.2256
L	20+75.00	-130.00	764219.9302	1646443.4150
L	21+40.00	-111.15	764152.9487	1646453.0949
L	23+30.48	-50.00	763954.2170	1646476.0686
L	24+35.00	-50.00	763859.0268	1646519.2353
L	26+00.00	-125.00	763739.7307	1646655.6847
L	27+50.00	-75.00	763582.4710	1646672.0976
L	29+00.00	-50.00	763435.5362	1646711.2788
L	30+48.31	-50.00	763300.4636	1646772.5312
L	32+60.00	36.44	763071.2939	1646763.5914
L	34+33.06	-50.00	762918.2549	1646882.8922
L	36+25.00	-40.07	762726.7541	1646899.1689
L	36+25.00	-50.00	762728.1003	1646909.0023

L (TURNER ROAD)

TYPE	STATION	NORTH	EAST
POT	10+00.00	765185.0595	1645989.5512
PC	12+71.33	764924.8595	1646066.4498
PT	14+57.16	764745.7097	1646115.7874
PC	16+19.16	764588.7505	1646155.8852
PT	18+52.74	764368.6622	1646233.2262
PC	30+48.31	763279.8138	1646726.9946
PT	34+33.06	762911.4532	1646833.3569
POT	38+14.55	762533.5069	1646885.2529

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	763138.3973	1646781.6361
PC	10+17.00	763133.1840	1646765.4552
PT	10+87.26	763157.8105	1646705.7074
PC	14+29.16	763461.5125	1646548.6798
PT	15+31.20	763545.2244	1646490.8258
PC	18+16.47	763757.3677	1646300.1032
PT	19+43.93	763864.5440	1646232.2252

ROW MARKER CONCRETE OR GRANITE-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	10+75.00	-45.00	763117.9558	1646678.8563
Y1	12+81.42	-50.35	763307.1524	1646571.8077

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+38.00	66.00	765034.0124	1645965.3692
L	12+71.33	66.00	764906.1539	1646003.1560
L	14+57.16	66.00	764729.3735	1646051.8411
L	16+19.16	66.00	764572.4144	1646091.9389
L	17+40.00	78.00	764447.1014	1646117.5612
L	17+68.00	76.57	764419.7776	1646129.1013

### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "C4901-10" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 763942.485(±) EASTING: 1652216.385(±) ELEVATION: 660.18(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99989917

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "C4901-10" TO -L- STATION 10+00.0 IS  
N 78° 42' 53.2" W 6349.60'

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

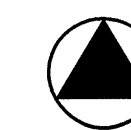
**NOTES:**

1. THE SITE CALIBRATION SHOWN IS BASED UPON A NETWORK TIED TO THE HARN (HIGH ACCURACY REFERENCE NETWORK) NAD 83/NSRS 2007 ADJUSTMENT. THIS CALIBRATION WILL ALLOW THE END USER TO WORK WITHIN THE SAME COORDINATE SYSTEM WHEN USING RTK (REAL TIME KINEMATIC) GPS AND A LOCAL BASE STATION. IF ANOTHER SYSTEM SUCH AS VRS (VIRTUAL REFERENCE STATION) IS USED, ADDITIONAL FIELD TIES MAY BE NEEDED TO REDUCE POSSIBLE ERRORS, OR BIASES.

2. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:  
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doh/preconstruct/highway/location/project/)

THE FILES TO BE FOUND ARE AS FOLLOWS:  
C4901C-C4901\_LS\_GPSCALIB.HTML  
C4901C-C4901\_LS\_WGS84.TXT  
C4901C-C4901\_LS\_LOCAL.TXT  
C4901C\_LS\_CONTROL.TXT

THE WGS84 AND LOCAL FILES ARE COMMA DELIMITED AND CAN BE USED TO REPRODUCE THE SITE CALIBRATION FOR THE END USER'S GPS EQUIPMENT. 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 EXISTING HARN MONUMENTATION  
SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

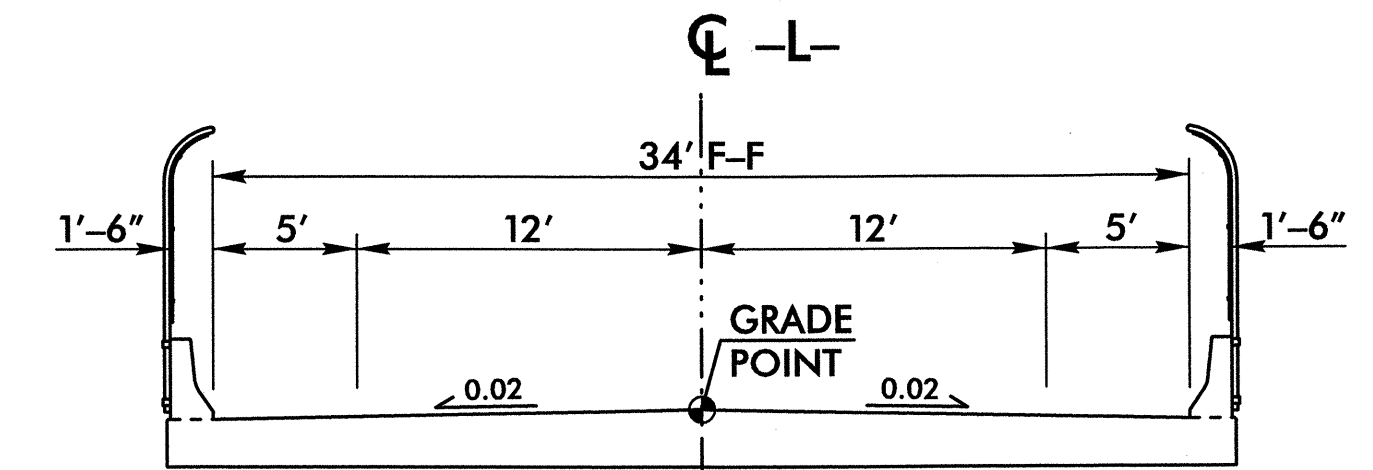




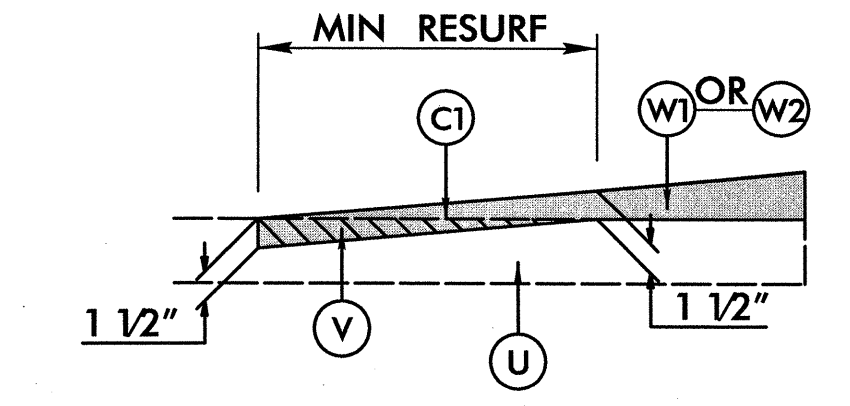
0271DEL\_P10c3

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 2 1/2" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
R1	SHOULDER BERM GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILL EXISTING PAVEMENT.
W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL ON THIS SHEET)
W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL ON THIS SHEET)

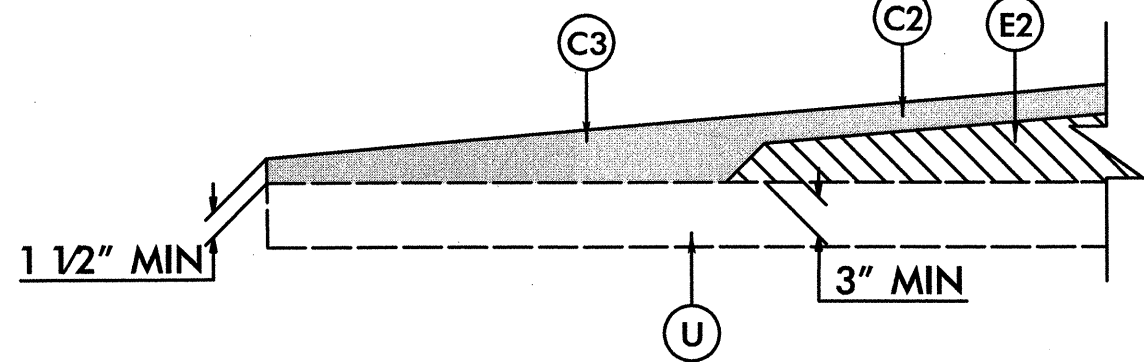
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



