

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	11C.014091	1	18
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

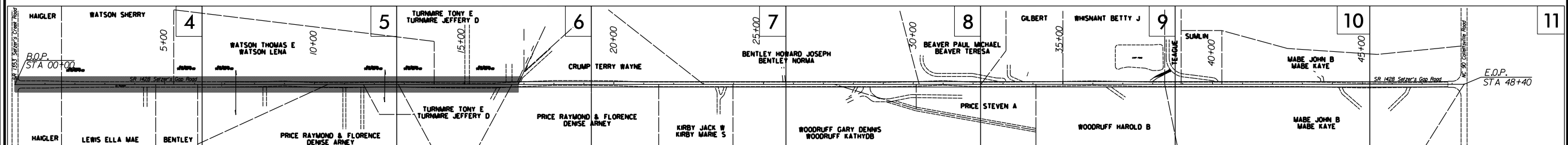
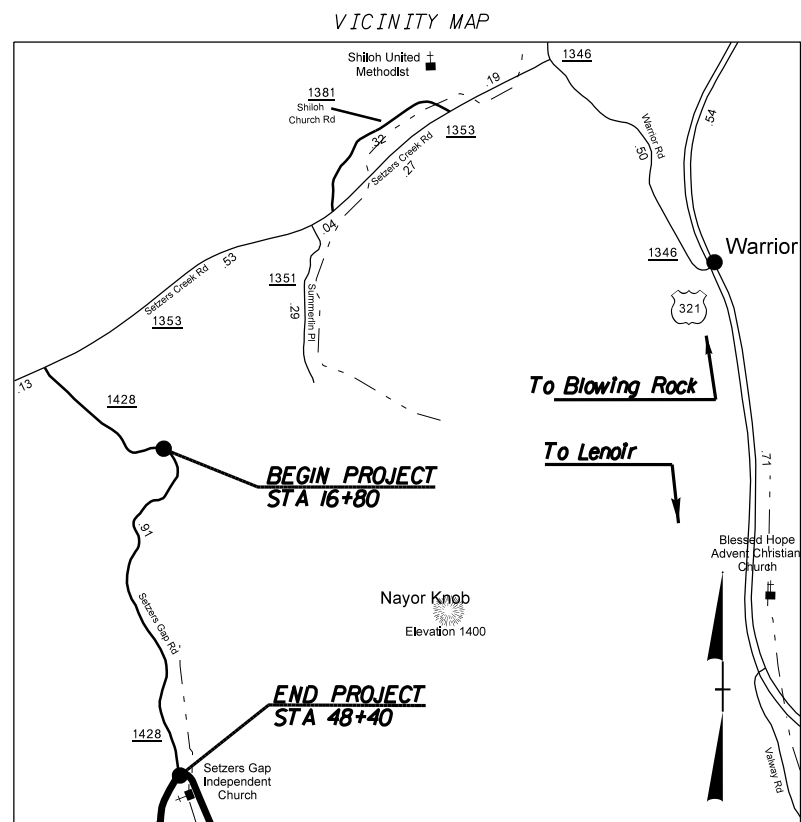
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CALDWELL COUNTY

**LOCATION: SR 1428B SETZER'S GAP ROAD
FROM SR 1353 TO NC 90
STA 16+80 TO E.O.P. STA 48+40**
**TYPE OF WORK: GRADING, DRAINAGE, BASE
AND PAVING - .60 MILES**

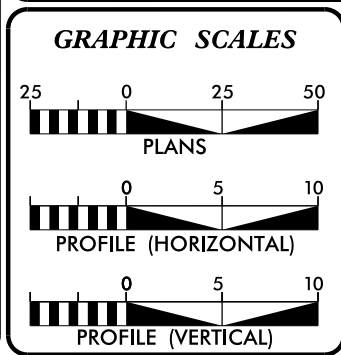
**BEGAN SURVEY: 03/12/13
END SURVEY: 03/20/13**

REVISED 07/14/16 GAPPED From STA 0+00 to STA 16+80



09/08/99
14-JUL-2017 11:36
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\$\$\$\$\$USERNAME\$\$\$\$\$

CONTRACT:



DESIGN DATA	
ADT	=
ADT	=
DHV	= %
D	= %
T	= % *
V	= MPH
* TTST	DUAL

PROJECT LENGTH	

Prepared in the Office of:
DIVISION OF HIGHWAYS
DIVISION 11, DISTRICT 2 BOONE
P.O. BOX 1460, BOONE, N.C. 28607

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: _____

LETTING DATE: _____

M.A. PETTYJOHN P.E.
DIVISION ENGINEER

D. ELLER
DISTRICT ENGINEER

DIVISION ENGINEER

SIGNATURE: _____ P.E.

DISTRICT ENGINEER

SIGNATURE: _____ P.E.

STATE HIGHWAY DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

ROADWAY DESIGN
ENGINEER

GENERAL NOTES

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-D	UTILITIES POLE DATA AND CENTER LINE SHIFT SHEET
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3-B	RIGHT OF WAY DATA SHEET
3-C	DRAINAGE SUMMARY SHEET (48" AND UNDER)
4 THRU 10	PLAN SHEET

*NOTE:
PROPERTY LINES ARE APPROXIMATE AND
PROJECTED FROM COUNTY TAX/GIS DATA.
ONLY CORNERS WITH STATION AND OFFSET
WERE LOCATED DURING SURVEY.*

7/2/09

ENTERED BY: GK DATE: 04/02/13
 CHECKED BY: DATE:
 DATE: REVISIONS

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. SHEET NO.
 11C.014091 1-C

NOTE: ALL CUTS 1.5:1 & ALL FILLS 2:1 UNLESS NOTED

SLOPE STAKE DATA SHEET

LEFT	STATION	RIGHT	LEFT	STATION	RIGHT	LEFT	STATION	RIGHT	LEFT	STATION	RIGHT
—	1+00	—	F0.0 15.0	34+00	C14.2 PD AND 25.1 WALL SECTION	—	69+00	—	—	103+00	—
—	2+00	—	F0.0 15.0	35+00	C42.2 PD SECTION 76.3	—	70+00	—	—	104+00	—
—	3+00	—	F0.0 15.0	35+50	C40.6 PD SECTION 66.0	—	71+00	—	—	105+00	—
—	4+00	—	F0.0 15.0	36+00	C34.1 PD SECTION 64.3	—	72+00	—	—	106+00	—
—	5+00	—	F0.0 15.0	37+00	C11.0 33.5	—	73+00	—	—	107+00	—
—	6+00	—	F2.5 19.0	38+00	C18.5 44.8	—	74+00	—	—	108+00	—
—	7+00	—	F9.8 46.6	39+00	C9.8 31.7	—	75+00	—	—	109+00	—
—	8+00	—	F15.0 60.0	40+00	C9.8 31.7	—	76+00	—	—	110+00	—
F0.0 17.0	9+00	C21.0 48.5	F10.7 36.4	41+00	C14.3 38.5	—	77+00	—	—	111+00	—
F19.5 54.0	10+00	C0.0 17.0	F0.0 16.0	42+00	C14.0 38.0	—	78+00	—	—	112+00	—
F13.2 41.4	11+00	C0.0 17.0 DRWY	F2.0 19.0	43+00	C10.0 32.0	—	79+00	—	—	113+00	—
F5.0 25.0	12+00	C1.0 18.5	C1.0 17.0	44+00	C0.0 17.0	—	80+00	—	—	114+00	—
F10.4 35.8	13+00	C9.8 31.7	F1.9 18.8	45+00	C0.0 17.0	—	81+00	—	—	115+00	—
F1.0 17.0	14+00	C1.0 18.5	F5.2 25.4	46+00	C0.0 17.0	—	82+00	—	—	116+00	—
C2.1 20.2	14+92	C0.0 20.0	F2.8 20.6	47+00	C0.0 17.0	—	83+00	—	—	117+00	—
F2.5 20.0	16+00	C3.8 22.7	F0.0 19.0	48+00	C0.0 17.0	—	84+00	—	—	118+00	—
C1.8 19.7	17+00	F10.6 36.2	—	E.O.P. 48+40	—	—	85+00	—	—	119+00	—
C0.0 17.0	18+00	F29.5 74.0	—	—	—	—	86+00	—	—	120+00	—
C0.0 17.0	19+00	F9.5 34.0	—	—	—	—	87+00	—	—	121+00	—
C0.0 17.0	20+00	F25.6 67.2	—	—	—	—	88+00	—	—	122+00	—
C18.6 44.9	21+00	F0.0 16.0	—	—	—	—	89+00	—	—	123+00	—
C8.0 29.0	22+00	F60.8 136.6	—	—	—	—	90+00	—	—	124+00	—
3' EXTRA WIDENING C10.0 35.0	23+00	F10.8 36.6	—	—	—	—	91+00	—	—	125+00	—
3' EXTRA WIDENING C11.3 37.0	23+50	C0.0 12.0 DRWY	—	—	—	—	92+00	—	—	126+00	—
3' EXTRA WIDENING C13.8 40.7	24+00	F8.8 32.6	—	—	—	—	93+00	—	—	127+00	—
C0.0 17.0	25+00	F2.2 19.4	—	—	—	—	94+00	—	—	128+00	—
C4.2 23.3	26+00	C3.3 22.0	—	—	—	—	95+00	—	—	129+00	—
F3.0 21.0	27+00	C4.9 24.4	—	—	—	—	96+00	—	—	130+00	—
F1.6 18.2	28+00	C1.1 18.7	—	—	—	—	97+00	—	—	131+00	—
F0.0 15.0	29+00	C7.8 PD SECTION 24.8	—	—	—	—	98+00	—	—	132+00	—
F0.0 15.0	30+00	C10.9 PD AND 25.9 WALL SECTION	—	—	—	—	99+00	—	—	133+00	—
F0.0 15.0	31+00	C11.9 PD AND 19.3 WALL SECTION	—	—	—	—	100+00	—	—	134+00	—
F0.0 15.0	32+00	C13.5 PD AND 19.3 WALL SECTION	—	—	—	—	101+00	—	—	135+00	—
F0.0 15.0	33+00	C13.2 PD AND 19.3 WALL SECTION	—	—	—	—	102+00	—	—	136+00	—

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12/05/05
 ENTERED BY: GK DATE: 4/01/13
 CHECKED BY: DATE:
 REVISIONS
 DATE:

