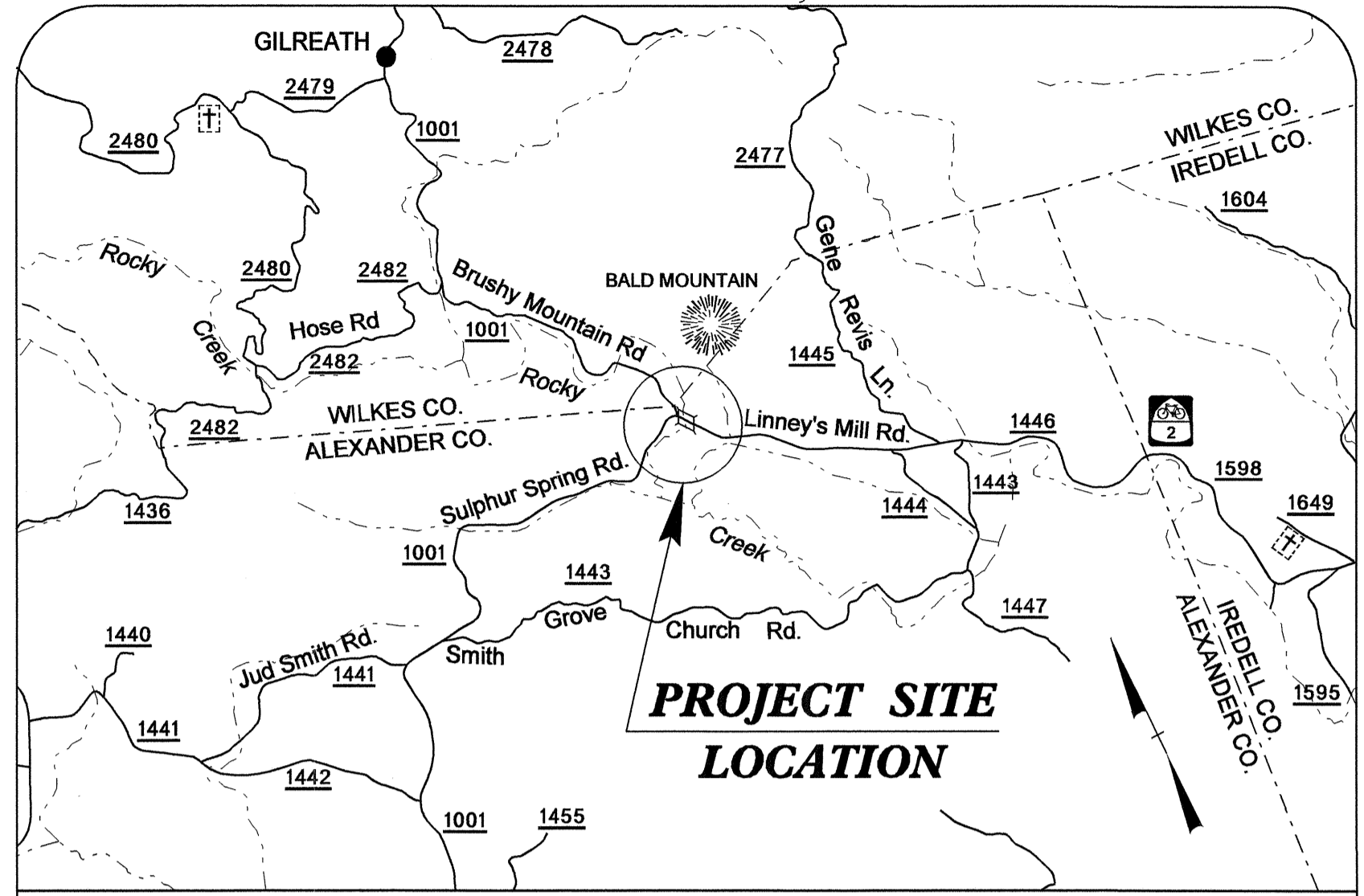


09/08/99

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



VICINITY MAP

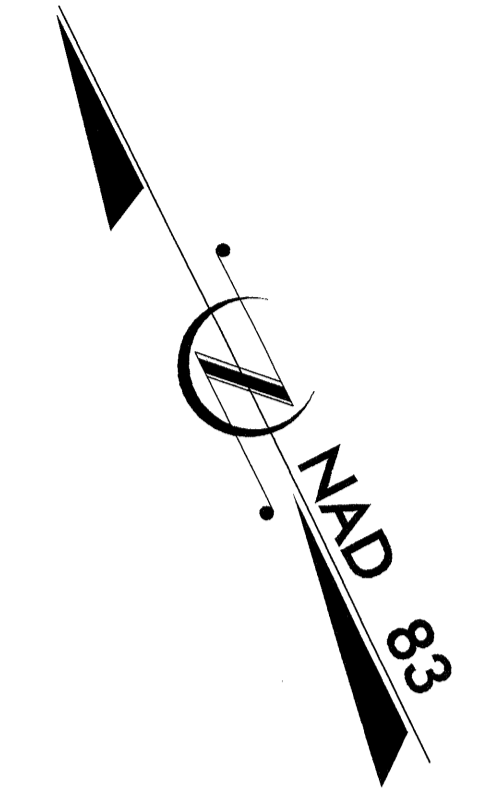
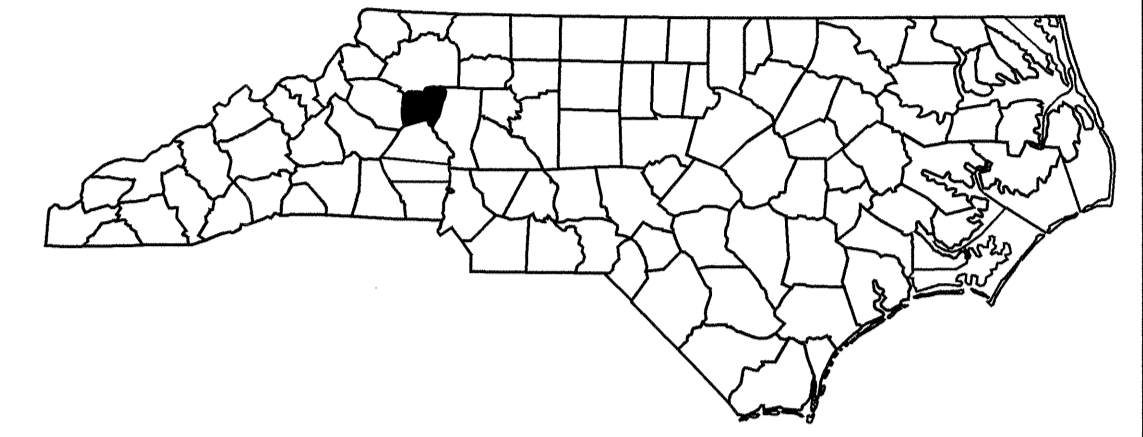
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ALEXANDER COUNTY

**LOCATION: REPLACE BRIDGE No. 8 ON SR 1446
OVER ROCKY CREEK**

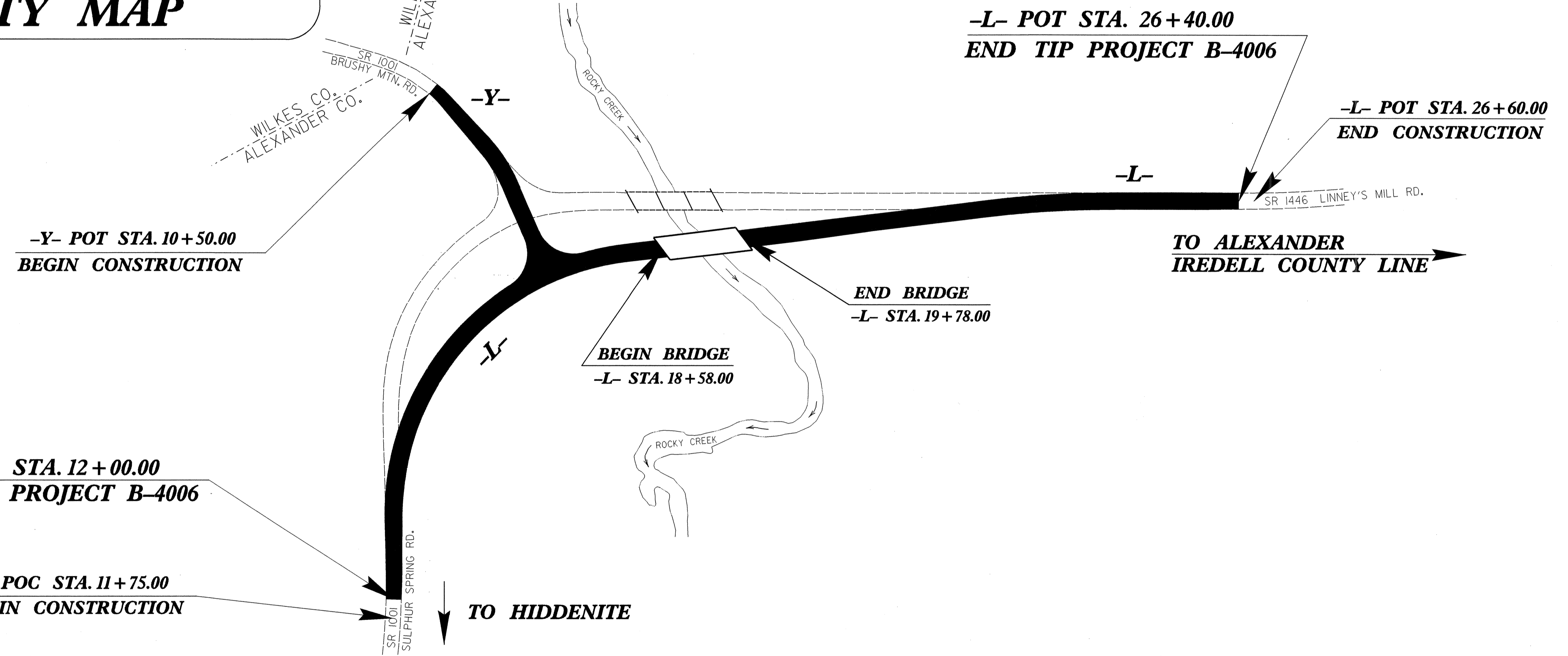
**TYPE OF WORK: GRADING, DRAINAGE, PAVING,
STRUCTURE.**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4006	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33374.1.1	BRZ-1446(2)	P.E.	
33374.2.1	BRZ-1446(2)	ROW & UTIL	
33374.3.1	BRZ-1446(2)	CONST	

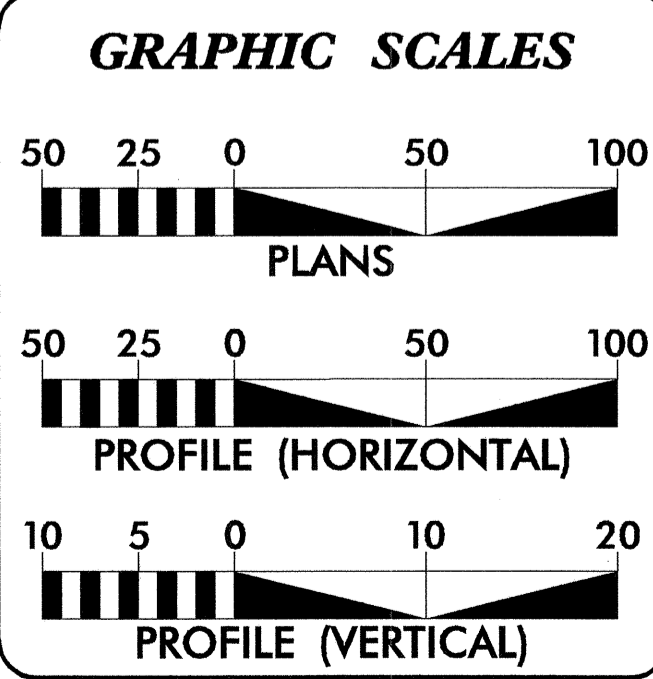


TIP PROJECT: B-4006

CONTRACT: C201584



**** DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED**



DESIGN DATA

ADT 2007 =	490
ADT 2025 =	800
DHV =	10 %
D =	60 %
T =	3 % *
** V =	35 MPH
* TTST 1% DUAL 2%	
FUNC CLASS =	LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4006 =	0.250 MI
LENGTH STRUCTURE TIP PROJECT B-4006 =	0.023 MI
TOTAL LENGTH TIP PROJECT B-4006 =	0.273 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
OCTOBER 26, 2005

LETTING DATE:
NOVEMBER 20, 2007

ROGER D. THOMAS, PE
PROJECT ENGINEER

BRIAN P. ROBINSON
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

Stacy H. Bailey 6/27/07
SIGNATURE: STACEY H. BAILEY
SEAL 24451

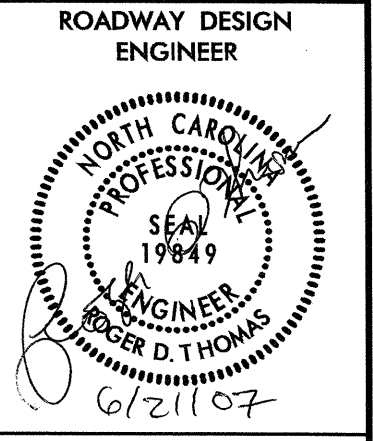
ROADWAY DESIGN ENGINEER

Roger D. Thomas 6/19/07
SIGNATURE: ROGER D. THOMAS
SEAL 19849

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

Ant M. Miller
STATE HIGHWAY DESIGN ENGINEER

18-JUN-2007 11:06
r:\roadway\proj\B4006_rdy_tsh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL SHEET
2	PAVEMENT SCHEDULE, DETAIL SHOWING METHOD OF WEDGING AND TYPICAL SECTIONS
2-A	TYPICAL SECTIONS
2-B	DETAIL FOR ANCHORAGE FOR FRAMES BRICK/CONCRETE/PRECAST CONCRETE
2-C	TEMPORARY SHORING DETAIL
3	SUMMARY OF QUANTITIES
3-A & 3-B	SUMMARY OF PIPE 48" & UNDER, EARTHWORK, ASPHALT PAVEMENT REMOVAL
4	PLAN SHEET
5 THRU 6	PROFILE SHEETS
TCP-1 THRU TCP- 4	TRAFFIC CONTROL PLANS
PM-1	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN- 5	SIGNING PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS
X-0	CROSS-SECTION SUMMARY
X-1 THRU X- 15	CROSS-SECTIONS
S-1 THRU S-29	STRUCTURE PLANS

GENERAL NOTES

2006 SPECIFICATIONS
EFFECTIVE 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 III.

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

SHOULDER CONSTRUCTION:
SHOULDER CONSTRUCTION ON 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.

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 NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING" OR "TEMPORARY SHORING-BARRIER SUPPORTED" DEPENDING UPON THE LOCATION OF THE SHORING.

END BENTS:
THE ENGINEER SHALL CHECK THE STRUCTURE END BENTS PLANS, DETAIL 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 ENERGY UNITED AND YADKIN VALLEY TMC. 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.

