

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	Y-4806AA	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
40325.1.22	STP-2299(1)	PE, R / W, UTIL,	
40325.3.22	STP-2299(1)	CONST	

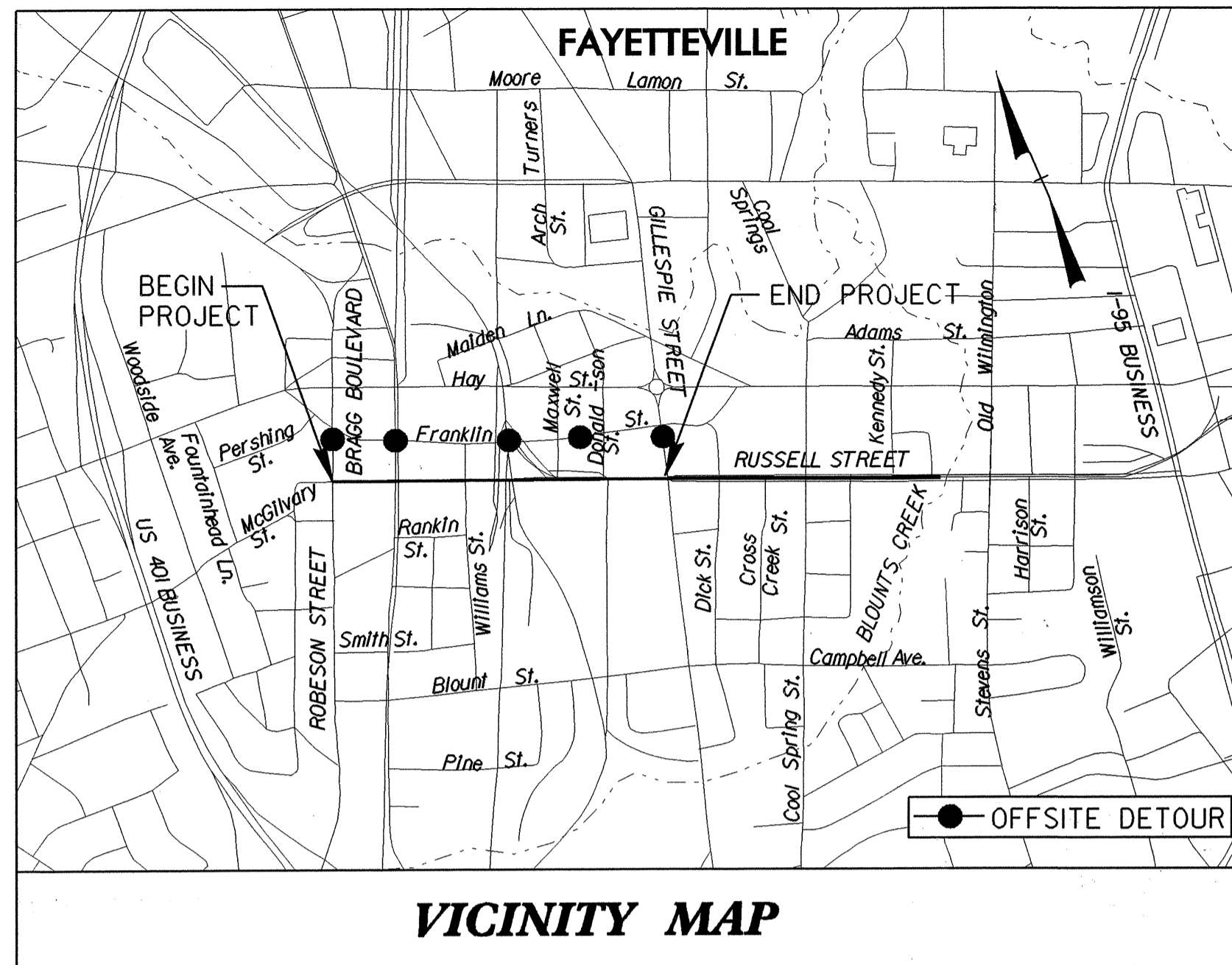
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CUMBERLAND COUNTY

**LOCATION: SR 2299 (RUSSELL STREET) FROM SR 3828 (ROBESON STREET)
TO SR 2311 (GILLESPIE STREET) IN FAYETTEVILLE**

**TYPE OF WORK: GRADING, MILLING, PAVING, RESURFACING
DRAINAGE, SIGNALS, AND SIDEWALKS**

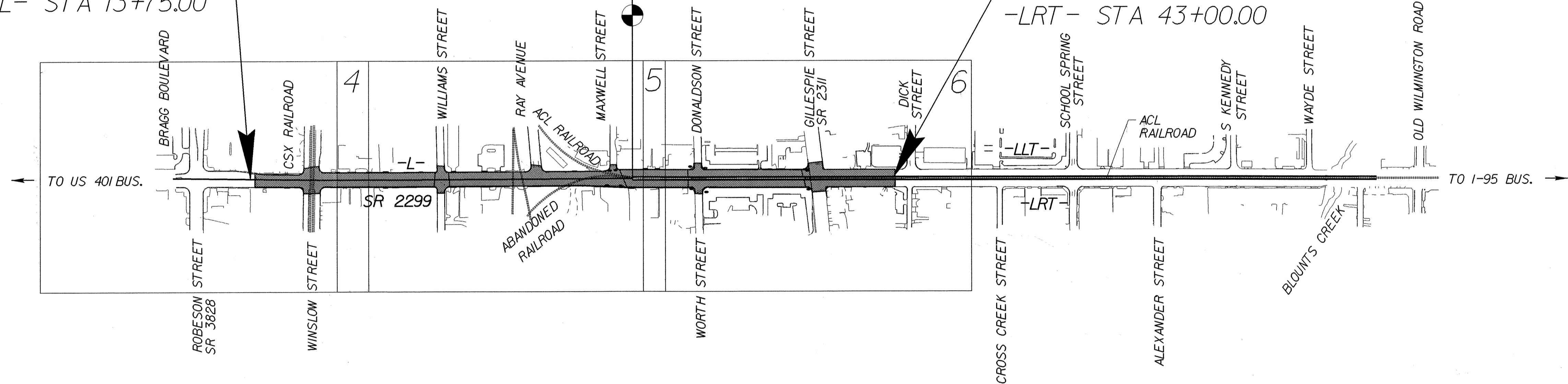
See Sheet 1-A For Index of Sheets



BEGIN STATE
PROJECT Y-4806AA
-L- STA 13+75.00

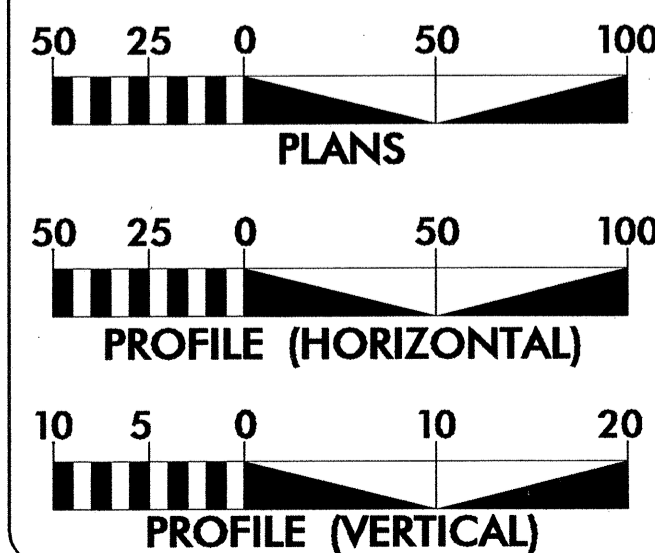
-L- STA 31+00.00 =
-LLT- STA 31+00.00 =
-LRT- STA 31+00.00

END STATE
PROJECT Y-4806AA
-LLT- STA 43+00.00
-LRT- STA 43+00.00



NCDOT CONTACT: G. SCOTT PRIDGEN
DDC ENGINEER
DIVISION 6

GRAPHIC SCALES



DESIGN DATA

ADT 2006 = 8,000
DHV = 10 %
D = 50 %
V = 40 MPH

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT Y-4806AA = 0.554 MILES
TOTAL LENGTH OF PROJECT Y-4806AA = 0.554 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NA

David W. Bass, PE
PROJECT ENGINEER

LETTING DATE:
JULY 21, 2009

Mark Stephens, EI
PROJECT DESIGN ENGINEER

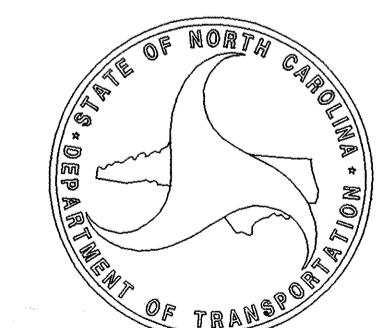
HYDRAULICS ENGINEER

Richard L. Hiner
SIGNATURE: *Richard L. Hiner*
SEAL: 20185
RICHARD L. HINER
ENGINEER

ROADWAY DESIGN ENGINEER

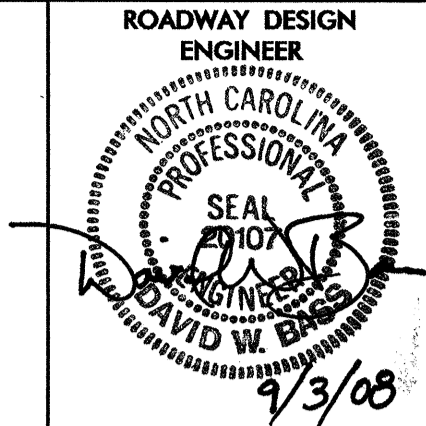
David W. Bass
SIGNATURE: *David W. Bass*
SEAL: 20107
DAVID W. BASS
ENGINEER

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**



STATE HIGHWAY DESIGN ENGINEER P.E.

CONTRACT: C202119 TIP PROJECT: Y-4806AA
 10-JUL-2008 11:53
 C:\Users\lshd\Documents\Roadway\proj\N-russell1st_rdy_tsh.dgn
 \$\$\$USERNAME\$\$\$



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

INDEX OF SHEETS

2006 ROADWAY ENGLISH STANDARD DRAWINGS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2-A	DETAIL TO CONVERT EXISTING DROP INLET OR CATCH BASIN TO JUNCTION BOX
2-B	DETAIL OF HDPE PIPE LINER INSIDE A SMOOTH STEEL PIPE
2-C	DETAIL OF ANCHOR FOR FRAMES
3	SUMMARY OF QUANTITIES
3-A THRU 3-B	SUMMARY OF DRAINAGE QUANTITIES
3-C	SUMMARY OF EARTHWORK, ASPHALT PAVEMENT REMOVAL SUMMARY, AND SIDEWALK SUMMARY
4 THRU 6	PLAN SHEET
7 THRU 8	PROFILE SHEET
TCP-1 THRU TCP-19	TRAFFIC CONTROL PLANS
PM-1 THRU PM-3	PAVEMENT MARKING PLANS
SIG-1 THRU SIG-19	SIGNAL PLANS
UD-4 THRU UD-6	UTILITIES BY OTHERS PLANS
X-0	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-9	CROSS-SECTIONS

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	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.05	Method of Obtaining Superelevation - Divided Highways
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.51	Brick Manhole - 12" thru 36" Pipe
840.53	Precast Manhole with Masonry Base - 12" thru 42" Pipe
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
848.05	Wheelchair Ramp - Curb Cut

GENERAL NOTES:

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

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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 OR NO. 225.05 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.

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.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE PWC ELECTRIC, PWC WATER, PWC SEWER, PIEDMONT NATURAL GAS, DELTACOM, EMBARO, TIME WARNER, AND LEVEL 3. 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.

WHEELCHAIR RAMPS:

WHEELCHAIR RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. THE CONSTRUCTION OF ALL WHEELCHAIR RAMPS SHALL BE IN ACCORDANCE WITH DETAILS IN PLANS.

TEMPORARY SHORING

SHORING REQUIRED FOR MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

8/17/99

03-SEP-2008 11:42
I:\ussell\street\roadway\pro\N\ussell\st_rdy_tsh.dgn

3/15/06

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.

