

05/08/99

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

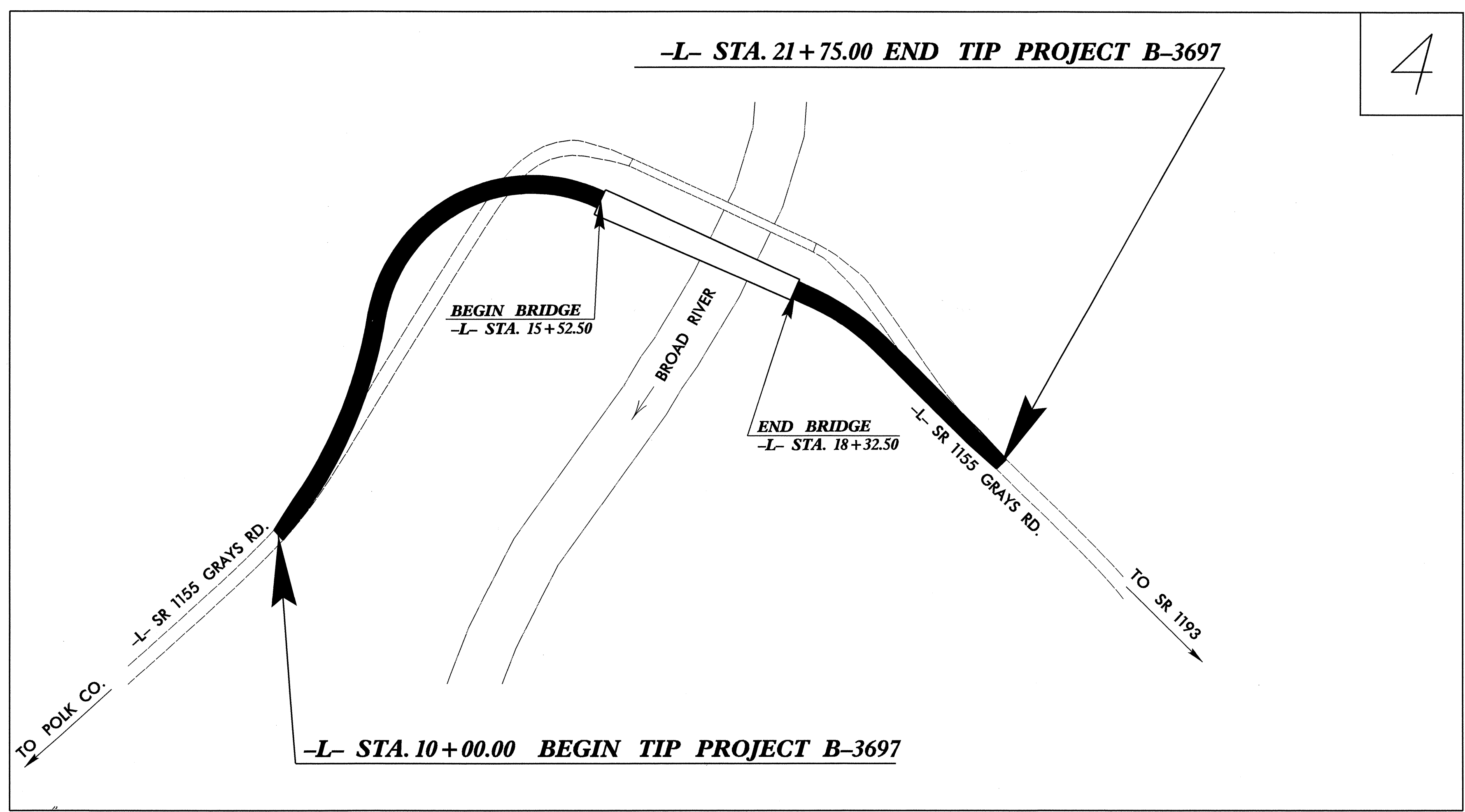
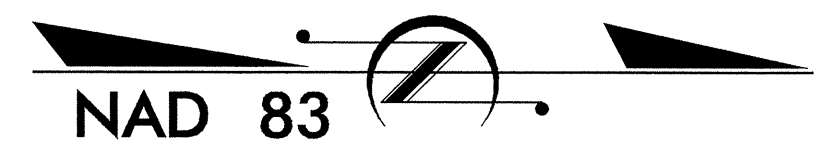
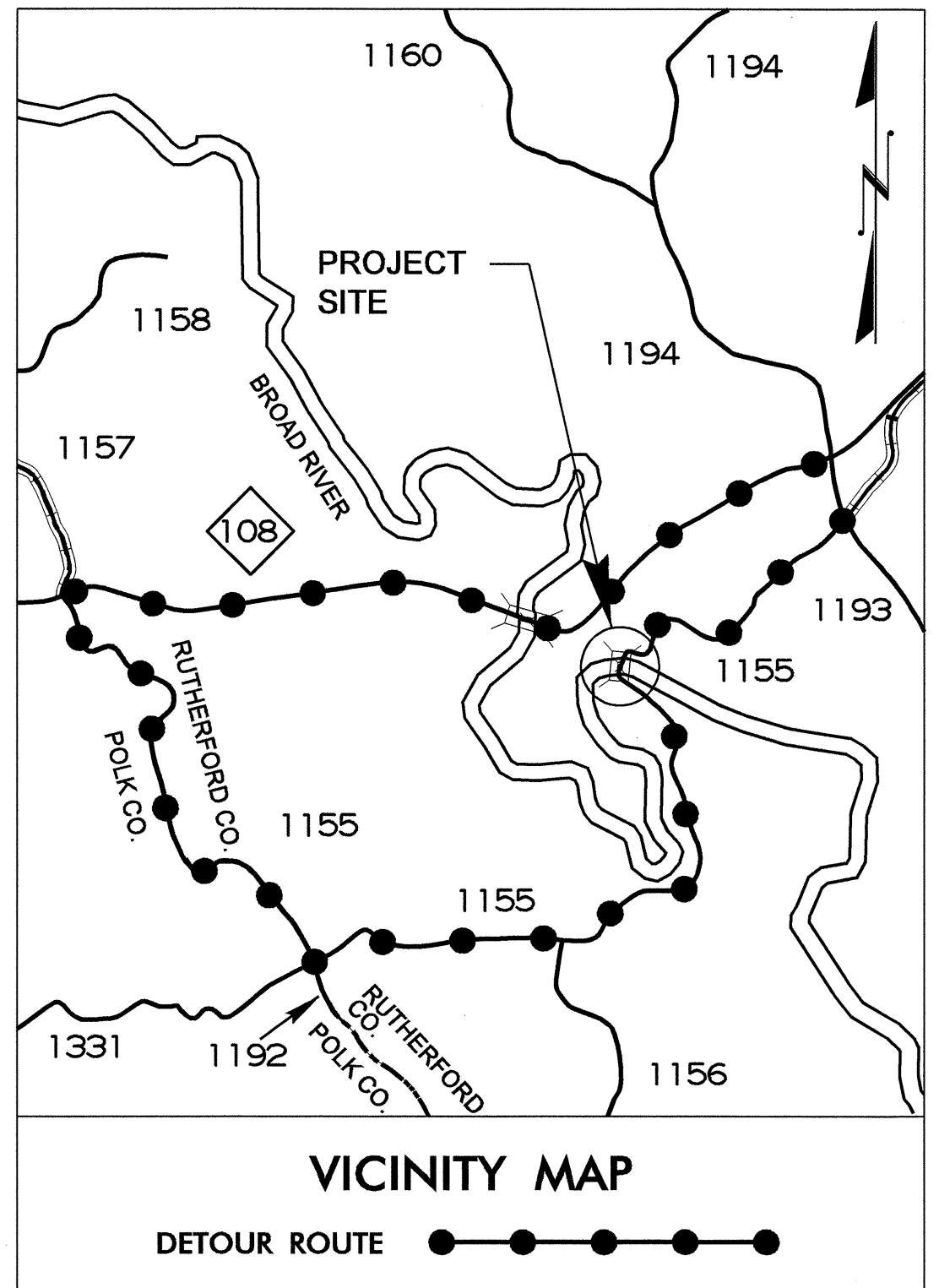
RUTHERFORD COUNTY

