

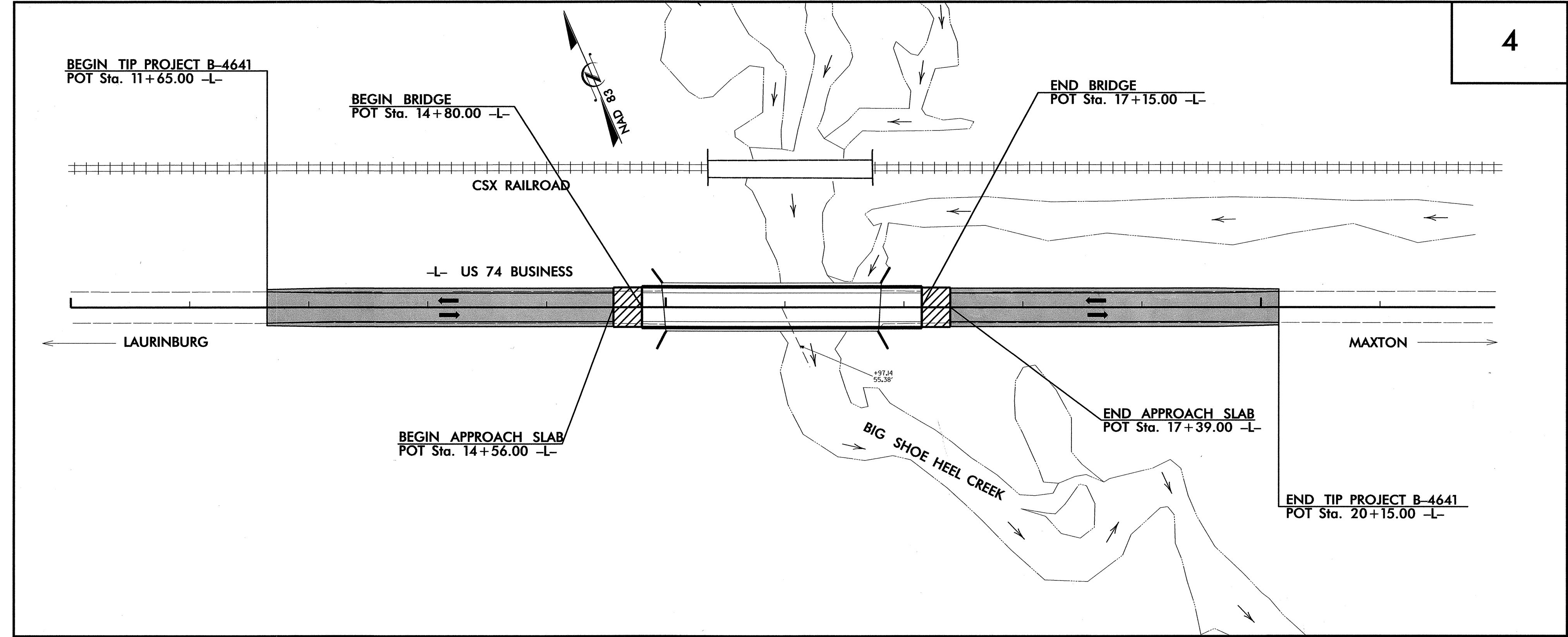
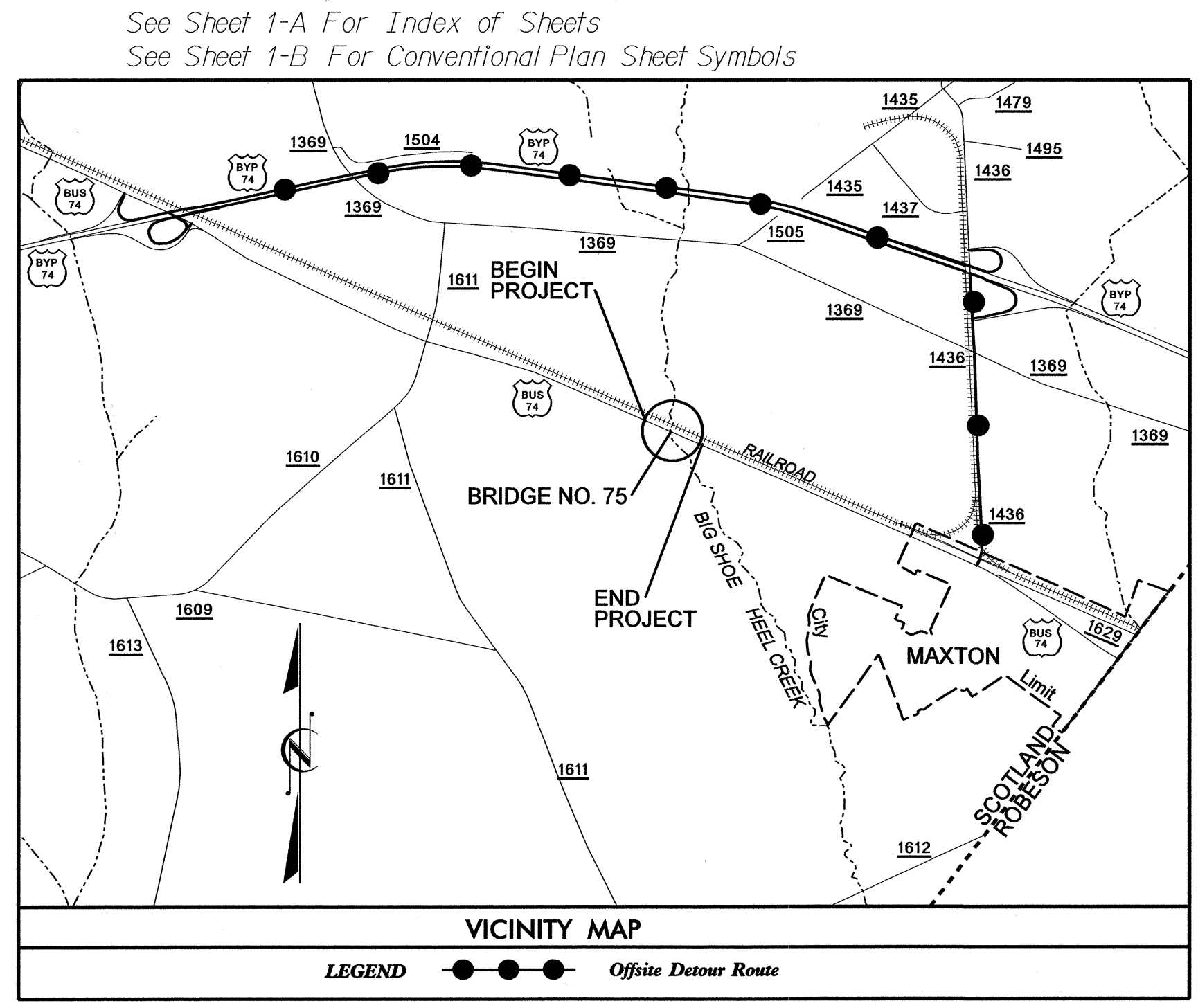
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4641	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33809.1.1	BRSTP-74(61)	PE	
33809.2.1	BRSTP-74(61)	RW /UTIL	
33809.3.1	BRSTP-74(61)	CONST.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SCOTLAND COUNTY