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, Proposed Wheel Chair Ramp Curb Cut, Curb Cut for Future 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:

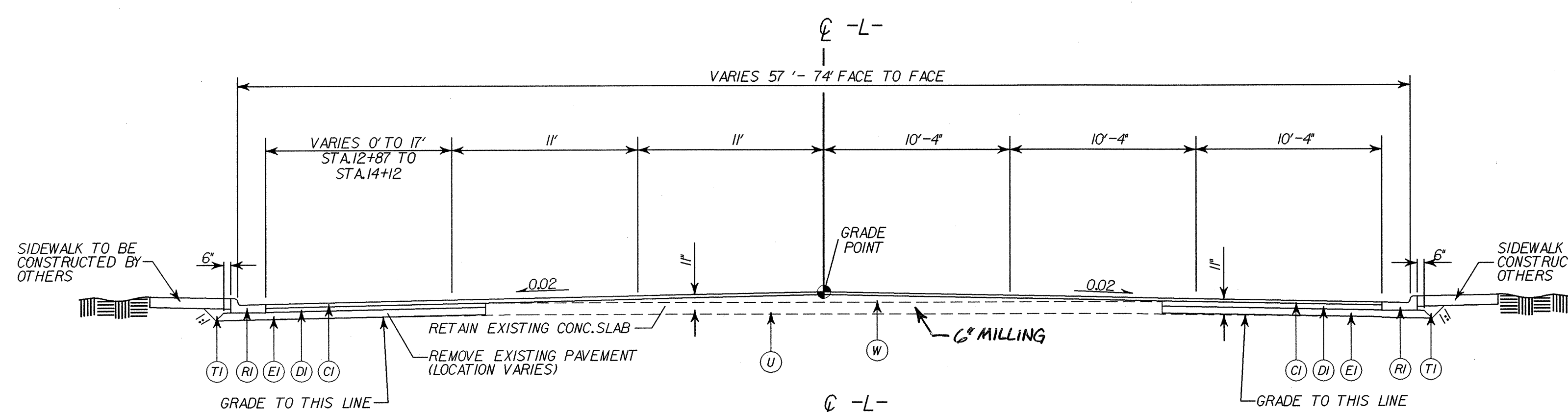
Table listing symbols for gas: Gas Valve, Gas Meter, Recorded U/G Gas Line, Designated U/G Gas Line (S.U.E.*), Above Ground Gas Line.

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:

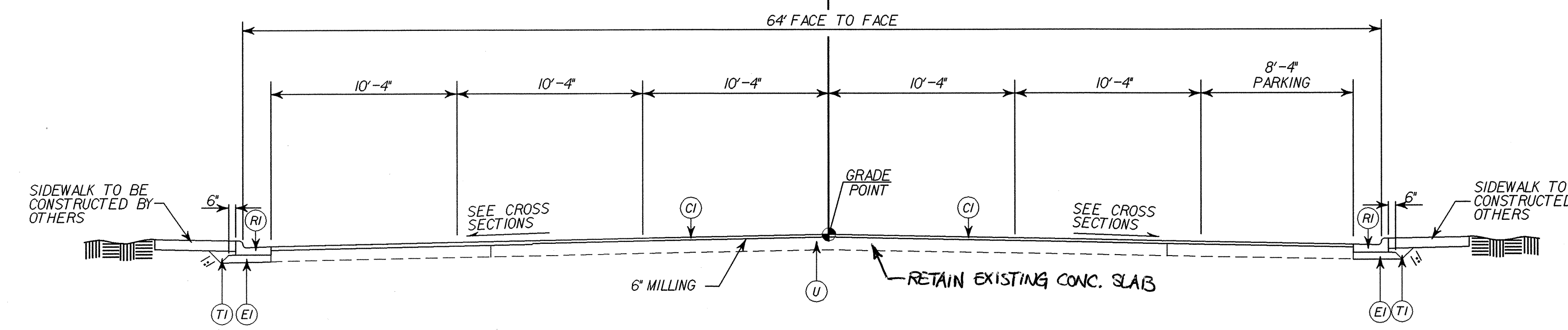
Table listing symbols for miscellaneous: Utility Pole, Utility Pole with Base, Utility Located Object, Utility Traffic Signal Box, Utility Unknown U/G Line, U/G Tank; Water, Gas, Oil, A/G Tank; Water, Gas, Oil, U/G Test Hole (S.U.E.*), Abandoned According to Utility Records, End of Information.



TYPICAL SECTION NO.1

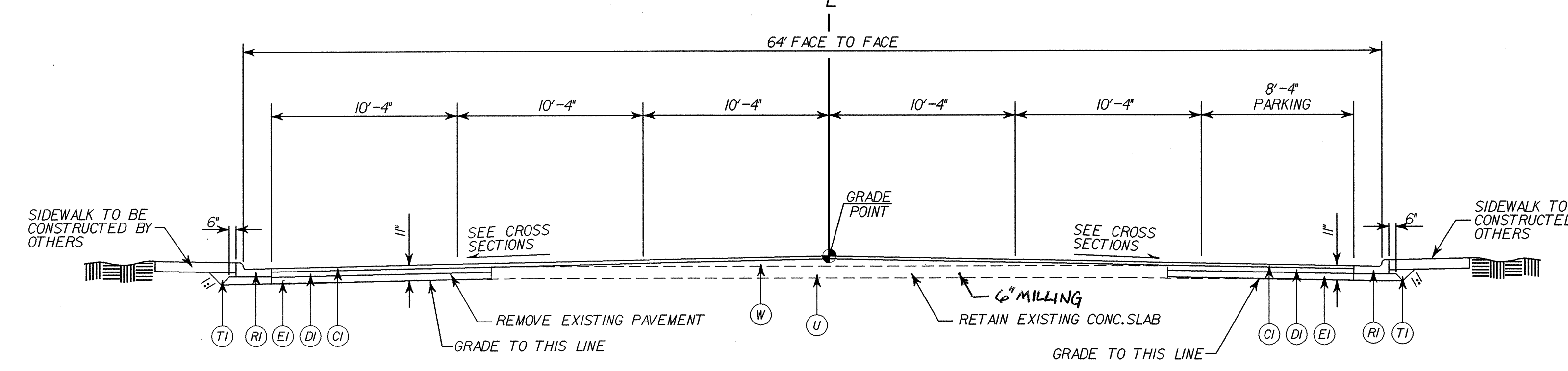
TRANSITION FROM EXISTING TO TYPICAL SECTION
-L- STA 13+75.00 TO 14+00.00

USE TYPICAL SECTION NO.1:
-L- STA 14+00.00 TO STA 15+95.00 +/-



TYPICAL SECTION NO.2

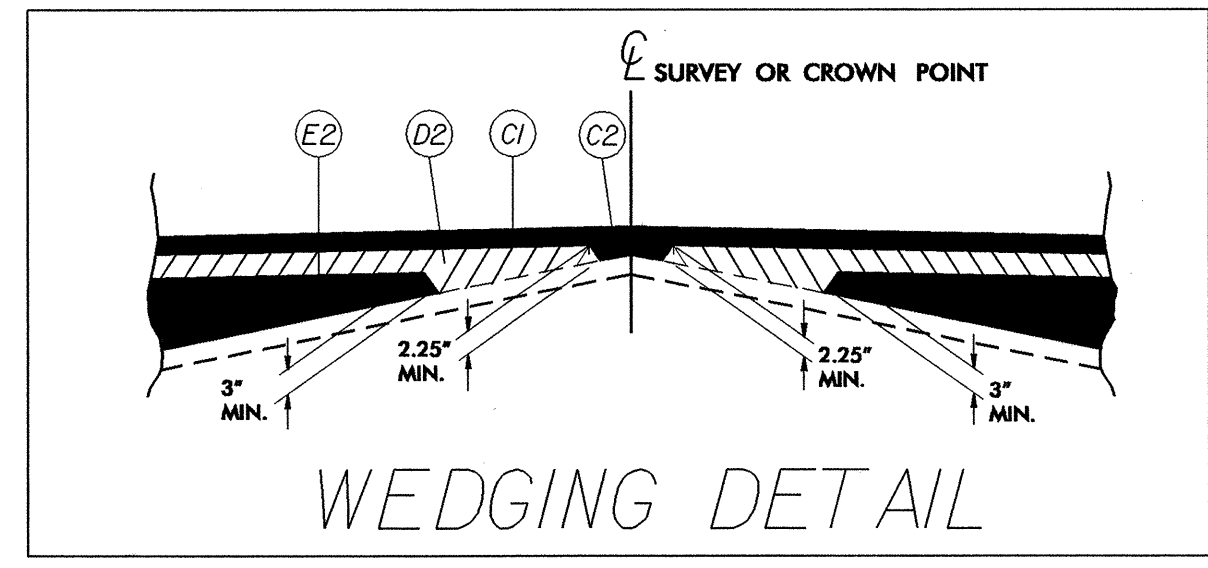
USE TYPICAL SECTION NO.2:
-L- STA 15+95 +/- TO STA 16+70 +/-
(MILLING AREA AT R/R)
-L- STA 25+25 +/- TO STA 26+30 +/-
(MILLING AREA AT R/R)



TYPICAL SECTION NO.3

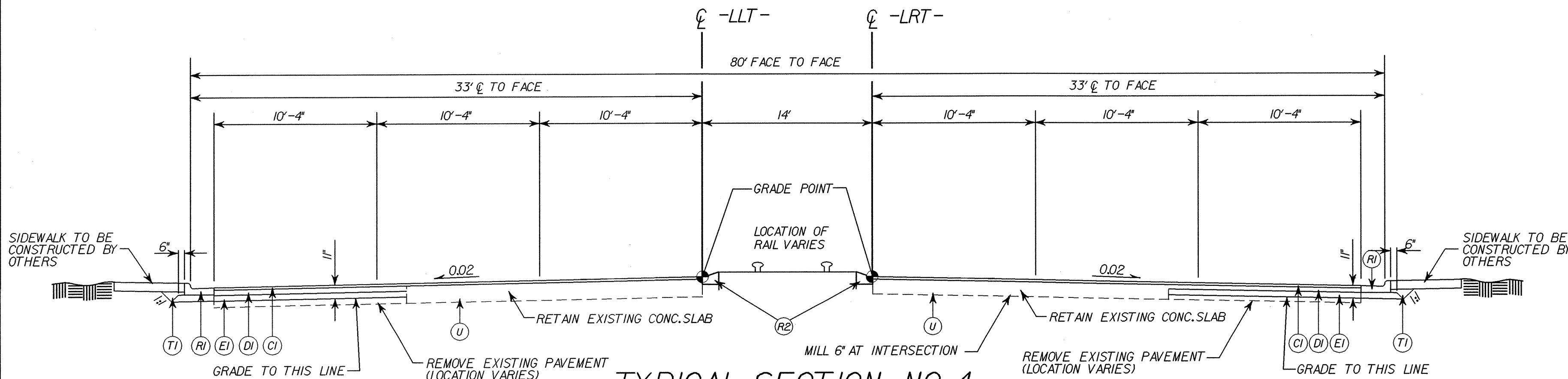
USE TYPICAL SECTION NO.3:
-L- STA 16+70 +/- TO STA 25+25 +/-
-L- STA 26+30 +/- TO STA 28+75 +/-

TRANSITION FROM TYPICAL NO.3 TO TYPICAL NO.4
-LLT- / -LRT- STA.28+75 TO STA.31+00.00



MILLING AT PAVEMENT TIE-INS

NOTES TO CONTRACTOR
For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.
Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.
Perform the work in accordance with Section 607 of the January 2006 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.
Payment for this item will be made under: Incidental Milling (SY)



TYPICAL SECTION NO.4

USE TYPICAL SECTION NO.4:
-LLT- STA 31+00.00 TO STA 38+50.00 AND
-LRT- STA 31+00.00 TO STA 38+50.00
TRANSITION FROM TYPICAL SECTION NO.4 TO EXISTING
-LLT- STA 38+50.00 TO 39+00.00
-LRT- STA 38+50.00 TO 39+00.00
MILL 6" AND RESURFACE WITH 6" S9.5C:
-LLT- STA 39+00.00 TO STA 43+00.00 AND
-LRT- STA 39+00.00 TO STA 43+00.00

