PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-0

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

CROSS-SECTION SUMMARY

INDEX OF SHEETS		
ALIGNMENT	BEGIN	END
-DET1-	X-2	X-14
-DET2-	X-1	X-14
-DET3-	X-15	X-32
-L-	X-33	X-64
-RPC-	X-65	X-68

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

Station DET 1 L	Uncl. Exc. DET 1 (cu. yd.)	Embt DET 1 (cu. yd.)
57+50.00	0	0
58+00.00	26	1
58+50.00	53	3
59+00.00	52	11
59+50.00	47	21
60+00.00	50	19
60+50.00	87	23
61+00.00	186	42
61+50.00	231	58
62+00.00	156	68
62+50.00	75	104
63+00.00	30	148
63+50.00	7	182
64+00.00	2	194
64+50.00	0	200
65+00.00	0	247
65+50.00	0	280
66+00.00	0	557
66+50.00	0	1171
67+00.00	0	1714
67+50.00	0	1890
68+00.00	0	1731
68+50.00	0	1402
69+00.00	0	1187
69+50.00	0	1115
69+84.96	0	738
70+00.96	0	169

Station DET 1 L	Uncl. Exc. DET 1 (cu. yd.)	Embt DET 1 (cu. yd.)
71+18.96	0	0
71+34.96	0	125
72+00.00	0	235
72+00.00	0	785
72+50.00	0	792
73+00.00	0	822
73+50.00	0	883
74+00.00	0	958
74+50.00	0	1027
75+00.00	0	1136
75+50.00	0	1169
76+00.00	0	1117
76+50.00	0	1071
77+00.00	3	929
77+50.00	5	750
78+00.00	9	452
78+50.00	12	207
79+00.00	13	108
79+50.00	7	17

Station DET 2 L	Uncl. Exc. DET 2 (cu. yd.)	Embt DET 2 (cu. yd.)
56+00.00	0	0
56+50.00	7	3
57+00.00	13	6
57+50.00	19	7
58+00.00	26	7
58+50.00	25	7
59+00.00	25	8
59+50.00	26	8
60+00.00	26	7
60+50.00	27	5
61+00.00	26	6
61+50.00	24	10
62+00.00	24	11
62+50.00	12	5

Station DET 2 L	Uncl. Exc. DET 2 (cu. yd.)	Embt DET 2 (cu. yd.)
75+50.00	0	0
76+00.00	17	0
76+50.00	34	1
77+00.00	35	0
77+50.00	32	2
78+00.00	27	6
78+50.00	26	6
79+00.00	27	2
79+50.00	30	0
80+00.00	32	0
80+50.00	16	0

Station DET 3 L	Uncl. Exc. DET 3 (cu. yd.)	Embt DET 3 (cu. yd.)
66+00.00	0	156
66+50.00	0	177
67+00.00	0	196
67+50.00	0	208
68+00.00	0	224
68+50.00	0	230
69+00.00	0	113

Station DET 3 L	Uncl. Exc. DET 3 (cu. yd.)	Embt DET 3 (cu. yd.)
71+50.00	0	0
72+00.00	0	63
72+50.00	0	115
73+00.00	0	101
73+50.00	0	96
74+00.00	0	96
74+50.00	0	95
75+00.00	0	86
75+50.00	0	75
76+00.00	0	67
76+50.00	0	57
77+00.00	0	50
77+50.00	0	51
78+00.00	0	60
78+50.00	0	63
79+00.00	0	54
79+50.00	0	30
80+00.00	3	8
80+50.00	8	1
81+00.00	11	0
81+50.00	7	0

Station L-LT L	Uncl. Exc. L-LT (cu. yd.)	Embt L-LT (cu. yd.)
33+50.00	0	0
34+00.00	7	0
34+50.00	16	0
35+00.00	12	9
35+50.00	6	13
36+00.00	7	10
36+50.00	7	12
37+00.00	8	25
37+50.00	9	56
38+00.00	9	98
39+00.00	89	121
39+50.00	63	0
40+00.00	39	50
40+50.00	26	140
41+00.00	23	157
41+50.00	29	129
42+00.00	25	127

Station L-LT L	Uncl. Exc. L-LT (cu. yd.)	Embt L-LT (cu. yd.)
42+50.00	17	134
43+00.00	16	122
43+50.00	16	90
44+00.00	17	66
44+50.00	18	54
45+00.00	36	26
45+50.00	53	0
46+00.00	37	3
46+50.00	25	4
47+00.00	26	4
47+50.00	24	7
48+00.00	21	10
48+50.00	13	19
49+00.00	11	27
49+50.00	10	35
50+00.00	10	43
50+50.00	7	35
51+00.00	6	24
51+50.00	12	16
52+00.00	19	7
52+50.00	21	3
53+00.00	18	4
53+50.00	14	12
54+00.00	9	27
54+50.00	7	37
55+00.00	8	31
55+50.00	11	19
56+00.00	24	11
56+50.00	43	11
57+00.00	69	14
57+50.00	103	15
58+00.00	114	15
58+50.00	107	15
59+00.00	119	17
59+50.00	99	11
60+00.00	44	5
60+50.00	21	8
61+00.00	17	8
61+50.00	34	7
62+00.00	44	11

Station L-LT L	Uncl. Exc. L-LT (cu. yd.)	Embt L-LT (cu. yd.)
62+00.00	0	0
62+50.00	19	16
63+00.00	3	22
63+50.00	1	38
64+00.00	0	57
64+50.00	0	84
65+00.00	0	116
65+50.00	0	151
66+00.00	0	190

Station L-LT L	Uncl. Exc. L-LT (cu. yd.)	Embt L-LT (cu. yd.)
71+52.54	0	0
71+72.60	0	131
72+00.00	0	184
72+50.00	0	296
73+00.00	0	270
73+50.00	0	248
74+00.00	0	236
74+50.00	0	217
75+00.00	0	197
75+50.00	0	172
76+00.00	0	134
76+50.00	0	91

Station L-LT L	Uncl. Exc. L-LT (cu. yd.)	Embt L-LT (cu. yd.)
76+50.00	0	0
77+00.00	0	51
77+50.00	2	17
78+00.00	4	11
78+50.00	6	104
79+00.00	6	243
79+50.00	5	230
80+00.00	6	124
80+50.00	8	60
81+00.00	11	25
81+50.00	14	18
82+00.00	21	12
82+50.00	26	7
83+00.00	30	7
83+50.00	34	11
84+00.00	33	12
84+50.00	34	14
85+00.00	35	21
85+50.00	44	26
86+00.00	57	13
86+50.00	31	0

PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-0A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

CROSS-SECTION SUMMARY

Station L-MED L	Uncl. Exc. L-MED (cu. yd.)	Embt L-MED (cu. yd.)
33+50.00	0	0
34+00.00	0	8
34+50.00	0	21
35+00.00	0	18
35+50.00	0	13
36+00.00	0	24
36+50.00	0	30
37+00.00	0	20
37+50.00	0	11
38+00.00	1	6
39+00.00	1	3
40+00.00	1	0
40+50.00	1	2
41+00.00	0	4
41+50.00	0	5
42+00.00	0	7
42+50.00	0	8
43+00.00	0	9
43+50.00	1	15
44+00.00	2	20
44+50.00	2	16
45+00.00	7	13
45+50.00	8	23
46+00.00	5	17
46+50.00	10	4
47+00.00	15	5
47+50.00	13	4
48+00.00	8	3
48+50.00	4	4
49+00.00	1	7
49+50.00	1	9
50+00.00	2	8
50+50.00	6	7
51+00.00	10	5
51+50.00	16	2
52+00.00	27	0
52+50.00	36	0
53+00.00	36	0
53+50.00	30	0
54+00.00	25	1
54+50.00	23	2
55+00.00	21	3
55+50.00	19	6
56+00.00	17	10
56+50.00	16	12
57+00.00	17	12
57+50.00	19	12
58+00.00	16	12
58+50.00	12	13
59+00.00	10	16
59+50.00	8	20
60+00.00	7	24
60+50.00	6	31

Station L-MED L	Uncl. Exc. L-MED (cu. yd.)	Embt L-MED (cu. yd.)
61+00.00	4	42
61+50.00	4	60
62+00.00	9	74

Station L-MED L	Uncl. Exc. L-MED (cu. yd.)	Embt L-MED (cu. yd.)
62+00.00	0	0
62+50.00	11	73
63+00.00	4	76
63+50.00	0	95
64+00.00	0	134
64+50.00	0	201
65+00.00	0	289
65+50.00	0	388
66+00.00	0	474
66+50.00	0	553
67+00.00	0	620
67+50.00	0	658
68+00.00	0	689
68+50.00	0	703
68+72.48	0	314
69+00.54	0	196

Station L-MED L	Uncl. Exc. L-MED (cu. yd.)	Embt L-MED (cu. yd.)
71+52.54	0	0
71+72.60	0	69
72+00.00	0	190
72+50.00	0	318
73+00.00	0	277
73+50.00	0	262
74+00.00	0	260
74+50.00	0	250
75+00.00	0	224
75+50.00	0	189
76+00.00	0	156
76+50.00	0	116
77+00.00	0	70
77+50.00	1	43
78+00.00	4	32
78+50.00	8	27
79+00.00	12	25
79+50.00	10	19
80+00.00	5	17
80+50.00	5	17
81+00.00	5	13

Station L-MED L	Uncl. Exc. L-MED (cu. yd.)	Embt L-MED (cu. yd.)
81+50.00	7	11
82+00.00	7	11
82+50.00	6	11
83+00.00	5	10
83+50.00	5	9
84+00.00	6	9
84+50.00	6	9
85+00.00	6	8
85+50.00	18	3
86+00.00	36	0
86+50.00	20	0

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
27+00.00	0	0
27+50.00	79	0
28+00.00	48	8
28+50.00	29	29
29+00.00	36	36
29+50.00	51	17
30+00.00	87	2
30+50.00	124	0
31+00.00	112	0
31+50.00	82	0
32+00.00	63	0
32+50.00	49	9
33+00.00	43	30
33+50.00	46	21

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
33+50.00	0	0
34+00.00	56	0
34+50.00	173	0
35+00.00	256	0
35+50.00	277	1
36+00.00	272	2
36+50.00	219	4
37+00.00	119	6
37+50.00	36	12
38+00.00	6	79
39+00.00	8	141
40+50.00	7	13
41+00.00	13	71
41+50.00	11	107
42+00.00	16	59
42+50.00	82	13
43+00.00	134	8
43+50.00	100	8
44+00.00	80	7
44+50.00	86	5

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
45+00.00	65	7
45+50.00	30	25
46+00.00	59	21
46+50.00	140	3
47+00.00	228	1
47+50.00	237	0
48+00.00	102	27
48+50.00	8	76
49+00.00	17	60
49+50.00	83	24
50+00.00	154	32
50+50.00	198	37
51+00.00	211	28
51+50.00	169	19
52+00.00	127	19
52+50.00	119	18
53+00.00	135	17
53+50.00	146	15
54+00.00	145	20
54+50.00	134	31
55+00.00	157	36
55+50.00	173	39
56+00.00	173	42
56+50.00	178	44
57+00.00	193	40
57+50.00	221	32
58+00.00	188	30
58+50.00	140	25
59+00.00	205	26
59+50.00	219	35
60+00.00	81	181

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
60+00.00	0	0
60+50.00	2	720
61+00.00	0	1227
61+50.00	0	1352
62+00.00	0	1566
62+50.00	0	1750
63+00.00	0	1778
63+50.00	0	1773
64+00.00	0	1749
64+50.00	0	1773
65+00.00	0	1690
65+50.00	0	1614
66+00.00	0	1616
66+50.00	0	1516

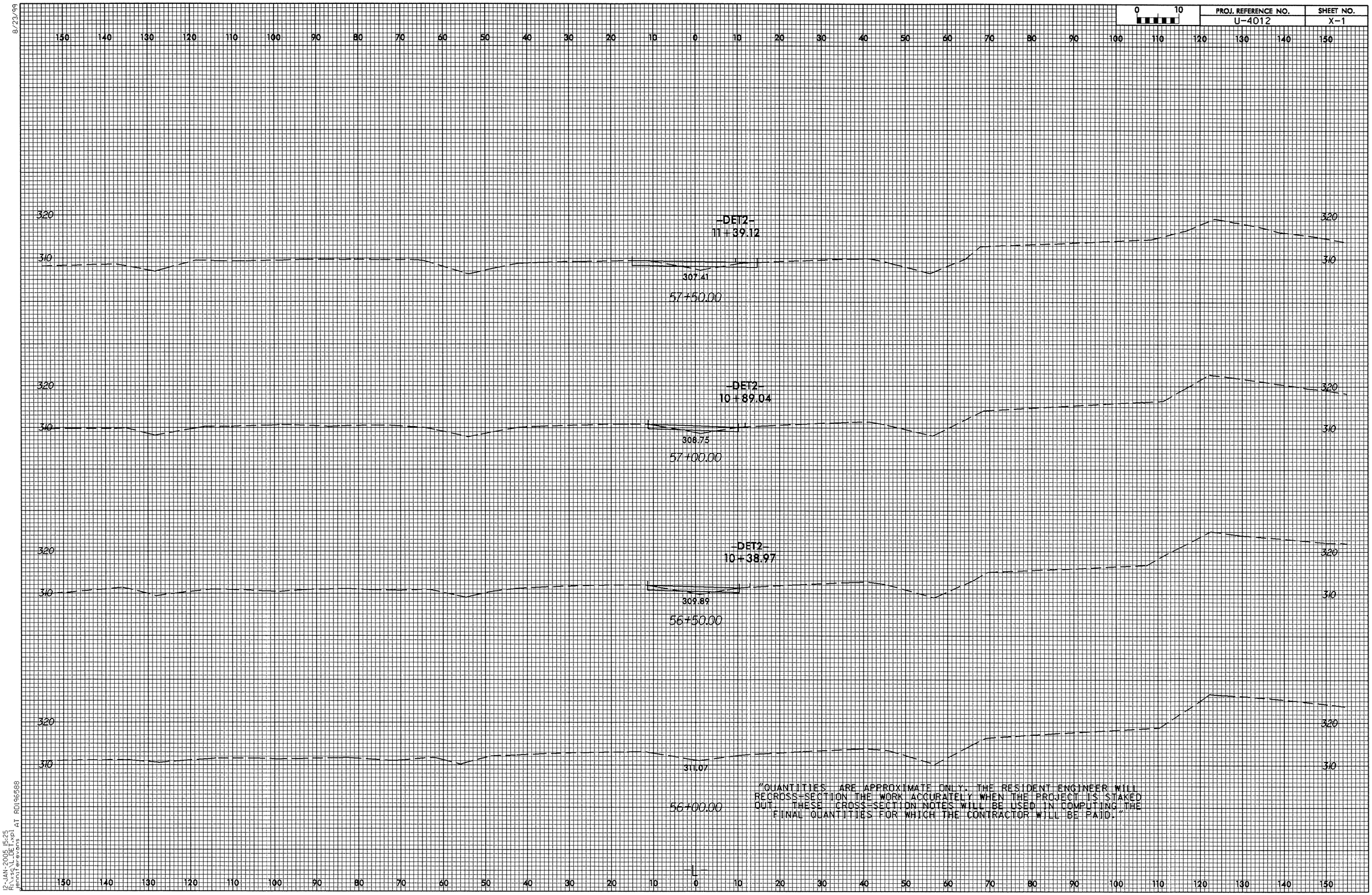
Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
67+00.00	0	1391
67+50.00	0	1336
68+00.00	0	1301
68+50.00	0	1195
68+72.48	0	495
69+00.54	0	309

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
71+52.54	0	0
71+72.60	0	141
72+00.00	0	384
72+50.00	0	715
73+00.00	0	712
73+50.00	0	646
74+00.00	0	614
74+50.00	0	650
75+00.00	0	661
75+50.00	0	652
76+00.00	0	641
76+50.00	0	615
77+00.00	0	587
77+50.00	0	536
78+00.00	1	413
78+50.00	3	361
79+00.00	8	285

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
79+00.00	0	0
79+50.00	78	116
80+00.00	127	52
80+50.00	96	44
81+00.00	69	36
81+50.00	48	29
82+00.00	48	22
82+50.00	59	13
83+00.00	60	10
83+50.00	57	14
84+00.00	55	16
84+50.00	68	8
85+00.00	81	0

Station L-RT L	Uncl. Exc. L-RT (cu. yd.)	Embt L-RT (cu. yd.)
85+50.00	85	0
86+00.00	92	0
86+50.00	46	0

Station RAMP C Rpc	Uncl. Exc. RAMP C (cu. yd.)	Embt RAMP C (cu. yd.)
11+00.00	0	0
11+50.00	20	0
12+00.00	38	0
12+50.00	68	0
13+00.00	174	1
13+50.00	353	0
14+00.00	440	0
14+50.00	482	0
15+00.00	594	0
15+50.00	634	0
16+00.00	536	0
16+50.00	323	0
17+00.00	117	43
17+50.00	33	91
18+00.00	26	117
18+50.00	27	122
19+00.00	27	116
19+50.00	23	117
20+00.00	39	58
20+50.00	56	16
21+00.00	44	18
21+50.00	17	5



"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."

8/23/99

12-JAN-2005 15:25
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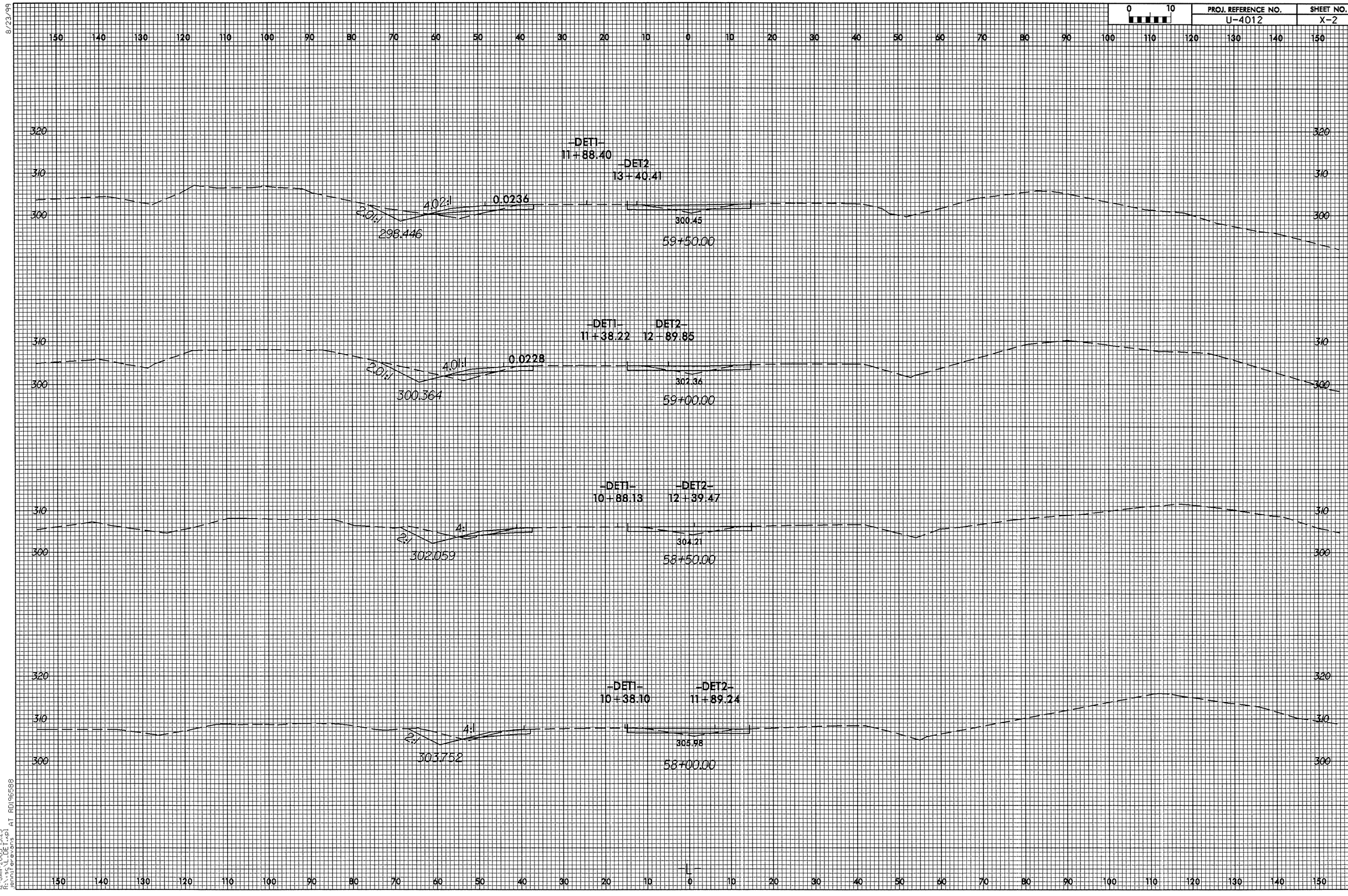
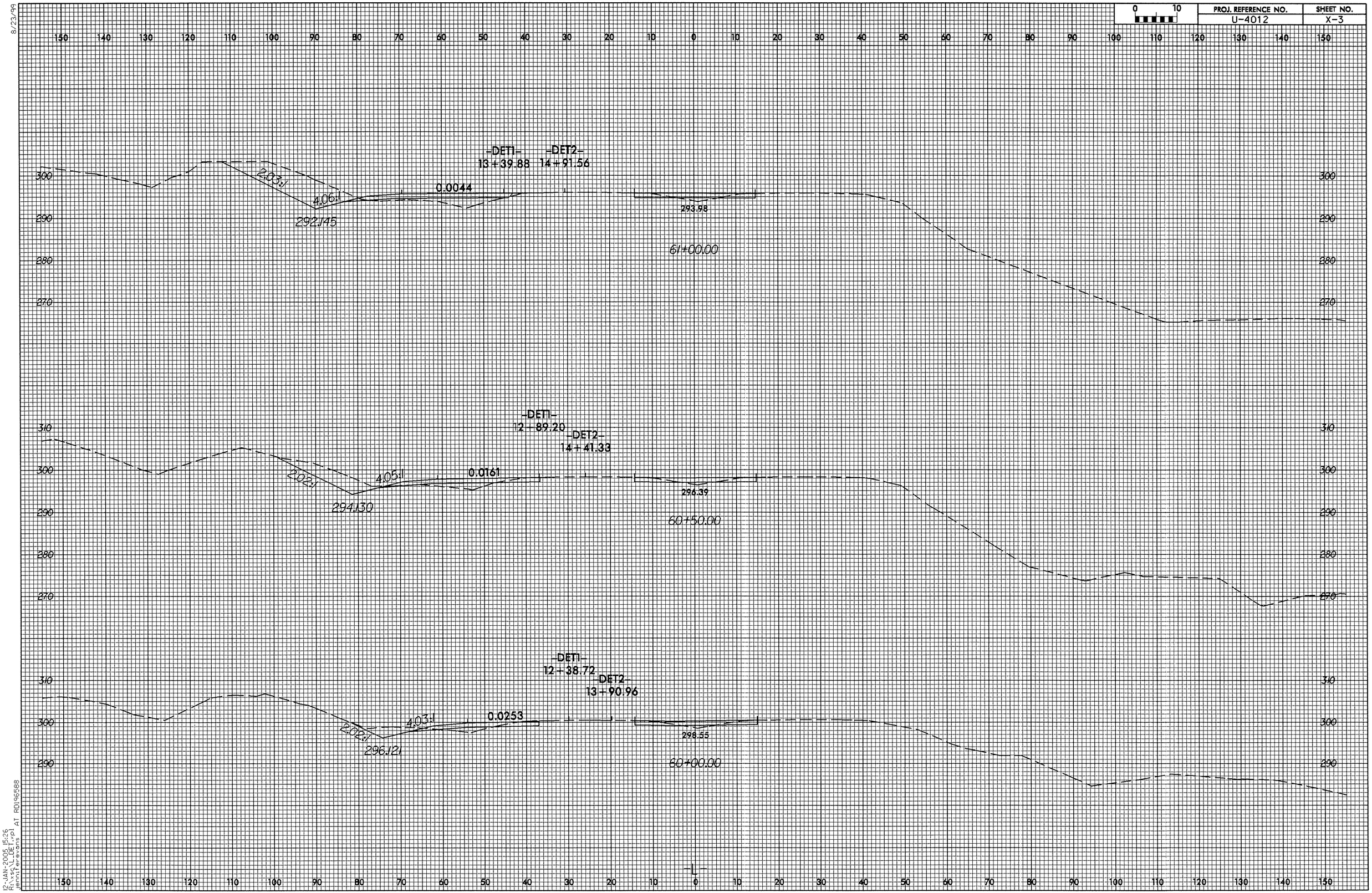
jennifer.evans AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-2
-DET1-
11+88.40
-DET2-
13+40.41
4.02:1
0.0236
2.01:1
298.446
300.45
59+50.00
-DET1-
11+38.22
-DET2-
12+89.85
4.01:1
0.0228
2.01:1
300.364
302.36
59+00.00
-DET1-
10+88.13
-DET2-
12+39.47
4:1
2:1
302.059
304.21
58+50.00
-DET1-
10+38.10
-DET2-
11+89.24
4:1
2:1
303.752
305.98
58+00.00



