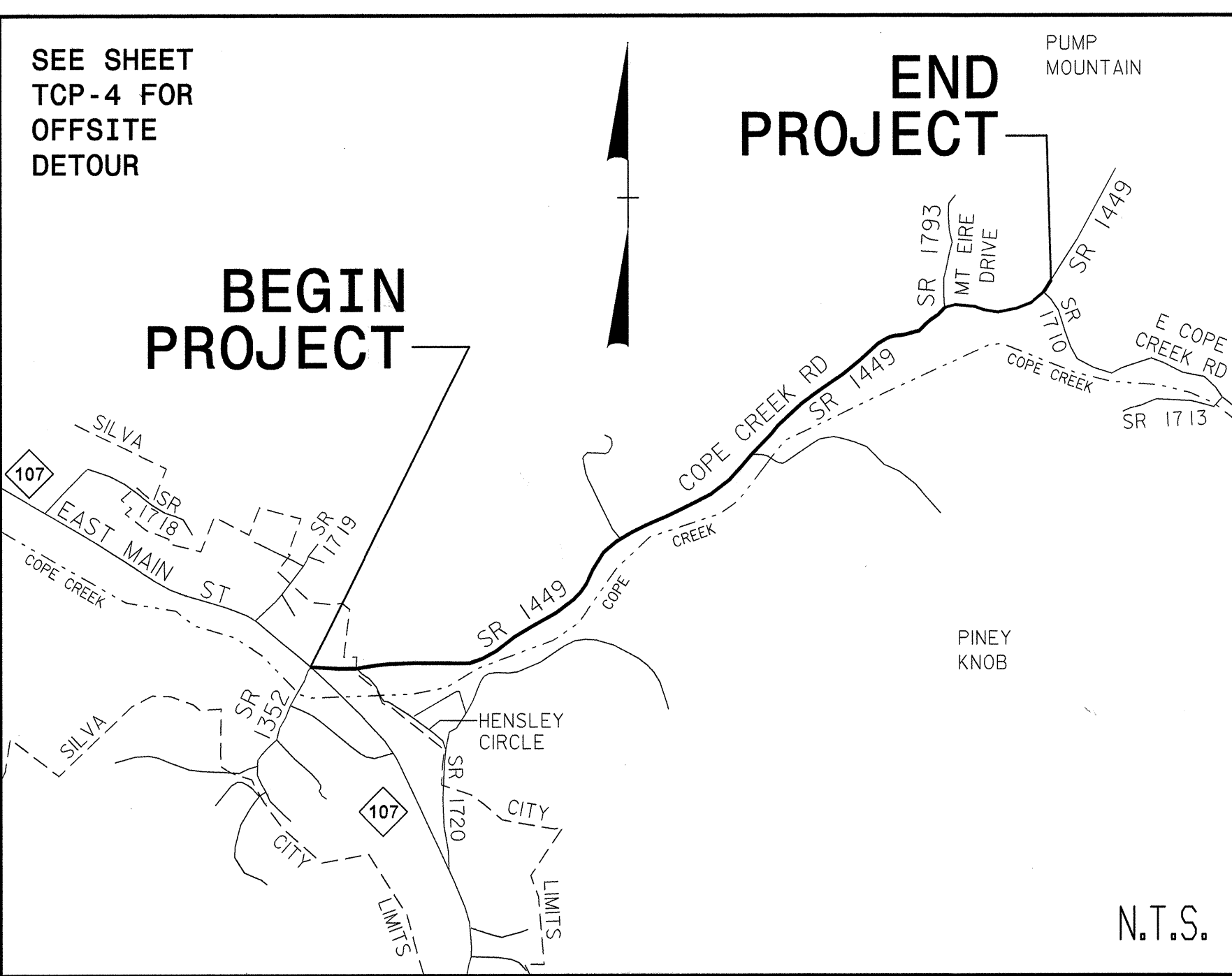


TIP PROJECT: R-5024

CONTRACT: C202105



VICINITY MAP SHOWING LOCATION OF STATE PROJECT R-5024

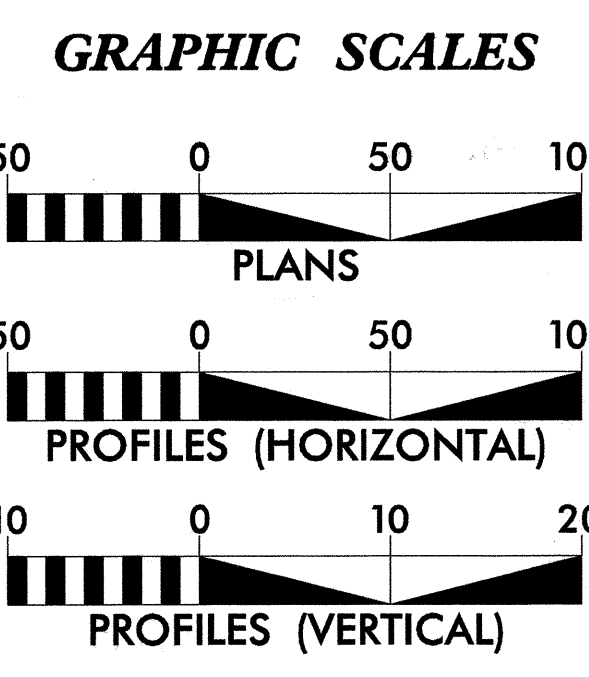
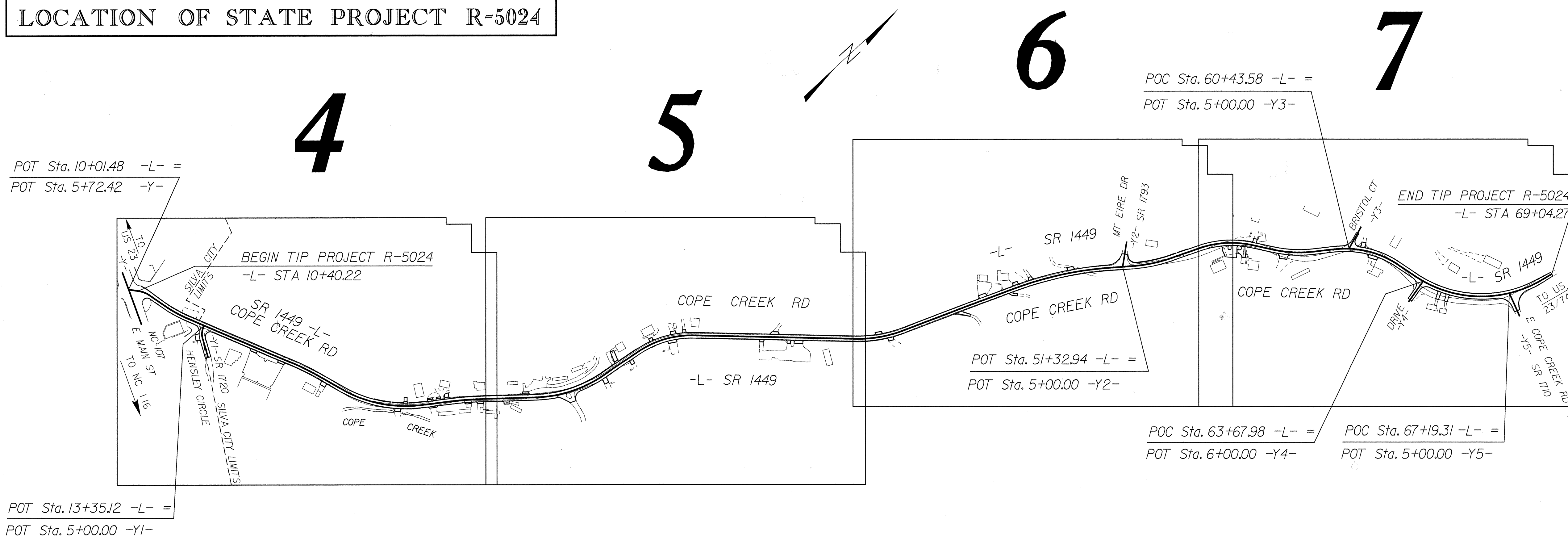
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JACKSON COUNTY

LOCATION: SR 1449 (COPE CREEK ROAD) FROM NC 107 (EAST MAIN STREET) TO SR 1710 (EAST COPE CREEK ROAD)

TYPE OF WORK: GRADING, PAVING, AND DRAINAGE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5024	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
42009.1.1		P.E.	
42009.2.1		R/W	
42009.3.1		CONST	



DESIGN DATA

ADT 2008 =	3000
ADT 2028 =	4100
DHV =	12 %
D =	60 %
T =	1 %
V =	35 MPH

PROJECT LENGTH

LENGTH OF ROADWAY T.I.P. PROJECT R-5024 = 1.111 MILES

Prepared in the Office of:
WILBUR SMITH ASSOCIATES
4135 Mendenhall Oaks Pkwy, Suite 160, High Point, NC, 27265

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 16, 2006

LETTING DATE:
SEPTEMBER 16, 2008

RICHARD POTEMPA, PE
PROJECT ENGINEER

RICHARD POTEMPA, PE
PROJECT DESIGN ENGINEER

ROADWAY ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 9550
RICHARD M. POTEMPA

Richard M. Potempa
7-23-08 P.E.

SIGNATURE:

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

Richard M. Potempa
STATE DESIGN ENGINEER P.E.

FILE: R:\NCDOT\15024\Roadway\Proj\15024_Rdg_Hdr.dgn
DATE: 2/2/2008 2:08:58 PM



INDEX OF SHEETS, GENERAL NOTES AND LIST OF STANDARDS

INDEX OF PLAN SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1-A	INDEX, GEN NOTES & LIST OF STDS
1-B	CONVENTIONAL SYMBOLS
1-C	CONTROL POINT DATA
2	TYPICAL SECTIONS
2A-2B	INTERSECTION & DRIVE DETAILS
2C	CONCRETE STEPS DETAIL
2D	CONVERT EX DROP INLET TO JUNCTION BOX DETAIL
2E	ANCHORAGE FOR FRAMES DETAIL
3	SUMMARY OF QUANTITIES
3A	RIGHT OF WAY AREA DATA
3B-3C	MISC SUMMARIES
3D	PARCEL INDEX SHEET
4-7	PLAN SHEETS
8-10	PROFILE SHEETS
TCPI-TCP6	TRAFFIC CONTROL PLANS
EC1-EC5	EROSION CONTROL PLANS
UO1-UO4	UTILITIES BY OTHERS
X1-X28	CROSS SECTIONS

GENERAL NOTES:

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 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTION.

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.

BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON THE 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.

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.

UTILITIES:

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.

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

2006 ROADWAY ENGLISH STANDARD DRAWINGS

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

The following Roadway Standards as appear on "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 the 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 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES & PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
838.01	Concrete Endwall For Single and Double Pipe Culverts - 15" Thru 48" Pipe 90 Skew
838.05	Concrete L Endwall For Single Pipe Culverts - 15" Thru 48" Pipe
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" Thru 48" Pipe 90 Skew
838.15	Brick L Endwall For Single Pipe Culverts - 15" Thru 48" Pipe
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 & Hood For Use On Standard Catch Basin
840.14	Concrete Drop Inlet - 12" Thru 30" Pipe
840.15	Brick Drop Inlet - 12" Thru 30" Pipe
840.16	Drop Inlet Frame And Grates For Use With Std Dwg 840.14 and 840.15
840.45	Precast Drainage Structure
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter And Curb & Gutter
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
848.05	Wheelchair Ramp Curb Cut
850.01	Concrete Paved Ditch
850.10	Guide For Berm Drainage Outlet - 15" and 18" Pipe
862.01	Guardrail Placement
862.02	Guardrail Installation
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

REVISIONS





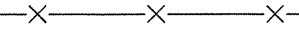








Note: Not to Scale

*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	_____ 
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 High Quality Wetland Boundary	_____ 
Existing Endangered Animal Boundary	_____ 
Existing Endangered Plant Boundary	_____ 

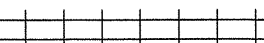
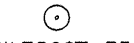
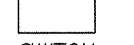
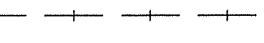
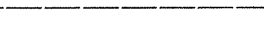
BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	_____ 
Sign	_____ 
Well	_____ 
Small Mine	_____ 
Foundation	_____ 
Area Outline	_____ 
Cemetery	_____ 
Building	_____ 
School	_____ 
Church	_____ 
Dam	_____ 














HYDROLOGY:

Stream or Body of Water	_____
Hydro, Pool or Reservoir	_____
River Basin Buffer	_____
Flow Arrow	_____ 
Disappearing Stream	_____ 
Spring	_____ 
Swamp Marsh	_____ 
Proposed Lateral, Tail, Head Ditch	_____ 
False Sump	_____ 




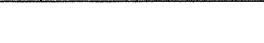





RAILROADS:

Standard Gauge	_____ 
RR Signal Milepost	_____ 
Switch	_____ 
RR Abandoned	_____ 
RR Dismantled	_____ 






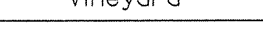
RIGHT OF WAY:

Baseline Control Point	_____ 
Existing Right of Way Marker	_____ 
Existing Right of Way Line	_____ 
Proposed Right of Way Line	_____ 
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	_____ 

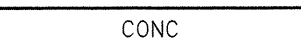
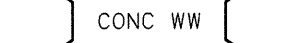







ROADS AND RELATED FEATURES:

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	_____ 
Proposed Slope Stakes Fill	_____ 
Proposed Wheel Chair Ramp	_____ 
Curb Cut for Future Wheel Chair Ramp	_____ 
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	_____ 














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:

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:

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:

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:

Gas Valve	_____ 
Gas Meter	_____ 
Recorded U/G Gas Line	_____ 
Designated U/G Gas Line (S.U.E.*)	_____ 
Above Ground Gas Line	_____ 

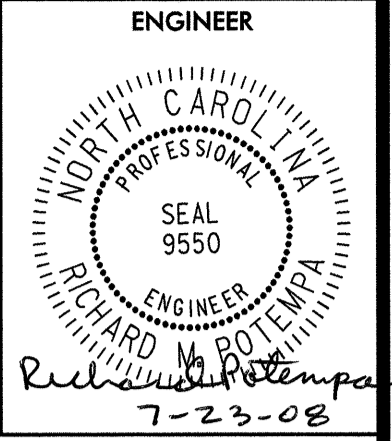
SANITARY SEWER:

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:

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	_____ 

REVISIONS



CONTROL POINT DATA

STATION	NORTHING	EASTING
POT Sta. 10+01.48 -L- POT Sta. 5+72.42 -Y-	6 16,857.3864	746,979.6598
PC Sta. 10+40.22 -L-	6 16,881.8560	747,009.6935
PI Sta. 10+65.26 -L-	6 16,897.6715	747,029.1053
PT Sta. 10+89.38 -L-	6 16,903.0251	747,053.5651
PC Sta. 11+49.55 -L-	6 16,915.8903	747,112.3437
PI Sta. 12+07.93 -L-	6 16,928.3725	747,169.3730
PT Sta. 12+65.88 -L-	6 16,952.5484	747,222.5113
PC Sta. 17+10.24 -L-	6 17,136.5688	747,626.9851
PI Sta. 17+76.84 -L-	6 17,164.1493	747,687.6066
PT Sta. 18+43.31 -L-	6 17,184.8520	747,750.9079
PC Sta. 19+36.27 -L-	6 17,213.7479	747,839.2609
PI Sta. 21+05.02 -L-	6 17,266.2030	747,999.6493
PT Sta. 22+62.20 -L-	6 17,403.9706	748,097.0969
PC Sta. 23+65.73 -L-	6 17,488.4979	748,156.8859
PI Sta. 24+33.16 -L-	6 17,543.5478	748,195.8245
PT Sta. 25+00.49 -L-	6 17,594.6006	748,239.8734
PC Sta. 27+12.65 -L-	6 17,755.2324	748,378.4681
PI Sta. 28+59.83 -L-	6 17,866.6730	748,474.6201
PT Sta. 29+99.23 -L-	6 18,012.2092	748,496.6078
PC Sta. 31+62.64 -L-	6 18,173.7829	748,521.0184
PI Sta. 32+83.07 -L-	6 18,292.8632	748,539.0092
PT Sta. 33+95.89 -L-	6 18,379.8430	748,622.3056
PC Sta. 40+31.74 -L-	6 18,839.0726	749,062.0877
PI Sta. 41+30.10 -L-	6 18,910.1115	749,130.1183
PT Sta. 42+26.07 -L-	6 19,001.3552	749,166.8505
PC Sta. 46+92.89 -L-	6 19,434.4014	749,341.1834
PI Sta. 48+87.56 -L-	6 19,614.9842	749,413.8812
PT Sta. 50+79.56 -L-	6 19,767.6717	749,534.6358
PC Sta. 51+74.61 -L-	6 19,842.2209	749,593.5938
PI Sta. 52+53.20 -L-	6 19,903.8664	749,642.3469
PT Sta. 53+30.91 -L-	6 19,975.9890	749,673.5776
PC Sta. 54+47.93 -L-	620,083.3823	749,720.0814
PI Sta. 55+54.82 -L-	620,181.4675	749,762.5545
PT Sta. 56+56.32 -L-	620,243.0282	749,849.9328
PC Sta. 57+38.98 -L-	620,290.6332	749,917.5027
PI Sta. 58+21.75 -L-	620,338.3048	749,985.1670
PT Sta. 59+03.03 -L-	620,405.2382	750,033.8593
PC Sta. 59+85.56 -L-	620,471.9759	750,082.4094
PI Sta. 61+25.15 -L-	620,584.8560	750,164.5267
PT Sta. 62+53.11 -L-	620,617.7372	750,300.1881
PC Sta. 63+33.11 -L-	620,636.5818	750,377.9374
PI Sta. 66+25.03 -L-	620,705.3441	750,661.6374
PT Sta. 68+54.46 -L-	620,990.7338	750,723.0105
POT Sta. 69+04.27 -L-	621,039.4347	750,733.4836

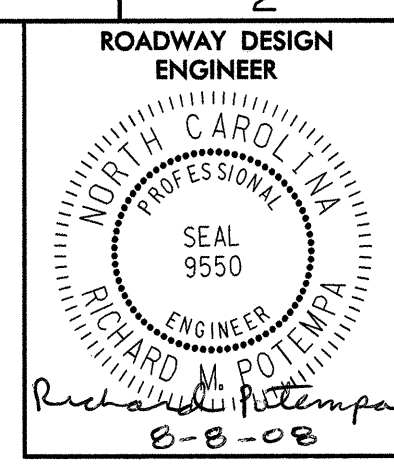
CONTROL POINT DATA

STATION	NORTHING	EASTING
POT Sta. 5+00.00 -Y-	6 16,884.9640	746,912.7013
POT Sta. 5+72.42 -Y- POT Sta. 10+01.48 -L-	6 16,857.3864	746,979.6598
POT Sta. 7+19.64 -Y-	6 16,801.3207	747,115.7873
POT Sta. 5+00.00 -Y1- POT Sta. 13+35.12 -L-	6 16,981.2247	747,285.5413
PC Sta. 5+10.23 -Y1-	6 16,971.9097	747,289.7793
PI Sta. 5+31.56 -Y1-	6 16,952.4947	747,298.6124
PT Sta. 5+51.22 -Y1-	6 16,943.0120	747,317.7186
POT Sta. 6+30.00 -Y1-	6 16,907.9892	747,388.2845
POT Sta. 5+00.00 -Y2- POT Sta. 51+32.94 -L-	6 19,809.5426	749,567.7499
POT Sta. 6+00.00 -Y2-	6 19,887.8536	749,505.5615
POT Sta. 5+00.00 -Y3- POC Sta. 60+43.58 -L-	620,516.1083	750,119.9804
POT Sta. 6+00.00 -Y3-	620,610.7128	750,087.5770
POT Sta. 5+00.00 -Y4- POT Sta. 6+00.00 -Y4- POC Sta. 63+67.98 -L-	620,548.3039	750,432.5634
POT Sta. 6+00.00 -Y4- POC Sta. 63+67.98 -L-	620,646.0564	750,411.4817
POT Sta. 5+00.00 -Y5- POC Sta. 67+19.31 -L-	620,864.5582	750,675.9283
POT Sta. 6+00.00 -Y5-	620,832.8081	750,770.7541
PI Sta. 5+00.00 MA1= POT 5+26.90-Y-(40.92'RT)	6 16,836.8870	746,921.9910
PI Sta. 9+19.28 MA2= POT 13+62.24-L-(15.94'RT)	6 16,977.9440	747,316.8290
PI Sta. 13+02.66 MA3= POC 17+45.90-L-(10.28'RT)	6 17,141.3700	747,663.6300
PI Sta. 16+63.35 MA4= POC 21+04.60-L-(15.23'RT)	6 17,279.1400	747,996.9800
PI Sta. 20+29.81 MA5= POC 24+68.98-L-(7.77'RT)	6 17,565.5700	748,225.5600
PI Sta. 24+52.81 MA6= POC 28+91.53-L-(9.22'RT)	6 17,904.9400	748,478.0600
PI Sta. 29+16.56 MA7= POC 33+66.47-L-(15.33'RT)	6 18,348.1100	748,614.6600
PI Sta. 36+30.73 MA8= POC 40+82.28-L-(11.39'RT)	6 18,869.0300	749,103.2100
PI Sta. 43+58.66 MA9= POC 48+06.45-L-(13.97'LT)	6 19,544.1200	749,375.4900
PI Sta. 48+40.13 MA10= POC 52+84.92-L-(14.05'RT)	6 19,927.9800	749,666.1300
PI Sta. 51+76.15 MA11= POC 56+16.94-L-(19.53'LT)	620,233.4400	749,806.1300
PI Sta. 54+74.96 MA12= POT 59+03.41-L-(37.79'RT)	620,383.3100	750,064.6400
PI Sta. 56+89.70 MA13= POC 61+09.28-L-(22.99'LT)	620,577.2800	750,156.7700
PI Sta. 60+68.51 MA14= POC 64+71.25-L-(45.69'RT)	620,649.1300	750,528.7100
PI Sta. 63+69.16 MA15= POC 67+50.42-L-(40.95'RT)	620,875.0200	750,727.1100
PI Sta. 65+56.50 MA16= POT 69+28.93-L-(13.30'RT)	621,060.7400	750,751.6700

