STV / Ralph Whitehead Associates, Inc.
1000 West Morehead St., Ste. 200
Charlotte, NC 28208
NC License Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-0
R/W SHEET NO.	

METRIC

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS SECTIONS FOR R-2241A

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PROJ. REFERENCE NO.	SHEET NO.
R-2241A	X-0A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

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.

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

Station LLEFT	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+40.00	0	0
10+60.00	11	5
10+80.00	11	7
11+00.00	10	8
11+20.00	26	4
11+40.00	55	0
11+60.00	54	0
11+80.00	72	0
12+00.00	121	0
12+20.00	113	0
12+40.00	99	0
12+60.00	79	0
12+80.00	22	49
13+00.00	0	99
13+20.00	0	420
13+40.00	0	703
13+50.00	0	711
13+60.00	0	481
13+80.00	0	780
13+90.00	0	419
14+00.00	0	349
14+20.00	0	491
14+40.00	0	303
14+60.00	0	135
14+80.00	8	51
15+00.00	27	43
15+20.00	25	115
15+26.00	4	95
15+40.00	7	296
15+60.00	7	510
15+80.00	7	287
16+00.00	4	30
16+20.00	17	19
16+40.00	24	42
16+60.00	25	33
16+70.00	18	11
16+80.00	13	9
17+00.00	11	30
17+20.00	7	38
17+40.00	89	16
17+57.00	168	0
17+60.00	33	0
17+80.00	271	0
17+96.00	228	0
18+00.00	51	1
18+20.00	173	2
18+40.00	242	2
18+60.00	362	7
18+80.00	237	11
19+00.00	174	8
19+14.00	147	2
19+20.00	72	0
19+40.00	191	1

Station LLEFT	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
19+40.00	0	0	0
19+56.00	78	0	30
19+60.00	11	0	17
19+80.00	52	0	70
20+00.00	146	33	55
20+20.00	329	142	142
20+40.00	385	142	142
20+60.00	172	50	244
20+80.00	0	0	780
21+00.00	0	0	1206
21+20.00	0	0	1322
21+40.00	0	0	1359
21+60.00	0	0	1234
21+80.00	0	0	1007
22+00.00	0	0	625
22+20.00	32	0	195
22+28.00	23	0	0
22+40.00	62	0	0
22+60.00	243	0	0
22+80.00	486	0	0
23+00.00	742	0	0
23+20.00	889	0	0
23+40.00	911	0	0
23+60.00	730	0	0

Station LRIGHT	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+40.00	0	0	0
10+60.00	5	0	35
10+80.00	1	0	17
11+00.00	0	0	9
11+20.00	28	0	0
11+40.00	38	0	0
11+60.00	14	0	6
11+80.00	13	0	10
12+00.00	16	0	6
12+20.00	21	0	11
12+40.00	41	0	22
12+60.00	42	0	269
12+80.00	14	0	633
13+00.00	0	0	540
13+20.00	0	0	602
13+40.00	0	0	1234
13+50.00	0	0	784
13+60.00	0	0	580
13+80.00	0	0	716
13+90.00	0	0	314
14+00.00	0	0	275
14+20.00	0	0	411
14+40.00	2	0	198
14+60.00	28	0	40
14+80.00	105	0	1

Station LRIGHT	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
15+00.00	175	0	0
15+20.00	140	0	0
15+26.00	25	0	0
15+40.00	35	0	27
15+60.00	85	0	38
15+80.00	92	0	6
16+00.00	39	0	7
16+20.00	30	0	9
16+40.00	9	0	45
16+60.00	3	0	52
16+70.00	1	0	15
16+80.00	1	0	15
17+00.00	1	0	35
17+20.00	1	0	48
17+40.00	15	0	30
17+57.00	14	0	20
17+60.00	1	0	5
17+80.00	8	0	37
17+96.00	7	0	38
18+00.00	1	0	9
18+20.00	8	0	66
18+40.00	4	0	117
18+60.00	0	0	196
18+80.00	0	0	308
19+00.00	0	0	413
19+14.00	1	0	445
19+20.00	1	0	186
19+40.00	2	0	437

Station LRIGHT	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
19+40.00	0	0	0
19+56.00	0	0	457
19+60.00	0	0	125
19+80.00	0	0	524
20+00.00	0	33	456
20+20.00	12	142	454
20+40.00	35	142	483
20+60.00	23	50	485
20+80.00	0	0	602
21+00.00	0	0	717
21+20.00	0	0	671
21+40.00	0	0	634
21+60.00	0	0	621
21+80.00	0	0	445
22+00.00	1	0	167
22+20.00	6	0	54
22+28.00	4	0	13
22+40.00	9	0	10
22+60.00	69	0	2
22+80.00	152	0	0
23+00.00	241	0	0

Station LRIGHT	Uncl. Exc. (cu. meters)	Embt (cu. meters)
23+20.00	338	0
23+40.00	357	0
23+60.00	338	0

Station DET1	Uncl. Exc. (cu. meters)	Embt (cu. meters)
12+66.000	0	0
12+80.000	0	54
13+00.000	0	179
13+20.000	0	226
13+40.000	0	267
13+60.000	0	179
13+80.000	4	48
14+00.000	4	39
14+20.000	7	46
14+40.000	17	38
14+60.000	19	24
14+80.000	21	14
15+00.000	31	9
15+21.390	28	57

Station DET2	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+39.270	0	0
10+60.000	50	23
10+80.000	14	207
11+00.000	8	580
11+20.000	0	1058
11+40.000	2	1225
11+60.000	5	875
11+80.000	22	321
12+00.000	174	9
12+20.000	334	0
12+40.000	248	0
12+60.280	86	1

Station L	Uncl. Exc. (cu. meters)	Embt (cu. meters)
23+60.00	0	0
23+80.00	772	1
24+00.00	707	7
24+20.00	612	23
24+40.00	257	174
24+60.00	36	416
24+80.00	0	666
25+00.00	0	929
25+20.00	0	1102
25+40.00	0	1333
25+60.00	0	1415
25+80.00	0	1028

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
26+00.00	65	0	533
26+20.00	250	0	276
26+33.00	270	0	142
26+40.00	174	0	58
26+60.00	678	0	63
26+80.00	1386	0	4
27+00.00	2354	0	0
27+20.00	3033	0	0
27+40.00	3248	0	0
27+60.00	2935	0	0
27+80.00	2395	0	0
28+00.00	1956	0	0
28+20.00	1822	0	0
28+40.00	1495	0	0
28+60.00	1029	0	0
28+80.00	1131	0	20
29+00.00	1102	0	71
29+20.00	754	0	259
29+40.00	498	0	592
29+60.00	215	0	937
29+80.00	62	0	1071
30+00.00	23	0	992
30+20.00	13	0	857
30+40.00	44	0	724
30+60.00	57	0	647
30+80.00	151	0	395
31+00.00	544	0	88
31+20.00	1228	0	0
31+40.00	1909	0	0
31+60.00	2308	0	0
31+80.00	2455	0	0
32+00.00	2483	0	9
32+20.00	2358	0	15
32+40.00	1907	0	42
32+60.00	1527	90	141

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
32+60.00	0		0
32+80.00	1847	248	265
33+00.00	2387	93	100
33+20.00	2677	13	50
33+34.00	1936	0	49
33+40.00	806	0	20
33+60.00	2445	0	48
33+80.00	1983	61	88
34+00.00	2177	91	134
34+20.00	3182	0	34
34+40.00	3422	0	42
34+60.00	2646	0	185
34+80.00	1664	0	653
35+00.00	687	0	1720

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
35+20.00	110	0	3383
35+40.00	0	0	4411
35+60.00	0	0	4679
35+80.00	0	0	4586
36+00.00	34	0	3710
36+20.00	202	0	2601
36+40.00	587	34	1385
36+60.00	1279	162	481
36+80.00	2205	47	53
37+00.00	2316	76	76
37+20.00	1029	144	439
37+40.00	58	0	1788
37+60.00	0	0	1923
37+80.00	1056	0	430
38+00.00	3195	0	0
38+20.00	5157	0	0
38+40.00	6628	0	0
38+60.00	8212	0	0
38+80.00	10026	0	0
39+00.00	11168	0	0
39+20.00	10616	0	0
39+40.00	8387	0	0
39+60.00	5667	0	0
39+80.00	3061	0	205
40+00.00	1120	0	1377
40+20.00	236	0	2949
40+40.00	24	0	3594
40+60.00	3	0	3084
40+80.00	79	0	1713
41+00.00	474	0	447
41+20.00	1149	0	0
41+40.00	1699	0	0
41+60.00	2296	0	0

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
41+60.00	2296	0	0
41+80.00	2731	0	0
42+00.00	2667	0	0
42+20.00	2255	0	0
42+40.00	1525	0	0
42+60.00	881	0	0
42+80.00	657	0	0
43+00.00	1031	0	0
43+20.00	1740	0	0
43+40.00	2256	52	52
43+60.00	2435	179	179
43+80.00	2378	136	136
44+00.00	2280	0	0
44+20.00	2366	0	0
44+40.00	2724	0	0

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R-2241A	X-0B

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NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
44+60.00	3296	0	0
44+80.00	3743	0	0
45+00.00	3852	0	0
45+20.00	3872	0	0
45+40.00	3699	0	0
45+60.00	3246	0	0
45+80.00	2617	0	0
46+00.00	1762	0	0
46+20.00	734	0	156
46+40.00	107	0	878
46+60.00	32	0	1741
46+80.00	45	0	2059
47+00.00	23	0	1269
47+20.00	139	0	696
47+40.00	534	0	564
47+60.00	1253	0	97
47+80.00	1730	0	0
48+00.00	1553	0	0
48+20.00	814	0	186
48+40.00	256	0	473
48+60.00	428	0	404
48+80.00	832	81	219
49+00.00	1353	345	367
49+20.00	1857	368	368
49+40.00	2086	368	368
49+60.00	2264	241	241
49+80.00	2333	137	137
50+00.00	2106	172	172
50+20.00	1513	90	186
50+40.00	695	90	551
50+60.00	164	0	1388

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
50+60.00	0	0	0
50+80.00	0	0	2408
51+00.00	0	0	2928
51+20.00	0	0	2674
51+40.00	16	0	2010
51+60.00	20	0	1757
51+80.00	3	0	1548
52+00.00	8	23	1036
52+20.00	105	130	803
52+40.00	223	162	876
52+60.00	273	163	815
52+80.00	443	249	556
53+00.00	568	347	386
53+20.00	273	138	534
53+40.00	0	0	1344
53+60.00	84	8	1779
53+80.00	256	92	1322
54+00.00	564	217	752