**LOCATION: BRIDGE NO. 270 OVER BROAD RIVER
ON SR 1155 (GRAYS ROAD)**

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

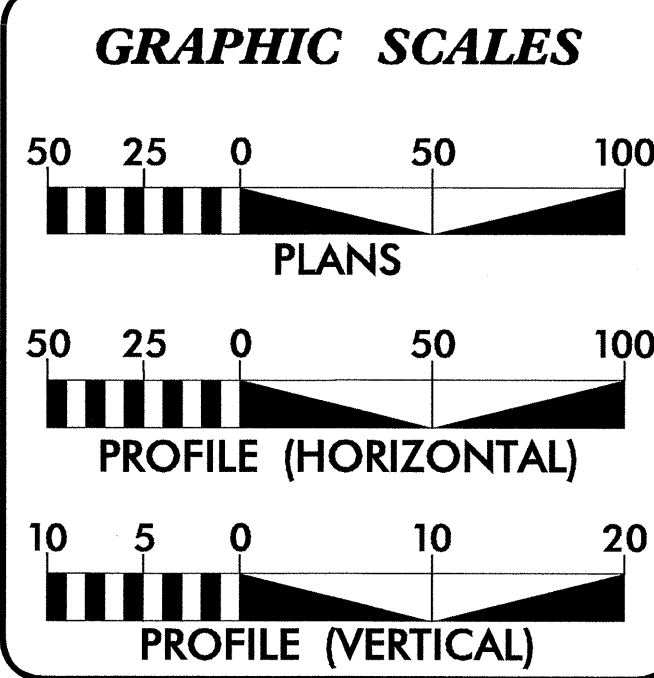
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3697	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
33237.1.1	BRZ-1155(2)	PE	
33237.2.1	BRZ-1155(2)	RW & UTIL	
33237.3.1	BRZ-1155(2)	CONST.	

TIP PROJECT: B-3697



** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 60 mph TO 30 mph,
A HORIZONTAL STOPPING SIGHT DISTANCE OF 151 FEET, A MINIMUM HORIZONTAL CURVE
RADIUS OF 200 FEET, A CREST VERTICAL CURVE K OF 16, AND A VERTICAL SSD OF 191 FEET.

CONTRACT: C201729



DESIGN DATA

ADT 2007 =	493
ADT 2027 =	1042
DHV =	10 %
D =	60 %
T =	3 % *
V =	60 MPH
* TTST 2 %	DUAL 1 %
FUNC. CLASS. = RURAL LOCAL	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3697	=	0.170 MILE
LENGTH STRUCTURE TIP PROJECT B-3697	=	0.053 MILE
TOTAL LENGTH TIP PROJECT B-3697	=	0.223 MILE

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 21, 2006

LETTING DATE:
FEBRUARY 19, 2008

BRENDA MOORE, PE
PROJECT ENGINEER

ROGER KLUCKMAN, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

11-15-07
P.E.

ROADWAY DESIGN ENGINEER

11-15-07
P.E.

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

out miller
P.E.
STATE HIGHWAY DESIGN ENGINEER

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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL SYMBOLS

*S.U.E = SUBSURFACE UTILITY ENGINEER

ROADS & RELATED ITEMS

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)
Curb Cut for Future Wheelchair Ramp	(CCFR)
Exist. Guardrail	-----
Prop. Guardrail	-----
Equality Symbol	⊕
Pavement Removal	XXXXXX
Bench Mark	⊗

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	△-----
R/W Marker (Iron Pin & Cap)	▲
Prop. Right of Way Line with Proposed	▲-----
(Concrete or Granite) RW Marker	⊙
Exist. Control of Access Line	⊙
Prop. Control of Access Line	⊙
Exist. Easement Line	----- E -----
Prop. Temp. Construction Easement Line	----- E -----
Prop. Temp. Drainage Easement Line	----- TDE -----
Prop. Perm. Drainage Easement Line	----- PDE -----

HYDROLOGY

Stream or Body of Water	-----
River Basin Buffer	----- RBB -----
Flow Arrow	→
Disappearing Stream	Y-----
Spring	○-----
Swamp Marsh	~
Shoreline	-----
Falls, Rapids	-----
Prop Lateral, Tail, Head Ditches	----- FLOW -----

STRUCTURES

MAJOR	
Bridge, Tunnel, or Box Culvert	----- CONC -----
Bridge Wing Wall, Head Wall and End Wall	(CONC WW)

MINOR

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

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	⊞
UG Telephone Cable Hand Hold	⊞
Cable TV Pedestal	⊞
UG TV Cable Hand Hold	⊞
UG Power Cable Hand Hold	⊞
Hydrant	⊕
Satellite Dish	⊕
Exist. Water Valve	⊕
Sewer Clean Out	⊕
Power Manhole	⊕
Telephone Booth	⊕
Cellular Telephone Tower	⊕
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	⊕
Utility Power Line Connects to Traffic Signal Lines Cut Into the Pavement	----- TS -----

Recorded Water Line	----- W -----
Designated Water Line (S.U.E.*)	----- W -----
Sanitary Sewer	----- SS -----
Recorded Sanitary Sewer Force Main	----- FSS -----
Designated Sanitary Sewer Force Main(S.U.E.*)	----- FSS -----
Recorded Gas Line	----- G -----
Designated Gas Line (S.U.E.*)	----- G -----
Storm Sewer	----- S -----
Recorded Power Line	----- P -----
Designated Power Line (S.U.E.*)	----- P -----
Recorded Telephone Cable	----- T -----
Designated Telephone Cable (S.U.E.*)	----- T -----
Recorded U/G Telephone Conduit	----- TC -----
Designated U/G Telephone Conduit (S.U.E.*)	----- TC -----
Unknown Utility (S.U.E.*)	----- PUTL -----
Recorded Television Cable	----- TV -----
Designated Television Cable (S.U.E.*)	----- TV -----
Recorded Fiber Optics Cable	----- FO -----
Designated Fiber Optics Cable (S.U.E.*)	----- FO -----
Exist. Water Meter	⊕
UG Test Hole (S.U.E.*)	⊕
Abandoned According to U/G Record	ATTUR
End of Information	E.O.I.

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	----- X X X X -----
Existing Wetland Boundaries	----- WW & ISBW -----
High Quality Wetland Boundary	----- HO WLB -----
Medium Quality Wetland Boundaries	----- MO WLB -----
Low Quality Wetland Boundaries	----- LO WLB -----
Proposed Wetland Boundaries	----- WLB -----
Existing Endangered Animal Boundaries	----- EAB -----
Existing Endangered Plant Boundaries	----- EPB -----

BUILDINGS & OTHER CULTURE

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

TOPOGRAPHY

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

VEGETATION

Single Tree	-----
Single Shrub	-----
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	----- VINEYARD -----