PAVEMENT SCHEDULE

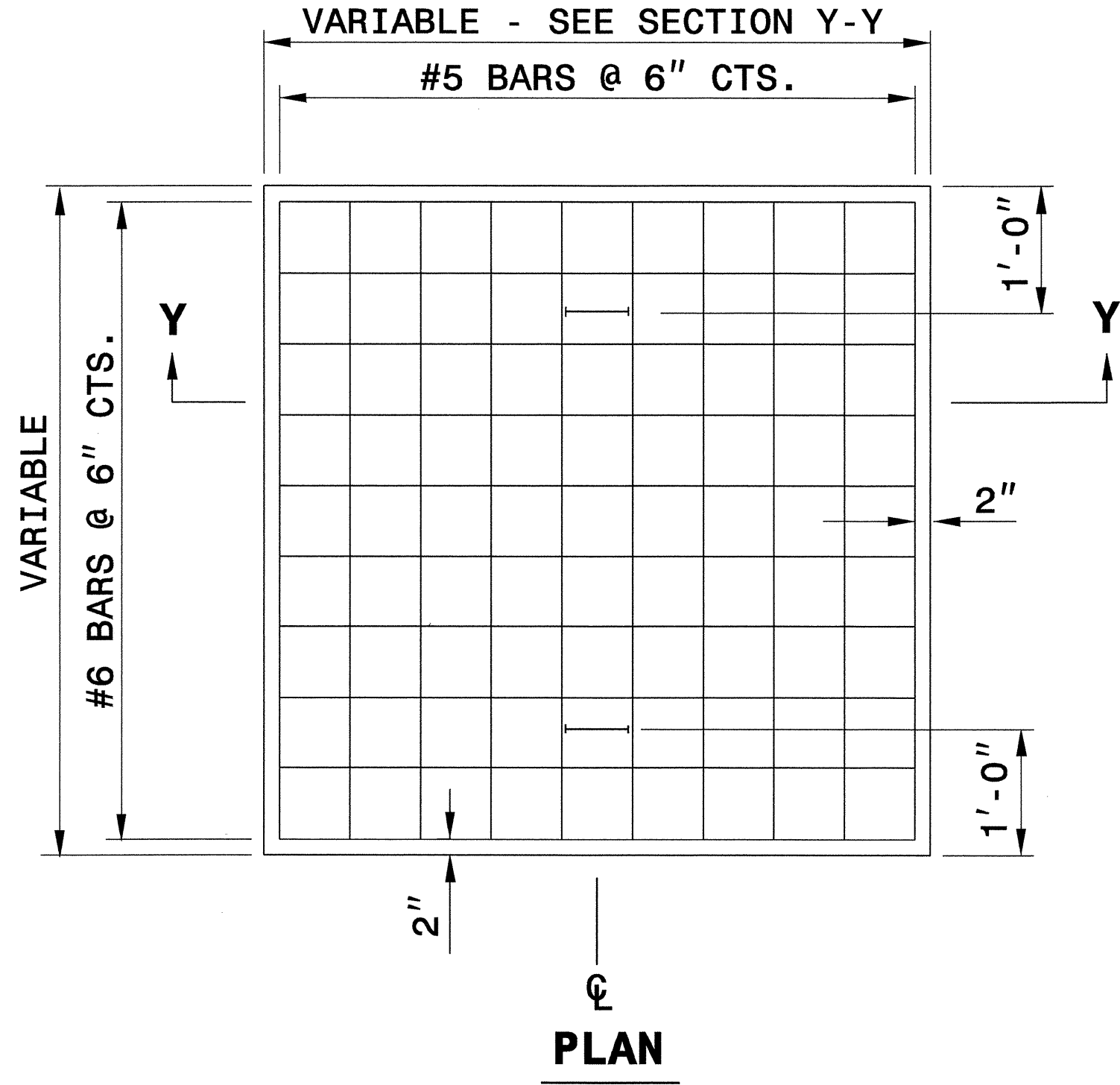
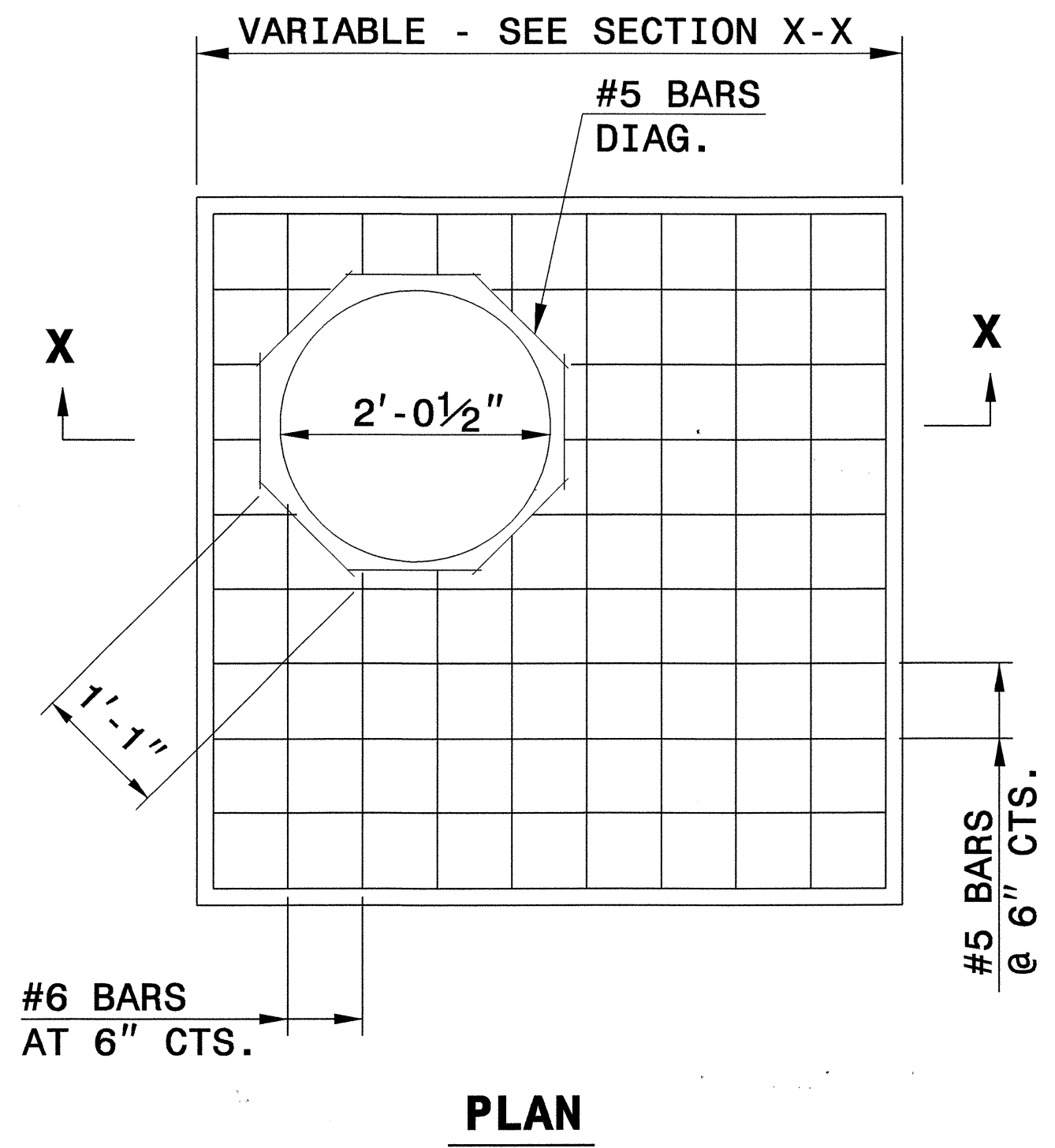
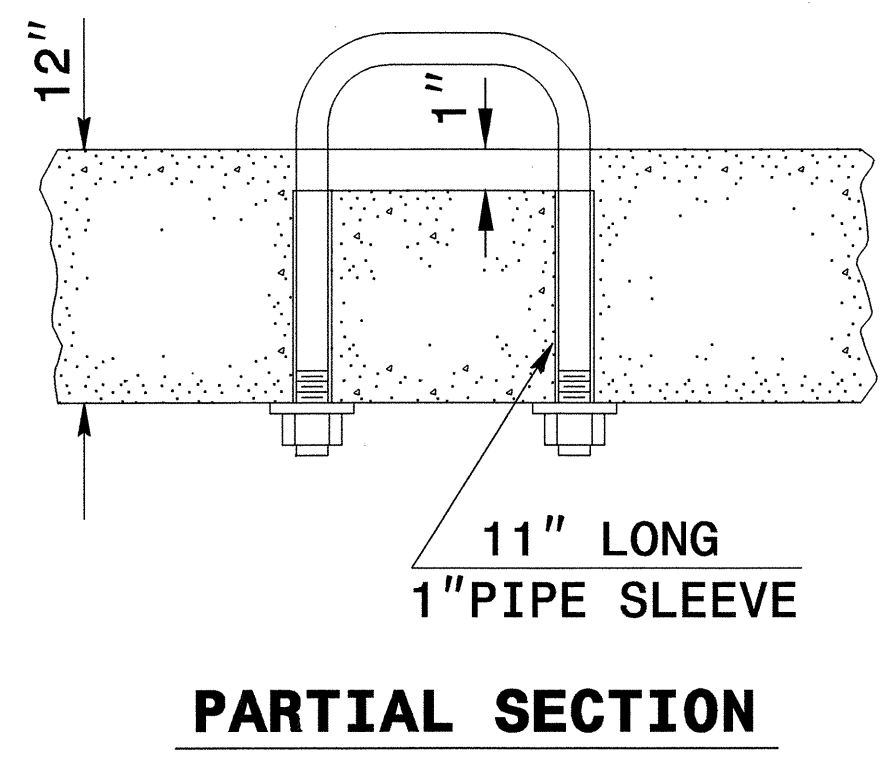
C1	PROP. APPROX. 3.0" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C. AT AN AVERAGE RATE OF 168 LBS PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONC. SURFACE COURSE, TYPE S9.5C. AT AN AVERAGE RATE OF 112 LBS PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
D1	PROP. APPROX. 4.0" ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C. AT AN AVERAGE RATE OF 456 LBS PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C. AT AN AVERAGE RATE OF 114 LBS PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/4" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4.0" ASPHALT CONC. BASE COURSE, TYPE B25.0C. AT AN AVERAGE RATE OF 456 LBS PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONC. BASE COURSE, TYPE B25.0C. AT AN AVERAGE RATE OF 114 LBS PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
R1	2' 6" CONCRETE CURB AND GUTTER
R2	1' 6" CONCRETE CURB AND GUTTER
T1	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE H UNLESS OTHERWISE NOTED

REVISIONS

8/17/99

01-JUN-2009 07:34
r:\juseil\street\y80dhe\proj\juseil\list_rdy_tj.p.dgn
16230 AT RALC283TH

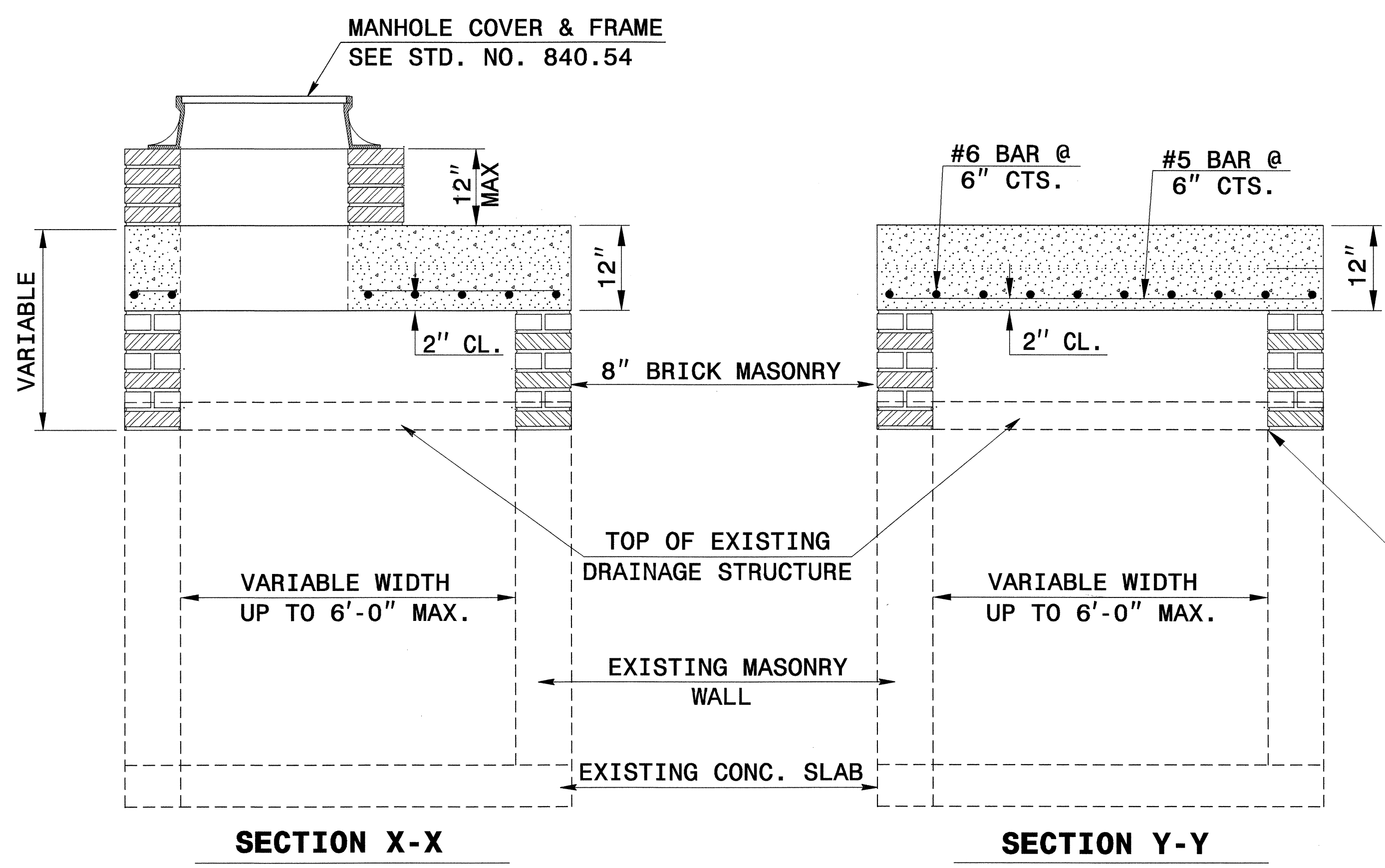
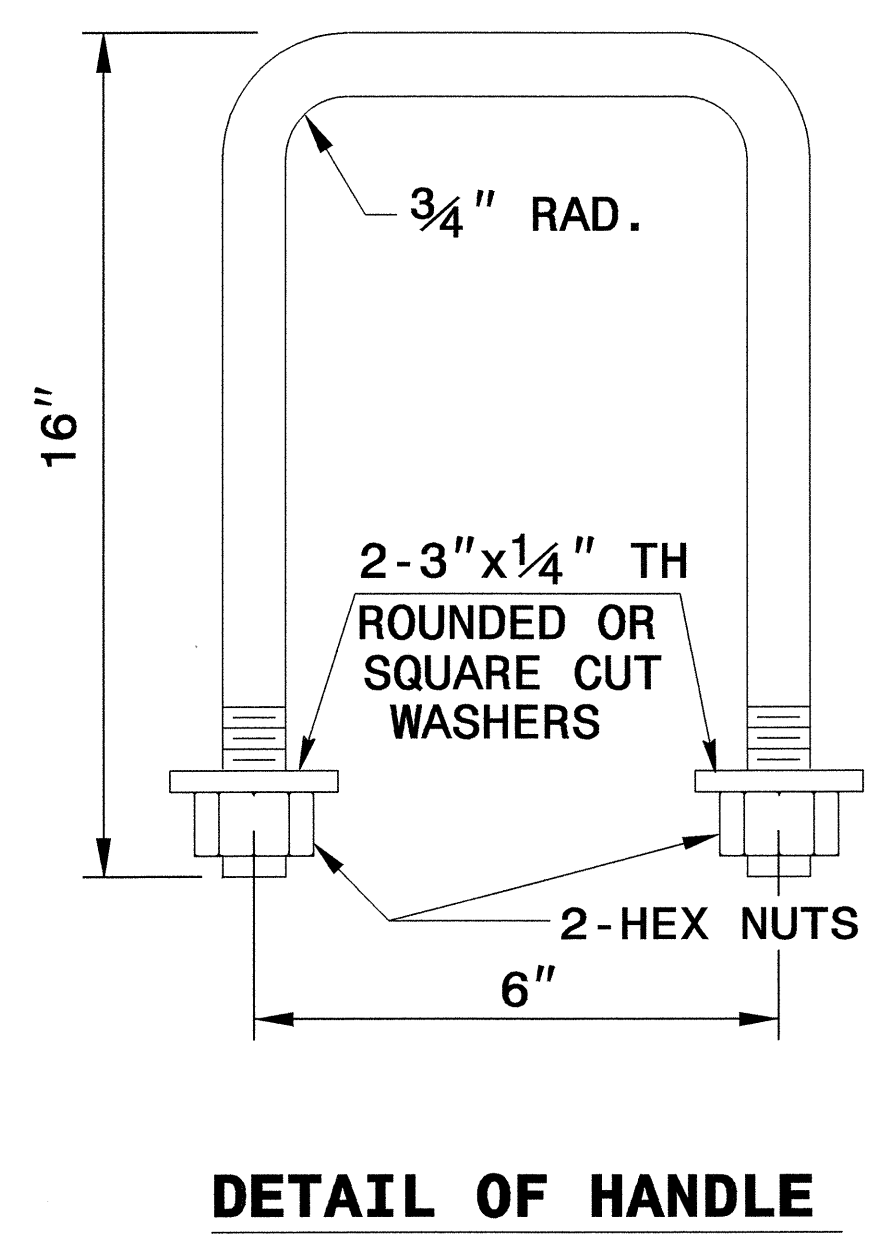