PROJECT B-4006
EFFECTIVE 07-18-06

ROADWAY ENGLISH 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
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superlevation - Two Lane Pavement
300.01	Method of Pipe Installation - Method 'A'
310.10	Driveway Pipe Construction
422.10	Reinforced Bridge Approach Fills
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method 1
654.01	Pavement Repairs
840.00	Concrete Base Pad for Drainage Structures
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.35	Traffic Bearing Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.01	Rip Rap in Channels
876.03	Drainage Ditches with Class 'A' Rip Rap
876.04	Drainage Ditches with Class 'B' Rip Rap

5/28/99

24-JUN-2007 14:25
C:\pwork\2007\1a_standards_notes.dgn

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	✕
Property Monument	□ ECM
Parcel/Sequence Number	⑫③
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing High Quality Wetland Boundary	----- HO WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPS

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	□
Building	□
School	□
Church	□
Dam	□

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	-----
Jurisdictional Stream	----- JS
River Basin Buffer	-----
Flow Arrow	←
Disappearing Stream	-----
Spring	○
Swamp Marsh	-----
Proposed Lateral, Tail, Head Ditch	----- FLD
False Sump	-----

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	----- R/W
Proposed Right of Way Line with Iron Pin and Cap Marker	----- R/W ▲
Proposed Right of Way Line with Concrete or Granite Marker	----- R/W ●
Existing Control of Access	○
Proposed Control of Access	○
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Utility Easement	----- PUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Wheel Chair Ramp	----- WCR
Curb Cut for Future Wheel Chair Ramp	----- CCFR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	-----

VEGETATION:

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

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	----- S

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	----- P
Designated U/G Power Line (S.U.E.*)	----- P

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	----- T
Designated U/G Telephone Cable (S.U.E.*)	----- T
Recorded U/G Telephone Conduit	----- TC
Designated U/G Telephone Conduit (S.U.E.*)	----- TC
Recorded U/G Fiber Optics Cable	----- T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	----- T FO

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	----- A/G Water

TV:

TV Satellite Dish	⊗
TV Pedestal	□
TV Tower	⊗
U/G TV Cable Hand Hole	□
Recorded U/G TV Cable	----- TV
Designated U/G TV Cable (S.U.E.*)	----- TV
Recorded U/G Fiber Optic Cable	----- TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	----- TV FO

GAS:

Gas Valve	◇
Gas Meter	⊕
Recorded U/G Gas Line	----- G
Designated U/G Gas Line (S.U.E.*)	----- G
Above Ground Gas Line	----- A/G Gas

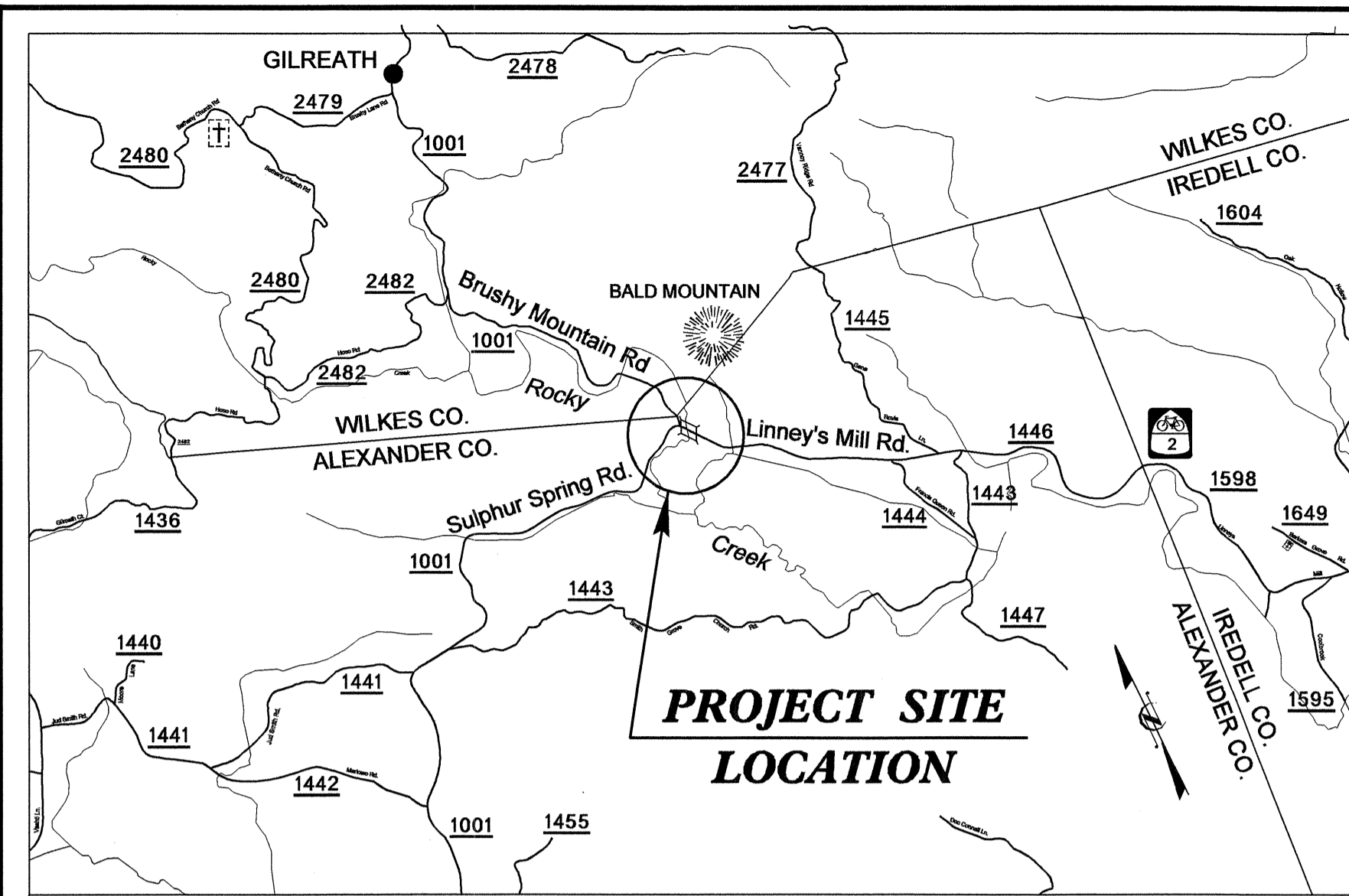
SANITARY SEWER:

Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
Recorded SS Forced Main Line	----- FSS
Designated SS Forced Main Line (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	□
Utility Unknown U/G Line	----- UTL
U/G Tank; Water, Gas, Oil	□
A/G Tank; Water, Gas, Oil	□
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

SURVEY CONTROL SHEET B-4006



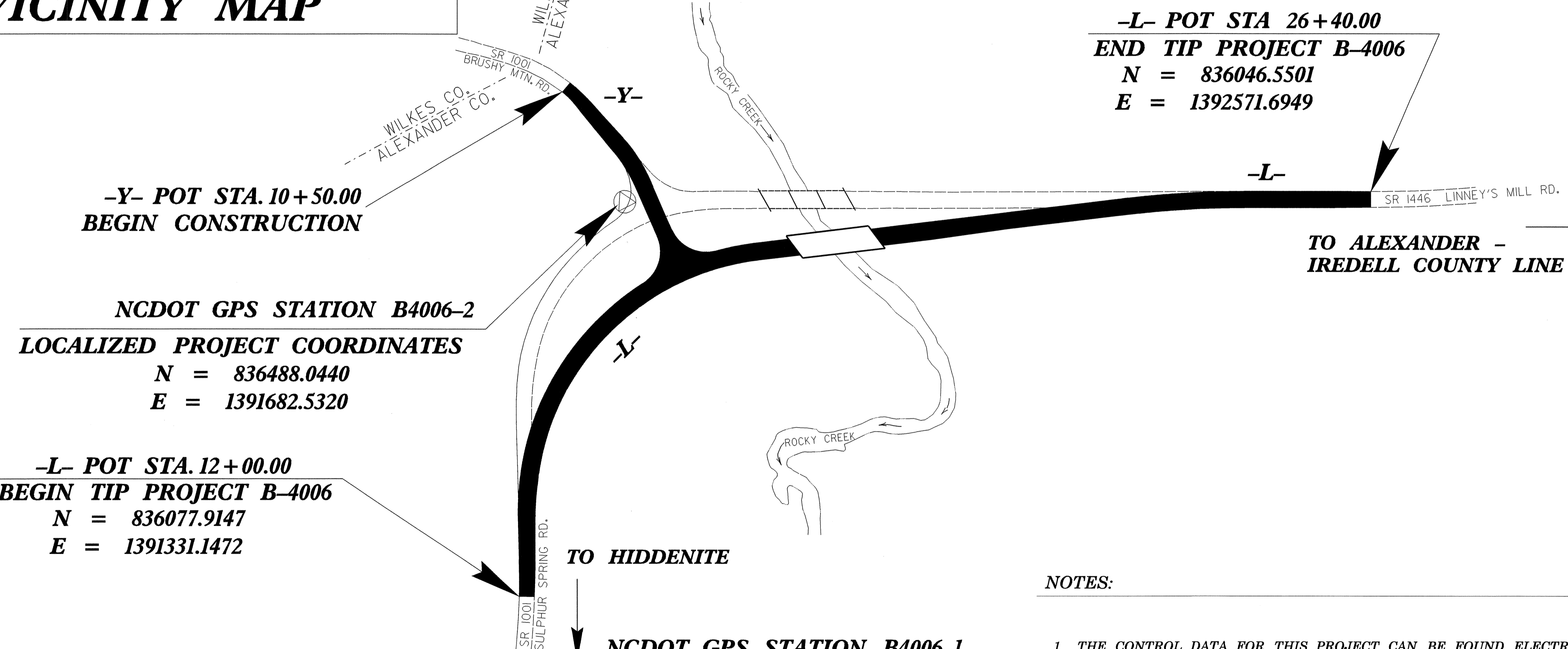
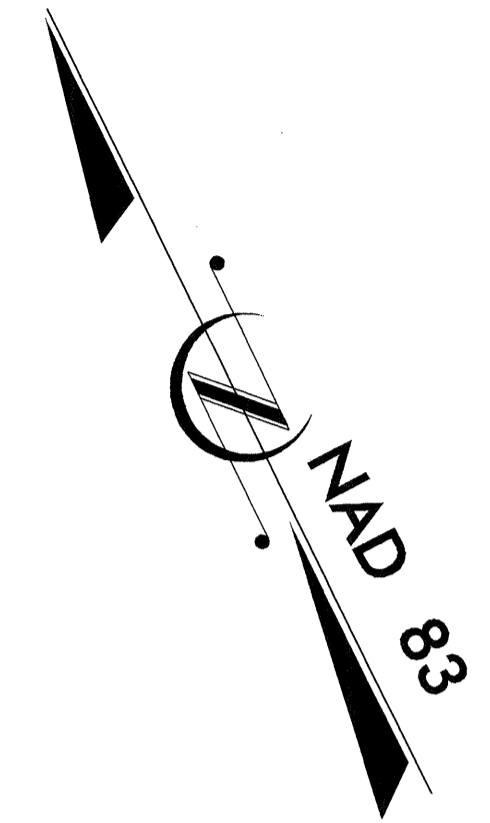
VICINITY MAP

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
40061	GPS B4006-1	835940.7140	1391263.6190	1192.29'	10+49.36	17.82' RT
40062	GPS B4006-2	836488.0440	1391682.5320	1194.66'	16+91.33	116.15' LT
BL3	BL-3	835977.0548	1392687.7955	1260.68'	OUTSIDE PROJECT LIMITS	

BY POINT	DESC.	NORTH	EAST	ELEVATION	Y STATION	OFFSET
BY6	GPS B4675-2	837258.6746	1391289.5208	1222.61'	OUTSIDE PROJECT LIMITS	
BY7	GPS B4675-1	836680.9461	1391702.5088	1204.71'	10+39.68	29.43' LT
BY8	GPS B4006-2	836488.0440	1391682.5320	1194.66'	12+25.95	31.50' RT

BM1	ELEVATION	BM2	ELEVATION	BM3	ELEVATION
N 835940	1192.29'	N 836041	1186.80'	N 835977	1260.68'
E 1391263		E 1391668		E 1392687	
L STATION 10+49.36	17.82' RT	L STATION 13+74	318' RIGHT	OUTSIDE PROJECT LIMITS	

GPS CAP STAMPED B4006-1 8" SPIKE IN ROOT OF 10' CHERRY TREE -BL- CAP STAMPED BL-3



NCDOT GPS STATION B4006-2
LOCALIZED PROJECT COORDINATES
N = 836488.0440
E = 1391682.5320

-L- POT STA. 12+00.00
BEGIN TIP PROJECT B-4006
N = 836077.9147
E = 1391331.1472

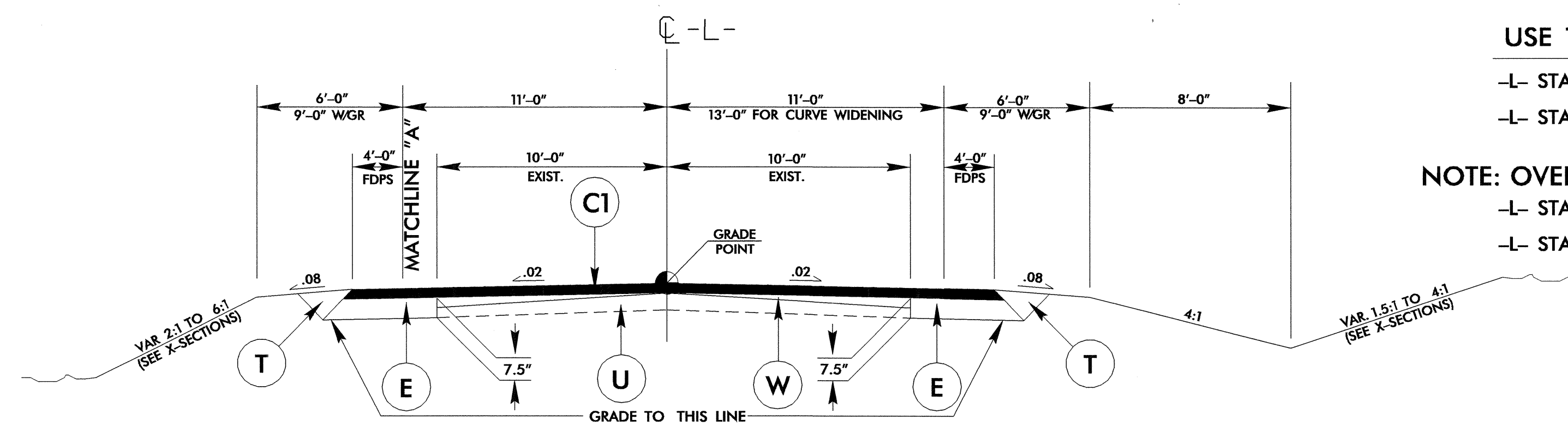
NCDOT GPS STATION B4006-1
LOCALIZED PROJECT COORDINATES
N = 835940.7140
E = 1391263.6190

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4006-1"
 WITH NAD 83 STATE PLANE GRID COORDINATES OF
 NORTHING: 835940.7140(±) EASTING: 1391263.6190(±)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991297
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4006-1" TO -L- STATION 12+00 IS
 N 26°12'21" E 152.92'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