RAILROADS

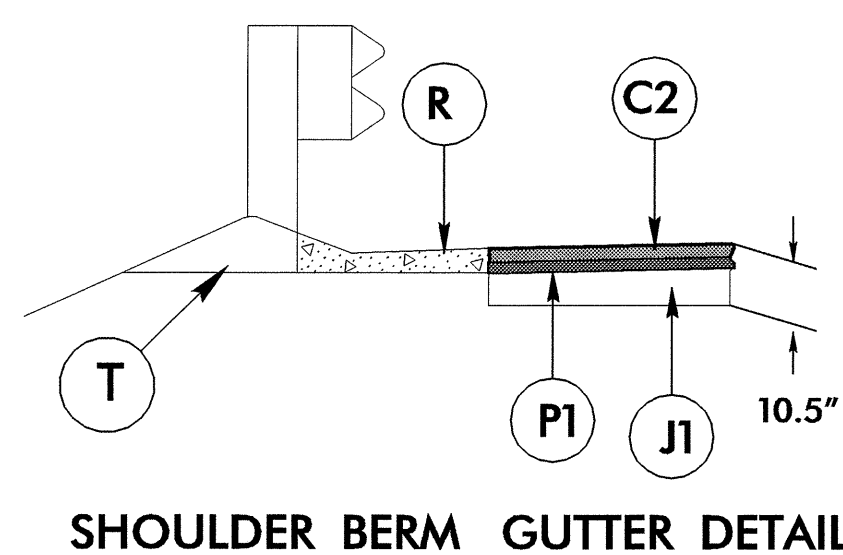
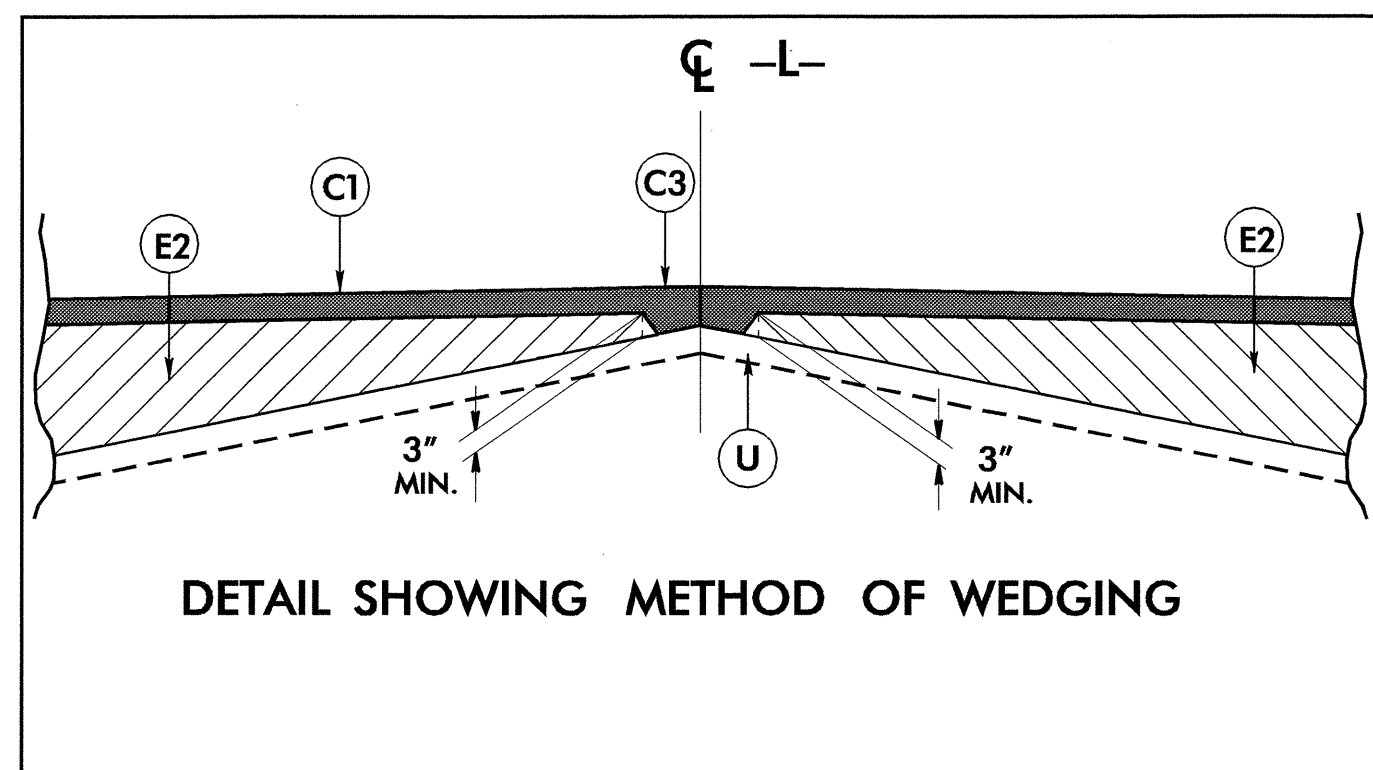
Standard Gauge	-----
RR Signal Milepost	----- MILEPOST 35 -----
Switch	----- SWITCH -----

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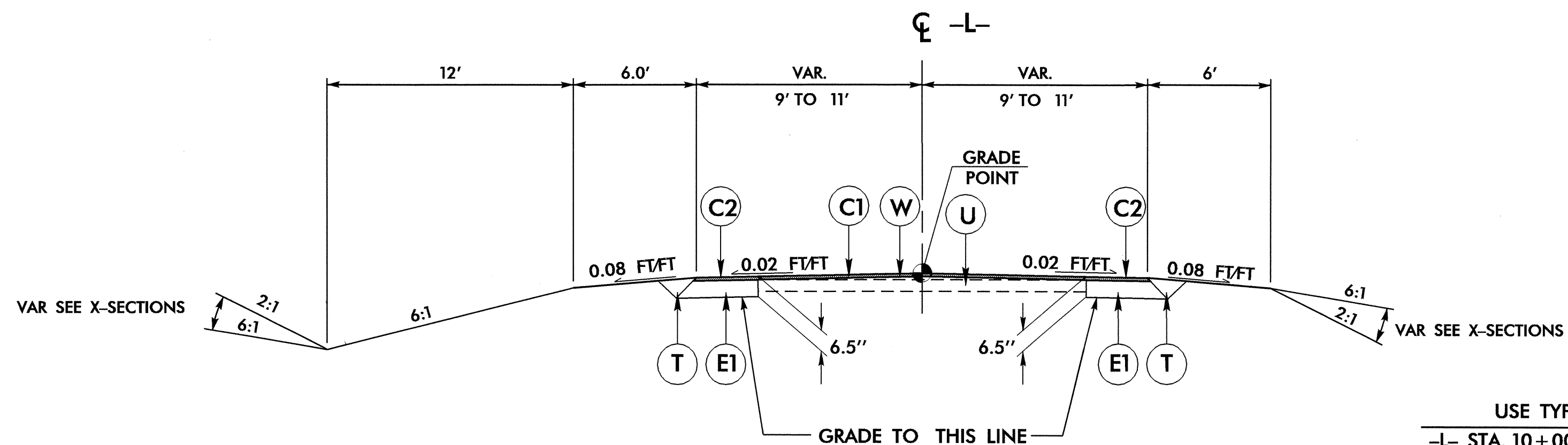
14-SEP-2007 12:46 pm c:\nb3697.tup
###SUBSURFACE###

FINAL PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5 1/2" IN DEPTH.
J1	PROP. 8" AGGREGATE BASE COURSE.
P1	PRIME COAT AT THE RATE OF .35 GAL PER SQ. YD.
R	SHOULDER BERM GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING (SEE DETAIL THIS SHEET).

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

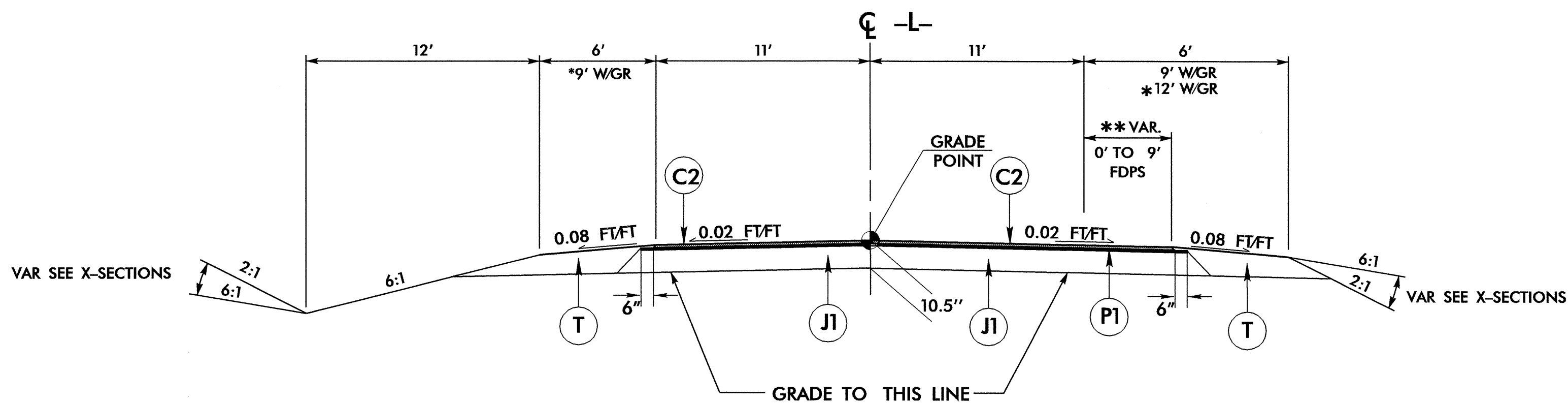


USE SHOULDER BERM GUTTER
-L- STA. 14+86.00 TO -L- STA. 15+37.11 (RT)