GENERAL NOTES:
 CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.
 FIELD VERIFY THE DIMENSIONS FOR THE EXISTING BOXES.

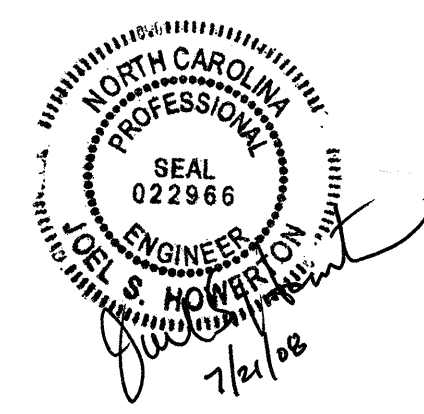
BILL OF MATERIALS

MASONRY			
TOP SLAB CONCRETE CLASS "A"		.037YDS ³	PER FT ²
BRICK MASONRY		.025YDS ³	PER FT ²
REINFORCING STEEL		7.64LBS	PER FT ²
MANHOLE OPTION QUANTITIES			
SIZE	QTY.	LENGTH	REINF. STEEL LBS.
#5 DIAG.	8	1'-1"	9.04

NOTE:
 CONCRETE AND REINFORCING STEEL QUANTITIES BASED ON SQUARE FOOT AREA OF THE PROPOSED TOP SLAB FOR THE EXISTING DRAINAGE STRUCTURE.
 BRICK MASONRY QUANTITY IS BASED ON THE TOTAL SQUARE FOOTAGE OF EXTERIOR WALL SURFACE AREA TO BE CONSTRUCTED.



ALIGN PROPOSED BRICK VERTICAL ADJUSTMENT TO INNER FACE OF WALL



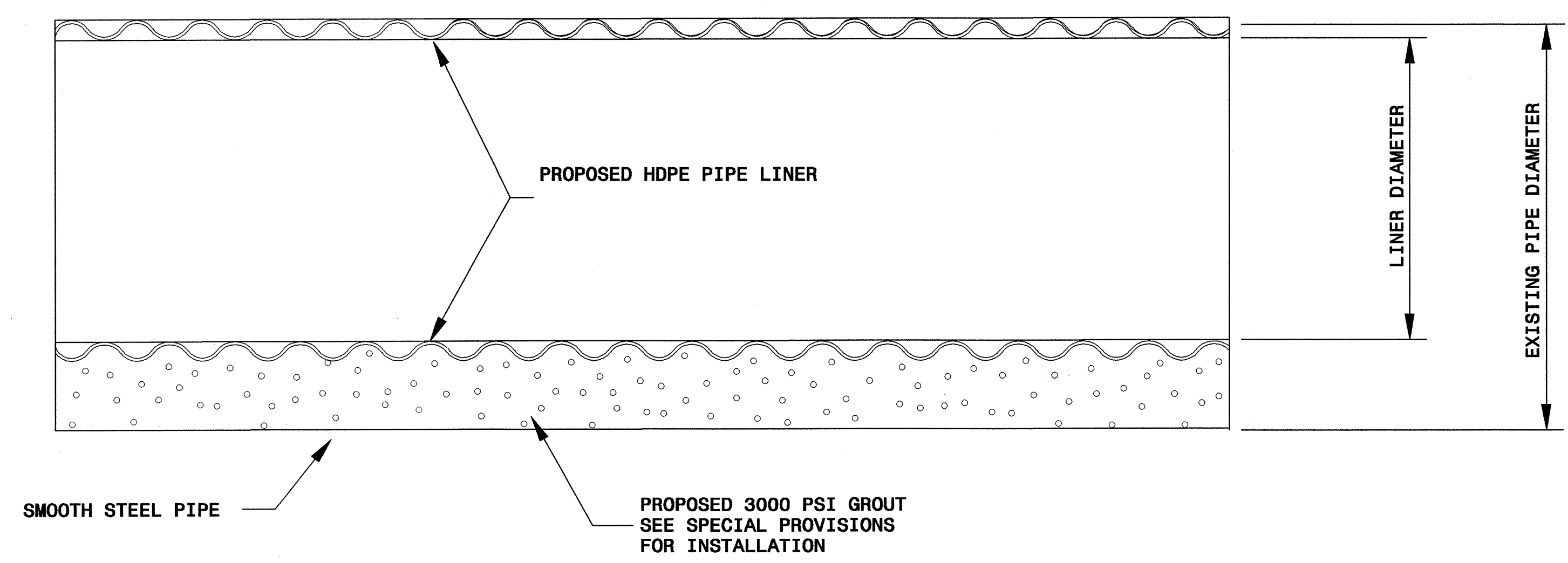
**PROJECT SERVICES UNIT
 STANDARDS AND SPECIAL DESIGN**
 Office 919-250-4128 FAX 919-250-4119

**DETAIL TO CONVERT EXISTING
 DROP INLET OR CATCH BASIN
 TO TRAFFIC BEARING JUNCTION BOX
 (MANHOLE OPTIONAL)**

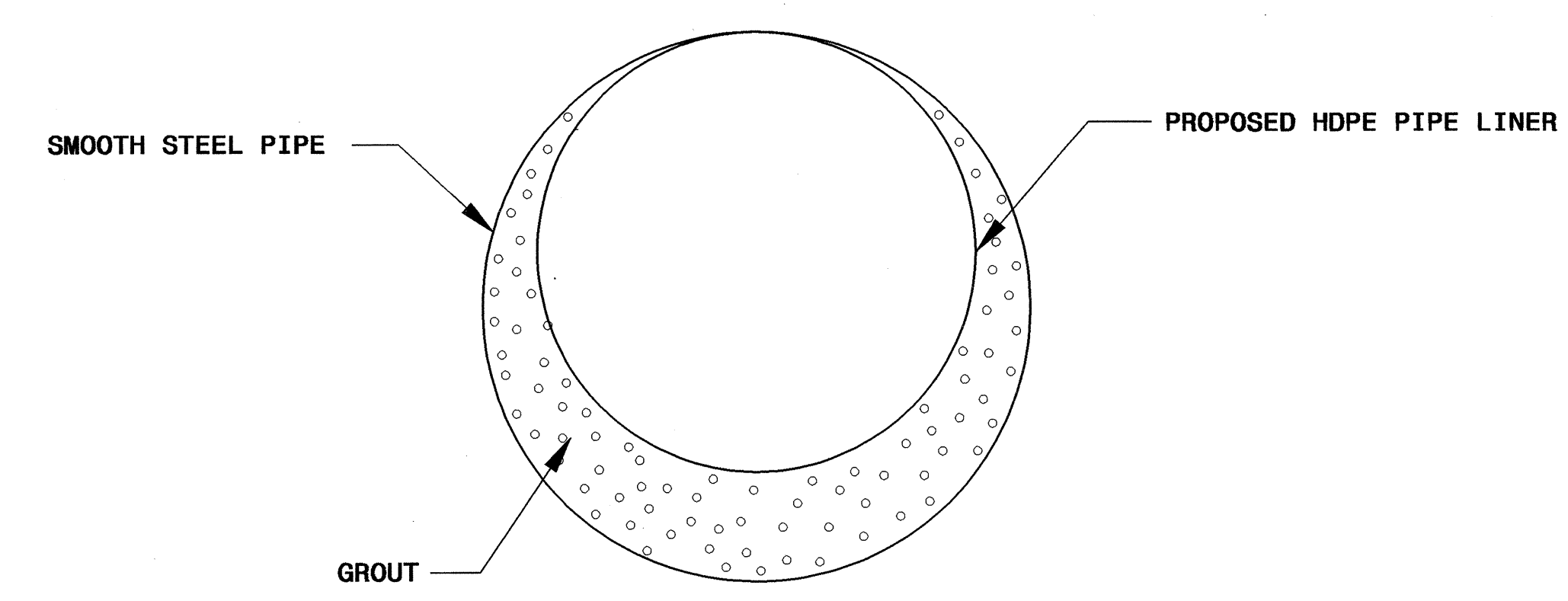
ORIGINAL BY: T.S.S. DATE: FEB. 2000
 MODIFIED BY: E.E.W. DATE: NOV. 2001
 CHECKED BY: [Signature] DATE: 7/1/08
 FILE SPEC.: v:\ericward\usr\details\stand\boxtotbjbe.dgn

5/14/99

28-AUC-2008 10:22
 I:\Users\jstreet\Project\Foodway\proj\liner(2).dgn
 16230 At 16:54:41



ELEVATION



END ELEVATION

GROUT QUANTITIES PER FOOT		
SMOOTH STEEL PIPE SIZE (IN.)	HDPE LINER SIZE (IN.)	GROUT (YDS. ³ / FT.)
42	36	0.10
48	42	0.11
60	54	0.14
66	60	0.15

NOTE: SEE PLANS FOR PIPE LENGTHS AND LOCATIONS.



