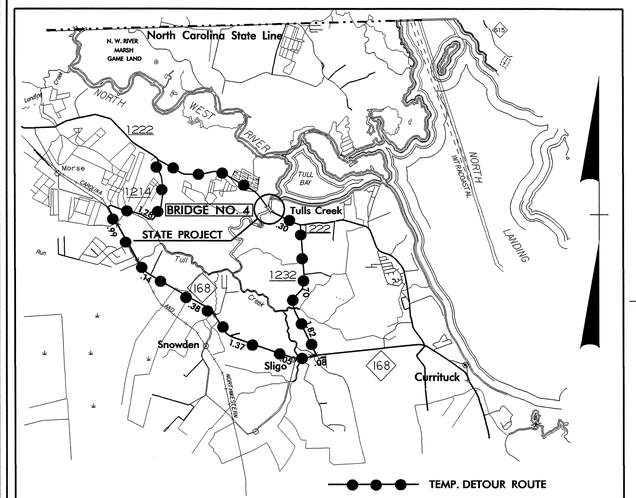
T.I.P. NO.	SHEET NO.
B-2950	UC-1

TIP PROJECT: B-2950

WBS: 32773.1.1



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
CURRITUCK COUNTY

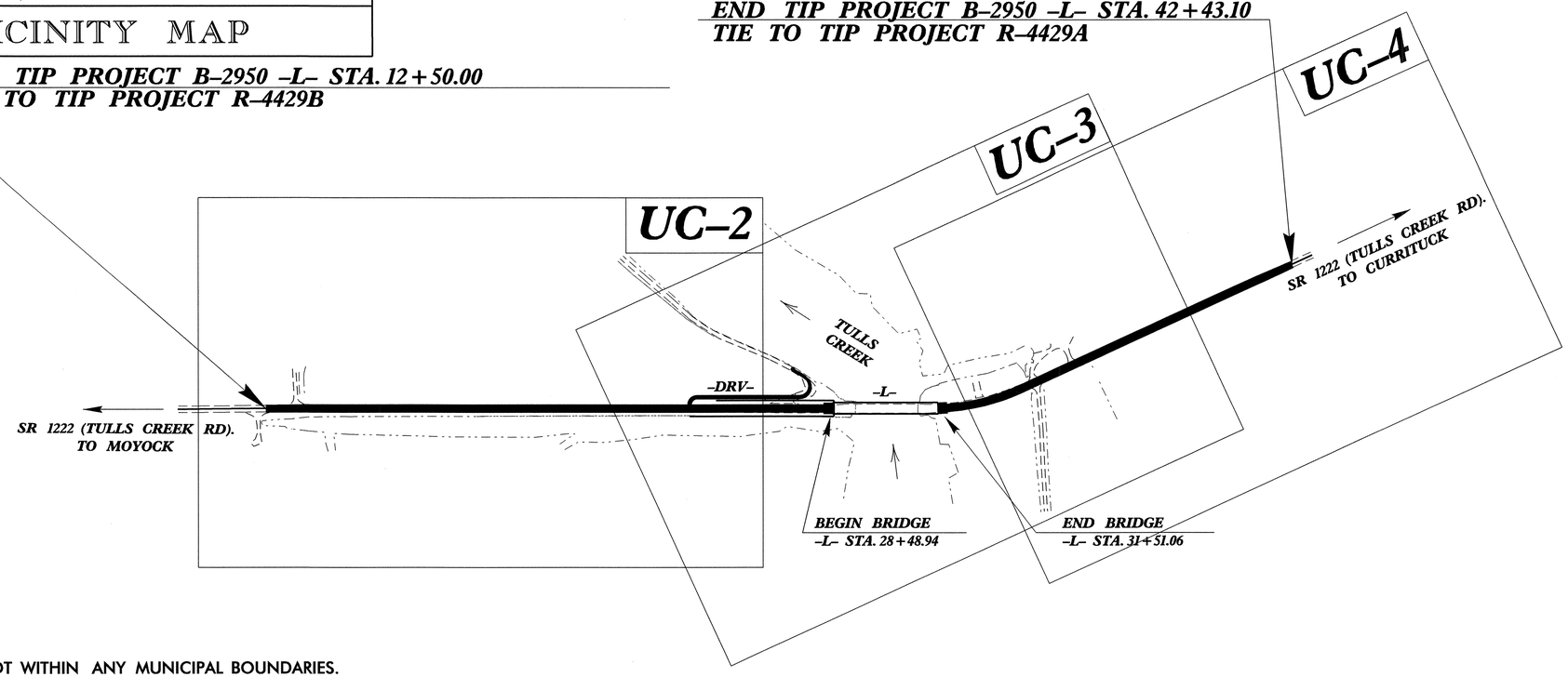
LOCATION: BRIDGE 4 OVER TULLS CREEK ON SR 1222

TYPE OF WORK: RELOCATE WATER MAIN

NAD 83

END TIP PROJECT B-2950 -L- STA. 42+43.10
TIE TO TIP PROJECT R-4429A

BEG TIP PROJECT B-2950 -L- STA. 12+50.00
TIE TO TIP PROJECT R-4429B



1. THIS PROJECT IS NOT WITHIN ANY MUNICIPAL BOUNDARIES.
2. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY _____.

★ DESIGN EXCEPTIONS REQUIRED FOR MIN. HORIZONTAL CURVE RADIUS (610').

GRAPHIC SCALES

50 25 0 50 100 — PLANS

50 25 0 50 100 — PROFILE (HORIZONTAL)

10 5 0 20 — PROFILE (VERTICAL)

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2 THRU UC-4	UTILITY CONSTRUCTION PLAN SHEETS
UC-5 THRU UC-6	PROFILE SHEET
UC-7	DETAIL SHEET

WATER AND SEWER OWNERS ON PROJECT

(1) WATER: CURRITUCK COUNTY WATER
(2) SANITARY SEWER - N/A

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/12/08 ENGINEER CARL A. BARCLAY

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

Roger Worthington, P.E. — UTILITIES SECTION ENGINEER
Carl Barclay, P.E. — UTILITIES SQUAD LEADER PROJECT ENGINEER
Ali Koucheki — UTILITIES PROJECT DESIGNER

08-MAR-2007 10:00
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$$$USERNAME$$$

PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-2

DESIGNED BY: ARK
DRAWN BY: ARK
CHECKED BY: CAB
APPROVED BY: CAB
REVISED:

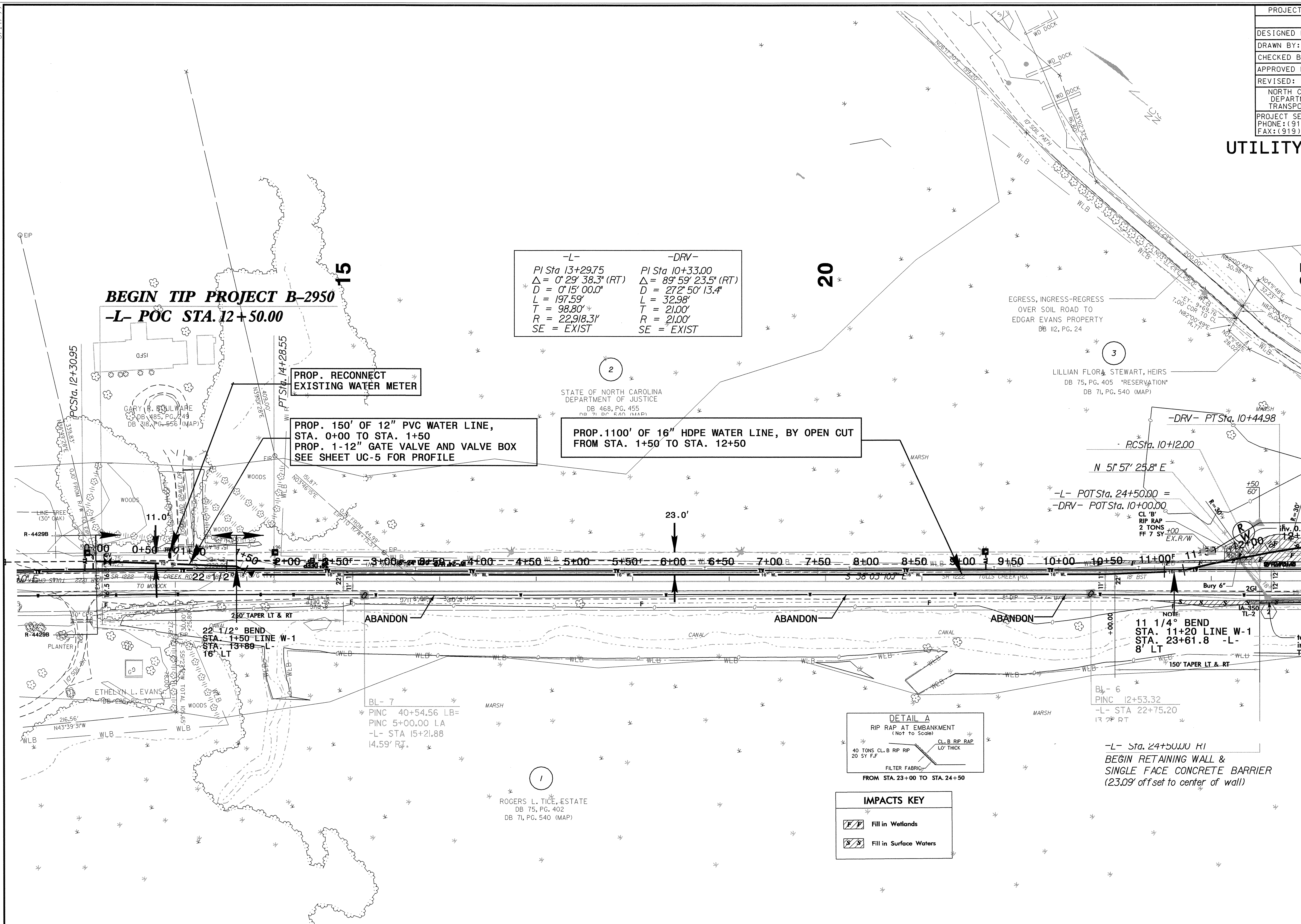
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROJECT SERVICES UNIT
PHONE:(919)250-4128
FAX:(919)250-4119

UTILITY CONSTRUCTION PLANS ONLY

NORTH CAROLINA PROFESSIONAL SEAL 22940 ENGINEER CARL A. BARCLAY 3/7/07

UTILITY CONSTRUCTION



P.S. = PAVED SHOULDER

FOR -L- & -DRV- PROFILES SEE SHEET 7 & 8

DESIGN EXCEPTION REQUIRED FOR MIN. HORIZONTAL CURVE RADIUS (610′).