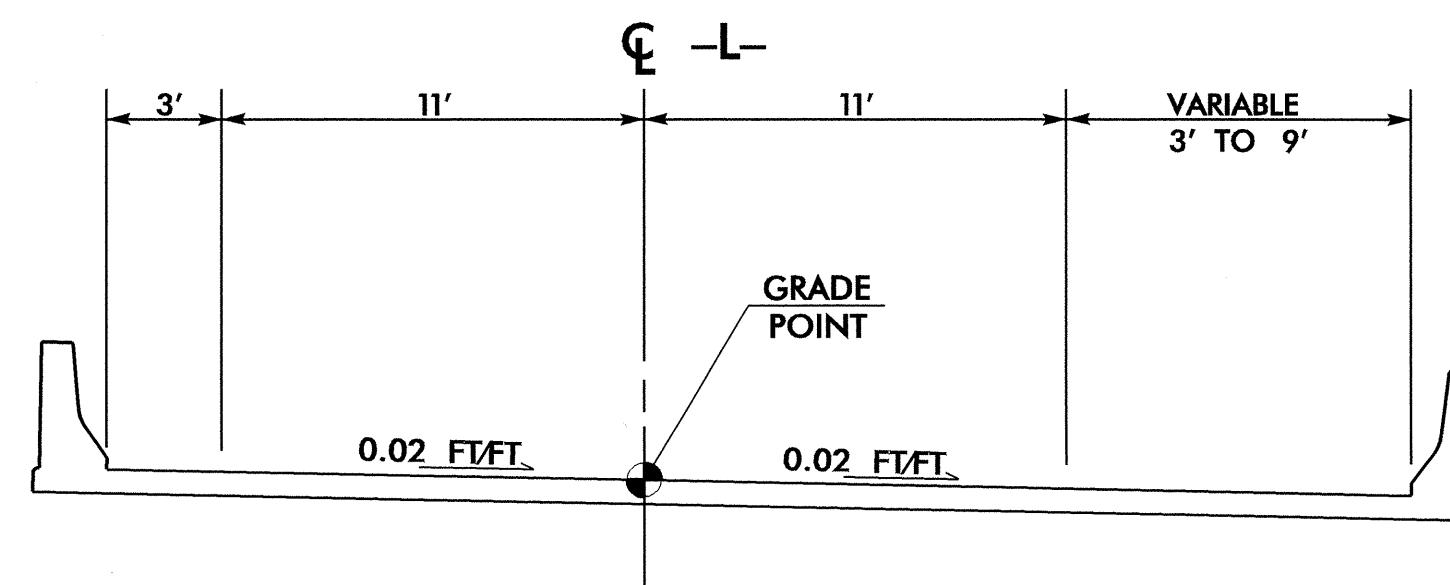
USE TYPICAL SECTION NO. 1
-L- STA. 10+00.00 TO -L- STA. 10+50.00
-L- STA. 20+25.00 TO -L- STA. 21+75.00

NOTE: USE 2 1/2" SF9.5A AND 4" B25.0B IN AREAS OF NARROW WIDENING AS DIRECTED BY THE ENGINEER.



NOTE: FOR CURVE WIDENING RIGHT OF -L- STA. 10+61.75 TO -L- STA. 15+52.50 (BR) (SEE SHEET NO. 4)
** 4.5' FDPS RIGHT OF -L- STA. 11+61.75 TO -L- STA. 14+25.00. FDPS VARIES FROM 4.5' TO 9' RIGHT OF STA. 14+25.00 TO 15+52.50 (BR) (SEE SHEET NO. 4)

USE TYPICAL SECTION NO. 2
LT. -L- STA. 10+50.00 TO -L- STA. 15+52.50 (BR)
RT. -L- STA. 10+50.00 TO -L- STA. 13+85.18
*RT. -L- STA. 13+85.18 TO -L- STA. 15+52.50 (BR)
-L- STA. 18+32.50 (BR) TO -L- STA. 20+25.00



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

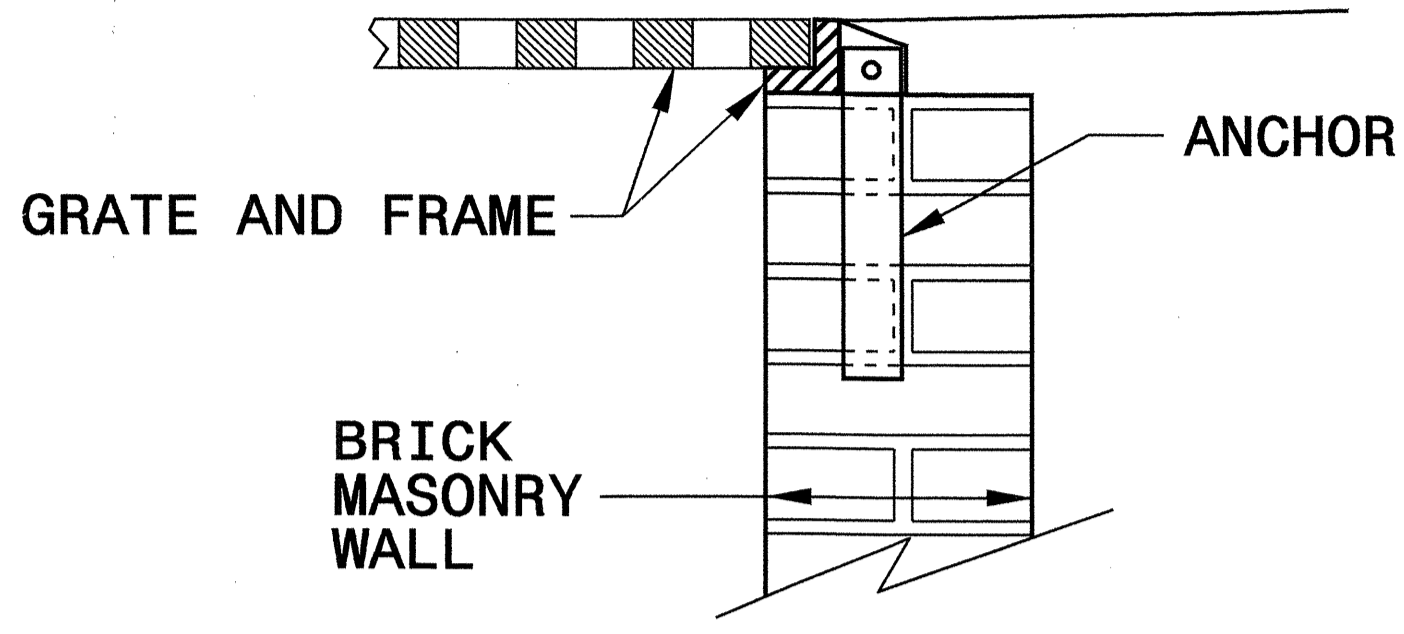
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840D25

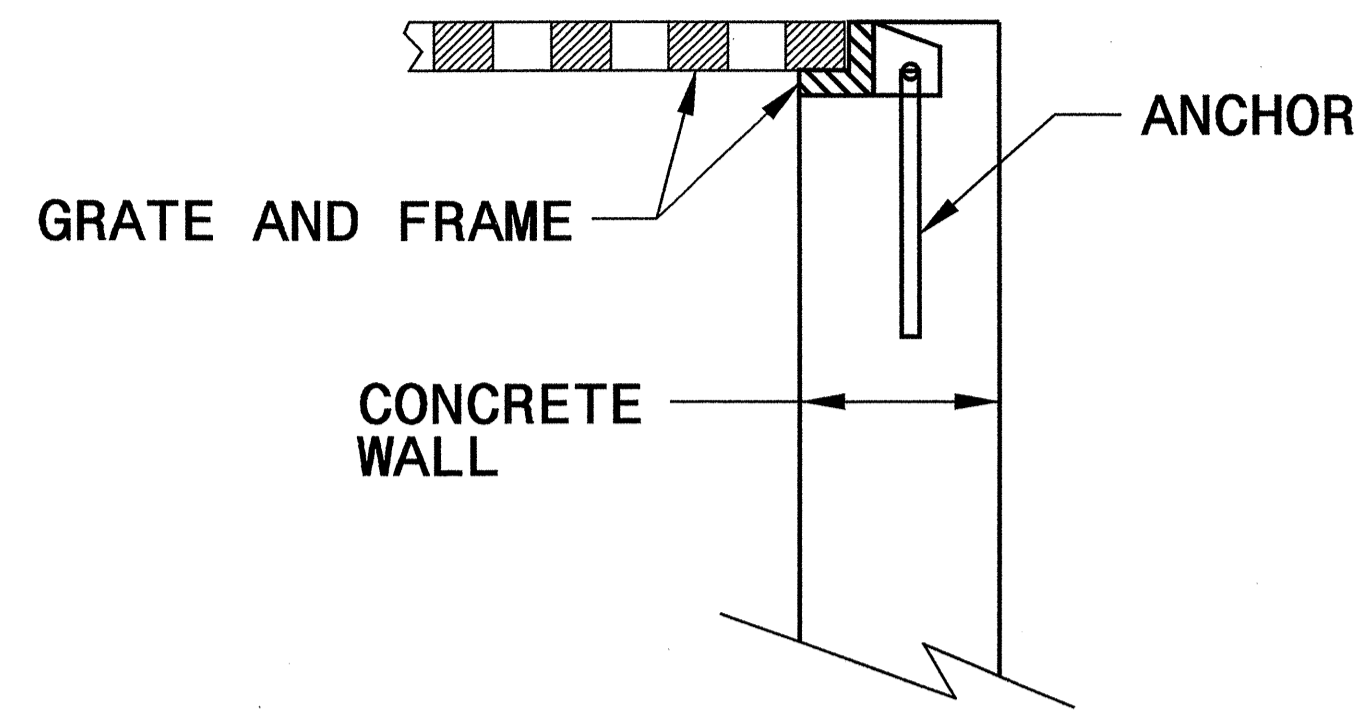
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

