

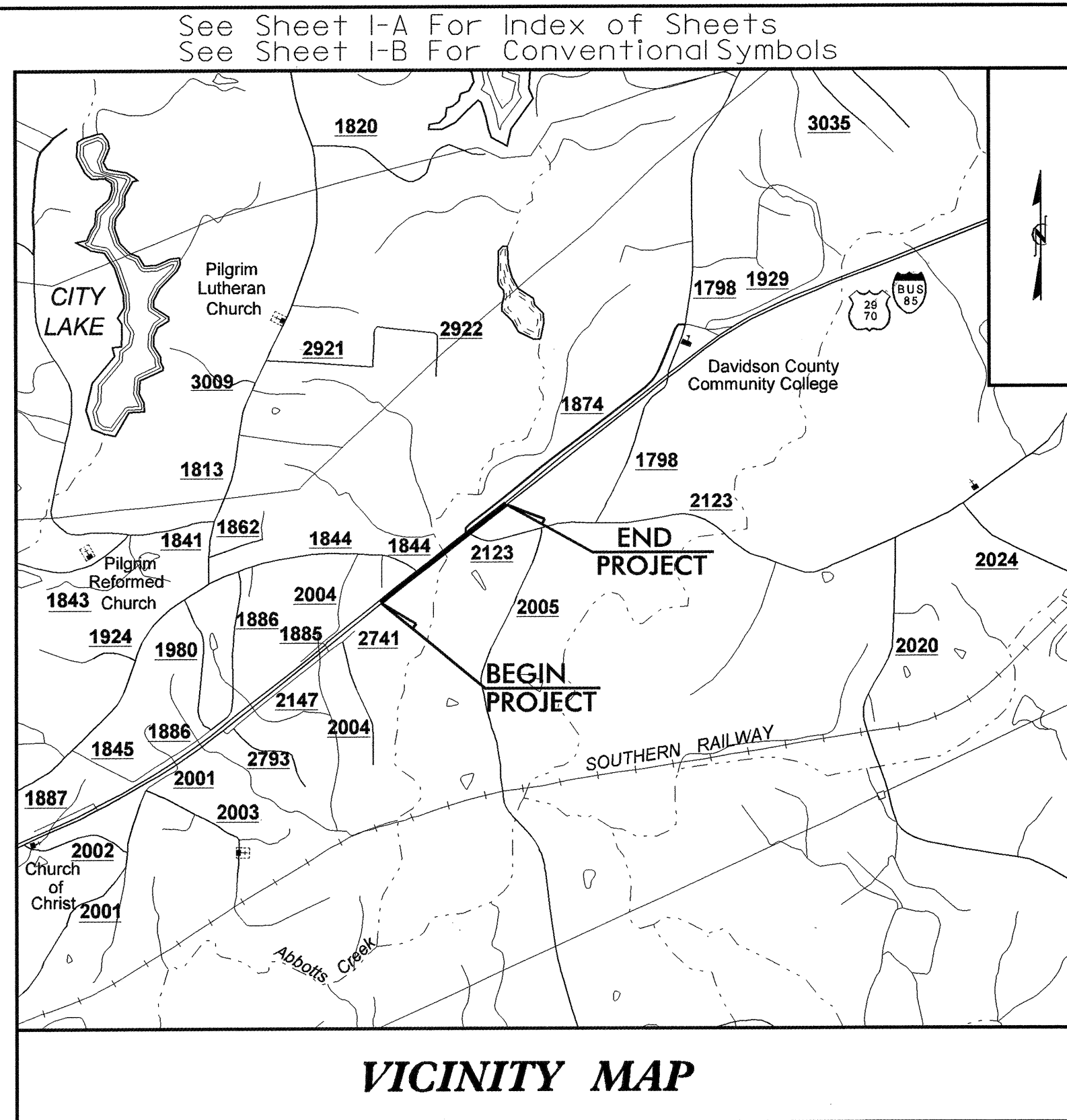
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4095	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33453.1.1	BRSTP-29(19)	PE	
33453.2.2	BRSTP-29(19)	R /W & UTILITIES	
33453.3.1	BRSTP-29(19)	CONSTRUCTION	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

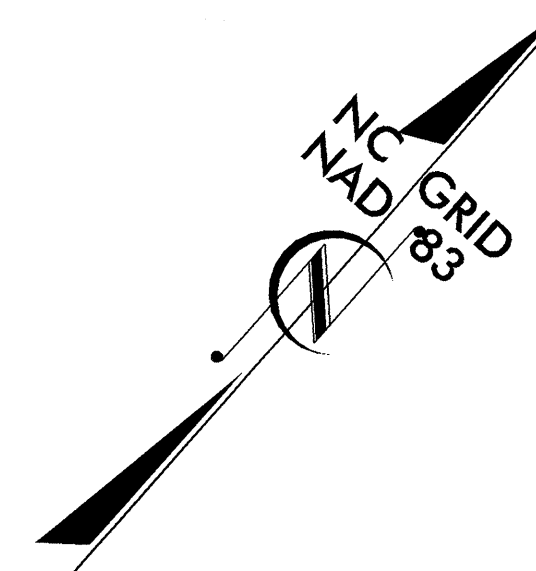
DAVIDSON COUNTY

LOCATION: BRIDGE NO. 128 (NBL) & NO. 130 (SBL) OVER ABBOTTS CREEK ON US 29 /70 AND I-85 BUSINESS LOOP

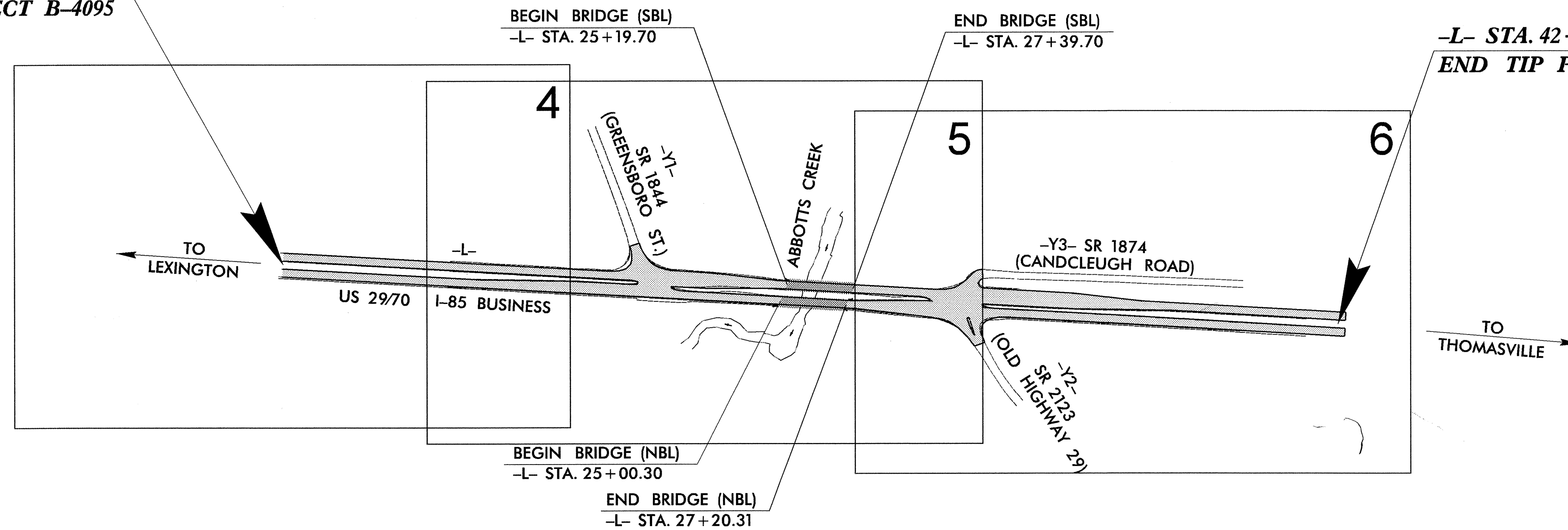
TYPE OF WORK: GRADING, DRAINAGE, STRUCTURES AND PAVING



VICINITY MAP



-L- STA. 10+00.00
BEGIN TIP PROJECT B-4095

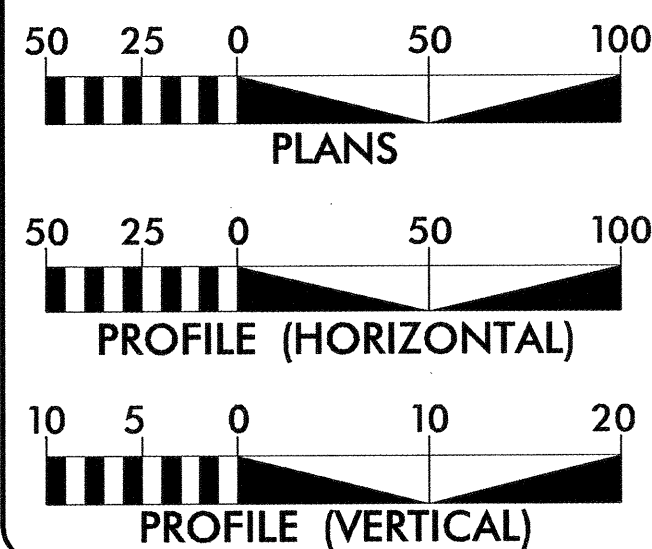


-L- STA. 42+00.00
END TIP PROJECT B-4095

NCDOT CONTACT: CATHY S. HOUSER, PE
PROJECT ENGINEER
ROADWAY DESIGN

CONTRACT: C201601 TIP PROJECT: B-4095

GRAPHIC SCALES



DESIGN DATA

ADT 2006 = 25,820
ADT 2026 = 39,900
DHV = 10 %
D = 60 %
T = 16 % *
V = 60 MPH
* TTST 6% DUAL 10%
FUNC CLASS = RURAL
MINOR ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4095 = 0.564 MILES
LENGTH STRUCTURES TIP PROJECT B-4095 = 0.042 MILES
TOTAL LENGTH OF TIP PROJECT B-4095 = 0.606 MILES

Prepared in the Office of:
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310
RALEIGH, NORTH CAROLINA 27609
PHONE: (919) 876-6888

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 30, 2005

DAVID W. BASS, PE
PROJECT ENGINEER

LETTING DATE:
AUGUST 21, 2007

CLINTON J. MORGAN, PE
PROJECT DESIGN ENGINEER

HYDRAULIC ENGINEER

North Carolina Professional Engineer Seal
SEAL 29185
Signature: *Richard K. Hiner*
P.E.
5/27/07

ROADWAY DESIGN

North Carolina Professional Engineer Seal
SEAL 024929
Signature: *Clinton J. Morgan*
P.E.
5-24-07

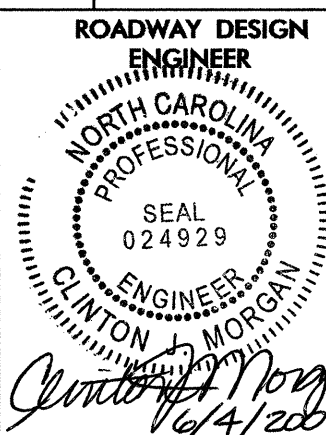
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Aut M. Miller
P.E.

STATE DESIGN ENGINEER
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR
DATE

24-MAY-2007 2:14:44 b4095_r.dwg \$\$\$\$\$\$



B-4095
Davidson County
Index of Sheets

Sheet Number	Sheet
1	Title Sheet
1A	Index of Sheets, Roadway Standards, General Notes
1B	Conventional Symbols
1C	Survey Control Sheet
2 and 2A	Typical Sections, Pavement Schedule and Wedging Details
2B Thru 2E	Temporary Cross-Over Details
2F	Anchorage For Frames Detail
2G	Detail for Temporary Steel Cover for Drainage Structure
3	Summary of Quantities
3A	Summary of Earthwork, Summary of Existing Asphalt Pavement Removal
3B	List of Pipes, Endwalls, etc., (for pipes 48" & under) and Guardrail Summary
4 Thru 8	Plan and Profile Sheets
TCP-1 Thru TCP-26	Traffic Control Plans
PM-1	Pavement Marking Plans
SIGN-1 Thru SIGN-6	Signing Plans
EC-1 Thru EC-9	Erosion Control Plans
UC-1 Thru UC-3	Utility Construction Plans
UO-1 Thru UO-2	Utilities by Others Plans
X-1	Cross-section Index Sheet
X-1A	Cross-section Summary Sheet
X-2 Thru X-17	Cross-sections
S-1 Thru S-9	Structure Plans

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

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.

END BENTS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE: Locom (telephone)
City of Lexington- Electric Department (Distribution)
City of Lexington- Gas Department
MCI - Telephone

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS. EXCEPT AS SHOWN ON THE PLANS.

2006 ROADWAY STANDARD DRAWINGS

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

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.04	Method of Obtaining Super-elevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Super-elevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.22	Frames and Wide Slot Sag Grates
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates
840.37	Steel Grate and Frame
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.72	Pipe Collar
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
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.24	Frames and Narrow Slot Sag Grates

EFF. 07-18-06

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL SYMBOLS

ROADS & RELATED ITEMS

BUILDINGS & OTHER CULTURE

Edge of Pavement	-----
Curb	-----
Prop. Slope Stakes Cut	----- C -----
Prop. Slope Stakes Fill	----- F -----
Prop. Woven Wire Fence	----- ○ -----
Prop. Chain Link Fence	----- □ -----
Prop. Barbed Wire Fence	----- ◇ -----
Prop. Wheelchair Ramp	----- (WCR) -----
Exist. Guardrail	----- T -----
Prop. Guardrail	----- T -----
Equality Symbol	----- ⊕ -----
Pavement Removal	----- ⊗ -----

MINOR	
Head & End Wall	----- CONC HW -----
Pipe Culvert	----- - - - - - -----
Footbridge	----- >-----< -----
Drainage Boxes	----- □ CB -----
Paved Ditch Gutter	----- - - - - - -----

Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement	----- TS ----- TS -----
Water Line	----- W ----- W -----
Sanitary Sewer	----- SS ----- SS -----
Sanitary Sewer Force Main	----- FSS ----- FSS -----
Gas Line	----- G ----- G -----
Storm Sewer	----- S ----- S -----
Power Line	----- P ----- P -----
Telephone Cable	----- T ----- T -----
U/G Telephone Conduit	----- TC ----- TC -----
Unknown Utility	----- ?UTL ----- ?UTL -----
Television Cable	----- TV ----- TV -----
Fiber Optics Cable	----- FO ----- FO -----

Buildings	----- [] -----
Foundations	----- [] -----
Area Outline	----- [] -----
Gate	----- [] -----
Gas Pump Vent or U/G Tank Cap	----- ○ -----
Church	----- [] -----
School	----- [] -----
Park	----- [] -----
Cemetery	----- [] -----
Dam	----- [] -----
Sign	----- [] -----
Well	----- [] -----
Small Mine	----- [] -----
Swimming Pool	----- [] -----

