

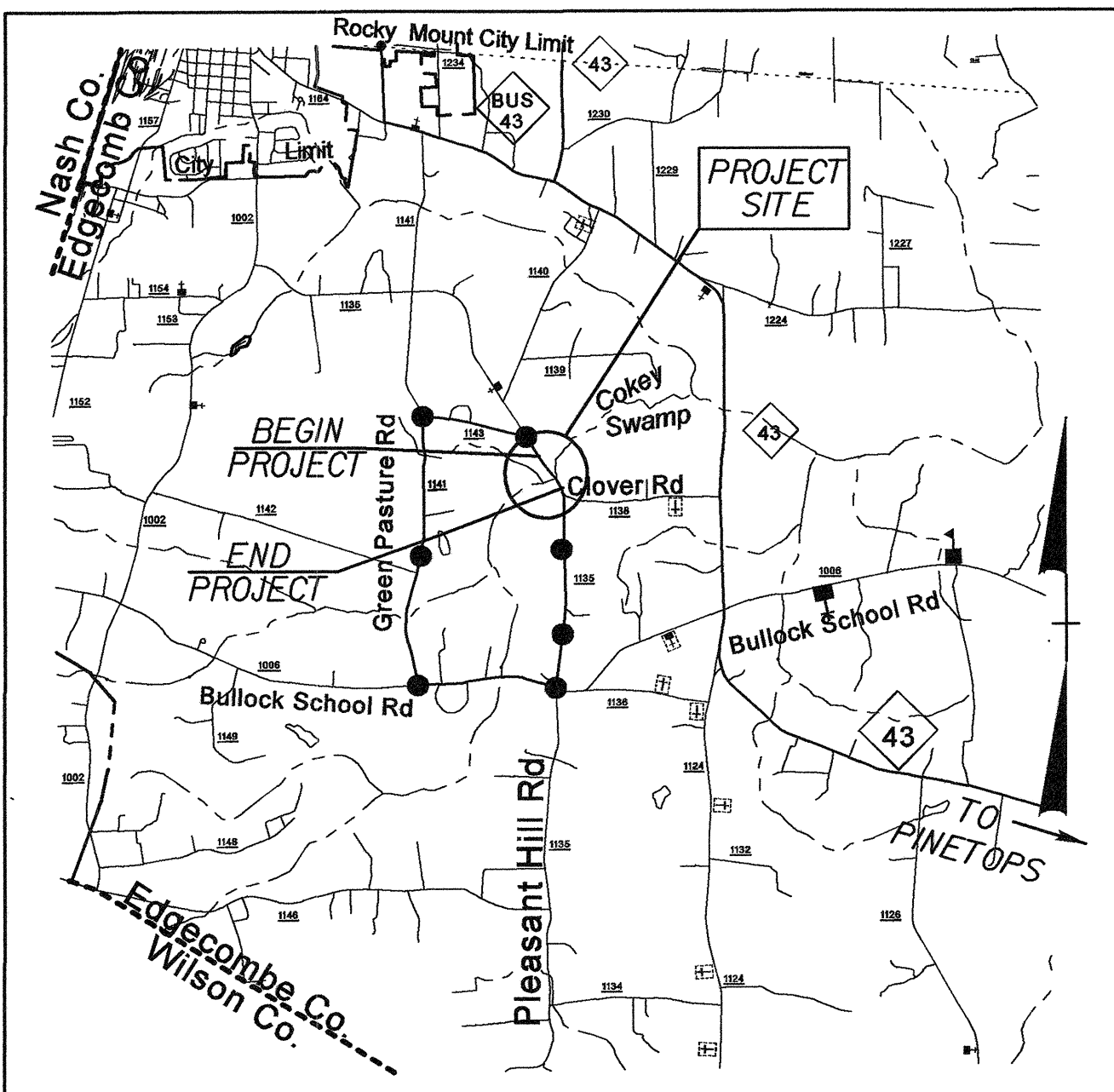
See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

EDGECOMBE COUNTY

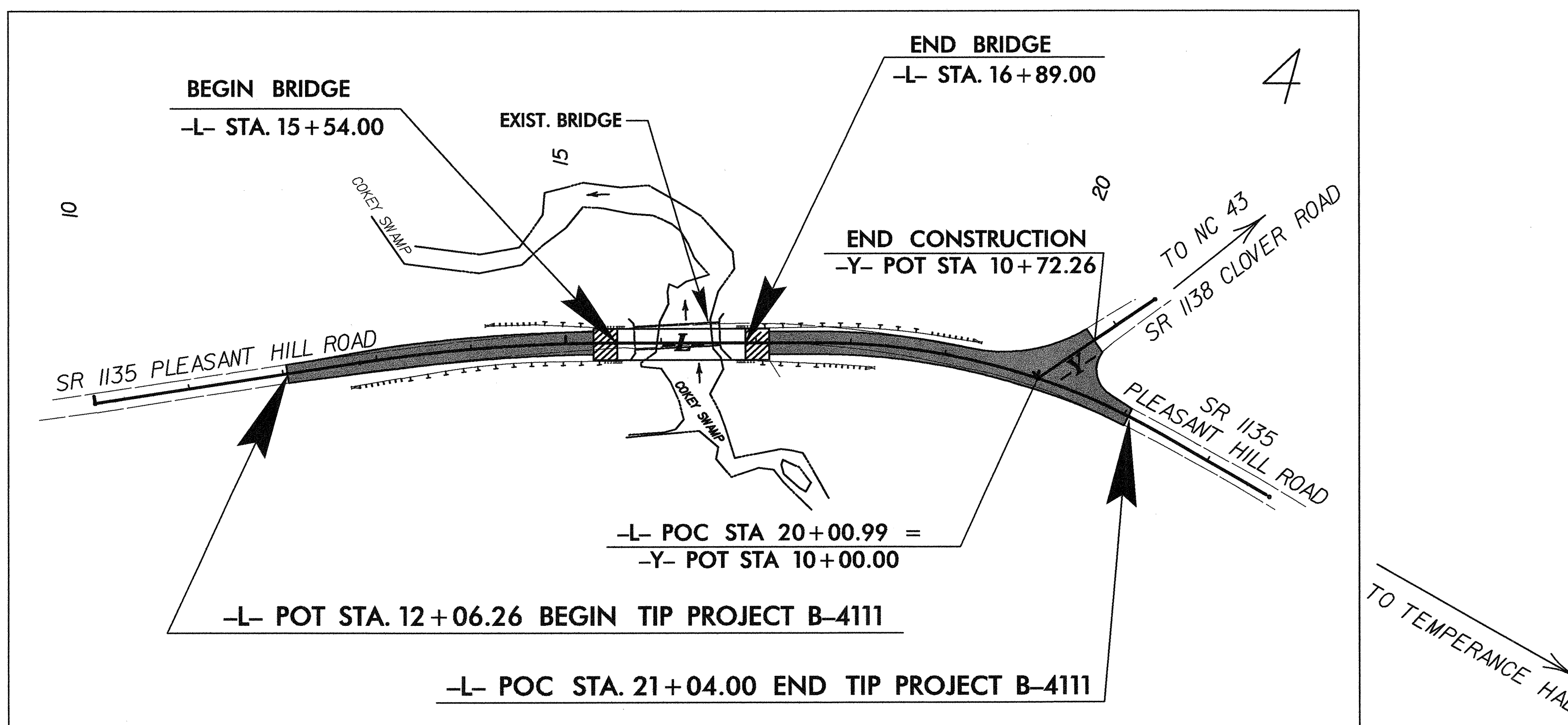
**LOCATION: BRIDGE NO. 19 OVER COKEY SWAMP AND
APPROACHES ON SR 1135 (PLEASANT HILL ROAD)
TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4111	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33466.1.1	BRZ-1135(6)	PE	
33466.2.1	BRZ-1135(6)	R/W & UTIL	
33466.3.1	BRZ-1135(6)	CONST	