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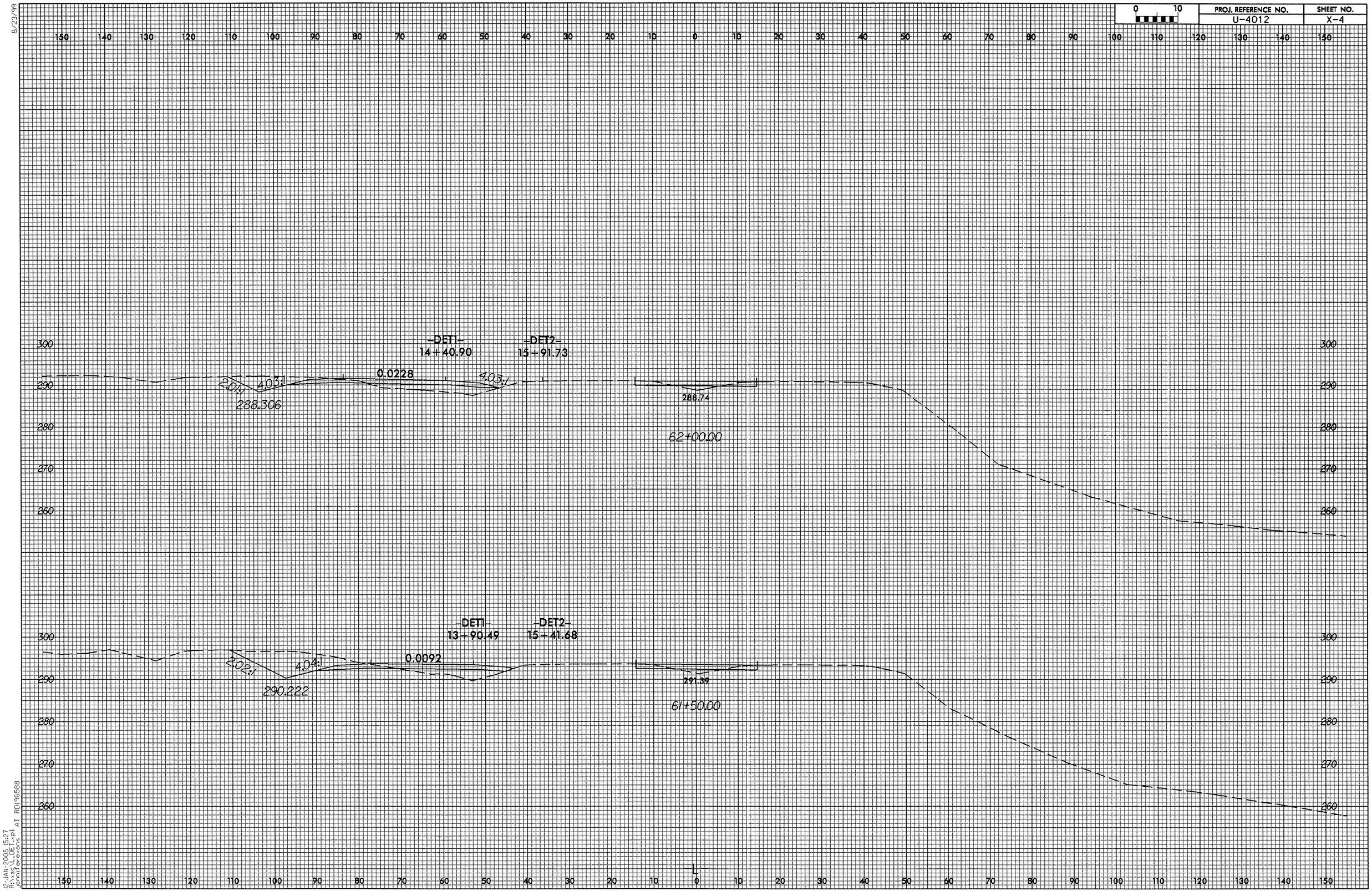
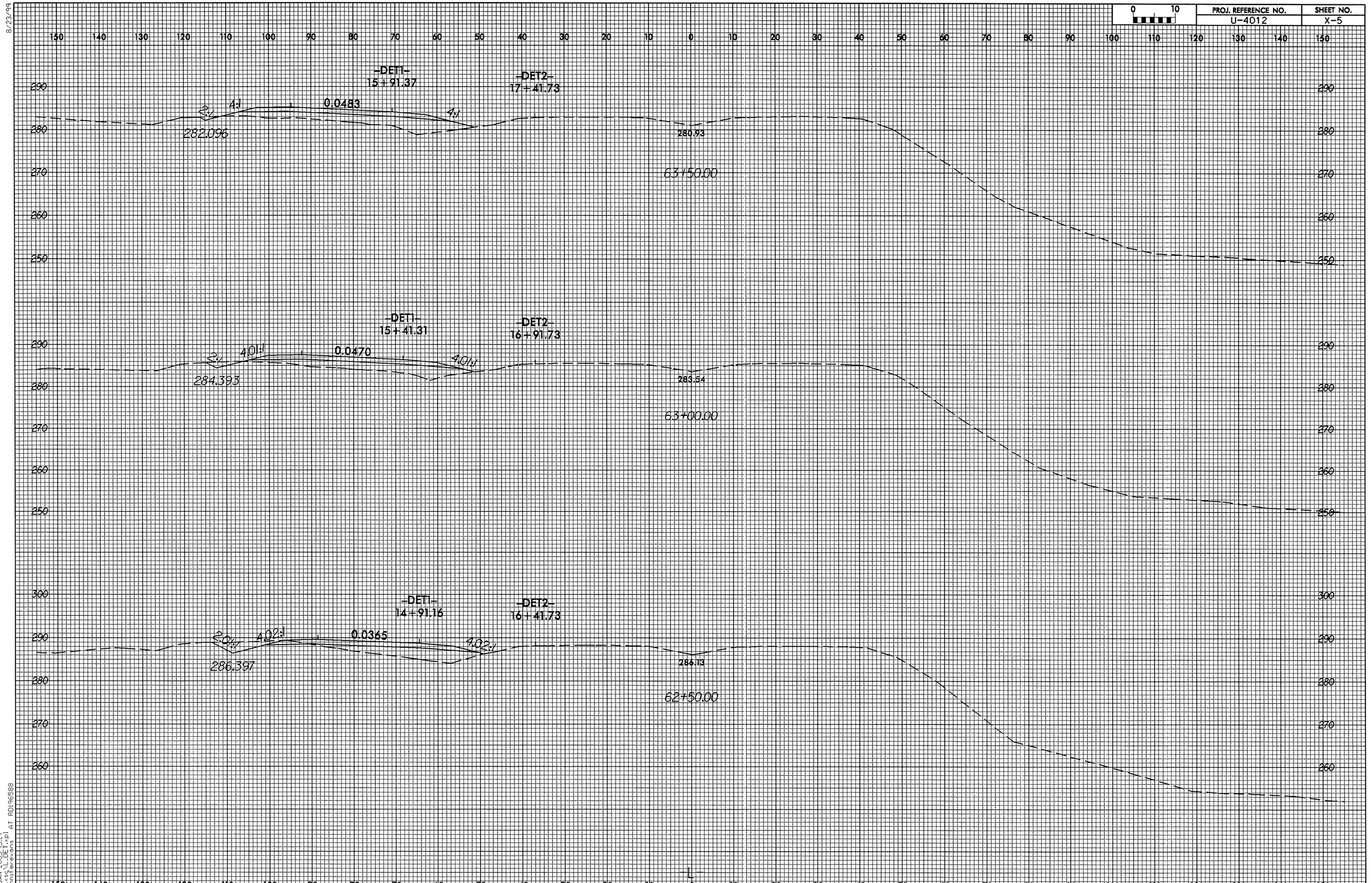
jennifer evans AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-4
-DET1-
14+40.90
-DET2-
15+91.73
0.0228
2.01:1
4.03:1
4.03:1
288.306
288.74
62+00.00
-DET1-
13+90.49
-DET2-
15+41.68
0.0092
2.02:1
4.04:1
290.222
291.39
61+50.00
-L-

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-5



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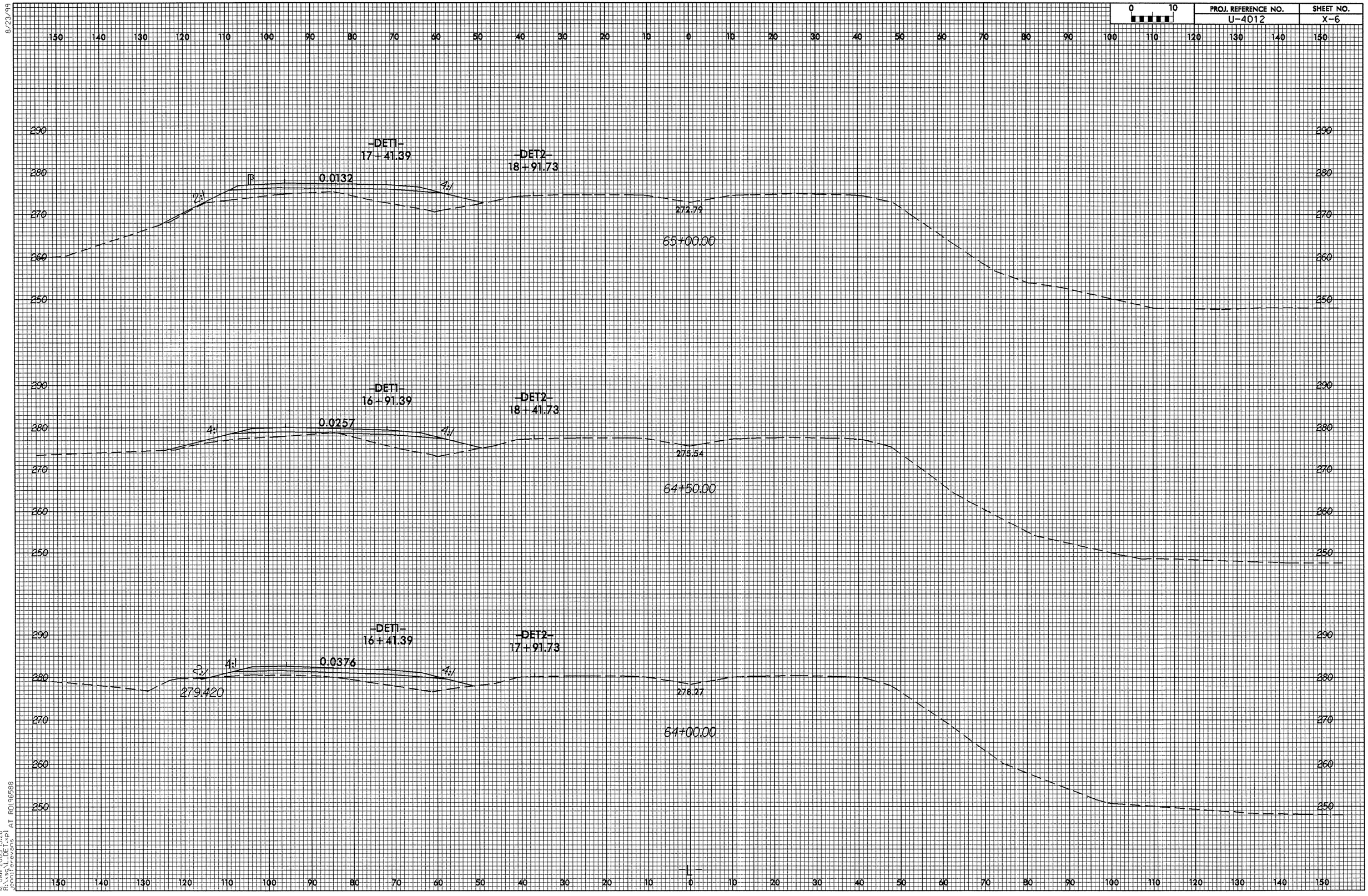
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-6



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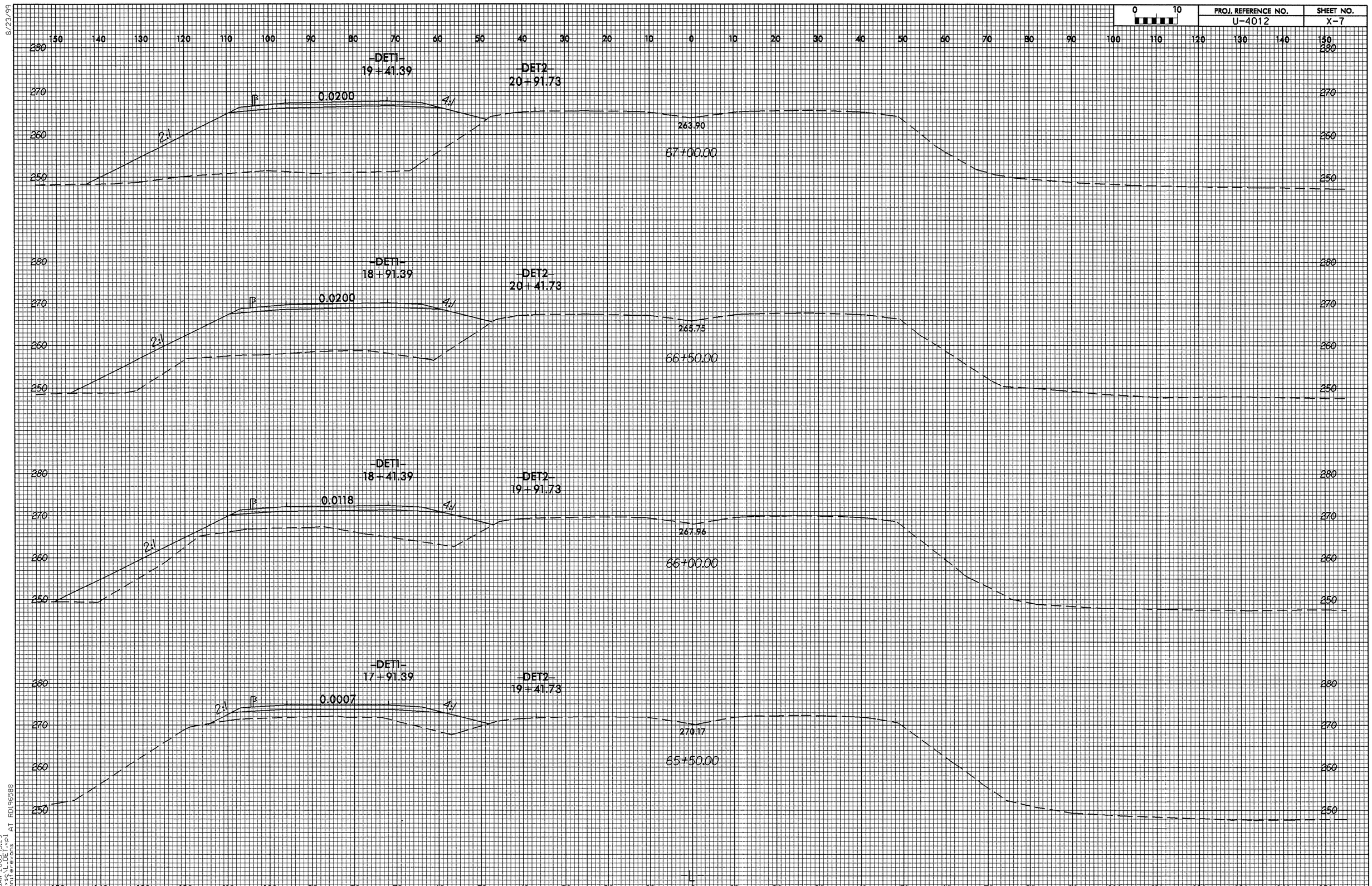
jennifer.evans
AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-7



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Jennifer evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-8

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

270 260 250

-DET1-
21+41.39

-DET2-
22+91.73

0.0200

2:1

4:1

259.47

69+00.00

-DET1-
20+91.39

-DET2-
22+41.73

0.0200

2:1

4:1

259.84

68+50.00

-DET1-
20+41.39

-DET2-
21+91.73

0.0200

2:1

4:1

260.65

68+00.00

-DET1-
19+91.39

-DET2-
21+41.73

0.0200

2:1

4:1

262.50

67+50.00

L

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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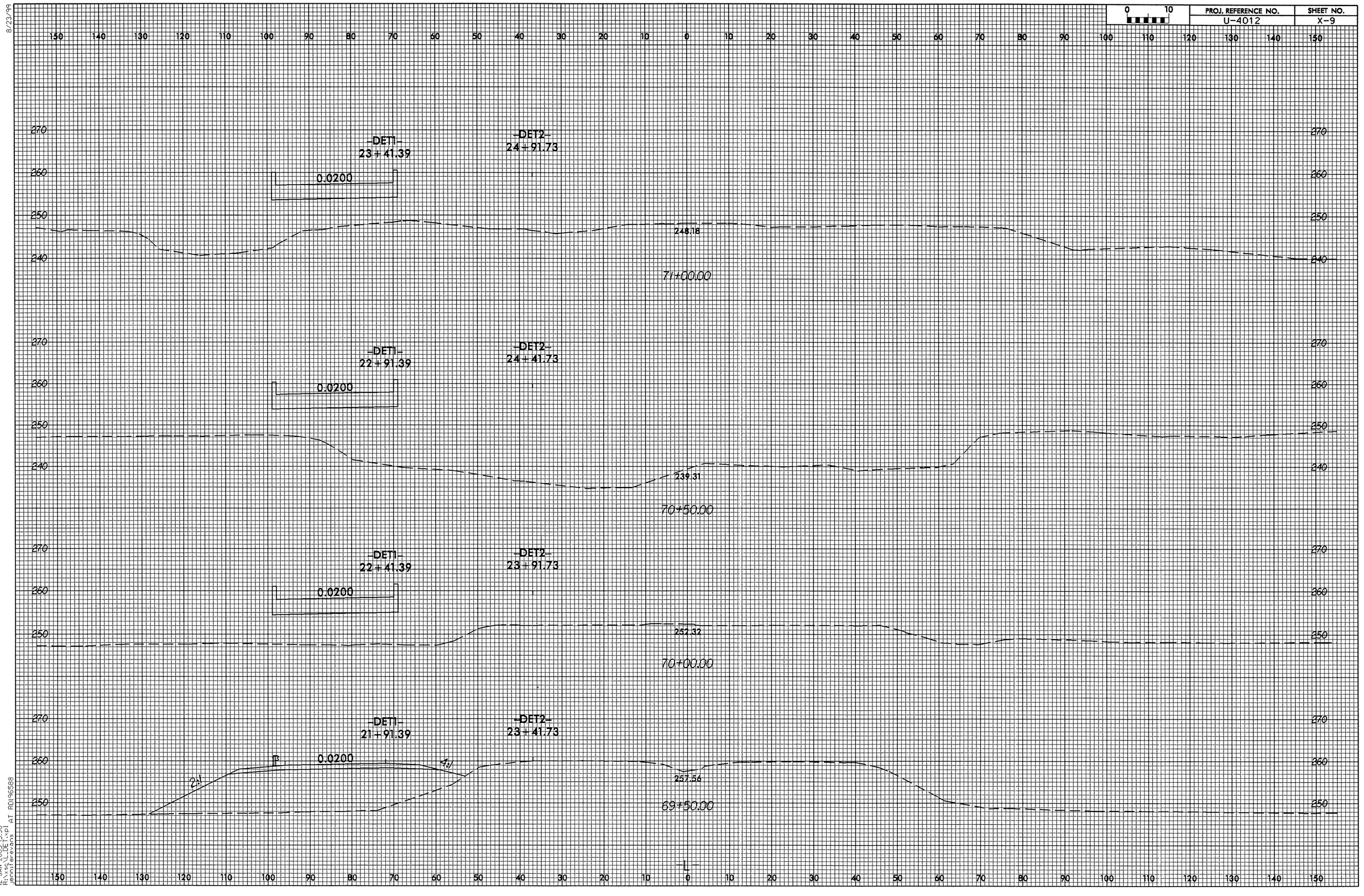
jennifer.evans
AT RD196588



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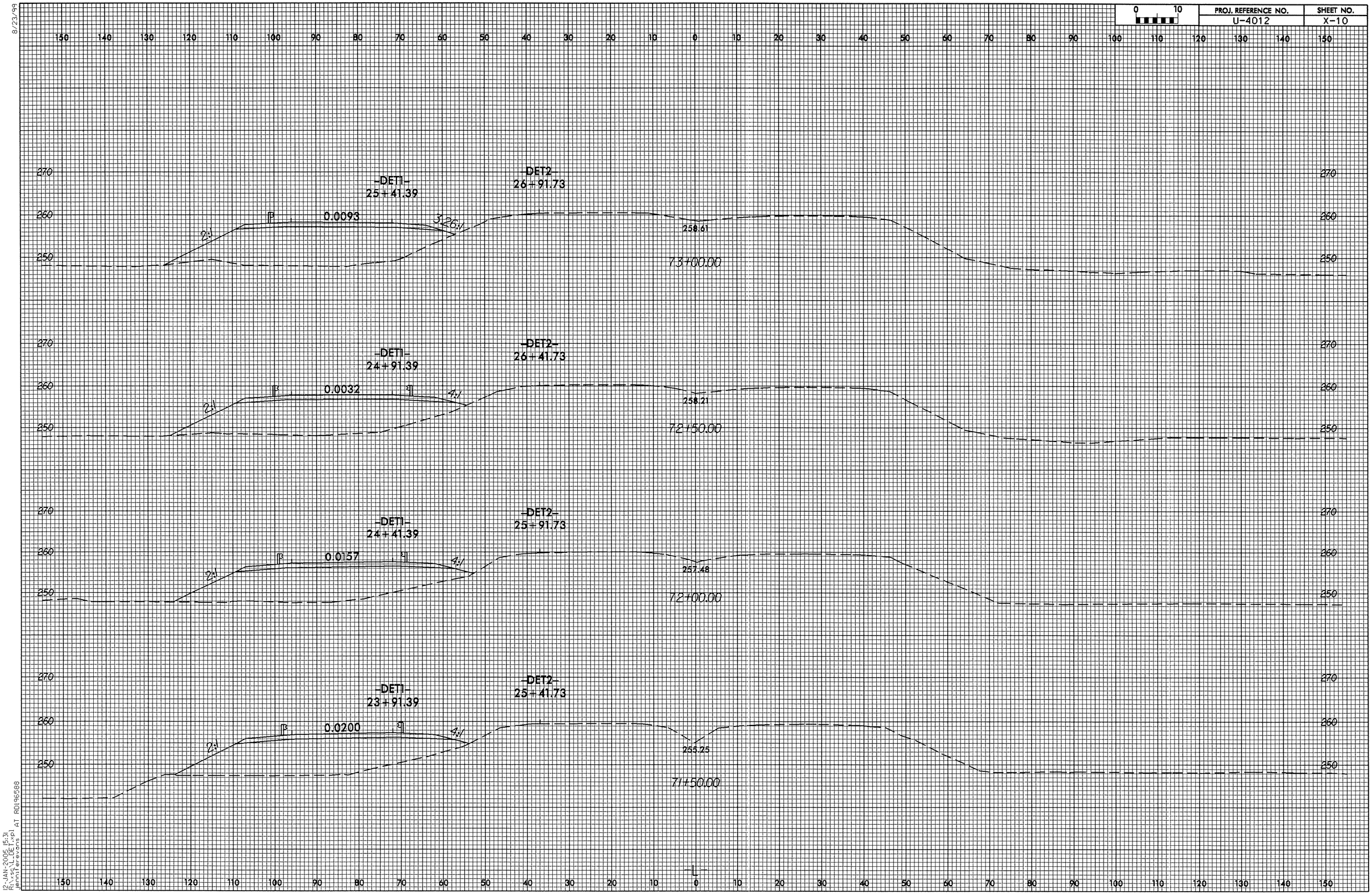
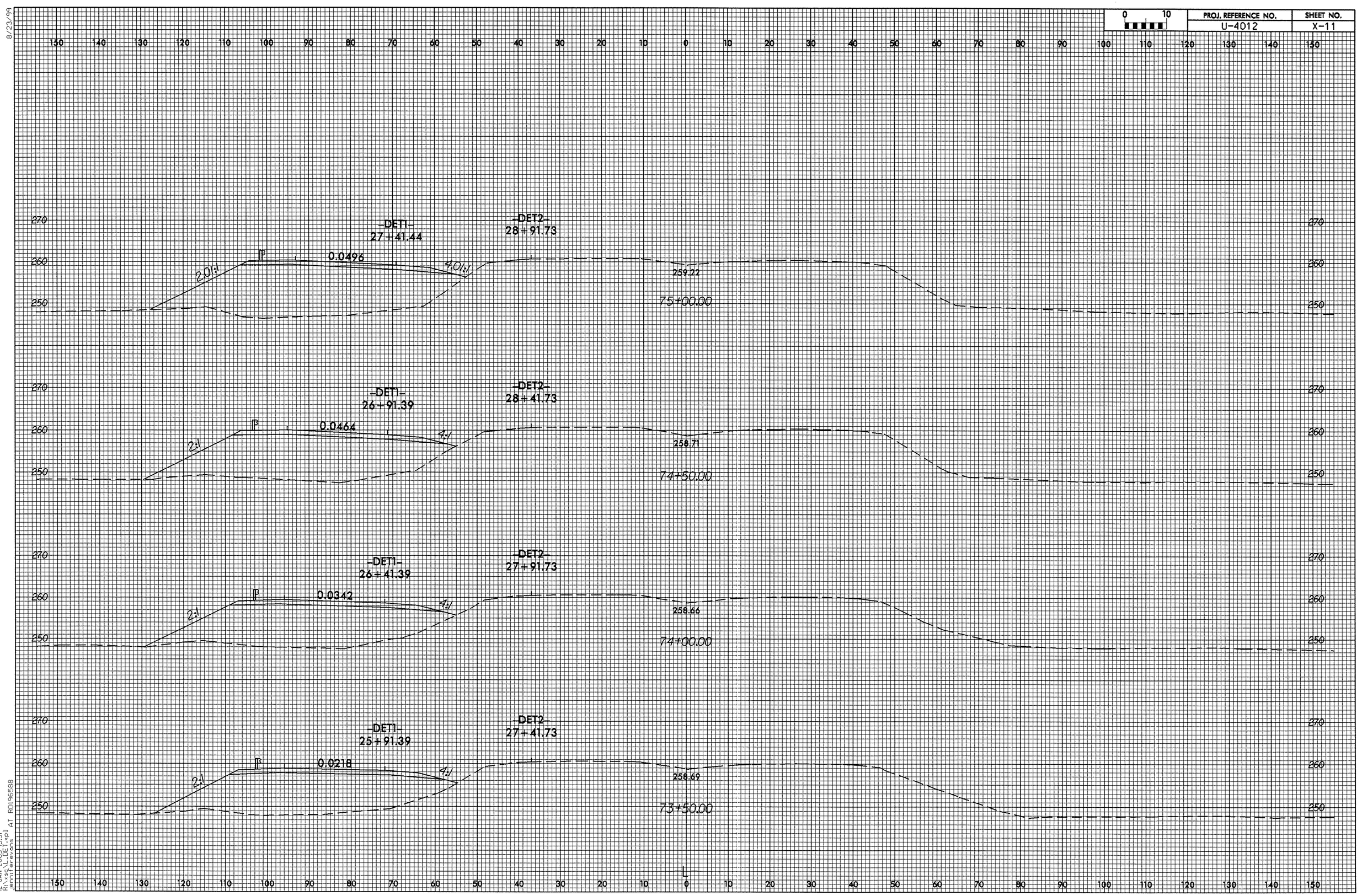
R:\xsc\L_DET.xpl
jennifer.evans AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-10
0 10
-DET1-
25+41.39
-DET2-
26+91.73
0.0093
3.26:1
2:1
258.61
73+00.00
-DET1-
24+91.39
-DET2-
26+41.73
0.0032
4:1
2:1
258.21
72+50.00
-DET1-
24+41.39
-DET2-
25+91.73
0.0157
4:1
2:1
257.48
72+00.00
-DET1-
23+91.39
-DET2-
25+41.73
0.0200
4:1
2:1
255.25
71+50.00
-L-

8/23/99

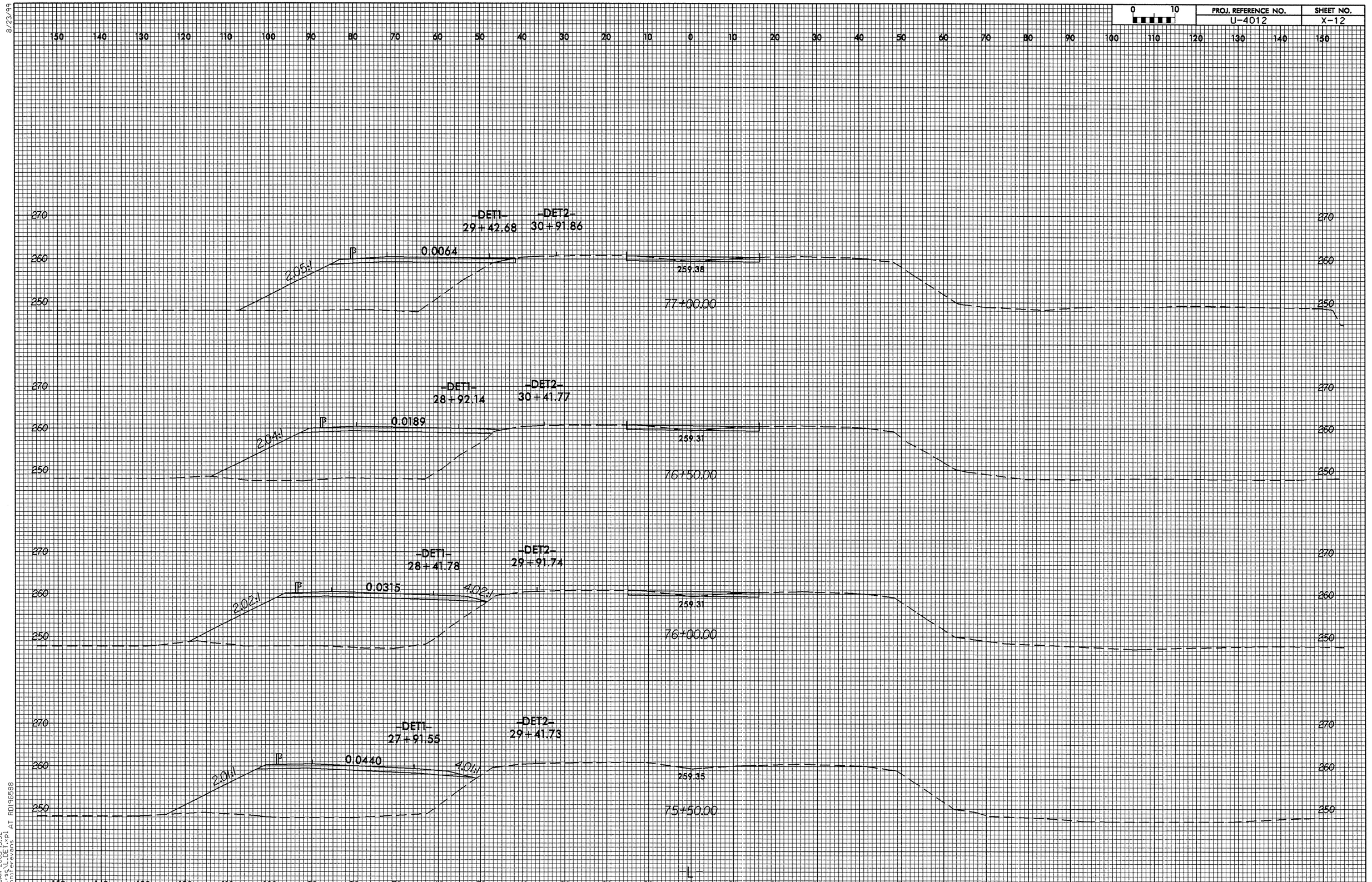
PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-11



