

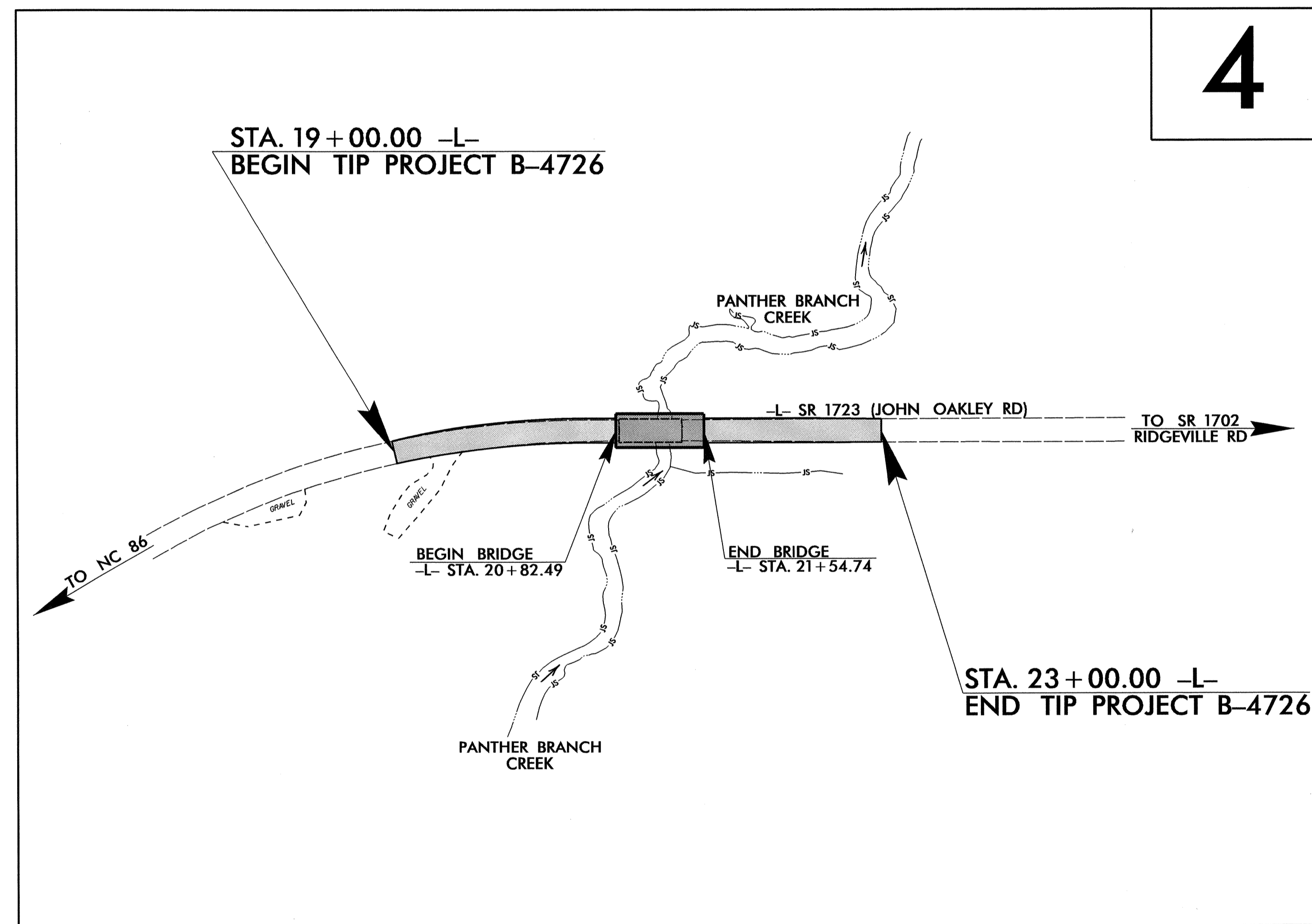
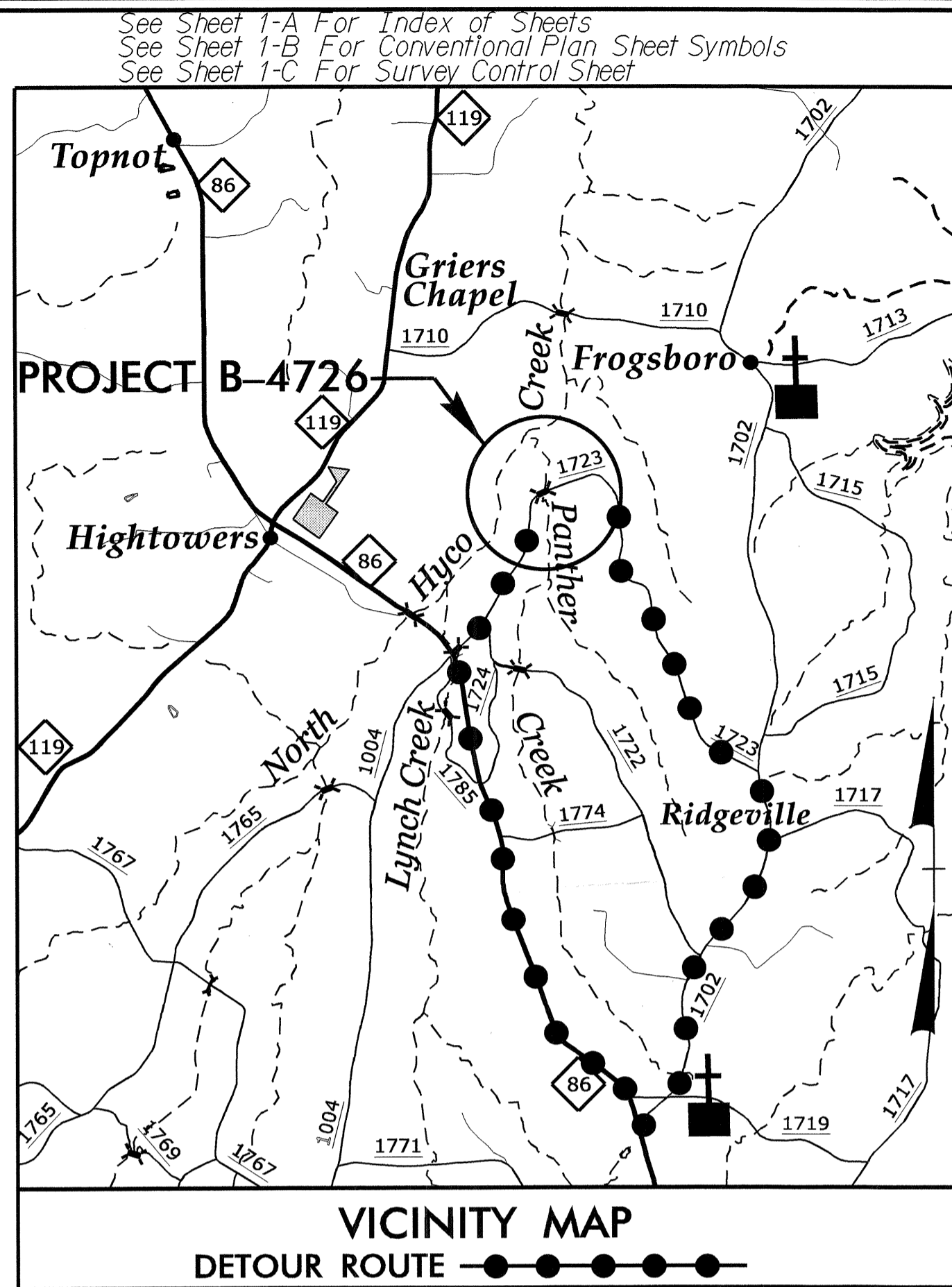
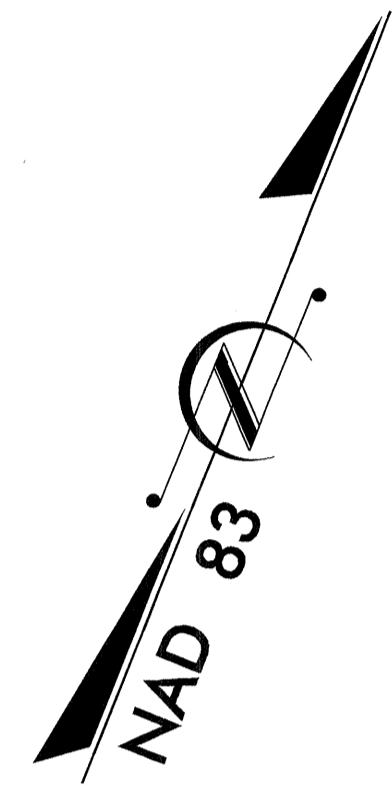
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4726	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
38500.1.1	BRZ-1723(7)	PE	
38500.2.1	BRZ-1723(7)	RAW & UTILITIES	
38500.3.1	BRZ-1723(7)	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