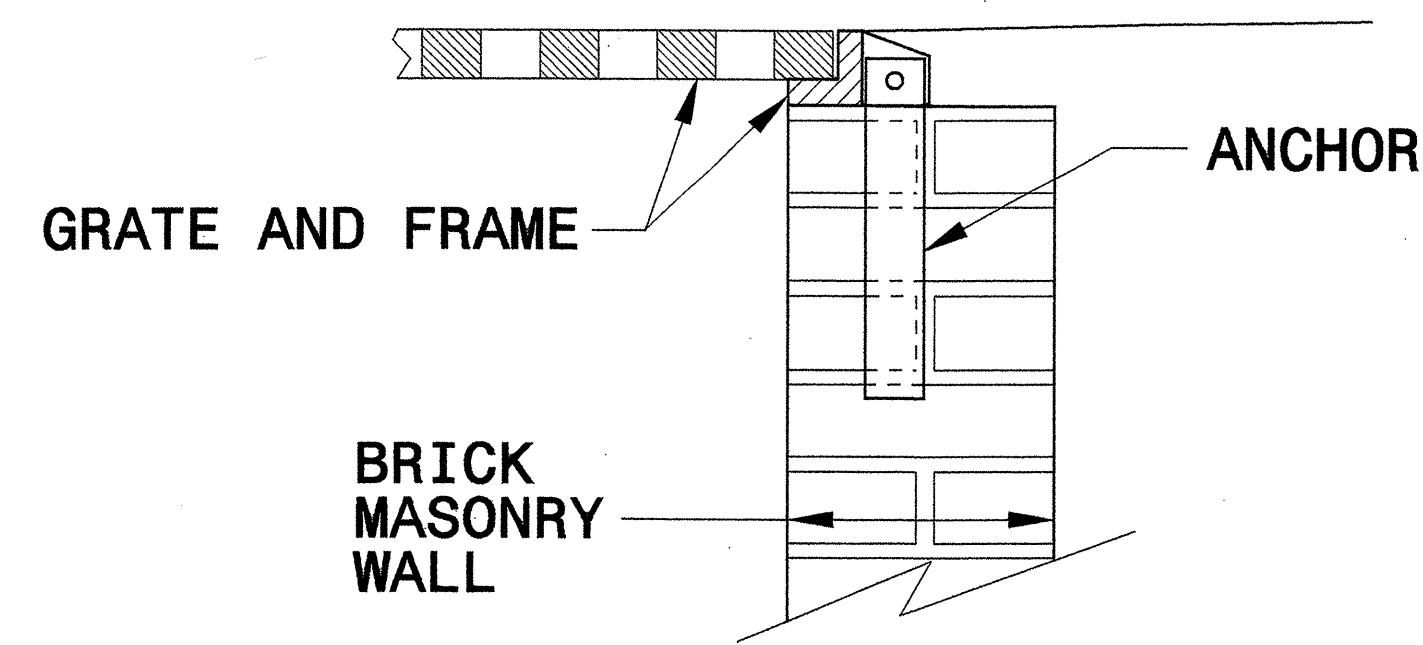
PROJECT SERVICES UNIT STANDARDS AND SPECIAL DESIGN Office 919-250-4128 FAX 919-250-4119	
HDPE PIPE LINER INSIDE A SMOOTH STEEL PIPE	
ORIGINAL BY: T. Spell MODIFIED BY: B. Taylor CHECKED BY: FILE SPEC.:	DATE: May 19, 1999 DATE: August 28, 2008 DATE: DATE:

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

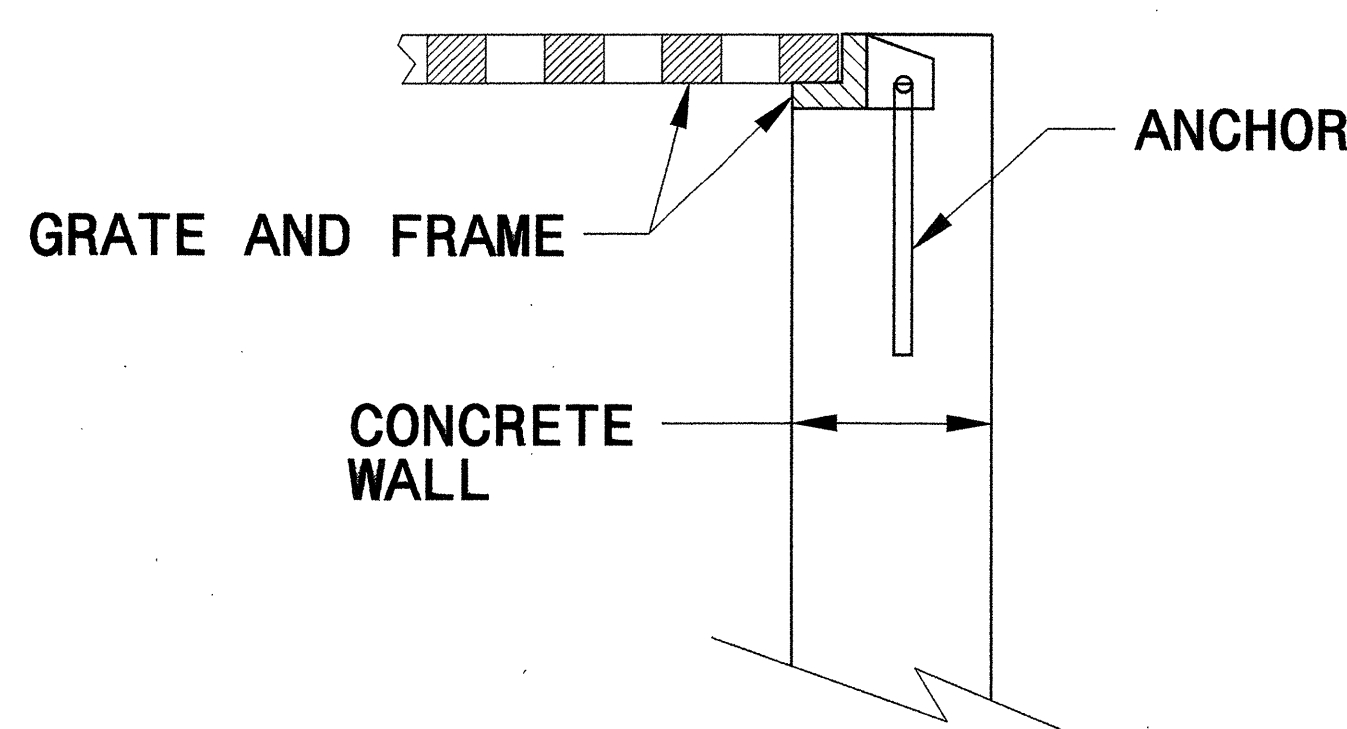
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

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

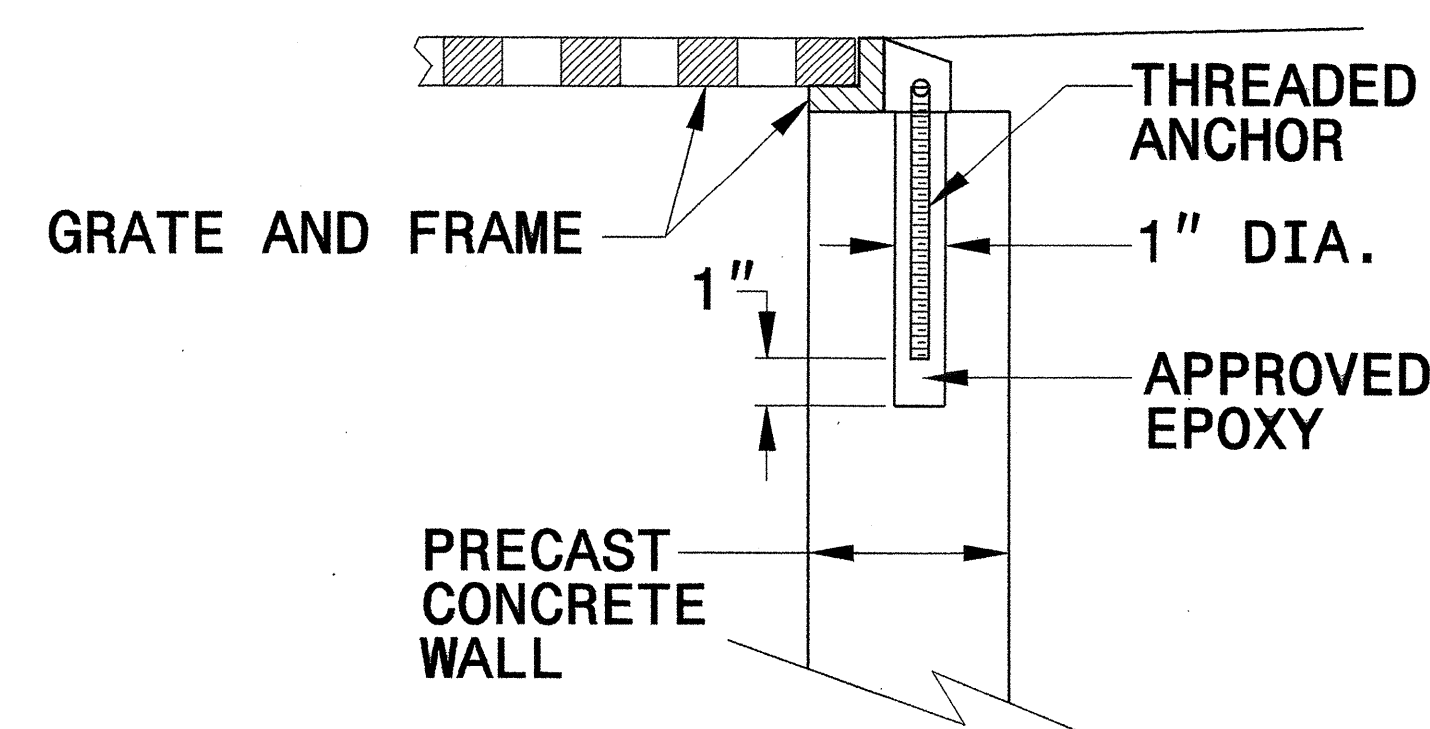
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE



BRICK MASONRY CONSTRUCTION



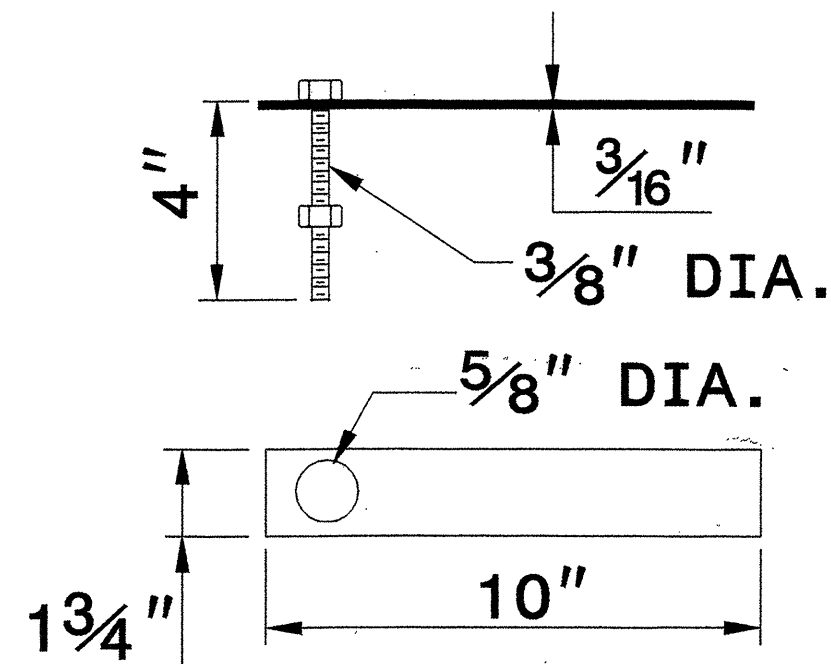
CONCRETE CONSTRUCTION



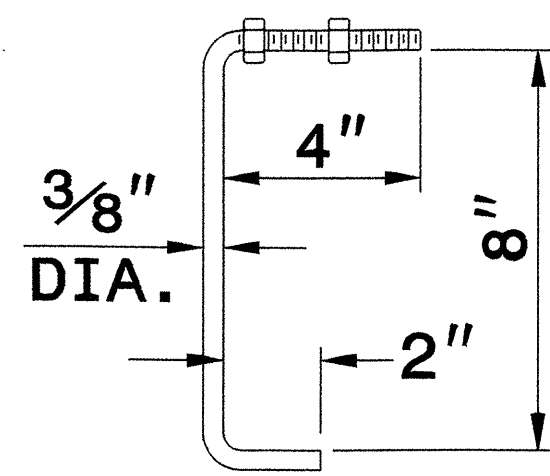
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

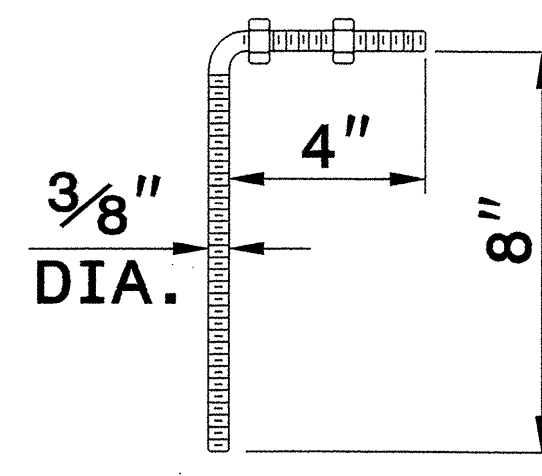
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



