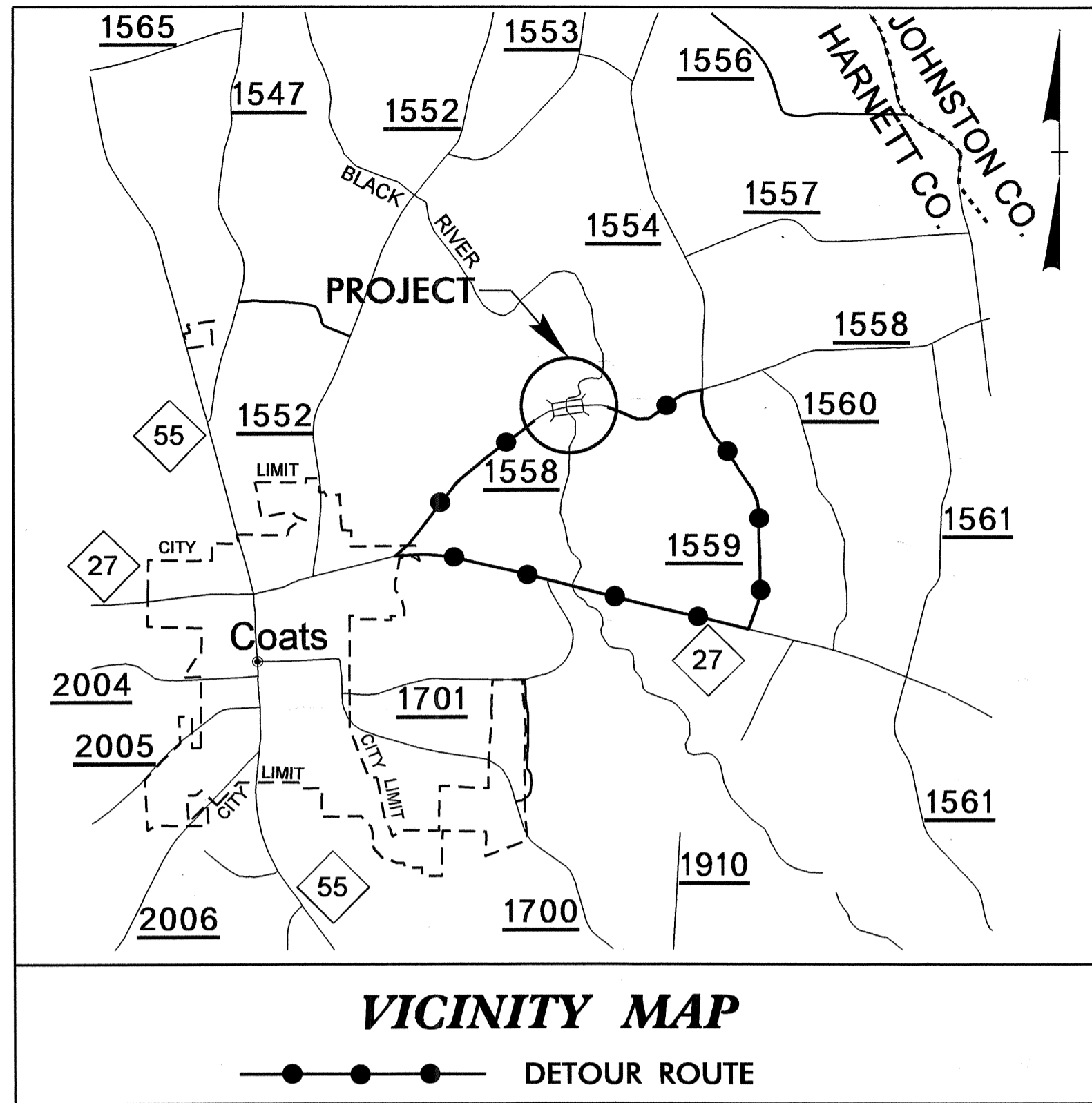


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See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HARNETT COUNTY

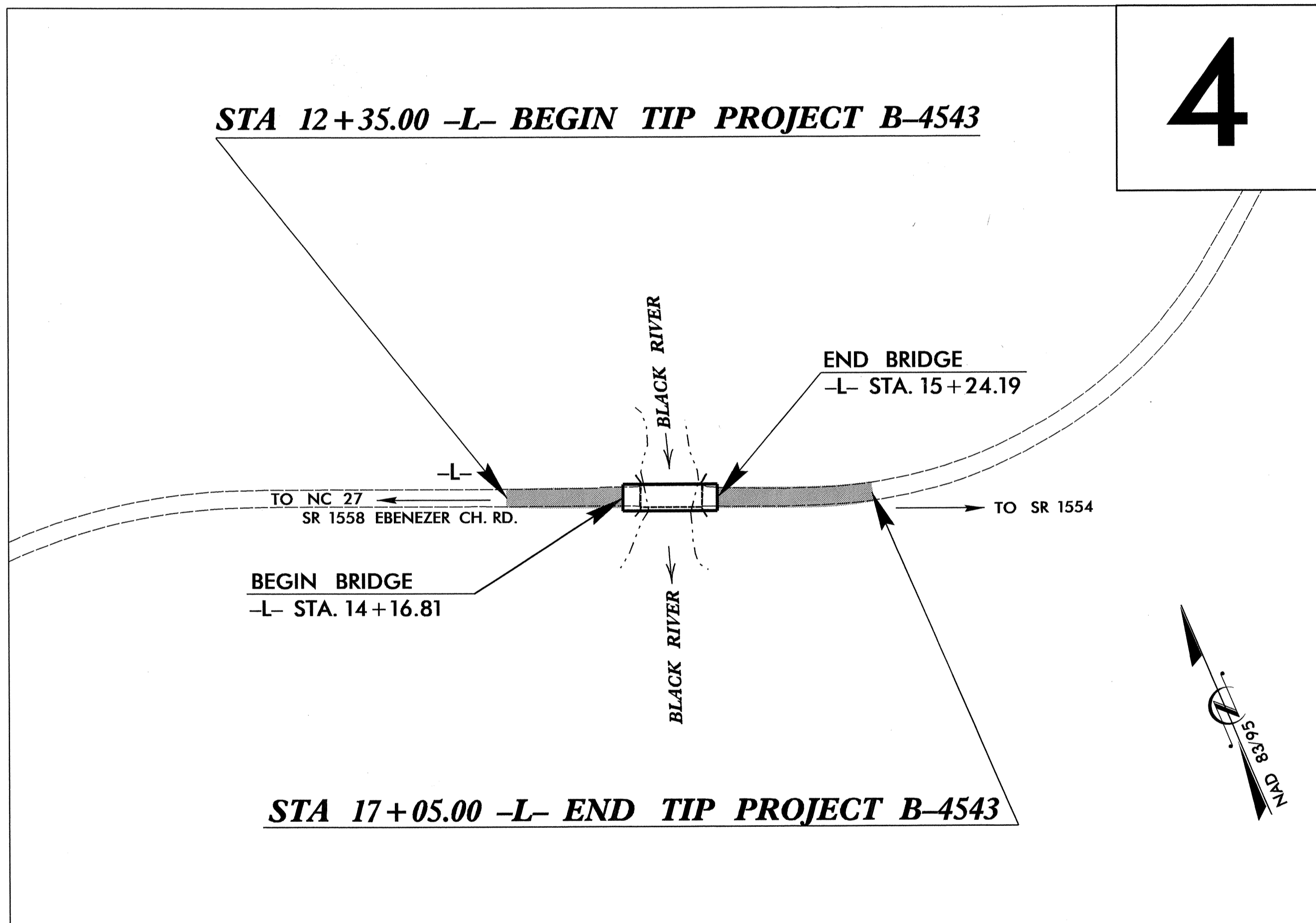
**LOCATION: BRIDGE NO. 120 OVER THE BLACK RIVER ON
SR 1558 (EBENEZER CHURCH RD)**

