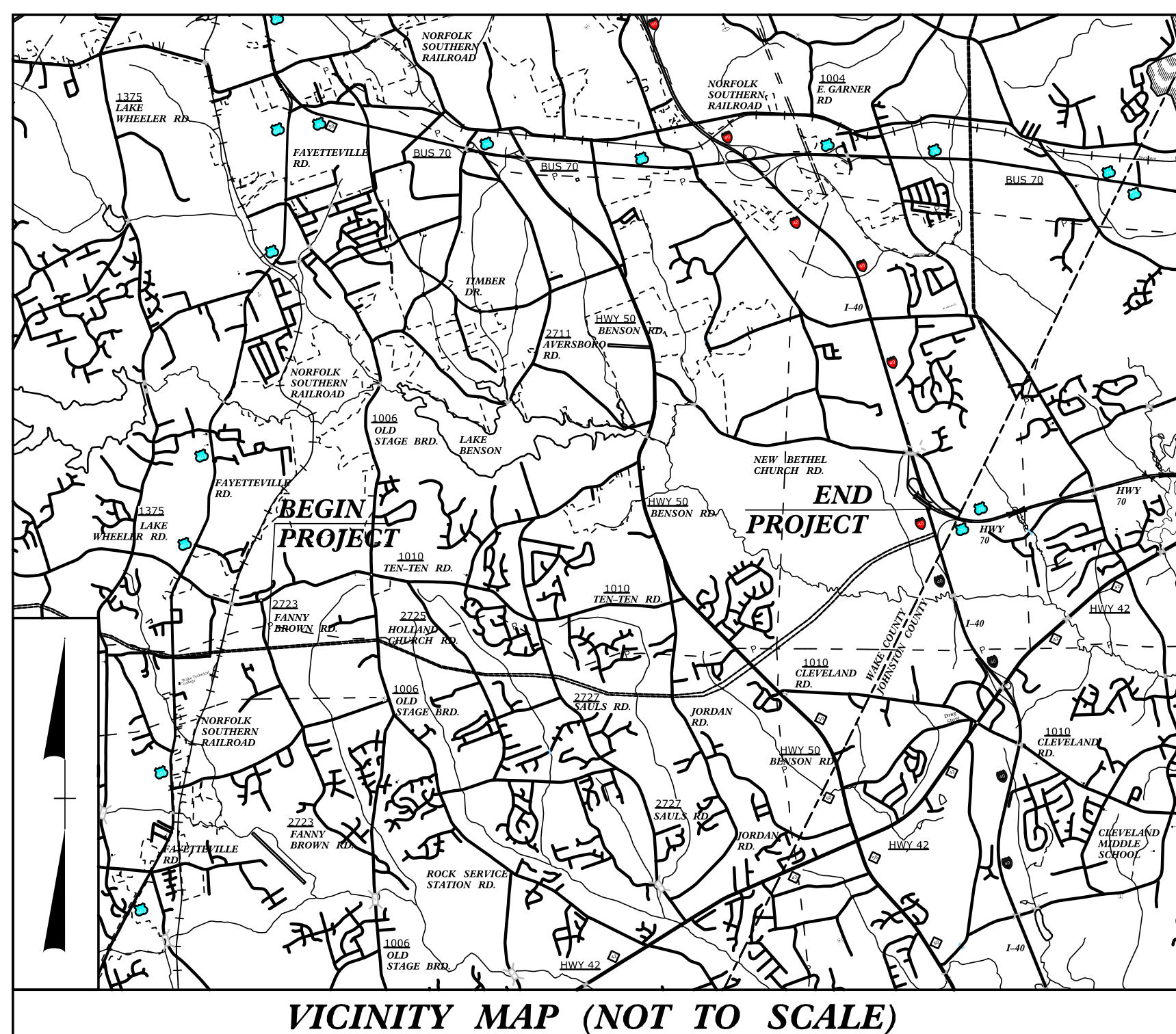


STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2828	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
35516.3.GV1	NHP-0540(043)	DESIGN-BUILD	
35516.2.3	NHP-0540(043)	R/W	
35516.2.TA1	NHP-0540(043)	R/W	

# WAKE & JOHNSTON COUNTY

**LOCATION: TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION FROM EAST OF US 401 TO EAST OF I-40**  
**TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS**



**PRELIMINARY HYDRAULICS DESIGN WORK AREA 3**

SUBMITTAL: X-019  
DATE: 04-24-2019

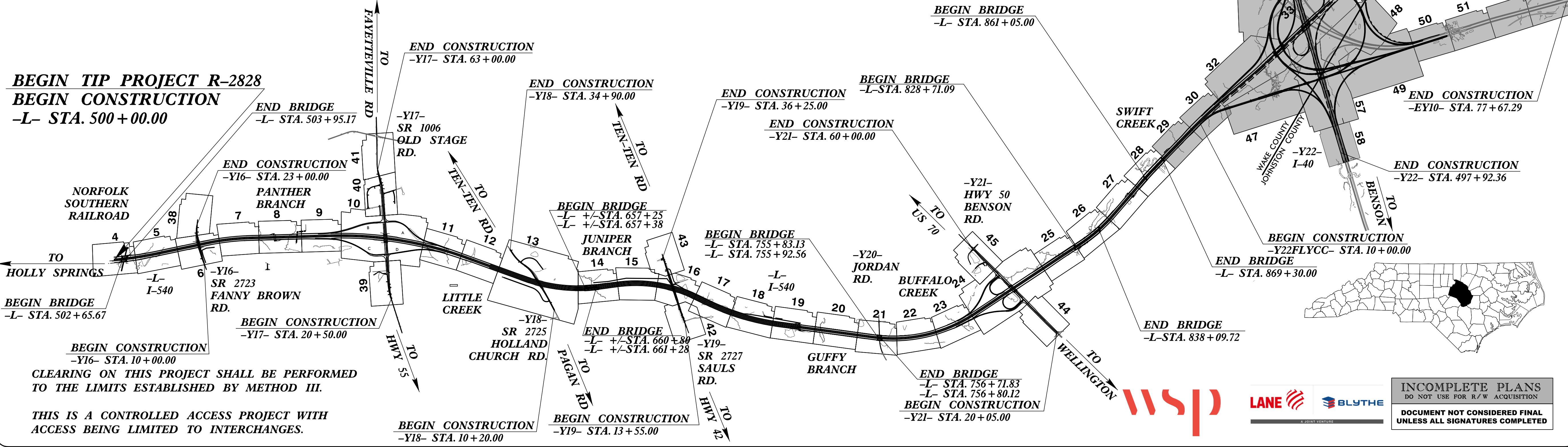
**WORKAREA 1**  
STA. 500+00 TO STA. 670+00

**WORKAREA 2**  
STA. 670+50 TO STA. 870+00

**WORKAREA 3**  
STA. 870+00 TO STA. 955+00

**TIP PROJECT: R-2828**

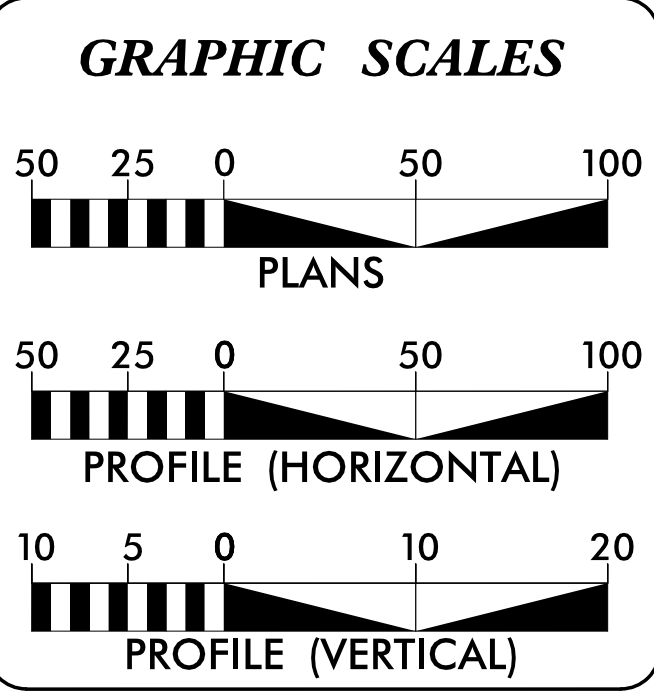
**CONTRACT: C204197**



**BEGIN TIP PROJECT R-2828**  
**BEGIN CONSTRUCTION**  
-L- STA. 500+00.00

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

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



**DESIGN DATA**

ADT 2018	=	
ADT 2040	=	53,400
DHV	=	12 %
D	=	65 %
T	=	11 % *
V	=	75 MPH
*(TTST 4 + DUAL 7)		
FUNCTIONAL CLASS:	FREEWAY	

**PROJECT LENGTH**

LENGTH OF ROADWAY PROJECT R-2828	=	8.055 Miles
LENGTH OF STRUCTURE PROJECT R-2828	=	0.562 Miles
TOTAL LENGTH OF TIP PROJECT R-2828	=	8.617 Miles

NCDOT CONTACT: **AMY NEIDRINGHAUS, PE**  
DESIGN BUILD PROJECT ENGINEER  
TRANSPORTATION PROGRAM MANAGEMENT UNIT

Prepared in the Office of  
**WSP**  
FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

**RIGHT OF WAY DATE:**  
SEPT. 9, 2019

**LETTING DATE:**  
DEC. 11, 2019

**DANIEL BRIDGES, PE**  
PROJECT ENGINEER

**RONYELL THIGPEN, PE**  
PROJECT DESIGN ENGINEER

**HYDRAULICS ENGINEER**

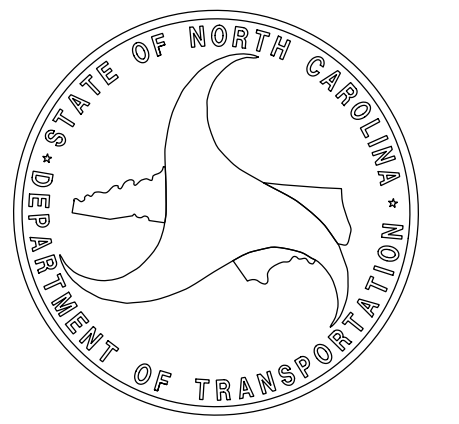
SIGNATURE: \_\_\_\_\_ P.E.

**ROADWAY DESIGN ENGINEER**

SIGNATURE: \_\_\_\_\_ P.E.

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION

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

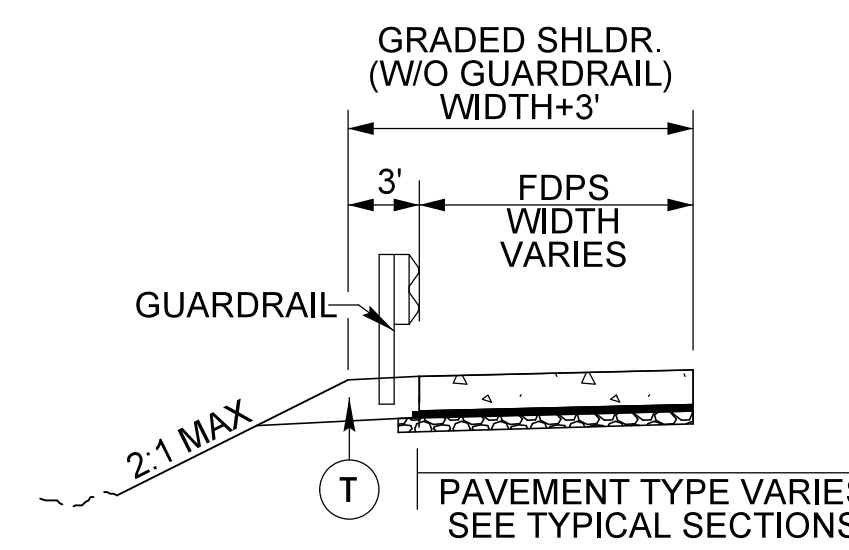


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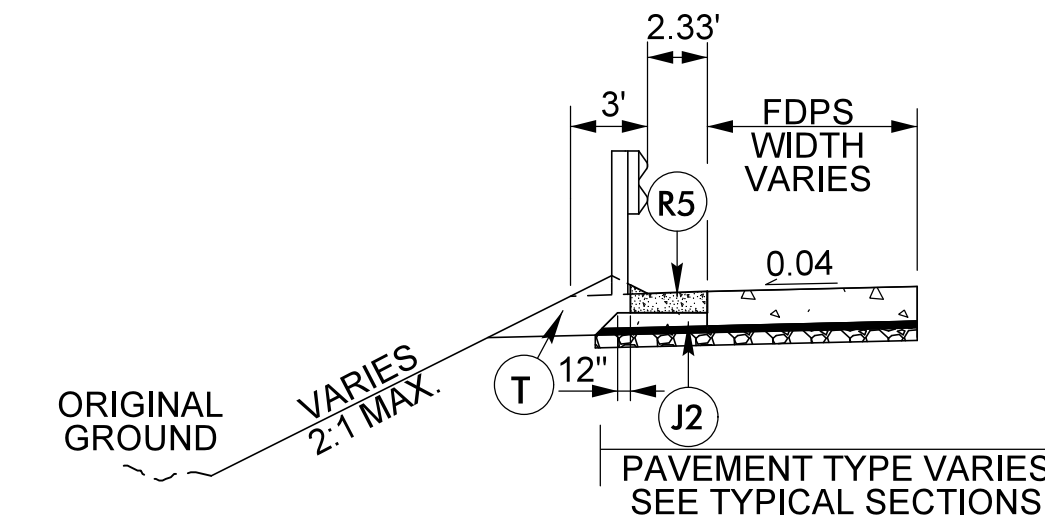
6/2/99

PAVEMENT SCHEDULE

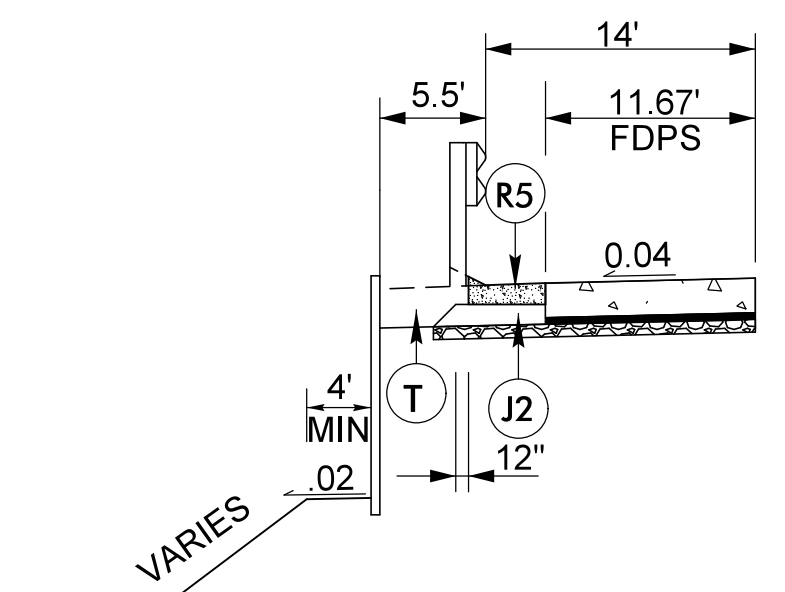
A1	12" DOWELED JOINTED CONCRETE	U	EXISTING PAVEMENT
A2	9" ROLLER COMPACTED CONCRETE	V	MILLING
A3	VARIABLE DEPTH ROLLER COMPACTED CONCRETE	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 1)
C1	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 68 3/4 LBS. PER SQ.YD.	W2	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL 2)
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.	NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE	
C3	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD. IN EACH OF TWO LAYERS.		
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH		
C5	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH		
C6	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.		
C7	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.		
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YARD.		
D2	PROP. APPROX. 4.0" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.		
D3	PROP. APPROX. 5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.		
D4	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 1/2" OR GREATER THAN 4" IN DEPTH.		
E1	PROP. APPROX. 5.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YARD.		
J1	PROPOSED VAR. DEPTH AGGREGATE BASE COURSE (4.25" MIN)		
J2	PROPOSED 6" AGGREGATE BASE COURSE		
J3	PROPOSED 8" AGGREGATE BASE COURSE		
J4	PROPOSED 10" AGGREGATE BASE COURSE		
K1	SUBGRADE STABILIZATION		
P	PRIME COAT		
N1	NON-WOVEN GEOTEXTILE INTERLAYER		
R1	2'-6" CURB & GUTTER		
R2	1'-6" CURB & GUTTER		
R3	5" MONOLITHIC CONCRETE ISLAND, KEYED IN		
R4	CONCRETE EXPRESSWAY GUTTER		
R5	SHOULDER BERM GUTTER		
R6	SINGLE FACED CONCRETE BARRIER WALL		
R7	DOUBLE FACED CONCRETE BARRIER WALL		
R8	SINGLE SLOPE BARRIER		
S	4" CONCRETE SIDEWALK		
T	EARTH MATERIAL		



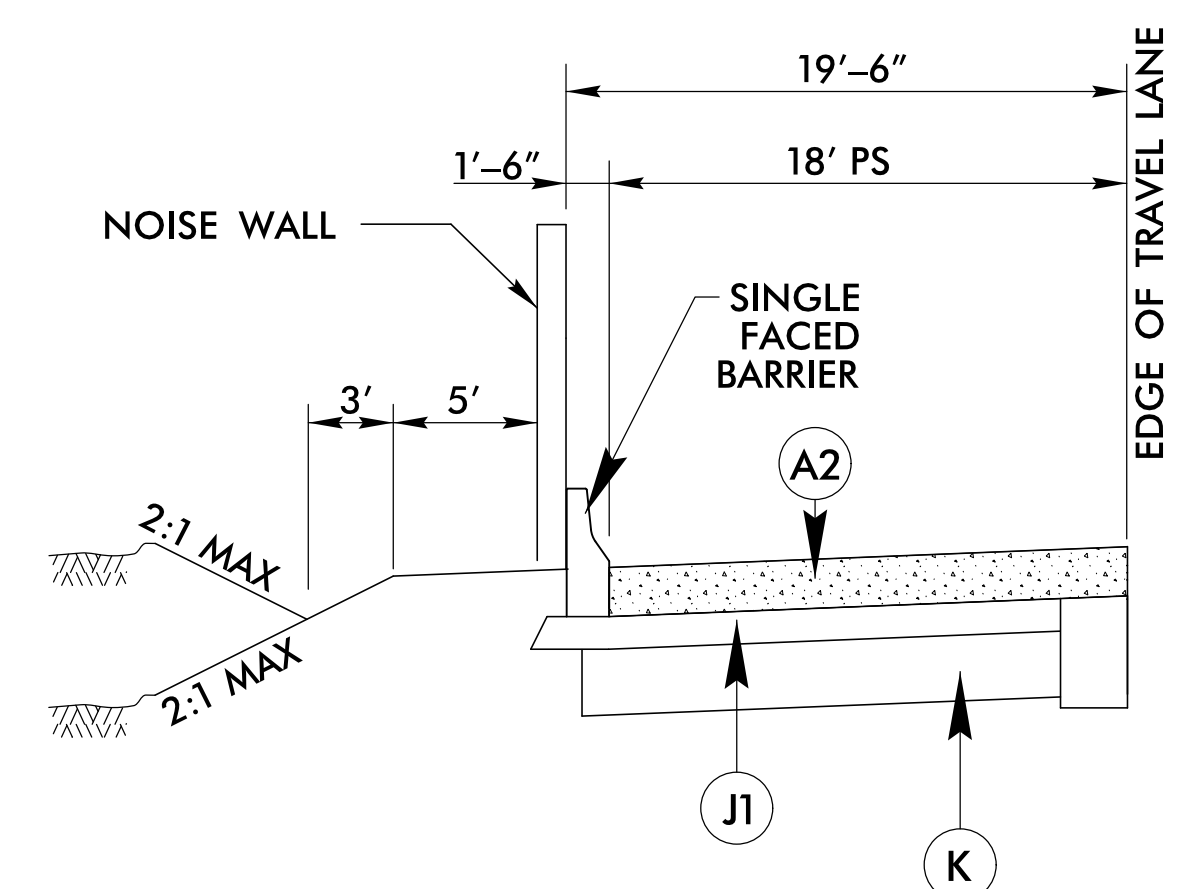
**TYPICAL SECTION DETAIL GUARDRAIL DETAIL**  
SEE PLANS FOR GUARDRAIL LOCATIONS



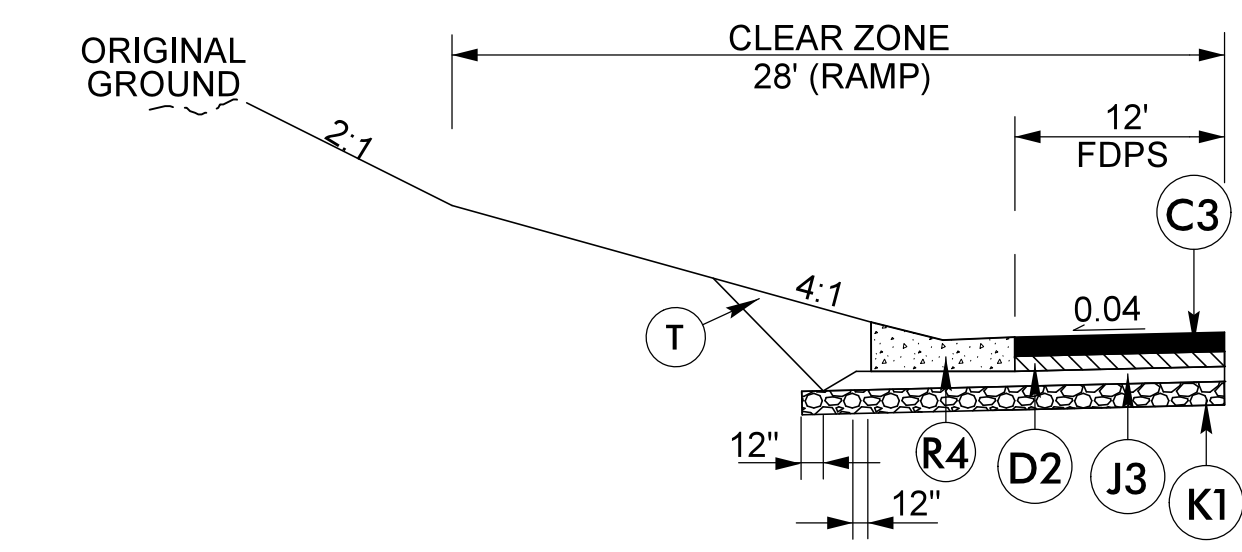
**TYPICAL SECTION DETAIL SHOULDER BERM GUTTER**  
SEE PLANS FOR SHOULDER BERM GUTTER LOCATIONS