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS
POLE DATA SHEET

PROJECT REFERENCE NO. SHEET NO.
 IIC.014091 1-D

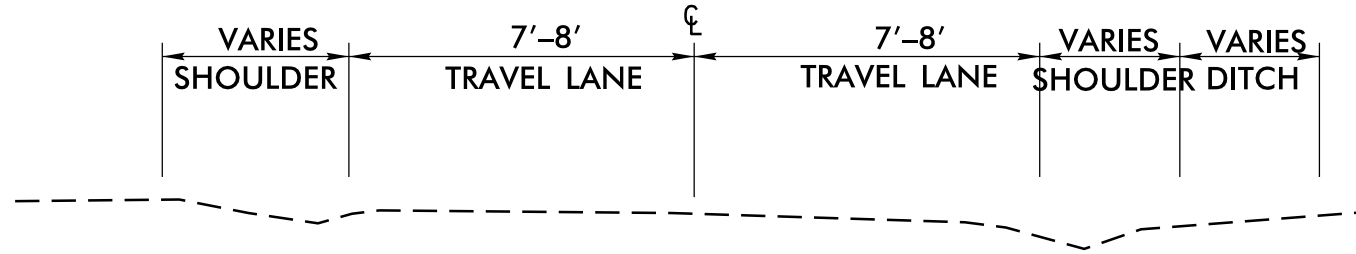
CENTERLINE
 SHIFT STA'S

OWNER OF THE POLE LINE: BLUE RIDGE ENERGY								OWNER OF THE POLE LINE: AT&T								STATION			STATION								
STATION	POLE NUMBER	DIST. FROM CENTER PRESENT ROAD		DIST. FROM CENTER PROJECT		DIST. FROM PROJECT AFTER MOVING		REMARKS	STATION	POLE NUMBER	DIST. FROM CENTER PRESENT ROAD		DIST. FROM CENTER PROJECT		DIST. FROM PROJECT AFTER MOVING		REMARKS	LEFT	RIGHT	LEFT	RIGHT						
		LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT				LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT											
3+93		18'		18'		18'		2PW	8+10		25'		22'		25'		PED	0	1+00	0	0	37+00	2'				
																		0	2+00	0	0	38+00	0				
																		0	3+00	0	0	39+00	0				
																		0	4+00	0	0	40+00	0				
15+60			17'		21'		25'	2PW,2GW,TRNS	15+35		16'		20'		25'		PED	0	5+00	0	0	41+00	0				
																		0	6+00	0	0	42+00	0				
34+90		13'		15'		25'		6PW,3GW,3TW,	16+98		15'		16'		25'		PED	0	7+00	0	0	43+00	0				
																		0	8+00	0	2'	44+00	0				
36+95		14'		16'		25'		2PW,2GW,	23+92		13'		13'		25'		PED	0	9+00	3'	4'	45+00					
																		2'	10+00	0	3'	46+00					
38+45			19'		19'		25'	2PW,	26+95		13'		13'		25'		PED-DAMAGED	3'	11+00	0	2'	47+00					
																		1'	12+00	0		48+00					
									35+89		12'		14'		25'		PED-2TW POLE	1'	13+00	0		EOP					
																		3'	14+00	0							
									36+95		14'		16'		25'		PED-2TW POLE	4'	15+00	0							
																		4'	16+00	0							
									40+30		13'		13'		25'		PED	0	17+00	1'							
									44+10		11'		9'		25'		PED	0	18+00	5'							
																		0	19+00	5'							
OWNER OF THE POLE LINE: CALDWELL COUNTY WATER DEPT								OWNER OF THE POLE LINE: CHARTER																			
47+88		15'		14'		25'		METER										0	20+00	4'							
																		0	21+00	0							
48+14		19'		20'		25'		VALVE	15+60		17'		21'		25'		1 CATV	0	22+00	0							
																		0	23+00	0							
48+15			19'		20'		25'	METER	34+90		13'		15'		25'		3 CATV	0	24+00	0							
																		0	25+00	0							
									36+95		14'		16'		25'		1 CATV	0	26+00	0							
																		0	27+00	0							
									38+45			19'	19'		25'		1 CATV	0	28+00	0							
																		1'	29+00	0							
																		0	30+00	1'							
																		0	31+00	5'							
																		0	32+00	0							
																		0	33+00	0							
																		0	34+00	1'							
																		0	35+00	2'							
																		0	36+00	4'							

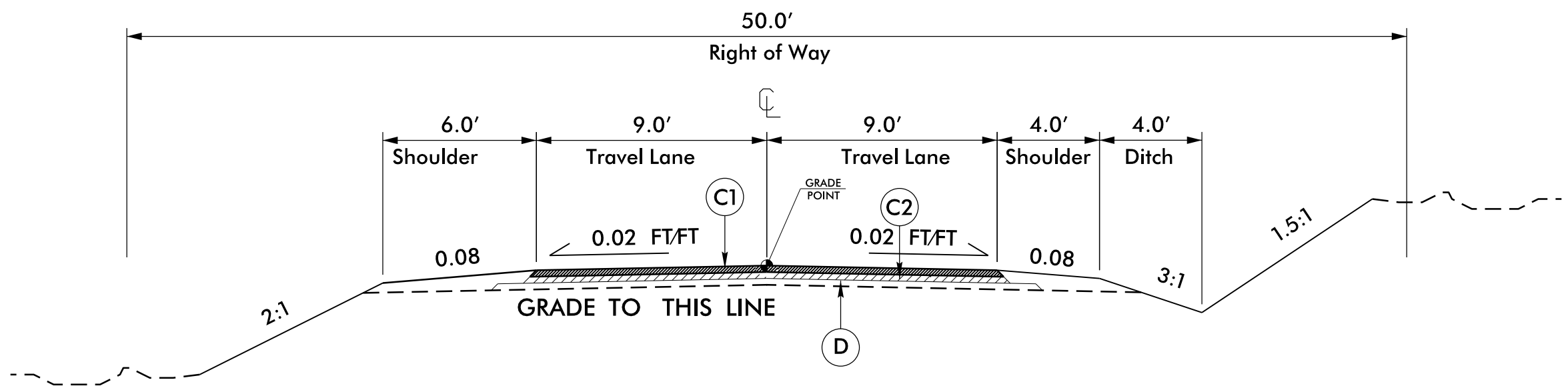
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6/2/99

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

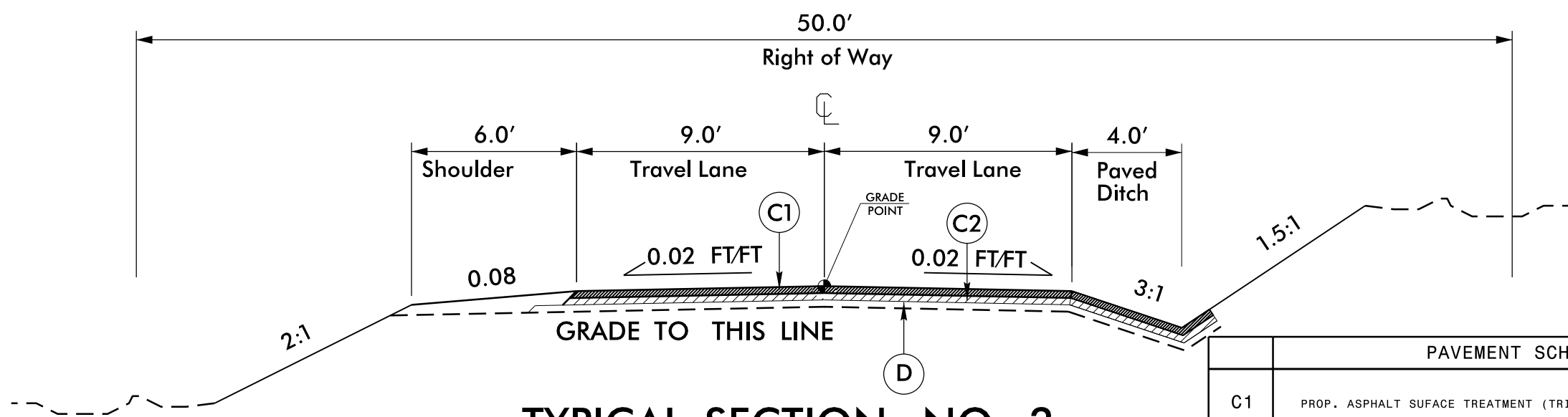


14'-16' EXISTING TYPICAL SECTION



TYPICAL SECTION NO. 1

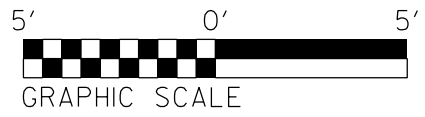
Sta. 16 + 80 to Sta. 28 + 60
 Sta. 36 + 45 to Sta. 48 + 40(E.O.P.)