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

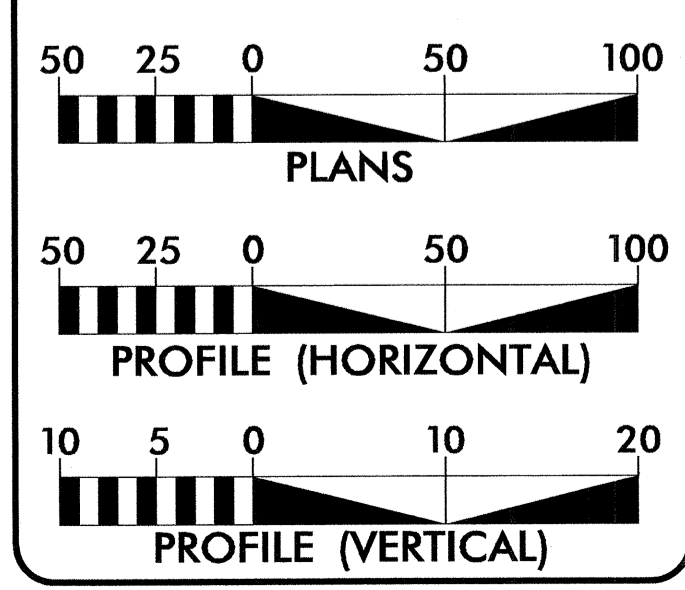
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4543	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
33758.1.1	BRSTP-1558(2)	PE	
33758.2.1	BRSTP-1558(2)	RW, UTIL.	
33758.3.1	BRSTP-1558(2)	CONST.	

TIP PROJECT: B-4543

CONTRACT: C202953



GRAPHIC SCALES



DESIGN DATA

ADT 2012 = 1433
ADT 2032 = 2174
DHV = 10 %
D = 60 %
T = 3 % *
V = 50 MPH
* TTST 1% DUAL 2%
FUNC. CLASS=RURAL LOCAL
SUB-REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-4543 = 0.069 MILES
LENGTH OF STRUCTURE TIP PROJECT B-4543 = 0.020 MILES
TOTAL LENGTH OF TIP PROJECT B-4543 = 0.089 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 8, 2010

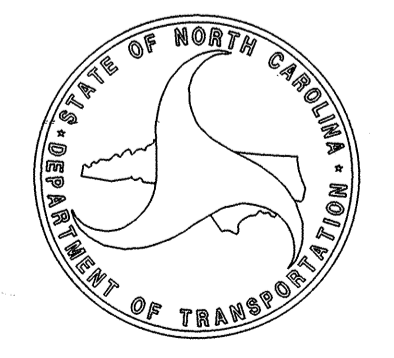
LETTING DATE:
NOVEMBER 20, 2012

GARY LOVERING, PE
PROJECT ENGINEER

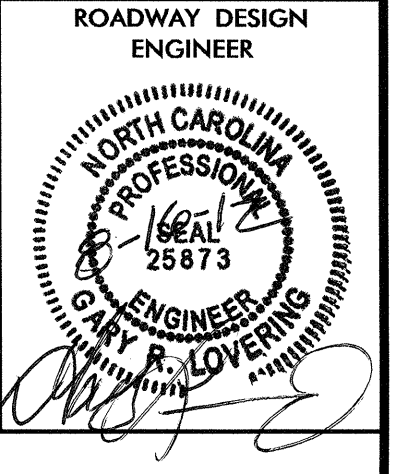
KEVIN E. MOORE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

Signature: *Brook Anderson*
SEAL: BROOK E. ANDERSON, P.E., 032581, 8/19/10
ROADWAY DESIGN ENGINEER
Signature: *Gary R. Lovering*
SEAL: GARY R. LOVERING, P.E., 25873, 1/19/10



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\$\$\$\$\$USERNAME\$\$\$\$\$



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 THRU 2-A	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
3A	SUMMARIES OF DRAINAGE, GUARDRAIL, SHOULDER BERM GUTTER, EARTHWORK, HYDRAULIC RIP RAP, REMOVAL OF ASPHALT PAVEMENT, AND PARCEL INDEX
4	PLAN SHEET
5	-L- PROFILE SHEET
TMP-1 THRU TMP-2	TRAFFIC MANAGEMENT PLAN
SD-1	SPECIAL SIGN DESIGN
PMP-1 THRU PMP-2	PAVEMENT MARKING PLAN
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-2	SIGNING PLAN
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1A	CROSS SECTION SUMMARY SHEET
X-1 THRU X-3	CROSS-SECTIONS
S-1 THRU S-18	STRUCTURE PLANS

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 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 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 OWNER ON THIS PROJECT IS: PROGRESS ENERGY (POWER)

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.