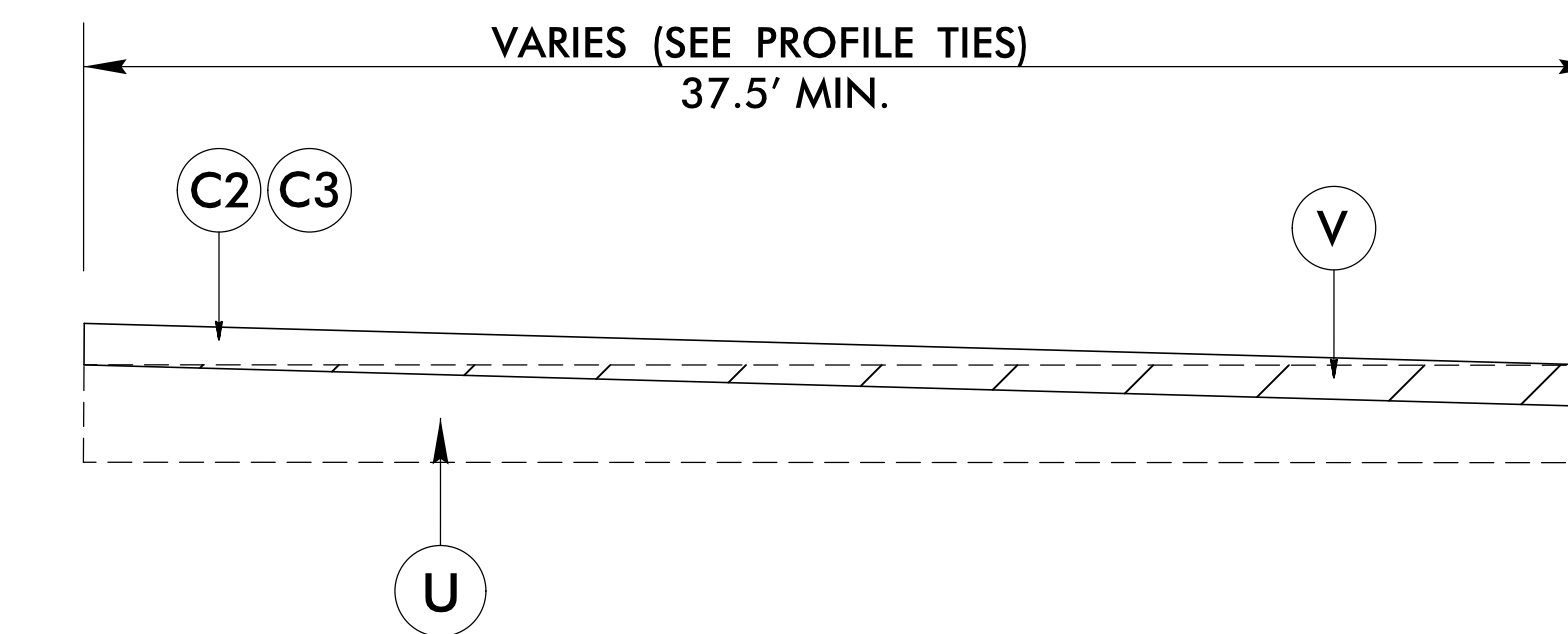
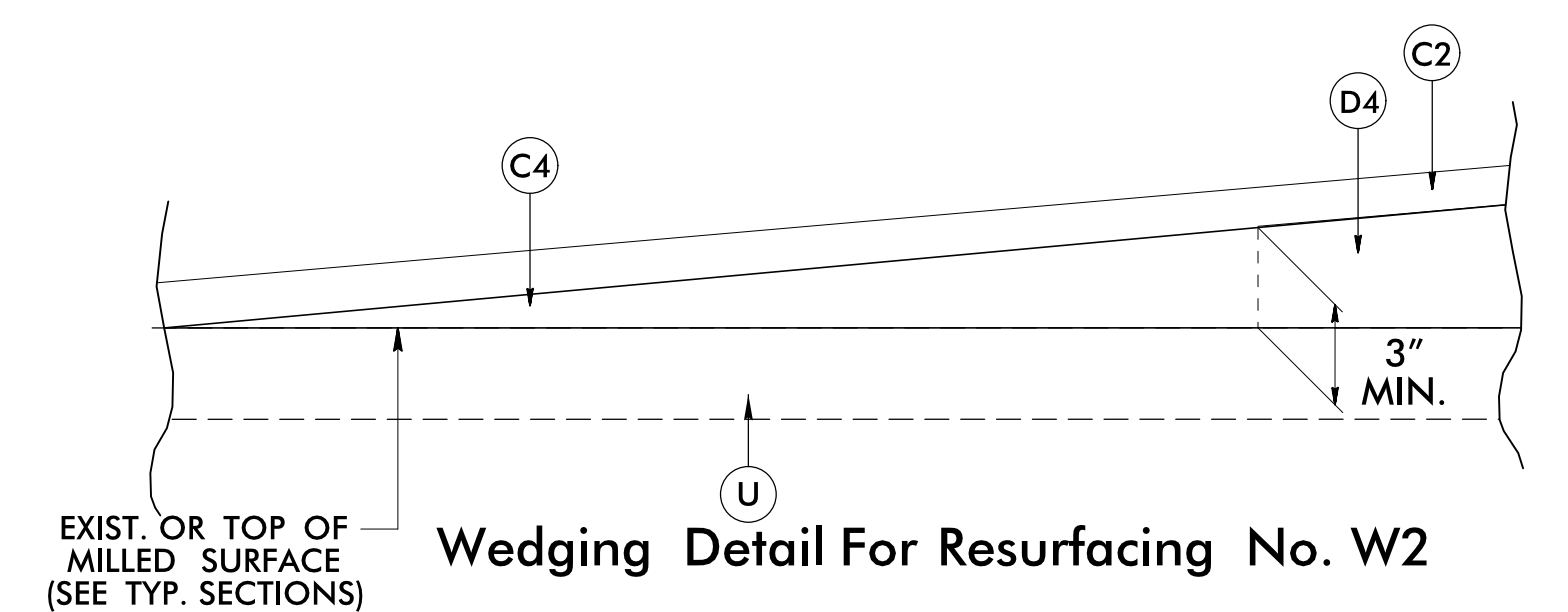
**TYPICAL SECTION DETAIL RETAINING WALL**  
SEE PLANS FOR LOCATIONS ALONG: -L-



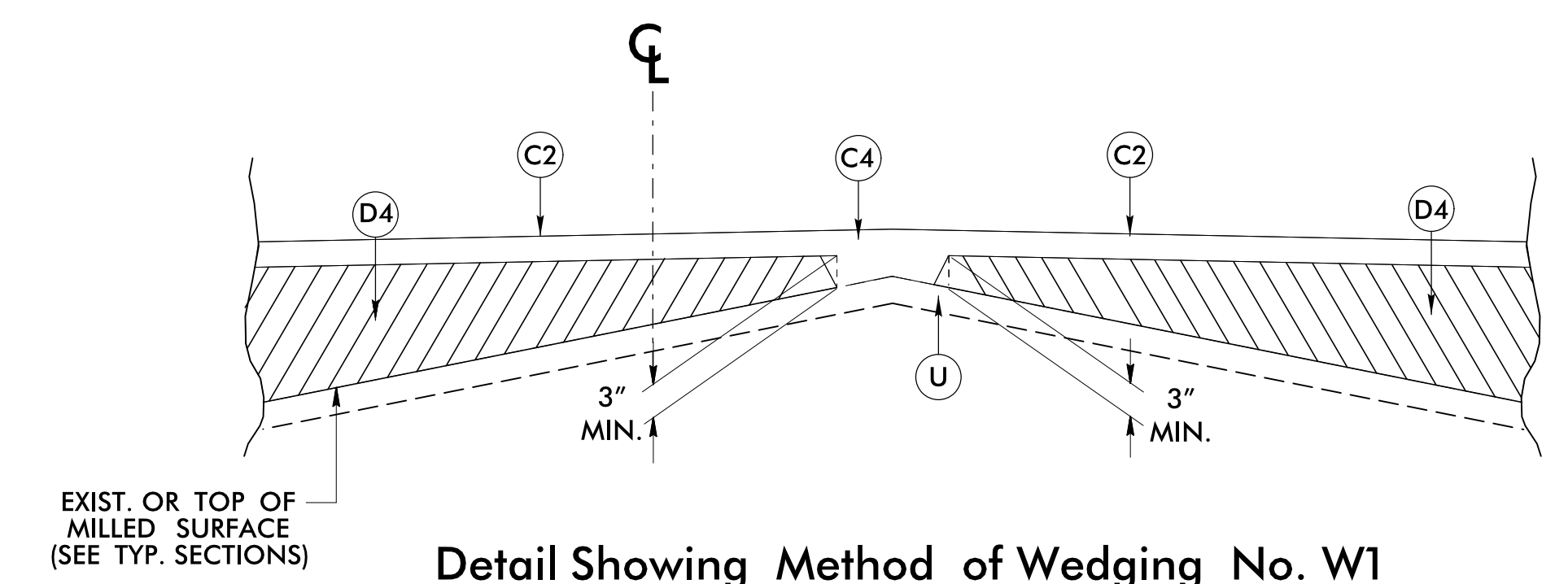
**NOISE WALL DETAIL**  
SHOULDER CONSTRUCTION DETAIL WITH BARRIER AND NOISE WALL. THIS TYPICAL IS TO BE USED IN FILL LOCATIONS. (USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1 AND 2) SEE PLAN FOR LOCATIONS



**TYPICAL SECTION DETAIL EXPRESSWAY GUTTER W/O GUARDRAIL**  
USE IN CONJUNCTION WITH TYPICAL NO. 21 -Y22FLYCC- STA. 18+00 TO 20+00 (LT)



**MILLING DETAIL**  
USE MILLING DETAIL AT RESURFACING TIES



**Detail Showing Method of Wedging No. W1**



PROJECT REFERENCE NO. R-2828	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

4/10/2019  
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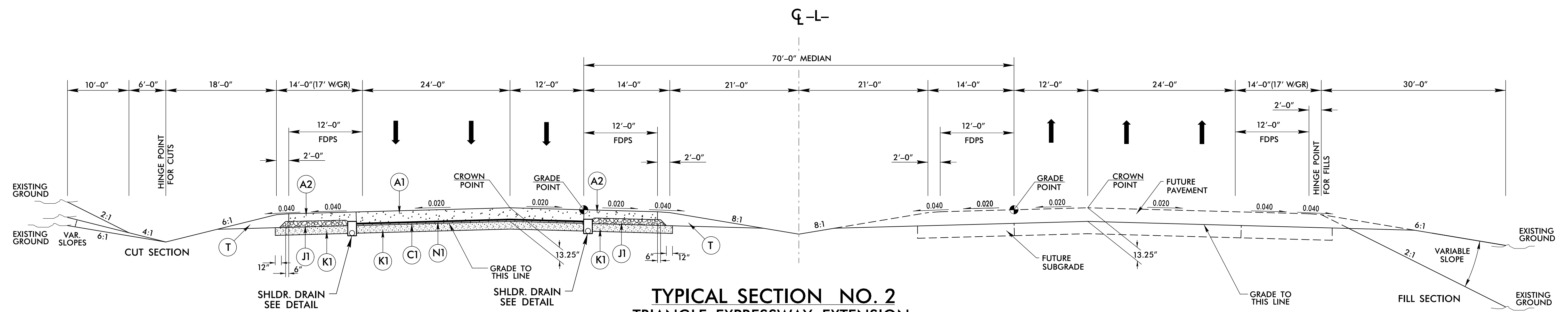


6/2/99

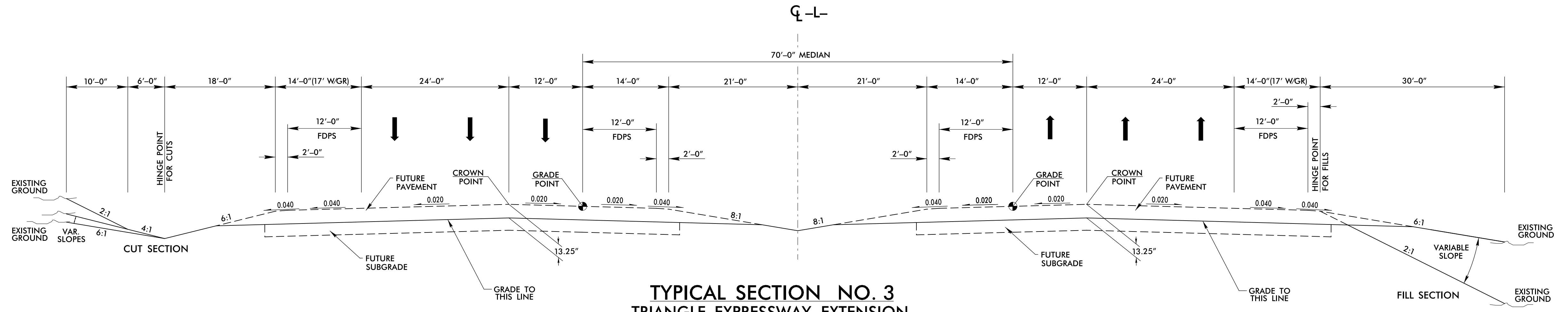
PAVEMENT SCHEDULE	
A1	12" CONC
A2	9" CONC
C1	1.25" S9.5B
J1	VAR DEPTH ABC (4.25" MIN)
K1	SUBGRADE STABILIZATION
N1	NON-WOVEN GEOTEXTILE INTERLAYER
T	EARTH MATERIAL



PROJECT REFERENCE NO. R-2828	SHEET NO. 2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



**TYPICAL SECTION NO. 2**  
**TRIANGLE EXPRESSWAY EXTENSION**  
 -L- STA. 893+00.00 TO STA. 919+90.87 ± LT (BEGIN BRIDGE)  
 -L- STA. 893+00.00 TO STA. 919+75.27 ± RT (BEGIN BRIDGE)  
 -L- STA. 923+49.87 ± (END BRIDGE) TO STA. 923+25.28 ±  
 -L- STA. 923+25.28 ± (END BRIDGE) TO STA. 932+39.72 ± LT (BEGIN BRIDGE)  
 -L- STA. 934+89.05 ± (END BRIDGE) TO STA. 942+44.88 ± LT  
 -L- STA. 934+54.05 ± (END BRIDGE) TO STA. 942+40.88 ± RT



**TYPICAL SECTION NO. 3**  
**TRIANGLE EXPRESSWAY EXTENSION**  
 -L- STA. 942+40.88 TO STA. 955+00.00

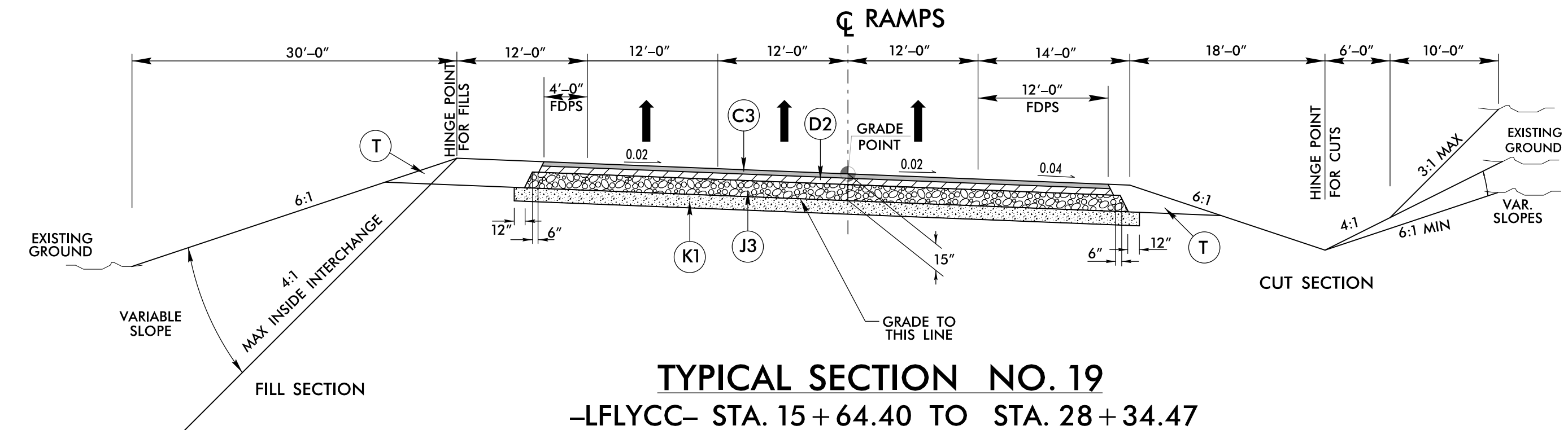
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6/2/99

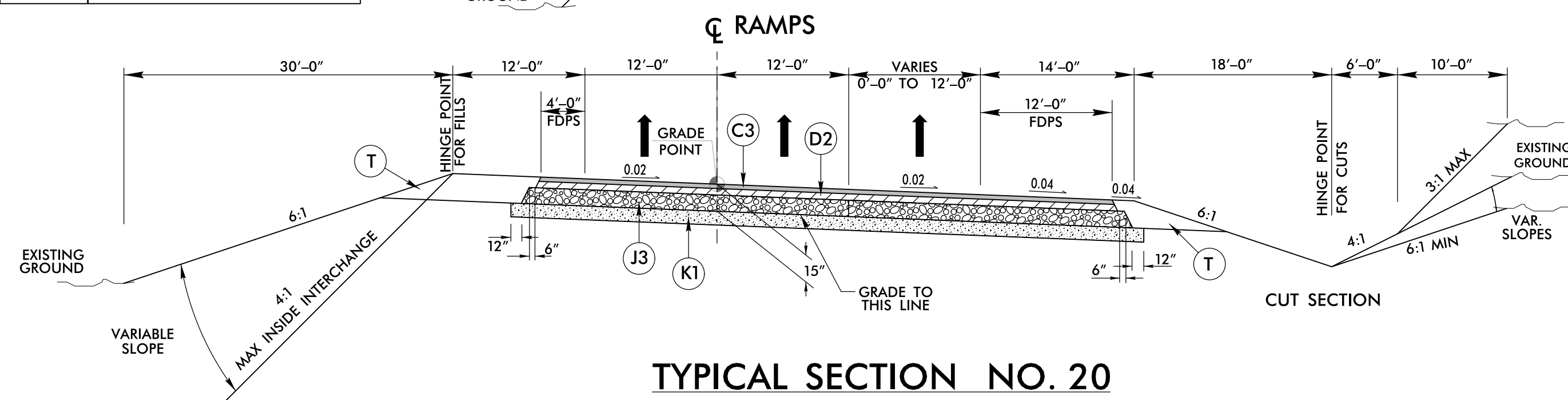
PAVEMENT SCHEDULE	
C3	3" S9.5C
D2	4" I19.0C
J3	8" ABC
K1	XX" AGGREGATE SUBGRADE
R1	2'-6" CURB & GUTTER
T	EARTH MATERIAL