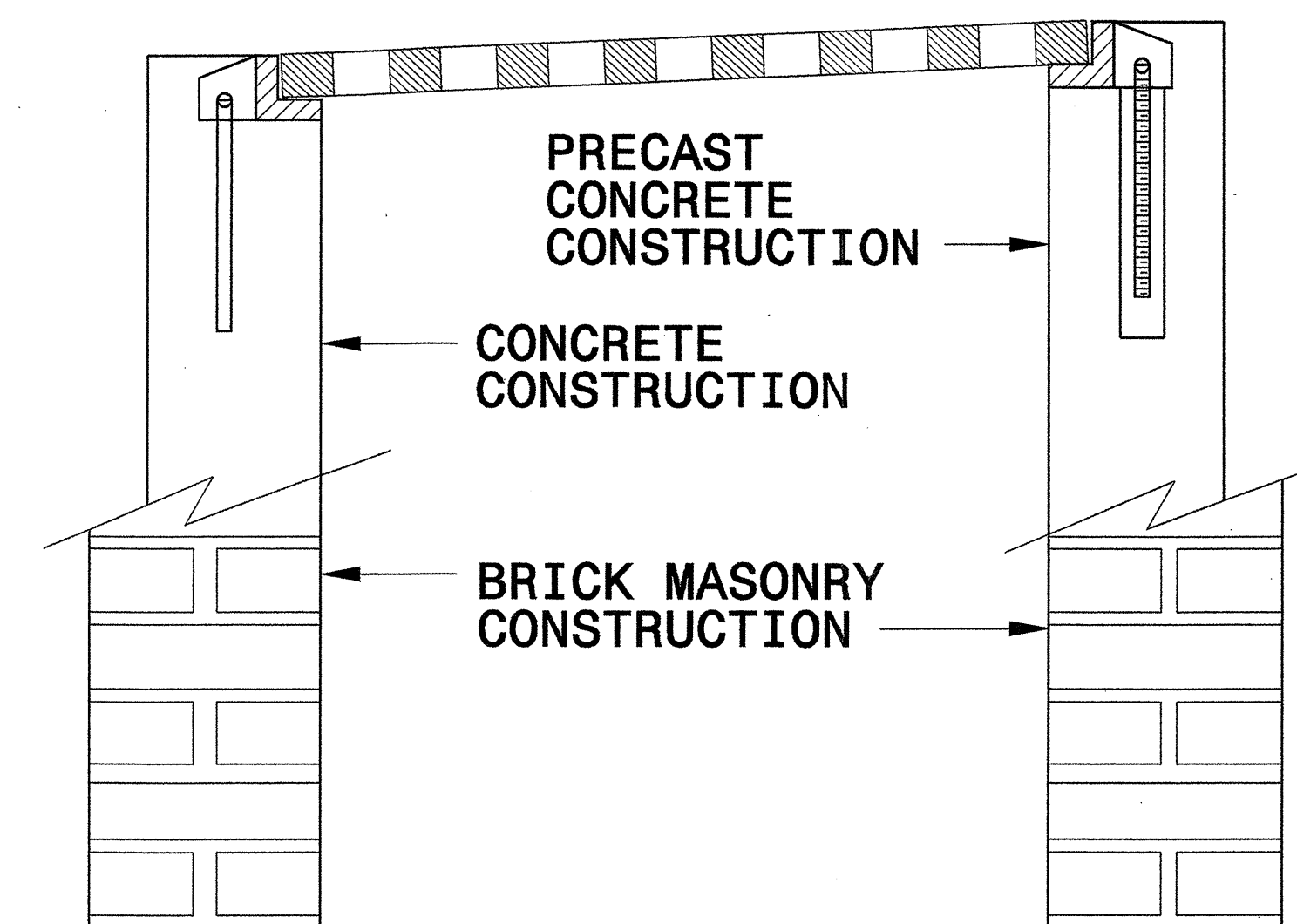
MASONRY ANCHOR
 $\frac{3}{8}$ " DIA. BOLT WITH PLATE



CONCRETE ANCHOR
 $\frac{3}{8}$ " DIA. BENT BAR



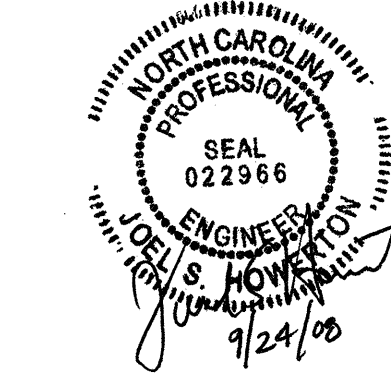
PRECAST CONCRETE ANCHOR
 $\frac{3}{8}$ " DIA. BENT BAR



FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

SHEET 1 OF 1
840D25

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: DATE:
FILE SPEC.:

COPYING IS PROHIBITED BY THE NORTH CAROLINA PROFESSIONAL ENGINEERING BOARD

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
005700000-E	226	2,300	CY	UNDERCUT EXCAVATION
008000000-E	SP	4,719	TON	CLASS IV SUBGRADE STABILIZATION
019600000-E	270	6,900	SY	FABRIC FOR SOIL STABILIZATION
031800000-E	300	300	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
036600000-E	310	668	LF	15" RC PIPE CULVERTS, CLASS III
037200000-E	310	616	LF	18" RC PIPE CULVERTS, CLASS III
037800000-E	310	1,092	LF	24" RC PIPE CULVERTS, CLASS III
038400000-E	310	252	LF	30" RC PIPE CULVERTS, CLASS III
039000000-E	310	84	LF	36" RC PIPE CULVERTS, CLASS III
053600000-E	SP	60	LF	*** HDPE PIPE CULVERTS (36")
097400000-E	SP	60	LF	*** WELDED STEEL PIPE, ***** THICK, GRADE B, (UNDER RR) (42", 0.625")
099500000-E	340	708	LF	PIPE REMOVAL
122000000-E	545	100	TON	INCIDENTAL STONE BASE
129700000-E	607	11,885	SY	MILLING ASPHALT PAVEMENT, **** DEPTH (6")
133000000-E	607	3,015	SY	INCIDENTAL MILLING
149100000-E	610	1,580	TON	ASPHALT CONC BASE COURSE, TYPE B25.0C
150300000-E	610	1,220	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0C
152300000-E	610	5,150	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5C
156000000-E	620	130	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
156500000-E	620	222	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 70-22
169300000-E	654	200	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
227500000-E	SP	41	CY	FLOWABLE FILL
228600000-N	840	42	EA	MASONRY DRAINAGE STRUCTURES
236700000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29
237400000-N	840	1	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)
237400000-N	840	15	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)
237400000-N	840	13	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)
239600000-N	840	12	EA	FRAME WITH COVER, STD 840.54
249500000-E	SP	6	CY	GENERIC DRAINAGE ITEM GROUT
254200000-E	846	1,520	LF	1'-6" CONCRETE CURB & GUTTER
254900000-E	846	4,100	LF	2'-6" CONCRETE CURB & GUTTER
260500000-N	848	22	EA	CONCRETE WHEELCHAIR RAMPS
261200000-E	848	480	SY	6" CONCRETE DRIVEWAY
280000000-N	858	6	EA	ADJUSTMENT OF CATCH BASINS
283000000-N	858	23	EA	ADJUSTMENT OF MANHOLES
284500000-N	858	70	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES
286000000-N	859	2	EA	CONVERT EXISTING CATCH BASIN TO JUNCTION BOX
440000000-E	1110	1,377	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	87	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	503	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)

ItemNumber	Sec #	Quantity	Unit	Description
441500000-N	1115	2	EA	FLASHING ARROW PANELS, TYPE C
442000000-N	1120	4	EA	CHANGEABLE MESSAGE SIGN
443000000-N	1130	210	EA	DRUMS
444500000-E	1145	590	LF	BARRICADES (TYPE III)
450700000-E	SP	100	LF	WATER FILLED BARRIER
468500000-E	1205	575	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
468600000-E	1205	6,255	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
469500000-E	1205	260	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
469700000-E	1205	765	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 120 MILS)
470500000-E	1205	264	LF	THERMOPLASTIC PAVEMENT MARKING LINES (16", 120 MILS)
471000000-E	1205	331	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
472100000-E	1205	36	EA	THERMOPLASTIC PAVEMENT MARKING CHARACTER (120 MILS)
472500000-E	1205	38	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)
481000000-E	1205	6,698	LF	PAINT PAVEMENT MARKING LINES (4")
482000000-E	1205	40	LF	PAINT PAVEMENT MARKING LINES (8")
483500000-E	1205	120	LF	PAINT PAVEMENT MARKING LINES (24")
484500000-N	1205	16	EA	PAINT PAVEMENT MARKING SYMBOL
490500000-N	1253	147	EA	SNOWFLOWABLE PAVEMENT MARKERS
600000000-E	1605	100	LF	TEMPORARY SILT FENCE
601200000-E	1610	20	TON	SEDIMENT CONTROL STONE
604200000-E	1632	100	LF	1/4" HARDWARE CLOTH
703600000-E	1705	8	EA	PEDESTRIAN SIGNAL HEAD (12", 1 SECTION)
706000000-E	1705	1,630	LF	SIGNAL CABLE
712000000-E	1705	7	EA	VEHICLE SIGNAL HEAD (12", 3 SECTION)
713200000-E	1705	4	EA	VEHICLE SIGNAL HEAD (12", 4 SECTION)
714400000-E	1705	1	EA	VEHICLE SIGNAL HEAD (12", 5 SECTION)
728800000-E	1715	640	LF	PAVED TRENCHING (***** (1, 2"))
730000000-E	1715	90	LF	UNPAVED TRENCHING (***** (1, 2"))
732400000-N	1716	8	EA	JUNCTION BOX (STANDARD SIZE)
744400000-E	1725	1,400	LF	INDUCTIVE LOOP SAWCUT
745600000-E	1726	1,300	LF	LEAD-IN CABLE (***** (18-2))
758800000-N	SP	4	EA	METAL POLE WITH SINGLE MAST ARM
761300000-N	SP	4	EA	SOIL TEST
761410000-E	SP	36	CY	DRILLED PIER FOUNDATION
763100000-N	SP	4	EA	MAST ARM WITH METAL POLE DESIGN
763600000-N	1745	1	EA	SIGN FOR SIGNALS
764800000-N	SP	5	EA	RELOCATE EXISTING SIGN
768400000-N	1750	1	EA	SIGNAL CABINET FOUNDATION
775600000-N	1751	1	EA	CONTROLLER WITH CABINET (TYPE 2070L, BASE MOUNTED)
778000000-N	1751	8	EA	DETECTOR CARD (TYPE 2070L)
790100000-N	1753	1	EA	CABINET BASE EXTENDER
796000000-N	SP	4	EA	METAL POLE FOUNDATION REMOVAL
797200000-N	SP	4	EA	METAL POLE REMOVAL
799000000-E	SP	170	LF	GENERIC SIGNAL ITEM RIGID METAL CONDUIT (2 CONDUIT, 2")
799000000-E	SP	120	LF	GENERIC SIGNAL ITEM RIGID METAL CONDUIT (3 CONDUIT, 2")

10-JUL-2008 11:53
 r:\rusSELL\stret\roadway\proj\russell\st.rdy.tsh.dgn

COMPUTED BY: DAVID W. BASS DATE: 3/19/2008
CHECKED BY: CLINTON J. MORGAN DATE: 3/21/2008

PROJECT NO. SHEET NO.
Y-4806AA 3-A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

Table with columns: STATION, LOCATION (LT, RT, OR CL), STRUCTURE NO., TOP ELEVATION, INVERT ELEVATION, SLOPE CRITICAL, CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE), BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE), CLASS III R.C. PIPE OR ALUMINIZED C.S. PIPE, TYPE IR OR HDPE PIPE, TYPE S OR D, ENDWALLS, QUANTITIES FOR DRAINAGE STRUCTURES, FRAME, GRATES, AND HOOD STANDARD 840.03, CORR. STEEL ELBOWS NO. & SIZE, CONC. COLLARS CL. "B" C.Y. STD. 840.72, CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71, PIPE REMOVAL LIN. FT., REMARKS, ABBREVIATIONS.

SHEET TOTALS

COMPUTED BY: DAVID W. BASS DATE: 3/19/2008
CHECKED BY: CLINTON J. MORGAN DATE: 3/21/2008

PROJECT NO. SHEET NO.
Y-4806AA 3-B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

Table with columns for Station, Structure No., Top Elevation, Invert Elevation, Slope Critical, Pipe Classifications (Class III R.C. Pipe, Bituminous Coated C.S. Pipe, etc.), Endwalls, Quantities for Drainage Structures, Frame, Grates, and Hood Standard, and Remarks. Includes a summary row at the bottom for SHEET TOTALS and PROJECT TOTALS.