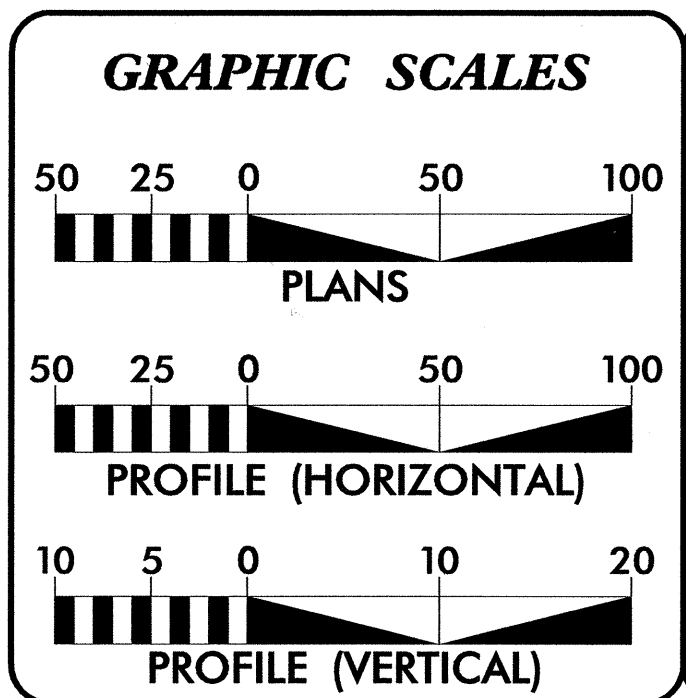
LOCATION: BRIDGE NO. 75 OVER BIG SHOE HEEL CREEK ON US 74 BUSINESS

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



NCDOT CONTACT: DOUG TAYLOR, P.E., PROJECT ENGINEER - ROADWAY DESIGN

TIP PROJECT: B-4641
 CONTRACT: C202328



DESIGN DATA

ADT 2010 =	6,800
ADT 2030 =	10,400
DHV =	10 %
D =	60 %
T =	8 % *
V =	60 MPH
* TTST 3 %	DUAL 5 %
FUNC. CLASS =	RURAL MINOR ARTERIAL REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4641	=	0.116 mi.
LENGTH STRUCTURE TIP PROJECT B-4641	=	0.045 mi.
TOTAL LENGTH TIP PROJECT B-4641	=	0.161 mi.

Prepared in the Office of:
WANG ENGINEERING COMPANY, INC.
CARY, N.C.
FOR NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: **CLIFTON T. REGISTER, P.E.**
FEBRUARY 20, 2009
PROJECT ENGINEER

LETTING DATE: **SCOTT L. KENNEDY**
MAY 18, 2010
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
SUNGATE DESIGN GROUP

SEAL 9334
HENRY WELLS
P.E.

SIGNATURE: [Signature] 3/5/10 P.E.

ROADWAY DESIGN ENGINEER
WANG ENGINEERING

SEAL 028392
CLIFTON T. REGISTER
P.E.

SIGNATURE: [Signature] 3/5/10 P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

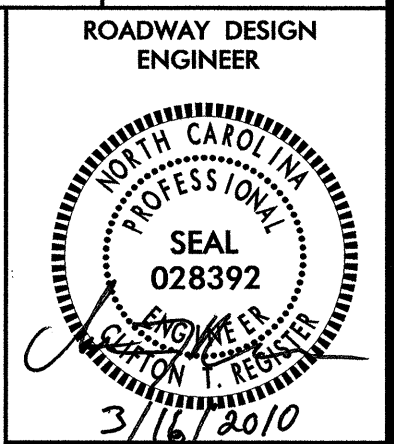
[Signature] P.E.

\$\$\$\$\$SYTIME\$\$\$\$\$
\$\$\$\$\$DGN\$\$\$\$\$
\$\$\$\$\$USERNAME\$\$\$\$\$

8/17/09

PROJECT REFERENCE NO.	SHEET NO.
B-4641	1-A

EFF. 07-18-06
REV. 01-02-07



SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL SHEET
2	TYPICAL SECTIONS, PAVEMENT SCHEDULE
2-A	DETAIL OF ANCHORAGE OF FRAMES
2-B AND 2-C	METHOD OF PIPE INSTALLATION DETAILS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF EARTHWORK SUMMARY OF GUARDRAIL, DRAINAGE SUMMARY, AND ASPHALT PAVEMENT REMOVAL SUMMARY
4	PLAN/PROFILE SHEET
TCP-1 THRU TCP-3	TRAFFIC CONTROL PLANS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
UD-1 THRU UD-2	UTILITY BY OTHERS
X-1	CROSS SECTION INDEX AND SUMMARY SHEET
X-2 THRU X-6	CROSS-SECTIONS
S-1 THRU S-25	STRUCTURE 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
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforce Bridge Approach Fills
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-way Marker
806.02	Granite Right-of-way Marker
840.00	Concrete Base Pad for Drainage Structures
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet
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

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 09-12-08

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 CENTERLINE 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 AN RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

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 PANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

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

UTILITIES: UTILITY OWNERS ON THIS PROJECT ARE:
AT&T
Century Link

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

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

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

Table listing symbols for 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.

BUILDINGS AND OTHER CULTURE:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for railroads: Standard Gauge, RR Signal Milepost, Switch, RR Abandoned, RR Dismantled.

RIGHT OF WAY:

Table listing symbols for 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 Utility Easement, Proposed Temporary Utility Easement, Proposed Permanent Easement with Iron Pin and Cap Marker.

ROADS AND RELATED FEATURES:

Table listing symbols for roads and related features: Existing Edge of Pavement, Existing Curb, Proposed Slope Stakes Cut, Proposed Slope Stakes Fill, Proposed Wheel Chair Ramp, Existing Metal Guardrail, Proposed Guardrail, Existing Cable Guiderail, Proposed Cable Guiderail, Equality Symbol, Pavement Removal.

VEGETATION:

Table listing symbols for vegetation: Single Tree, Single Shrub, Hedge, Woods Line, Orchard, Vineyard.

EXISTING STRUCTURES:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for gas: Gas Valve, Gas Meter, Recorded U/G Gas Line, Designated U/G Gas Line (S.U.E.*), Above Ground Gas Line.

SANITARY SEWER:

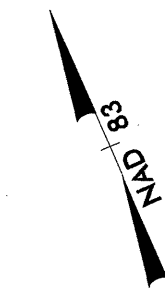
Table listing symbols for sanitary sewer: Sanitary Sewer Manhole, Sanitary Sewer Cleanout, U/G Sanitary Sewer Line, Above Ground Sanitary Sewer, Recorded SS Forced Main Line, Designated SS Forced Main Line (S.U.E.*).

MISCELLANEOUS:

Table listing symbols for 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, A/G Tank; Water, Gas, Oil, U/G Test Hole (S.U.E.*), Abandoned According to Utility Records, End of Information.