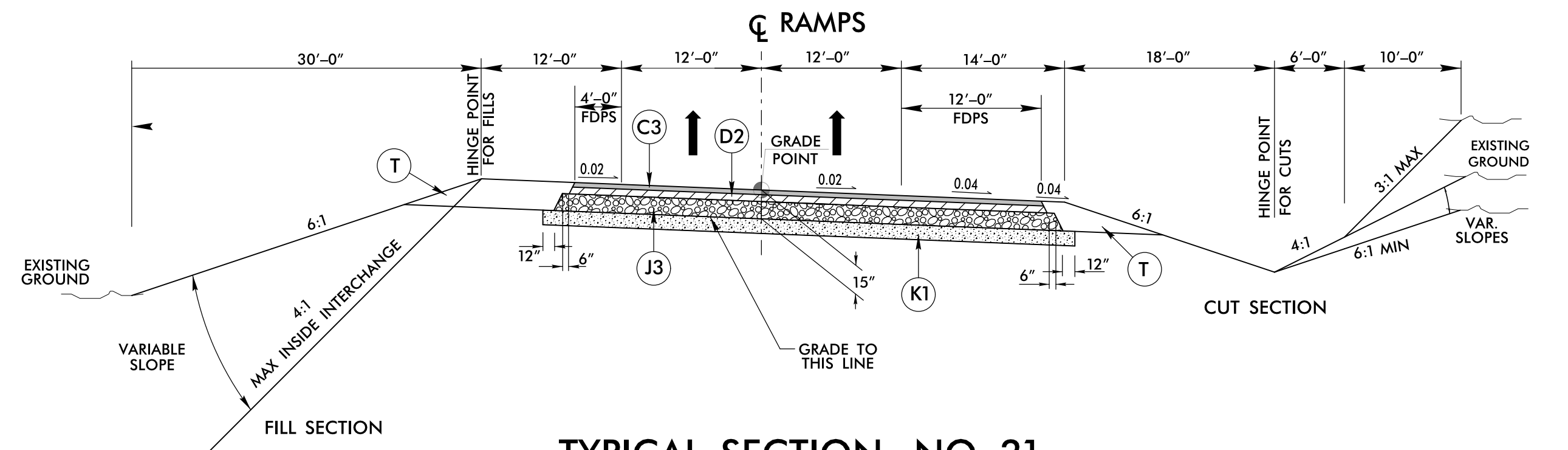
PROJECT REFERENCE NO. R-2828	SHEET NO. 2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



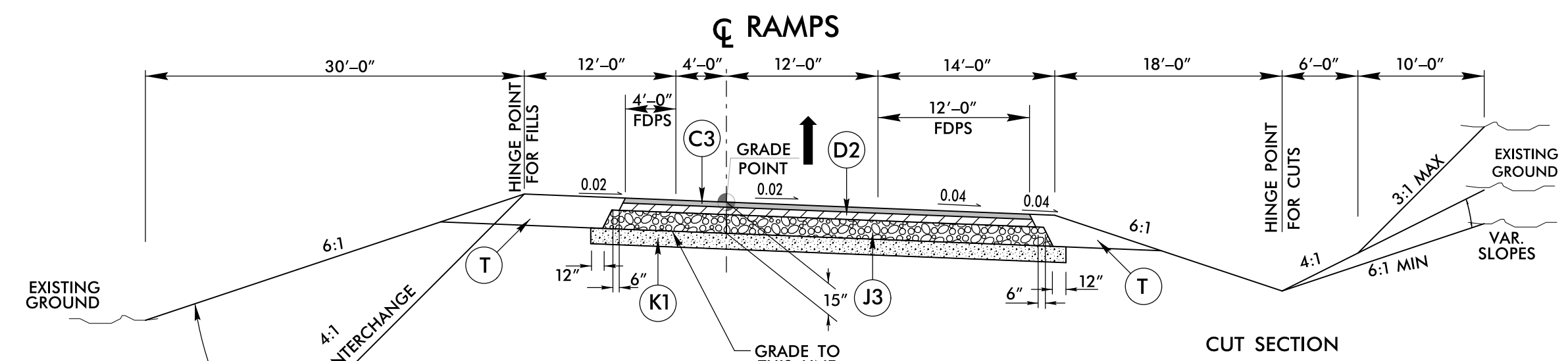
**TYPICAL SECTION NO. 19**  
-LFLYCC- STA. 15+64.40 TO STA. 28+34.47



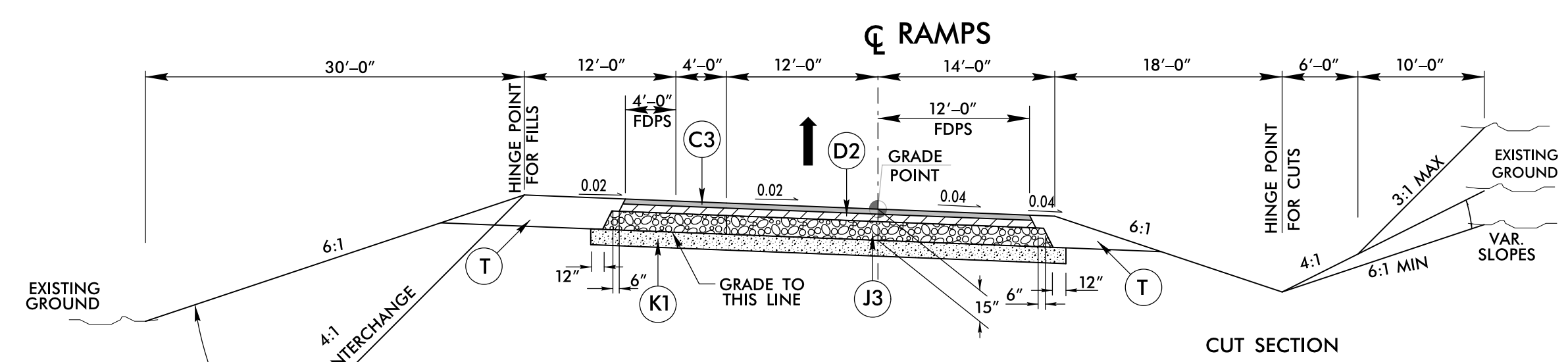
**TYPICAL SECTION NO. 20**  
-Y22FLYCC- STA. 31+32.00 TO STA. 34+25.03 (BEGIN BRIDGE)  
-Y22FLYCC- STA. 85+52.97 TO STA. 92+93.37 (END BRIDGE)  
-Y22FLYCC- STA. 95+18.26 (BEGIN BRIDGE) TO STA. 96+54.05  
-Y22FLYCC- STA. 110+19.78 (BEGIN BRIDGE) TO STA. 114+94.61 (END BRIDGE)  
-Y22FLYCC- STA. 112+49.61 TO STA. 124+73.15



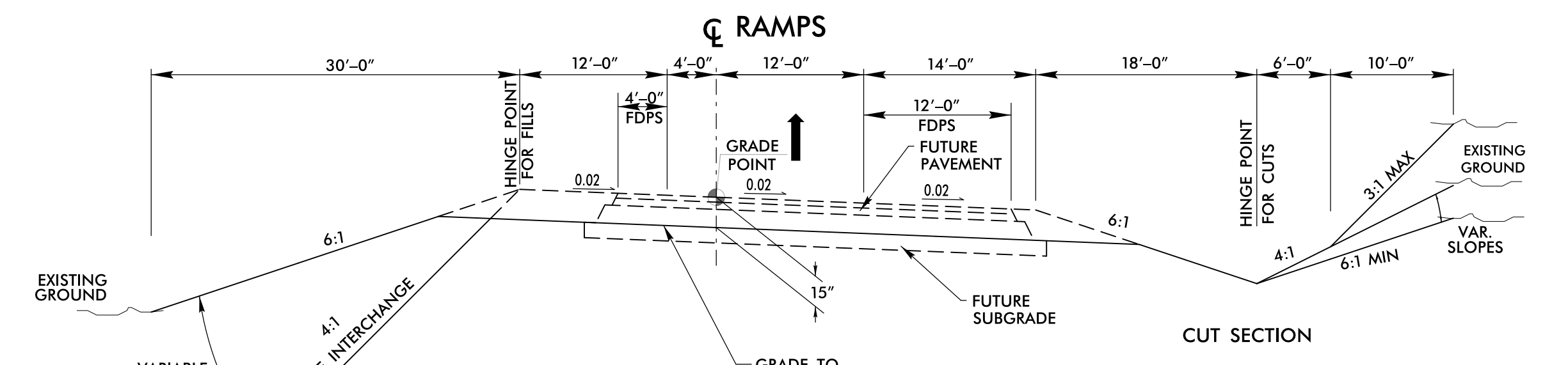
**TYPICAL SECTION NO. 21**  
-Y22SLIPRPA- STA. 14+51.82 TO STA. 33+16.79  
-Y22SLIPRPB- STA. 19+18.99 TO STA. 45+10.60  
-Y22RPEA- STA. 15+77.99 TO STA. 32+04.16  
-Y22FLYCC- STA. 41+75.04 (END BRIDGE) TO STA. 50+09.71 (BEGIN BRIDGE)  
-Y22FLYCC- STA. 50+88.01 (END BRIDGE) TO STA. 54+52.05 (BEGIN BRIDGE)  
-Y22FLYCC- STA. 56+68.12 (END BRIDGE) TO STA. 57+49.59  
-Y22FLYCC- STA. 65+43.36 TO STA. 65+43.36 (BEGIN BRIDGE)  
-Y22FLYCC- STA. 67+47.33 (END BRIDGE) TO STA. 68+16.92  
-Y22FLYCC- STA. 96+54.05 TO STA. 109+79.10 (BEGIN BRIDGE)  
-Y22FLYCC- STA. 126+81.30 TO STA. 137+58.01  
-Y22FLYCC- STA. 160+63.30 TO STA. 164+15.16  
-Y22FLYBD- STA. 19+98.74 TO STA. 71+93.45 (BEGIN BRIDGE)  
-Y22FLYBD- STA. 74+11.97 (END BRIDGE) TO STA. 111+78.98



**TYPICAL SECTION NO. 22**  
-Y22RPA- STA. 37+11.34 TO STA. 42+51.66  
-Y22RPAFLY- STA. 63+29.91 TO STA. 64+49.63  
-Y22RPB- STA. 12+35.61 (BEGIN BRIDGE) TO STA. 37+41.51  
-Y22RPC- STA. 14+10.31 TO STA. 22+64.76  
-Y22RPCD- STA. 14+45.41 TO STA. 30+45.90  
-Y22SLIPRPC- STA. 16+54.44 TO STA. 24+36.06 (BEGIN BRIDGE)  
-Y22SLIPRPC- STA. 26+48.96 (END BRIDGE) STA. 32+27.88 MIRROR  
-Y22RPDE- STA. 14+57.52 TO STA. 31+10.31  
-Y22FLYCC- STA. 57+49.59 TO STA. 65+43.36  
-Y22FLYCC- STA. 68+16.92 TO STA. 85+48.58 MIRROR  
-Y22FLYCC- STA. 137+58.01 TO STA. 160+63.30 MIRROR



**TYPICAL SECTION NO. 22-B**  
-Y22FLYCC- STA. 137+58.01 TO STA. 160+63.30



**TYPICAL SECTION NO. 23**  
-Y22RPD- STA. 14+34.20 TO STA. 27+58.61  
-Y22RPE- STA. 34+95.46 TO STA. 76+27.26

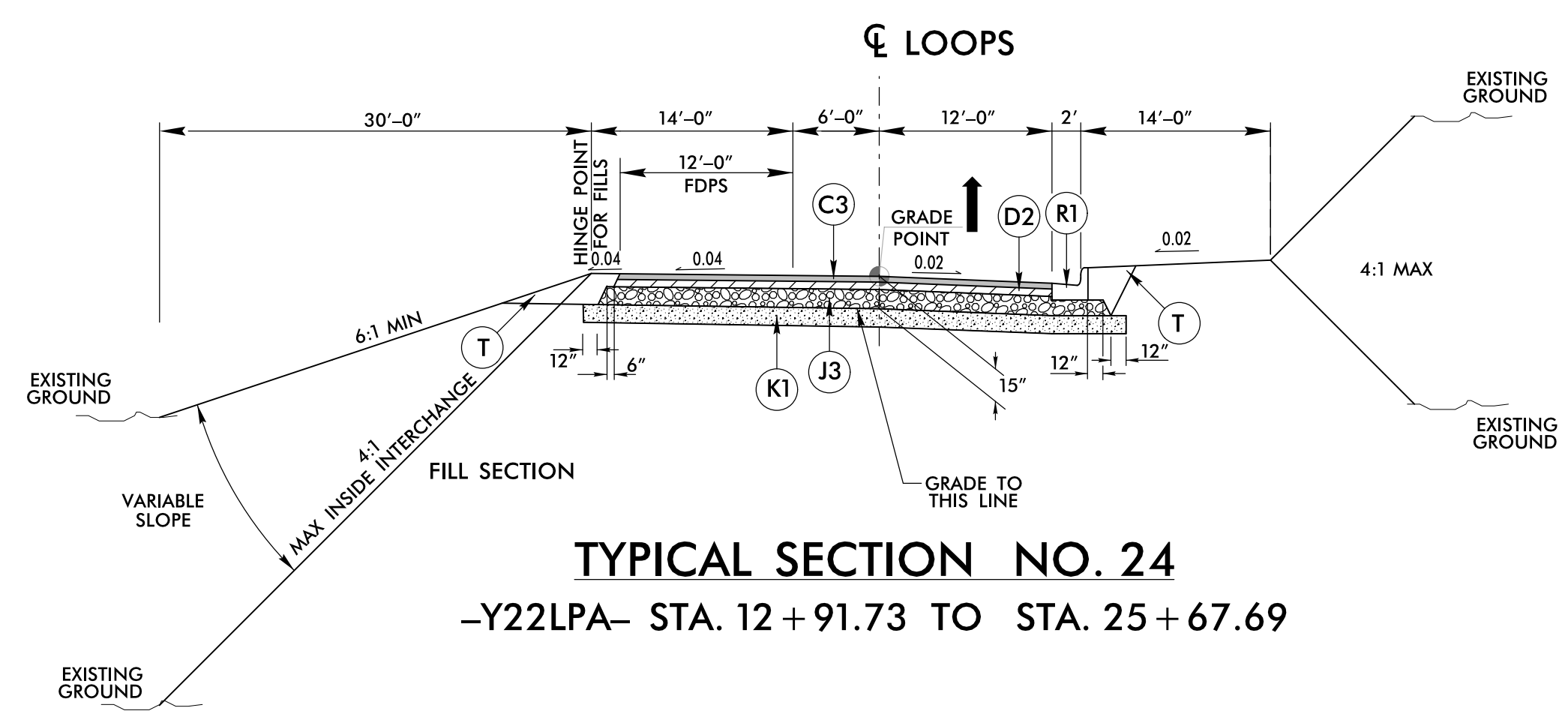
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6/27/99

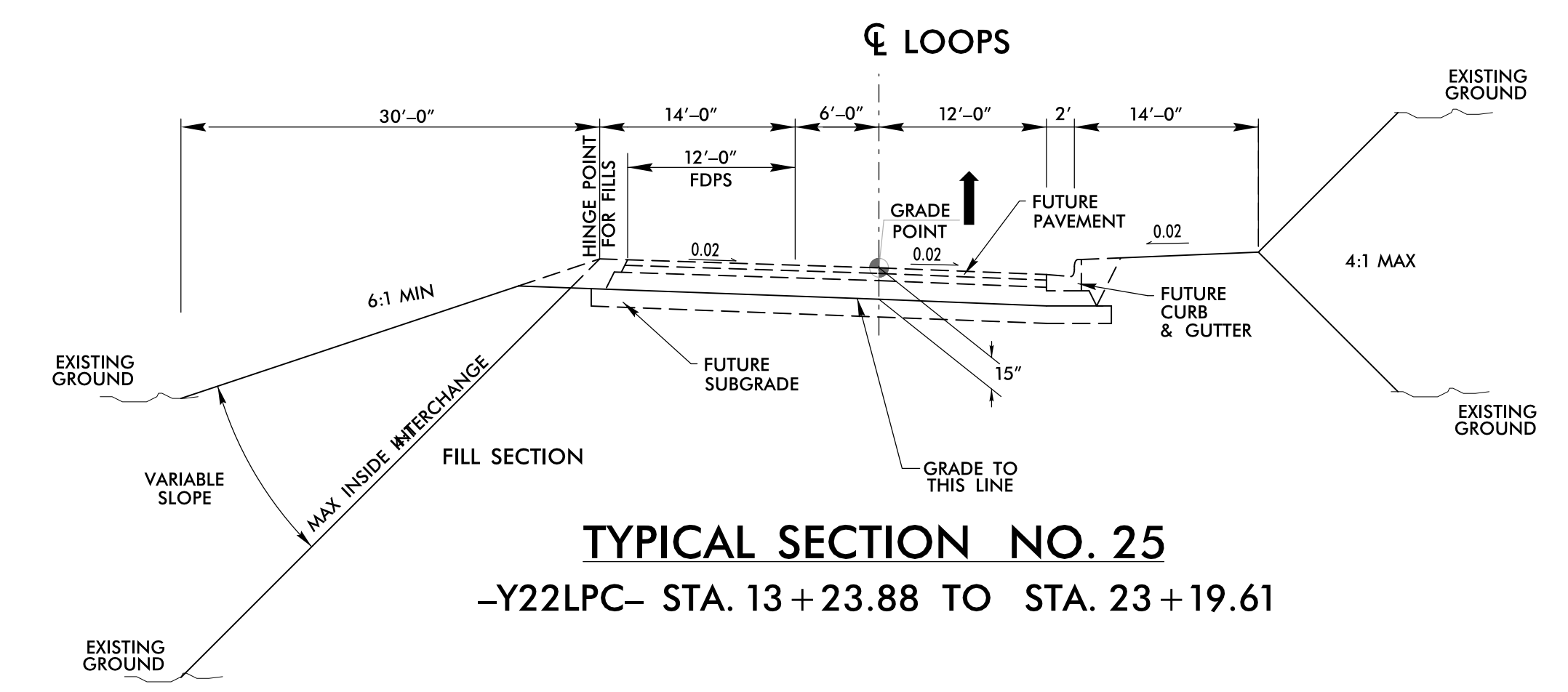
PAVEMENT SCHEDULE	
C2	3" S9.5B
C3	3" S9.5C
C6	1.5" S9.5D
C7	3" S9.5D
D1	2.5" I19.0C
D2	4" I19.0C
D3	5" I19.0C
E1	5" B25.0C
J3	8" ABC
J4	10" ABC
K1	SUBGRADE STABILIZATION
P	PRIME COAT
R1	2'-6" CURB & GUTTER
R2	1'-6" CURB & GUTTER
R3	5" MON. CONC. ISLAND
R8	SINGLE SLOPE BARRIER
S	4" CONC. SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING



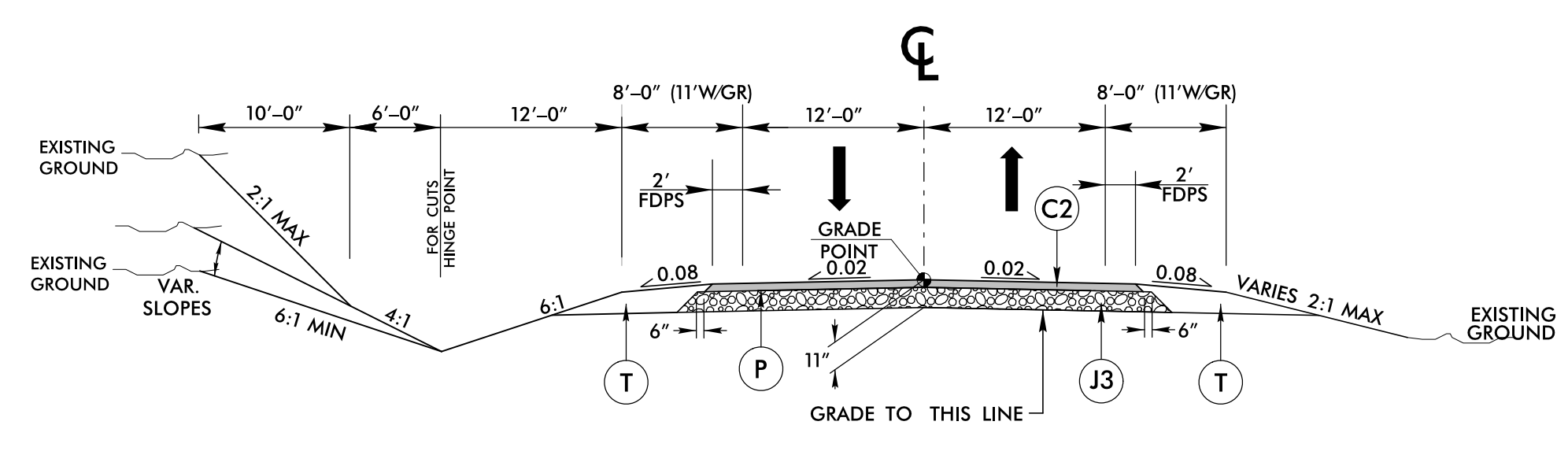
PROJECT REFERENCE NO. R-2828	SHEET NO. 2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	



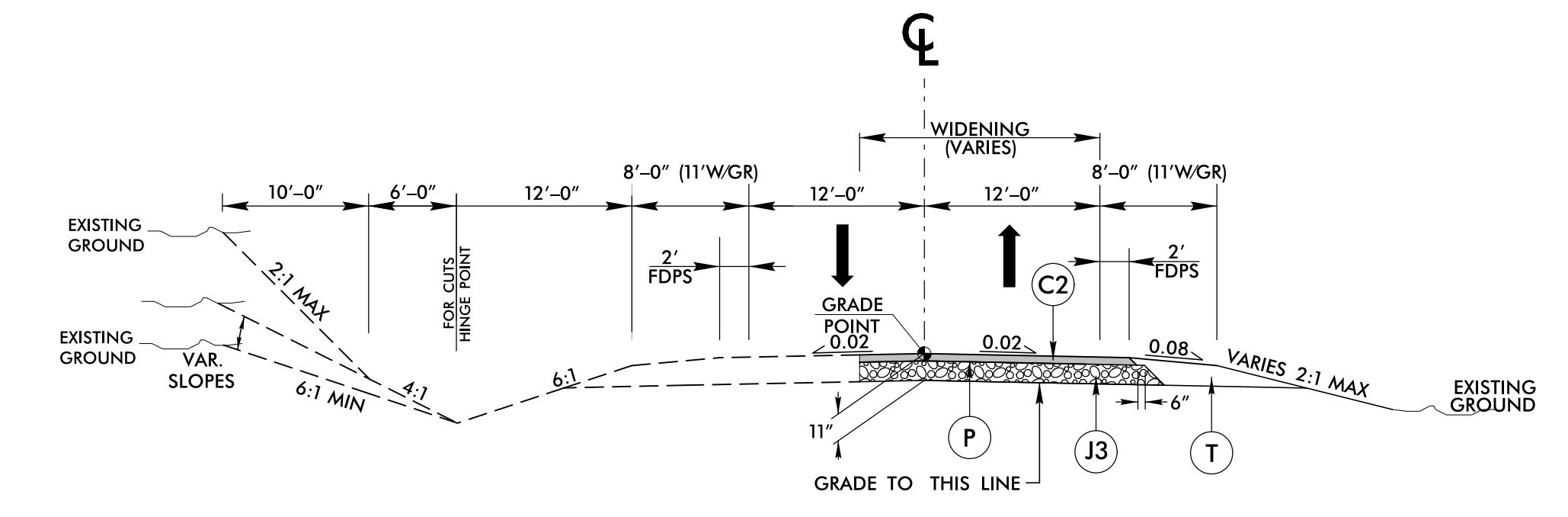
**TYPICAL SECTION NO. 24**  
-Y22LPA- STA. 12+91.73 TO STA. 25+67.69



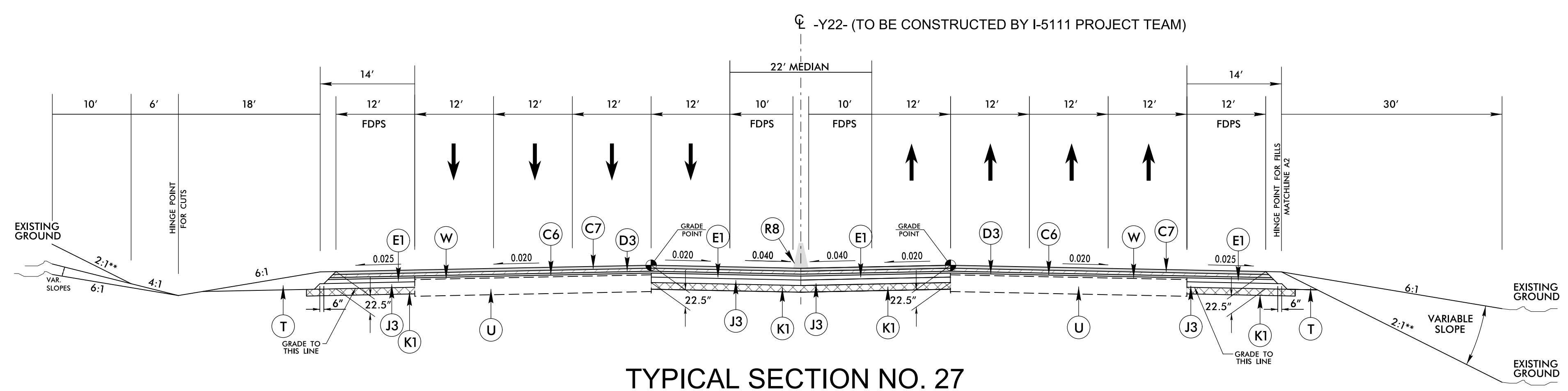
**TYPICAL SECTION NO. 25**  
-Y22LPC- STA. 13+23.88 TO STA. 23+19.61



**TYPICAL SECTION NO. 26**  
-Y22B- STA. 12+45.27 TO STA. 16+94.71 (BEGIN BRIDGE)  
-Y22B- STA. 20+15.96 (END BRIDGE) TO STA. 24+85.13



**TYPICAL SECTION NO. 26-B**  
-Y22B- STA. 10+00.00 TO STA. 12+45.27  
-Y22B- STA. 24+85.13 TO STA. 28+76.35



**TYPICAL SECTION NO. 27**  
-Y22- STA. 381+00.00 TO STA. 500+00.00

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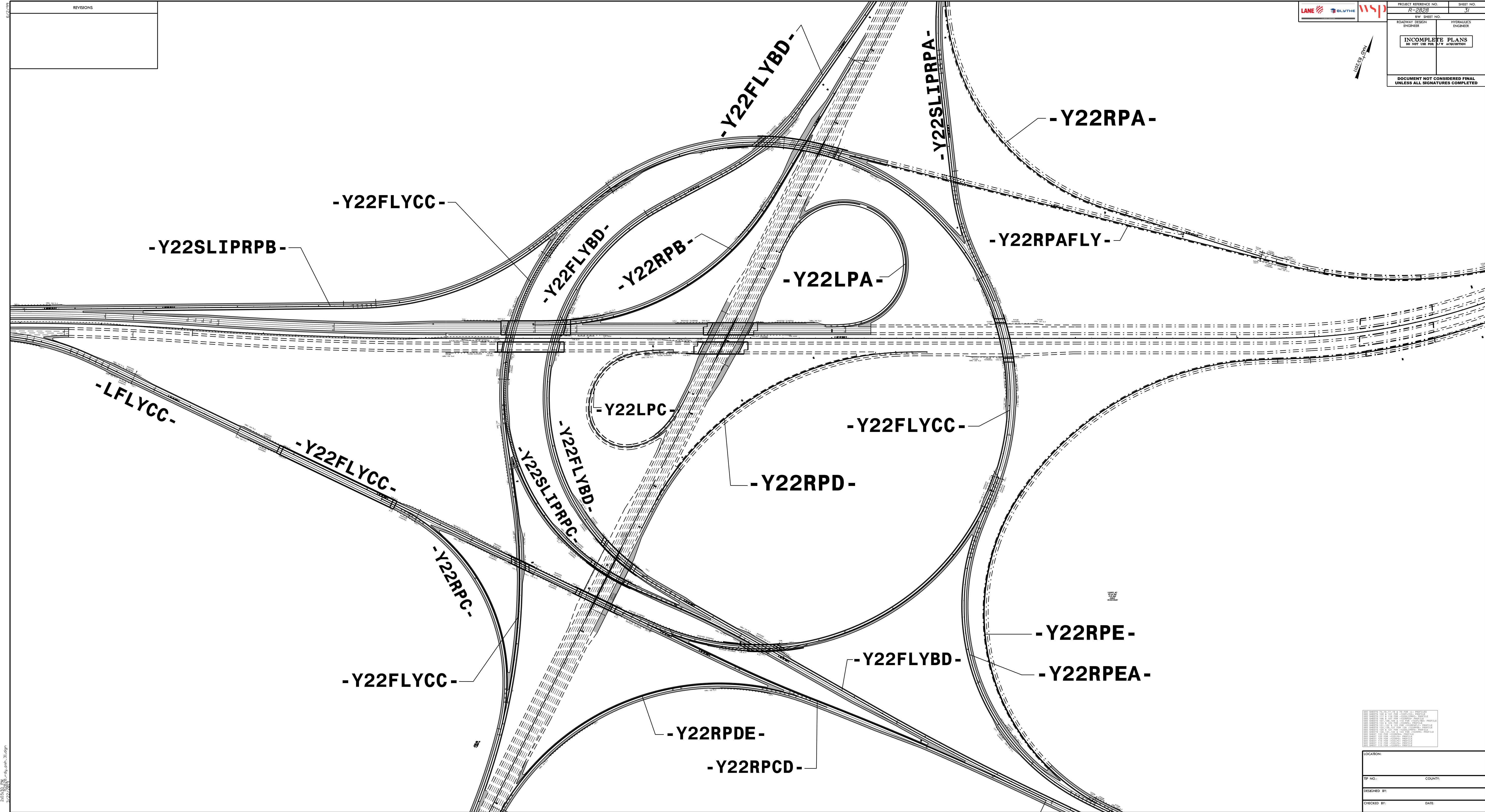








NO.	REVISIONS



20/10/2018 PM 10:00:00  
Y22RPAFLY

PROJECT REFERENCE NO. R-2828	SHEET NO. 31
REV. SHEET NO. 1	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

**INCOMPLETE PLANS**  
 DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED

LOCATION:	
TP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:



REVISIONS	

-L-  
 PI Sta 908+44.49  
 $\Delta = 4.04' 00.00"$  (LT)  
 $D = 0' 19.37'$   
 $L = 156.5'$   
 $T = 78.0'$   
 $R = 22,000.00'$   
 $DS = 60$   
 $DS = 60$  MPH

-Y22SLPRPB-  
 PI Sta 32+86.91 PI Sta 38+78.23 PI Sta 44+41.88  
 $\Delta = 3' 08.53"$   $\Delta = 3' 08.45"$  (LT)  $\Delta = 3' 08.53"$   
 $D = 200.00'$   $D = 200.00'$   $D = 200.00'$   
 $L = 133.35'$   $L = 133.35'$   $L = 133.35'$   
 $T = 66.67'$   $T = 66.67'$   $T = 66.67'$   
 $ST = 66.67'$   $ST = 66.67'$   $ST = 66.67'$   
 $R = 1820.00'$   
 $SE = 7\%$   
 $RO = 150'$   
 $DS = 60$  MPH

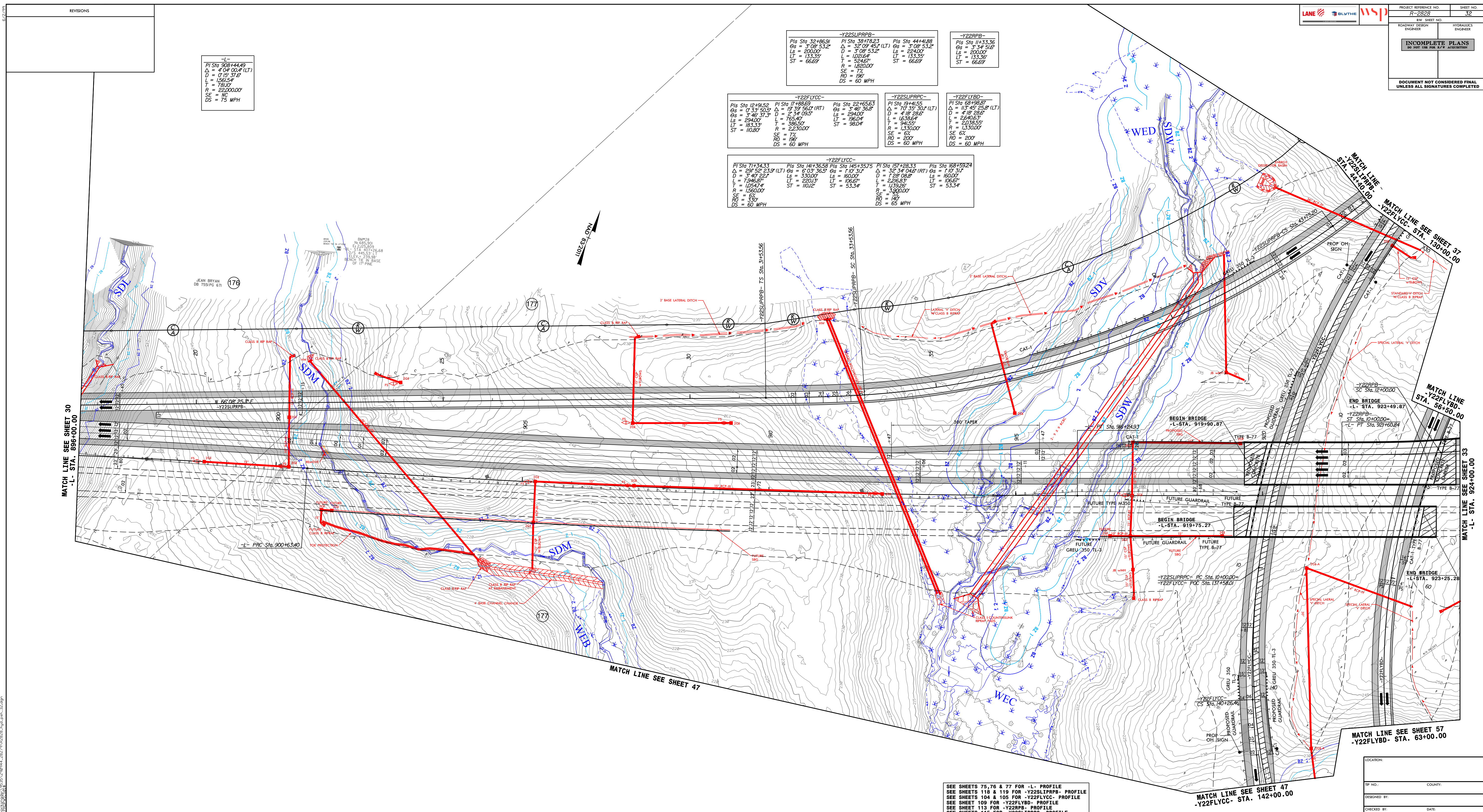
-Y22RPB-  
 PI Sta 114+33.36  
 $\Delta = 3' 34.51"$   
 $D = 200.00'$   
 $L = 133.35'$   
 $T = 66.67'$   
 $ST = 66.67'$

-Y22FLYCC-  
 PI Sta 12+91.52 PI Sta 17+88.89 PI Sta 22+65.63  
 $\Delta = 0' 13.50"$   $\Delta = 1' 39.56"$  (RT)  $\Delta = 1' 39.56"$   
 $D = 2' 34.095'$   $D = 2' 34.095'$   $D = 2' 34.095'$   
 $L = 294.00'$   $L = 294.00'$   $L = 294.00'$   
 $LT = 183.33'$   $LT = 183.33'$   $LT = 183.33'$   
 $ST = 110.80'$   $ST = 110.80'$   $ST = 110.80'$   
 $R = 75'$   
 $SE = 7\%$   
 $RO = 150'$   
 $DS = 60$  MPH

-Y22SLPRPC-  
 PI Sta 19+41.55  
 $\Delta = 1' 39.56"$  (LT)  
 $D = 2' 34.095'$   
 $L = 294.00'$   
 $LT = 183.33'$   
 $ST = 110.80'$   
 $R = 75'$   
 $SE = 7\%$   
 $RO = 150'$   
 $DS = 60$  MPH

-Y22FLYBD-  
 PI Sta 68+98.87  
 $\Delta = 1' 18.286"$   
 $D = 4' 18.286'$   
 $L = 244.63'$   
 $T = 203.855'$   
 $R = 1330.00'$   
 $SE = 6\%$   
 $RO = 200'$   
 $DS = 60$  MPH

-Y22FLYCC-  
 PI Sta 71+34.33 PI Sta 141+36.58 PI Sta 145+35.75 PI Sta 157+28.33 PI Sta 168+59.24  
 $\Delta = 29' 52.23"$  (LT)  $\Delta = 6' 03.365"$   $\Delta = 1' 10.317"$   $\Delta = 32' 34.045"$  (RT)  $\Delta = 1' 10.317"$   
 $D = 3' 47.524'$   $D = 330.00'$   $D = 60.00'$   $D = 226.83'$   $D = 60.00'$   
 $L = 7946.87'$   $L = 220.13'$   $L = 106.67'$   $L = 226.83'$   $L = 106.67'$   
 $T = 1054.14'$   $T = 101.2'$   $T = 53.34'$   $T = 1133.25'$   $T = 106.67'$   
 $R = 1560.00'$   $R = 1300.00'$   $R = 149'$   $R = 1300.00'$   $R = 53.34'$   
 $RO = 150'$   $RO = 149'$   
 $DS = 60$  MPH  $DS = 65$  MPH



PROJECT REFERENCE NO. R-2828	SHEET NO. 32
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/F W/ ACCURACY	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

MATCH LINE SEE SHEET 30  
-L- STA. 886+00.00

MATCH LINE SEE SHEET 37  
-L- STA. 100+00.00

MATCH LINE SEE SHEET 33  
-L- STA. 924+00.00

MATCH LINE SEE SHEET 47  
-L- STA. 142+00.00

MATCH LINE SEE SHEET 57  
-Y22FLYBD- STA. 63+00.00

SEE SHEETS 75, 76 & 77 FOR -L- PROFILE  
 SEE SHEETS 118 & 119 FOR -Y22SLPRPB- PROFILE  
 SEE SHEETS 104 & 105 FOR -Y22FLYCC- PROFILE  
 SEE SHEET 109 FOR -Y22FLYBD- PROFILE  
 SEE SHEET 113 FOR -Y22RPB- PROFILE  
 SEE SHEETS 115 FOR -Y22SLPRPC- PROFILE