COMPUTED BY: DAVID W. BASS, PE DATE: MARCH 16, 2008
 CHECKED BY: CLINT J. MORGAN, PE DATE: MARCH 18, 2008

PROJECT NO. SHEET NO.
 Y-4806AA 3-C

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF EARTHWORK

**SUMMARY OF EXISTING ASPHALT
 PAVEMENT REMOVAL**

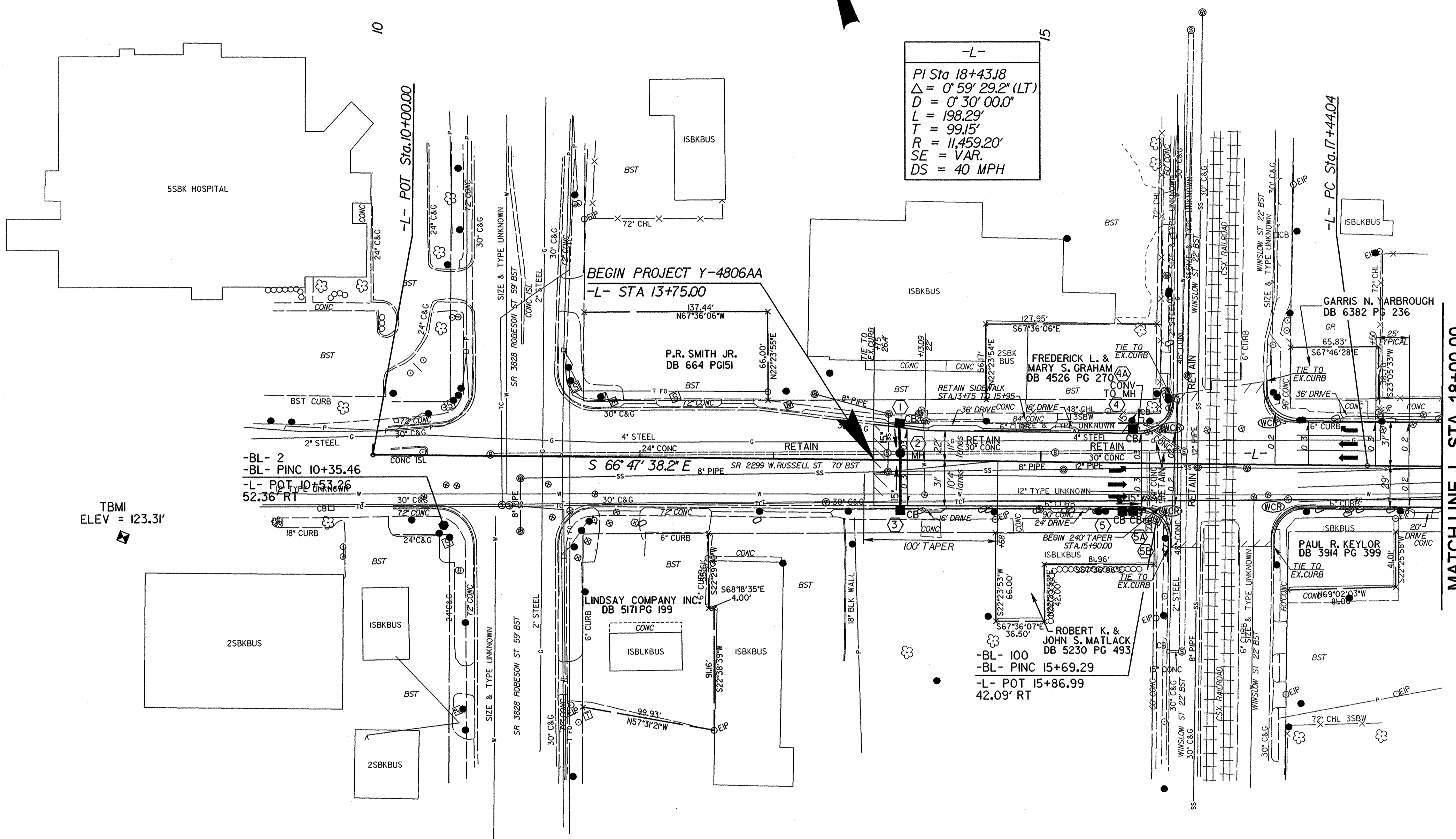
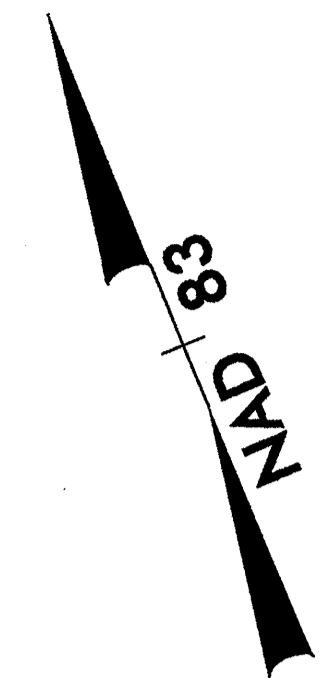
Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
L LEFT 14+00	L LEFT 16+34	17	5	0	12
L LEFT 16+34	L LEFT 22+25	547	1	0	546
L LEFT 22+25	L LEFT 25+75	384	1	0	383
L LEFT 25+75	L LEFT 26+60	17	0	0	17
L LEFT 26+60	L LEFT 31+00	401	1	0	400
LLT LEFT 31+00	LLT LEFT 34+00	244	3	0	241
LLT LEFT 34+00	LLT LEFT 39+00	578	1	0	577
SUBTOTALS #1:		2,188	12	0	2,176
L RIGHT 14+00	L RIGHT 16+34	155	2	0	153
L RIGHT 16+34	L RIGHT 22+25	547	1	0	546
L RIGHT 22+25	L RIGHT 25+75	378	1	0	377
L RIGHT 25+75	L RIGHT 26+60	18	0	0	18
L RIGHT 26+60	L RIGHT 31+00	620	1	0	619
LRT RIGHT 31+00	LRT RIGHT 34+00	239	0	0	239
LRT RIGHT 34+00	LRT RIGHT 39+00	478	0	0	478
SUBTOTALS #2:		2,435	5	0	2,430
PROJECT TOTALS:		4,623	17	0	4,606
PROJECT TOTALS:		4,623	17	0	4,606
GRAND TOTALS:		4,623	17	0	4,606
SAY:		4,650		0	

LINE	Station	Station	LOC LT/RT/CL	YD ²
L	14+00	14+13	CL	21
L	14+13	15+95	CL	222
L	16+70	28+75	CL	2678
L	28+75	30+25	CL	367
L	30+25	31+00	CL	292
LLT	31+00	38+50	LT	917
LRT	31+00	38+50	RT	917
LLT	38+50	39+12	LT	75
LRT	38+50	39+14	RT	78
TOTAL:				5,567
SAY:				5,570

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

RD223236

REVISIONS



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY OTHERS FOR MONUMENT "GPS 2" WITH NAD 83 STATE PLANE GRID COORDINATES OF NORTHING: 474392.6929(1) EASTING: 2033526.1658(1) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987391 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS 2" TO -L- STATION 10+00.00 IS 746843 FT BEARING N 22° 17' 01.79" W ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTE: SEE SHEETS 7 FOR -L- PROFILE ALL INTERSECTION RADII 25' UNLESS LABELED OTHERWISE

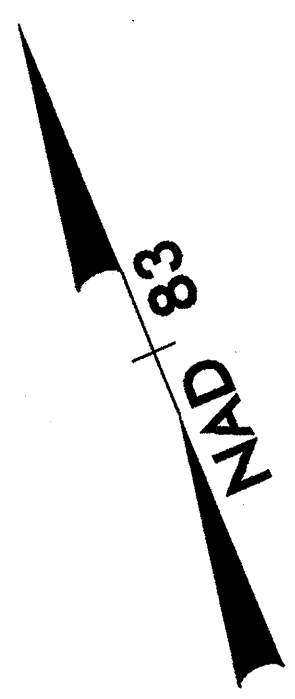
EXISTING R/W LIMITS ARE VERIFIED TO THE BACK OF EXISTING SIDEWALK

MATCH LINE -L- STA. 18+00.00 SEE SHEET 5

PROJECT REFERENCE NO. Y-4806AA		SHEET NO. 5	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
5/1/09		5/1/09	
PBS 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609 PHONE: (919) 876-6888			

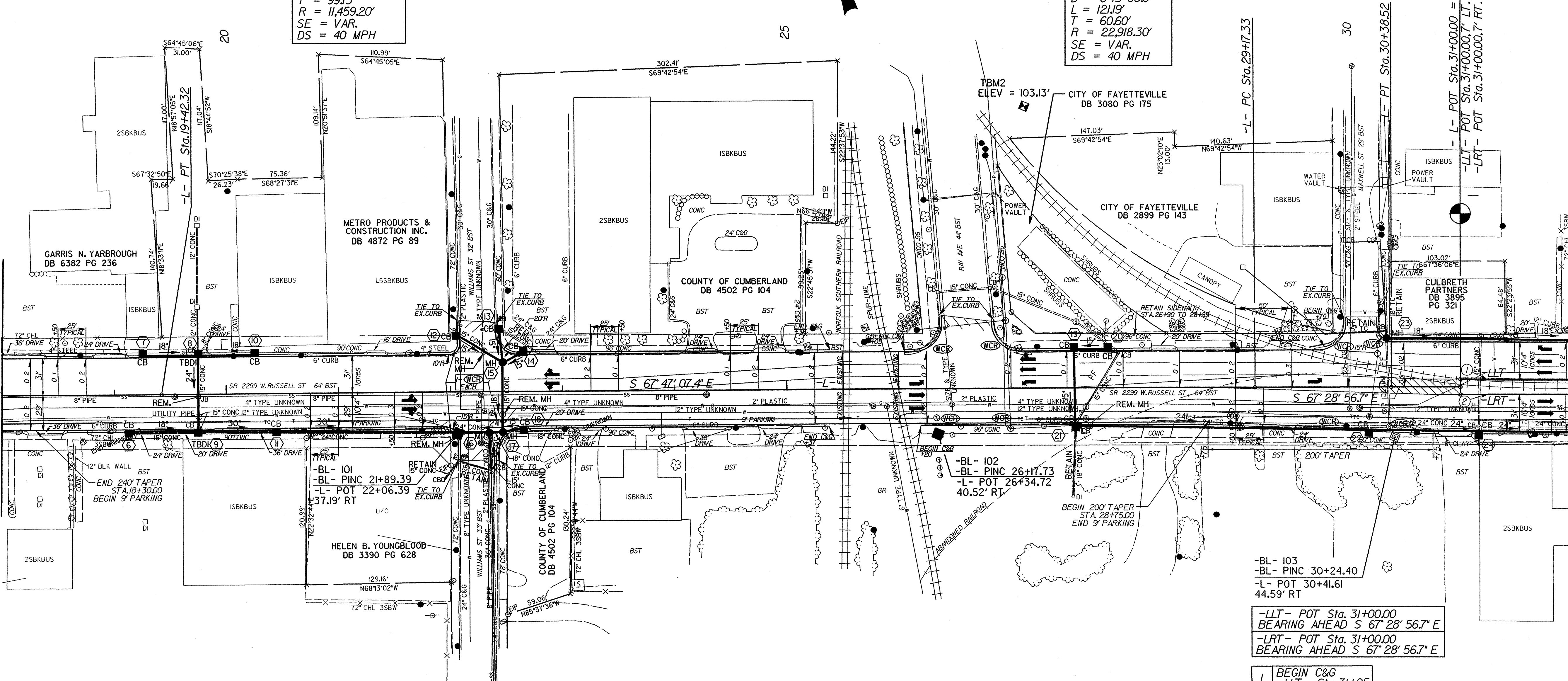
-L-
 PI Sta 18+43.18
 $\Delta = 0^\circ 59' 29.2''$ (LT)
 $D = 0^\circ 30' 00.0''$
 $L = 198.29'$
 $T = 99.15'$
 $R = 11,459.20'$
 $SE = VAR.$
 $DS = 40 MPH$

-L-
 PI Sta 29+77.93
 $\Delta = 0^\circ 18' 10.7''$ (RT)
 $D = 0^\circ 15' 00.0''$
 $L = 121.19'$
 $T = 60.60'$
 $R = 22,918.30'$
 $SE = VAR.$
 $DS = 40 MPH$



MATCH LINE -L- STA. 18+00.00
 SEE SHEET 4

MATCH LINE -LLT- STA. 32+00.00
 SEE SHEET 6



-BL- 103
 -BL- PINC 30+24.40
 -L- POT 30+41.61
 44.59' RT

-LLT- POT Sta. 31+00.00
 BEARING AHEAD S 67° 28' 56.7" E
 -LRT- POT Sta. 31+00.00
 BEARING AHEAD S 67° 28' 56.7" E

- | | |
|---|-------------------------------|
| 1 | BEGIN C&G
-LLT- Sta. 31+25 |
| 2 | BEGIN C&G
-LRT- Sta. 31+25 |

NOTE: SEE SHEETS 7 FOR -L- PROFILE
 SEE SHEET 8 FOR -LLT- LEFT PROFILE
 SEE SHEET 8 FOR -LRT- RIGHT PROFILE
 SEE SHEET 3-C FOR SIDEWALK LOCATIONS

