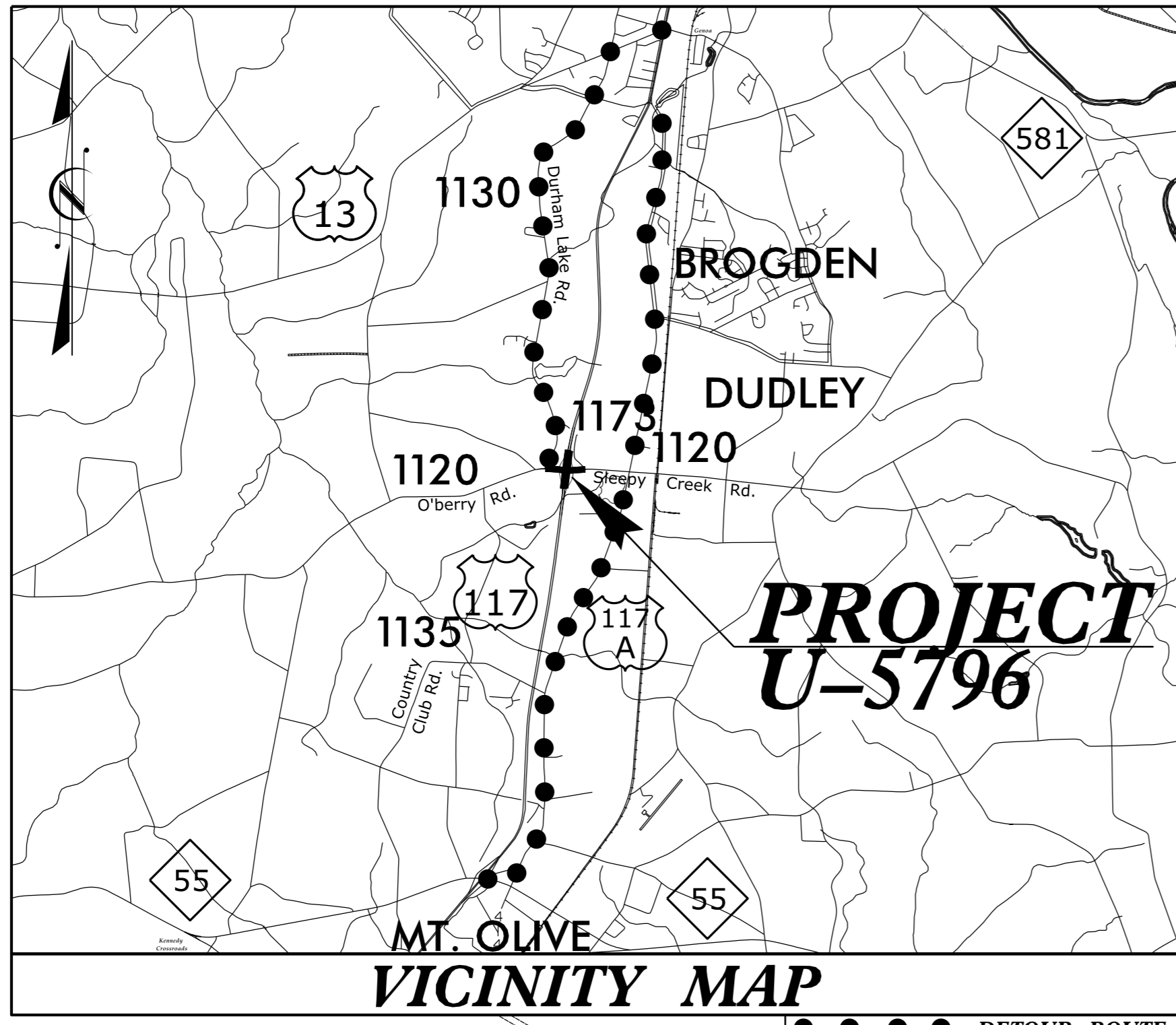


**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

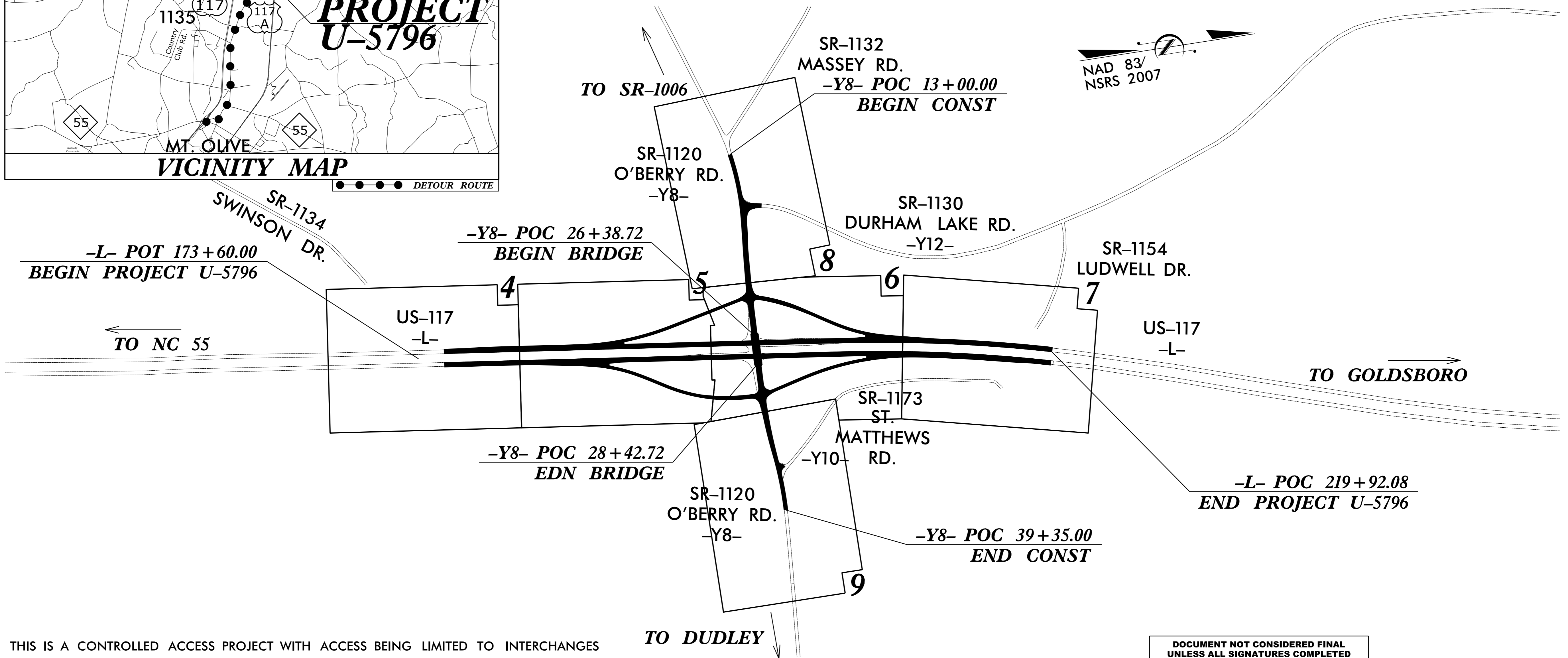
WAYNE COUNTY

LOCATION: CONSTRUCT INTERCHANGE AT US-117 AND SR-1120 (O'BERRY ROAD)

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5796	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
54039.1.FD1	NHP-0117(32)	PE	
54039.2.1		RW & UTIL.	
50473.3.1		CONST.	

TIP PROJECT: U-5796



THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

<p>GRAPHIC SCALES</p> <p>50 25 0 50 100 PLANS</p> <p>50 25 0 50 100 PROFILE (HORIZONTAL)</p> <p>10 5 0 10 20 PROFILE (VERTICAL)</p>	<p>DESIGN DATA</p> <p>ADT 2017 = 15,200 ADT 2037 = 25,800 K = 8 % D = 55 % T = 13 % * V = 70 MPH * TTST 8% DUAL 5% PRINCIPAL ARTERIAL STATEWIDE TIER</p>	<p>PROJECT LENGTH</p> <p>LENGTH ROADWAY TIP PROJECT U-5796 = 0.877 TOTAL LENGTH TIP PROJECT U-5796 = 0.877</p>	<p>Prepared in the Office of: DIVISION OF HIGHWAYS Division 4 DDC 509 Ward Blvd., Wilson NC, 27895</p> <p>2012 STANDARD SPECIFICATIONS</p> <p>RIGHT OF WAY DATE: AUGUST 01, 2016</p> <p>LETTING DATE: June 20, 2017</p> <p>TIM LITTLE, PE PROJECT ENGINEER</p> <p>D.R. ETHRIDGE PROJECT DESIGN ENGINEER</p>	<p>HYDRAULICS ENGINEER</p> <p>4/7/2017</p> <p>DocuSigned by: James C. Davis E798FAFAC22FAE8 SIGNATURE:</p> <p>ROADWAY DESIGN ENGINEER</p> <p>4/6/2017</p> <p>DocuSigned by: D.R. Ethridge E2A8ADAB185740A SIGNATURE:</p>	<p>DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA</p> <p>STATE HIGHWAY DESIGN ENGINEER</p>
--	---	---	--	--	---

06-APR-2017 14:48
P:\cadd\m\U-5796_dcdc_TSH.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

6/2/09

SURVEY CONTROL SHEET U-5796

PROJECT REFERENCE NO. U-5796	SHEET NO. 1C-1
Location and Surveys	

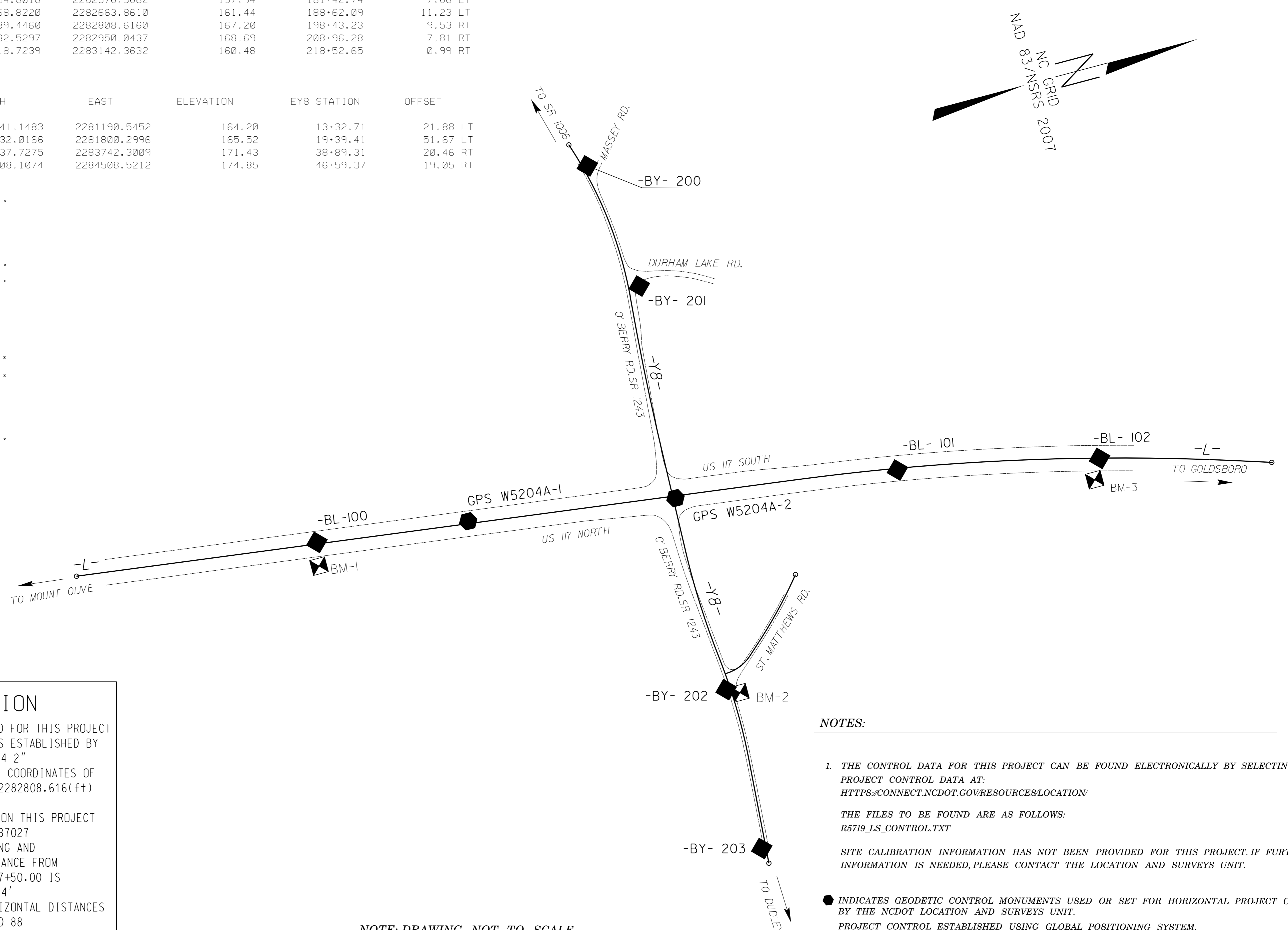
BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
100	BL-100	552254.8018	2282576.3662	157.94	181+42.74	7.66 LT
1	GPS W5204A-1	552968.8220	2282663.8610	161.44	188+62.09	11.23 LT
2	GPS W5204A-2	553939.4460	2282808.6160	167.20	198+43.23	9.53 RT
101	BL-101	554982.5297	2282950.0437	168.69	208+96.28	7.81 RT
102	BL-102	555918.7239	2283142.3632	160.48	218+52.65	0.99 RT

BY POINT	DESC.	NORTH	EAST	ELEVATION	EY8 STATION	OFFSET
200	BY-200	553941.1483	2281190.5452	164.20	13+32.71	21.88 LT
201	BY-201	554032.0166	2281800.2996	165.52	19+39.41	51.67 LT
202	BY-202	553937.7275	2283742.3009	171.43	38+89.31	20.46 RT
203	BY-203	553908.1074	2284508.5212	174.85	46+59.37	19.05 RT

.....
 BM-1 ELEVATION = 159.93
 N 552243 E 2282697
 L STATION 181+46.00 114 RIGHT
 RR SPIKE IN BASE 10" PINE

.....
 BM-2 ELEVATION = 172.89
 N 554005 E 2283781
 L STATION 200+32.00 966 RIGHT
 GEODETIC MARKER (BRASS CAP IN CONC.)
 STAMPED STA. 18-LB-6

.....
 BM-3 ELEVATION = 162.63
 N 555868 E 2283234
 L STATION 218+26.00 103 RIGHT
 RR SPIKE IN BASE OF 18" PINE



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "GPS W5204-2" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 553939.446(ft) EASTING: 2282808.616(ft) ELEVATION: 167.20(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987027

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS W5204-2" TO -L- STATION 157+50.00 IS
 S 7°24'12.53" W 4.093.24'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location)

THE FILES TO BE FOUND ARE AS FOLLOWS:
 R5719_LS_CONTROL.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.

NOTE: DRAWING NOT TO SCALE

SURVEY CONTROL SHEET U-5796

PROJECT REFERENCE NO. U-5796	SHEET NO. 1C-2
Location and Surveys	

FINAL

ROW MARKER CONCRETE OR GRANITE

ALIGN	STATION	OFFSET	NORTH	EAST
RAMPA	8+40.00	83.88	554373.32908	2282510.73579
RAMPA	10+35.00	95.00	554198.92807	2282399.68161
RAMPA	11+85.00	110.62	554053.23082	2282325.38388

ROW MARKER CONCRETE OR GRANITE

ALIGN	STATION	OFFSET	NORTH	EAST
RAMPB	13+35.00	83.88	553834.75035	2282309.72090

ROW MARKER CONCRETE OR GRANITE

ALIGN	STATION	OFFSET	NORTH	EAST
Y8	18+50.00	-80.00	554051.84196	2281913.87006
Y8	18+50.00	65.00	553907.29599	2281902.40439
Y8	20+35.00	78.71	553879.73296	2282086.70677
Y8	20+40.00	-80.70	554038.43750	2282102.43270
Y8	21+50.00	100.00	553851.20767	2282200.99708
Y8	22+50.00	-92.21	554037.75251	2282311.23371
Y8	31+90.00	-105.20	554025.66868	2283243.89245
Y8	32+22.72	105.00	553816.42410	2283282.23819
Y8	33+30.00	-77.45	554003.69173	2283381.27835
Y8	33+75.00	76.09	553853.60210	2283436.68372

ROW MARKER CONCRETE OR GRANITE

ALIGN	STATION	OFFSET	NORTH	EAST
Y10	11+06.11	30.00	554069.13870	2283667.25911
Y10	11+42.03	-30.00	554063.81626	2283597.76224
Y10	11+47.89	-30.00	554067.55210	2283594.47531
Y10	11+47.89	30.00	554107.84073	2283638.93682
Y10	12+27.54	-30.00	554126.57443	2283540.99245
Y10	12+27.54	30.00	554166.86306	2283585.45396
Y10	14+00.00	-30.00	554248.28308	2283422.06860
Y10	14+00.00	-25.00	554251.90951	2283425.51083
Y10	14+00.00	25.00	554288.17386	2283459.93316
Y10	14+00.00	30.00	554291.80030	2283463.37540

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
RAMPB	12+43.90	-82.50	553753.55833	2282364.02068
RAMPB	12+54.20	-114.70	553756.56969	2282330.35230
RAMPB	12+68.00	-91.83	553775.03723	2282349.65597
RAMPB	12+73.30	-108.60	553776.54130	2282332.12854

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
RAMPC	13+63.16	104.91	553658.38758	2283219.89968
RAMPC	13+63.80	137.98	553654.00795	2283252.68249
RAMPC	14+88.00	142.24	553791.49596	2283271.05023
RAMPC	15+45.69	404.93	553851.97614	2283535.45202
RAMPC	15+57.40	403.59	553863.70845	2283534.23634

ROW MARKER PERMANENT EASEMENT

ALIGN	STATION	OFFSET	NORTH	EAST
Y8	17+96.28	-90.00	554066.05829	2281861.11148
Y8	19+50.32	-89.88	554053.91016	2282014.26103
Y8	20+39.65	-90.69	554048.43649	2282102.75805
Y8	21+99.75	-89.79	554037.91632	2282261.30140
Y8	21+99.82	-99.81	554047.91435	2282261.91980
Y8	22+82.56	187.72	553756.56969	2282330.35230
Y8	22+83.38	167.69	553776.54130	2282332.12854
Y8	23+00.72	168.38	553775.03723	2282349.65597
Y8	23+15.80	189.19	553753.55833	2282364.02068
Y8	31+60.11	261.60	553658.38758	2283219.89968
Y8	31+75.15	-114.17	554034.34833	2283229.33464
Y8	31+90.52	266.56	553654.00795	2283252.68249
Y8	32+11.18	129.58	553791.49596	2283271.05023
Y8	32+15.26	-100.63	554021.72862	2283268.52324
Y8	32+42.09	-125.15	554047.10119	2283293.65822
Y8	32+45.35	-105.40	554027.48304	2283297.54773
Y8	34+71.00	74.66	553863.70845	2283534.23634
Y8	34+71.01	86.46	553851.97614	2283535.45202

L

TYPE	STATION	NORTH	EAST
POT	157+50.00	549880.3257	2282281.1776
TS	202+74.97	554368.9183	2282853.7944
SC	205+74.97	554666.3358	2282893.0560
CS	223+68.30	556415.3510	2283280.9114
ST	226+68.30	556701.4848	2283371.0561

RAMP A

TYPE	STATION	NORTH	EAST
POT	0+00.00	555096.2289	2282903.0536
TS	1+20.40	554978.9869	2282875.6730
SC	3+20.40	554785.6256	2282824.8134
CS	5+23.05	554598.9726	2282746.5135
ST	7+23.05	554427.1960	2282644.1996
PC	8+80.70	554294.0465	2282559.7969
PT	11+94.85	554009.8352	2282428.0488
POT	12+66.87	553941.1026	2282406.5483