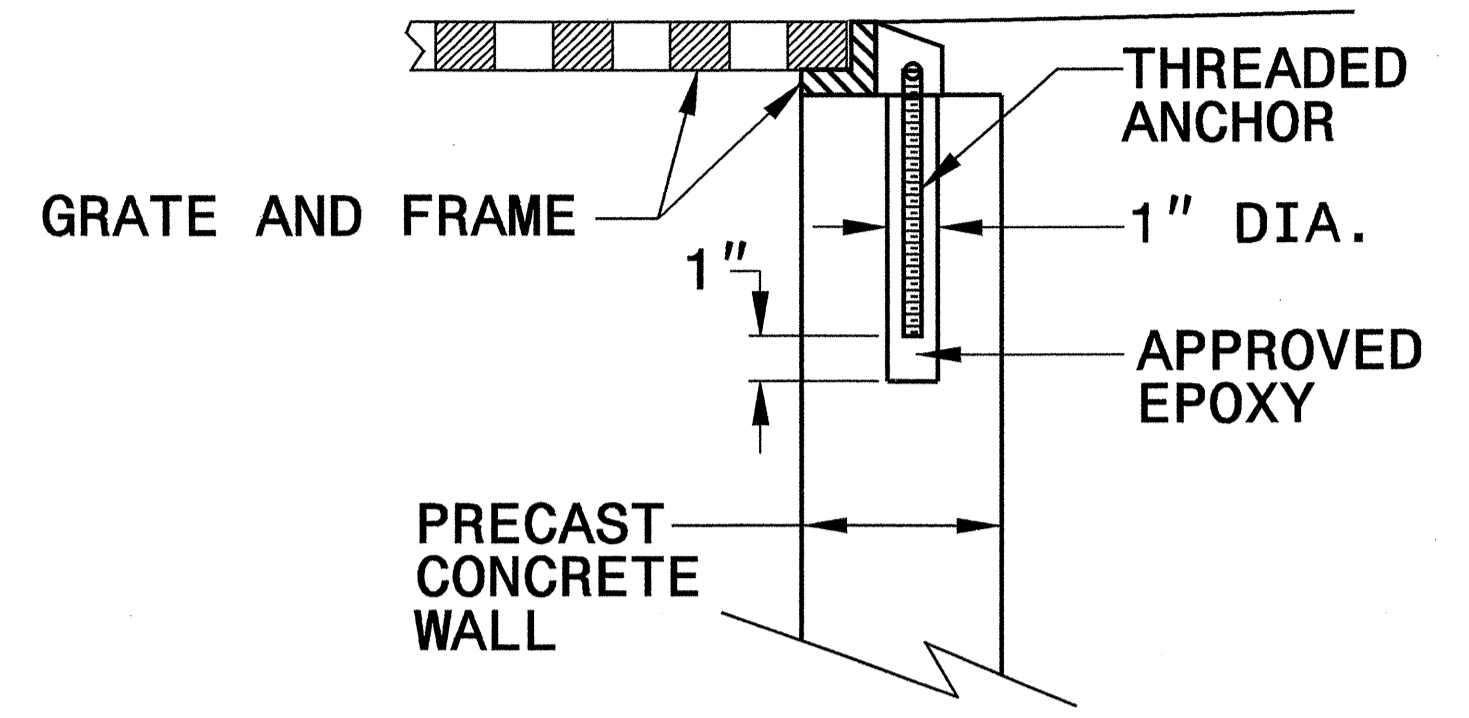
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



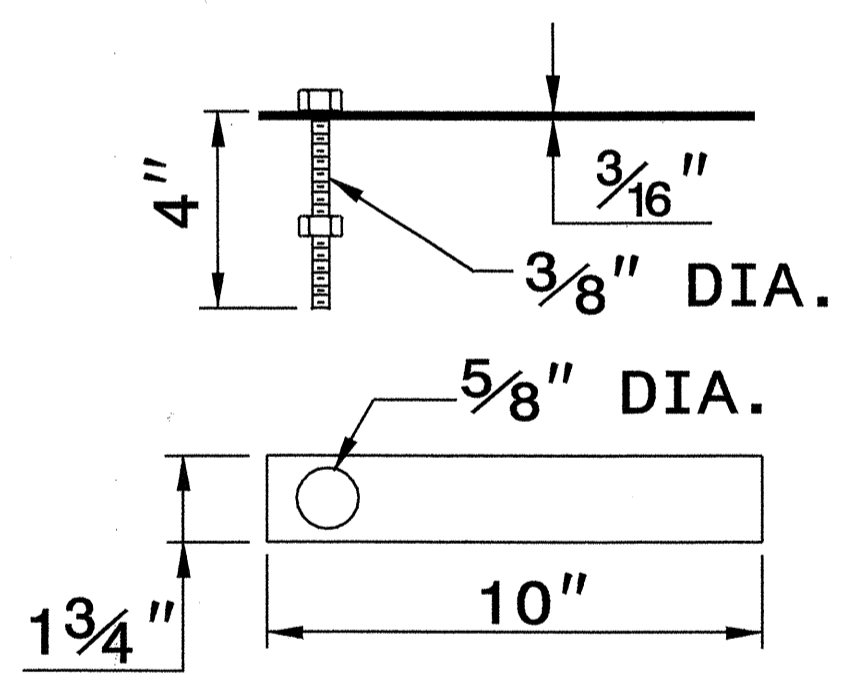
CONCRETE CONSTRUCTION



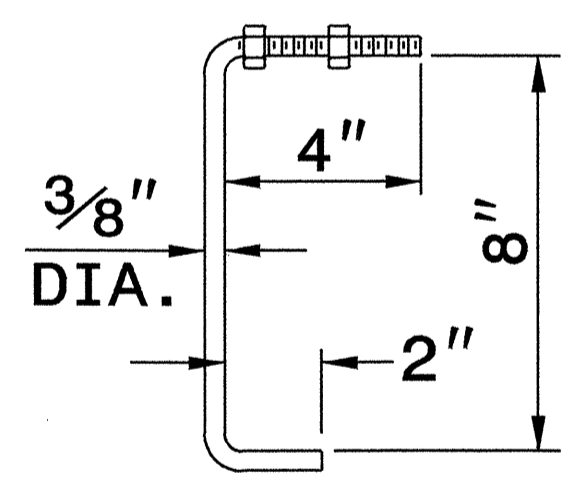
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

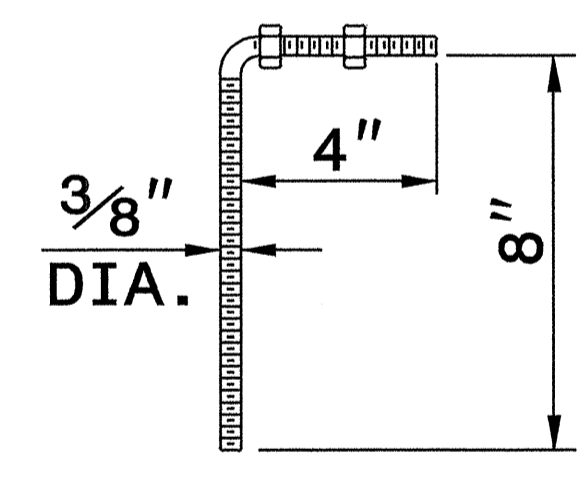
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