UTILITIES

Exist. Pole	----- ● -----
Exist. Power Pole	----- ● -----
Prop. Power Pole	----- ○ -----
Exist. Telephone Pole	----- ● -----
Prop. Telephone Pole	----- ○ -----
Exist. Joint Use Pole	----- ● -----
Prop. Joint Use Pole	----- ○ -----
Telephone Pedestal	----- [] -----
Cable TV Pedestal	----- [] -----
Hydrant	----- ⊕ -----
Satellite Dish	----- ⊗ -----
Exist. Water Valve	----- ⊗ -----
Sewer Clean Out	----- ⊕ -----
Power Manhole	----- ⊕ -----
Telephone Booth	----- [] -----
Water Manhole	----- ⊕ -----
Light Pole	----- ⊗ -----
H-Frame Pole	----- ● -----
Power Line Tower	----- ⊗ -----
Pole with Base	----- [] -----
Gas Valve	----- ◇ -----
Gas Meter	----- ⊕ -----
Telephone Manhole	----- ⊕ -----
Power Transformer	----- ⊕ -----
Sanitary Sewer Manhole	----- ⊕ -----
Storm Sewer Manhole	----- ⊕ -----
Tank; Water, Gas, Oil	----- [] -----
Water Tank With Legs	----- [] -----
Traffic Signal Junction Box	----- [] -----
Fiber Optic Splice Box	----- [] -----
Television or Radio Tower	----- ⊗ -----

RIGHT OF WAY

Baseline Control Point	----- ◆ -----
Existing Right of Way Marker	----- △ -----
Exist. Right of Way Line w/Marker	----- △ -----
Prop. Right of Way Line with Proposed RW Marker (Iron Pin & Cap)	----- ▲ -----
Prop. Right of Way Line with Proposed (Concrete or Granite) RW Marker	----- ⊕ -----
Exist. Control of Access Line	----- (C) -----
Prop. Control of Access Line	----- (C) -----
Exist. Easement Line	----- E -----
Prop. Temp. Construction Easement Line	----- E -----
Prop. Temp. Drainage Easement Line	----- TDE -----
Prop. Perm. Drainage Easement Line	----- PDE -----

Exist. Water Meter	----- [] -----
Drawn According to U/G Records	----- DATUR -----
Abandoned According to U/G Records	----- AATUR -----
End Of Information	----- E.O.I. -----

TOPOGRAPHY

Loose Surface	----- [] -----
Hard Surface	----- [] -----
Change in Road Surface	----- [] -----
Curb	----- [] -----
Right of Way Symbol	----- R/W -----
Guard Post	----- [] -----
Paved Walk	----- [] -----
Bridge	----- [] -----
Box Culvert or Tunnel	----- [] -----
Ferry	----- [] -----
Culvert	----- [] -----
Footbridge	----- [] -----
Trail, Footpath	----- [] -----
Light House	----- [] -----

BOUNDARIES & PROPERTIES

State Line	----- [] -----
County Line	----- [] -----
Township Line	----- [] -----
City Line	----- [] -----
Reservation Line	----- [] -----
Property Line	----- [] -----
Property Line Symbol	----- [] -----
Exist. Iron Pin	----- [] -----
Property Corner	----- [] -----
Property Monument	----- [] -----
Property Number	----- [] -----
Parcel Number	----- [] -----
Fence Line	----- [] -----
Existing Wetland Boundaries	----- [] -----
Proposed Wetland Boundaries	----- [] -----
Existing Endangered Animal Boundaries	----- [] -----
Existing Endangered Plant Boundaries	----- [] -----

VEGETATION

Single Tree	----- [] -----
Single Shrub	----- [] -----
Hedge	----- [] -----
Woods Line	----- [] -----
Orchard	----- [] -----
Vineyard	----- [] -----

HYDROLOGY

Stream or Body of Water	----- [] -----
Flow Arrow	----- [] -----
Disappearing Stream	----- [] -----
Spring	----- [] -----
Swamp Marsh	----- [] -----
Shoreline	----- [] -----
Falls, Rapids	----- [] -----
Prop Lateral, Tail, Head Ditches	----- [] -----

STRUCTURES

MAJOR	
Bridge, Tunnel, or Box Culvert	----- [] -----
Bridge Wing Wall, Head Wall and End Wall	----- [] -----

RAILROADS

Standard Gauge	----- [] -----
RR Signal Milepost	----- [] -----
Switch	----- [] -----

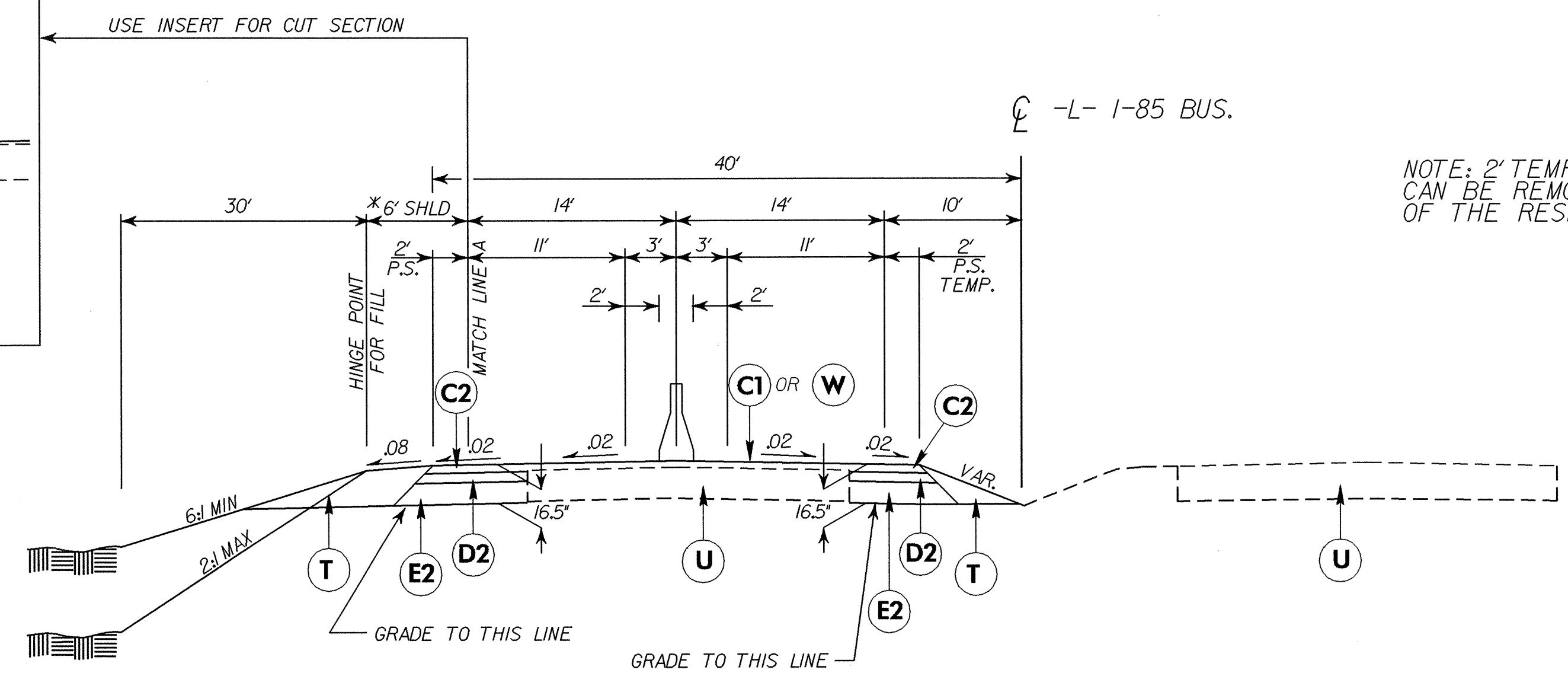
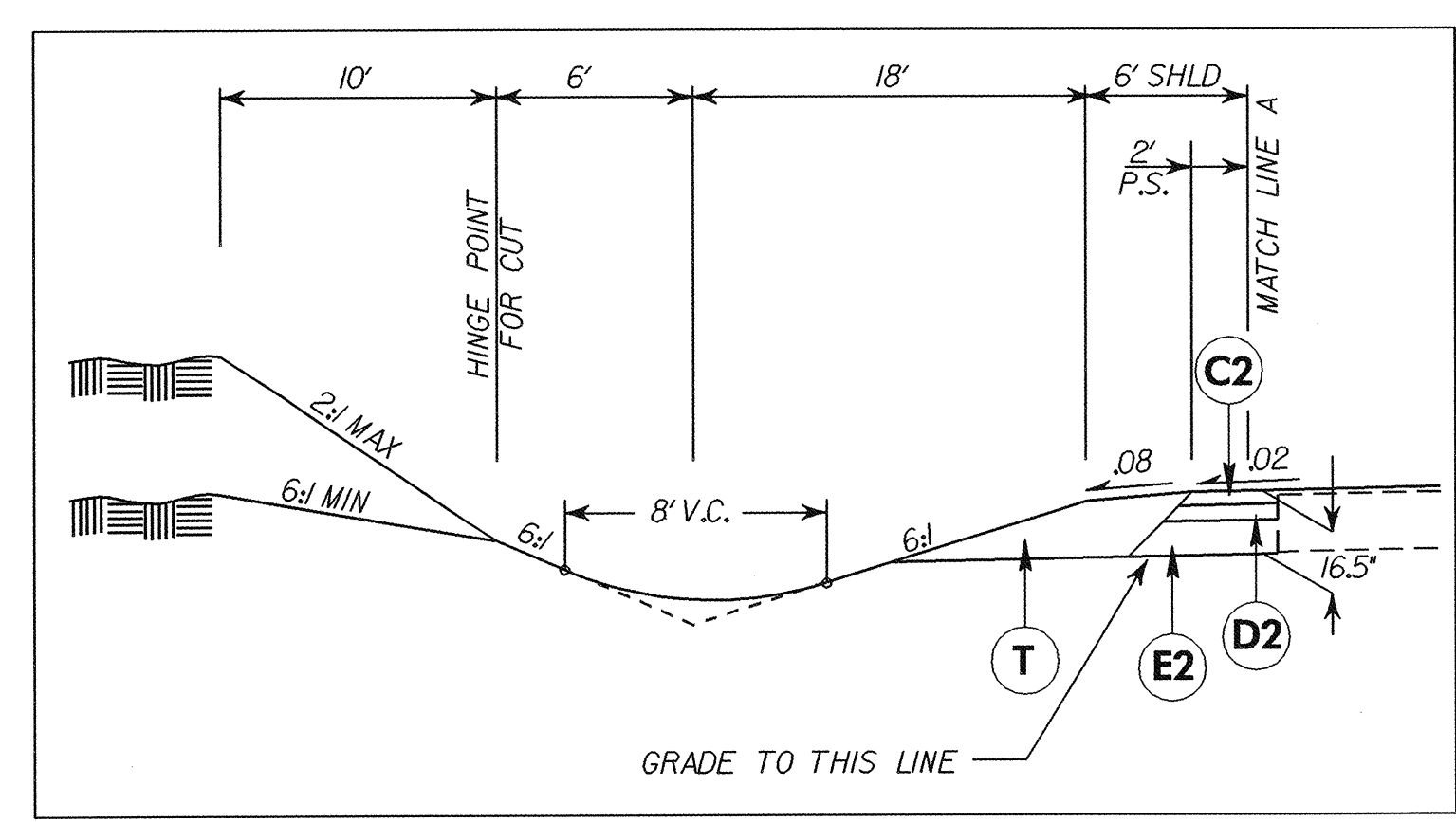
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8/17/99

TRAFFIC CONTROL TYPICAL SECTIONS

(USE IN CONJUNCTION WITH TRAFFIC CONTROL PLANS AND PLAN SHEETS 2-B THRU 2-E)

PROJECT REFERENCE NO. B-4095	SHEET NO. 2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER GUYTON D. BOGGS	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919) 876-6888	



NOTE: 2" TEMPORARY MEDIAN PAVED SHOULDER CAN BE REMOVED AT THE DISCRETION OF THE RESIDENT ENGINEER.

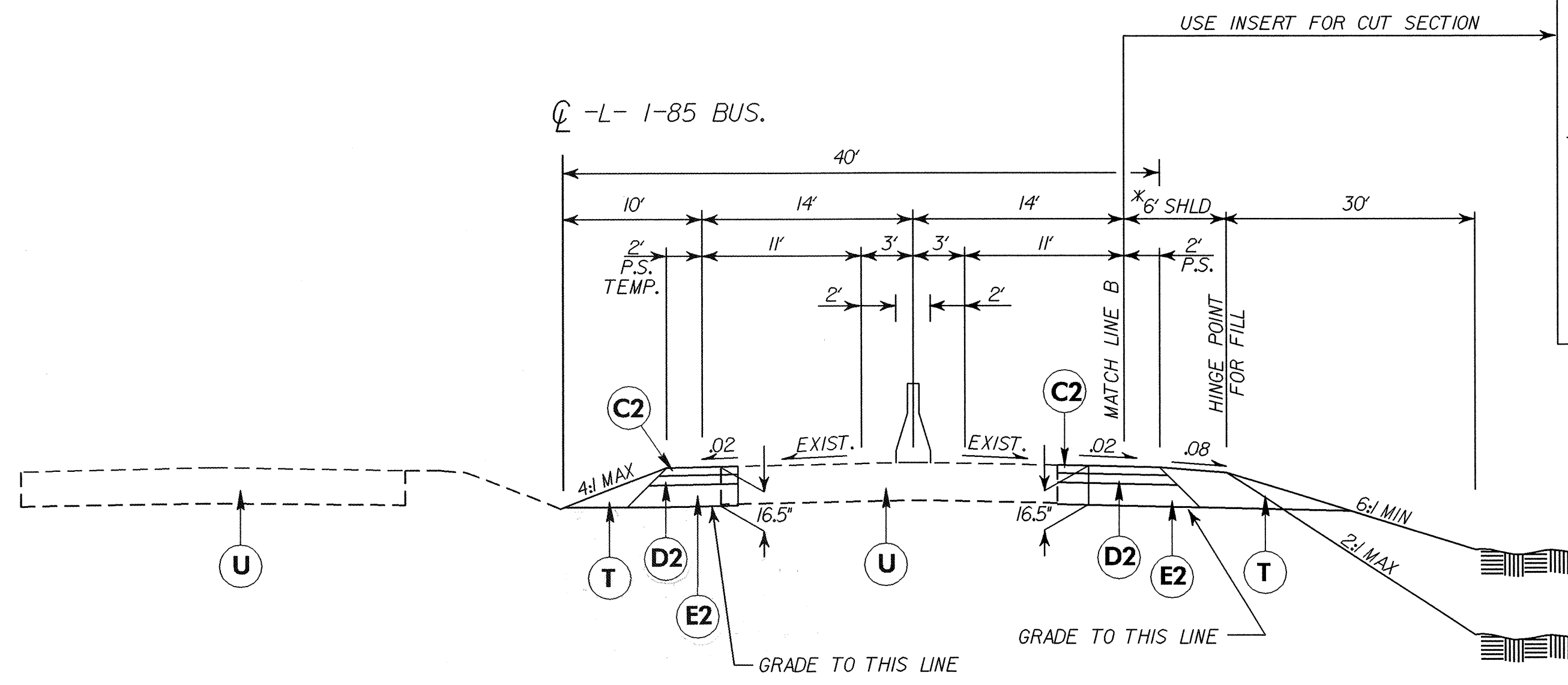
PAVEMENT SCHEDULE	
C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C (TWO LAYERS)
C3	VAR. DEPTH TYPE S9.5C
D2	4" TYPE I19.0C
D3	VAR. DEPTH TYPE I19.0C
E1	5" TYPE B25.0C
E2	9.5" TYPE B25.0C (TWO LAYERS)
E3	15" TYPE B25.0C, (THREE LAYERS)
E4	VAR. DEPTH TYPE B25.0C
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING DETAIL.