TYPICAL SECTION NO. 2

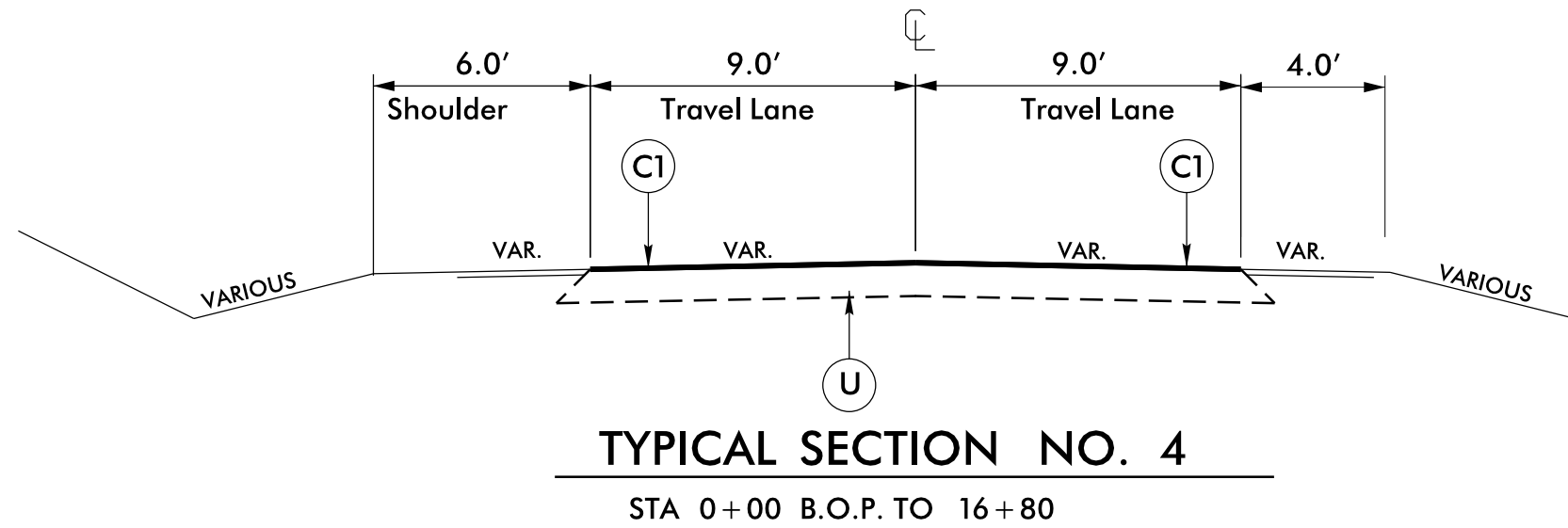
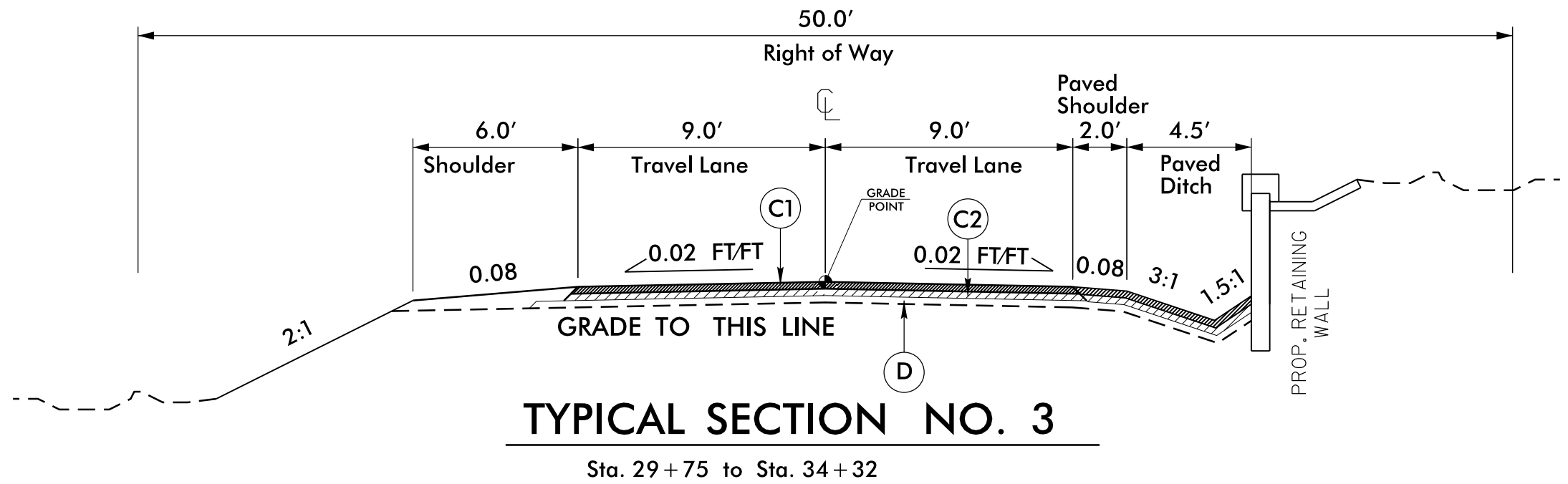
Sta. 28 + 60 to Sta. 29 + 75
 Sta. 34 + 32 to Sta. 36 + 45

PAVEMENT SCHEDULE	
C1	PROP. ASPHALT SUFACE TREATMENT (TRIPLE SEAL).
C2	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D	PROP. APPROX. 6" AGGREGATE BASE COURSE.

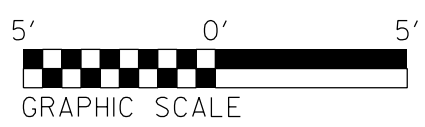


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PROJECT REFERENCE NO.	SHEET NO.
11C.014091	2A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



PAVEMENT SCHEDULE	
C1	PROP. ASPHALT SUFACE TREATMENT (TRIPLE SEAL).
C2	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
D	PROP. APPROX. 6" AGGREGATE BASE COURSE.
U	EXISTING PAVEMENT



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12/06/05

ENTERED BY: HR	DATE: 03/01/13
CHECKED BY:	DATE:
DATE:	REVISIONS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. IIC.014091	SHEET NO. 3-B
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RIGHT OF WAY DATA SHEET

PARCEL NO.	PROPERTY OWNERS NAME	ADDRESS	CITY	STATE	ZIP	DEED BOOK / PAGE	NCPIN	PARCEL NO.	PROPERTY OWNERS NAME	ADDRESS	CITY	STATE	ZIP	DEED BOOK / PAGE	NCPIN
	KATRINA HAIGLER	3667 HARTLAND RD	MORGANTON	NC	28655	905/504	2831465445								
	SHERRY WATSON	3023 WARRIOR RD	LENOIR	NC	28645	1648/743	2831469449								
	ELLA MAE LEWIS	3004 ELLA'S LN	LENOIR	NC	28645	680/1768	2831467305								
	ELLA MAE LEWIS	3004 ELLA'S LN	LENOIR	NC	28645	680/1768	2831467273								
	DONALD RAY BENTLEY	2791 SETZERS GAP RD	LENOIR	NC	28645	772/166	2831469114								
	THOMAS & LENA WATSON	P.O. BOX 3042	LENOIR	NC	28645	767/0021	2831564101								
	RAYMOND PRICE	2777 SETZERS GAP RD	LENOIR	NC	28645	1455/1895	2831552642								
	TONY & JEFFERY TURNMIRE	2762 SETZERS GAP RD	LENOIR	NC	28645	1604/1005	2831556872								
	TONY & JEFFERY TURNMIRE	3174 WARRIOR RD	LENOIR	NC	28645	1153/0068	2831559800								
	TERRY & PATRICIA CRUMP	2754 SETZERS GAP RD	LENOIR	NC	28645	1469/410	2831558427								
	HOWARD & NORMA BENTLEY	2328 SETZERS CREEK RD	LENOIR	NC	28645	593/0408	2831557008								
	MARIE KIRBY	2717 SETZERS GAP RD	LENOIR	NC	28645	654/0768	2831551253								
	HOWARD WOODRUFF	2233 ROBY MARTIN RD	LENOIR	NC	28645	1032/744	2831543604								
	GARY & KATHY WOODRUFF	2595 PINKNEY CRISP LN	LENOIR	NC	28645	763/0024	2831541658								
	PAUL & TERESA BEAVER	P.O. BOX 1433	LENOIR	NC	28645	1082/0261	2831545588								
	STEVEN ALEX PRICE	2697 SETZERS GAP RD	LENOIR	NC	28645	1905/215	2831543368								
	ROBERT & PAM GILBERT	PO BOX 285	PATTERSON	NC	28661	816/861	2831641810								
	HAROLD B WOODRUFF	P.O. BOX 522	PATTERSON	NC	28661	1377/902	2831530299								
	BETTY WHISNANT	2886 GOLD WAGON LANE	LENOIR	NC	28645	443/620	2831548196								
	DANARD TEAGUE	2885 GOLD WAGON LN	LENOIR	NC	28645	1112/1288	2831645484								
	JOHN & KAYE MABE	2615 SETZERS GAP RD	LENOIR	NC	28645	1649/1775	2831534562								
	TRACY GLENN SUMLIN	2350 LIBERTY CHURCH RD	HICKORY	NC	28601	718/661	2831538812								
	BETTY A WHISNANT	2012 WINDSWEPT PL	LENOIR	NC	28645	966/485	2831523851								

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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
11C 014091	3-C

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

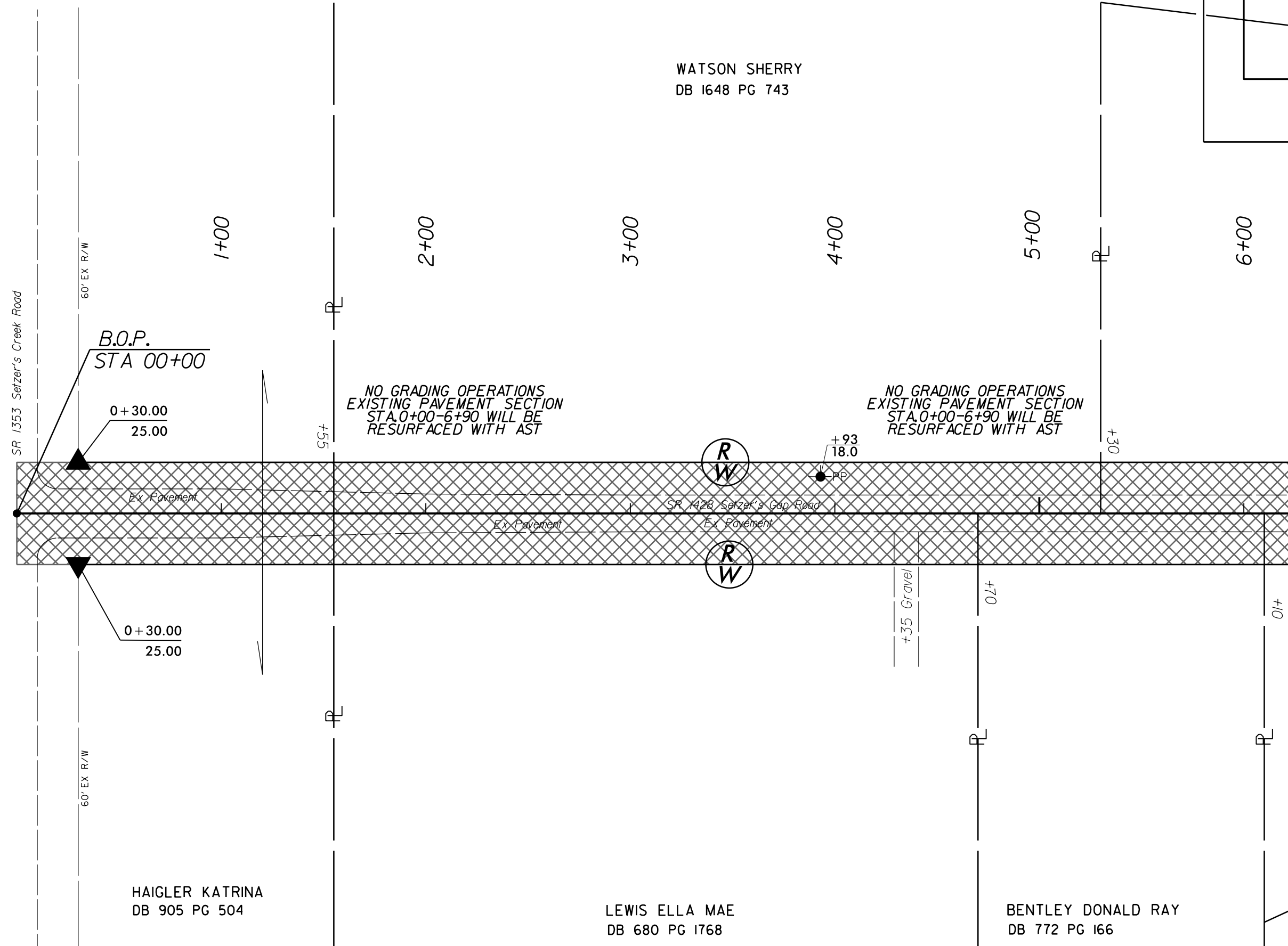
STATION	LOCATION (L, RT, OR CL)	NEW PIPES								EXISTING PIPES								PIPE REMOVAL D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	U.B. STD. 840.31 OR 840.32	REMARKS
		C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE)																			
		12"	15"	18"	24"	30"	36"	42"	48"	12"	15"	18"	24"	30"	36"	42"	48"				
08+12	CL											40						0'			
12+15	CL											30						0'			
17+17	CL			40								30						30			REPLACE
19+85	CL			50								40						40			REPLACE
22+40	CL			50								35						35			REPLACE
25+60	CL			50								30						30			REPLACE
28+33	RT		60																		ADD DRIVE PIPE
29+20	CL			40																	ADD PIPE
30+55	CL											30						30			REMOVE PIPE
32+25	LT											20									DO NOT DISTURB
33+80	CL			40								40						40			REPLACE
34+25	RT																		1	2	TOP OF WALL
35+30	CL			40								30						30			REPLACE
36+40	RT		35									30						30			REPLACE DRIVE PIPE
38+60	CL			40																	ADD PIPE
39+55	CL											25						25			REMOVE PIPE
43+05	CL			40								30						30			REPLACE
44+22	RT		35									35						35			REPLACE DRIVE PIPE
46+60	RT		40									40						40			REPLACE DRIVE PIPE
48+05	CL											35						0'			DO NOT DISTURB
SHEET TOTALS		0	170	390	0	0	0	0	0	560	0	105	310	0	0	0	0	395	1	2	