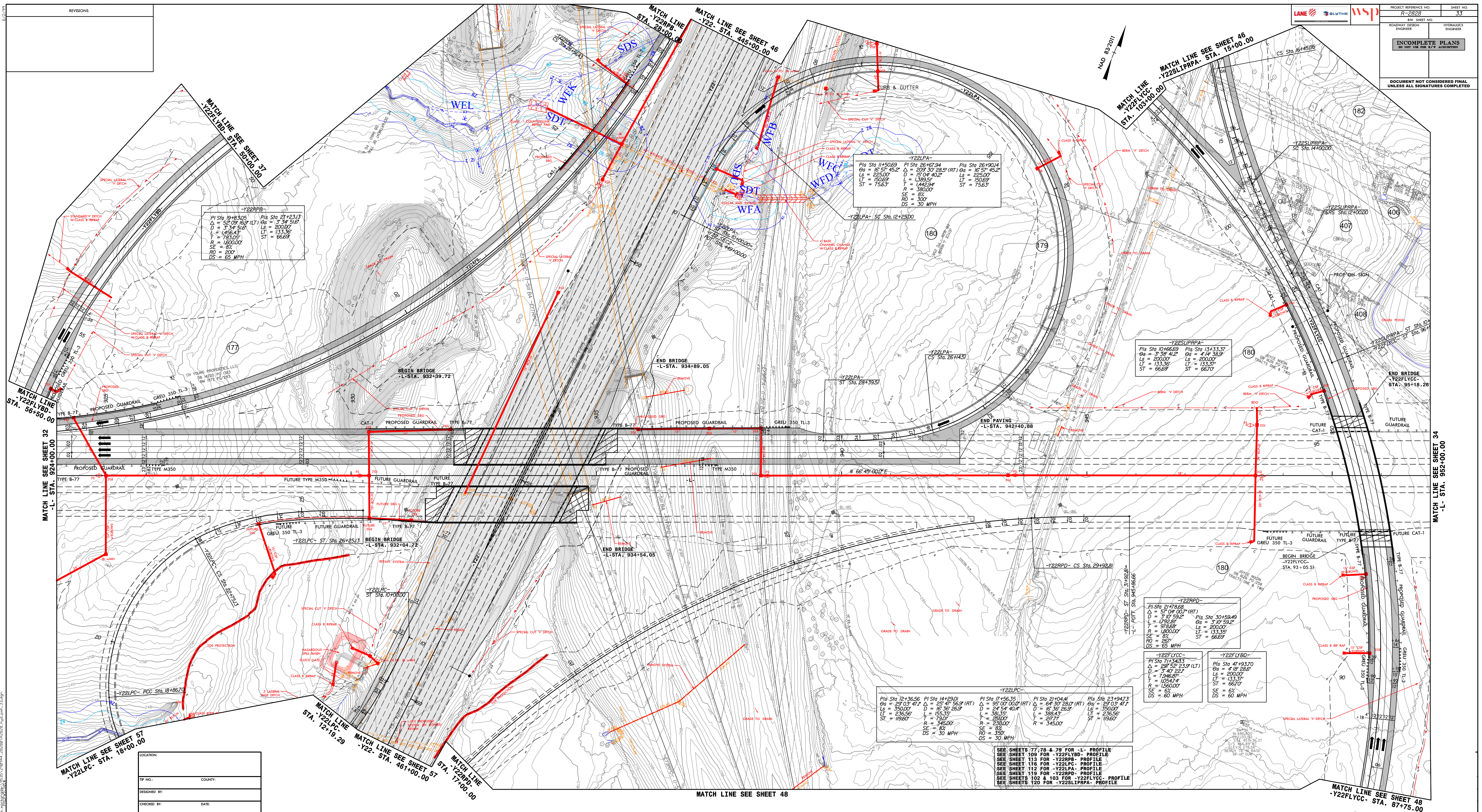
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DESIGNED BY:	
CHECKED BY:	DATE:

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NO.	DESCRIPTION

PROJECT REFERENCE NO. R-2828	SHEET NO. 33
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



PI Sta 19+83.05	PI Sta 27+23.13
$\Delta = 52.09$ (LT)	$\Delta = 3.34$ (ST)
$D = 1456.43$	$L = 133.36$
$T = 783.05$	$ST = 66.69$
$R = 1200.00$	$SE = 82$
$RD = 200$	$DS = 65$ MPH

PI Sta 11+50.69	PI Sta 26+167.94	PI Sta 26+190.14
$\Delta = 16.57$ (45.2)	$\Delta = 209.30$ (28.5) (RT)	$\Delta = 16.57$ (45.2)
$L = 225.00$	$D = 15.04$ (41.2)	$L = 225.00$
$T = 150.69$	$L = 138.51$	$T = 150.69$
$ST = 75.63$	$R = 1442.54$	$ST = 75.63$
$R = 380.00$	$R = 380.00$	$R = 380.00$
$SE = 82$	$SE = 82$	$SE = 82$
$RD = 300$	$RD = 300$	$RD = 300$
$DS = 30$ MPH	$DS = 30$ MPH	$DS = 30$ MPH

PI Sta 10+66.69	PI Sta 13+33.37
$\Delta = 3.34$ (41.2)	$\Delta = 4.14$ (38.5)
$L = 200.00$	$L = 200.00$
$T = 133.36$	$T = 133.36$
$ST = 66.69$	$ST = 66.70$
$R = 1200.00$	$R = 1200.00$
$SE = 82$	$SE = 82$
$RD = 200$	$RD = 200$
$DS = 65$ MPH	$DS = 65$ MPH

PI Sta 21+78.69	PI Sta 30+59.49
$\Delta = 57.04$ (00.7) (RT)	$\Delta = 3.10$ (59.2)
$L = 173.21$	$L = 3.10$ (59.2)
$T = 91.66$	$T = 200.00$
$ST = 1200.00$	$ST = 133.36$
$R = 1200.00$	$R = 1200.00$
$SE = 82$	$SE = 62$
$RD = 200$	$RD = 60$ MPH
$DS = 65$ MPH	$DS = 60$ MPH

PI Sta 71+343.33	PI Sta 47+93.70
$\Delta = 207.52$ (23.9) (LT)	$\Delta = 4.18$ (28.6)
$L = 3.40$ (22.1)	$L = 200.00$
$T = 1254.74$	$T = 133.36$
$ST = 1580.00$	$ST = 66.70$
$R = 51$	$R = 62$
$SE = 62$	$SE = 62$
$RD = 150$	$RD = 60$ MPH
$DS = 60$ MPH	$DS = 60$ MPH

PI Sta 12+36.56	PI Sta 14+29.01	PI Sta 17+56.35	PI Sta 21+04.41	PI Sta 23+94.73
$\Delta = 27.03$ (47.1)	$\Delta = 25.47$ (56.9) (RT)	$\Delta = 95.00$ (00.0) (RT)	$\Delta = 64.30$ (28.0) (RT)	$\Delta = 28.03$ (47.1)
$L = 350.00$	$L = 16.36$ (26.9)	$D = 24.54$ (40.4)	$D = 16.36$ (26.9)	$D = 350.00$
$T = 236.56$	$L = 16.36$	$L = 38.35$	$L = 38.35$	$L = 236.56$
$ST = 19.60$	$R = 79.00$	$R = 250.00$	$R = 317.71$	$ST = 19.60$
$R = 345.00$	$R = 345.00$	$R = 230.00$	$R = 345.00$	$R = 345.00$
$SE = 82$	$SE = 82$	$SE = 82$	$SE = 82$	$SE = 82$
$RD = 150$	$RD = 150$	$RD = 150$	$RD = 150$	$RD = 150$
$DS = 30$ MPH	$DS = 30$ MPH	$DS = 30$ MPH	$DS = 30$ MPH	$DS = 30$ MPH

LOCATION:	COUNTY:
TIP NO.:	DESIGNED BY:
CHECKED BY:	DATE:

SEE SHEETS 77, 78 & 79 FOR L- PROFILE  
 SEE SHEET 109 FOR -Y22FLYBD- PROFILE  
 SEE SHEET 113 FOR -Y22RPA- PROFILE  
 SEE SHEET 118 FOR -Y22LPC- PROFILE  
 SEE SHEET 112 FOR -Y22LPA- PROFILE  
 SEE SHEET 119 FOR -Y22RPA- PROFILE  
 SEE SHEETS 102 & 103 FOR -Y22FLYCC- PROFILE  
 SEE SHEETS 120 FOR -Y22SLPRPA- PROFILE

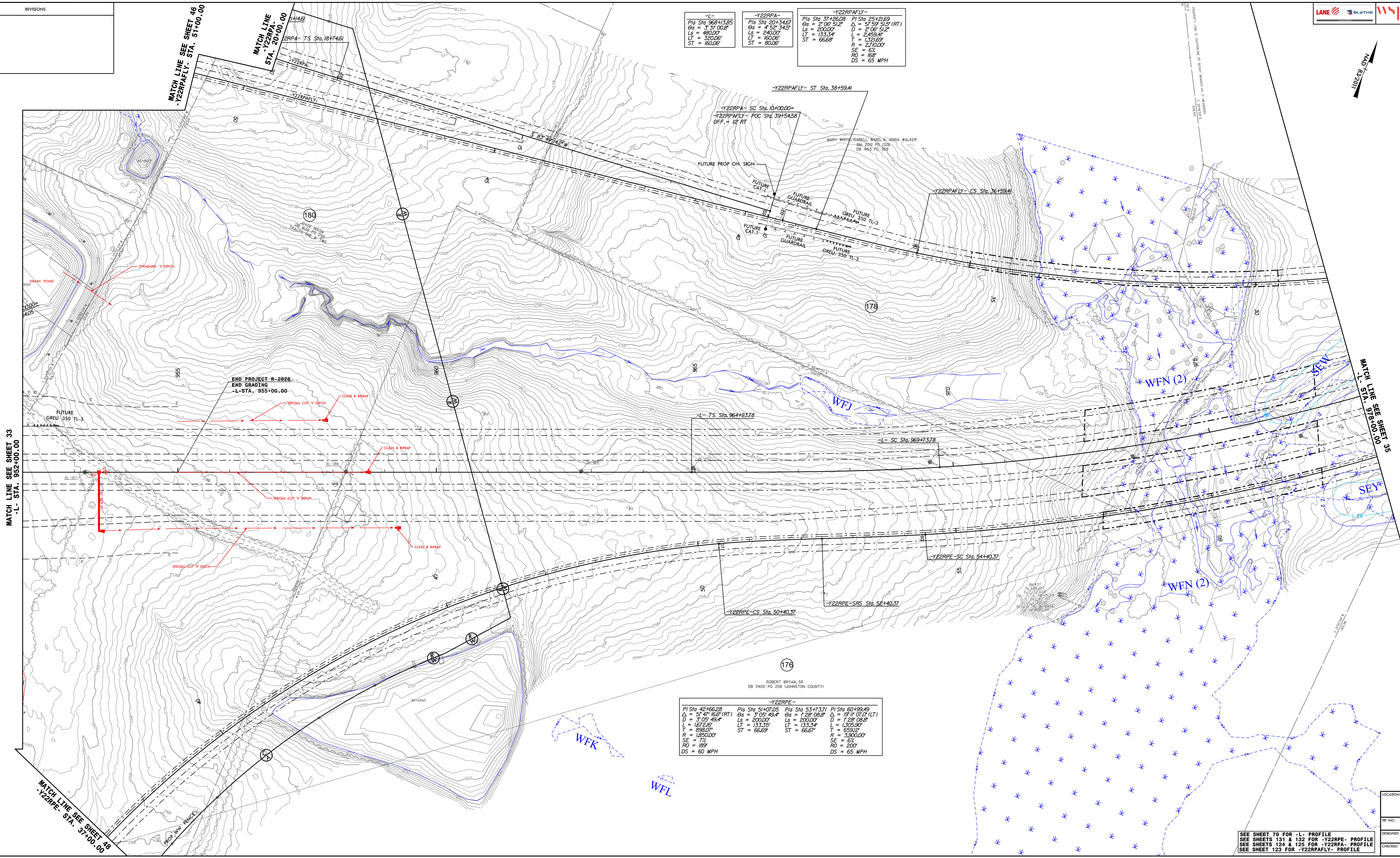
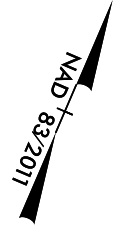
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NO.	REVISIONS



PROJECT REFERENCE NO. R-2828	SHEET NO. 34
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



<b>-L-</b> PI Sta 968+13.85 Pc = 3.37 000° Ls = 480.00' LT = 320.06' ST = 160.06'	<b>-Y22RPA-</b> PI Sta 20+3467 Pc = 4.50 345° Ls = 240.00' LT = 160.06' ST = 80.06'	<b>-Y22RPAFLY-</b> PI Sta 37+2608 Pc = 2.00 512° Ls = 200.00' LT = 133.54' ST = 66.68'	<b>-Y22RPAFLY-</b> PI Sta 25+2169 Pc = 57.59 51.5° (RT) Ls = 2450.44' LT = 2450.44' ST = 65'
--------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------

<b>-Y22RPE-</b> PI Sta 48+66.28 Pc = 57.41 16.6° (RT) Ls = 3.05 49.4° LT = 167.06' ST = 83.07'	<b>-Y22RPE-</b> PI Sta 51+07.05 Pc = 3.05 49.4° Ls = 200.00' LT = 133.54' ST = 66.68'	<b>-Y22RPE-</b> PI Sta 53+73.71 Pc = 1.28 08.8° Ls = 133.54' LT = 133.54' ST = 66.68'	<b>-Y22RPE-</b> PI Sta 60+99.49 Pc = 17.19 07.0° (LT) Ls = 128.06' LT = 128.06' ST = 63.92'
---------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------

MATCH LINE SEE SHEET 33  
L- STA. 952+00.00

MATCH LINE SEE SHEET 38  
Y22RPE- STA. 978+00.00

MATCH LINE SEE SHEET 35  
L- STA. 978+00.00

SEE SHEET 79 FOR L- PROFILE  
SEE SHEETS 131 & 132 FOR Y22RPE- PROFILE  
SEE SHEETS 124 & 125 FOR Y22RPA- PROFILE  
SEE SHEET 123 FOR Y22RPAFLY- PROFILE

LOCATION	
TIP NO.	COUNTY
DESIGNED BY	
CHECKED BY	DATE

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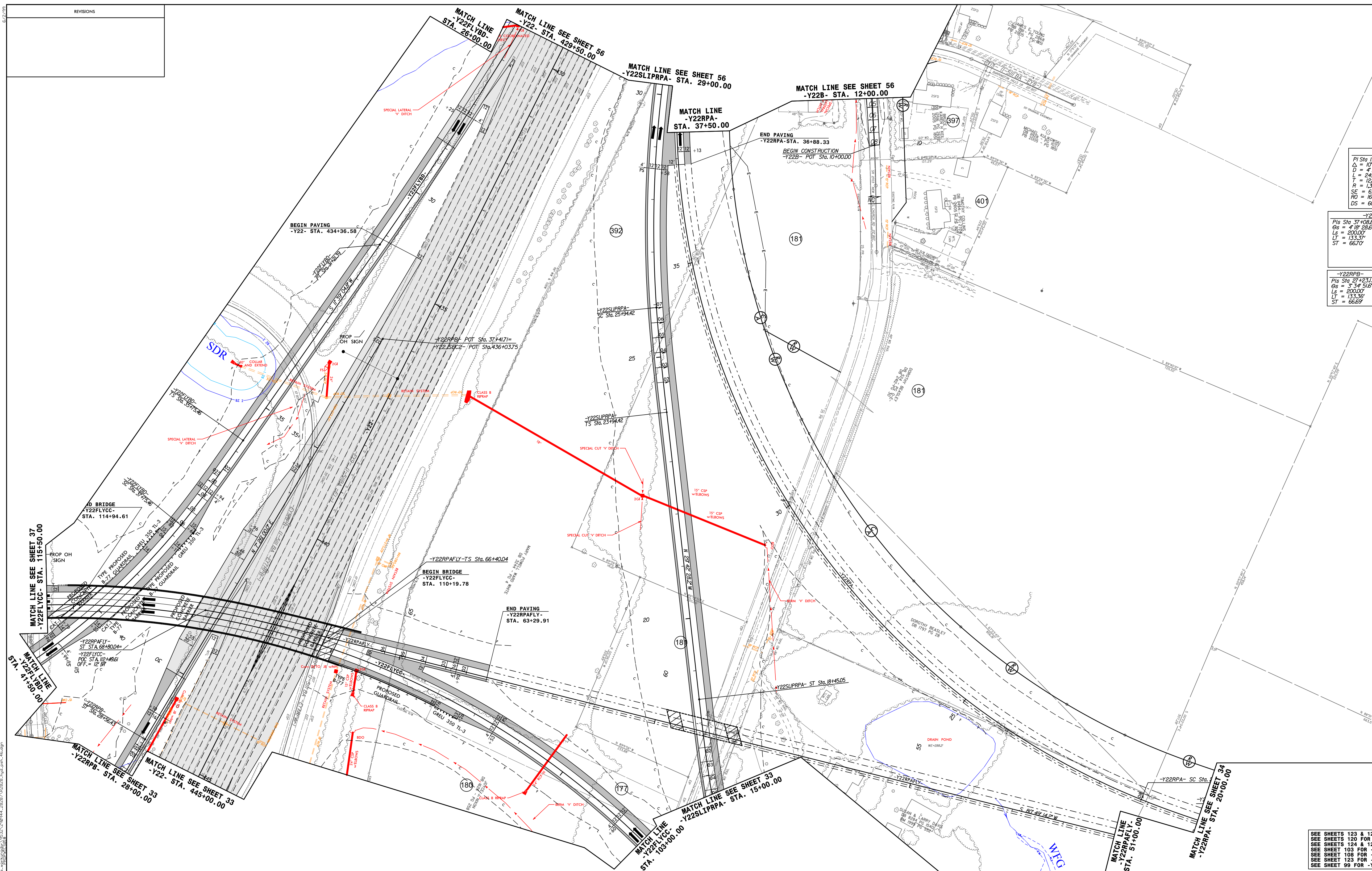






NO.	DESCRIPTION

PROJECT REFERENCE NO. R-2828	SHEET NO. 46
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



Station	PI	Δ	LS	ST	SE	RD	DS
-Y22SLIPRPA- PI Sta 15+22.86	17° 24' 00" (RT)	41.33'	245.05'	66.70'	6%	65'	60 MPH
-Y22SLIPRPA- PI Sta 17+11.75	11° 14' 36.5"	41.41'	200.00'	66.70'	6%	65'	60 MPH
-Y22SLIPRPA- PI Sta 25+27.77	2° 34' 09.5"	27.34'	164.05'	66.68'	8%	28'	60 MPH
-Y22SLIPRPA- PI Sta 32+78.65	7° 09' 01" (RT)	41.03'	194.61'	66.68'	8%	28'	60 MPH
-Y22FLYBD- PI Sta 31+08.84	18° 28' 28"	41.03'	200.00'	66.70'	6%	65'	60 MPH
-Y22FLYBD- PI Sta 39+90.82	18° 52' 41" (RT)	41.03'	200.00'	66.70'	6%	65'	60 MPH
-Y22FLYCC- PI Sta 11+34.33	5° 52' 23.9" (LT)	37.40'	7.9662'	66.70'	6%	65'	60 MPH
-Y22FLYCC- PI Sta 68+00.00	4° 22' 24"	42.22'	160.00'	66.69'	6%	33'	60 MPH
-Y22RPAFLY- PI Sta 27+23.13	3° 54' 51"	37.54'	133.36'	66.69'	6%	33'	60 MPH