VICINITY MAP
OFF-SITE DETOUR

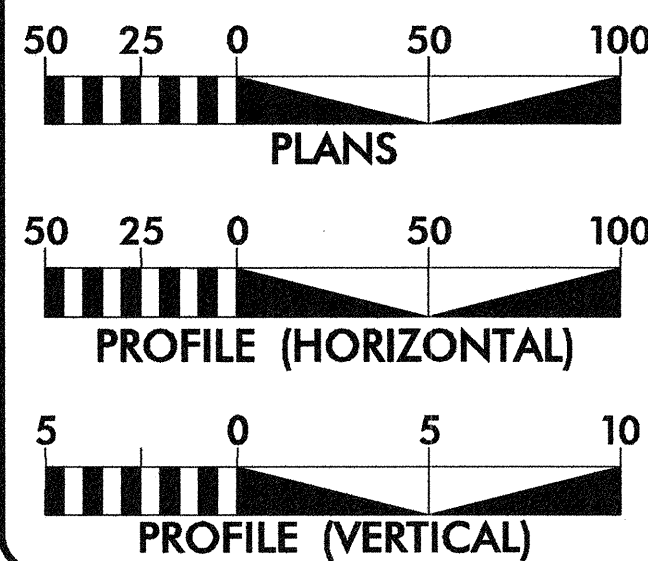
NC GRID
NAD 8395



** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVATURE AND STOPPING SIGHT DISTANCE

NCDOT CONTACT: C. S. HOUSER, PE

GRAPHIC SCALES



DESIGN DATA

ADT 2007 = 1318
ADT 2027 = 2078
DHV = 11 %
D = 60 %
* T = 3 %
** V = 60 MPH
* (TTST 1% + DUAL 2%)
FUNC CLASS = Rural Local

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4111 = 0.144 MI
LENGTH STRUCTURE TIP PROJECT B-4111 = 0.026 MI
TOTAL LENGTH OF TIP PROJECT B-4111 = 0.170 MI



Prepared in the Office of:
W.K. DICKSON
ENGINEERS
PLANNERS
SURVEYORS

3101 JOHN HUMPHRIES WYND
RALEIGH, NC 27612
PHONE: (919) 782-0495
FAX: (919) 782-9672
ATLANTA, GA
CHARLOTTE, NC
COLUMBIA, SC
HICKORY, NC
WILMINGTON, NC

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 19, 2005

LETTING DATE:
MAY 15, 2007

Tommy Register, PE
PROJECT ENGINEER

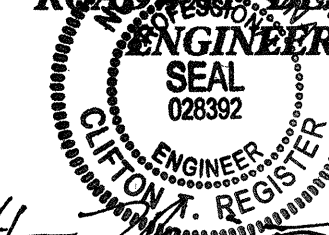
Mickey Dawes
PROJECT DESIGN ENGINEER

HYDRAULIC ENGINEER



SIGNATURE:

REGISTERED PROFESSIONAL ENGINEER



SIGNATURE:

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

Art McMillan P.E.
STATE DESIGN ENGINEER

**DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

APPROVED
DIVISION ADMINISTRATOR

DATE

TIP NO.: B-4111

CONTRACT: C201547

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
INDEX OF SHEETS



INDEX OF SHEETS

GENERAL NOTES

ROADWAY ENGLISH STANDARDS

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
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
2-A	ANCHORAGE FOR FRAMES
3	SUMMARY OF QUANTITIES
3-A	PARCEL INDEX, EARTHWORK SUMMARY, EXIST ASPHALT PAVEMENT REMOVAL, GUARDRAIL SUMMARY
3-B	SUMMARY OF DRAINAGE QUANTITIES
4	PLAN AND PROFILE
TCP-1 THRU TCP-4	TRAFFIC CONTROL PLANS
RF-1	REFORESTATION PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
UC-1 THRU UC-3	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-2	UTILITIES BY OTHER PLANS
X-1	CROSS SECTION SUMMARY
X-2 THRU X-7	CROSS-SECTIONS
S-1 THRU S-18	STRUCTURE PLANS

GENERAL NOTES:

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

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

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

SUBSURFACE PLANS:

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

END BENTS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE EDGEcombe MARTIN EMC
SPRINT TELEPHONE

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

RIGHT-OF-WAY MARKERS:

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

EFF. 07-18-06

2006 ROADWAY STANDARD DRAWINGS

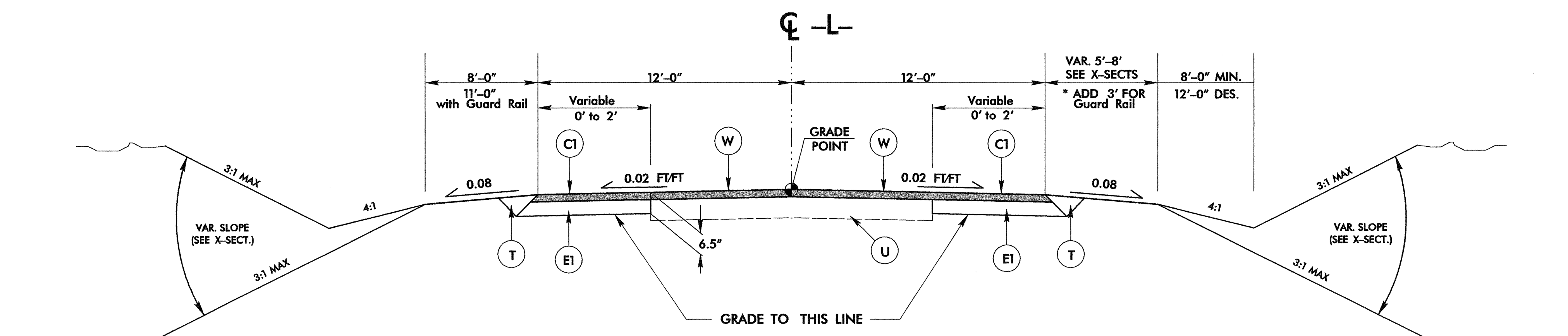
The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD. NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation - Method 'A'
310.10	Driveway Pipe Construction
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 Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
815.03	Pipe Underdrain and Blind Drain
840.00	Concrete Base Pad for Drainage Structures
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.20	Frames and Wide Slot Flat Grates
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.45	Precast Drainage Structure
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
876.02	Guide for Rip Rap at Pipe Outlets

5/28/09
D:\projects\NCDOT\B-4111\Roadway\Proj\B4111_RDY_TSH.dgn
8:44:24 AM

PAVEMENT SCHEDULE	
C1	PROPOSED APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF95A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YARD IN EACH OF 2 LAYERS.
C2	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF95A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
E1	PROPOSED APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.
E2	PROPOSED VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 4" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAILS)