5/14/99

07-MAR-2007 14:00
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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-3

DESIGNED BY: ARK
DRAWN BY: ARK
CHECKED BY: CAB
APPROVED BY: CAB
REVISED:

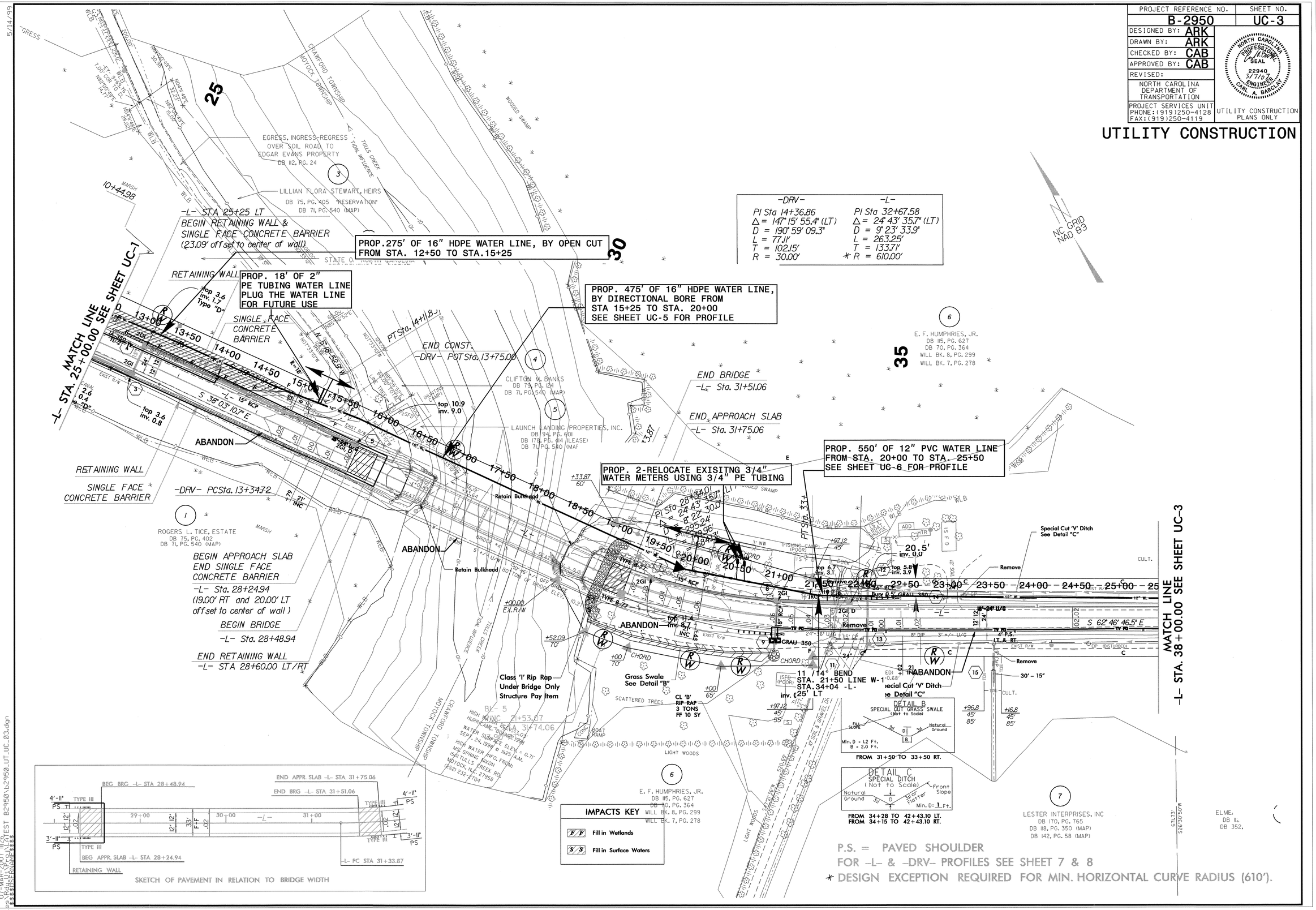
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROJECT SERVICES UNIT
PHONE:(919)250-4128
FAX:(919)250-4119

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/7/07 ENGINEER CARL A. BARCLAY

UTILITY CONSTRUCTION PLANS ONLY

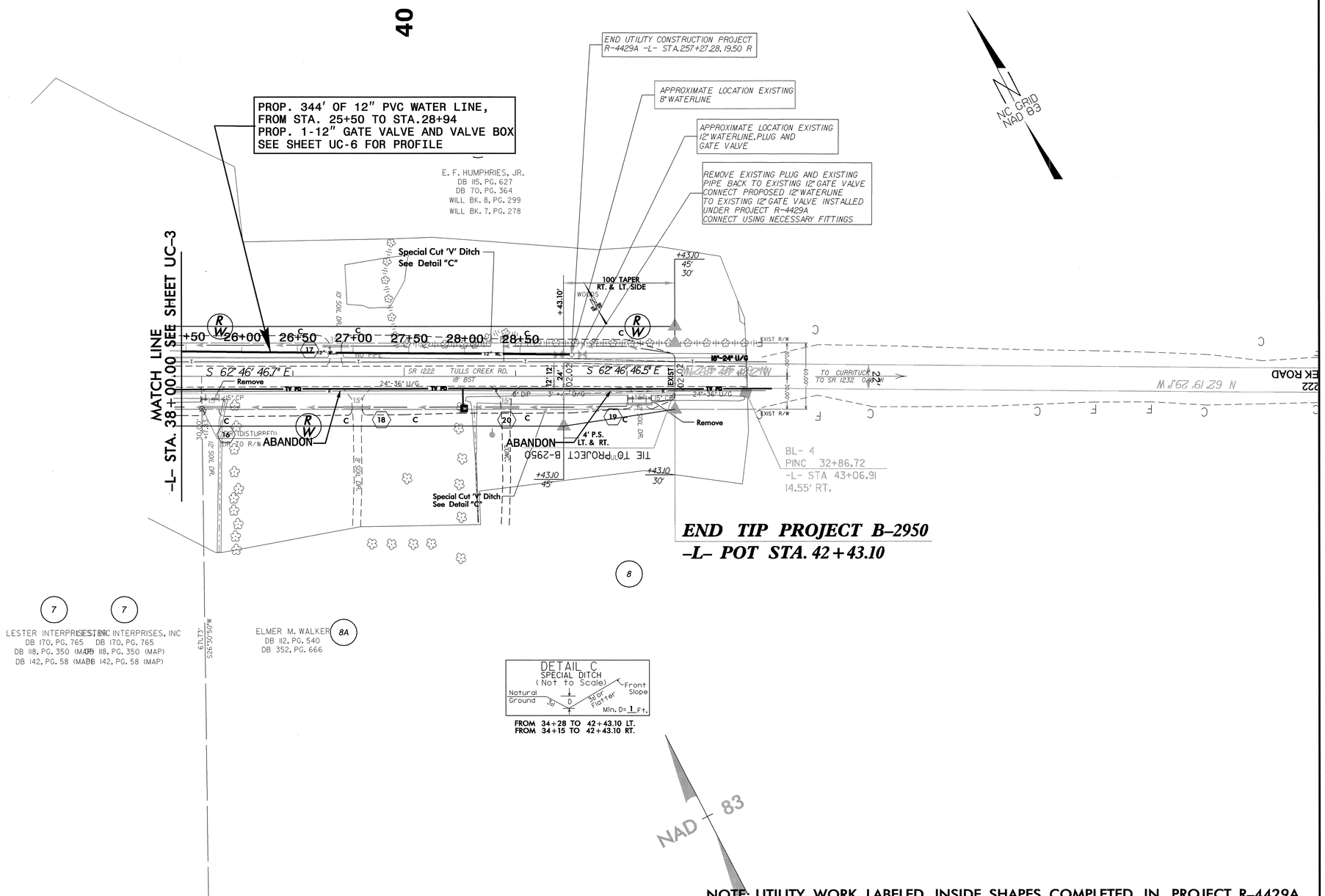
UTILITY CONSTRUCTION



PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-4
DESIGNED BY: ARK	
DRAWN BY: ARK	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
PROJECT SERVICES UNIT PHONE:(919)250-4128 FAX:(919)250-4119	UTILITY CONSTRUCTION PLANS ONLY

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/7/07 ENGINEER CARL A. BARCLAY

UTILITY CONSTRUCTION



NOTE: UTILITY WORK LABELED INSIDE SHAPES COMPLETED IN PROJECT R-4429A
P.S. = PAVED SHOULDER
FOR -L- PROFILE SEE SHEETS 7 & 8
* DESIGN EXCEPTION REQUIRED FOR MIN. HORIZONTAL CURVE RADIUS (610').

5/14/99

07-MAR-2007 14:02

PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-5

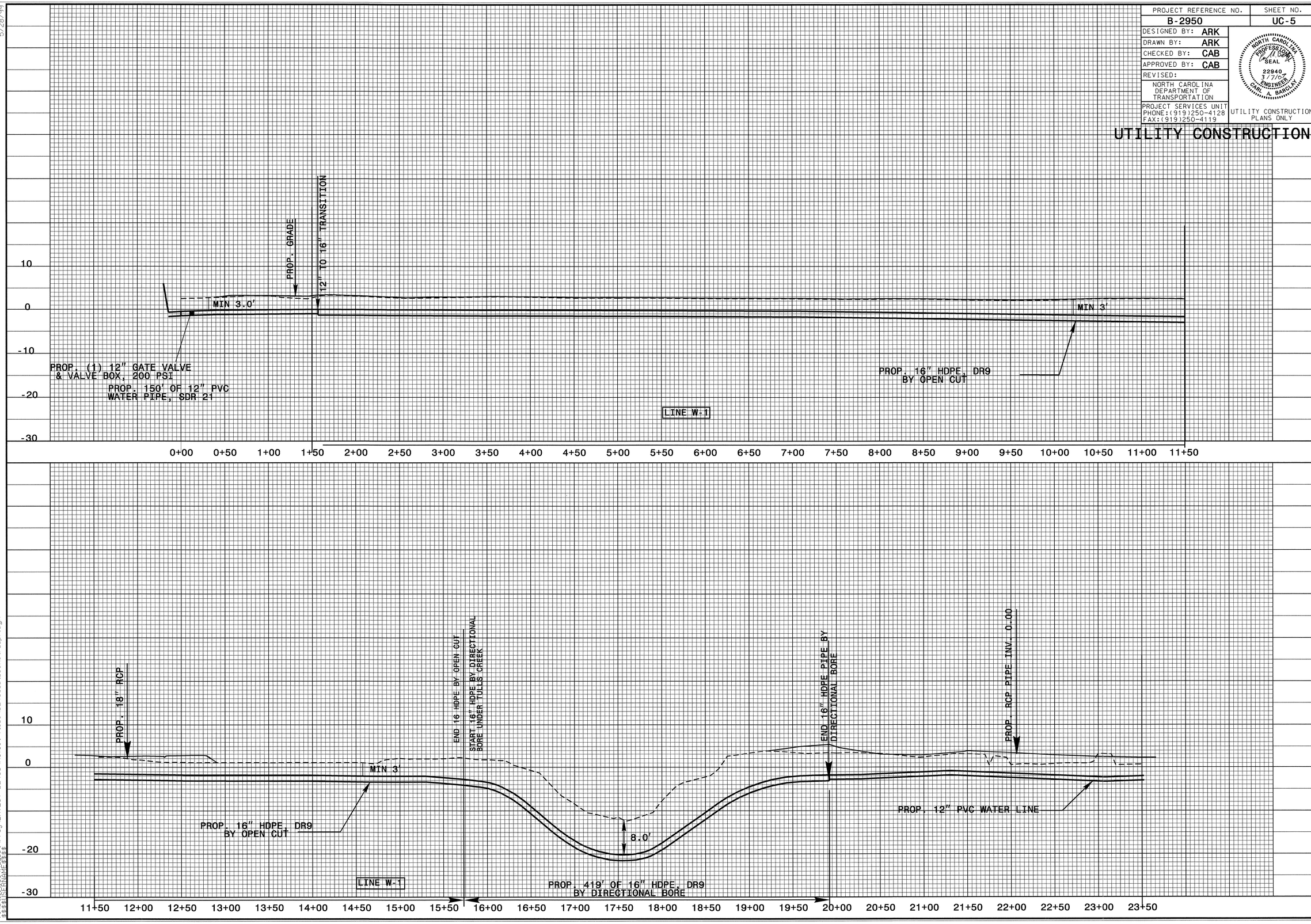
DESIGNED BY: ARK
DRAWN BY: ARK
CHECKED BY: CAB
APPROVED BY: CAB
REVISED:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
PROJECT SERVICES UNIT
PHONE:(919)250-4128
FAX:(919)250-4119

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/7/07 ENGINEER CARL A. BARCLAY

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



5/28/99

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$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-6

DESIGNED BY: ARK
DRAWN BY: ARK
CHECKED BY: CAB
APPROVED BY: CAB
REVISED:

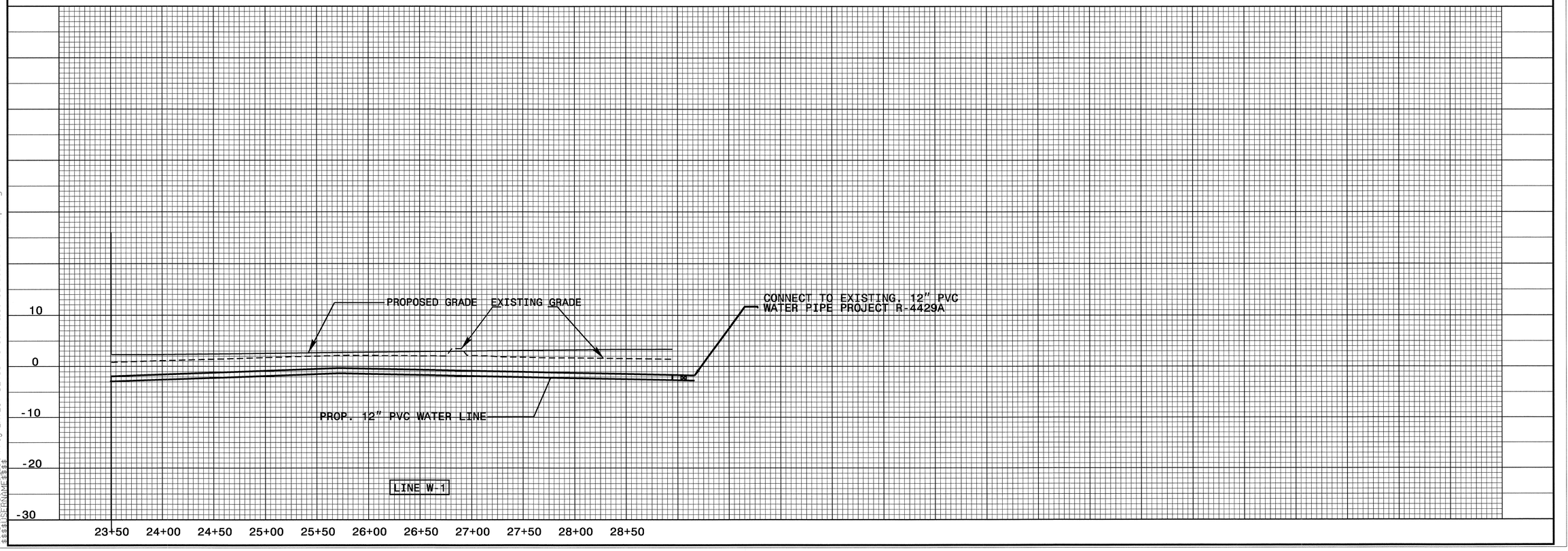
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

PROJECT SERVICES UNIT
PHONE:(919)250-4128
FAX:(919)250-4119

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/12/07 ENGINEER CARL A. BARCLAY

UTILITY CONSTRUCTION PLANS ONLY

UTILITY CONSTRUCTION



5/28/99

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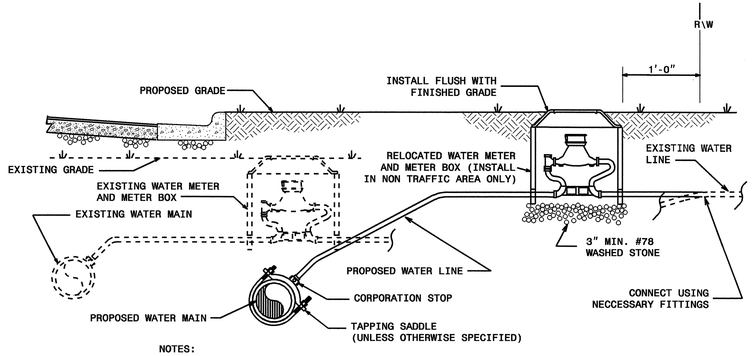
PROJECT REFERENCE NO.	SHEET NO.
B-2950	UC-7
DESIGNED BY: ARK	
DRAWN BY: ARK	
CHECKED BY: CAB	
APPROVED BY: CAB	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
PROJECT SERVICES UNIT PHONE:(919)250-4128 FAX:(919)250-4119	UTILITY CONSTRUCTION PLANS ONLY

NORTH CAROLINA PROFESSIONAL SEAL 22940 3/12/07 ENGINEER CARL A. BARCLIFF

UTILITY CONSTRUCTION

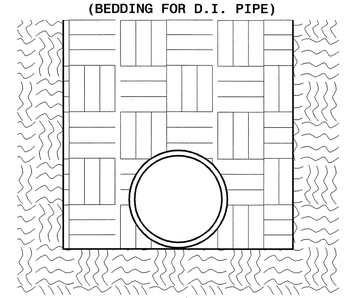


NOTES:

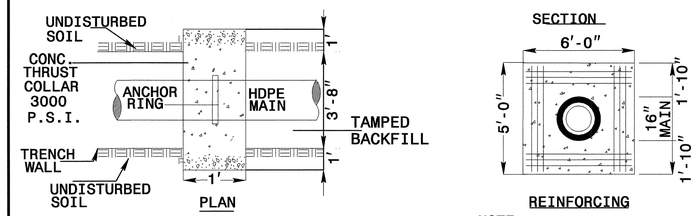
1. RELOCATION SHALL INCLUDE THE REMOVAL AND INSTALLATION AT THE APPROPRIATE LOCATION OF THE WATER METER, METER SETTER AND YOKE, METER VALVES, AND METER BOX WITH LID.
2. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
3. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.

WATER METER RELOCATION DETAIL

TYPE "2"
(BEDDING FOR D.I. PIPE)

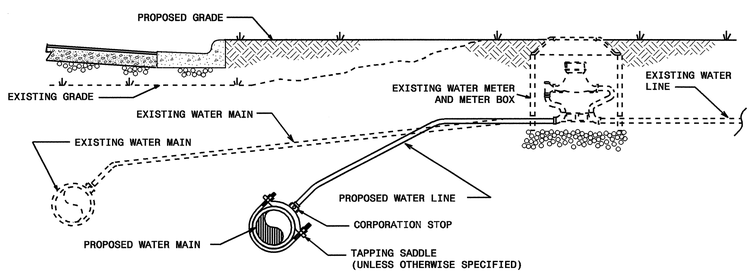


PIPE BEDDED IN FLAT-BOTTOM TRENCH. TRENCH BACKFILLED IN LOOSE 6" LAYERS COMPACTED TO TOP OF TRENCH USING LOCAL EXCAVATED MATERIAL, IF APPROVED BY THE ENGINEER, OR SELECT MATERIAL. ALL MATERIAL SHALL BE FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH. COMPACTION SHALL BE TO APPROX. 95% DENSITY IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY THE DEPARTMENT OF TRANSPORTATION.



NOTE:
6" TO 16" MAINS = 12-NO. 7 BARS
BARS PLACED AS SHOWN

THRUST COLLAR DETAIL



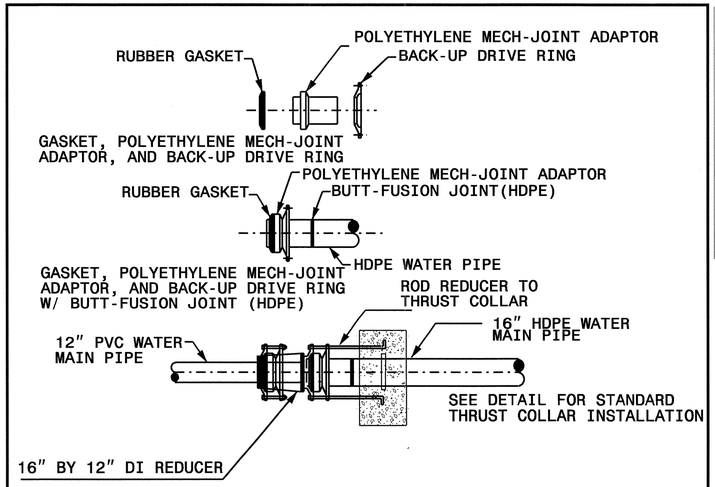
NOTES:

1. THE NEW WATER SERVICE LINE SHALL BE OF THE SAME TYPE AND GRADE AS THE EXISTING WATER SERVICE LINE UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
2. THE NEW WATER SERVICE LINE SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER BELOW FINISHED GRADE.

RECONNECT EXISTING WATER METER DETAIL

MAXIMUM TRENCH WIDTH AT TOP OF PIPE

NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)	NOMINAL PIPE SIZE (INCHES)	TRENCH WIDTH (INCHES)
4	28	20	44
6	30	24	48
8	32	30	54
10	34	36	60
12	36	42	66
14	38	48	72
16	40	54	78
18	42		



CONNECTOR ASSEMBLY DETAILS

12-MAR-2007 09:44
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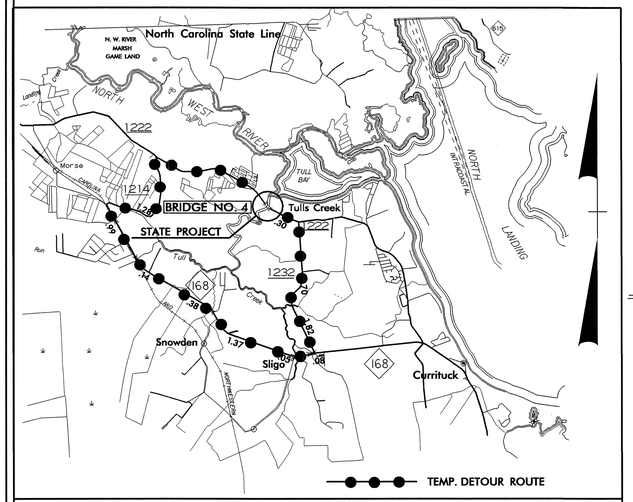
T.I.P. NO.	SHEET NO.
B-2950	UO-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY BY OTHERS PLANS
CURRITUCK COUNTY



VICINITY MAP

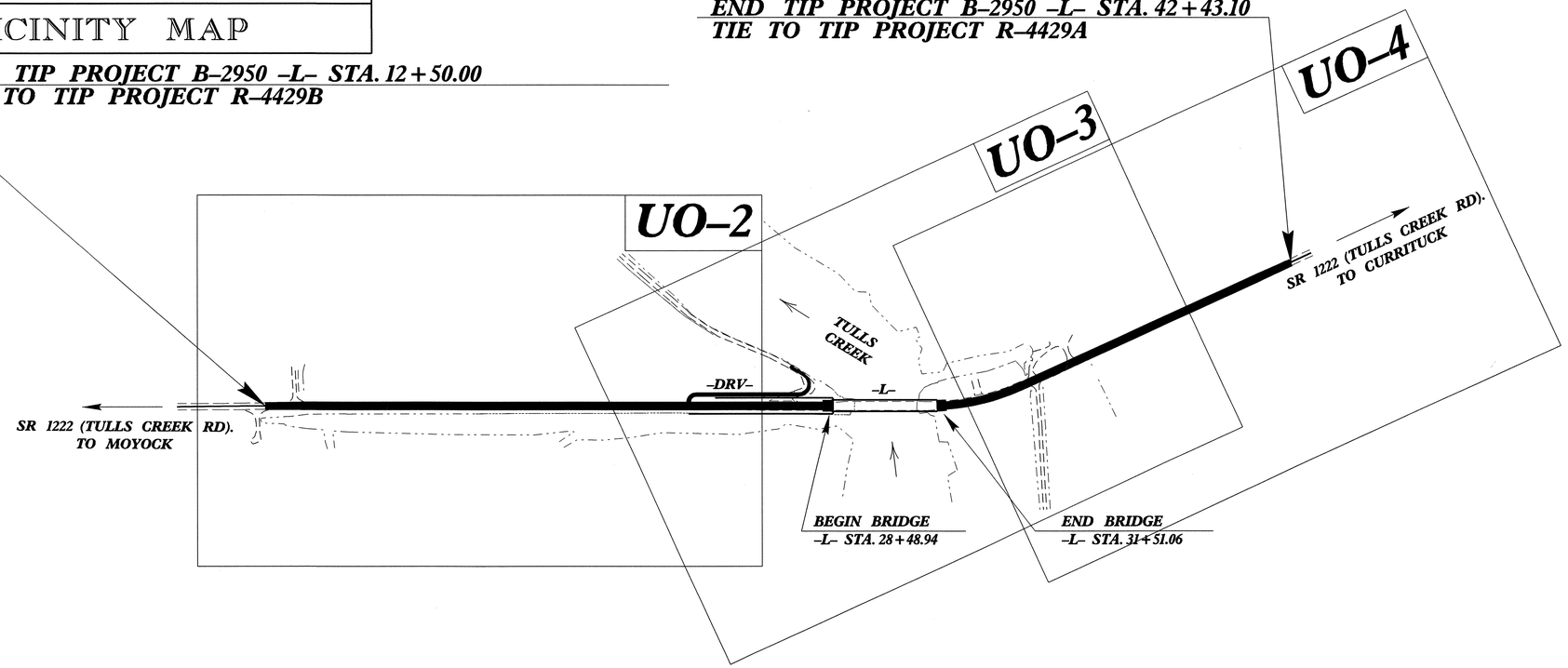
LOCATION: BRIDGE NO. 4 OVER TULLS CREEK ON SR 1222