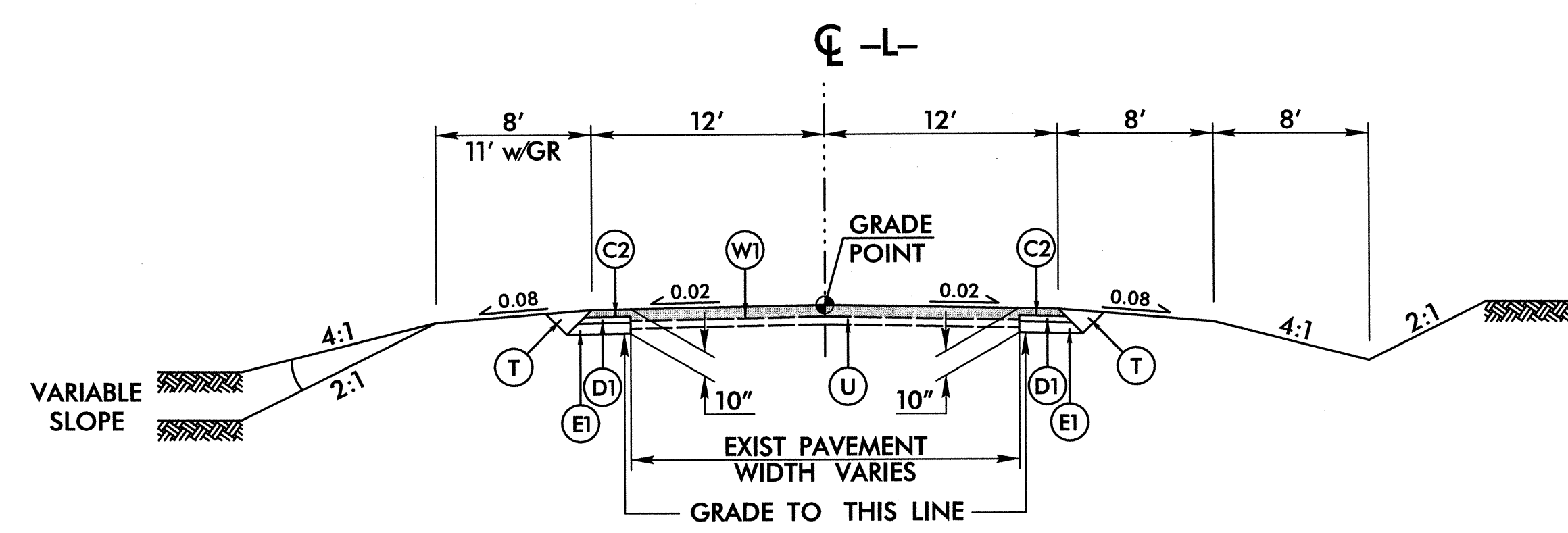
**BRIDGE TYPICAL SECTION**  
FOR BRIDGE OVER NORFOLK SOUTHERN RAILROAD  
**USE BRIDGE TYPICAL SECTION**  
-L- STA 20+71.90 (BEG BRIDGE) TO STA 26+15.40 (END BRIDGE)



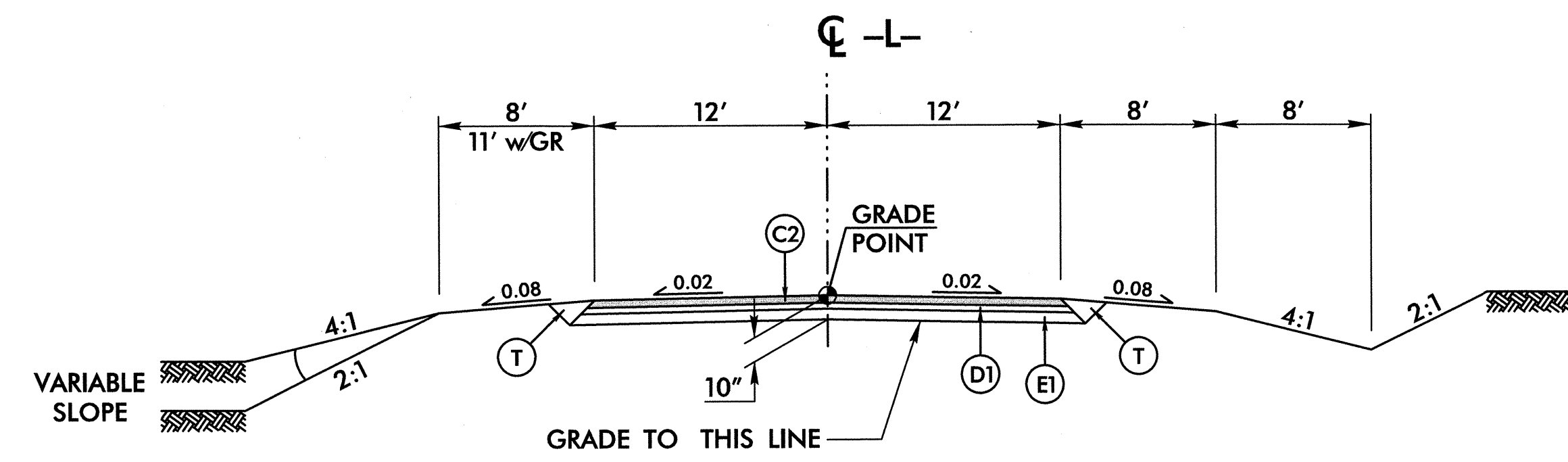
**VAR. DEPTH MILLING DETAIL**  
USE IN CONJUNCTION WITH TYPICAL SECTION NOS. 1 AND 4  
-L- STA 11+00.00 TO STA 11+65.00  
-L- STA 35+65.00 TO STA 36+25.00  
-Y1- STA 14+35.00 TO STA 15+40.00  
AND OTHER AREAS AS DIRECTED BY ENGINEER



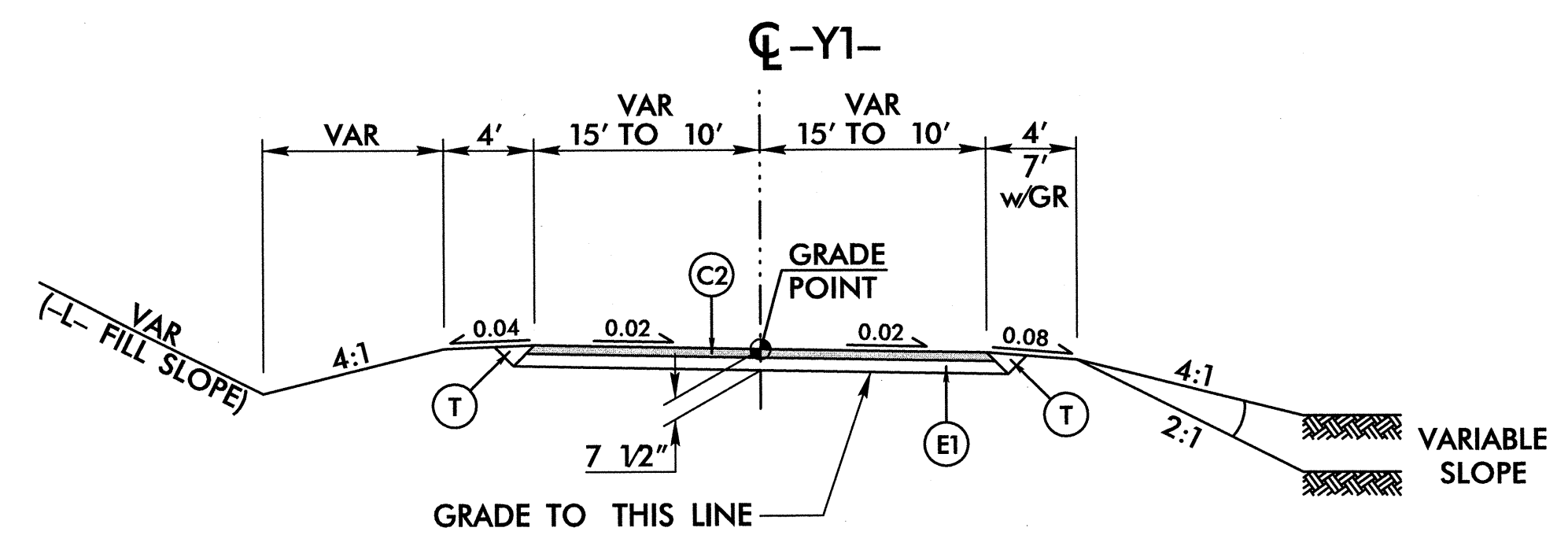
**WEDGING DETAIL 2 FOR RESURFACING**  
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 4