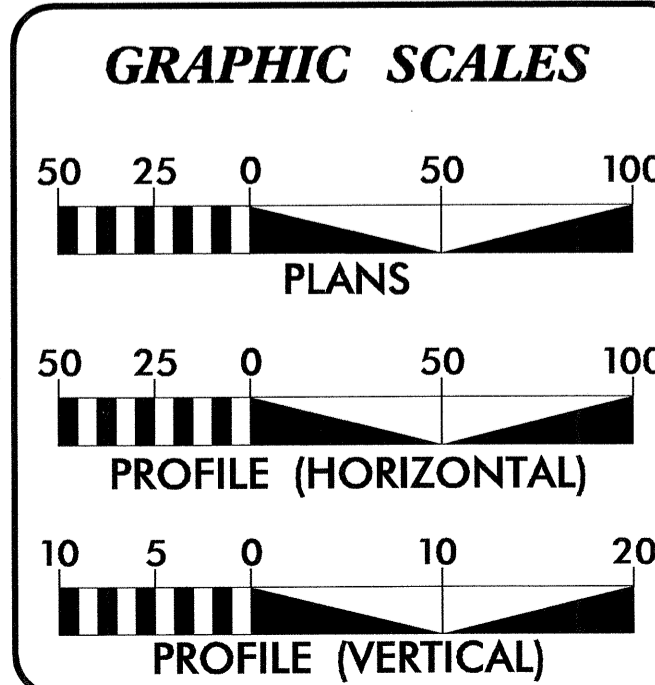
CASWELL COUNTY

LOCATION: BRIDGE NO. 5 OVER PANTHER BRANCH CREEK
ON SR 1723 (JOHN OAKLEY ROAD)

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



DESIGN EXCEPTION REQUIRED FOR SAG VERTICAL CURVE AND STOPPING SIGHT DISTANCE.



DESIGN DATA

ADT 2012 =	340
ADT 2035 =	500
DHV =	14 %
D =	65 %
T =	3 % *
V =	55 MPH
* TTST 1% DUAL 2%	
FUNC CLASS =	RURAL LOCAL
"SUB-REGIONAL TIER"	

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4726 =	0.062 MI.
LENGTH OF STRUCTURE TIP PROJECT B-4726 =	0.014 MI.
TOTAL LENGTH OF TIP PROJECT B-4726 =	0.076 MI.

Prepared In the Office of:

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

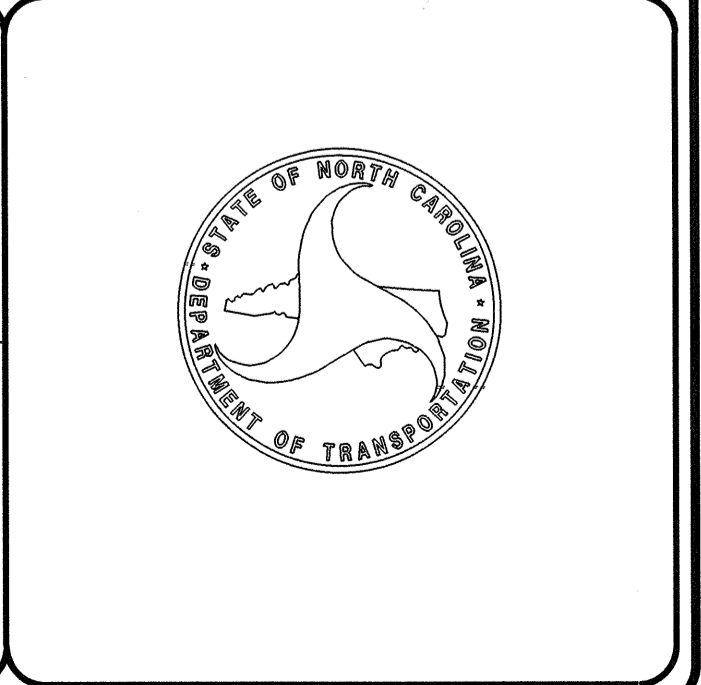
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE:	DECEMBER 7, 2011
LETTING DATE:	DECEMBER 18, 2012
	JAMES A. SPEER, PE PROJECT ENGINEER
	DANIEL W. GARDNER, JR, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *Karen H. Sullidge*

ROADWAY DESIGN ENGINEER

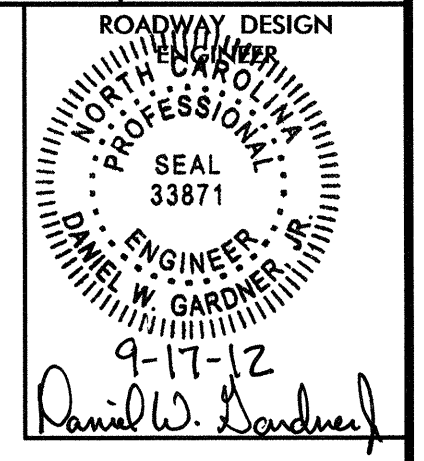
SIGNATURE: *Daniel W. Gardner, Jr.*



23-AUG-2012 08:02
 R:\Roadway\Proj\104726_rdy_tsh.dgn
 \$\$\$USERNAME\$\$\$

TIP PROJECT: B-4726

CONTRACT: C203019



SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS
1-B	CONVENTIONAL PLAN SHEET SYMBOLS
1-C	SURVEY CONTROL SHEET
2	PAVEMENT SCHEDULE, WEDGING DETAIL, AND TYPICAL SECTION
3	SUMMARY OF QUANTITIES
3-A	DRAINAGE SUMMARY, GUARDRAIL SUMMARY, EARTHWORK SUMMARY, ASPHALT PAVEMENT REMOVAL SUMMARY, AND SHOULDER BERM GUTTER SUMMARY
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-2	TRANSPORTATION MANAGEMENT PLANS
SD-1	SIGN DESIGN SHEETS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-2	SIGNING PLANS
PMP-1	PAVEMENT MARKING PLANS
X-1	CROSS SECTION SUMMARY
X-2 THRU X-6	CROSS-SECTIONS
S-1 THRU S-14	STRUCTURE PLANS

GENERAL NOTES: 2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07/30/12

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED 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 III.

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.

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. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

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.

- 2012 ROADWAY ENGLISH STANDARD DRAWINGS
- The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:
- | STD.NO. | TITLE |
|--|---|
| DIVISION 2 - EARTHWORK | |
| 200.03 | Method of Clearing - Method III |
| 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 |
| DIVISION 4 - MAJOR STRUCTURES | |
| 422.11 | Reinforced Bridge Approach Fills - Sub Regional Tier |
| 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 |
| 840.00 | Concrete Base Pad for Drainage Structures |
| 840.25 | Anchorage for Frames - Brick or Concrete or Precast |
| 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 |
| 846.04 | Drop Inlet Installation in Shoulder Berm Gutter |
| 862.01 | Guardrail Placement |
| 862.02 | Guardrail Installation |
| 862.03 | Structure Anchor Units |
| 876.02 | Guide for Rip Rap at Pipe Outlets |

8/17/12

10 SEP 2012 15:23
C:\V\2012\1523\B4726\rdj_sum.dgn
\$\$\$\$\$

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	⊙ EP
Property Corner	-----
Property Monument	⊠ ECM
Parcel/Sequence Number	Ⓜ (23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	⊠
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☒ ☒

BUILDINGS AND OTHER CULTURE:

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

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	⊠
Jurisdictional Stream	-JS-
Buffer Zone 1	-BZ 1-
Buffer Zone 2	-BZ 2-
Flow Arrow	←
Disappearing Stream	-----
Spring	⊙
Wetland	⊠
Proposed Lateral, Tail, Head Ditch	-----
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 R/W Marker	Ⓜ
Proposed Control of Access Line with Concrete C/A 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 Drainage / Utility Easement	-DUE-
Proposed Permanent Utility Easement	-PUE-
Proposed Temporary Utility Easement	-TUE-
Proposed Aerial Utility Easement	-AUE-
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	Ⓜ
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	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	⊠
U/G Power Cable Hand Hole	Ⓜ
H-Frame Pole	●
Recorded U/G Power Line	-P-
Designated U/G Power Line (S.U.E.*)	-P-

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	Ⓢ
Telephone Booth	Ⓜ
Telephone Pedestal	Ⓜ
Telephone Cell Tower	Ⓜ
U/G 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	-W-
Designated U/G Water Line (S.U.E.*)	-W-
Above Ground Water Line	-A/G Water-

TV:

TV Satellite Dish	Ⓜ
TV Pedestal	Ⓜ
TV Tower	⊙
U/G 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	Ⓢ
U/G Sanitary Sewer Line	-SS-
Above Ground Sanitary Sewer	-A/G Sanitary Sewer-
Recorded SS Forced Main Line	-FSS-
Designated SS Forced Main Line (S.U.E.*)	-FSS-

MISCELLANEOUS:

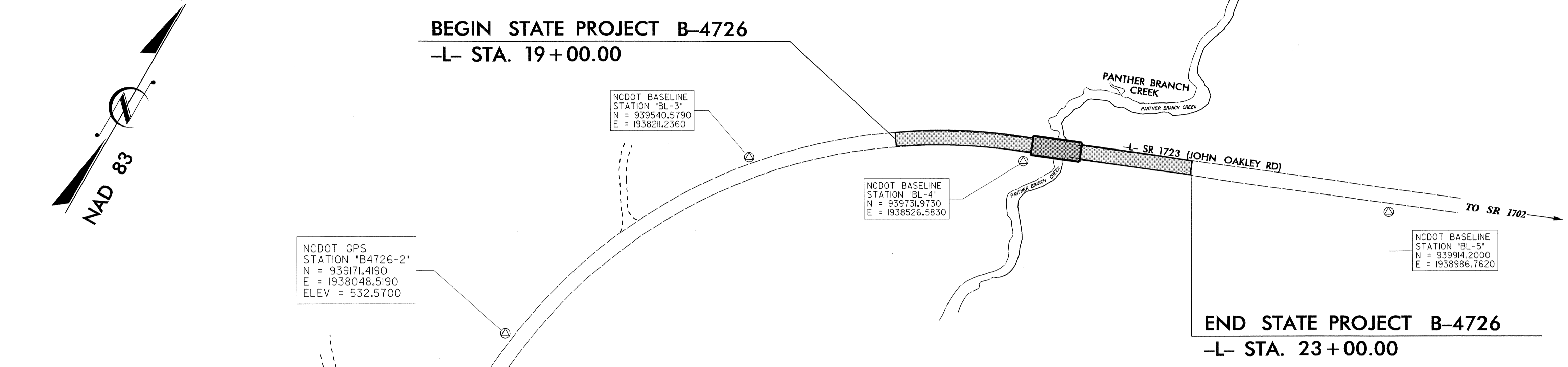
Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	⊙
Utility Traffic Signal Box	Ⓜ
Utility Unknown U/G Line	-UTL-
U/G Tank; Water, Gas, Oil	⊠
Underground Storage Tank, Approx. Loc.	Ⓜ
A/G Tank; Water, Gas, Oil	⊠
Geoenvironmental Boring	⊙
U/G Test Hole (S.U.E.*)	⊙
Abandoned According to Utility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

12/01/2005

23-AUG-2012 07:39 B4726-1s-1c.dgn
 4330758746 0.4333

PROJECT REFERENCE NO.	SHEET NO.
B-4726	1-C
Location and Surveys	

B-4726 SURVEY CONTROL SHEET



NCDOT GPS
 STATION "B4726-2"
 N = 939171.4190
 E = 1938048.5190
 ELEV = 532.5700

NCDOT BASELINE
 STATION "BL-3"
 N = 939540.5790
 E = 1938211.2360

NCDOT BASELINE
 STATION "BL-4"
 N = 939731.9730
 E = 1938526.5830

NCDOT BASELINE
 STATION "BL-5"
 N = 939914.2000
 E = 1938986.7620

NCDOT GPS
 STATION "B4726-1"
 N = 938230.9890
 E = 1937984.9260
 ELEV = 565.2700

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4726-2" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 939,171.4190(ft) EASTING: 1,938,048.5190(ft) ELEVATION: 532.57(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 1.0000291521
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4726-2" TO -L- STATION 19+00.00 IS N 32°58'52" E 584.24 ft
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

END STATE PROJECT B-4726
 -L- STA. 23+00.00

BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1		B4726-1	938230.9890	1937984.9260	565.27	OUTSIDE PROJECT LIMITS	
2		B4726-2	939171.4190	1938048.5190	532.57	13+04.39	13.28 LT
3		BL-3	939540.5790	1938211.2360	515.36	17+05.17	15.11 LT
4		BL-4	939731.9730	1938526.5830	491.53	20+76.03	11.69 RT
5		BL-5	939914.2000	1938986.7620	498.95	25+70.97	14.38 RT

BENCHMARK DATA

 BM1 ELEVATION = 499.68
 N 939384 E 1938319
 L STATION 16+39.00 166 RIGHT
 RR SPIKE IN 12" PINE

 BM2 ELEVATION = 500.83
 N 940002 E 1939005
 L STATION 26+20.00 61 LEFT
 RR SPIKE IN 18" POPLAR

TYPE	STATION	NORTH	EAST
POT	9+95.04	938861.0214	1938039.8019
PC	12+48.65	939114.1173	1938055.9660
PT	20+58.31	939736.2005	1938505.7787
POT	26+22.70	939946.8458	1939029.3853

NEW PERMANENT DRAINAGE EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
L	21+55.00	30.00	939744.4550	1938606.6772
L	21+55.00	40.00	939735.1776	1938610.4095
L	21+75.00	30.00	939751.9196	1938625.2320
L	21+75.00	40.00	939742.6422	1938628.9643

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/)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4726_LS_CONTROL.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 FROM EXISTING NCGS MONUMENTATION.