TYPE OF WORK: UTILITIES RELOCATION

NAD 83

END TIP PROJECT B-2950 -L- STA. 42+43.10
TIE TO TIP PROJECT R-4429A

BEG TIP PROJECT B-2950 -L- STA. 12+50.00
TIE TO TIP PROJECT R-4429B



TIP PROJECT: B-2950

WBS: 32773.1.1

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 20 0 10 20
PROFILE (VERTICAL)

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2 THRU UO-4	UTILITY BY OTHERS PLAN SHEETS

UTILITY OWNERS ON PROJECT

(1) DOMINION POWER
(2) EMBARQ
(3) MEDIA-COM
(4) PIEDMONT NATURAL GAS

PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
PROJECT SERVICES
UTILITY SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699-1591
PHONE (919) 250-4128
FAX (919) 250-4119

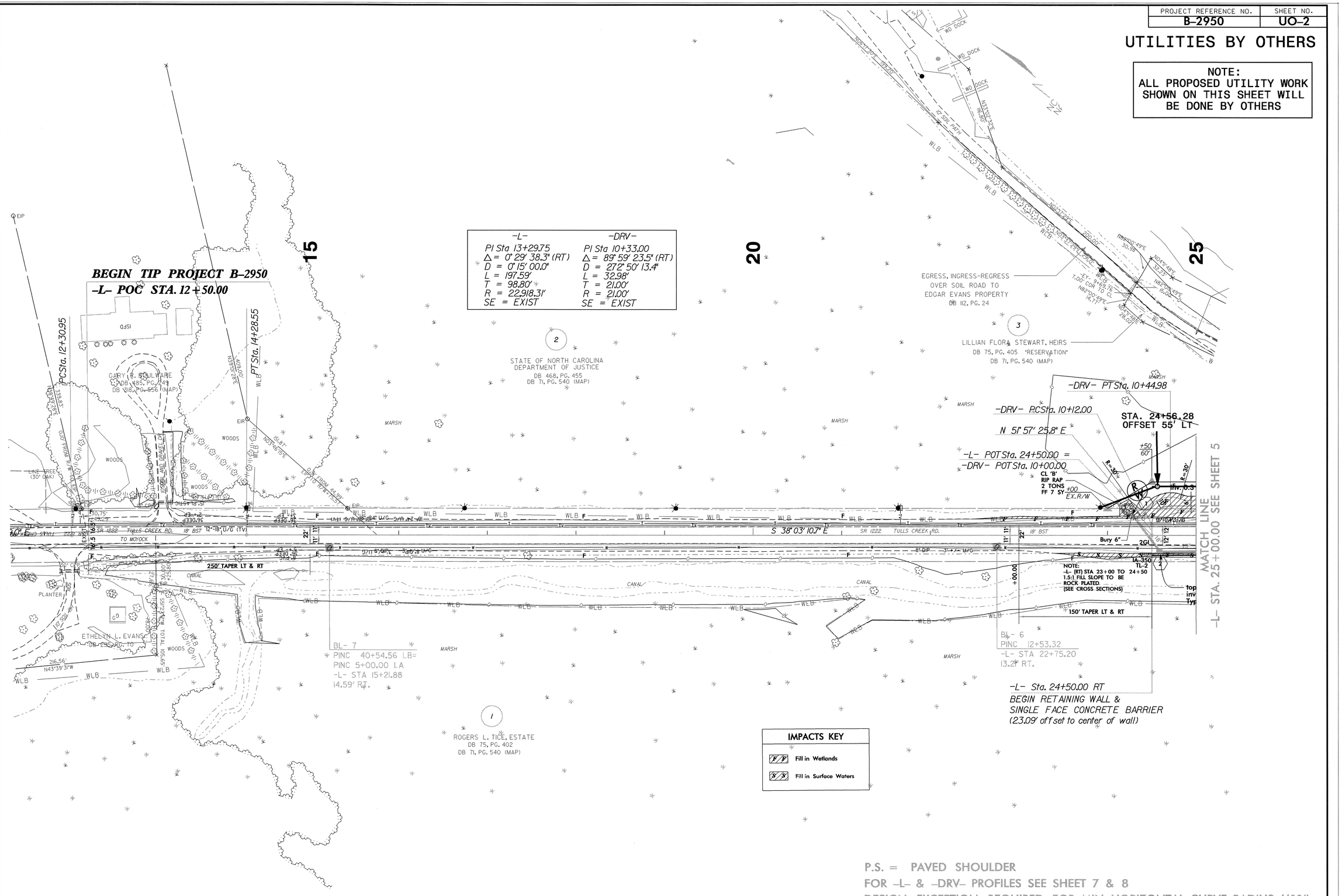
Roger Worthington, P.E. — UTILITIES SECTION ENGINEER
Carl Barclay, P.E. — UTILITIES SQUAD LEADER PROJECT ENGINEER
Ali Koucheki — UTILITIES PROJECT DESIGNER

08-MAR-2007 11:33
r:\utilities\rdy_ut\proj\b2950_ut_uo_01_tsh.dgn
$$$USERNAME$$$

PROJECT REFERENCE NO.	SHEET NO.
B-2950	UO-2

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS



IMPACTS KEY

F/F	Fill in Wetlands
S/S	Fill in Surface Waters

P.S. = PAVED SHOULDER
FOR -L- & -DRV- PROFILES SEE SHEET 7 & 8
DESIGN EXCEPTION REQUIRED FOR MIN. HORIZONTAL CURVE RADIUS (610').

5/14/99

26-FEB-2007 12:29
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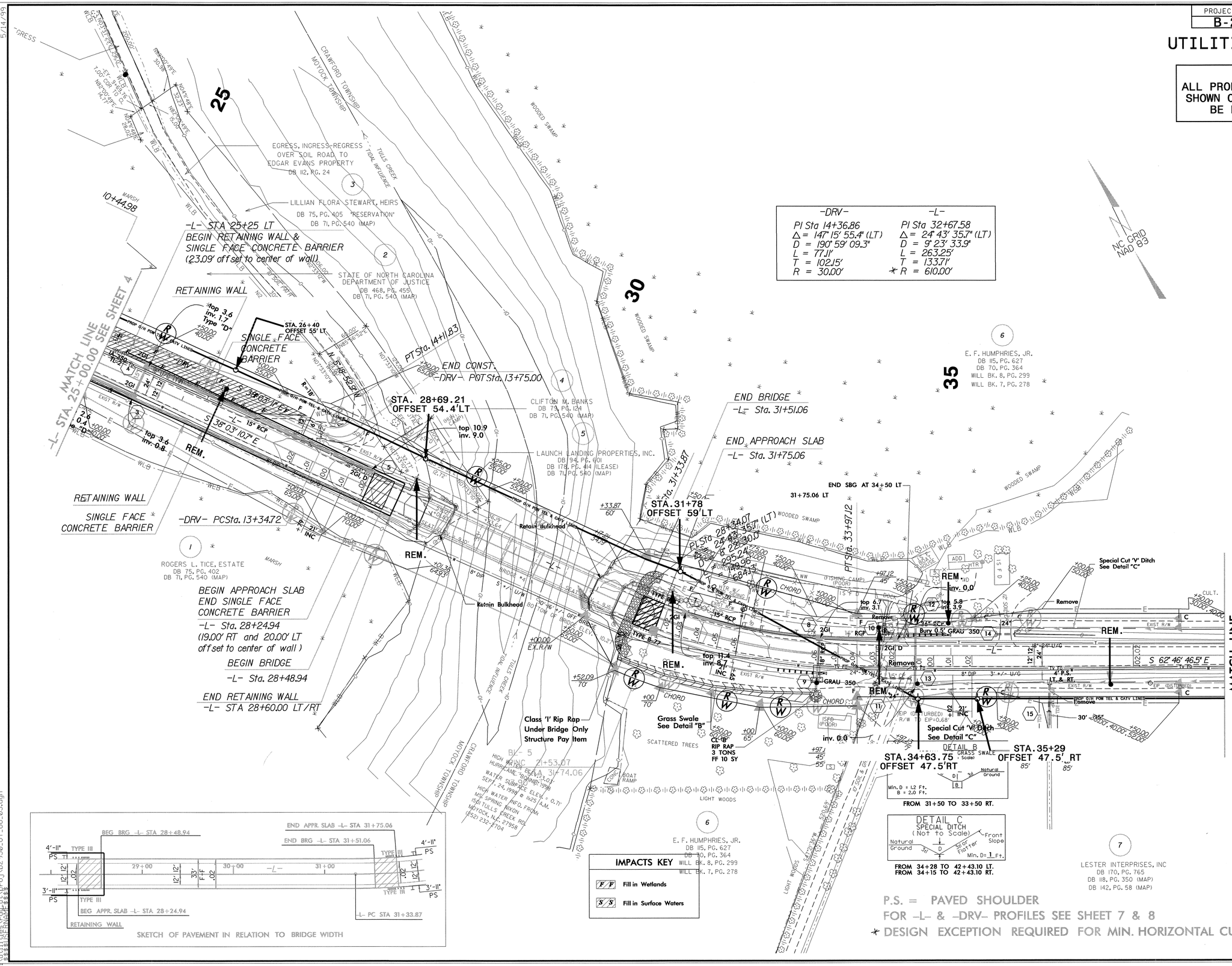
PROJECT REFERENCE NO.	SHEET NO.
B-2950	U0-3

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-DRV-	-L-
PI Sta 14+36.86	PI Sta 32+67.58
Δ = 147° 15' 55.4" (LT)	Δ = 24° 43' 35.7" (LT)
D = 190° 59' 09.3"	D = 9° 23' 33.9"
L = 77.11'	L = 263.25'
T = 102.15'	T = 133.71'
R = 30.00'	* R = 610.00'

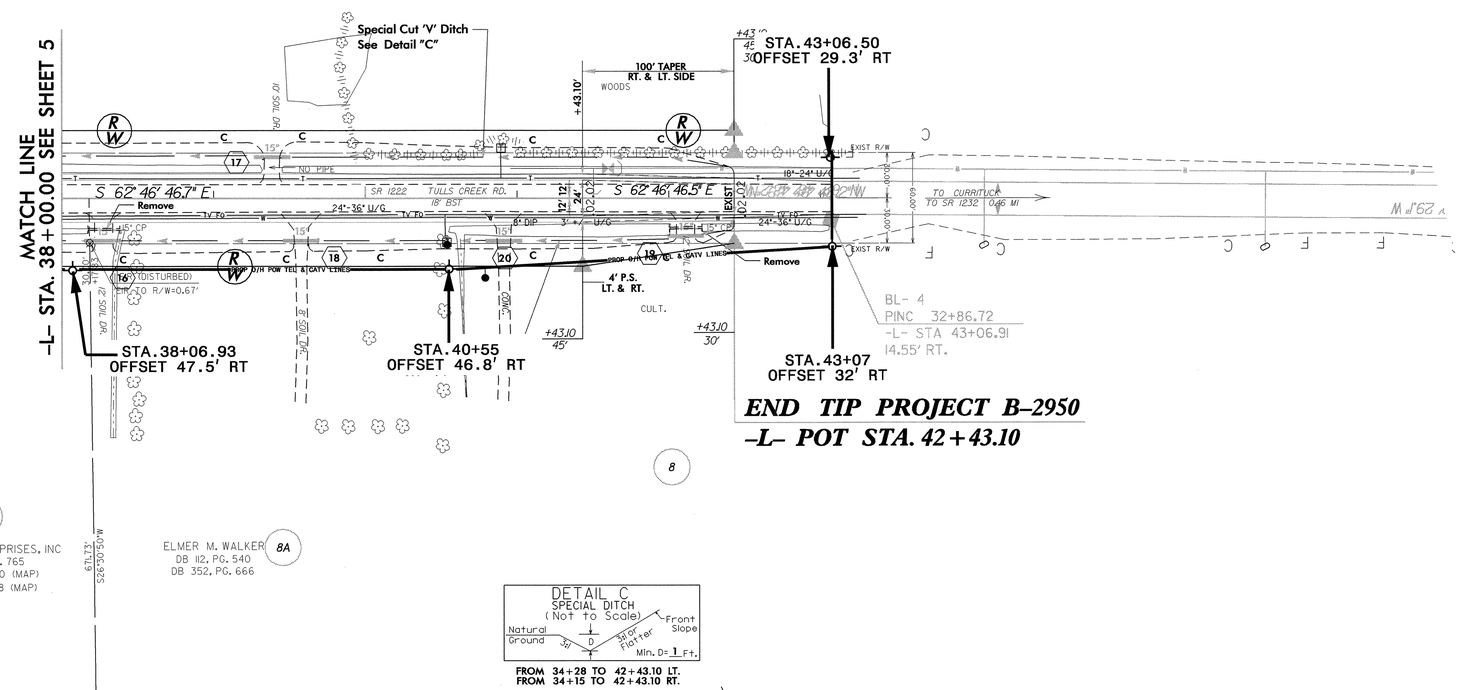


PROJECT REFERENCE NO.	SHEET NO.
B-2950	UO-4

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

-DRV-	-L-
14+36.86	PI Sta 32+67.58
15' 55.4" (LT)	Δ = 24° 43' 35.7" (LT)
9' 09.3"	D = 9° 23' 33.9"
	L = 263.25'
	T = 133.71'
	R = 610.00'



NOTE: UTILITY WORK LABELED INSIDE SHAPES COMPLETED IN PROJECT R-4429A
P.S. = PAVED SHOULDER
FOR -L- PROFILE SEE SHEETS 7 & 8
* DESIGN EXCEPTION REQUIRED FOR MIN. HORIZONTAL CURVE RADIUS (610').