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
54+20.00	1080	322	487
54+40.00	1900	254	291
54+60.00	3564	54	54
54+80.00	5377	0	0
55+00.00	5981	0	0
55+20.00	5756	0	0
55+40.00	5162	0	0
55+60.00	4936	0	0
55+80.00	5284	0	0
56+00.00	5315	0	0
56+20.00	5089	0	0
56+40.00	4712	0	0
56+60.00	4227	0	0
56+80.00	2893	0	0
57+00.00	913	0	737
57+20.00	0	0	3041
57+40.00	0	0	5160
57+60.00	0	0	4954
57+80.00	0	0	3552
58+00.00	56	0	2551
58+20.00	205	0	1735
58+40.00	581	0	654
58+60.00	1483	109	125
58+80.00	2141	262	262
59+00.00	2417	73	73
59+20.00	3271	0	0
59+40.00	4497	0	0
59+60.00	5553	0	0
59+80.00	5997	0	0
60+00.00	5561	0	0
60+20.00	3913	0	0
60+40.00	2068	165	165
60+60.00	560	444	561
60+80.00	10	287	621
61+00.00	504	402	619
61+20.00	1700	451	451
61+40.00	2714	400	400
61+60.00	2736	482	482
61+80.00	2233	468	468
62+00.00	2055	0	0
62+20.00	2358	0	0
62+40.00	2814	0	0
62+60.00	2965	0	0
62+80.00	2675	0	0
63+00.00	1869	0	0
63+20.00	838	0	161
63+40.00	266	0	1267
63+60.00	135	0	2501
63+80.00	66	0	2935
64+00.00	34	0	3039
64+20.00	50	0	2974
64+40.00	58	0	3163

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
64+40.000	0	0	0
64+80.000	26	0	3684
65+00.000	0	0	3978
65+20.000	0	0	3912
65+40.000	0	0	3818
65+60.000	0	0	3626
65+80.000	0	0	3368
66+00.000	0	0	3152
66+20.000	14	0	2882
66+40.000	15	0	2290
66+60.000	1	0	1533
66+80.000	6	0	951
67+00.000	34	0	524
67+10.000	116	0	248
67+20.000	97	0	47
67+40.000	110	0	37
67+60.000	232	0	68
67+80.000	236	0	36
68+00.000	235	0	45
68+20.000	243	0	46
68+40.000	220	0	42
68+60.000	158	0	54
68+80.000	75	0	130
69+00.000	21	0	345
69+20.000	140	0	499
69+40.000	203	0	264
69+60.000	399	0	11
69+80.000	787	0	0
70+00.000	819	0	0
70+20.000	512	0	1
70+40.000	215	0	59
70+60.000	109	59	161
70+80.000	92	226	332
71+00.000	64	221	338
71+20.000	25	56	223
71+40.000	16	0	260
71+50.000	53	0	282
71+60.000	25	0	129
71+80.000	38	0	108
72+00.000	78	0	166
72+20.000	108	0	134
72+40.000	115	0	76
72+48.000	100	0	168
72+60.000	33	0	126
72+80.000	31	0	214
73+00.000	112	0	394
73+20.000	109	0	445
73+30.000	96	0	507
73+40.000	23	0	268
	22	0	269

Station L	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
73+40.000	0	13	13
73+55.000	34	50	383
73+60.000	13	1	95
73+80.000	99	60	461
74+00.000	92	17	402
74+20.000	82	0	283
74+40.000	91	0	160
74+45.000	18	0	25
74+60.000	69	62	111
74+80.000	216	273	300
75+00.000	257	311	317
75+20.000	191	318	343
75+40.000	149	323	381
75+50.000	58	350	377
75+60.000	93	350	369
75+80.000	290	183	229
76+00.000	222	0	85
76+20.000	172	0	192
76+40.000	224	115	411
76+60.000	189	227	569
76+80.000	123	155	441
77+00.000	111	128	270
77+20.000	133	147	192
77+40.000	260	159	167
77+60.000	373	190	190
77+80.000	296	93	93
78+00.000	204	0	5

Station Y1	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
12+15.000	0	0	0
12+20.000	5	0	2
12+40.000	18	0	8
12+60.000	30	0	5
12+75.000	17	0	4
12+80.000	4	0	3
13+00.000	16	0	21
13+20.000	11	0	34
13+25.000	2	0	10
13+34.000	4	0	22
13+40.000	3	0	13
13+52.000	7	0	21
13+60.000	5	0	11
13+88.749	45	0	30

Station Y2	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
14+10.883	0	0	0
14+40.000	32	0	13
14+60.000	14	0	36

Station Y4	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+10.318	0	0
10+20.000	0	359
10+40.000	0	1119
10+60.000	0	555
10+80.000	0	244
11+00.000	2	76
11+20.000	13	8

Station Y5	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+02.485	0	0
10+20.000	60	25
10+40.000	95	119
10+60.000	27	201
10+85.000	60	135

Station Y6	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+60.000	0	0
10+80.000	74	2
11+00.000	195	0
11+20.000	511	0
11+40.000	703	0
11+60.408	334	0

Station Y7	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+75.000	0	0
11+00.000	33	22
11+20.000	21	44
11+40.000	25	59
11+60.000	82	37
11+80.000	74	35
12+00.000	25	94
12+20.000	34	90
12+40.000	191	27
12+60.000	317	0
12+80.000	229	6
13+00.000	106	109
13+20.000	50	393
13+40.000	26	665
13+60.000	6	577
13+85.662	54	262

Station Y8	Uncl. Exc. (cu. meters)	Embt (cu. meters)
14+19.662	0	0
14+40.000	1078	0

Station Y8	Uncl. Exc. (cu. meters)	Embt (cu. meters)
14+60.000	1970	0
14+80.000	1738	0
15+00.000	1169	0
15+20.000	395	215
15+40.000	138	398
15+60.000	127	256
15+80.000	70	108
16+00.000	52	62
16+20.000	48	28
16+40.000	116	1

Station Y9	Uncl. Exc. (cu. meters)	Embt (cu. meters)
10+04.500	0	0
10+20.000	241	0
10+40.000	707	0
10+60.000	664	20
10+80.000	449	20
11+00.000	329	0
11+20.000	208	5
11+40.000	82	17
11+60.000	36	23
11+80.000	55	14
12+00.000	111	3
12+20.000	99	14
12+40.000	39	54
12+60.000	28	72
12+80.000	148	32
13+00.000	411	0
13+20.000	750	0
13+40.000	1011	0
13+60.000	1130	0
13+80.000	1085	0
14+00.000	853	0
14+20.000	562	0
14+40.000	387	0
14+60.000	313	0
14+80.000	204	0
14+90.000	69	1
15+06.000	97	3
15+23.000	81	2
15+40.000	50	5
15+60.000	25	17
15+80.000	6	62
15+94.000	0	66
16+00.000	4	19
16+20.000	48	26
16+40.000	67	9
16+60.000	87	2
16+70.000	53	0

PROJ. REFERENCE NO.	SHEET NO.
R-2241A	X-0C

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

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.

NOTE: EMBANKMENT COLUMN INCLUDES BACKFILL FOR UNDERCUT

Station Y10	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+00.000	0	0	0
10+20.000	0	0	187
10+40.000	0	0	259
10+60.000	22	0	86
10+76.000	19	0	12

Station Y11	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+40.000	0	0	0
10+60.000	159	0	1
10+80.000	242	0	0
11+12.948	244	0	0

Station Y12	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+40.000	0	0	0
10+60.000	331	0	7
10+80.000	461	0	2
11+00.000	466	0	1
11+10.060	103	0	1

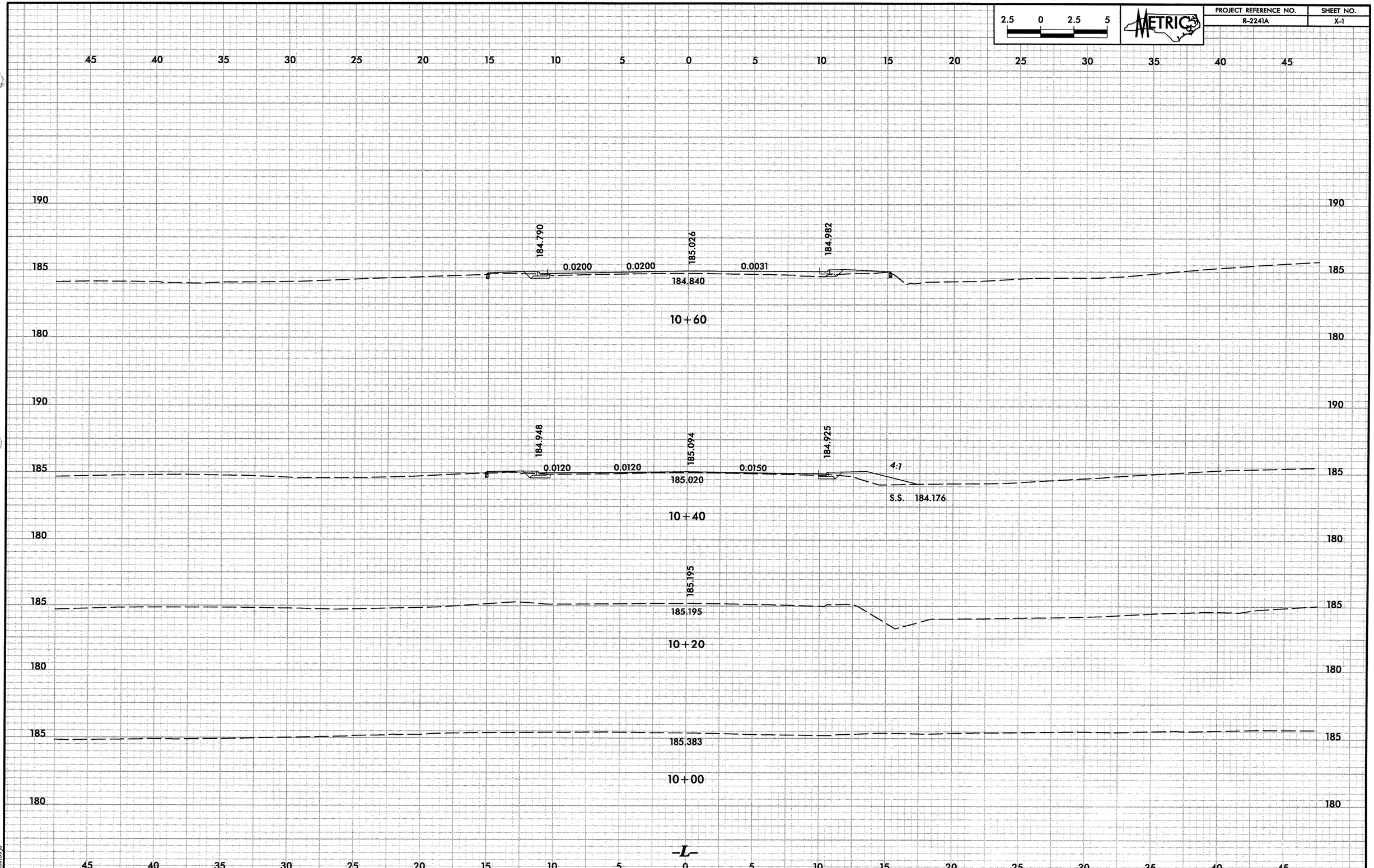
Station Y13	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
11+41.332	0	0	0
11+60.000	0	0	545
11+80.000	0	0	1027
12+00.000	0	0	699
12+20.000	0	0	407
12+40.000	5	0	228
12+60.000	6	0	194
12+80.000	5	0	158
13+25.000	20	0	71