8/17/99

REVISIONS

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\$\$\$\$\$USE ENVELOPE\$\$\$\$\$

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



WATSON SHERRY
DB 1648 PG 743

HAIGLER KATRINA
DB 905 PG 504

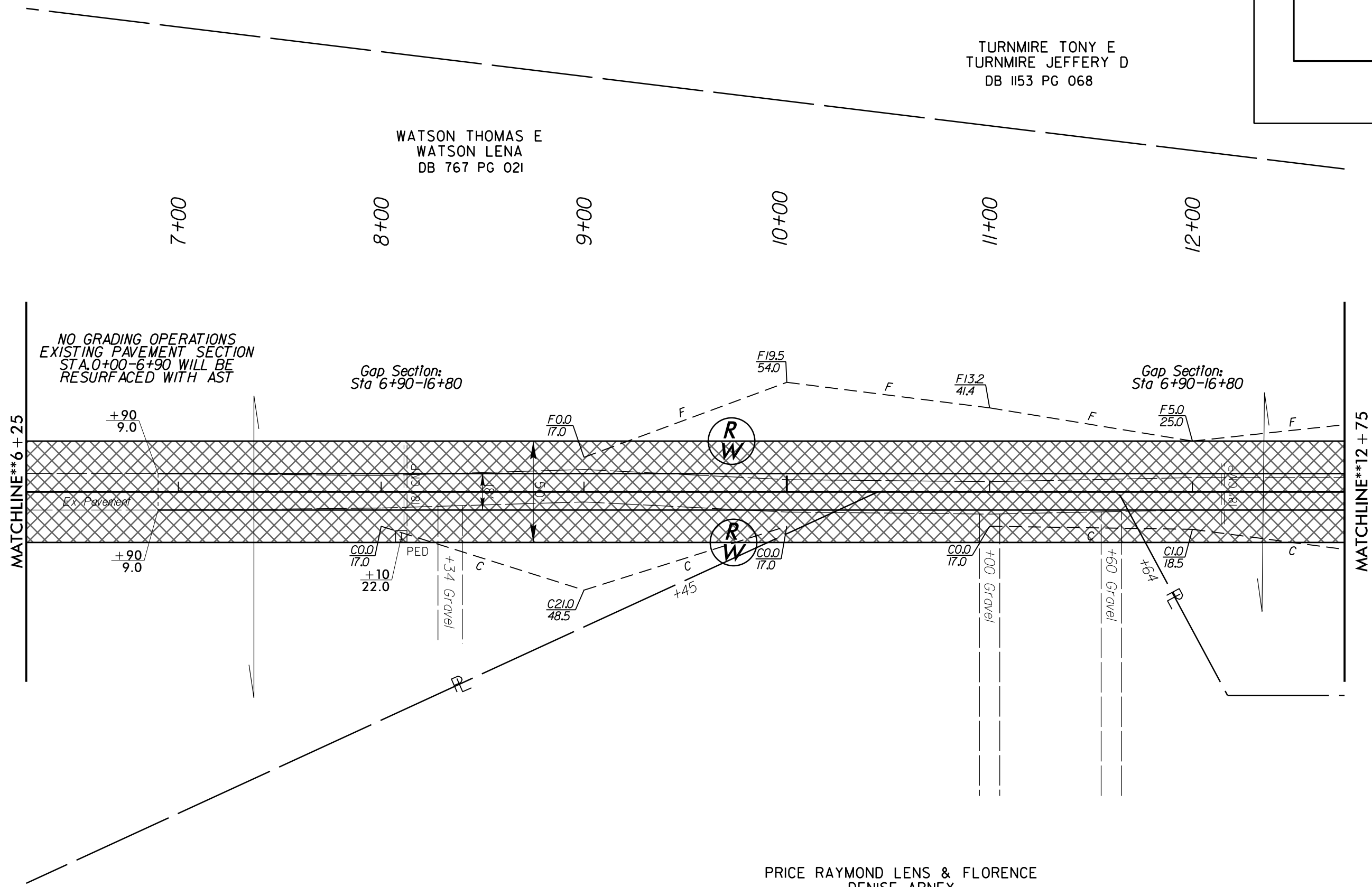
LEWIS ELLA MAE
DB 680 PG 1768

BENTLEY DONALD RAY
DB 772 PG 166

MATCHLINE**6+25

8/17/99
 REVISIONS
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 *****USE ENVELOPE*****