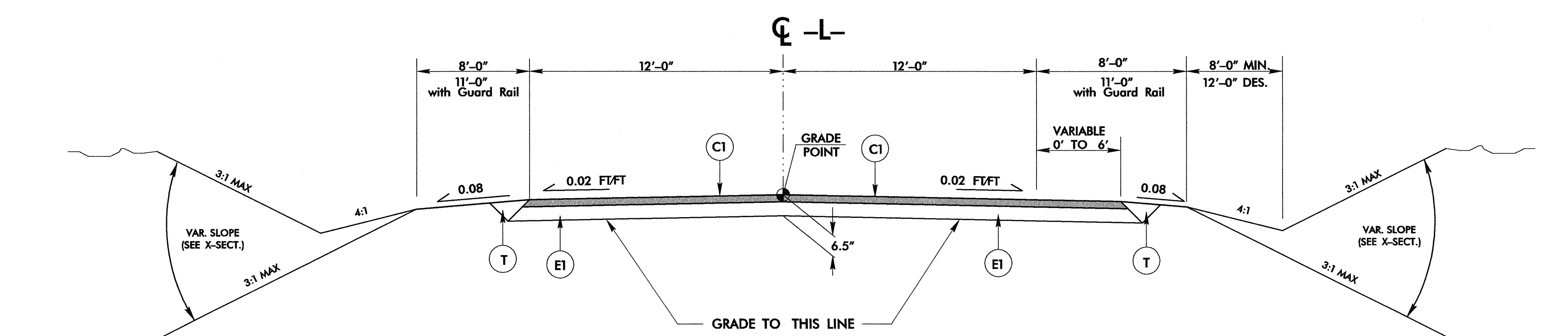
NOTE: ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE SHOWN.



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 AT THE FOLLOWING LOCATIONS:

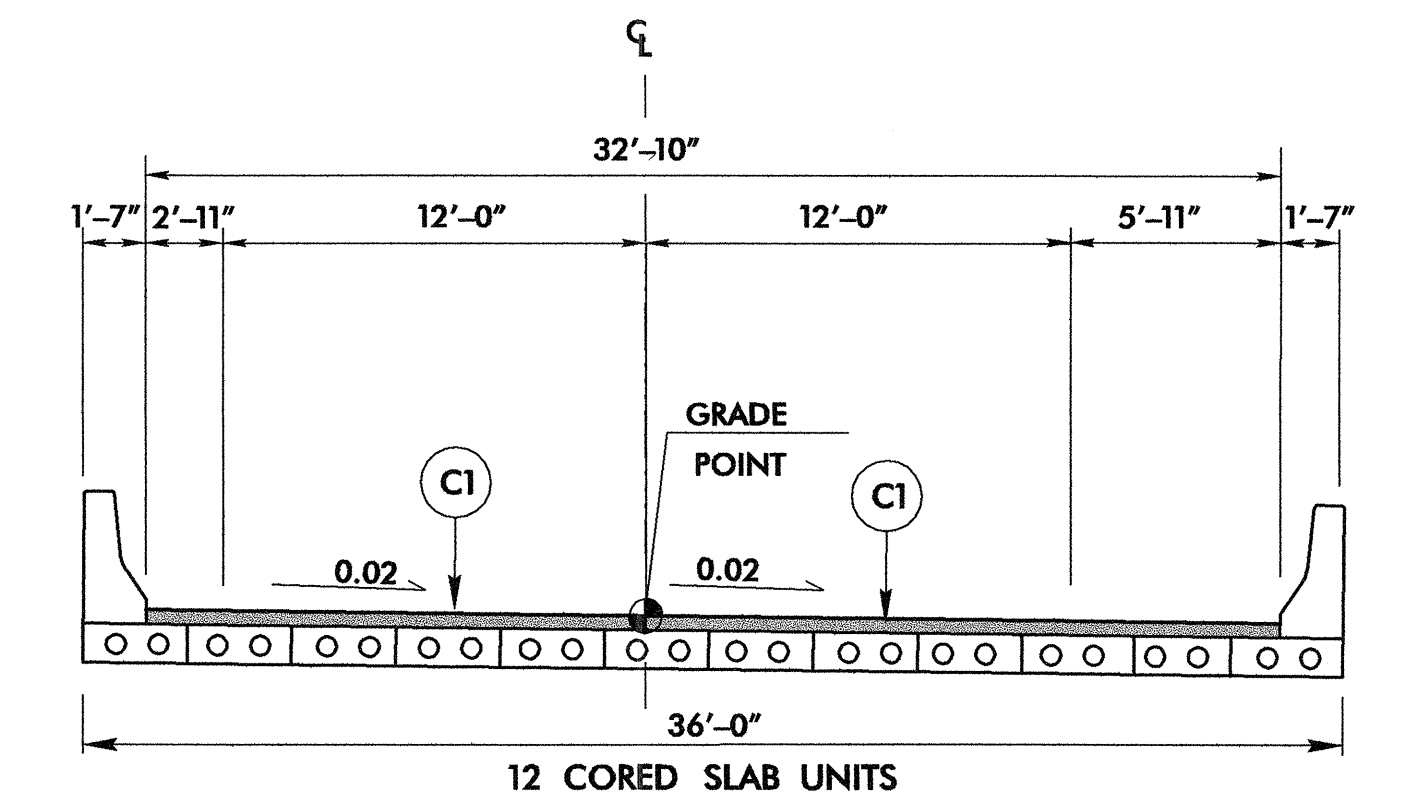
- L- STA. 12+31.26 TO STA. 13+50.00
- L- STA. 19+00.00 TO STA. 20+79.00



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2 AT THE FOLLOWING LOCATIONS:

- L- STA. 13+50.00 TO STA. 15+54.00 (BEG. BRIDGE)
- L- STA. 16+89.00 (END BRIDGE) TO STA. 19+00.00

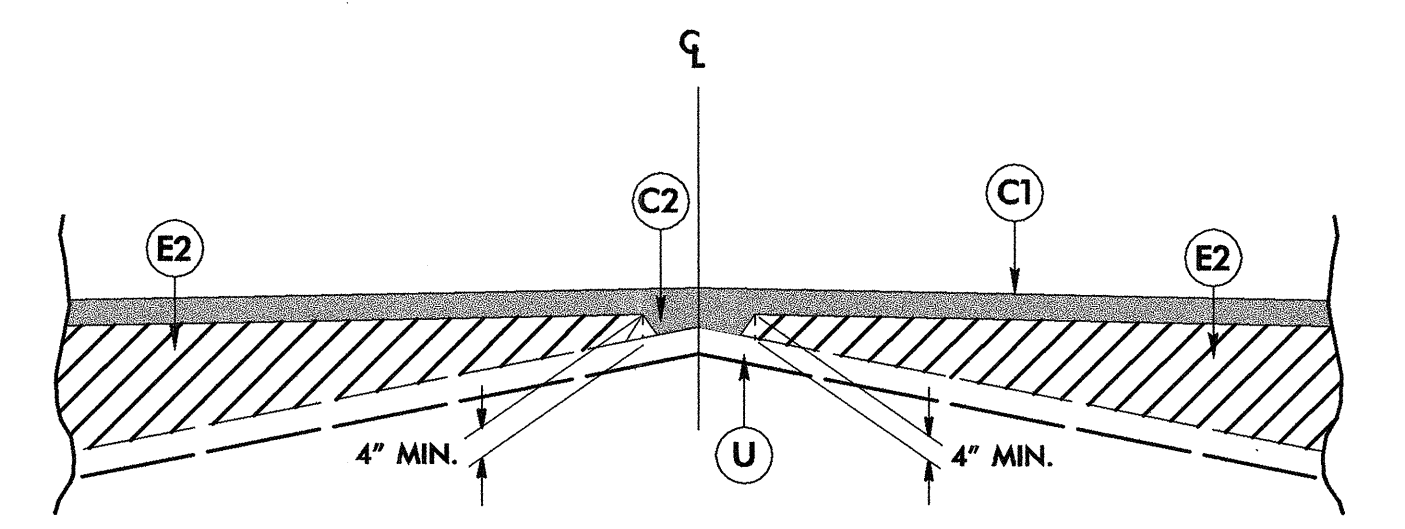


STRUCTURE DETAIL

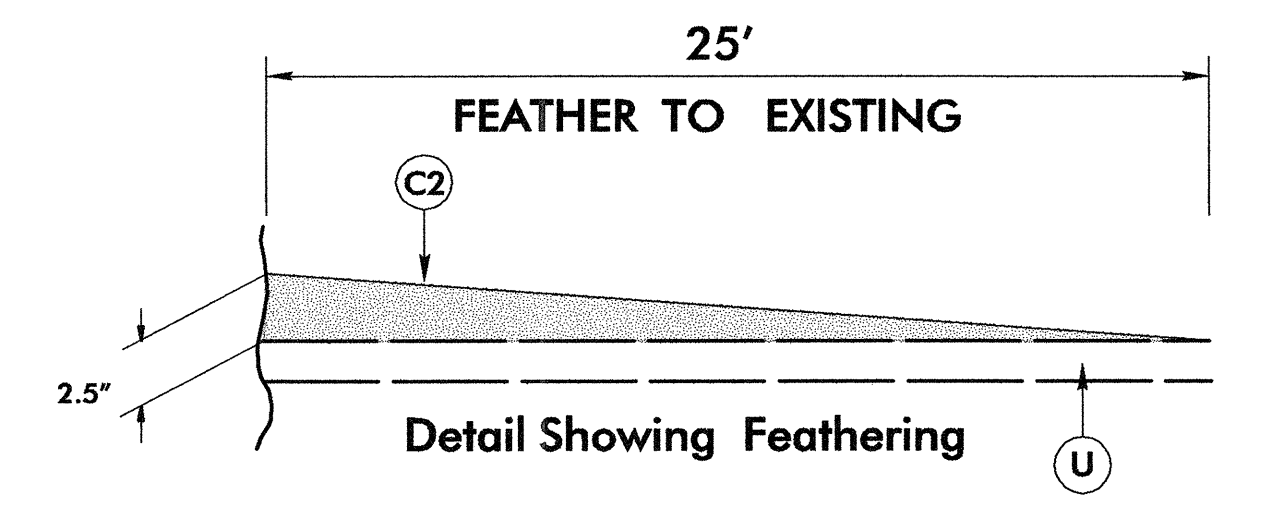
* THE PROPOSED BRIDGE WILL BE OVER 100' IN LENGTH

USE BRIDGE TYPICAL SECTION AT THE FOLLOWING LOCATIONS:
-L- STA. 15+54.00 TO STA. 16+89.00

NOTE: ADDITIONAL WIDTH OF THE BRIDGE ON THE RIGHT SIDE DUE TO HYDRAULIC SPREAD REQUIREMENTS.