- NOTES:**
- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.doh.dot.state.nc.us/preconstruct/highway/location/project/)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4006_LS_CONTROL_050418.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.
 NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)
 SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

NOTE: DRAWING NOT TO SCALE

27-MAR-2007 15:19 27-MAR-2007 15:19 B4006-1s-1c-050502.dgn
 836488.0440 1391682.5320 1194.66 1260.68



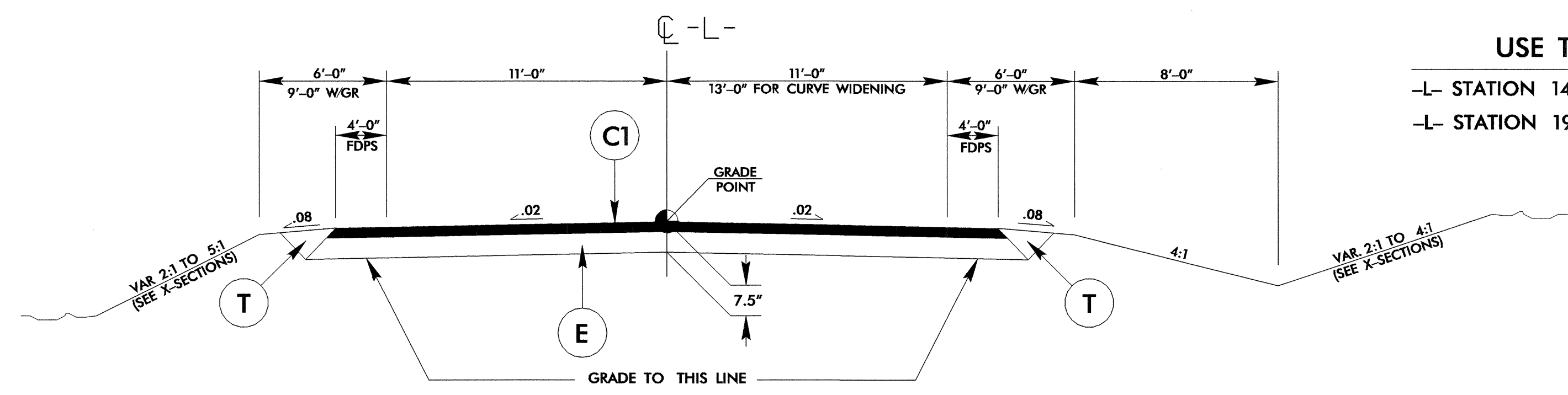
USE TYPICAL SECTION NO. 1

- L- STATION 12+00.00 TO 14+00.00
- L- STATION 24+00.00 TO 26+40.00

NOTE: OVERLAY EXISTING PAVEMENT WITH C

- L- STATION 11+75.00 TO 12+00.00
- L- STATION 26+40.00 TO 26+60.00

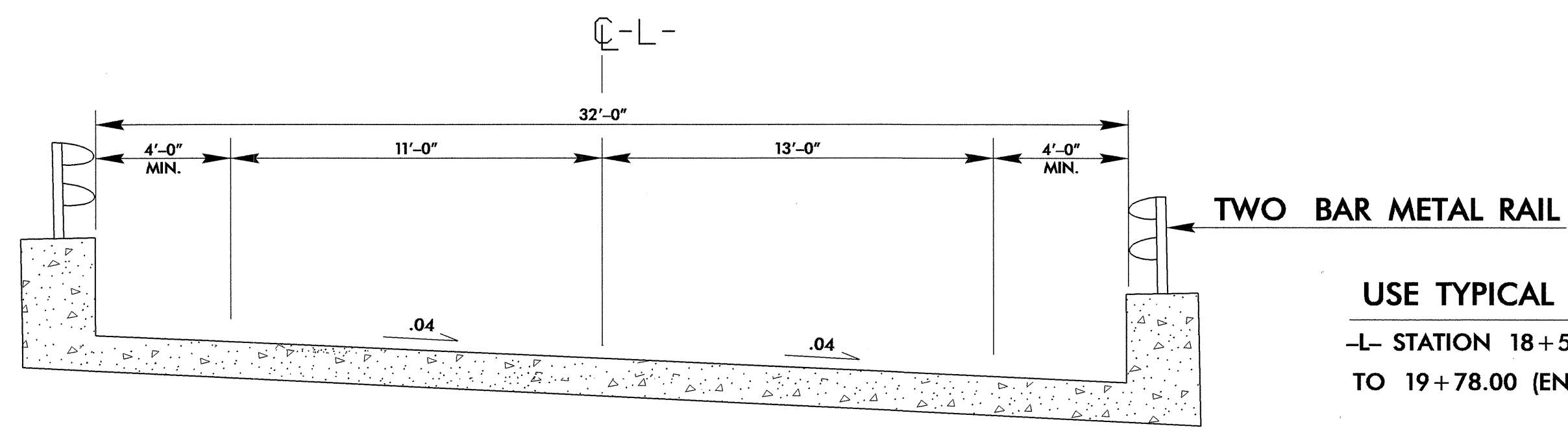
TYPICAL SECTION NO. 1



USE TYPICAL SECTION NO. 2

- L- STATION 14+00.00 TO 18+58.00 (BEGIN BRIDGE)
- L- STATION 19+78.00 (END BRIDGE) TO 24+00.00

TYPICAL SECTION NO. 2

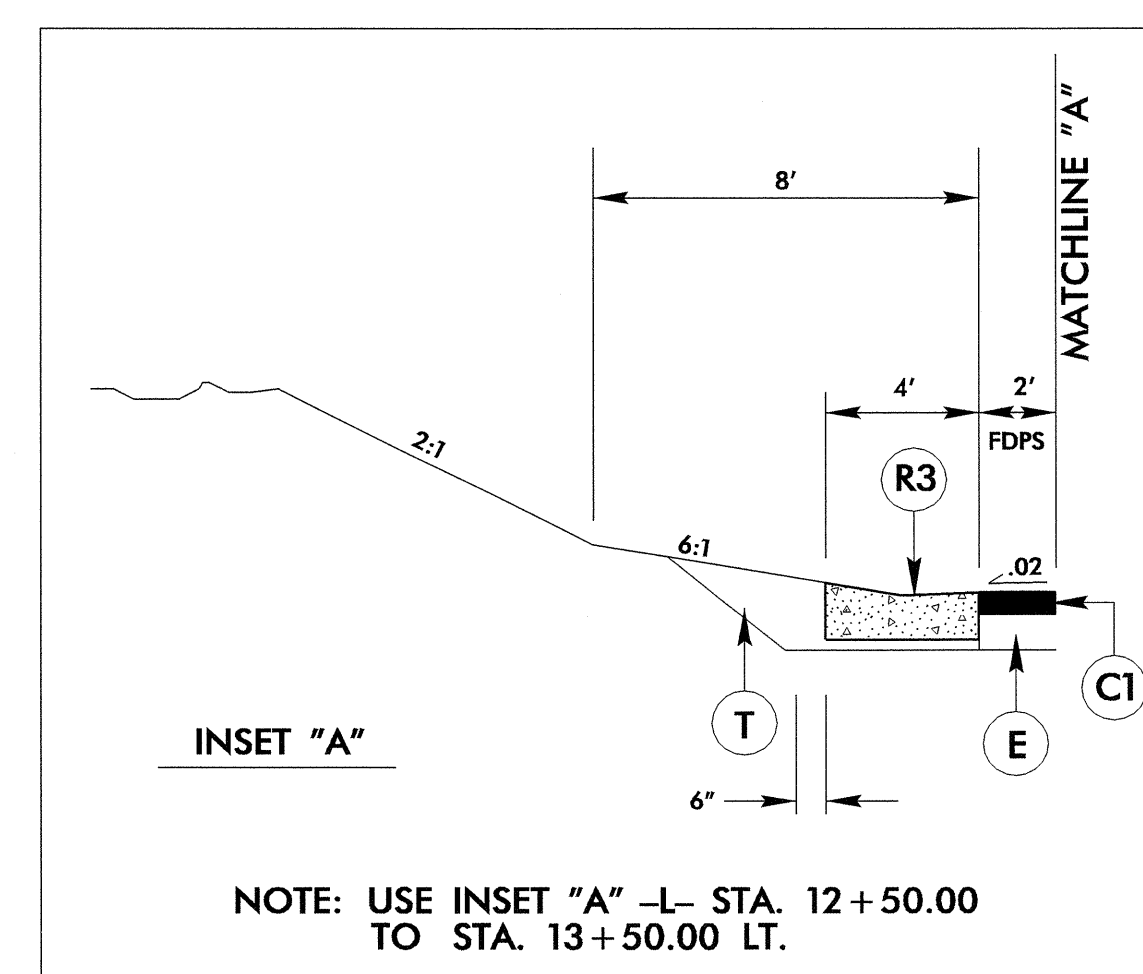


USE TYPICAL ON STRUCTURE

- L- STATION 18+58.00 (BEGIN BRIDGE)
- TO 19+78.00 (END BRIDGE)

TYPICAL SECTION ON STRUCTURE

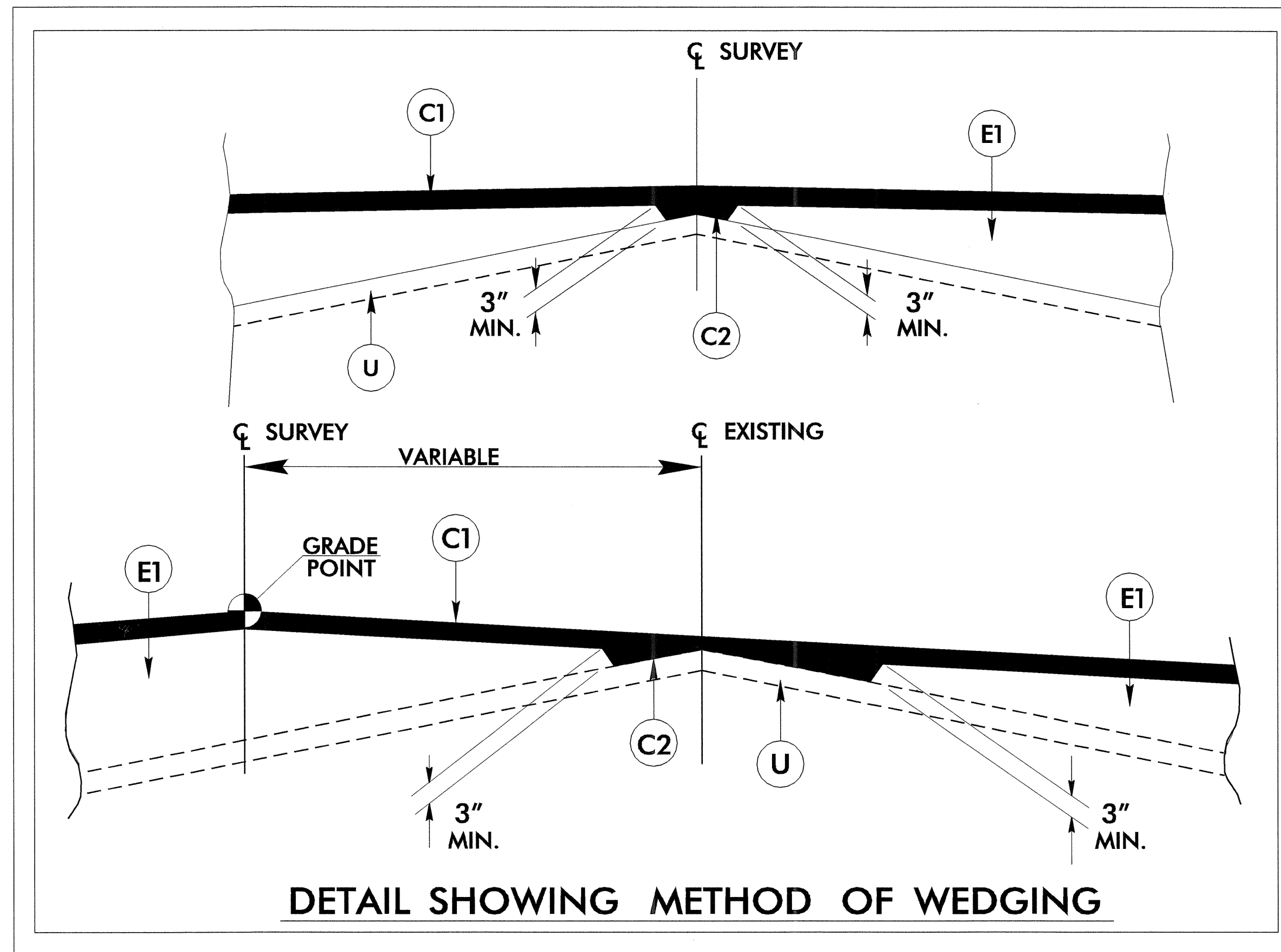
*NOTE: ADDITIONAL WIDTH REQUIRED TO ACCOMODATE CURVE WIDENING



NOTE: USE INSET "A" -L- STA. 12+50.00 TO STA. 13+50.00 LT.