5/14/99

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PROJ. REFERENCE NO.	SHEET NO.
B-2950	X-1A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

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.

Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
12+45.00	0	0
12+50.00	1	0
13+00.00	10	7
13+50.00	10	6
14+00.00	7	7
14+50.00	5	10
15+00.00	4	9
15+50.00	4	7
16+00.00	3	8
16+50.00	4	8
17+00.00	4	7
17+50.00	4	6
18+00.00	4	6
18+50.00	4	6
19+00.00	4	7
19+50.00	4	7
20+00.00	4	7
20+50.00	4	7
21+00.00	4	6
21+50.00	4	5
22+00.00	4	4
22+50.00	4	4
23+00.00	4	6
23+50.00	5	7
24+00.00	8	9
24+00.00	5	5

Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
35+50.00	36	145
36+00.00	48	118
36+50.00	53	130
37+00.00	60	135
37+50.00	66	138
38+00.00	68	136
38+50.00	73	133
39+00.00	80	129
39+50.00	90	130
40+00.00	85	128
40+50.00	58	123
41+00.00	41	128
41+50.00	36	129
42+00.00	42	122
42+43.10	20	51

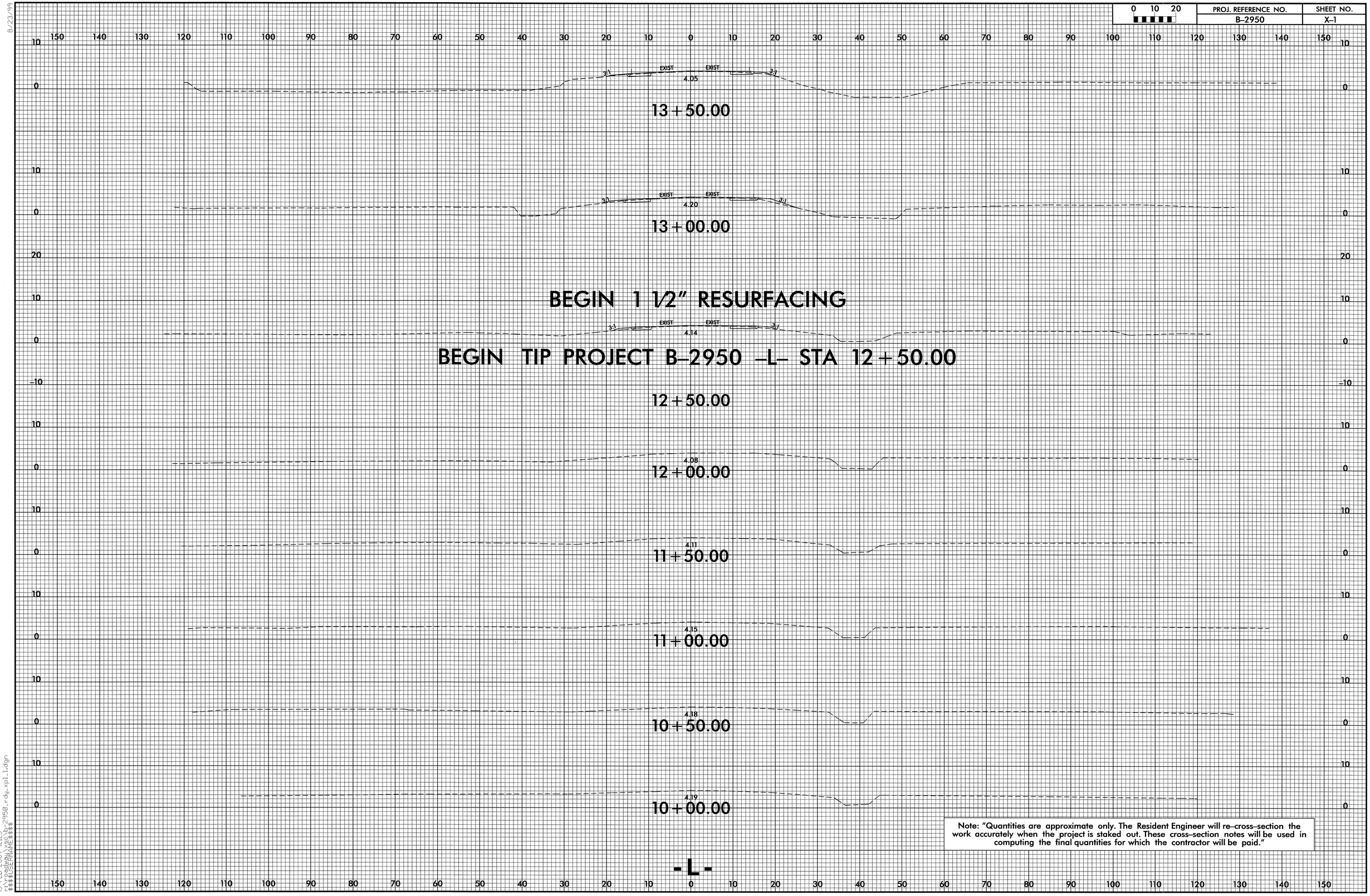
Station for DRV L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
24+45.00	0	0
24+50.00	0	1
25+00.00	0	27
25+50.00	0	34
26+00.00	0	34
26+50.00	0	31
27+00.00	2	21
27+50.00	12	7
28+00.00	11	0

Station L	Undercut per GeoTech (cu. yd.)	Light Weight Aggr. (cu. yd.)
24+25.00	0	0
24+50.00	46	37
25+00.00	265	241
25+50.00	302	320
26+00.00	298	371
26+50.00	388	525
27+00.00	465	651
27+50.00	538	752
28+00.00	599	822
28+50.00	596	838
28+60.00	115	168

DRV2	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
10+20.00	0	0
10+40.00	0	80
10+60.00	0	31
10+80.00	1	7
11+00.00	2	2
11+20.00	3	2
11+29.57	1	1

Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
31+50.00	0	0
32+00.00	11	510
32+50.00	19	532
33+00.00	28	449
33+50.00	29	362
34+00.00	17	275
34+50.00	19	194
35+00.00	25	172

0 10 20	PROJ. REFERENCE NO.	SHEET NO.
	B-2950	X-1



Note: "Quantities are approximate only. The Resident Engineer will re-cross-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."

8/23/99

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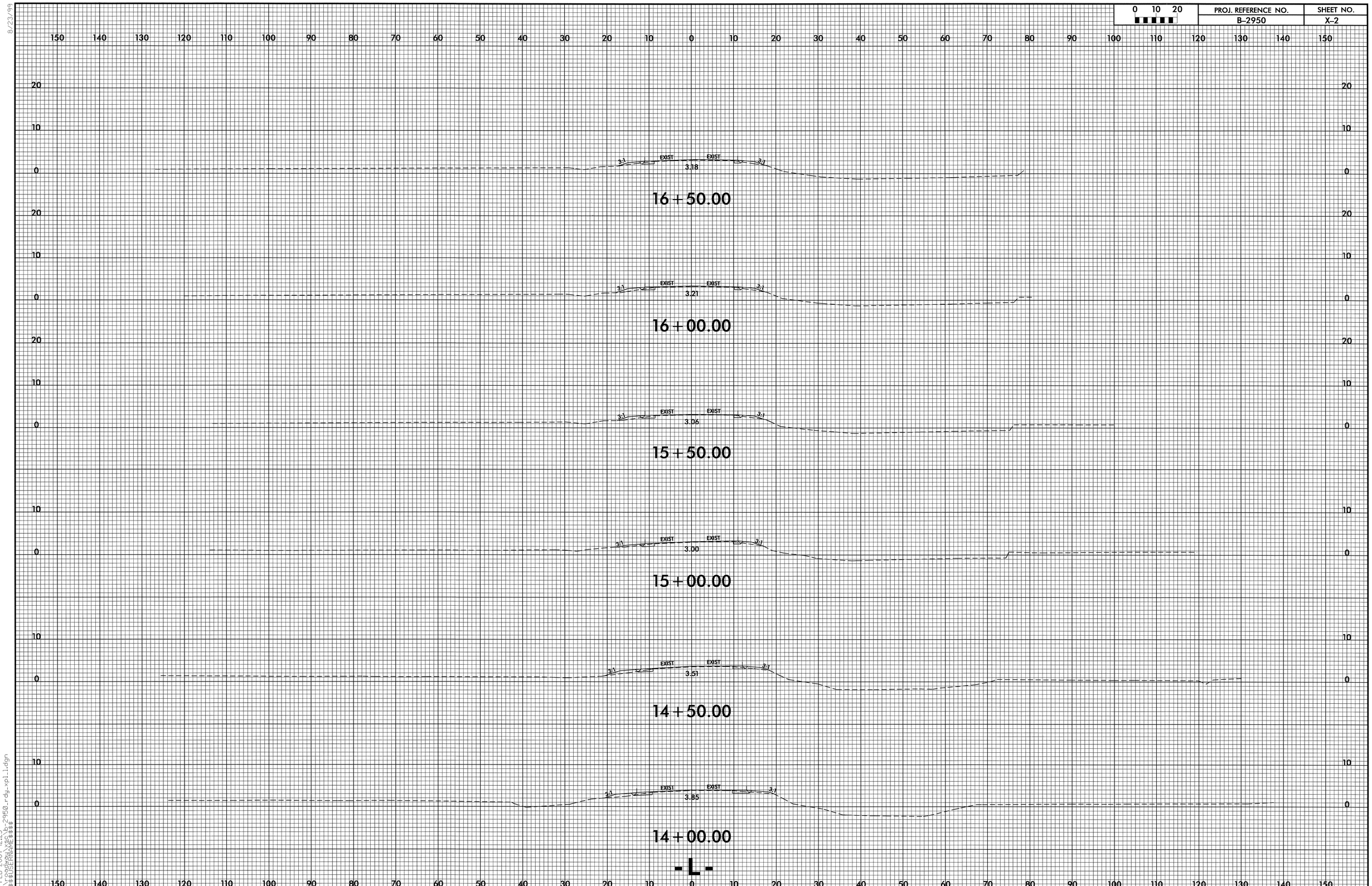