Station Y14	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+14.000	0	0	0
10+20.000	20	0	0
10+40.000	103	0	1
10+60.000	50	0	55
10+80.000	35	0	189
11+00.000	25	0	449
11+22.580	3	0	354

Station Y15	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
11+22.580	0	0	0
11+40.000	102	0	7
11+60.000	320	0	8
11+80.000	298	0	0
12+00.000	188	0	0
12+10.000	46	0	0

Station Y17	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
10+80.000	0	0	0
11+00.000	9	0	8
11+20.000	2	0	16
11+40.000	5	0	36
11+60.000	49	0	54
11+80.000	129	0	32
12+00.000	323	0	11
12+20.000	609	0	5
12+40.000	725	0	0
12+60.000	733	70	70
12+80.000	660	289	289
12+90.000	266	316	316
13+18.495	356	25	25

Station TEMPSBL	Uncl. Exc. (cu. meters)	Undercut (cu. meters)	Embt (cu. meters)
78+00.000	0	0	0
78+20.000	121	34	55
78+40.000	27	121	160
78+55.000	6	50	82
78+60.000	1	2	15
78+80.000	3	0	51
78+84.000	0	0	6
79+00.000	2	33	48
79+20.000	3	64	84
79+40.000	2	84	95
79+60.000	9	52	54
79+69.997	4	0	0



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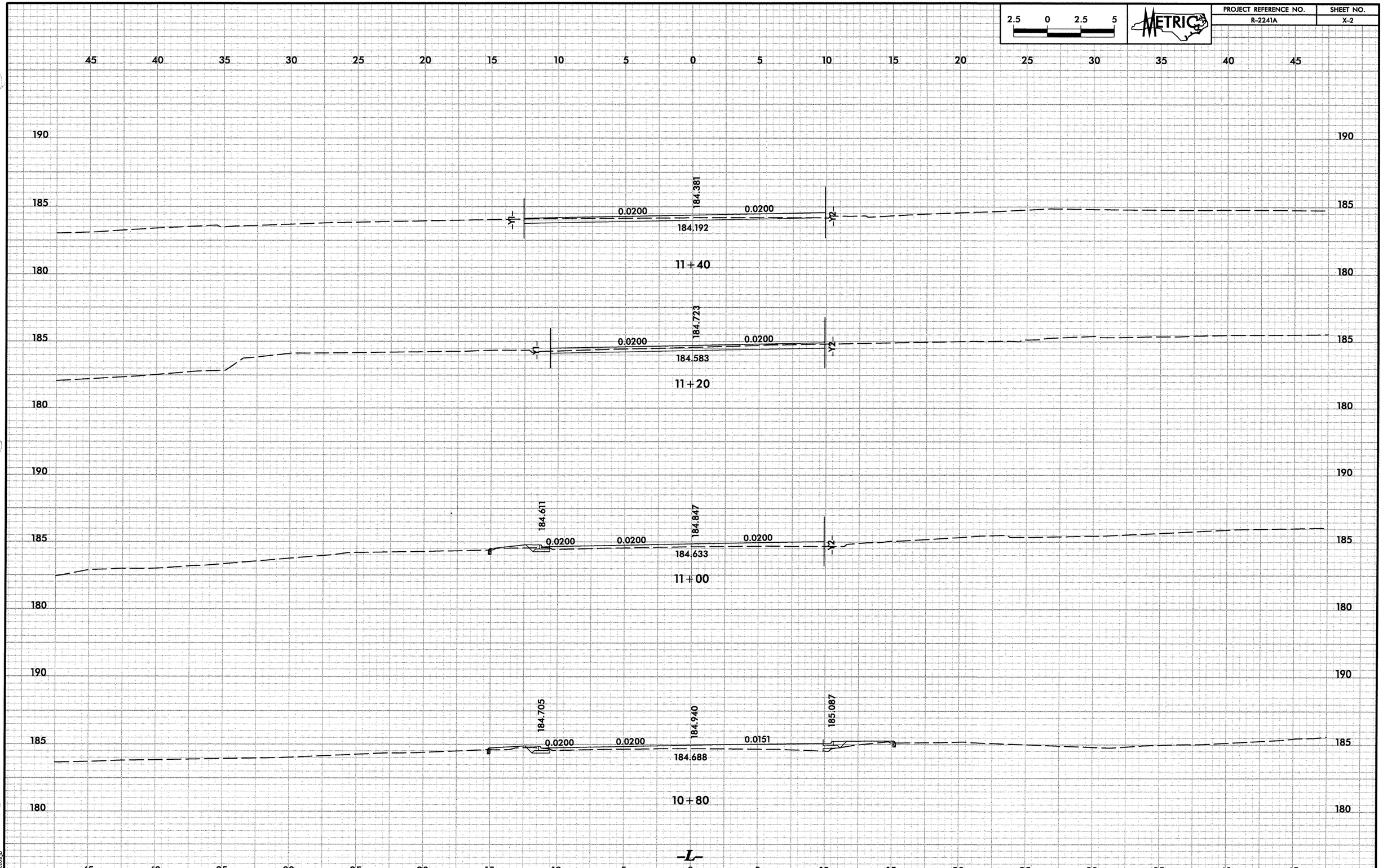
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-2



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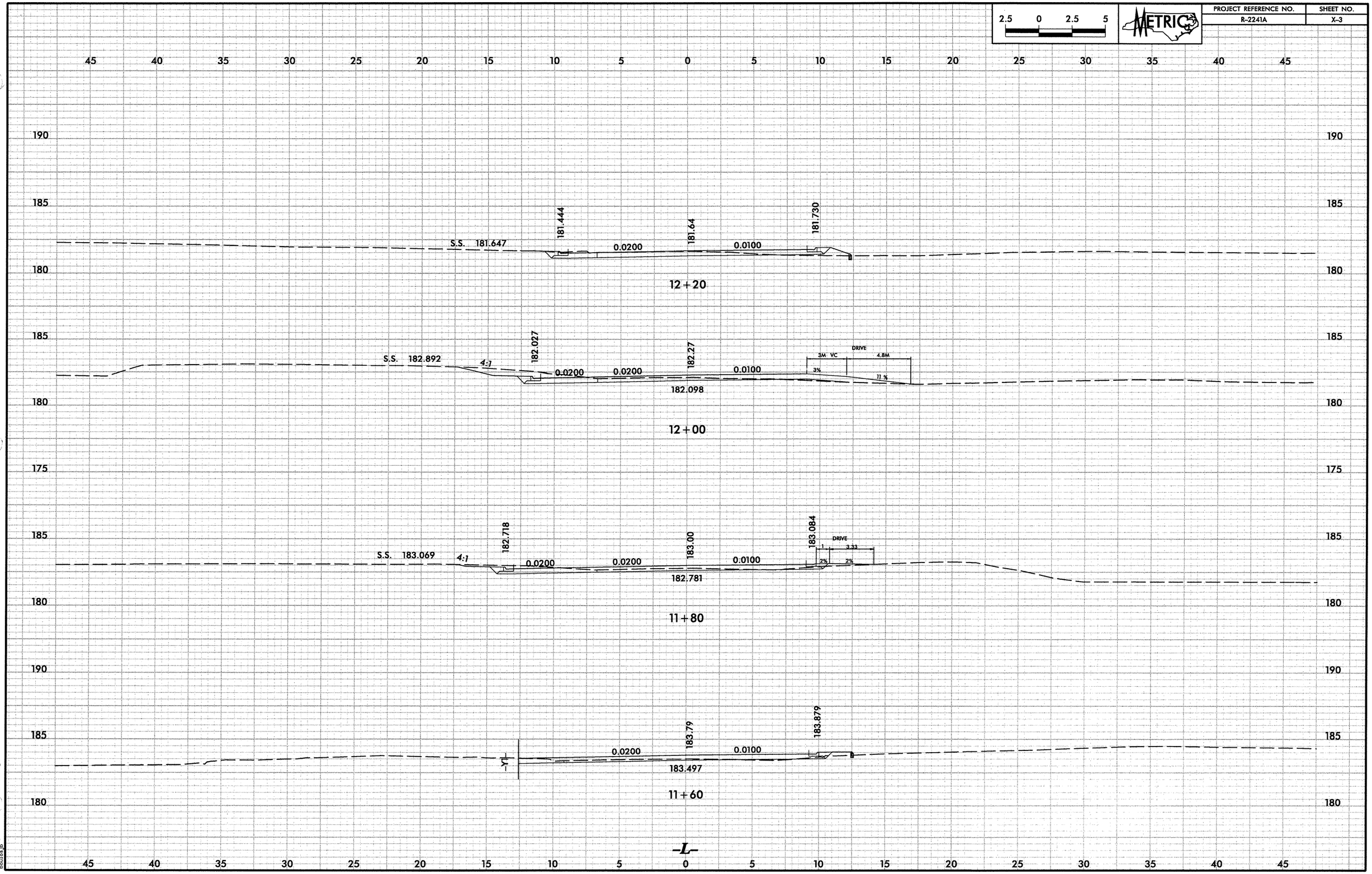
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-3



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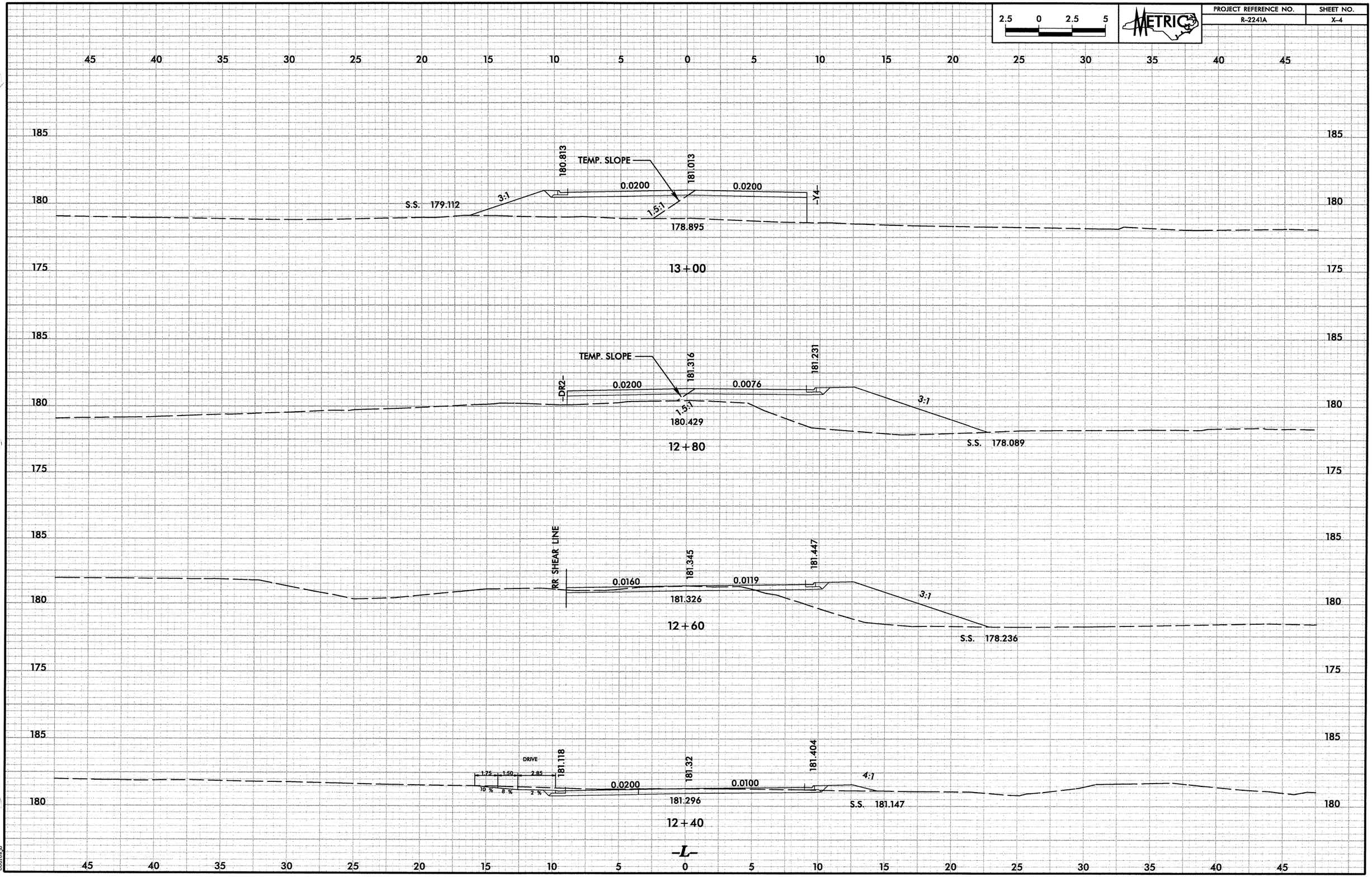
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-4