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD.
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	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 1.5" IN DEPTH.
E	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
E1	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 5.5" IN DEPTH.
J	PROPOSED 8" AGGREGATE BASE COURSE.
R3	PROPOSED CONCRETE EXPRESSWAY GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL)

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

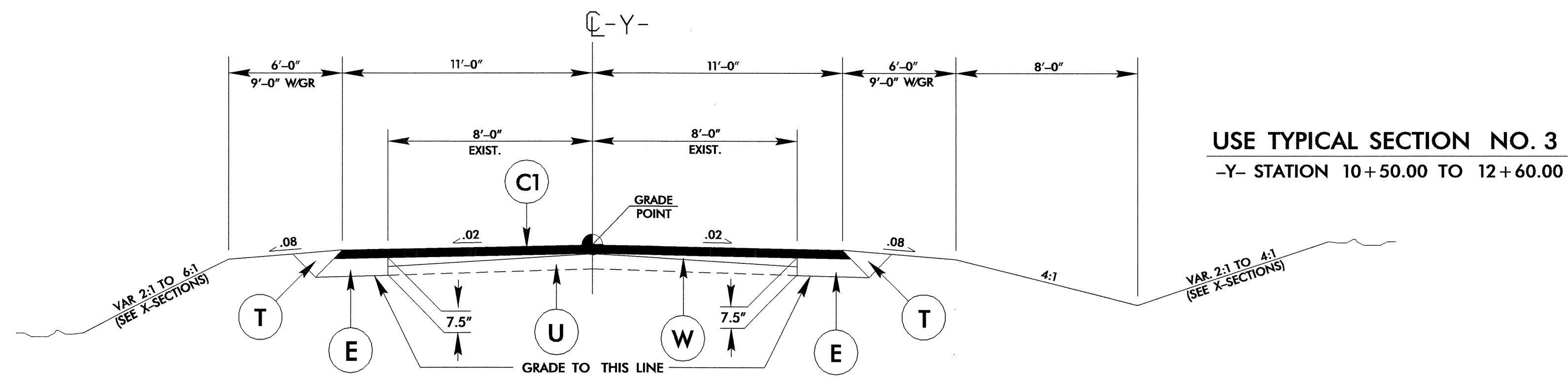


DETAIL SHOWING METHOD OF WEDGING

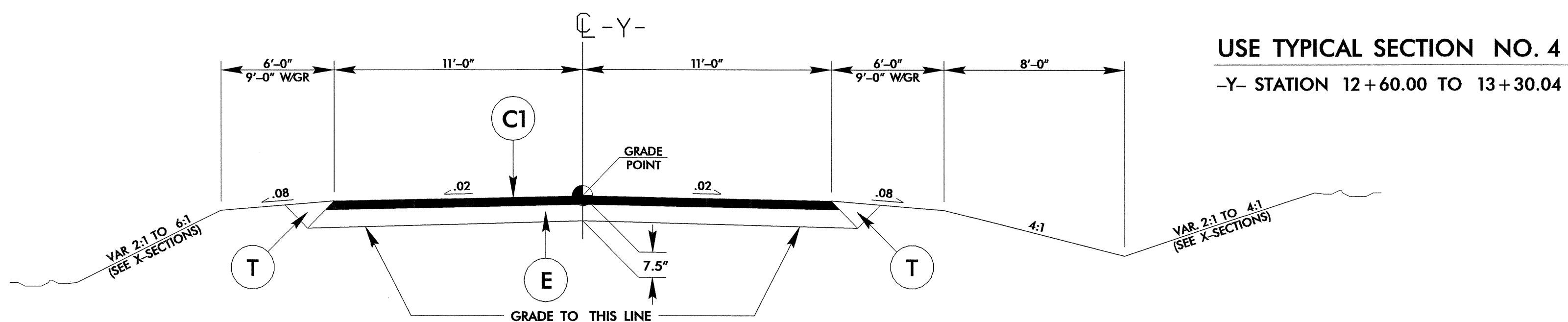
6/27/99
09-APR-2007 09:27
C:\PROJECTS\B4006\RD230154\typ.dgn

6/2/99

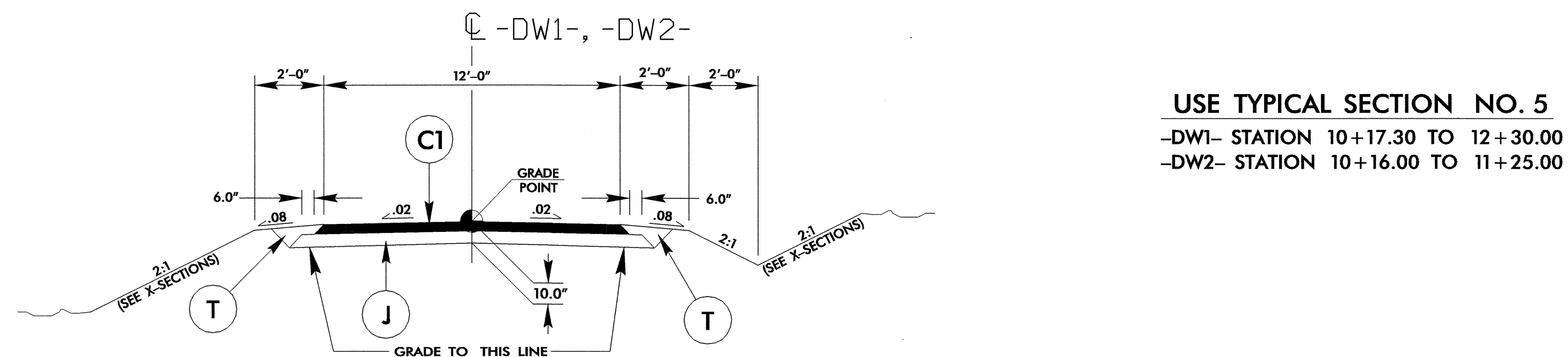
PROJECT REFERENCE NO. B-4006	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER ROSE D. THOMAS SEAL 19848 6/19/07	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON SEAL 22896 6/22/07



TYPICAL SECTION NO. 3



TYPICAL SECTION NO. 4



TYPICAL SECTION NO. 5

PAVEMENT SCHEDULE

C1	2" SF9.5A
E	5.5" B25.0B
J	8" ABC
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	SEE WEDGING DETAIL

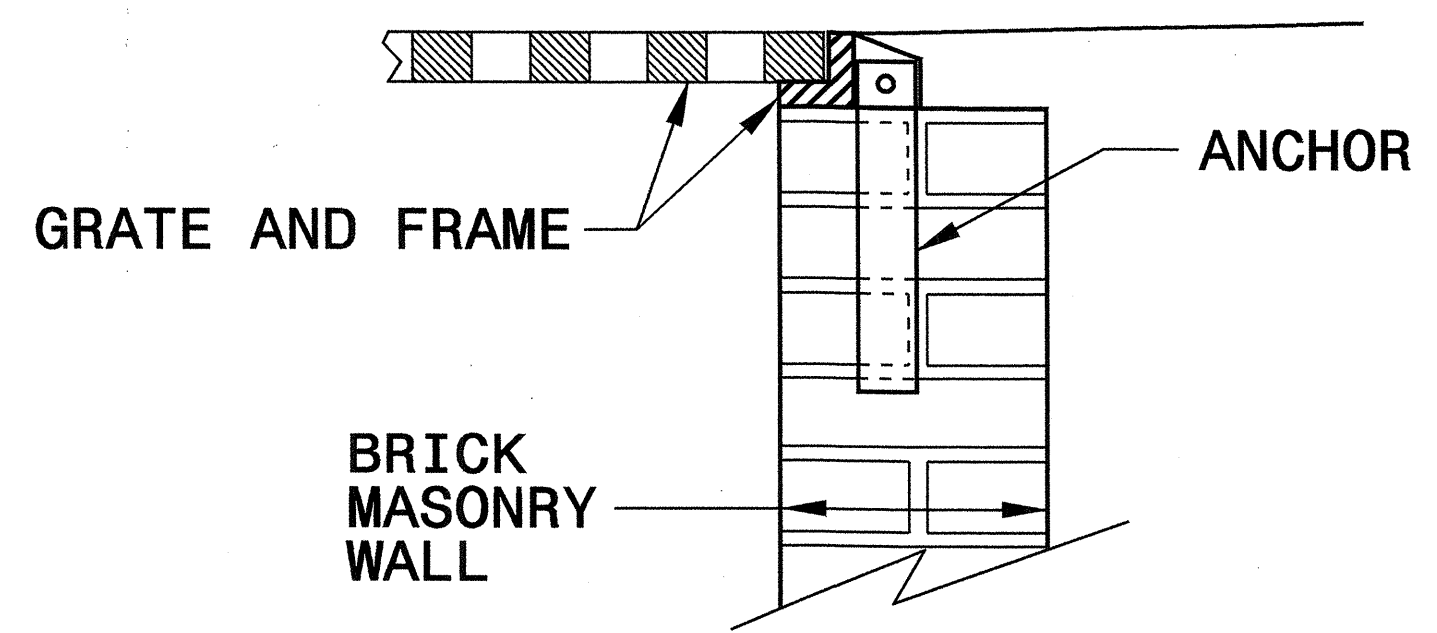
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

05-APR-2007 09:46
C:\PROJ\RD\B4006.rdy_typ.dgn
\$\$\$\$\$US\$R\$A\$E\$E\$E\$

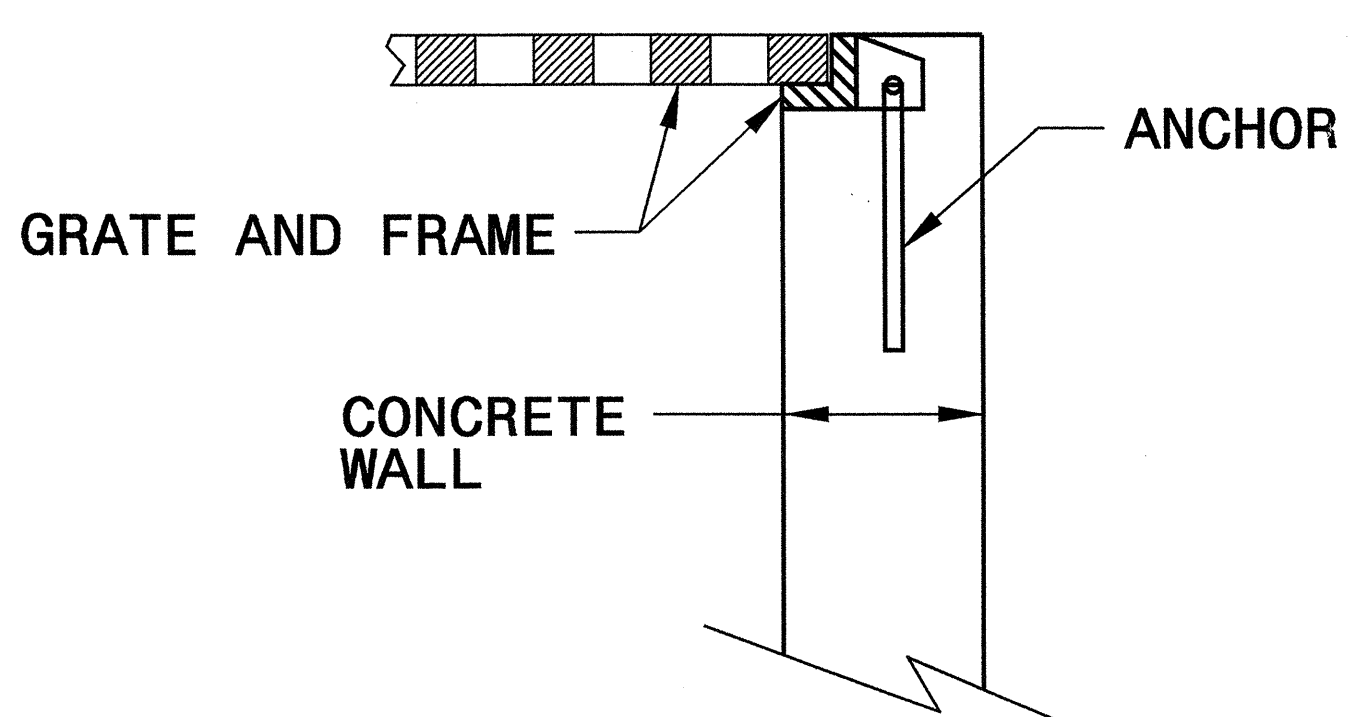
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

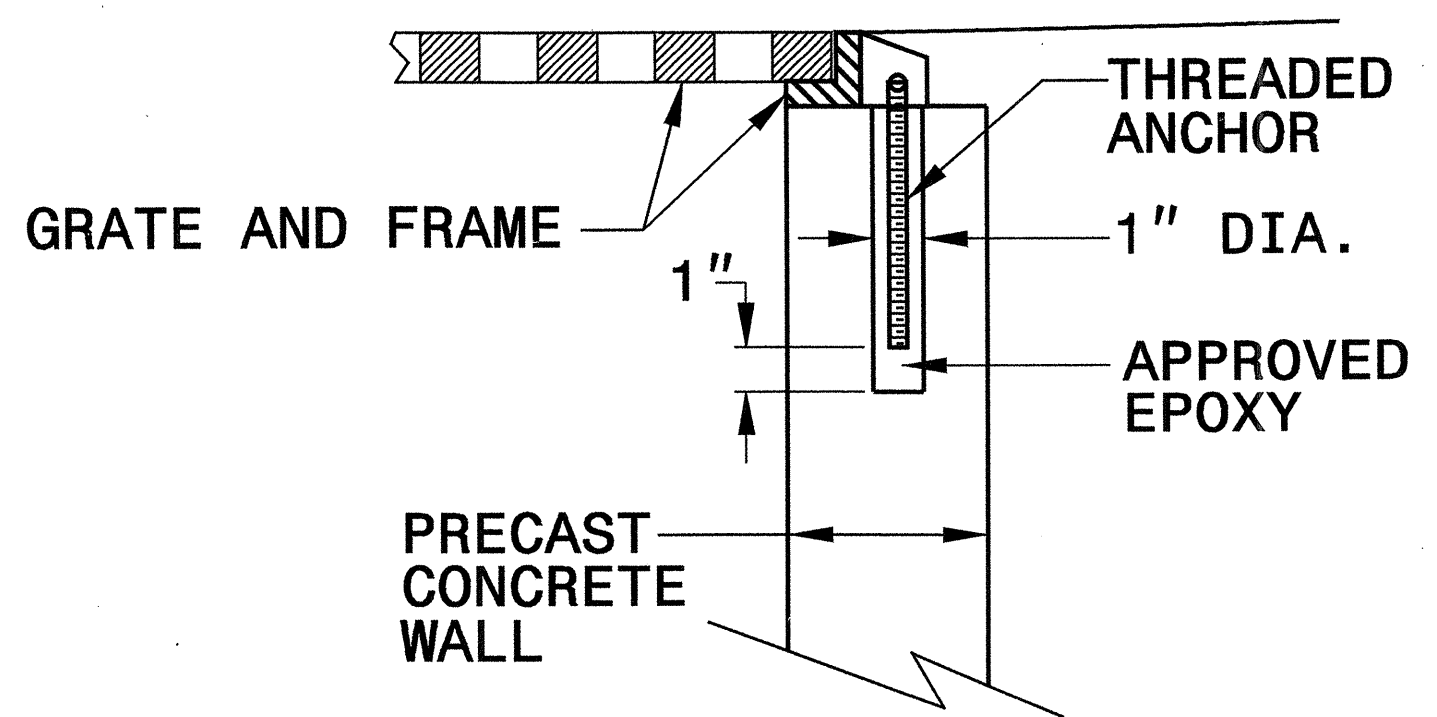
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