SAFETY CLEARING:

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE AREAS IN THE PLANS DESIGNATED SAFETY CLEARING. THE LIMITS ARE AS SHOWN AND THE CLEARING AND GRUBBING IS CONSIDERED A PART OF THE LUMP SUM ITEM FOR "CLEARING AND GRUBBING".

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	
200.02	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
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
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

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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	○ EP
Property Corner	✕
Property Monument	□ EOM
Parcel/Sequence Number	⑫③
Existing Fence Line	×-×-×-×
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	← FLOW
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ CSX TRANSPORTATION 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 RW Marker	△
Proposed Control of Access Line with Concrete CA 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	○ CR
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	---

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.

8/2/99

SURVEY CONTROL SHEET B-4543



BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	B-4543 BL-1	609863.2215	2105959.4097	203.23'	OUTSIDE PROJECT LIMITS	
2	B-4543 BL-2	609778.9451	2106264.7530	203.88'	10+78.32	17.84 LT
3	B-4543 BL-3	609578.4073	2106651.1923	205.51'	15+12.52	14.00 RT
4	B-4543 BL-4	609489.6001	2107014.3557	207.99'	18+83.91	15.86 RT
5	B-4543 BL-5	609623.2531	2107335.1036	211.54'	22+27.84	15.50 RT

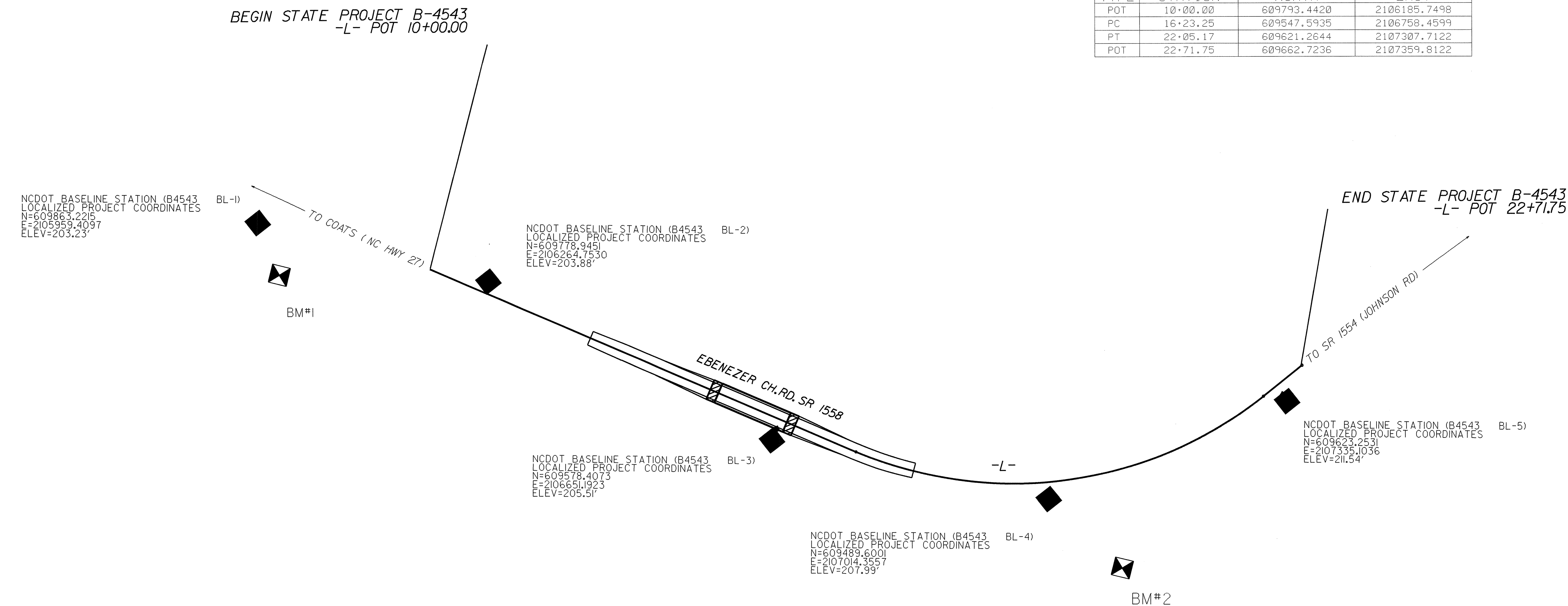
.....
 BM1 ELEVATION = 200.20
 N 609813 E 2105998
 L STATION 10+00
 N 84° 05' 10.6" W DIST 188.31
 RR SPIKE IN BASE OF 8 INCH GUM

.....
 BM2 ELEVATION = 210.35
 N 609386 E 2107117
 L STATION 19+60 134 RIGHT
 RR SPIKE IN BASE OF 36 INCH GUM

ROW MARKER IRON PIN AND CAP-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	13+00.00	50.00	609629.1574	2106441.7002
L	13+00.00	30.00	609647.5323	2106449.5880
L	13+00.00	-50.00	609721.0486	2106481.1465
L	13+00.00	-30.00	609702.6671	2106473.2558
L	16+23.25	50.00	609501.6472	2106738.7384
L	16+23.25	-50.00	609593.5384	2106778.1847
L	16+23.25	29.19	609520.7700	2106746.9473
L	19+79.79	-29.55	609549.8355	2107100.1211

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	13+00.00	65.00	609615.3738	2106435.7832
L	16+23.25	65.00	609487.8635	2106732.8215

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	609793.4420	2106185.7498
PC	16+23.25	609547.5935	2106758.4599
PT	22+05.17	609621.2644	2107307.7122
POT	22+71.75	609662.7236	2107359.8122



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BUNNLEVEL" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 567444.9543(ft) EASTING: 2065238.6484(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: .99987203 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BUNNLEVEL" TO -L- STATION 10+00.00 IS N 44°02'10.1" E 58907.2111' 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.NCDOT.ORG/DOHPRECONSTRUCT/HIGHWAYLOCATION/PROJECT/B4543_LS_CONTROL_090414.TXT](http://www.ncdot.org/DOHPRECONSTRUCT/HIGHWAYLOCATION/PROJECT/B4543_LS_CONTROL_090414.TXT)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4543_LS_CONTROL_090414.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 EXISTING HARN MONUMENTATION
 SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