RAMP B

TYPE	STATION	NORTH	EAST
TS	0+00.00	552543.3429	2282562.4328
SC	2+00.00	552742.1072	2282584.4298
CS	6+94.63	553234.9367	2282561.3628
ST	8+94.63	553430.7774	2282520.8964
POT	14+17.61	553941.1026	2282406.5483

Y8

TYPE	STATION	NORTH	EAST
PC	10+00.00	553881.5783	2281069.1510
PT	17+78.61	553977.7375	2281836.3778
PC	18+96.58	553968.4092	2281953.9779
PT	25+00.55	553935.8197	2282557.0017
POT	27+41.30	553928.8807	2282797.6581
PC	30+11.60	553921.0903	2283067.8429
PT	34+87.03	553939.6575	2283542.5469
PC	35+64.44	553947.9252	2283619.5110
PT	40+31.36	553956.6577	2284085.7460
POT	45+31.36	553921.9072	2284584.5370

Y10

TYPE	STATION	NORTH	EAST
POT	10+00.00	553952.8006	2283669.3324
PC	10+18.26	553970.9945	2283667.7257
PT	11+47.89	554087.6964	2283616.7061
PC	12+27.54	554146.7187	2283563.2232
PT	15+86.04	554392.5049	2283302.7437

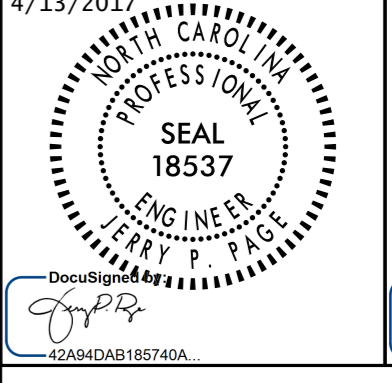
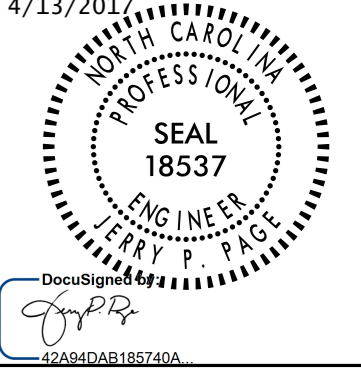
DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "GPS W5204-2"
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
 NORTHING: 553939.446(ft) EASTING: 2282808.616(ft)
 ELEVATION: 167.20(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99987027
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS W5204-2" TO -L- STATION 157+50.00 IS
 S 7°24'12.53" W 4.093.24'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

PAVEMENT SCHEDULE

FINAL PAVEMENT DESIGN

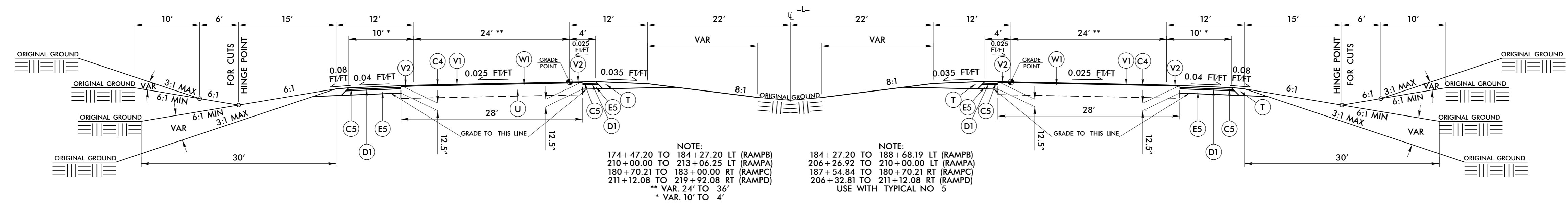
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO. U-5796	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER 4/13/2017	PAVEMENT DESIGN ENGINEER 4/13/2017
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.	D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5" OR GREATER THAN 4" IN DEPTH.	R1	CONCRETE SHOULDER BERM GUTTER
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.	E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.	T	EARTH MATERIAL.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" DEPTH.	E2	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YARD.	U	EXISTING PAVEMENT.
C4	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.	E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.	V1	MILLING BITUMINOUS PAVEMENT. 1.5" DEPTH.
C5	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.	E5	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YARD.	V2	MILLED RUMBLE STRIPS
C6	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" DEPTH.	E6	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD PER 1" DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5.5" IN DEPTH.	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.	L	SHALLOW UNDERCUT AND CLASS IV SUBGRADE STABILIZATION	W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)
		N	GEOTEXTILE FOR SOIL STABILIZATION		

USE TYPICAL SECTION NO. 1

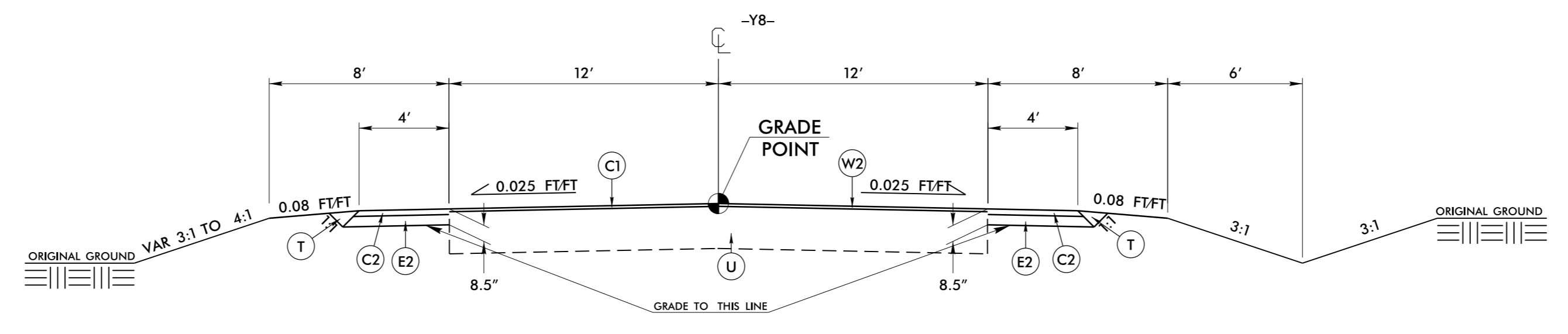
-L- STA 175+47.20 TO -L- STA 219+92.08



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 2

-Y8- STA 13+00 TO -Y8- STA 17+50
-Y8- STA 35+50 TO -Y8- STA 39+35

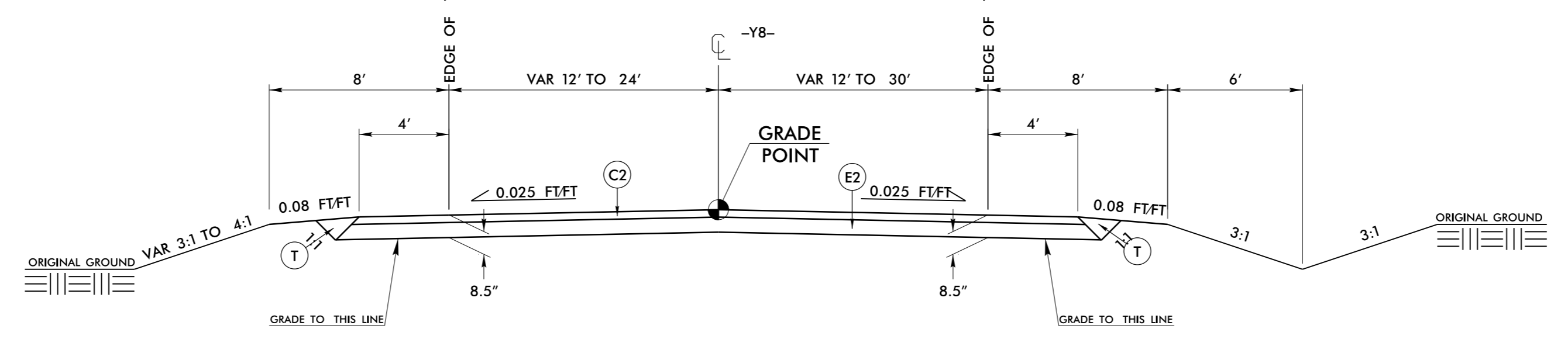


TYPICAL SECTION NO. 2

SEE SHEET 2A-3 FOR
DETAIL SHOWING SHOULDER BERM GUTTER &
DETAIL SHOWING SHOULDER PAVING AT GUARDRAIL

USE TYPICAL SECTION NO. 3

-Y8- STA 17+50 TO -Y8- STA 26+38.72 (BEGIN BRIDGE)
-Y8- STA 28+42.72 (END BRIDGE) TO -Y8- STA 35+50



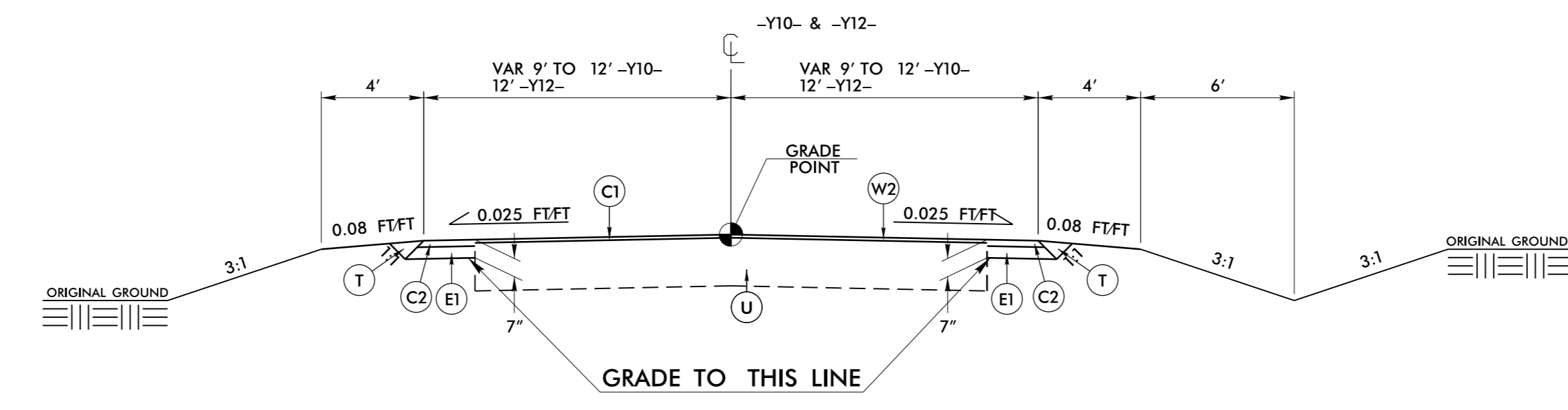
TYPICAL SECTION NO. 3

13-APR-2017 10:45
P:\adwin\proj\U-5796_dcd4_TYP.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

HP4500

USE TYPICAL SECTION NO. 4

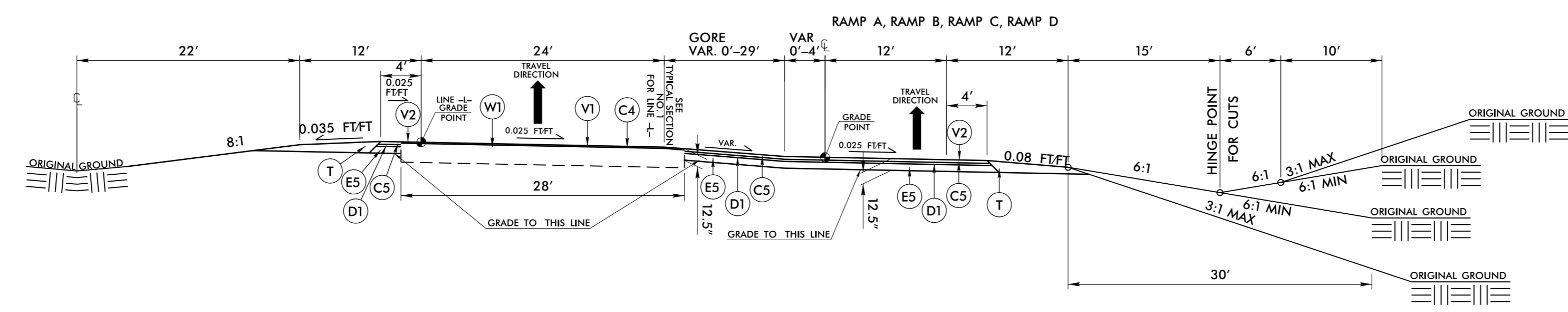
-Y10- STA 10+00 TO -Y10- STA 13+50
-Y12- STA 10+00 TO -Y12- STA 12+00



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 5

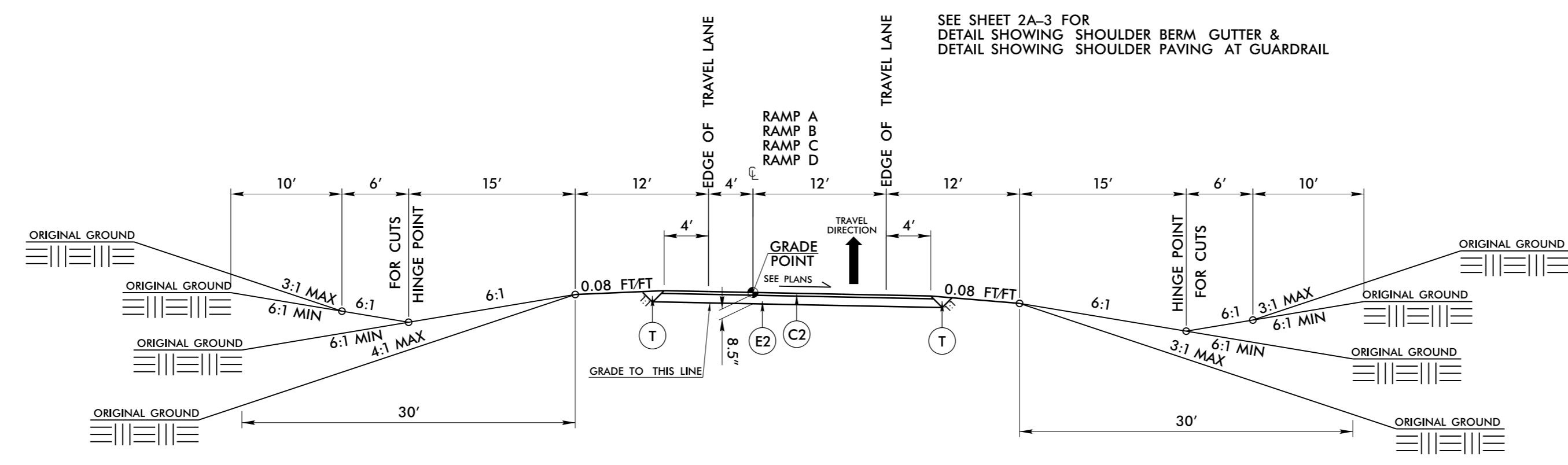
RAMP "A" STA 0+00 TO RAMP "A" STA 3+75.75
RAMP "B" STA 0+00 TO RAMP "B" STA 4+41.30
RAMP "C" STA 0+00 TO RAMP "C" STA 4+54.97
RAMP "D" STA 0+00 TO RAMP "D" STA 4+76.78



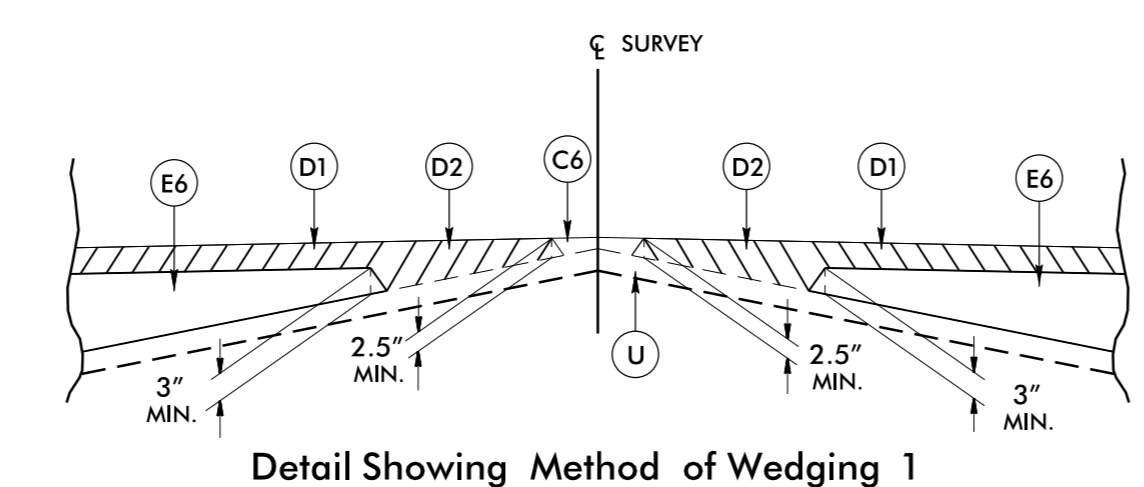
TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 6

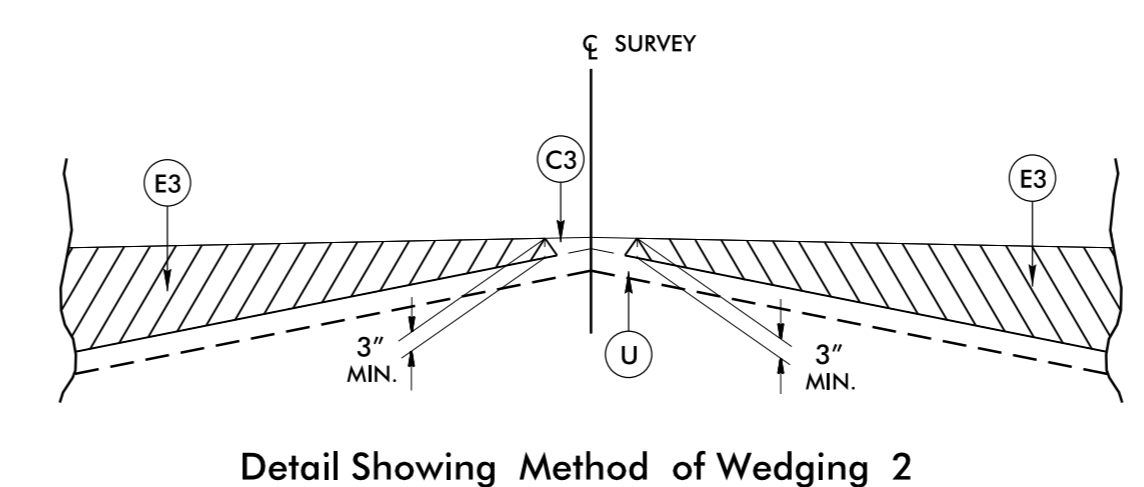
RAMP "A" STA 3+75.75 TO RAMP "A" STA 12+42.36
RAMP "B" STA 4+41.30 TO RAMP "B" STA 13+80.27
RAMP "C" STA 4+54.97 TO RAMP "C" STA 15+83.21
RAMP "D" STA 4+76.78 TO RAMP "D" STA 12+47.40