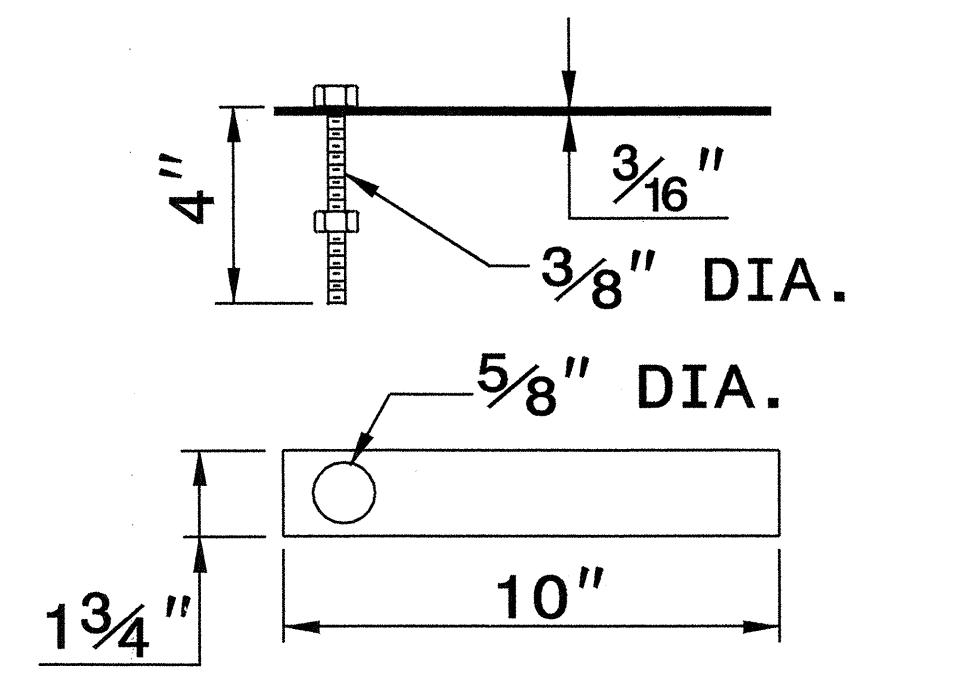
CONCRETE CONSTRUCTION



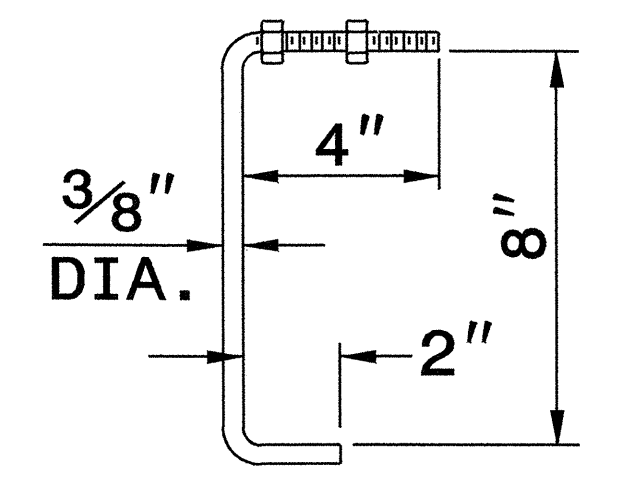
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

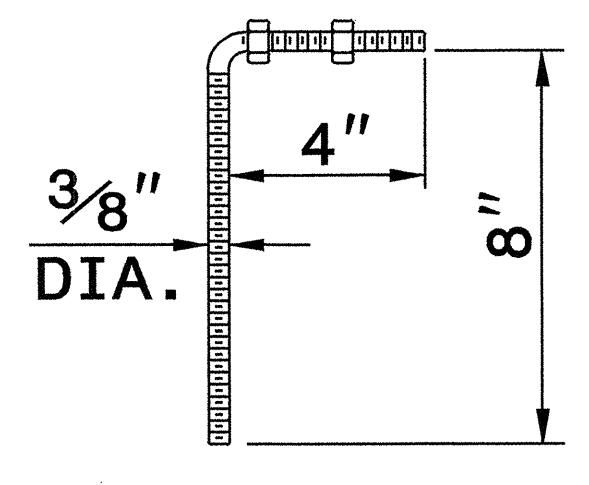
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



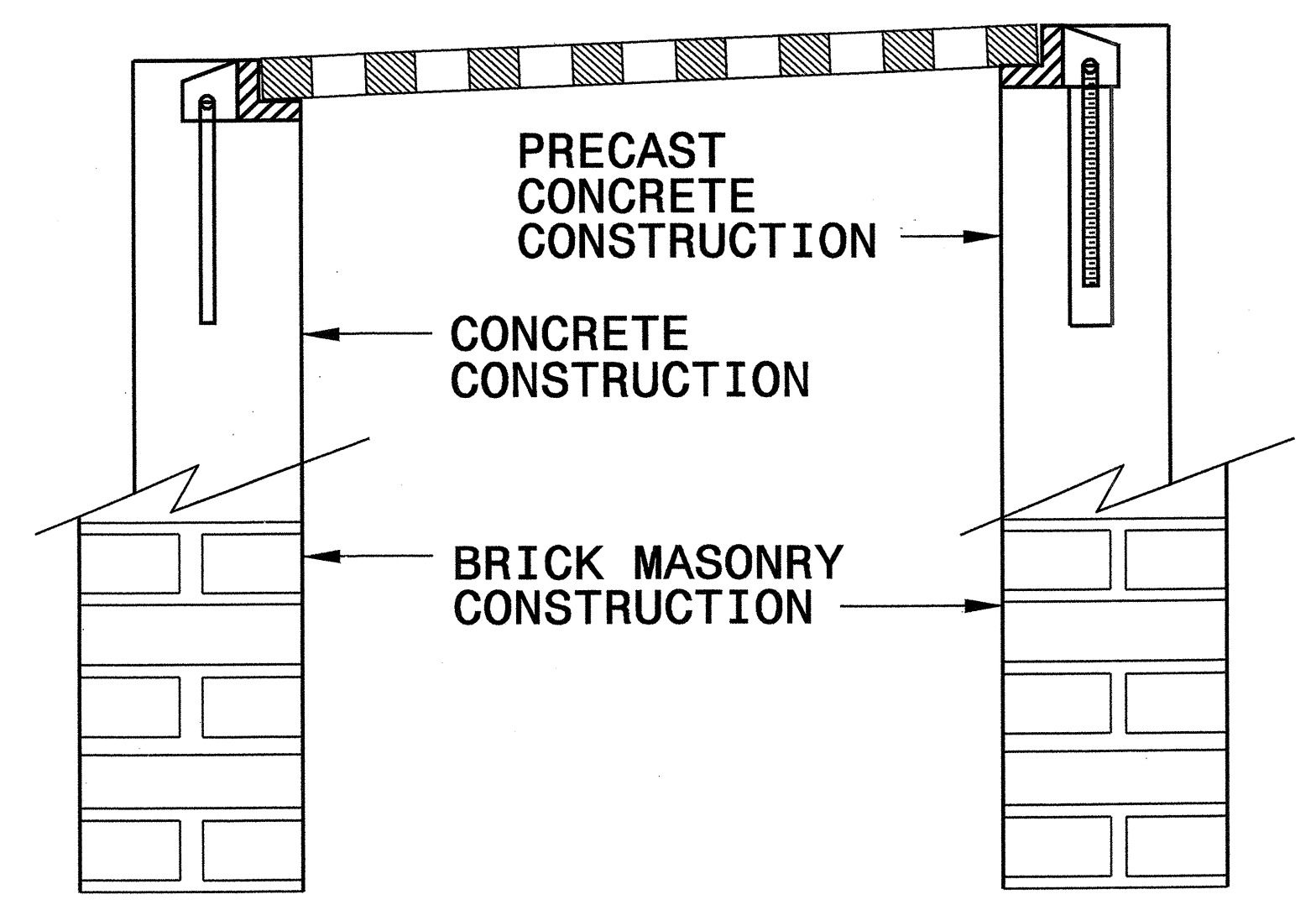
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



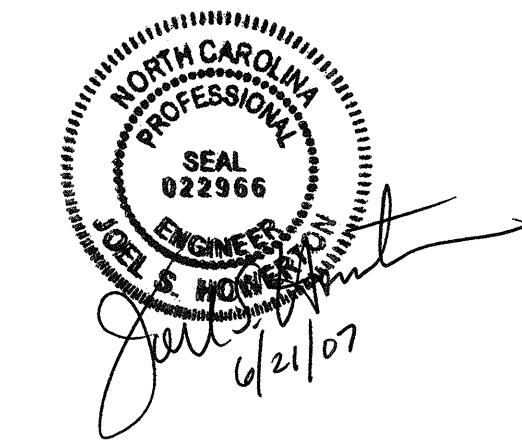
FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

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

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

SHEET 1 OF 1
840D25

01-MAR-2007 09:04 s:\contracts\contract\special_details\vericard\stds\06\stds to special_details\84025 anchorage for frames\0840d25.dgn jpower.com H:\P312260



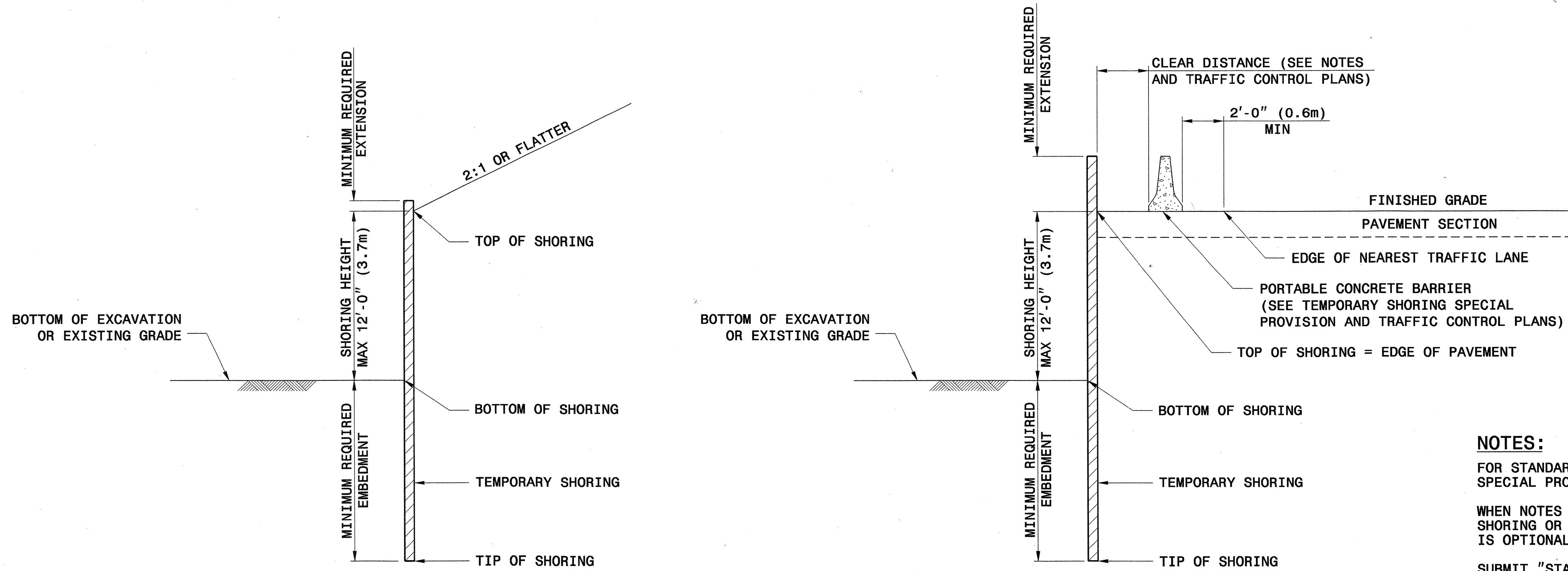
**PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN**
Office 919-250-4128 FAX 919-250-4119

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.:



Scott A. Shidden 3/29/07



SLOPE CASE

SURCHARGE CASE

NOTES:

FOR STANDARD TEMPORARY SHORING, SEE TEMPORARY SHORING SPECIAL PROVISION.

WHEN NOTES ON PLANS DO NOT PROHIBIT STANDARD TEMPORARY SHORING OR STANDARD SHORING, STANDARD TEMPORARY SHORING IS OPTIONAL.

SUBMIT "STANDARD TEMPORARY SHORING SELECTION FORM" AT LEAST 14 DAYS BEFORE BEGINNING SHORING CONSTRUCTION. UP TO THREE LOCATIONS MAY BE INCLUDED ON EACH SELECTION FORM.

STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING CONDITIONS:

- 1) MAXIMUM SHORING HEIGHT IS 12'-0" (3.7m).
- 2) TRAFFIC SURCHARGE IS 240 PSF (11.5 KPA) MAXIMUM OR BACKSLOPE IS 2:1 (H:V) OR FLATTER.
- 3) BOTTOM OF EXCAVATION OR EXISTING GRADE IN FRONT OF SHORING IS 6:1 (H:V) SLOPE OR FLATTER.
- 4) H PILE SPACING IS 6'-0" (1.8m).
- 5) H PILE EMBEDMENT DEPTHS ARE FOR DRIVEN PILES.
- 6) TIMBER LAGGING IS A MINIMUM OF 3" (75mm) THICK.

STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
 TOTAL UNIT WEIGHT = 120 PCF (18.8 KN/M³)
 FRICTION ANGLE = 30 DEGREES
 COHESION = 0 PSF (0 KPA)
 GROUNDWATER IS ASSUMED TO BE BELOW BOTTOM OF SHORING.

DO NOT USE STANDARD TEMPORARY SHORING WHEN THE ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE OR GROUNDWATER IS ABOVE THE BOTTOM OF SHORING.

DO NOT USE STANDARD TEMPORARY SHORING WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS PRESENT WITHIN THE EMBEDMENT DEPTH.

VERIFY GROUNDWATER ELEVATION BEFORE BEGINNING SHORING CONSTRUCTION.

IF THE CLEAR DISTANCE AVAILABLE IS LESS THAN THE MINIMUM REQUIRED IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS, SET THE BARRIER AGAINST THE TRAFFIC SIDE OF THE SHORING AND USE THE "SURCHARGE CASE WITH TRAFFIC IMPACT".

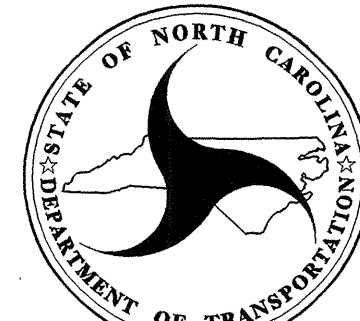
AT THE CONTRACTOR'S OPTION, H PILE EMBEDMENT DEPTHS FOR PILES SET IN DRILLED HOLES MAY BE REDUCED BY 25%. FOR PILE EXCAVATION, SEE TEMPORARY SHORING SPECIAL PROVISION.

CONTROL DRAINAGE DURING CONSTRUCTION IN THE VICINITY OF THE SHORING. COLLECT AND DIRECT RUNOFF AWAY FROM SHORING.

CONTACT THE ENGINEER IF MINIMUM REQUIRED EMBEDMENT IS NOT ACHIEVED.