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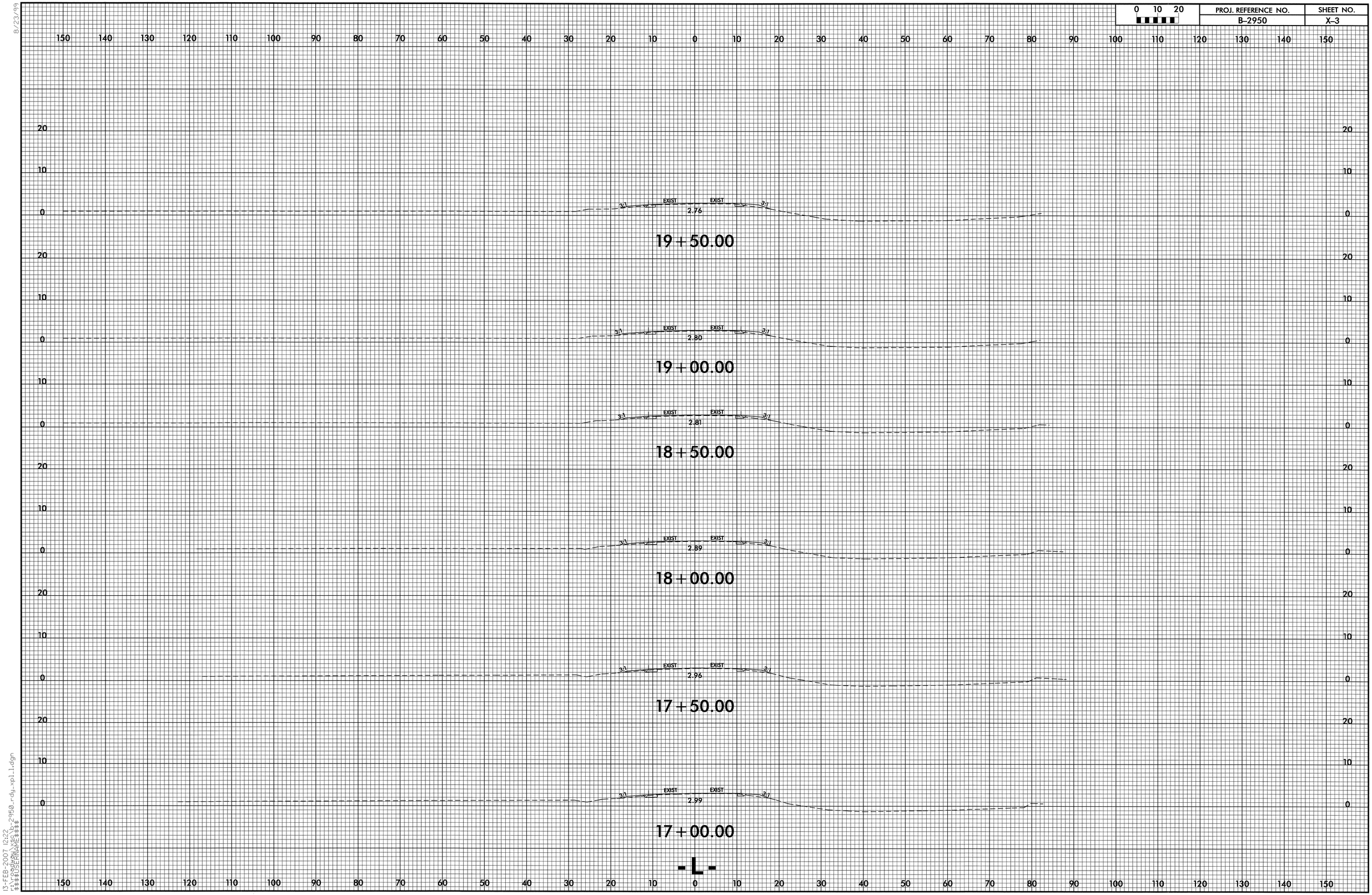

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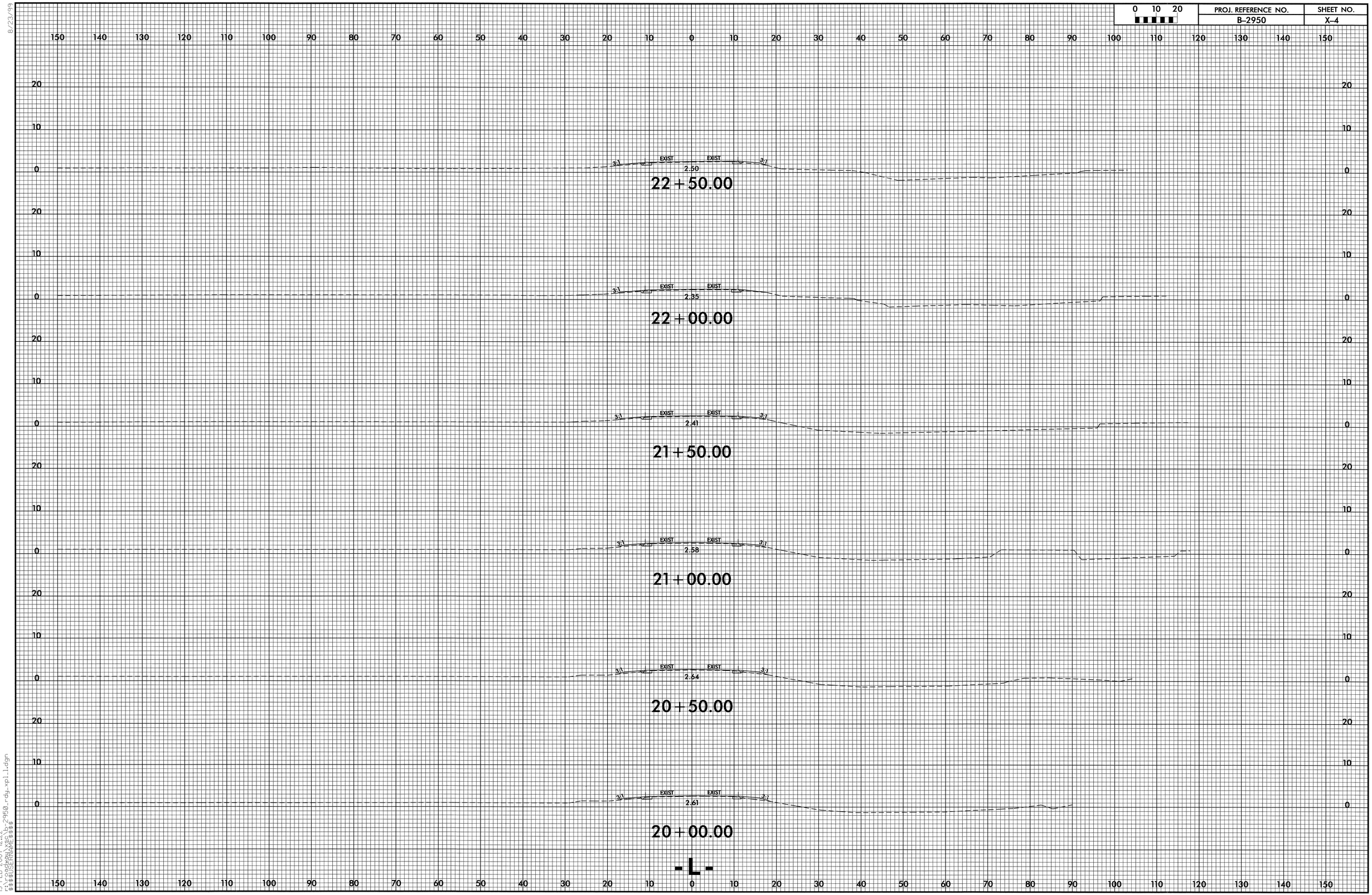
PROJ. REFERENCE NO.	SHEET NO.
B-2950	X-4



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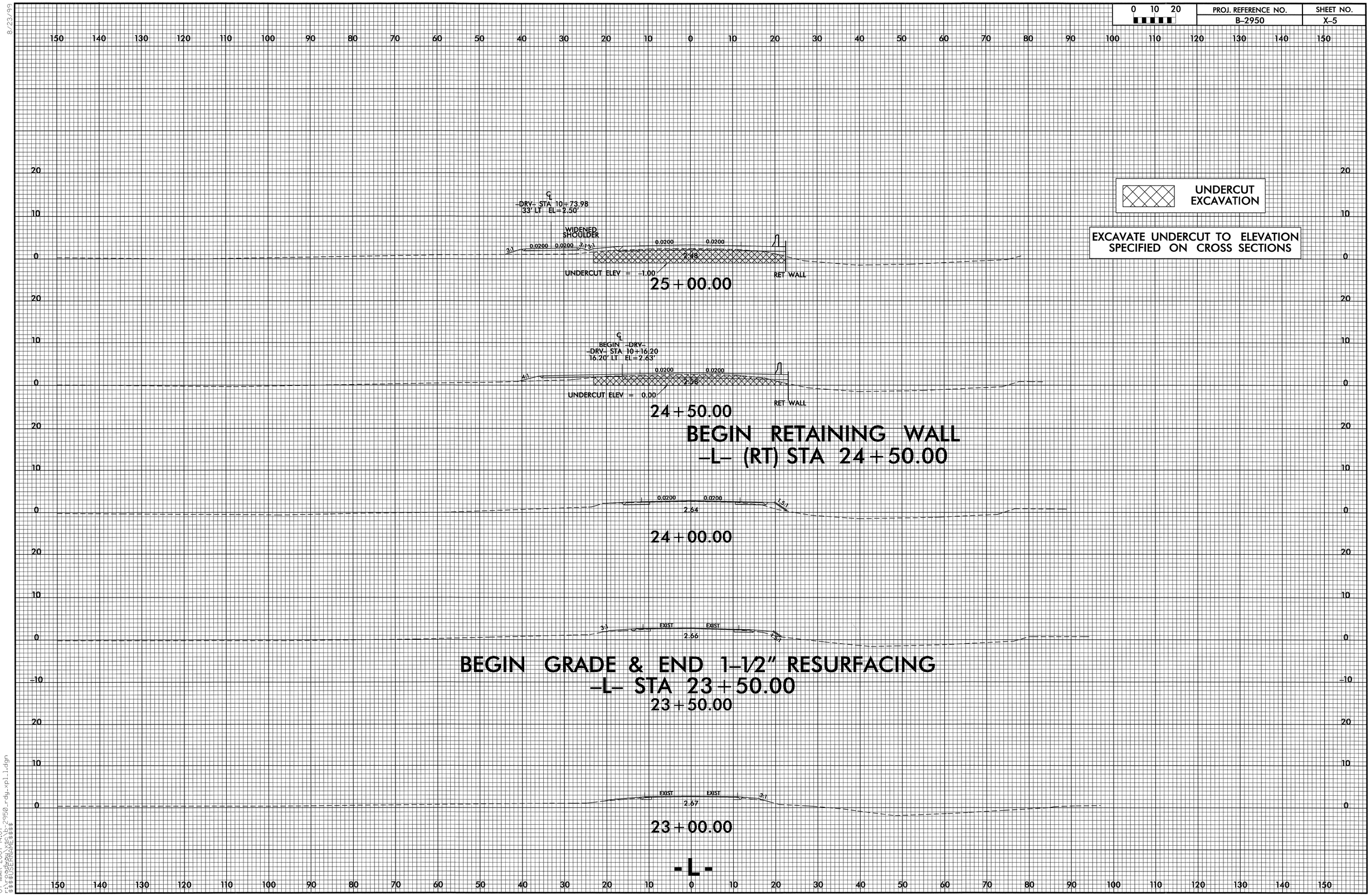
	B-2950	X-5



8/23/99

07-MAR-2007 14:07
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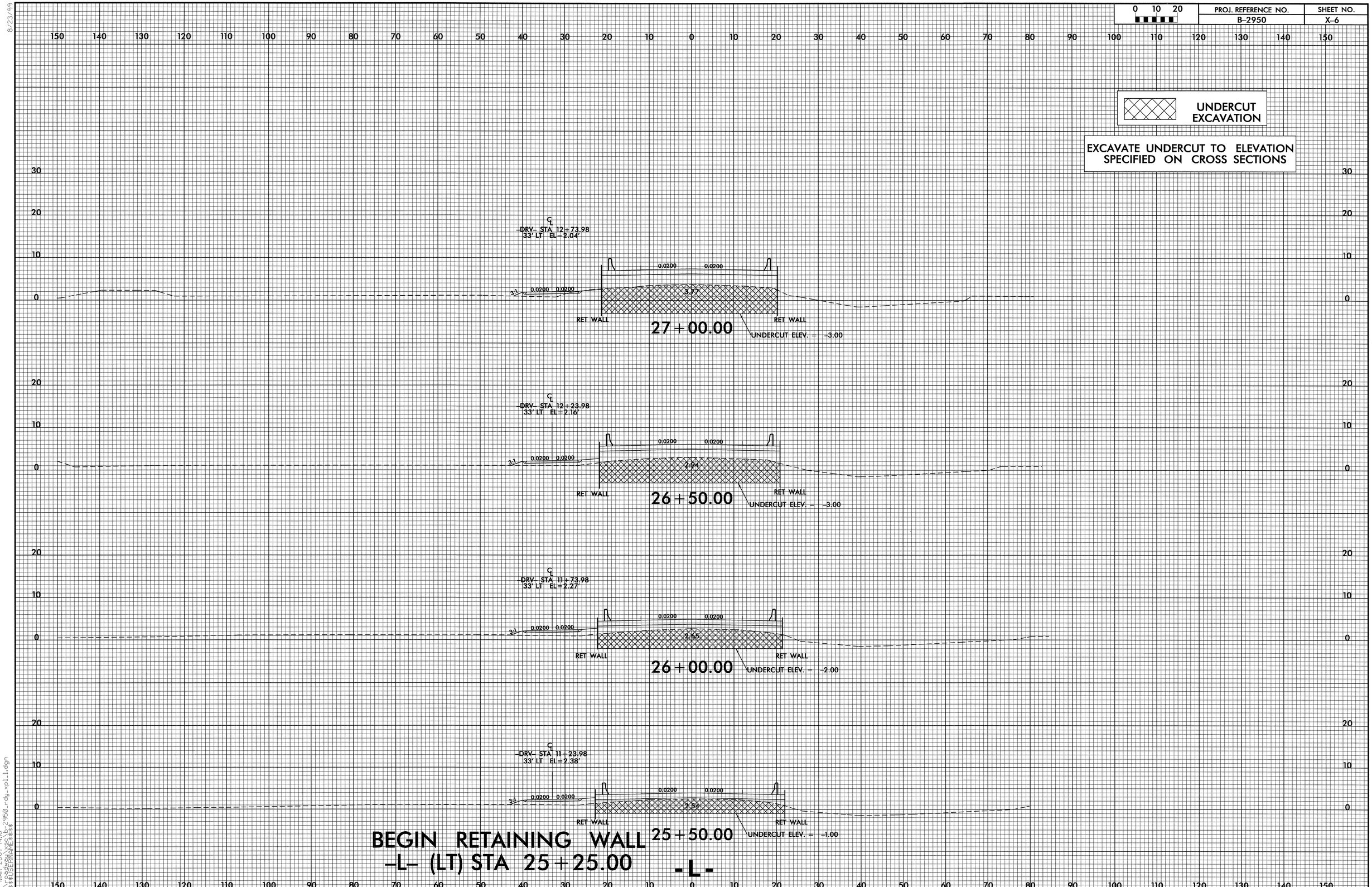