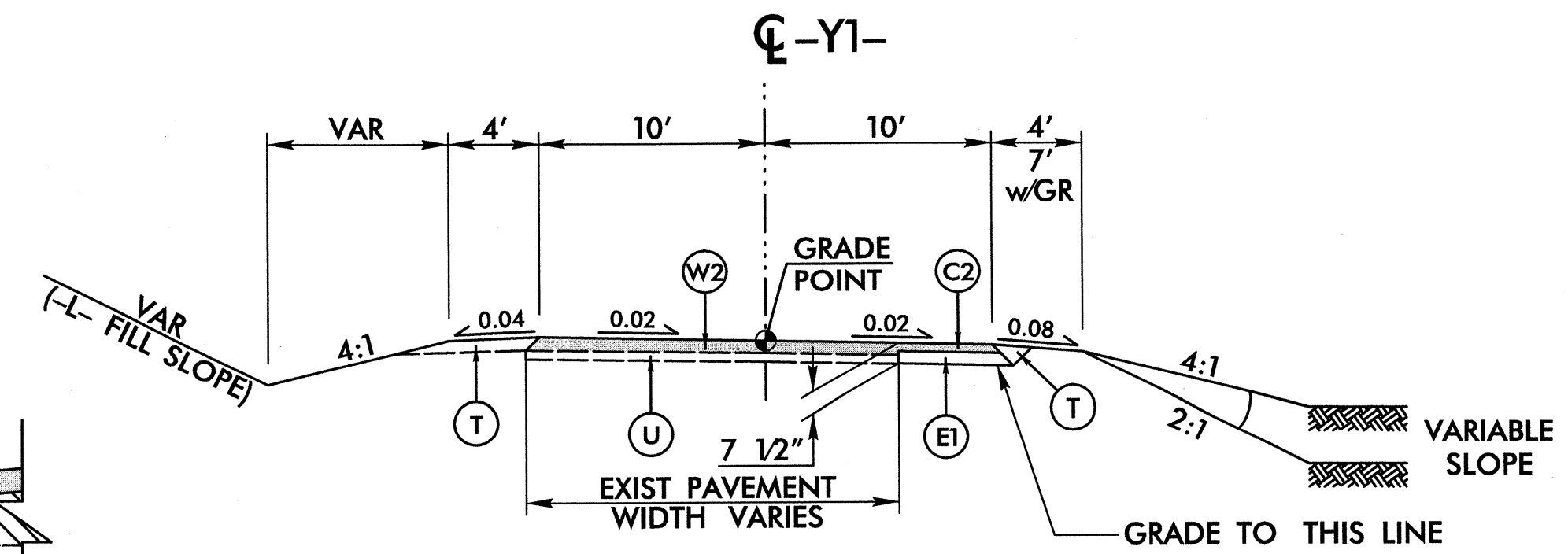
**TYPICAL SECTION NO. 1**  
-L- (TURNER ROAD)



**TYPICAL SECTION NO. 2**  
-L- (TURNER ROAD)

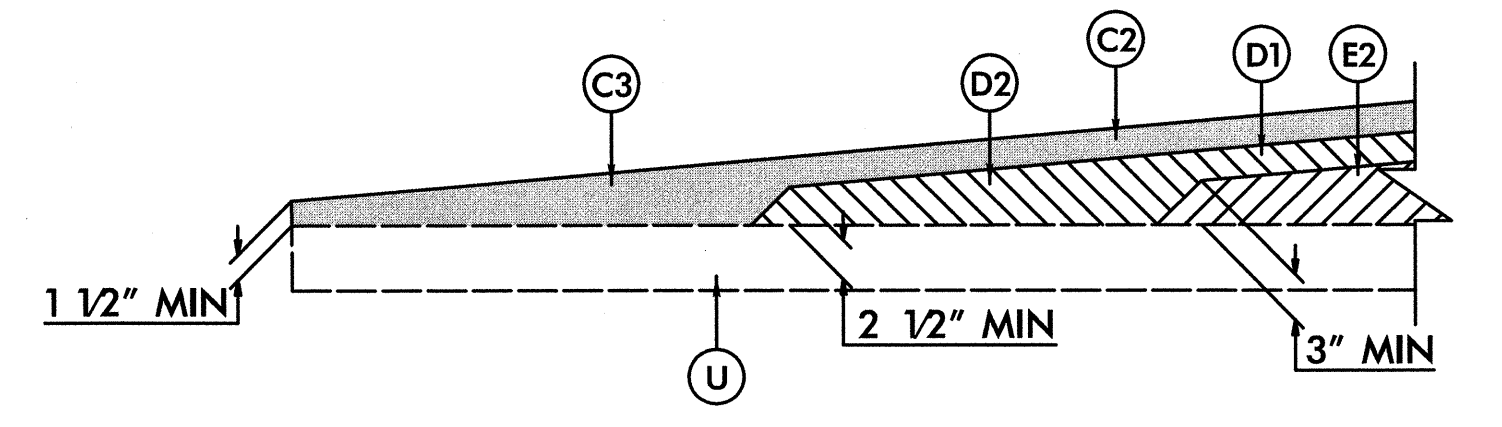


**TYPICAL SECTION NO. 3**  
-Y1- (SERVICE ROAD)



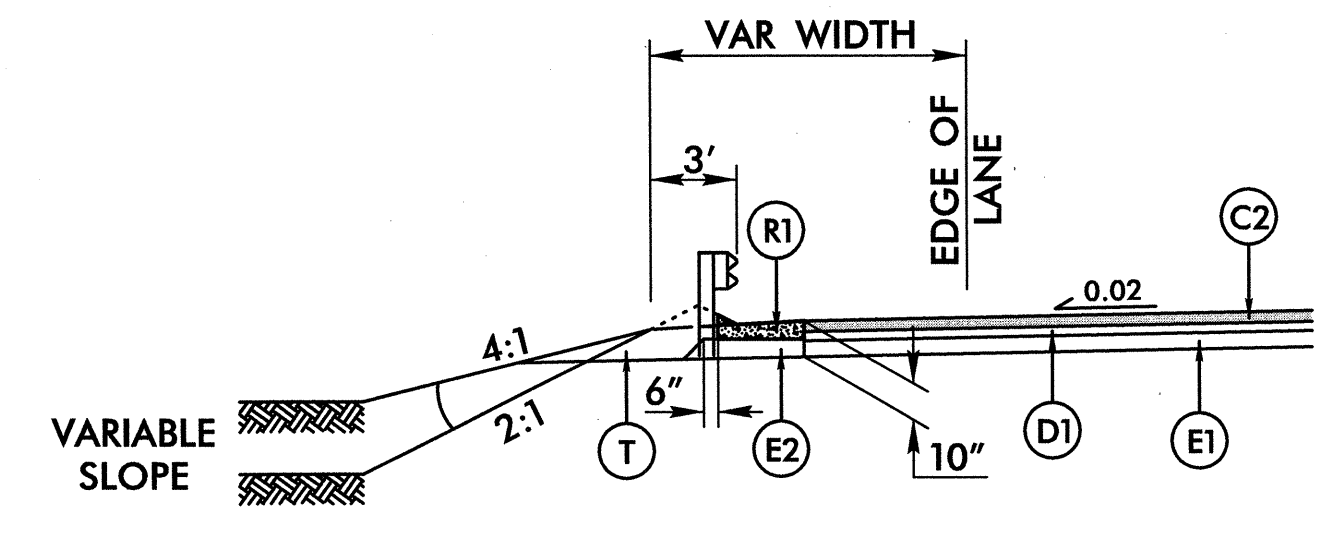
**TYPICAL SECTION NO. 4**  
-Y1- (SERVICE ROAD)  
**USE TYPICAL SECTION NO. 4**  
-Y1- STA 14+25.00 TO STA 15+40.00