NOTE: DRAWING NOT TO SCALE

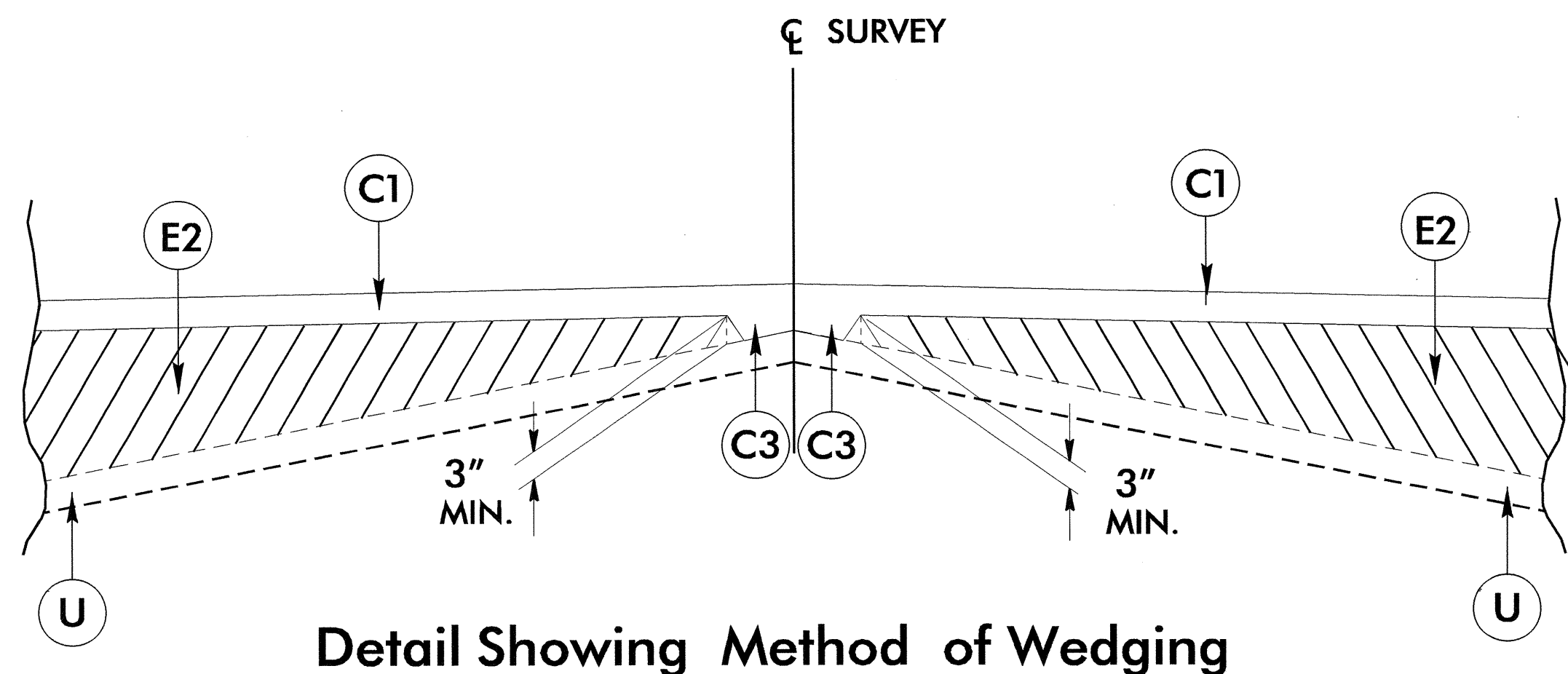
6/2/09

PAVEMENT SCHEDULE

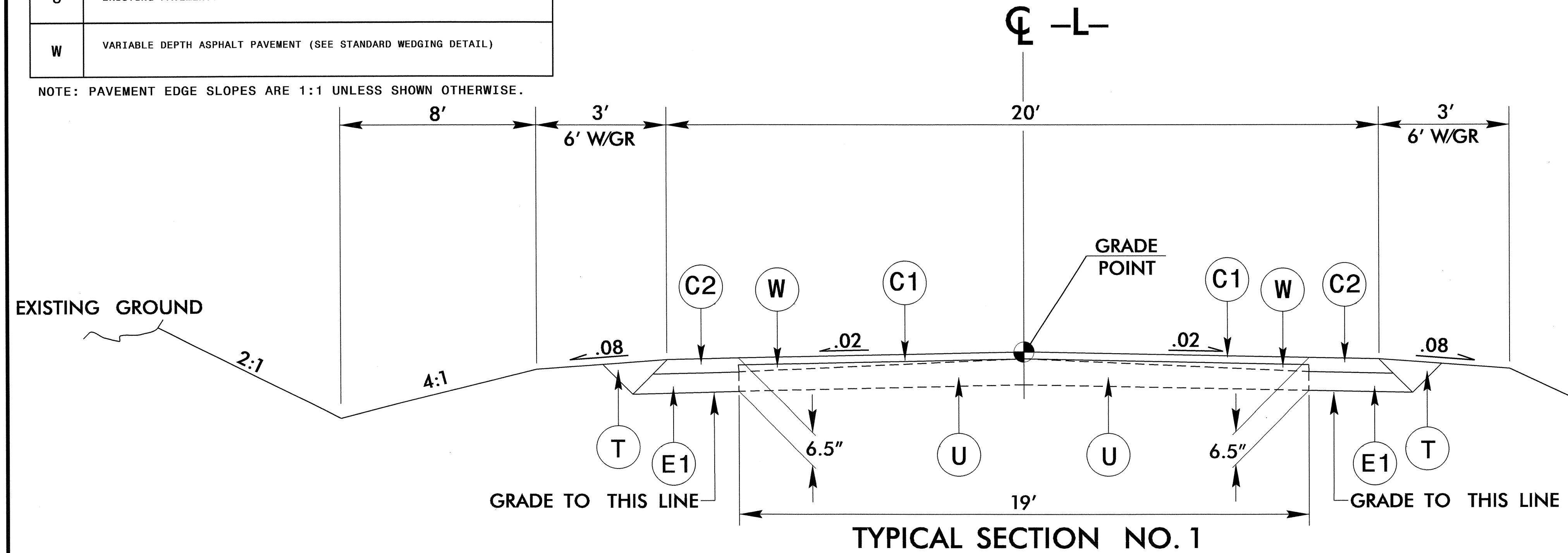
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 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.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

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

PROJECT REFERENCE NO. B-4726	SHEET NO. 2
ROADWAY DESIGN ENGINEER DANIEL W. GARDNER SEAL 33871 9-17-12	PAVEMENT DESIGN ENGINEER DAN-CHI CHEN SEAL 13368 9/11/12