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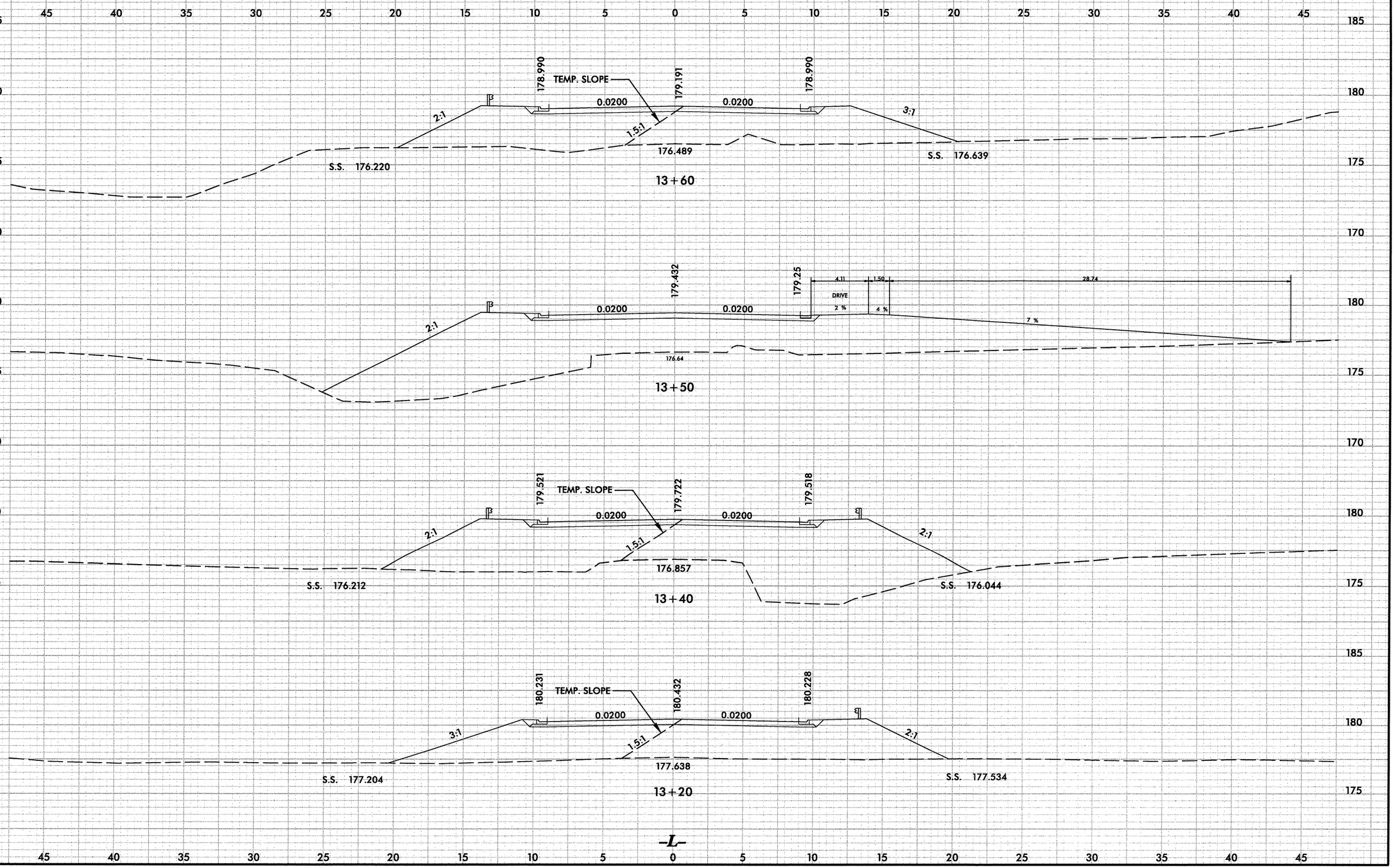
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-5



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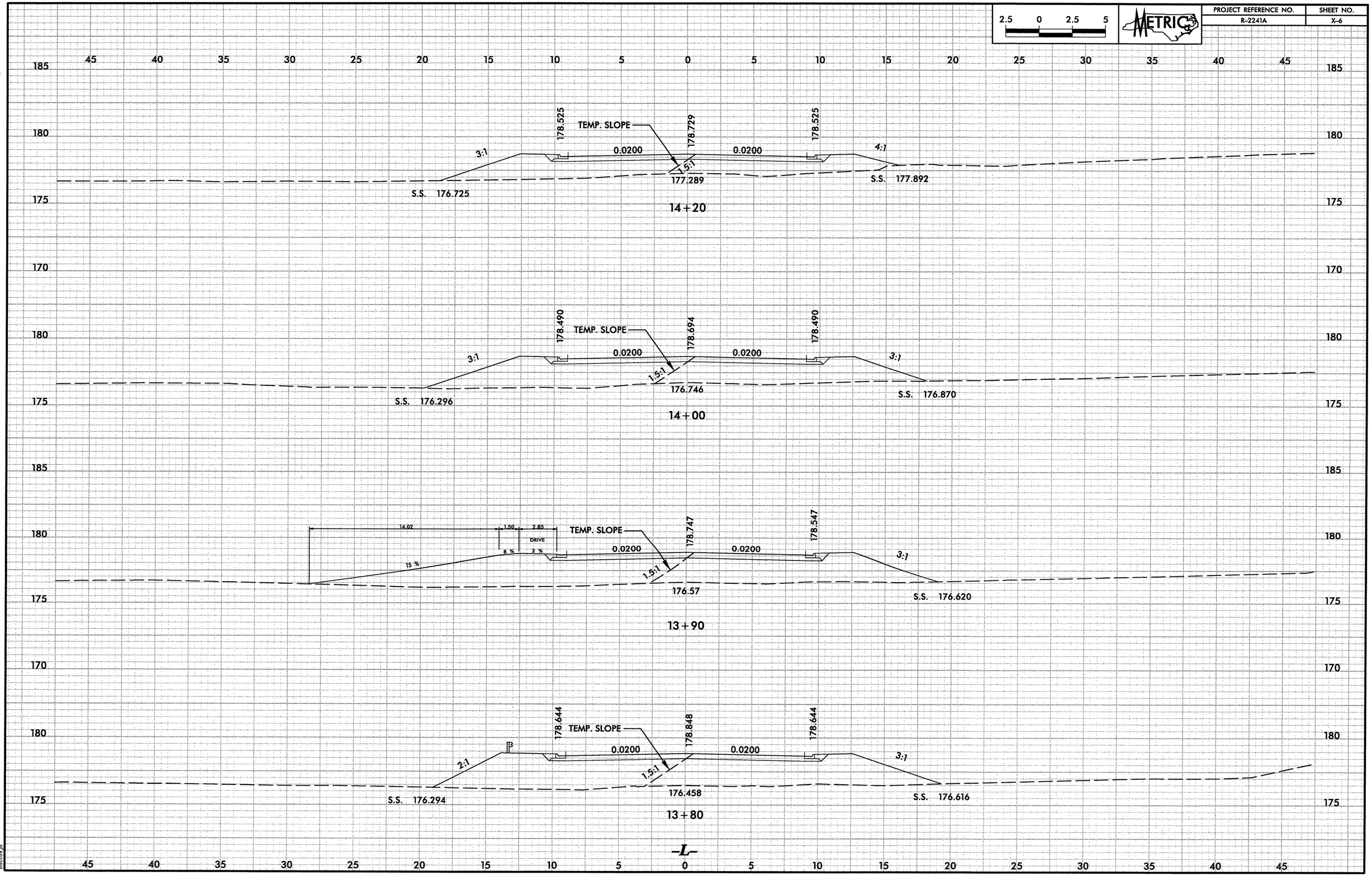
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-6