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

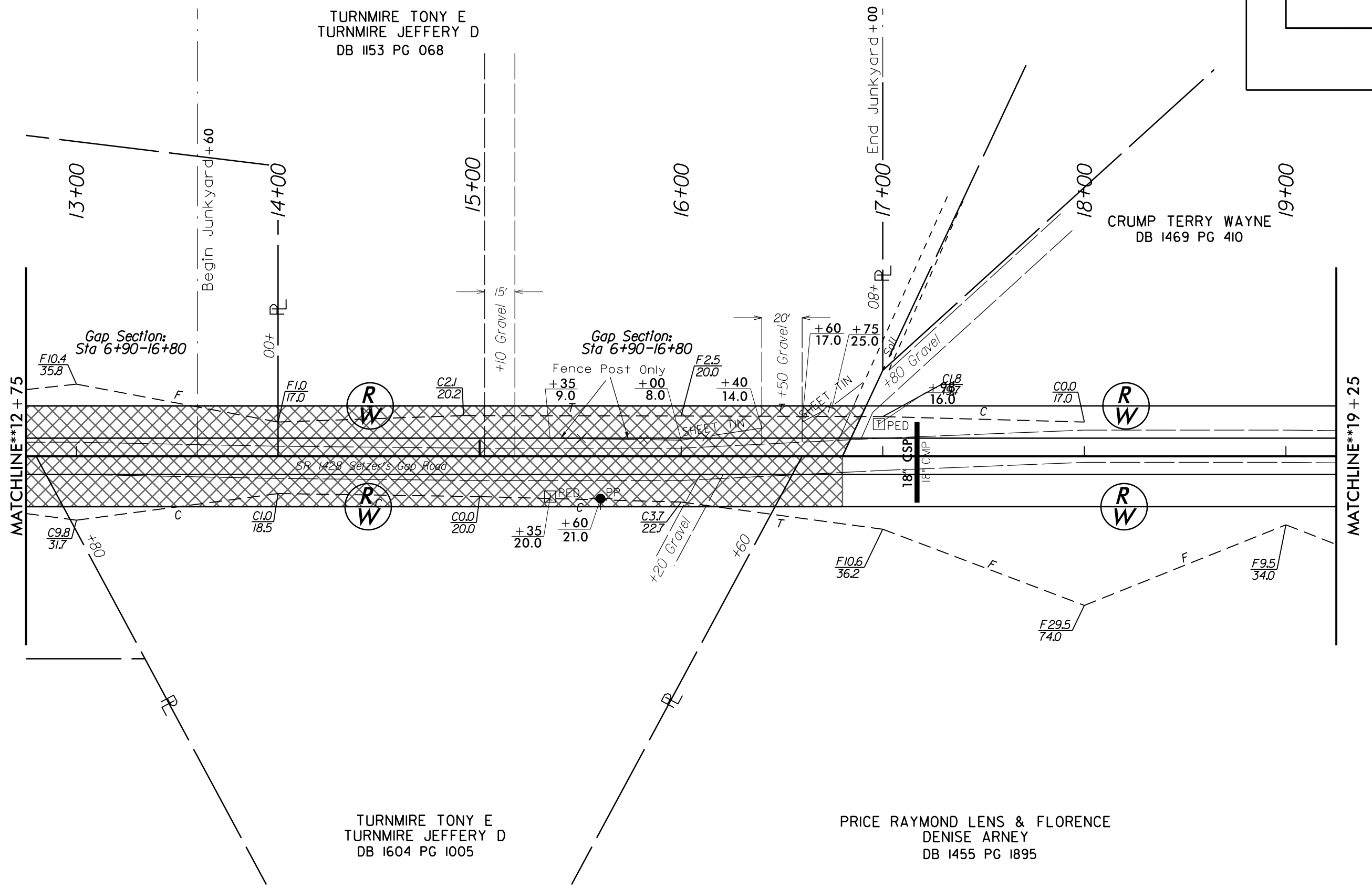


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REVISIONS

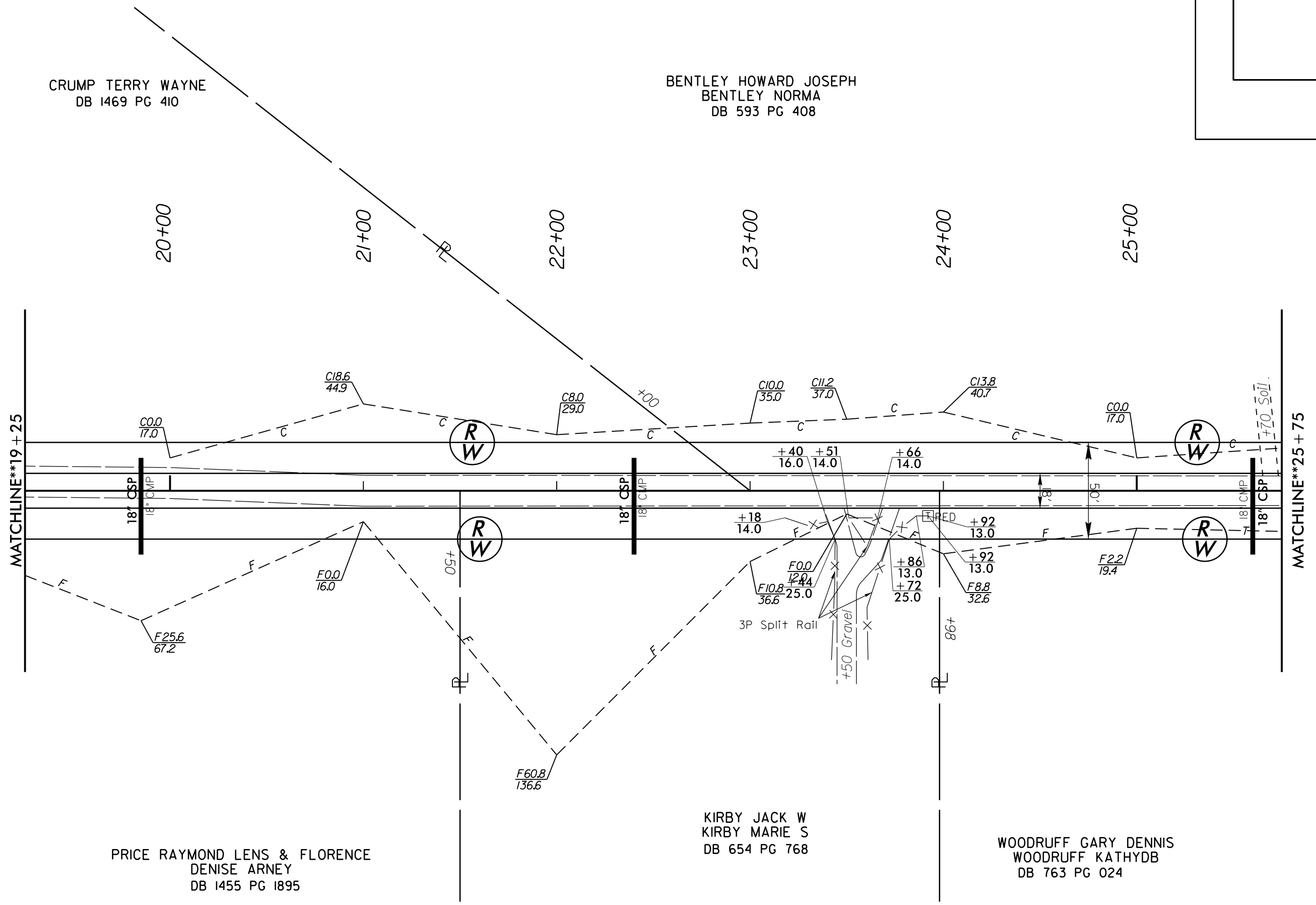
PROJECT REFERENCE NO.	SHEET NO.
11C.014091	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCHLINE**19 + 25

8/17/99
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 \$\$\$USE ENVELOPE \$\$\$

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

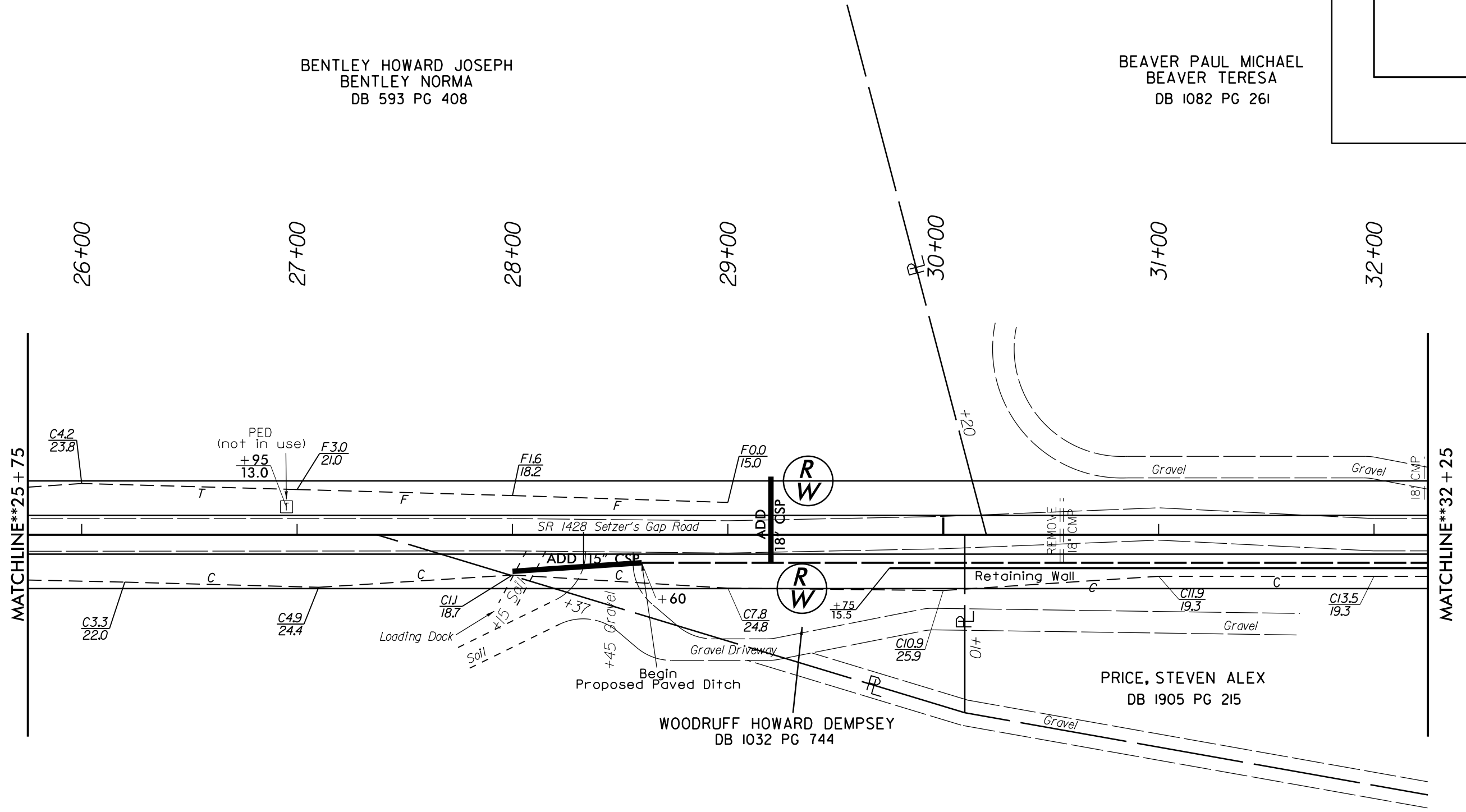


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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BENTLEY HOWARD JOSEPH
BENTLEY NORMA
DB 593 PG 408

BEAVER PAUL MICHAEL
BEAVER TERESA
DB 1082 PG 261

WOODRUFF HOWARD DEMPSEY
DB 1032 PG 744

WOODRUFF GARY DENNIS
WOODRUFF KATHYDB
DB 763 PG 024

PRICE, STEVEN ALEX
DB 1905 PG 215

MATCHLINE**25 + 75

MATCHLINE**32 + 25

SR 1428 Setzer's Gap Road

Loading Dock

Begin Proposed Paved Ditch

Gravel Driveway

Retaining Wall

Gravel

Gravel

Gravel

Gravel

R
W

R
W

18' CMP

REMOVE
18' CMP

0/+

+20

ADD 15" CSP

ADD
18" CSP

C4.2
23.8

PED
(not in use)
+95
13.0

F3.0
21.0

F1.6
18.2

F0.0
15.0

C3.3
22.0

C4.9
24.4

C11.7
18.7

C7.8
24.8

+75
15.5

C10.9
25.9

C11.9
19.3

C13.5
19.3

+37

+60

Soil

+45 Gravel

+15 Soil

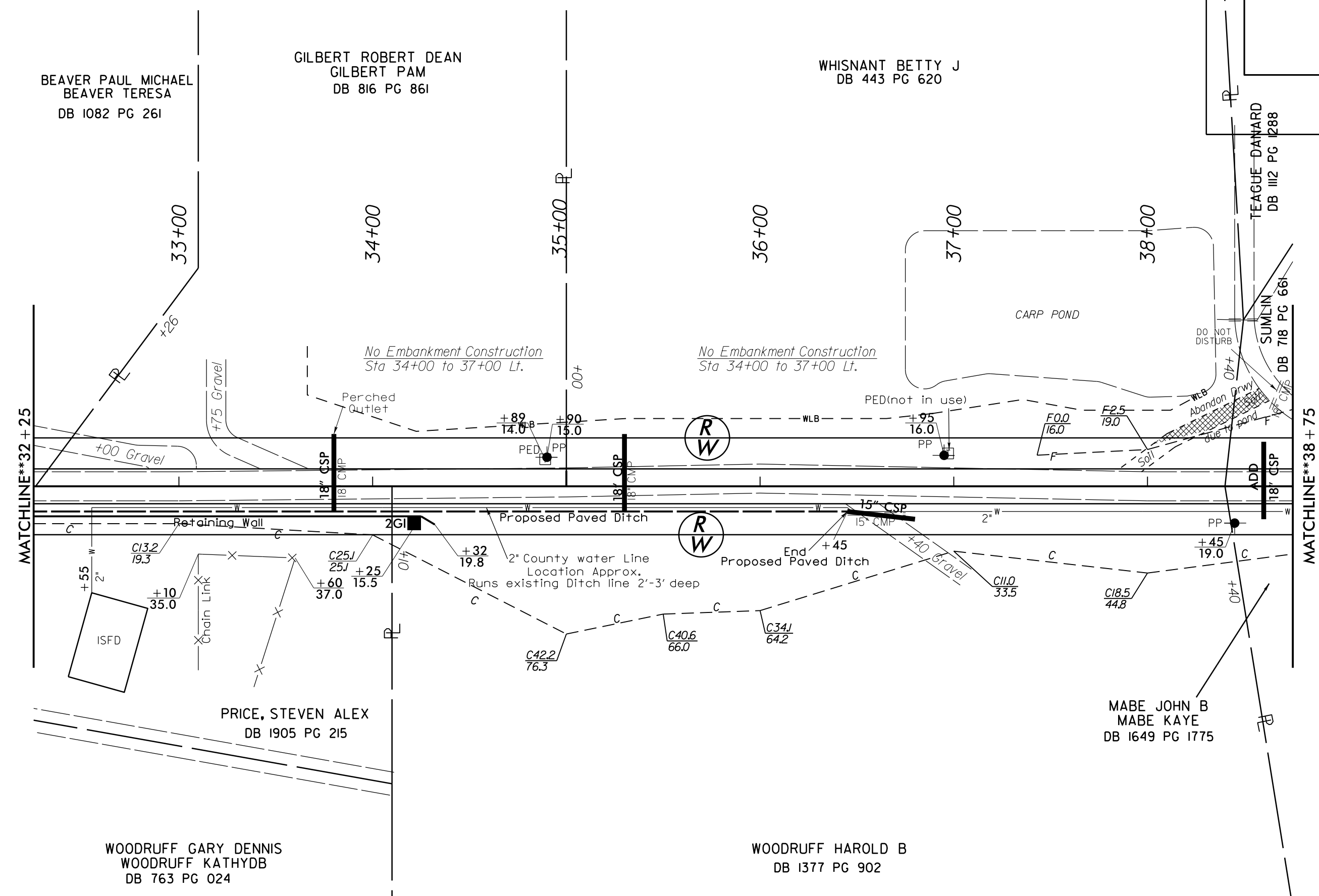
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REVISIONS