GROUNDWATER CONDITION	SHORING HEIGHT FT (m)	SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT					SURCHARGE CASE WITH TRAFFIC IMPACT				
		SHEET PILES		H PILES WITH TIMBER LAGGING			SHEET PILES		H PILES WITH TIMBER LAGGING		
		MINIMUM REQUIRED EMBEDMENT FT (m)	MINIMUM REQUIRED SECTION MODULUS IN ³ /FT (cm ³ /m)	MINIMUM REQUIRED EMBEDMENT FT (m)			MINIMUM REQUIRED EMBEDMENT FT (m)	MINIMUM REQUIRED SECTION MODULUS IN ³ /FT (cm ³ /m)	MINIMUM REQUIRED EMBEDMENT FT (m)		
			HP 10x42 (HP 250x62)	HP 12x53 (HP 310x79)	HP 14x73 (HP 360x108)			HP 10x42 (HP 250x62)	HP 12x53 (HP 310x79)	HP 14x73 (HP 360x108)	
GROUNDWATER ELEVATION BELOW TIP OF SHORING	< 6 (1.8)	7.5 (2.3)	3.0 (161)	8.0 (2.4)	8.0 (2.4)	8.0 (2.4)	11.0 (3.4)	10.0 (538)	9.5 (2.9)	9.5 (2.9)	9.5 (2.9)
	7 (2.1)	8.5 (2.6)	4.5 (242)	9.5 (2.9)	9.5 (2.9)	9.5 (2.9)	12.0 (3.7)	12.0 (645)	10.5 (3.2)	10.5 (3.2)	10.5 (3.2)
	8 (2.4)	10.0 (3.0)	6.5 (349)	10.5 (3.2)	10.5 (3.2)	10.5 (3.2)	12.5 (3.8)	14.0 (753)	11.5 (3.5)	11.5 (3.5)	11.5 (3.5)
	9 (2.7)	11.0 (3.4)	9.5 (511)	--	12.0 (3.7)	12.0 (3.7)	13.5 (4.1)	16.5 (887)	--	12.5 (3.8)	12.5 (3.8)
	10 (3.0)	12.5 (3.8)	13.0 (699)	--	--	13.5 (4.1)	14.0 (4.3)	19.5 (1048)	--	13.5 (4.1)	13.5 (4.1)
	11 (3.4)	13.5 (4.1)	17.0 (914)	--	--	14.5 (4.4)	15.0 (4.6)	22.5 (1210)	--	--	14.5 (4.4)
	12 (3.7)	15.0 (4.6)	21.5 (1156)	--	--	16.0 (4.9)	16.0 (4.9)	25.5 (1371)	--	--	15.5 (4.7)
GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND TIP OF SHORING	< 6 (1.8)	11.5 (3.5)	4.5 (242)	11.5 (3.5)	11.5 (3.5)	11.5 (3.5)	16.0 (4.9)	12.0 (645)	13.0 (4.0)	13.0 (4.0)	13.0 (4.0)
	7 (2.1)	13.0 (4.0)	7.0 (376)	13.0 (4.0)	13.0 (4.0)	13.0 (4.0)	17.0 (5.2)	14.5 (780)	14.5 (4.4)	14.5 (4.4)	14.5 (4.4)
	8 (2.4)	15.0 (4.6)	10.0 (538)	--	15.0 (4.6)	15.0 (4.6)	18.0 (5.5)	17.0 (914)	--	15.5 (4.7)	15.5 (4.7)
	9 (2.7)	17.0 (5.2)	14.0 (753)	--	17.0 (5.2)	17.0 (5.2)	19.0 (5.8)	20.0 (1075)	--	17.0 (5.2)	17.0 (5.2)
	10 (3.0)	18.5 (5.6)	19.5 (1048)	--	--	18.5 (5.6)	20.0 (6.1)	23.5 (1263)	--	--	18.5 (5.6)
	11 (3.4)	20.5 (6.3)	26.0 (1398)	--	--	--	21.0 (6.4)	28.0 (1505)	--	--	20.0 (6.1)
	12 (3.7)	22.5 (6.9)	33.0 (1774)	--	--	--	22.0 (6.7)	33.0 (1774)	--	--	21.5 (6.6)

NOTE: MINIMUM REQUIRED EXTENSION IS 6" (150mm) FOR "SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT" AND 32" (800 mm) FOR "SURCHARGE CASE WITH TRAFFIC IMPACT".



GEOTECHNICAL ENGINEERING UNIT
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD DRAWING NO. 1801.01

STANDARD TEMPORARY SHORING

DATE: 2-20-07

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
 ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201584

ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION	2275000000-E	SP	3	CY	FLOWABLE FILL	4192000000-N	907	1	EA	DISPOSAL OF SUPPORT, U-CHANNEL
0000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING	2286000000-N	840	3	EA	MASONRY DRAINAGE STRUCTURES	4400000000-E	1110	72	SF	WORK ZONE SIGNS (STATIONARY)
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (19+18.00)	2308000000-E	840	1.5	LF	MASONRY DRAINAGE STRUCTURES	4405000000-E	1110	96	SF	WORK ZONE SIGNS (PORTABLE)
0043000000-N	226	Lump Sum		GRADING	2367000000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29	4410000000-E	1110	60	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING	2396000000-N	840	1	EA	FRAME WITH COVER, STD 840.54	4430000000-N	1130	40	EA	DRUMS
0057000000-E	226	750	CY	UNDERCUT EXCAVATION	2556000000-E	846	10	LF	SHOULDER BERM GUTTER	4435000000-N	1135	40	EA	CONES
0134000000-E	240	390	CY	DRAINAGE DITCH EXCAVATION	2577000000-E	846	100	LF	CONCRETE EXPRESSWAY GUTTER	4445000000-E	1145	192	LF	BARRICADES (TYPE III)
0195000000-E	265	500	CY	SELECT GRANULAR MATERIAL	3030000000-E	862	200	LF	STEEL BM GUARDRAIL	4450000000-N	1150	276	HR	FLAGGER
0196000000-E	270	500	SY	FABRIC FOR SOIL STABILIZATION	3045000000-E	862	62.5	LF	STEEL BM GUARDRAIL, SHOP CURVED	4810000000-E	1205	32,440	LF	PAINT PAVEMENT MARKING LINES (4")
0199000000-E	SP	300	SF	TEMPORARY SHORING	3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS	4850000000-E	1205	3,240	LF	REMOVAL OF PAVEMENT MARKING LINES (4")
0318000000-E	300	35	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS	3195000000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1	6000000000-E	1605	750	LF	TEMPORARY SILT FENCE
0342000000-E	310	144	LF	*** SIDE DRAIN PIPE (15")	3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III	6006000000-E	1610	90	TON	STONE FOR EROSION CONTROL, CLASS A
0366000000-E	310	40	LF	15" RC PIPE CULVERTS, CLASS III	3270000000-N	SP	3	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	6009000000-E	1610	170	TON	STONE FOR EROSION CONTROL, CLASS B
0378000000-E	310	88	LF	24" RC PIPE CULVERTS, CLASS III	3380000000-E	862	50	LF	TEMPORARY STEEL BM GUARDRAIL	6012000000-E	1610	55	TON	SEDIMENT CONTROL STONE
0708000000-E	310	44	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK	3387000000-N	862	1	EA	GUARDRAIL ANCHOR UNITS, TYPE ***** TEMPORARY (III)	6015000000-E	1615	4.5	ACR	TEMPORARY MULCHING
0806000000-E	310	4	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK	3389100000-N	SP	1	EA	GUARDRAIL ANCHOR UNITS, TYPE 350 TEMPORARY	6018000000-E	1620	150	LB	SEED FOR TEMPORARY SEEDING
0995000000-E	340	42	LF	PIPE REMOVAL	3649000000-E	876	263	TON	RIP RAP, CLASS B	6021000000-E	1620	0.75	TON	FERTILIZER FOR TEMPORARY SEED-ING
1121000000-E	520	255	TON	AGGREGATE BASE COURSE	3656000000-E	876	735	SY	FILTER FABRIC FOR DRAINAGE	6024000000-E	1622	140	LF	TEMPORARY SLOPE DRAINS
1220000000-E	545	100	TON	INCIDENTAL STONE BASE	4025000000-E	901	41.4	SF	CONTRACTOR FURNISHED, TYPE *** SIGN (D)	6027000000-N	1622	2	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
1489000000-E	610	1,400	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	4025000000-E	901	31.75	SF	CONTRACTOR FURNISHED, TYPE *** SIGN (E)	6029000000-E	SP	400	LF	SAFETY FENCE
1525000000-E	610	680	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	4072000000-E	903	224	LF	SUPPORTS, 3-LB STEEL U-CHANNEL	6030000000-E	1630	1,220	CY	SILT EXCAVATION
1560000000-E	620	105	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	4096000000-N	904	4	EA	SIGN ERECTION, TYPE D	6036000000-E	1631	1,100	SY	MATTING FOR EROSION CONTROL
1693000000-E	654	95	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	4102000000-N	904	8	EA	SIGN ERECTION, TYPE E	6037000000-E	SP	45	SY	COIR FIBER MAT
2264000000-E	840	0.22	CY	PIPE PLUGS	4155000000-N	907	14	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6038000000-E	SP	2,980	SY	PERMANENT SOIL REINFORCEMENT MAT
										6042000000-E	1632	40	LF	1/4" HARDWARE CLOTH
										6071030000-E	SP	225	LF	COIR FIBER BAFFLES
										6071050000-E	SP	1	EA	*** SKIMMER (1-1/2")
										6071050000-E	SP	1	EA	*** SKIMMER (2")
										6071050000-E	SP	2	EA	*** SKIMMER (2-1/2")
										6084000000-E	1660	5	ACR	SEEDING & MULCHING
										6087000000-E	1660	2.5	ACR	MOWING
										6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
										6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
										6096000000-E	1662	100	LB	SEED FOR SUPPLEMENTAL SEEDING
										6108000000-E	1665	3.75	TON	FERTILIZER TOPDRESSING
										6114000000-N	SP	2	HR	SPECIALIZED HAND MOWING
										6117000000-N	SP	8	EA	RESPONSE FOR EROSION CONTROL
										6123000000-E	1670	0.15	ACR	REFORESTATION

27_MAR_2007 15:19 b:\4006_r\rdj_sum.dgn

4/04/06

COMPUTED BY: RSG DATE: 09-26-06
CHECKED BY: BPR DATE: 09-26-06

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. SHEET NO.
B-4006 3-A

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

Main table listing pipe details including station, location, structure no., invert elevations, pipe size, material (Class III R.C. Pipe, Bituminous Coated C.S. Pipe Type B, Class III R.C. Pipe), endwalls, quantities for drainage structures, and remarks.

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

Table summarizing guardrail data with columns for Survey Line, Beg. Sta., End Sta., Location, Length (Straight, Shop Curved, Double Faced), Warrant Point (Approach End, Trailing End), "N" Dist. from E.O.L., Total Shoulder Width, Flare Length (Approach End, Trailing End), W (Approach End, Trailing End), Anchors (XI Mod, XI, GRAU 350, AT-1, Type III), and Remarks.

TEMPORARY GUARDRAIL SUMMARY

Table summarizing temporary guardrail data with columns for Survey Line, Beg. Sta., End Sta., Location, Length (Straight, Shop Curved, Double Faced), Warrant Point (Approach End, Trailing End), "N" Dist. from E.O.L., Total Shoulder Width, Flare Length (Approach End, Trailing End), W (Approach End, Trailing End), Anchors (GRAU 350, Type III), and Remarks.