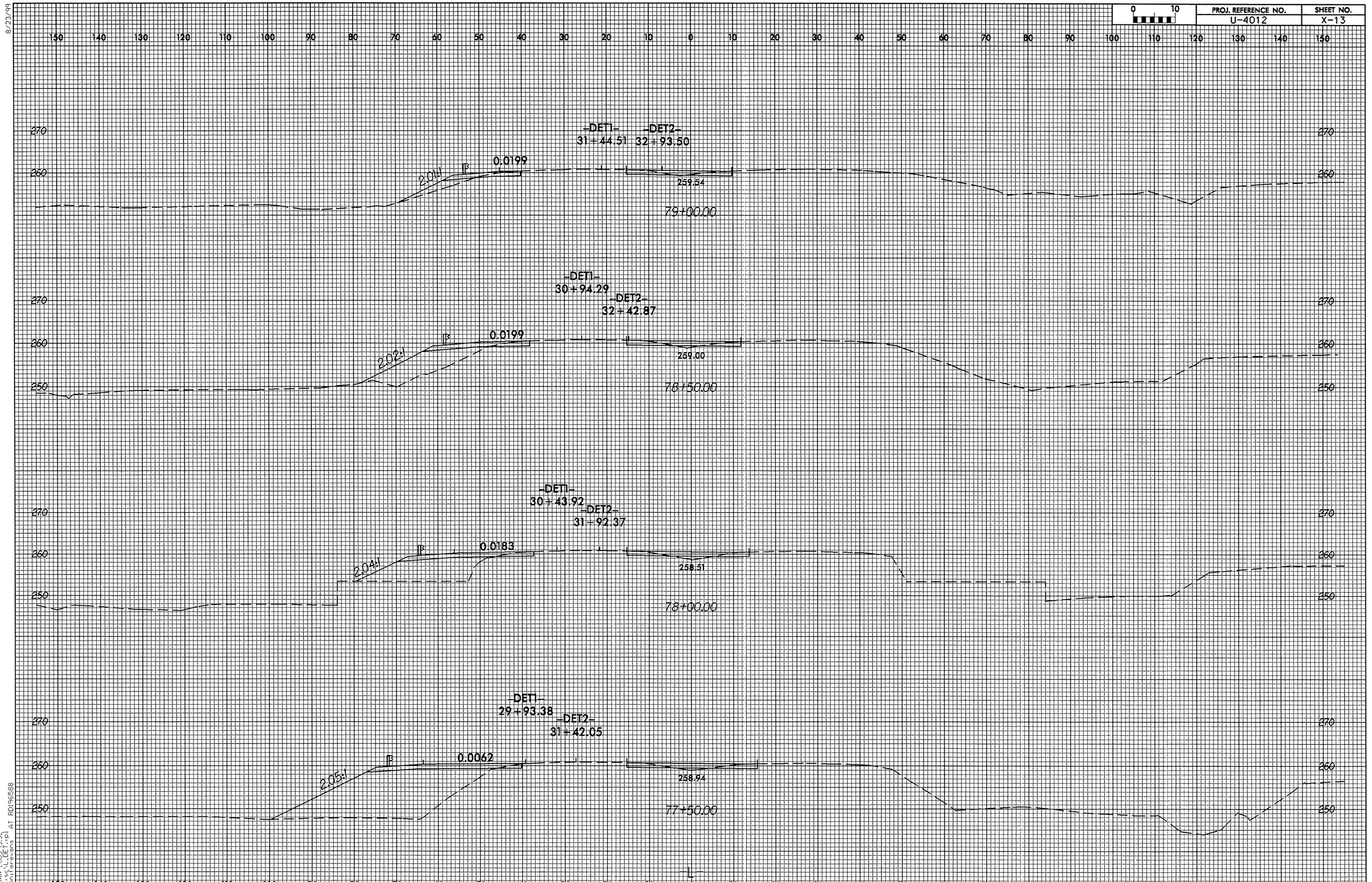
12-JAN-2005 15:31
R:\vsc\L_DET.xpl
jennifer evans
AT R0196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-12



12-JAN-2005 15:32
R:\sc\L_DET.xpl
jennifer-evans
AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-13
0 10
-DET1-
31+44.51
-DET2-
32+93.50
0.0199
2.01:1
259.54
79+00.00
-DET1-
30+94.29
-DET2-
32+42.87
0.0199
2.02:1
259.00
78+50.00
-DET1-
30+43.92
-DET2-
31+92.37
0.0183
2.04:1
258.51
78+00.00
-DET1-
29+93.38
-DET2-
31+42.05
0.0062
2.05:1
258.94
77+50.00

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-14

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

260

262.58

82+00.00

270

260

-DET2-
35+44.60

261.90

81+50.00

270

260

-DET2-
34-94.57

261.48

81+00.00

270

260

-DET1-
32+94.68

-DET2-
34+44.48

260.86

80+50.00

270

260

-DET1-
32+44.67

-DET2-
33+94.30

260.47

80+00.00

270

260

-DET1-
31+94.63

-DET2-
33+43.98

260.07

79+50.00

L

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 15:33
R:\sg\L_DET.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-15

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

330
320
310

-DET2-
11+39.12

-DET3-
11+39.58

0.0200

307.41

57+50.00

-DET2-
10+89.04

-DET3-
10+89.51

0.0200

308.75

57+00.00

-DET2-
10+38.97

-DET3-
10+39.53

0.0200

309.89

56+50.00

311.07

56+00.00

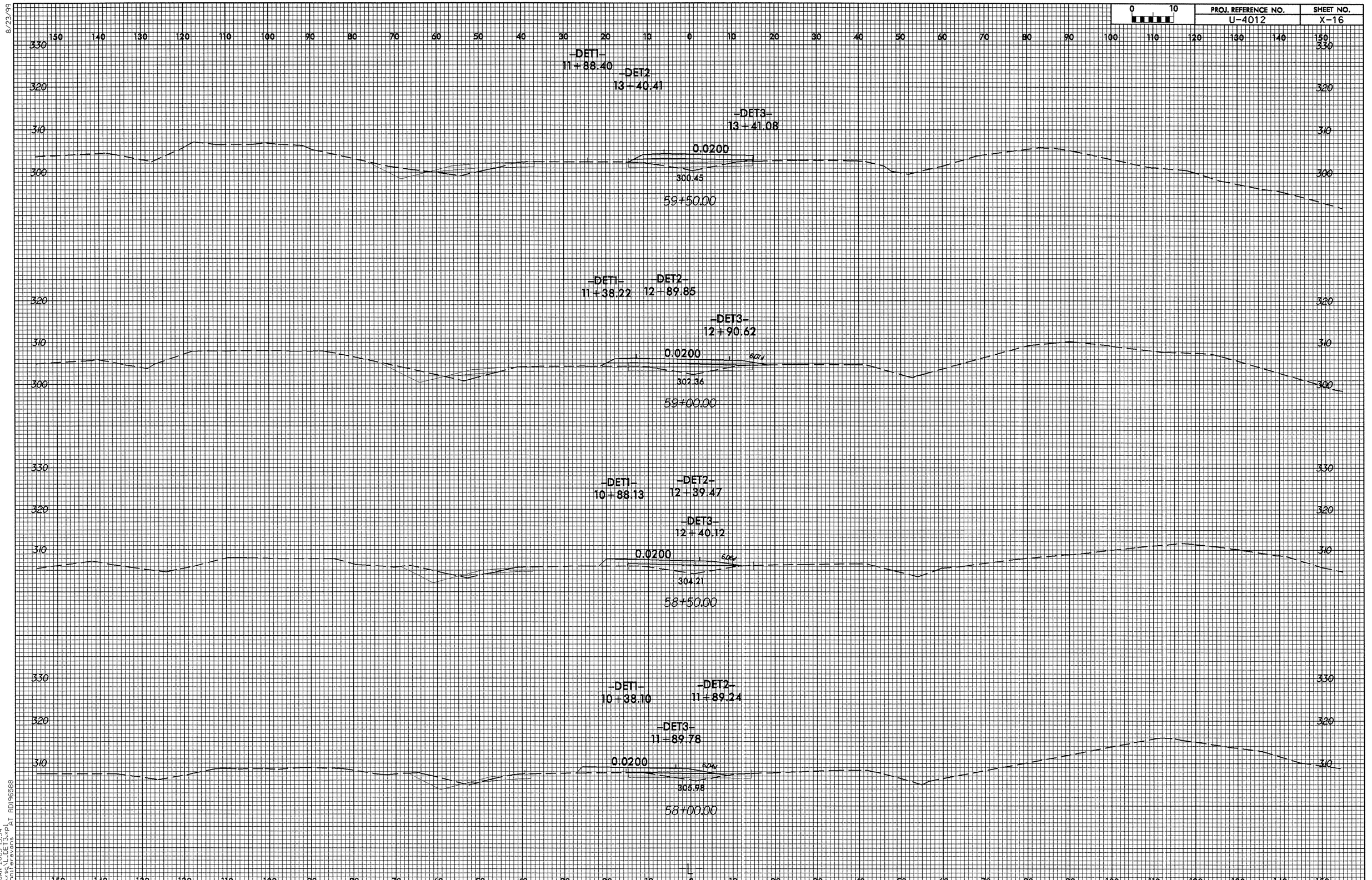
-L-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

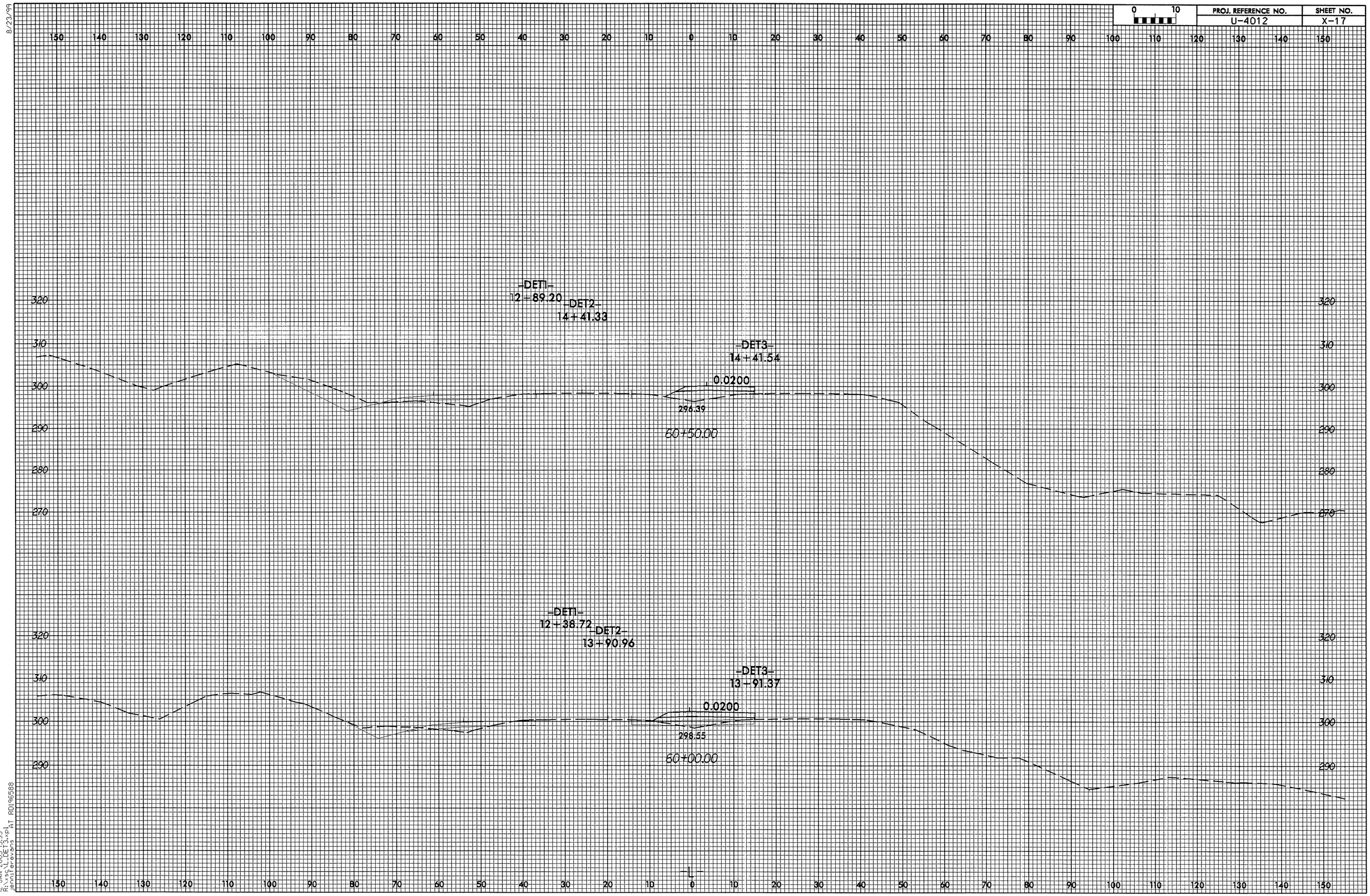
12-JAN-2005 15:34
R:\sql\DET3.pl
jennifer.evans AT RD1946568

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-16

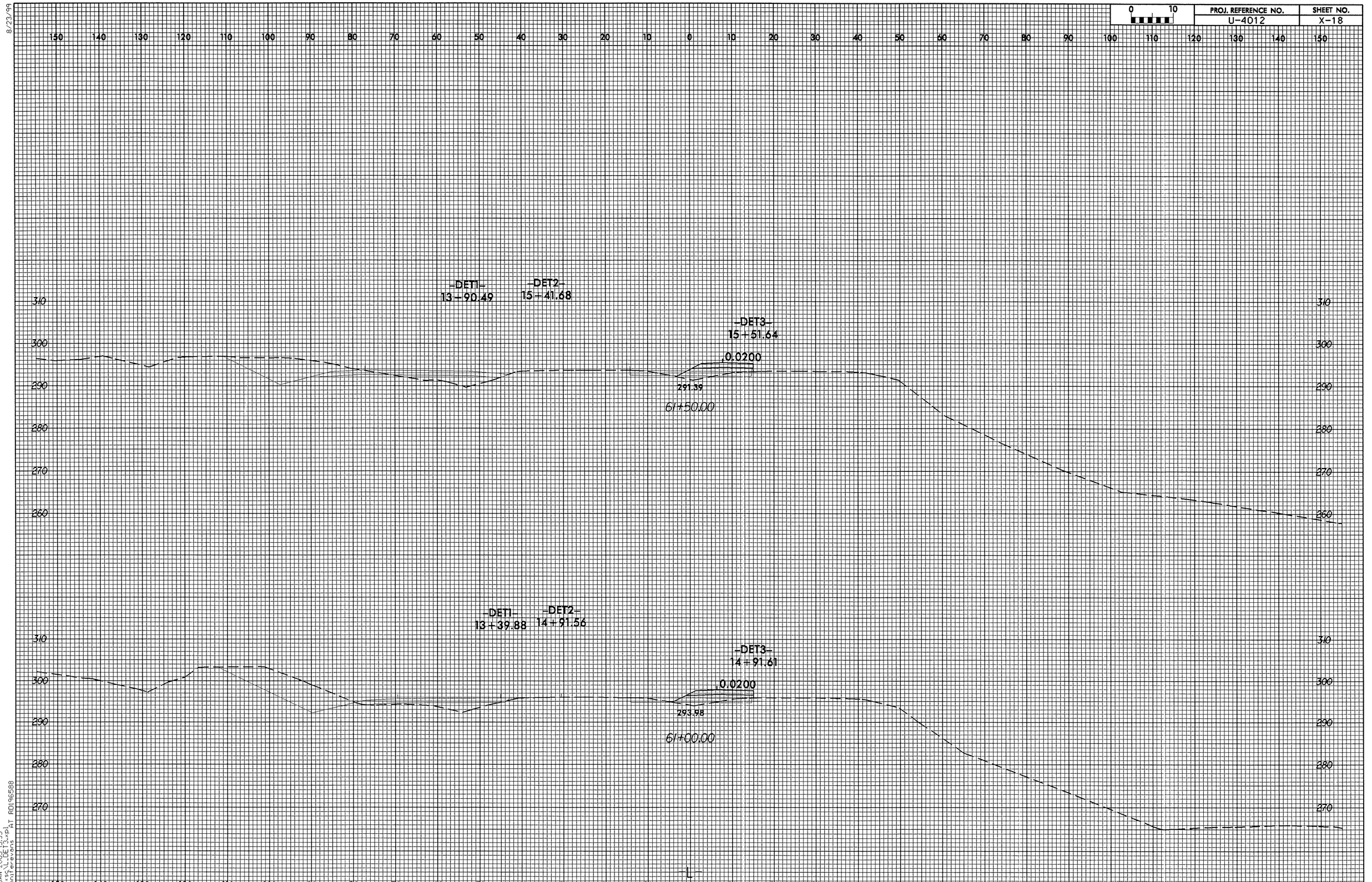


12-JAN-2005 15:34
R:\vss\L_DET3.xpl
Jennifer Evans PAT RD196588



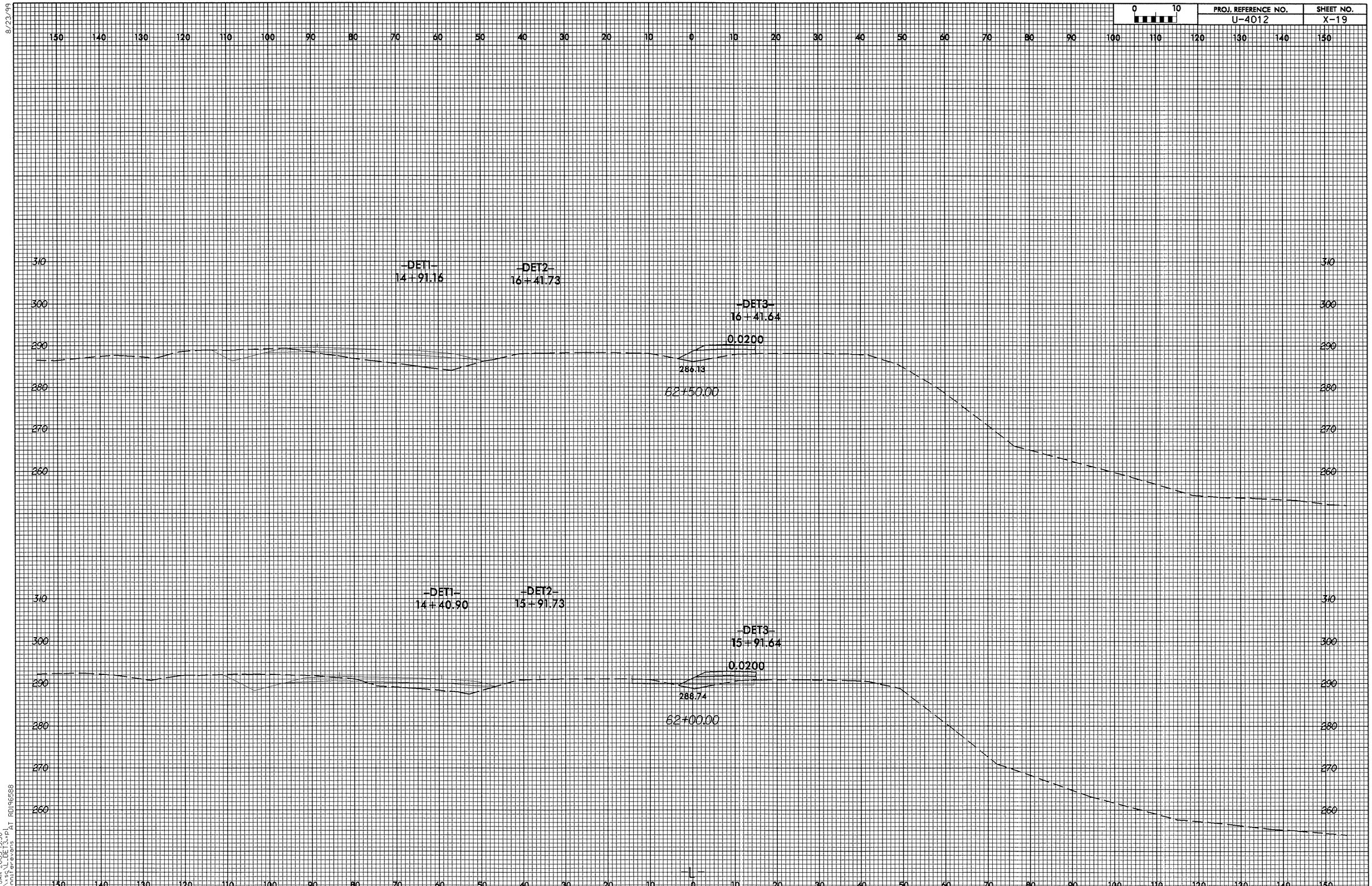
8/23/99

12-JAN-2005 15:35
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588



8/23/99

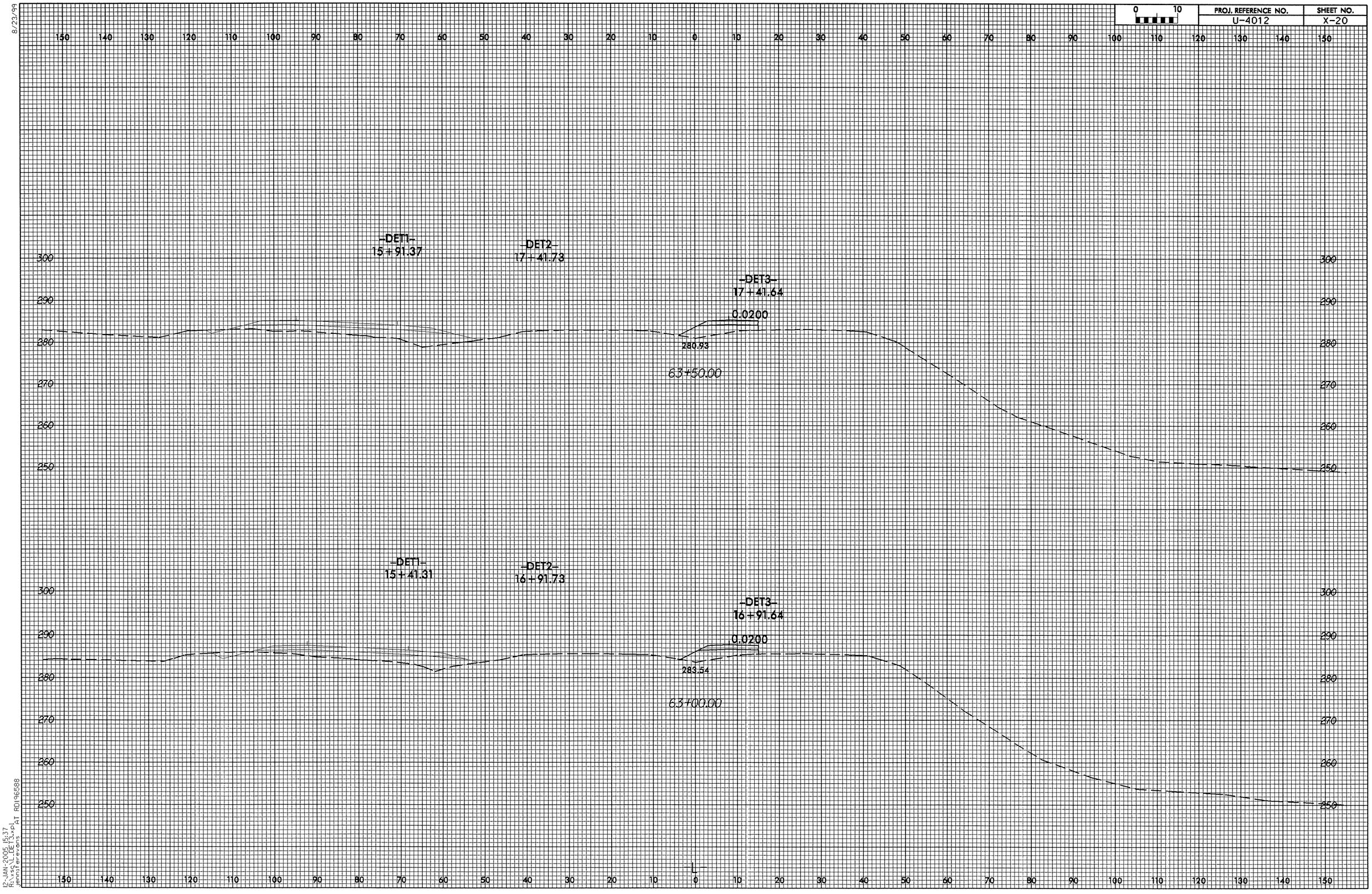
12-JAN-2005 15:35
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588



8/23/99
12-JAN-2005 15:36
R:\sc\L_DET3.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-20



12-JAN-2005 15:37
R:\vsg\L_DET3.xpl
jennifer.evans AT RDI96588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-21