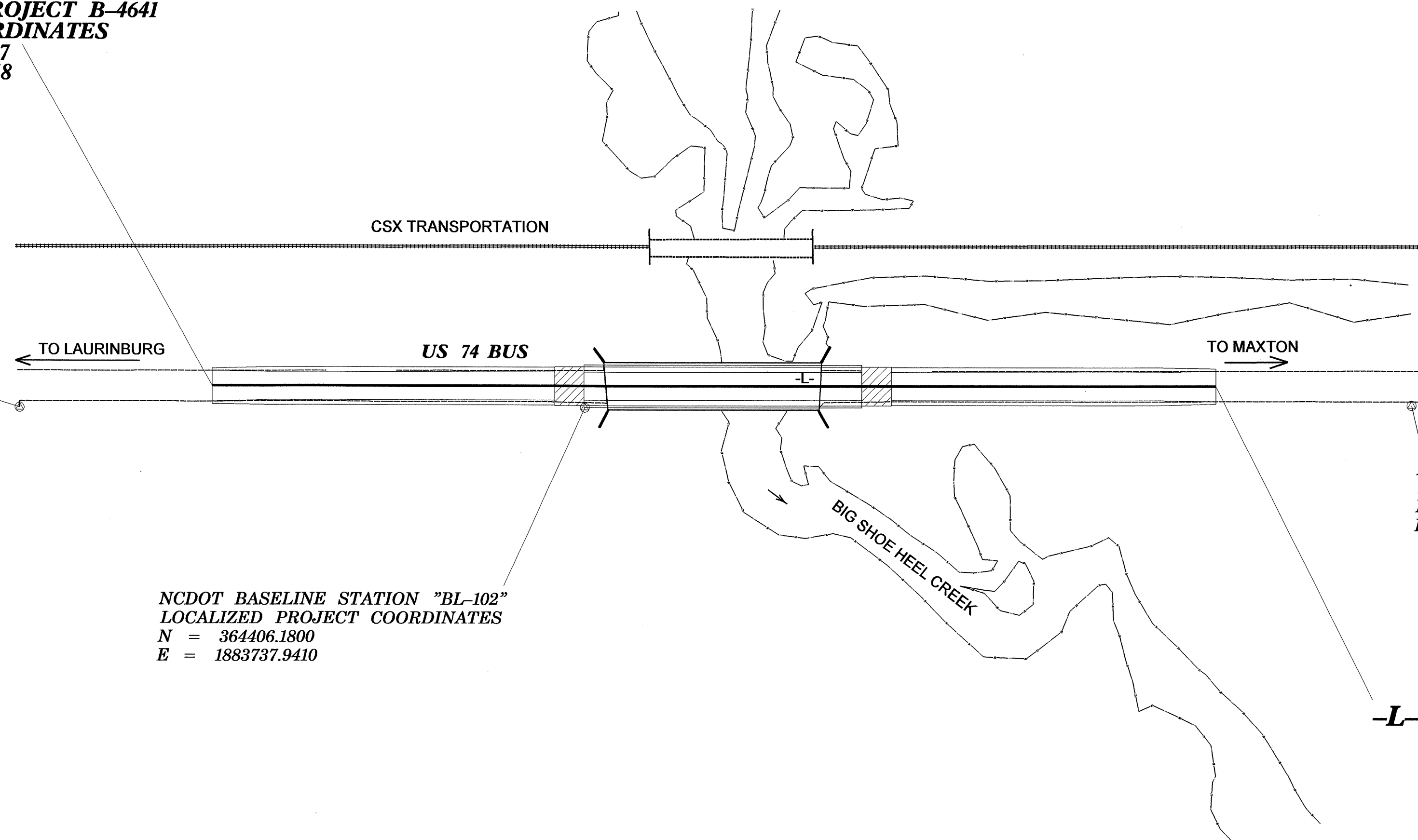
SURVEY CONTROL SHEET B-4641

PROJECT REFERENCE NO. B-4641	SHEET NO. 1C
Location and Surveys	



**-L- STA. 11+65.00 BEGIN TIP PROJECT B-4641
LOCALIZED PROJECT COORDINATES**
 N = 364549.2907
 E = 1883456.0318

NCDOT BASELINE STATION "BL-101"
LOCALIZED PROJECT COORDINATES
 N = 364597.6270
 E = 1883299.3560



NCDOT BASELINE STATION "BL-102"
LOCALIZED PROJECT COORDINATES
 N = 364406.1800
 E = 1883737.9410

NCDOT BASELINE STATION "BL-103"
LOCALIZED PROJECT COORDINATES
 N = 364127.4370
 E = 1884380.0190

**-L- STA. 20+15.00 END TIP PROJECT B-4641
LOCALIZED PROJECT COORDINATES**
 N = 364208.5565
 E = 1884234.7488

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BUTLER"
 WITH NAD 83 STATE PLANE GRID COORDINATES OF
 NORTHING: 365844.48 10(ft) EASTING: 1879714.96 10(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999907 18
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BUTLER" TO -L- STATION 11+65 IS
 S 70° 54' 13.4" E 3958.93'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 29

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
<http://www.ncdot.org/do/preconstruct/ig/wa/location/project/>
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4641_LS_CONTROL_080108.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.

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
101	BL-101	364597.6270	1883299.3560	176.10	10+02.09	18.52 RT
102	BL-102	364406.1800	1883737.9410	176.46	14+80.64	18.10 RT
103	BL-103	364127.4370	1884380.0190	173.59	21+80.61	16.08 RT

.....
 BM1 ELEVATION = 169.08
 N 364537 E 1883235
 L STATION 10+00
 S 41° 43' 59.1" W DIST 105.50
 RR SPIKE IN BASE OF 24" POPLAR