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

TYPICAL SECTION NO. 4

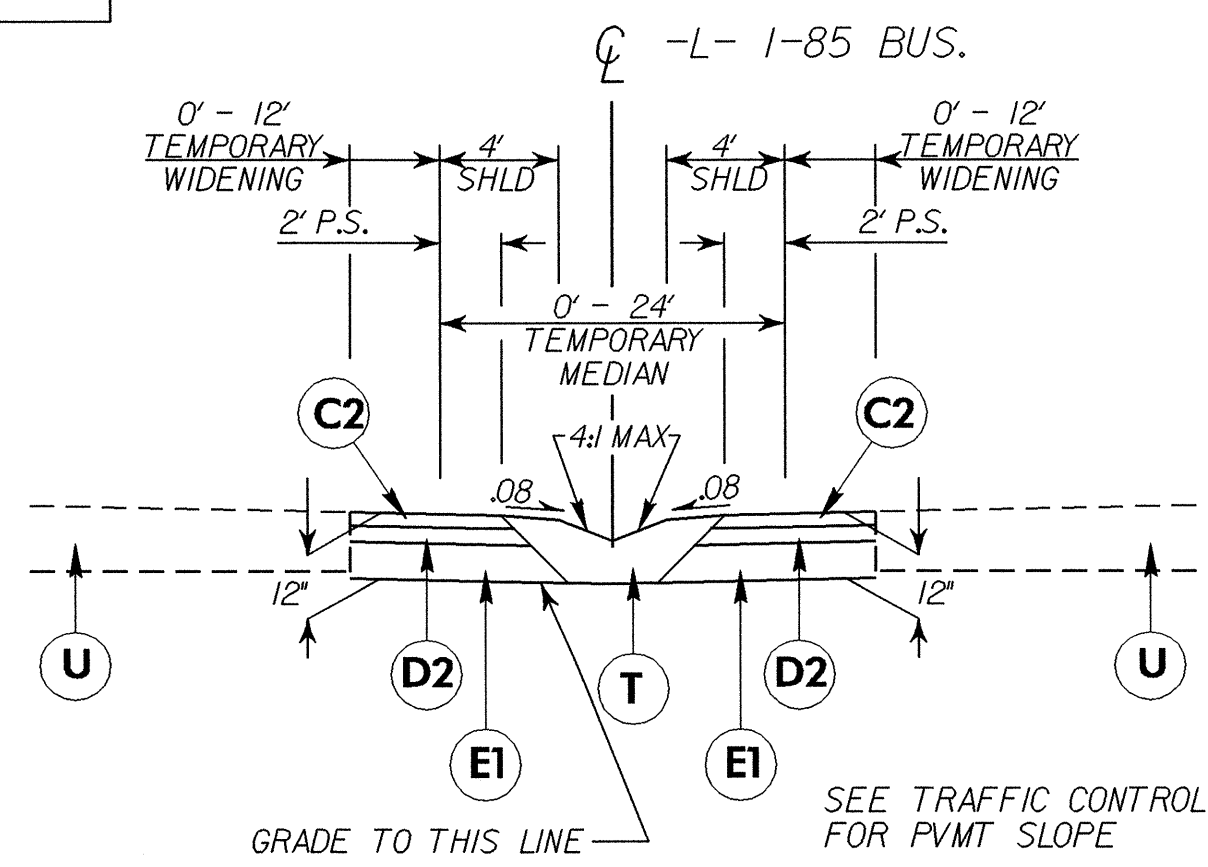
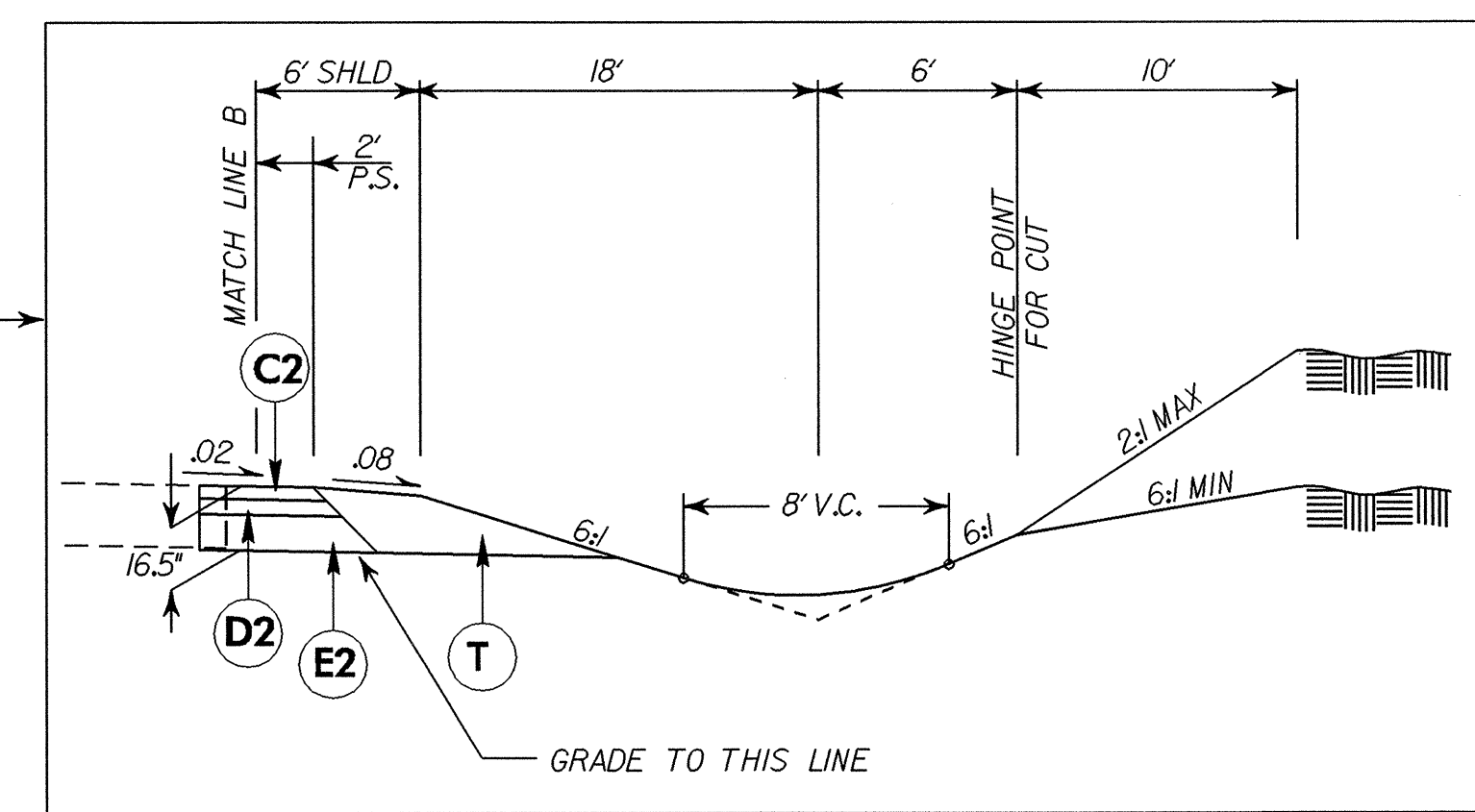
USE TYPICAL SECTION NO.4 AS FOLLOWS:
 -L- STA.10+00.00 TO STA. 22+25.00 (SBL)
 -L- STA.28+50.00 TO STA. 42+00.00 (SBL)

REVISIONS



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO.5 AS FOLLOWS:
 -L- STA.14+00.00 TO STA. 25+15.00 (NBL)
 -L- STA. 31+88.00 TO STA. 36+78.00 (NBL)



TYPICAL SECTION NO. 6

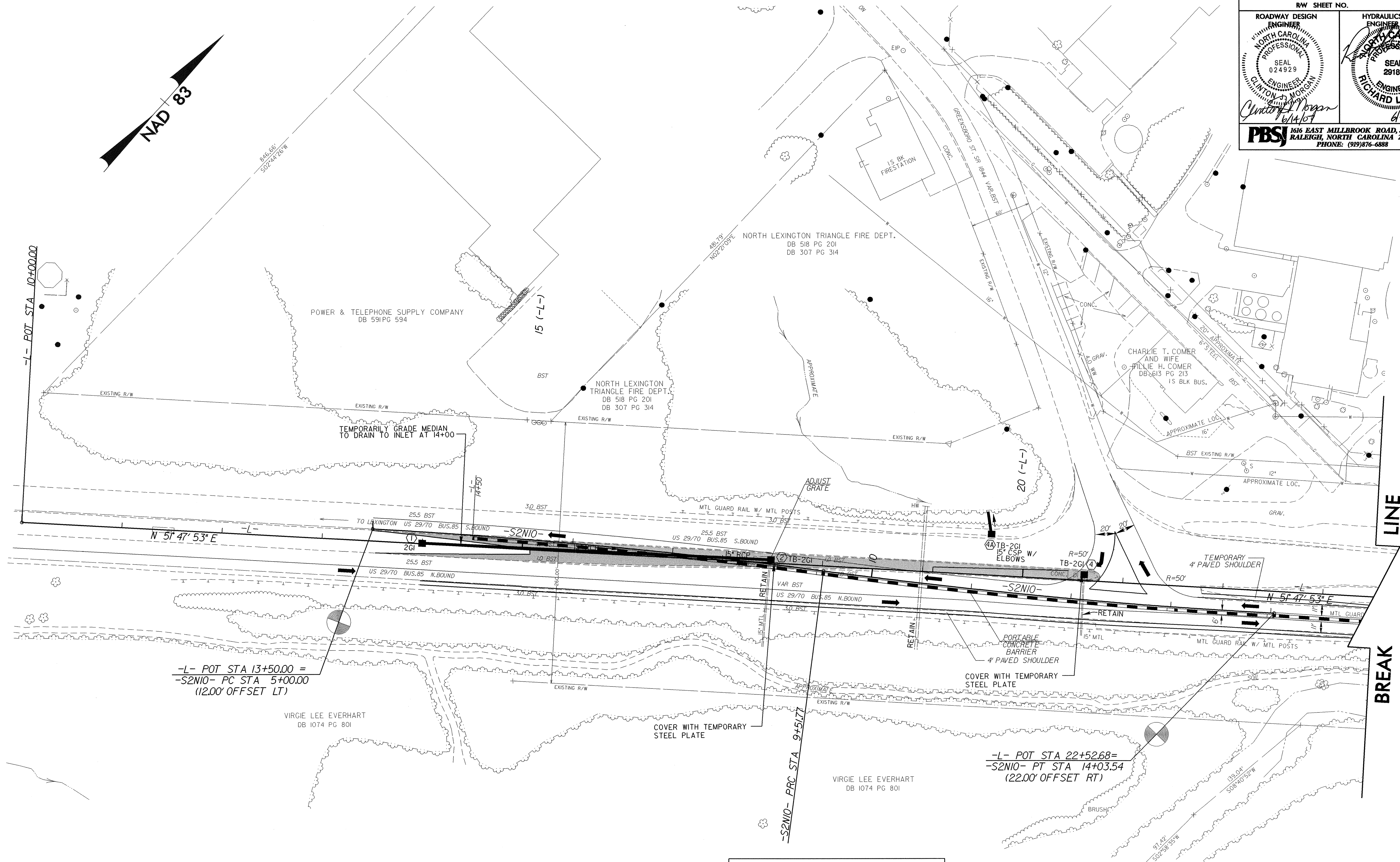
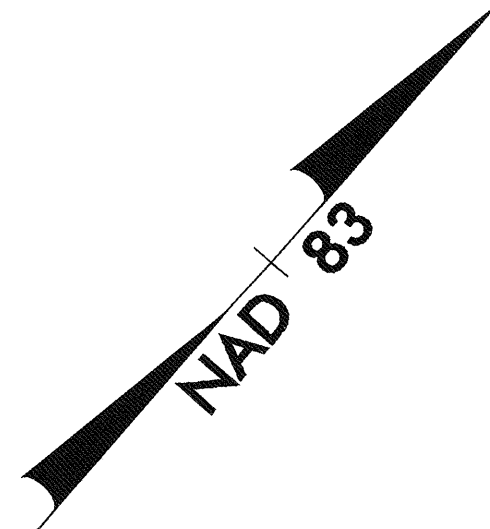
USE TYPICAL SECTION NO.6 AS FOLLOWS FOR TEMPORARY MEDIAN CROSS-OVERS:
 -L- STA. 13+53.74 TO STA. 20+44.86
 -L- STA. 31+20.41 TO STA. 36+78.22

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 21125 bawal 6011001121

8/17/99

13 JUN 2007 09:50:40 950_4095_r.dwg psh2a.dgn

PROJECT REFERENCE NO. B-4095		SHEET NO. 2B	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 024929 CANTON MORAN 6/11/07		HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 29185 RICHARD L. HINNET 6/11/07	
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888			



REVISIONS

BREAK LINE SEE SHEET 2C

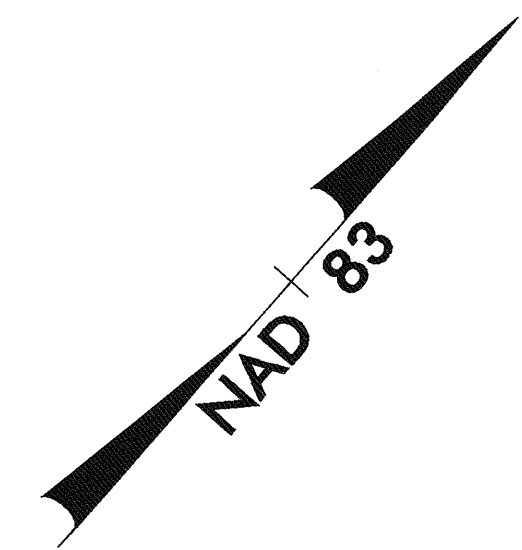
CROSS-OVER DETAIL

SBL TO NBL (-L- 13 + 50 +/-)