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

300
290
280
270
260
250

-DET1-
16+91.39

-DET2-
18+41.73

-DET3-
18+41.64

0.0200

275.54

64+50.00

-DET1-
16+41.39

-DET2-
17+91.73

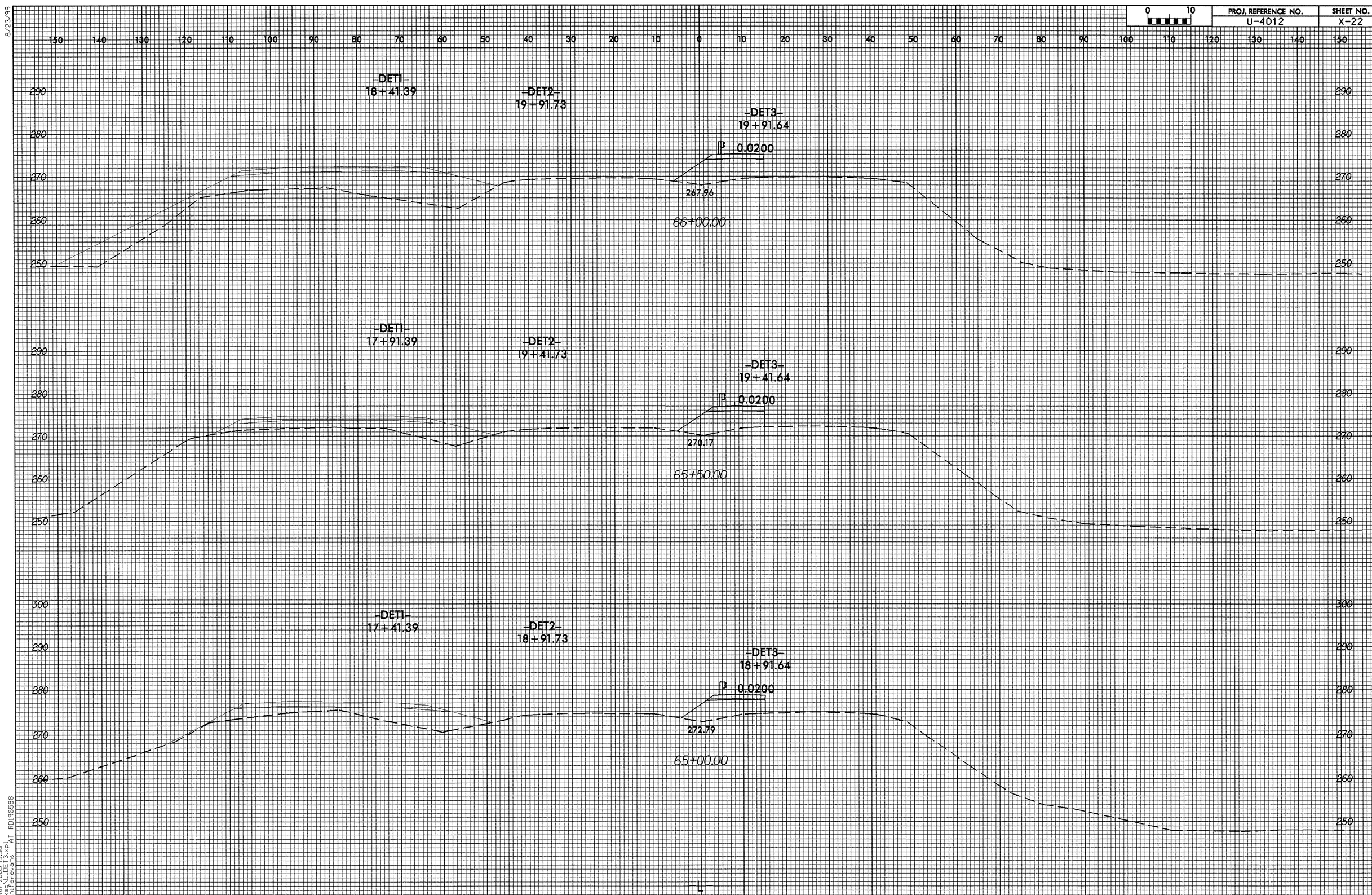
-DET3-
17+91.64

0.0200

278.27

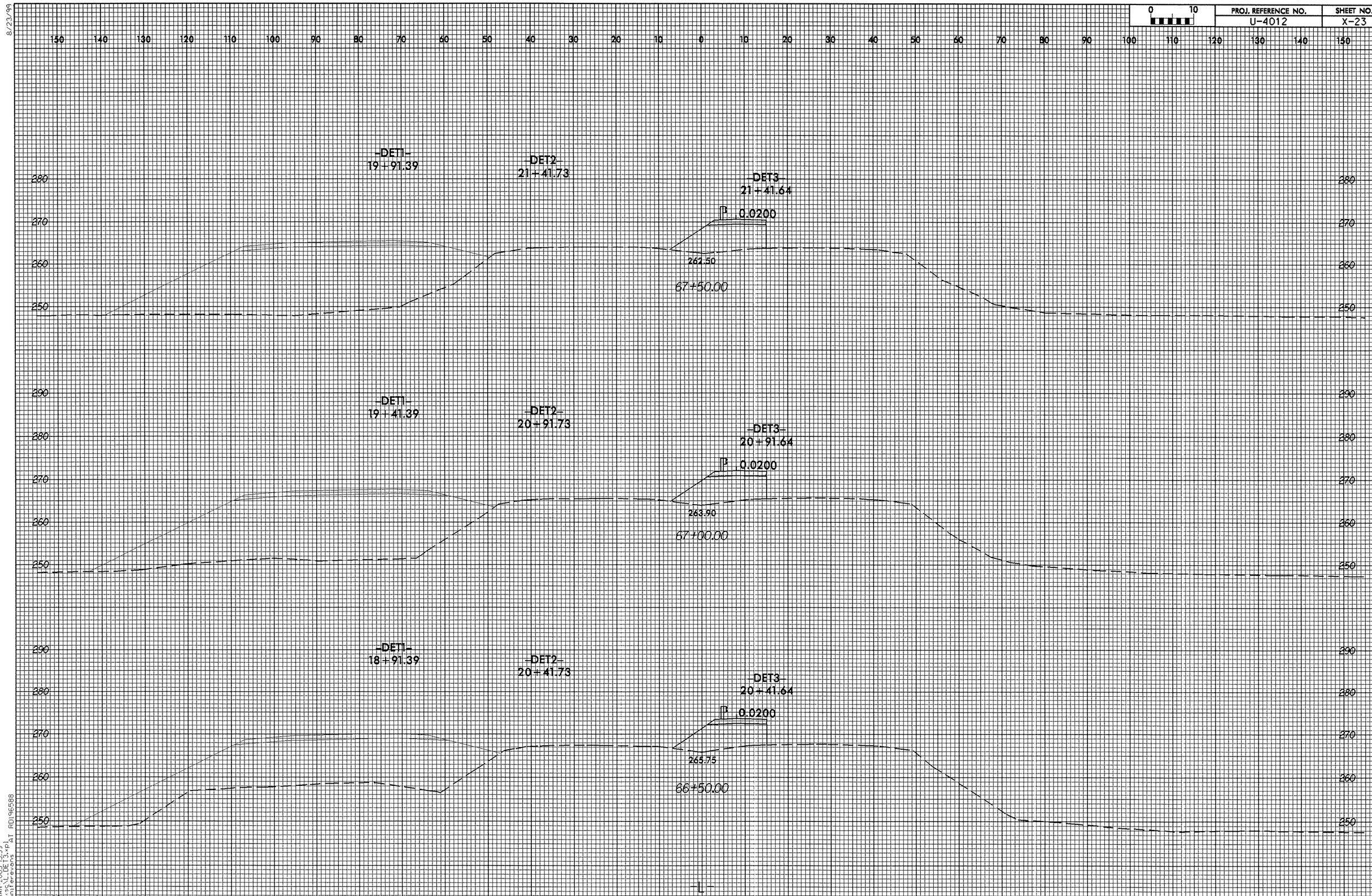
64+00.00

12-JAN-2005 15:37
R:\vsc\L_DET3.prt
jennifer.evans AT RD196588

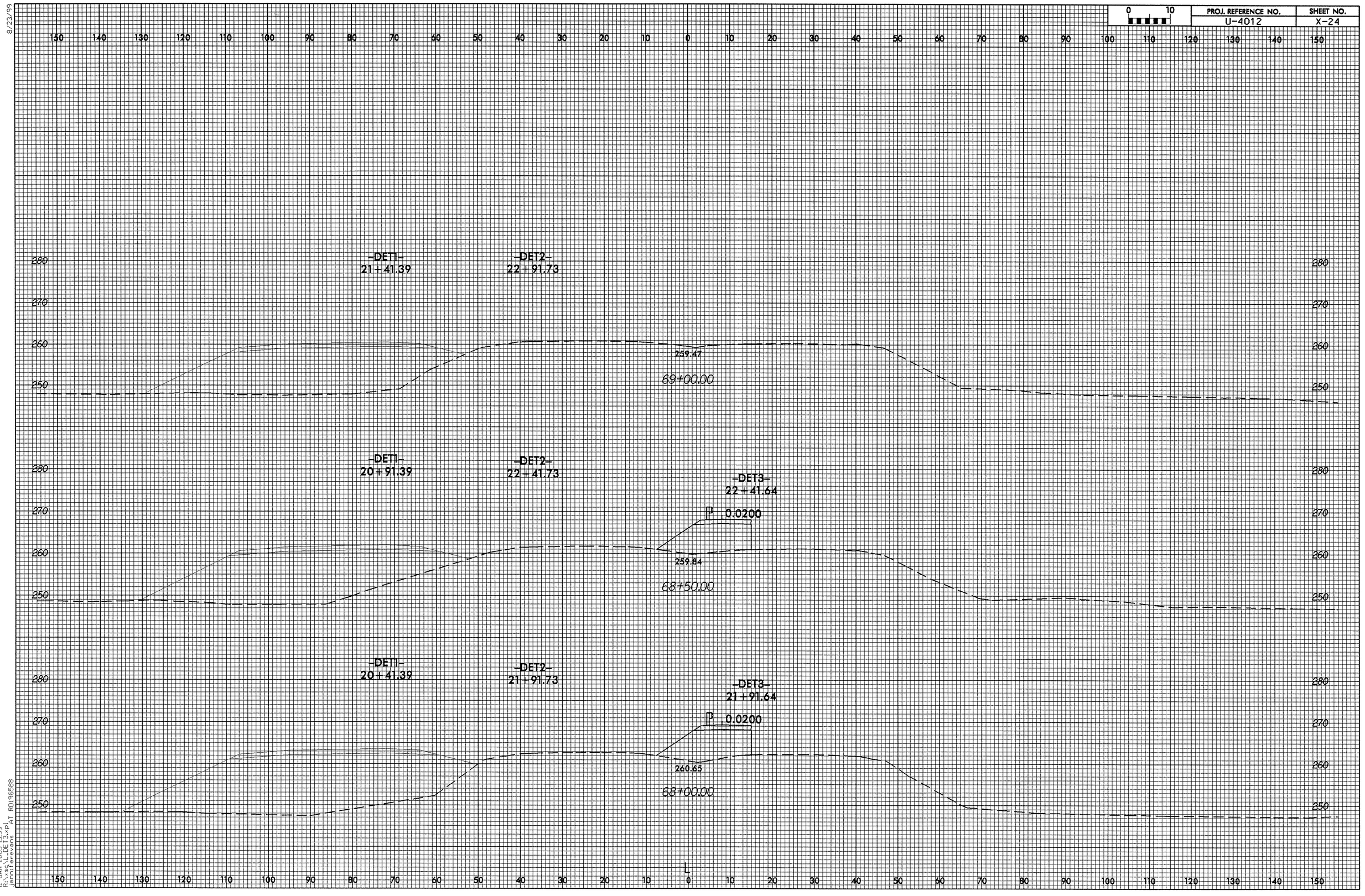


8/23/99

12-JAN-2005 15:38
R:\xsc\L_DET3.xpl
jenniferevans AT RD196588

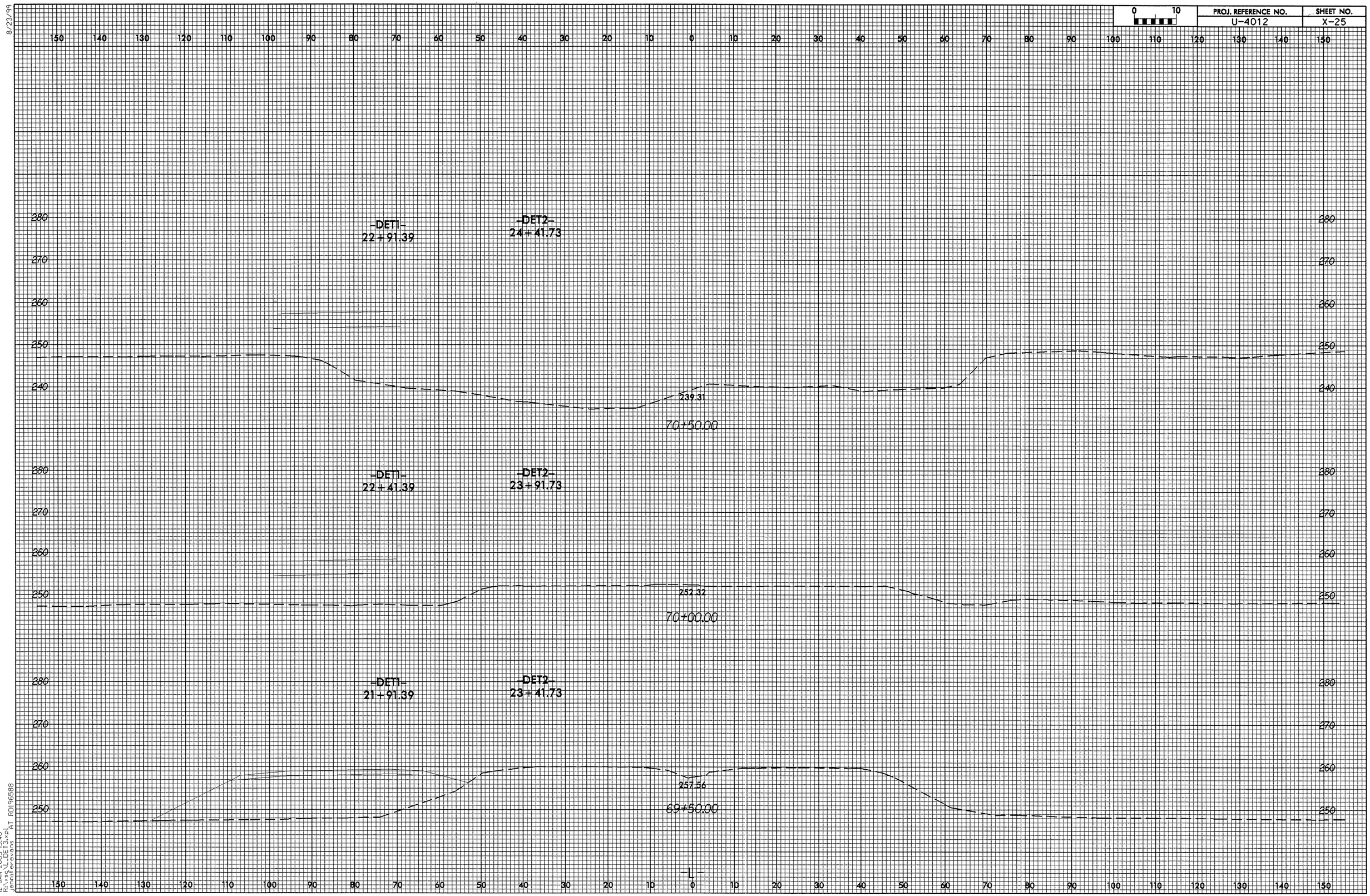


PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-23
0 10
-DET1-
19+91.39
-DET2-
21+41.73
-DET3-
21+41.64
0.0200
262.50
67+50.00
-DET1-
19+41.39
-DET2-
20+91.73
-DET3-
20+91.64
0.0200
263.90
67+00.00
-DET1-
18+91.39
-DET2-
20+41.73
-DET3-
20+41.64
0.0200
265.75
66+50.00
-L-



8/23/99

12-JAN-2005 15:39
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588

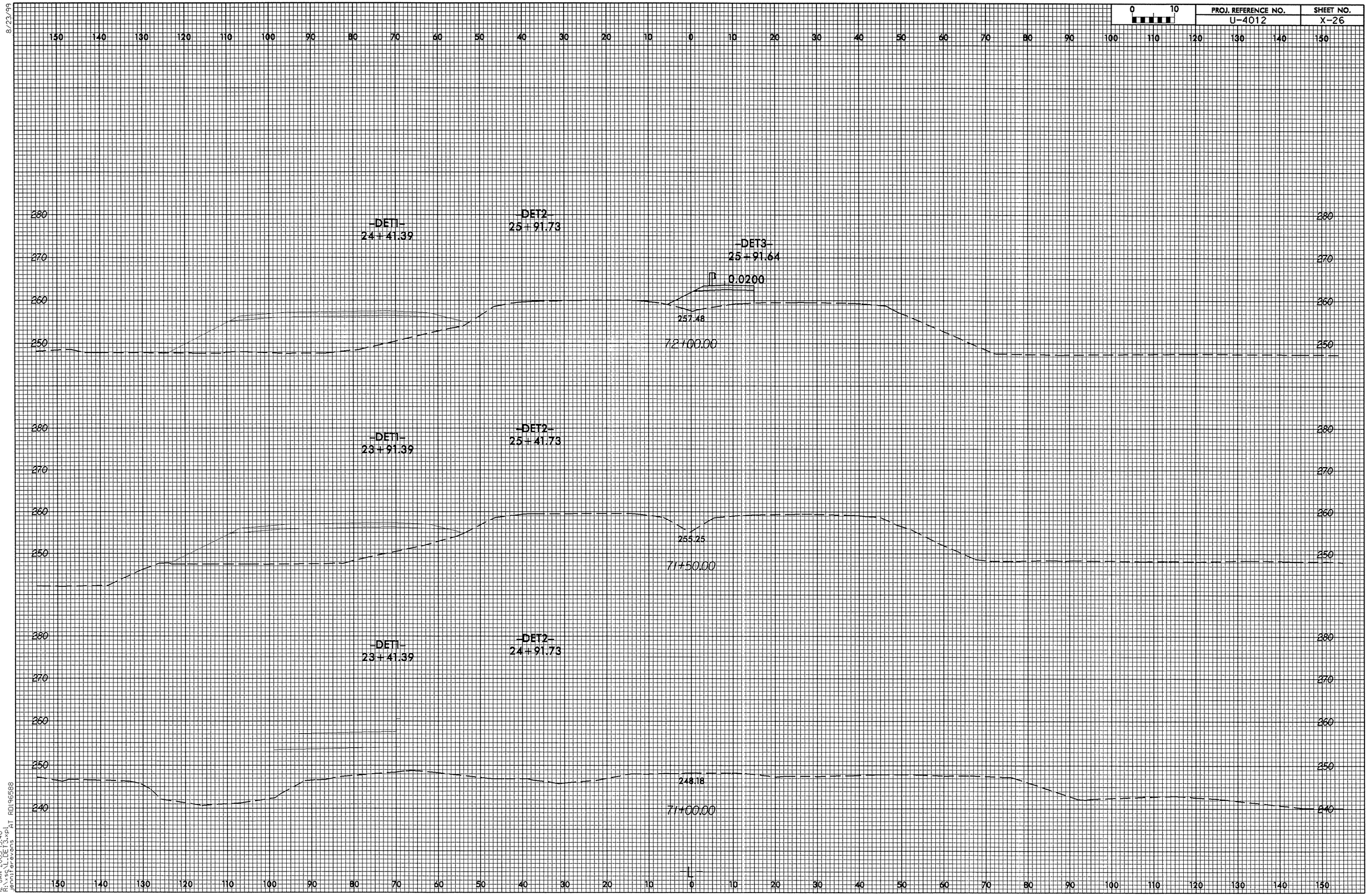


8/23/99

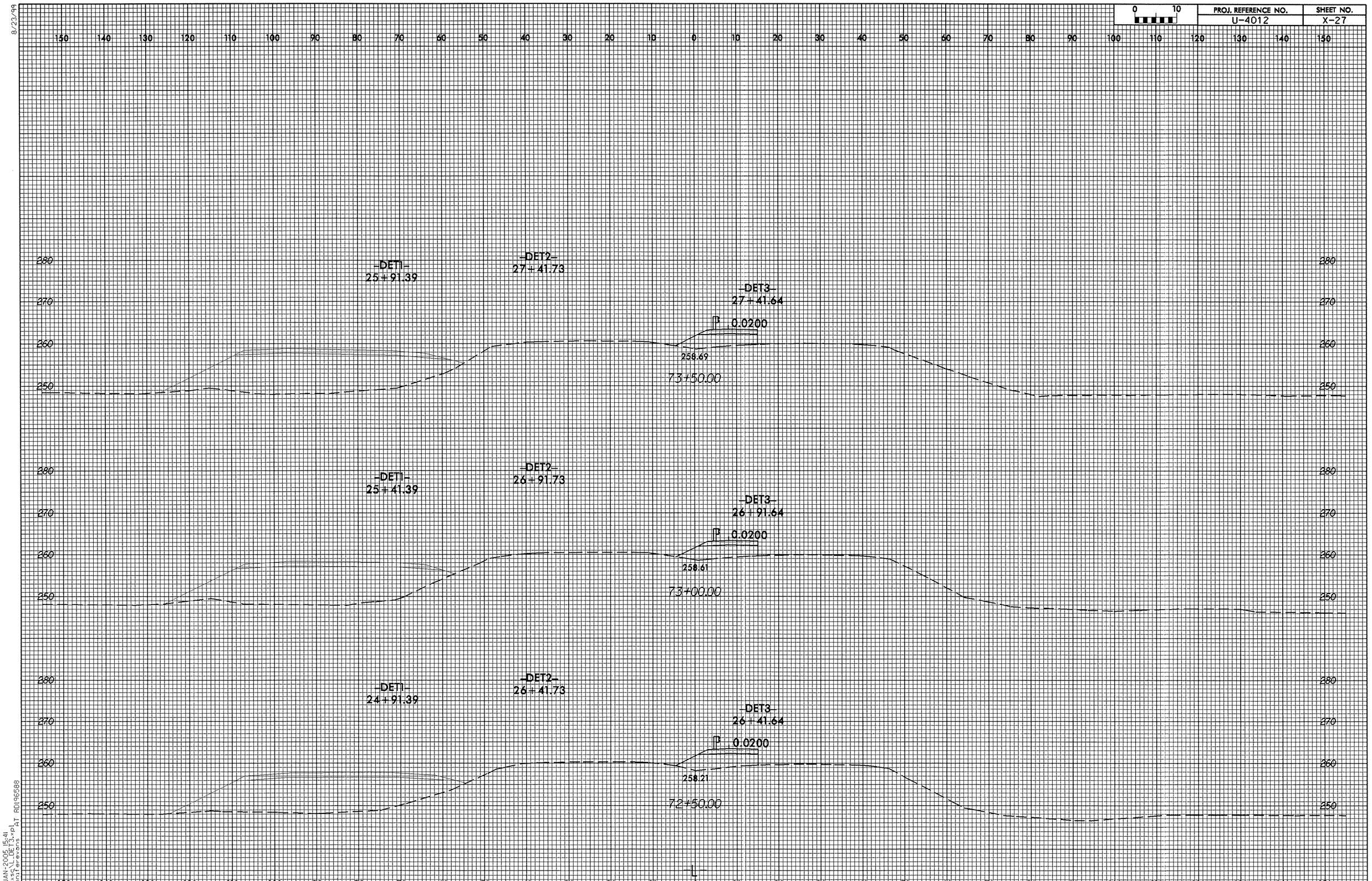
12-JAN-2005 15:40
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-26

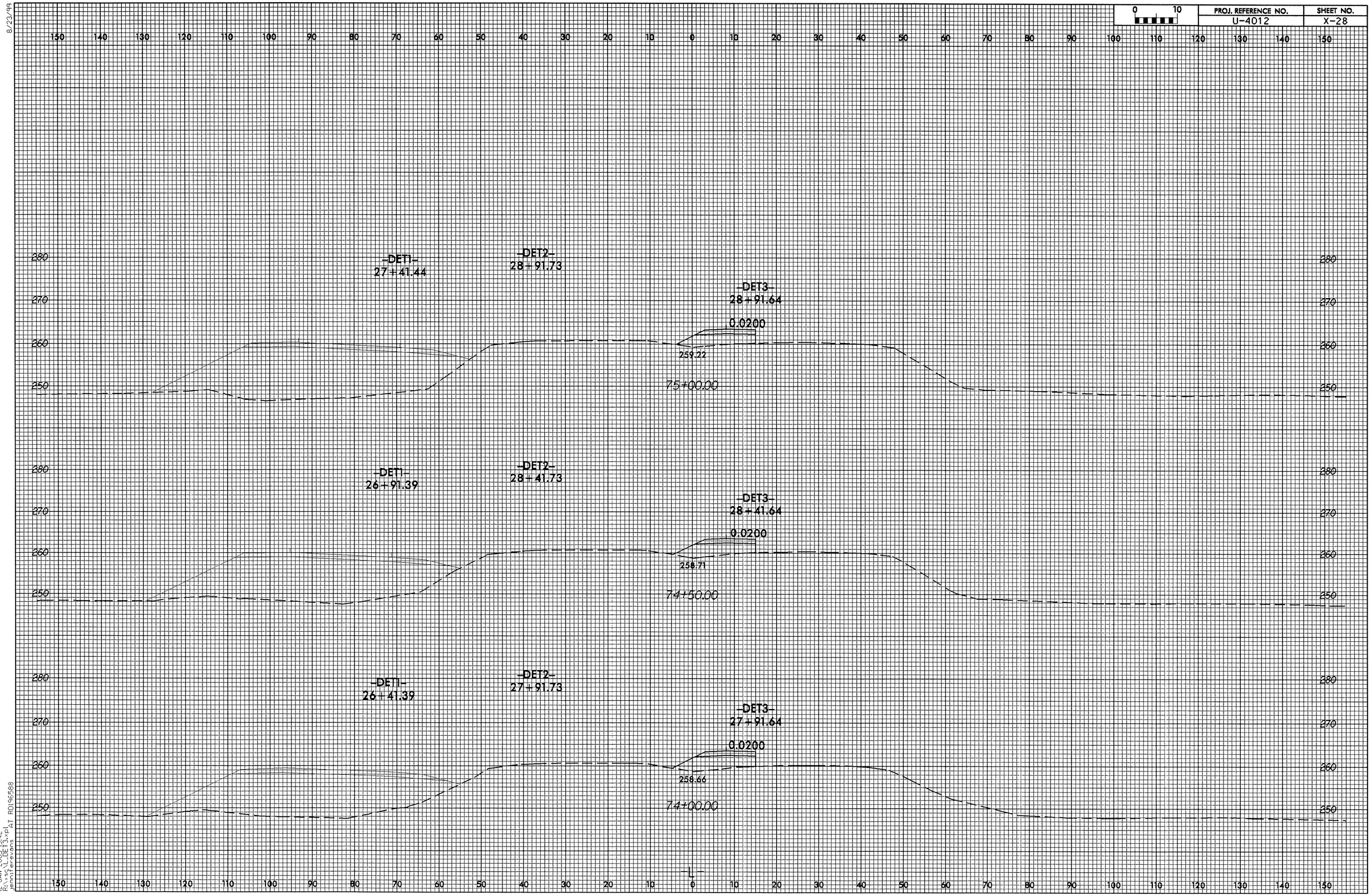


12-JAN-2005 15:40
R:\vsc\L_DET3.xpl
jennifer.evans
A1 RD196588



8/23/99

12-JAN-2005 15:41
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588



0 10
PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-28
-DET1-
27+41.44
-DET2-
28+91.73
-DET3-
28+91.64
0.0200
259.22
75+00.00
-DET1-
26+91.39
-DET2-
28+41.73
-DET3-
28+41.64
0.0200
258.71
74+50.00
-DET1-
26+41.39
-DET2-
27+91.73
-DET3-
27+91.64
0.0200
258.66
74+00.00