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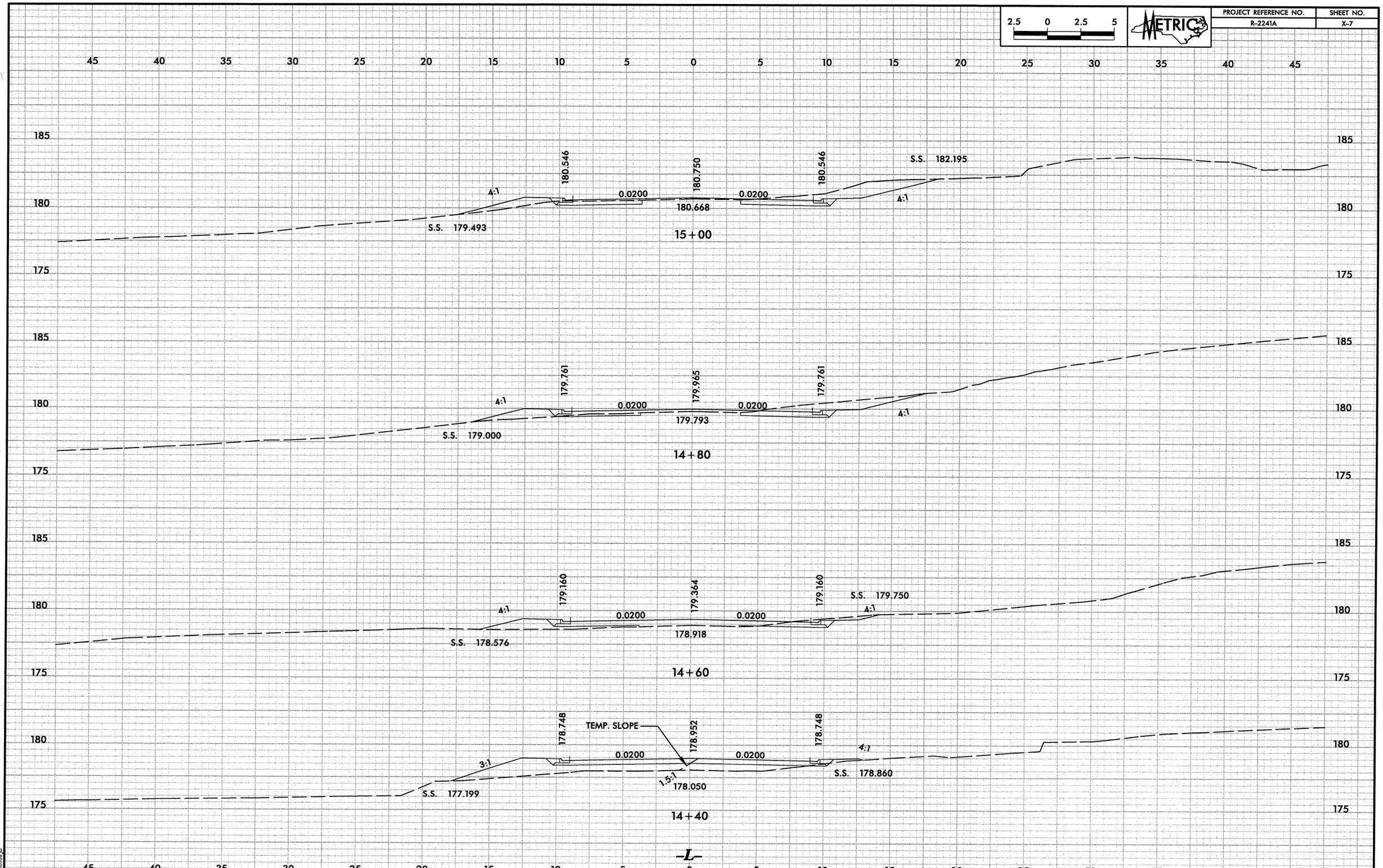
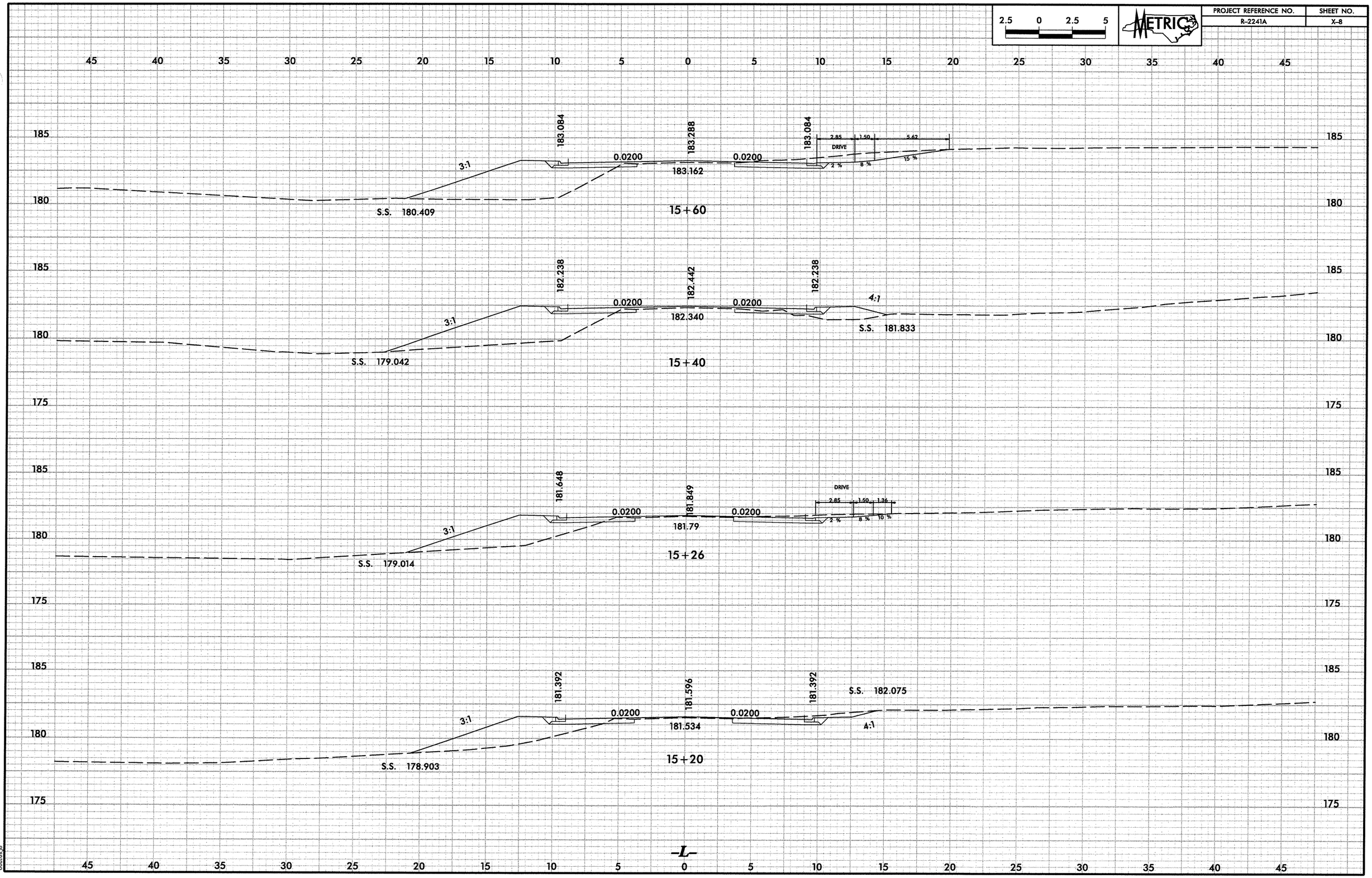


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-7
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
185
180
175
180.546
180.750
180.546
S.S. 182.195
4:1
0.0200
0.0200
180.668
4:1
S.S. 179.493
15+00
179.761
179.965
179.761
4:1
0.0200
0.0200
179.793
4:1
S.S. 179.000
14+80
179.160
179.364
179.160
S.S. 179.750
4:1
0.0200
0.0200
4:1
178.918
S.S. 178.576
14+60
178.748
TEMP. SLOPE
178.952
178.748
0.0200
0.0200
4:1
3:1
1.5:1
178.050
S.S. 178.860
S.S. 177.199
14+40
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-8