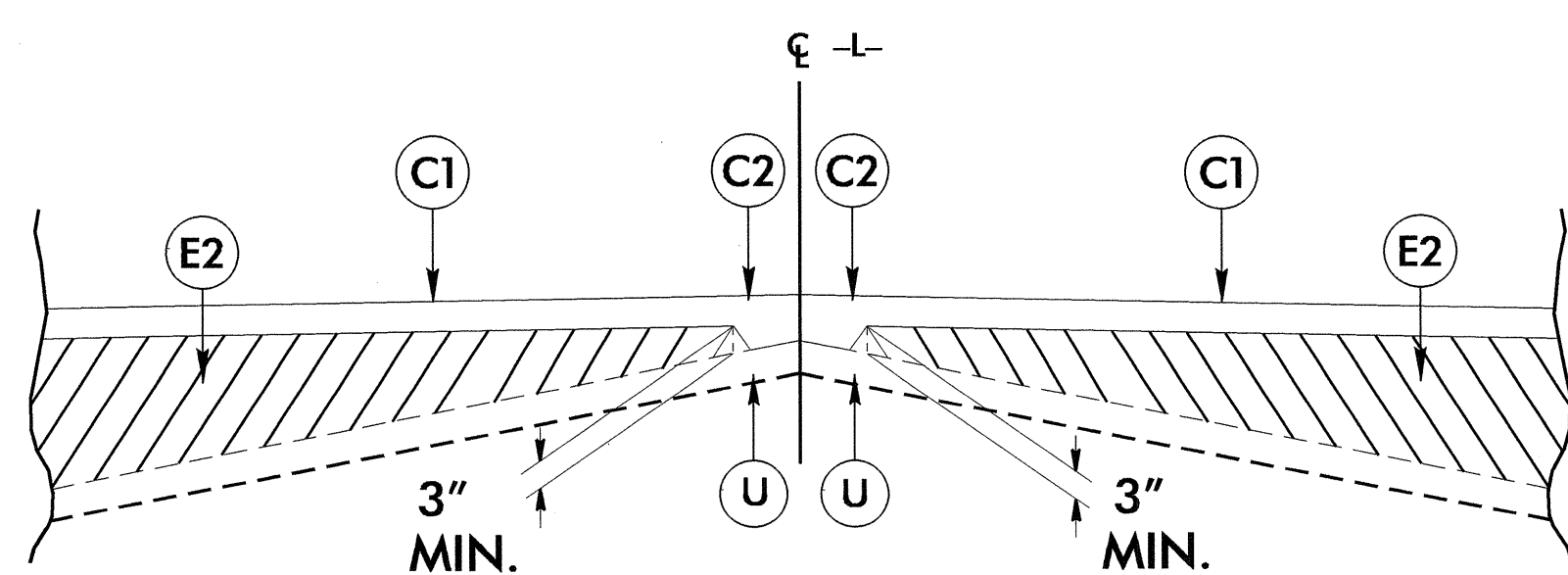
NOTE: DRAWING NOT TO SCALE

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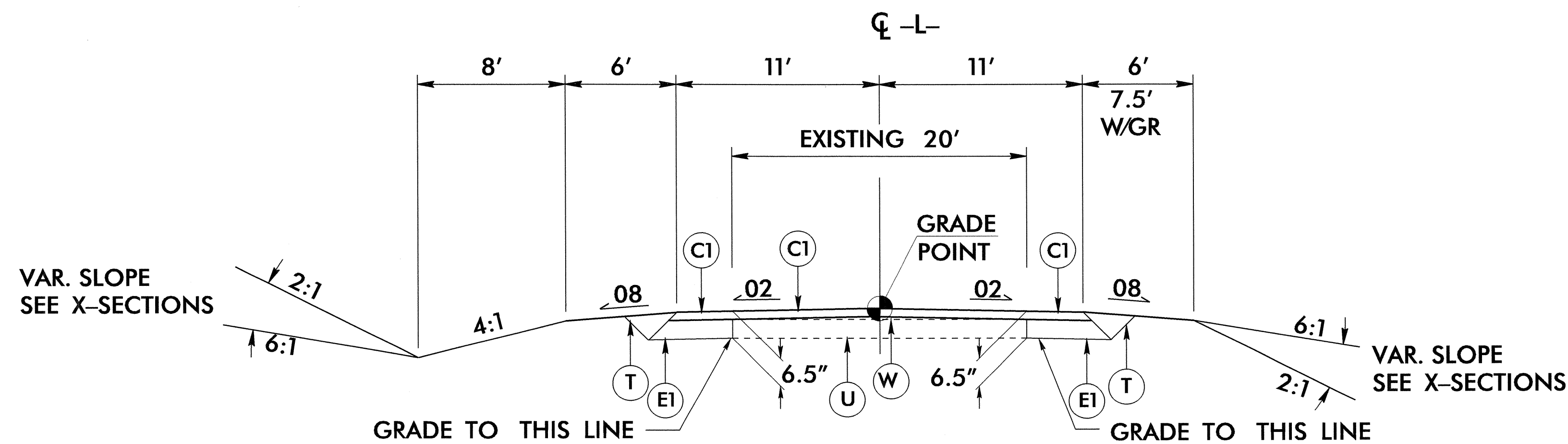
6/2/99

PAVEMENT SCHEDULE	
FINAL PAVEMENT DESIGN	
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. 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 5½" IN DEPTH.
R1	SHOULDER BERM GUTTER
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.