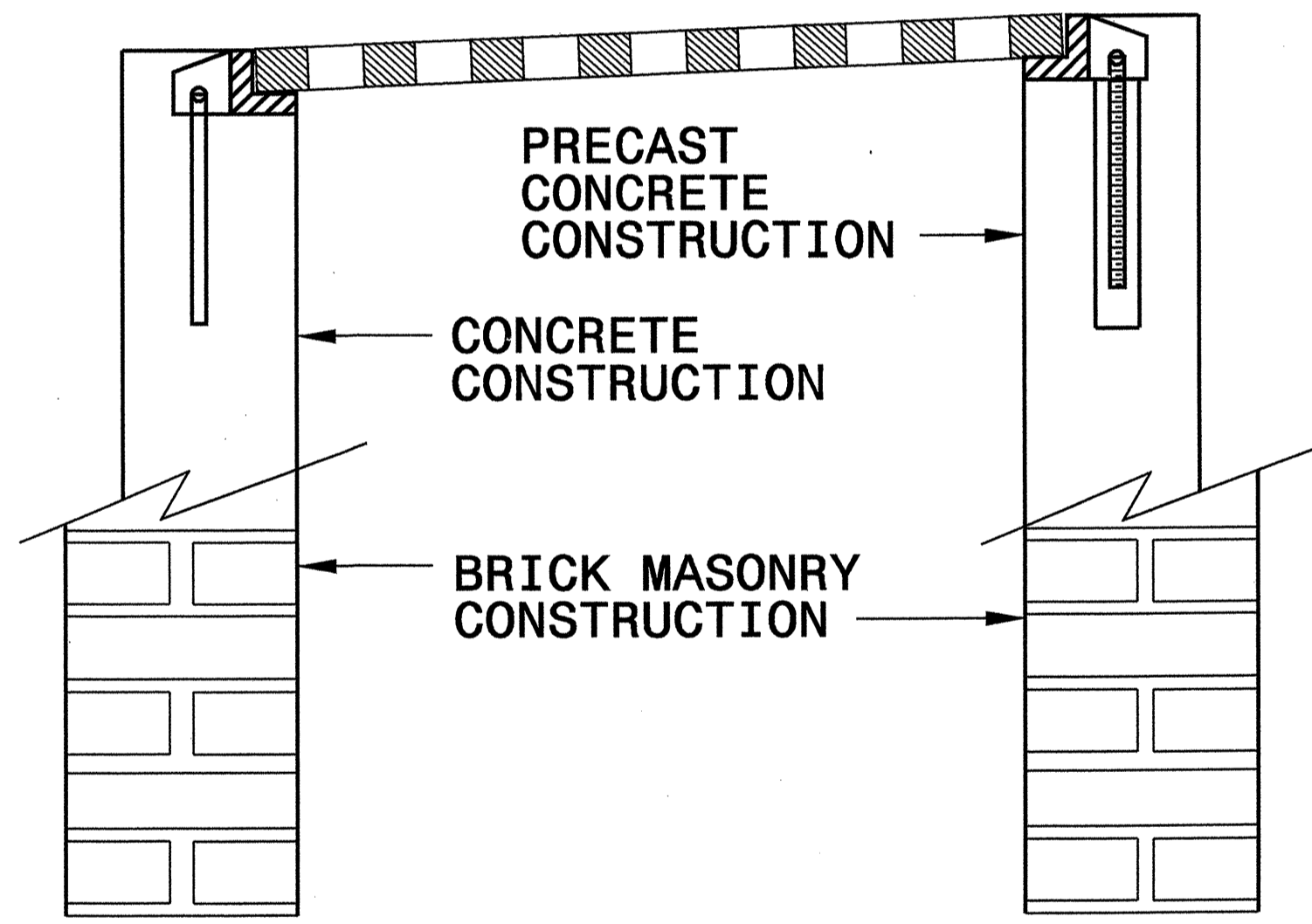
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR

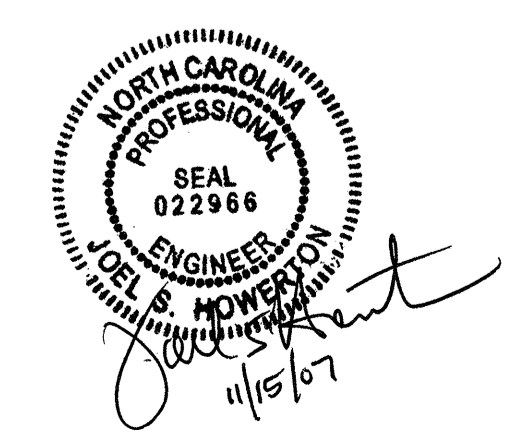


PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

01-MAR-2007 09:04
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j.howard-ton



**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.:

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201729

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
002900000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (16+92.50 -L-)
004300000-N	226	Lump Sum		GRADING
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING
005700000-E	226	1,400	CY	UNDERCUT EXCAVATION
008000000-E	SP	325	TON	CLASS IV SUBGRADE STABILIZATION
013400000-E	240	76	CY	DRAINAGE DITCH EXCAVATION
014100000-E	240	215	LF	BERM DITCH CONSTRUCTION
019500000-E	265	500	CY	SELECT GRANULAR MATERIAL
019600000-E	270	500	SY	FABRIC FOR SOIL STABILIZATION
031800000-E	300	70	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
037200000-E	310	68	LF	18" RC PIPE CULVERTS, CLASS III
070800000-E	310	192	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
071400000-E	310	72	LF	18" 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
080700000-E	310	2	EA	18" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
112100000-E	520	1,056	TON	AGGREGATE BASE COURSE
122000000-E	545	25	TON	INCIDENTAL STONE BASE
127500000-E	600	750	GAL	PRIME COAT
148900000-E	610	45	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
152500000-E	610	340	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
156000000-E	620	25	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
169300000-E	654	25	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR

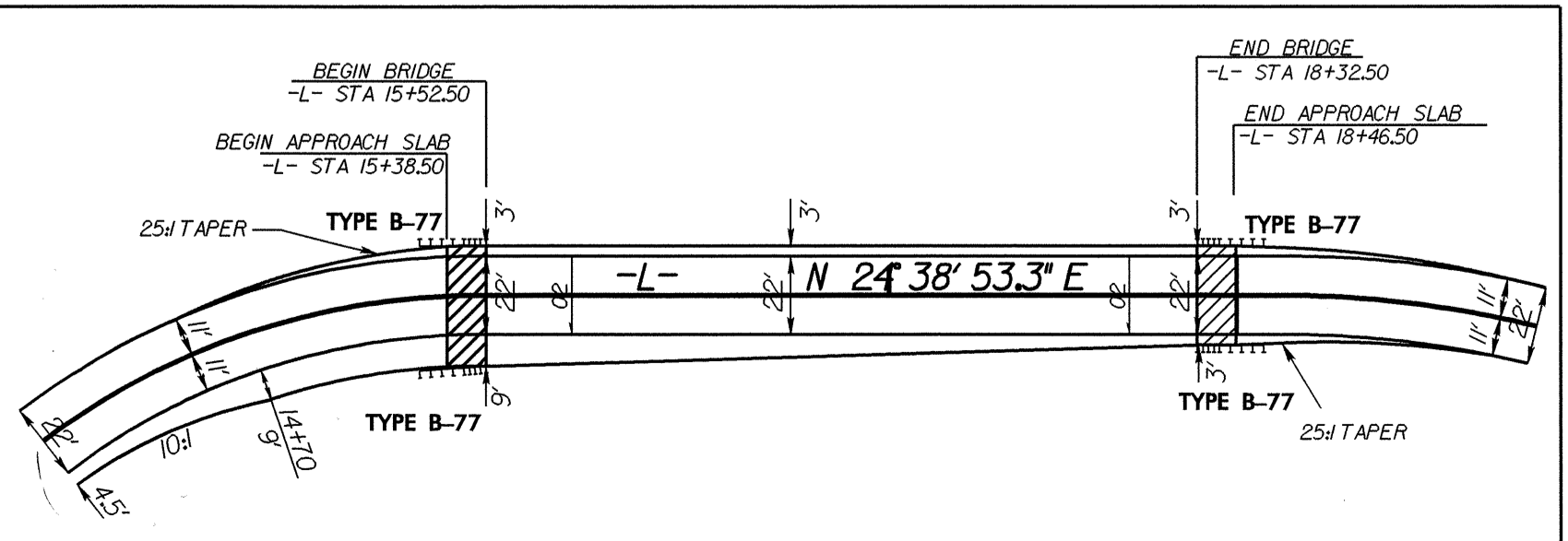
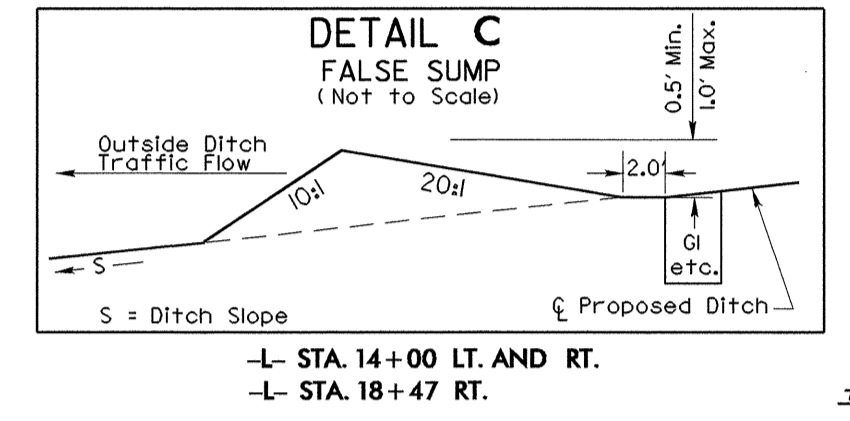
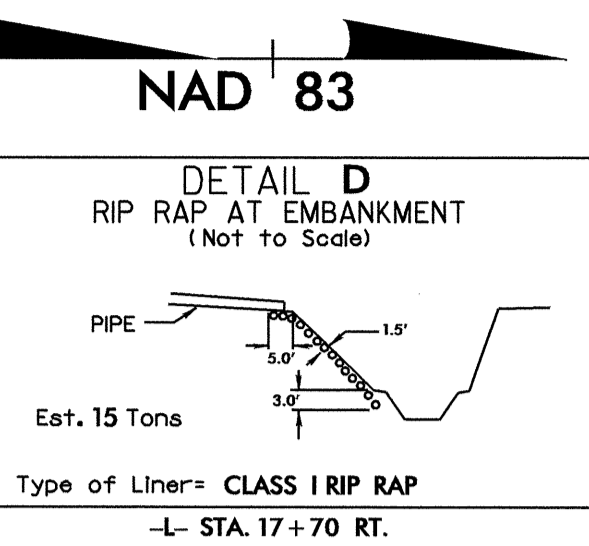
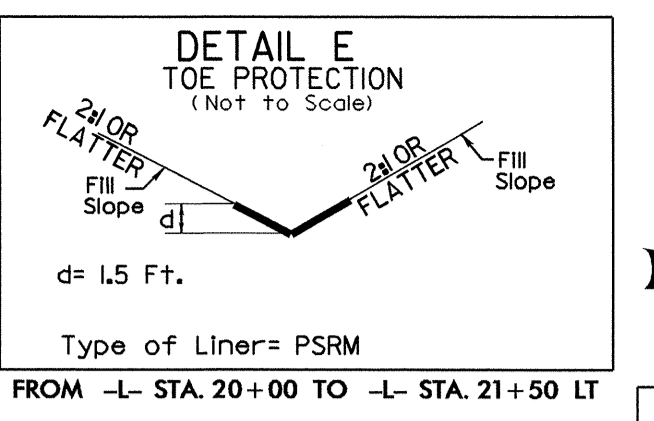
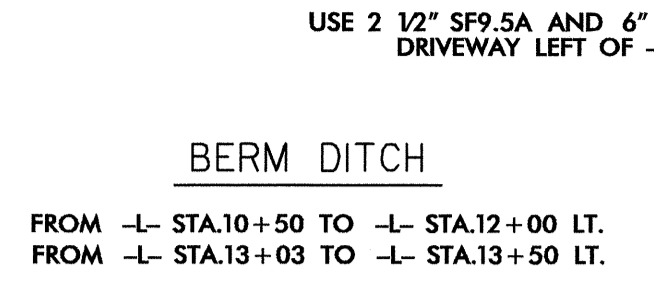
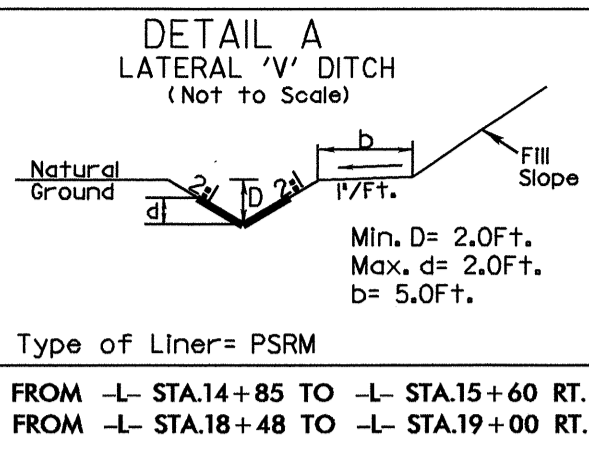
ItemNumber	Sec #	Quantity	Unit	Description
200000000-N	806	24	EA	RIGHT OF WAY MARKERS
202200000-E	815	67.2	CY	SUBDRAIN EXCAVATION
203300000-E	815	50.4	CY	SUBDRAIN FINE AGGREGATE
204400000-E	815	300	LF	6" PERFORATED SUBDRAIN PIPE
205500000-E	815	9	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS
206600000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
207700000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)
228600000-N	840	5	EA	MASONRY DRAINAGE STRUCTURES
235420000-N	840	4	EA	FRAME WITH GRATE, STD 840.24
235500000-N	840	1	EA	FRAME WITH GRATE, STD 840.29
255600000-E	846	50	LF	SHOULDER BERM GUTTER
261900000-E	850	22	SY	4" CONCRETE PAVED DITCH
303000000-E	862	200	LF	STEEL BM GUARDRAIL
315000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
327000000-N	SP	2	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
328500000-N	SP	2	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350
331700000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
362800000-E	876	15	TON	RIP RAP, CLASS I
364900000-E	876	35	TON	RIP RAP, CLASS B
365600000-E	876	395	SY	FILTER FABRIC FOR DRAINAGE
440000000-E	1110	225	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	96	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	58	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
443000000-N	1130	80	EA	DRUMS
443500000-N	1135	25	EA	CONES
444500000-E	1145	100	LF	BARRICADES (TYPE III)

ItemNumber	Sec #	Quantity	Unit	Description
445500000-N	1150	100	MD	FLAGGER
481000000-E	1205	14,100	LF	PAINT PAVEMENT MARKING LINES (4")
600000000-E	1605	1,010	LF	TEMPORARY SILT FENCE
600600000-E	1610	175	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	385	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	275	TON	SEDIMENT CONTROL STONE
601500000-E	1615	1.5	ACR	TEMPORARY MULCHING
601800000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	45	LF	TEMPORARY SLOPE DRAINS
602700000-N	1622	1	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
602900000-E	SP	250	LF	SAFETY FENCE
603000000-E	1630	1,460	CY	SILT EXCAVATION
603600000-E	1631	1,500	SY	MATTING FOR EROSION CONTROL
603800000-E	SP	385	SY	PERMANENT SOIL REINFORCEMENT MAT
607000000-N	SP	4	EA	SPECIAL STILLING BASINS
607103000-E	SP	330	LF	COIR FIBER BAFFLES
608400000-E	1660	2	ACR	SEEDING & MULCHING
608700000-E	1660	1	ACR	MOWING
609000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	1.5	TON	FERTILIZER TOPDRESSING
611400000-N	SP	2	HR	SPECIALIZED HAND MOWING
611700000-N	SP	27	EA	RESPONSE FOR EROSION CONTROL

ItemNumber	Sec #	Quantity	Unit	Description
612300000-E	1670	0.2	ACR	REFORESTATION
***** BEGINS SCHEDULE AA ***** ***** (3 ALTERNATES) *****				
036600000-E	310	328	LF	15" RC PIPE CULVERTS, CLASS III
052800000-E	310	1	EA	*** RC PIPE ELBOWS, CLASS III (15")
*** OR ***				
053600000-E	SP	328	LF	**** HDPE PIPE CULVERTS (15")
099200000-E	SP	1	EA	GENERIC PIPE ITEM 15" HDPE PIPE ELBOW
*** OR ***				
054000000-E	SP	328	LF	**** ALUMINIZED CORRUGATED STEEL PIPE CULVERTS, **** THICK (15", 0.064")
099200000-E	SP	1	EA	GENERIC PIPE ITEM 15" ALUM CORR STL PIPE ELBOW
***** END SCHEDULE AA *****				

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PI Sta 8+96.57 Δ = 16° 40' 00.0" (LT) D = 8° 00' 00.0" L = 208.33' T = 104.91' R = 716.20'	PI Sta 10+82.56 Δ = 28° 15' 19.2" (LT) D = 17° 28' 05.6" L = 161.75' T = 82.56' R = 328.00'	PI Sta 14+55.06 Δ = 11° 25' 19.2" (RT) D = 28° 38' 52.4" L = 388.94' T = 293.31' R = 200.00'	PI Sta 19+01.39 Δ = 19° 49' 00.0" (RT) D = 19° 05' 54.9" L = 103.76' T = 52.40' R = 300.00'
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S.E. = SEE PLANS S.E. = SEE PLANS S.E. = SEE PLANS
 ** V = 34 MPH ** V = 28 MPH ** V = 33 MPH

PAVED SHOULDER
 PAVEMENT REMOVAL (OBLITERATE)
 BRIDGE APPROACH SLAB
 SBG SHOULDER BERM GUTTER FOR -L- PROFILE SEE SHEET 5 FOR STRUCTURE PLANS SEE SHEET S-1 THRU S-34