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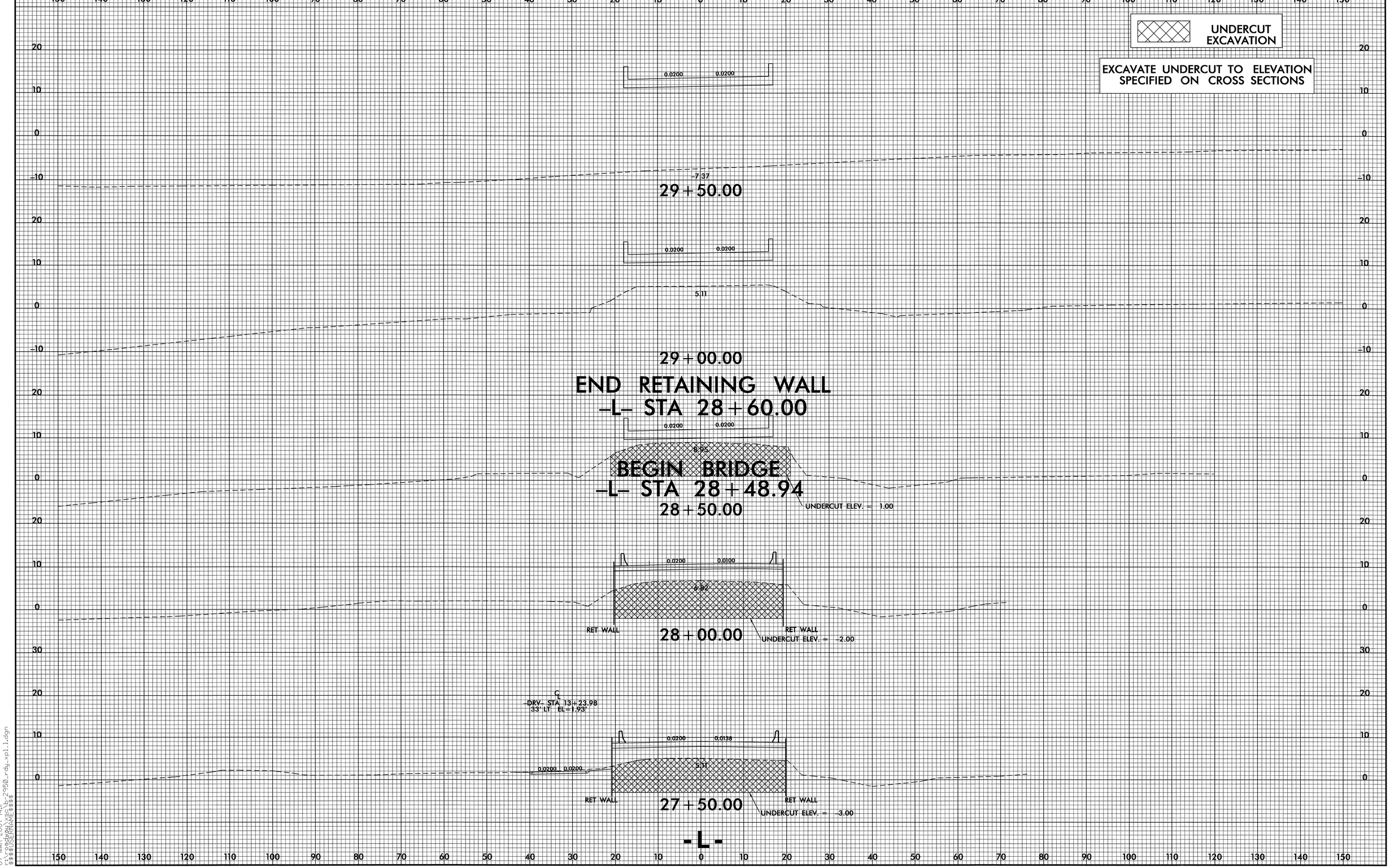

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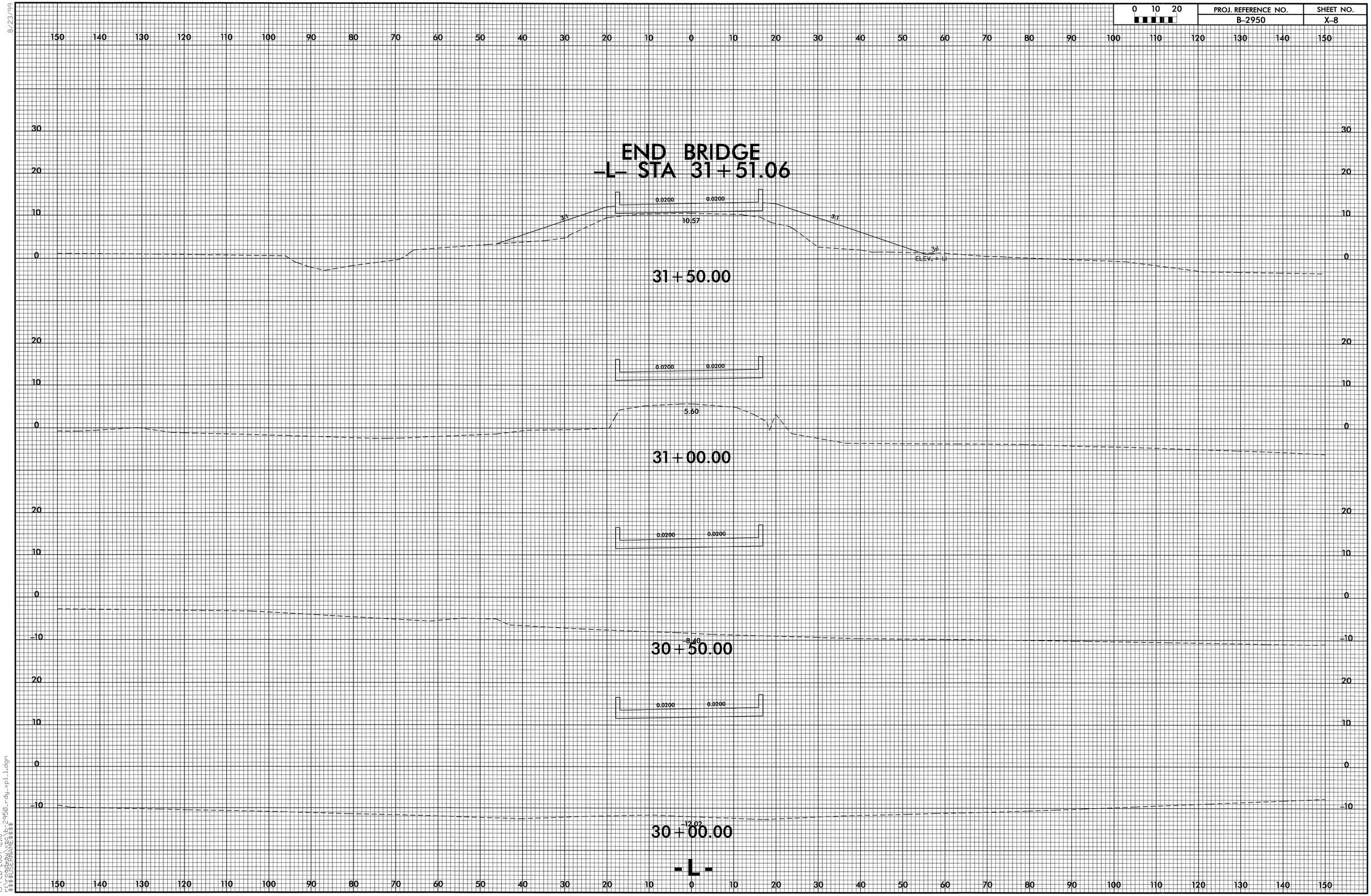

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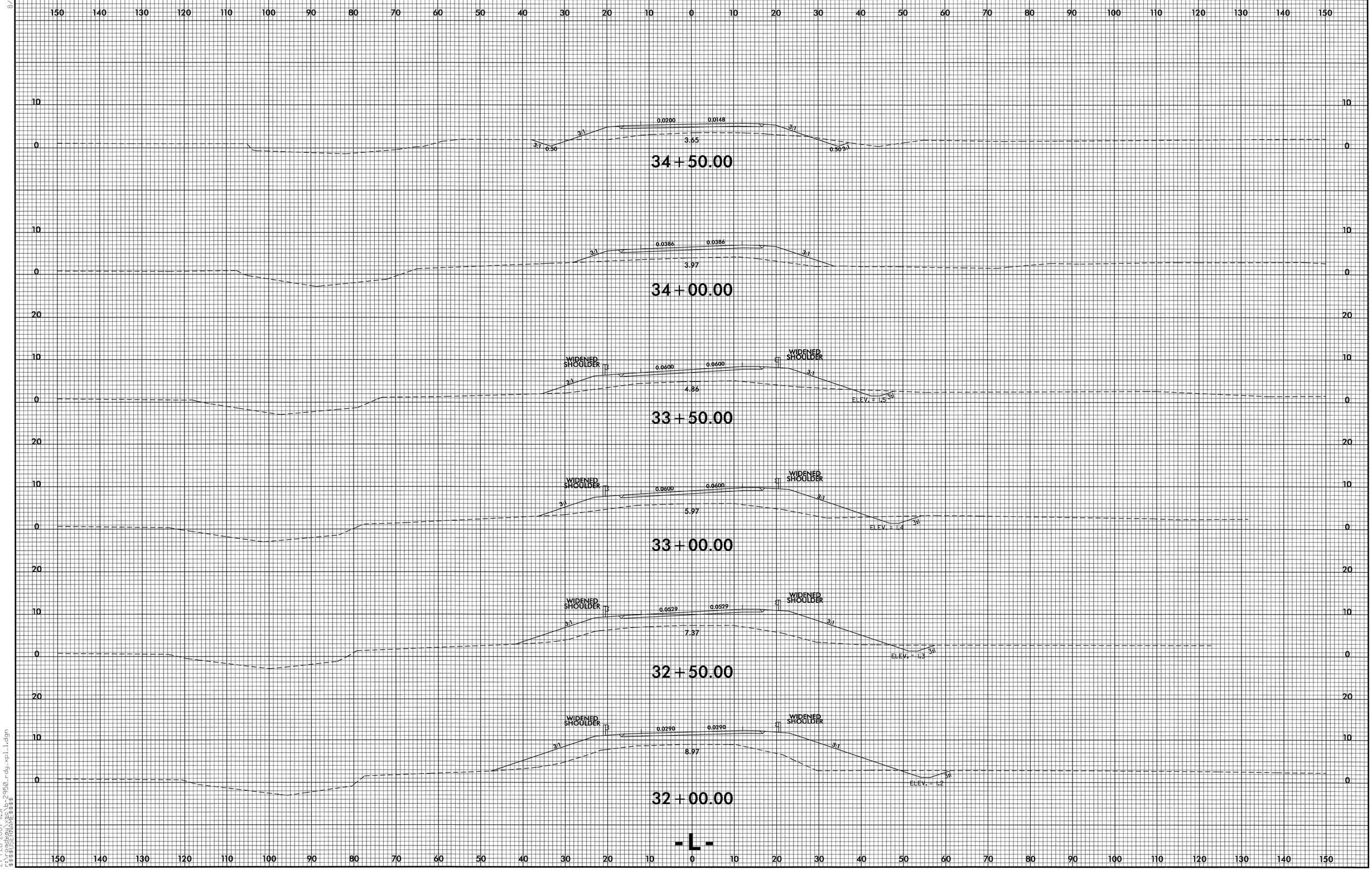