Standard Wedging Detail



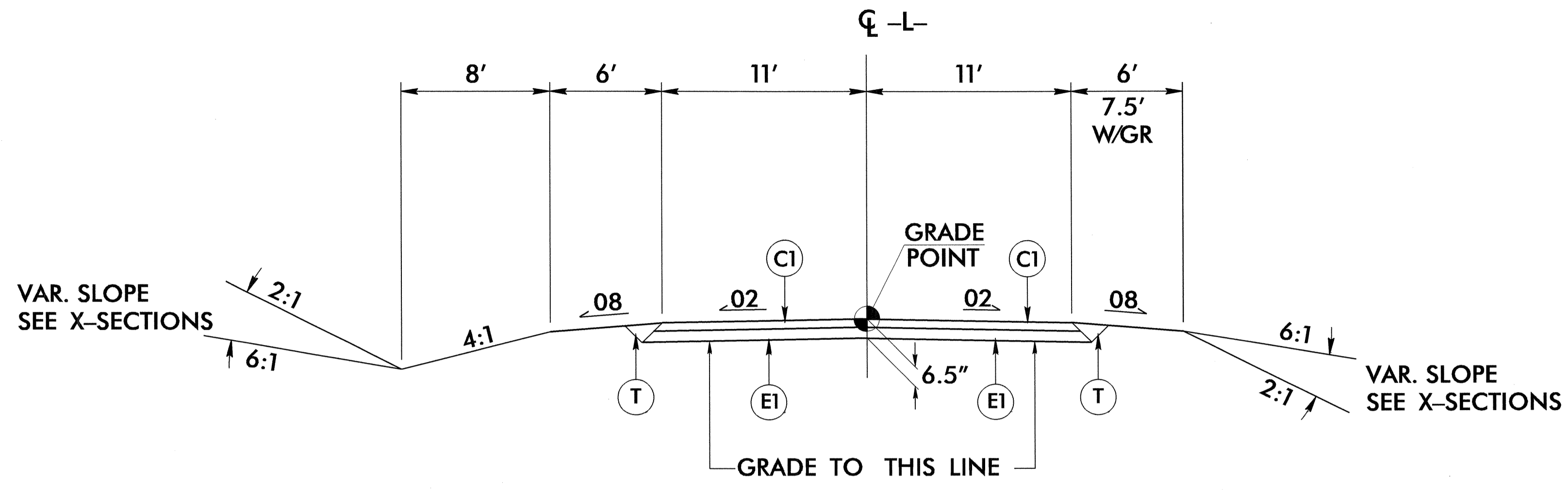
USE TYPICAL SECTION NO. 1
 -L- STA. 12+35.00 TO -L- STA. 13+91.81
 -L- STA. 15+49.19 TO -L- STA. 17+05.00

PROJECT REFERENCE NO. B-4543	SHEET NO. 2
ROADWAY DESIGN ENGINEER GARY R. LOVERING	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON
<i>[Signature]</i>	<i>[Signature]</i> 8/17/12

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PAVEMENT SCHEDULE	
FINAL PAVEMENT DESIGN	
C1	2½" SF9.5A
C2	VAR. SF9.5A
E1	4" B25.0B
E2	VAR. B25.0B
R1	SBG
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

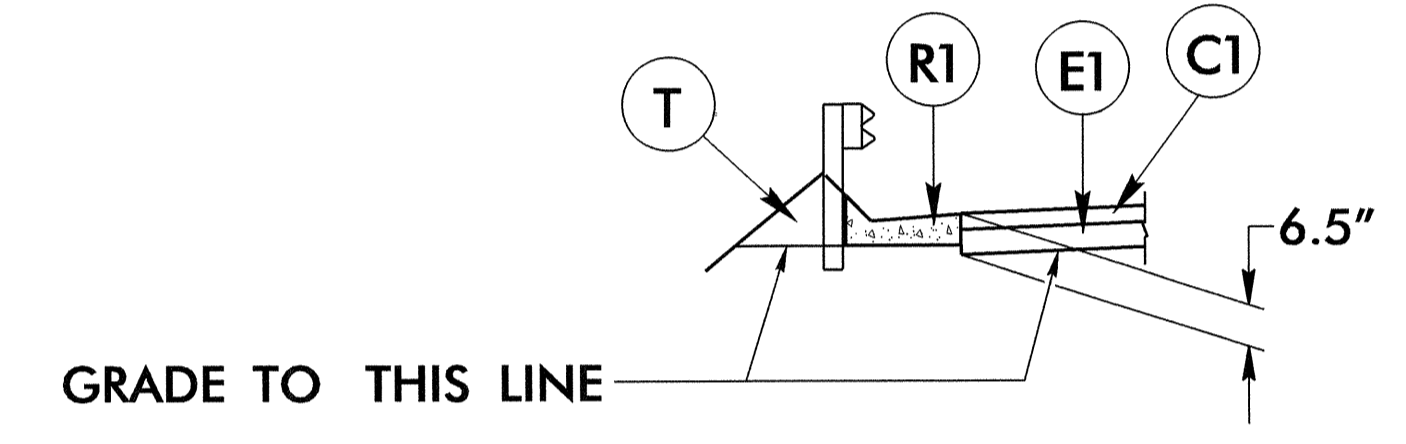
PROJECT REFERENCE NO. B-4543	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER GARY R. LOVING NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 25873	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22898 8/17/12