.....
 BM2 ELEVATION = 166.95
 N 364249 E 1883837
 L STATION 16+35 123 RIGHT
 RR SPIKE IN BASE OF 24" WATER OAK

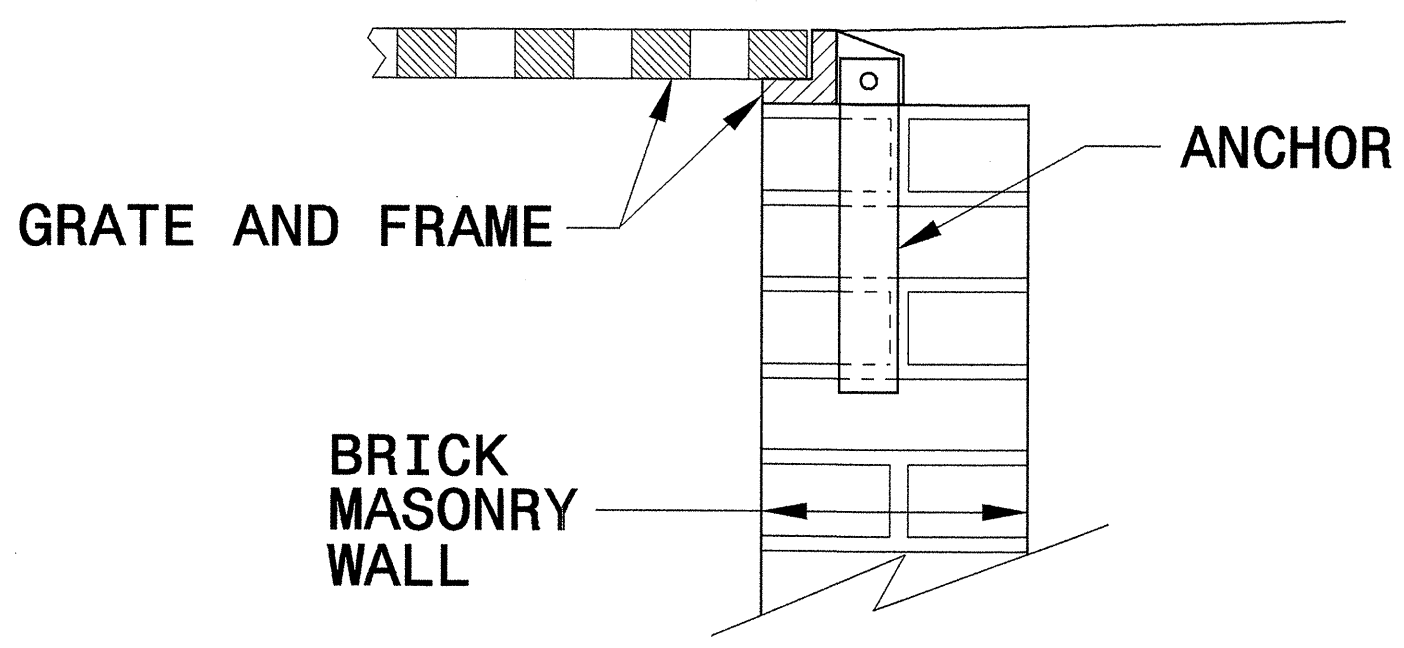
NOTE: DRAWING NOT TO SCALE

I:\MAR-2010_09\42
R:\Foodveu\Proj\B4641\ls_1c.dgn
\$\$\$\$USERNAME\$\$\$\$

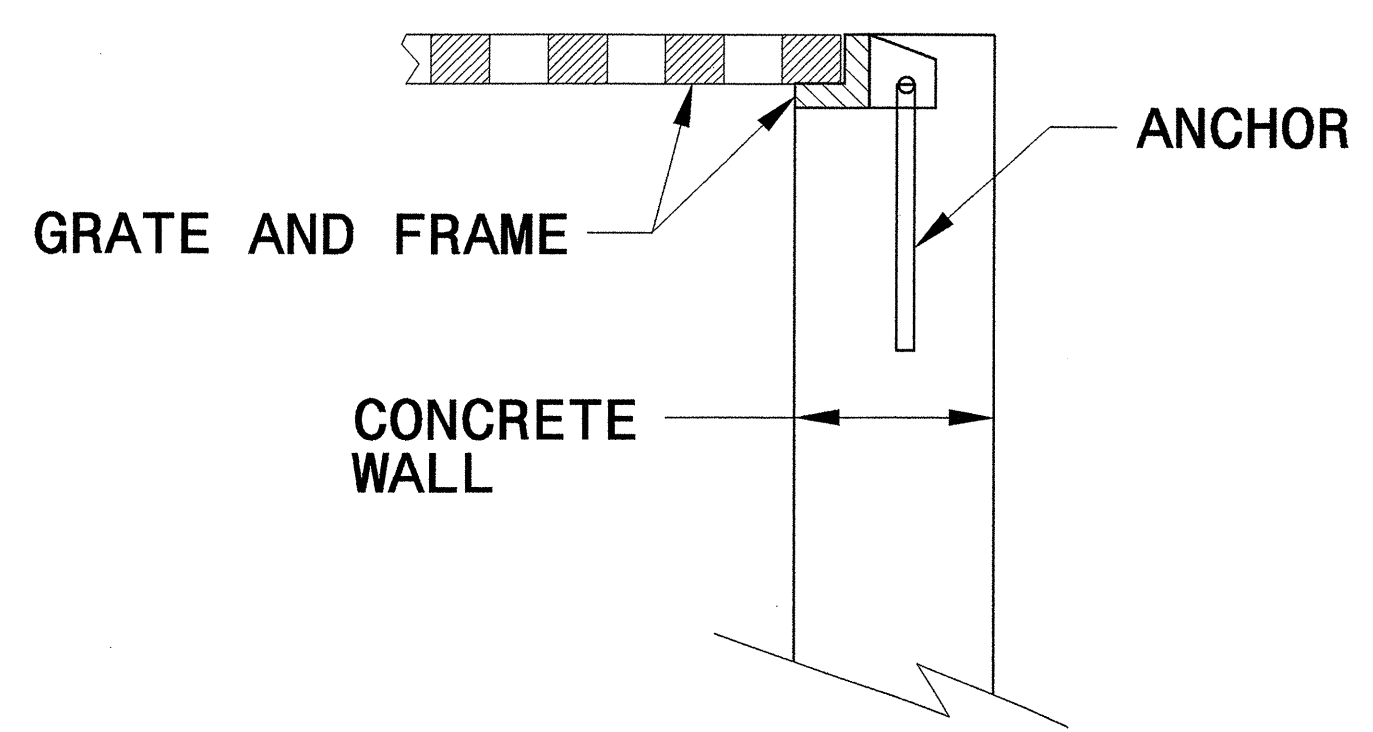
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