Detail Showing Method of Wedging

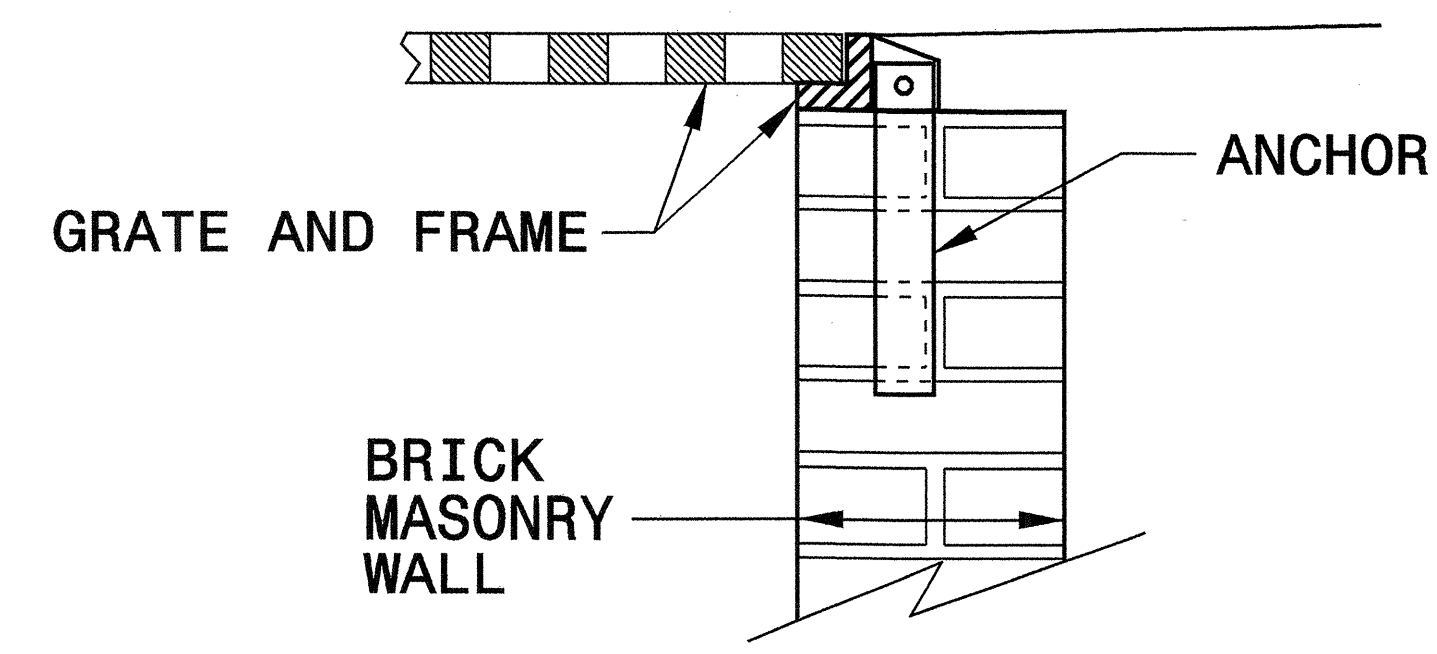


-L- STA. 12+06.26 TO STA. 12+31.26
-L- STA. 19+00.00 TO STA. 19+25.00

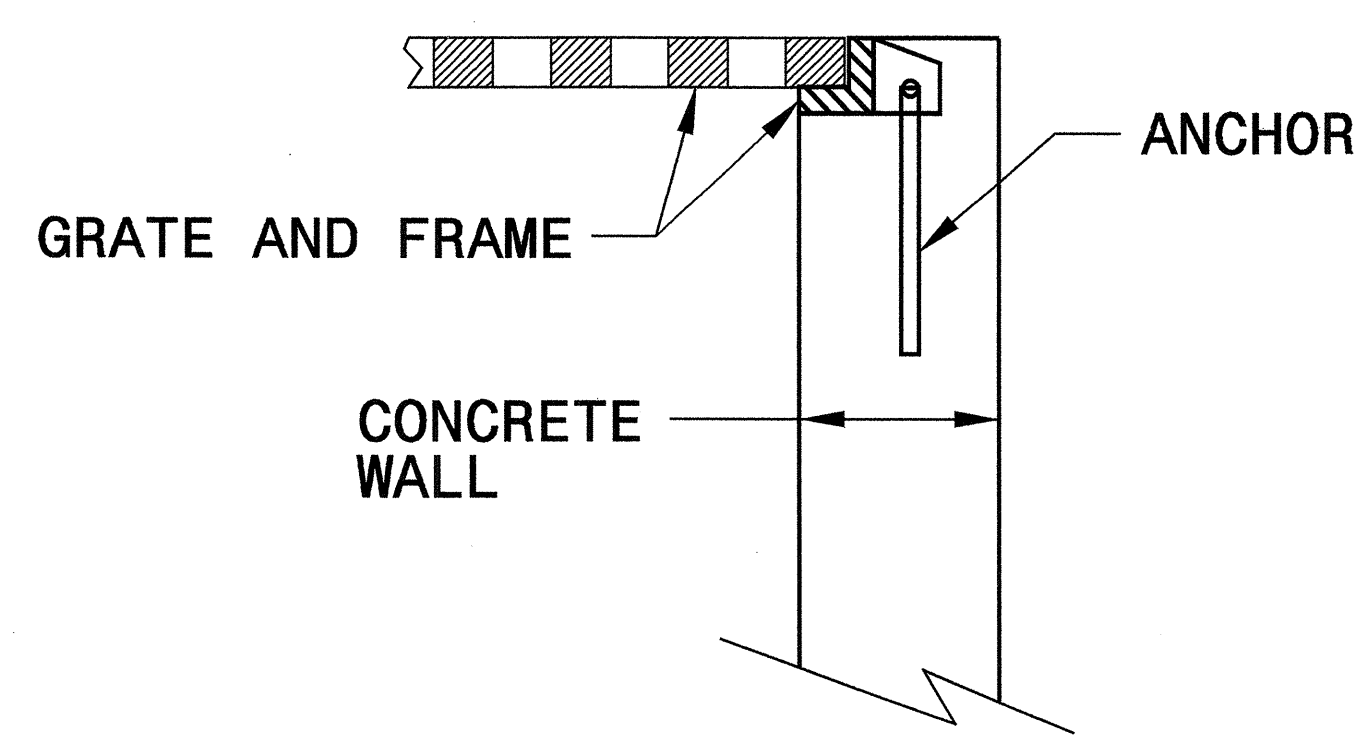
STATE OF NORTH CAROLINA
 DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 RALEIGH, N.C.

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

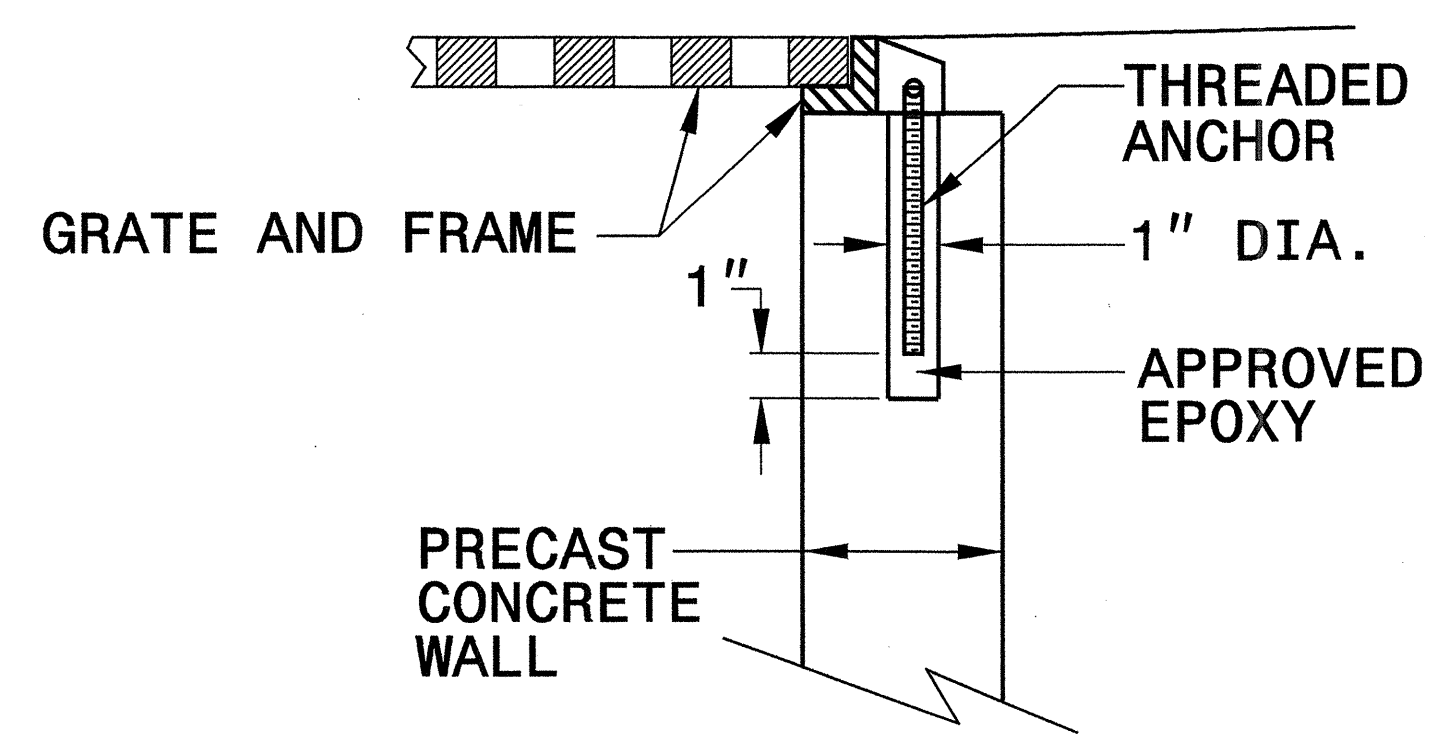
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