TYPICAL SECTION NO. 2

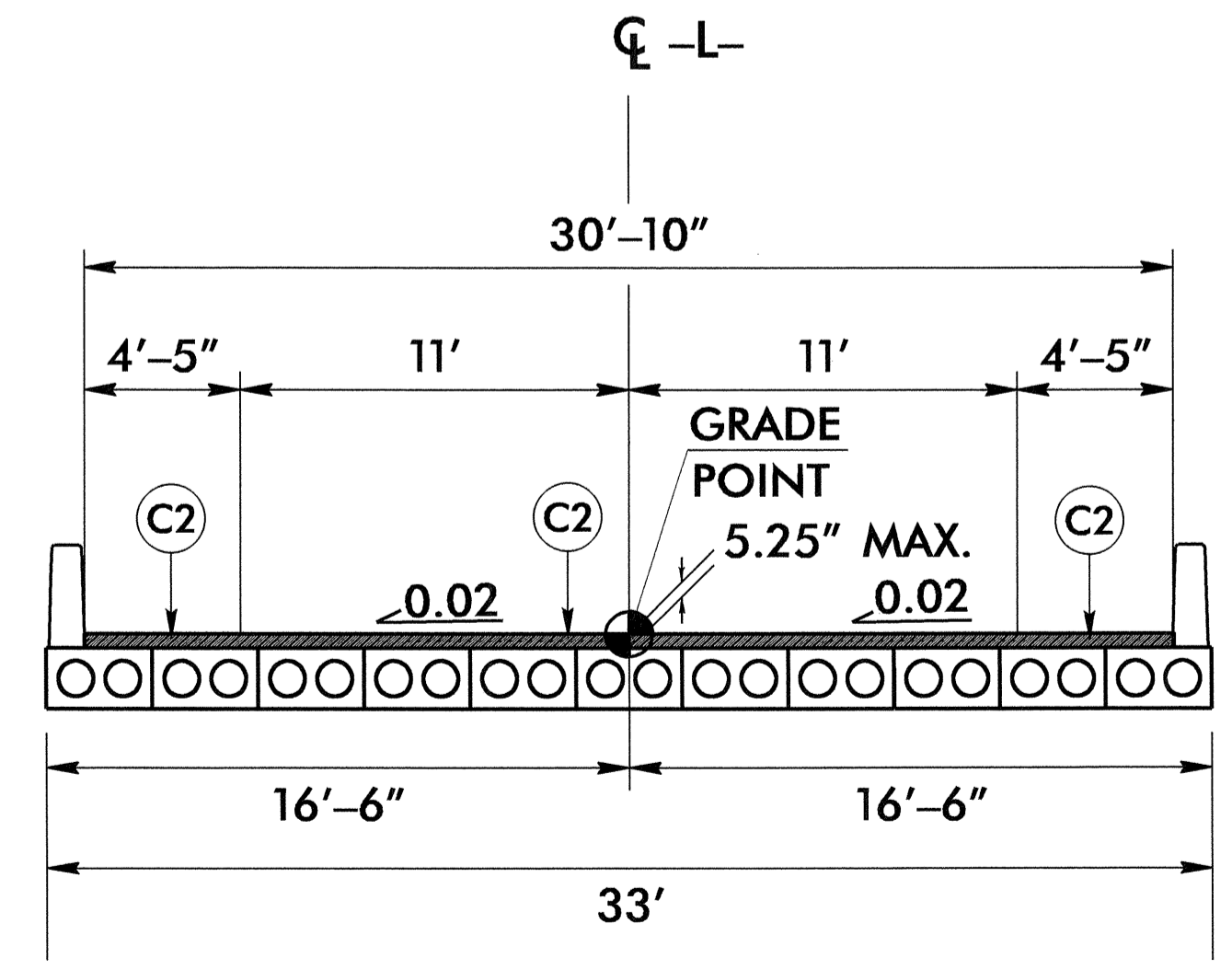
USE TYPICAL SECTION NO. 2

-L- STA. 13+91.81 TO -L- STA. 14+16.81 (BEGIN BRIDGE)
-L- STA. 15+24.19 (END BRIDGE) TO -L- STA. 15+49.19



DETAIL SHOWING SHOULDER BERM GUTTER ON TOP OF SUBGRADE

-L- STA. 13+88.00 TO -L- STA. 14+05.81 (BEGIN APPROACH SLAB) LT.
-L- STA. 13+95.81 TO -L- STA. 14+05.81 (BEGIN APPROACH SLAB) RT.
-L- STA. 15+35.19 (END APPROACH SLAB) TO -L- STA. 15+45.19 LT.
-L- STA. 15+35.19 (END APPROACH SLAB) TO -L- STA. 15+45.19 RT.



TYPICAL SECTION ON STRUCTURE

USE TYPICAL SECTION ON STRUCTURE

-L- STA. 14+16.81 (BEGIN BRIDGE) TO -L- STA. 15+24.19 (END BRIDGE)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202953

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING
0030000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (14+70.50 -L-)
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	200	CY	SELECT GRANULAR MATERIAL
0196000000-E	270	200	SY	GEOTEXTILE FOR SOIL STABILIZATION
0318000000-E	300	10	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
0320000000-E	300	10	SY	FOUNDATION CONDITIONING GEOTEXTILE
0582000000-E	310	20	LF	15" CS PIPE CULVERTS, 0.064" THICK
0636000000-E	310	2	EA	*** CS PIPE ELBOWS, ***** THICK (15", *****) 0.064
1330000000-E	607	180	SY	INCIDENTAL MILLING
1489000000-E	610	140	TON	ASPHALT CONC BASE COURSE, TYPE B25 0B
1525000000-E	610	280	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
1575000000-E	620	25	TON	ASPHALT BINDER FOR PLANT MIX
2022000000-E	815	33.6	CY	SUBDRAIN EXCAVATION
2033000000-E	815	16.8	CY	SUBDRAIN FINE AGGREGATE
2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE
2070000000-N	815	1	EA	SUBDRAIN PIPE OUTLET
2077000000-E	815	6	LF	6" OUTLET PIPE
2286000000-N	840	1	EA	MASONRY DRAINAGE STRUCTURES
2367000000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.29
2556000000-E	846	48	LF	SHOULDER BERM GUTTER

SUMMARY OF QUANTITIES - B-4543

ItemNumber	Sec #	Quantity	Unit	Description
3030000000-E	862	50	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III
3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3649000000-E	876	1	TON	RIP RAP, CLASS B
3656000000-E	876	605	SY	GEOTEXTILE FOR DRAINAGE
4155000000-N	907	6	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
4400000000-E	1110	317	SF	WORK ZONE SIGNS (STATIONARY)
4410000000-E	1110	57	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4445000000-E	1145	96	LF	BARRICADES (TYPE III)
4810000000-E	1205	3,760	LF	PAINT PAVEMENT MARKING LINES (4")
6000000000-E	1605	1,250	LF	TEMPORARY SILT FENCE
6006000000-E	1610	160	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	25	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	110	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	0.5	ACR	TEMPORARY MULCHING
6018000000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	100	LF	TEMPORARY SLOPE DRAINS
6029000000-E	SP	1,500	LF	SAFETY FENCE
6030000000-E	1630	100	CY	SILT EXCAVATION
6036000000-E	1631	1,500	SY	MATTING FOR EROSION CONTROL
6037000000-E	SP	150	SY	COIR FIBER MAT
6042000000-E	1632	120	LF	1/4" HARDWARE CLOTH
6070000000-N	1639	4	EA	SPECIAL STILLING BASINS
6071012000-E	SP	40	LF	COIR FIBER WATTLE

ItemNumber	Sec #	Quantity	Unit	Description
6084000000-E	1660	1	ACR	SEEDING & MULCHING
6087000000-E	1660	0.25	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
6108000000-E	1665	0.5	TON	FERTILIZER TOPDRESSING
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING
6117000000-N	SP	15	EA	RESPONSE FOR EROSION CONTROL