TYPICAL SECTION NO. 6



Detail Showing Method of Wedging 1



Detail Showing Method of Wedging 2

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

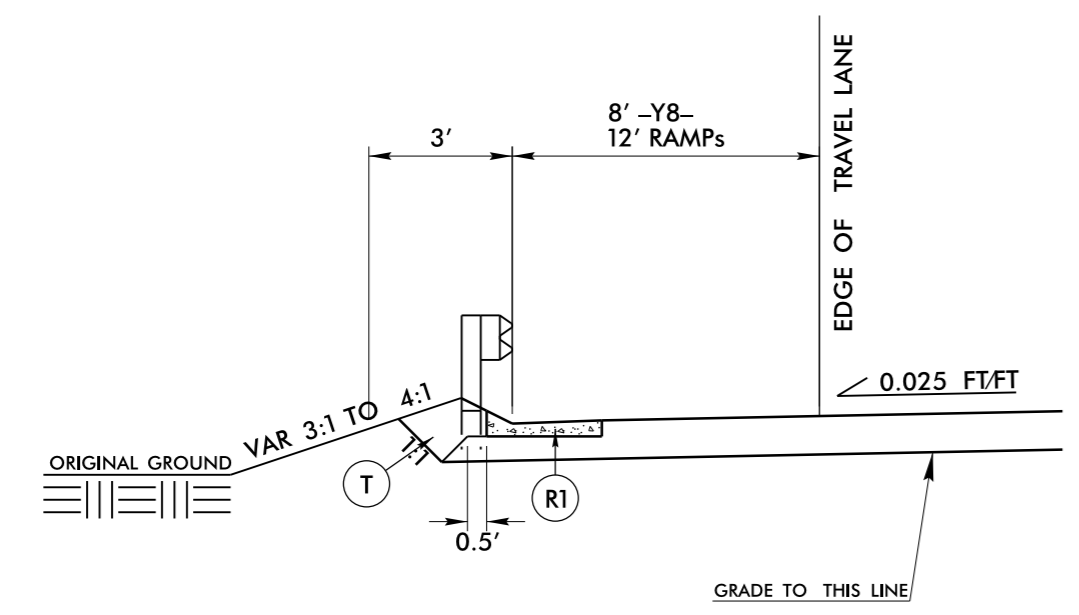
PAVEMENT SCHEDULE

Layer	Material
C1	1.5" S9.5B
C2	3" S9.5B
C3	VAR" S9.5B
C4	1.5" S9.5C
C5	3" S9.5C
C6	VAR" S9.5C
D1	4" I19.0C
D2	VAR" I19.0C
E1	4" B25.0B
E2	5.5" B25.0B
E3	VAR" B25.0B
E5	5.5" B25.0C
E6	VAR" B25.0C
L	SHALLOW UNDERCUT CLASS IV SUBGRADE
N	GEOTEXTILE FOR SOIL STABILIZATION
R1	SBG
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	1.5" MILLING
V2	RUMBLE STRIPS
W1	WEDGING
W2	WEDGING

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

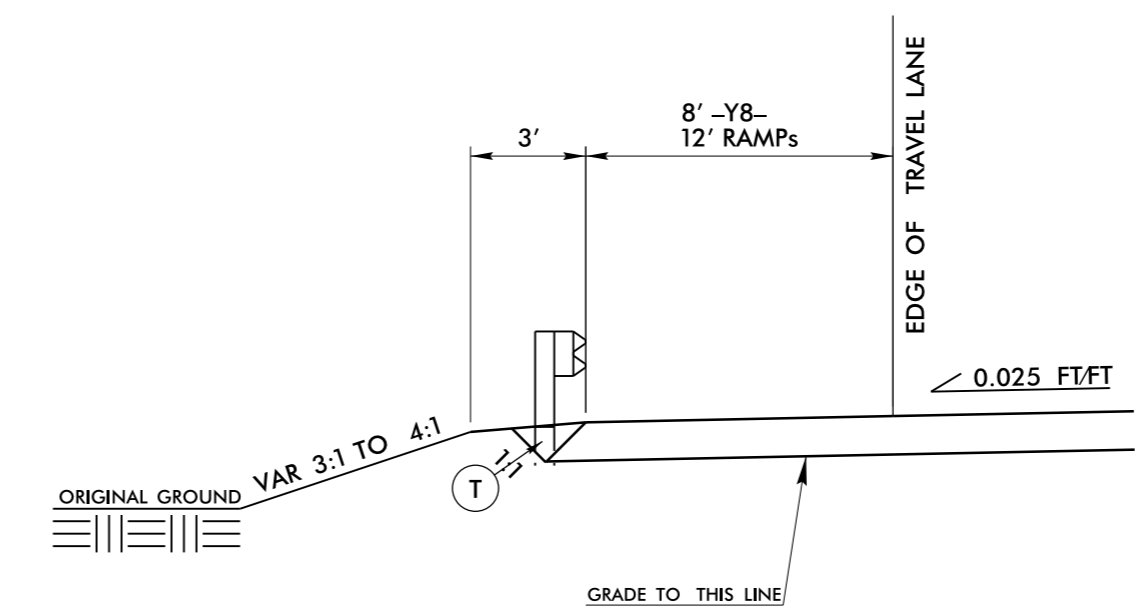
PAVEMENT SCHEDULE
FINAL PAVEMENT DESIGN

C1	1.5" S9.5B
C2	3" S9.5B
C3	VAR" S9.5B
C4	1.5" S9.5C
C5	3" S9.5C
C6	VAR" S9.5C
D1	4" I19.0C
D2	VAR" I19.0C
E1	4" B25.0B
E2	5.5" B25.0B
E3	VAR" B25.0B
E5	5.5" B25.0C
E6	VAR" B25.0C
L	SHALLOW UNDERCUT CLASS IV SUBGRADE
N	GEOTEXTILE FOR SOIL STABILIZATION
R1	SBG
T	EARTH MATERIAL
U	EXIST. PAVEMENT
V1	1.5" MILLING
V2	RUMBLE STRIPS
W1	WEDGING
W2	WEDGING



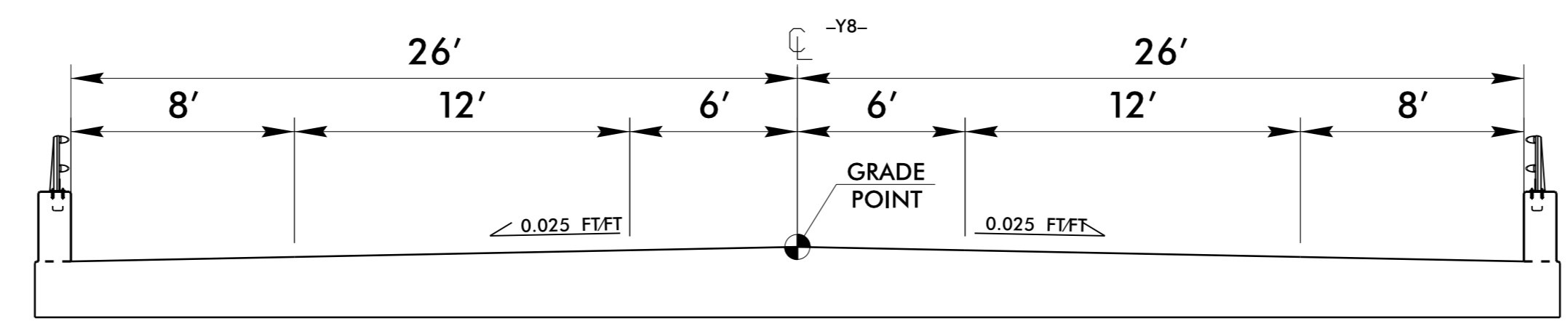
DETAIL SHOWING SHOULDER BERM GUTTER (SBG)

USE WITH TYPICAL SECTION NO. 3&6
 -Y8- 21+50 (LT) TO RAMPA 11+65 (RT)
 -Y8- 21+50 (RT) TO RAMPB 11+40 (LT)
 -Y8- 24+73.54 (RT) TO -Y8- BEGIN APPROACH SLAB
 -Y8- 26+00.36 (LT) TO -Y8- BEGIN APPROACH SLAB
 -Y8- BEGIN APPROACH SLAB TO -Y8- 28+82.25 (RT)
 -Y8- BEGIN APPROACH SLAB TO RAMPD 11+92.41 (RT)
 RAMPD 10+50 (LT) TO -Y8- 32+40 (LT)

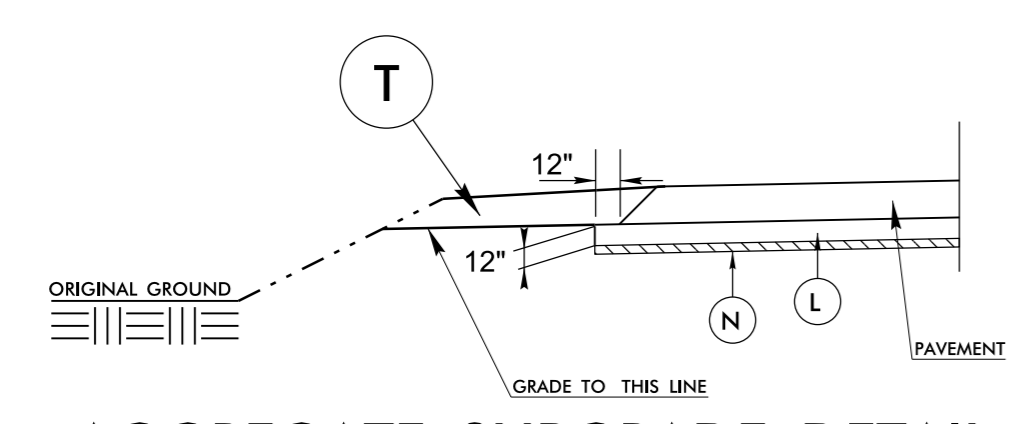


DETAIL SHOWING SHOULDER PAVING AT GUARDRAIL

USE WITH TYPICAL SECTION NO. 3&6
 -Y8- 21+00 (LT) TO -Y8- 21+50 (LT)
 -Y8- 21+00 (RT) TO -Y8- 21+50 (RT)
 -Y8- 24+23.54 (RT) TO -Y8- 24+73.54 (RT)
 -Y8- 25+50.36 (LT) TO -Y8- 26+00.36 (LT)
 -Y8- 28+82.25 (RT) TO -Y8- 29+32.25 (RT)
 -Y8- 32+90 (LT) TO -Y8- 32+40 (LT)
 RAMPA 8+90 (RT) TO RAMPA 11+65 (RT)
 RAMPC 11+50 (RT) TO -Y8- 33+30 (RT)



TYPICAL SECTION ON STRUCTURE
 -Y8- STA 26+38.72 TO -Y8- STA 28+42.72



AGGREGATE SUBGRADE DETAIL

USE WITH TYPICAL SECTIONS NO. 1,2,3,4,5,&6
 -L- STA 175+47 TO 181+65
 -L- STA 183+00 TO 200+25
 -L- STA 204+25 TO 211+75
 -RAMP A- STA 0+00 TO 3+45
 -RAMP B- STA 0+00 TO 4+25
 -RAMP C- STA 0+00 TO 4+75
 -RAMP D- STA 0+00 TO 4+75
 -Y8- STA 17+50 TO 18+00
 -Y8- STA 35+40 TO 39+35
 -Y10- STA 10+75 TO 13+50

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

ENGLISH DETAIL DRAWING FOR
GUIDE FOR PAVING SHOULDERS UNDER BRIDGES
METHOD III

SHEET 1 OF 1
610D03

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

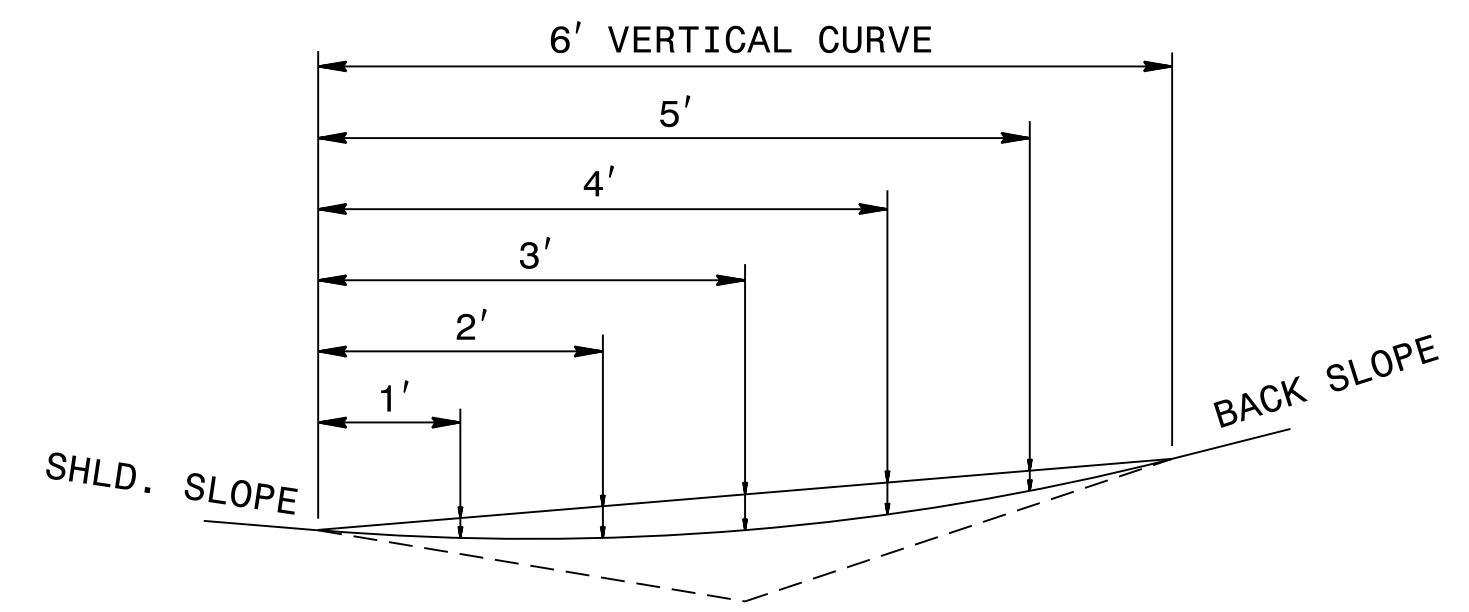
ENGLISH DETAIL DRAWING FOR
GUIDE FOR PAVING SHOULDERS UNDER BRIDGES
METHOD III

SHEET 1 OF 1
610D03

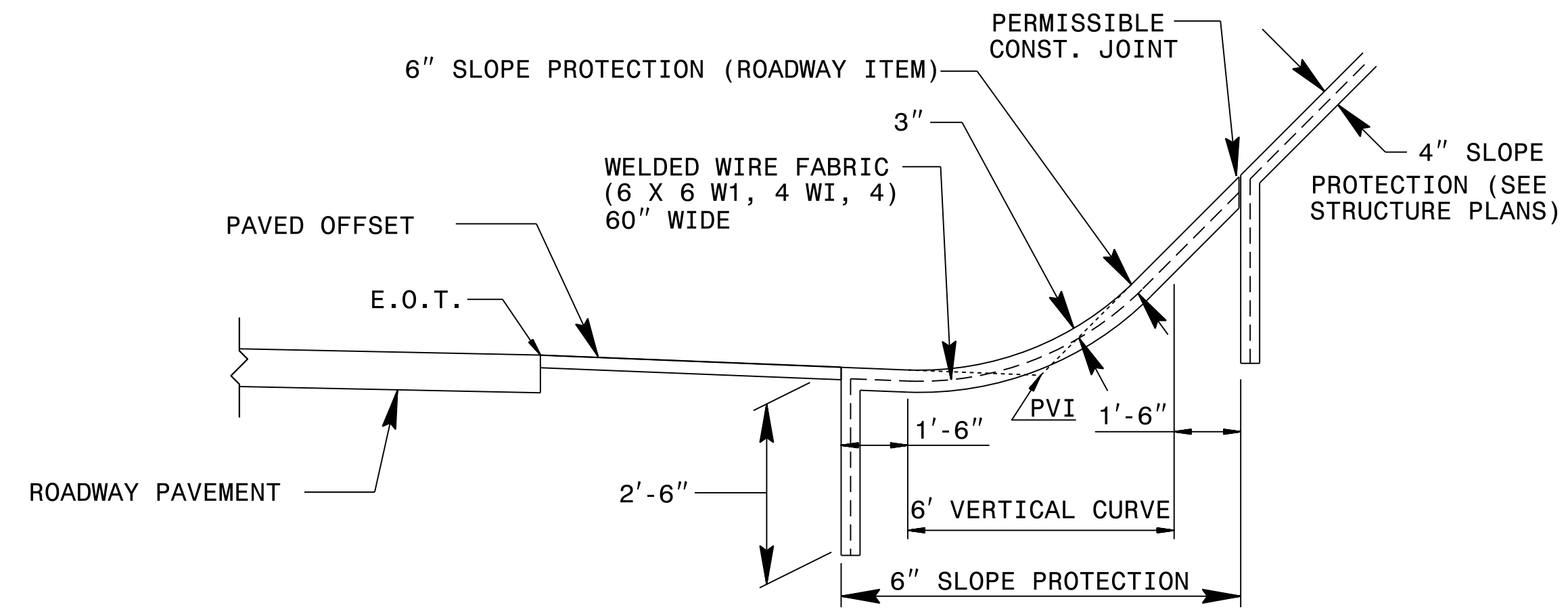
HORZ. DIM.	1½:1 BACK SLOPE									
	SHOULDER SLOPE									
	.04	.03	.02	.01	.00	-.01	-.02	-.03	-.04	-.05
1'	0.26'	0.27'	0.27'	0.27'	0.28'	0.28'	0.28'	0.29'	0.30'	0.31'
2'	0.42'	0.42'	0.43'	0.44'	0.44'	0.45'	0.46'	0.46'	0.47'	0.48'
3'	0.47'	0.48'	0.49'	0.49'	0.50'	0.51'	0.52'	0.52'	0.53'	0.54'
4'	0.42'	0.42'	0.43'	0.44'	0.44'	0.45'	0.46'	0.46'	0.47'	0.48'
5'	0.26'	0.27'	0.27'	0.27'	0.28'	0.28'	0.28'	0.29'	0.30'	0.31'

HORZ. DIM.	2:1 BACK SLOPE									
	SHOULDER SLOPE									
	.04	.03	.02	.01	.00	-.01	-.02	-.03	-.04	-.05
1'	0.19'	0.20'	0.20'	0.20'	0.21'	0.21'	0.22'	0.22'	0.23'	0.23'
2'	0.31'	0.31'	0.32'	0.33'	0.33'	0.34'	0.35'	0.35'	0.36'	0.37'
3'	0.35'	0.35'	0.36'	0.37'	0.38'	0.38'	0.39'	0.40'	0.41'	0.41'
4'	0.31'	0.31'	0.32'	0.33'	0.33'	0.34'	0.35'	0.35'	0.36'	0.37'
5'	0.19'	0.20'	0.20'	0.20'	0.21'	0.21'	0.22'	0.22'	0.23'	0.23'

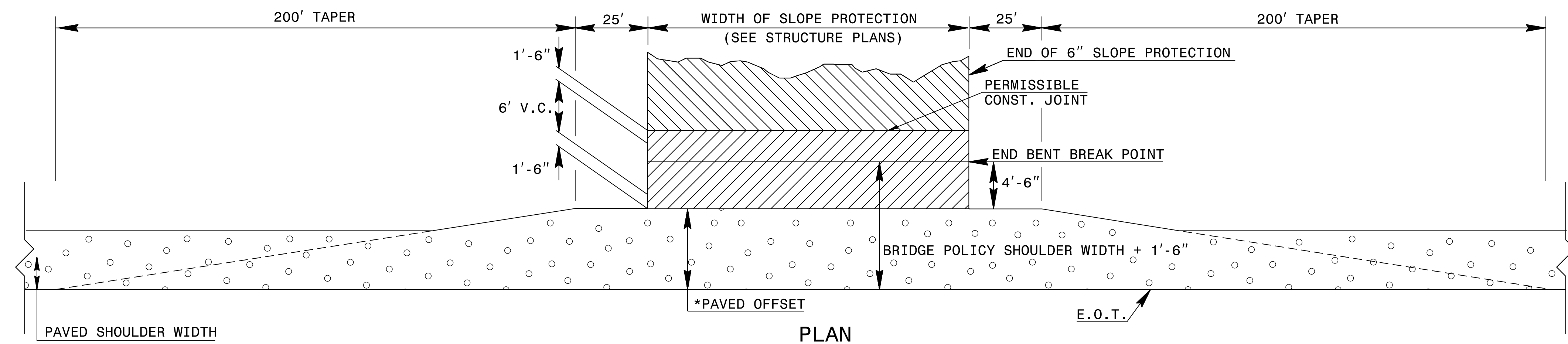
VERTICAL CURVE OFFSET
(FOR 6' V.C. AT BRIDGES)



TYPICAL SECTION



ELEVATION



PLAN

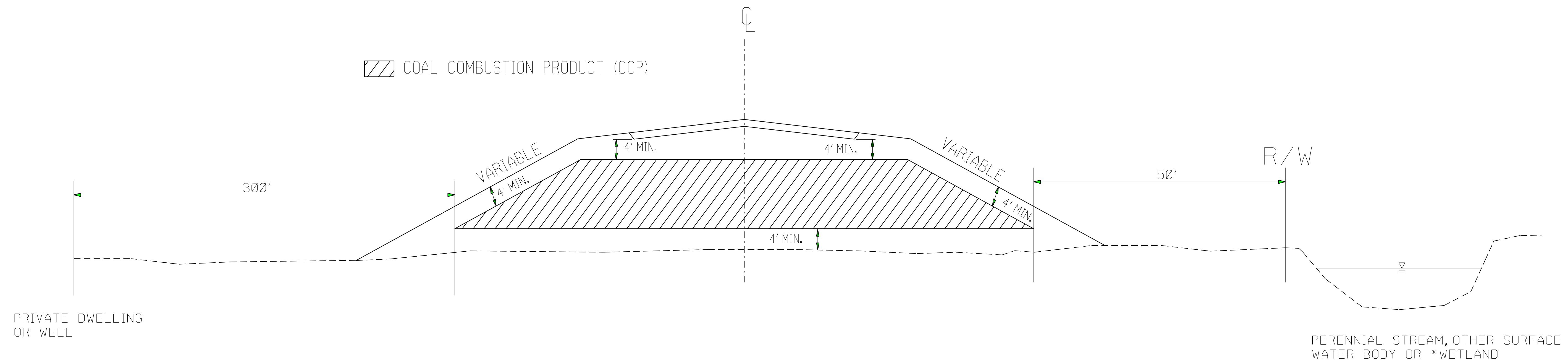
NOTES:
PAVE THE FULL WIDTH OF THE SHOULDER AS SHOWN WITH SHOULDER PAVEMENT MATERIAL AS SHOWN ON PLANS.
* PAVED OFFSET BASED ON BRIDGE POLICY (SEE STRUCTURE PLANS).
PROTECT SLOPE WITH REINFORCED CONCRETE PAVING. CONCRETE BLOCK PAVING WILL NOT BE PERMITTED.
OFFSETS FOR 6' V.C. DENOTES FINISHED GRADE OF SLOPE PROTECTION.