NOTE: ASSUMED COORDINATES AND DATUM

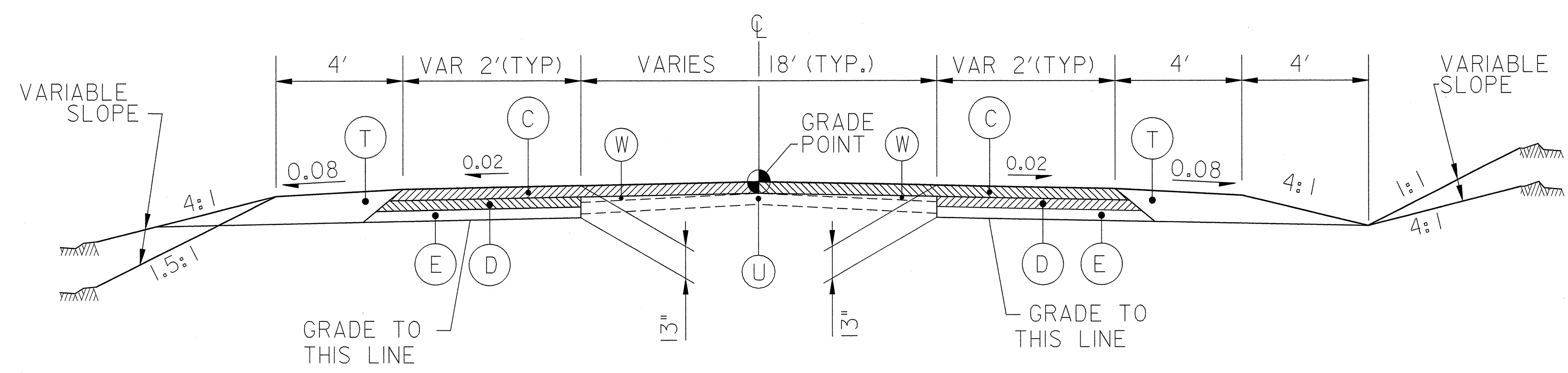
REVISIONS

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NOTE: MILLING ASPHALT PAVEMENT, 0-2" DEPTH REQUIRED AT ALL -Y- LINE TIE-INS AND BEGIN /END PROJECT -L-

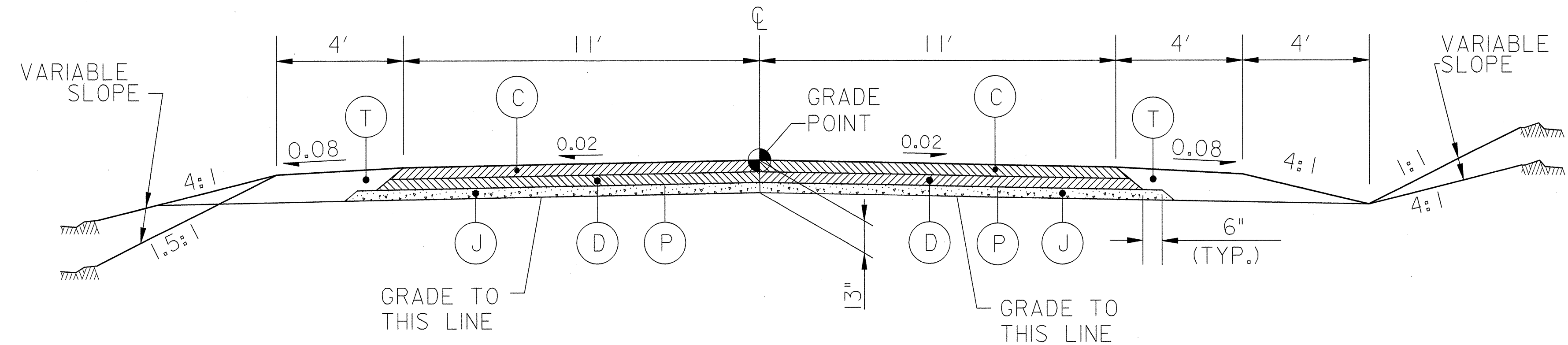
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE. SHOULDER WIDTH TO BE INCREASED 3' WHERE GUARDRAIL IS USED.



TYPICAL SECTION NO. 1

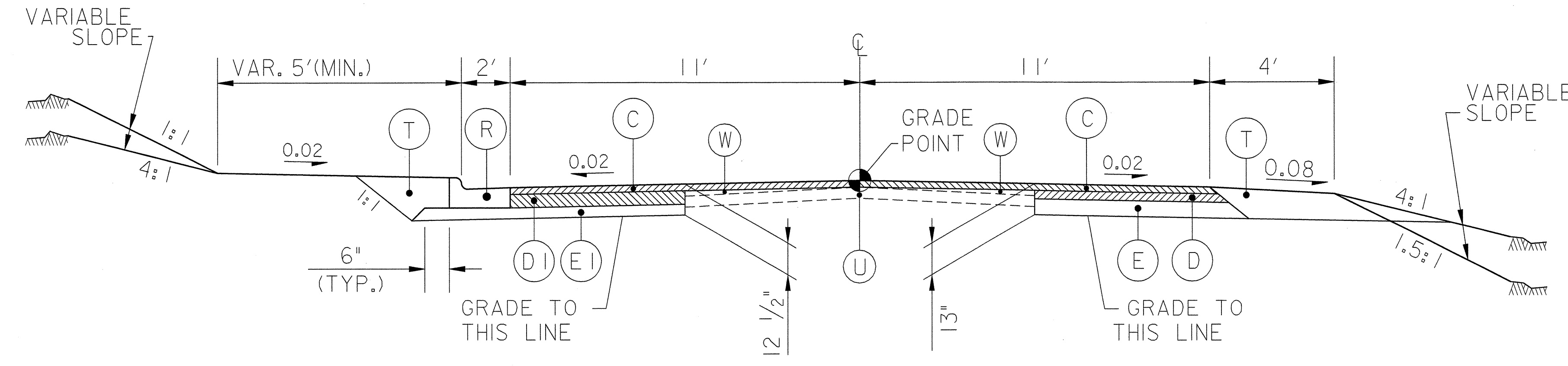
USE ON: -L- STA. 10+40.22 TO -L- STA. 18+20.00
 -L- STA. 31+62.64 TO -L- STA. 51+55.00
 -L- STA. 67+00.00 TO -L- STA. 69+04.27

-Y1- STA. 5+11.00 TO -Y1- STA. 6+30.00
 -Y2- STA. 5+11.30 TO -Y2- STA. 5+50.00
 -Y3- STA. 5+12.23 TO -Y3- STA. 5+70.00
 -Y5- STA. 5+11.18 TO -Y5- STA. 5+77.00



TYPICAL SECTION NO. 2

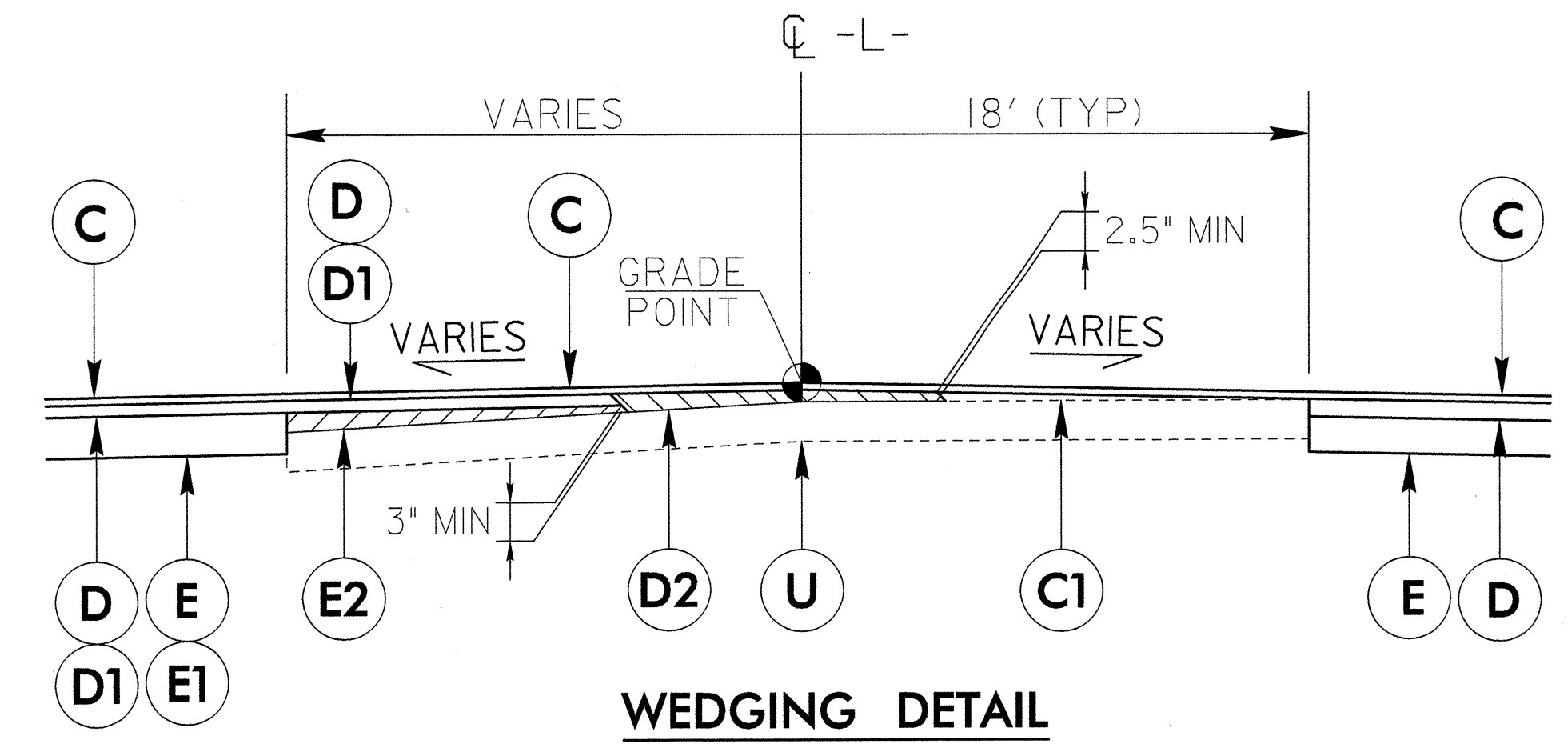
USE ON: -L- STA. 18+20.00 TO -L- STA. 20+70.00
 -L- STA. 54+00.00 TO -L- STA. 67+00.00
 -Y4- STA. 5+10.00 TO -Y4- STA. 5+88.95



TYPICAL SECTION NO. 3

USE ON: -L- STA. 20+70.00 TO -L- STA. 31+62.64
 -L- STA. 51+55.00 TO -L- STA. 54+00.00

PAVEMENT SCHEDULE	
C	PROP. APP. 2 IN. ASPH. CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS/SY IN EACH OF TWO LAYERS
C1	PROP. VAR. DEPTH ASPH. CONC. SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS/SY/IN. DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2.0 IN. IN DEPTH
D	PROP. APP. 3 IN. ASPH. CONC. INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 342 LBS/SY
D1	PROP. APP. 5 IN. ASPH. CONC. INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 285 LBS/SY IN EACH OF TWO LAYERS
D2	PROP. VAR. DEPTH ASPH. CONC. INTERMEDIATE COURSE, TYPE 119.0B, AT AN AVERAGE RATE OF 114 LBS/SY/IN. DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5 IN. OR GREATER THAN 4 IN. DEPTH
E	PROP. APP. 8 IN. ASPH. CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS/SY IN EACH OF TWO LAYERS
E1	PROP. APP. 5.5 IN. ASPH. CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS/SY
E2	PROP. VAR. DEPTH ASPH. CONC. BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS/SY/IN. DEPTH TO BE PLACED IN LAYERS NOT GREATER THAN 5.5 IN. OR LESS THAN 3 IN. DEPTH
J	PROP. 8 IN. AGGREGATE BASE COURSE
P	PRIME COAT AT A RATE OF 0.35 GAL/SY
R	2'-6" CURB AND GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING



WEDGING DETAIL

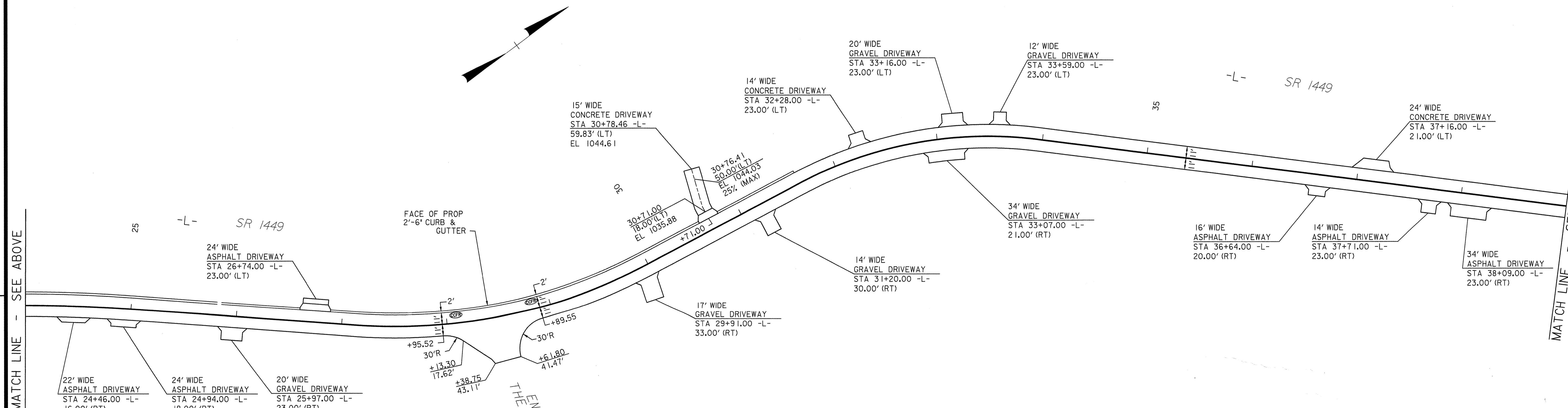
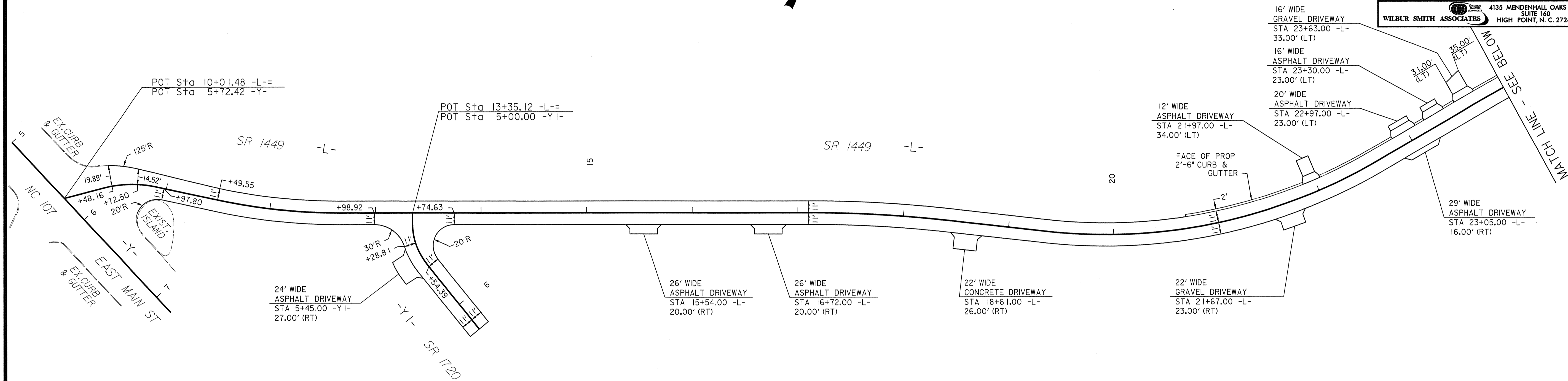
-L- STA. 11+00.00 TO -L- STA. 18+20.00
 -L- STA. 20+95.00 TO -L- STA. 53+00.00

NOT TO SCALE

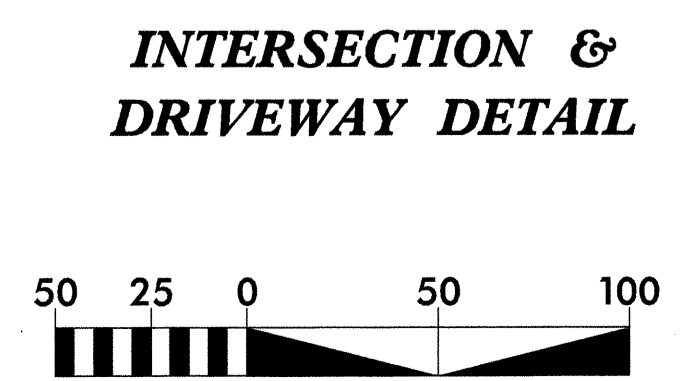
REVISIONS

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PROJECT REFERENCE NO. R-5024		SHEET NO. 2-A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
WILBUR SMITH ASSOCIATES		4135 MENDENHALL OAKS PKWY SUITE 160 HIGH POINT, N. C. 27265	



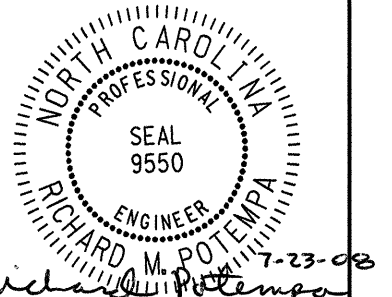
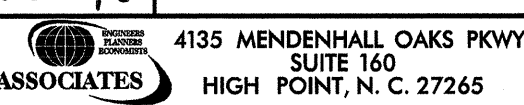
- NOTES:
1. CONCRETE DRIVEWAYS AS PER STD 848.03 AND PAID AS 6" CONCRETE DRIVEWAYS.
 2. GRAVEL DRIVEWAYS SHALL BE CONSTRUCTED 4" DEPTH AND PAID AS INCIDENTAL STONE BASE.
 3. ASPHALT DRIVEWAYS SHALL BE PAVED USING 2" SURFACE COURSE, TYPE S9.5B, ON 4" AGGREGATE BASE COURSE

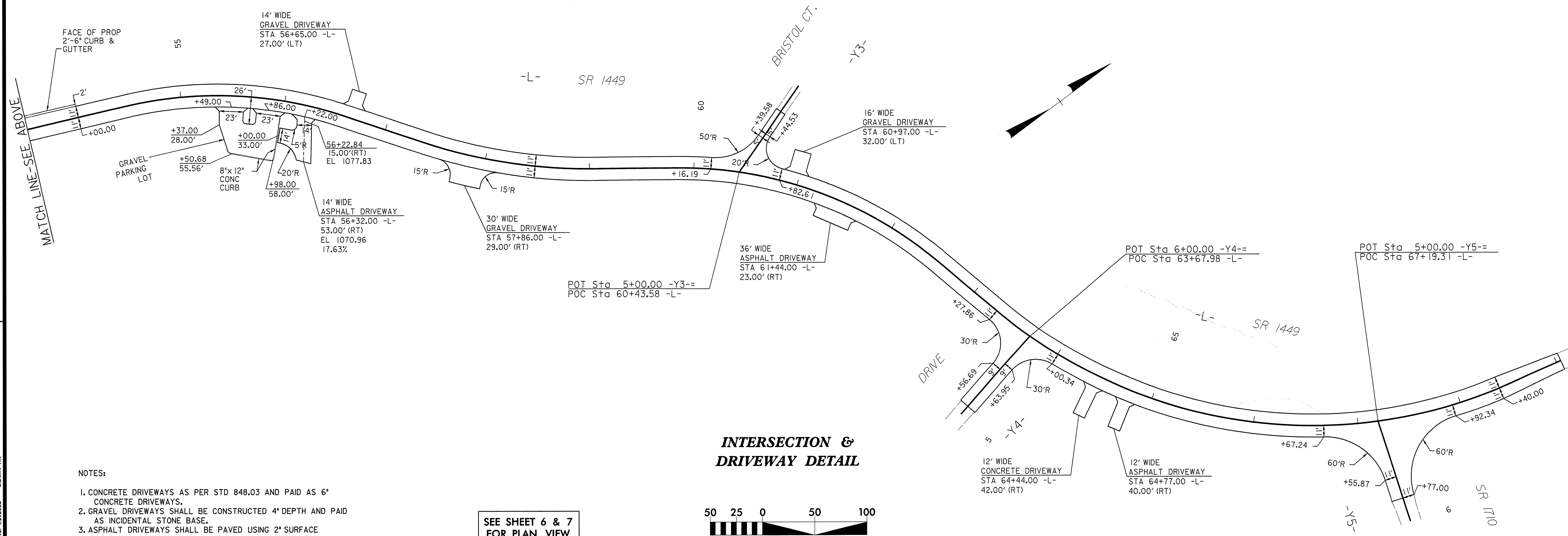
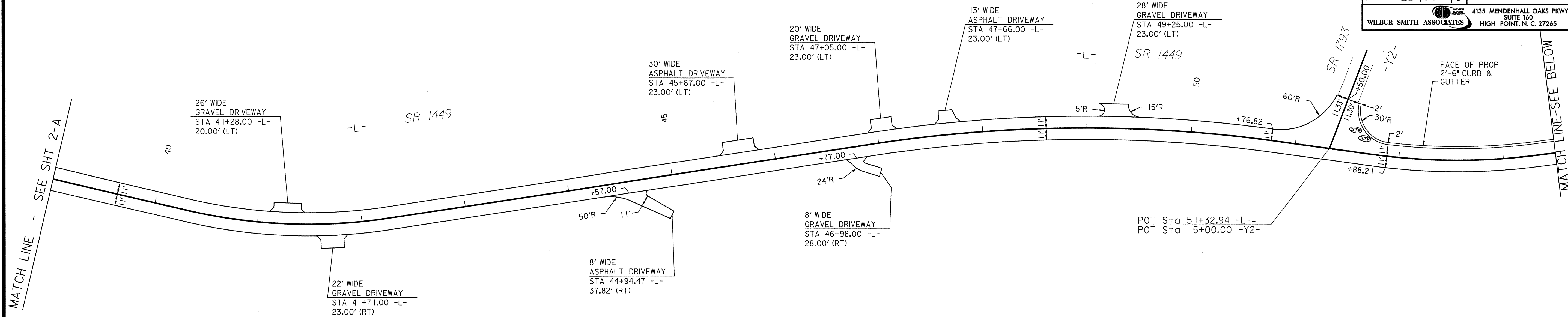