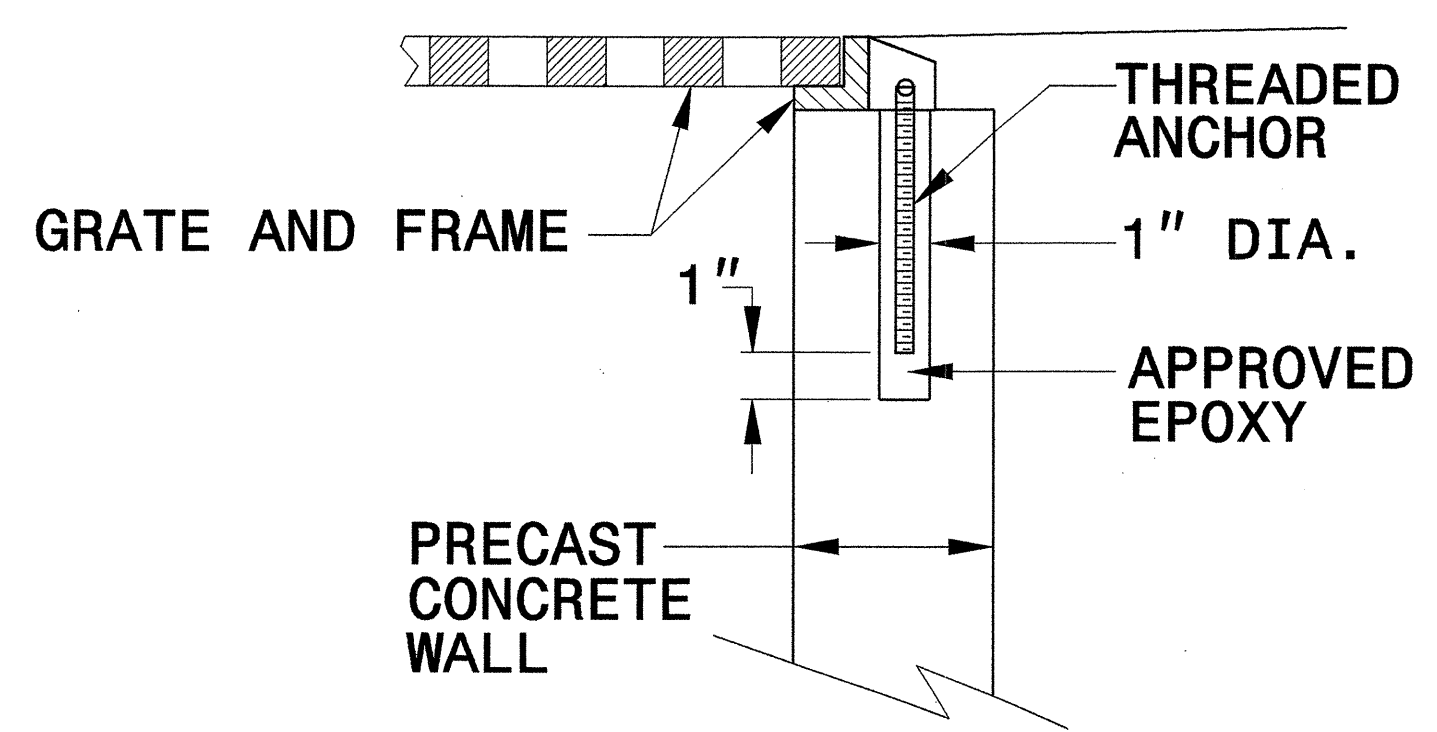
SHEET 1 OF 1
840D25



**BRICK MASONRY
CONSTRUCTION**



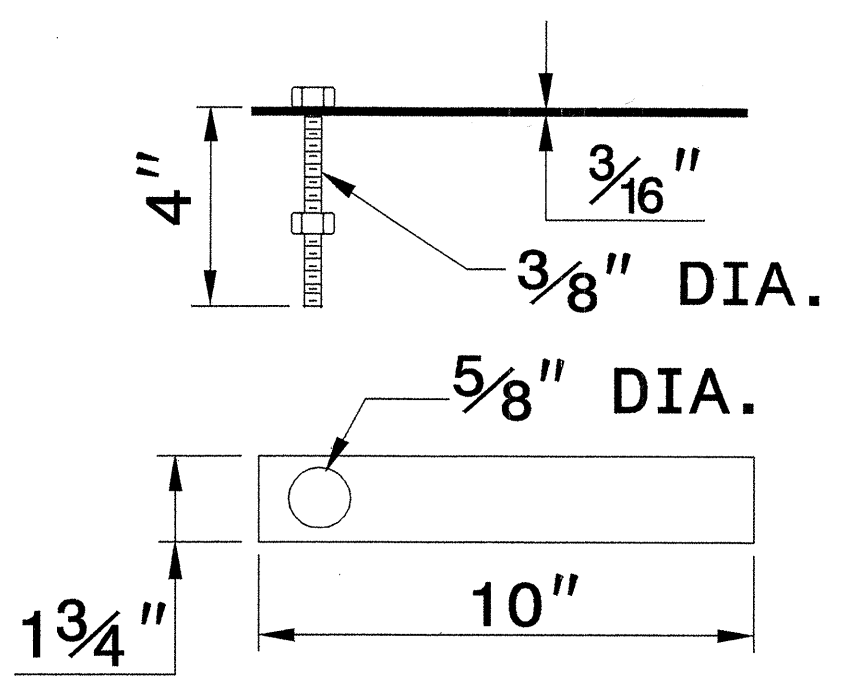
**CONCRETE
CONSTRUCTION**



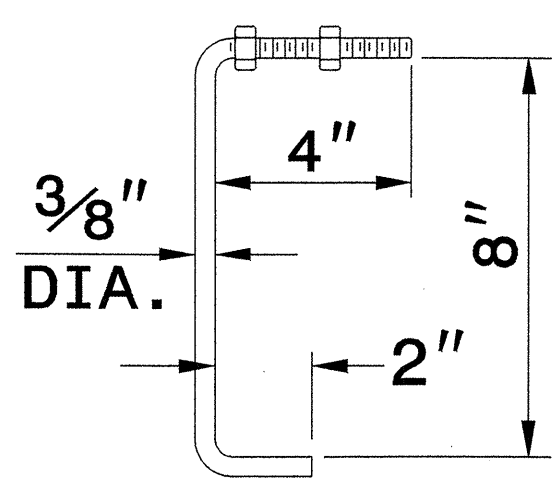
**PRECAST CONCRETE
CONSTRUCTION**

**DETAIL SHOWING ANCHORAGE OF
FRAME FOR GRATED DROP INLET**

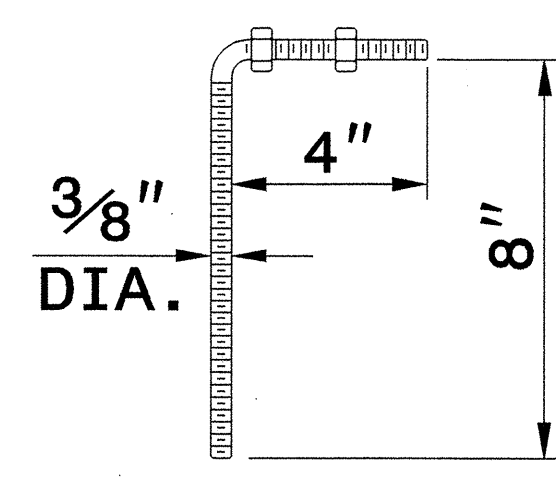
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL
OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



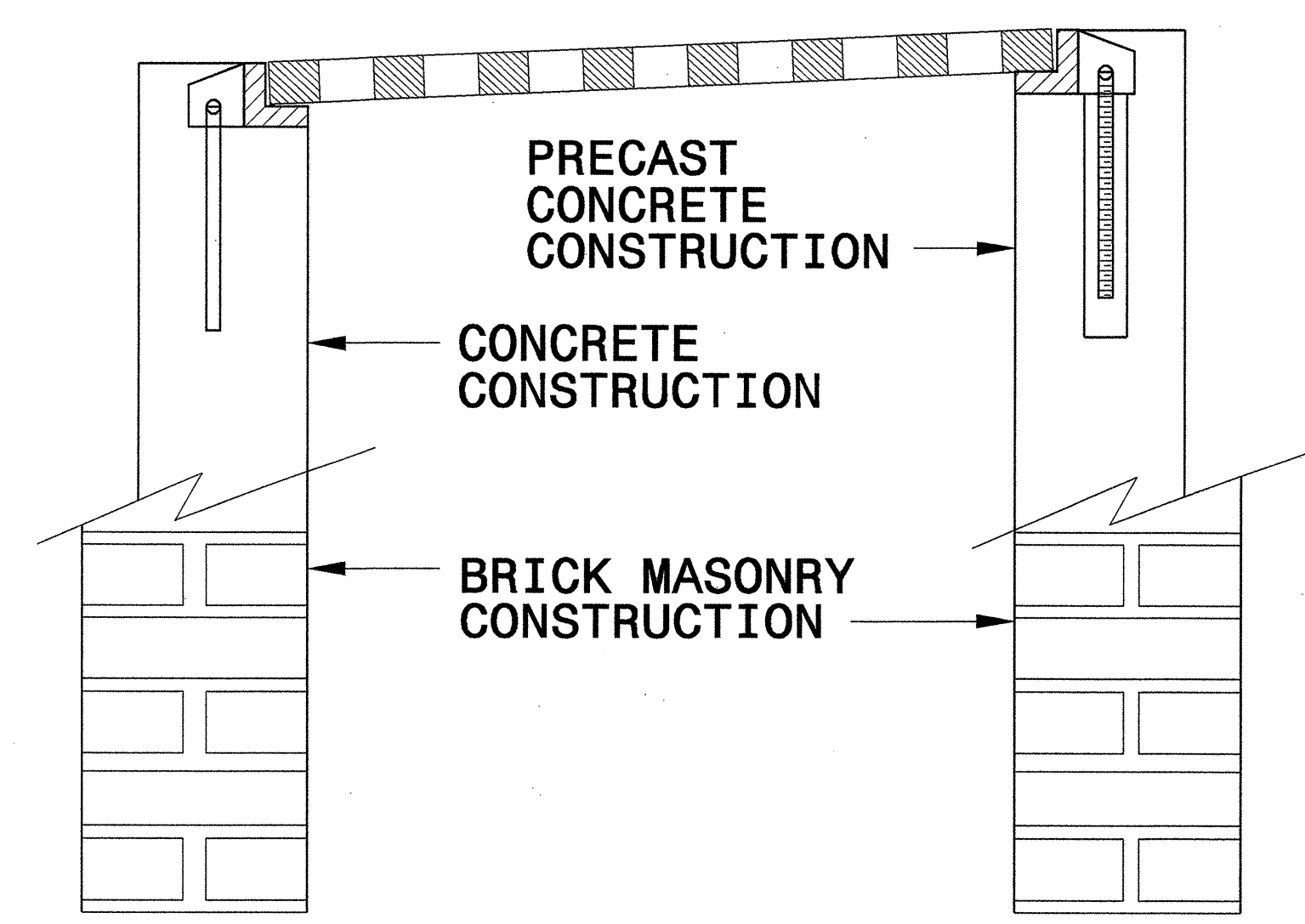
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