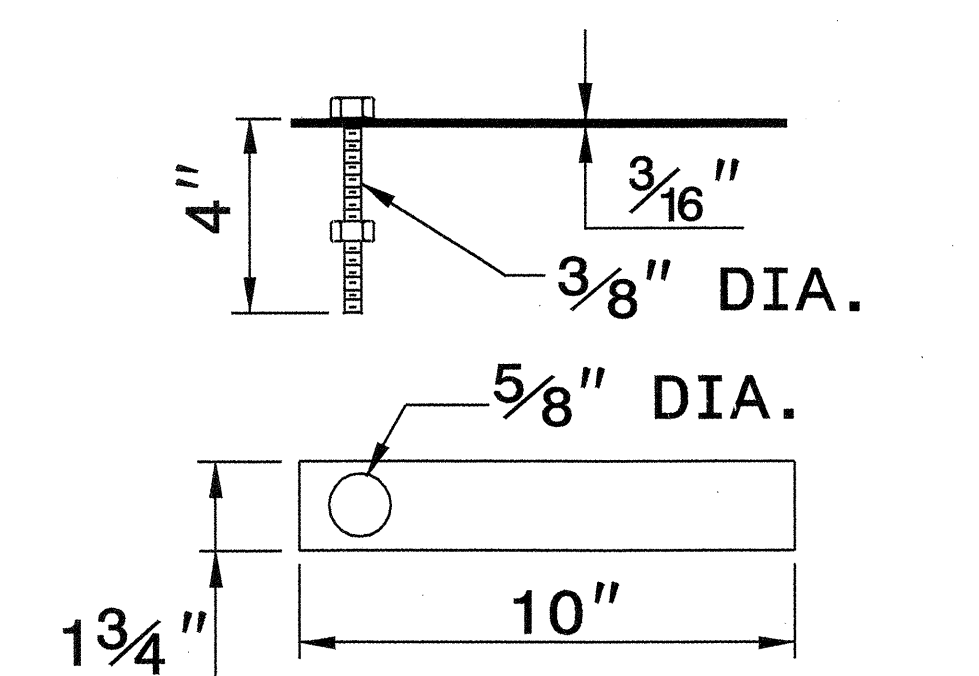
CONCRETE CONSTRUCTION



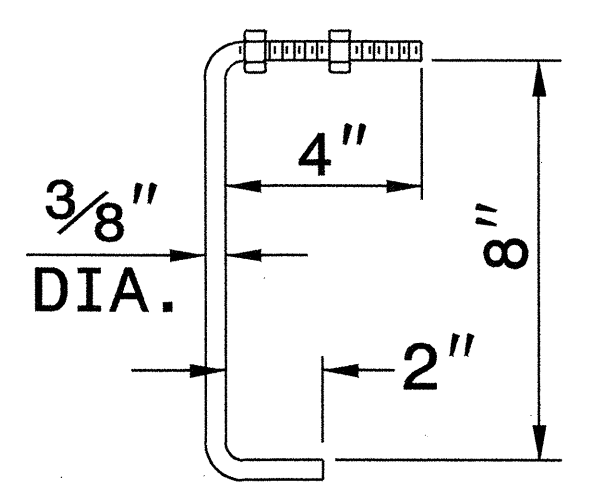
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

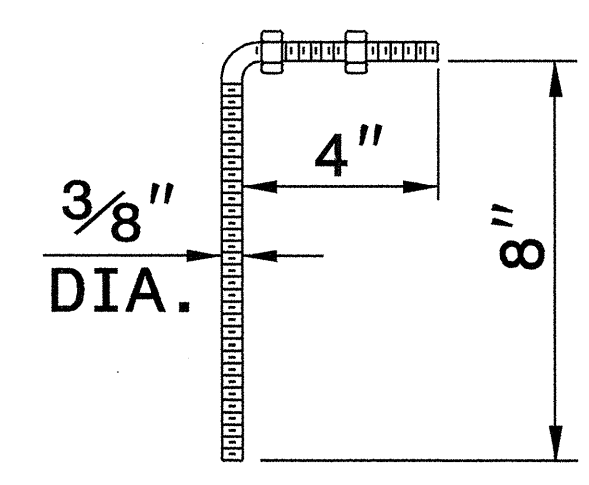
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



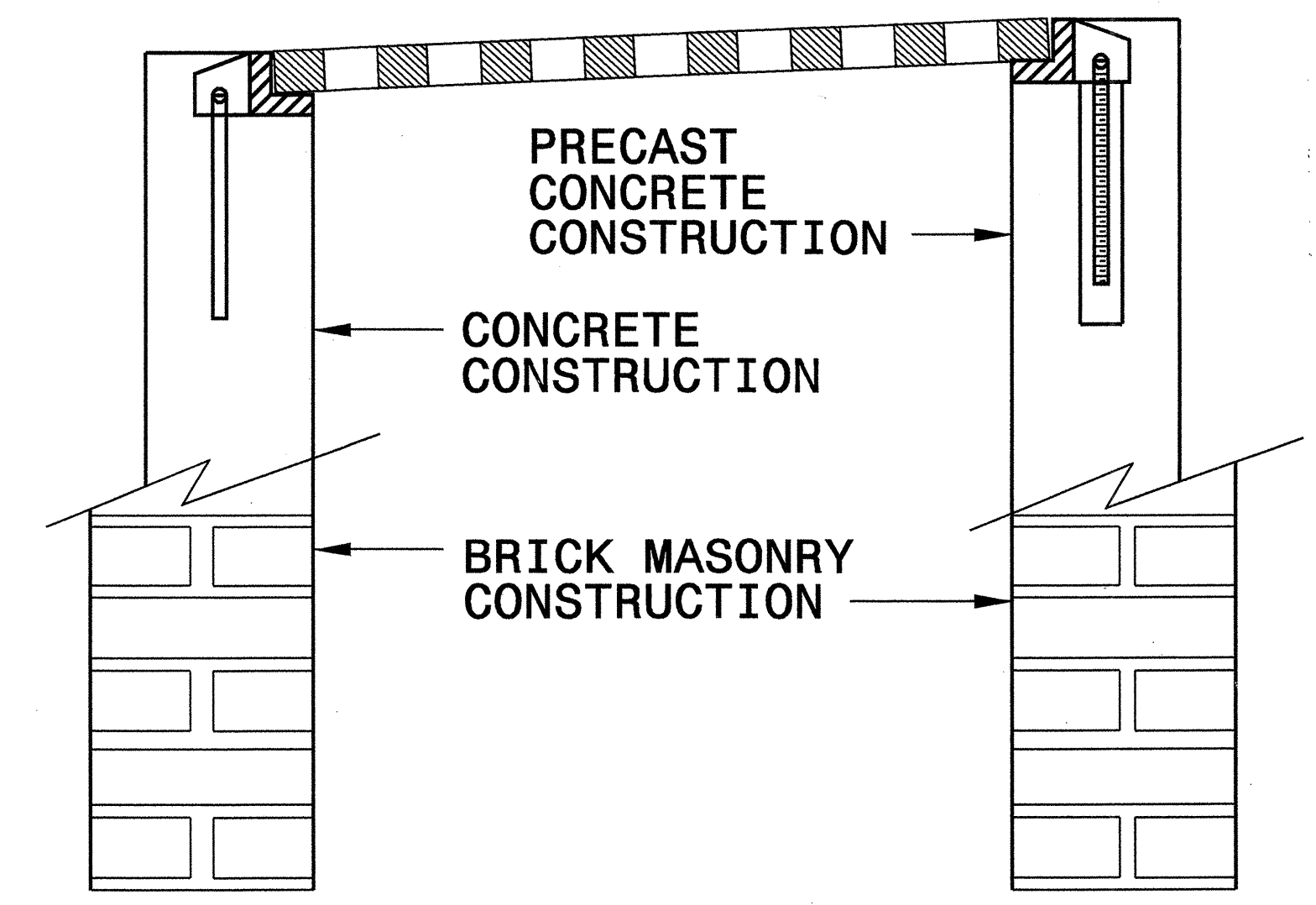
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