**USE TYPICAL SECTION NO. 1**  
-L- STA 11+00.00 TO STA 15+00.00  
-L- STA 33+00.00 TO STA 36+25.00



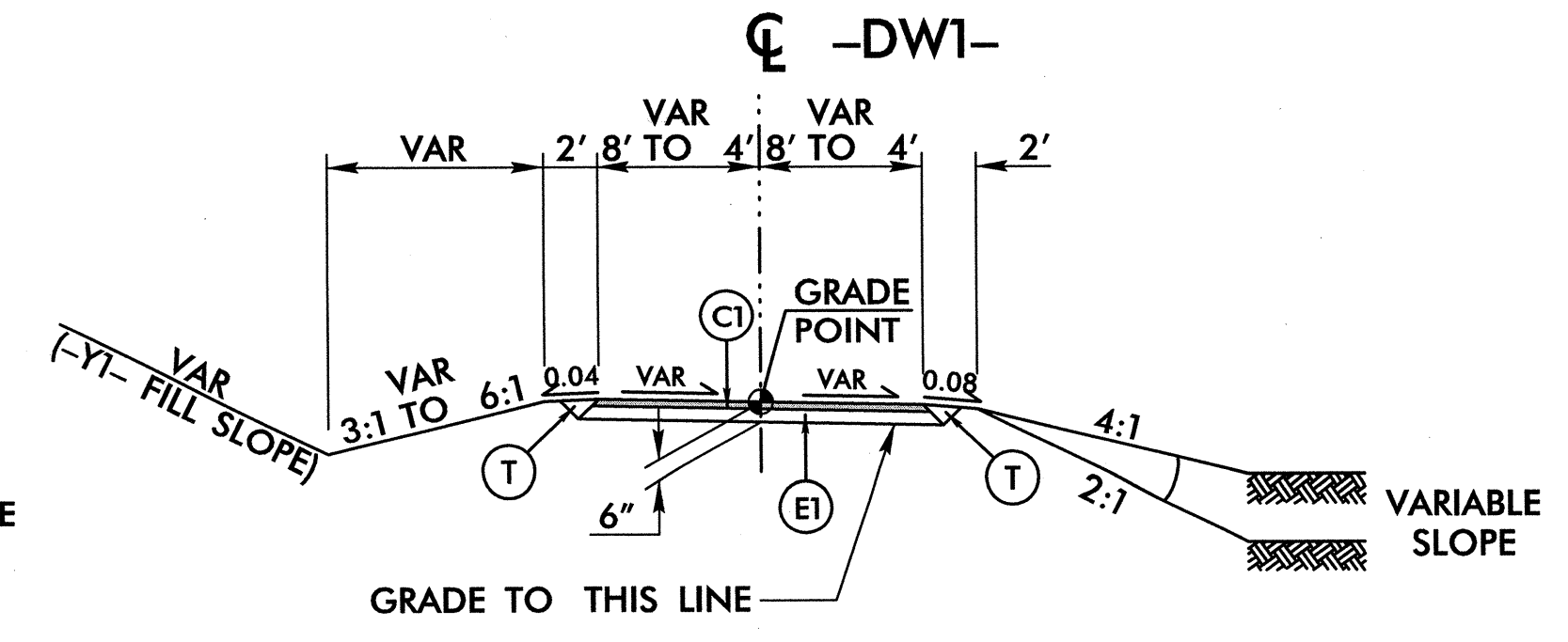
**WEDGING DETAIL 1 FOR RESURFACING**  
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1

**USE TYPICAL SECTION NO. 2**  
-L- STA 15+00.00 TO STA 20+71.90 (BEG BRIDGE)  
-L- STA 26+15.40 (END BRIDGE) TO STA 33+00.00



**DETAIL FOR SHOULDER BERM GUTTER**  
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 2  
-L- STA 26+17.28 TO STA 29+00.00 LT  
-L- STA 26+41.08 TO STA 30+50.00 RT

**USE TYPICAL SECTION NO. 3**  
-Y1- STA 10+36.13 TO STA 14+25.00



**TYPICAL SECTION NO. 5**  
-DW1- (DRIVEWAY FOR PARCEL 5)  
**USE TYPICAL SECTION NO. 5**  
-DW1- STA 10+25.21 TO STA 13+01.97

PROJECT REFERENCE NO. C-4901C	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 17306	PAVEMENT DESIGN ENGINEER SEAL 22896
Prepared in the Office of: <b>AECOM</b>	

USER: rrowe  
DATE: 11/29/2012  
TIME: 9:04:44 AM  
DIR: r:\working\proj\c4901c\_r1\jrowe.dgn



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

DCN 0271DEL\_P10c3

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203142				
ItemNumber	Sec #	Quantity	Unit	Description
000010000-N	800	Lump Sum		MOBILIZATION
000040000-N	801	Lump Sum		CONSTRUCTION SURVEYING
002900000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (21+64.67-L-)
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB- BING
005700000-E	226	2,800	CY	UNDERCUT EXCAVATION
006300000-N	SP	Lump Sum		GRADING
010600000-E	230	103,500	CY	BORROW EXCAVATION
013400000-E	240	45	CY	DRAINAGE DITCH EXCAVATION
019200000-N	260	2	HR	PROOF ROLLING
019500000-E	265	500	CY	SELECT GRANULAR MATERIAL
019600000-E	270	600	SY	GEOTEXTILE FOR SOIL STABILIZA- TION
031800000-E	300	196	TON	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES
032000000-E	300	140	SY	FOUNDATION CONDITIONING GEO- TEXTILE
033520000-E	305	130	LF	15" DRAINAGE PIPE
033585000-E	305	4	EA	*** DRAINAGE PIPE ELBOWS (15")
034300000-E	310	40	LF	15" SIDE DRAIN PIPE
034400000-E	310	32	LF	18" SIDE DRAIN PIPE
037200000-E	310	144	LF	18" RC PIPE CULVERTS, CLASS III
044820000-E	310	72	LF	15" RC PIPE CULVERTS, CLASS IV
099500000-E	340	50	LF	PIPE REMOVAL
122000000-E	545	135	TON	INCIDENTAL STONE BASE
130800000-E	607	450	SY	MILLING ASPHALT PAVEMENT, **** TO ***** (0" TO 1-1/2")
148900000-E	610	1,735	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
149800000-E	610	705	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
151900000-E	610	1,220	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
157500000-E	620	185	TON	ASPHALT BINDER FOR PLANT MIX
169300000-E	654	26	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
200000000-N	806	27	EA	RIGHT OF WAY MARKERS
228600000-N	840	4	EA	MASONRY DRAINAGE STRUCTURES
236700000-N	840	4	EA	FRAME WITH TWO GRATES, STD 840.29
255600000-E	846	700	LF	SHOULDER BERM GUTTER
303000000-E	862	2,300	LF	STEEL BM GUARDRAIL
310500000-N	862	3	EA	STEEL BM GUARDRAIL TERMINAL SECTIONS
315000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS
327000000-N	SP	6	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
331700000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
336000000-E	863	1,100	LF	REMOVE EXISTING GUARDRAIL
355900000-E	866	1,600	LF	** STRAND BARBED WIRE FENCE WITH POSTS (5)
356400000-E	866	1	EA	SINGLE GATES, *** HIGH, ** WIDE, ** OPENING (59", 14.833', 14')
364900000-E	876	600	TON	RIP RAP, CLASS B
365600000-E	876	2,050	SY	GEOTEXTILE FOR DRAINAGE
402500000-E	901	19.25	SF	CONTRACTOR FURNISHED, TYPE *** SIGN (E)
407200000-E	903	25	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
407800000-E	903	3	EA	SUPPORTS, 2-LB STEEL U-CHANNEL
410200000-N	904	5	EA	SIGN ERECTION, TYPE E
439900000-N	1105	Lump Sum		TEMPORARY TRAFFIC CONTROL
468500000-E	1205	4,931	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)

ItemNumber	Sec #	Quantity	Unit	Description
468600000-E	1205	5,008	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
477000000-E	1205	2,173	LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (I)
532620000-E	1510	2,290	LF	12" WATER LINE
532660000-E	1510	845	LF	16" WATER LINE
555800000-E	1515	2	EA	12" VALVE
555860000-E	1515	1	EA	16" VALVE
564800000-N	1515	2	EA	RELOCATE WATER METER
580400000-E	1530	2,035	LF	ABANDON 12" UTILITY PIPE
581000000-E	1530	795	LF	ABANDON 16" UTILITY PIPE
583600000-E	1540	200	LF	24" ENCASMENT PIPE
583620000-E	1540	200	LF	30" ENCASMENT PIPE
587220000-E	1550	100	LF	TRENCHLESS INSTALLATION OF 24" IN SOIL
587221000-E	1550	100	LF	TRENCHLESS INSTALLATION OF 24" NOT IN SOIL
587230000-E	1550	100	LF	TRENCHLESS INSTALLATION OF 30" IN SOIL
587231000-E	1550	100	LF	TRENCHLESS INSTALLATION OF 30" NOT IN SOIL
600000000-E	1605	6,000	LF	TEMPORARY SILT FENCE
600600000-E	1610	200	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	2,350	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	1,200	TON	SEDIMENT CONTROL STONE
601500000-E	1615	10	ACR	TEMPORARY MULCHING
601800000-E	1620	300	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	2.25	TON	FERTILIZER FOR TEMPORARY SEED- ING
602400000-E	1622	700	LF	TEMPORARY SLOPE DRAINS
602900000-E	SP	400	LF	SAFETY FENCE
603000000-E	1630	1,900	CY	SILT EXCAVATION
603600000-E	1631	10,100	SY	MATTING FOR EROSION CONTROL
603700000-E	SP	100	SY	COIR FIBER MAT
603800000-E	SP	625	SY	PERMANENT SOIL REINFORCEMENT MAT
604200000-E	1632	450	LF	1/4" HARDWARE CLOTH
607000000-N	1639	4	EA	SPECIAL STILLING BASINS
607101200-E	SP	600	LF	COIR FIBER WATTLE
607102000-E	SP	200	LB	POLYACRYLAMIDE (PAM)
607103000-E	1640	700	LF	COIR FIBER BAFFLE
607105000-E	SP	3	EA	*** SKIMMER (1-1/2")
608400000-E	1660	10	ACR	SEEDING & MULCHING
608700000-E	1660	5	ACR	MOWING
609000000-E	1661	150	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.75	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	375	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	11	TON	FERTILIZER TOPDRESSING
611450000-N	1667	10	MHR	SPECIALIZED HAND MOWING
611700000-N	SP	25	EA	RESPONSE FOR EROSION CONTROL