**PRECAST
CONCRETE ANCHOR**
3/8" DIA. BENT BAR

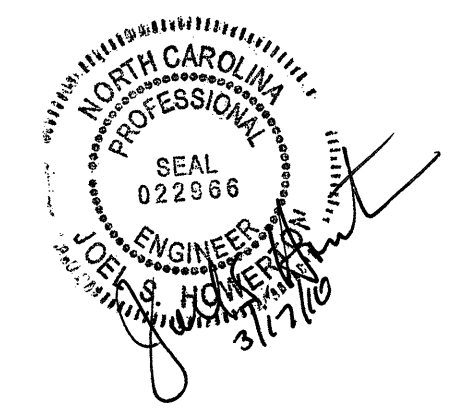


**FRAME AND GRATE INSTALLATION
FOR NORMAL CROWN AND
SUPERELEVATED SECTIONS**

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



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: *Joel Honeyman* DATE: 4/13/08
FILE SPEC.: *Joel Honeyman*

PLT: 08/17/06 10:58 AM
C:\P\840D25\840D25.DWG
USER: JHONEYMAN

30-Jul-2009 09:48
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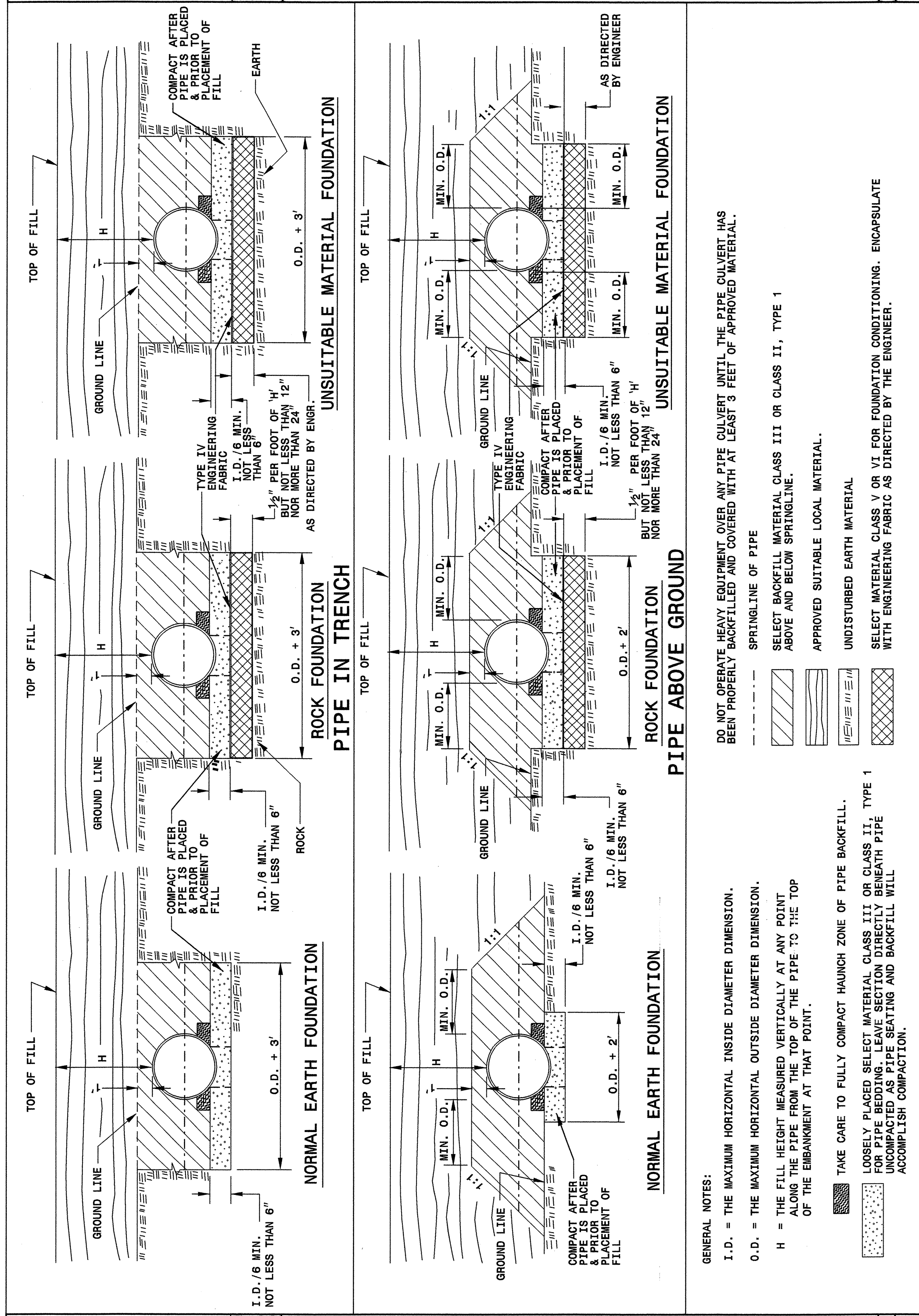
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STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

7-06

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

7-06



ENGLISH DETAIL DRAWING FOR
 METHOD OF PIPE INSTALLATION
 FLEXIBLE PIPE

SHEET 1 OF 3
300D01

SHEET 1 OF 3
300D01

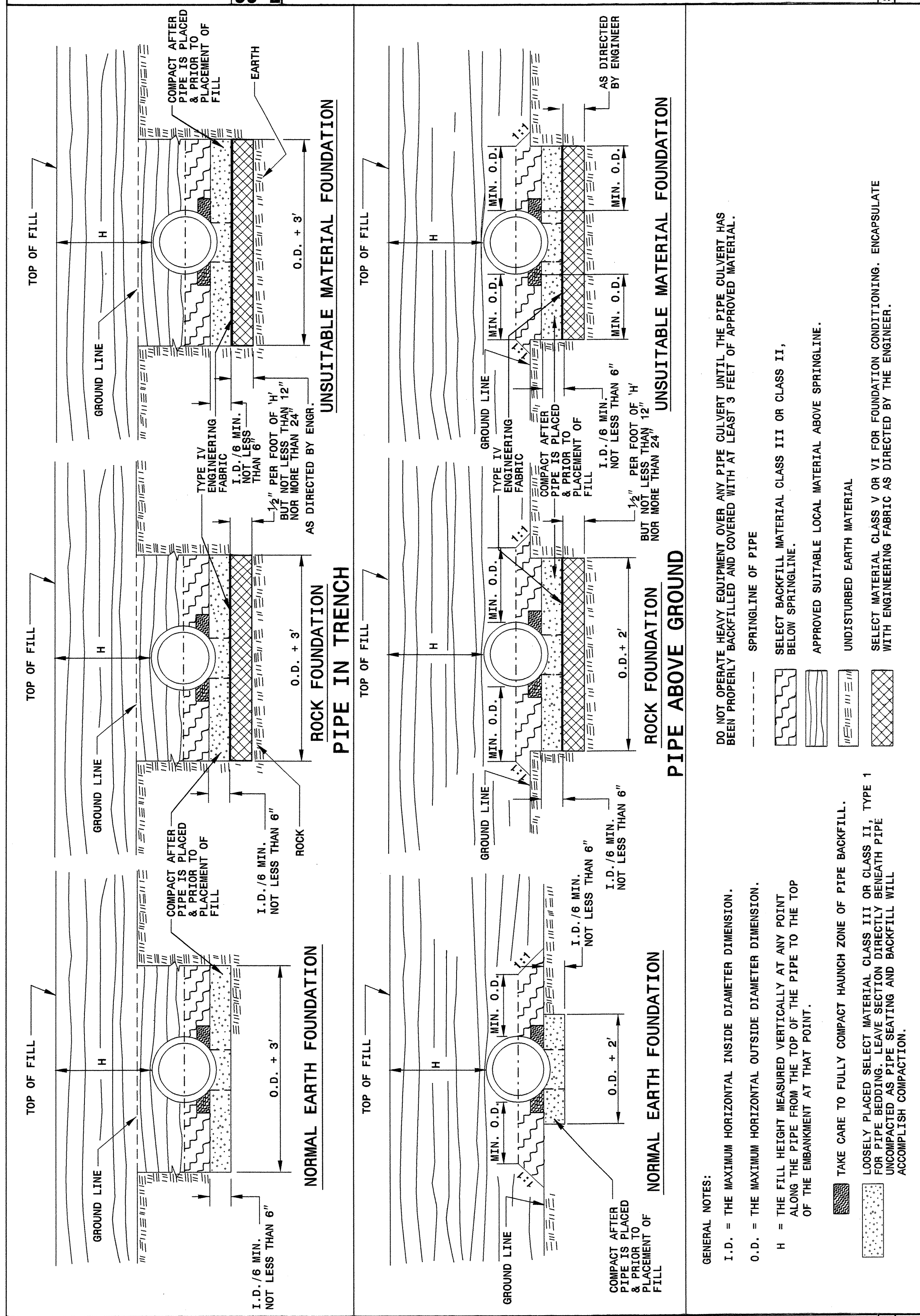
GENERAL NOTES:
 I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
 O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
 H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
 TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.
 DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
 SPRINGLINE OF PIPE
 SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.
 APPROVED SUITABLE LOCAL MATERIAL.
 UNDISTURBED EARTH MATERIAL
 SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH ENGINEERING FABRIC AS DIRECTED BY THE ENGINEER.