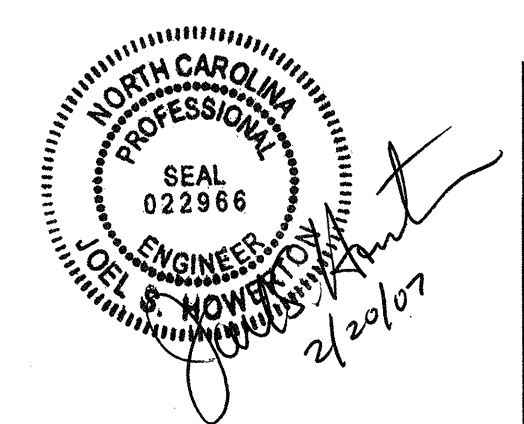
FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

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

27 SEP 2006 09:01
 C:\Users\jward\Documents\Special_Details\erward\stds\06\stds to Special_Details\84025 Anchorage For Frames\0840d25.dgn
 erward AT F3222273



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

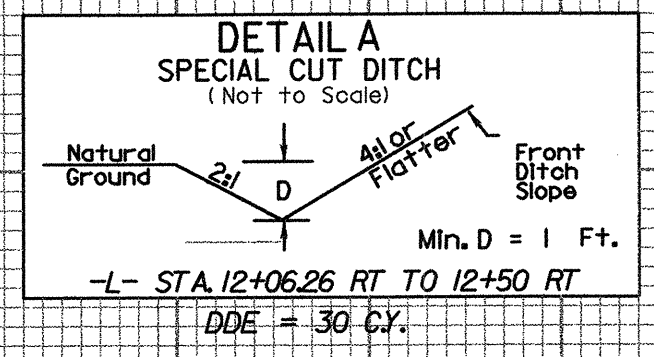
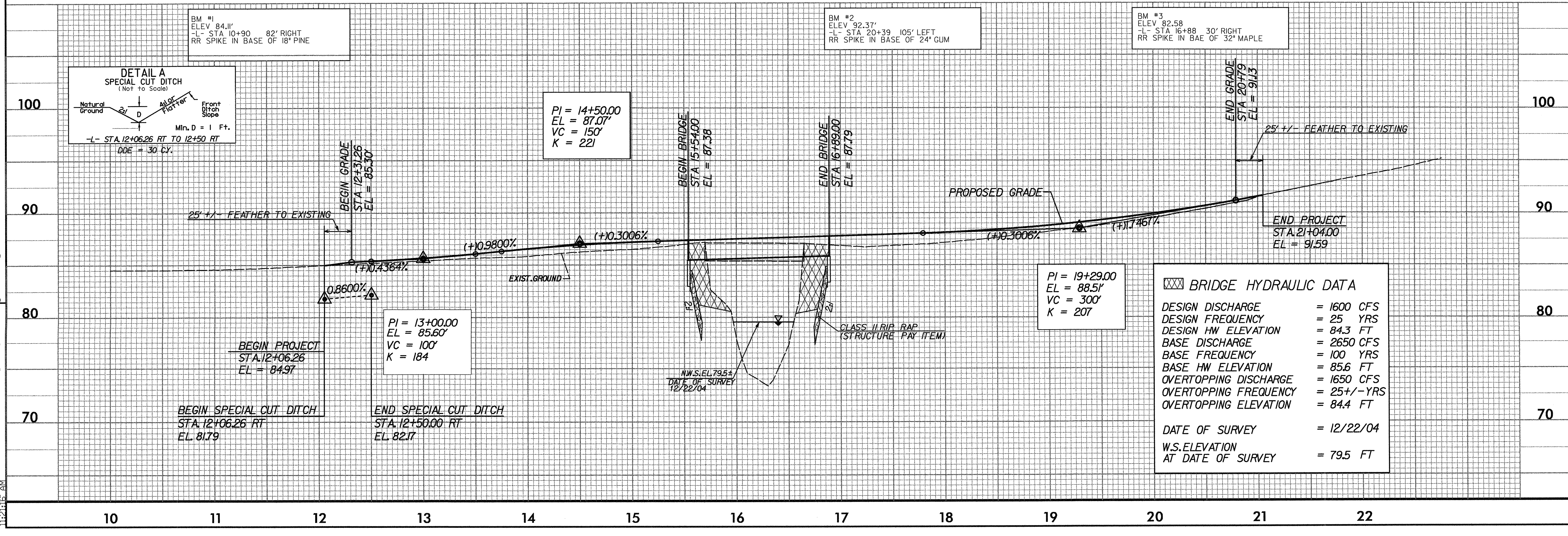
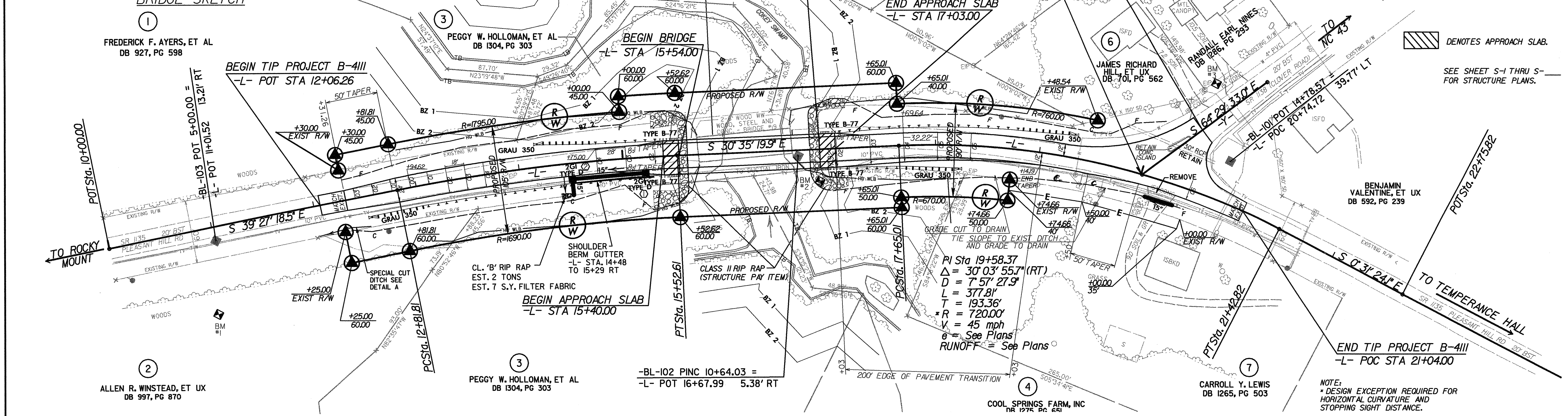
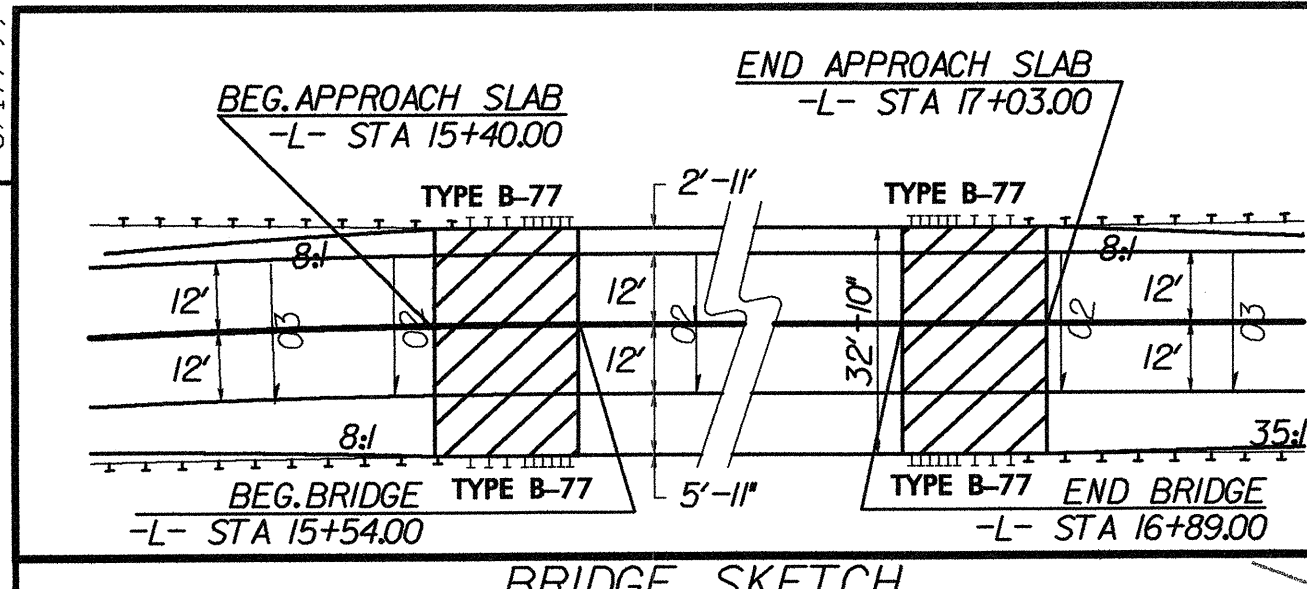
SEE PLATE FOR TITLE