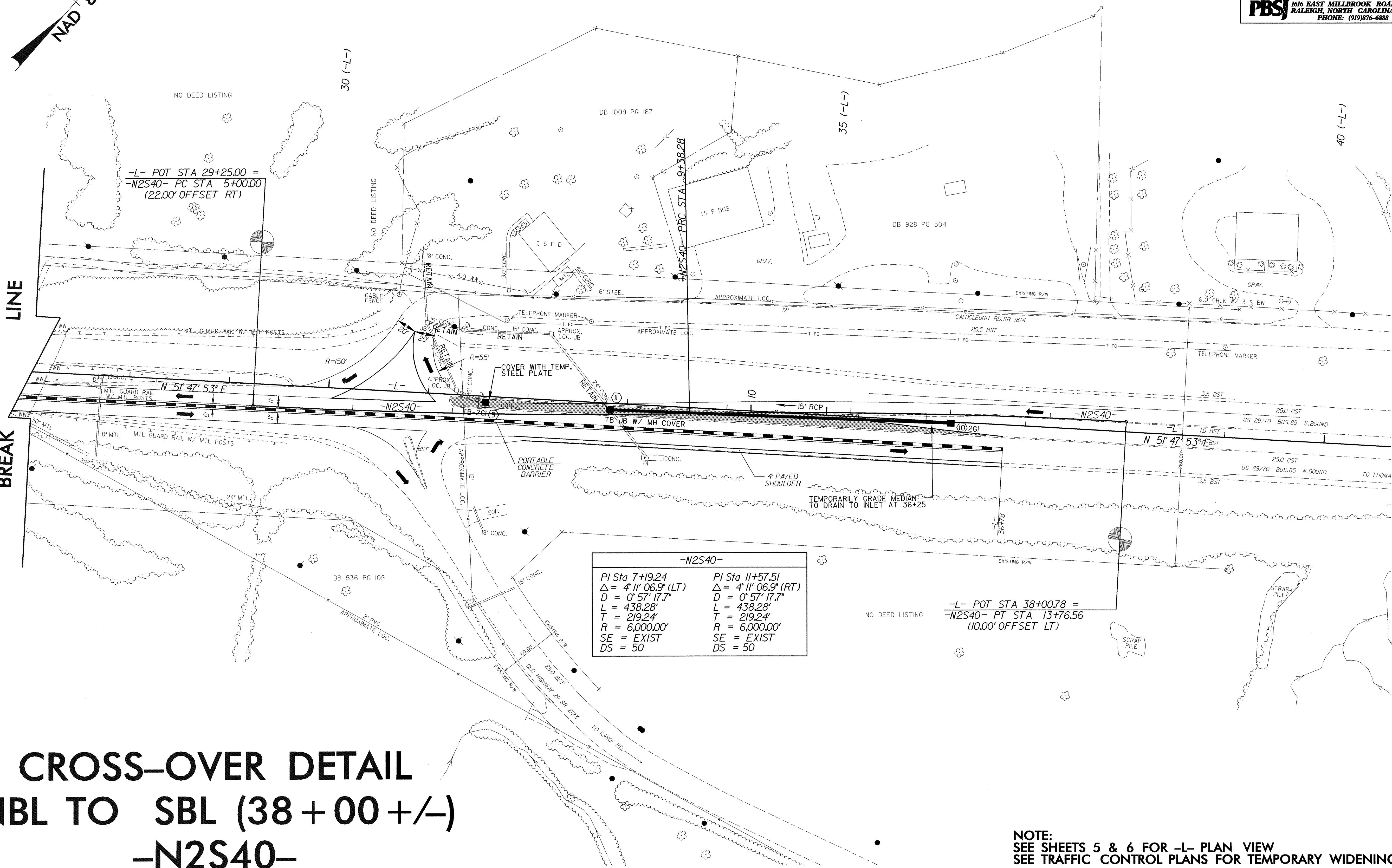
-S2N10-

-S2N10-	
PI Sta 7+25.99	PI Sta 11+77.76
$\Delta = 4' 18'' 50.6''$ (RT)	$\Delta = 4' 18'' 50.6''$ (LT)
$D = 0' 57'' 17.7''$	$D = 0' 57'' 17.7''$
$L = 451.77'$	$L = 451.77'$
$T = 225.99'$	$T = 225.99'$
$R = 6,000.00'$	$R = 6,000.00'$
SE = EXIST	SE = EXIST
DS = 50	DS = 50

NOTE:
SEE SHEETS 4 & 5 FOR -L- PLAN VIEW
SEE TRAFFIC CONTROL PLANS FOR TEMPORARY WIDENING



SEE SHEET 2B
BREAK LINE



-N2S40-	
PI Sta 7+19.24	PI Sta 11+57.51
$\Delta = 4' 11'' 06.9'' (LT)$	$\Delta = 4' 11'' 06.9'' (RT)$
$D = 0' 57'' 17.7''$	$D = 0' 57'' 17.7''$
$L = 438.28'$	$L = 438.28'$
$T = 219.24'$	$T = 219.00'$
$R = 6,000.00'$	$R = 6,000.00'$
SE = EXIST	SE = EXIST
DS = 50	DS = 50

-L- POT STA 38+00.78 =
-N2S40- PT STA 13+76.56
(10.00' OFFSET LT)

CROSS-OVER DETAIL NBL TO SBL (38 + 00 +/-) -N2S40-

NOTE:
SEE SHEETS 5 & 6 FOR -L- PLAN VIEW
SEE TRAFFIC CONTROL PLANS FOR TEMPORARY WIDENING

REVISIONS

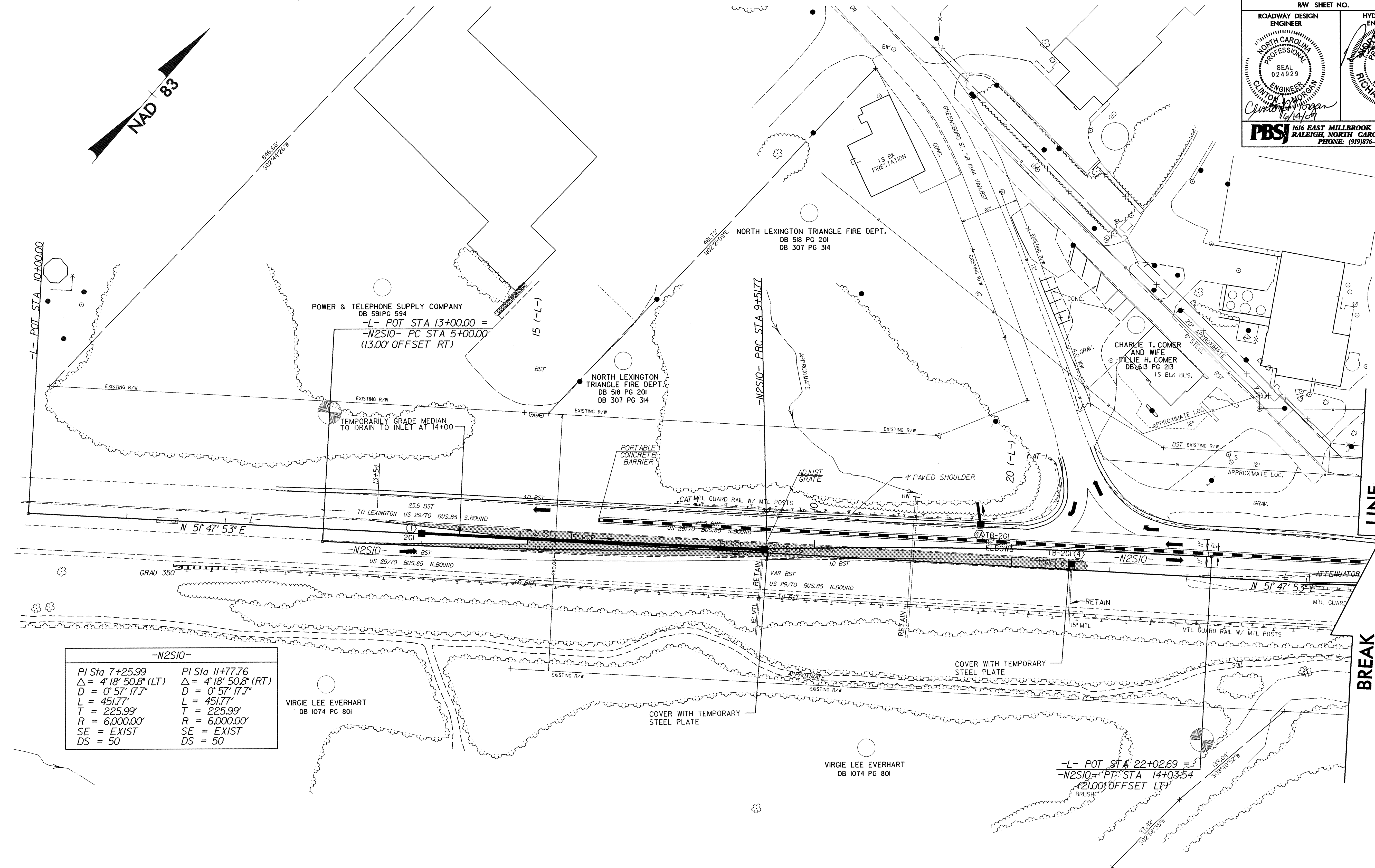
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8/17/99

13 JUN 2007 10:15 N:\4095_rdy_psh2.c.dgn

PROJECT REFERENCE NO. B-4095		SHEET NO. 2D	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 024929 CLAYTON MOSELEY 6/14/07		HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 29185 RICHARD L. FINER 6/14/07	
PBSI 106 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888			



-N2S10-	
PI Sta 7+25.99	PI Sta 11+77.76
$\Delta = 4' 18" 50.8" (LT)$	$\Delta = 4' 18" 50.8" (RT)$
$D = 0' 57" 17.7"$	$D = 0' 57" 17.7"$
$L = 451.77'$	$L = 451.77'$
$T = 225.99'$	$T = 225.99'$
$R = 6,000.00'$	$R = 6,000.00'$
SE = EXIST	SE = EXIST
DS = 50	DS = 50

CROSS-OVER DETAIL

NBL TO SBL (-L- 13 + 00 +/-)

-N2S10-

NOTE:
SEE SHEETS 4 & 5 FOR -L- PLAN VIEW
SEE TRAFFIC CONTROL PLANS FOR TEMPORARY WIDENING

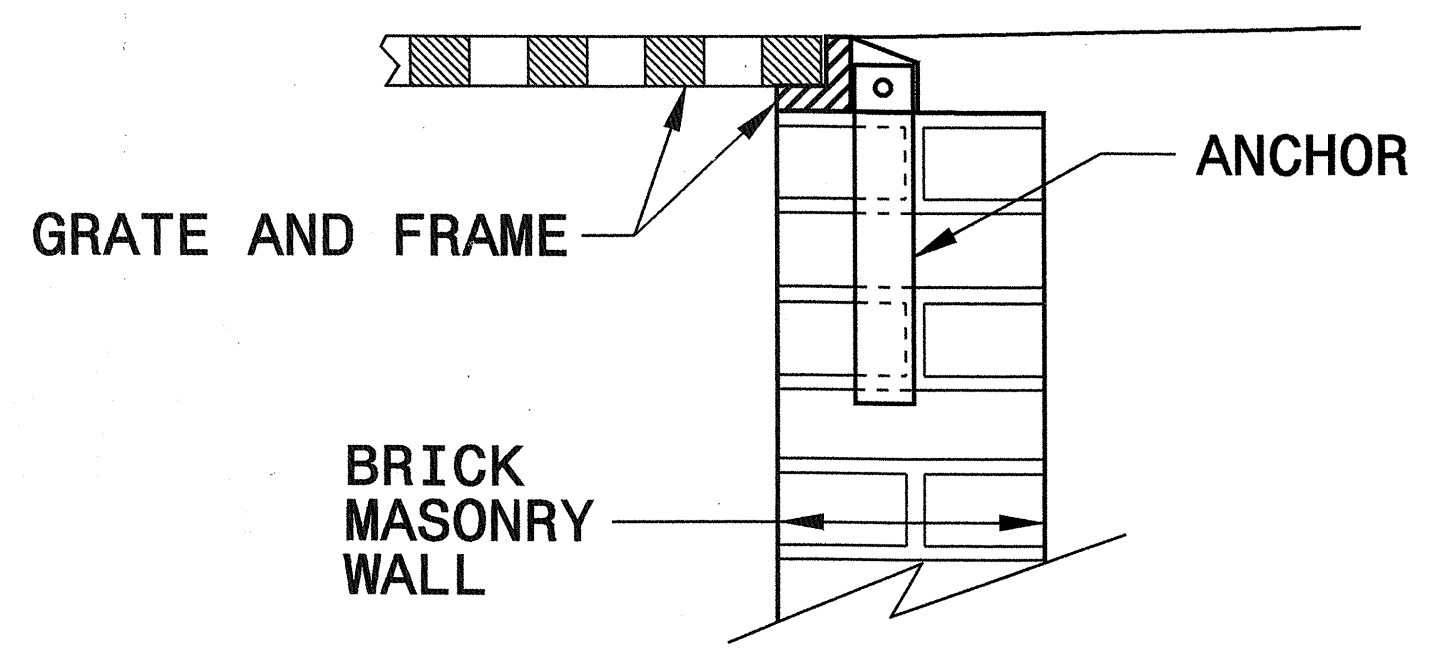
REVISIONS

LINE BREAK SEE SHEET 2E

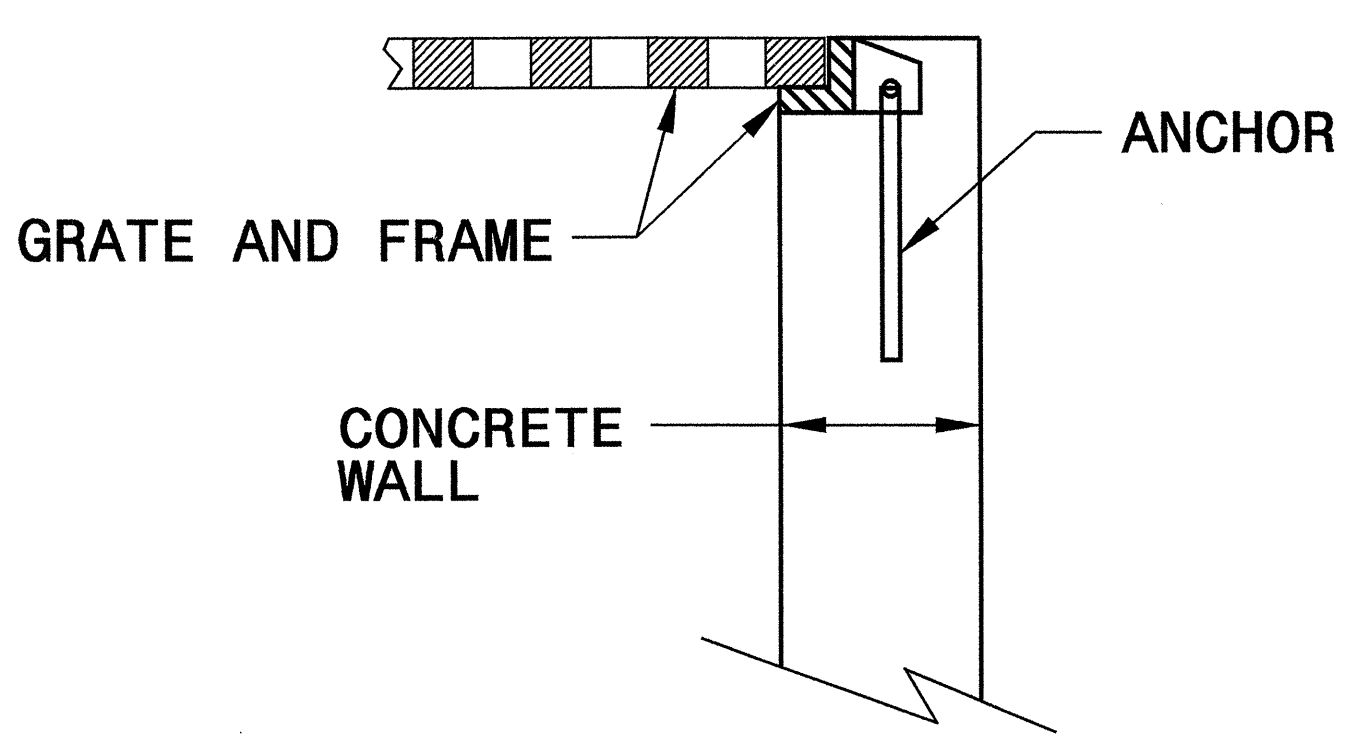
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