07-APR-2017 11:50 S:\Contracts\Contractors\Siggecal Details\Howerton\Standard Drawings\Details in Lieu of Standards\Division 6\610d0301.dgn Jhowerton A1 CS0-2/2/95

Designed by:
Joel S. Howerton
Professional Engineer
Seal 022966
4/7/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119
SEE TITLE BLOCK
ORIGINAL BY: J. HOWERTON DATE: 06-22-12
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

COAL COMBUSTION PRODUCT PLACEMENT



PRIVATE DWELLING
OR WELL

PERENNIAL STREAM, OTHER SURFACE
WATER BODY OR *WETLAND

*(OBTAIN PERMISSION FROM ARMY
CORPS OF ENGINEERS)

PLACE CCP IN HATCHED AREA IN ACCORDANCE
WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE
SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

PLACE SOIL BORROW MATERIAL ON THE OUTSIDE
OF CCP AS EACH LIFT OF CCP IS PLACED

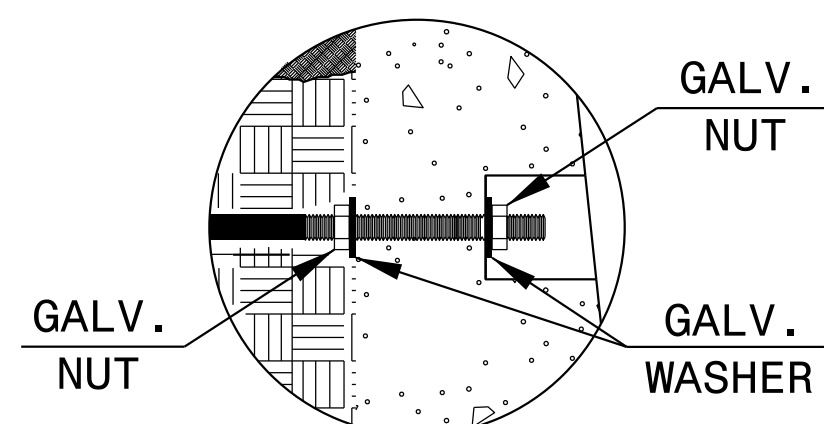
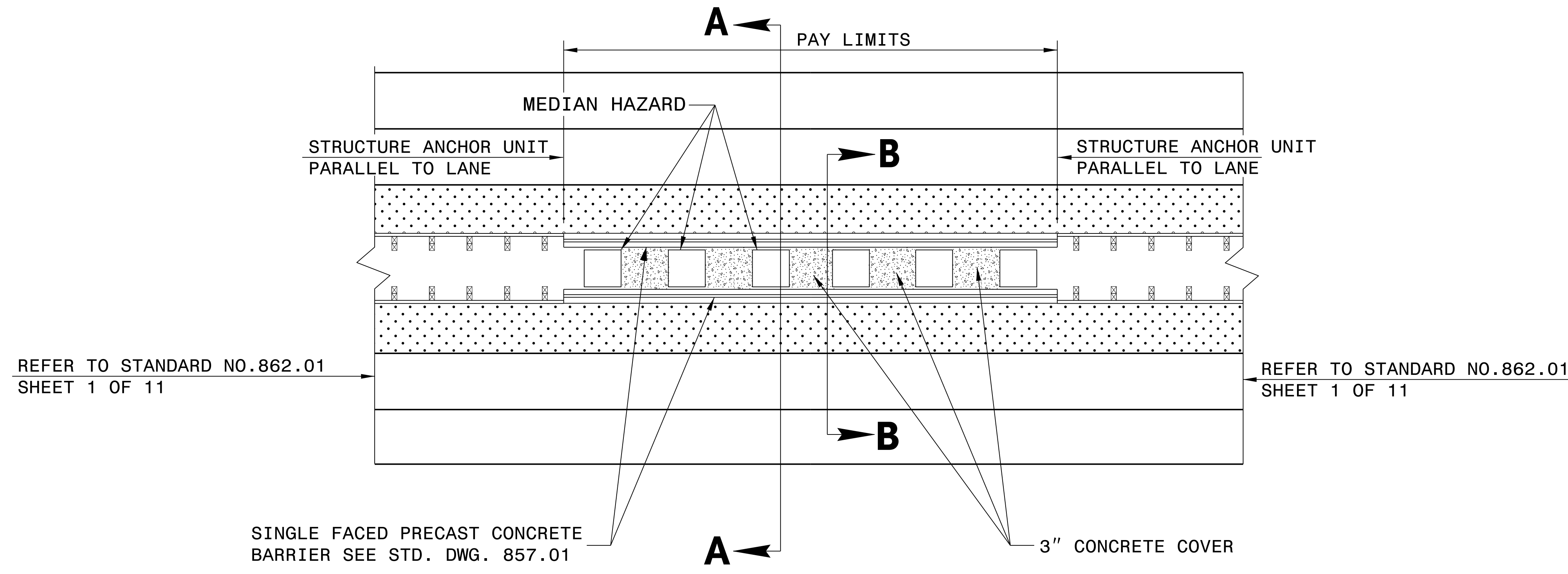
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

Q7-APR-2017 11:48
S:\Contracts\Contractors\Siggo\1 Details\jhover-ton\Coal Combustion Product Detail.dgn
jhover-ton AI CS0-232955

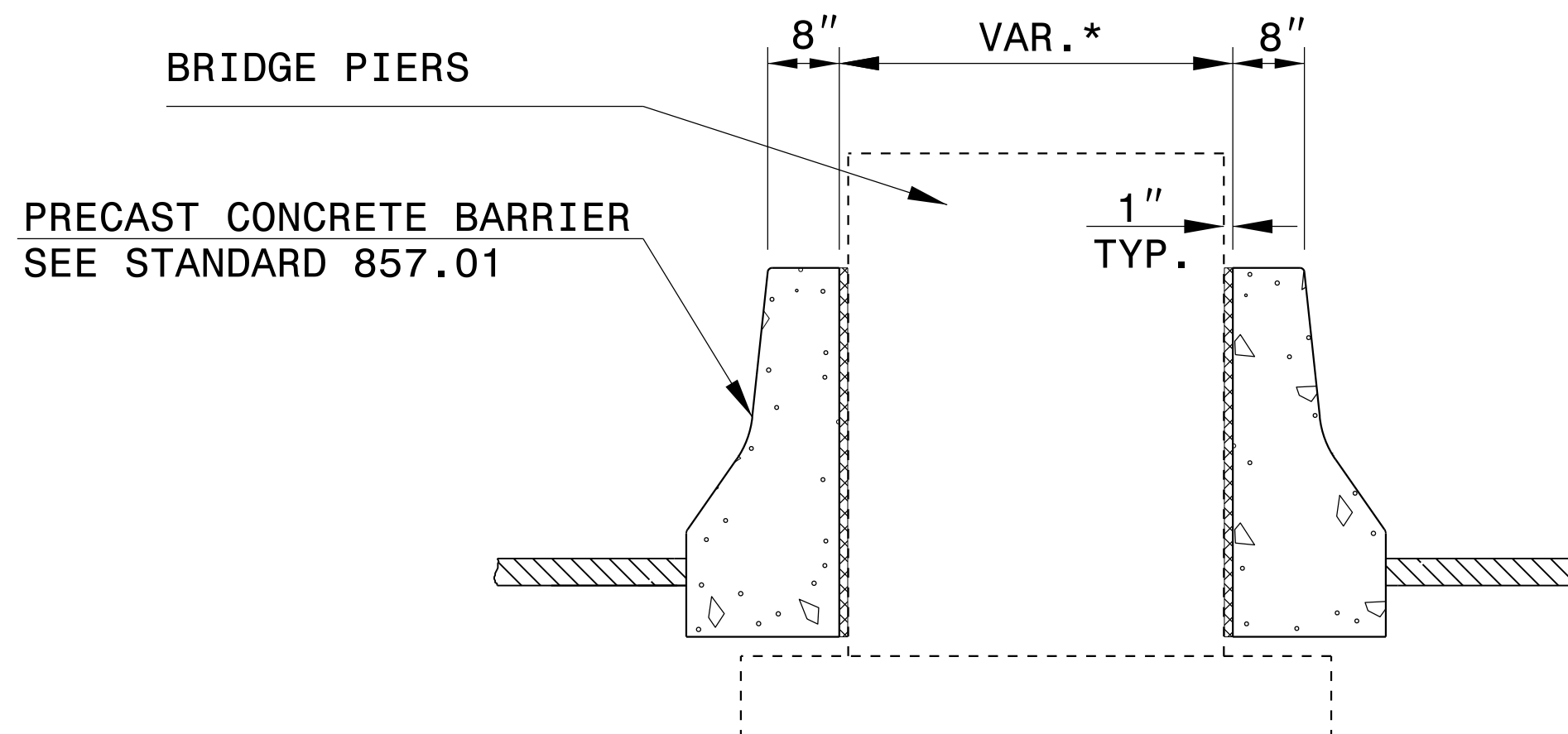


DocuSigned by:
Joel S. Howerton
879F3D11DCC45F
4/7/2017

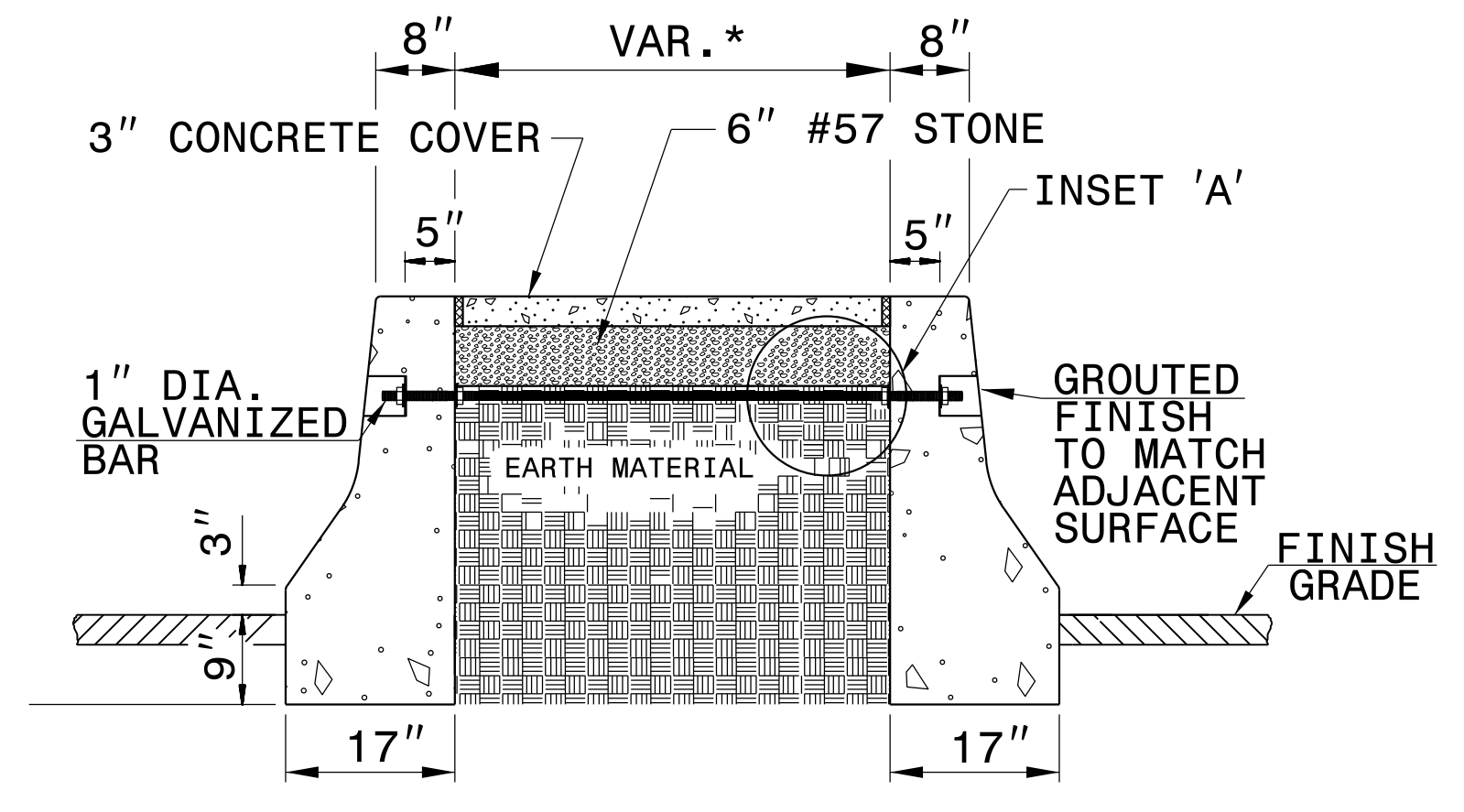
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
COAL COMBUSTION PRODUCT PLACEMENT DETAIL	
ORIGINAL BY: J.S.H.	DATE: 3/16/15
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: joel/coal combustion material detail.dgn	



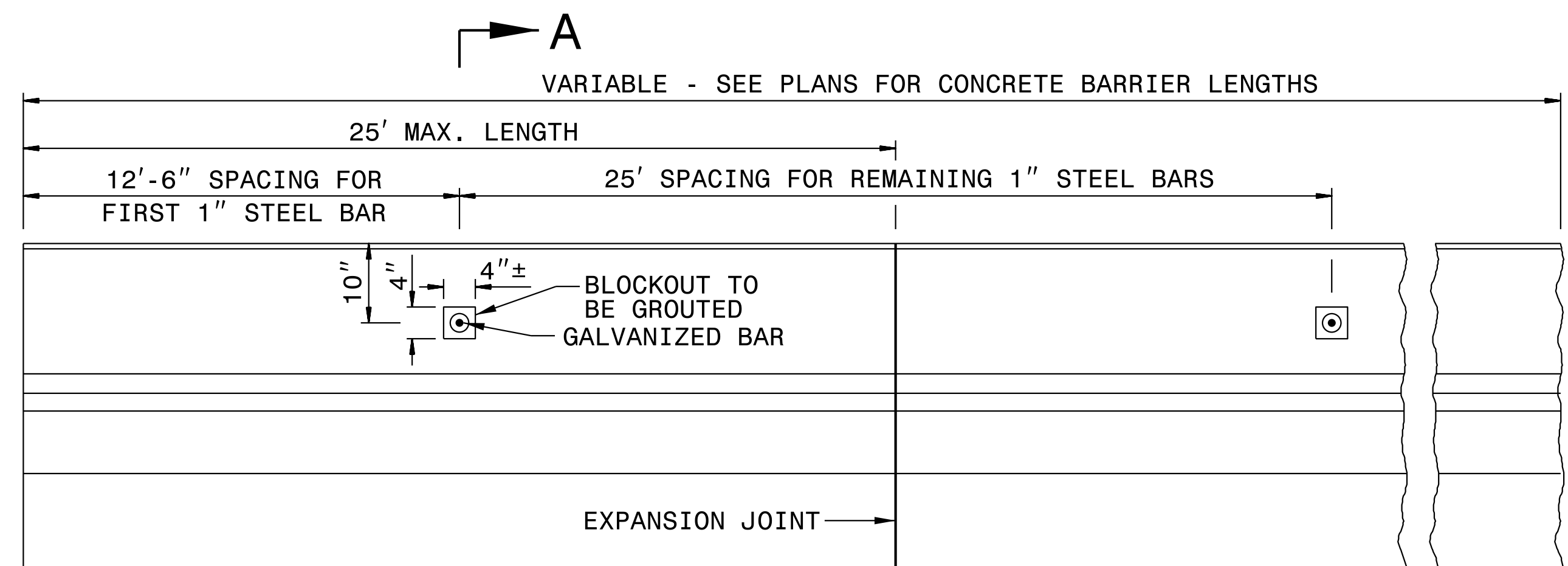
INSET 'A'



SECTION A-A



SECTION B-B



ELEVATION

GENERAL NOTES:

- *THIS DIMENSION MAY VARY DEPENDING ON THE WIDTH OF THE PIER.
- INSET FIRST 1" DIA. GALVANIZED BAR 12'-6" AND SPACE THE REMAINING 1" BARS AT 25'-0".
- USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081-1, TYPE 3A OF THE STANDARD SPECIFICATIONS.
- USE CLASS B CONCRETE FOR THE CONCRETE COVER
- SEAL ALL EXPANSION JOINTS WITH JOINT FILLER (SEE SECTION 1028 OF THE SPECIFICATIONS).
- PLACE A 1" BAR BETWEEN EACH SET OF PIERS

07-APR-2017 11:57 S:\Contracts\Special Details\Howerton\Barrier Cover for Median Hazard Protection.dgn Howerton AT USD-292895

DocuSigned by:
Joel S. Howerton
 873FD17DCDC45F
 4/7/2017

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
 Office 919-707-6950 FAX 919-250-4119

**DETAIL OF MEDIAN
HAZARD PROTECTION**

ORIGINAL BY: T. S. Spell	DATE: 2-4-10
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: jhowerton\Barrier Cover for Median Hazard Protection	

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

Quantities are approximate only. The Resident Engineer will recross-section the work accurately when the project is staked out. These cross-section notes will be used in computing the final quantities for which the contractor will be paid.