REVISED 04/18/16 : SUMLIN PROPERTY LINES

PROJECT REFERENCE NO.	SHEET NO.
11C.014091	9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BEAVER PAUL MICHAEL
BEAVER TERESA
DB 1082 PG 261

GILBERT ROBERT DEAN
GILBERT PAM
DB 816 PG 861

WHISNANT BETTY J
DB 443 PG 620

TEAGUE DARNARD
DB 1112 PG 1288

SUMLIN
DB 718 PG 661

PRICE, STEVEN ALEX
DB 1905 PG 215

WOODRUFF GARY DENNIS
WOODRUFF KATHYDB
DB 763 PG 024

WOODRUFF HAROLD B
DB 1377 PG 902

MABE JOHN B
MABE KAYE
DB 1649 PG 1775

MATCHLINE**32+25

MATCHLINE**38+75

R
W

R
W

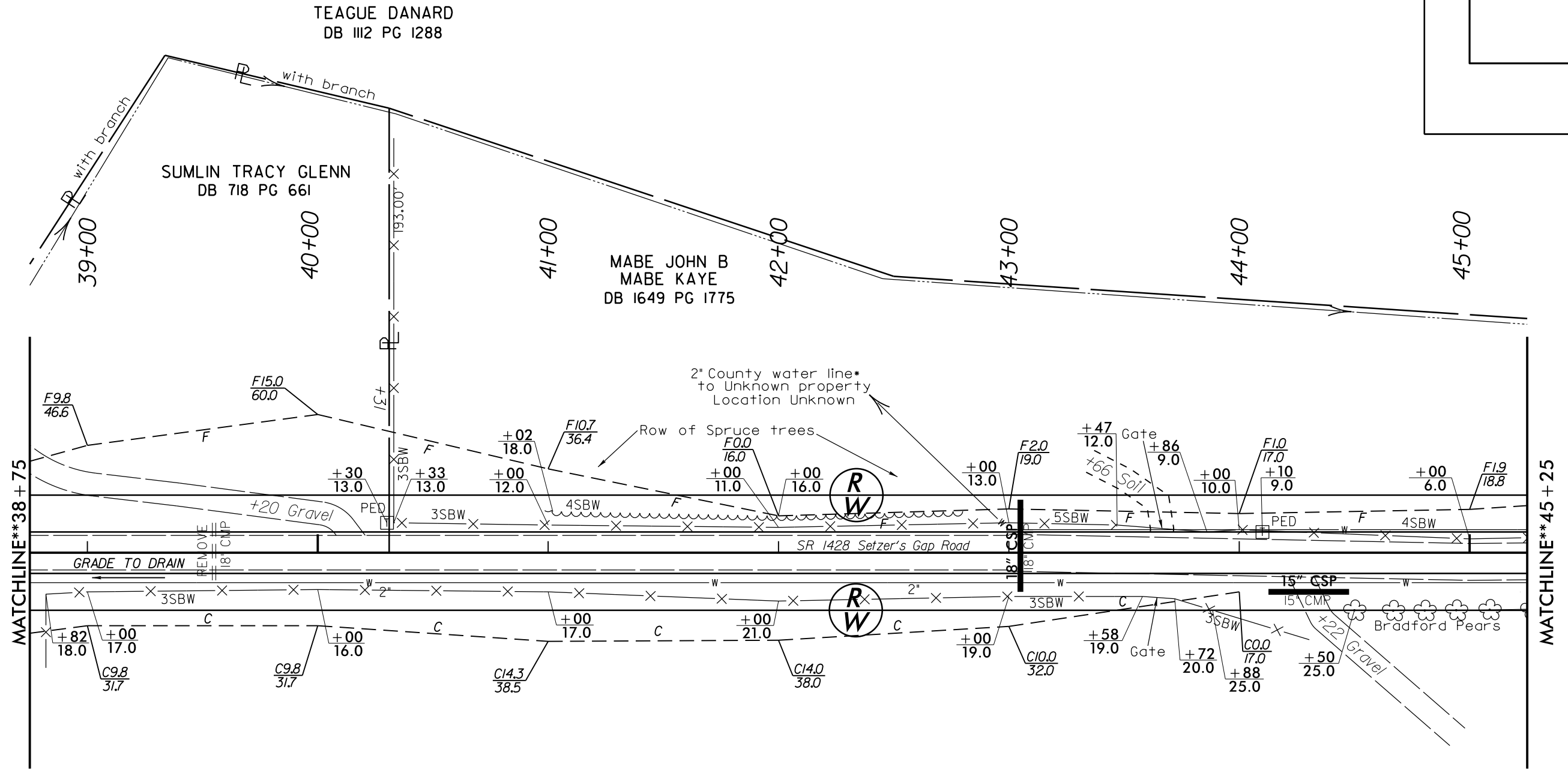
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REVISIONS

REVISED 04/18/16 : SUMLIN PROPERTY LINES

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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

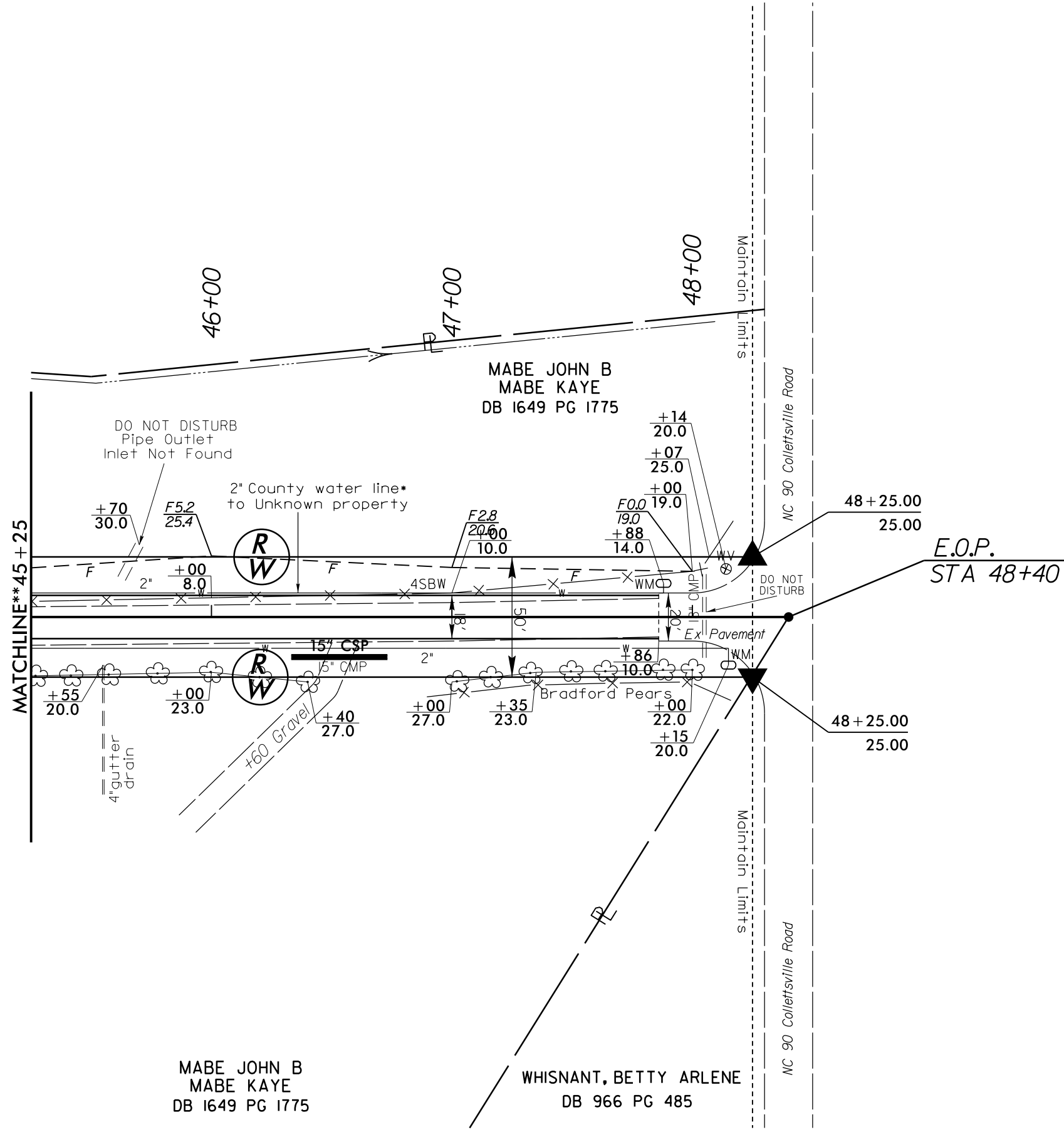


MABE JOHN B
MABE KAYE
DB 1649 PG 1775

14-JUL-2017 11:37
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 8/17/99

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
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ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