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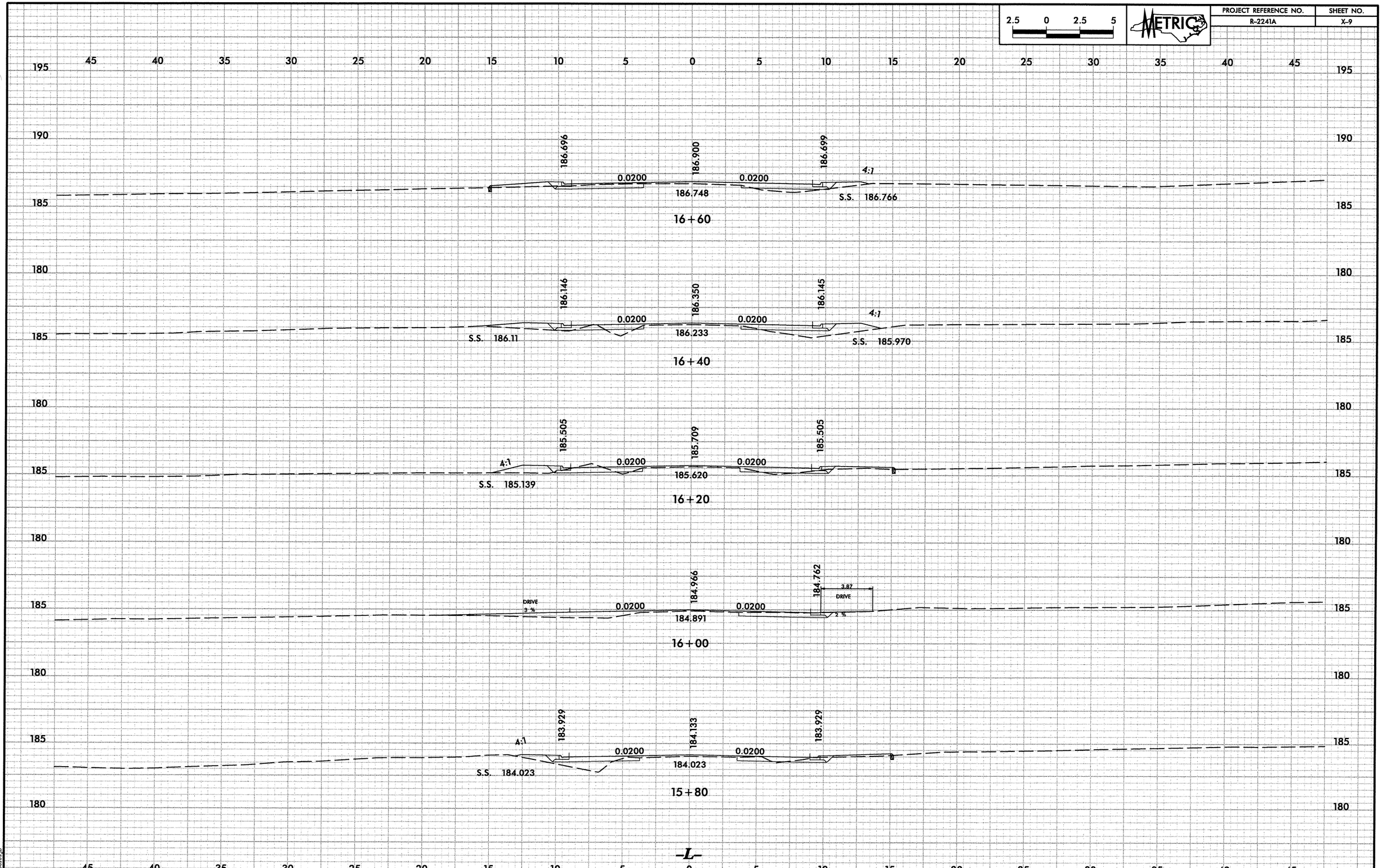
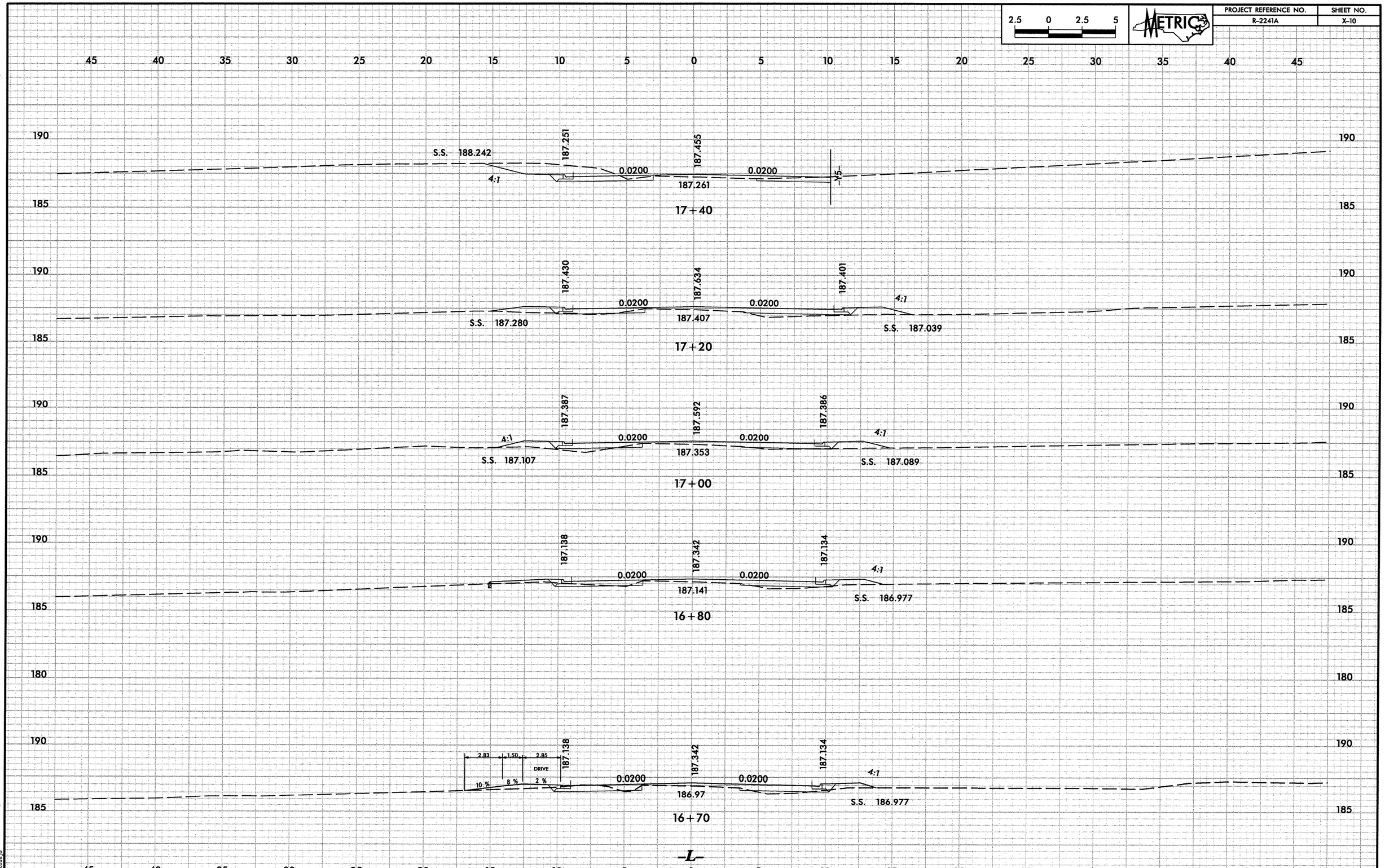
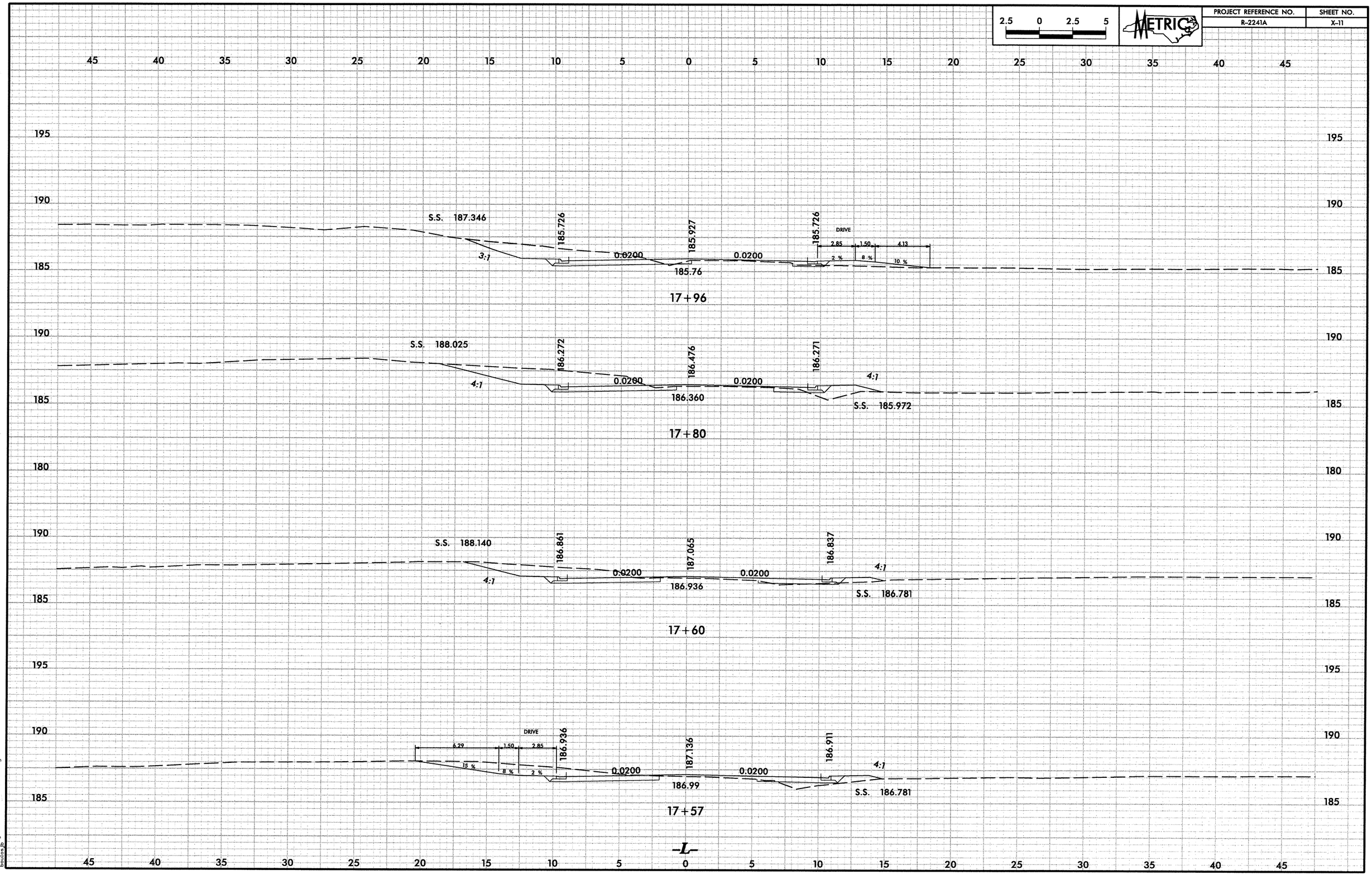


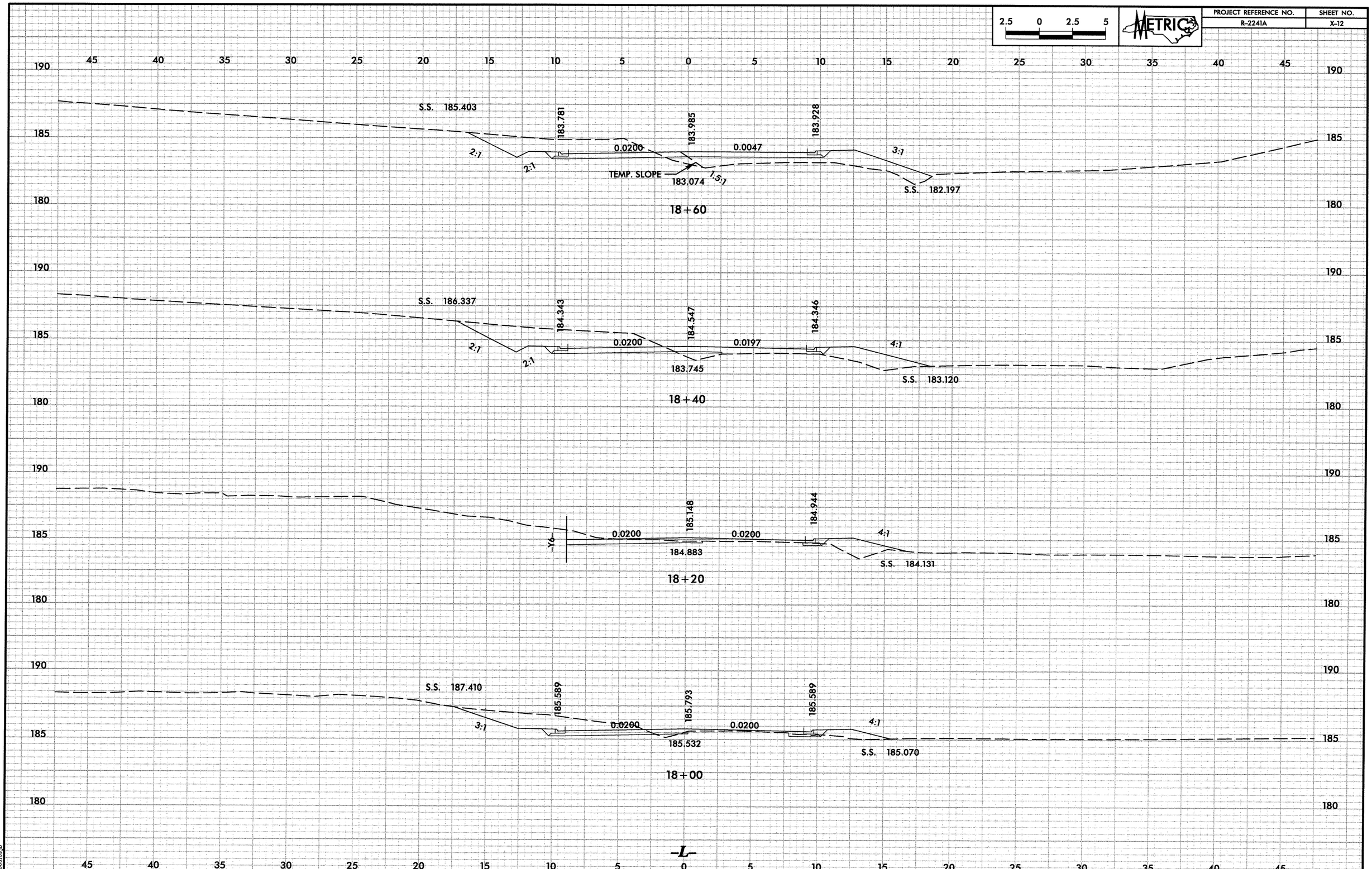
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-9
186.696
186.900
186.699
0.0200
0.0200
4:1
186.748
S.S. 186.766
16+60
186.146
186.350
186.145
0.0200
0.0200
4:1
S.S. 186.11
186.233
S.S. 185.970
16+40
185.505
185.709
185.505
4:1
0.0200
0.0200
185.620
S.S. 185.139
16+20
184.966
184.762
3.87
DRIVE
DRIVE
3 %
0.0200
0.0200
2 %
184.891
16+00
183.929
184.133
183.929
4:1
0.0200
0.0200
184.023
S.S. 184.023
15+80
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-10
S.S. 188.242
187.251
187.455
0.0200
0.0200
4:1
187.261
-Y5-
17+40
187.430
187.634
187.401
0.0200
0.0200
4:1
S.S. 187.280
187.407
S.S. 187.039
17+20
187.387
187.592
187.386
4:1
0.0200
0.0200
4:1
S.S. 187.107
187.353
S.S. 187.089
17+00
187.138
187.342
187.134
0.0200
0.0200
4:1
187.141
S.S. 186.977
16+80
2.83
1.50
2.85
DRIVE
10 %
8 %
2 %
187.138
187.342
187.134
0.0200
0.0200
4:1
186.97
S.S. 186.977
16+70
-L-