SUMMARY OF EARTHWORK
 Volumes in Cubic Yards

STATION TO STATION					Uncl. Excav.	Undercut	Embank +%	Borrow	Waste
L	174+00.00	TO	198+31.37	LT	1777		1387	546	936
RAMPB	0+00.00	TO	14+17.61		6300	800	32182	30954	5872
			SUBTOTAL		8077	800	33569	31500	6808
L	174+00.00	TO	198+31.37	MED	718		993	615	340
			SUBTOTAL		718		993	615	340
L	174+00.00	TO	198+31.37	RT	1704		29		1675
RAMPC	0+00.00	TO	16+09.21		3738	1200	45968	45968	4938
			SUBTOTAL		5442	1200	45997	45968	6613
Y8	13+00.00	TO	26+38.72		44		67289	67245	
Y12	10+00.00	TO	12+00.00		1		143	142	
			SUBTOTAL		45		67432	67387	
Y8	28+42.72	TO	39+00.00		65		48502	48437	
Y10	10+00.00	TO	13+50.00		239		273	34	
			SUBTOTAL		304		48775	48471	
L	198+31.37	TO	219+92.08	LT	1038		223		815
RAMPA	0+00.00	TO	12+66.87		669		42288	42113	494
			SUBTOTAL		1707		42511	42113	1309
L	198+31.37	TO	219+92.08	MED	858		793	240	305
			SUBTOTAL		858		793	240	305
L	198+31.37	TO	219+92.08	RT	3484		138		3346
RAMPD	0+00.00	TO	12+84.34		6375	750	25488	25426	7063
			SUBTOTAL		9859	750	25626	25426	10409
TOTAL					27010	2750	265696	261720	25784
LOSS DUE TO CLEARING AND GRUBBING					-200			200	
WASTE TO REPLACE BORROW								-2927	-2927
EST. SHOULDER MATERIAL							4125	4125	
ADDITIONAL UNDERCUT						1000			1000
PROJECT TOTAL					26810	3750	269821	263118	23857
ESTIMATE TO REPLACE TOPSOIL ON BORROW PIT								13156	
GRAND TOTAL					26810	3750	269821	276274	23857
SAY					26900	3750	276300		

UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL
 -L- 183+25 - 189+25 (800 CY), RPB 0+00 - 0+95 (250 CY), RPB 4+90 - 5+90 (450 CY), -Y8- 35+75 - 39+35 (65 CY)
 -Y10- 10+15 - 13+50 (200 CY), RPC 5+75 - 6+50 (60 CY)
 PER GEOTECH

WOVEN WIRE FENCE, 47" FABRIC

STATION TO STATION	LOC	FABRIC L.F.	END BRACE	CORNER BRACE	LINE BRACE	4" POSTS	5" POSTS
-L- 178+80 - 180+37	LT	157.00				11	0
RAMPB 11+15 - 12+68	LT	153.00				11	0
-Y8- 20+35 - RAMPB 13+35		227.75		1		15	3
-Y8- 20+40 - RAMPB 8+40		600.00		1		41	3
-Y8- 31+75 - 33+30	LT	156.00		1		10	3
RAMPC 13+70 - -Y8- 34+71		424.00		2		27	6
RAMPD 8+14 - 9+31	RT	423.00				30	0
TOTAL		2140.75				145	15
SAY		2150.00				150	20

ADDITIONAL BARBED WIRE 50 LF

SHOULDER BERM GUTTER SUMMARY

STATION TO STATION							LF
-Y8-	21+50.00	LT	TO	RAMPA	11+65.00	RT	248.00
-Y8-	21+50.00	RT	TO	RAMPB	11+40.00	LT	399.59
-Y8-	24+73.54	RT	TO	-Y8-	26+32.75	RT	159.21
-Y8-	26+00.36	LT	TO	-Y8-	26+37.86	LT	37.50
-Y8-	28+44.75	RT	TO	-Y8-	28+82.25	RT	37.50
-Y8-	28+49.86	LT	TO	RAMPD	11+92.41	RT	233.55
RAMPD	10+50.00	LT	TO	-Y8-	32+40.00	LT	316.78
TOTAL							1432.13
SAY							1440

SUMMARY OF RIP RAP

LINE	STATION	LOCATION	PIPE SIZE	RIP RAP, CLASS I TONS	RIP RAP, CLASS B TONS	GEOTEXTILE FOR DRAINAGE SY
-L-	177+00	LT	15		1	5
-L-	180+53	LT	42	20		39
-L-	182+00	LT	24	4		12
-L-	219+53	RT	30	11		22
RAMPA	11+94	RT	15		1	5
RAMPB	11+50	LT	15		1	5
RAMPC	1+50	RT	24	7		15
RAMPD	10+64	LT	15		2	7
RAMPD	11+54	RT	15		1	5
-Y8-	21+54	RT	15		2	7
-Y8-	21+54	LT	15		2	7
-Y8-	24+90	RT	15		1	5
-Y8-	26+12	RT	15		1	5
-Y8-	28+80	RT	15		1	5
-Y8-	32+35	LT	15		2	7
-Y8-	32+37	RT	30	11		22
-Y10-	10+41	LT	18		3	10
FROM EROSION CONTROL						450
TOTAL				53	18	633

DRAINAGE DITCH EXCAVATION

STATION TO STATION					CY
-L-	178+87	TO	180+50	LT	107
-L-	180+50	TO	182+00	LT	214
-L-	182+00	TO	183+00	RT	121
RAMPD	9+50	TO	12+00	LT	92
-Y8-	17+65	TO	22+00	LT	232
-Y8-	17+80	TO	22+00	RT	304
-Y8-	32+00	TO	35+50	LT	107
-Y8-	32+36	TO	35+93	RT	165
TOTAL					1342
SAY					1350

PARCEL INDEX

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAMES
1	4	BURL J. MITCHELL
2	5,6&9	KENNETH LEE COX, et als
3	5,6&8	KENNETH LEE COX, et als
4	6&8	LLOYD MACON MASSEY, et als
5	8	NCNG CORP.
6	6&9	ROSE MARIE GREENFIELD
7	9	LINDA H. MCBRIDE
8	9	LINDA H. MCBRIDE
9	9	SAINT MATHEW PRESBYTERIAN CHURCH
10	9	SANDRA FAYE SMITH
11	9	FAITH PRESBYTERIAN CHURCH

REMOVAL OF EXISTING ASPHALT PAVEMENT

STATION TO STATION					SY
-L-	193+41	TO	197+83	RT	422
-L-	197+31	TO	197+83	LT	54
-L-	198+80	TO	204+39	LT	496
-L-	197+28	TO	202+69	LT	677
-L-	196+08	TO	198+95	RT	625
-Y8-	17+50	TO	18+50	CL	423
-Y8-	34+50	TO	35+50	CL	276
-Y10-	10+14	TO	11+19	RT	242
TOTAL					3215
SAY					3220

BREAKING OF EXISTING ASPHALT PAVEMENT

STATION TO STATION					SY
-Y8-	18+50	TO	26+15	CL	2385
-Y8-	28+55	TO	34+50	CL	1777
TOTAL					4162
SAY					4170

MILLING ASPHALT PAVEMENT, 1.5" DEPTH

STATION TO STATION					SY
-L-	175+47.20	TO	219+92.08	RT	14433
-L-	175+47.20	TO	219+92.08	LT	14689
TOTAL					29122
SAY					29130

COMPUTED BY: RIGGS, A. F.
 CHECKED BY: ALEXANDER, M. J.

DATE: MARCH 2017
 DATE: MARCH 2017

(2-16-16)

PROJECT NO.
 U-5796

SHEET NO.
 3G-1

**STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS**

SUMMARY OF BRIDGE WAITING PERIODS

Bridge Description	End Bent	MONTHS
BRIDGE ON -Y8- OVER -L- AT STA. 27+41.30 -Y8-	1	4
BRIDGE ON -Y8- OVER -L- AT STA. 27+41.30 -Y8-	2	4

**SUMMARY OF
 SETTLEMENT GAUGES**

Gauge No.	LINE and Station	Offset	
		Distance FT	Direction LT/RT
1	20+50-Y8-	20	LT
2	20+50-Y8-	CL	-
3	20+50-Y8-	20	RT
4	22+50-Y8-	20	LT
5	22+50-Y8-	CL	-
6	22+50-Y8-	20	RT
7	32+00 -Y8-	20	LT
8	32+00 -Y8-	CL	-
9	32+00 -Y8-	20	RT
10	34+00-Y8-	20	LT
11	34+00-Y8-	CL	-
12	34+00-Y8-	20	RT
TOTAL GAUGES (EACH):			12

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
-L-	175+47	181+65	ASU	12	400	750	2700	-	-
-L-	183+00	200+25	ASU	12	1500	2800	5650	-	-
-L-	204+25	211+75	ASU	12	400	800	1450	-	-
-RAMP A-	0+00	3+45	ASU	12	250	1260	950	-	-
-RAMP B-	0+00	4+25	ASU	12	600	1650	2500	-	-
-RAMP C-	0+00	4+75	ASU	12	650	1525	3650	-	-
-RAMP D-	0+00	4+75	ASU	12	500	2080	2800	-	-
-Y8-	17+50	18+00	ASU	12	10	20	40	-	-
-Y8-	35+40	39+35	ASU	12	390	730	760	-	-
-Y10-	10+75	13+50	ASU	12	50	100	150	-	-
CONTINGENCY			ASU	12	500	1000	1500	-	-
CONTINGENCY			AST	3					500
TOTAL CY/TONS/SY:					5250	12715	22150**	0	500

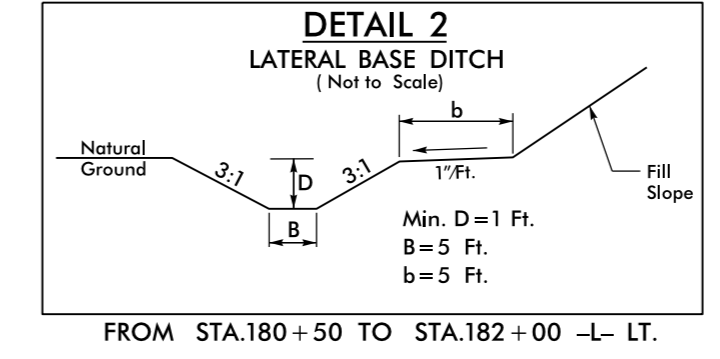
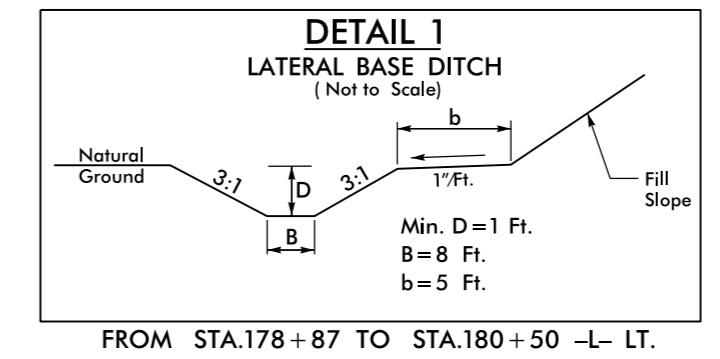
*ASU = Aggregate Subgrade
 *AST = Aggregate Stabilization
 **Total square yards of "Geotextile for Soil Stabilization" is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	2500
				TOTAL LF:	2500

*UD = Underdrain
 *BD = Blind Drain
 *SD = Subsurface Drain

PROJECT REFERENCE NO. U-5796		SHEET NO. 04	
RW SHEET NO. 04		04	
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 KASHI DABHADRE	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 James C. Davis	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



NAD 83/NSRS 2007

BURL J. MITCHELL
DB 1261 PG 577

-L- 180+37.00
168.00' LT
CLASS B RIP RAP
EST. 1 TN RR
EST. 5 SY GF

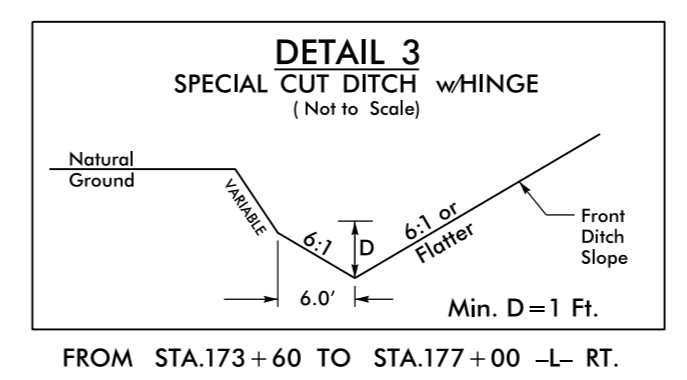
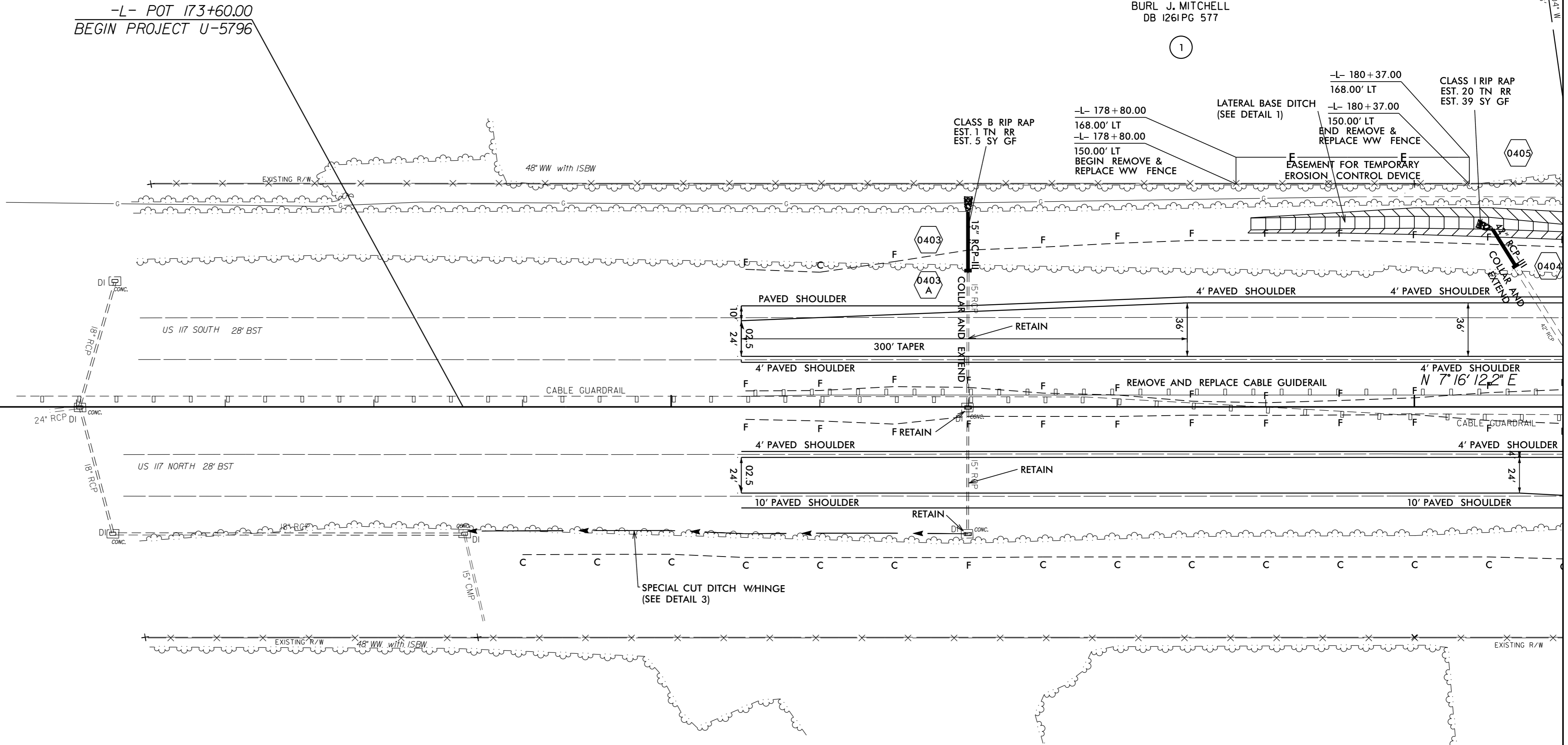
-L- 178+80.00
168.00' LT
-L- 178+80.00
150.00' LT
BEGIN REMOVE & REPLACE WW FENCE

LATERAL BASE DITCH (SEE DETAIL 1)
-L- 180+37.00
150.00' LT
END REMOVE & REPLACE WW FENCE

CLASS 1 RIP RAP
EST. 20 TN RR
EST. 39 SY GF

-Y8- POT 170+00.00

-L- POT 173+60.00
BEGIN PROJECT U-5796



DEBORAH KAY WILLIAMS
DB 2641 PG 112

REVISIONS

06-APR-2017 14:48
R:\Users\james.davis\Projects\U-5796_ddc4_psh04.dgn
\$\$\$\$USERNAM\$\$\$\$