09-APR-2007 09:23
S:\PROJECTS\RD-4006-rdj-sum.dgn

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

NOTE: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

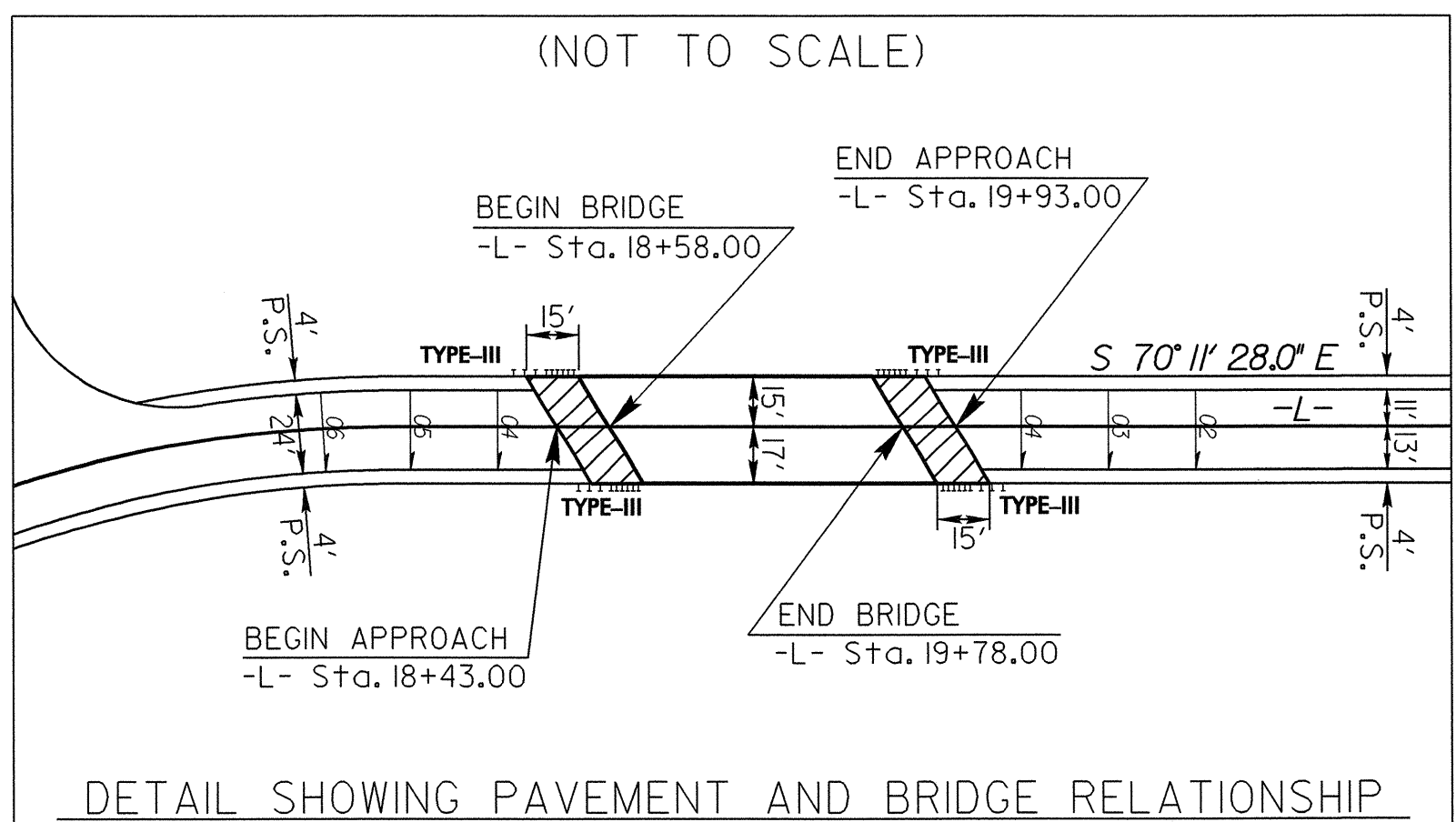
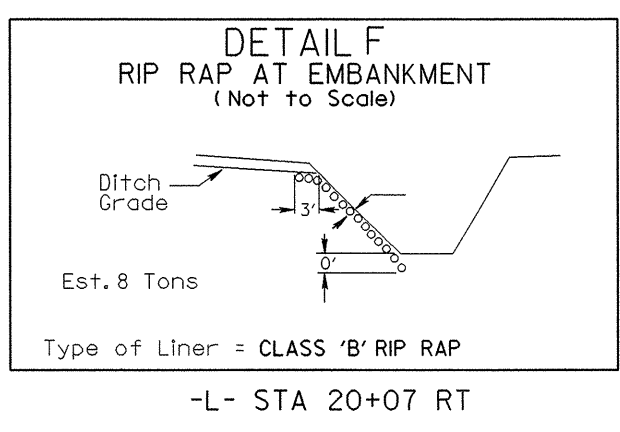
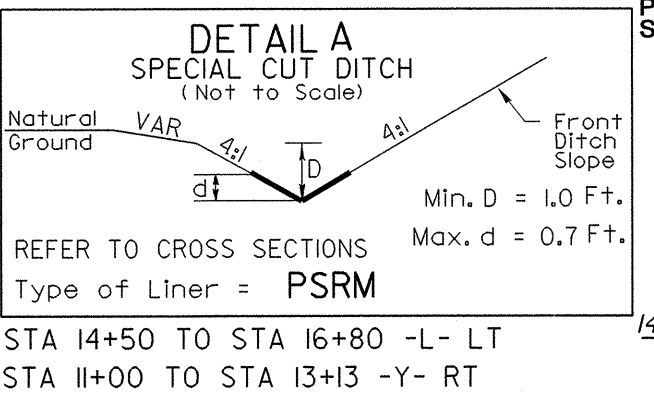
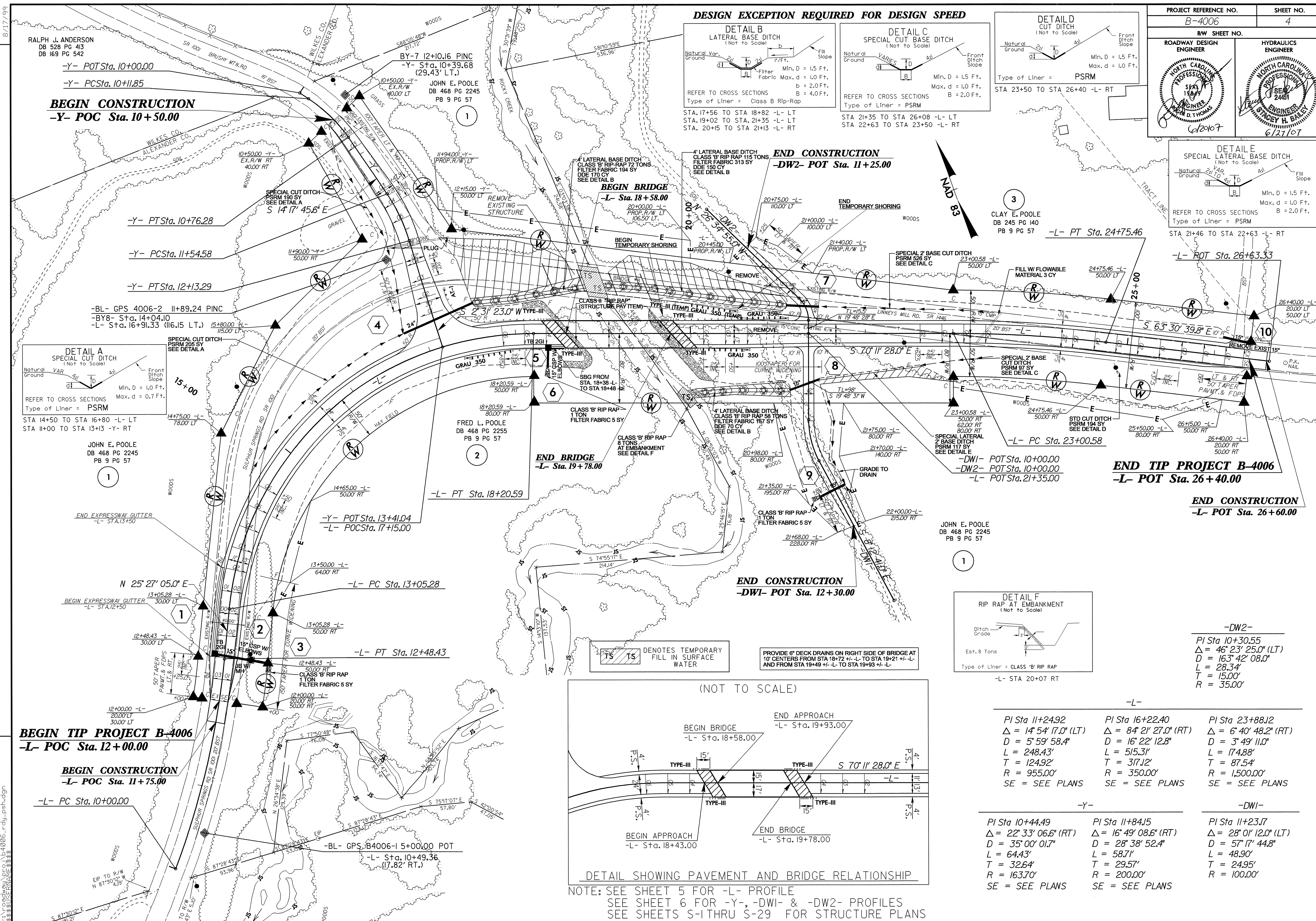
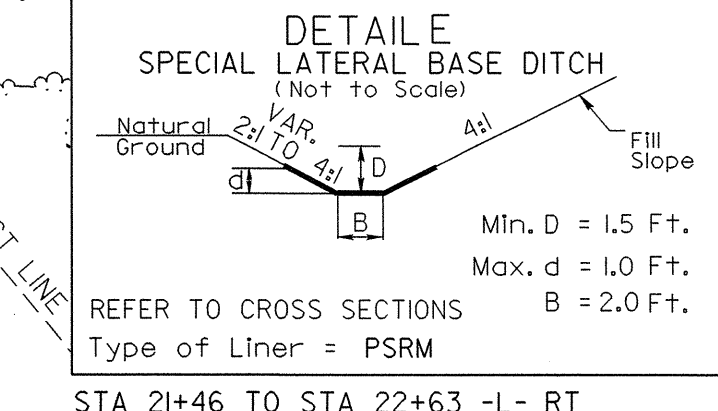
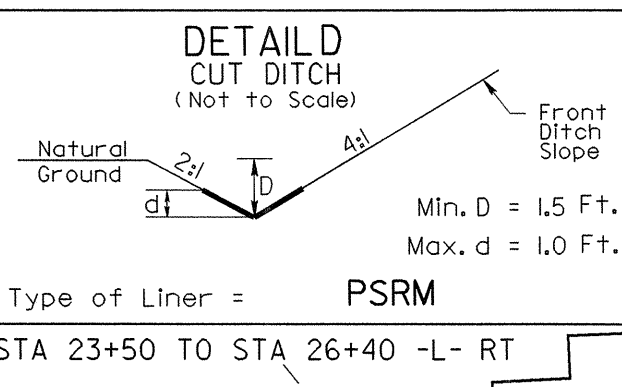
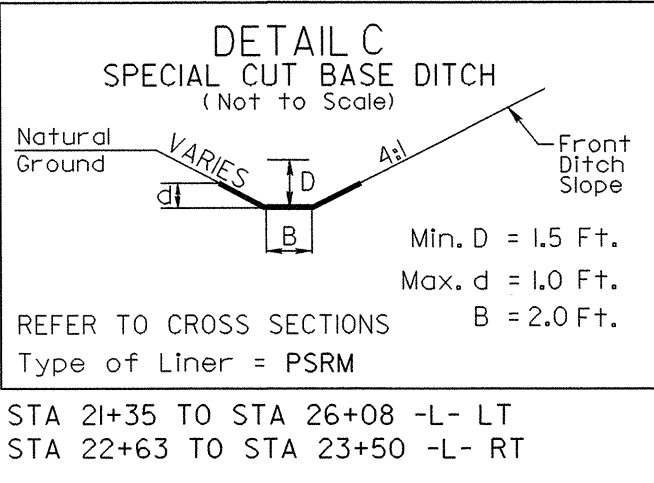
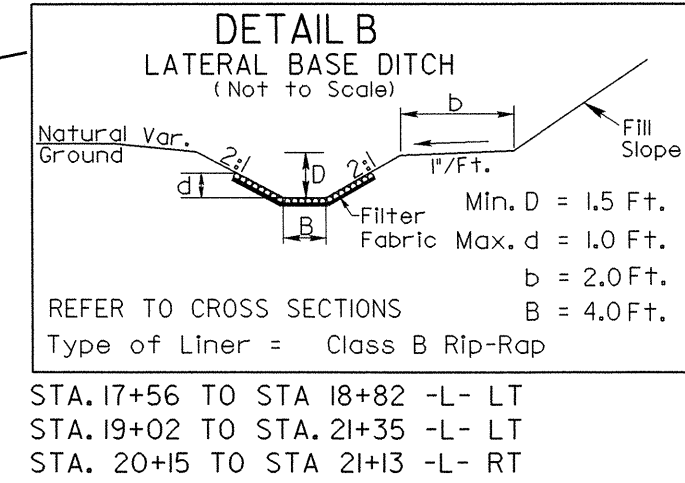
LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT +%	BORROW	WASTE
-L-					
12+00.00 to 18+72.00	94		3698	3604	
(BRIDGE)					
-Y-					
10+00.00 to 13+30.04	137		348	211	
1ST SUBTOTAL	231		4046	3815	
-L-					
19+63.00 to 26+40.00	2205		3471	1266	
-DW1-					
10+15.30 to 12+30.00	41		494	453	
-DW2-					
10+15.00 to 11+25.00	42		9		33
2ND SUBTOTAL	2288		3974	1719	33
REMOVE EXT. ROAD BED	3802				3802
3RD SUBTOTAL	3802				3802
PROJECT TOTAL	6321		8020	5534	3835
LOSS DUE TO C&G	(-) 325			(+) 325	
EST. 5% TO REPLACE TOPSOIL ON BORROW PITS				(+) 293	
GRAND TOTAL	5996			6152	
SAY	6100			6200	

ESTIMATED UNDERCUT EXCAVATION 750 CY
 APPROXIMATE QUANTITIES ONLY: UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, REMOVAL OF EXISTING ASPHALT PAVEMENT. WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING".

REMOVAL OF EXISTING ASPHALT PAVEMENT

LINE	STATION TO STATION	LOCATION	SQ. YD.
-L-	13+68.28 to 17+04.21	EXT. ROAD	940.03
-L-	17+26.09 to 18+42.18	EXT. ROAD	432.53
-L-	19+54.64 to 21+32.50	EXT. ROAD	448.09
-L-	21+32.50 to 24+00.00	EXT. ROAD	620.01
		TOTAL	2440.66
		SAY	2500

DESIGN EXCEPTION REQUIRED FOR DESIGN SPEED



-DW2-

PI Sta 10+30.55 Δ = 46° 23' 25.0" (LT) D = 163° 42' 08.0" L = 28.34' T = 15.00' R = 35.00'	PI Sta 11+24.92 Δ = 14° 54' 17.0" (LT) D = 5° 59' 58.4" L = 248.43' T = 124.92' R = 955.00' SE = SEE PLANS	PI Sta 16+22.40 Δ = 84° 21' 27.0" (RT) D = 16° 22' 12.8" L = 515.31' T = 317.12' R = 3500.00' SE = SEE PLANS	PI Sta 23+88.12 Δ = 6° 40' 48.2" (RT) D = 3° 49' 11.0" L = 174.88' T = 87.54' R = 1,500.00' SE = SEE PLANS
---	--	--	--

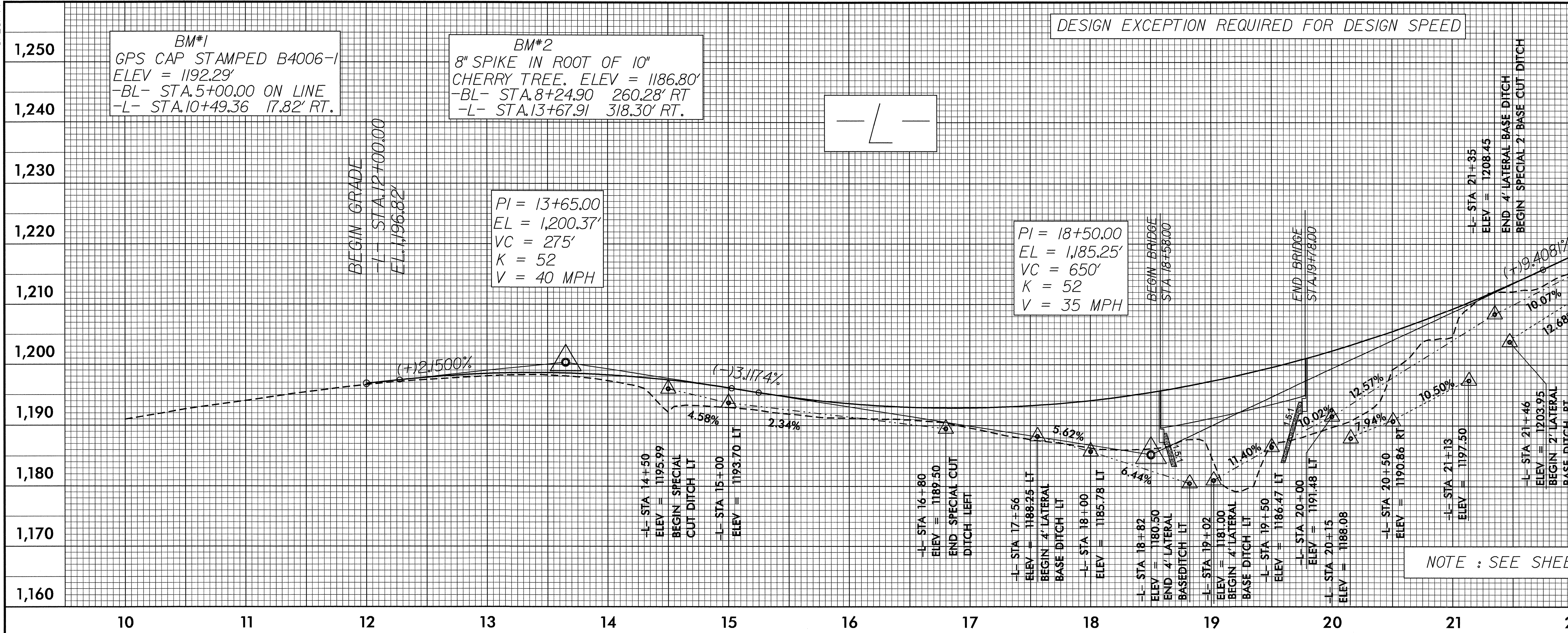
-Y-

PI Sta 10+44.49 Δ = 22° 33' 06.6" (RT) D = 35° 00' 01.7" L = 64.43' T = 32.64' R = 163.70' SE = SEE PLANS	PI Sta 11+84.15 Δ = 16° 49' 08.6" (RT) D = 28° 38' 52.4" L = 58.71' T = 29.57' R = 200.00' SE = SEE PLANS	PI Sta 11+23.17 Δ = 28° 01' 12.0" (LT) D = 57° 17' 44.8" L = 48.90' T = 24.95' R = 100.00'
---	---	---