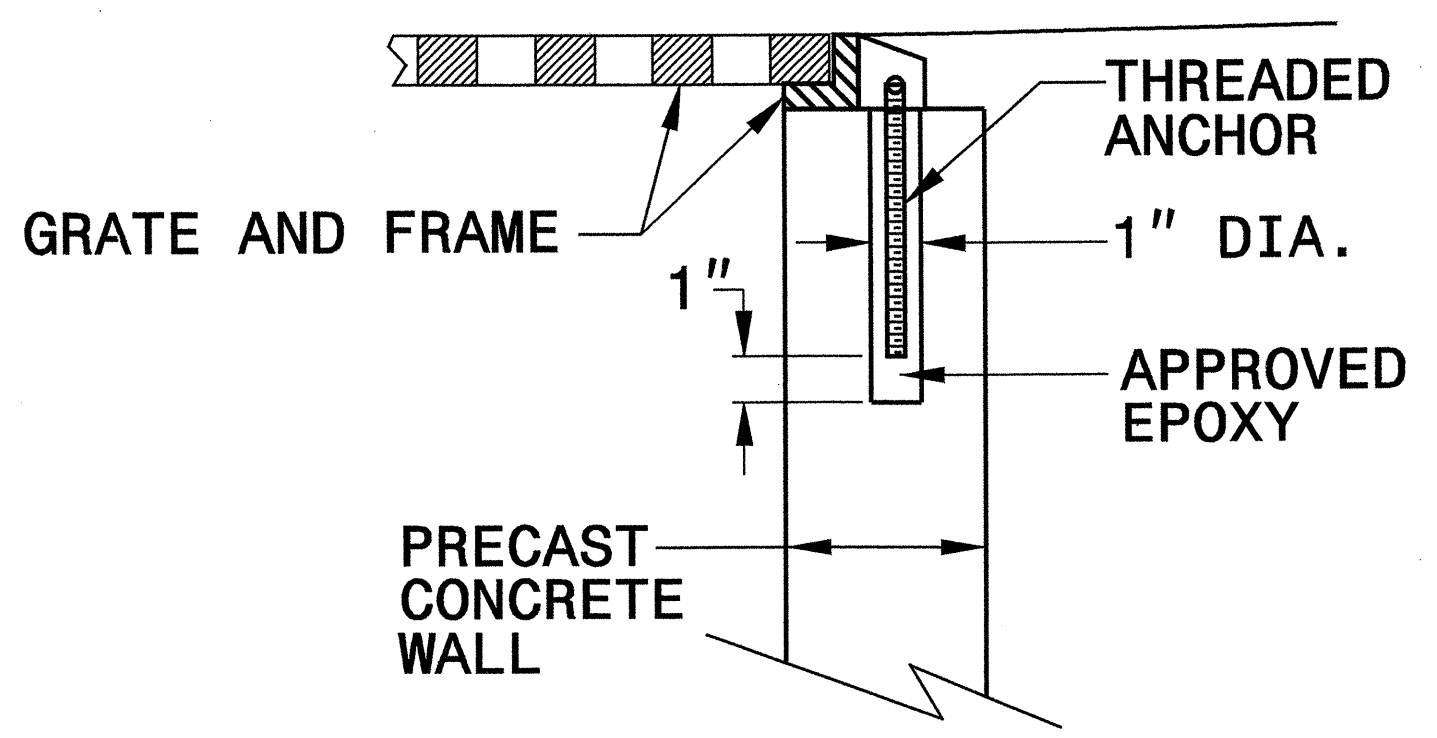
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



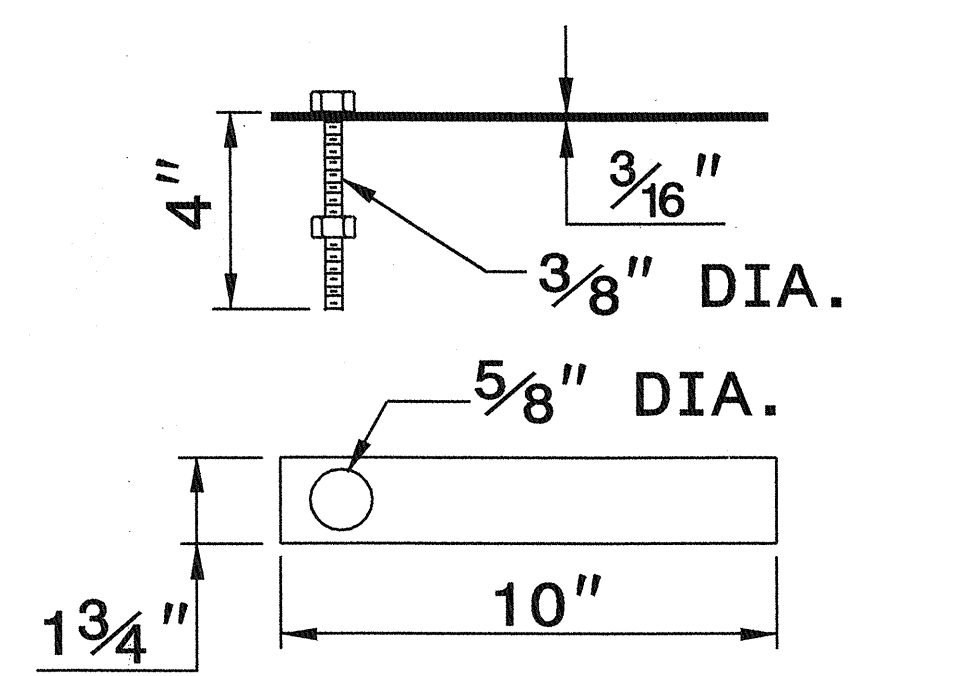
CONCRETE CONSTRUCTION



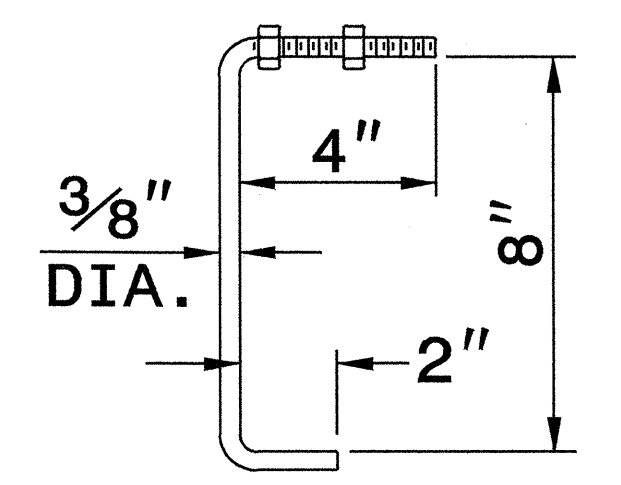
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

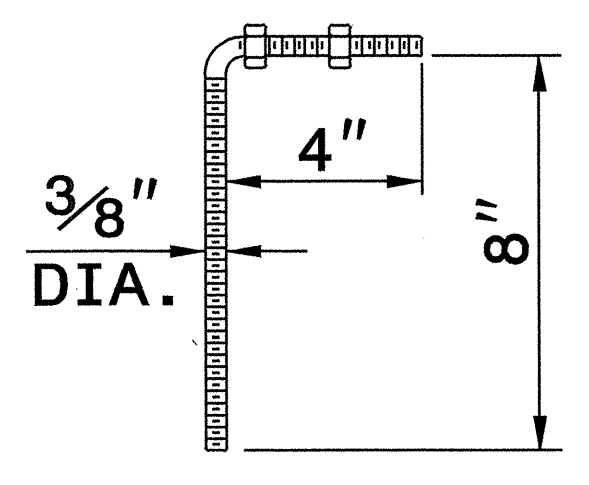
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



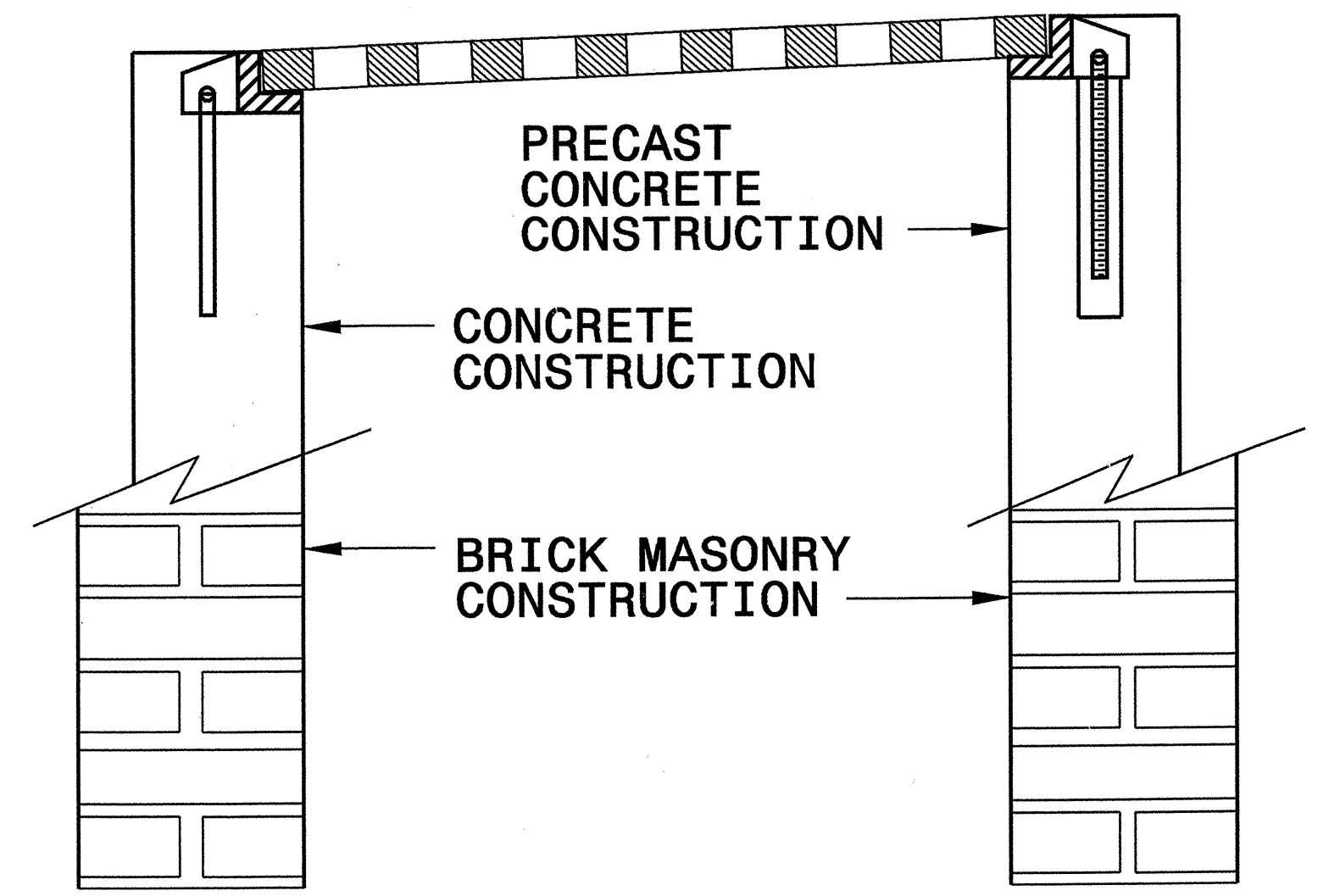
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



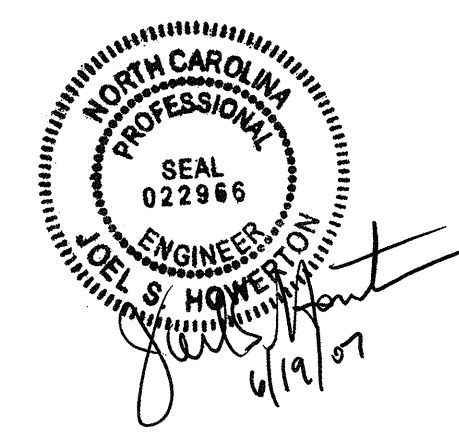
FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

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

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840D25

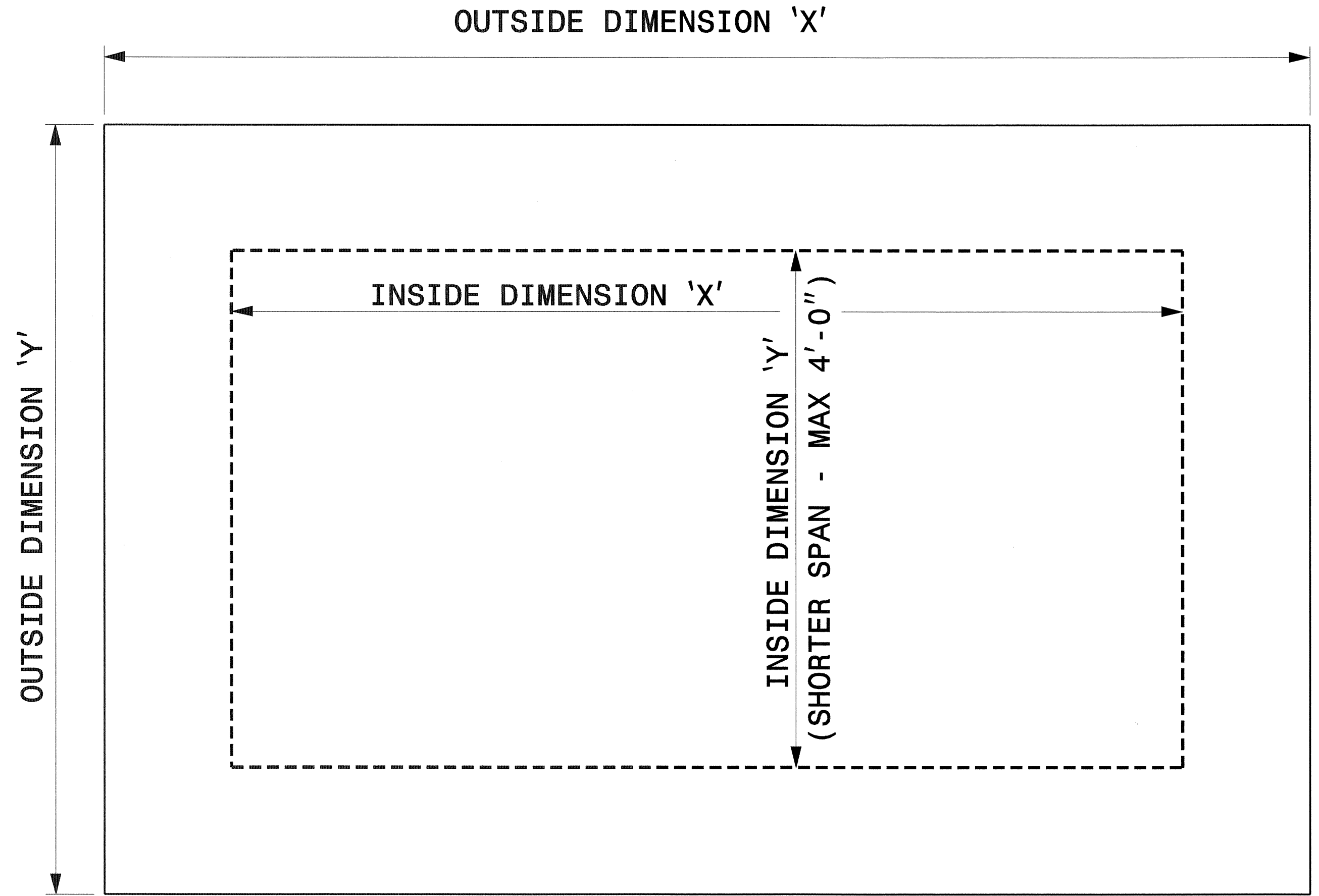
01-MAR-2007 09:04
s:\contracts\comp\840D25\special_details\ver-icard\stds\06\stds to special_details\84025 anchorage for Frames\0840d25.dgn
jpower@ncdot.com AT P5212260



**PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN**
Office 919-250-4128 FAX 919-250-4119

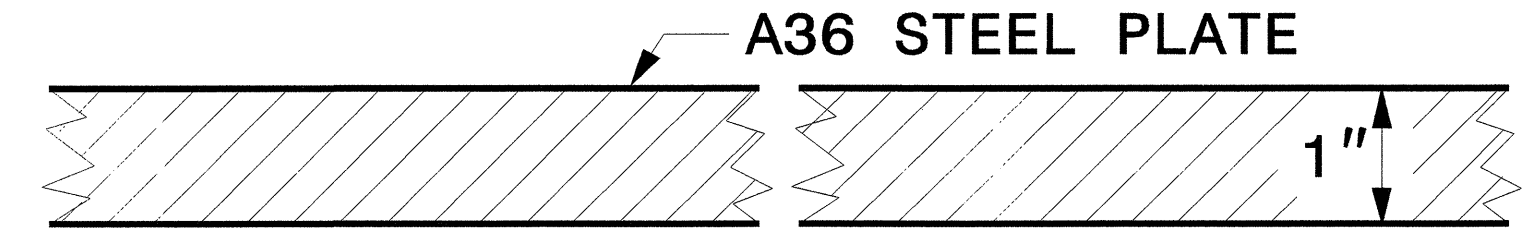
SEE PLATE FOR TITLE

ORIGINAL BY: 2006 STD 840.25	DATE: 07/18/06
MODIFIED BY: E.E. WARD	DATE: 9/25/06
CHECKED BY:	DATE:
FILE SPEC.:	



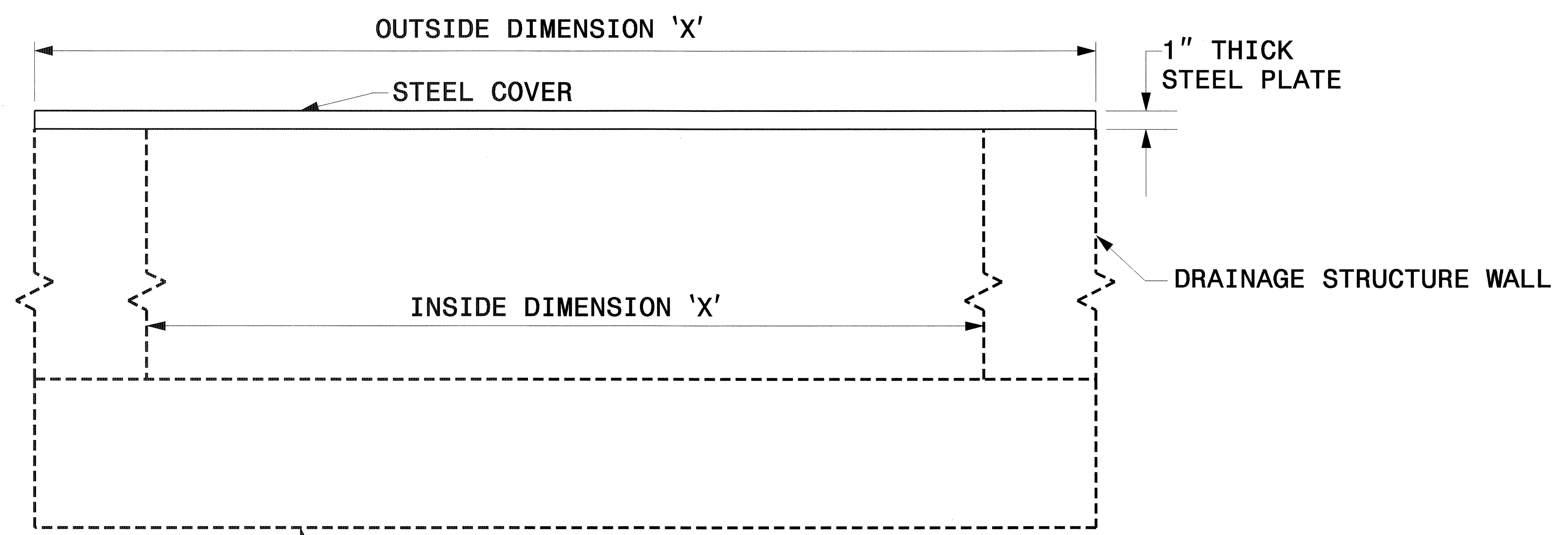
GENERAL NOTES:

- USE GRADE A36 STEEL
- STEEL COVERS ARE FOR TEMPORARY USE DURING PHASE CONSTRUCTION.
- FILL SHALL BE PLACED DIRECTLY OVER THE STEEL PLATES.
- SEE ROADWAY PLANS AND PROVISIONS FOR LOCATIONS
- QUANTITIES TO BE PAID FOR AT THE UNIT PRICE BID PER EACH.

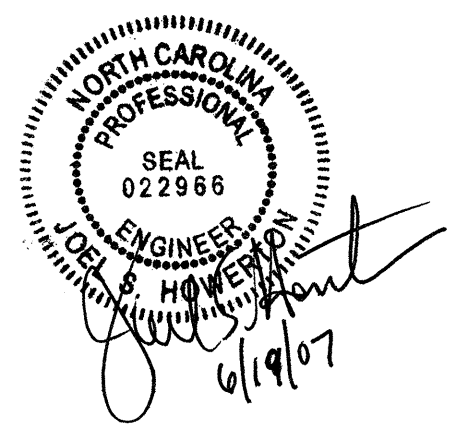


SECTION VIEW OF STEEL TOP PLATE

PLAN VIEWS



ELEVATION VIEWS



PROJECT SERVICES UNIT	
STANDARDS AND SPECIAL DESIGN	
Office 919-250-4128	FAX 919-250-4119
DETAIL OF TEMPORARY	
1" STEEL COVER	
OVER DRAINAGE STRUCTURE	
ORIGINAL BY: <i>nbritt</i>	DATE: 04-29-04
MODIFIED BY: <i>nbritt</i>	DATE: 3/23/07
CHECKED BY: <i>nbritt</i>	DATE: 3/23/07
FILE SPEC.: <i>details/nbritt/english/misc/steelcover.dgn</i>	

23-MAY-2007 10:43
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 jhowerton A1 P5212200 5/14/09

COMPUTED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____

PROJECT NO.	SHEET NO.
B-4095	3

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201601

ItemNumber	Sec #	Quantity	Unit	Description
000010000-N	800	Lump Sum		MOBILIZATION
002200000-E	225	12,100	CY	UNCLASSIFIED EXCAVATION
002900000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (26+10.31-NBL)
002900000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (26+29.70-SBL)
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING
005700000-E	226	4,100	CY	UNDERCUT EXCAVATION
006300000-N	SP	Lump Sum		GRADING
008000000-E	SP	2,000	TON	CLASS IV SUBGRADE STABILIZATION
013400000-E	240	25	CY	DRAINAGE DITCH EXCAVATION
019500000-E	265	2,000	CY	SELECT GRANULAR MATERIAL
019600000-E	270	4,000	SY	FABRIC FOR SOIL STABILIZATION
031800000-E	300	110	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
036600000-E	310	780	LF	15" RC PIPE CULVERTS, CLASS III
037800000-E	310	20	LF	24" RC PIPE CULVERTS, CLASS III
070800000-E	310	228	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
080600000-E	310	4	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
122000000-E	545	100	TON	INCIDENTAL STONE BASE
133000000-E	607	2,530	SY	INCIDENTAL MILLING
149100000-E	610	5,130	TON	ASPHALT CONC BASE COURSE, TYPE B25.0C
150300000-E	610	4,680	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
152300000-E	610	4,810	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
156000000-E	620	441	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
156500000-E	620	313	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
169300000-E	654	50	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
202200000-E	815	448	CY	SUBDRAIN EXCAVATION
203300000-E	815	336	CY	SUBDRAIN FINE AGGREGATE
204400000-E	815	2,000	LF	6" PERFORATED SUBDRAIN PIPE
205500000-E	815	60	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS
206600000-N	815	4	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
207700000-E	815	24	LF	6" OUTLET PIPE (SUBDRAINS)
219000000-N	828	3	EA	TEMPORARY STEEL PLATE COVERS FOR MASONRY DRAINAGE STRUCTURE
225300000-E	840	0.55	CY	PIPE COLLARS
228600000-N	840	13	EA	MASONRY DRAINAGE STRUCTURES
230800000-E	840	0.4	LF	MASONRY DRAINAGE STRUCTURES
236500000-N	840	4	EA	FRAME WITH TWO GRATES, STD 840.22
236600000-N	840	5	EA	FRAME WITH TWO GRATES, STD 840.24
239600000-N	840	1	EA	FRAME WITH COVER, STD 840.54
240700000-N	840	3	EA	STEEL FRAME WITH TWO GRATES, STD 840.37
255600000-E	846	200	LF	SHOULDER BERM GUTTER
300000000-N	SP	2	EA	IMPACT ATTENUATOR UNIT, TYPE 350
303000000-E	862	2,637.5	LF	STEEL BM GUARDRAIL
304500000-E	862	100	LF	STEEL BM GUARDRAIL, SHOP CURVED
315000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS
319500000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
321000000-N	862	3	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
327000000-N	SP	2	EA	GUARDRAIL ANCHOR UNITS, TYPE 350

ItemNumber	Sec #	Quantity	Unit	Description
331700000-N	862	8	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
336000000-E	863	3,040	LF	REMOVE EXISTING GUARDRAIL
338910000-N	SP	1	EA	GUARDRAIL ANCHOR UNITS, TYPE 350 TEMPORARY
339500000-E	869	562.5	LF	RELAPPING GUARDRAIL
365600000-E	876	1,250	SY	FILTER FABRIC FOR DRAINAGE
365900000-N	SP	2	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON
407200000-E	903	658	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
408200000-E	903	2,520	LF	SUPPORTS, WOOD
409600000-N	904	2	EA	SIGN ERECTION, TYPE D
410200000-N	904	28	EA	SIGN ERECTION, TYPE E
410800000-N	904	2	EA	SIGN ERECTION, TYPE F
411000000-N	904	35	EA	SIGN ERECTION, TYPE *** (GROUND MOUNTED) (A & B)
415500000-N	907	36	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
415800000-N	907	2	EA	DISPOSAL OF SIGN SYSTEM, WOOD
440000000-E	1110	3,472	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	480	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	106	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
441500000-N	1115	2	EA	FLASHING ARROW PANELS, TYPE C
442000000-N	1120	2	EA	CHANGEABLE MESSAGE SIGN
443000000-N	1130	190	EA	DRUMS
443500000-N	1135	100	EA	CONES
444500000-E	1145	360	LF	BARRICADES (TYPE III)
445000000-N	1150	108	HR	FLAGGER
446500000-N	1160	1	EA	TEMPORARY CRASH CUSHIONS
448000000-N	1165	2	EA	TMIA
448500000-E	1170	2,000	LF	PORTABLE CONCRETE BARRIER

ItemNumber	Sec #	Quantity	Unit	Description
449500000-E	1170	350	LF	PORTABLE CONCRETE BARRIER (DRAINAGE)
450000000-E	1170	3,400	LF	RESET PORTABLE CONCRETE BARRIER
450600000-E	1170	350	LF	RESET PORTABLE CONCRETE BARRIER (DRAINAGE)
451600000-N	1180	100	EA	SKINNY DRUM
465000000-N	1251	1,006	EA	TEMPORARY RAISED PAVEMENT MARKERS
477000000-E	1205	1,340	LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (IV)
481000000-E	1205	58,163	LF	PAINT PAVEMENT MARKING LINES (4")
483500000-E	1205	308	LF	PAINT PAVEMENT MARKING LINES (24")
484500000-N	1205	6	EA	PAINT PAVEMENT MARKING SYMBOL
484700000-E	1205	15,856	LF	POLYUREA PAVEMENT MARKING LINES (4", *****) (STANDARD GLASS BEADS)
484714000-E	1205	160	LF	POLYUREA PAVEMENT MARKING LINES (24", *****) (STANDARD GLASS BEADS)
484722000-N	1205	29	EA	POLYUREA PAVEMENT MARKING SYMBOL (***** (STANDARD GLASS BEADS)
485000000-E	1205	10,818	LF	REMOVAL OF PAVEMENT MARKING LINES (4")
487000000-E	1205	60	LF	REMOVAL OF PAVEMENT MARKING LINES (24")
490000000-N	1251	8	EA	PERMANENT RAISED PAVEMENT MARKERS
490500000-N	1253	131	EA	SNOWPLOWABLE PAVEMENT MARKERS
532520000-E	1510	210	LF	2" WATER LINE
532620000-E	1510	214	LF	12" WATER LINE
557220000-E	1515	1	EA	12" TAPPING VALVE
580400000-E	1530	214	LF	ABANDON 12" UTILITY PIPE
600000000-E	1605	3,020	LF	TEMPORARY SILT FENCE
600600000-E	1610	75	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	235	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	765	TON	SEDIMENT CONTROL STONE
601500000-E	1615	5.5	ACR	TEMPORARY MULCHING
601800000-E	1620	200	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	0.75	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	250	LF	TEMPORARY SLOPE DRAINS
602700000-N	1622	4	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
602900000-E	SP	550	LF	SAFETY FENCE
603000000-E	1630	1,350	CY	SILT EXCAVATION
603600000-E	1631	2,750	SY	MATting FOR EROSION CONTROL
603700000-E	SP	15	SY	COIR FIBER MAT
604200000-E	1632	550	LF	1/4" HARDWARE CLOTH
607000000-N	SP	24	EA	SPECIAL STILLING BASINS
607103000-E	SP	300	LF	COIR FIBER BAFFLES
607105000-E	SP	1	EA	*** SKIMMER (1-1/2")
607105000-E	SP	1	EA	*** SKIMMER (2-1/2")
608400000-E	1660	11	ACR	SEEDING & MULCHING
608700000-E	1660	3.5	ACR	MOWING
609000000-E	1661	100	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	125	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	4.5	TON	FERTILIZER TOPDRESSING
611400000-N	SP	2	HR	SPECIALIZED HAND MOWING
611700000-N	SP	8	EA	RESPONSE FOR EROSION CONTROL

COMPUTED BY: RBE DATE: 2/16/2006
 CHECKED BY: CJM DATE: 4/12/2006

PROJECT NO. SHEET NO.
 B-4095 3-A

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF EARTHWORK

**SUMMARY OF EXISTING ASPHALT
 PAVEMENT REMOVAL**

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- (LEFT)					
L 10+00	25+19.70	4609	917	0	3692
L 27+39.70	42+00	1238	4	0	1234
-L- (LEFT) SUBTOTAL		5847	921	0	4926
-L- (RIGHT)					
L 10+00	25+00.30	2213	106	0	2107
L 27+20.31	42+00	5380	0	0	5380
-L- (RIGHT) SUBTOTAL		7593	106	0	7487
PROJECT SUBTOTAL:					
		13440	1027	0	12413
LOSS DUE TO CLEARING & GRUBBING		-2000			-2000
PROJECT TOTALS:					
		11440	1027	0	10413
SAY		12100		0	10500

PAVEMENT STRUCTURE VOLUME: 9600 CY
 ESTIMATED UNDERCUT: 4100 CY

* PER GEOTECHNICAL E-MAIL DATED MAY 2007
 AND 9-28-05 FIELD INSPECTION NOTES.