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-29

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

280 270 260 250

-DET1- 28+92.14

-DET2- 30+41.77

-DET3- 30+41.64

0.0200

259.31

76+50.00

280 270 260 250

-DET1- 28+41.78

-DET2- 29+91.74

-DET3- 29+91.64

0.0200

259.31

76+00.00

280 270 260 250

-DET1- 27+91.55

-DET2- 29+41.73

-DET3- 29+41.64

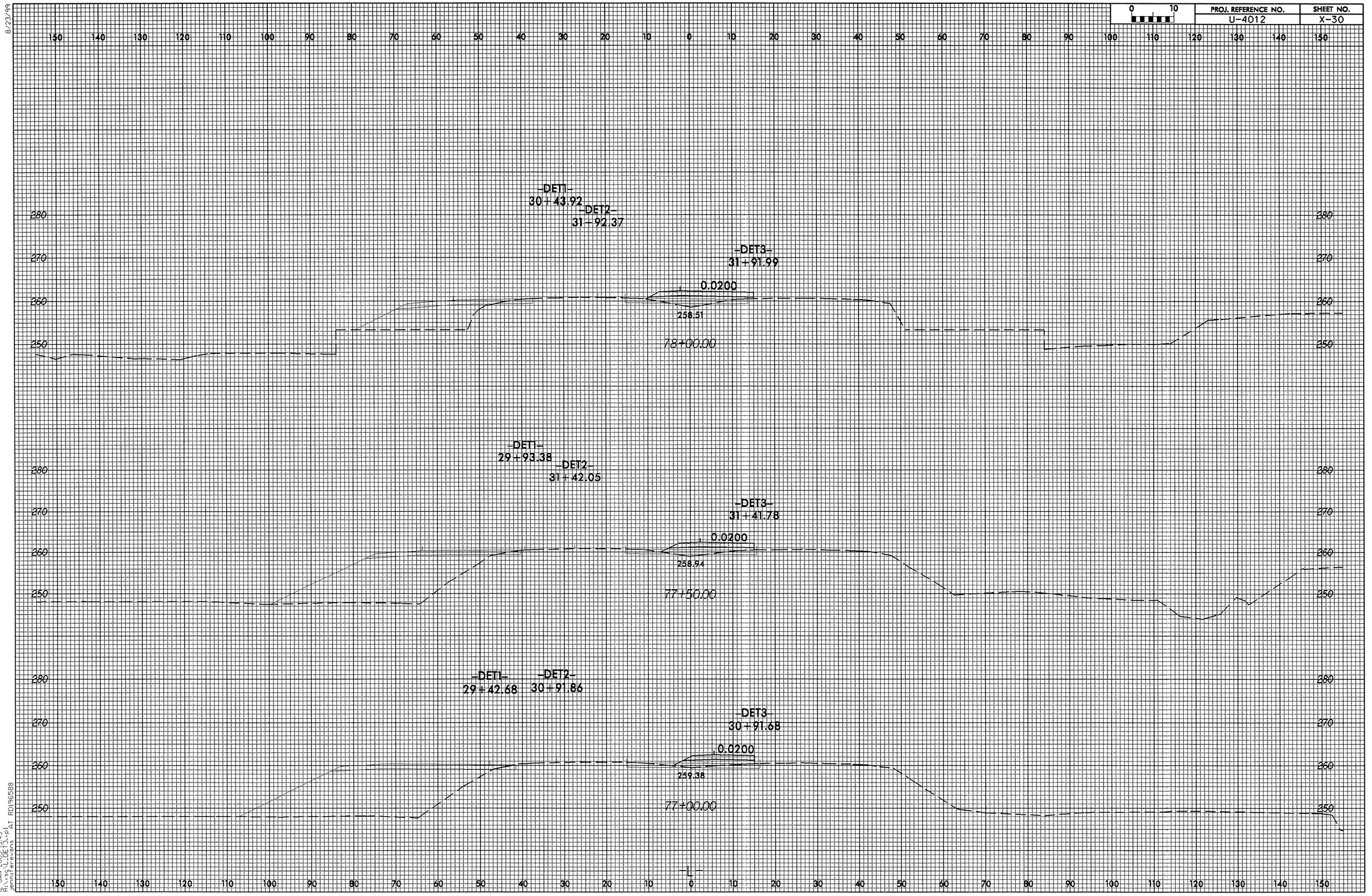
0.0200

259.35

75+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

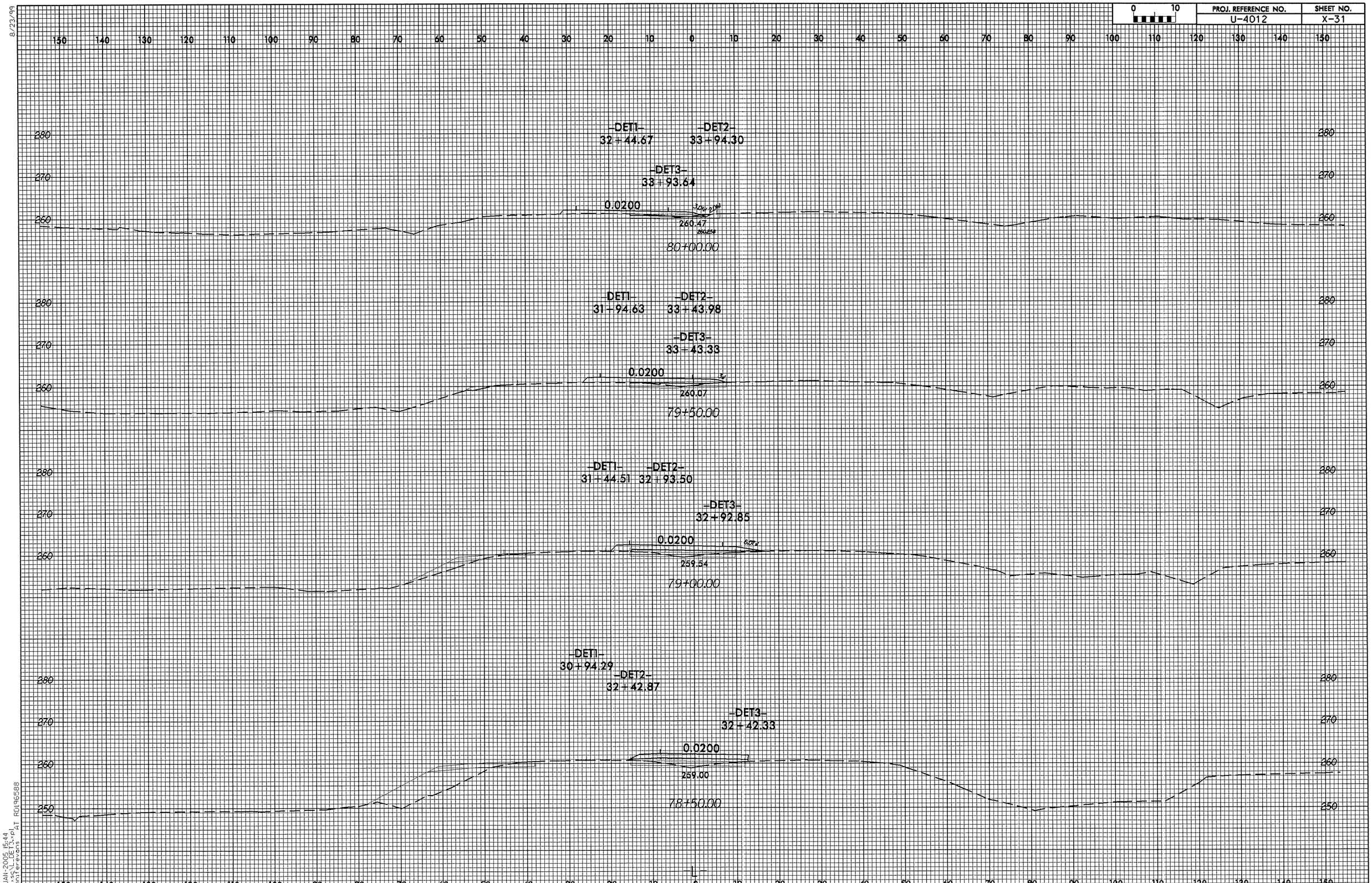
12-JAN-2005 15:42
R:\xsgs\L_DET3.xpl
jennifer.evans AIT RD196588



8/23/99

12-JAN-2005 15:43
R:\sc\L_DET3.xpl
jennifer.evans AT RD196588

PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-31



8/23/99

12-JAN-2005 15:44
R:\xsc\L_DET3.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-32

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

260 262.58 260

82+00.00

280 -DET2- 35+44.60 280

270 -DET3- 35+43.94 270

0.0200

250 261.90 260

81+50.00

280 -DET2- 34+94.57 280

270 -DET3- 34+93.91 270

0.0200 3/4"

260 261.48 260

260783

81+00.00

280 -DET1- 32+94.68 -DET2- 34+44.48 280

270 -DET3- 34+43.82 270

0.0200 3/4"

260 260.86 260

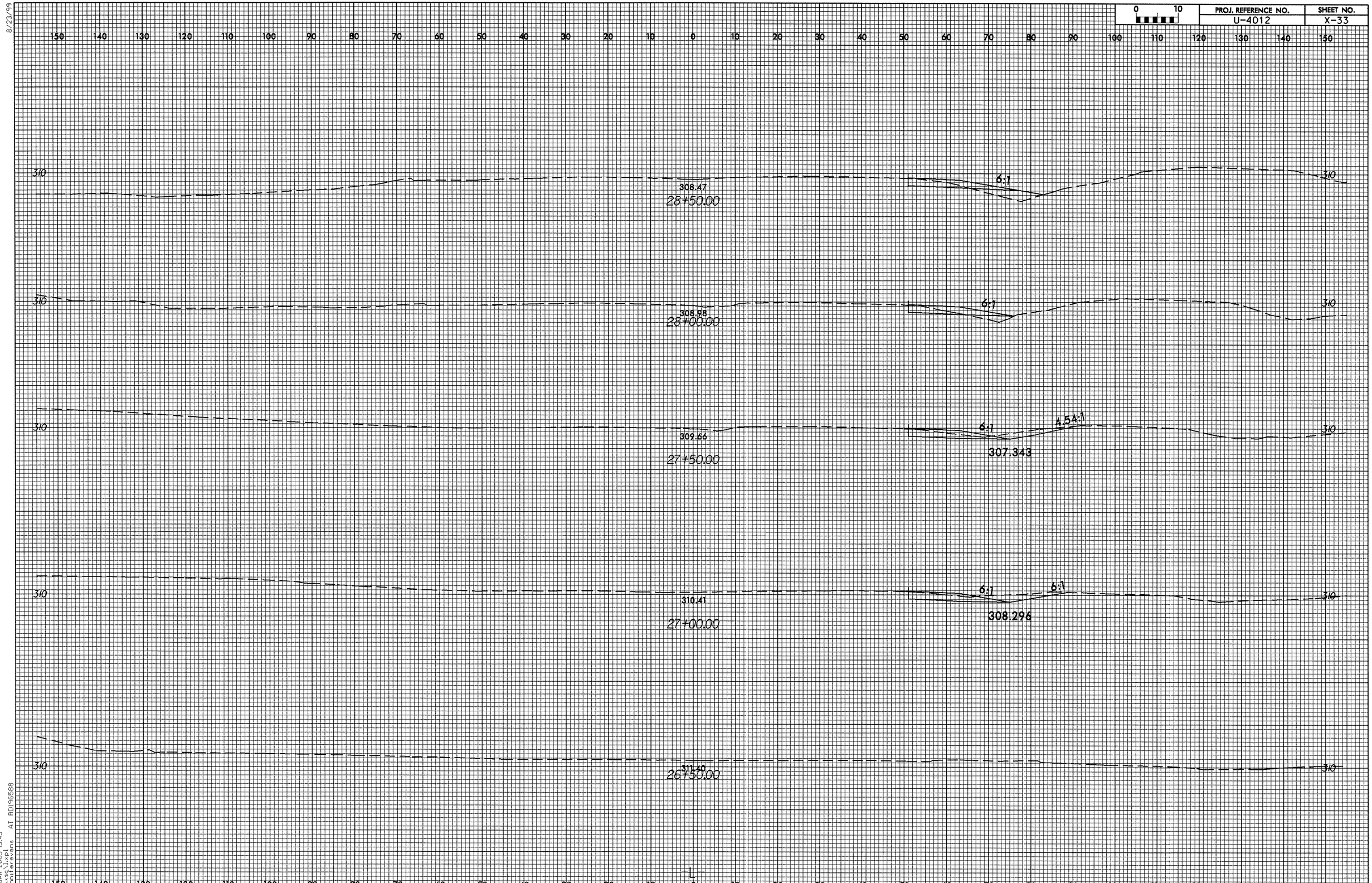
260.39

80+50.00

-L-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

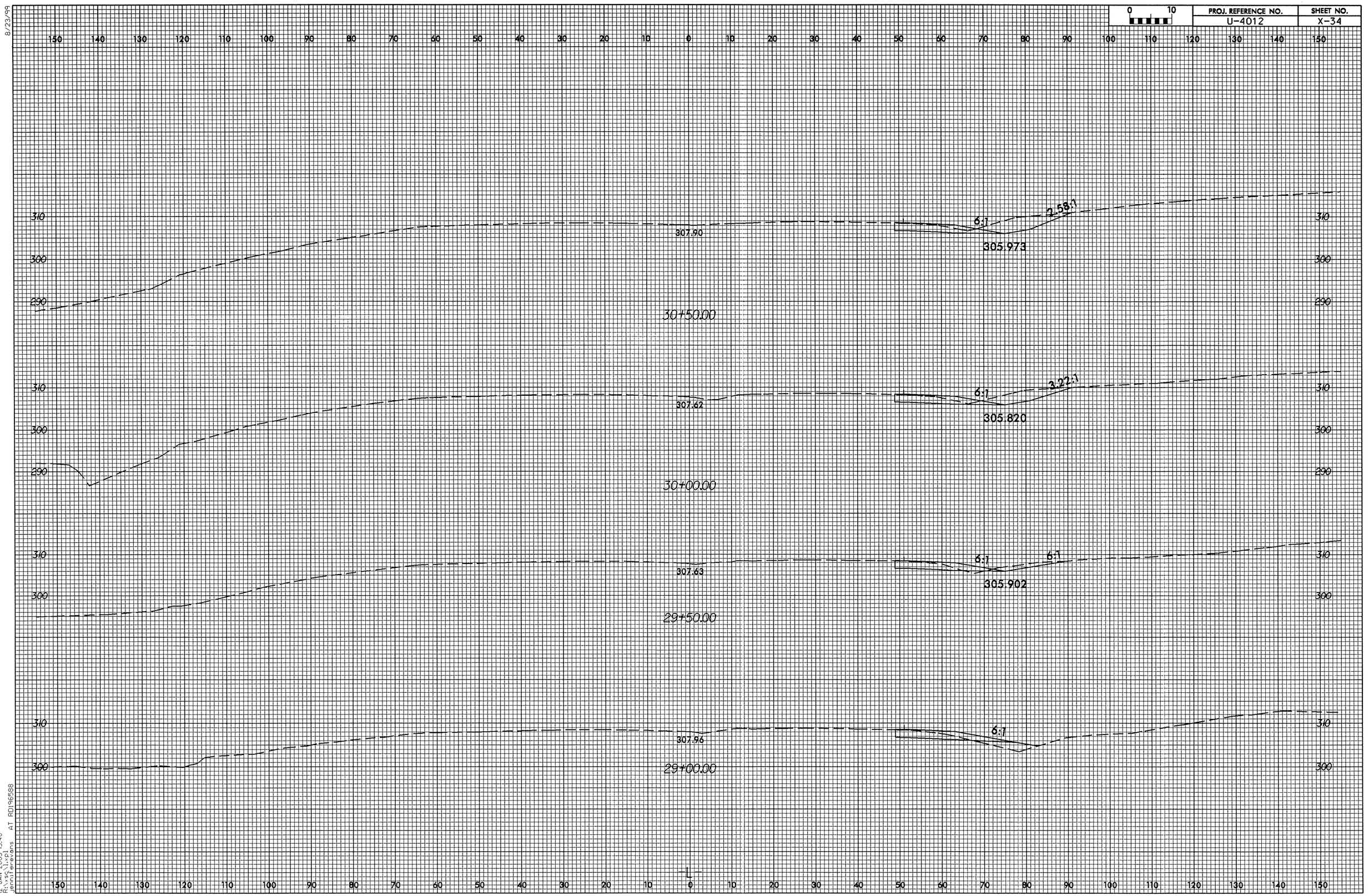
12-JAN-2005 15:44
R:\sgs\L_DET3.pl
jennifer.evans AT RDI96588



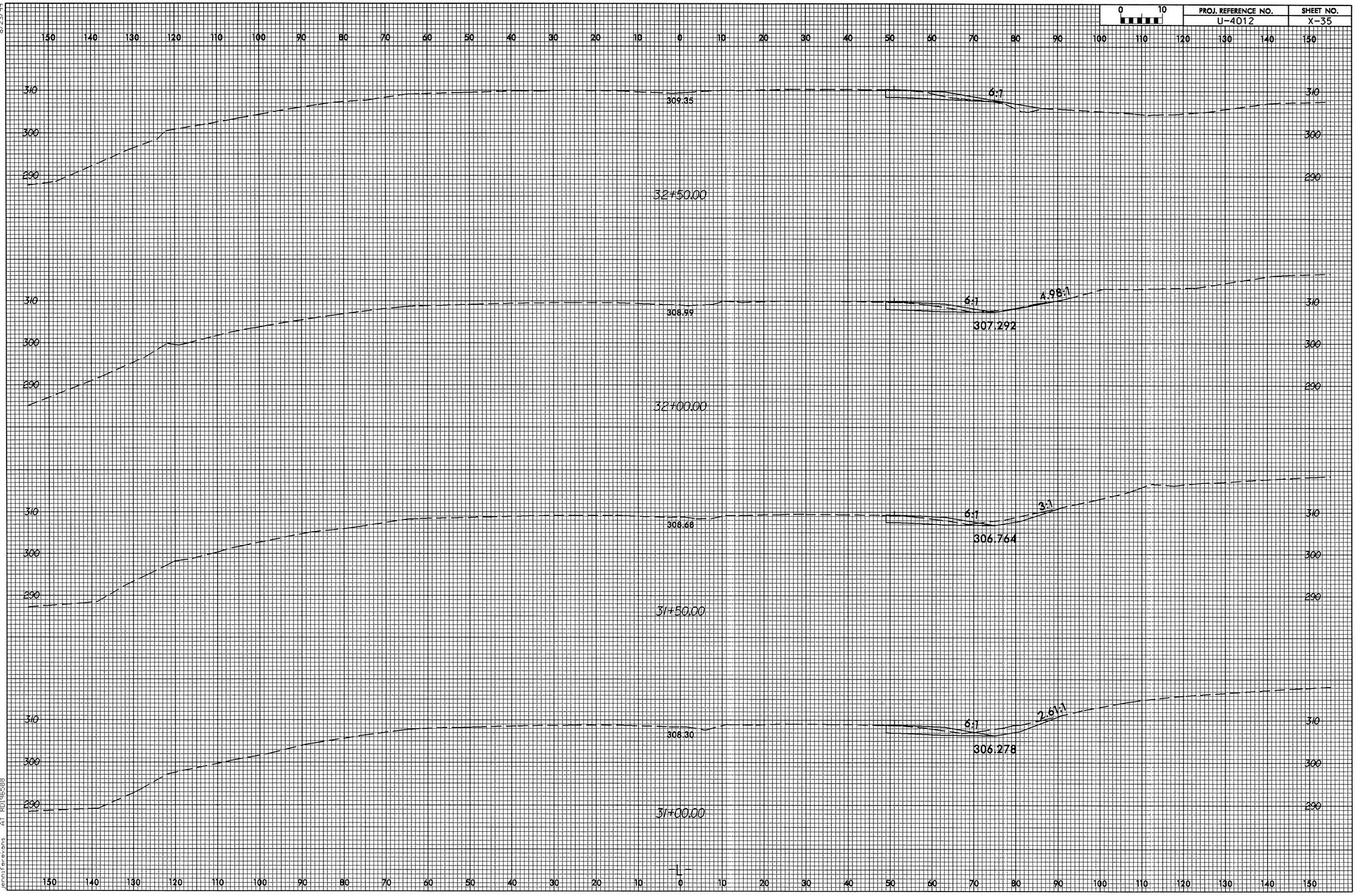
PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-33
0 10
310
308.47
28+50.00
6:1
308.98
28+00.00
309.66
27+50.00
4.54:1
307.343
310.41
27+00.00
308.296
311.40
26+50.00

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-34



12-JAN-2005 15:46
R:\vsc\1.xpl
jennifer.evans AT RD196588



8/23/99

12-JAN-2005 15:46
R:\rsc\l.xpl
jennifer evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-36

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

320
310
300

6:1 0.0200 0.0200 0.0200 0.0200 6:1 2:1
312.50
310.558
35+00.00

320
310
300

2:1 2:1 6:1 0.0200 6:1 4:1 0.0200 0.0200 0.0200 6:1 2:1
306.560
311.04
D.P. 312.276
309.986
34+50.00

320
310
300

8:1 0.0200 6:1 4:1 0.0200 0.0200 0.0200 6:1 3:1
310.62
D.P. 311.379
309.523
34+00.00

310
300

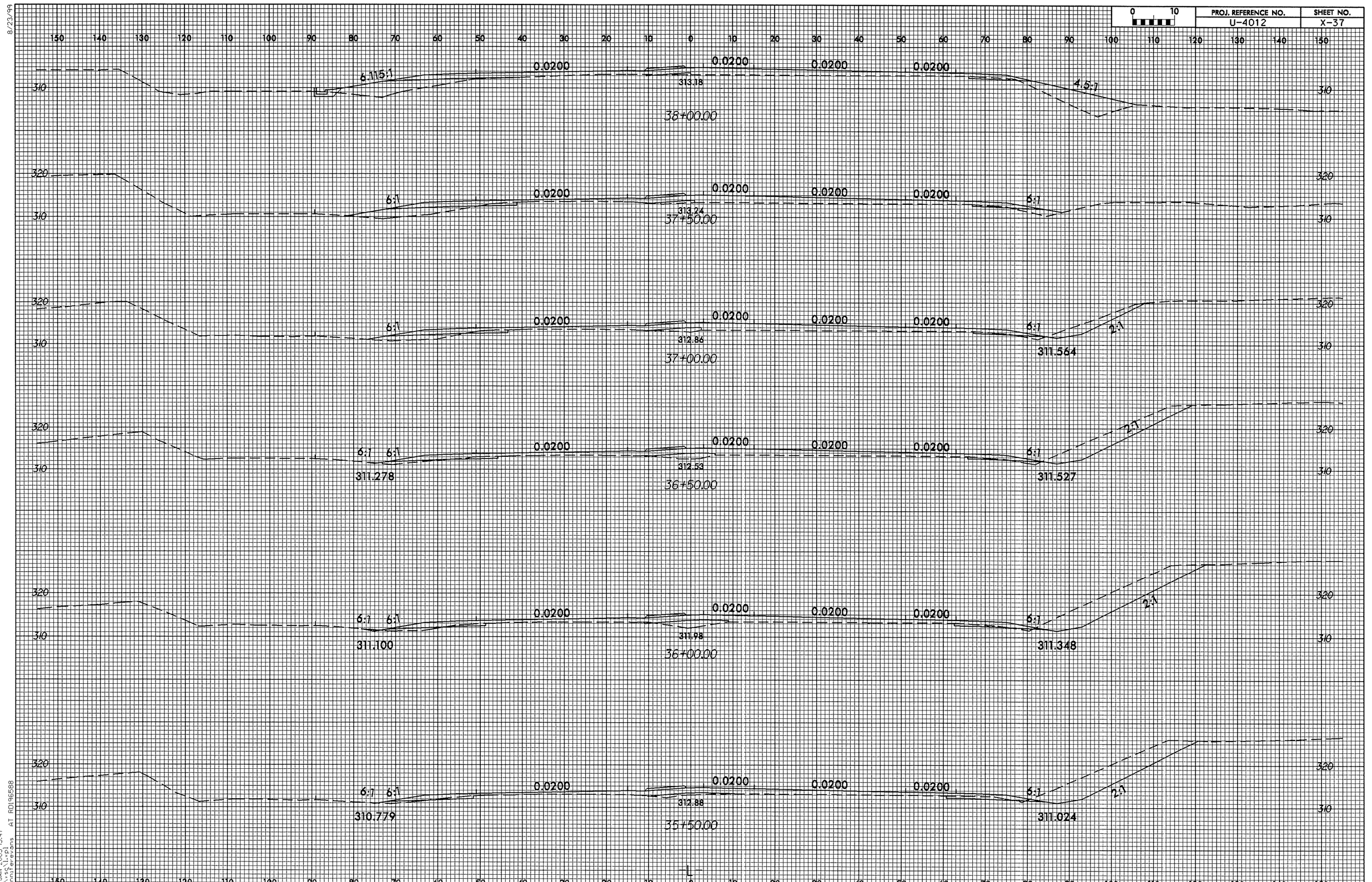
6:1 6:1
310.63
308.913
33+50.00

310
300
290

5.09:1
309.86
33+00.00

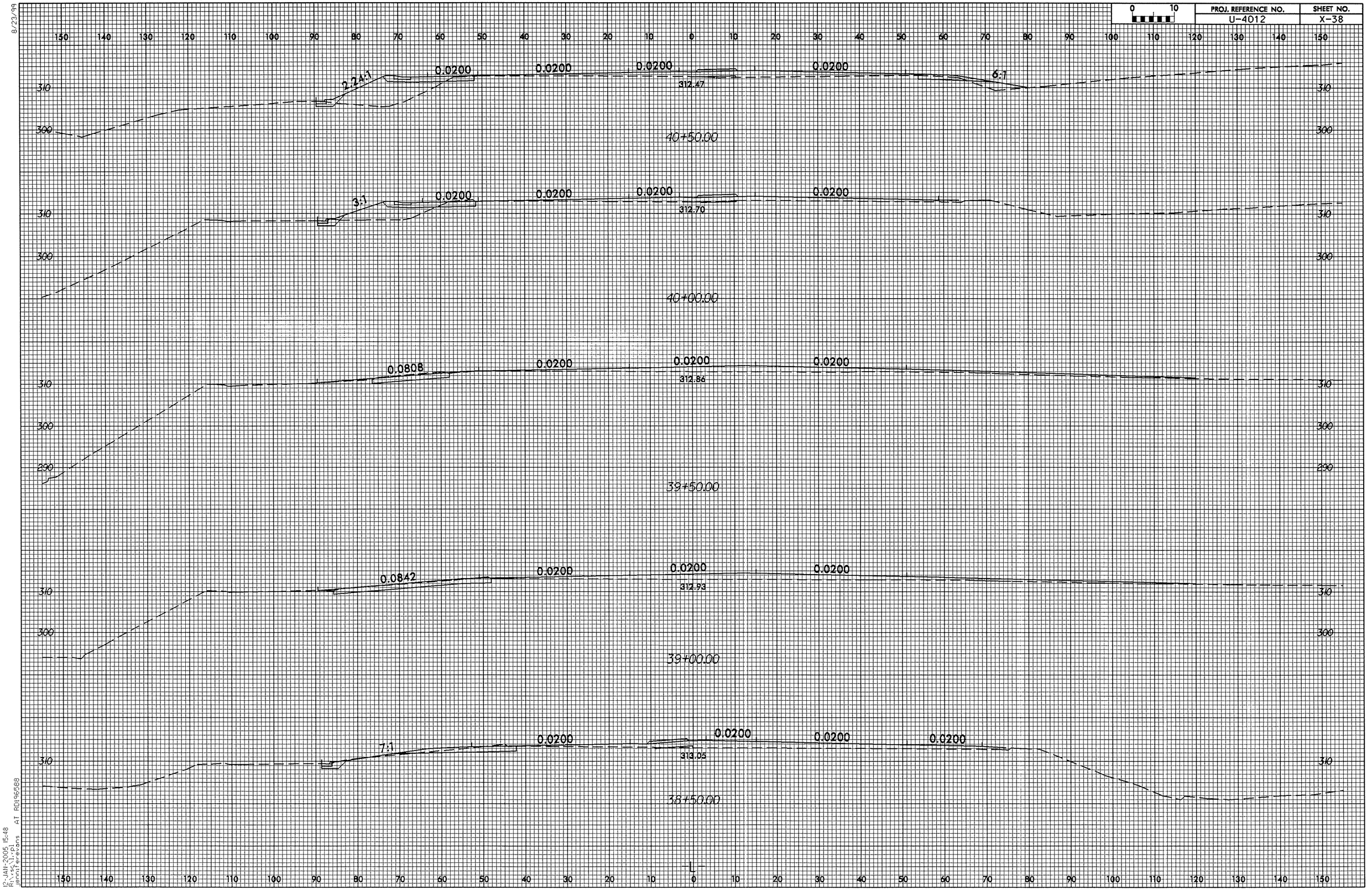
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 15:47
R:\vss\1.pl
jennifer.evans AT RDI96588



8/23/99

12-JAN-2005 15:47
R:\xsc\l.xpl
jennifer.evans AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-38
0 10
2.24:1
0.0200
0.0200
0.0200
0.0200
6:1
312.47
40+50.00
3:1
0.0200
0.0200
0.0200
0.0200
312.70
40+00.00
0.0808
0.0200
0.0200
0.0200
312.86
39+50.00
0.0842
0.0200
0.0200
0.0200
312.93
39+00.00
7:1
0.0200
0.0200
0.0200
0.0200
313.05
38+50.00
-L-