USER: rroane  
DATE: 11/21/2012  
TIME: 9:46:45 AM  
JOB: rroane\p10c3\del\_p10c3.dgn





0271DEL\_P10c3

COMPUTED BY: CMKR DATE: 1/2/2013  
 CHECKED BY: jmkd DATE: 1/2/2013

PROJECT NO. SHEET NO.  
 C-4901C 3-B

**STATE OF NORTH CAROLINA  
 DIVISION OF HIGHWAYS**

**SUMMARY OF EARTHWORK**

LINE	Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
L	11+00.00	21+50.00	1681	28070	26389	0
<b>SUBTOTAL</b>			<b>1681</b>	<b>28070</b>	<b>26389</b>	<b>0</b>
L	25+15.00	36+25.00	457	54865	54408	0
Y1	27+00.00	31+75.00	62	13417	13355	0
DW1	28+73.04	31+02.31	3	4278	4275	0
(Based on -L- Stationing)						
<b>SUBTOTAL</b>			<b>522</b>	<b>72560</b>	<b>72038</b>	<b>0</b>
<b>TOTAL</b>			<b>2203</b>	<b>100630</b>	<b>98427</b>	<b>0</b>
<b>ADJUSTMENTS DUE TO</b>						
Est. Loss Due To Clearing And Grubbing			0		0	
Shoulder Material				0	0	
Rock Waste To Replace Borrow						
Adjust For Rock Swell That Replaces Borrow						
Eliminate Shrinkage For Mat'l That Is Now Rock						
Earth Waste to Replace Borrow					0	0
<b>PROJECT TOTAL</b>			<b>2203</b>	<b>100630</b>	<b>98427</b>	<b>0</b>
Est. 5% to Replace Topsoil in Borrow Pits					4921	
<b>GRAND TOTAL</b>			<b>2203</b>		<b>103348</b>	
<b>SAY</b>			<b>2300</b>		<b>103500</b>	
Est. Drainage Ditch Excav.			45	CY		
Select Granular Material			500	CY		
Estimate Undercut			2800	CY		

**SUMMARY OF EXISTING ASPHALT  
 PAVEMENT REMOVAL**

LINE	Station	Station	LOC LT/RT/CL	YD <sup>2</sup>
L	15+00.00	15+25.00	CL	58.33
L	17+00.00	18+18.00	RT	301.27
L	18+18.00	to RR ROW	RT	778.65
Y1	13+25.00	15+40.00	RT	317.31
Y1	19+43.93	to RR ROW	CL	174.73
<b>TOTAL:</b>				<b>1630.29</b>
<b>SAY:</b>				<b>1640</b>

**SUMMARY OF BREAKING  
 EXISTING ASPHALT PAVEMENT**

LINE	Station	Station	LOC LT/RT/CL	YD <sup>2</sup>
L	15+25.00	17+00.00	CL-RT	411.60
L	29+05.00	33+00.00	RT-CL	1049.67
<b>TOTAL:</b>				<b>1461.27</b>
<b>SAY:</b>				<b>1470</b>

**PARCEL INDEX**

PARCEL NO.	PLAN SHEET NO.	PROPERTY OWNER NAME
1C	4	RICHARD & CAMILLE LAWRENCE
2C	4	JOYCE METTERS & JOHN COPPLEY
3C	4 & 5	JOHN & LINDA BROWN
4C	4 & 5	BANKS & NONA EVERHART
5C	5	BANKS & NONA EVERHART
6C	5	RICHARD & NATCHA WHITE

**SUMMARY OF  
 BRIDGE WAITING PERIODS**

BRIDGE DESCRIPTION	END BENT/ BENT NO.	MONTHS
BRIDGE NO. 563 STA 21+64.67 -L-	END BENT 1	1
	END BENT 2	1

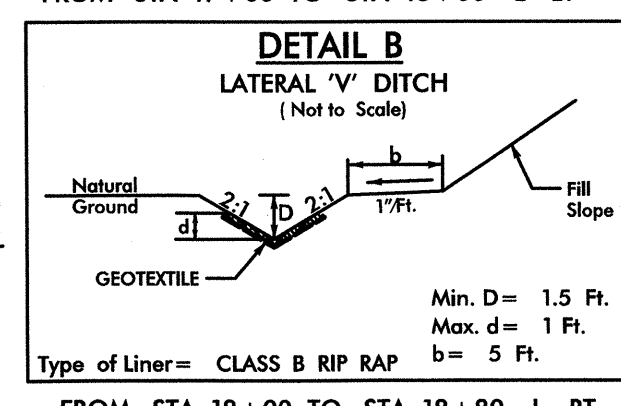
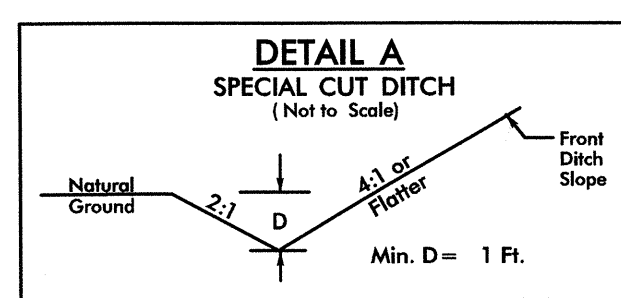
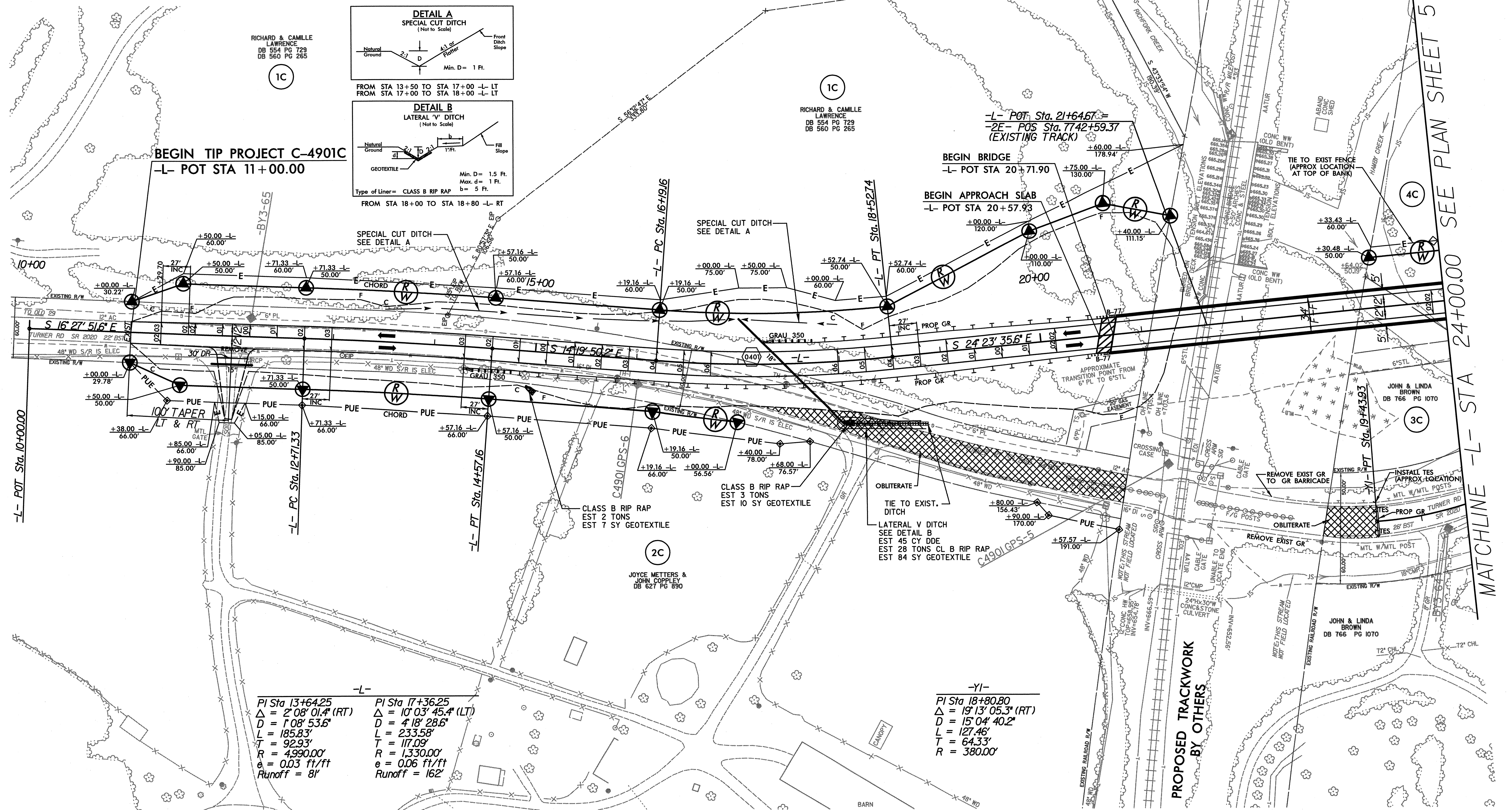
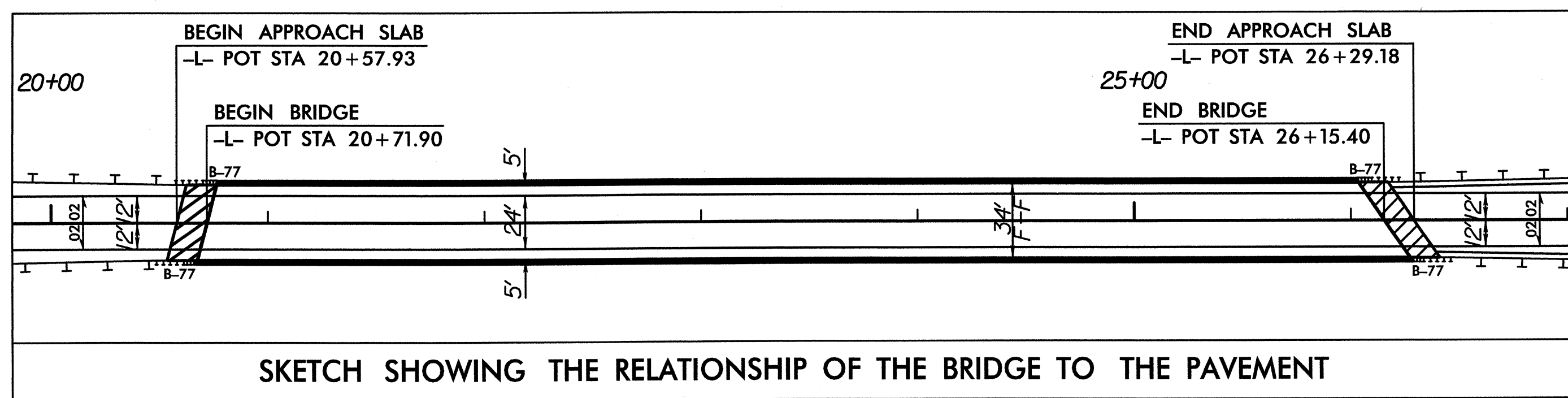
Approximate quantities only. Unclassified excavation, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the lump sum price for "Grading".