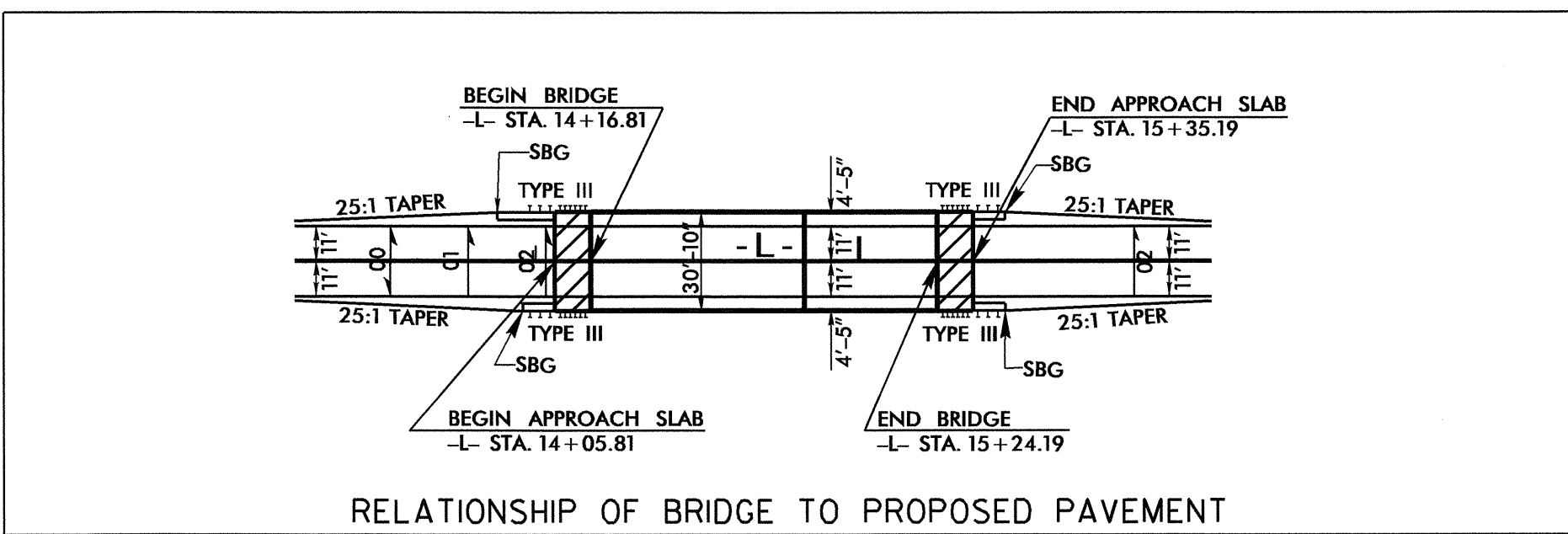
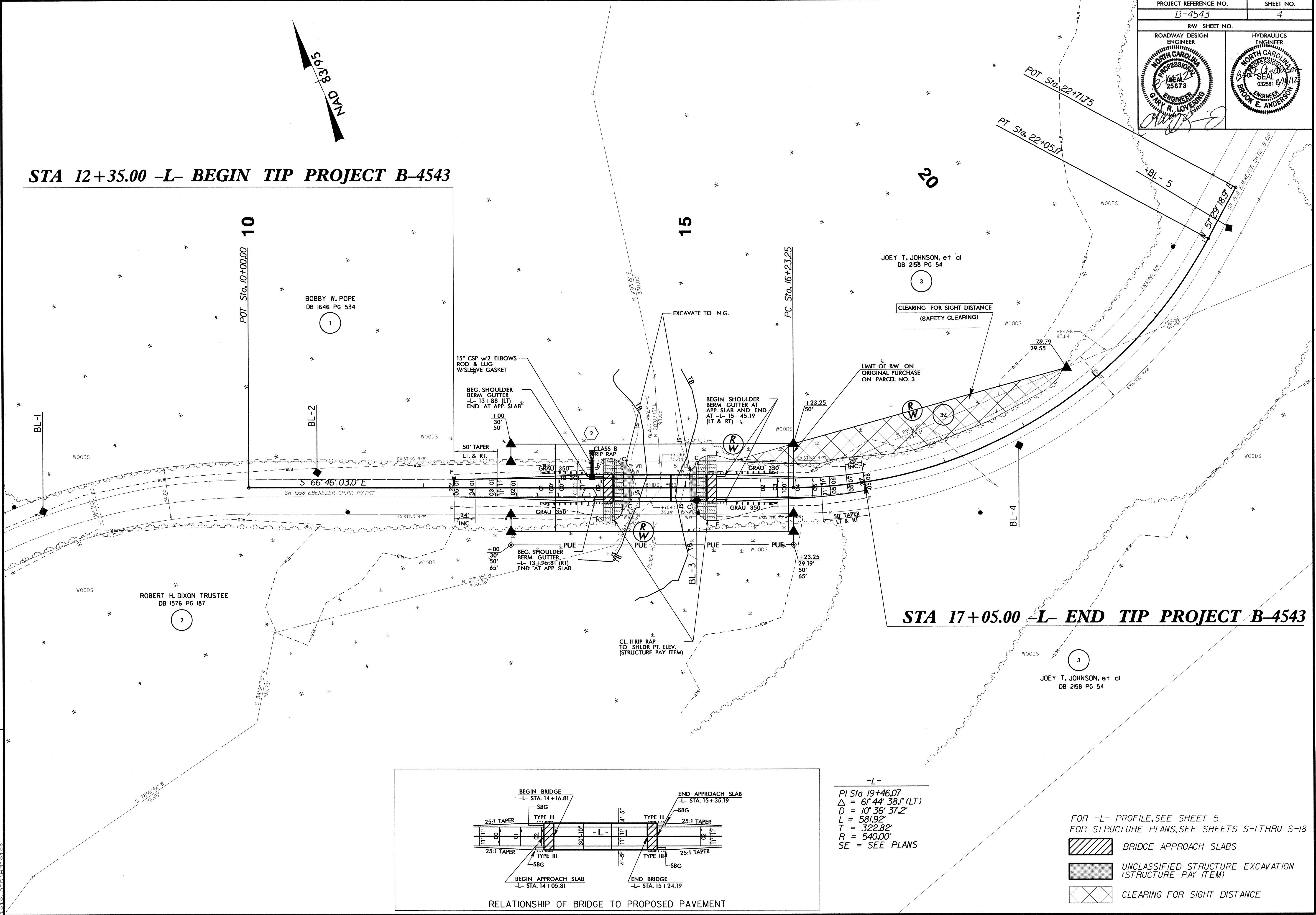
STA 12+35.00 -L- BEGIN TIP PROJECT B-4543