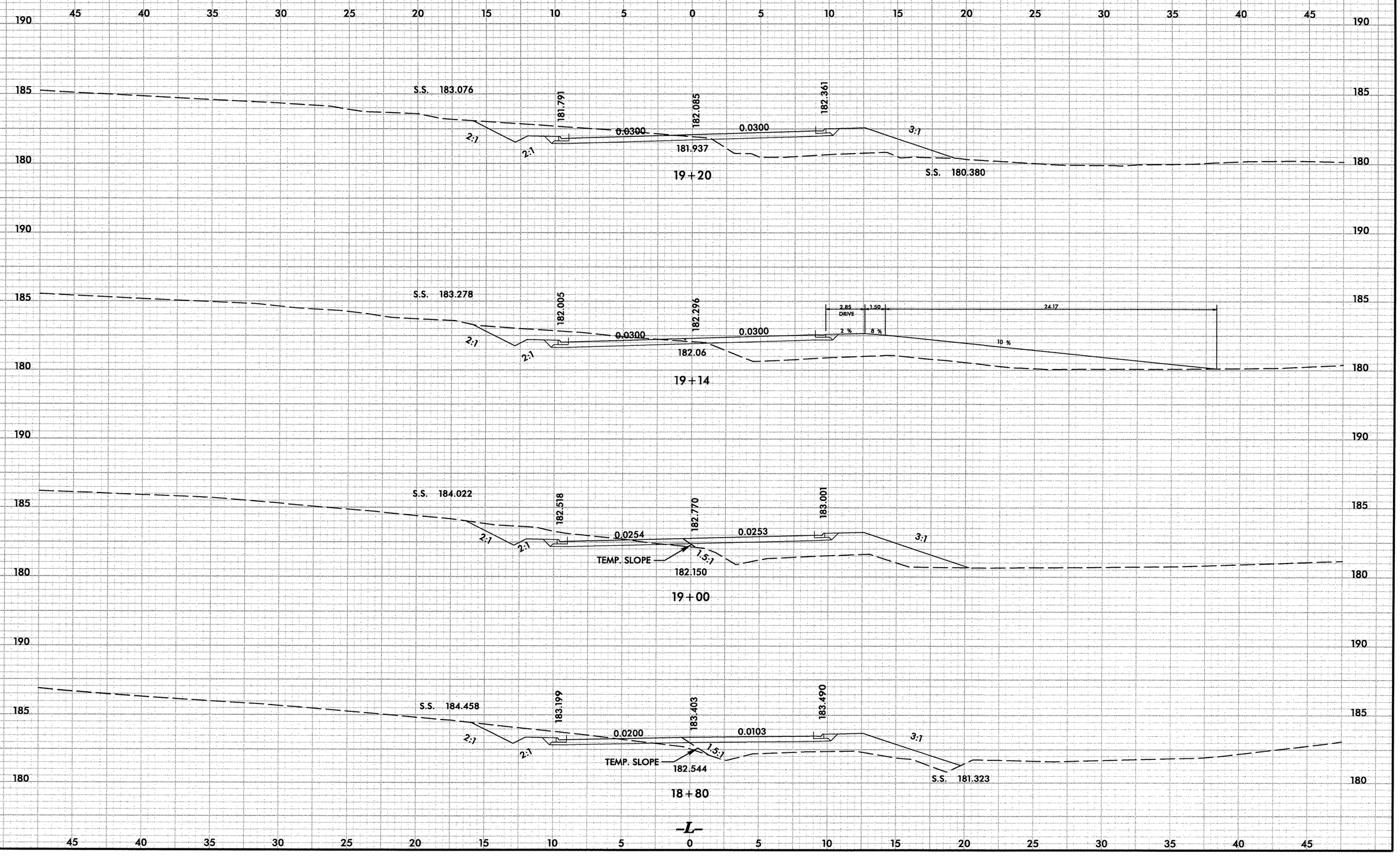


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-11
S.S. 187.346
185.726
185.927
185.726
DRIVE
2.85
1.50
4.13
2 %
8 %
10 %
3:1
0.0200
0.0200
185.76
17+96
S.S. 188.025
186.272
186.476
186.271
4:1
0.0200
0.0200
4:1
186.360
S.S. 185.972
17+80
S.S. 188.140
186.861
187.065
186.837
4:1
0.0200
0.0200
4:1
186.936
S.S. 186.781
17+60
DRIVE
6.29
1.50
2.85
15 %
8 %
2 %
186.936
187.136
186.911
0.0200
0.0200
4:1
186.99
S.S. 186.781
17+57
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-12
S.S. 185.403
183.781
183.985
183.928
0.0200
0.0047
2:1
2:1
3:1
TEMP. SLOPE
183.074
1.5:1
S.S. 182.197
18+60
S.S. 186.337
184.343
184.547
184.346
0.0200
0.0197
2:1
2:1
4:1
183.745
S.S. 183.120
18+40
185.148
184.944
0.0200
0.0200
4:1
-Y6-
184.883
S.S. 184.131
18+20
S.S. 187.410
185.589
185.793
185.589
0.0200
0.0200
3:1
4:1
185.532
S.S. 185.070
18+00
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-13



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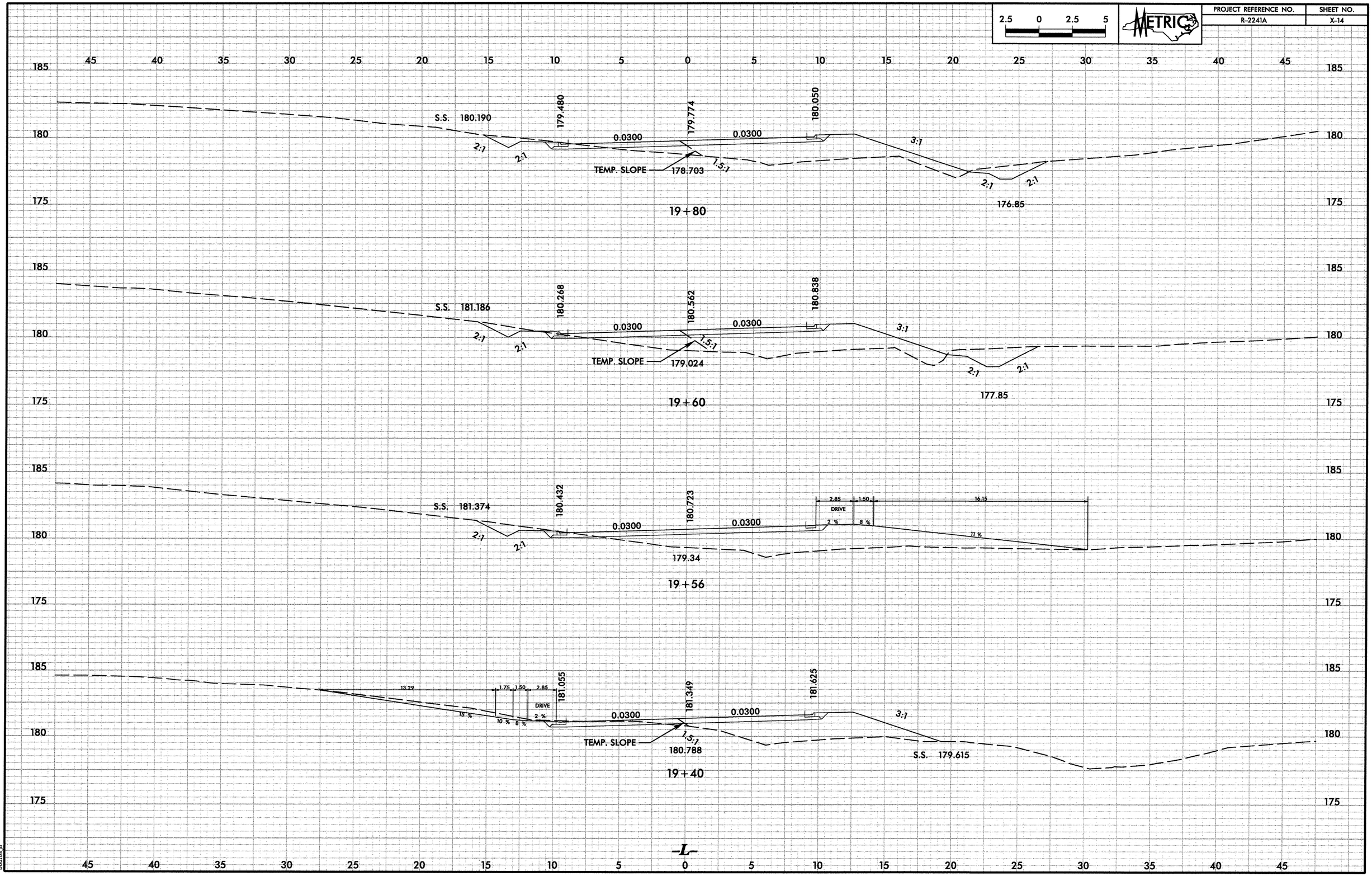
_XPL_L.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-14