Detail Showing Method of Wedging

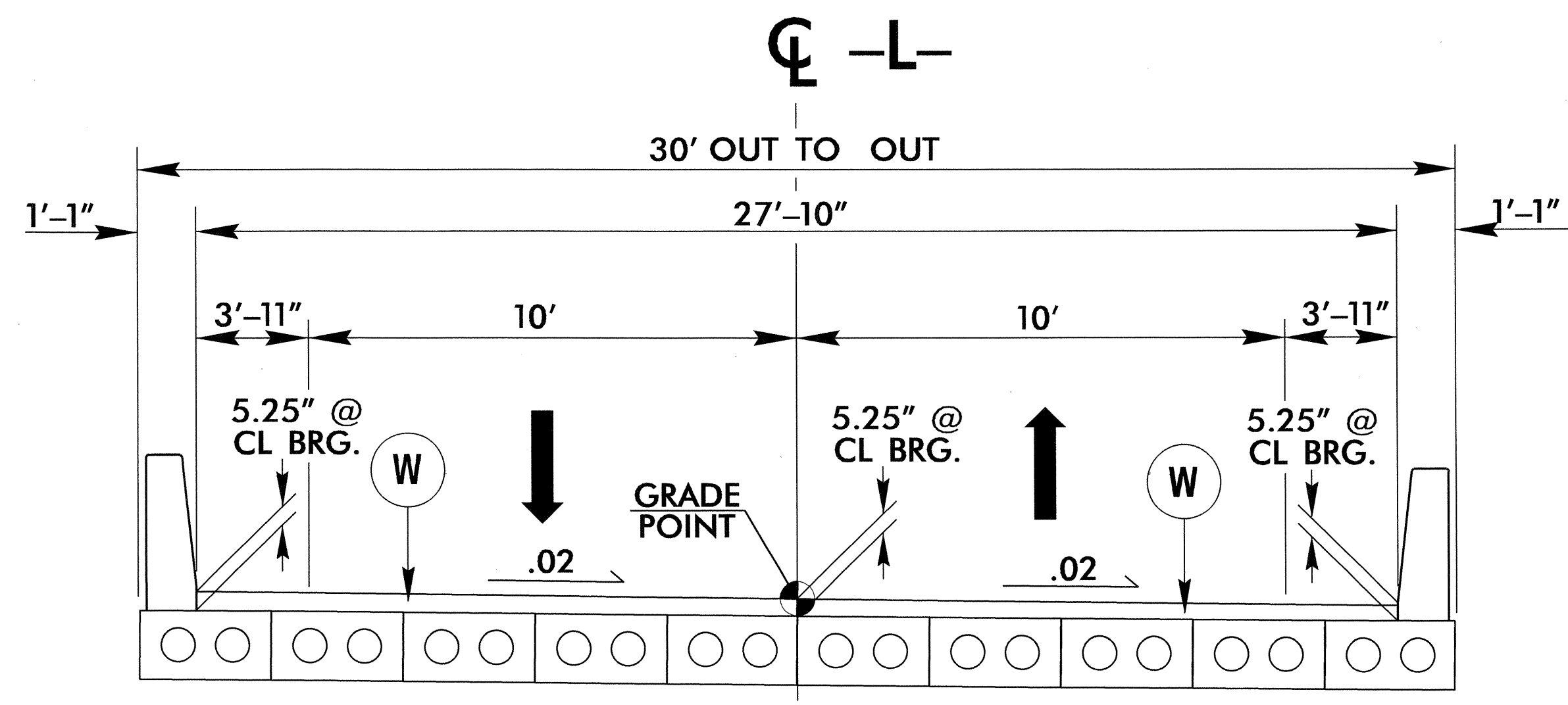


TYPICAL SECTION NO. 1

NOTE: TRANSITION FROM EXISTING TO TYPICAL SECTION NO. 1
-L- STA. 19+00.00 TO STA. 19+50.00

USE TYPICAL SECTION NO. 1

-L- STA. 19+50.00 TO STA. 20+82.49 (BEGIN BRIDGE)
-L- STA. 21+54.74 (END BRIDGE) TO STA. 22+50.00



TYPICAL SECTION NO. 2

NOTE: TRANSITION FROM TYPICAL SECTION NO. 1 TO EXISTING
-L- STA. 22+50.00 TO STA. 23+00.00

USE TYPICAL SECTION NO. 2

-L- STA. 20+82.49 (BEGIN BRIDGE) TO STA. 21+54.74 (END BRIDGE)

06-SEP-2012 08:56 B-4726.rdy-typ.dgn

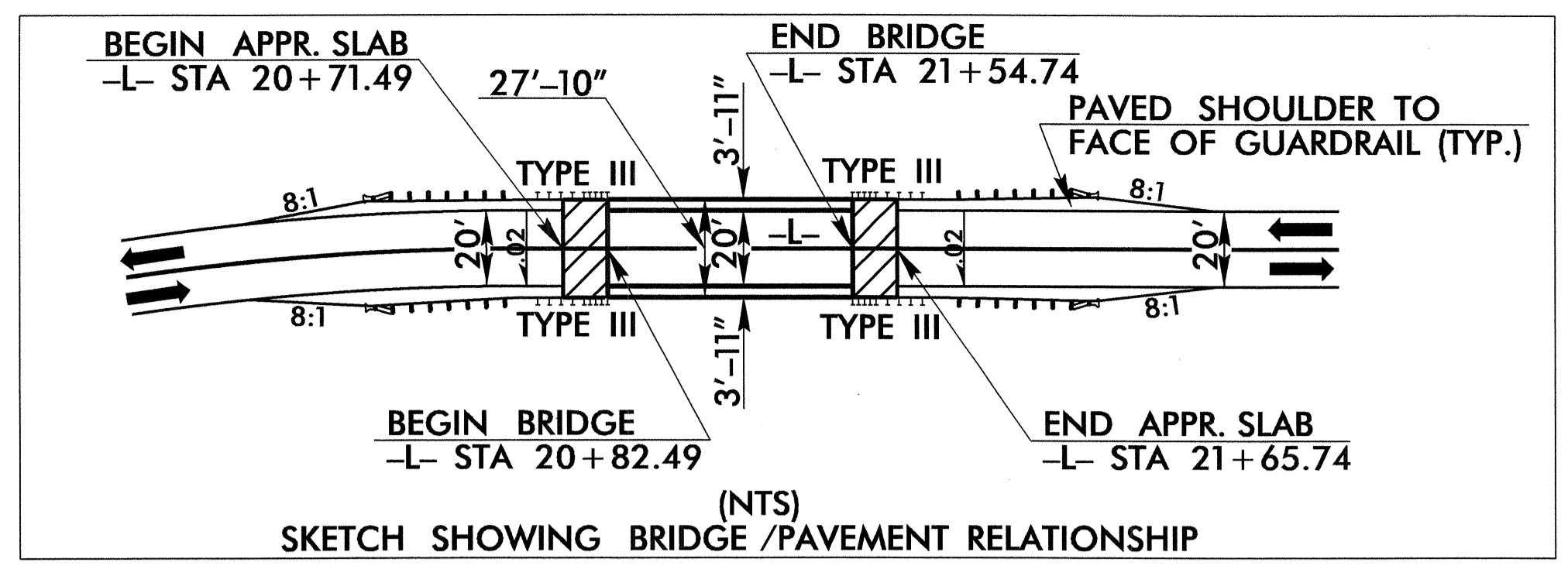
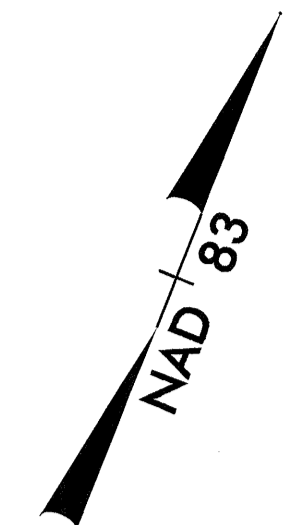
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203019