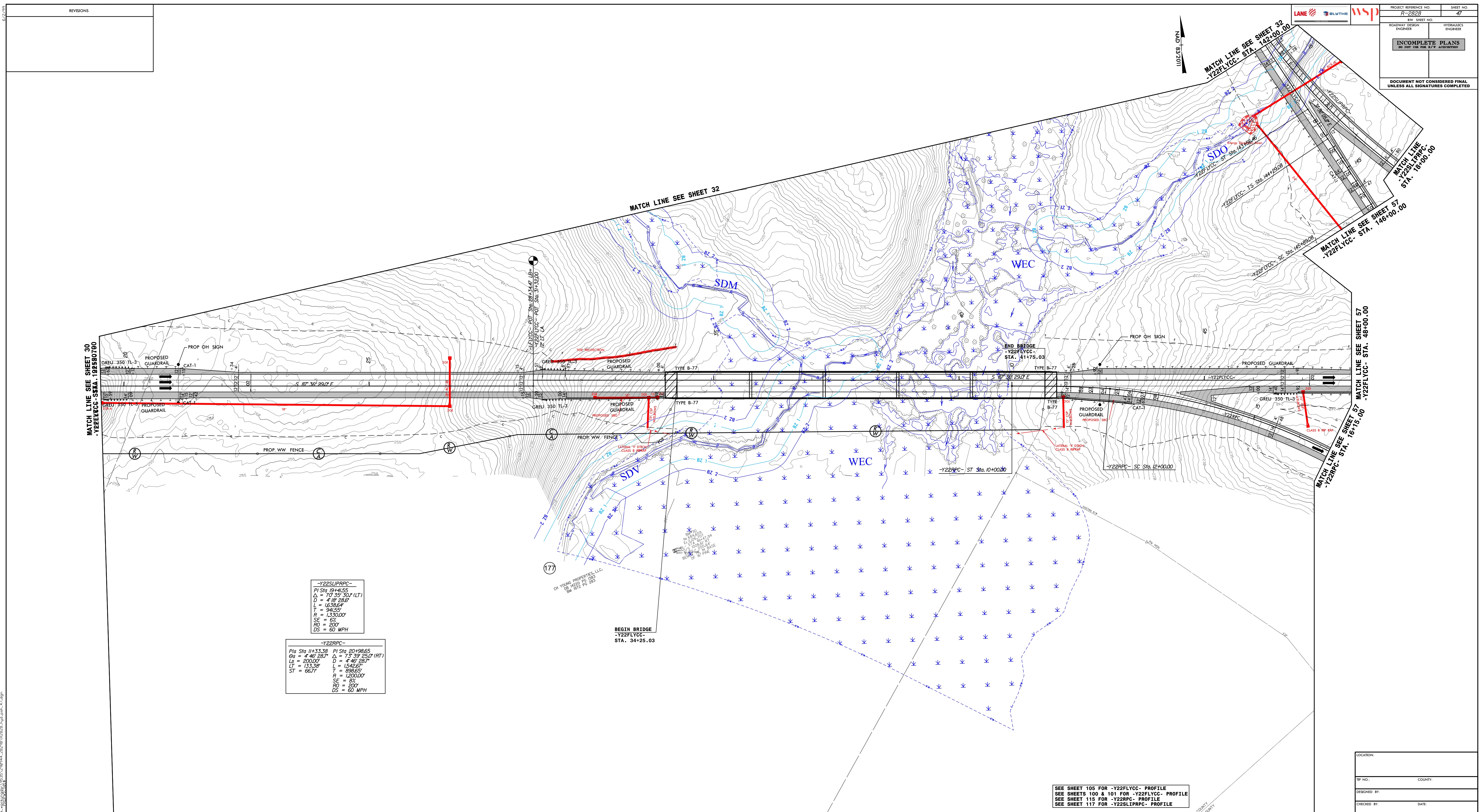
SEE SHEETS 123 & 124 FOR -Y22RPA- PROFILE	LOCATION:
SEE SHEETS 120 FOR -Y22SLIPRPA- PROFILE	TIP NO.:
SEE SHEETS 124 & 125 FOR -Y22RPA- PROFILE	COUNTY:
SEE SHEET 108 FOR -Y22FLYCC- PROFILE	DESIGNED BY:
SEE SHEET 108 FOR -Y22FLYBD- PROFILE	CHECKED BY:
SEE SHEET 123 FOR -Y22RPAFLY- PROFILE	DATE:
SEE SHEET 99 FOR -Y22R- PROFILE	





NO.	REVISIONS

PROJECT REFERENCE NO. R-2828	SHEET NO. 47
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-Y22SLPRPC-	
PI Sta. 19+41.55	Δ = 70° 35' 30" (LT)
D = 4' 18" 28.62'	L = 1638.64'
T = 94.55'	R = 133000'
SE = 67'	RO = 200'
DS = 60 MPH	

-Y22RPC-	
PIg Sta. 11+33.38	PI Sta. 20+88.65
Sg = 4° 46' 28.7"	Δ = 15° 39' 25.1" (RT)
Ls = 200.00'	D = 4° 46' 28.7"
LT = 133.38'	L = 1648.67'
ST = 66.7'	T = 898.65'
	R = 120000'
	SE = 82'
	RO = 200'
	DS = 60 MPH

SEE SHEET 105 FOR -Y22FLVCC- PROFILE  
 SEE SHEETS 100 & 101 FOR -Y22FLVCC- PROFILE  
 SEE SHEET 115 FOR -Y22RPC- PROFILE  
 SEE SHEET 117 FOR -Y22SLPRPC- PROFILE

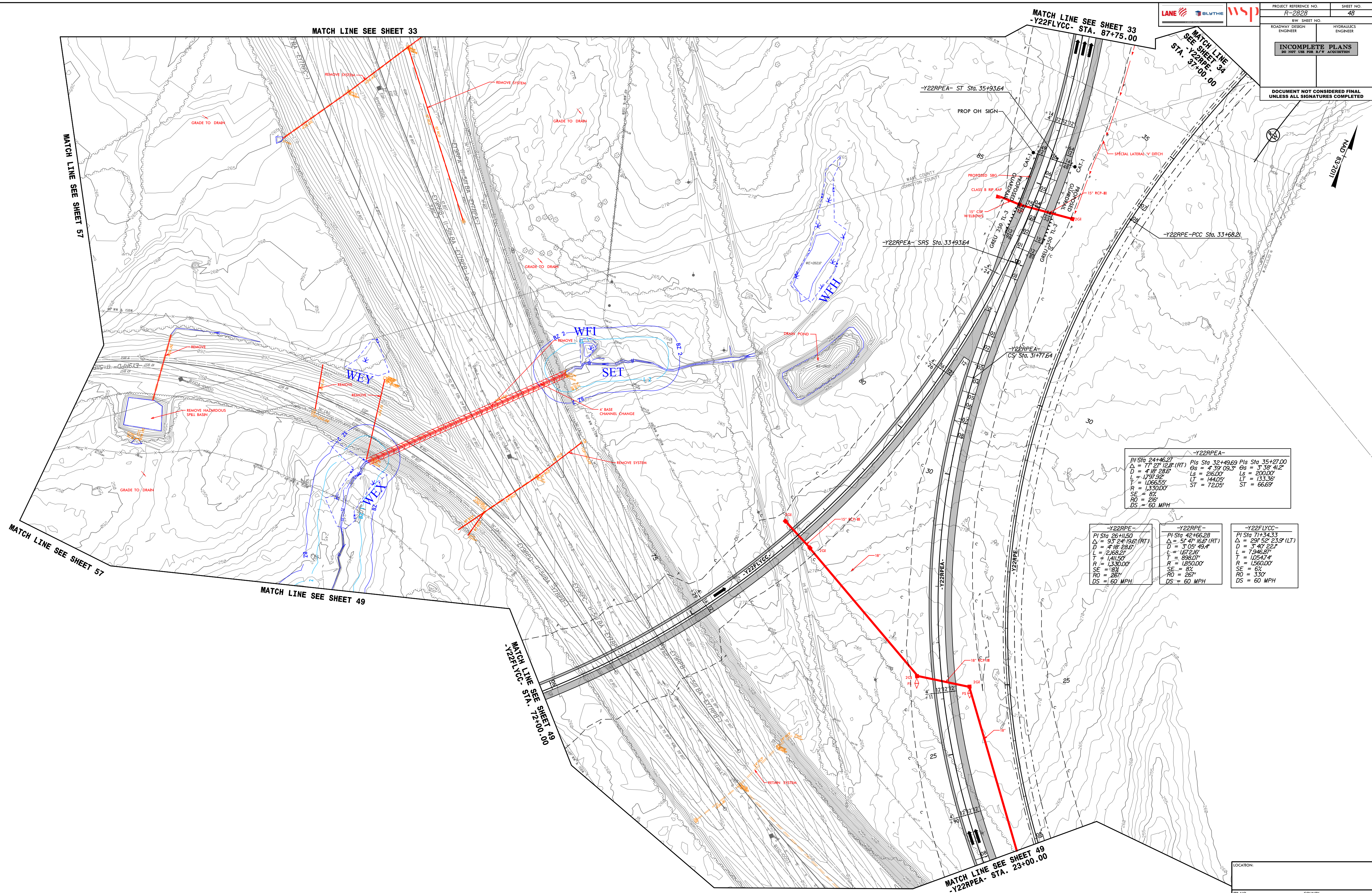
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TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

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REVISIONS

PROJECT REFERENCE NO.	R-2828	SHEET NO.	48
ROADWAY DESIGN ENGINEER	LANE	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



-Y22RPEA- PI Sta 24+46.21 $\Delta = 77.27^\circ$ (RT) $D = 4' 18.28'$ $L = 129.98'$ $T = 106.55'$ $R = 1330.00'$ $SE = 82'$ $RO = 219'$ $DS = 60$ MPH	-Y22RPEA- PI Sta 32+49.69 $\Delta = 4' 39.09'$ (RT) $D = 216.00'$ $L = 144.00'$ $T = 133.36'$ $R = 72.25'$ $SE = 67'$ $RO = 267'$ $DS = 60$ MPH	-Y22RPEA- PI Sta 35+27.00 $\Delta = 3' 38.41'$ (RT) $D = 200.00'$ $L = 133.36'$ $T = 66.67'$ $R = 66.67'$ $SE = 67'$ $RO = 267'$ $DS = 60$ MPH
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------

-Y22RPE- PI Sta 25+11.54 $\Delta = 53.24^\circ$ (RT) $D = 4' 18.28'$ $L = 129.98'$ $T = 141.50'$ $R = 1330.00'$ $SE = 82'$ $RO = 267'$ $DS = 60$ MPH	-Y22RPE- PI Sta 44+66.38 $\Delta = 54.47^\circ$ (RT) $D = 3' 09.49'$ $L = 167.24'$ $T = 88.07'$ $R = 1250.00'$ $SE = 82'$ $RO = 267'$ $DS = 60$ MPH	-Y22FLYCC- PI Sta 77+34.33 $\Delta = 29' 52.23'$ (LT) $D = 3' 40.22'$ $L = 7.9658'$ $T = 105.47'$ $R = 1250.00'$ $SE = 67'$ $RO = 330'$ $DS = 60$ MPH
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

SEE SHEET 130 FOR -Y22RPE- PROFILE  
 SEE SHEET 133 FOR -Y22RPEA- PROFILE  
 SEE SHEET 102 FOR -Y22FLYCC- PROFILE

LOCATION:	
TWP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

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8/17/99

REVISIONS

4/24/2019  
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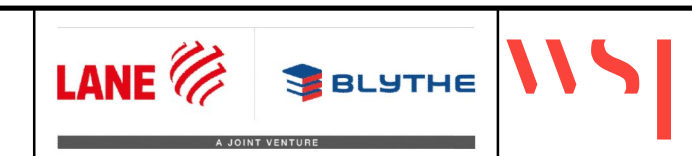
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8/17/99

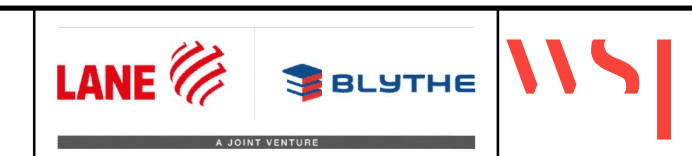
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4/24/2019  
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PROJECT REFERENCE NO.	SHEET NO.
R-2828	52
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

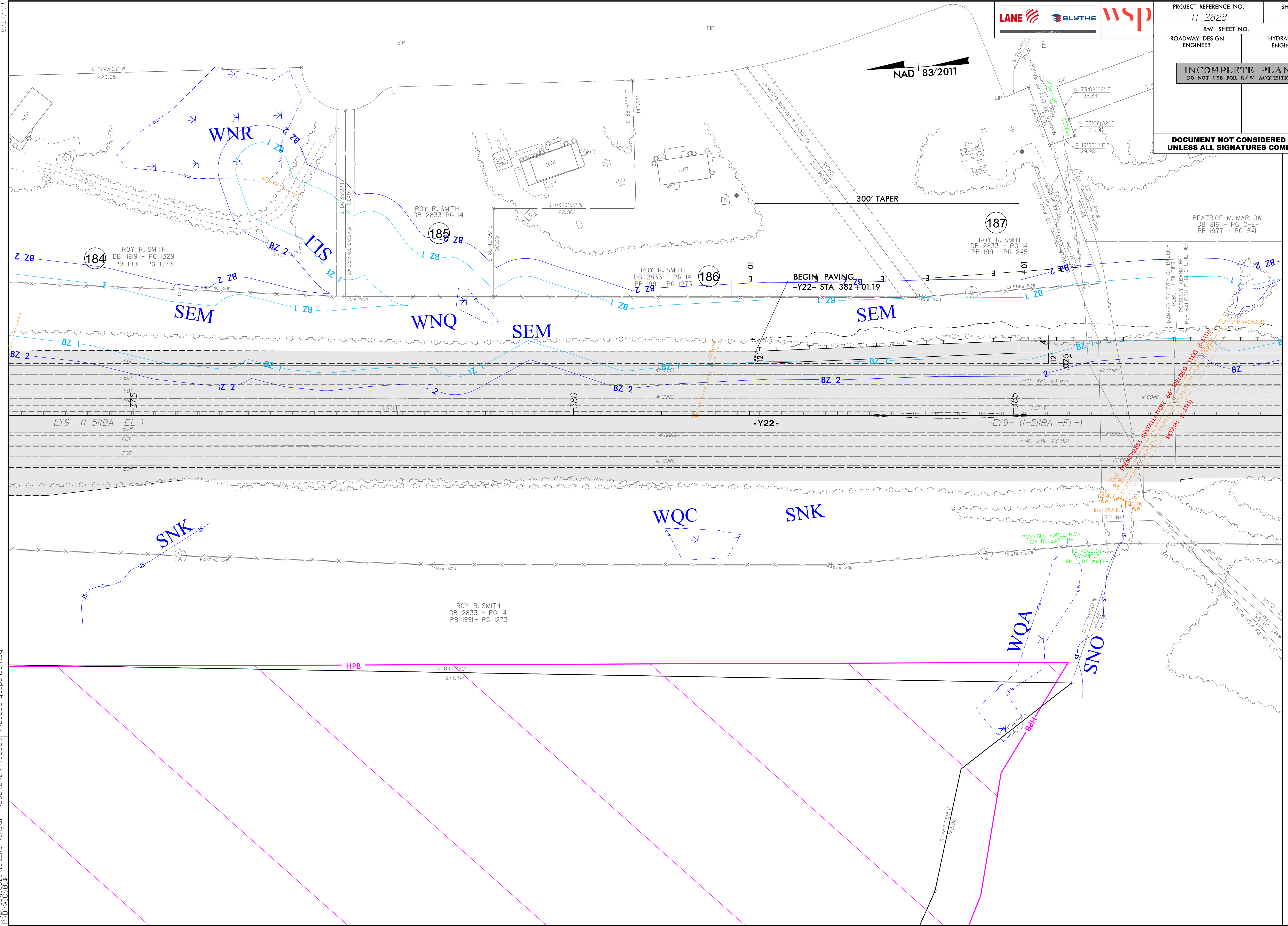
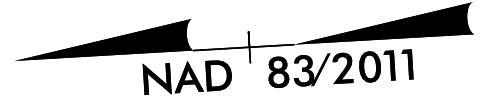
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PROJECT REFERENCE NO.	SHEET NO.
R-2828	53
RW SHEET NO.	
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<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	

**BLANK SHEET**

PROJECT REFERENCE NO. <i>R-2828</i>		SHEET NO. 54	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION			
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED			



REVISIONS

MATCH LINE SEE SHEET 55  
-Y22- STA. 388+00.00

4/24/2019  
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ROY R. SMITH  
 DB 2833 - PG 14  
 PB 1991 - PG 1273

ROY R. SMITH  
 DB 11819 - PG 1329  
 PB 1991 - PG 1273

ROY R. SMITH  
 DB 2833 PG 14

ROY R. SMITH  
 DB 2833 - PG 14  
 PB 1991 - PG 1273

ROY R. SMITH  
 DB 2833 - PG 14  
 PB 1991 - PG 245

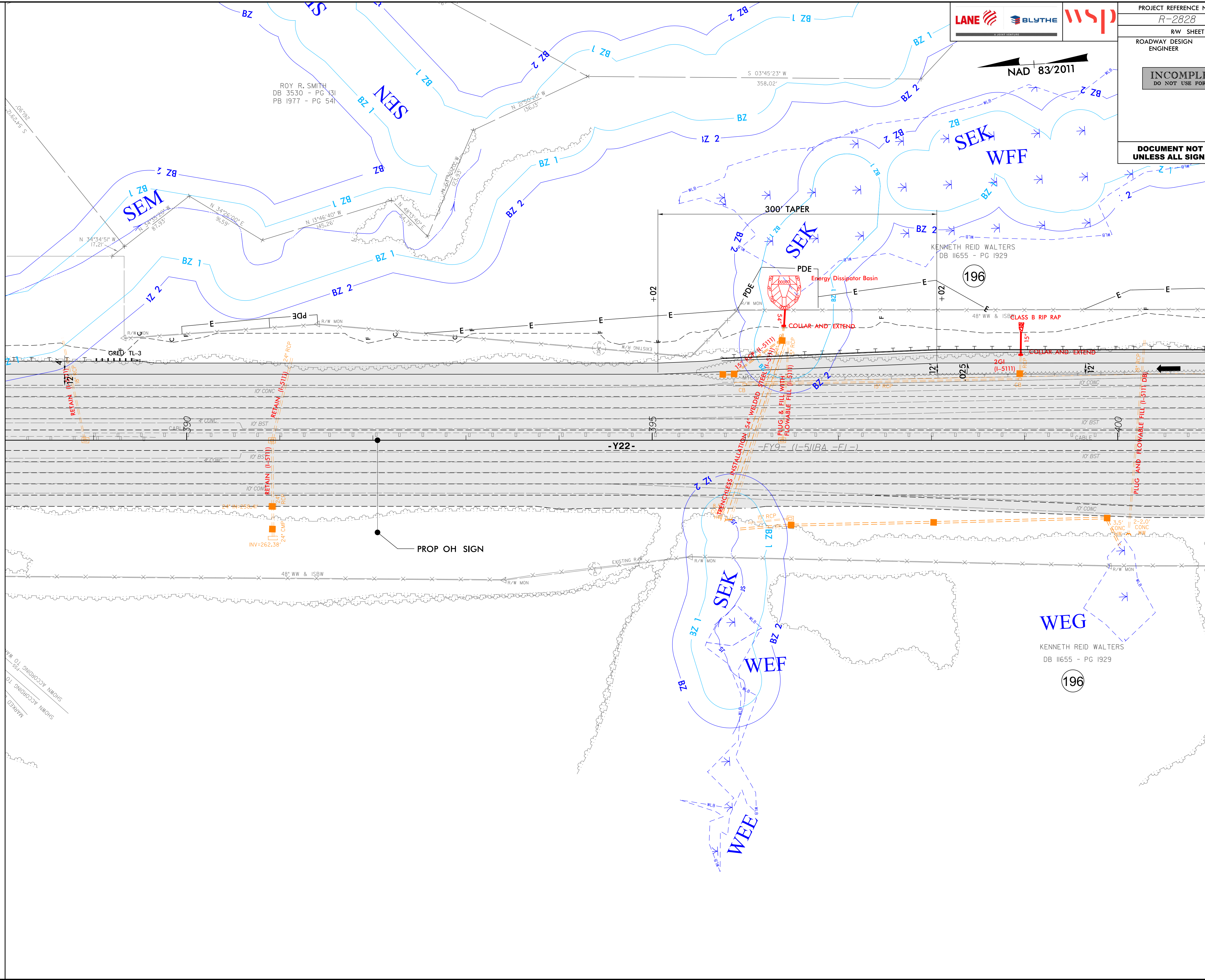
BEATRICE M. MARLOW  
 DB 816 - PG 0-E  
 PB 1977 - PG 541



REVISIONS

MATCH LINE SEE SHEET 54  
-Y22- STA. 388+00.00

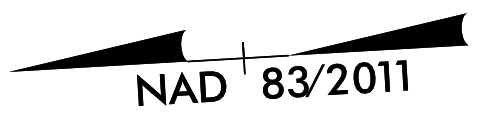
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PROJECT REFERENCE NO. R-2828	SHEET NO. 55
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<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

MARKED  
SHOWN ACCORDING TO  
SHOWN ACCORDING TO

PROJECT REFERENCE NO. R-2828	SHEET NO. 55
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