MATCH LINE -L- STA. 181+00.00 SEE SHEET 5

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

PROJECT REFERENCE NO. U-5796 SHEET NO. 05
RW SHEET NO. 05

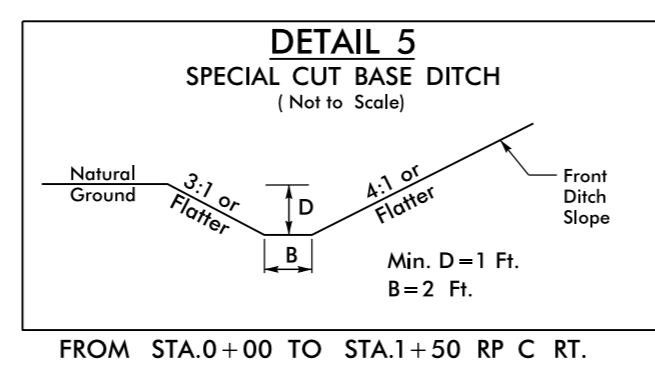
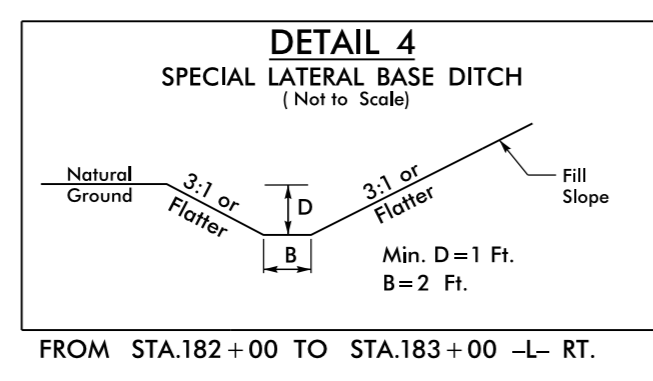
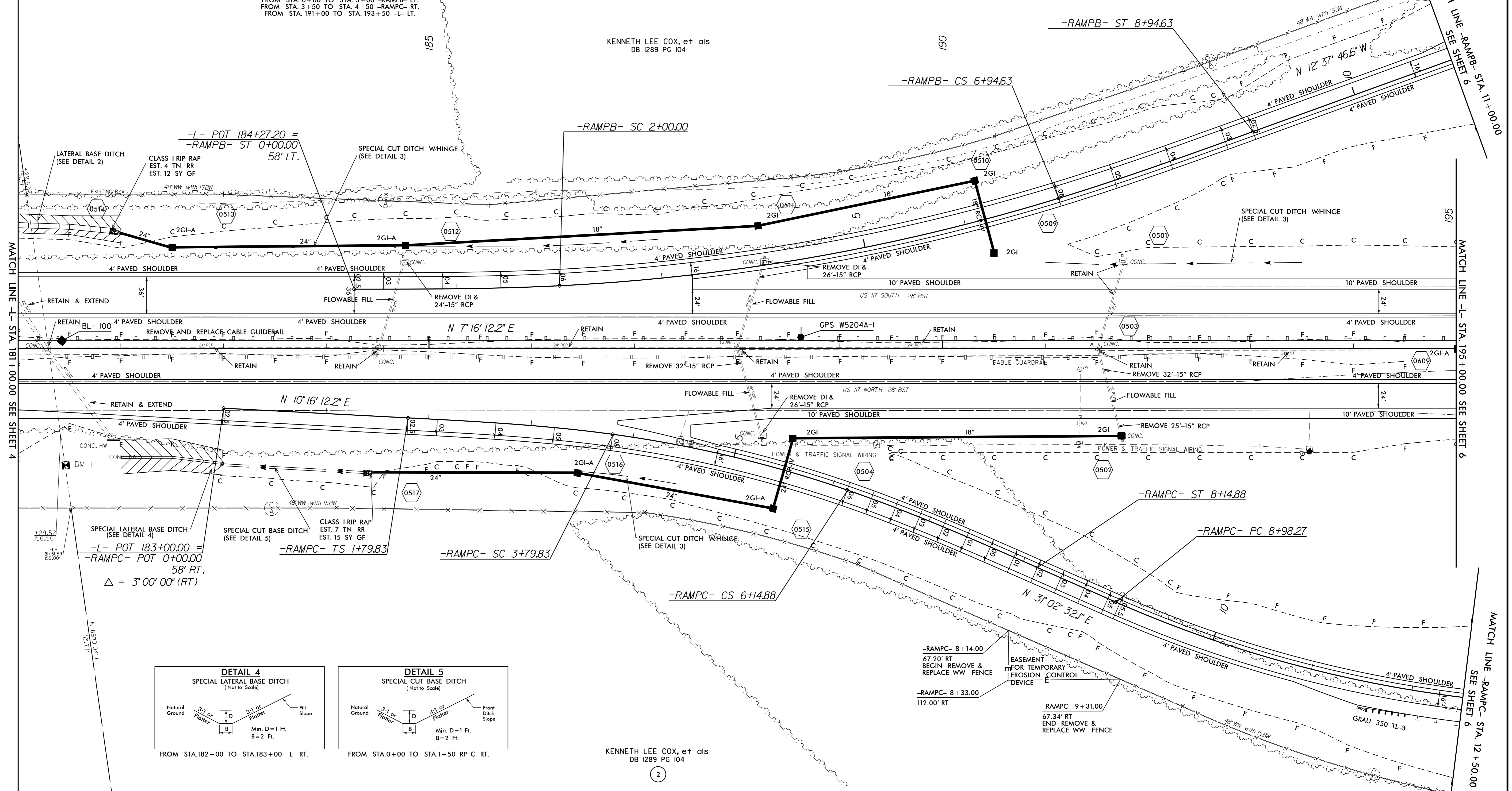
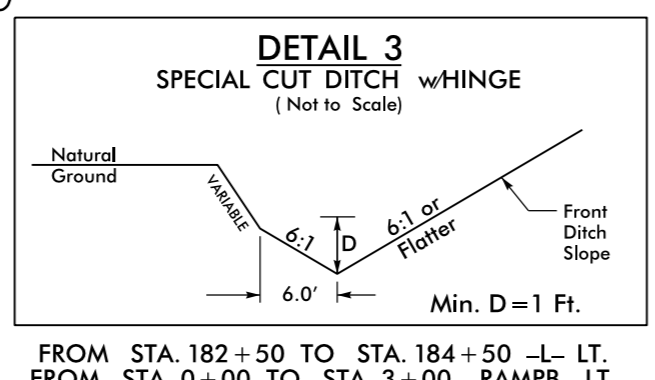
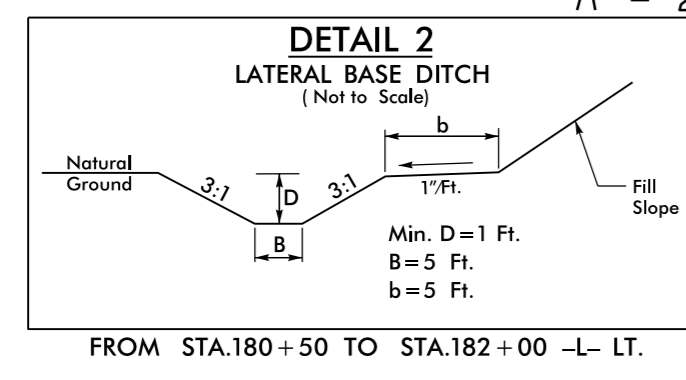
NOTE:
SEE SHEET 10 FOR -L- LT PROFILE
SEE SHEET 11 FOR -L- RT PROFILE
SEE SHEET 14 FOR RAMP B PROFILE
SEE SHEET 15 FOR RAMP C PROFILE

ROADWAY DESIGN
ENGINEER
4/6/2017
SEAL
18537
JERRY P. FAGG

HYDRAULICS
ENGINEER
4/7/2017
SEAL
18462
JAMES C. DAVIS

RAMPB

PIs Sta 1+33.35 θs = 2° 51' 53.2" Ls = 200.00' LT = 133.35' ST = 66.68'	PI Sta 4+48.58 Δ = 14° 10' 12.2" (LT) D = 2° 51' 53.2" L = 4946.3' T = 248.58' R = 2,000.00'	PIs Sta 7+61.31 θs = 2° 51' 53.2" Ls = 200.00' LT = 133.35' ST = 66.68'
---	---	---



RAMPC

PIs Sta 3+13.21 θs = 4° 46' 28.7" Ls = 200.00' LT = 133.38' ST = 66.71'	PI Sta 4+97.73 Δ = 11° 13' 22.5" (RT) D = 4° 46' 28.7" L = 235.05' T = 117.90' R = 1,200.00'	PIs Sta 6+81.59 θs = 4° 46' 28.7" Ls = 200.00' LT = 133.38' ST = 66.71'	PI Sta 12+24.63 Δ = 30° 25' 42.7" (LT) D = 4° 46' 28.7" L = 637.29' T = 326.35' R = 1,200.00'
---	---	---	--

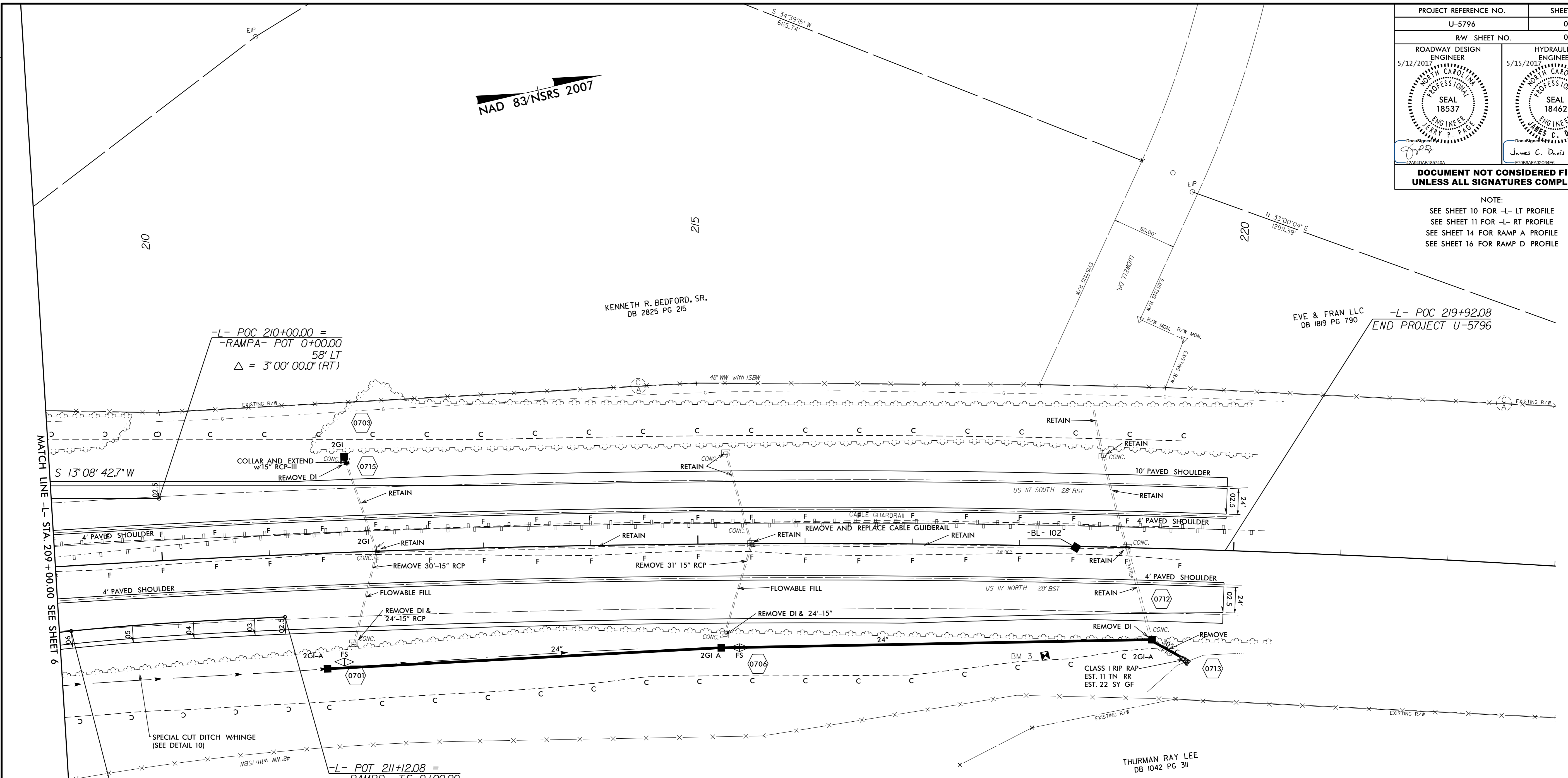
KENNETH LEE COX, et als
DB 1289 PG 104

REVISIONS

06-APR-2017 14:48
S:\S\5796_ddec4_pn05.dgn
S:\S\5796\JAMES

PROJECT REFERENCE NO.	SHEET NO.
U-5796	07
R/W SHEET NO.	07
ROADWAY DESIGN ENGINEER 5/12/2017 SEAL 18537 JERRY P. PAGE	HYDRAULICS ENGINEER 5/15/2017 SEAL 18462 JAMES C. DAVIS
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

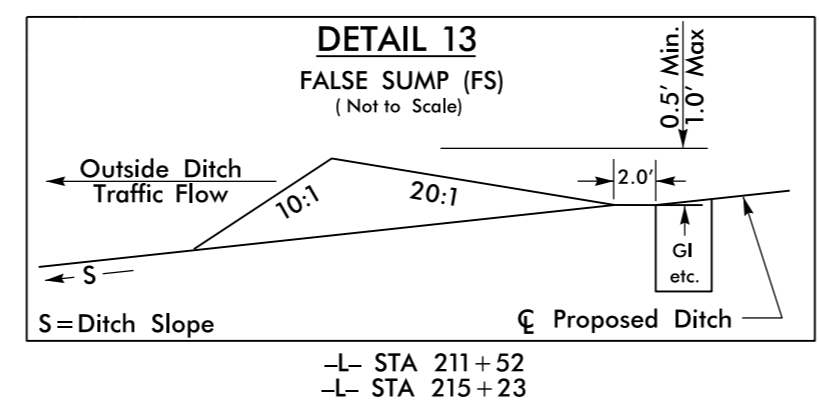
NOTE:
SEE SHEET 10 FOR -L- LT PROFILE
SEE SHEET 11 FOR -L- RT PROFILE
SEE SHEET 14 FOR RAMP A PROFILE
SEE SHEET 16 FOR RAMP D PROFILE



NAD 83/NSRS 2007

MATCH LINE -L- STA. 209+00.00 SEE SHEET 6

-L- POC 219+92.08
END PROJECT U-5796



RAMPD

PI Sta 5+32.17	PIs Sta 1+23.41
$\Delta = 18' 51'' 35.1'' (LT)$	$\Theta_s = 0' 30'' 08.9''$
$D = 2' 51'' 53.2''$	$\Theta_s = 2' 51'' 53.5''$
$L = 658.33'$	$L_s = 200.00'$
$T = 332.17'$	$LT = 123.41'$
$R = 2,000.00'$	$ST = 76.64'$

-L-

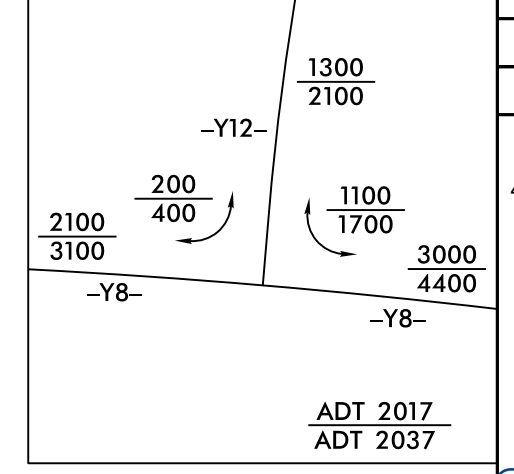
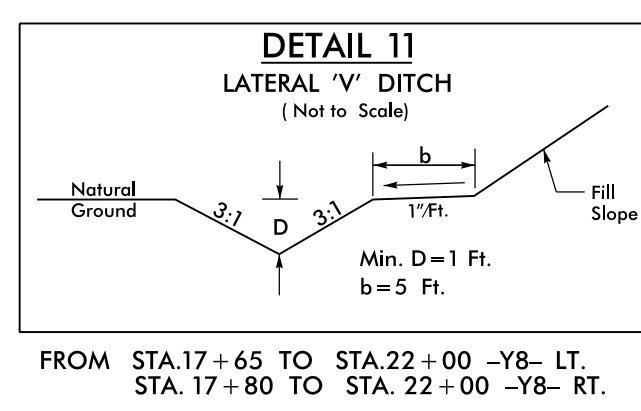
PI Sta 214+73.47
$\Delta = 8' 58'' 00.0'' (RT)$
$D = 0' 30'' 00.0''$
$L = 1,793.33'$
$T = 898.50'$
$R = 11,459.16'$

12-MAY-2017 11:35
R:\PROJECTS\U-5796_dcd4_psh07.dgn
\$\$\$\$USERNAVES\$\$\$

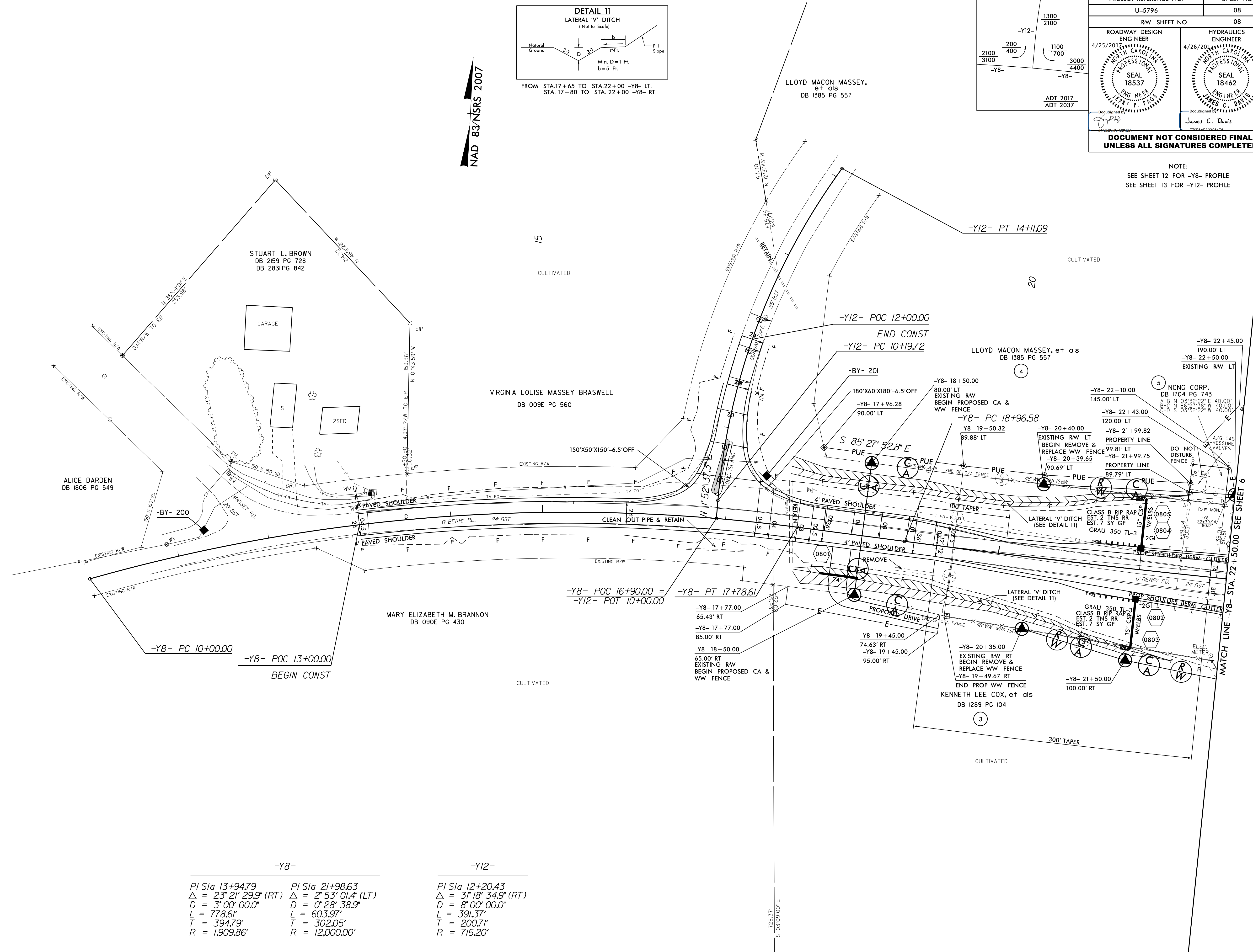
REVISIONS

HP4500

PROJECT REFERENCE NO.	SHEET NO.
U-5796	08
R/W SHEET NO.	08
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
4/25/2017	4/26/2017
SEAL 18537	SEAL 18462
JERRY P. PAGE	JAMES C. DAVIS
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



NAD 83/NRS 2007



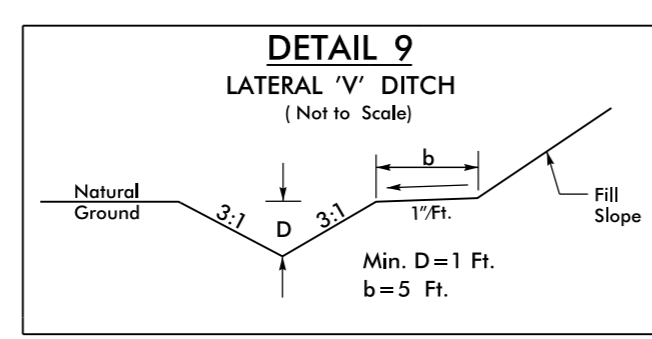
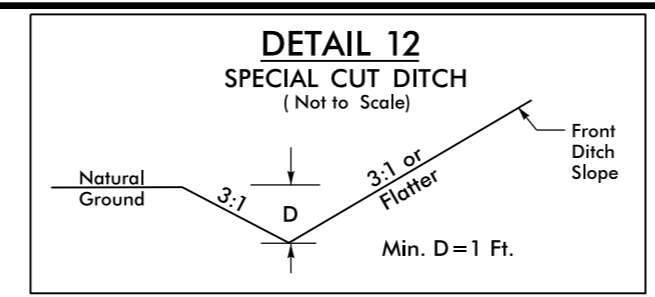
NOTE:
SEE SHEET 12 FOR -Y8- PROFILE
SEE SHEET 13 FOR -Y12- PROFILE