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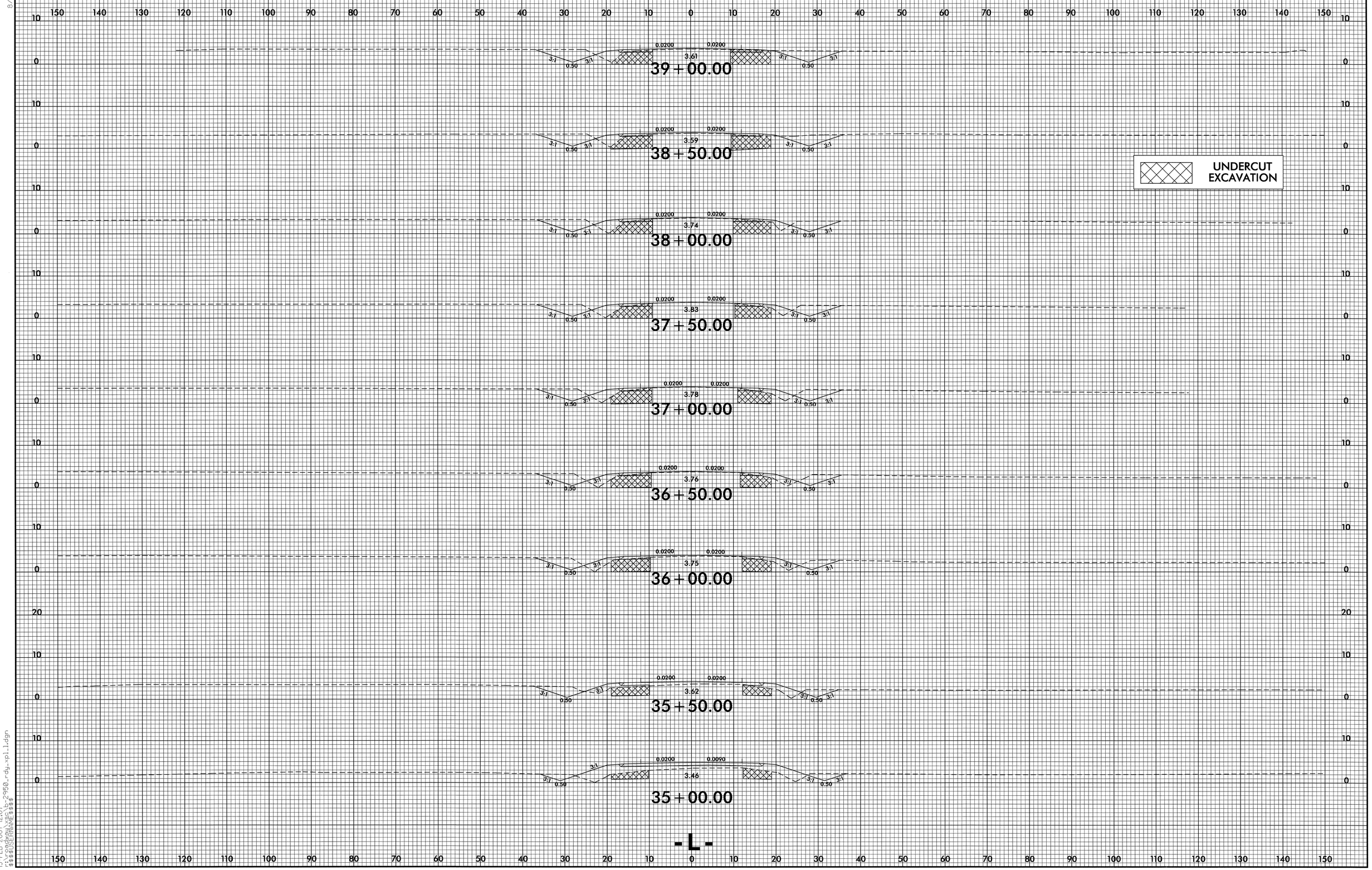

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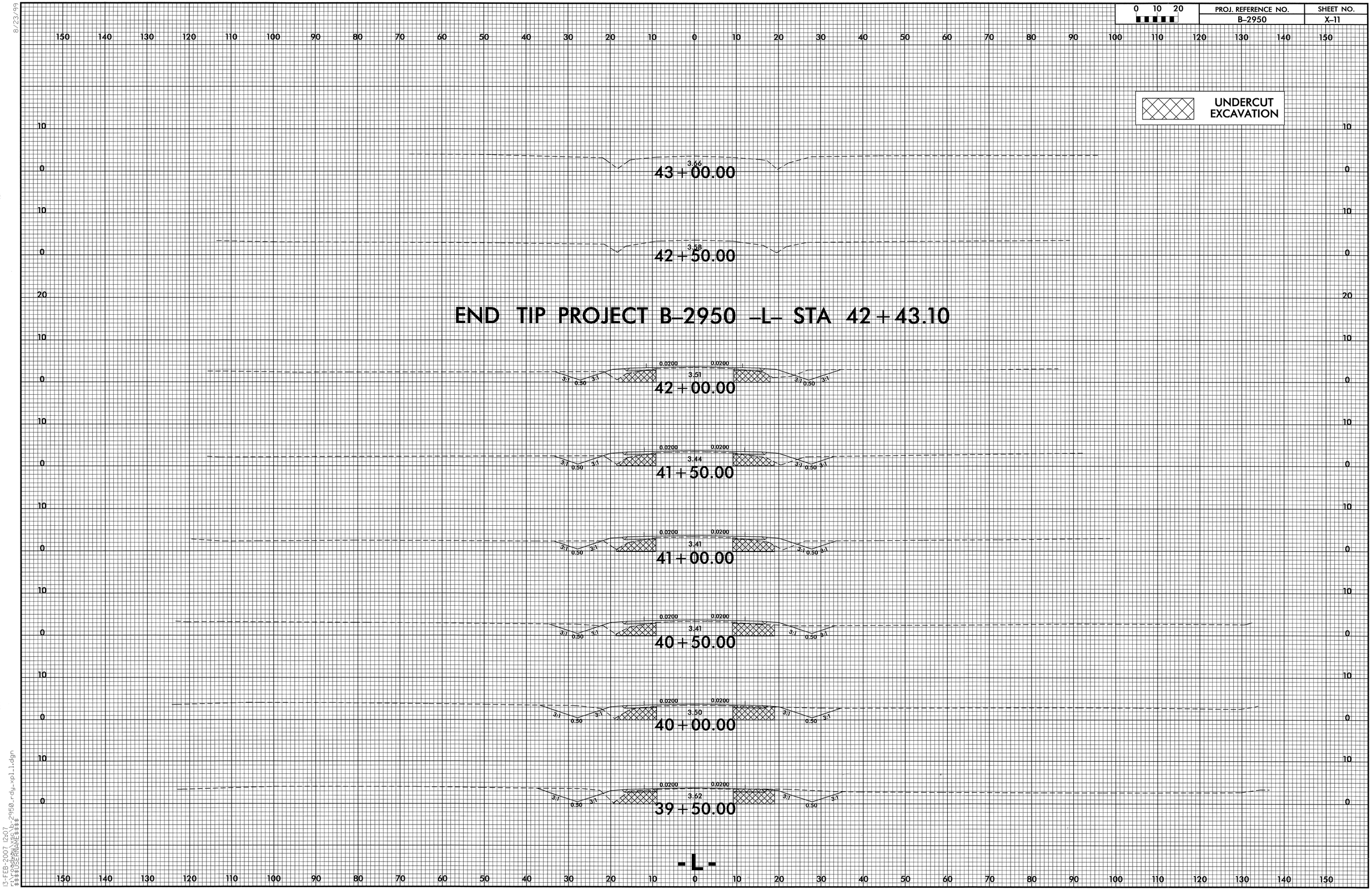

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214496 2/13/2007 b-2950_rdy_xpl_l mduval RD-Oce34

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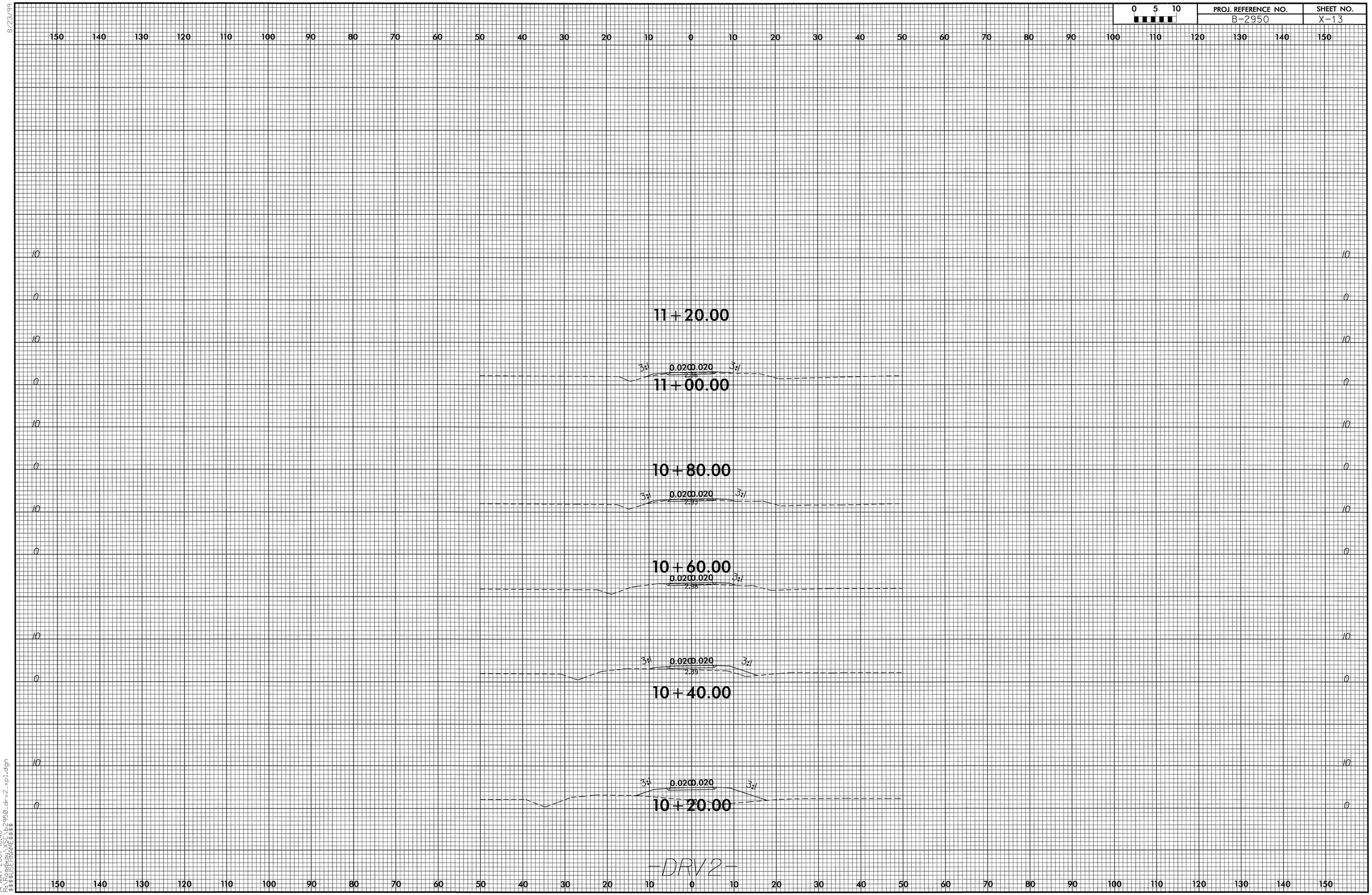

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