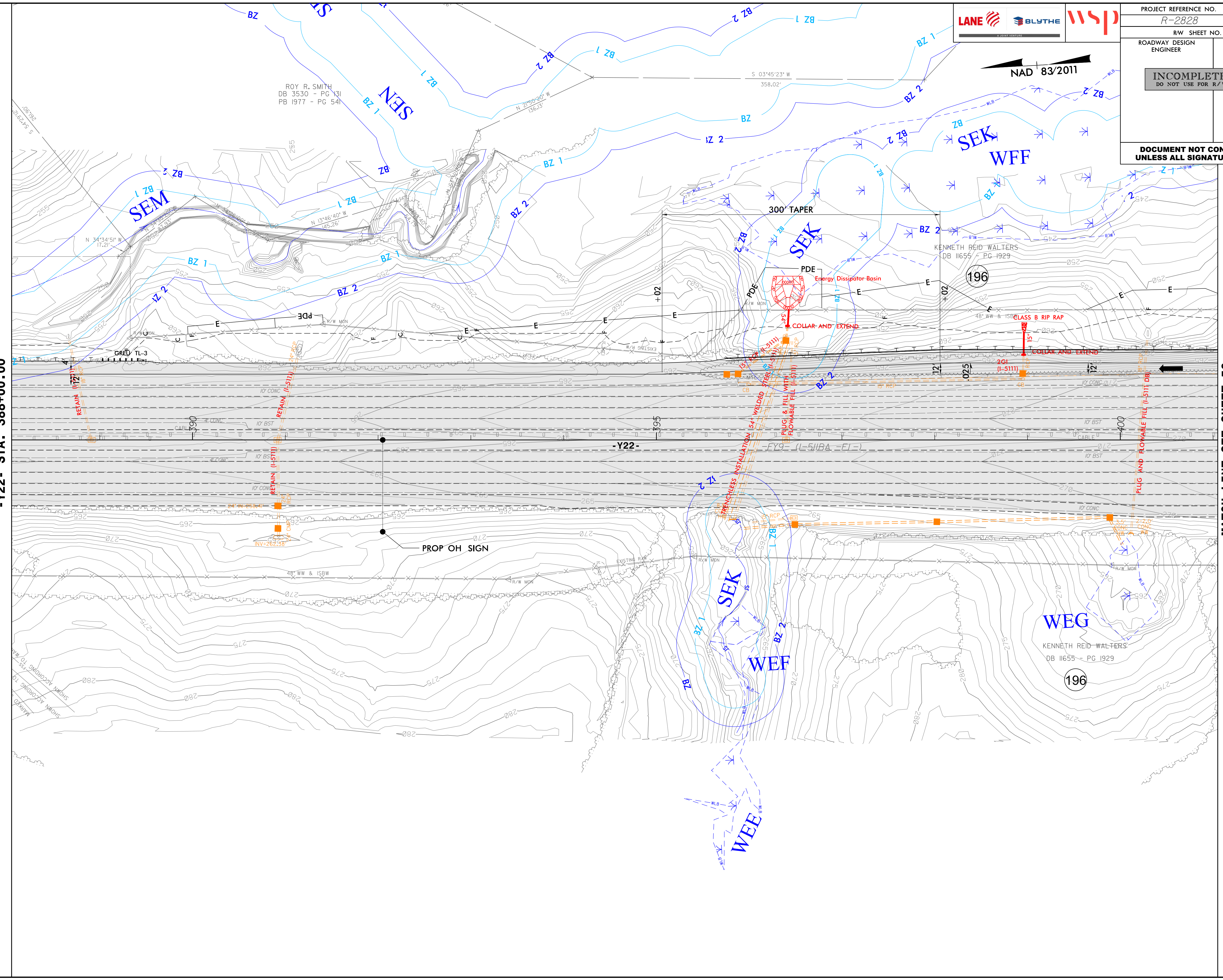


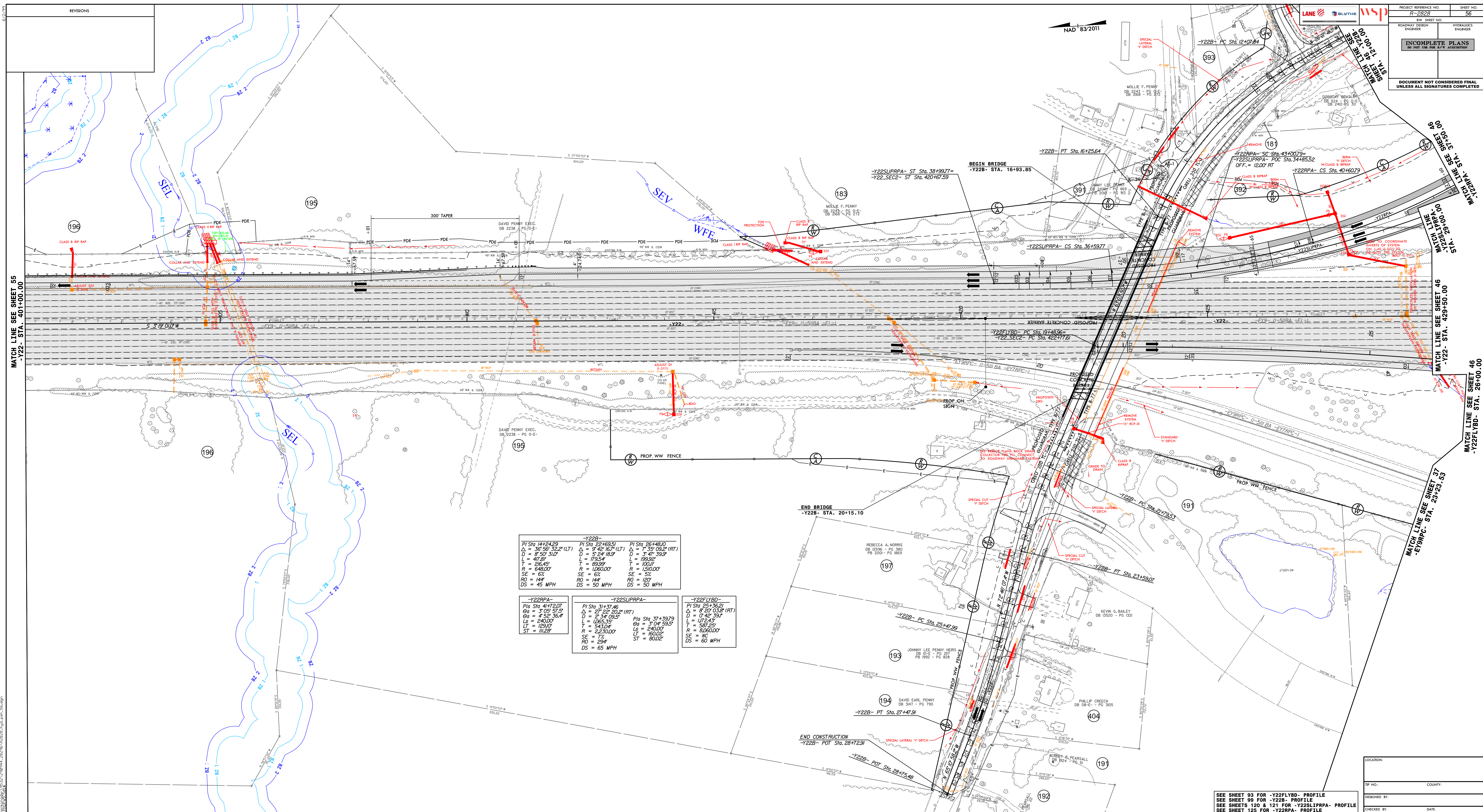
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-Y22- STA. 388+00.00

MATCH LINE SEE SHEET 56  
-Y22- STA. 401+00.00

REVISIONS

4/24/2019  
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MATCH LINE SEE SHEET 55  
 -Y22- STA. 40+100.00

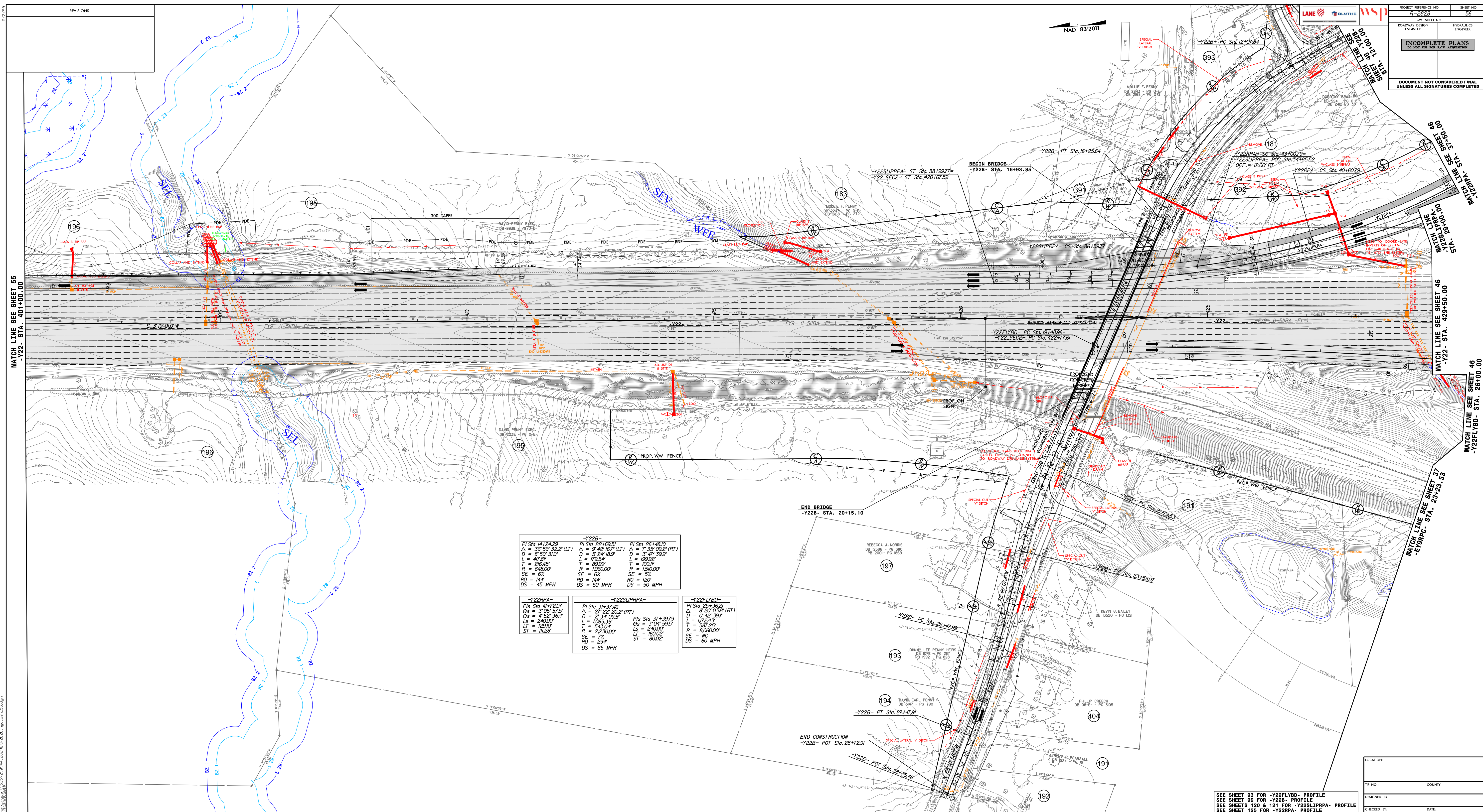
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

<b>-Y22B-</b> PI Sta 14+24.29 $\Delta = 36.56$ 32.2' (LT) $D = 8' 50.3107$ $L = 417.81'$ $T = 216.45'$ $R = 648.00'$ $SE = 6X$ $RD = 144'$ $DS = 45$ MPH	<b>-Y22B-</b> PI Sta 22+69.51 $\Delta = 27.22$ 20.2' (RT) $D = 5' 24.1831'$ $L = 75.52'$ $T = 89.58'$ $R = 1260.00'$ $SE = 6X$ $RD = 144'$ $DS = 30$ MPH	<b>-Y22B-</b> PI Sta 26+48.10 $\Delta = 9.42$ 16.7' (LT) $D = 3' 47.3939'$ $L = 99.52'$ $T = 100.07'$ $R = 1260.00'$ $SE = 6X$ $RD = 120'$ $DS = 30$ MPH
<b>-Y22RPA-</b> PI Sta 41+72.07 $\Delta = 3' 05.57.59$ $D = 4' 52.36.4'$ $L = 240.00'$ $ST = 111.28'$	<b>-Y22SUPRA-</b> PI Sta 31+37.46 $\Delta = 27.22$ 20.2' (RT) $D = 2' 34.09.52'$ $L = 106.1351'$ $T = 223.000'$ $SE = 7X$ $RD = 29'$ $DS = 65$ MPH	<b>-Y22FLYBD-</b> PI Sta 25+36.21 $\Delta = 6' 20.03.81'$ (RT) $D = 0' 42.39.1'$ $L = 172.43'$ $T = 587.25'$ $R = 8060.00'$ $SE = NC$ $DS = 60$ MPH

SEE SHEET 93 FOR -Y22FLYBD- PROFILE  
 SEE SHEET 99 FOR -Y22B- PROFILE  
 SEE SHEETS 120 & 121 FOR -Y22SUPRA- PROFILE  
 SEE SHEET 125 FOR -Y22RPA- PROFILE

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

I:\Users\jbl\Documents\2024\2828\2828RPA.dwg



MATCH LINE SEE SHEET 55  
-Y22- STA. 40+100.00

MATCH LINE SEE SHEET 46  
-Y22- STA. 26+00.00

MATCH LINE SEE SHEET 46  
-Y22- STA. 429+50.00

MATCH LINE SEE SHEET 37  
-Y22- STA. 23+23.83

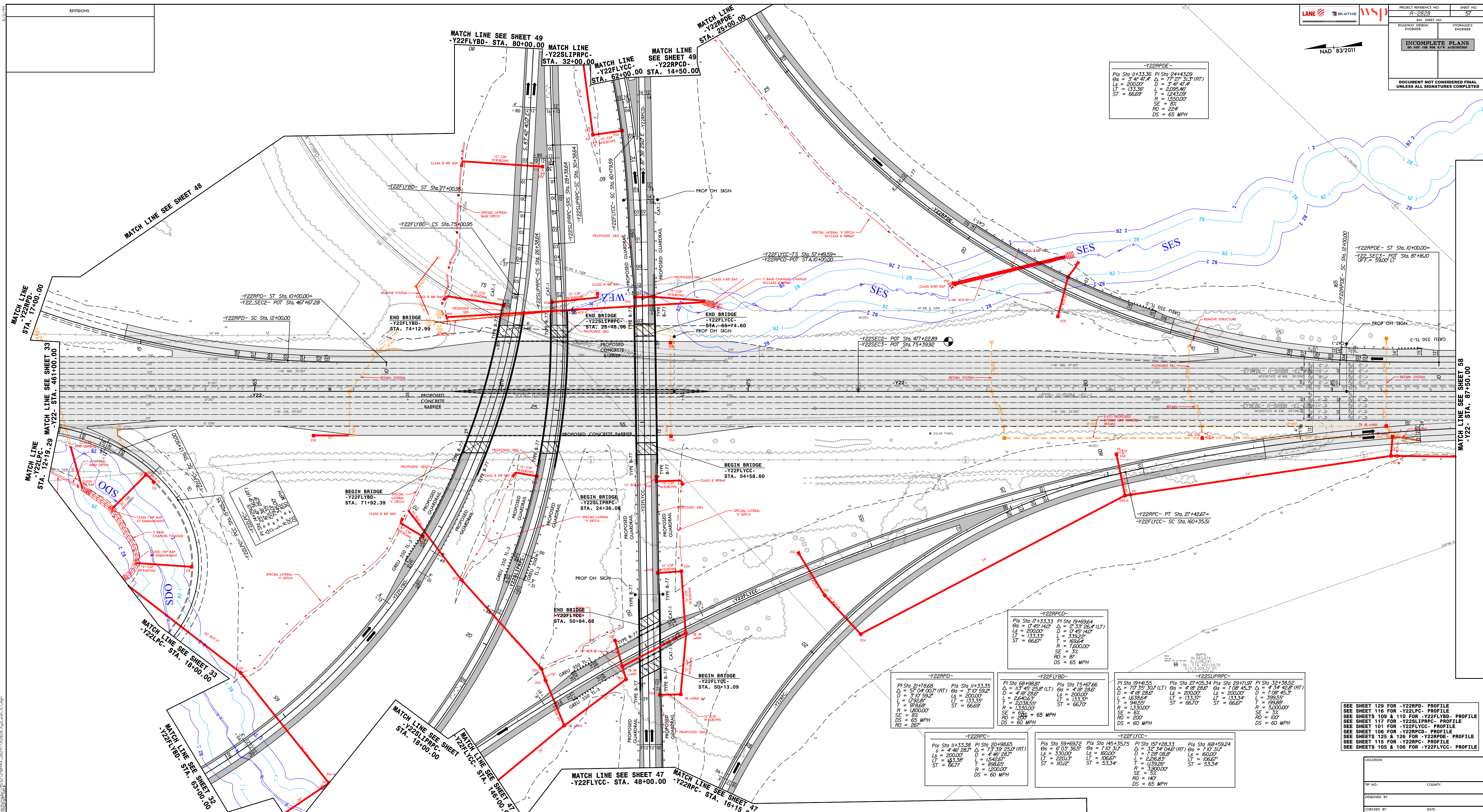
PROJECT REFERENCE NO.	SHEET NO.
R-2828	55
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-Y22B-		
PI Sta 14+24.29 Δ = 36° 56' 32.2" (LT) D = 8' 50' 31.0" L = 47.8' R = 26.45' SE = 6X RO = 144' DS = 45 MPH	PI Sta 22+69.51 Δ = 9° 42' 16.7" (LT) D = 5' 24' 18.3" L = 75.5' R = 89.58' SE = 6X RO = 144' DS = 30 MPH	PI Sta 26+48.10 Δ = 7° 36' 03.2" (RT) D = 3' 47' 39.3" L = 89.52' R = 100.0' SE = 6X RO = 120' DS = 30 MPH
-Y22RPA-		
PI Sta 41+72.07 Δ = 3° 05' 57.5" D = 4' 52' 36.4" L = 129.0' ST = 111.28'	PI Sta 31+37.46 Δ = 2° 22' 20.2" (RT) D = 2' 34' 09.5" L = 106.33' R = 223.00' SE = 7X RO = 29' DS = 65 MPH	PI Sta 37+39.79 Δ = 3° 04' 59.5" L = 240.0' ST = 80.02'
-Y22FLYBD-		
PI Sta 25+36.21 Δ = 6° 20' 03.8" (RT) D = 0' 42' 39.1" L = 172.43' R = 587.25' SE = 80.0000' RO = NC DS = 60 MPH		

SEE SHEET 93 FOR -Y22FLYBD- PROFILE  
SEE SHEET 99 FOR -Y22B- PROFILE  
SEE SHEETS 120 & 121 FOR -Y22SLRPA- PROFILE  
SEE SHEET 125 FOR -Y22RPA- PROFILE

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

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NO.	REVISIONS

PROJECT REFERENCE NO. R-2828 SHEET NO. 57  
 ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER  
 INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION  
 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y22RPOE-  
 Pts Sta 11+33.36 P1 Sta 24+43.09  
 Es = 3' 4" 47.4' Δ = 77' 27" 31.3' (RT)  
 Ls = 200.00' D = 3' 48" 47.4'  
 LT = 133.36' L = 2,095.46'  
 ST = 66.69' T = 124.339'  
 R = 155,000'  
 SE = 8%  
 RO = 224'  
 DS = 65 MPH

-Y22RPPD-  
 Pts Sta 17+33.33 P1 Sta 19+89.64  
 Δ = 0' 45' 14.0" Δ = 2' 33' 26.4" (LT)  
 Ls = 200.00' D = 0' 45' 14.0"  
 LT = 133.36' L = 3,982.2'  
 ST = 66.67' T = 162.4'  
 R = 128,000'  
 SE = 5%  
 RO = 81'  
 DS = 65 MPH

-Y22RPD-  
 P1 Sta 21+16.68 P1 Sta 11+33.35  
 Δ = 57' 04' 00.7" (RT) Es = 3' 10' 59.2"  
 D = 3' 10' 59.2" Ls = 200.00'  
 LT = 179.28' L = 2,640.3'  
 ST = 66.69' T = 213.655'  
 R = 133,000'  
 SE = 6%  
 RO = 205'  
 DS = 65 MPH