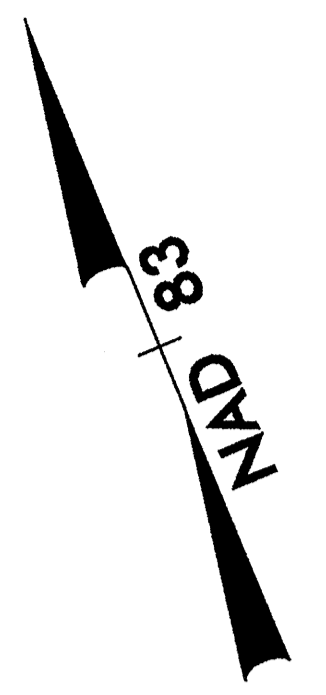
ALL INTERSECTION RADII 25'
 UNLESS LABELED OTHERWISE

FF = PLUG BOTH ENDS AND FILL
 WITH FLOWABLE FILL

EXISTING RW LIMITS ARE VERIFIED
 TO THE BACK OF EXISTING SIDEWALK

REVISIONS

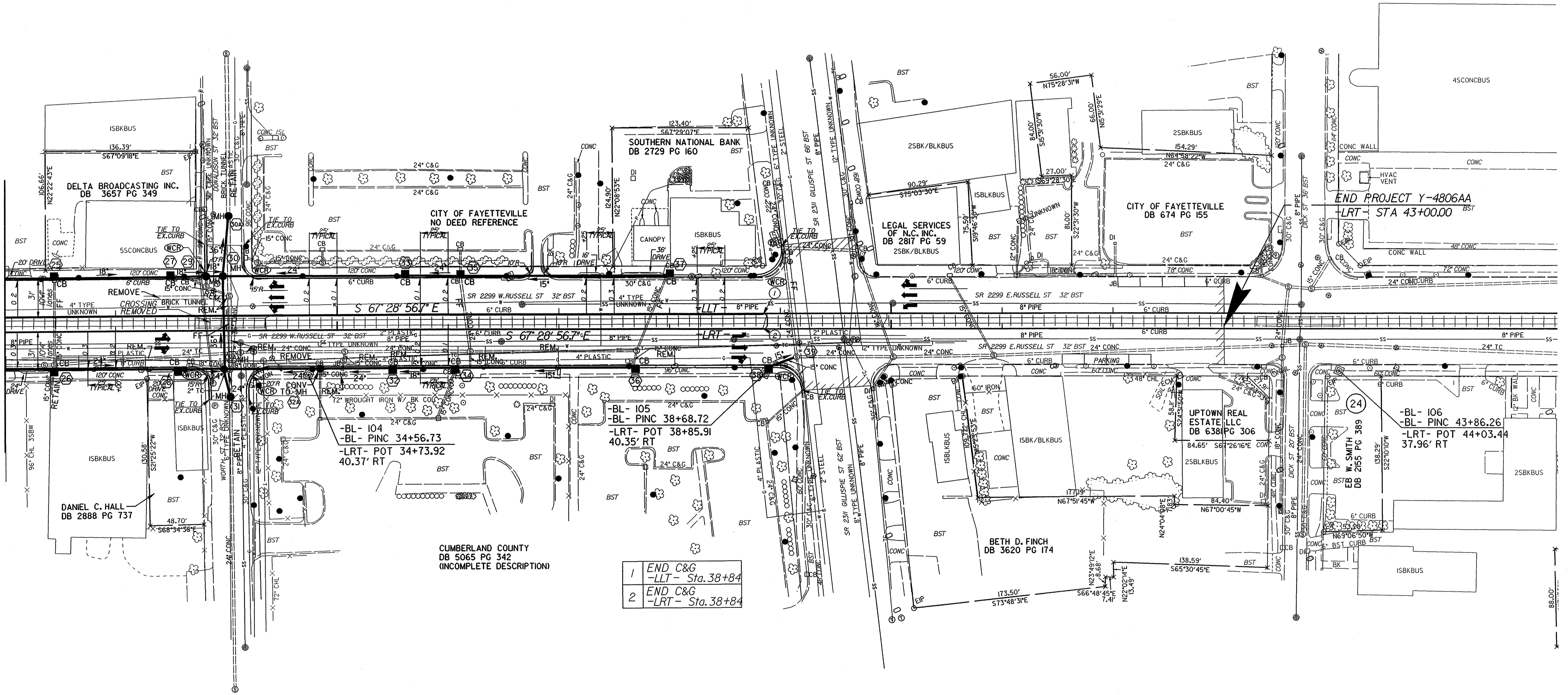
8/17/99



3535

4040

MATCH LINE - LLT - STA. 32+00.00
SEE SHEET 5



- | | |
|---|-----------------------------|
| 1 | END C&G
-LLT- Sta. 38+84 |
| 2 | END C&G
-LRT- Sta. 38+84 |

NOTE: SEE SHEET 8 FOR -LLT- LEFT PROFILE
 SEE SHEET 8 FOR -LRT- RIGHT PROFILE
 SEE SHEET 3-C FOR SIDEWALK LOCATIONS

**ALL INTERSECTION RADII 25'
 UNLESS LABELED OTHERWISE**

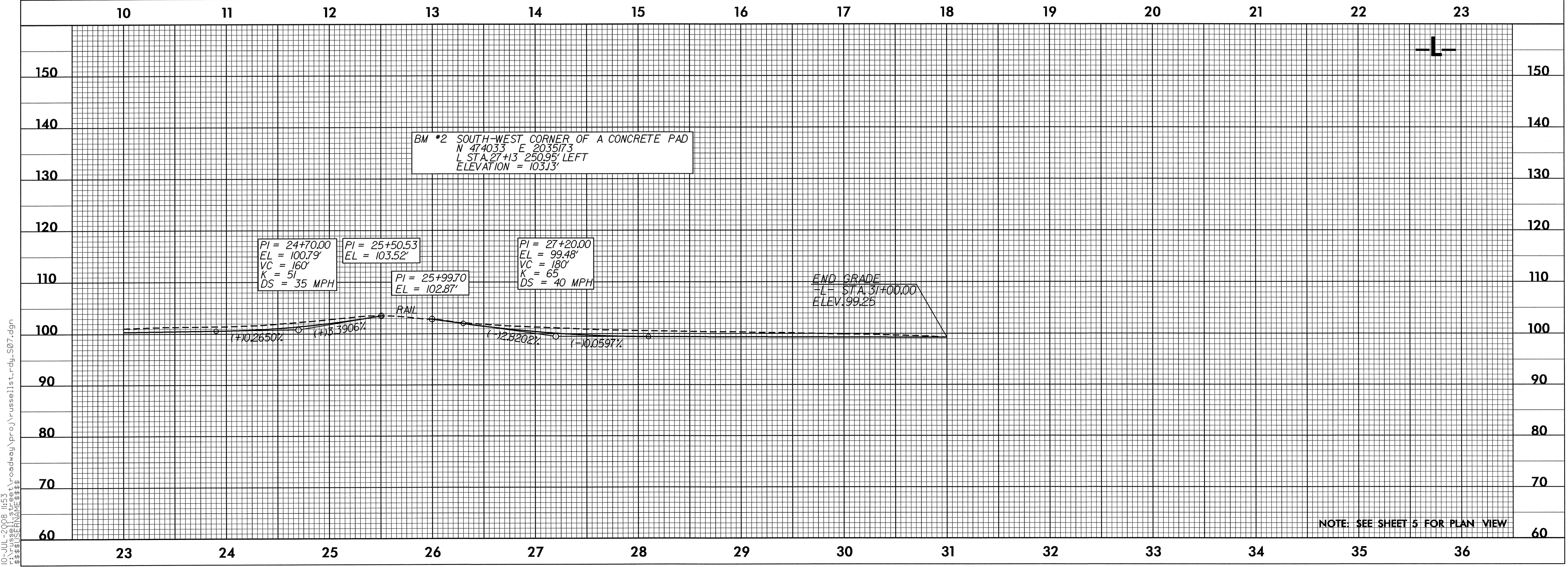
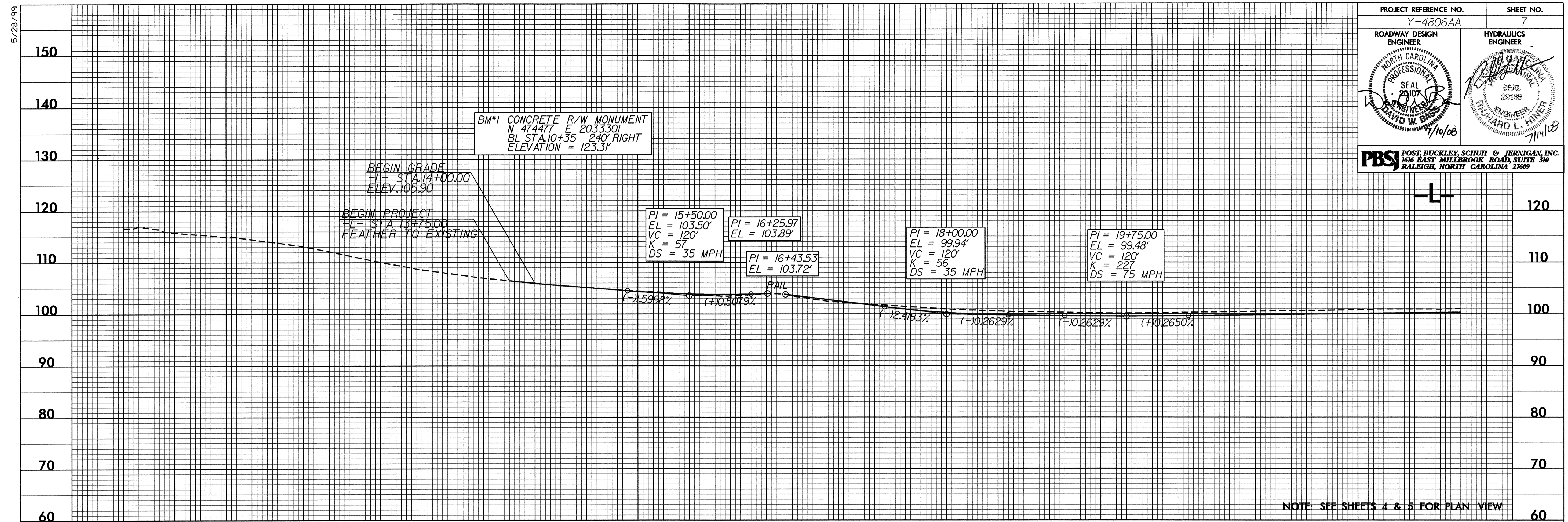
**FF = PLUG BOTH ENDS AND FILL
 WITH FLOWABLE FILL**

**EXISTING R/W LIMITS ARE VERIFIED
 TO THE BACK OF EXISTING SIDEWALK**

REVISIONS

C:\MAY-2009\10-41\roadway\proj\ussell\st_rdy_s16.dgn
 \$\$\$\$SERVNAME\$\$\$

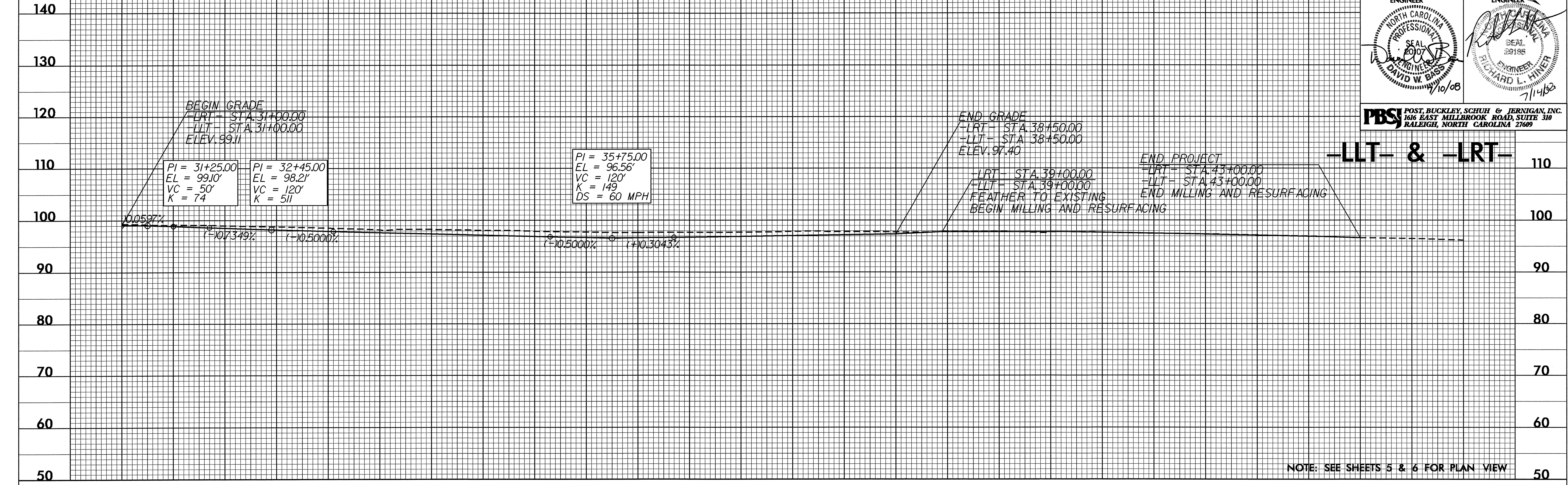
5/28/99



10-JUL-2008 11:53
 r:\vrsuse\1\street\roadway\proj\vruse\1\st_rdy_S07.dgn
 \$\$\$USERNAME\$\$\$

PROJECT REFERENCE NO. Y-4806AA	SHEET NO. 7
ROADWAY DESIGN ENGINEER DAVID W. EARS NORTH CAROLINA PROFESSIONAL SEAL 20107 7/10/08	HYDRAULICS ENGINEER RICHARD L. HINER NORTH CAROLINA PROFESSIONAL SEAL 28188 7/14/08
PBS POST, BUCKLEY, SCHUH & JERNIGAN, INC. 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609	

5/28/99



10-Jul-2008 14:53
r:\russe\street\roadway\proj\russellst.rdy_S08.dgn
\$\$\$\$\$USE ENAME\$\$\$\$

PROJECT REFERENCE NO. Y-4806AA	SHEET NO. 8
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 2007 DAVID W. BASS 7/10/08	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 2018 RICHARD L. HINER 7/14/08
PBS POST, BUCKLEY, SCHUH & JERNIGAN, INC. 1616 EAST MILLBROOK ROAD, SUITE 310 RALEIGH, NORTH CAROLINA 27609	