"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

**GUARDRAIL SUMMARY**

LINE	BEG. STA.	END STA.	LOC.	LENGTH			WARRANT POINT		"N" DIST FROM E.O.L.	TOTAL SHLDR WIDTH	FLARE LENGTH		W		ANCHORS							IMP. ATTEN. TYPE 350			REMOVE EXISTING GRDRAIL	REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPR. END	TRAIL. END			APPR. END	TRAIL. END	APPR. END	TRAIL. END	III	B-77	GRAU 350	M-350	AT-1	CAT-1	TES	EA	G	NG				
L	14+29.84	20+67.34	RT	637.50			15+50 +/-	BRIDGE	8	11	50		1			1	1											
L	17+26.45	20+76.45	LT	350.00			BRIDGE	18+50 +/-	8	11	50	50		1		1	1											
L	26+27.30	31+52.30	RT	525.00			BRIDGE	30+25 +/-	8	11	50	50		1		1	1											
L	26+03.50	31+03.50	LT	500.00			29+75 +/-	BRIDGE	8	11	50		1			1	1											
Y1	19+43 +/-		CL	25.00																								
Y1	14+54.79	15+48.54	RT	93.75			-	BRIDGE	1.8	5.7	93.75		3.7				1											
Y1	11+25.80	15+32.05	LT	406.25			BRIDGE	12+00 +/-	4	7	50	50		1			1											
Y1	12+36.02	15+48.54	RT																									
Y1	11+25.36	15+32.05	LT																									
Y1	19+43.93	N/A	RT																									
Y1	19+04.11	N/A	LT																									
<b>SUBTOTAL</b>				<b>2537.50</b>												<b>4</b>	<b>6</b>				<b>3</b>			<b>1063.50</b>				
<b>DEDUCT ANCHORS:</b>																												
				B-77	18.75																							
				GRAU 350	50.00																							
<b>ADDITIONAL POSTS = 10</b>																												
<b>TOTAL</b>				<b>2162.50</b>												<b>4</b>	<b>6</b>				<b>3</b>			<b>1063.50</b>				
<b>SAY</b>				<b>2300</b>																				<b>1100</b>				





RICHARD & CAMILLE LAWRENCE  
DB 554 PG 729  
DB 560 PG 265

RICHARD & CAMILLE LAWRENCE  
DB 554 PG 729  
DB 560 PG 265

JOYCE METTERS & JOHN COPPLEY  
DB 627 PG 890

-L-  
PI Sta 13+64.25  
Δ = 2° 08' 01.4" (RT)  
D = 1° 08' 53.6"  
L = 185.83'  
T = 92.93'  
R = 4,990.00'  
e = 0.03 ft/ft  
Runoff = 8'

-L-  
PI Sta 17+36.25  
Δ = 10° 03' 45.4" (LT)  
D = 4° 18' 28.6"  
L = 233.58'  
T = 117.09'  
R = 1,330.00'  
e = 0.06 ft/ft  
Runoff = 162'

-YI-  
PI Sta 18+80.80  
Δ = 19° 13' 05.3" (RT)  
D = 15° 04' 40.2"  
L = 127.46'  
T = 64.33'  
R = 380.00'

PAVEMENT REMOVAL  
BRIDGE APPROACH SLAB

FOR -L- PROFILE, SEE SHEET NO. 6  
FOR -YI- PROFILE, SEE SHEET NO. 7  
FOR STRUCTURE PLANS, SEE SHEET S-01 THRU S-72

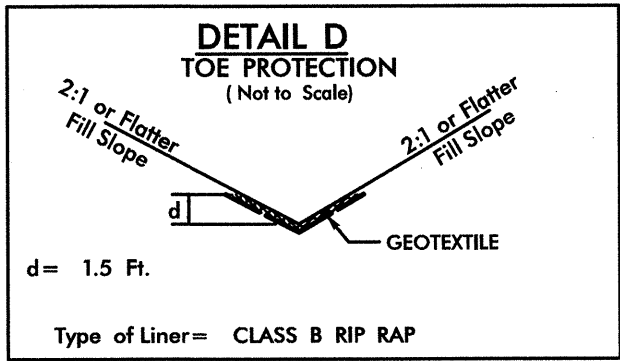
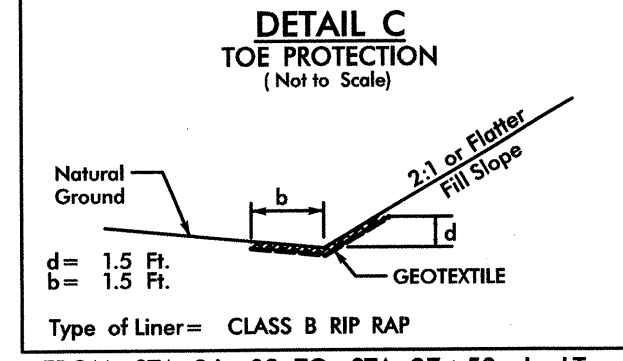
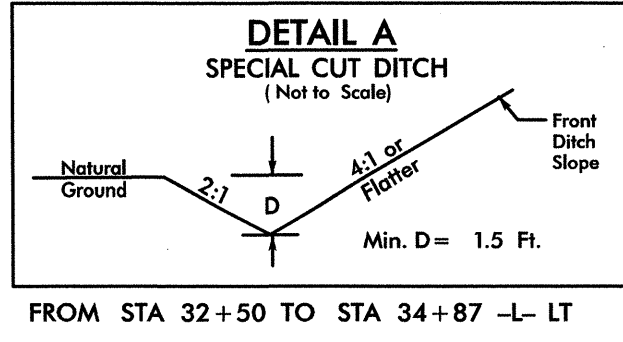
0271DEL\_P10c3

REVISIONS

USER: rcm  
DATE: 11/27/2012  
TIME: 9:49 AM  
JOB: rcm\working\Proj\C4901C\_r10c3.dgn

MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET 5

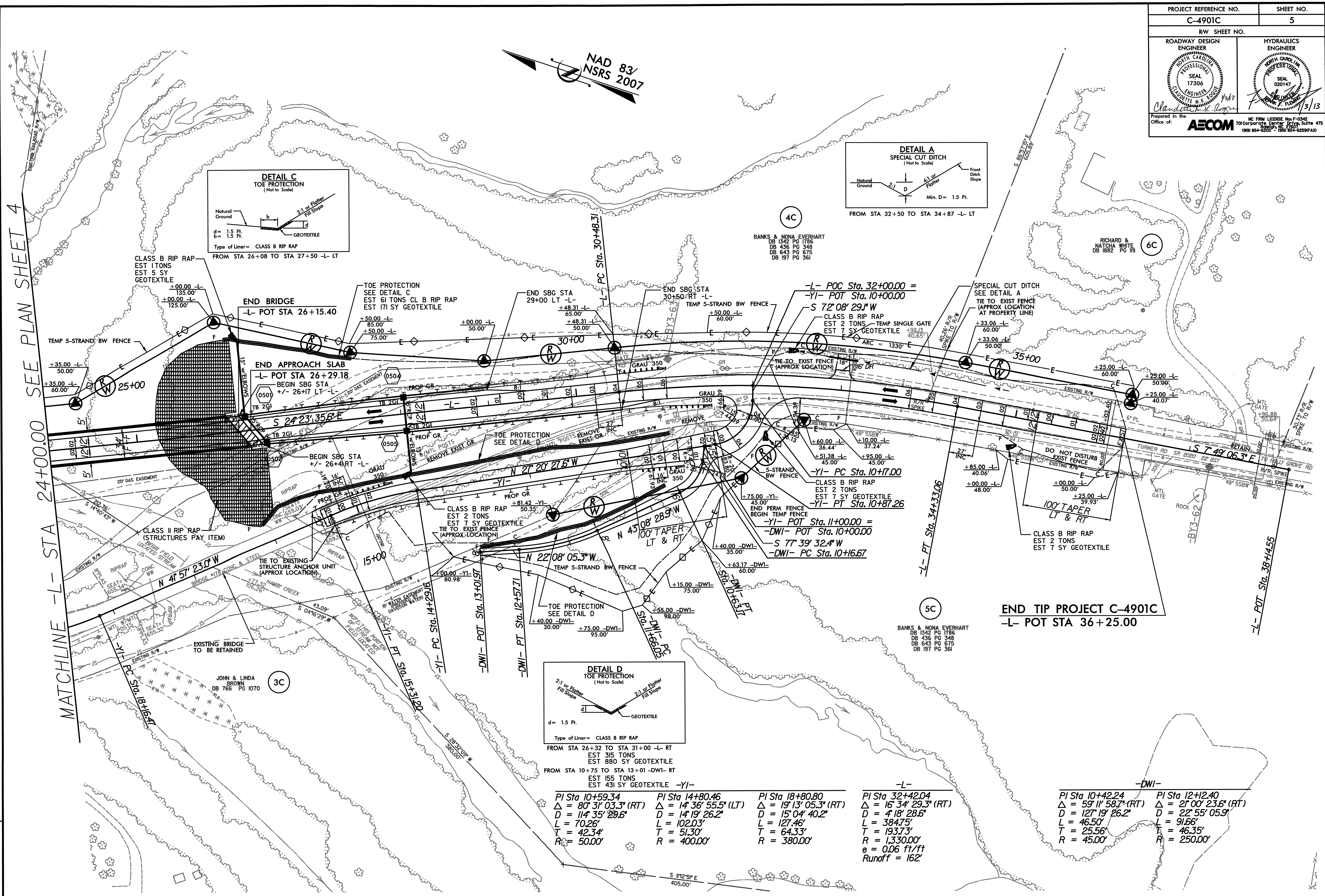




MATCHLINE -L- STA 24+00.00 SEE PLAN SHEET 4

0271DEL\_P10c3

REVISIONS



PI Sta 10+59.34 $\Delta = 80' 31' 03.3''$ (RT) $D = 114' 35' 29.6''$ $L = 70.26'$ $T = 42.34'$ $R = 50.00'$	PI Sta 14+80.46 $\Delta = 14' 36' 55.5''$ (LT) $D = 14' 19' 26.2''$ $L = 102.03'$ $T = 51.30'$ $R = 400.00'$	PI Sta 18+80.80 $\Delta = 19' 13' 05.3''$ (RT) $D = 15' 04' 40.2''$ $L = 127.46'$ $T = 64.33'$ $R = 380.00'$	-L- PI Sta 32+42.04 $\Delta = 16' 34' 29.3''$ (RT) $D = 4' 18' 28.6''$ $L = 384.75'$ $T = 193.73'$ $R = 1,330.00'$ $\theta = 0.06$ ft/ft $Runoff = 162'$	-DWI- PI Sta 10+42.24 $\Delta = 59' 11' 58.7''$ (RT) $D = 127' 19' 26.2''$ $L = 46.50'$ $T = 25.56'$ $R = 45.00'$	PI Sta 12+42.40 $\Delta = 21' 00' 23.6''$ (RT) $D = 22' 55' 05.9''$ $L = 91.66'$ $T = 46.35'$ $R = 250.00'$
--	---	---	--	---	--

BRIDGE APPROACH SLAB  
FOR STRUCTURE PLANS, SEE SHEET S-01 THRU S-72

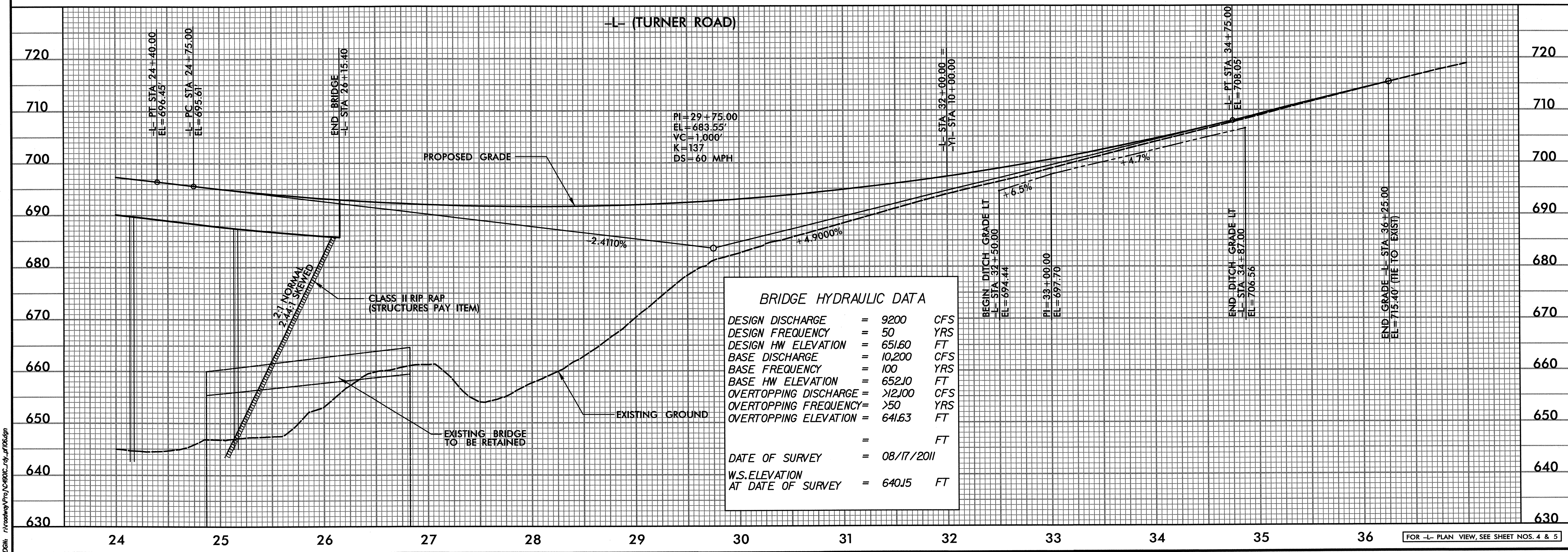
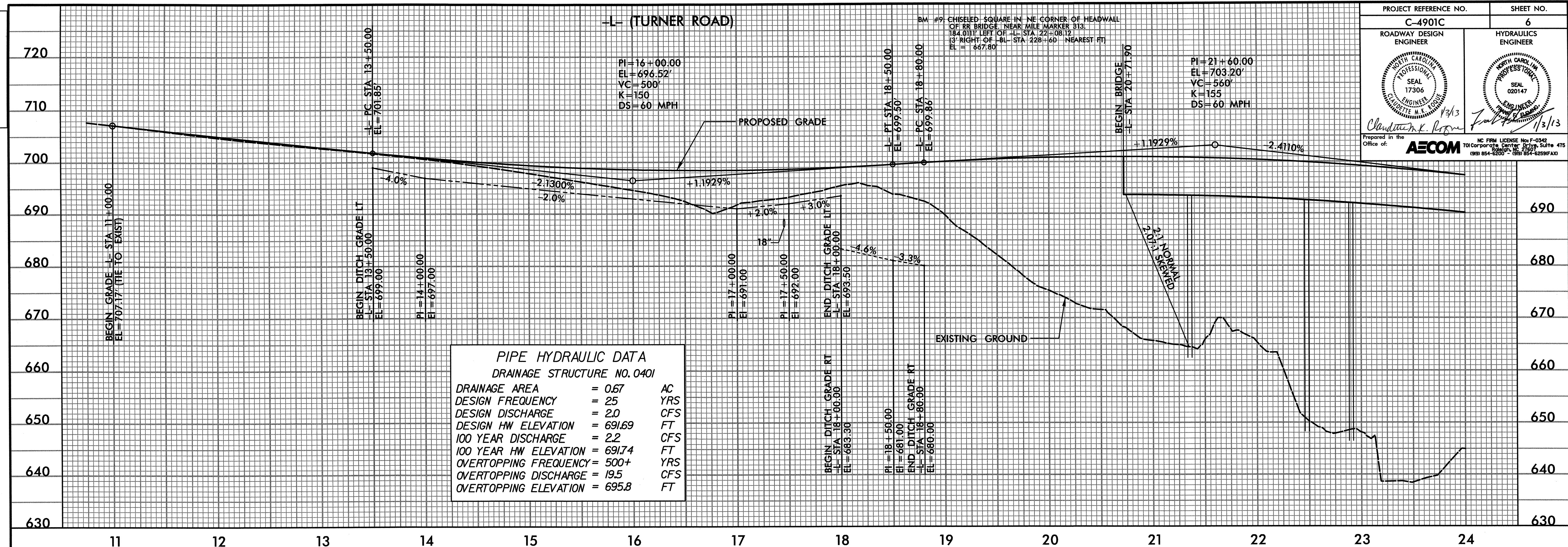
FOR -L- PROFILE, SEE SHEET NO. 6  
FOR -YI- PROFILE, SEE SHEET NO. 7  
FOR -DWI- PROFILE, SEE SHEET NO. 7