SEE SHEET 4 & 5
FOR PLAN VIEW

REVISIONS

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PROJECT REFERENCE NO. R-5024		SHEET NO. 2-B	
R/W SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL 9550	
			
WILBUR SMITH ASSOCIATES		4135 MENDENHALL OAKS PKWY SUITE 160 HIGH POINT, N. C. 27265	



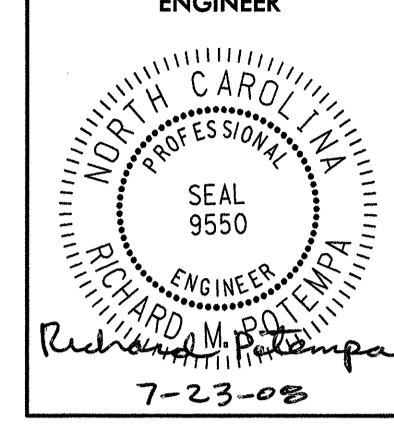
- NOTES:
1. CONCRETE DRIVEWAYS AS PER STD 848.03 AND PAID AS 6" CONCRETE DRIVEWAYS.
 2. GRAVEL DRIVEWAYS SHALL BE CONSTRUCTED 4" DEPTH AND PAID AS INCIDENTAL STONE BASE.
 3. ASPHALT DRIVEWAYS SHALL BE PAVED USING 2" SURFACE COURSE, TYPE S9.5B, ON 4" AGGREGATE BASE COURSE

SEE SHEET 6 & 7 FOR PLAN VIEW



REVISIONS

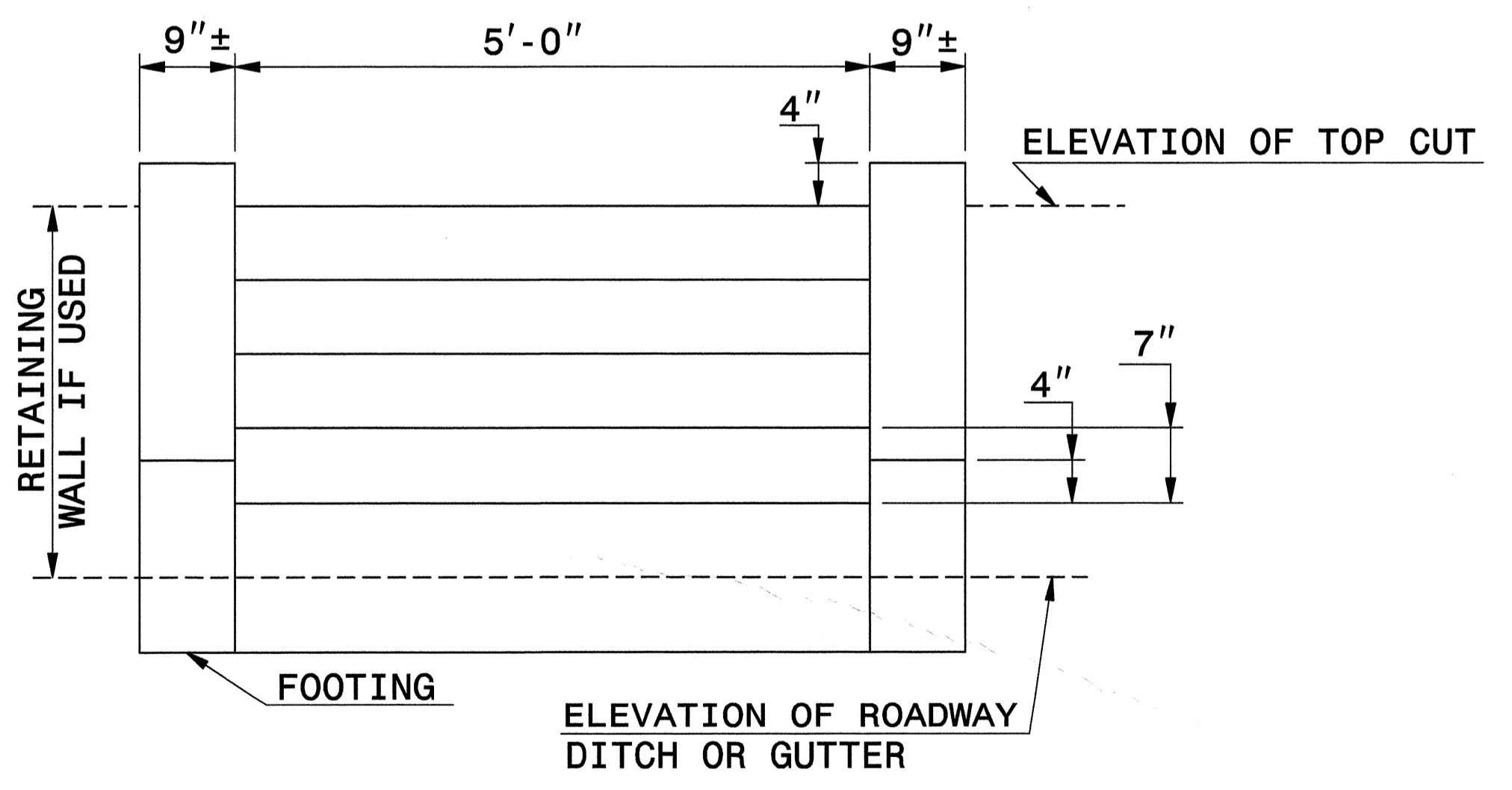
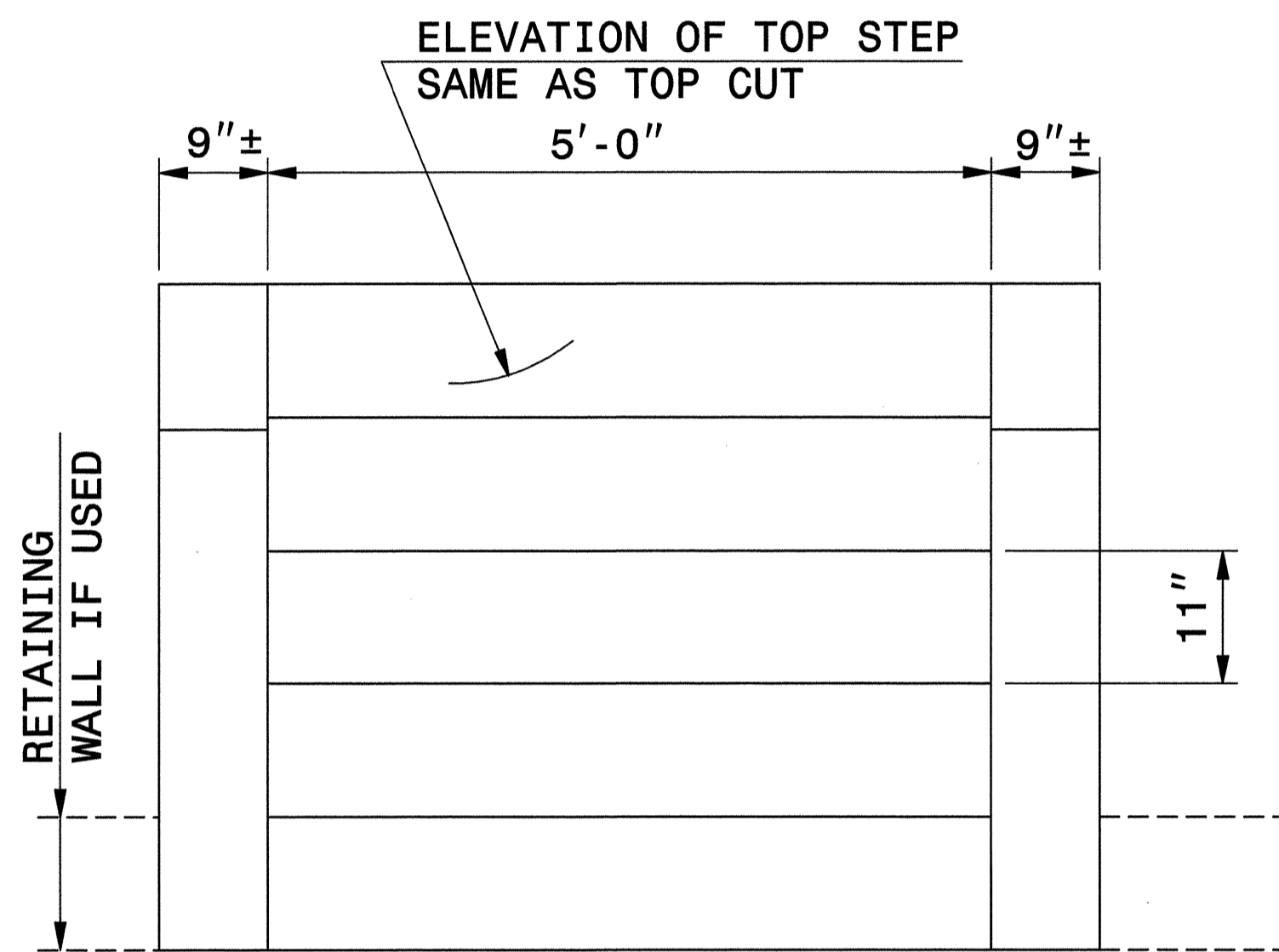
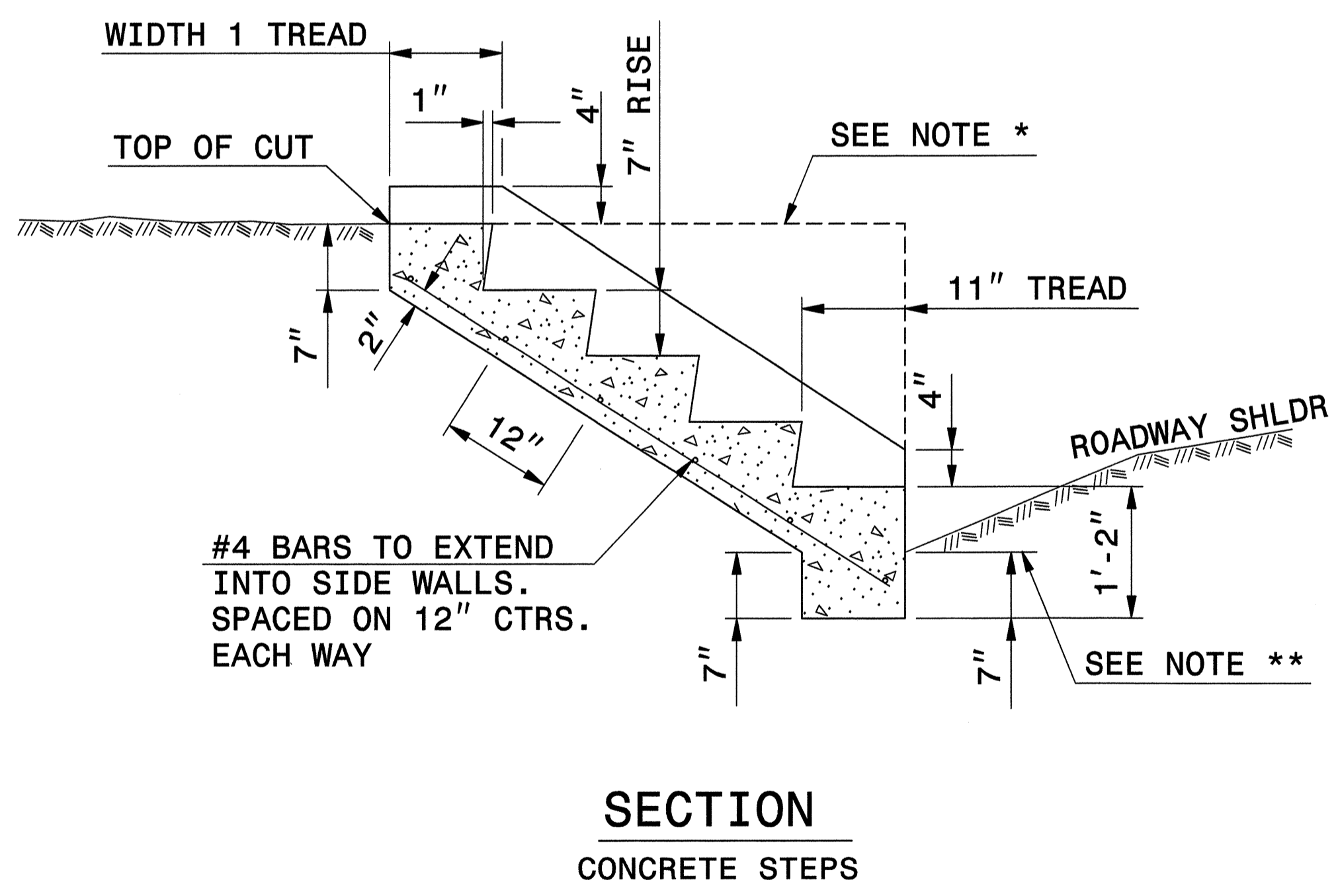
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CUBIC YARDS IN STANDARD CONCRETE STEPS					
NO. OF STEPS	4' WIDE	5' WIDE	6' WIDE	7' WIDE	ADDITIONAL CU. YDS. PER 1' WIDTH
2	0.4	0.5	0.5	0.6	0.1
3	0.6	0.7	0.8	0.9	0.1
4	0.8	0.9	1.0	1.2	0.1
5	1.0	1.2	1.3	1.4	0.1
6	1.2	1.4	1.5	1.7	0.2
7	1.4	1.6	1.8	2.0	0.2
8	1.6	1.8	2.0	2.3	0.2
9	1.8	2.0	2.3	2.6	0.3
10	2.0	2.3	2.5	2.8	0.3
ADDITIONAL STEP INCREMENT	0.2	0.2	0.2	0.3	0.1

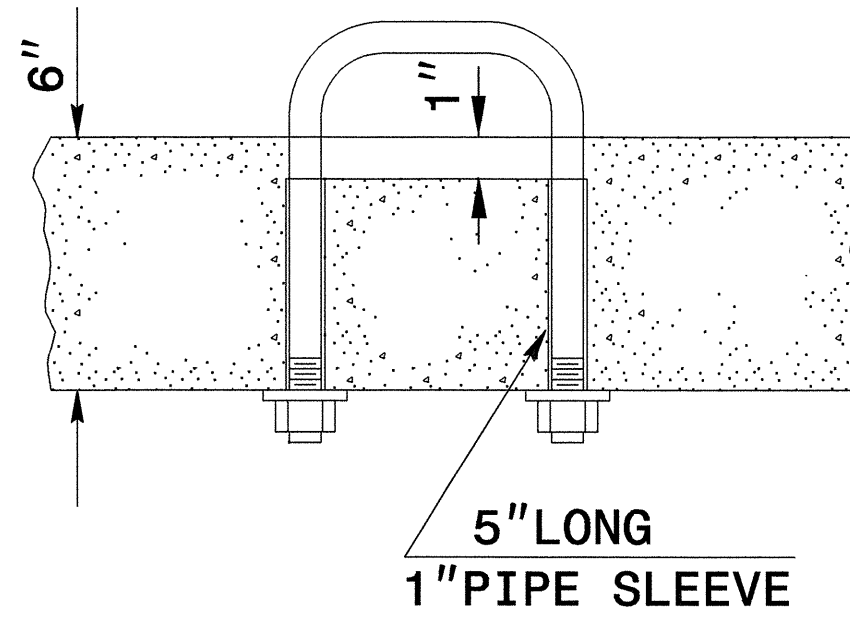
GENERAL NOTES:

- USE CLASS "B" CONCRETE THROUGHOUT FOR CONCRETE STEPS.
- LOCATIONS AND QUANTITIES SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS AND QUANTITIES WILL BE DETERMINED BY THE ENGINEER.
- * WHERE STEPS ARE CONSTRUCTED THRU THE RETAINING WALLS, RAISE THE SIDE WALLS OF THE STEPS LEVEL WITH THE TOP OF THE RETAINING WALL. SEE DASHED LINES.
- ** WHERE SIDEWALKS ARE PROPOSED OR EXISTING, THIS IS TO BE THE TOP OF THE SIDEWALK. USE UNCORED BRICK.