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
003000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (21+18.61-L)
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING
005700000-E	226	300	CY	UNDERCUT EXCAVATION
019500000-E	265	300	CY	SELECT GRANULAR MATERIAL
019600000-E	270	300	SY	GEOTEXTILE FOR SOIL STABILIZATION
031800000-E	300	2	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
032000000-E	300	5	SY	FOUNDATION CONDITIONING GEOTEXTILE
033200000-E	305	12	LF	15" DRAINAGE PIPE
122000000-E	545	100	TON	INCIDENTAL STONE BASE
133000000-E	607	280	SY	INCIDENTAL MILLING
148900000-E	610	180	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
152500000-E	610	150	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
157500000-E	620	20	TON	ASPHALT BINDER FOR PLANT MIX
202200000-E	815	25	CY	SUBDRAIN EXCAVATION
203300000-E	815	20	CY	SUBDRAIN FINE AGGREGATE
204400000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE
207000000-N	815	1	EA	SUBDRAIN PIPE OUTLET
207700000-E	815	6	LF	6" OUTLET PIPE
228600000-N	840	1	EA	MASONRY DRAINAGE STRUCTURES
236700000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.29
255600000-E	846	10	LF	SHOULDER BERM GUTTER
303000000-E	862	50	LF	STEEL BM GUARDRAIL
315000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS

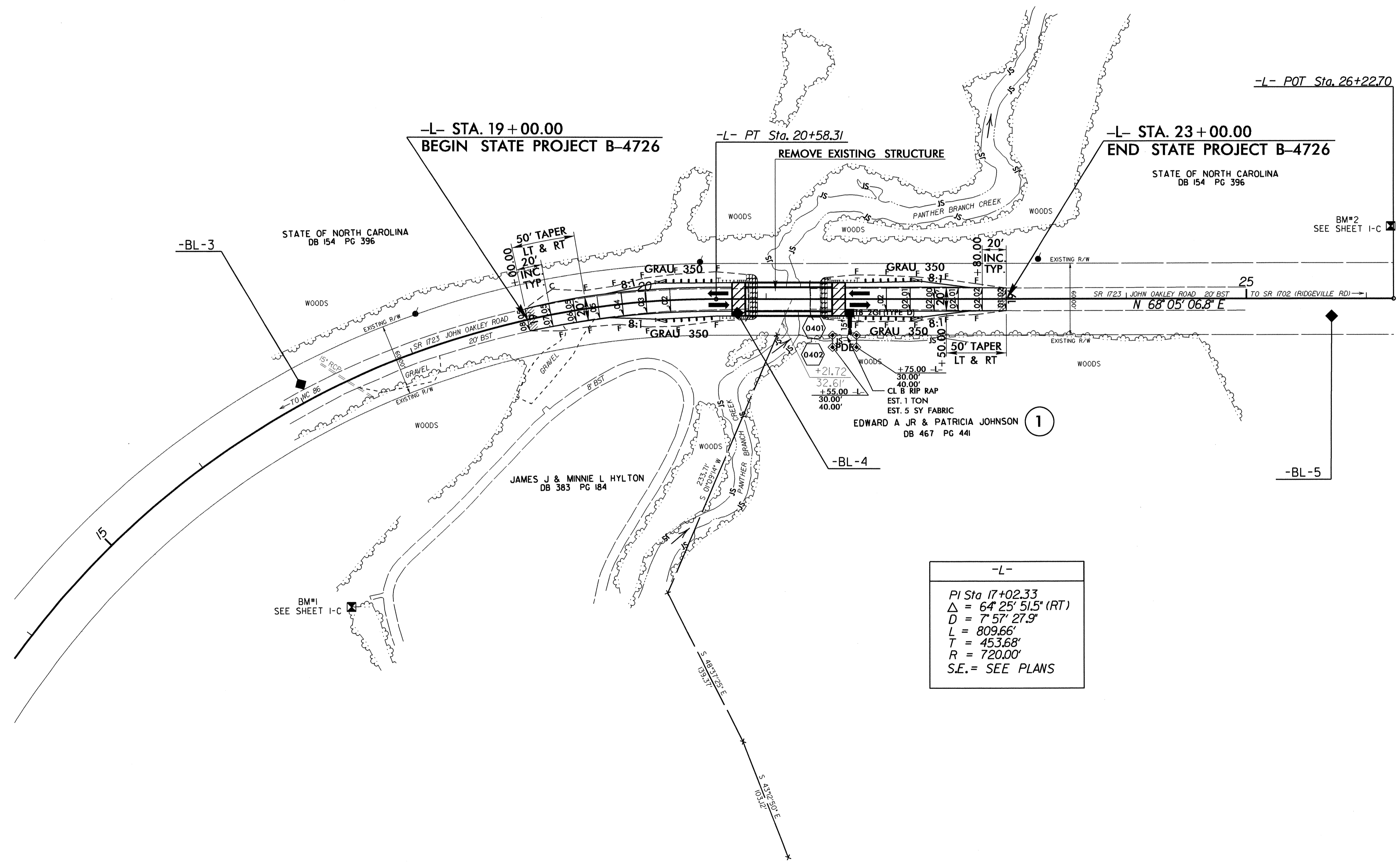
SUMMARY OF QUANTITIES - B-4726

ItemNumber	Sec #	Quantity	Unit	Description
321500000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III
327000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
364900000-E	876	1	TON	RIP RAP, CLASS B
365600000-E	876	465	SY	GEOTEXTILE FOR DRAINAGE
407200000-E	903	74	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
409600000-N	904	2	EA	SIGN ERECTION, TYPE D
415500000-N	907	8	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
440000000-E	1110	376	SF	WORK ZONE SIGNS (STATIONARY)
441000000-E	1110	119	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
444500000-E	1145	80	LF	BARRICADES (TYPE III)
481000000-E	1205	4,010	LF	PAINT PAVEMENT MARKING LINES (4")
600000000-E	1605	730	LF	TEMPORARY SILT FENCE
600600000-E	1610	225	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	30	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	70	TON	SEDIMENT CONTROL STONE
601500000-E	1615	1	ACR	TEMPORARY MULCHING
601800000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	200	LF	TEMPORARY SLOPE DRAINS
602900000-E	SP	100	LF	SAFETY FENCE
603000000-E	1630	100	CY	SILT EXCAVATION
603600000-E	1631	1,500	SY	MATTING FOR EROSION CONTROL
603700000-E	SP	200	SY	COIR FIBER MAT
604200000-E	1632	325	LF	1/4" HARDWARE CLOTH
607101000-E	SP	50	LF	WATTLE
607102000-E	SP	25	LB	POLYACRYLAMIDE (PAM)

ItemNumber	Sec #	Quantity	Unit	Description
608400000-E	1660	0.5	ACR	SEEDING & MULCHING
608700000-E	1660	0.5	ACR	MOWING
609000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	0.5	TON	FERTILIZER TOPDRESSING
611450000-N	1667	10	MHR	SPECIALIZED HAND MOWING
611700000-N	SP	18	EA	RESPONSE FOR EROSION CONTROL



REVISIONS



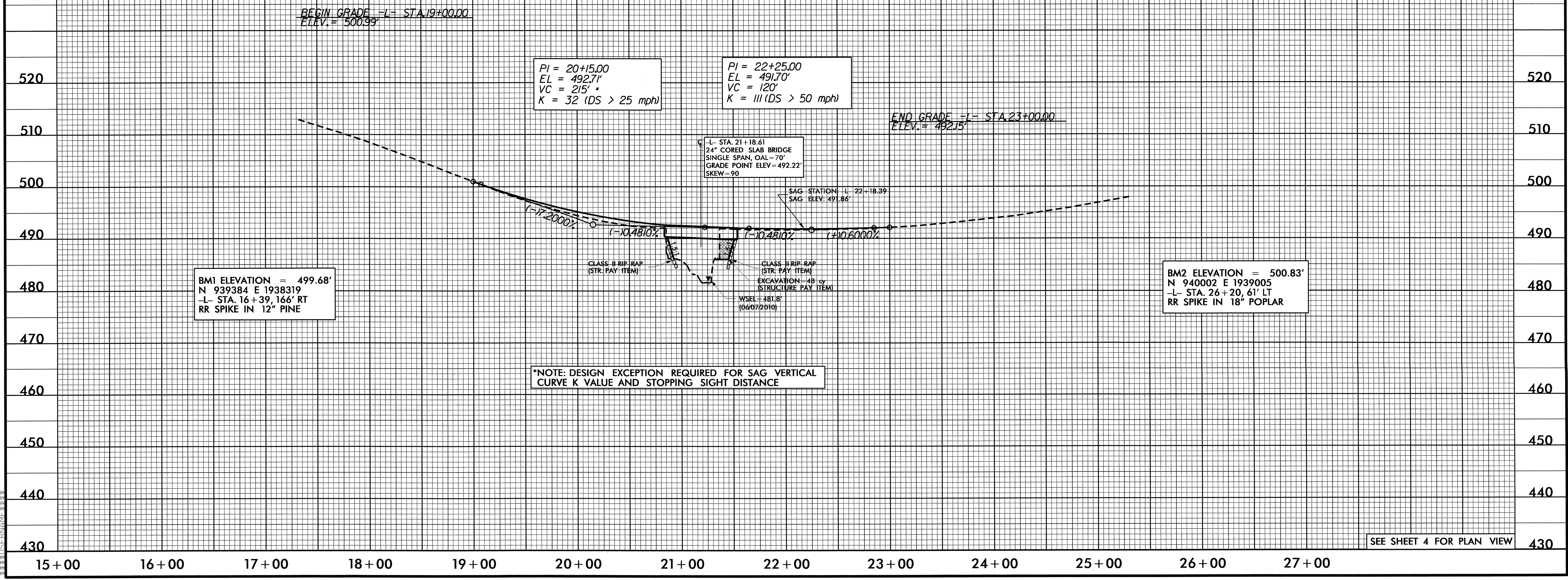
SEE SHEET 5 FOR -L- PROFILE
SEE SHEET S-1 THRU S-14 FOR STRUCTURE PLANS

8/17/99
12-SEP-2012 15:23
C:\Roadway\Projects\B4726_rdy_psh04.dgn

5/14/10

PROJECT REFERENCE NO. B-4726	SHEET NO. 5
ROADWAY DESIGN ENGINEER DANIEL W. GARDNER NORTH CAROLINA PROFESSIONAL SEAL 33871	HYDRAULICS ENGINEER KAREN H. GULLERUD NORTH CAROLINA PROFESSIONAL SEAL 31025
<i>Daniel W. Gardner</i>	<i>Karen H. Gullerud</i>
11-17-12	9/17/2012

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1510	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 490.9	FT
BASE DISCHARGE	= 2128	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 492.0	FT
OVERTOPPING DISCHARGE	= 2128	CFS
OVERTOPPING FREQUENCY	= 100	YRS
OVERTOPPING ELEVATION	= 491.9	FT
DATE OF SURVEY	= 6/7/10	
W.S. ELEVATION AT DATE OF SURVEY	= 481.8	FT



SEE SHEET 4 FOR PLAN VIEW

I:\SEP-2012\06132\164726.rdw.pfl.dgn