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-39

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

320
310

0.0379 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 6:1 | 2:1

311.73

309.91

43+50.00

320
310

12.119:1 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 6:1 | 2:1

311.49

309.616

43+00.00

310

6.547:1 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 6:1 | 2.55:1

311.63

309.323

42+50.00

310

4.377:1 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 6:1 | 2:1

311.82

42+00.00

310

3:1 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 3.93:1

312.05

41+50.00

310

2:1 | 0.0200 | 0.0200 | 0.0200 | 0.0200 | 6:1

312.29

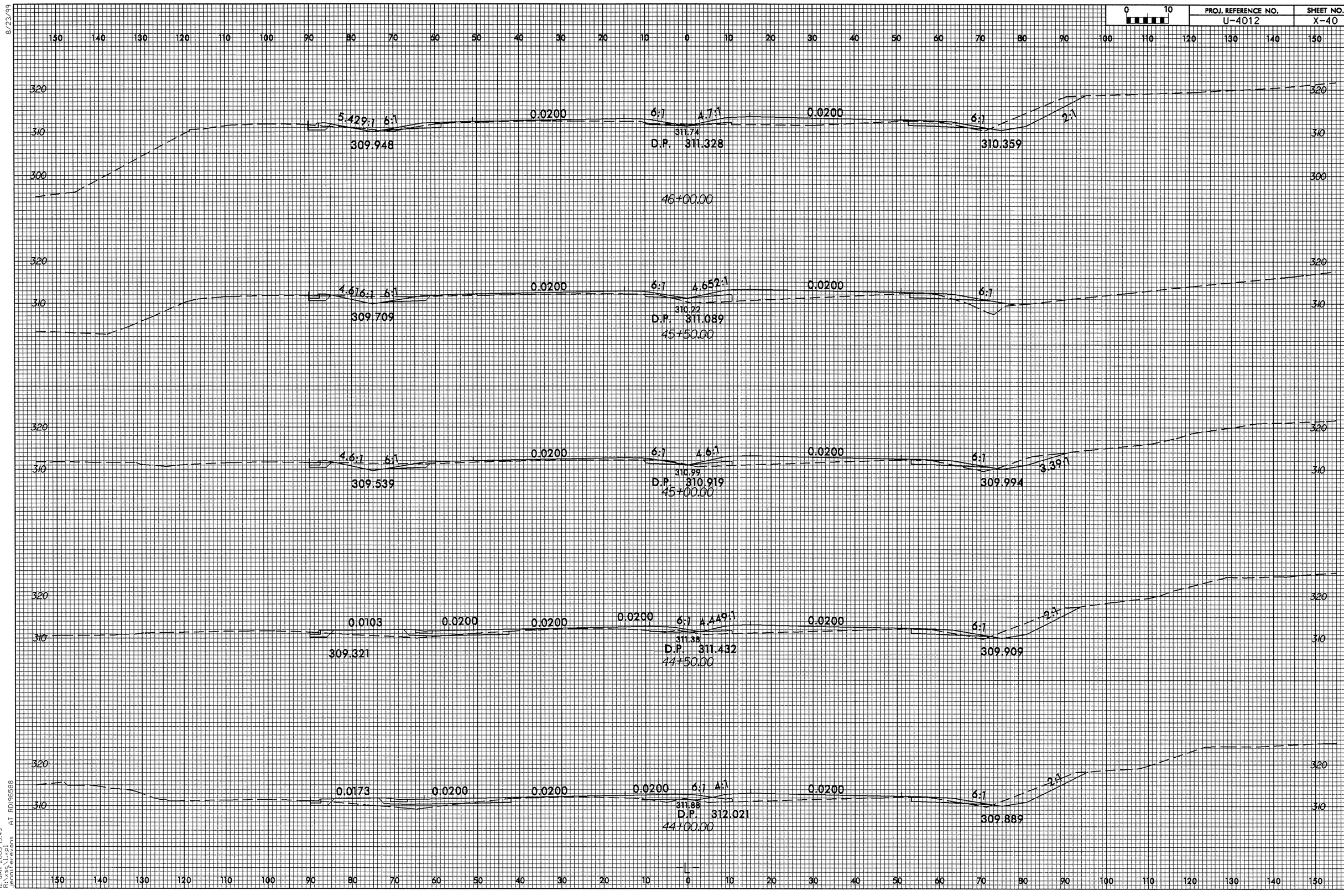
41+00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

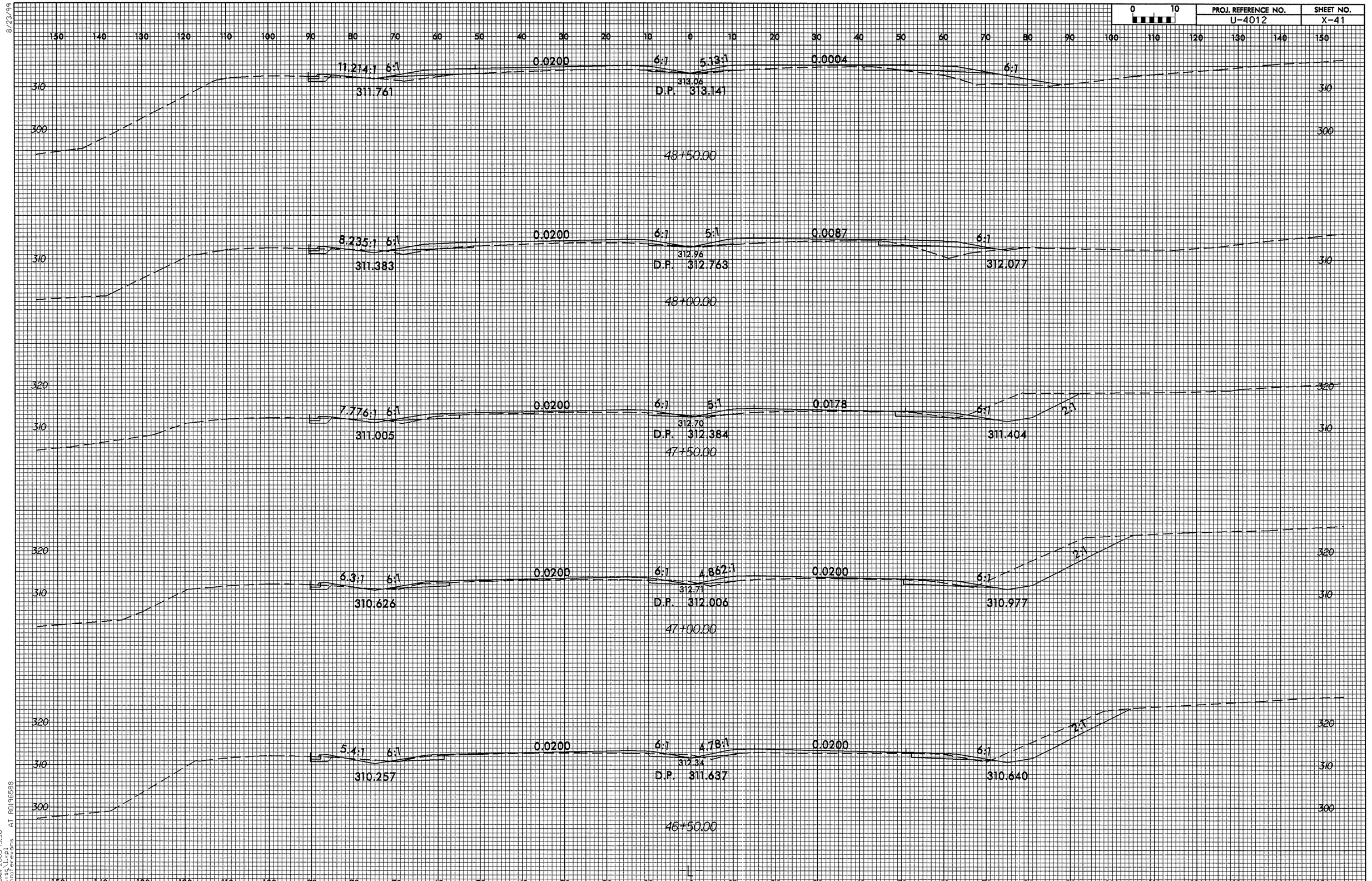
12-JAN-2005 15:49
R:\xsc\1.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-40



12-JAN-2005 15:49
R:\xs\1.pl
Jennifer.evans AT RD196588

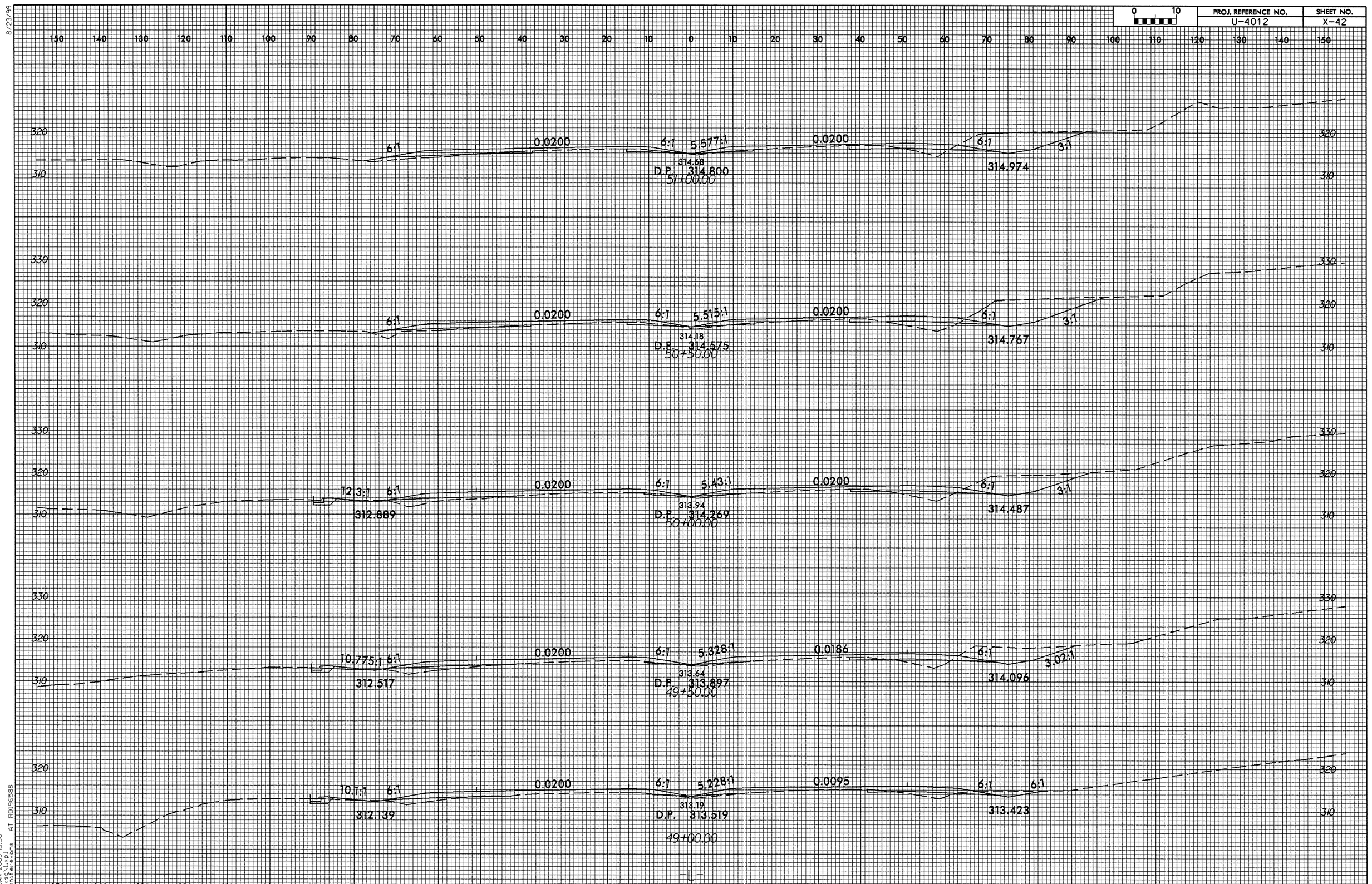


8/23/99

12-JAN-2005 15:50
R:\xsc\l.xpl
jennifer evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-42



12-JAN-2005 15:50
R:\sc\1.*pl
Jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-43

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

330 320 310

6:1 0.0200 6:1 5.509:1 0.0200 6:1 3.23:1

313.577

314.79

D.P. 314.716

53+50.00

314.909

330 320 310

9.4:1 0.0200 6:1 5.572:1 0.0200 6:1

315.13

D.P. 314.897

53+00.00

315.072

330 320 310

11.235:1 0.0200 6:1 5.612:1 0.0200 6:1 3.88:1

315.35

D.P. 314.994

52+50.00

315.157

320 310

6:1 0.0200 6:1 5.626:1 0.0200 6:1 3.49:1

S.S. 313.930

315.27

D.P. 315.009

52+00.00

315.169

320 310

6:1 0.0200 6:1 5.615:1 0.0200 6:1 3.76:1

315.01

D.P. 314.945

51+50.00

315.108

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 15:51
R:\vsc\1.pl
Jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-44

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

320
310

6:1 6:1 0.0200 6:1 4.89:1 0.0200 6:1 3.04:1

310.201

D.P. 311.07 311.581
56+00.00

311.981

320
310

6:1 0.0200 6:1 5.047:1 0.0200 6:1 3:1

311.133

D.P. 312.08 312.513
55+50.00

312.856

320
310

6:1 0.0200 6:1 5.189:1 0.0200 6:1 3:1

311.913

D.P. 313.09 313.293
55+00.00

313.587

320
310

6:1 0.0200 6:1 5.316:1 0.0200 6:1 4.01:1

D.P. 313.81 313.920
54+50.00

314.173

330
320
310

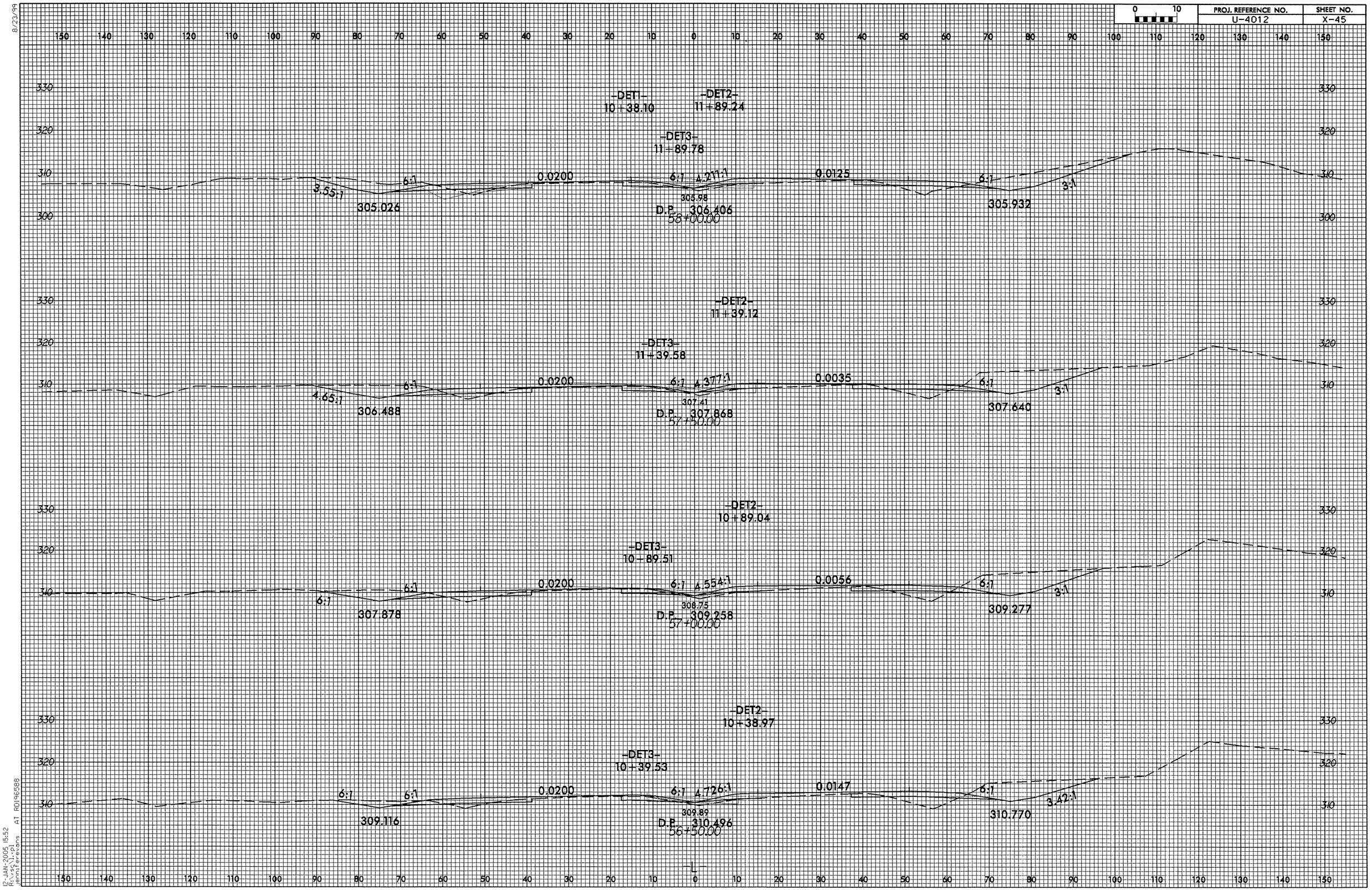
6:1 0.0200 6:1 5.423:1 0.0200 6:1 3:1

D.P. 314.32 314.394
54+00.00

314.614

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 15:52
R:\sc\i\xp1
jemiller\cns AT RQ196588



8/23/99

12-JAN-2005 15:52
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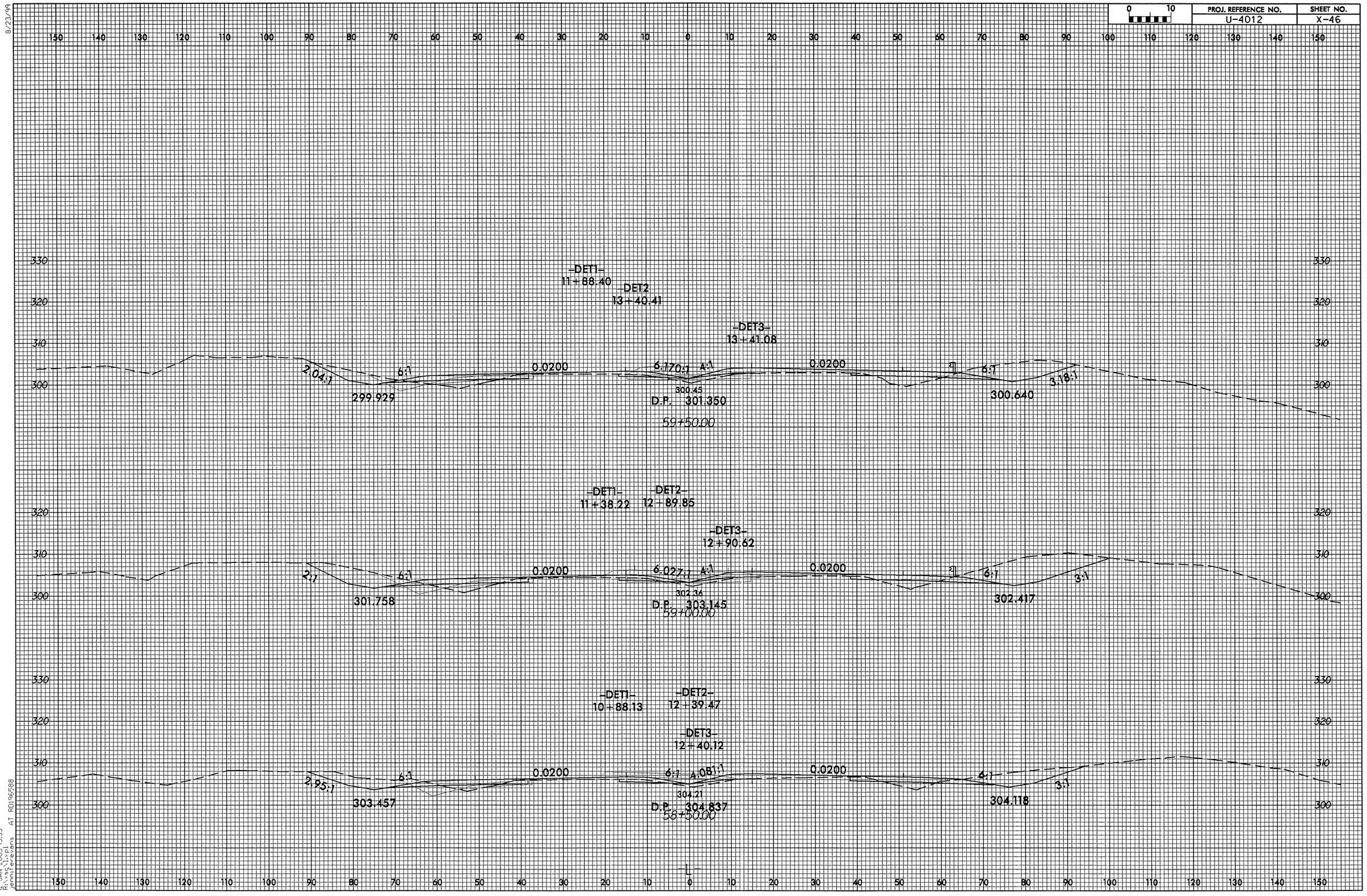
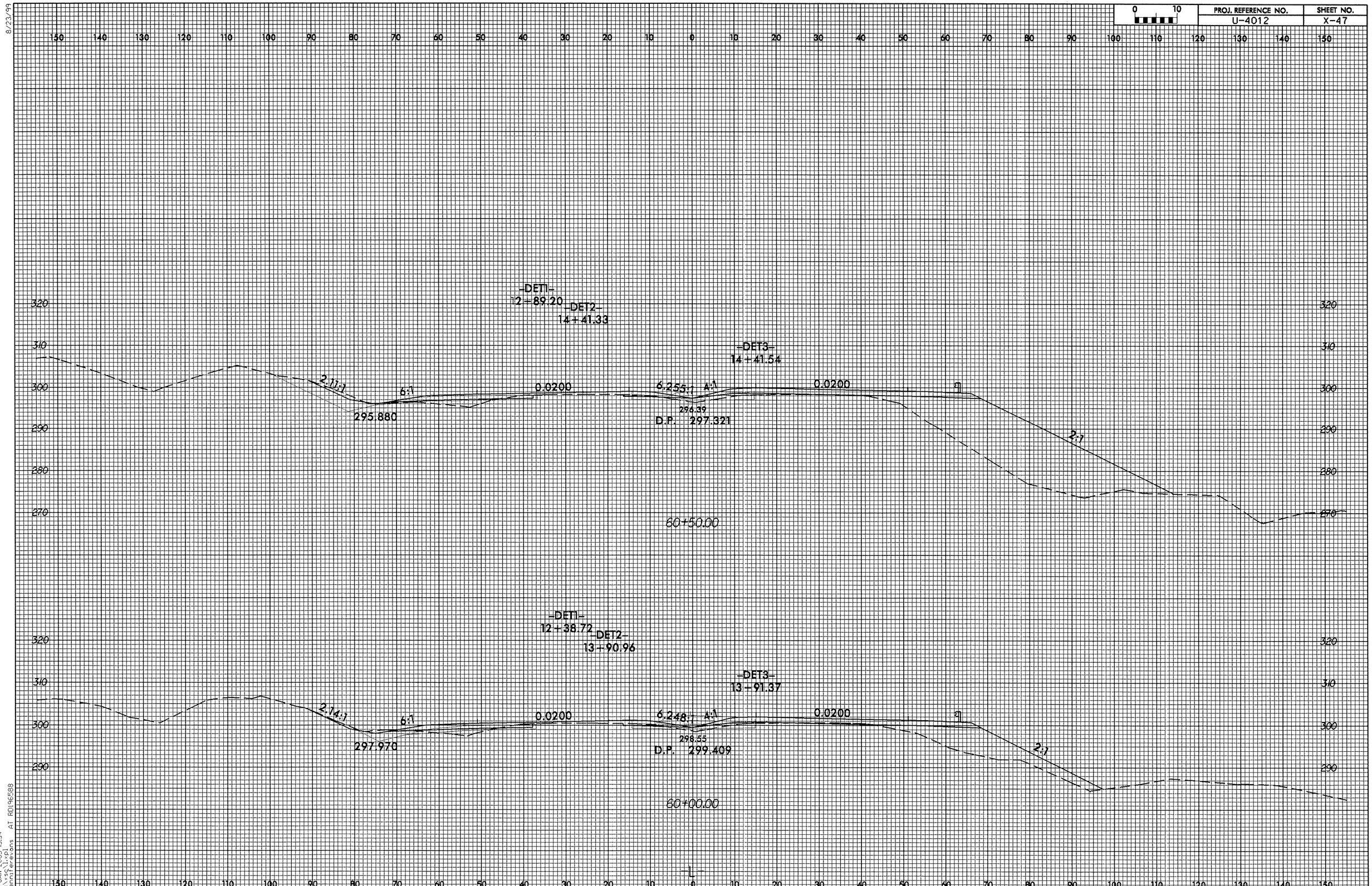
jennifer.evans AT RD196588



8/23/99

12-JAN-2005 15:53
R:\vsc\l.xpl
jennifer.evans AT RD196588

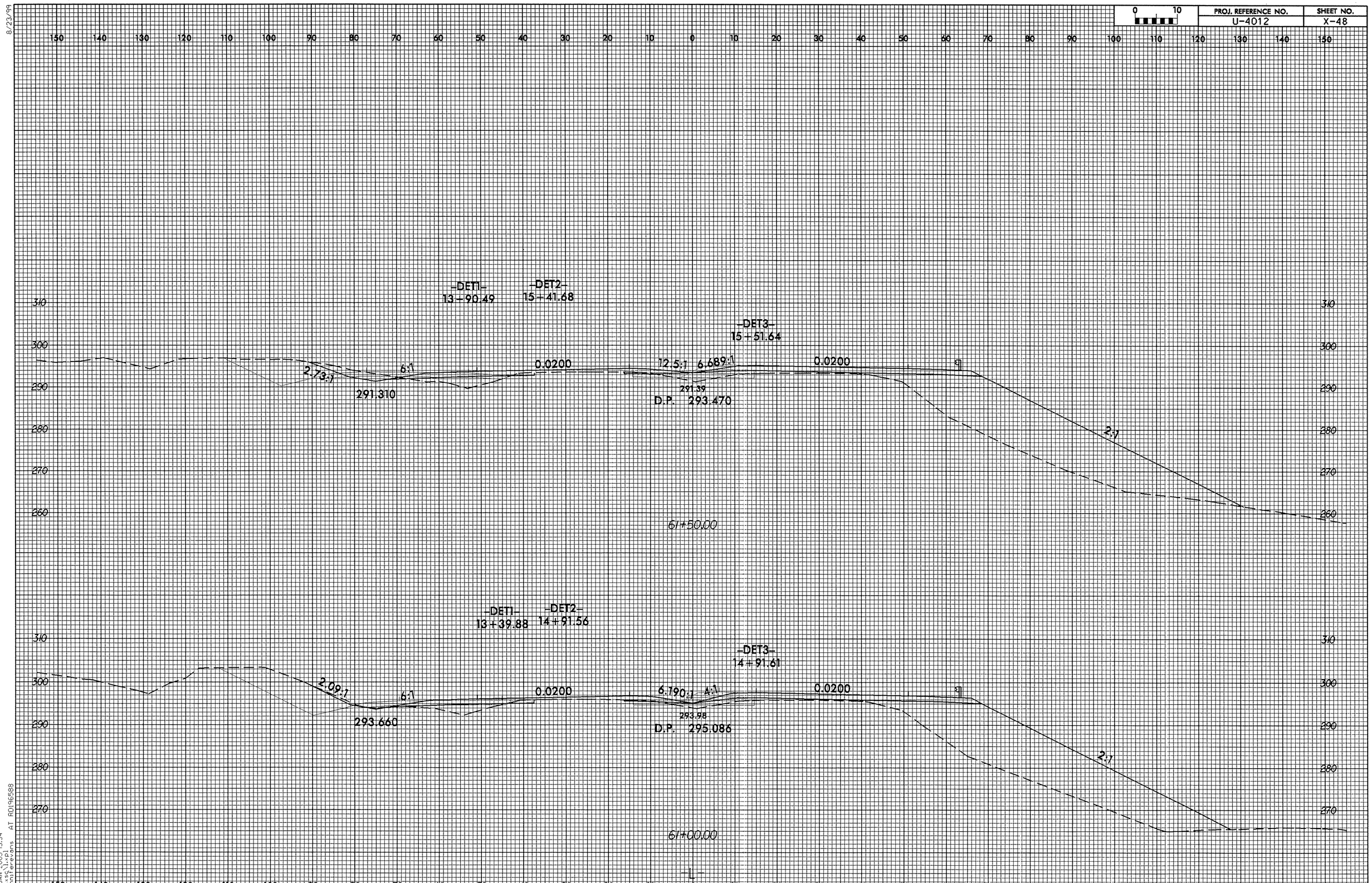


8/23/99

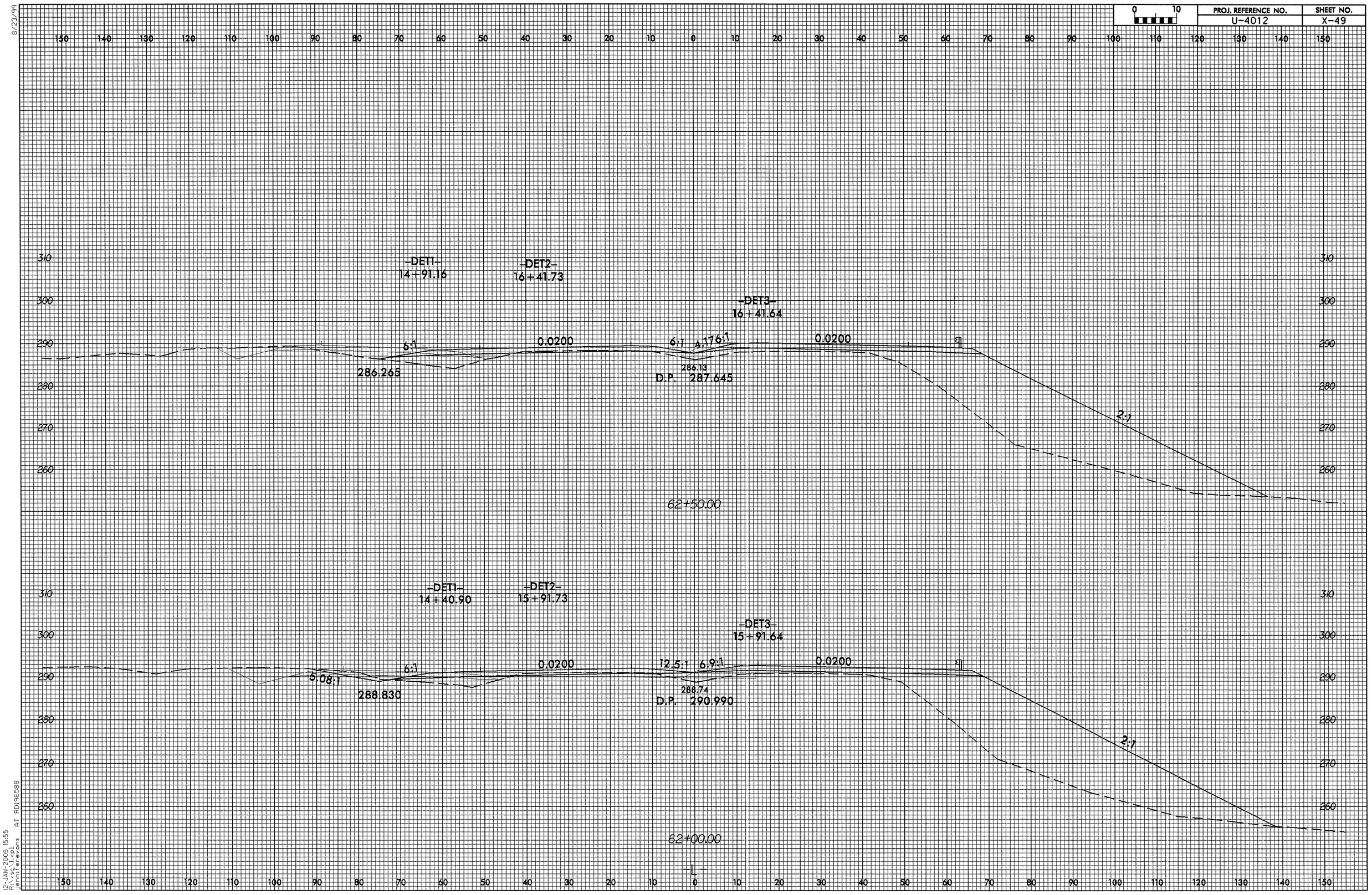
12-JAN-2005 15:54
R:\xsc\l.xpl
jennifer evans AT RD196588