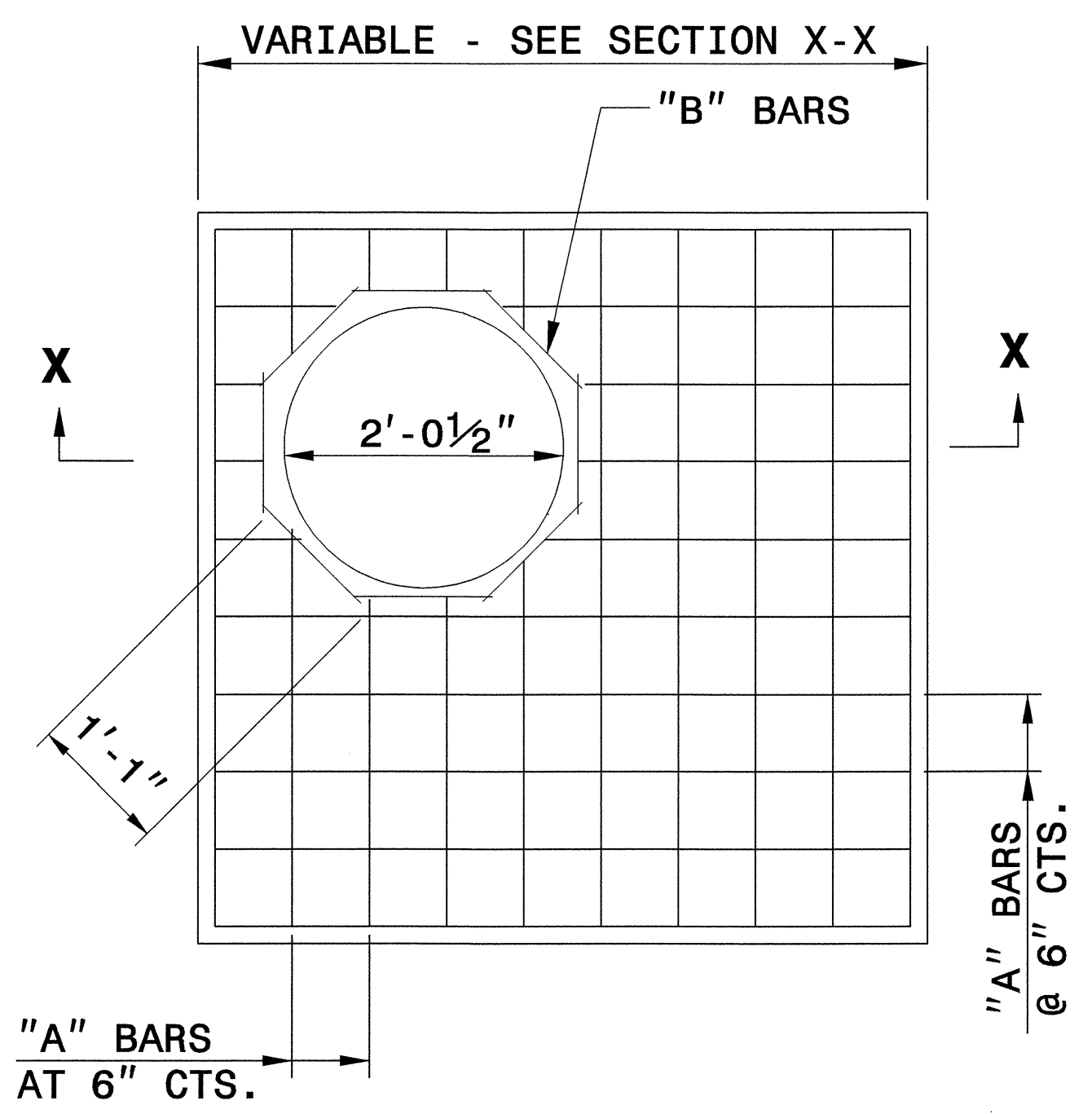


CONCRETE STEPS DETAIL

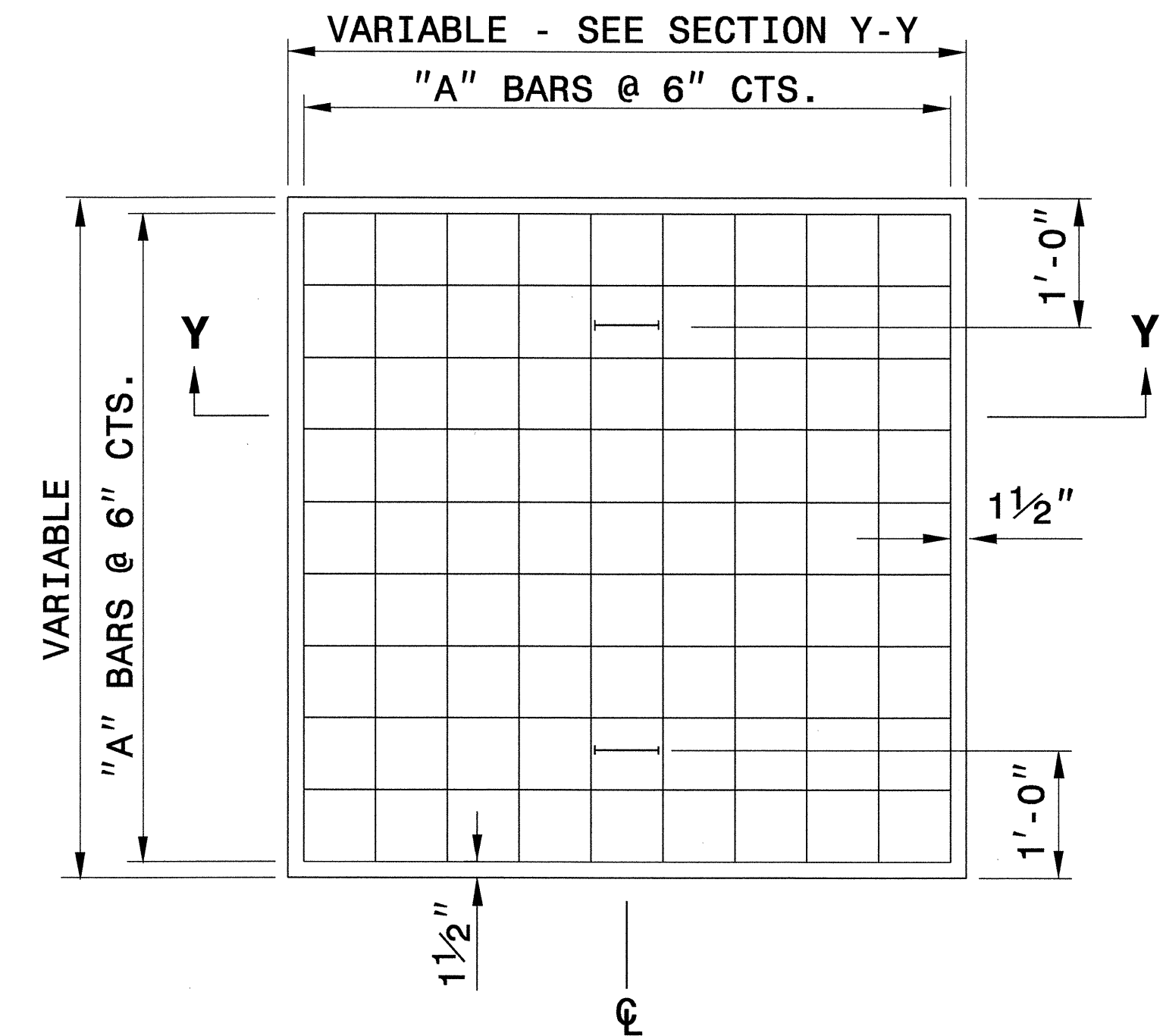
REVISIONS



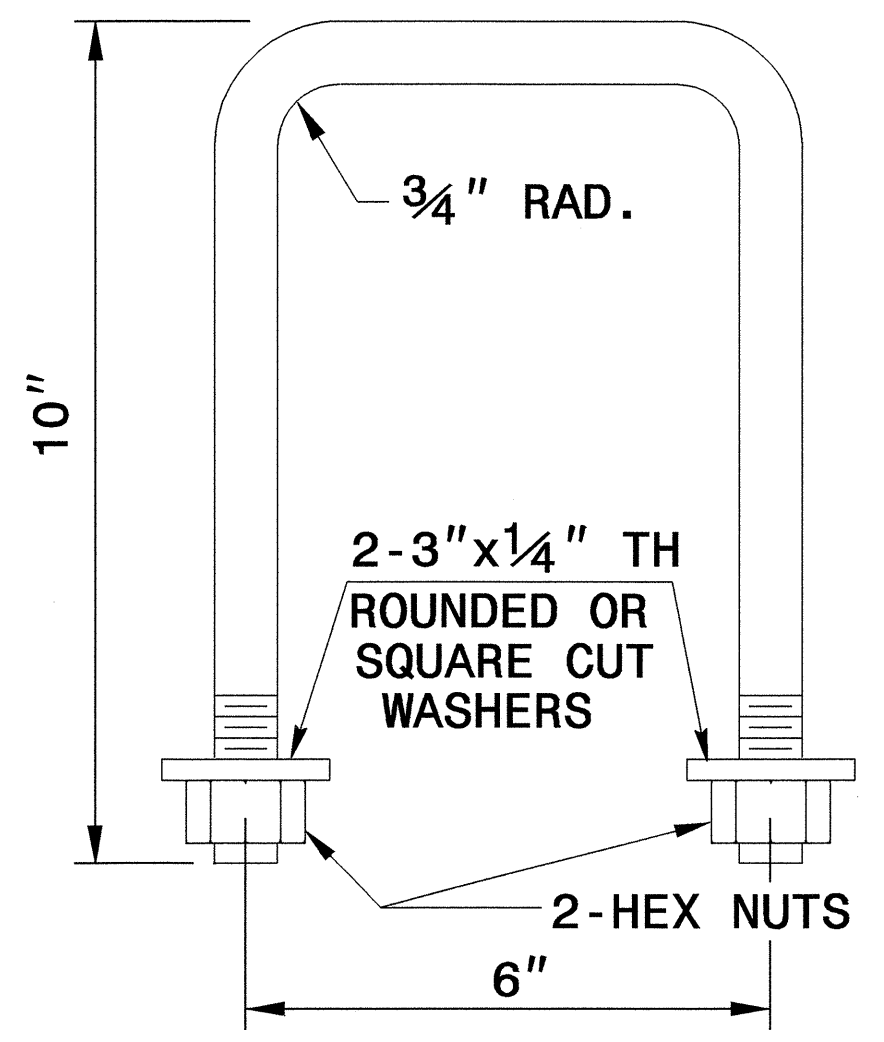
PARTIAL SECTION



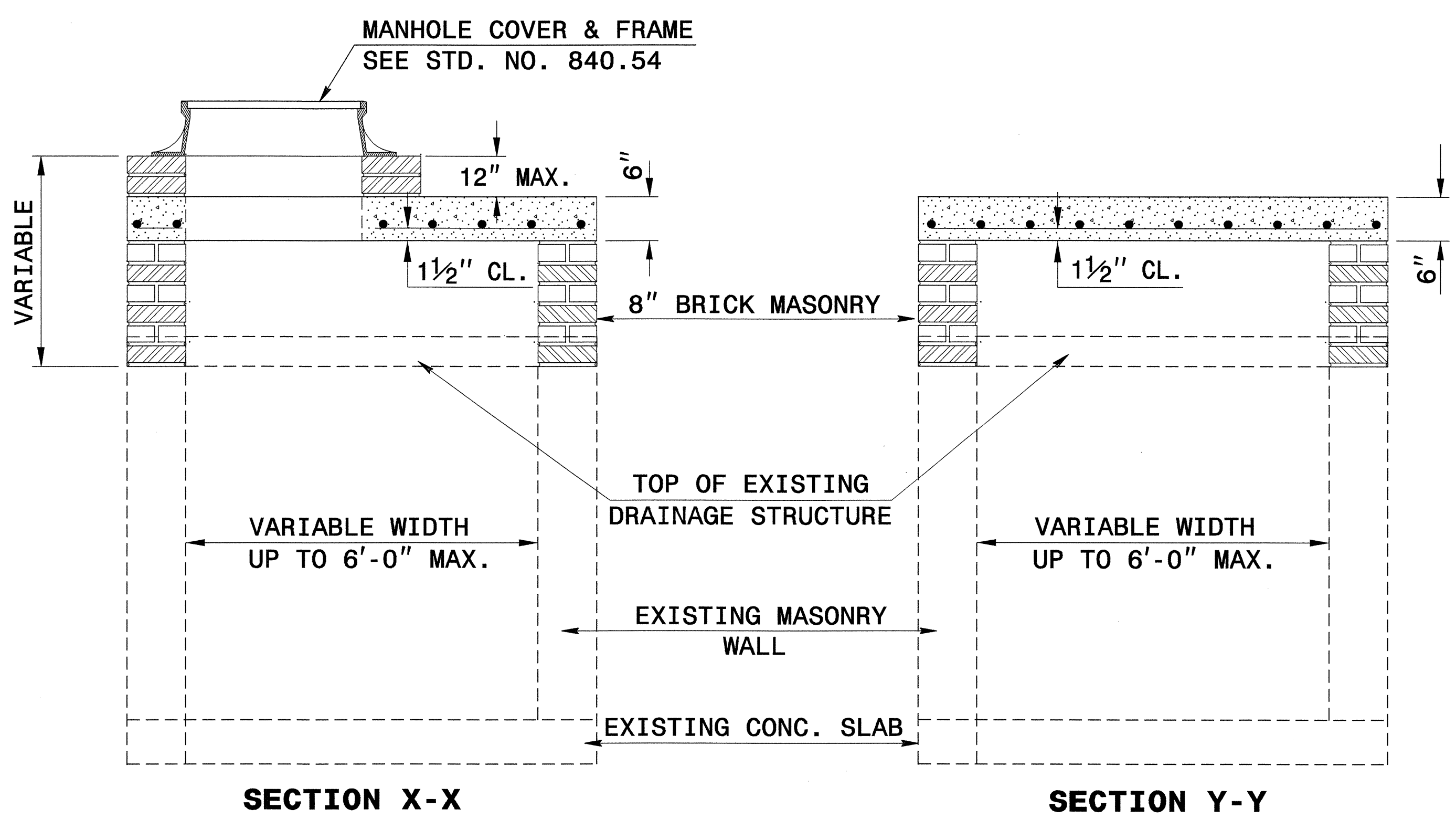
PLAN



PLAN



DETAIL OF HANDLE



SECTION X-X

SECTION Y-Y

GENERAL NOTES:

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.
 THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.
 DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

BILL OF MATERIALS

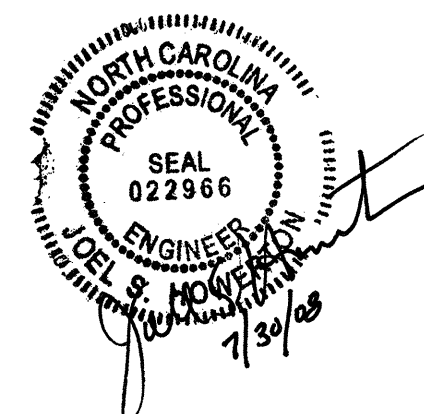
REINFORCING STEEL

CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *

MASONRY

	CU YDS
TOP SLAB CONCRETE CLASS "B"	.4326 *
BRICK MASONRY PER FT HT (MIN)	.4111

* NOTE:
 QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.



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 JUNCTION BOX
 (MANHOLE OPTIONAL)

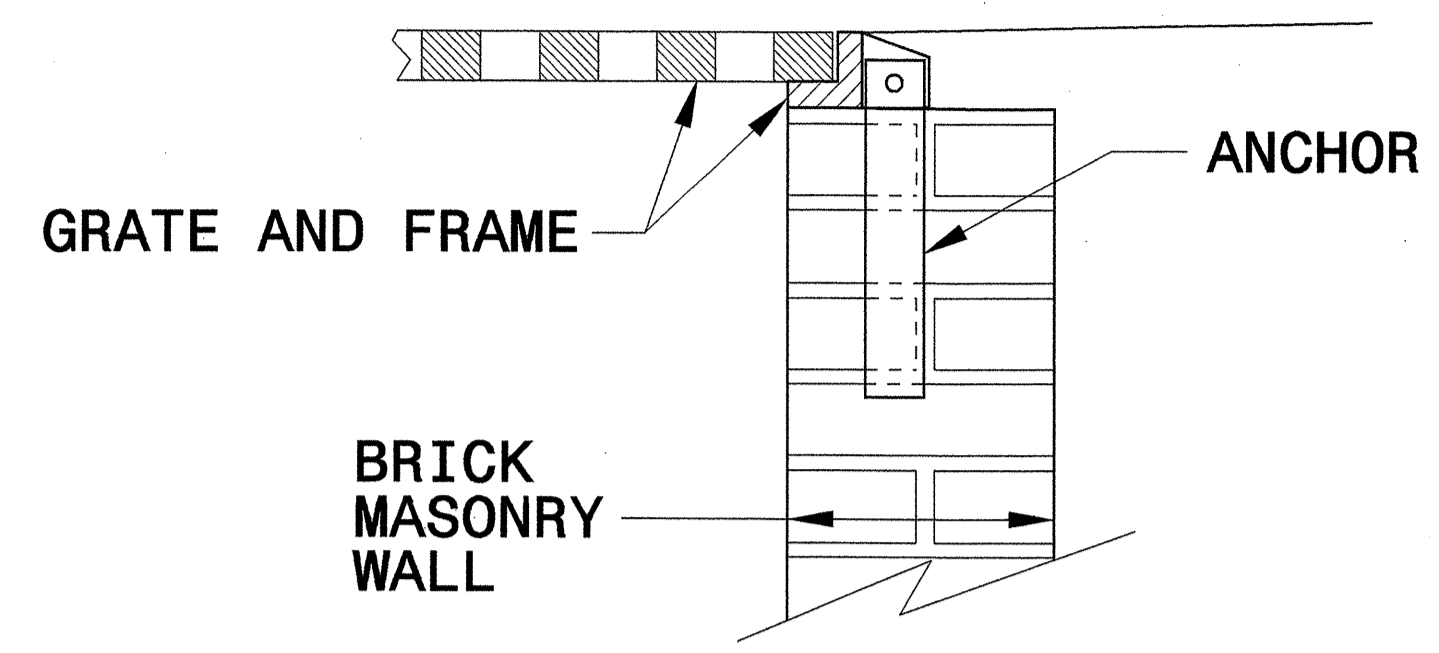
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 CHECKED BY: *Joel S. Howerton* DATE: 7/21/08
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5/14/99
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 JHOWERTON
 7/21/08

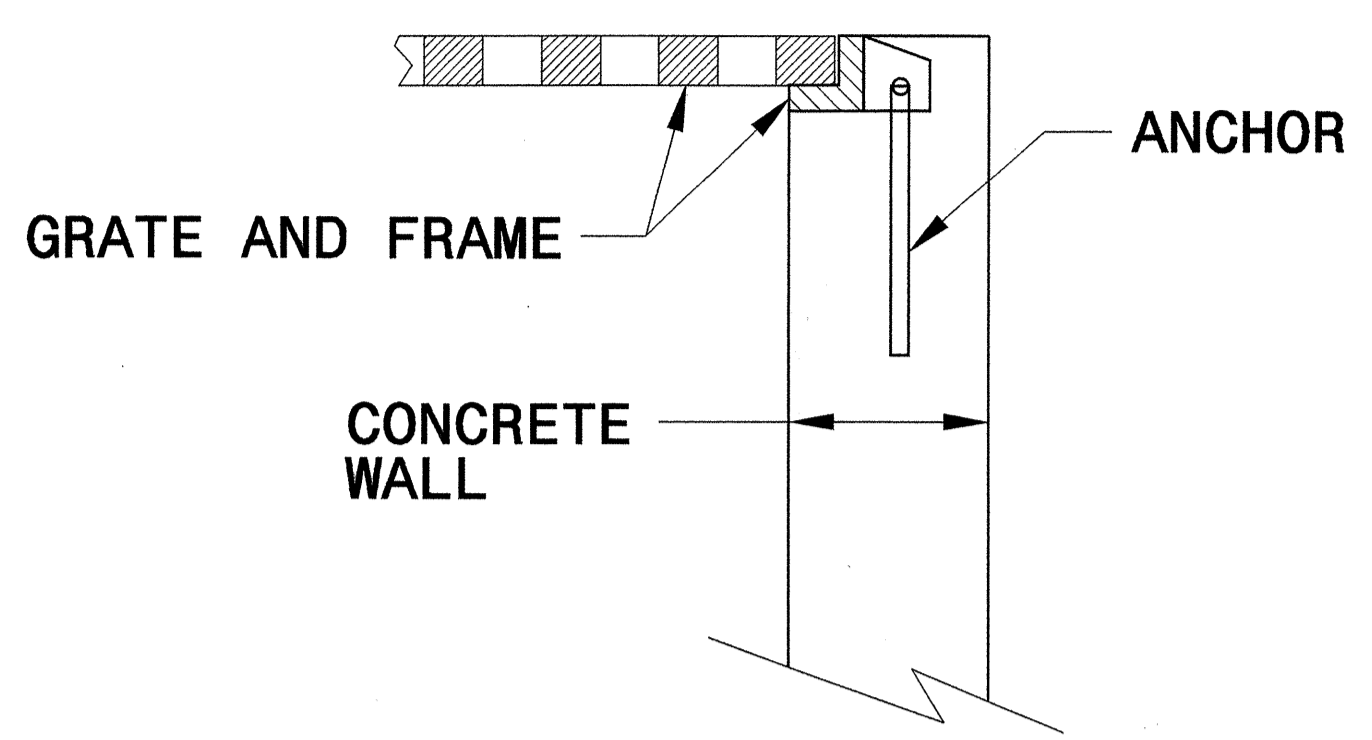
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

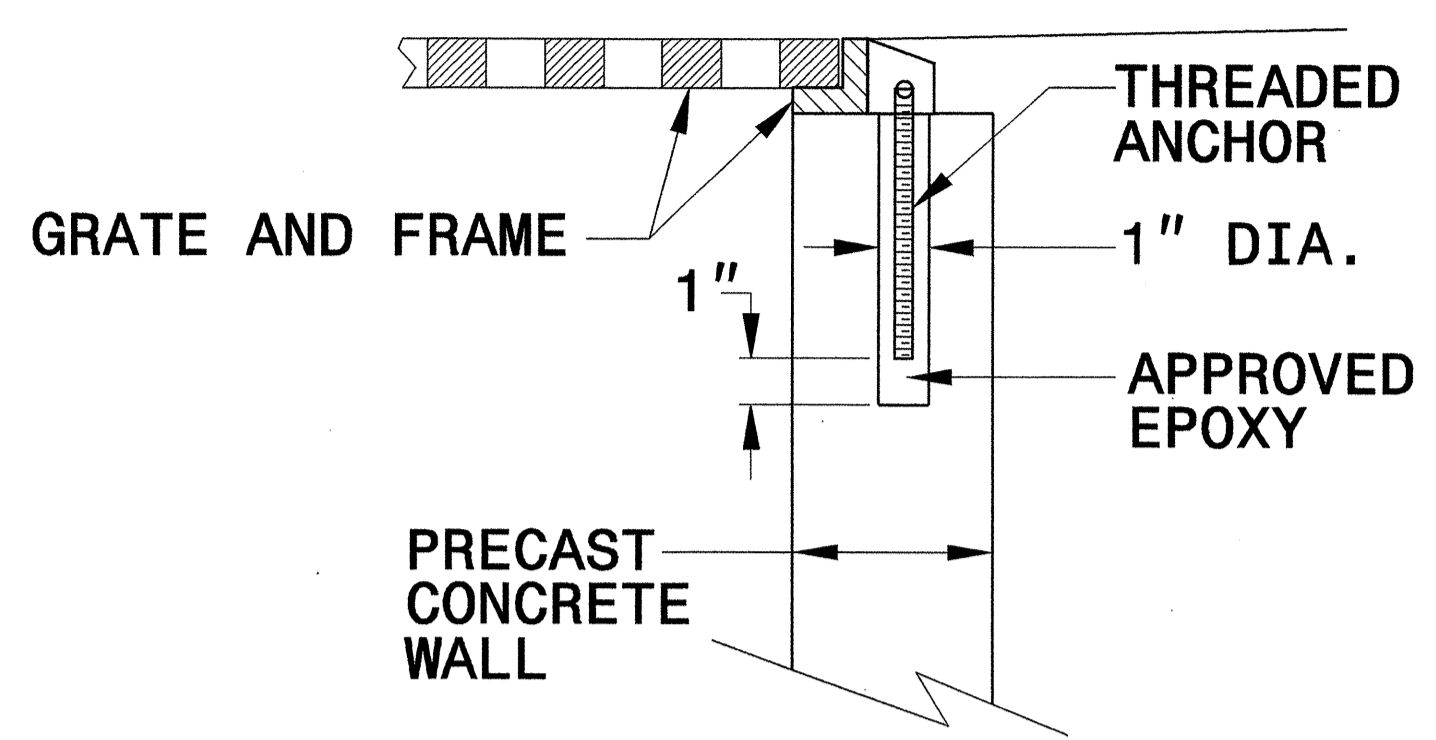
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