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

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY THE ROADWAY DESIGN UNIT THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

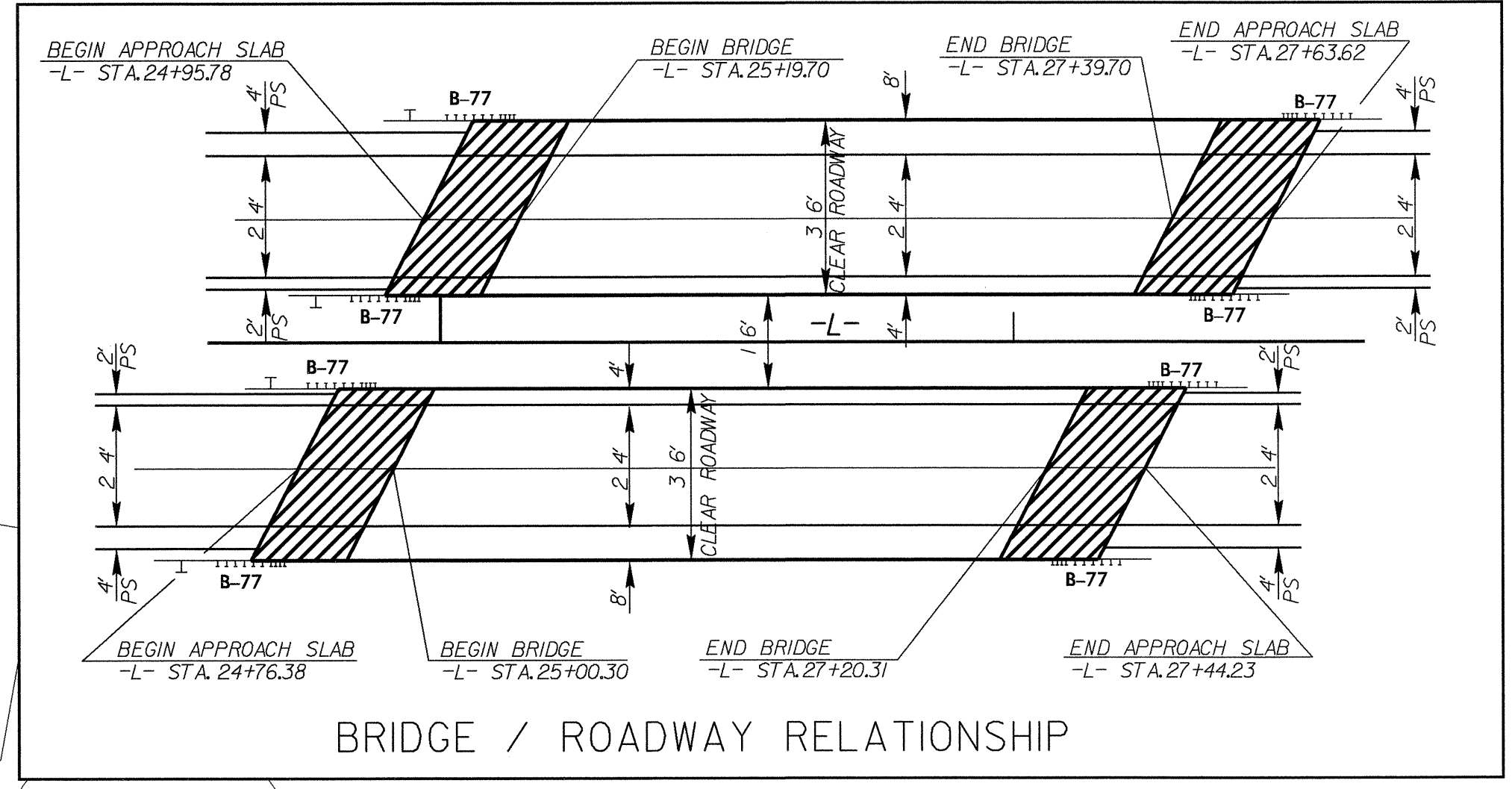
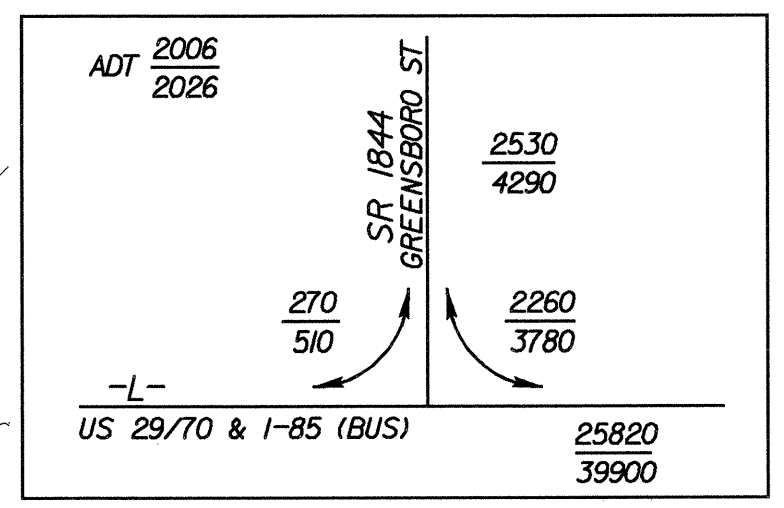
LINE	Station	Station	LOC LT/RT/CL	SY
L	21+75	Exist Bridge	LT	1602
L	Exist Bridge	28+50	LT	421
L	21+75	Exist Bridge	RT	1256
L	Exist Bridge	28+50	RT	592
TEMPORARY MEDIAN COSS-OVERS				
L	14+00	20+80	MED	1105
L	31+20	36+30	MED	563
NBL REMOVE EXISTING SHOULDERS				
L	10+00	21+75	RT	585
L	28+50	29+75	RT	48
L	31+25	42+00	RT	495
L	10+00	20+75	MED	239
L	28+50	29+75	MED	20
L	31+22	42+00	MED	114
SBL REMOVE EXISTING SHOULDERS				
L	1000	20+00	LT	357
L	2850	29+85	LT	43
L	3125	42+00	LT	384
L	1000	20+75	MED	150
L	2850	29+75	MED	31
L	3122	42+00	MED	139
TOTAL:				8145
SAY:				8200

8/17/99

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-YI-

PI Sta 11+98.79
 $\Delta = 3' 31" 01.7" (RT)$
 $D = 1' 42" 37.2"$
 $L = 205.64'$
 $T = 102.85'$
 $R = 3,350.00'$
 $Se = EXISTING$
 $DS = 55 MPH$



PROJECT REFERENCE NO. B-4095 SHEET NO. 5

R/W SHEET NO.

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 024929

HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 29185

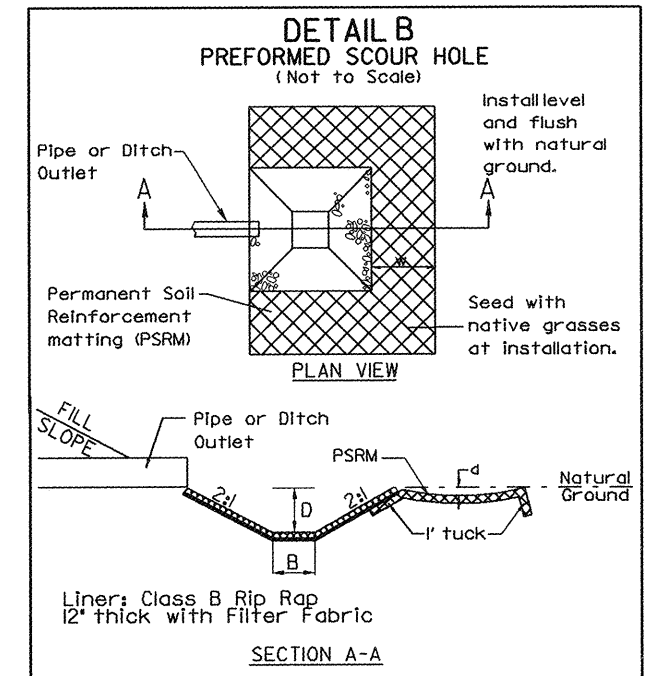
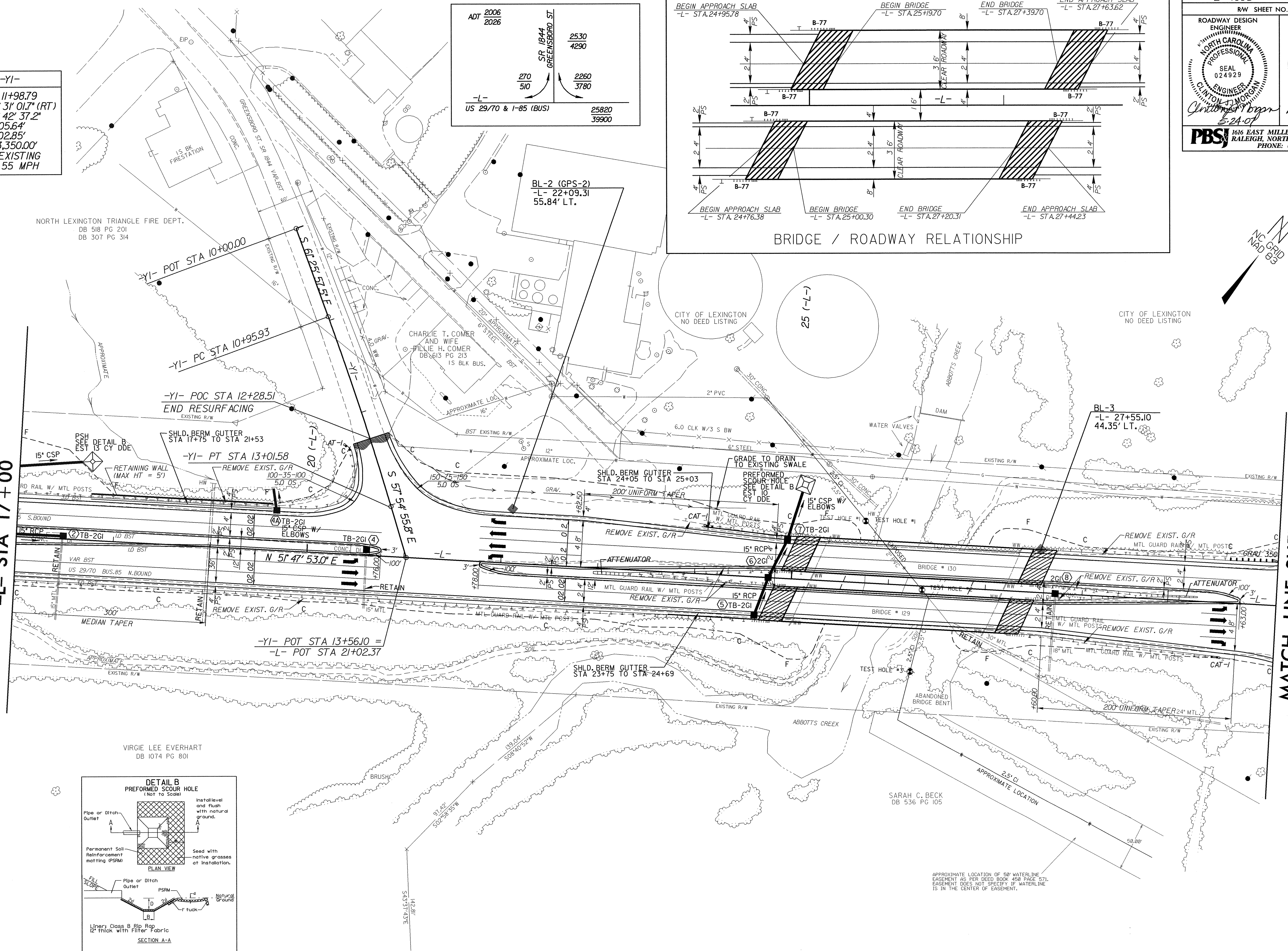
Clinton J. Morgan 5/24/07

Richard J. Filter 5/27/07

PBSJ 1816 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888

MATCH LINE SHEET 4
 -L- STA 17+00

MATCH LINE SHEET 6
 -L- STA 30+00



STATION	B	D	d	W	STONE	FF
25+05 LT	6.0'	2.5'	0.5'	4.0'	14 TONS	31 SY
17+75 LT	3.8'	2.7'	0.5'	4.0'	11 TONS	24 SY

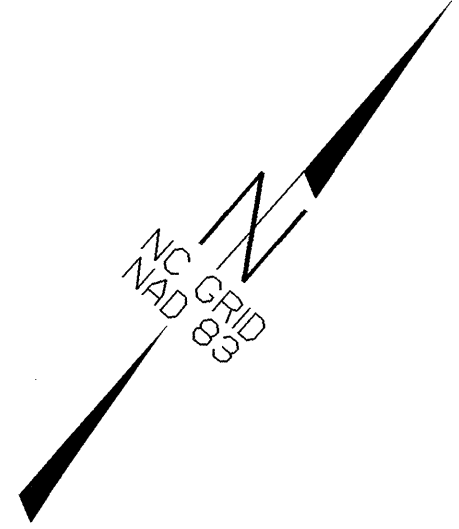
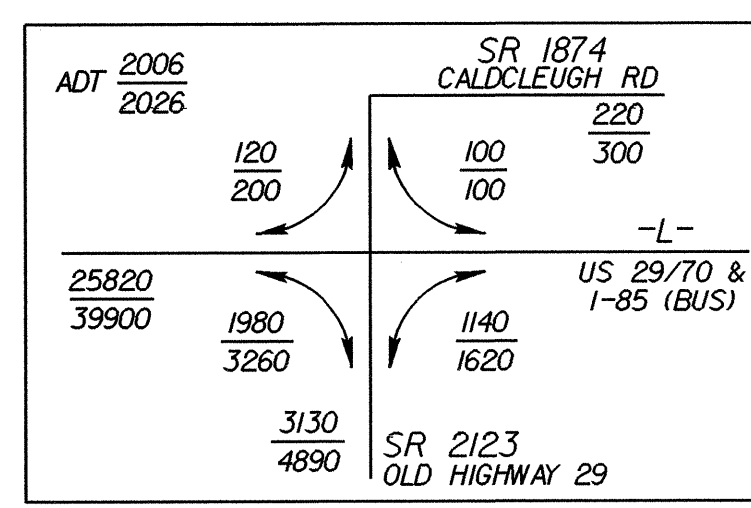
NOTE: SEE SHEET 7 FOR -L- PROFILE.
 SEE SHEET 5 - FOR STRUCTURE.