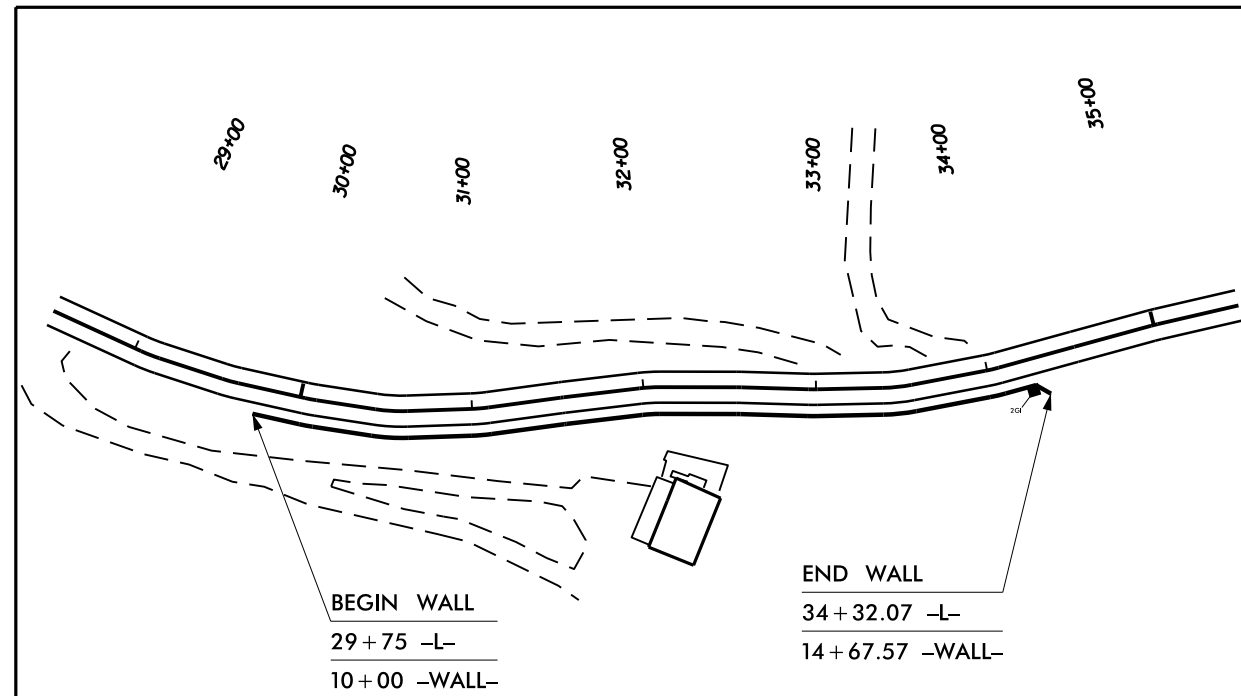
E.O.P.
 STA 48+40

GEOTECHNICAL
ENGINEER

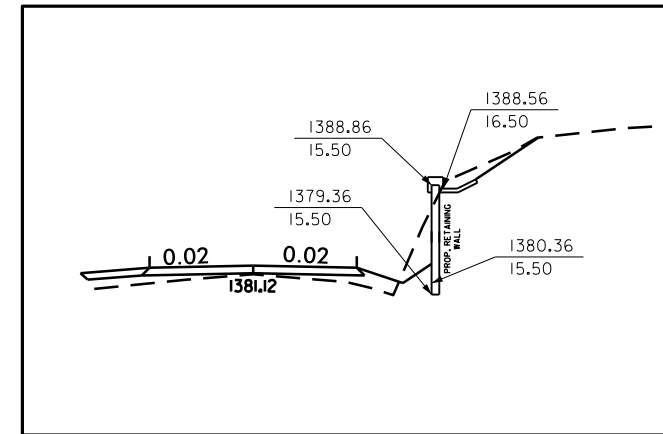
ENGINEER

SIGNATURE DATE

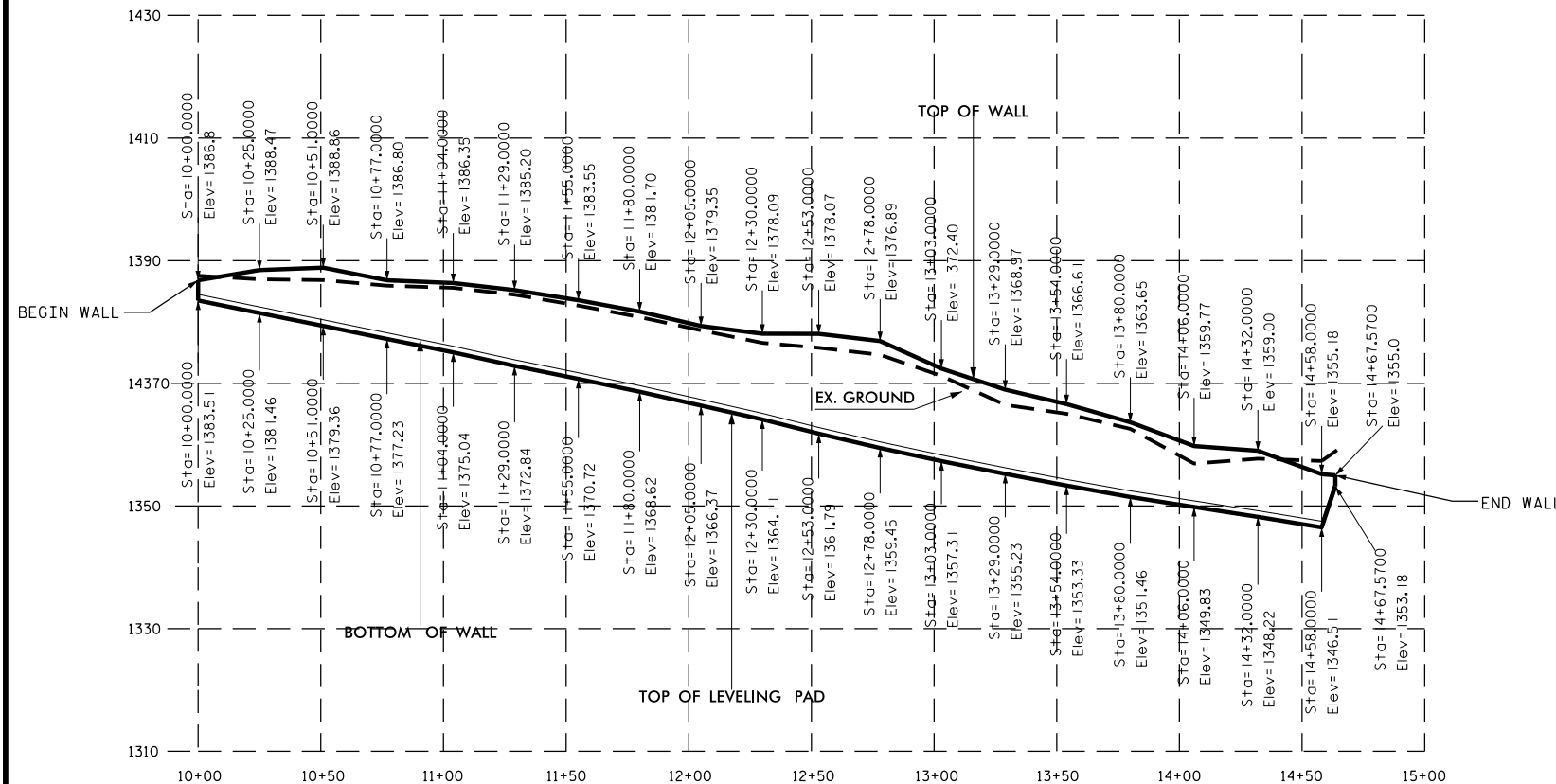
SIGNATURE DATE



WALL PLAN VIEW



CROSS SECTION @ 30+25
RETAINING WALL



WALL ENVELOPE

FRONT SLOPE WALL EMBEDMENT

SLOPE IN FRONT OF STRUCTURES		MINIMUM EMBEDMENT DEPTH
HORIZONTAL	FOR WALLS	H/20
	FOR ABUTMENTS	H/10
3.0H:1.0V	WALLS	H/10
2.5H:1.0V	WALLS	H/8.5
2.0H:1.0V	WALLS	H/7
1.5H:1.0V	WALLS	H/5
1.25H:1.0V	WALLS	H/4
1.0H:1.0V	WALLS	H/3

NOTE:
 1) MAINTAIN A MINIMUM BENCH WIDTH OF 4.0 IN FRONT OF THE WALL FOR ITS ENTIRE LENGTH.
 2) MINIMUM EMBEDMENT DEPTH OF 2 FT, UNLESS LARGER DEPTHS DICTATED BY THE ABOVE TABLE.
 3) MAXIMUM SLOPE OF 1H:1V WILL BE MAINTAINED ON FRONT SLOPES FOR THE ENTIRE LENGTH OF THE WALL.
 4) SUBMIT WITH THE WALL DESIGN INTERNAL, EXTERNAL, AND GLOBAL STABILITY ANALYSES.

ESTIMATED WALL QUANTITIES	
RETAINING WALL	* 5,563.0 SQUARE FEET

* WALL AREA IS MEASURED USING THE DESIGN HEIGHT "H"

PROJECT NO.: SR1428 SETZERS GAP RD
CALDWELL COUNTY

STATION: 29+75 -L-

SHEET 1 OF 3

SOIL NAIL
RETAINING WALL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO.