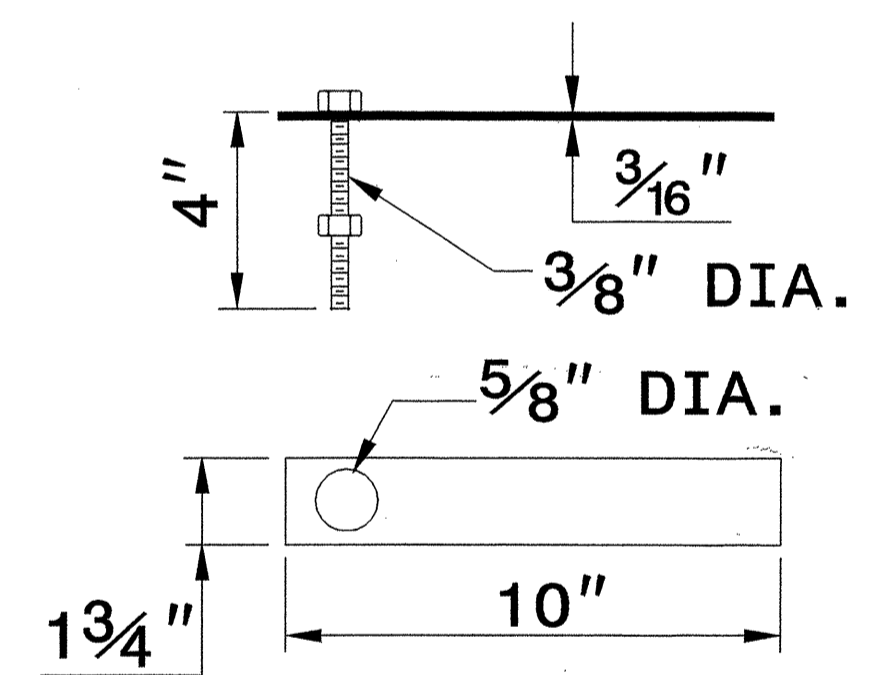
CONCRETE CONSTRUCTION



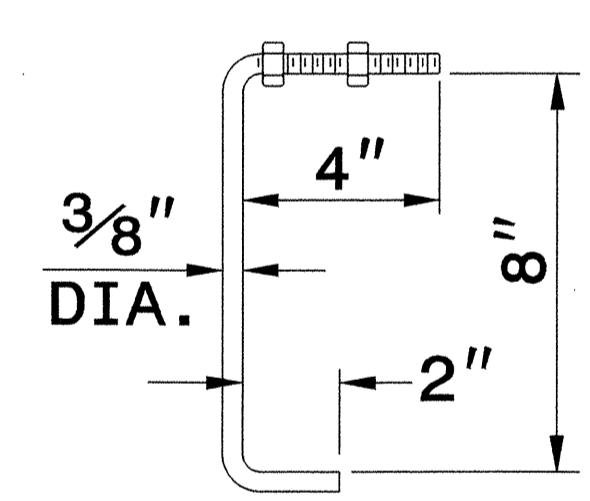
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

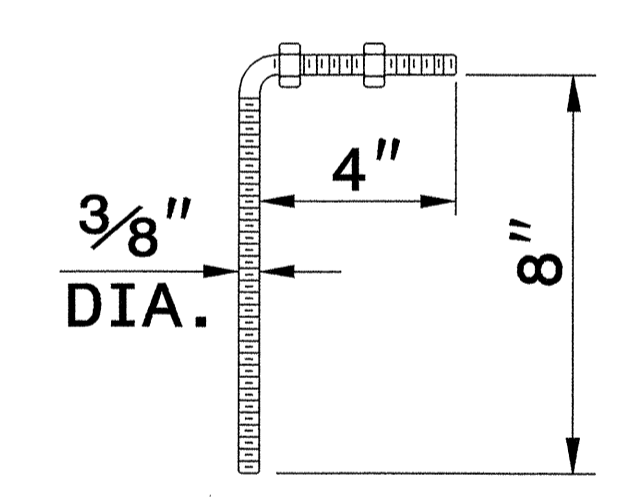
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



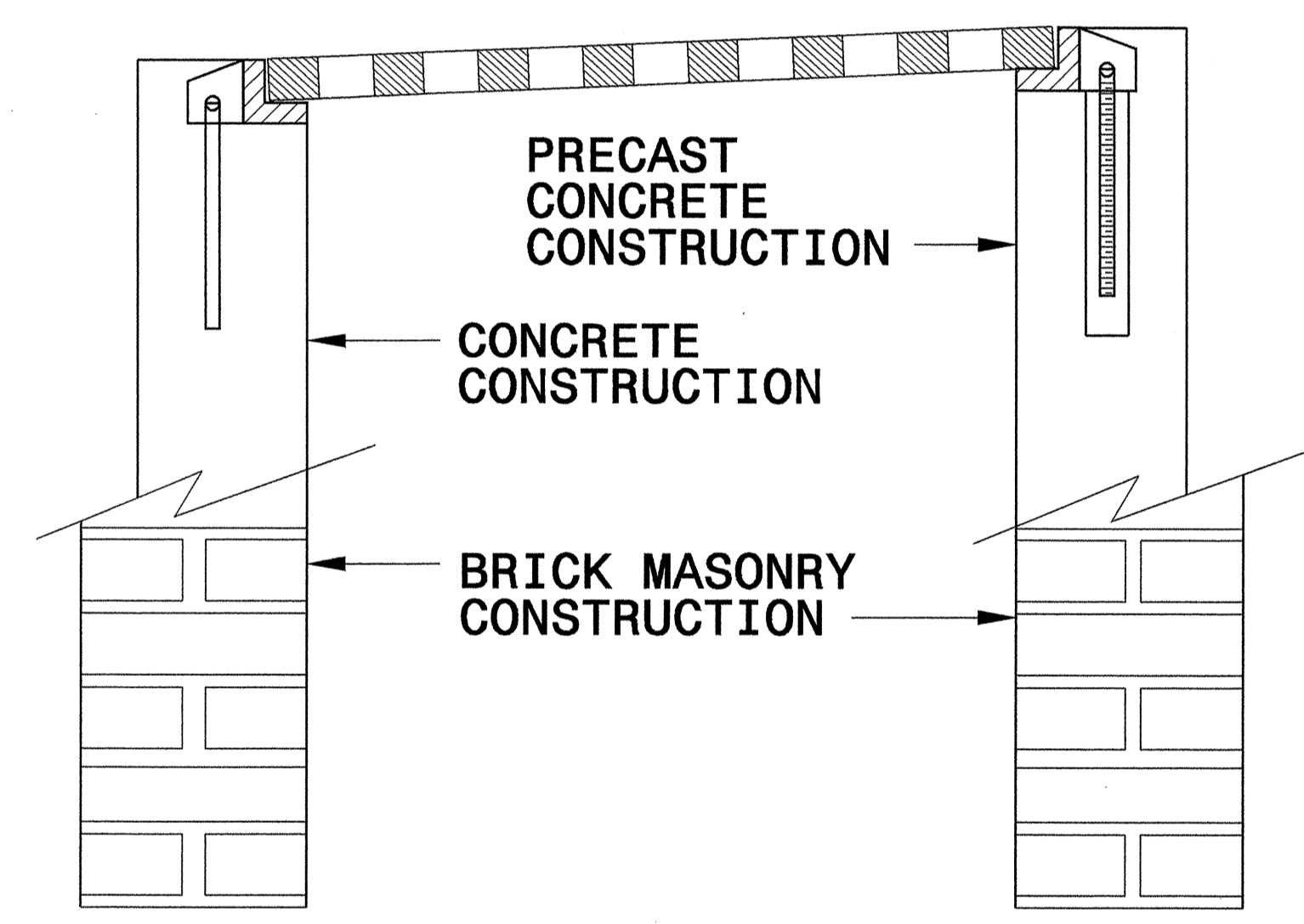
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



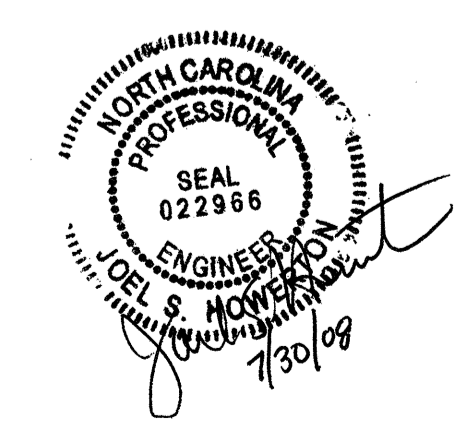
FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

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

237501 5/13/2008 0840d25 jhowerton IT01-Oce34bond



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

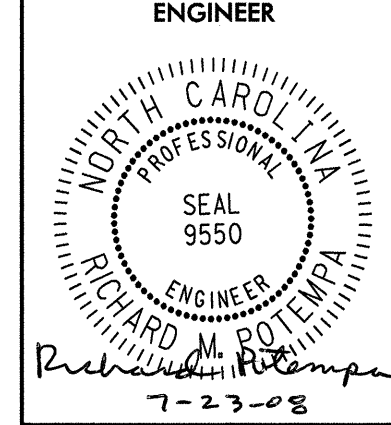
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202105

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0015000000-N	205	1	EA	SEALING ABANDONED WELLS
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0134000000-E	240	600	CY	DRAINAGE DITCH EXCAVATION
0141000000-E	240	3,100	LF	BERM DITCH CONSTRUCTION
0318000000-E	300	280	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
0343000000-E	310	204	LF	15" SIDE DRAIN PIPE
0706000000-E	310	113	LF	12" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0708000000-E	310	1,275	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0714000000-E	310	540	LF	18" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0720000000-E	310	464	LF	24" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0726000000-E	310	16	LF	30" BIT COAT CS PIPE CULVERTS, TYPE B 0.079" THICK
0732000000-E	310	16	LF	36" BIT COAT CS PIPE CULVERTS, TYPE B 0.079" THICK
0805000000-E	310	14	EA	12" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
0806000000-E	310	2	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
0808000000-E	310	1	EA	24" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
0995000000-E	340	228	LF	PIPE REMOVAL
1121000000-E	520	2,310	TON	AGGREGATE BASE COURSE
1220000000-E	545	300	TON	INCIDENTAL STONE BASE
1275000000-E	600	1,850	GAL	PRIME COAT
1308000000-E	607	160	SY	MILLING ASPHALT PAVEMENT, **** TO ***** DEPTH (0" TO 2")
1489000000-E	610	1,600	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B

ItemNumber	Sec #	Quantity	Unit	Description
1498000000-E	610	1,400	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
1519000000-E	610	2,000	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
1560000000-E	620	255	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
1693000000-E	654	185	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
2220000000-E	838	10	CY	REINFORCED ENDWALLS
2264000000-E	840	1	CY	PIPE PLUGS
2286000000-N	840	28	EA	MASONRY DRAINAGE STRUCTURES
2308000000-E	840	2	LF	MASONRY DRAINAGE STRUCTURES
2364000000-N	840	23	EA	FRAME WITH TWO GRATES, STD 840.16
2374000000-N	840	1	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (E)
2374000000-N	840	3	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (F)
2374000000-N	840	1	EA	FRAME WITH GRATE & HOOD, STD 840.03, TYPE ** (G)
2535000000-E	846	322	LF	***X*** CONCRETE CURB (8" X 12")
2549000000-E	846	1,342	LF	2'-6" CONCRETE CURB & GUTTER
2612000000-E	848	210	SY	6" CONCRETE DRIVEWAY
2619000000-E	850	50	SY	4" CONCRETE PAVED DITCH
2830000000-N	858	1	EA	ADJUSTMENT OF MANHOLES
2845000000-N	858	1	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES
2905000000-N	859	1	EA	CONVERT EXISTING DROP INLET TO JUNCTION BOX
3030000000-E	862	1,044	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3195000000-N	862	2	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
3270000000-N	SP	6	EA	GUARDRAIL ANCHOR UNITS, TYPE 350

ItemNumber	Sec #	Quantity	Unit	Description
3566000000-E	867	2,600	LF	WOVEN WIRE FENCE RESET
3572000000-E	867	340	LF	CHAIN LINK FENCE RESET
3628000000-E	876	200	TON	RIP RAP, CLASS I
3649000000-E	876	470	TON	RIP RAP, CLASS B
3656000000-E	876	1,020	SY	FILTER FABRIC FOR DRAINAGE
4116100000-N	904	16	EA	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (E)
4400000000-E	1110	420	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	440	SF	WORK ZONE SIGNS (PORTABLE)
4410000000-E	1110	140	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4430000000-N	1130	160	EA	DRUMS
4435000000-N	1135	40	EA	CONES
4445000000-E	1145	80	LF	BARRICADES (TYPE III)
4455000000-N	1150	170	MD	FLAGGER
4510000000-N	SP	40	HR	POLICE
4516000000-N	1180	20	EA	SKINNY DRUM
4710000000-E	1205	150	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
4810000000-E	1205	43,500	LF	PAINT PAVEMENT MARKING LINES (4")
4835000000-E	1205	300	LF	PAINT PAVEMENT MARKING LINES (24")
4847000000-E	1205	22,100	LF	POLYUREA PAVEMENT MARKING LINES (4", *****) (HIGHLY REFLECTIVE ELEMENTS)
4847140000-E	1205	150	LF	POLYUREA PAVEMENT MARKING LINES (24", *****) (HIGHLY REFLECTIVE ELEMENTS)
4850000000-E	1205	500	LF	REMOVAL OF PAVEMENT MARKING LINES (4")
4905000000-N	1253	150	EA	SNOWPLOWABLE PAVEMENT MARKERS
5691100000-E	1520	300	LF	4" SANITARY GRAVITY SEWER
6000000000-E	1605	5,300	LF	TEMPORARY SILT FENCE
6006000000-E	1610	160	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	280	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	90	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	3	ACR	TEMPORARY MULCHING
6018000000-E	1620	300	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	2	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	70	LF	TEMPORARY SLOPE DRAINS
6027000000-N	1622	4	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
6029000000-E	SP	2,700	LF	SAFETY FENCE
6030000000-E	1630	1,100	CY	SILT EXCAVATION
6033000000-E	1631	2,725	SY	SYNTHETIC ROVING
6036000000-E	1631	3,170	SY	MATting FOR EROSION CONTROL
6038000000-E	SP	2,450	SY	PERMANENT SOIL REINFORCEMENT MAT
6042000000-E	1632	810	LF	1/4" HARDWARE CLOTH
6071030000-E	SP	240	LF	COIR FIBER BAFFLES
6084000000-E	1660	6	ACR	SEEDING & MULCHING
6087000000-E	1660	8	ACR	MOWING
6090000000-E	1661	120	LB	SEED FOR REPAIR SEEDING
6114000000-N	SP	16	HR	SPECIALIZED HAND MOWING
6117000000-N	SP	8	EA	RESPONSE FOR EROSION CONTROL
6890000000-E	SP	4	CY	CONCRETE STEPS

REVISIONS

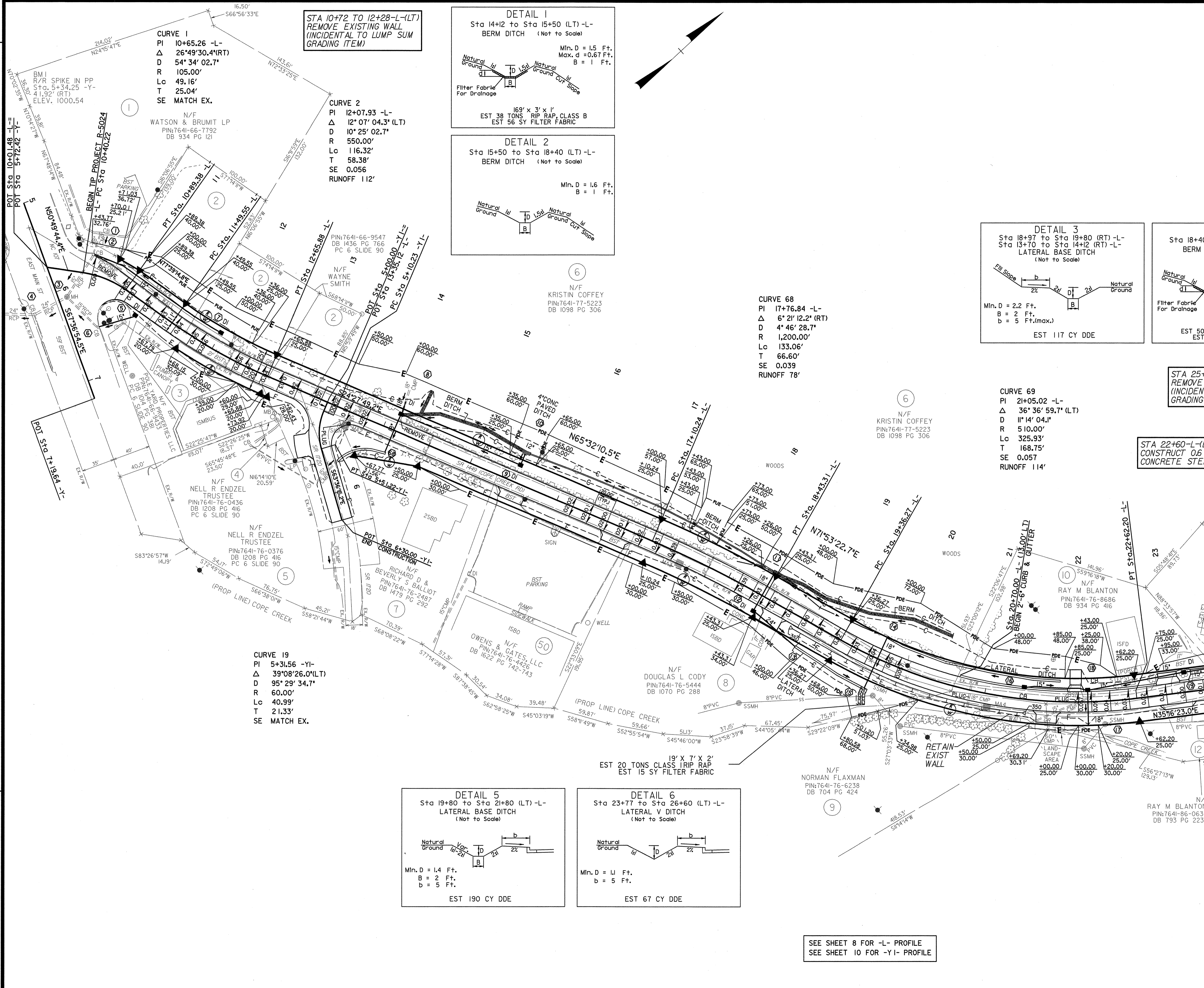


STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS PARCEL INDEX SHEET

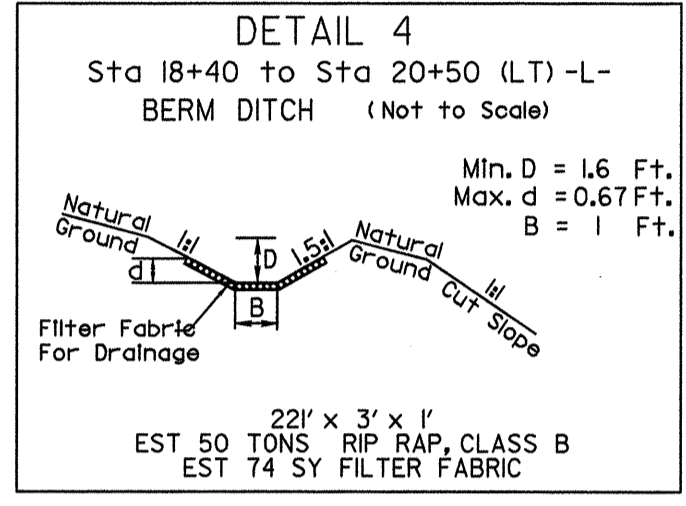
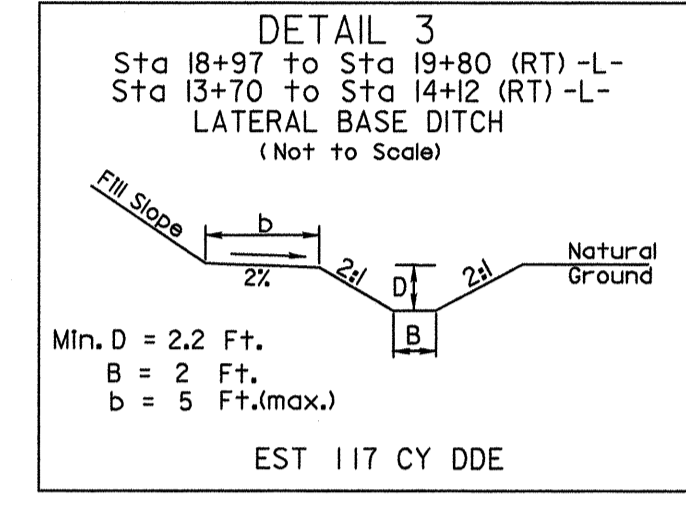
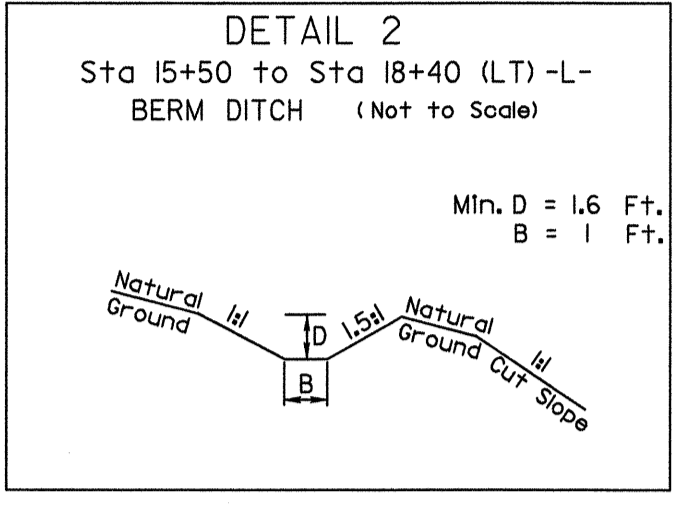
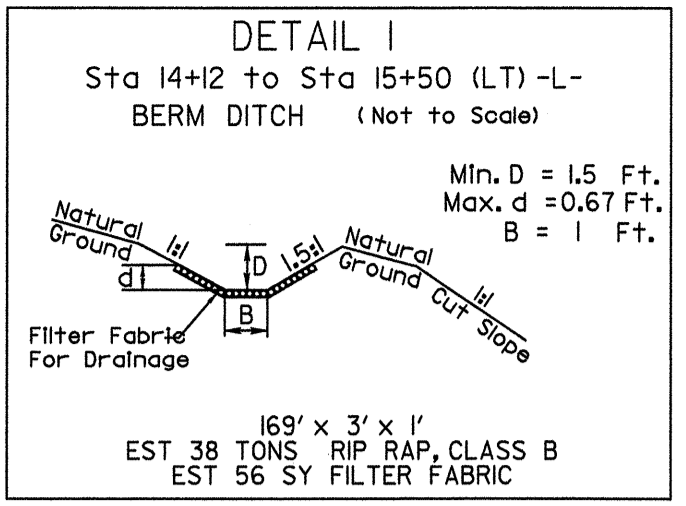
REVISIONS