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

7-06

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

7-06



ENGLISH DETAIL DRAWING FOR
 METHOD OF PIPE INSTALLATION
 RIGID PIPE

SHEET 2 OF 3
300D01

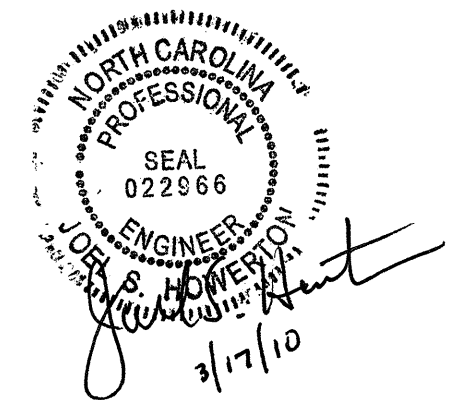
SHEET 2 OF 3
300D01

GENERAL NOTES:
 I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.
 O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.
 H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.
 TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.
 DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.
 SPRINGLINE OF PIPE
 SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 BELOW SPRINGLINE.
 APPROVED SUITABLE LOCAL MATERIAL ABOVE SPRINGLINE.
 UNDISTURBED EARTH MATERIAL
 SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH ENGINEERING FABRIC AS DIRECTED BY THE ENGINEER.

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

SEE PLATE FOR TITLE

ORIGINAL BY: K Kempf DATE: 5-15-09
 CHECKED BY: *[Signature]* DATE: 7/20/09
 FILE SPEC: er:\viewward\stds\stdstodetails\30001\0300d01.dgn



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202328

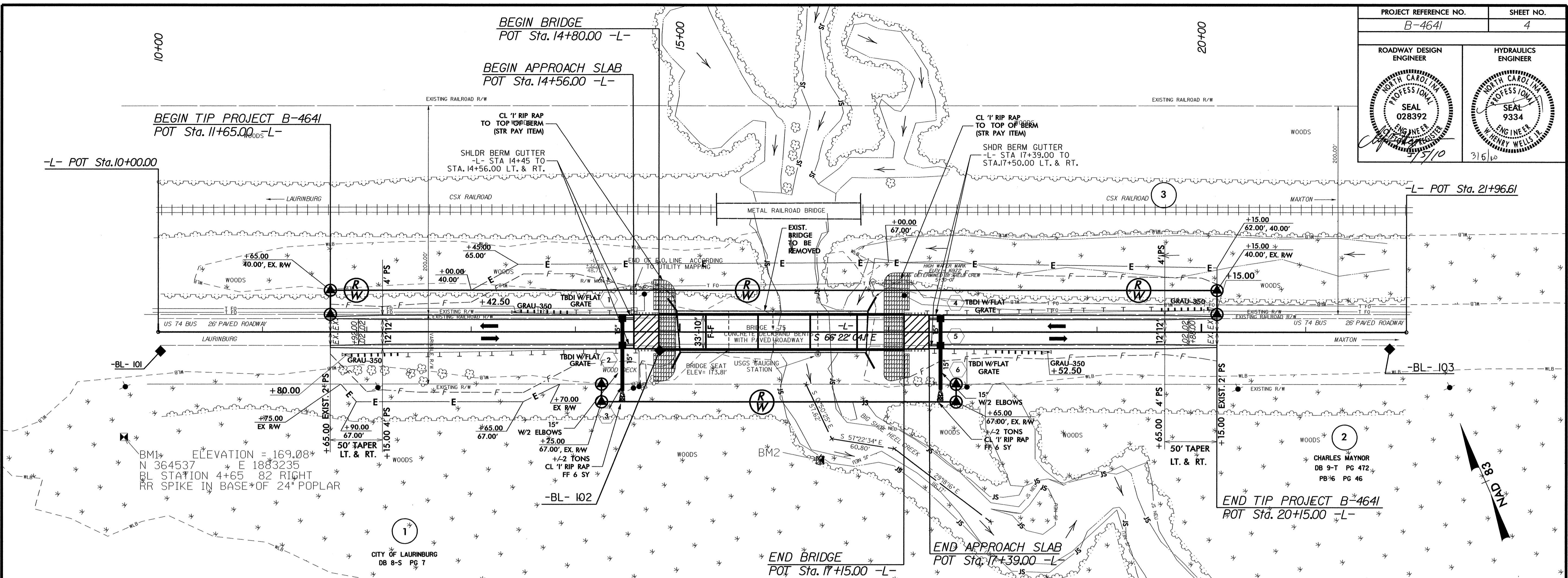
ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (15+97.50-L)
0036000000-E	225	2,500	CY	UNDERCUT EXCAVATION
0038000000-E	SP	350	CY	SHALLOW UNDERCUT
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0080000000-E	SP	700	TON	CLASS IV SUBGRADE STABILIZATION
0196000000-E	270	2,000	SY	FABRIC FOR SOIL STABILIZATION
0234000000-E	SP	2,500	CY	GENERIC GRADING ITEM SELECT GRANULAR MATERIAL
0320000000-E	SP	50	SY	FOUNDATION CONDITIONING FABRIC
0330000000-E	SP	20	TON	GENERIC DRAINAGE ITEM FOUNDATION CONDITIONING MATERIAL, MINOR STRS
0335200000-E	SP	144	LF	15" DRAINAGE PIPE
0335850000-E	SP	4	EA	*** DRAINAGE PIPE ELBOWS (15")
1489000000-E	610	160	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1498000000-E	610	100	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
1519000000-E	610	370	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
1560000000-E	620	35	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
2000000000-N	806	8	EA	RIGHT OF WAY MARKERS
2286000000-N	840	4	EA	MASONRY DRAINAGE STRUCTURES
2367000000-N	840	4	EA	FRAME WITH TWO GRATES, STD 840.29
2556000000-E	846	44	LF	SHOULDER BERM GUTTER
3030000000-E	862	600	LF	STEEL BM GUARDRAIL
3150000000-N	862	3	EA	ADDITIONAL GUARDRAIL POSTS