REVISIONS

-Y8-		-Y12-
PI Sta 13+94.79	PI Sta 21+98.63	PI Sta 12+20.43
$\Delta = 23' 21'' 29.9''$ (RT)	$\Delta = 2' 53'' 01.4''$ (LT)	$\Delta = 31' 18'' 34.9''$ (RT)
$D = 3' 00'' 00.0''$	$D = 0' 28'' 38.9''$	$D = 8' 00'' 00.0''$
$L = 778.61'$	$L = 603.97'$	$L = 391.37'$
$T = 394.79'$	$T = 302.05'$	$T = 200.71'$
$R = 1,909.86'$	$R = 12,000.00'$	$R = 716.20'$

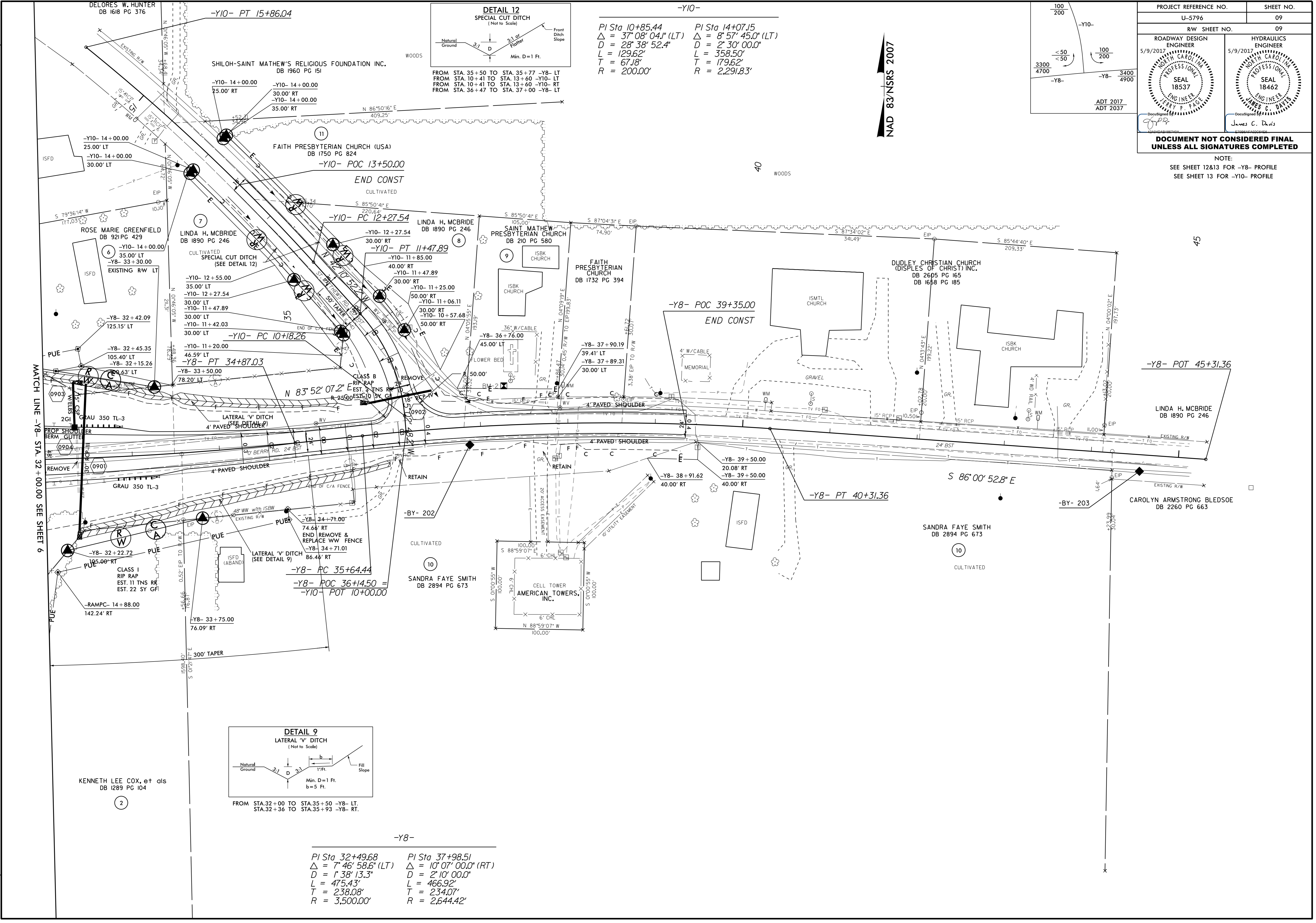
PROJECT REFERENCE NO. U-5796		SHEET NO. 09	
RW SHEET NO. 09		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER 5/9/2017 SEAL 18537 JERRY P. PAGE		HYDRAULICS ENGINEER 5/9/2017 SEAL 18462 JAMES C. DAVIS	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

NOTE:
SEE SHEET 12&13 FOR -Y8- PROFILE
SEE SHEET 13 FOR -Y10- PROFILE



-Y10-
 PI Sta 10+85.44 Δ = 37° 08' 04.1" (LT)
 D = 28° 38' 52.4"
 L = 129.62'
 T = 67.18'
 R = 200.00'
 PI Sta 14+07.15 Δ = 8° 57' 45.0" (LT)
 D = 2° 30' 00.0"
 L = 358.50'
 T = 179.62'
 R = 2,291.83'

NAD 83/NSRS 2007



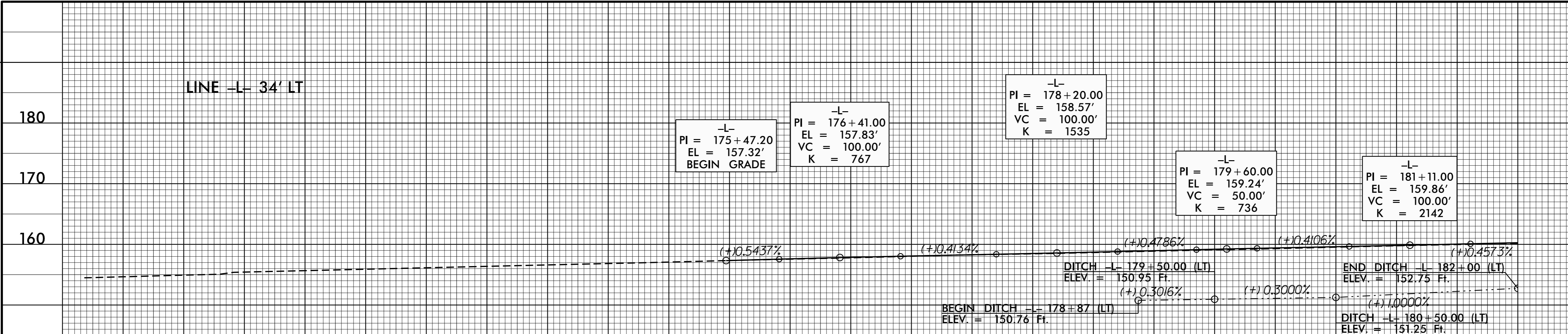
-Y8-
 PI Sta 32+49.68 Δ = 7° 46' 58.6" (LT)
 D = 1° 38' 13.3"
 L = 475.43'
 T = 238.08'
 R = 3,500.00'
 PI Sta 37+98.51 Δ = 10° 07' 00.0" (RT)
 D = 2° 10' 00.0"
 L = 466.92'
 T = 234.07'
 R = 2,644.42'

REVISIONS

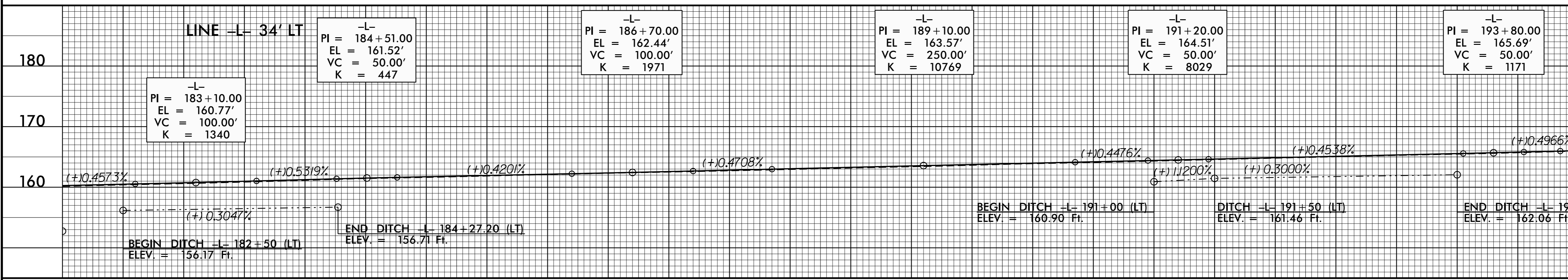
09-MAY-2017 10:45
 R:\PROJECTS\2017\U-5796\ddc4_pn09.dgn
 \$\$\$USER\$AMSSSS\$

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

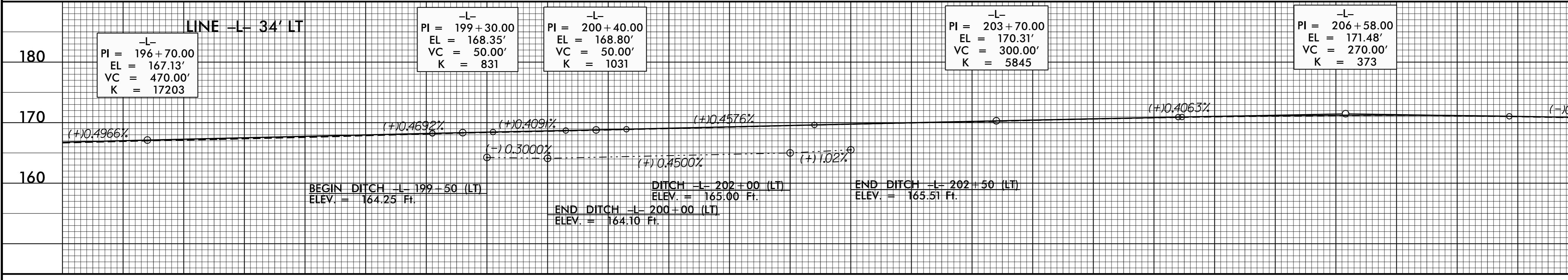
DITCH LEGEND	160
LEFT DITCH - - - - -	150



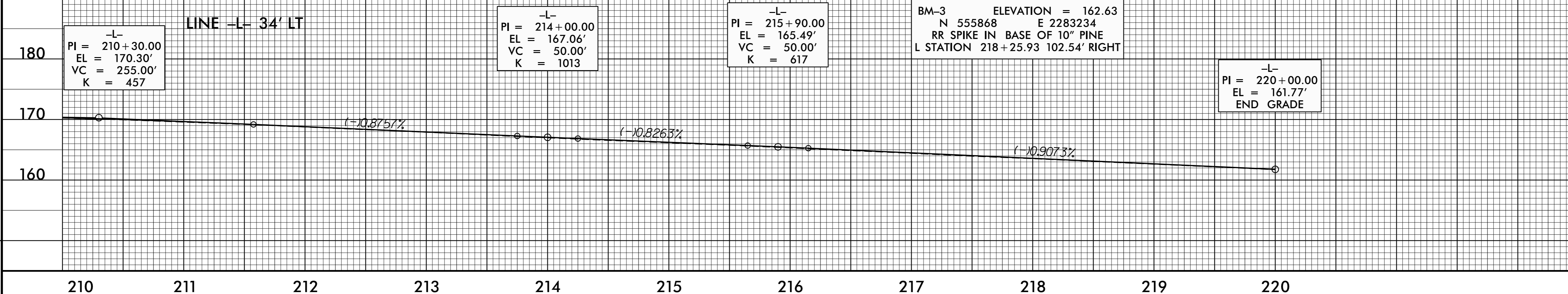
171 172 173 174 175 176 177 178 179 180 181 182



182 183 184 185 186 187 188 189 190 191 192 193 194 195 196



196 197 198 199 200 201 202 203 204 205 206 207 208 209 210



210 211 212 213 214 215 216 217 218 219 220

REVISIONS

06-APR-2017 14:49
R:\PROJECTS\14-49-000\14-49-000\14-49-000.dwg
\$\$\$\$\$USER\$AMSSSS

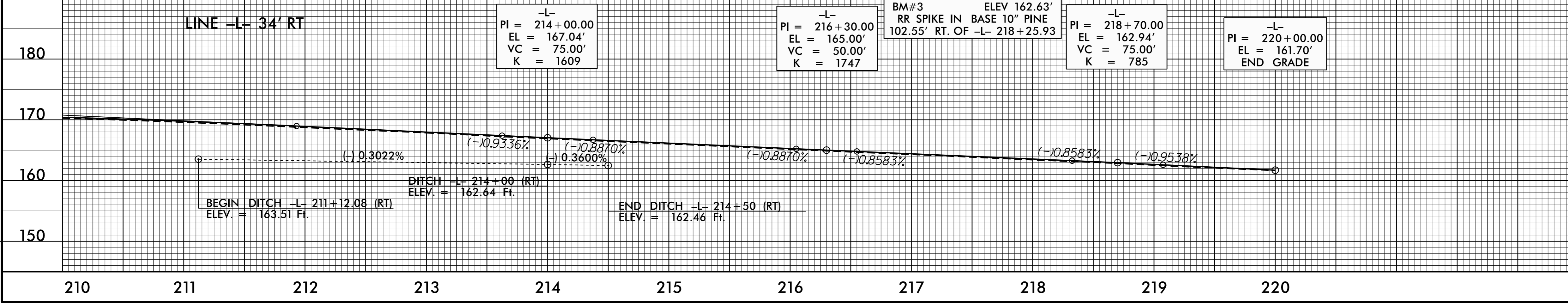
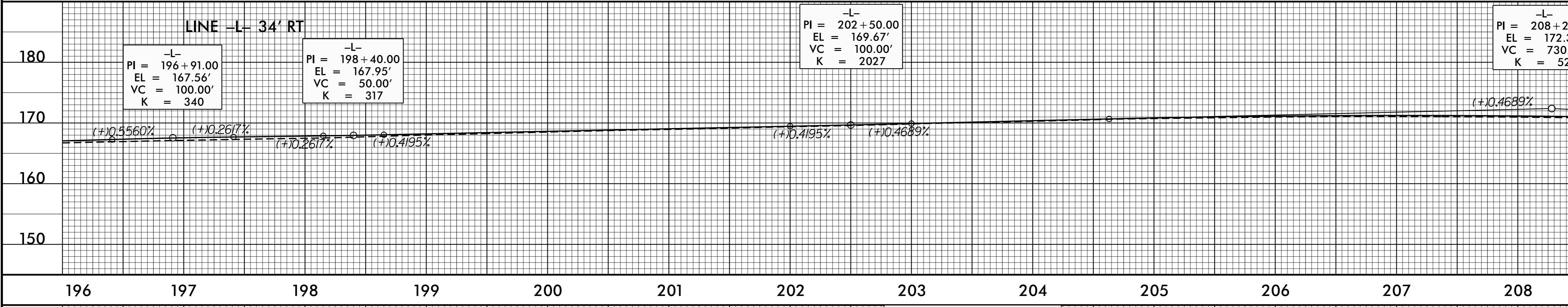
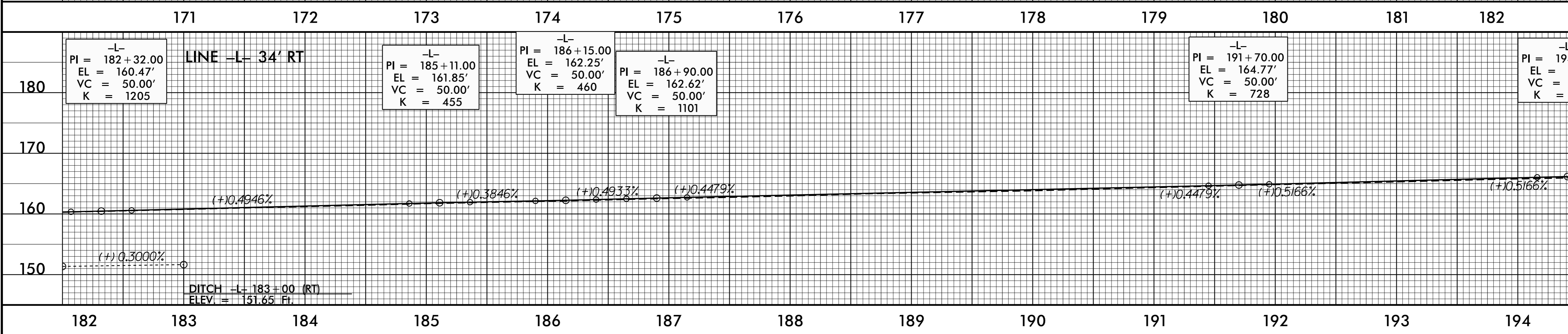
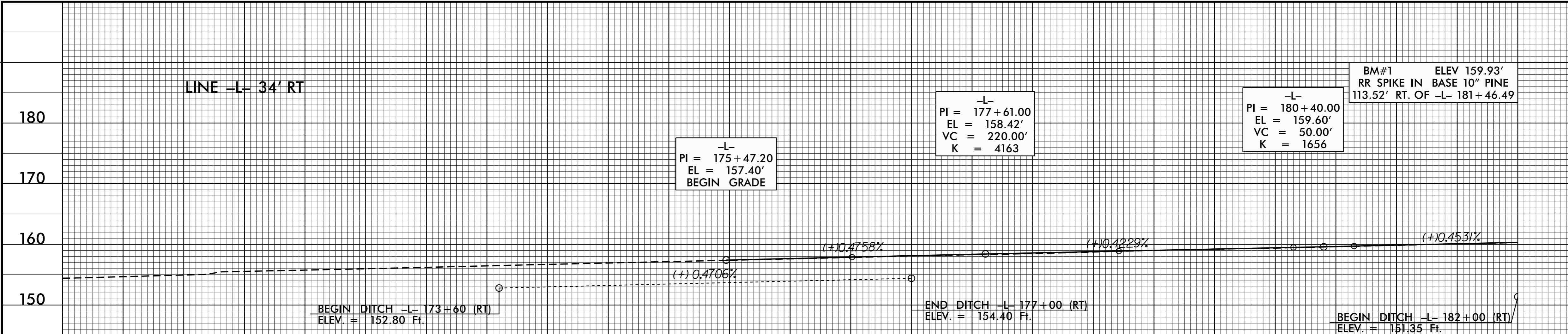
HP4500

PROJECT REFERENCE NO. U-5796	SHEET NO. 11
RAW SHEET NO. 11	
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 JERRY P. PAGE	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 JAMES C. DAVIS