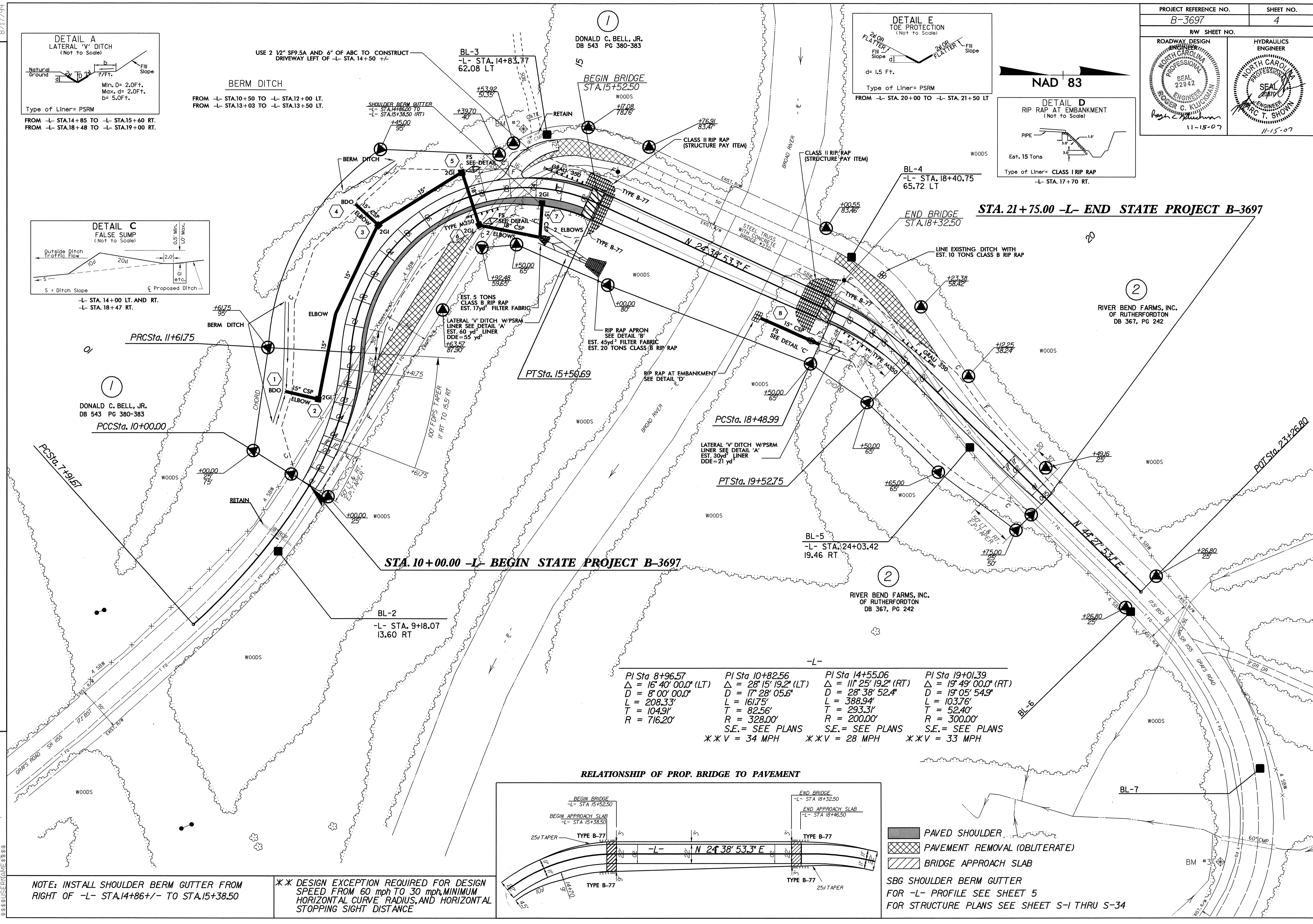
NOTE: INSTALL SHOULDER BERM GUTTER FROM RIGHT OF -L- STA.14+86 +/- TO STA.15+38.50

** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 60 mph TO 30 mph, MINIMUM HORIZONTAL CURVE RADIUS, AND HORIZONTAL STOPPING SIGHT DISTANCE

8/17/99

REVISIONS

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5/14/99

PROJECT REFERENCE NO. B-3697	SHEET NO. 5
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 22942 ROGER C. KLUCMAN 11-15-07	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 20870 R. T. SHOWN 11-15-07

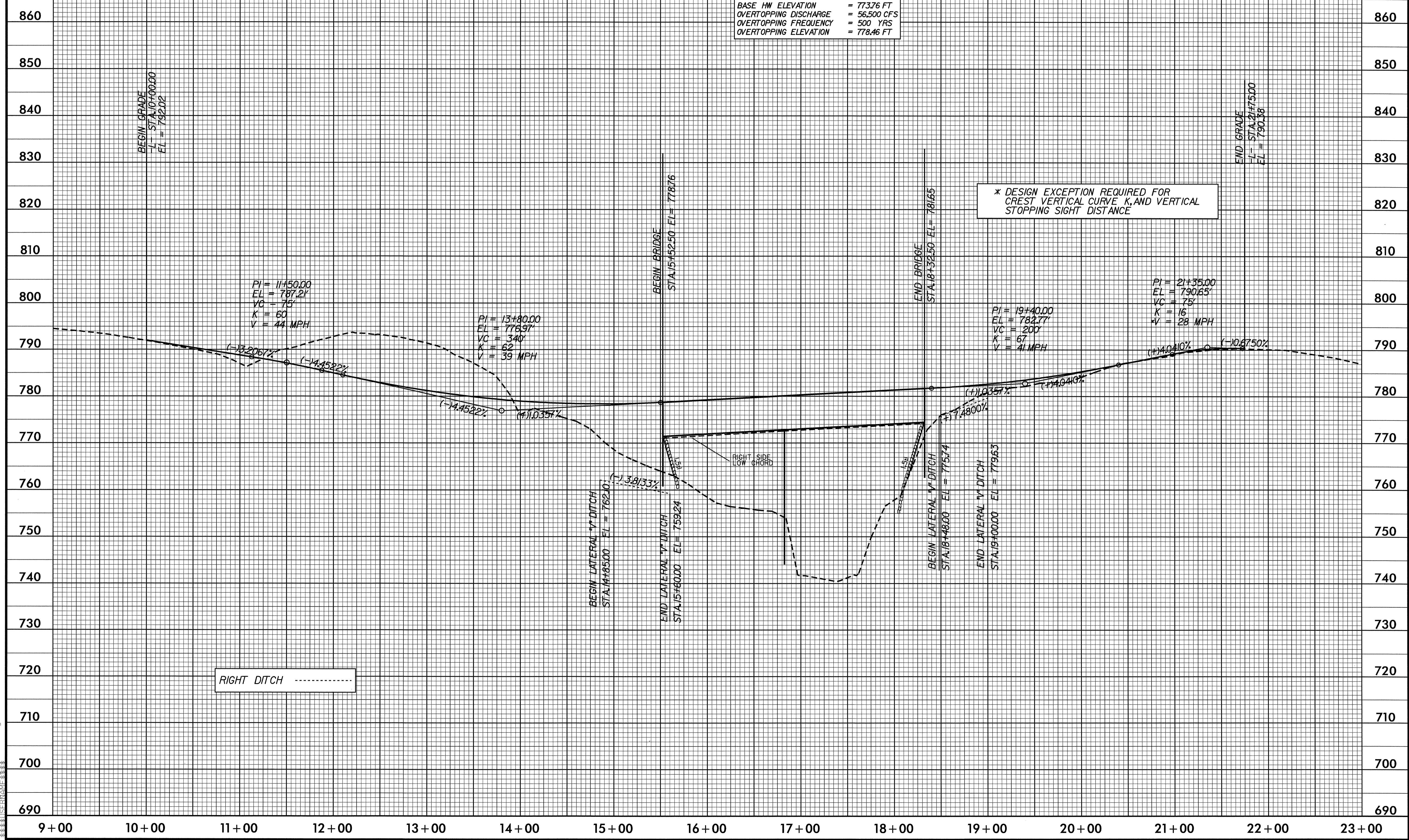
** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED FROM 60 MPH TO 30 MPH

BM *2 NAIL IN BASE OF 27" DOUBLE BIRCH
26.25' LT OF LINE -BL- STA. 16+34.59
ELEV. 776.45'

-L-

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 27,400 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 769.19 FT
BASE DISCHARGE	= 39,000 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 773.76 FT
OVERTOPPING DISCHARGE	= 56,500 CFS
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING ELEVATION	= 778.46 FT



* DESIGN EXCEPTION REQUIRED FOR CREST VERTICAL CURVE K, AND VERTICAL STOPPING SIGHT DISTANCE

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