ORIGINAL BY: 2006 STD 840.25 DATE: 07/18/06
 MODIFIED BY: E.E. WARD DATE: 9/25/06
 CHECKED BY: *Paul S. Howarth* DATE: 9/27/06
 FILE SPEC.: 1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201547					STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201547					STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201547				
ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION	2286000000-N	840	2	EA	MASONRY DRAINAGE STRUCTURES	5871610000-E	1550	100	LF	TRENCHLESS INSTALLATION OF 10" NOT IN SOIL
0000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING	2364200000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.20	6000000000-E	1605	1,125	LF	TEMPORARY SILT FENCE
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (16+21.50)	2556000000-E	846	81	LF	SHOULDER BERM GUTTER	6006000000-E	1610	150	TON	STONE FOR EROSION CONTROL, CLASS A
0043000000-N	226	Lump Sum		GRADING	3030000000-E	862	550	LF	STEEL BM GUARDRAIL	6009000000-E	1610	75	TON	STONE FOR EROSION CONTROL, CLASS B
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING	3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS	6012000000-E	1610	35	TON	SEDIMENT CONTROL STONE
0057000000-E	226	200	CY	UNDERCUT EXCAVATION	3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	6015000000-E	1615	1	ACR	TEMPORARY MULCHING
0134000000-E	240	30	CY	DRAINAGE DITCH EXCAVATION	3317000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77	6018000000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
0196000000-E	270	100	SY	FABRIC FOR SOIL STABILIZATION	3649000000-E	876	2	TON	RIP RAP, CLASS B	6021000000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
0234000000-E	SP	100	CY	GENERIC GRADING ITEM SELECT GRANULAR MATERIAL, CLASS III	3656000000-E	876	410	SY	FILTER FABRIC FOR DRAINAGE	6024000000-E	1622	50	LF	TEMPORARY SLOPE DRAINS
0318000000-E	300	20.3	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS	4025000000-E	901	18.75	SF	CONTRACTOR FURNISHED, TYPE *** (E)	6027000000-N	1622	2	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
0343000000-E	310	28	LF	15" SIDE DRAIN PIPE	4072000000-E	903	40	LF	SUPPORTS, 3-LB STEEL U-CHANNEL	6029000000-E	SP	250	LF	SAFETY FENCE
0366000000-E	310	88	LF	15" RC PIPE CULVERTS, CLASS III	4102000000-N	904	3	EA	SIGN ERECTION, TYPE E	6030000000-E	1630	315	CY	SILT EXCAVATION
0995000000-E	340	29	LF	PIPE REMOVAL	4155000000-N	907	11	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6036000000-E	1631	175	SY	MATTING FOR EROSION CONTROL
1489000000-E	610	300	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	4158000000-N	907	1	EA	DISPOSAL OF SIGN SYSTEM, WOOD	6037000000-E	SP	20	SY	COIR FIBER MAT
1525000000-E	610	411	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	4158000000-N	907	1	EA	DISPOSAL OF SIGN SYSTEM, WOOD	6042000000-E	1632	40	LF	1/4" HARDWARE CLOTH
1560000000-E	620	40	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	4400000000-E	1110	353	SF	WORK ZONE SIGNS (STATIONARY)	6048000000-E	SP	150	SY	FLOATING TURBIDITY CURTAIN
1693000000-E	654	13	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	4405000000-E	1110	96	SF	WORK ZONE SIGNS (PORTABLE)	6071030000-E	SP	40	LF	COIR FIBER BAFFLES
2000000000-N	806	17	EA	RIGHT OF WAY MARKERS	4410000000-E	1110	76	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)	6071050000-E	SP	3	EA	*** SKIMMER (2")
2022000000-E	815	23	CY	SUBDRAIN EXCAVATION	4430000000-N	1130	27	EA	DRUMS	6084000000-E	1660	1	ACR	SEEDING & MULCHING
2033000000-E	815	17	CY	SUBDRAIN FINE AGGREGATE	4435000000-N	1135	20	EA	CONES	6087000000-E	1660	0.5	ACR	MOWING
2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE	4445000000-E	1145	96	LF	BARRICADES (TYPE III)	6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
2055000000-E	815	3	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS	4450000000-N	1150	80	HR	FLAGGER	6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
2066000000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET	4810000000-E	1205	7,760	LF	PAINT PAVEMENT MARKING LINES (4")	6096000000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
2077000000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)	4900000000-N	1251	26	EA	PERMANENT RAISED PAVEMENT MARKERS	6108000000-E	1665	0.75	TON	FERTILIZER TOPDRESSING
					5326000000-E	1510	501	LF	10" WATER LINE	6114000000-N	SP	2	HR	SPECIALIZED HAND MOWING
					5871600000-E	1550	394	LF	TRENCHLESS INSTALLATION OF 10" IN SOIL	6117000000-N	SP	8	EA	RESPONSE FOR EROSION CONTROL
										6123000000-E	1670	0.1	ACR	REFORESTATION



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1600 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 84.3 FT
BASE DISCHARGE	= 2650 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 85.6 FT
OVERTOPPING DISCHARGE	= 1650 CFS
OVERTOPPING FREQUENCY	= 25+/- YRS
OVERTOPPING ELEVATION	= 84.4 FT
DATE OF SURVEY	= 12/22/04
W.S. ELEVATION AT DATE OF SURVEY	= 79.5 FT

8/17/99
 REVISIONS
 2/15/2007
 11:21:16 AM
 C:\Users\NCDOT\B-4111\Roadway\Proc\B4111\rcd\PSH04.dgn