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME
1	4	WATSON & BRUMIT LP
2	4	WAYNE SMITH
3	4	POLE YARD PROPERTIES LLC
4	4	NELL R ENDZEL TRUSTEE
5	4	NELL R ENDZEL TRUSTEE
6	4	KRISTIN COFFEY
7	4	RICHARD D & BEVERLY S BALLIOT
8	4	DOUGLAS L CODY
9	4	NORMAN FLAXMAN
10	4	RAY M BLANTON
11	4	JENNY JAMES
12	4	RAY M BLANTON
13	4	WALLIS, ALVA III WALLIS, SUSAN A
14	4 & 5	GRABER PROPERTIES INC
12	4 & 5	RAY M BLANTON
16	5	JAMES A NATIONS
17	5	WAYNE SMITH
18	5	MICHAEL DeLORM
19	5	COMMON AREA
20	5	ROBERT J CLINE
21	5	A. THOMAS BLACK & SHERRIH BLACK
22	5	THE MAGNOLIAS ON COPE CREEK, LLC
23	5	BRENDA J DAVIS
24	5	TOM E TABOR
25	5	ANDREA D BORDER

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAME
26	5	MICHAEL D COOPER
26	5 & 6	MICHAEL D COOPER
26	5 & 6	MICHAEL D COOPER
29	6	JAMES A SHULER
30	6	MARTHA POPPLEWELL
31	6	JANET WHISNANT & RICHARD P WHISNANT
32	6	FREDA H QUEEN
33	6	MARY A WILSON
34	6	DIDIER CUZANGE
35	6 & 7	THE LEC LIMITED PARTNERSHIP
36	6 & 7	JOANNE C BRADLEY
37	7	CANDIE R AUVIL
38	7	CHRISTOPHER K AKERS
37	7	CANDIE R AUVIL
40	7	TOMMY G BARNETT
41	7	PRESTON D OKELLEY, II
42	7	JAMES C DOBROVICZ
43	7	WAYNE SMITH
44	7	ARTHUR PHILLIPS
45	7	WILLIAM L SMITH
46	7	BILLY W SMITH
26	6	MICHAEL D COOPER
48	6	BOBBY N BODIFORD
49	5	POSSIBLE OVERLAP
50	4	OWENS & GATES, LLC



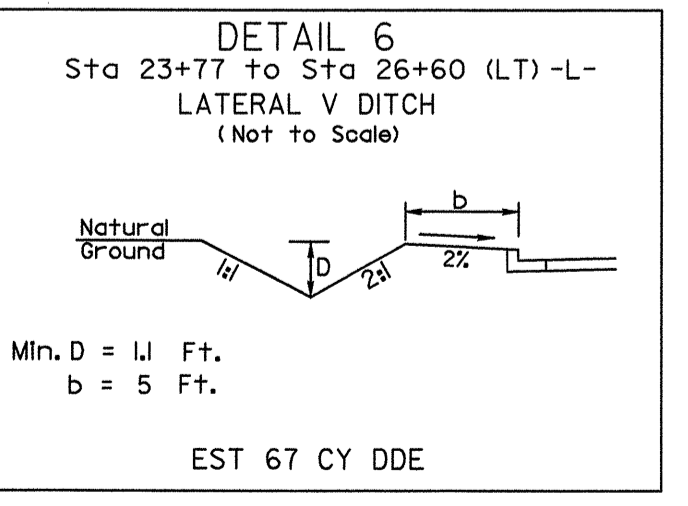
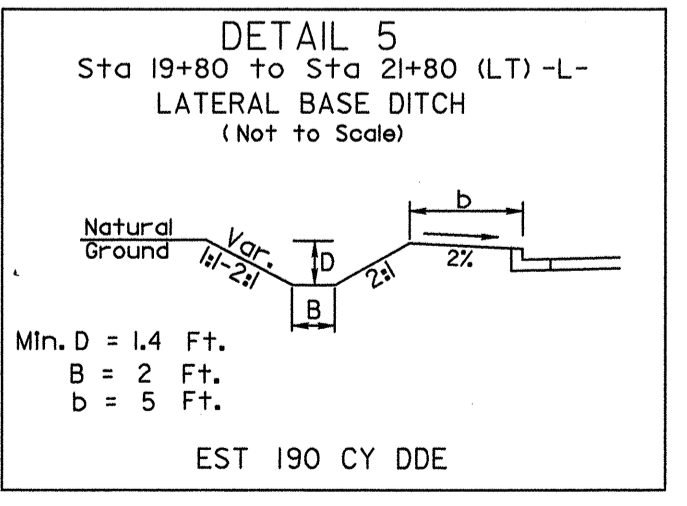
STA 10+72 TO 12+28-L(LT)
 REMOVE EXISTING WALL
 (INCIDENTAL TO LUMP SUM
 GRADING ITEM)



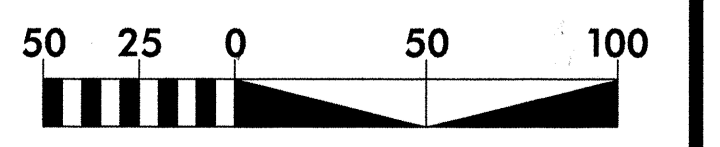
STA 25+02 TO 25+46-L(LT)
 REMOVE EXISTING WALL
 (INCIDENTAL TO LUMP SUM
 GRADING ITEM)

STA 25+00-L(LT)
 CONSTRUCT 0.6 CY
 CONCRETE STEPS

STA 22+60-L(LT)
 CONSTRUCT 0.6 CY
 CONCRETE STEPS

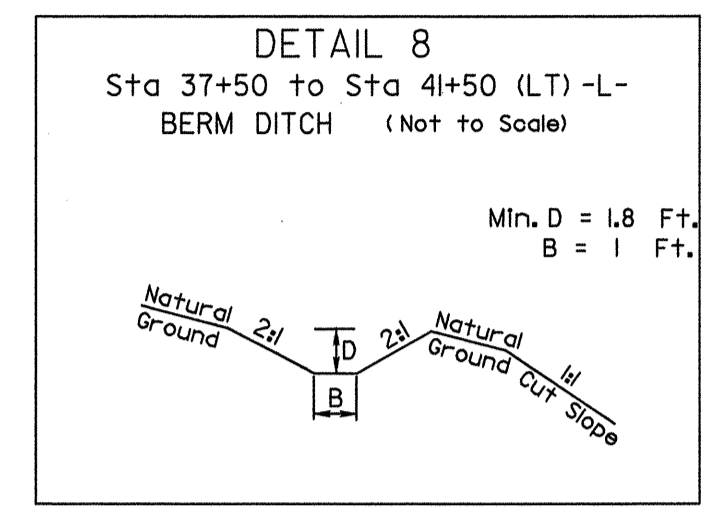
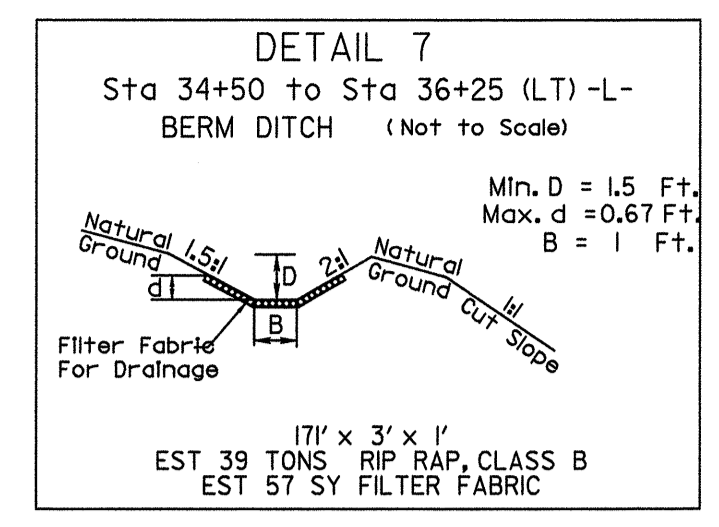


SEE SHEET 8 FOR -L- PROFILE
 SEE SHEET 10 FOR -YI- PROFILE



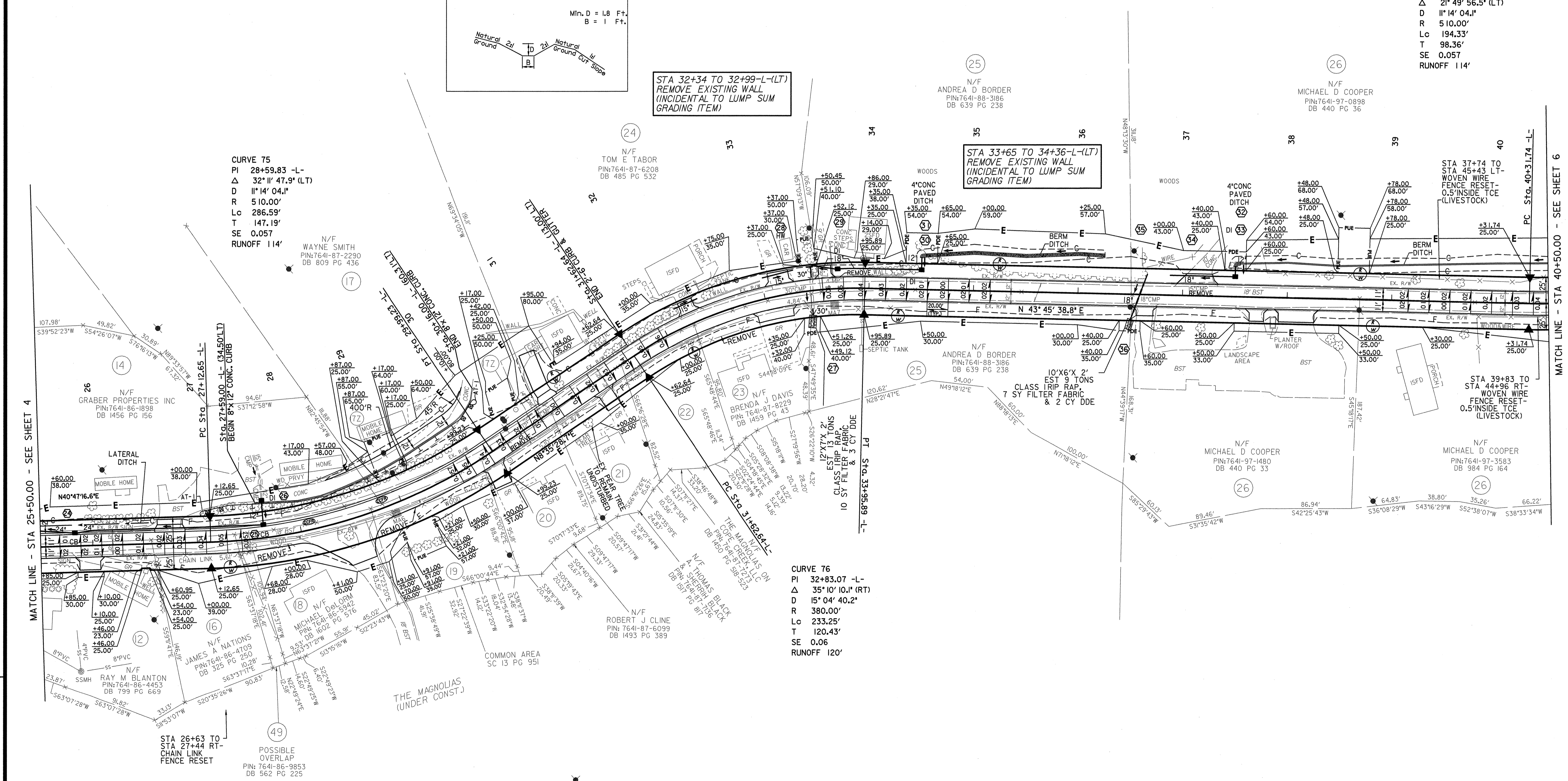
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CURVE 9
 PI 41+30.10 -L-
 Δ 21° 49' 56.5" (LT)
 D 11' 14" 04.1"
 R 510.00'
 Lc 194.33'
 T 98.36'
 SE 0.057
 RUNOFF 114'



STA 32+34 TO 32+99 -L-(LT)
 REMOVE EXISTING WALL
 (INCIDENTAL TO LUMP SUM
 GRADING ITEM)

STA 33+65 TO 34+36 -L-(LT)
 REMOVE EXISTING WALL
 (INCIDENTAL TO LUMP SUM
 GRADING ITEM)



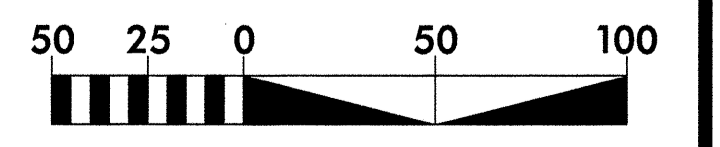
CURVE 75
 PI 28+59.83 -L-
 Δ 32° 11' 47.9" (LT)
 D 11' 14" 04.1"
 R 510.00'
 Lc 286.59'
 T 147.19'
 SE 0.057
 RUNOFF 114'

CURVE 76
 PI 32+83.07 -L-
 Δ 35° 10' 10.1" (RT)
 D 15' 04" 40.2"
 R 380.00'
 Lc 233.25'
 T 120.43'
 SE 0.06
 RUNOFF 120'

MATCH LINE - STA 25+50.00 - SEE SHEET 4

MATCH LINE - STA 40+50.00 - SEE SHEET 6

SEE SHEET 8 & 9 FOR -L- PROFILE



REVISIONS

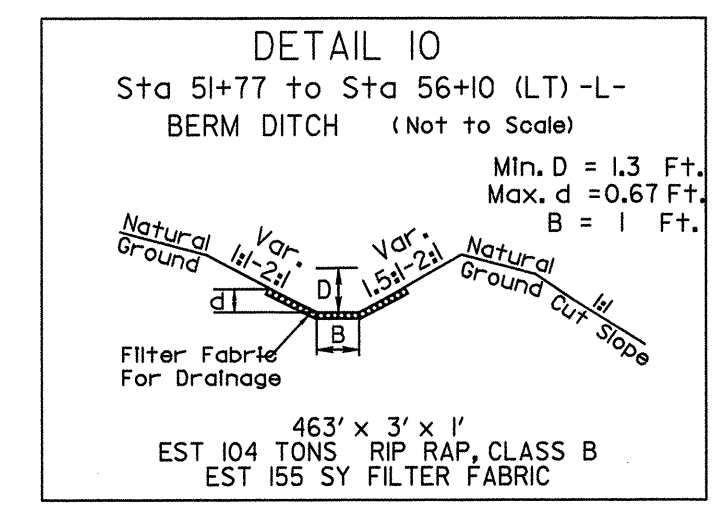
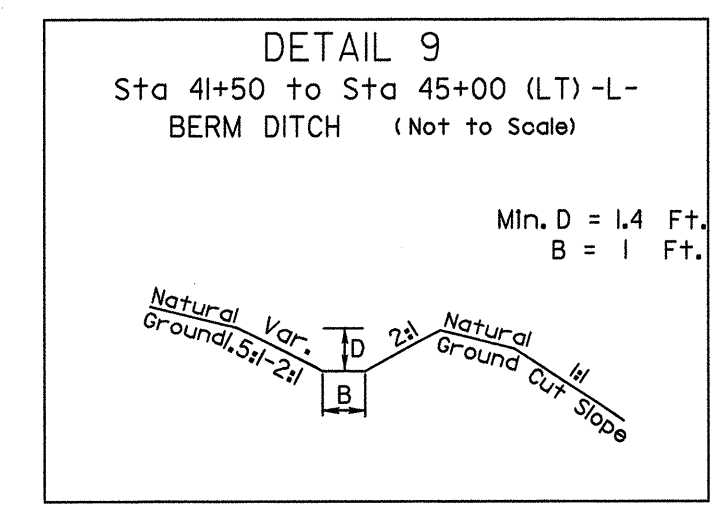
CURVE 63
 PI 52+53.20 -L-
 Δ 14° 55' 31.4" (LT)
 D 9° 32' 57.5"
 R 600.00'
 Lc 156.30'
 T 78.59'
 SE 0.054
 RUNOFF 108'

(35)
 N/F
 THE LEC LIMITED
 PARTNERSHIP
 PIN: 7651-09-1668
 DB 1596 PG 316-317

CURVE 9
 PI 41+30.10-L-
 Δ 21° 49' 56.5" (LT)
 D 11° 14' 04.1"
 R 510.00'
 Lc 194.33'
 T 98.36'
 SE 0.057
 RUNOFF 114'

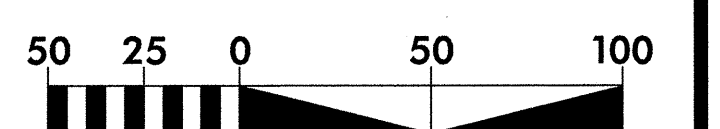
CURVE 64
 PI 55+54.82 -L-
 Δ 31° 25' 13.6" (RT)
 D 15° 04' 40.2"
 R 380.00'
 Lc 208.39'
 T 106.89'
 SE 0.06
 RUNOFF 120'

CURVE 62
 PI 48+87.56 -L-
 Δ 16° 24' 38.5" (RT)
 D 4° 14' 38.9"
 R 1,350.00'
 Lc 386.67'
 T 194.67'
 SE 0.037
 RUNOFF 74'