W-1

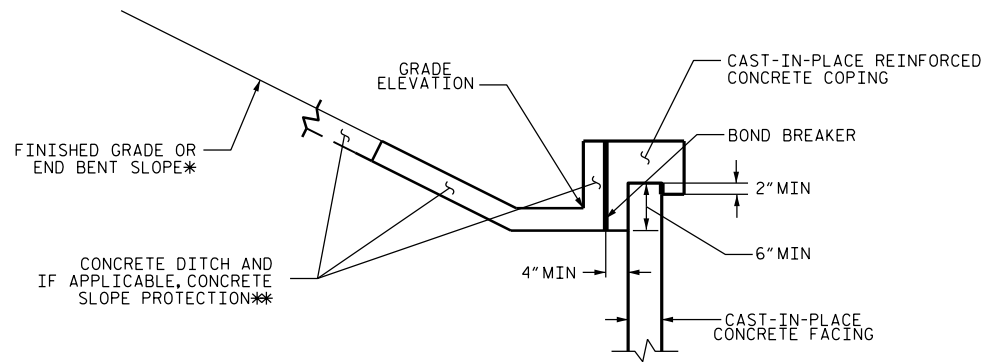
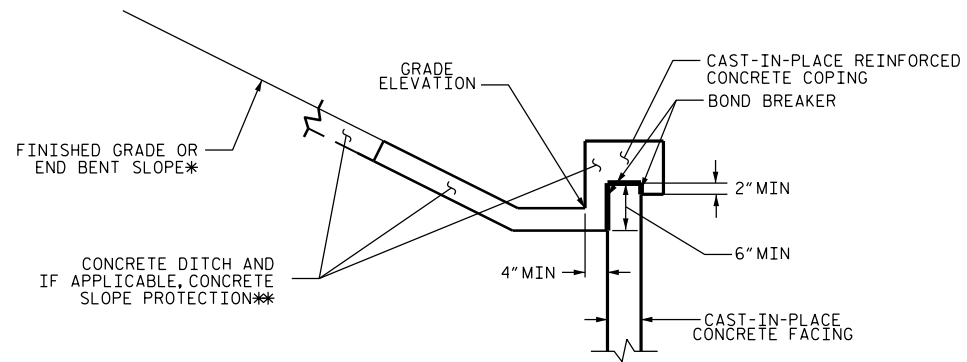
PREPARED BY: JC DATE: 7-10-17
 REVIEWED BY: DATE:



NORTH CAROLINA
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DIVISION OF HIGHWAYS

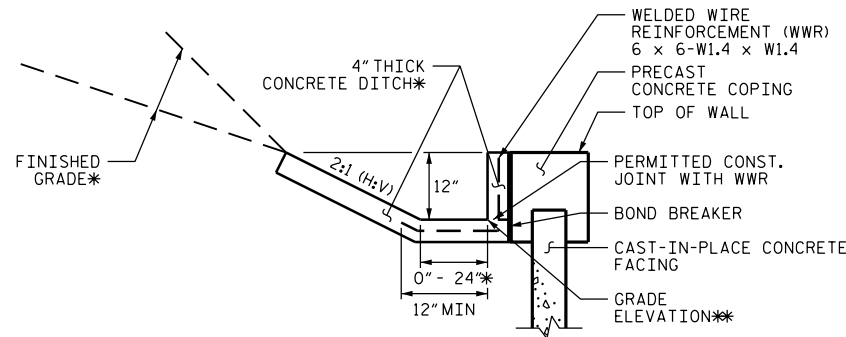
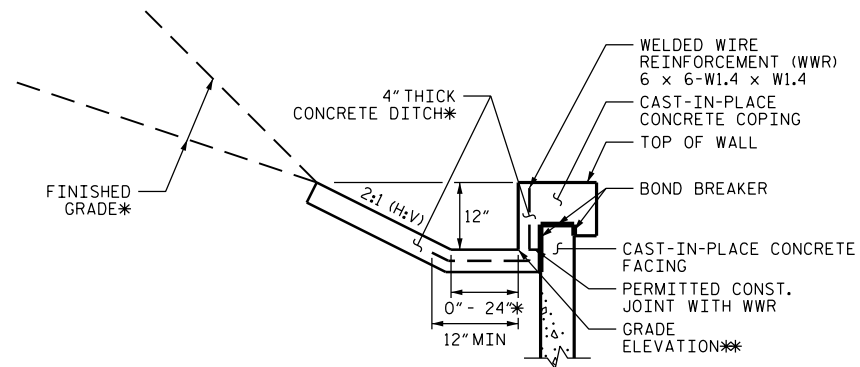
GEOTECHNICAL
ENGINEERING UNIT

GEOTECHNICAL ENGINEER	ENGINEER
SIGNATURE _____ DATE _____	SIGNATURE _____ DATE _____



COPING DETAILS

*SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.
**SEE CONCRETE DITCH BEHIND WALL DETAILS.



CONCRETE DITCH BEHIND WALL WITH CONCRETE COPING

*SEE ROADWAY PLANS FOR CONCRETE DITCH AND FINISHED GRADE DETAILS.
**SEE WALL ENVELOPE FOR GRADE ELEVATIONS.

FOR CONCRETE DITCHES, SEE SECTION 850 OF THE STANDARD SPECIFICATIONS.

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CALDWELL COUNTY

STATION: 29+75 -L-

SHEET 2 OF 3



NORTH CAROLINA
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DIVISION OF HIGHWAYS

**GEOTECHNICAL
ENGINEERING UNIT**

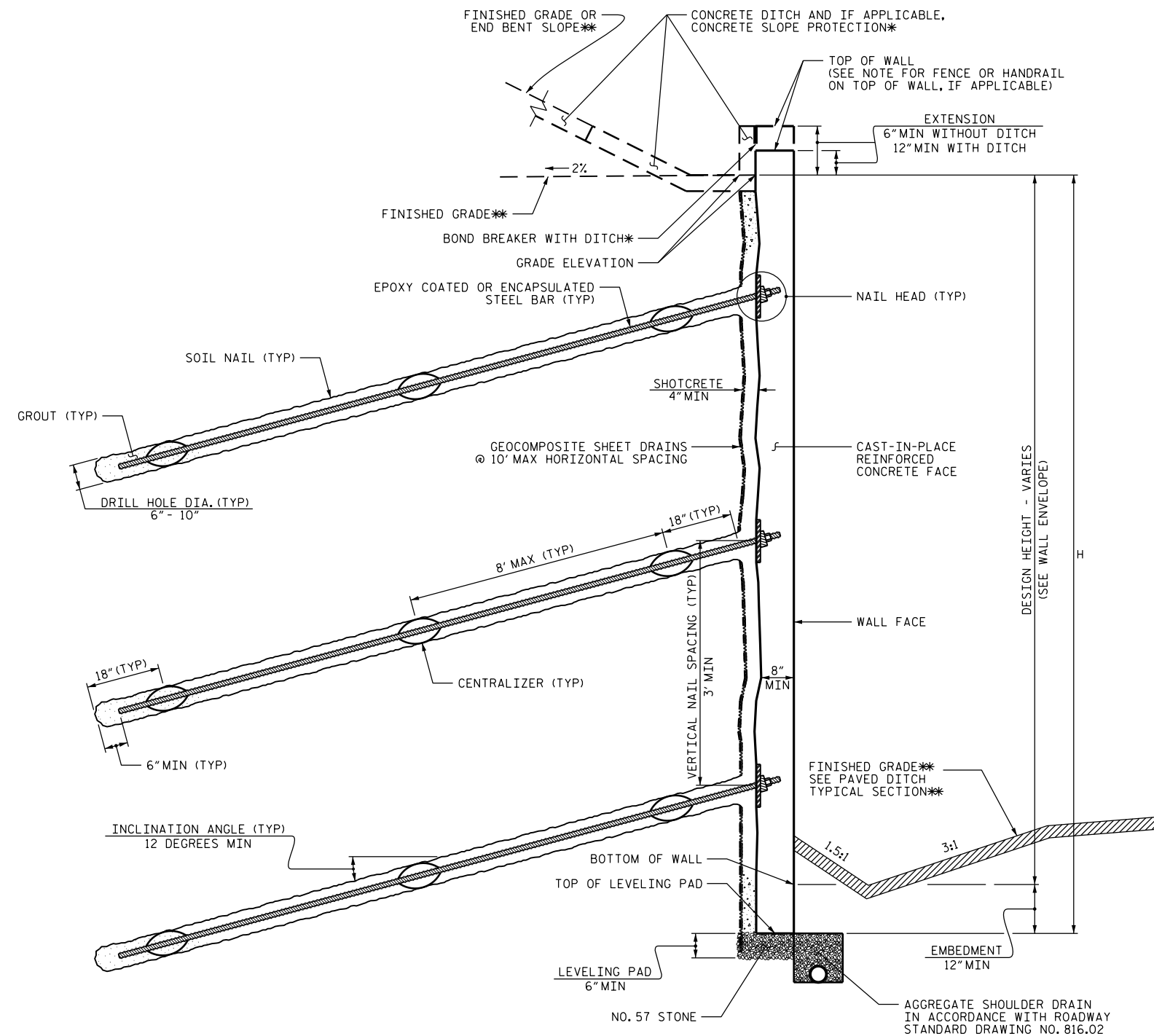
SOIL NAIL
RETAINING WALL

REVISIONS

NO.	BY	DATE	NO.	BY	DATE	SHEET NO.
1			3			W-2
2			4			

PREPARED BY: JC	DATE: 7-10-17
REVIEWED BY:	DATE:

GEOTECHNICAL ENGINEER		ENGINEER	



NOTES:


- FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.
- FOR SINGLE FACED PRECAST CONCRETE BARRIER, SEE ROADWAY PLANS AND SECTION 857 OF THE STANDARD SPECIFICATIONS.
- A FENCE OR HANDRAIL IS REQUIRED ON TOP OF RETAINING WALL. SEE ROADWAY PLANS FOR FENCE OR HANDRAIL ATTACHMENT DETAILS.
- AN ASHLAR ARCHITECTURAL FINISH IS REQUIRED FOR THE CAST-IN-PLACE REINFORCED CONCRETE FACE FOR RETAINING WALL.
- A CONCRETE COPING IS REQUIRED FOR RETAINING WALL, SEE DETAILS. END SECTIONS OF THE COPING SHALL BE CAST-IN-PLACE.
- BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.
- DESIGN RETAINING WALL FOR THE FOLLOWING:
 - 1) H = DESIGN HEIGHT + EMBEDMENT
 - 2) DESIGN LIFE = 75 YEARS
 - 3) MINIMUM EMBEDMENT ELEVATION = 1 FT OR AS INDICATED ON THE FRONT SLOPE EMBEDMENT TABLE
 - 4) IN-SITU ASSUMED MATERIAL PARAMETERS:
 - UNIT WEIGHT, $\gamma = 120$ LB/CF
 - FRICTION ANGLE, $\phi = 30$ DEGREES
 - COHESION, $c = 0$ LB/SF
- DESIGN RETAINING WALL FOR A PIPE EXTENDING THROUGH THE WALL AS SHOWN. VERIFY PIPE LOCATION AND ELEVATION BEFORE BEGINNING SOIL NAIL WALL DESIGN OR CONSTRUCTION.
- EXISTING OR FUTURE OBSTRUCTIONS SUCH AS FOUNDATIONS, GUARDRAIL, FENCE OR HANDRAIL POSTS, PAVEMENTS, PIPES, INLETS OR UTILITIES MAY INTERFERE WITH SOIL NAILS FOR RETAINING WALL.

SOIL NAIL WALL - TYPICAL SECTION

*SEE CONCRETE DITCH BEHIND WALL DETAILS.
 **SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.

PROJECT NO.: SR1428 SETZERS GAP RD
 CALDWELL COUNTY
 STATION: 29+75 -L-
 SHEET 3 OF 3

PREPARED BY: JC	DATE: 7-10-17
REVIEWED BY:	DATE:



NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GEOTECHNICAL
ENGINEERING UNIT

SOIL NAIL RETAINING WALL					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

SHEET NO. W-3