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

DITCH LEGEND

RIGHT DITCH - - - - -



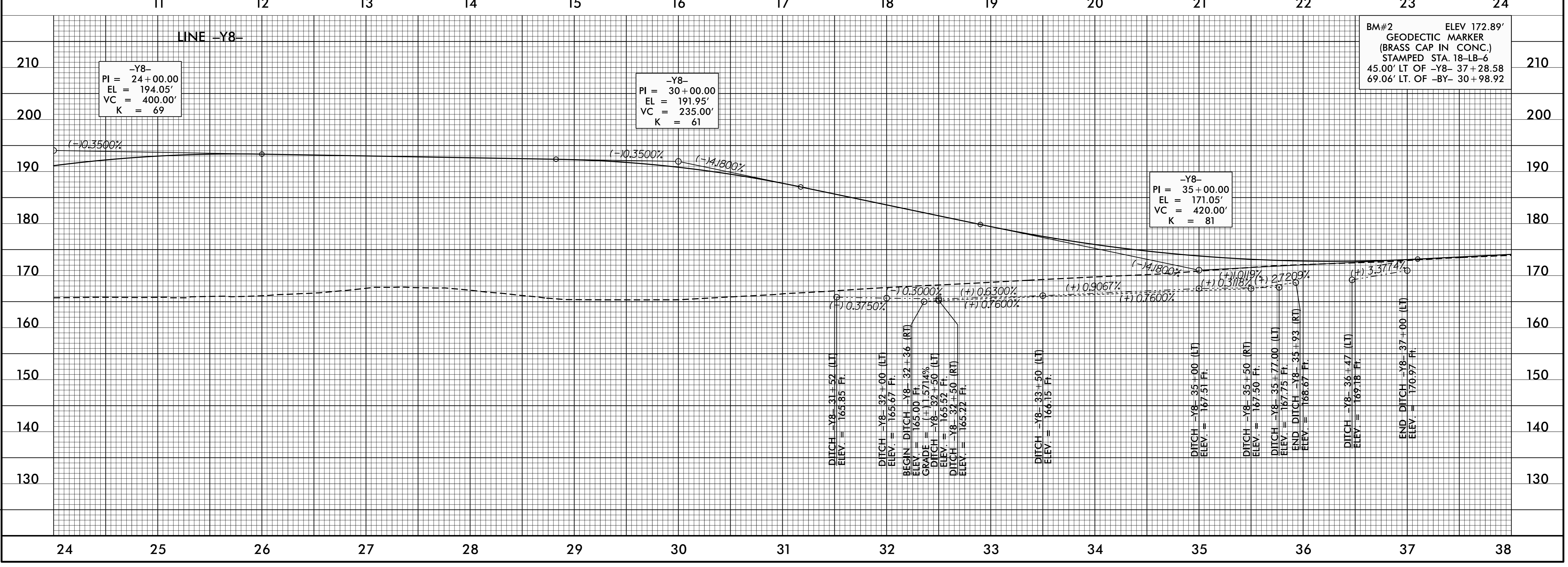
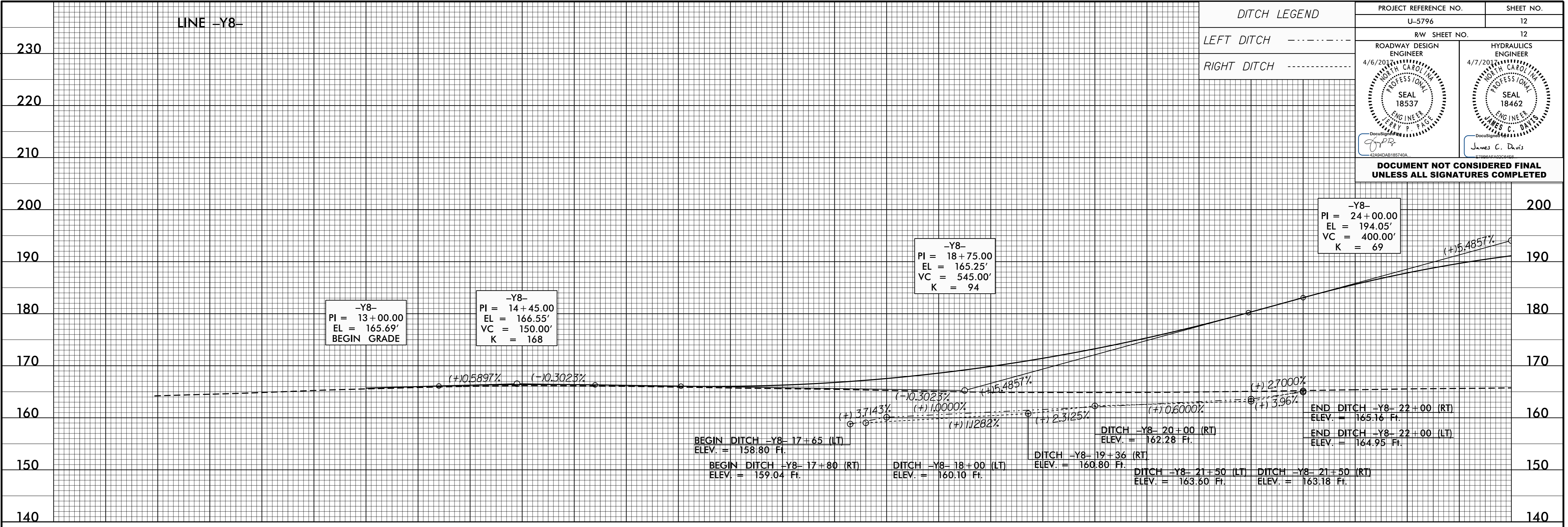
BM#3 ELEV 162.63'
RR SPIKE IN BASE 10" PINE
102.55' RT. OF -L- 218+25.93

REVISIONS

06-APR-2017 14:49
R:\PROJECTS\1706\1706_ditch_PSH_pro.dgn
\$\$\$\$USER\$AMSSSS

HP4500

PROJECT REFERENCE NO. U-5796		SHEET NO. 12
RAW SHEET NO. 12		
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 JERRY PAGE	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 JAMES C. DAVIS	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



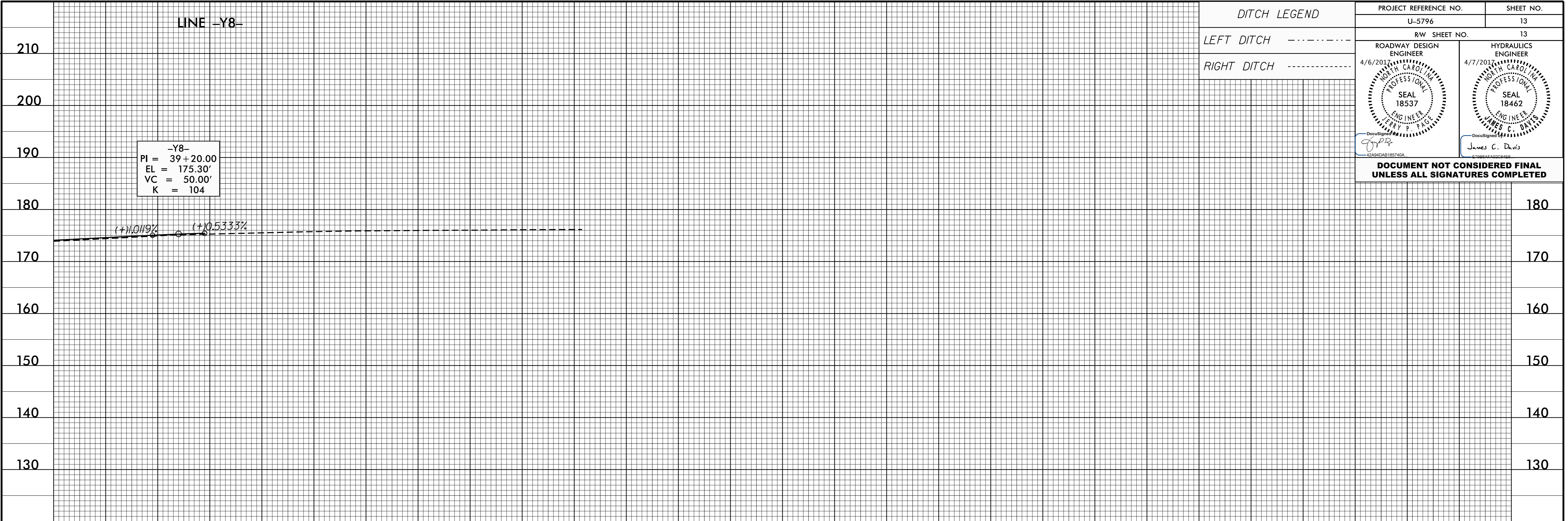
06-APR-2017 14:49
R:\06-5796\06-5796_ddec4_psh_pro.dgn
\$\$\$\$USER\$AMSSSS

REVISIONS

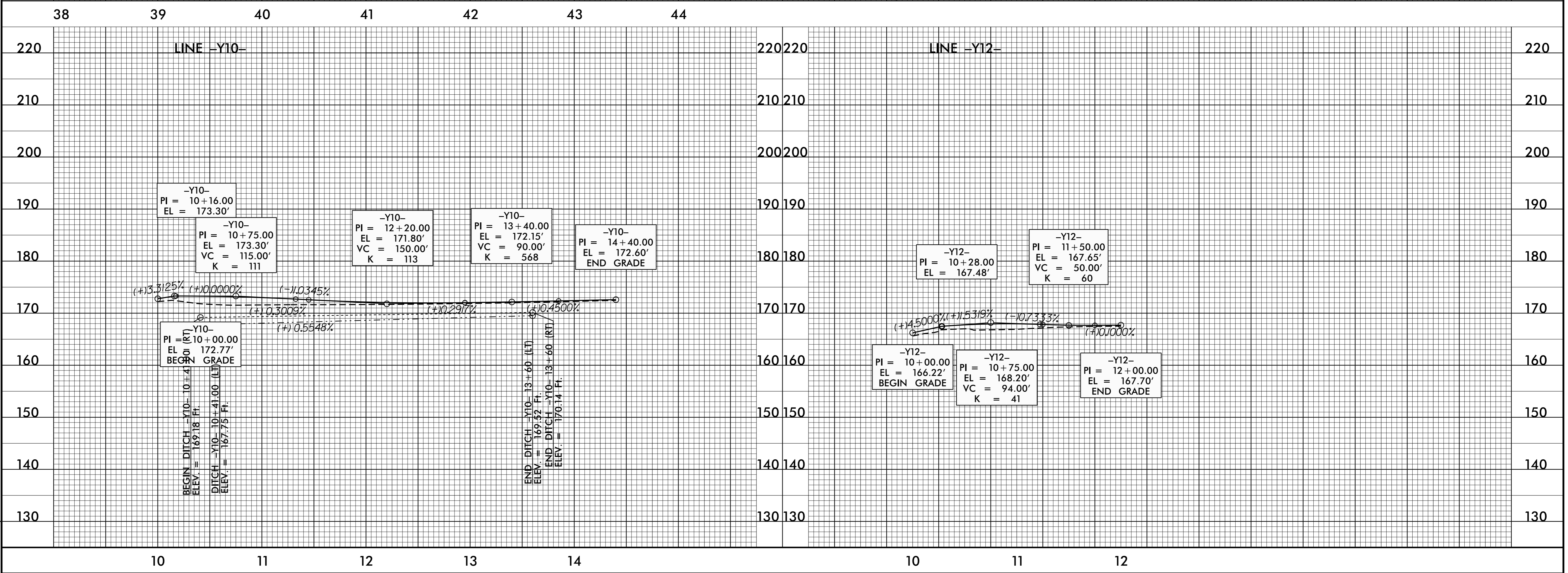
DITCH LEGEND

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

PROJECT REFERENCE NO. U-5796	SHEET NO. 13
RAW SHEET NO. 13	
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 JERRY P. FAGI	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 JAMES C. DAVIS
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS



06-APR-2017 14:49
R:\PROJECTS\1705796_ditch4_PSH_pro.dgn
\$\$\$\$USER\$AMSSSS

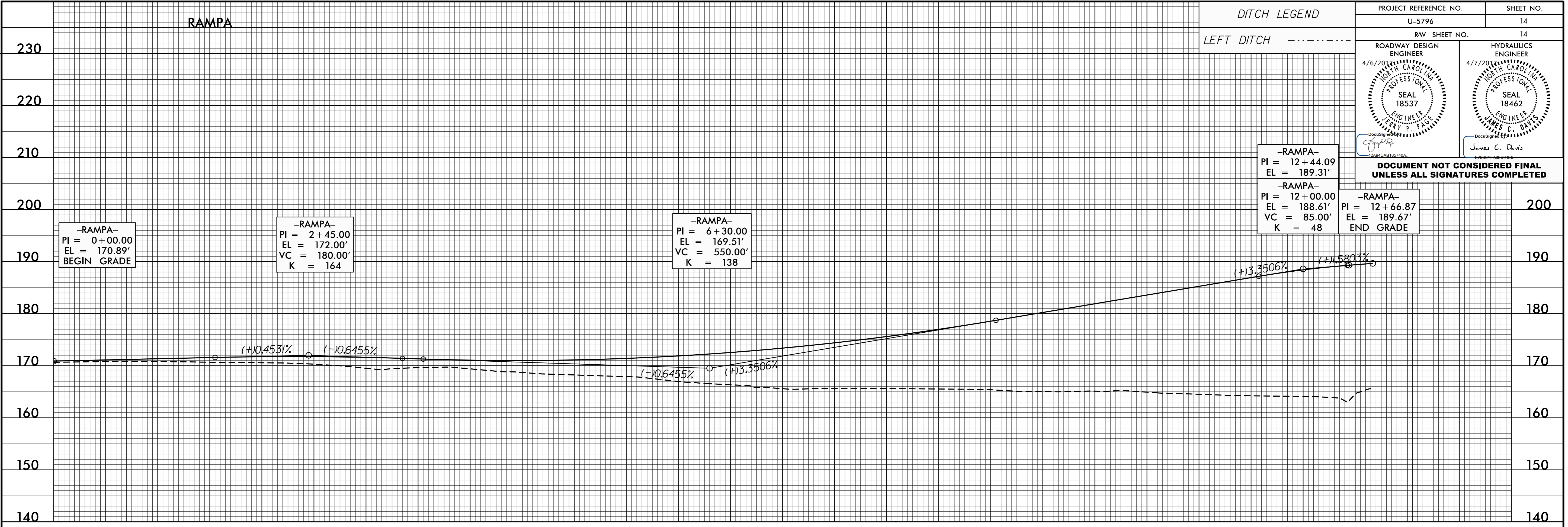
PROJECT REFERENCE NO. U-5796		SHEET NO. 14
RAW SHEET NO. 14		
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 JERRY P. FAGG	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 JAMES C. DAVIS	

-RAMPA-
PI = 12+44.09
EL = 189.31'

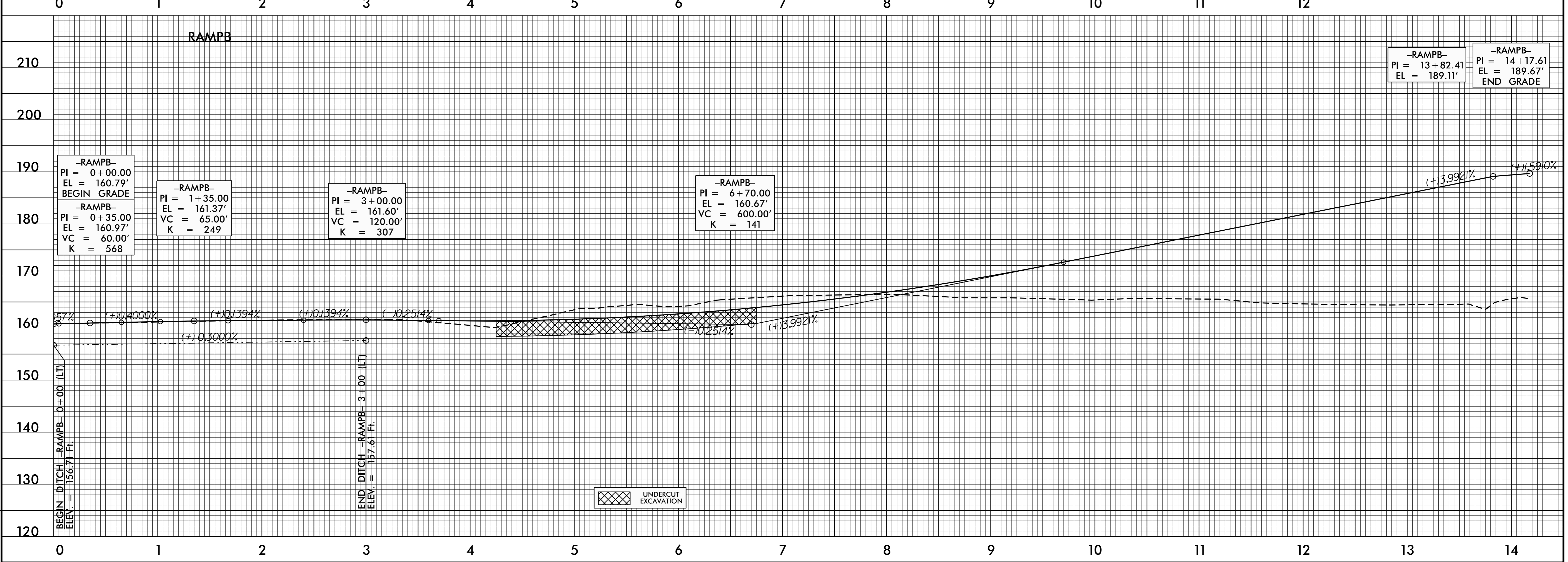
-RAMPA-
PI = 12+00.00
EL = 188.61'
VC = 85.00'
K = 48

-RAMPA-
PI = 12+66.87
EL = 189.67'
END GRADE

**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



REVISIONS

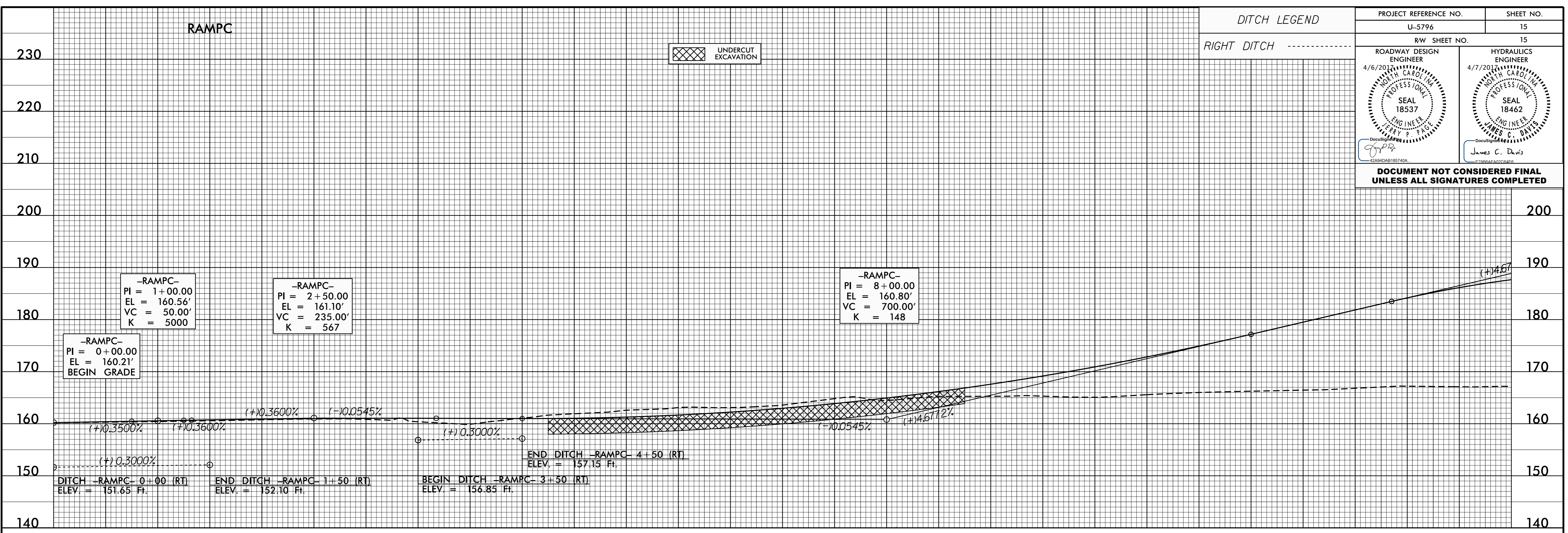


06-APR-2017 14:49
R:\5796\5796_ditch.psh_pro.dgn
\$\$\$\$\$USER\$\$\$\$\$

DITCH LEGEND

RIGHT DITCH

PROJECT REFERENCE NO. U-5796	SHEET NO. 15
RAW SHEET NO. 15	
ROADWAY DESIGN ENGINEER 4/6/2017 SEAL 18537 JERRY PAGE	HYDRAULICS ENGINEER 4/7/2017 SEAL 18462 JAMES C. DAVIS
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



REVISIONS