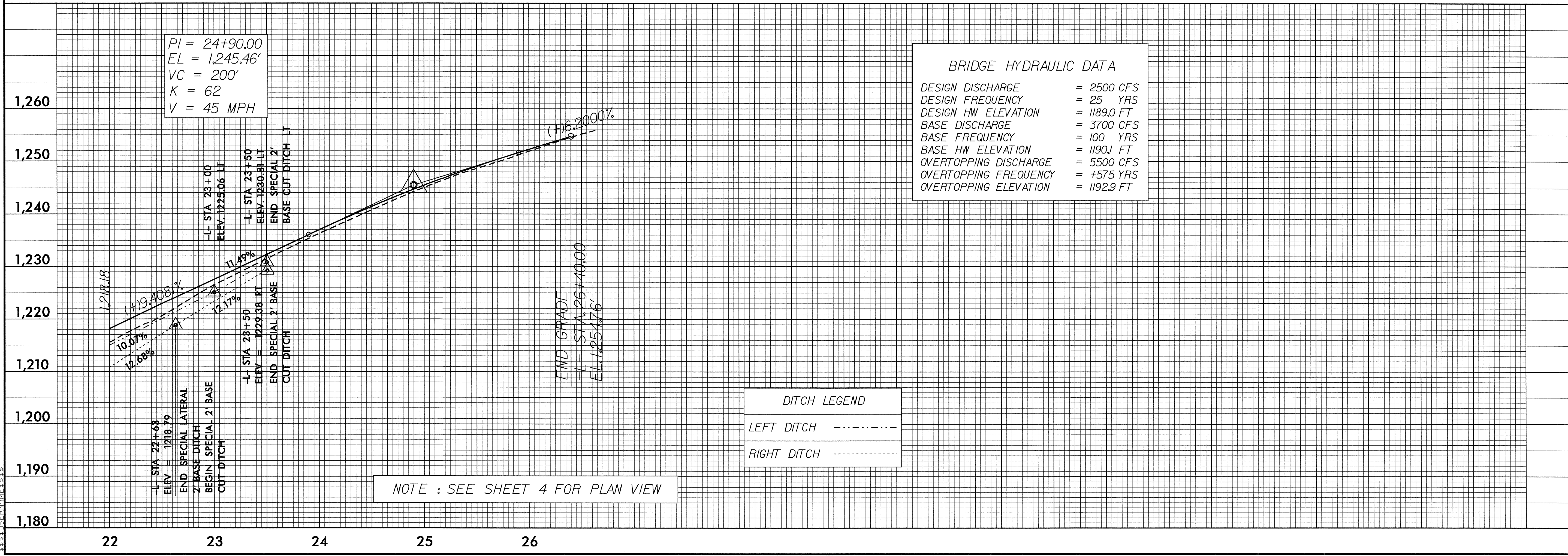
NOTE: SEE SHEET 5 FOR -L- PROFILE
 SEE SHEET 6 FOR -Y-, -DW1- & -DW2- PROFILES
 SEE SHEETS S-1 THRU S-29 FOR STRUCTURE PLANS

REVISIONS

5/28/99



PROJECT REFERENCE NO. B-4006	SHEET NO. 5
ROADWAY DESIGN ENGINEER <i>[Signature]</i> D. THOMAS 6/19/07	HYDRAULICS ENGINEER <i>[Signature]</i> H. BAILEY 6/12/07



12-JUN-2007 11:41 AM b4006_rdy_p1.dgn

1,220
1,210
1,200
1,190
1,180
1,170
1,160

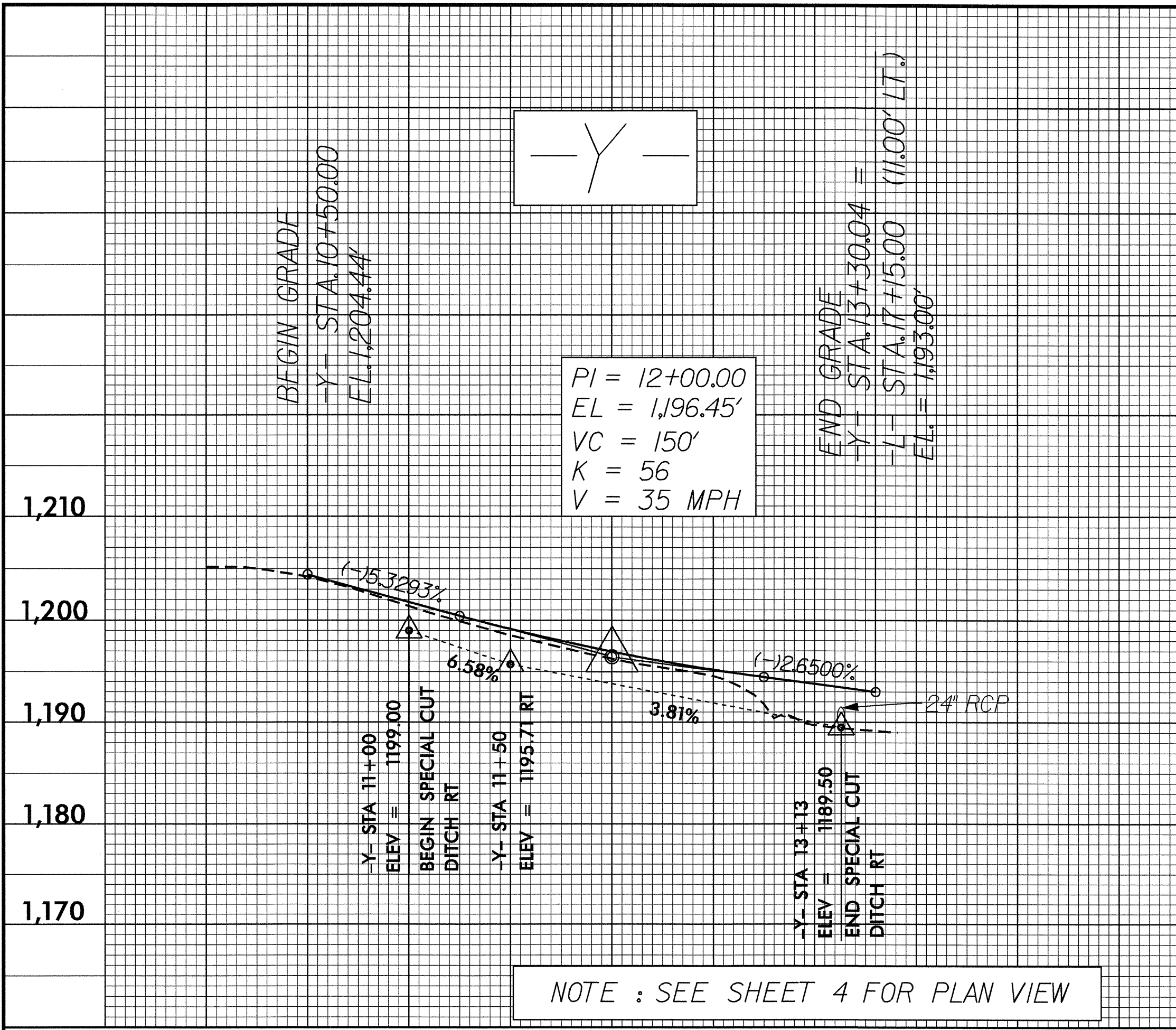
10 11 12 13 14 15 16 17 18 19 20 21 22

1,260
1,250
1,240
1,230
1,220
1,210
1,200
1,190
1,180

22 23 24 25 26

5/28/99

PROJECT REFERENCE NO. B-4006	SHEET NO. 6
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER
6/17/07	6/27/07



HYDRAULIC DATA

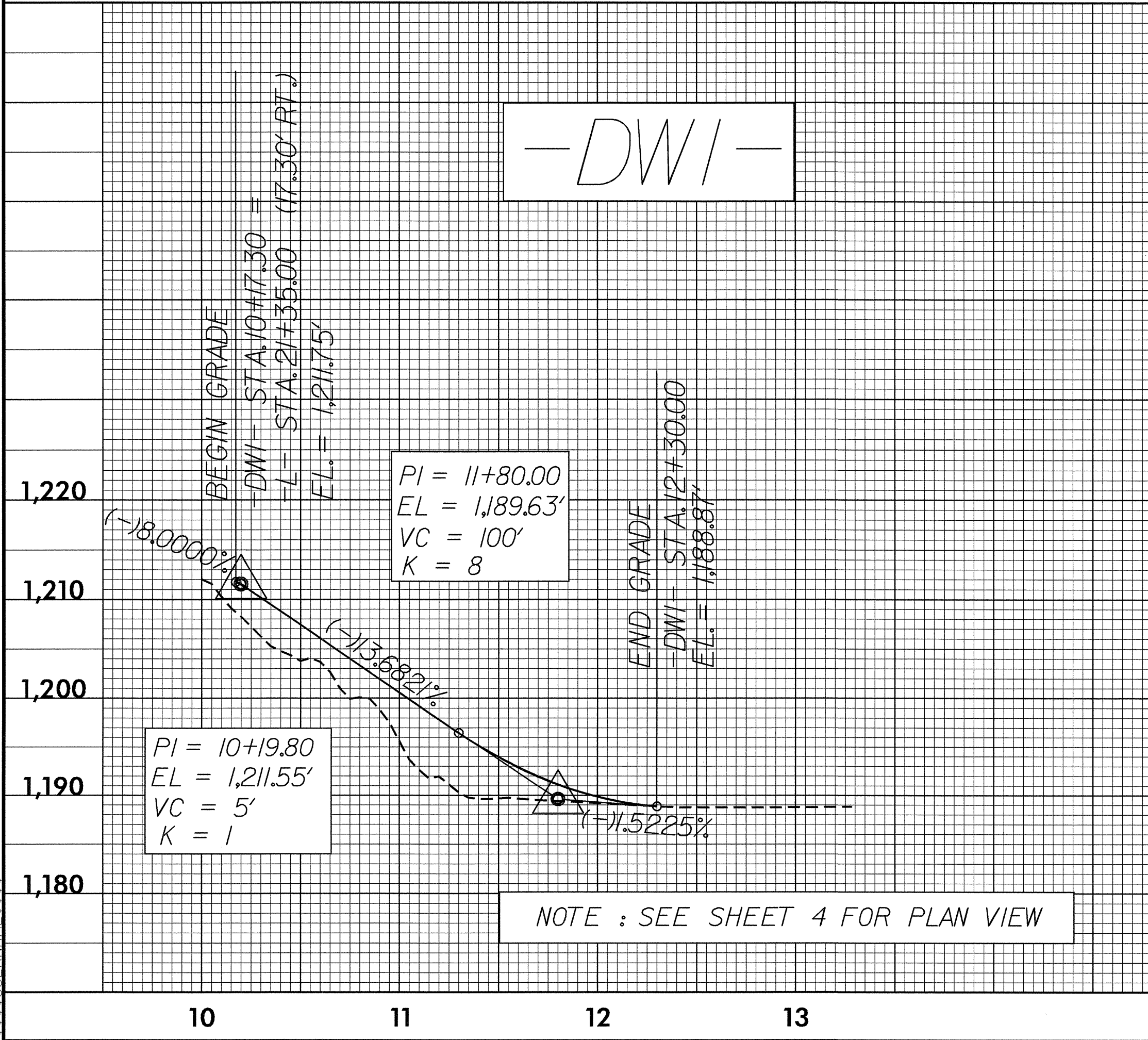
DRAINAGE AREA	= 8.52 AC
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 10.56 CFS
DESIGN HW ELEVATION	= 1191.8 FT
100 YR DISCHARGE	= 13.63 CFS
100 YR ELEVATION	= 1191.50 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 24.54+ CFS
OVERTOPPING ELEVATION	= 1192.74 FT

DITCH LEGEND

LEFT DITCH	-----
RIGHT DITCH	-----

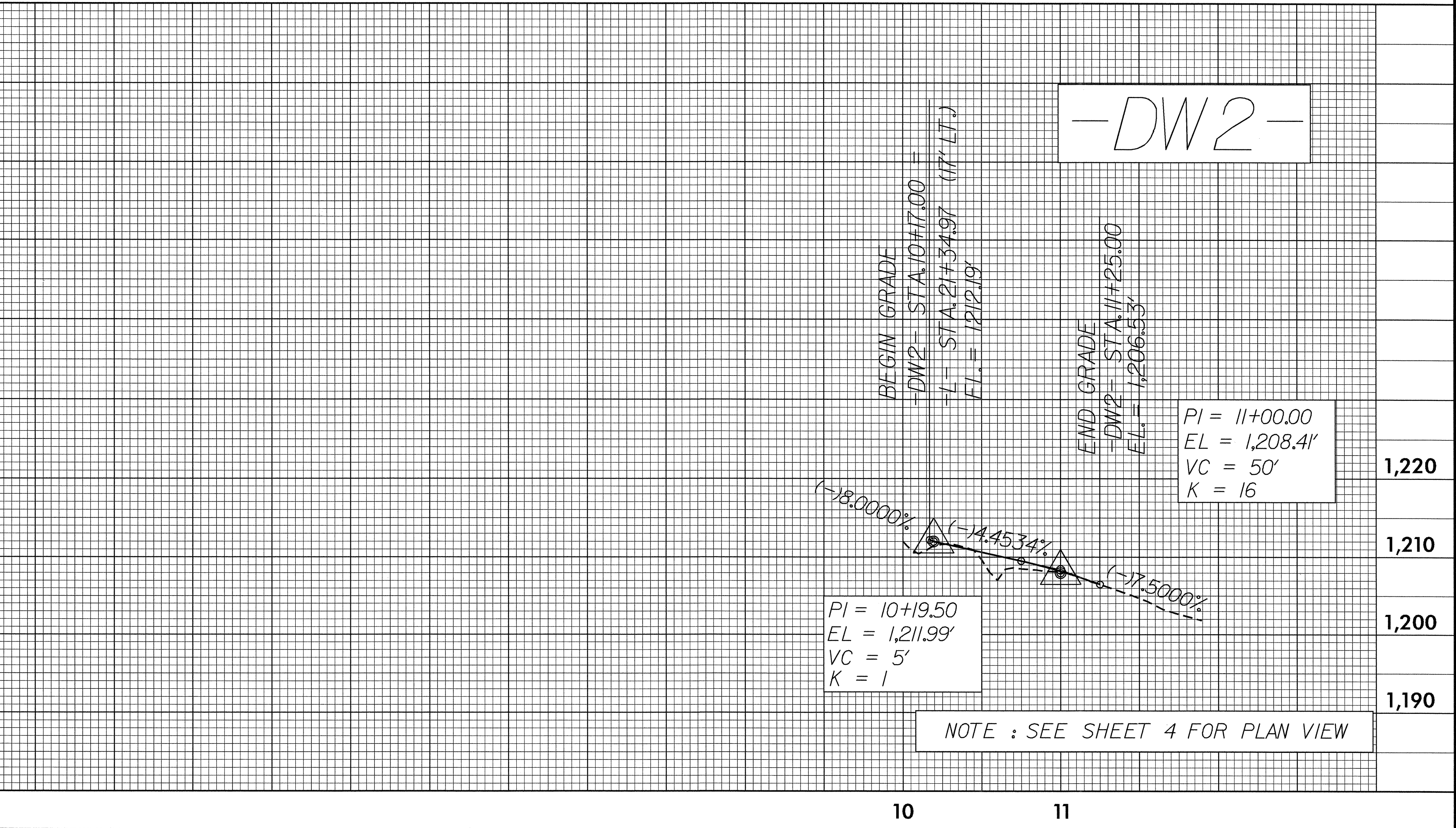
NOTE : SEE SHEET 4 FOR PLAN VIEW

10 11 12 13



NOTE : SEE SHEET 4 FOR PLAN VIEW

10 11 12 13



NOTE : SEE SHEET 4 FOR PLAN VIEW

10 11

27 MAR 2007 15:19 b4006_r.dwg p1.dgn