8/23/99

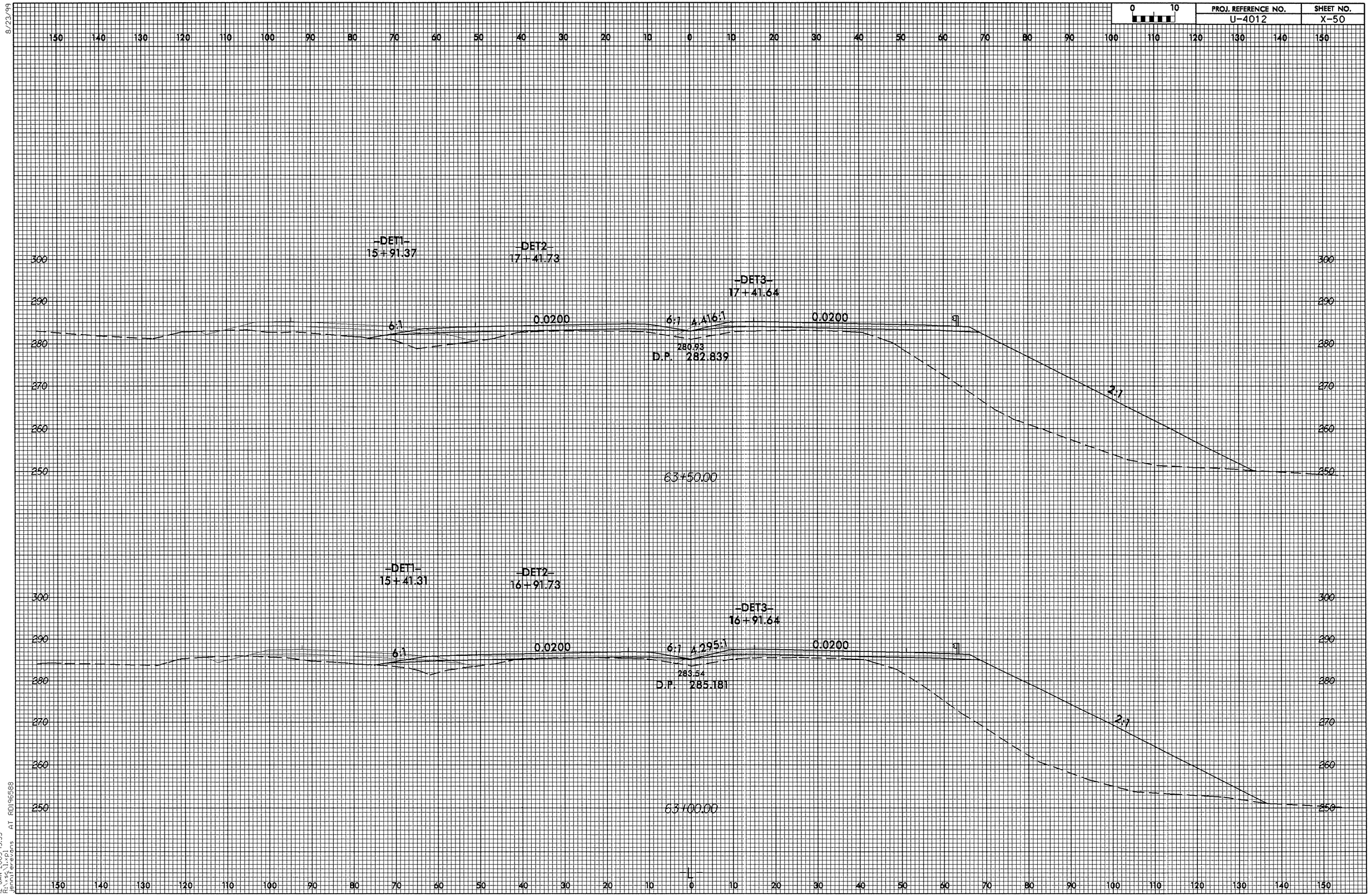
0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-48



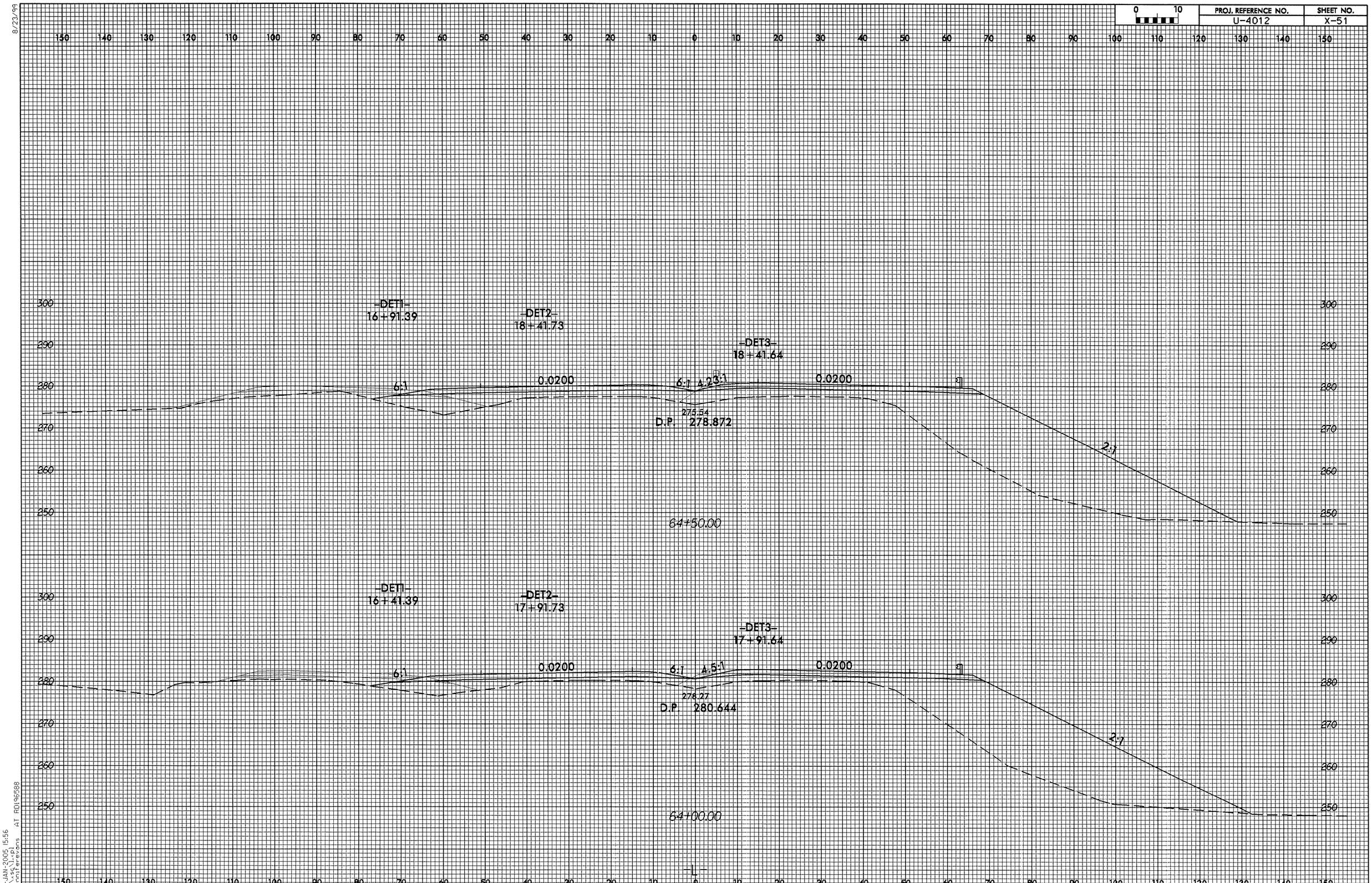
12-JAN-2005 15:54
R:\ss\1.xpl
jennifer.evans
AT RD196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-49
0 10
-DET1-
14+91.16
-DET2-
16+41.73
-DET3-
16+41.64
6:1
0.0200
6:1
4.176:1
0.0200
286.265
286.13
D.P. 287.645
2:1
62+50.00
-DET1-
14+40.90
-DET2-
15+91.73
-DET3-
15+91.64
6:1
0.0200
12.5:1
6.9:1
0.0200
5.08:1
288.830
288.74
D.P. 290.990
2:1
62+00.00
-L-



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-50
0 10
-DET1-
15+91.37
-DET2-
17+41.73
-DET3-
17+41.64
6:1
0.0200
6:1
4.416:1
0.0200
280.93
D.P. 282.839
2:1
63+50.00
-DET1-
15+41.31
-DET2-
16+91.73
-DET3-
16+91.64
6:1
0.0200
6:1
4.295:1
0.0200
283.54
D.P. 285.181
2:1
63+00.00

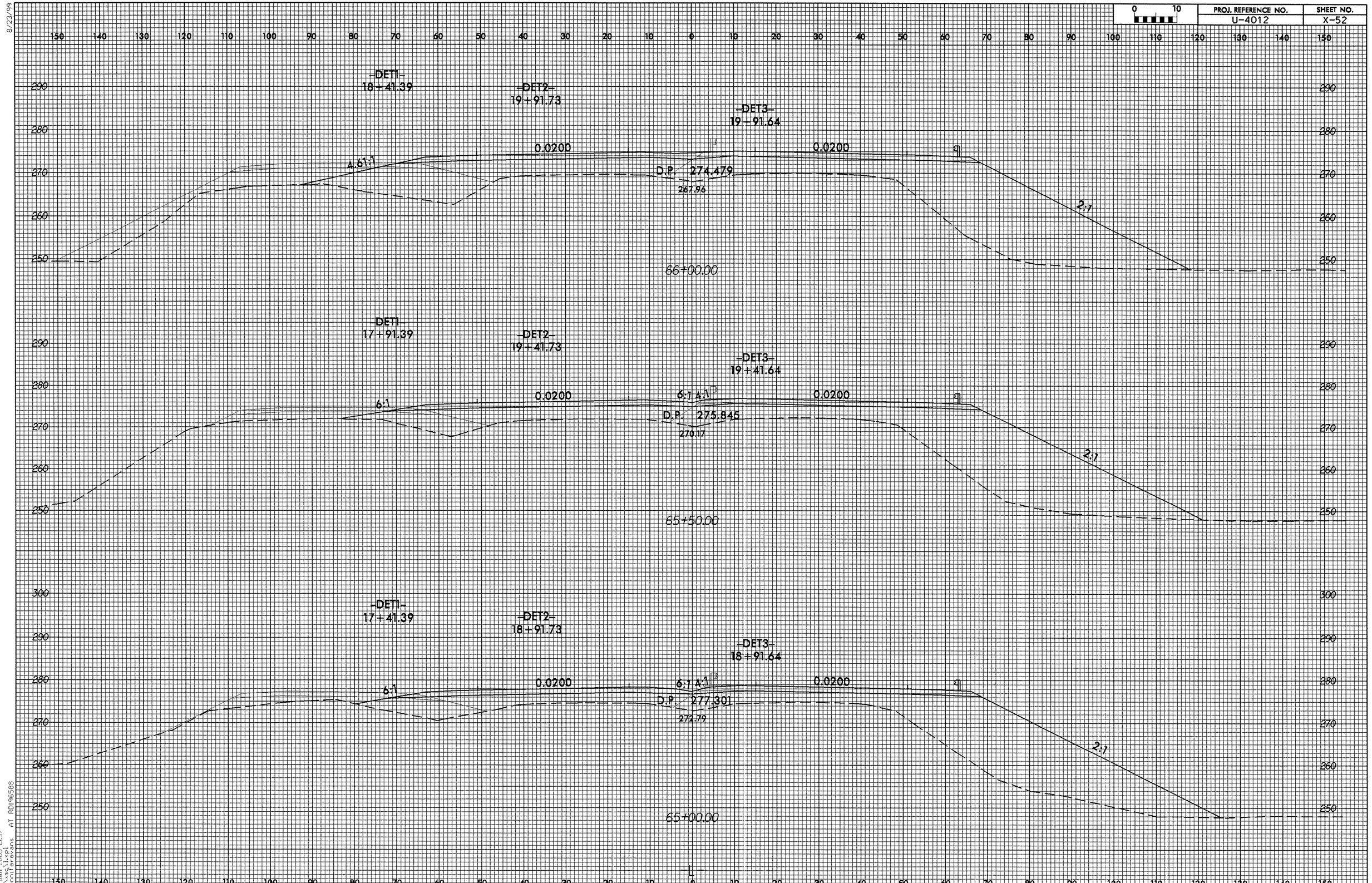


8/23/99

12-JAN-2005 15:56
R:\sc\l.pl
jennifer evans AT RD196588

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-52

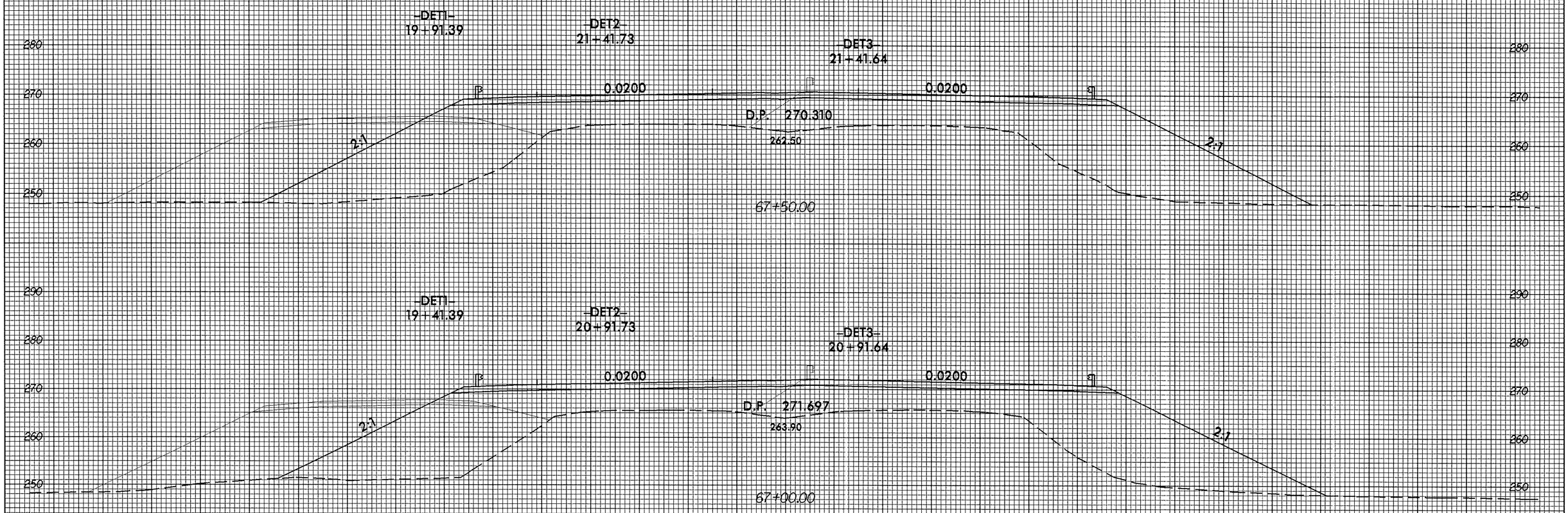


12-JAN-2005 15:57
R:\sg\1.xpl
jennifer evans AT RD196588

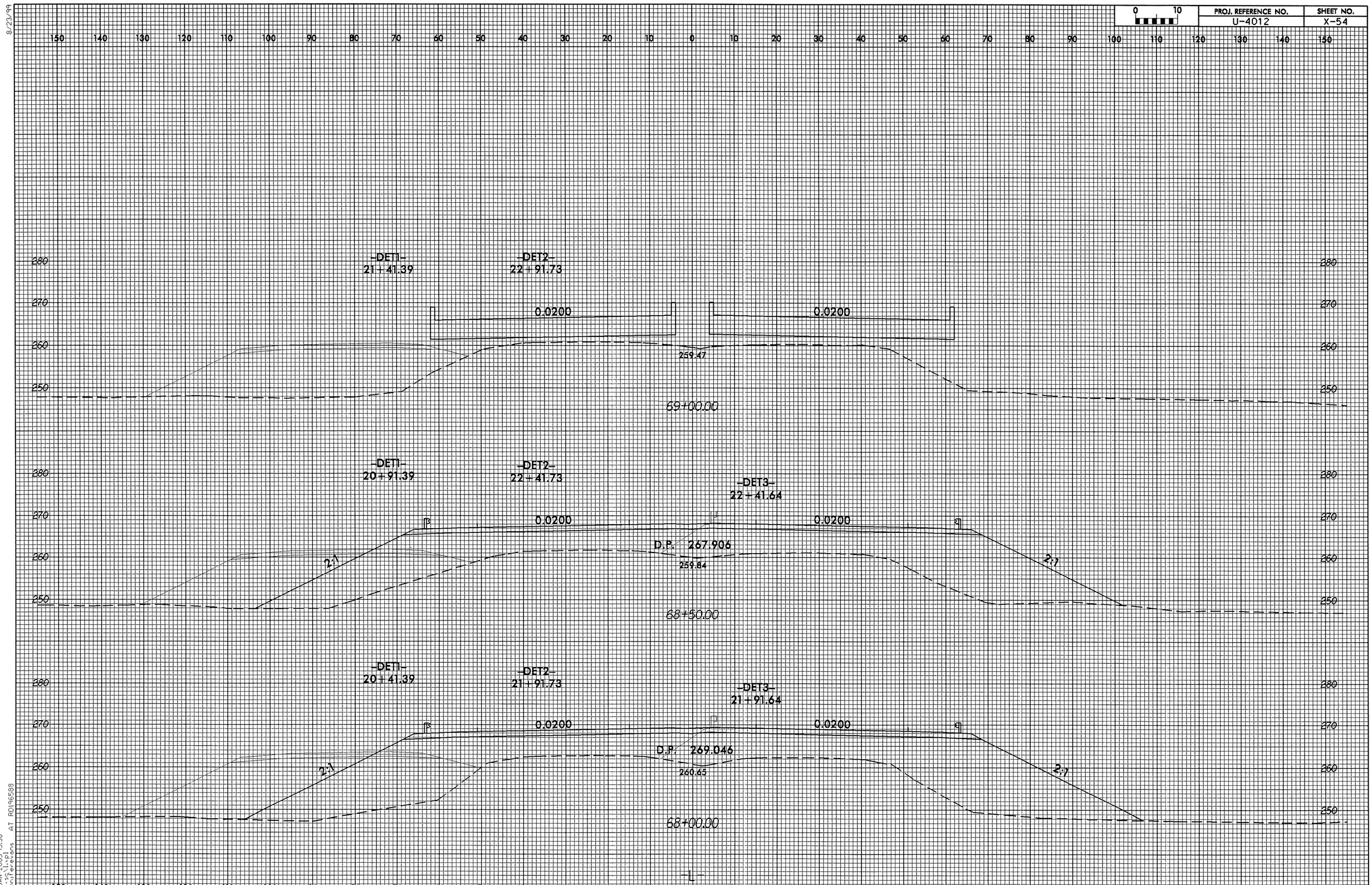
8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-53

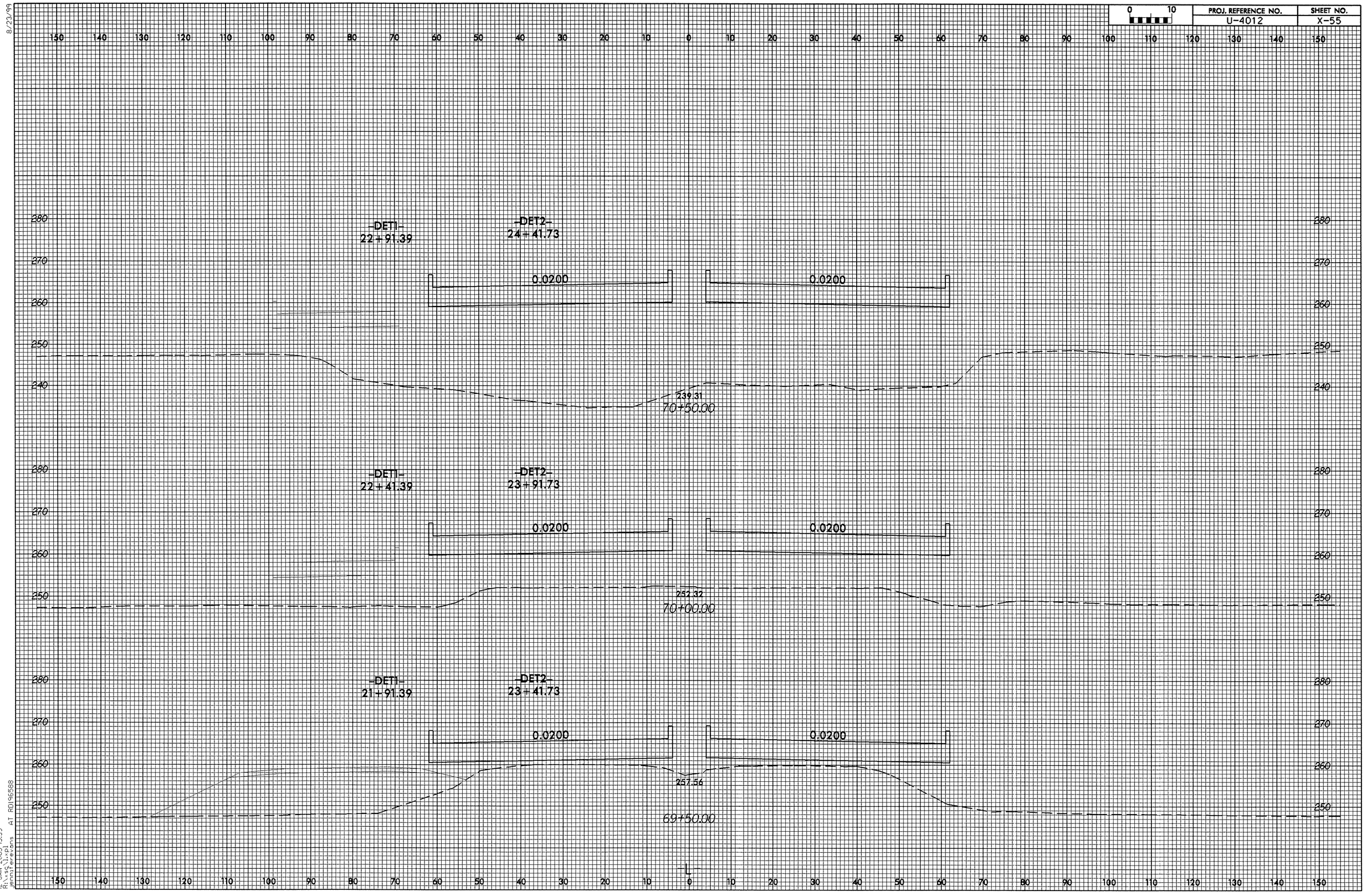
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