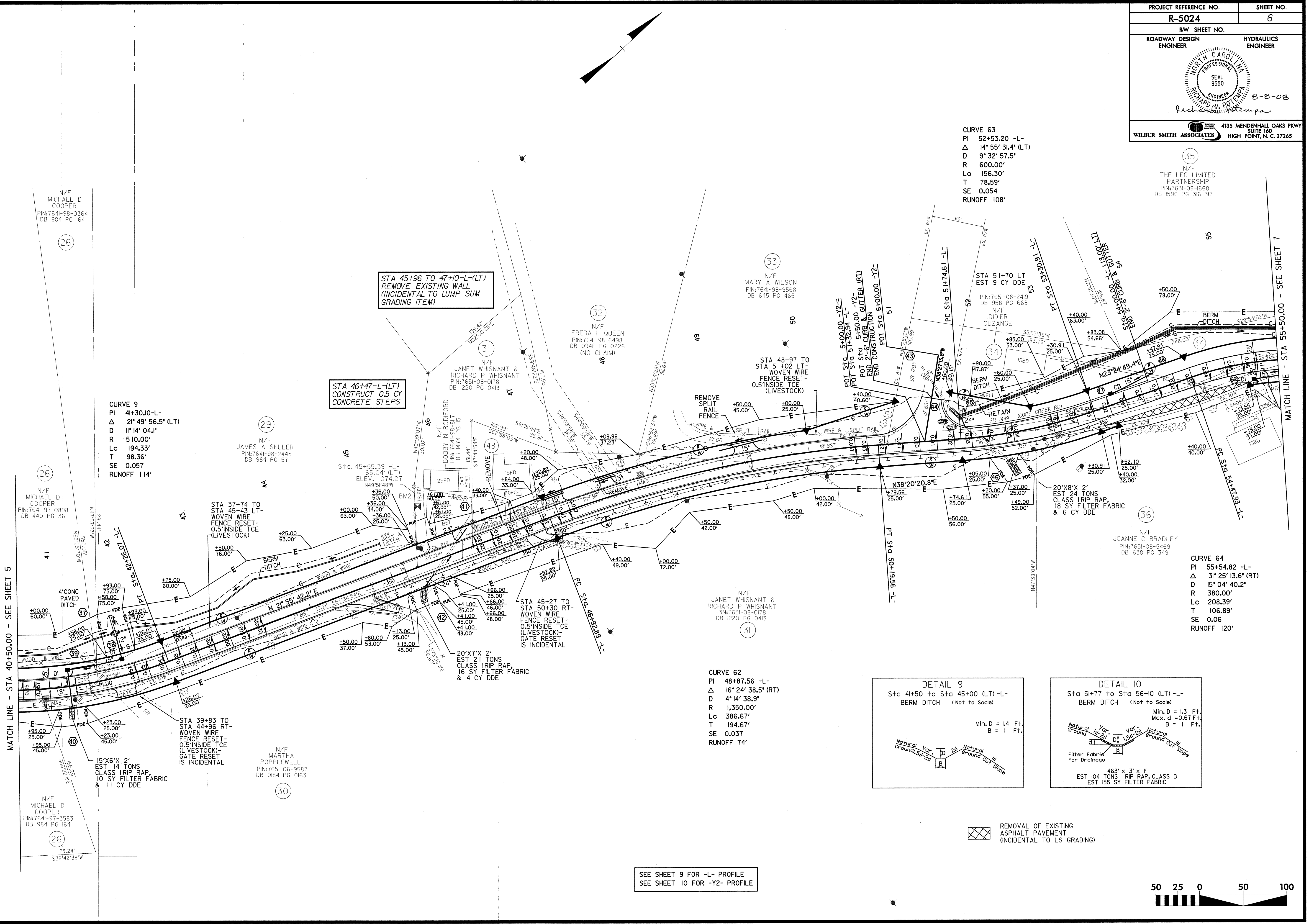


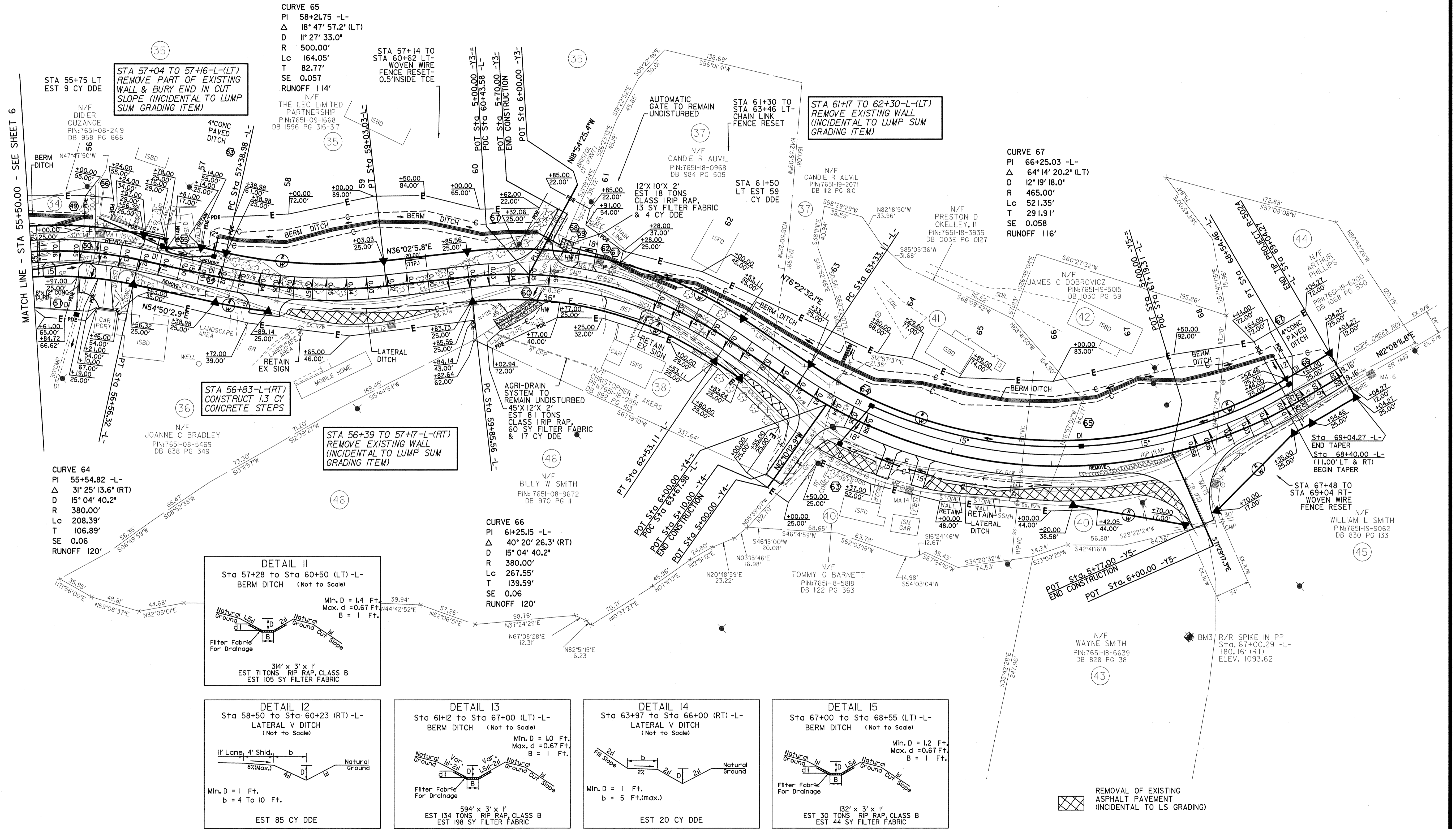
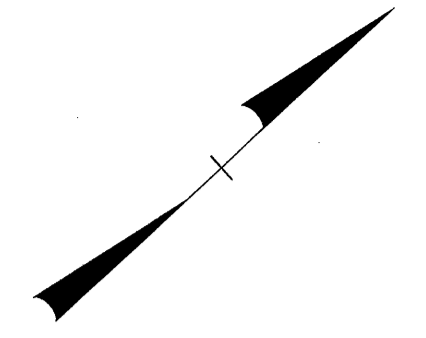
REMOVAL OF EXISTING ASPHALT PAVEMENT (INCIDENTAL TO LS GRADING)

SEE SHEET 9 FOR -L- PROFILE
 SEE SHEET 10 FOR -Y2- PROFILE



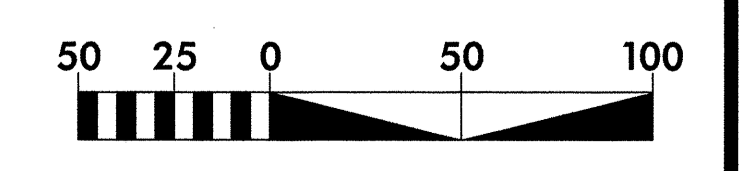
REVISIONS
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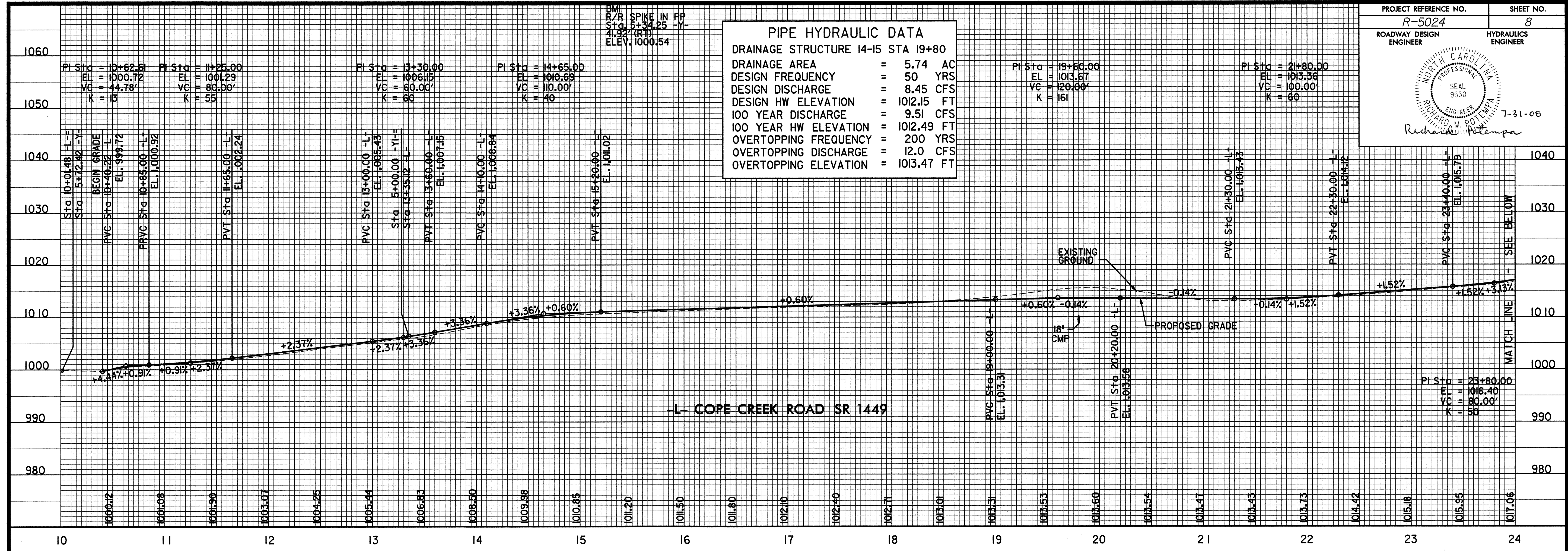
REVISIONS

SEE SHEET 9 & 10 FOR -L- PROFILE
 SEE SHEET 10 FOR -Y3-, -Y4- & -Y5- PROFILES



FILE: R:\MCDON\10204\Roadway\Proj\10204_Rwy_pln_dwg.dgn
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PIPE HYDRAULIC DATA
 DRAINAGE STRUCTURE 14-15 STA 19+80
 DRAINAGE AREA = 5.74 AC
 DESIGN FREQUENCY = 50 YRS
 DESIGN DISCHARGE = 8.45 CFS
 DESIGN HW ELEVATION = 1012.15 FT
 100 YEAR DISCHARGE = 9.51 CFS
 100 YEAR HW ELEVATION = 1012.49 FT
 OVERTOPPING FREQUENCY = 200 YRS
 OVERTOPPING DISCHARGE = 12.0 CFS
 OVERTOPPING ELEVATION = 1013.47 FT



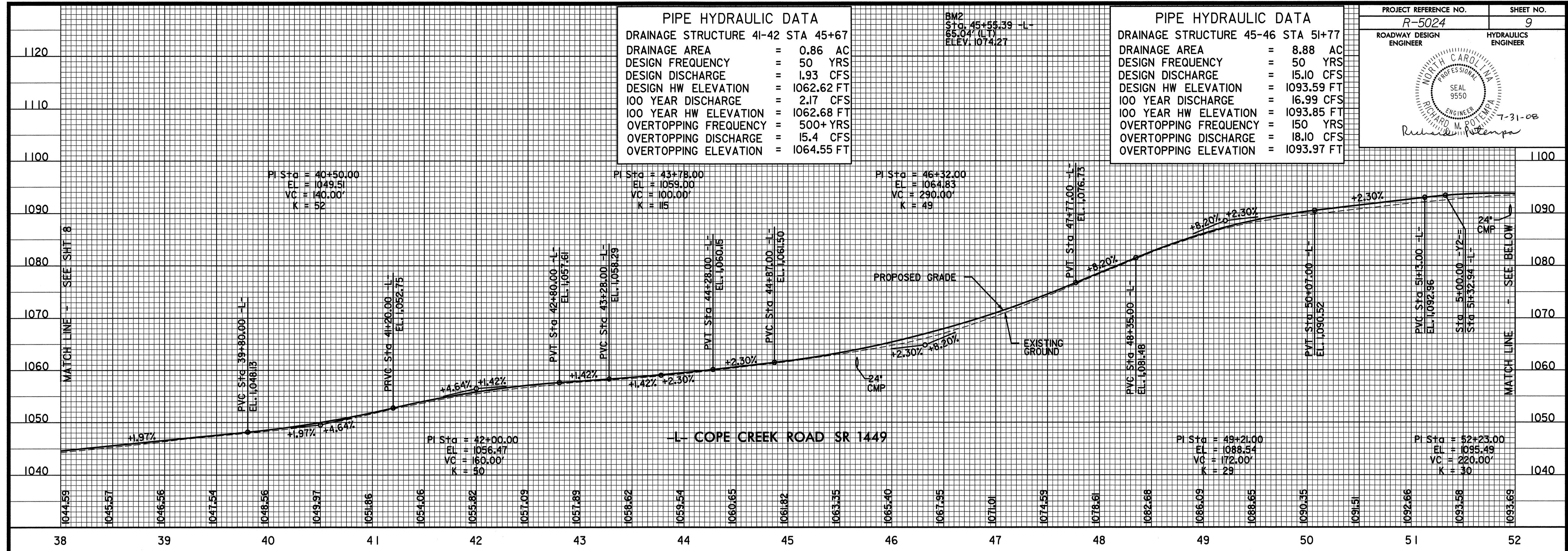
L COPE CREEK ROAD SR 1449

PIPE HYDRAULIC DATA
 DRAINAGE STRUCTURE 28-27 STA 33+45
 DRAINAGE AREA = 10.54 AC
 DESIGN FREQUENCY = 50 YRS
 DESIGN DISCHARGE = 14.85 CFS
 DESIGN HW ELEVATION = 1033.43 FT
 100 YEAR DISCHARGE = 16.70 CFS
 100 YEAR HW ELEVATION = 1033.58 FT
 OVERTOPPING FREQUENCY = 500+ YRS
 OVERTOPPING DISCHARGE = 40.0 CFS
 OVERTOPPING ELEVATION = 1035.77 FT

PIPE HYDRAULIC DATA
 DRAINAGE STRUCTURE 35-36 STA 36+59
 DRAINAGE AREA = 3.02 AC
 DESIGN FREQUENCY = 50 YRS
 DESIGN DISCHARGE = 6.34 CFS
 DESIGN HW ELEVATION = 1040.09 FT
 100 YEAR DISCHARGE = 7.13 CFS
 100 YEAR HW ELEVATION = 1040.13 FT
 OVERTOPPING FREQUENCY = 500 YRS
 OVERTOPPING DISCHARGE = 10.7 CFS
 OVERTOPPING ELEVATION = 1041.21 FT

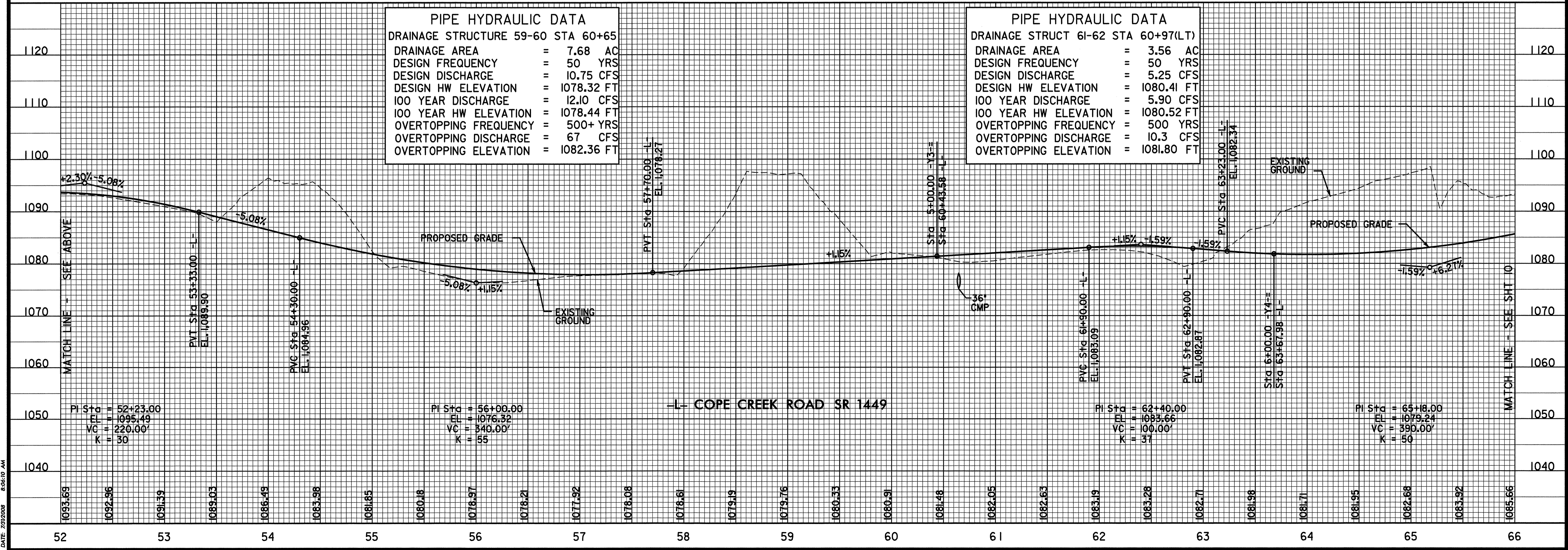
PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE 41-42 STA 45+67	
DRAINAGE AREA	= 0.86 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 1.93 CFS
DESIGN HW ELEVATION	= 1062.62 FT
100 YEAR DISCHARGE	= 2.17 CFS
100 YEAR HW ELEVATION	= 1062.68 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 15.4 CFS
OVERTOPPING ELEVATION	= 1064.55 FT

PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE 45-46 STA 51+77	
DRAINAGE AREA	= 8.88 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 15.10 CFS
DESIGN HW ELEVATION	= 1093.59 FT
100 YEAR DISCHARGE	= 16.99 CFS
100 YEAR HW ELEVATION	= 1093.85 FT
OVERTOPPING FREQUENCY	= 150 YRS
OVERTOPPING DISCHARGE	= 18.10 CFS
OVERTOPPING ELEVATION	= 1093.97 FT



PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE 59-60 STA 60+65	
DRAINAGE AREA	= 7.68 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 10.75 CFS
DESIGN HW ELEVATION	= 1078.32 FT
100 YEAR DISCHARGE	= 12.10 CFS
100 YEAR HW ELEVATION	= 1078.44 FT
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING DISCHARGE	= 67 CFS
OVERTOPPING ELEVATION	= 1082.36 FT

PIPE HYDRAULIC DATA	
DRAINAGE STRUCTURE 61-62 STA 60+97(LT)	
DRAINAGE AREA	= 3.56 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 5.25 CFS
DESIGN HW ELEVATION	= 1080.41 FT
100 YEAR DISCHARGE	= 5.90 CFS
100 YEAR HW ELEVATION	= 1080.52 FT
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING DISCHARGE	= 10.3 CFS
OVERTOPPING ELEVATION	= 1081.80 FT