ItemNumber	Sec #	Quantity	Unit	Description
3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III
3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3628000000-E	876	4	TON	RIP RAP, CLASS 1
3656000000-E	876	465	SY	FILTER FABRIC FOR DRAINAGE
4400000000-E	1110	577	SF	WORK ZONE SIGNS (STATIONARY)
4410000000-E	1110	115	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4420000000-N	1120	1	EA	CHANGEABLE MESSAGE SIGN
4430000000-N	1130	5	EA	DRUMS
4445000000-E	1145	96	LF	BARRICADES (TYPE III)
4685000000-E	1205	1,230	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
4686000000-E	1205	1,230	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
4770000000-E	1205	940	LF	COLD APPLIED PLASTIC PAVEMENT MARKING LINES, TYPE ** (4") (II)
4900000000-N	1251	11	EA	PERMANENT RAISED PAVEMENT MARKERS
6000000000-E	1605	1,470	LF	TEMPORARY SILT FENCE
6006000000-E	1610	225	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	70	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	400	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	2.5	ACR	TEMPORARY MULCHING
6018000000-E	1620	100	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	375	LF	TEMPORARY SLOPE DRAINS
6027000000-N	1622	7	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
6029000000-E	SP	2,100	LF	SAFETY FENCE
6030000000-E	1630	150	CY	SILT EXCAVATION

ItemNumber	Sec #	Quantity	Unit	Description
6036000000-E	1631	8,500	SY	MATting FOR EROSION CONTROL
6042000000-E	1632	1,900	LF	1/4" HARDWARE CLOTH
6071010000-E	SP	125	LF	WATTLE
6071020000-E	SP	30	LB	POLYACRYLAMIDE (PAM)
6071030000-E	SP	50	LF	COIR FIBER BAFFLES
6084000000-E	1660	5	ACR	SEEDING & MULCHING
6087000000-E	1660	1	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	1.25	TON	FERTILIZER TOPDRESSING
6114500000-N	SP	10	MHR	SPECIALIZED HAND MOWING
6117000000-N	SP	12	EA	RESPONSE FOR EROSION CONTROL

5/28/99

SYTIMELEADON

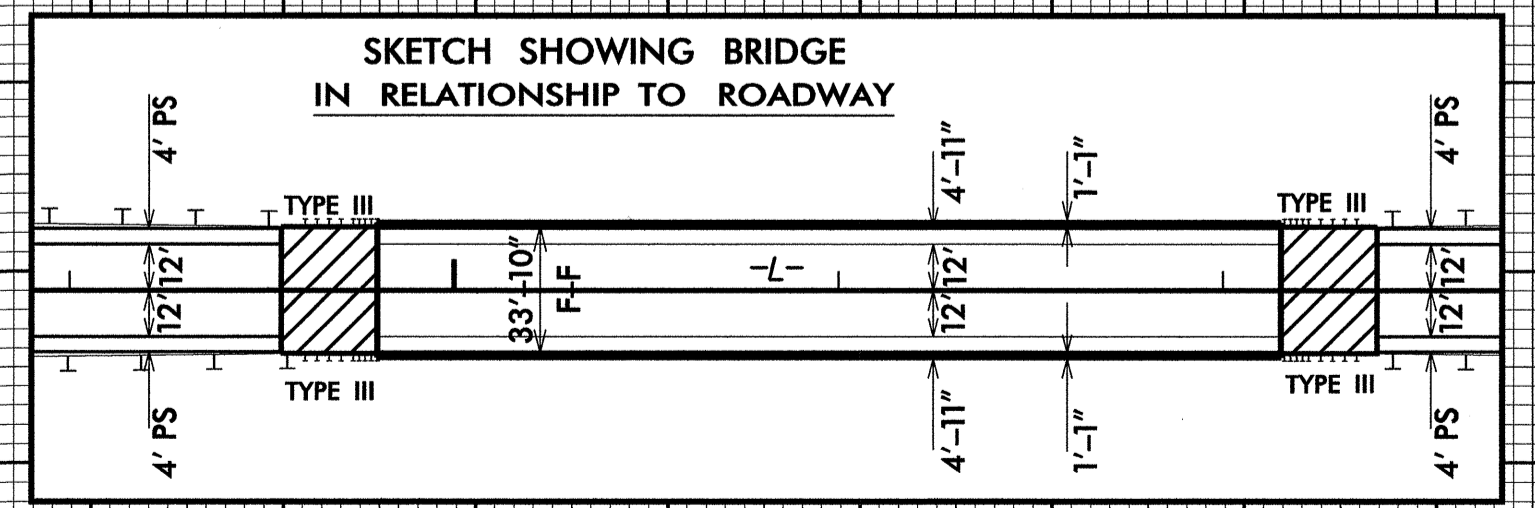
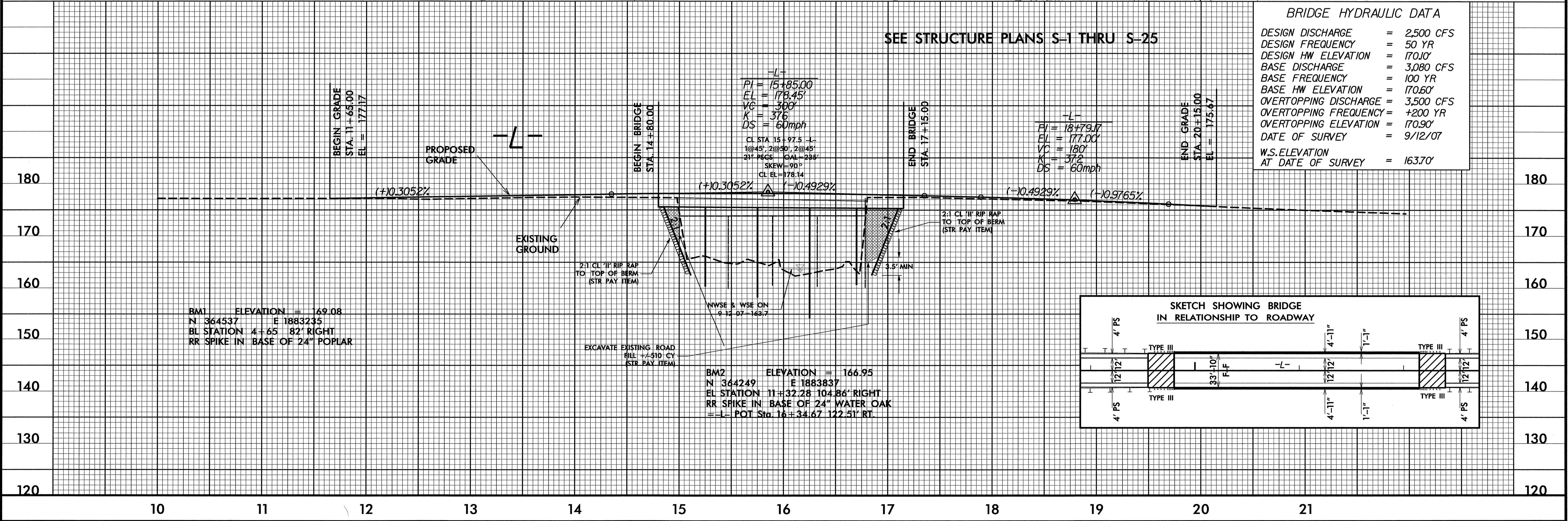


REVISIONS

SEE STRUCTURE PLANS S-1 THRU S-25

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 2,500 CFS
DESIGN FREQUENCY	= 50 YR
DESIGN HW ELEVATION	= 170.10'
BASE DISCHARGE	= 3,080 CFS
BASE FREQUENCY	= 100 YR
BASE HW ELEVATION	= 170.60'
OVERTOPPING DISCHARGE	= 3,500 CFS
OVERTOPPING FREQUENCY	= +200 YR
OVERTOPPING ELEVATION	= 170.90'
DATE OF SURVEY	= 9/12/07
W.S. ELEVATION AT DATE OF SURVEY	= 163.70'



8/17/99
STINEBAUGH