12-JAN-2005 15:57
R:\vsc\1.xpl
Jennifer Evans AT RD196588

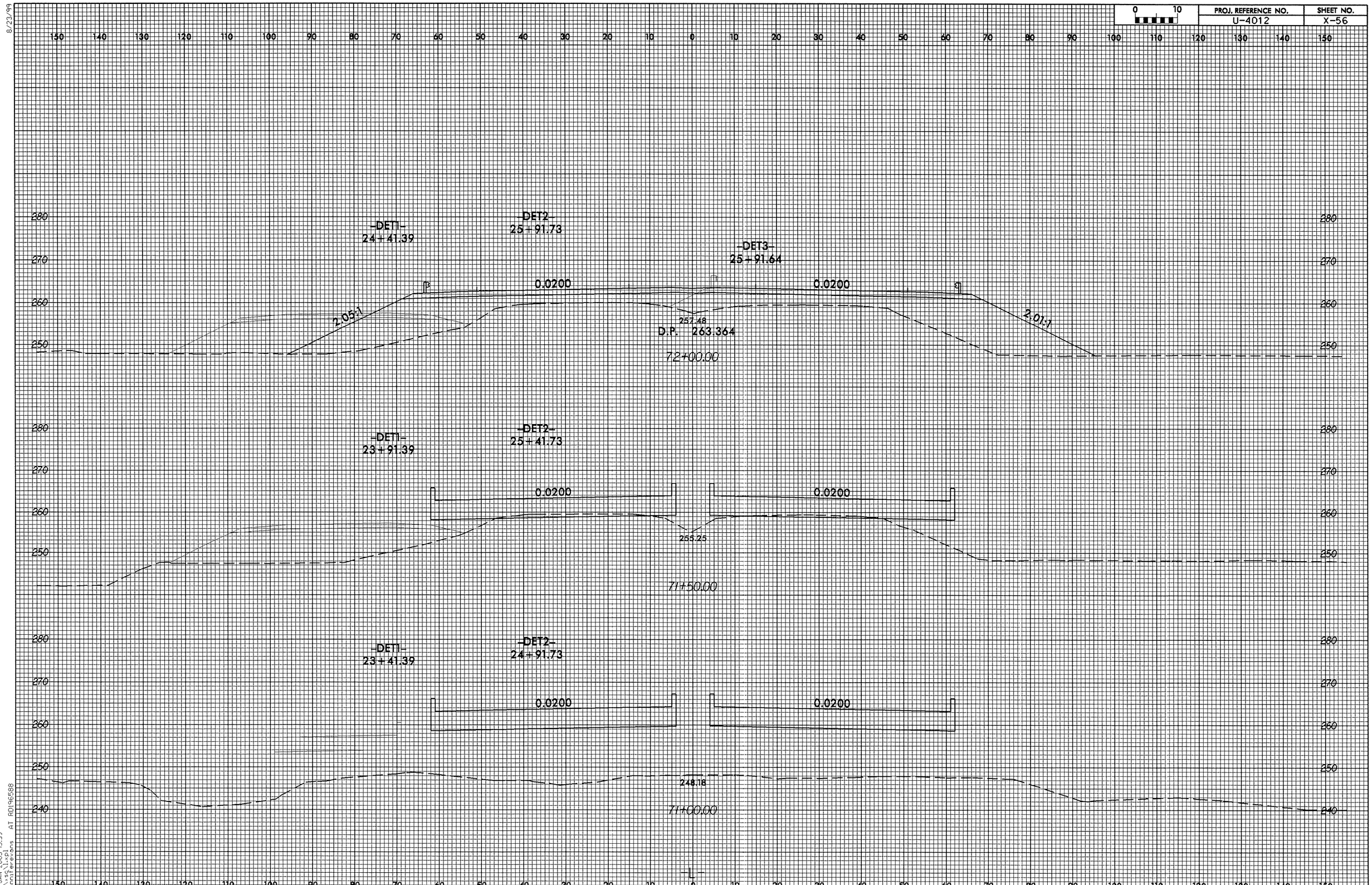


PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-54
0 10
-DET1-
21+41.39
-DET2-
22+91.73
0.0200
0.0200
259.47
69+00.00
-DET1-
20+91.39
-DET2-
22+41.73
-DET3-
22+41.64
0.0200
0.0200
D.P. 267.906
259.84
2:1
2:1
68+50.00
-DET1-
20+41.39
-DET2-
21+91.73
-DET3-
21+91.64
0.0200
0.0200
D.P. 269.046
260.65
2:1
2:1
68+00.00
-L-



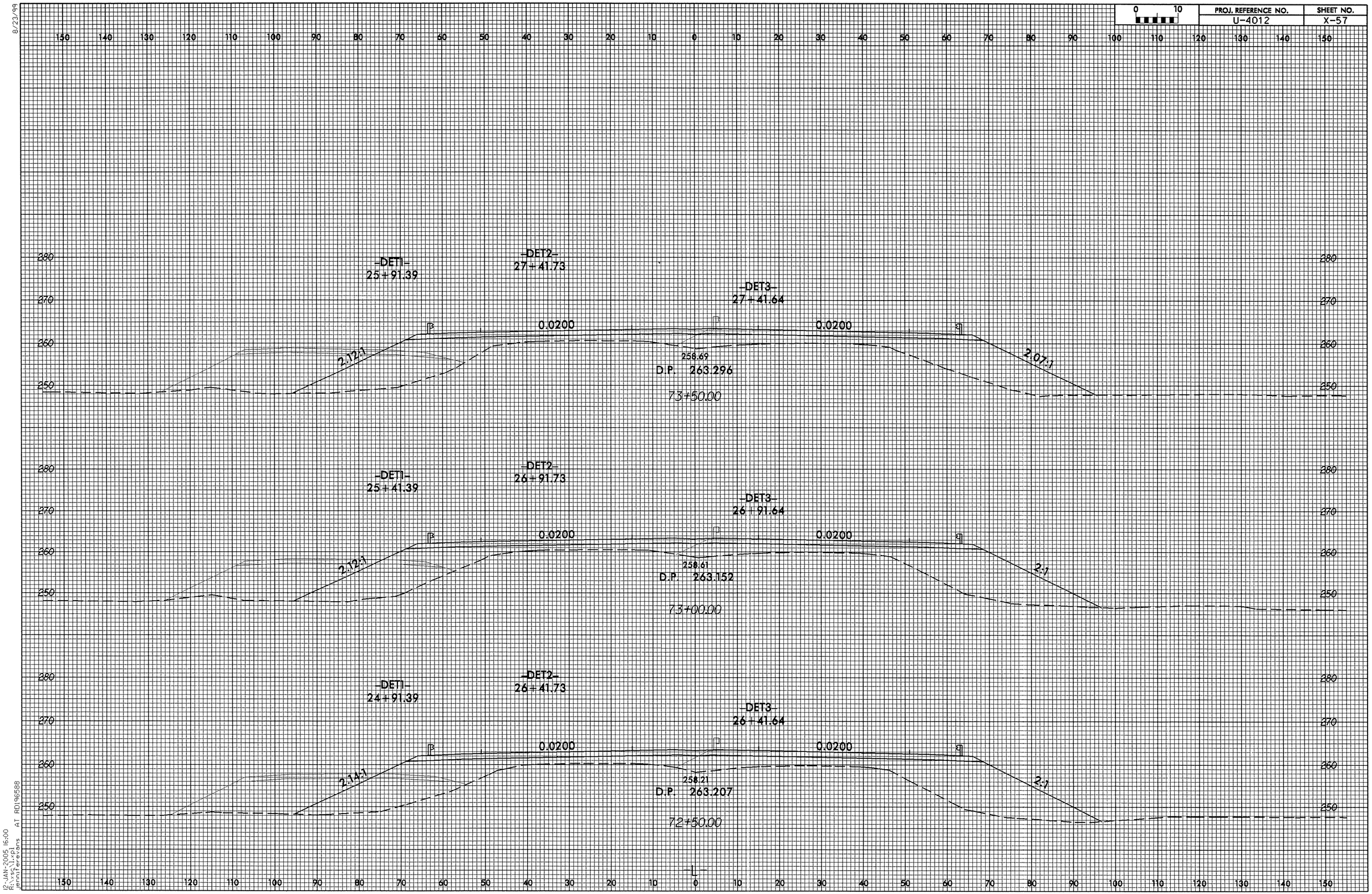
8/23/99

12-JAN-2005 15:59
R:\xsg\1.xpl
jennifer evans AT RD196588



8/23/99

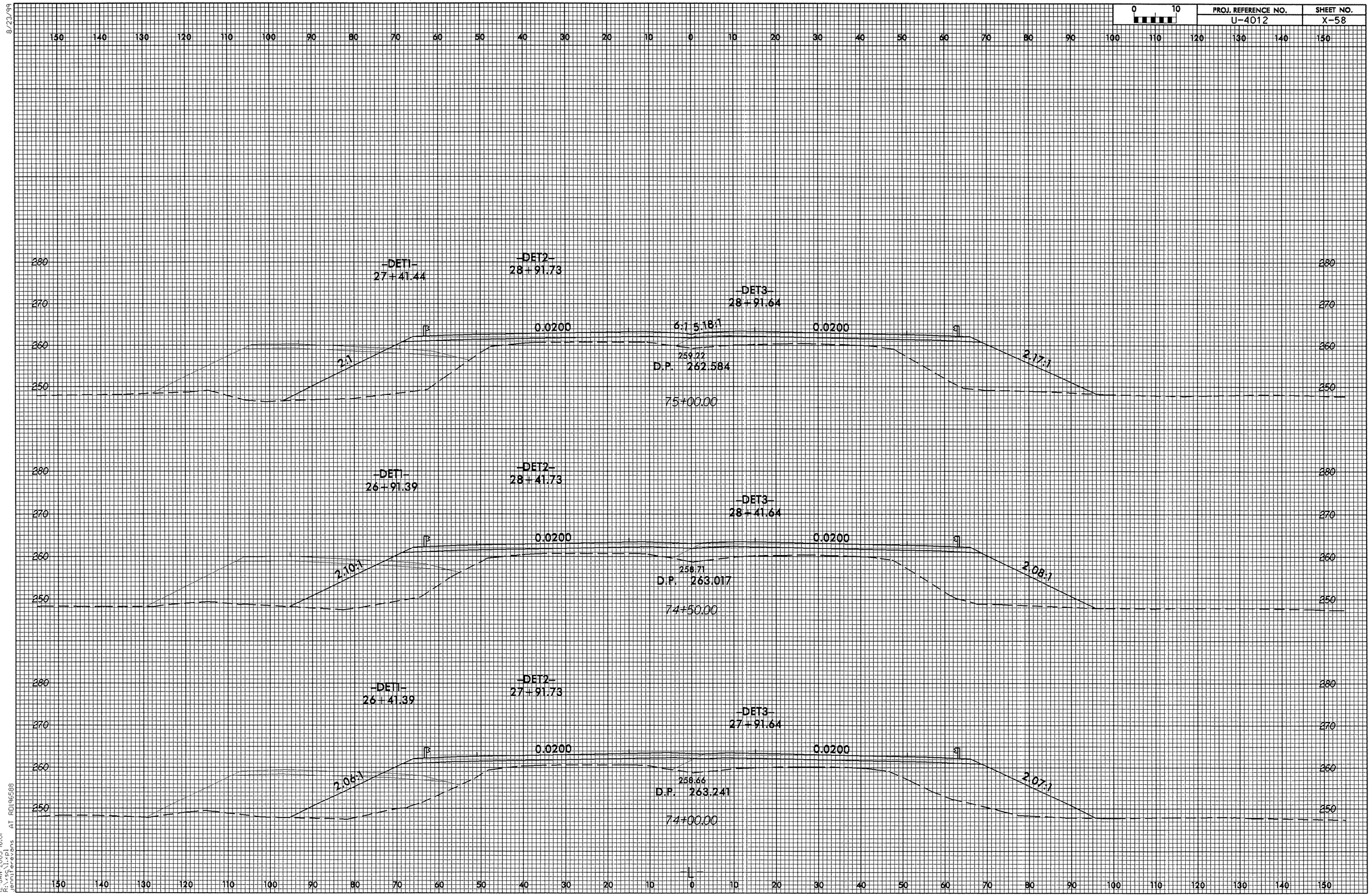
12-JAN-2005 15:59
R:\sc\l.xpl
jennifer.evans AT RD196588



8/23/99

12-JAN-2005 16:00
R:\vsc\l.xpl
jennifer.evans AT RD196588

PROJ. REFERENCE NO. U-4012
SHEET NO. X-58



8/23/99
12-JAN-2005 16:01
R:\vsc\l.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-59

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

280 270 260 250

-DET1- 28+92.14
-DET2- 30+41.77
-DET3- 30+41.64

2.15:1 | 0.0200 | 6:1 | 5.239:1 | 0.0200 | 2.79:1

259.31
D.P. 260.633

76+50.00

-DET1- 28+41.78
-DET2- 29+91.74
-DET3- 29+91.64

2.17:1 | 0.0200 | 6:1 | 5.3:1 | 0.0200 | 2.12:1

259.31
D.P. 261.390

76+00.00

-DET1- 27+91.55
-DET2- 29+41.73
-DET3- 29+41.64

2.12:1 | 0.0200 | 6:1 | 5.318:1 | 0.0200 | 2:1

259.35
D.P. 261.968

75+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:01
R:\sg\1.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-60

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

280 270 260 250

-DET1-
30+43.92
-DET2-
31+92.37
-DET3-
31+91.99

2.35:1 | 0.0200 | 6:1 | 4.742:1 | 0.0200 | 2.446:1

258.51
D.P. 259.755

78+00.00

-DET1-
29+93.38
-DET2-
31+42.05
-DET3-
31+41.78

2.30:1 | 0.0200 | 6:1 | 4.869:1 | 0.0200 | 2.52:1

258.94
D.P. 259.944

77+50.00

-DET1-
29+42.68
-DET2-
30+91.86
-DET3-
30+91.68

2.32:1 | 0.0200 | 6:1 | 5.032:1 | 0.0200 | 2.44:1

259.38
D.P. 260.236

77+00.00

-L-

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:02
R:\ss\lixpl
Jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-61

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

280
270
260

-DET1- 31+94.63
-DET2- 33+43.98
-DET3- 33+43.33

4.75:1 | 0.0200 | 7.887:1 | 4:1 | 0.0200 | 0.0200 | 0.0200 | 6:1

260.07
D.P. 260.663
79+50.00

280
270
260

-DET1- 31+44.51
-DET2- 32+93.50
-DET3- 32+92.85

4:1 | 0.0200 | 6.175:1 | 4:1 | 0.0200 | 0.0200 | 0.0200 | 5.08:1

259.54
D.P. 260.150
79+00.00

280
270
260
250

-DET1- 30+94.29
-DET2- 32+42.87
-DET3- 32+42.33

2.77:1 | 0.0200 | 6:1 | 4.351:1 | 0.0200 | 0.0200 | 0.0200 | 2.99:1

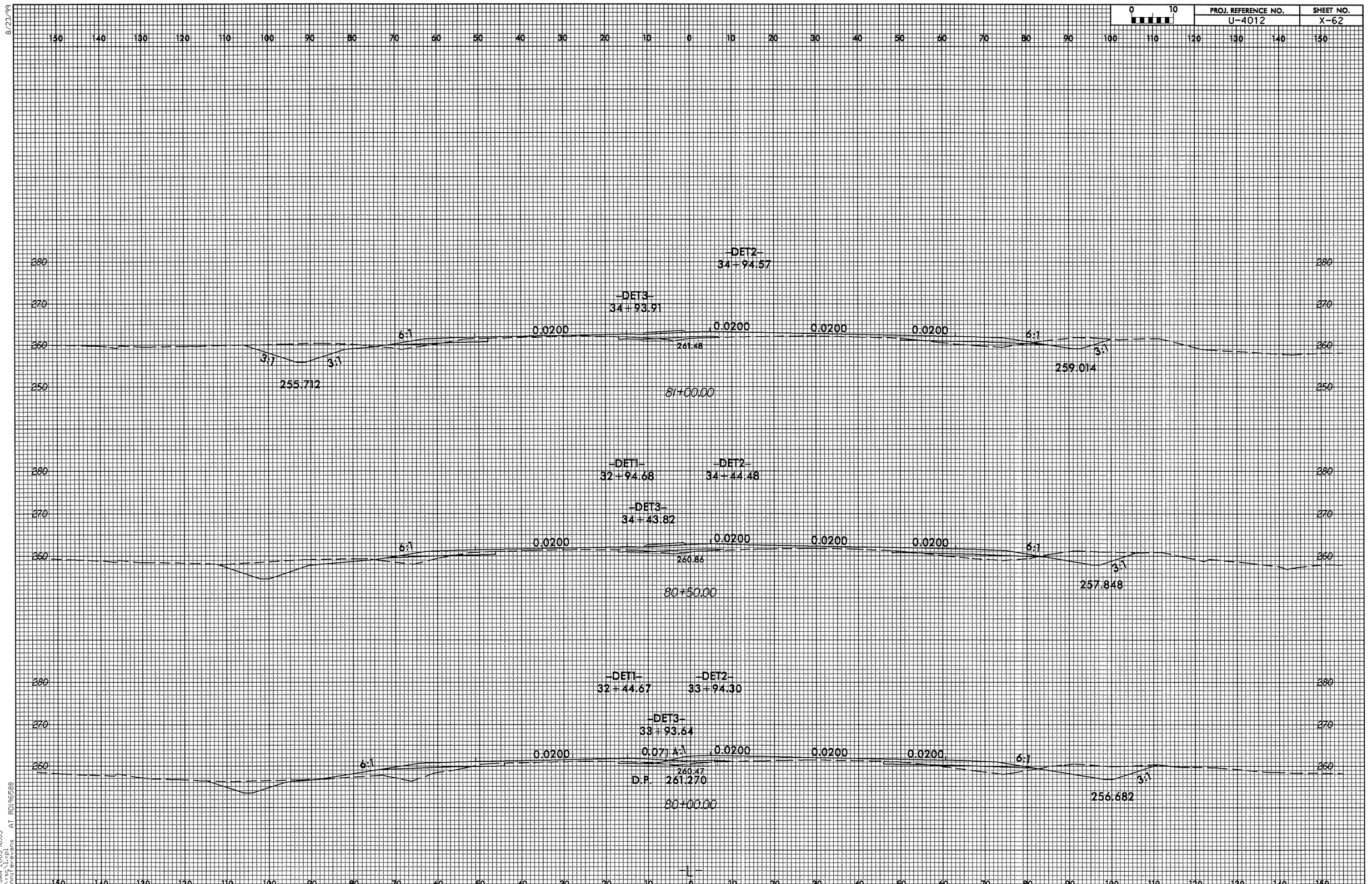
259.00
D.P. 259.885
78+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:02
R:\...\s1.xpl
jennifer.evans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-62



12-JAN-2005 16:03
R:\sgl\pl
jennifer.evans AT RD196588

8/23/99

PROJ. REFERENCE NO.	SHEET NO.
U-4012	X-63

0 10

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

270
260

6:1 6:1 0.0200 0.0200 0.0200 0.0200 6:1 5.43:1

263.191 265.13 263.184

83+50.00

270
260

6:1 6:1 0.0200 0.0200 0.0200 0.0200 6:1 4.93:1

262.231 264.23 262.293

83+00.00

260

6:1 6:1 0.0200 0.0200 0.0200 0.0200 6:1 5.51:1

261.376 263.39 261.496

82+50.00

260

6:1 6:1 0.0200 0.0200 0.0200 0.0200 6:1 6:1

260.626 262.58 260.792

82+00.00

280
270
260

-DET2-
35+44.60

-DET3-
35+43.94

3:1 3:1 6:1 0.0200 0.0200 0.0200 0.0200 6:1 3:1

256.890 261.90 260.180

81+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:04
R:\95\1\1.pl
jennifervevans AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-64

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

270

270.88

86+50.00

270

6:1 6:1

267.850

269.85

86+00.00

6:1 6:1

267.406

270

270

6:1 6:1

267.143

269.04

85+50.00

6:1 6:1

266.582

270

270

6:1 6:1

0.0200 0.0200 0.0200 0.0200

267.99

266.225

85+00.00

6:1 6:1

265.997

270

270

6:1 6:1

0.0200 0.0200 0.0200 0.0200

267.05

265.214

84+50.00

6:1 6:1

265.059

270

270

6:1 6:1

0.0200 0.0200 0.0200 0.0200

266.02

264.202

84+00.00

6:1 6:1

264.122

270

260

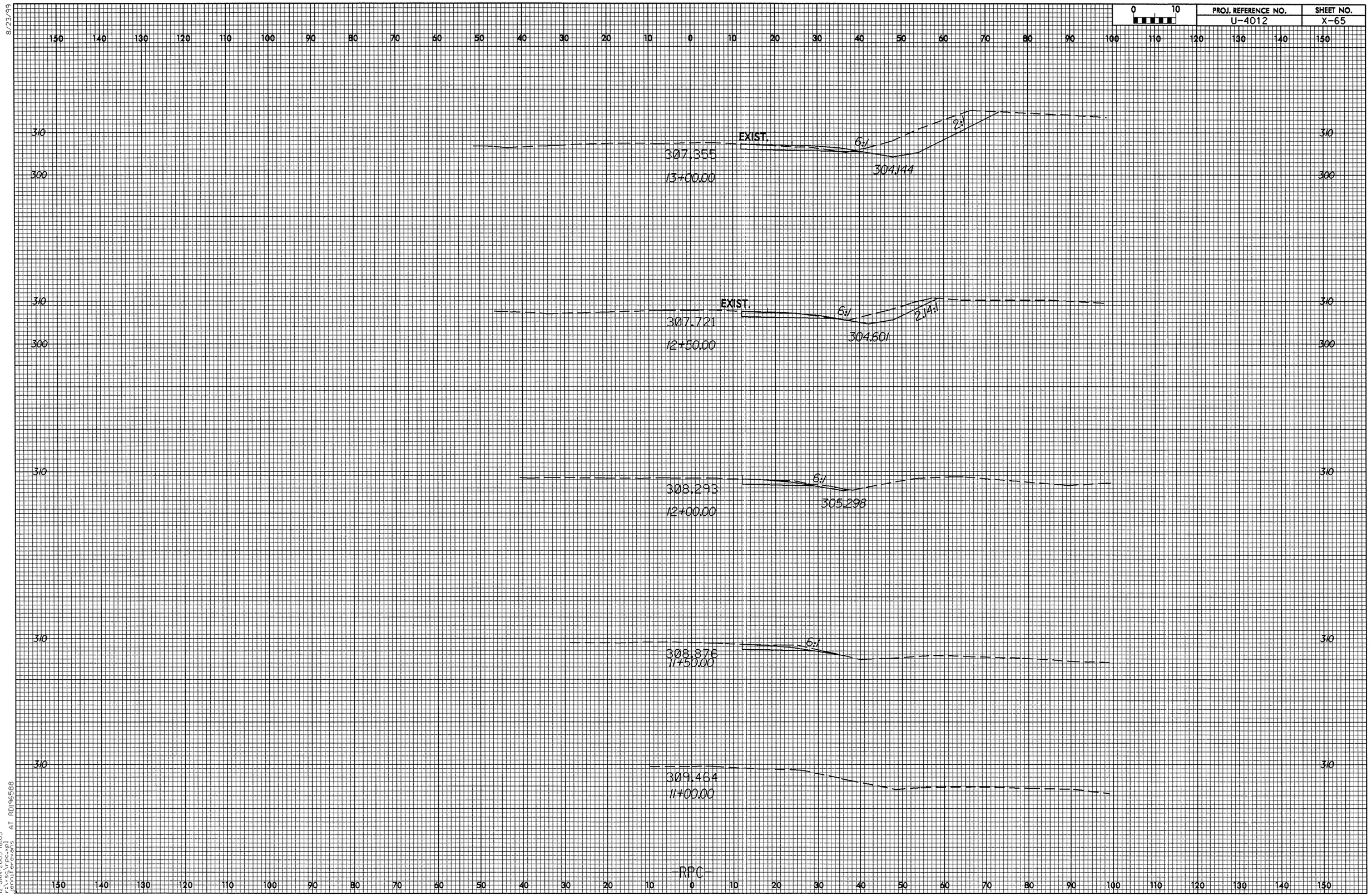
260

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

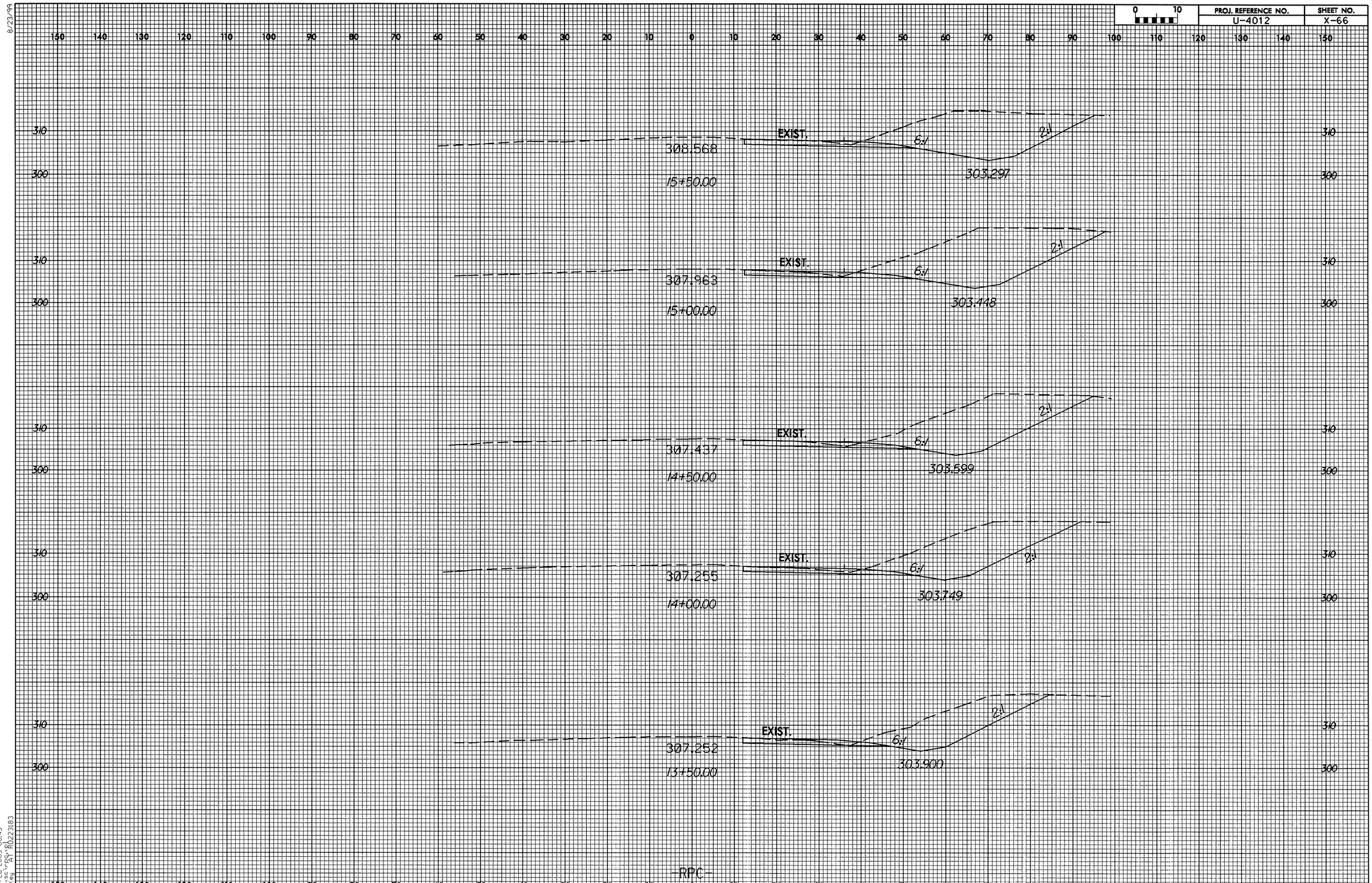
12-JAN-2005 16:04
R:\sgl\1.rpl
jennifer.evans AT RD196508

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-65



12-JAN-2005 16:05
ri\sc\rpc.xpl
jennifer.evans
AT RQ196588



PROJ. REFERENCE NO.
U-4012
SHEET NO.
X-66
0 10
EXIST.
308.568
15+50.00
6:1
2:1
303.297
EXIST.
307.963
15+00.00
6:1
2:1
303.448
EXIST.
307.437
14+50.00
6:1
2:1
303.599
EXIST.
307.255
14+00.00
6:1
2:1
303.749
EXIST.
307.252
13+50.00
6:1
2:1
303.900
-RPC-

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-67

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

310

EXIST. 315.076

18+50.00

4.16:1

310

310

EXIST. 313.885

18+00.00

3.32:1

310

310

EXIST. 312.682

17+50.00

3.42:1

310

310

EXIST. 311.488

17+00.00

4.67:1

2:1

302.845

310

300

EXIST. 310.355

16+50.00

6:1

2:1

302.996

310

300

EXIST. 309.386

16+00.00

6:1

2:1

308.141

310

300

RPC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:06
c:\projects\
jennifer\evans

AT RD196588

8/23/99

0 10	PROJ. REFERENCE NO.	SHEET NO.
	U-4012	X-68

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

320

321.929
21+50.00

320

EXIST.
4:1
320.654
21+00.00

320

EXIST.
4:1
319.599
20+50.00

320

EXIST.
3:1
318.446
20+00.00

320

EXIST.
3.43:1
317.531
19+50.00

320

EXIST.
3:1
316.229
19+00.00

RPC

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

12-JAN-2005 16:07
r:\scr\rpc.tpl
jennifer.evans AT RD196588