-Y22FLYBD-  
 P1 Sta 68+98.87 P1 Sta 75+67.66  
 Δ = 13' 45' 25.8" (LT) Es = 4' 18' 28.6"  
 D = 4' 18' 28.6" Ls = 200.00'  
 LT = 163.64' L = 2,640.3'  
 ST = 66.70' T = 213.655'  
 R = 133,000'  
 SE = 6%  
 RO = 205'  
 DS = 65 MPH

-Y22FLYPC-  
 P1 Sta 19+41.55 P1 Sta 27+05.34 P1 Sta 29+71.97 P1 Sta 32+38.52  
 Δ = 70' 39' 30.4" (LT) Es = 4' 18' 28.6" Es = 1' 08' 45.3" Δ = 4' 34' 42.8" (RT)  
 D = 4' 18' 28.6" Ls = 200.00' Ls = 200.00' D = 1' 08' 45.3"  
 LT = 163.64' L = 1,333.7' LT = 133.36' L = 3,982.2'  
 ST = 66.70' ST = 66.67' ST = 66.67' T = 199.689'  
 R = 133,000' R = 5,000.00'  
 SE = 5% SE = 5%  
 RO = 100' RO = 100'  
 DS = 60 MPH DS = 60 MPH

-Y22FLYRC-  
 P1 Sta 11+33.38 P1 Sta 20+98.65  
 Δ = 4' 46' 28.7" Es = 7' 3' 25.1" (RT)  
 Ls = 200.00' D = 4' 46' 28.7"  
 LT = 183.39' L = 1,542.67'  
 ST = 66.71' T = 89.655'  
 R = 120,000'  
 DS = 60 MPH

-Y22FLYSC-  
 P1 Sta 59+69.72 P1 Sta 145+35.75 P1 Sta 157+28.33 P1 Sta 168+59.24  
 Δ = 6' 03' 36.5" Es = 1' 10' 31.7" Δ = 32' 34' 04.8" (RT) Es = 1' 10' 31.7"  
 D = 3' 30.00' Ls = 160.00' D = 32' 34' 04.8" Ls = 160.00'  
 LT = 220.13' L = 2,216.87' LT = 106.67' L = 1,066.7'  
 ST = 110.2' T = 89.655' ST = 53.34' T = 199.689'  
 R = 150,000' R = 5,000.00'  
 SE = 5% SE = 5%  
 RO = 140' RO = 100'  
 DS = 65 MPH DS = 65 MPH

SEE SHEET 129 FOR -Y22RPD- PROFILE  
 SEE SHEET 119 FOR -Y22LPC- PROFILE  
 SEE SHEETS 109 & 110 FOR -Y22FLYBD- PROFILE  
 SEE SHEET 117 FOR -Y22SLPRPC- PROFILE  
 SEE SHEET 101 FOR -Y22FLYCC- PROFILE  
 SEE SHEET 106 FOR -Y22RPPD- PROFILE  
 SEE SHEETS 125 & 126 FOR -Y22RPOE- PROFILE  
 SEE SHEET 115 FOR -Y22RPC- PROFILE  
 SEE SHEETS 105 & 106 FOR -Y22FLYSC- PROFILE

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

NO.	DESCRIPTION

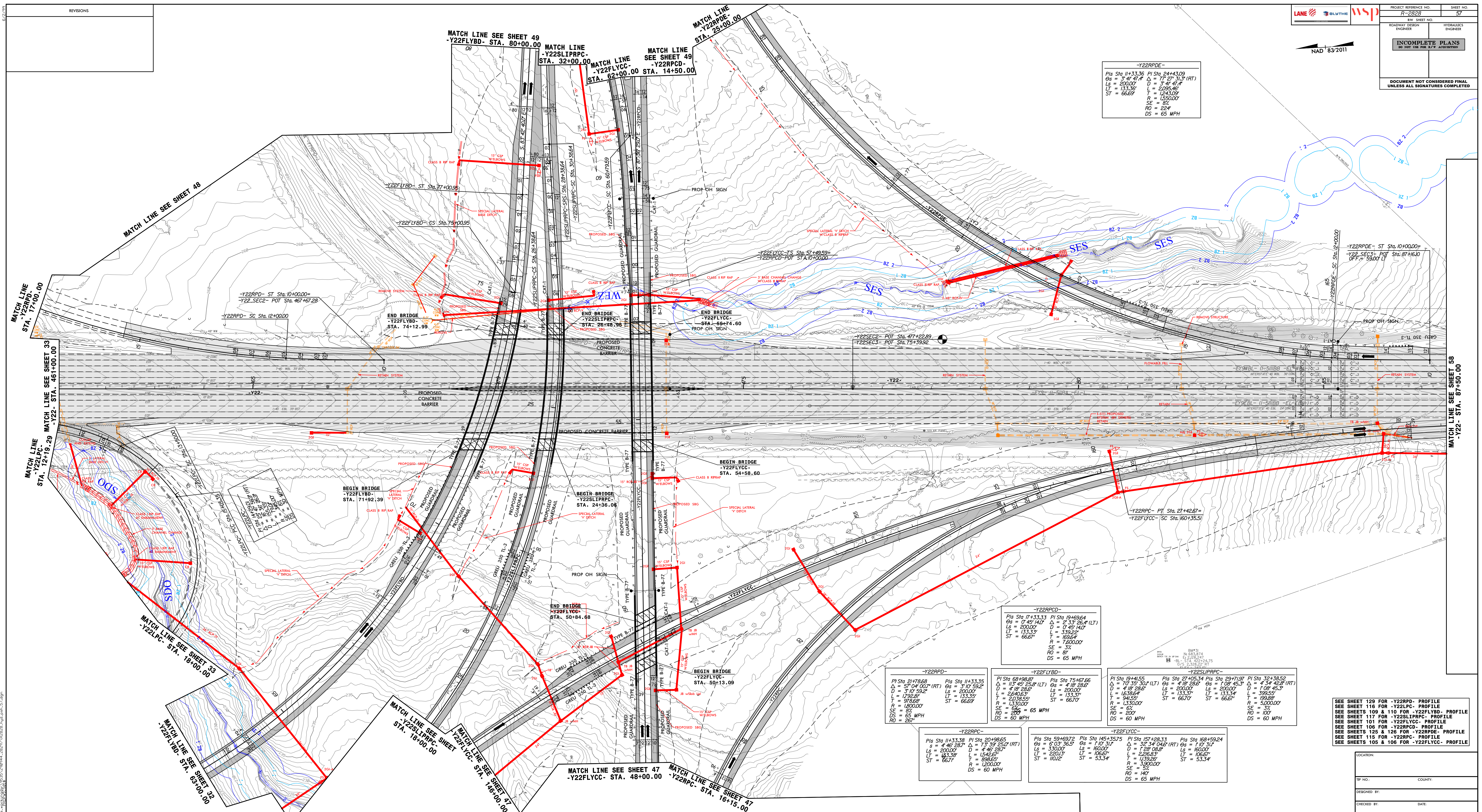
PROJECT REFERENCE NO. R-2828 SHEET NO. 57

ROADWAY DESIGN ENGINEER HYDRAULICS ENGINEER

**INCOMPLETE PLANS**  
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/2011



**-Y22RPDE-**

PI Sta 11+33.36 PI Sta 24+43.09  
 Es = 3' 4" 47.4' Δ = 77' 27" 31.3' (RT)  
 Ls = 200.00' D = 3' 48' 47.4"  
 LT = 133.36' L = 2,095.46'  
 ST = 66.69' T = 124.59'  
 R = 155,000'  
 SE = 8%  
 RO = 224'  
 DS = 65 MPH

**-Y22RPDC-**

PI Sta 17+33.33 PI Sta 19+69.64  
 Δ = 0' 45' 14.0" Δ = 2' 33' 26.4" (LT)  
 Ls = 200.00' D = 0' 45' 14.0"  
 LT = 133.36' L = 3,982.2'  
 ST = 66.67' T = 162.4'  
 R = 175,000.00'  
 SE = 5%  
 RO = 81'  
 DS = 65 MPH

**-Y22RPD-**

PI Sta 21+76.68 PI Sta 11+33.35  
 Δ = 57' 04' 00.7" (RT) Es = 3' 10' 59.2"  
 D = 3' 10' 59.2" Ls = 200.00'  
 LT = 179.28' L = 2,640.3'  
 T = 97.65' R = 133.35'  
 SE = 8% ST = 66.69'  
 DS = 65 MPH R = 1,330.00'

**-Y22FLYBD-**

PI Sta 69+98.87 PI Sta 75+67.66  
 Δ = 13' 45' 25.8" (LT) Es = 4' 18' 28.6"  
 D = 4' 18' 28.6" Ls = 200.00'  
 LT = 163.64' L = 1,636.4'  
 T = 94.25' R = 133.37'  
 SE = 6% ST = 66.70'  
 DS = 60 MPH R = 1,330.00'

**-Y22SLPRPC-**

PI Sta 19+41.55 PI Sta 27+05.34 PI Sta 29+71.97 PI Sta 32+38.52  
 Δ = 70' 39' 30.4" (LT) Es = 4' 18' 28.6" Es = 1' 08' 45.3" Δ = 4' 34' 42.2" (RT)  
 D = 4' 18' 28.6" Ls = 200.00' Ls = 200.00' D = 1' 08' 45.3"  
 LT = 163.64' L = 1,636.4' LT = 133.37' L = 3,995.5'  
 ST = 66.70' ST = 66.67' ST = 66.67' T = 199.85'  
 R = 1,330.00' R = 5,000.00'  
 SE = 5% SE = 5%  
 RO = 200' RO = 200'  
 DS = 60 MPH DS = 60 MPH

**-Y22FLYCC-**

PI Sta 11+33.38 PI Sta 20+98.65  
 Δ = 4' 46' 28.7" Es = 7' 3' 25.1" (RT)  
 D = 200.00' D = 4' 46' 28.7"  
 LT = 133.36' L = 1,542.67'  
 ST = 66.71' T = 89.65'  
 R = 120,000'  
 DS = 60 MPH

**-Y22FLYBD-**

PI Sta 59+69.72 PI Sta 145+35.75  
 Δ = 6' 03' 36.5" Es = 7' 3' 25.1" (RT)  
 D = 330.00' D = 32' 34' 04.8" (RT) Es = 1' 10' 31.7"  
 LT = 220.13' L = 2,216.83'  
 ST = 110.2' T = 133.37' L = 1,066.7'  
 R = 53.34' R = 1,330.00'  
 SE = 5% SE = 5%  
 RO = 140' RO = 140'  
 DS = 65 MPH DS = 65 MPH

SEE SHEET 129 FOR -Y22RPD- PROFILE  
 SEE SHEET 119 FOR -Y22LPC- PROFILE  
 SEE SHEETS 109 & 110 FOR -Y22FLYBD- PROFILE  
 SEE SHEET 117 FOR -Y22SLPRPC- PROFILE  
 SEE SHEET 101 FOR -Y22FLYCC- PROFILE  
 SEE SHEET 106 FOR -Y22RPDC- PROFILE  
 SEE SHEETS 125 & 126 FOR -Y22RPDE- PROFILE  
 SEE SHEET 115 FOR -Y22RPD- PROFILE  
 SEE SHEETS 105 & 106 FOR -Y22FLYCC- PROFILE

LOCATION:	
TIP NO.:	COUNTY:
DESIGNED BY:	
CHECKED BY:	DATE:

8/17/99



PROJECT REFERENCE NO. R-2828	SHEET NO. 58
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011

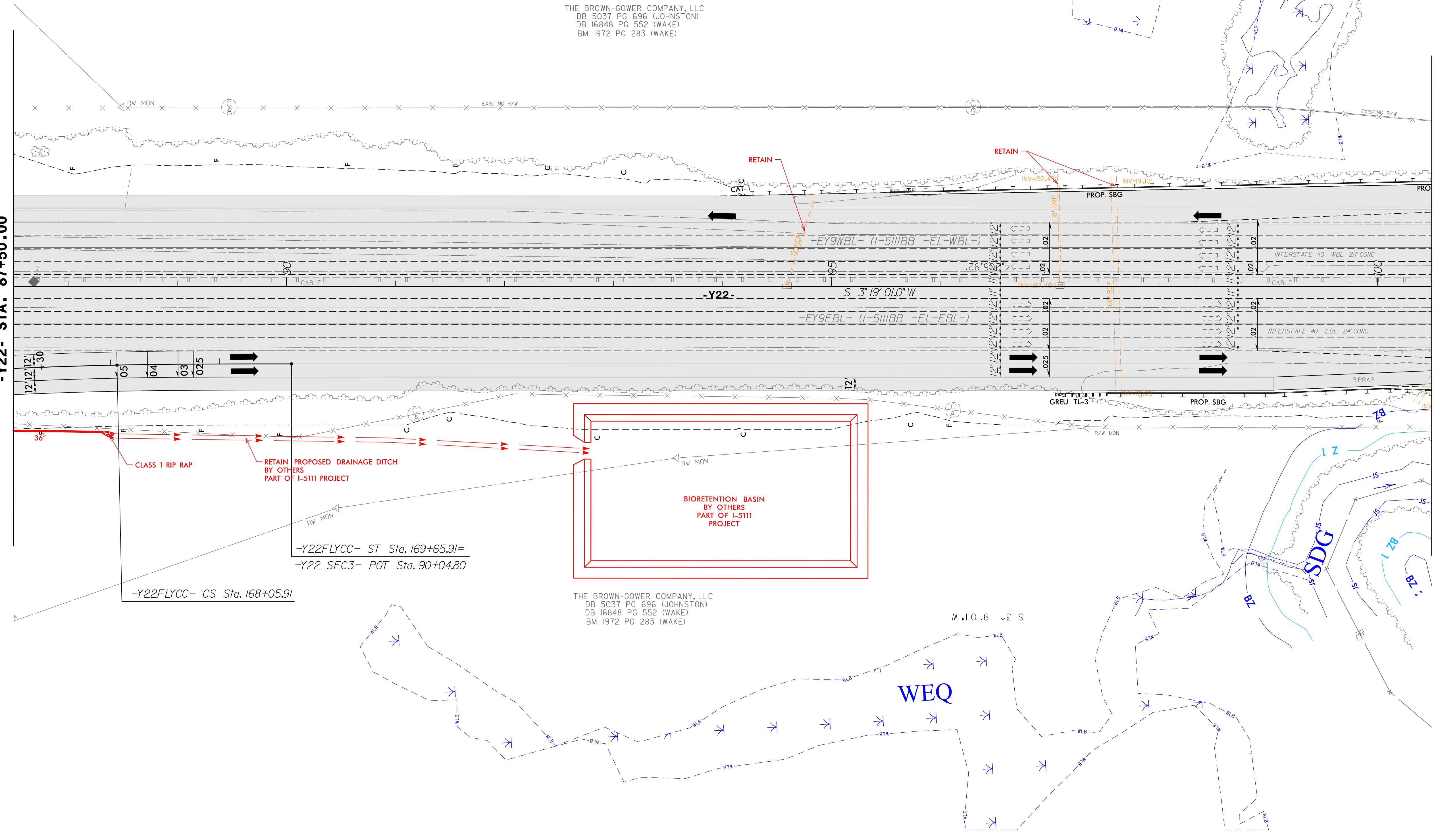
REVISIONS

MATCH LINE SEE SHEET 57  
-Y22- STA. 87+50.00

MATCH LINE SEE SHEET 58A  
-Y22- STA. 100+50.00

THE BROWN-GOWER COMPANY, LLC  
DB 5037 PG 696 (JOHNSTON)  
DB 16848 PG 552 (WAKE)  
BM 1972 PG 283 (WAKE)

THE BROWN-GOWER COMPANY, LLC  
DB 5037 PG 696 (JOHNSTON)  
DB 16848 PG 552 (WAKE)  
BM 1972 PG 283 (WAKE)



-Y22FLYCC- ST Sta. 169+65.91=  
-Y22\_SEC3- POT Sta. 90+04.80  
-Y22FLYCC- CS Sta. 168+05.91

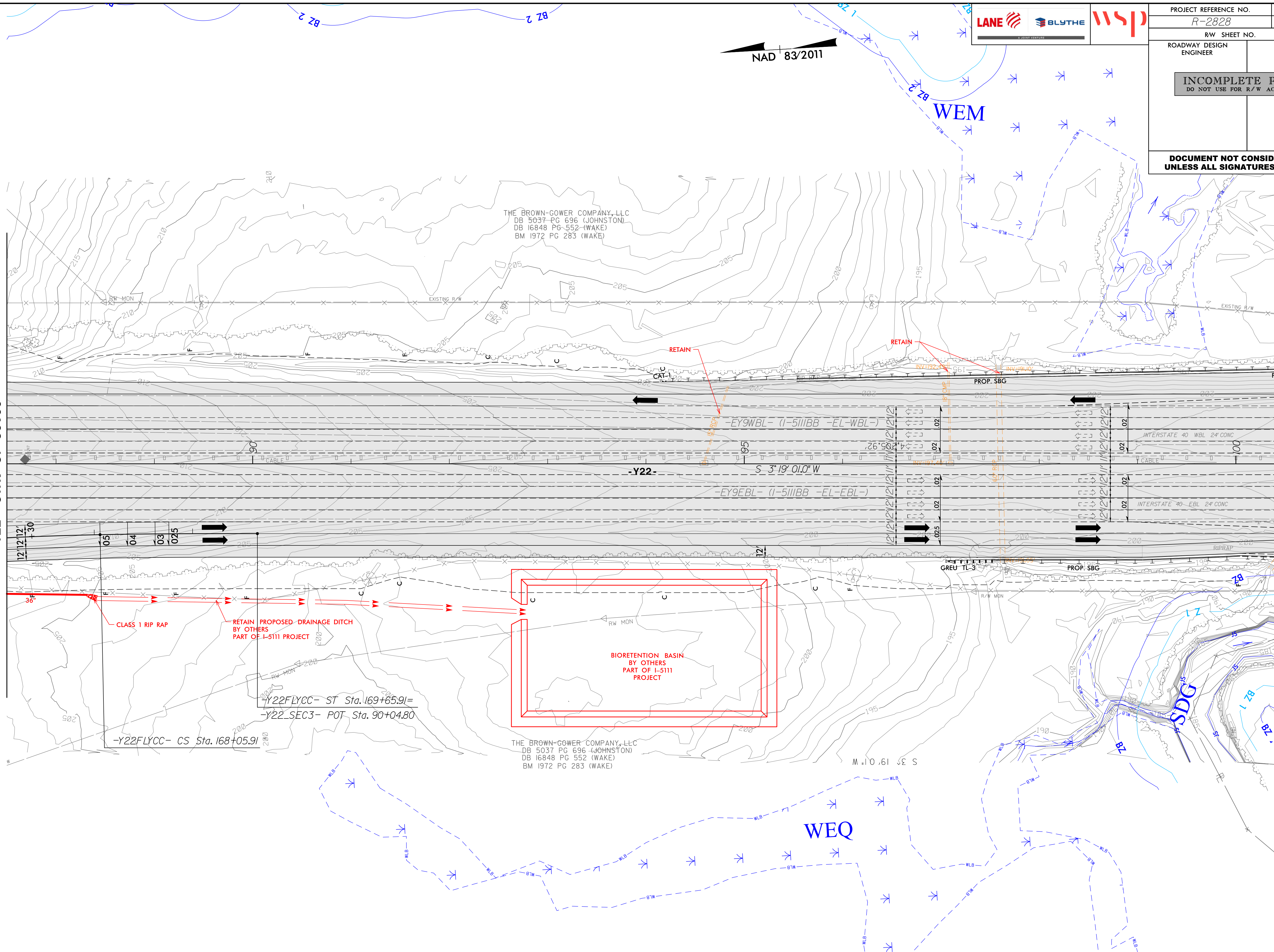
SEE SHEET 106 FOR -Y22FLYCC- PROFILE

4/24/2019  
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P:\P\WCS\W

REVISIONS

MATCH LINE SEE SHEET 57  
-Y22- STA. 87+50.00

MATCH LINE SEE SHEET 58A  
-Y22- STA. 100+50.00



PROJECT REFERENCE NO. R-2828	SHEET NO. 58
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>INCOMPLETE PLANS</b> DO NOT USE FOR R/W ACQUISITION	
<b>DOCUMENT NOT CONSIDERED FINAL</b> UNLESS ALL SIGNATURES COMPLETED	

NAD 83/2011

SEE SHEET 106 FOR -Y22FLYCC- PROFILE