STA 17+05.00 -L- END TIP PROJECT B-4543

REVISIONS

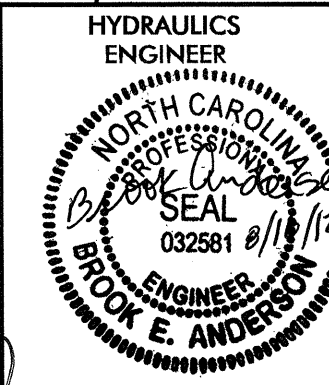
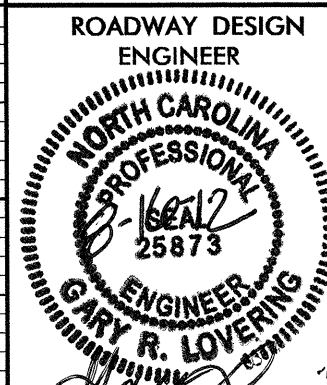
8/17/99

B:\AUC-2012\1606\Roadway\PROJ\B4543_rdy_psh.dgn



-L-
 PI Sta 19+46.07
 $\Delta = 6^\circ 44' 38.1\"$ (LT)
 $D = 10' 36' 37.2\"$
 $L = 581.92'$
 $T = 322.82'$
 $R = 540.00'$
 SE = SEE PLANS

- FOR -L- PROFILE, SEE SHEET 5
 FOR STRUCTURE PLANS, SEE SHEETS S-1 THRU S-18
- BRIDGE APPROACH SLABS
 - UNCLASSIFIED STRUCTURE EXCAVATION (STRUCTURE PAY ITEM)
 - CLEARING FOR SIGHT DISTANCE



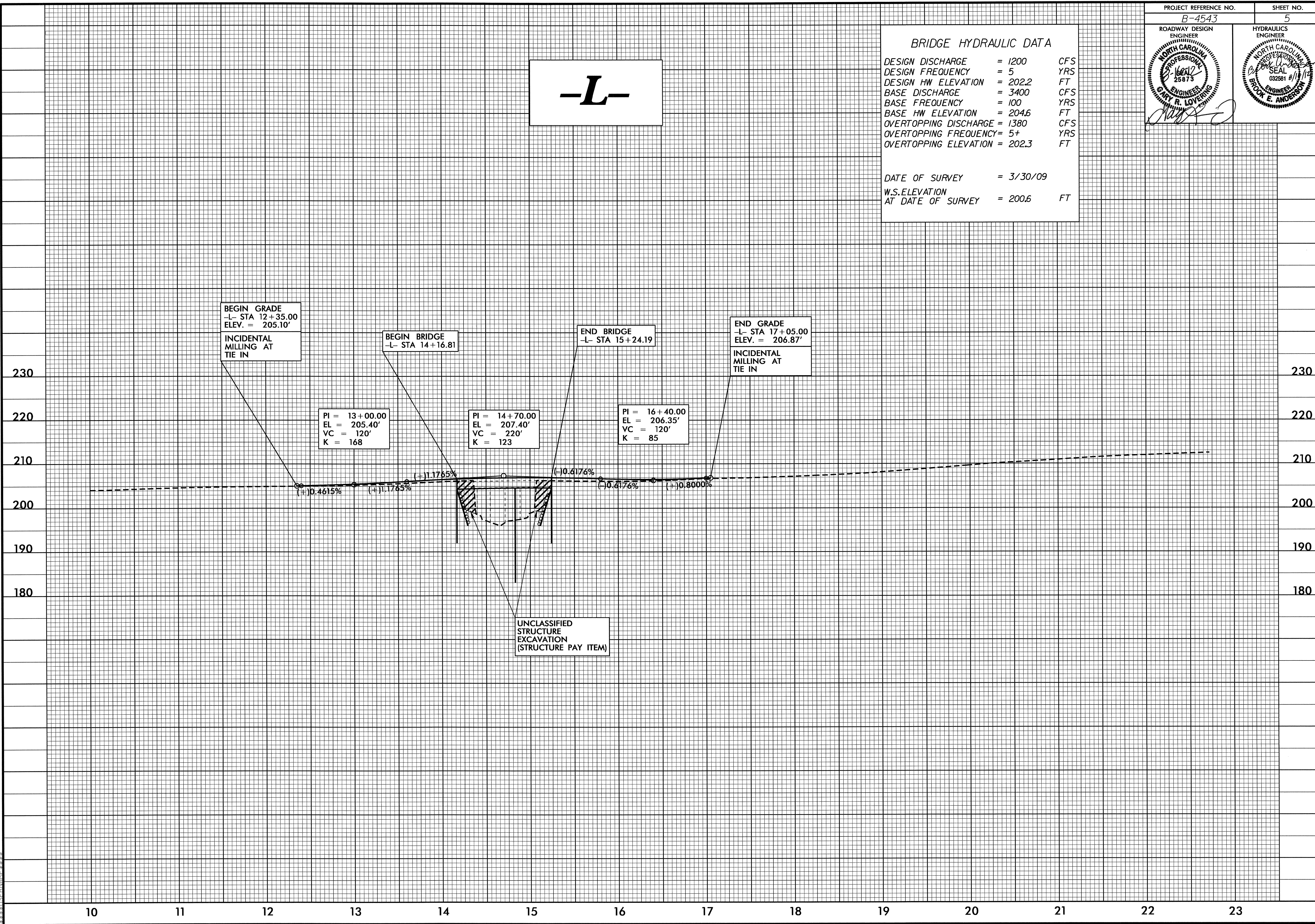
Cary R. Lovensing

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1200	CFS
DESIGN FREQUENCY	= 5	YRS
DESIGN HW ELEVATION	= 202.2	FT
BASE DISCHARGE	= 3400	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 204.6	FT
OVERTOPPING DISCHARGE	= 1380	CFS
OVERTOPPING FREQUENCY	= 5+	YRS
OVERTOPPING ELEVATION	= 202.3	FT

DATE OF SURVEY	= 3/30/09
W.S. ELEVATION AT DATE OF SURVEY	= 200.6 FT

-L-



5/14/99
 23-JUL-2002 15:09
 F:\woodrow\pco\B4543_rdy_pf1.dgn
 \$\$\$\$\$(USE FIRM)\$\$\$