-L- COPE CREEK ROAD SR 1449

-Y1- HENSLEY CIRCLE SR 1720

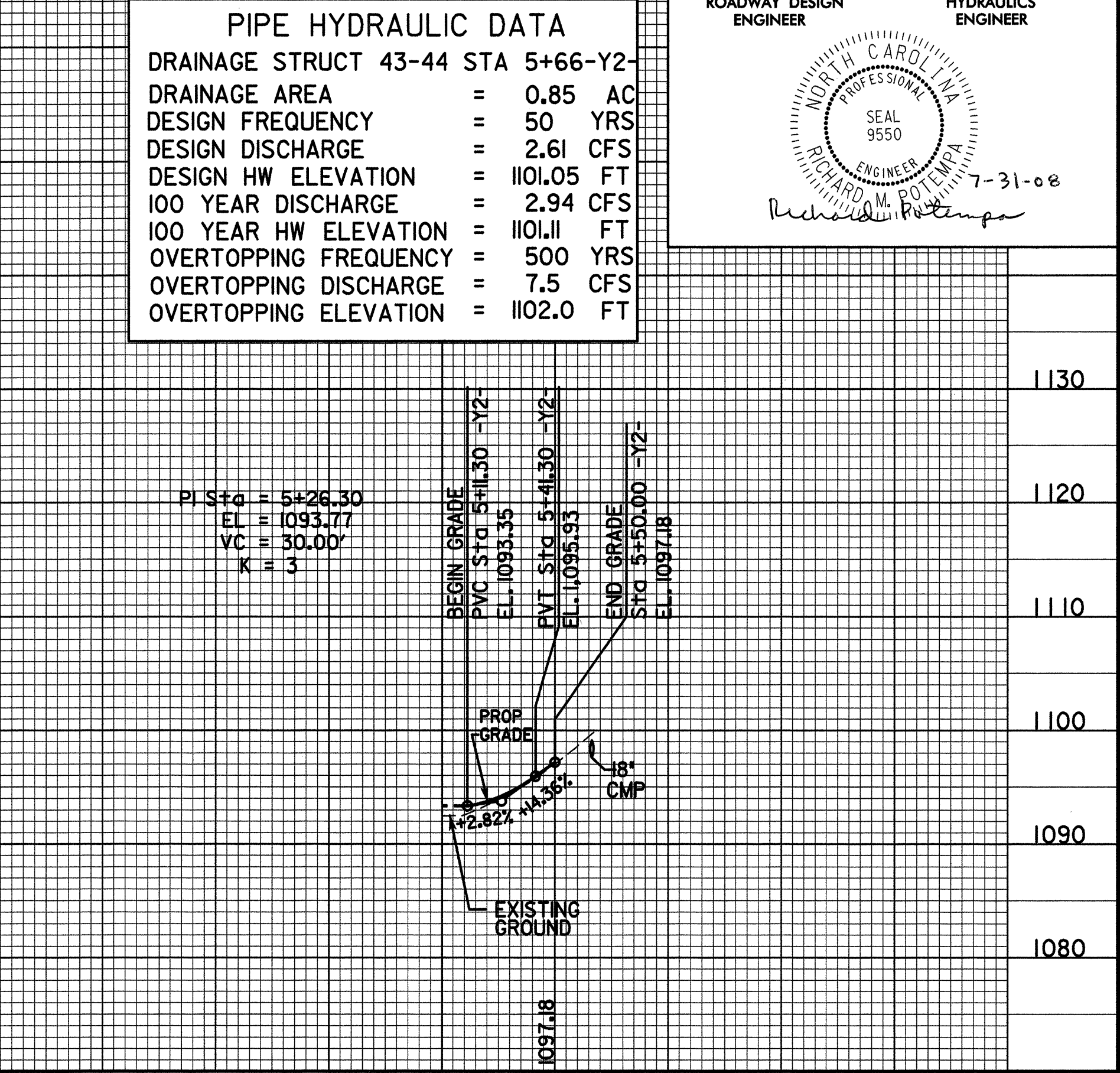
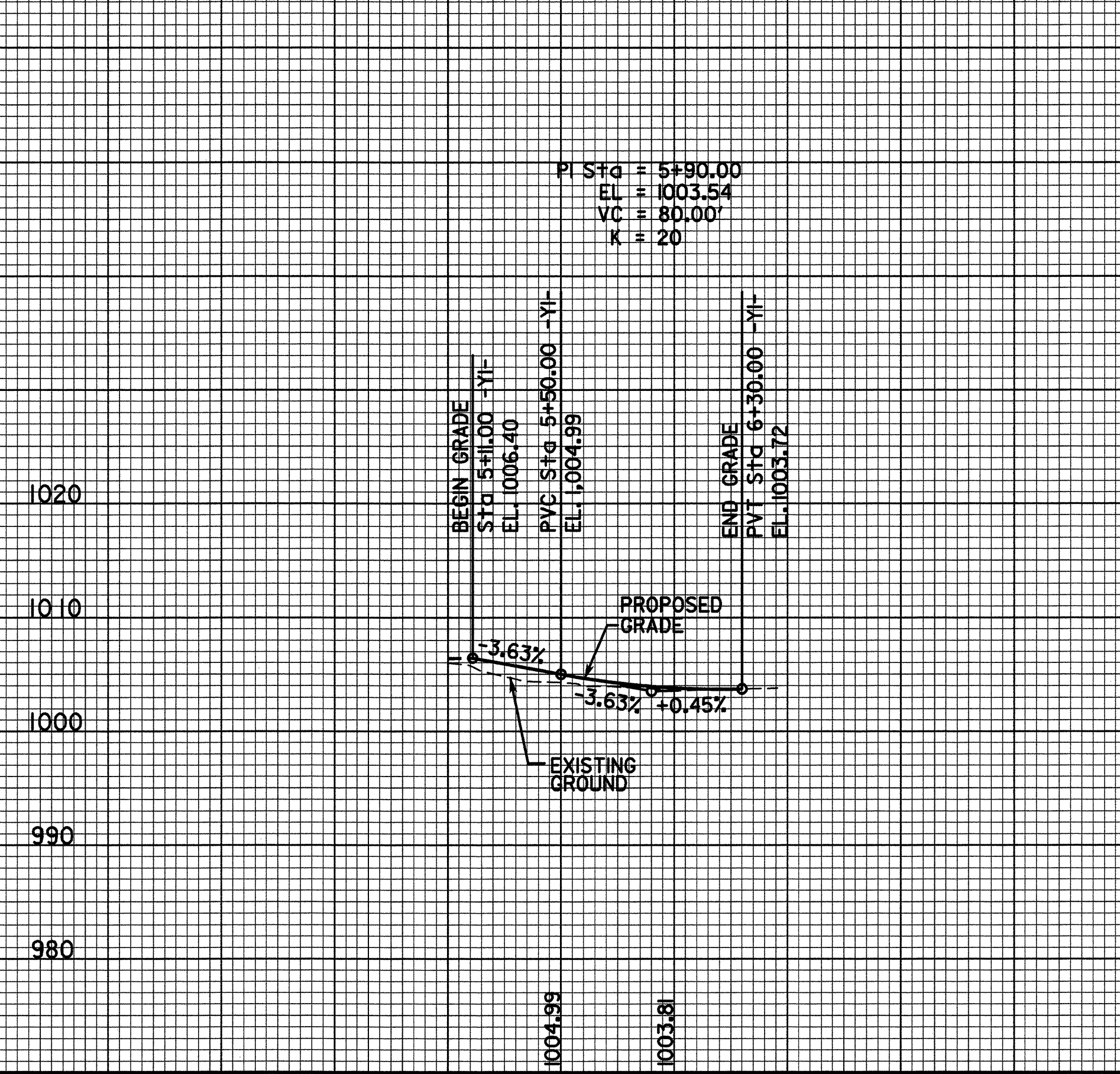
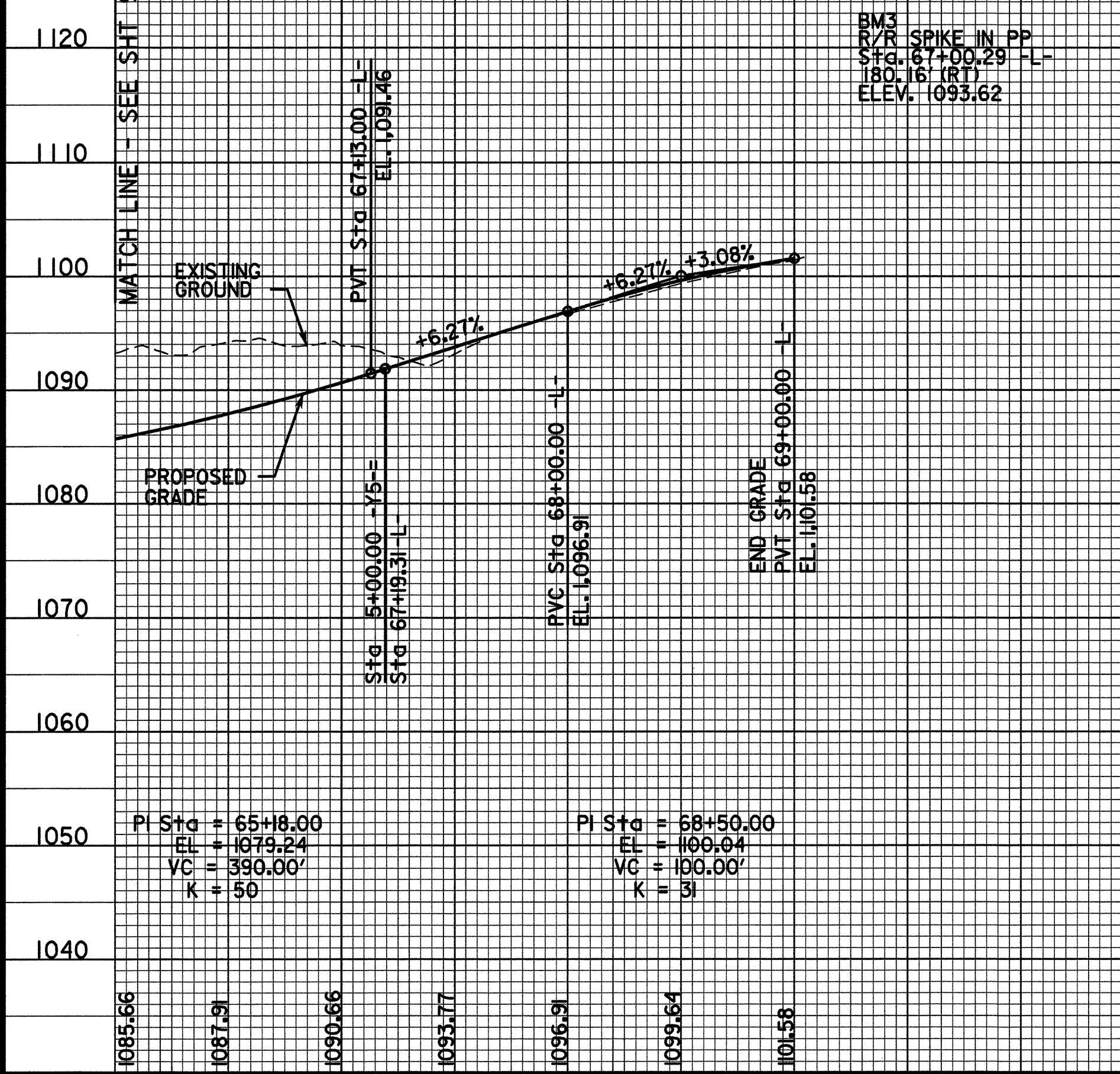
-Y2- MT EIRE DR SR 1793

PROJECT REFERENCE NO. R-5024	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PIPE HYDRAULIC DATA

DRAINAGE STRUCT 43-44 STA 5+66-Y2-

DRAINAGE AREA	= 0.85 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 2.61 CFS
DESIGN HW ELEVATION	= 1101.05 FT
100 YEAR DISCHARGE	= 2.94 CFS
100 YEAR HW ELEVATION	= 1101.11 FT
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING DISCHARGE	= 7.5 CFS
OVERTOPPING ELEVATION	= 1102.0 FT



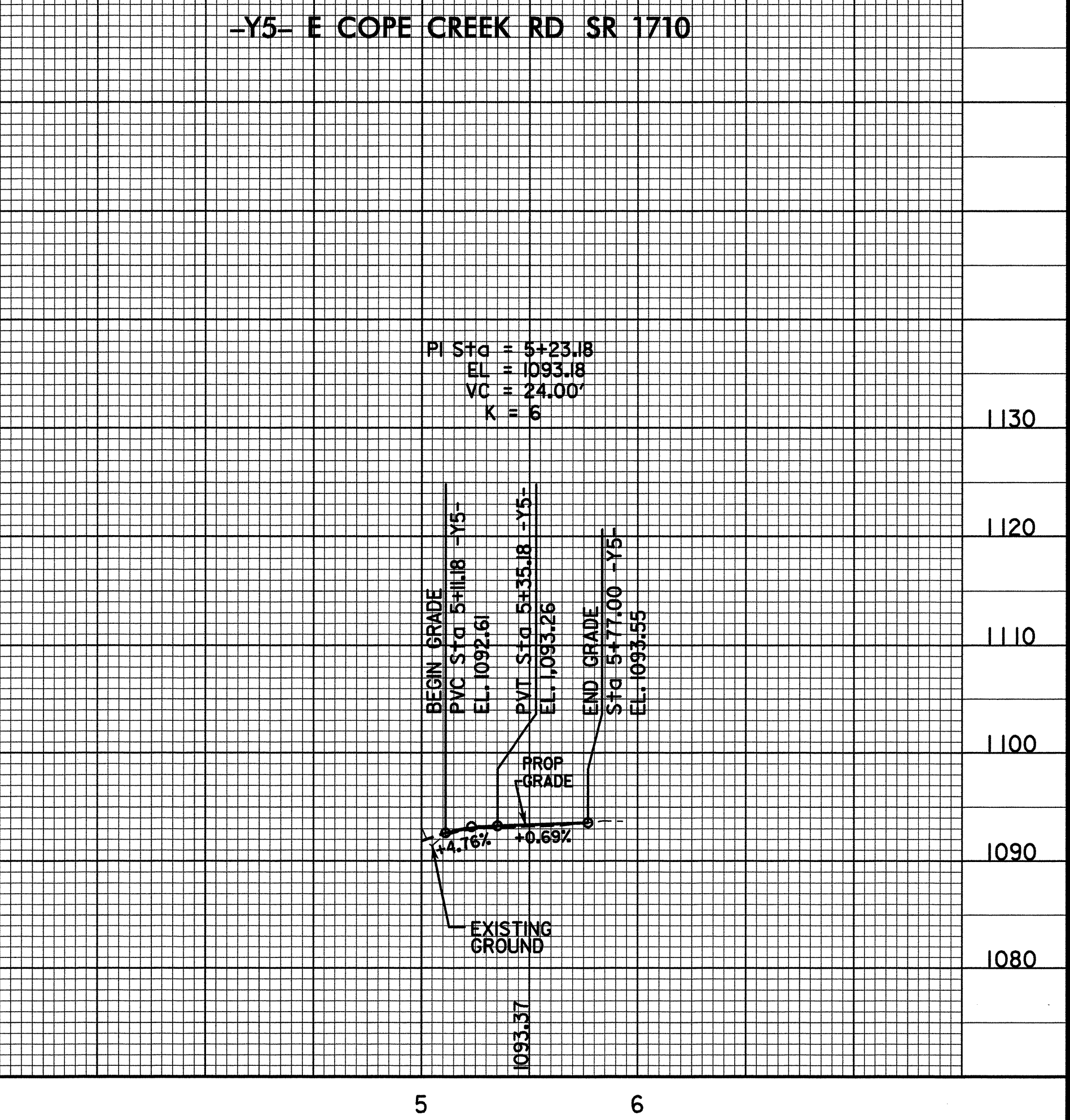
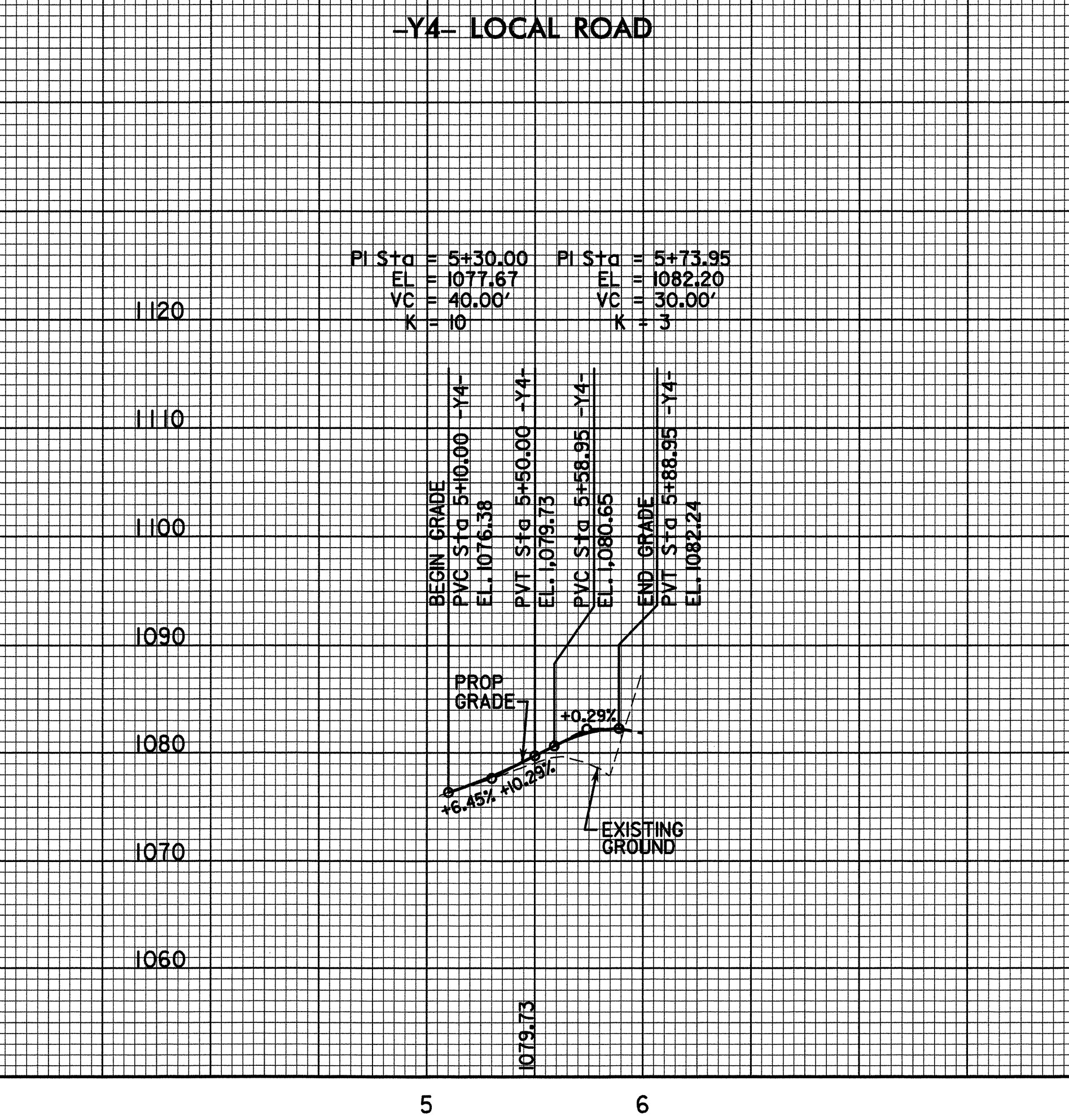
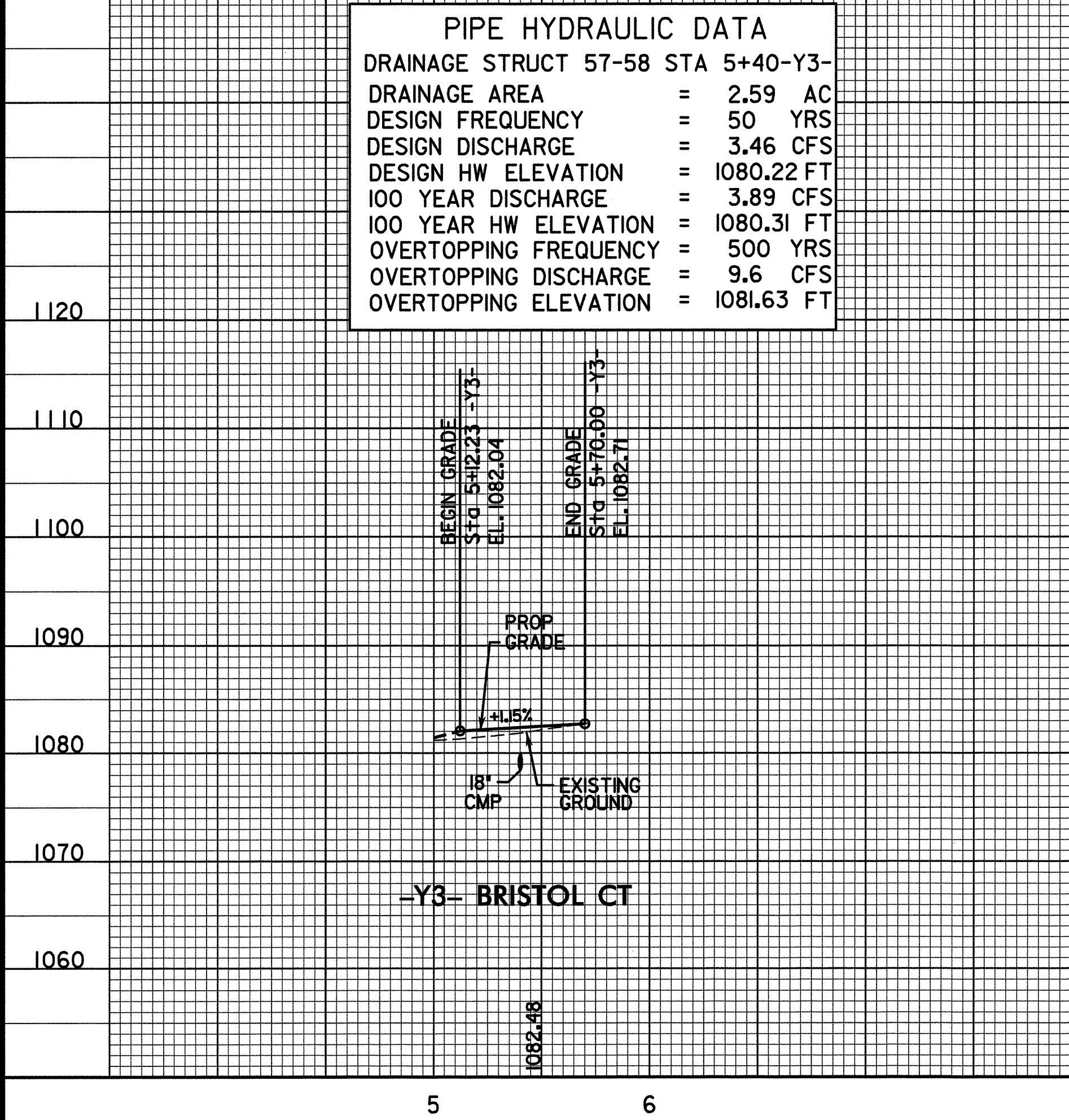
PIPE HYDRAULIC DATA

DRAINAGE STRUCT 57-58 STA 5+40-Y3-

DRAINAGE AREA	= 2.59 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 3.46 CFS
DESIGN HW ELEVATION	= 1080.22 FT
100 YEAR DISCHARGE	= 3.89 CFS
100 YEAR HW ELEVATION	= 1080.31 FT
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING DISCHARGE	= 9.6 CFS
OVERTOPPING ELEVATION	= 1081.63 FT

-Y4- LOCAL ROAD

-Y5- E COPE CREEK RD SR 1710



FILE: E:\NCSD\110024\Roadway\110024.dwg, 8/24/09 AM
DATE: 2/2/2009