8/17/99

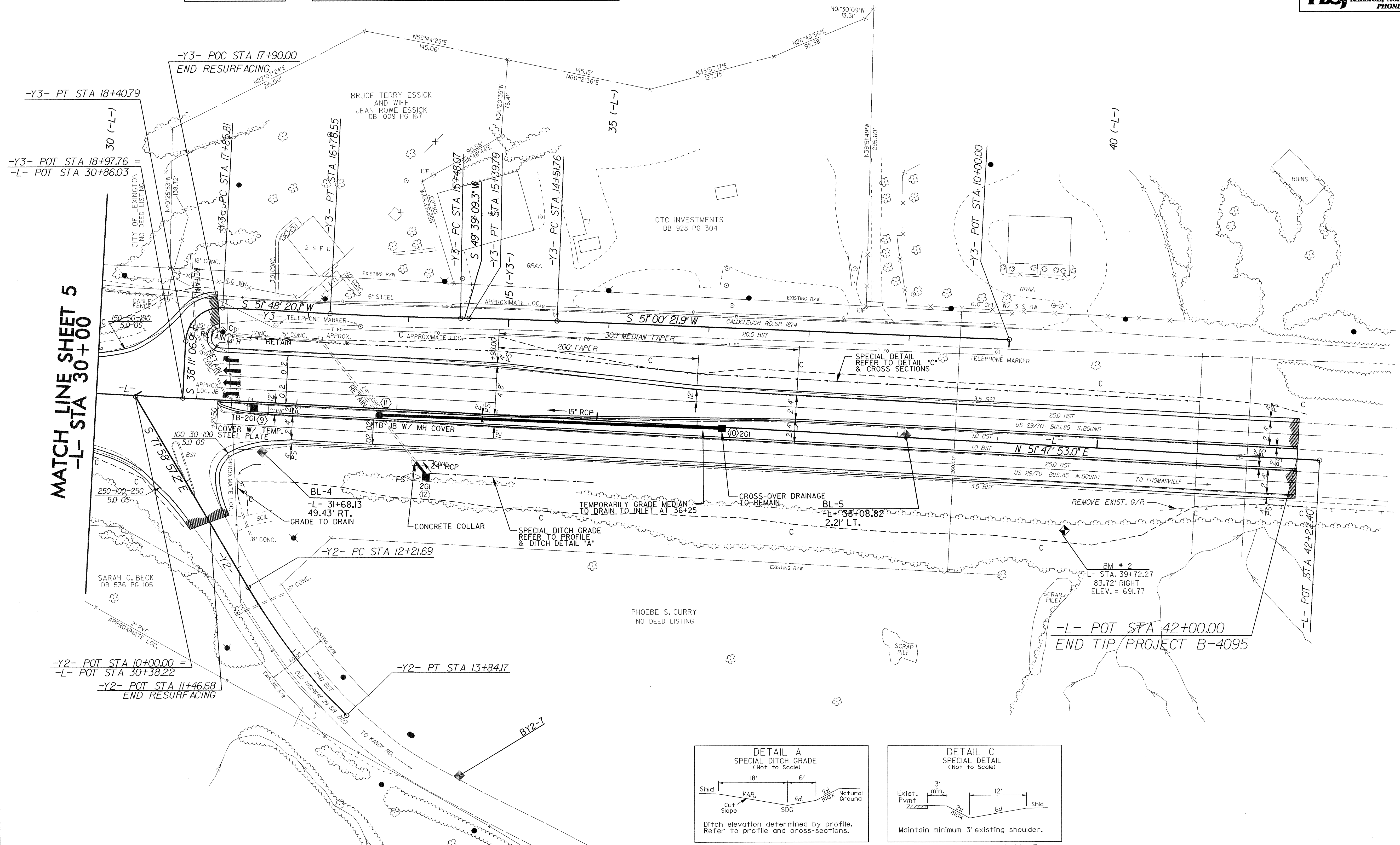
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51132 adwsl EAC JBT1121

REVISIONS

-Y2-	-Y3-		
PI Sta 13+03.30	PI Sta 14+95.78	PI Sta 16+13.32	PI Sta 18+20.81
$\Delta = 13^\circ 17' 58.7''$ (LT)	$\Delta = 1^\circ 21' 12.7''$ (LT)	$\Delta = 2^\circ 09' 10.8''$ (RT)	$\Delta = 89^\circ 59' 27.0''$ (LT)
D = 8' 11" 06.4"	D = 1' 32" 15.0"	D = 1' 39" 00.0"	D = 163' 42" 08.0"
L = 162.49'	L = 88.03'	L = 130.48'	L = 54.97'
T = 81.61'	T = 44.02'	T = 65.25'	T = 34.99'
R = 700.00'	R = 3,726.55'	R = 3,472.47'	R = 35.00'
Se = EXISTING	Se = EXISTING	Se = EXISTING	Se = EXISTING
DS = 45 MPH	DS = 55 MPH	DS = 55 MPH	DS = 15 MPH



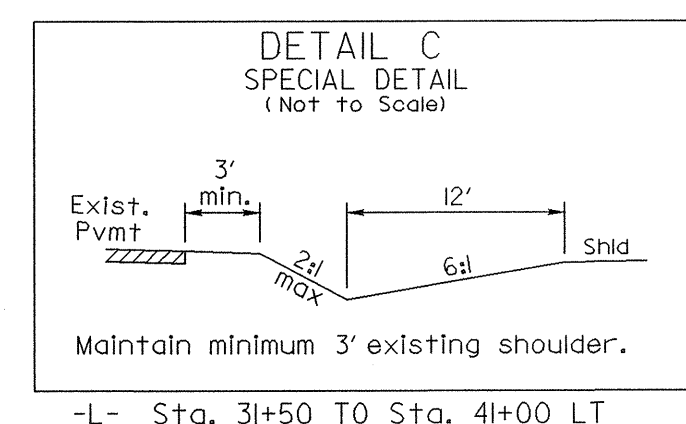
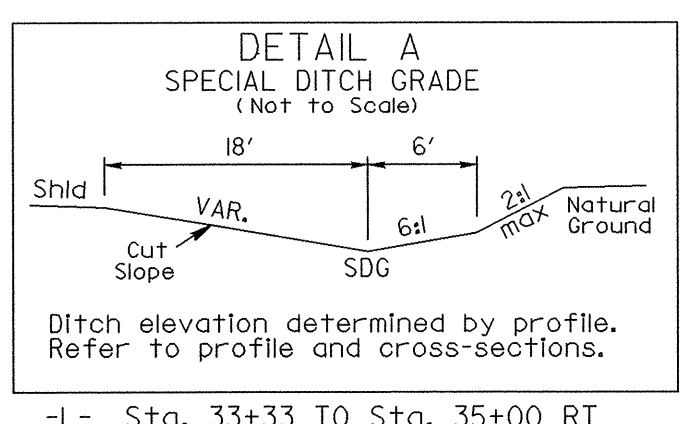
PROJECT REFERENCE NO. B-4095	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 024929 CLYTON A. MORGAN	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 29185 RICHARD L. HINLET
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888	



MATCH LINE SHEET 5
-L- STA 30+00

-Y2- POT STA 10+00.00 =
-L- POT STA 30+38.22
-Y2- POT STA 11+46.68
END RESURFACING

-L- POT STA 42+00.00
END TIP/PROJECT B-4095

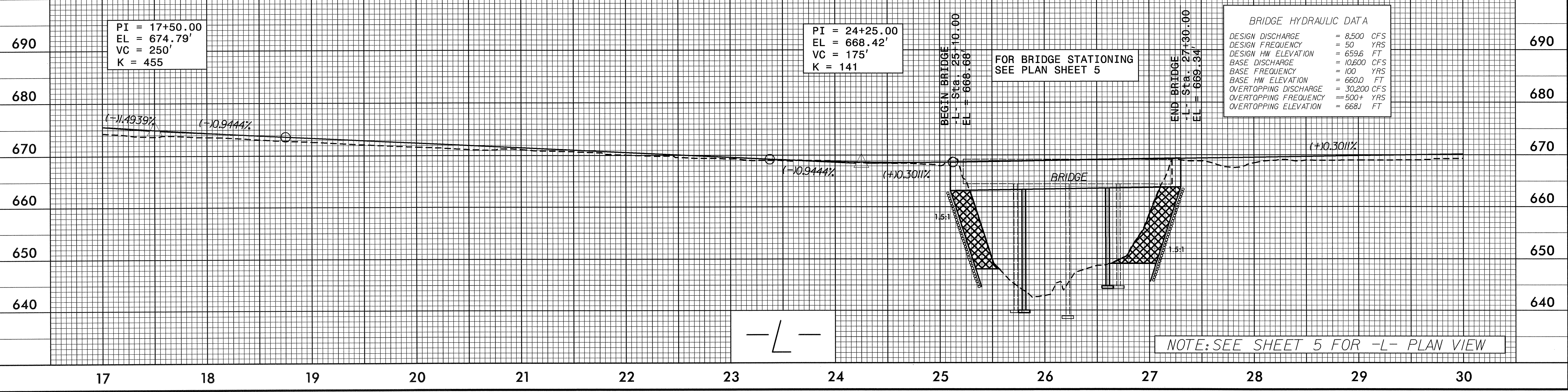
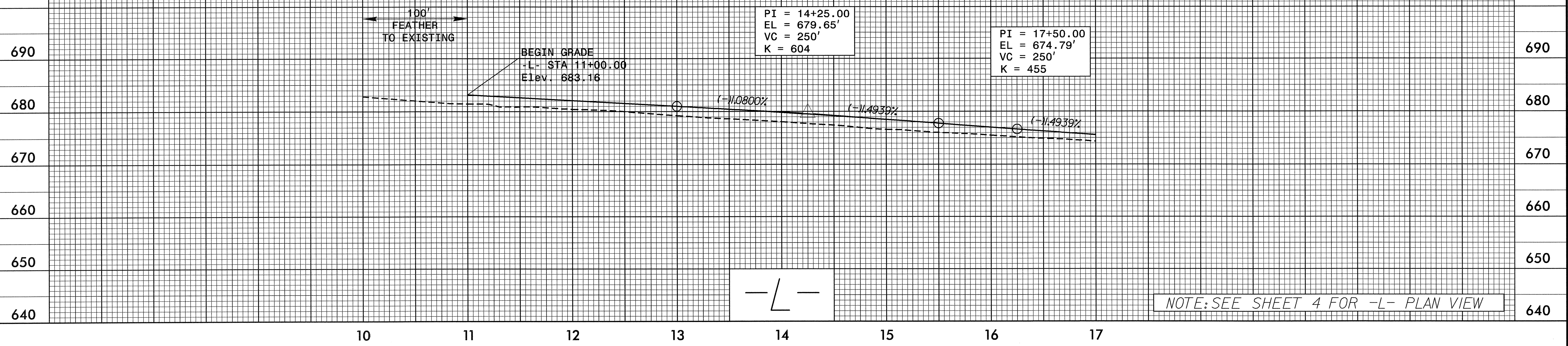


NOTE: SEE SHEET 8 FOR -L- PROFILE.

5/28/99

PROJECT REFERENCE NO. B-4095	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024929 CANTON D. MORRIS 5-24-07	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 29185 RICHARD L. HIVER 5/22/07
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888	

BM#1 ELEVATION = 689.33
 N = 766904 E = 1644129
 -L- STA 11+69.22 67.09' LT
 RR SPIKE SET IN BASE OF 18" MAPLE
 35' RT OF NORTH EDGE OF SB US 29/70 BUS. 85



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5/28/09

PROJECT REFERENCE NO. B-4095		SHEET NO. 8	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 024929 CLINTON A. MORGAN 5-24-07		HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 29185 RICHARD H. HIER 5/27/07	
PBSJ 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919)876-6888			

BM#2 ELEVATION = 691.77
 N = 768519 E = 1646425
 -L- STA 39+72.27 83.72' RT
 RR SPIKE SET IN BASE OF 30" FORKED BIRCH
 40' RT OF SOUTH EDGE OF NB US 29/70 BUS. 85

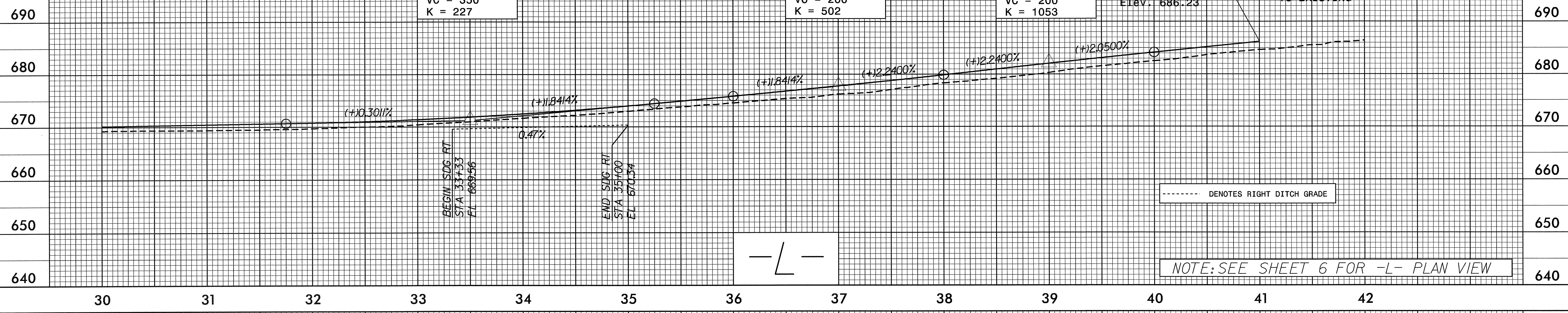
PI = 33+50.00
 EL = 671.21'
 VC = 350'
 K = 227

PI = 37+00.00
 EL = 677.65'
 VC = 200'
 K = 502

PI = 39+00.00
 EL = 682.13'
 VC = 200'
 K = 1053

END GRADE
 -L- STA 41+00.00
 Elev. 686.23

100'
 FEATHER
 TO EXISTING



-L-

NOTE: SEE SHEET 6 FOR -L- PLAN VIEW

24-MAY-2007 2:12:41 PM 4095E_r.dwg csh07.dgn