USER: rmore  
 DATE: 11/20/2012  
 TIME: 9:06:52 AM  
 CDR: rmore@prologinc.com



0271DEL\_P10c3

PROJECT REFERENCE NO. <b>C-4901C</b>	SHEET NO. <b>6</b>
ROADWAY DESIGN ENGINEER <i>Claudia K. Rogers</i>	HYDRAULICS ENGINEER <i>F. J. ...</i>
Prepared in the Office of: <b>AECOM</b> <small>NC FIRM LICENSE No. F-0342          701 Corporate Center Drive, Suite 475          Cary, NC 27513          (919) 854-6200 • (919) 854-6299 FAX</small>	

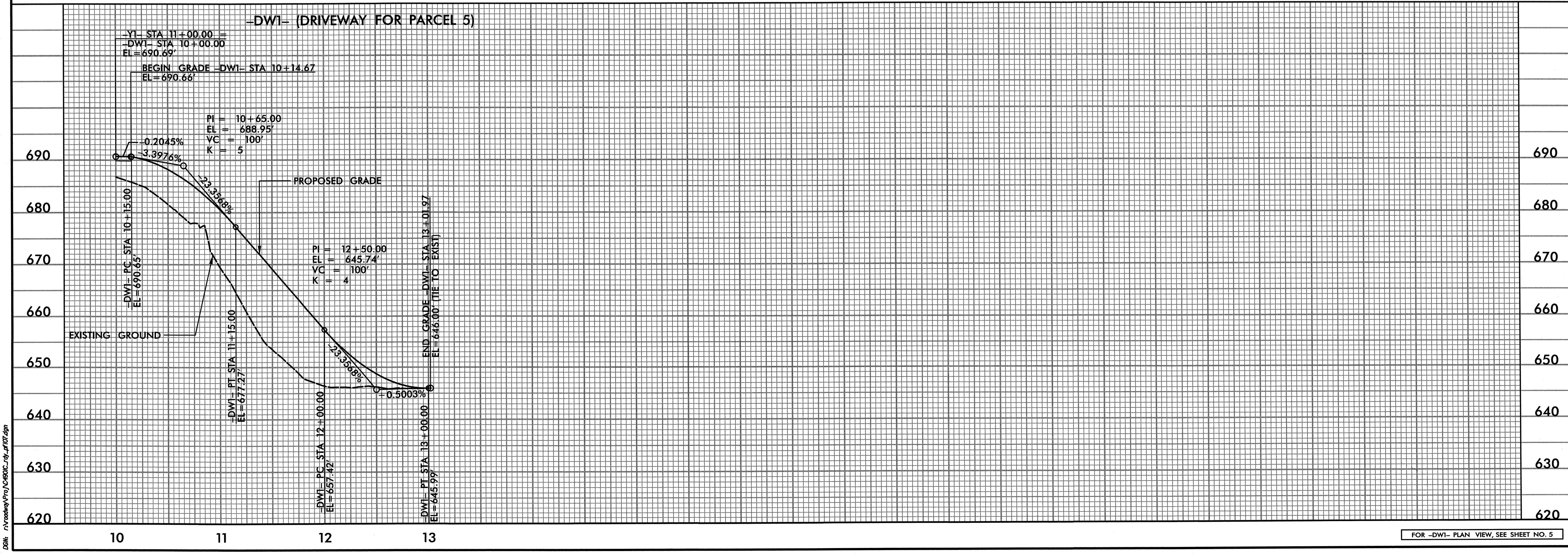
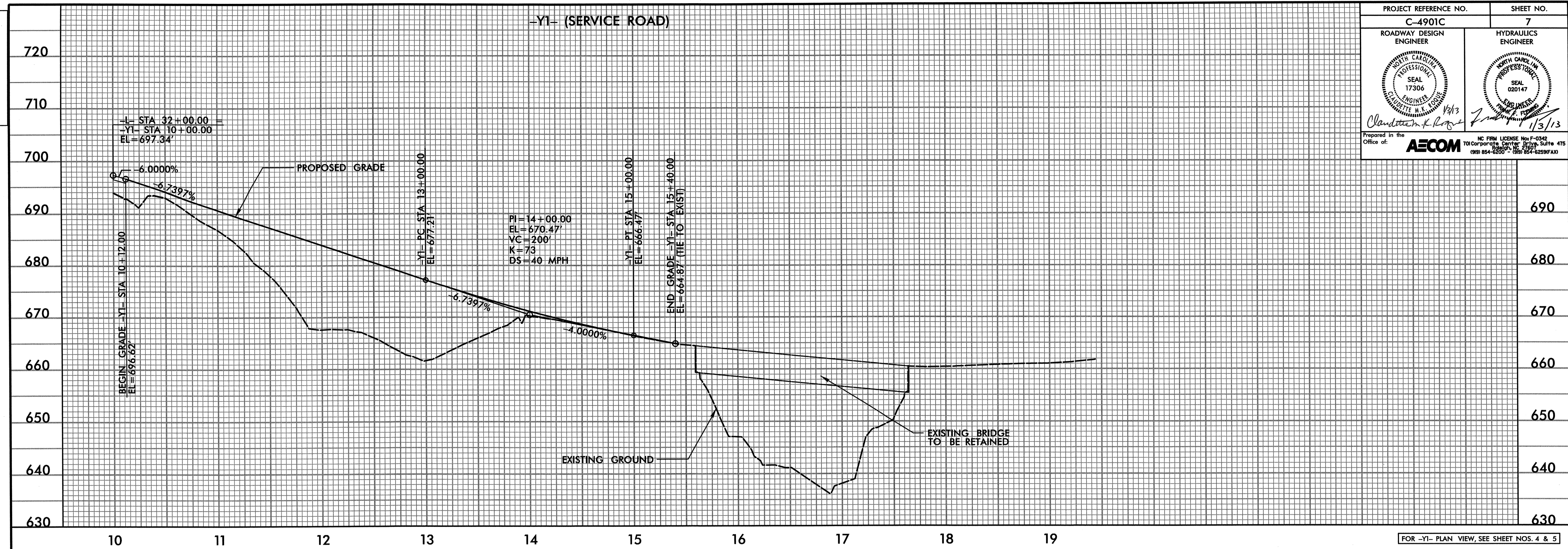


USER: rromer  
DATE: 11/27/2012  
TIME: 9:56:54 AM  
D:\01 - PROJECTS\0271DEL\_P10C3\0271DEL\_P10C3.dwg



0271DEL\_P10c3

PROJECT REFERENCE NO. <b>C-4901C</b>	SHEET NO. <b>7</b>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Prepared in the Office of: <b>AECOM</b>	
NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27601 (919) 854-2200 • (919) 854-6259(FAX)	



USER: rorace  
 DATE: 11/27/2012  
 TIME: 9:46:58 AM  
 PATH: r:\working\proj\0271DEL\_P10c3\0271DEL\_P10c3.dwg