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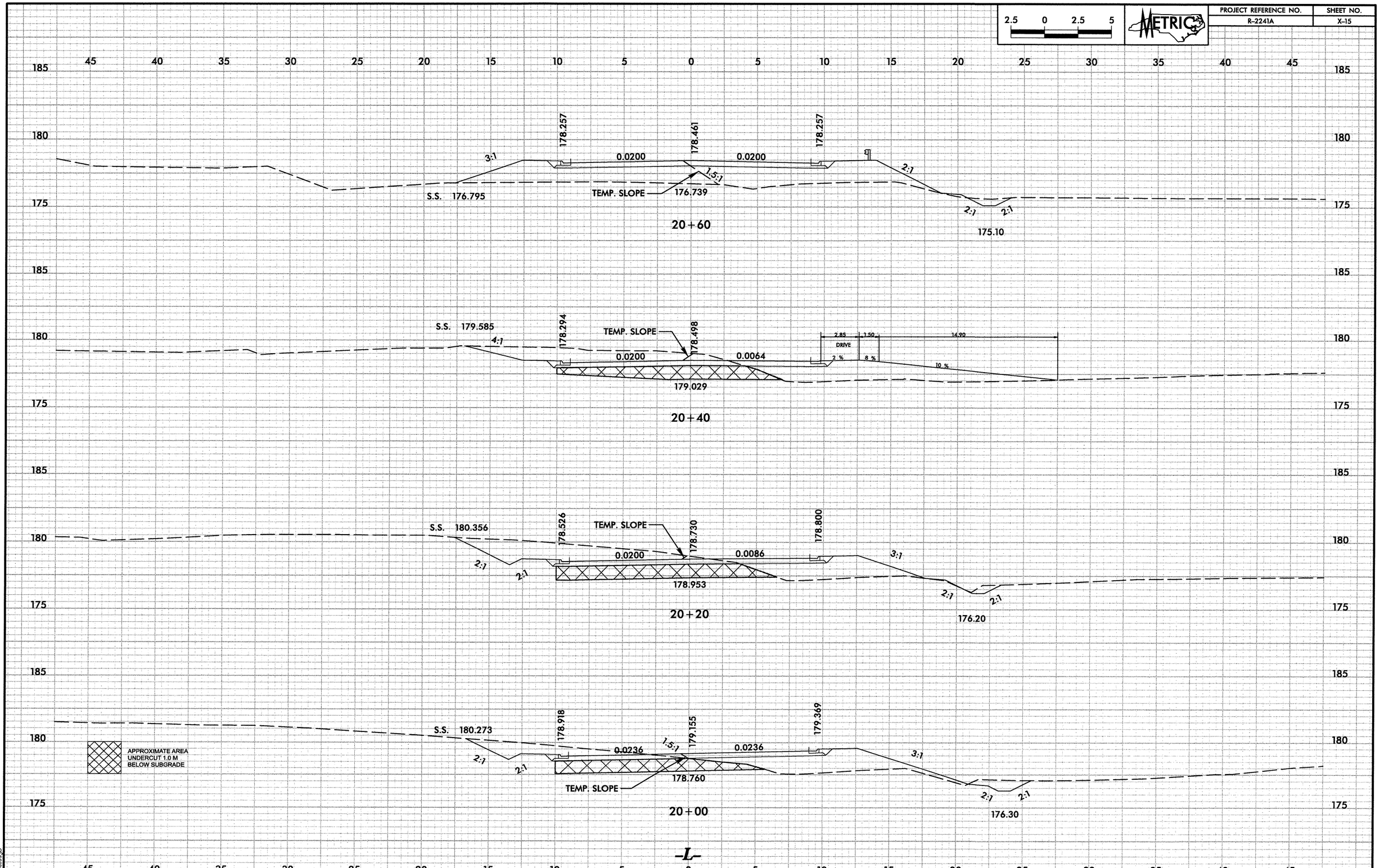
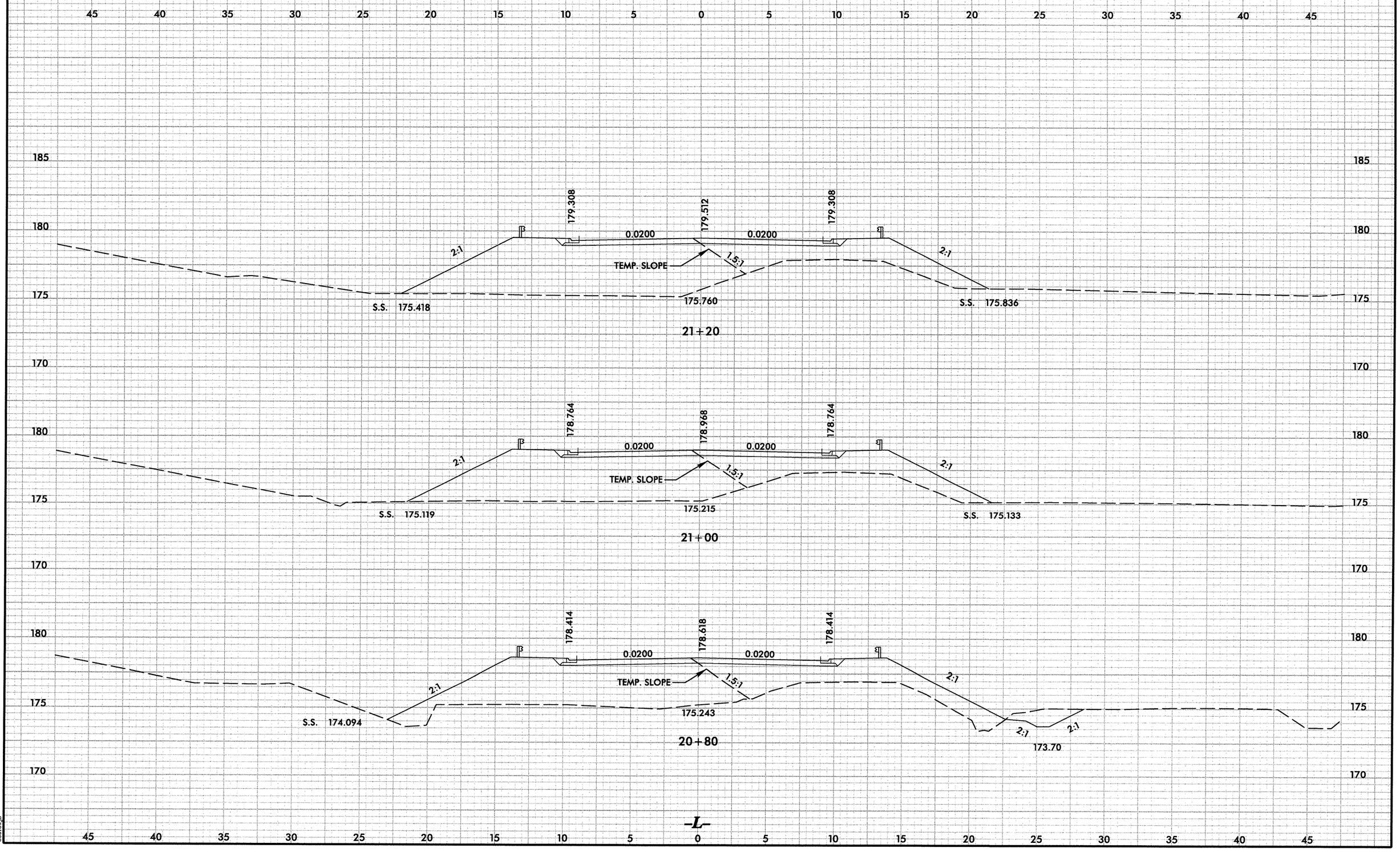
_XPL_L.dgn

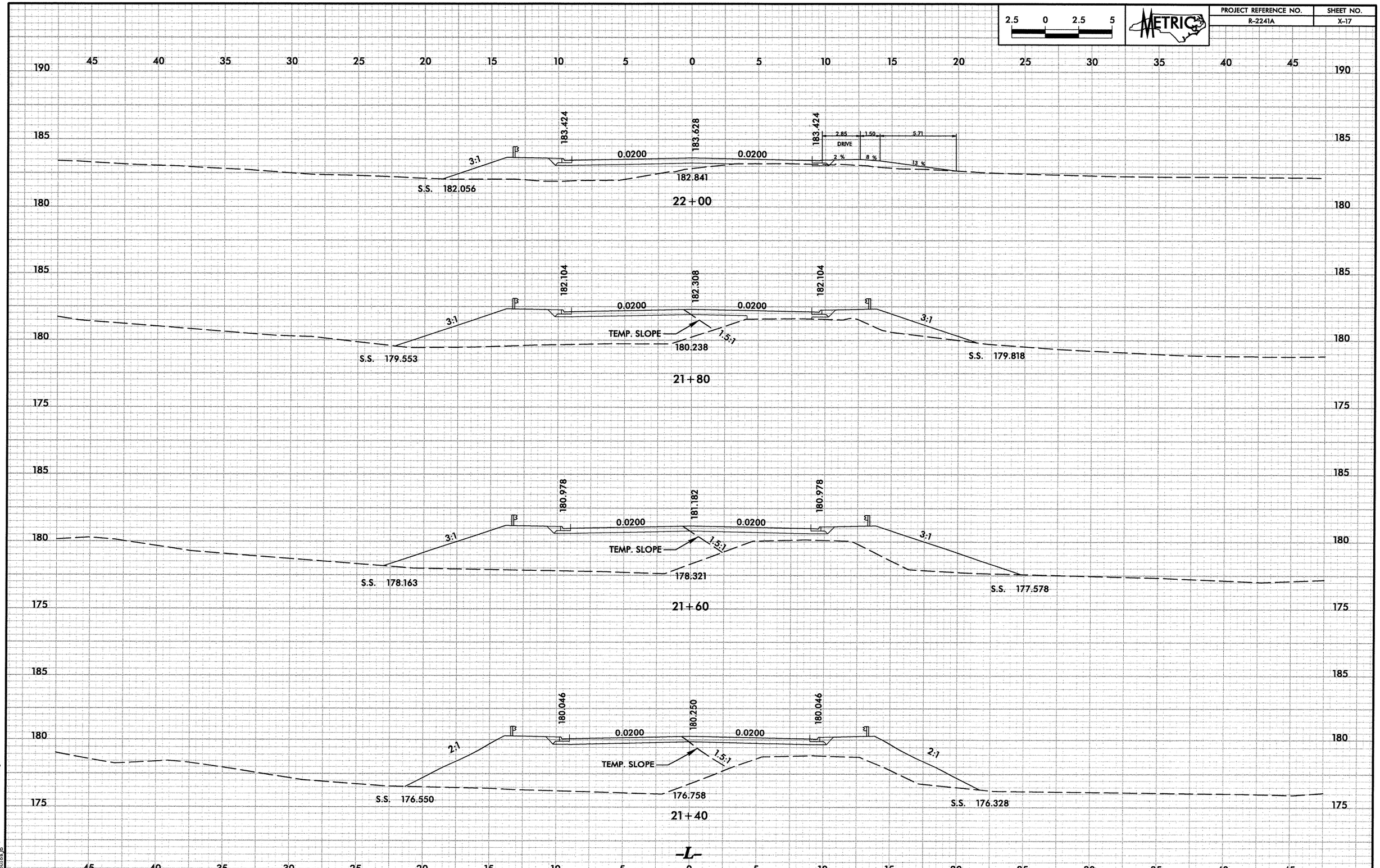


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-15
178.257
178.461
178.257
3:1
0.0200
0.0200
1.5:1
2:1
S.S. 176.795
TEMP. SLOPE
176.739
2:1
2:1
175.10
20+60
S.S. 179.585
4:1
178.294
TEMP. SLOPE
178.498
0.0200
0.0064
2.85
1.50
14.90
DRIVE
2 %
8 %
10 %
179.029
20+40
S.S. 180.356
178.526
TEMP. SLOPE
178.730
178.800
0.0200
0.0086
3:1
2:1
2:1
178.953
2:1
2:1
176.20
20+20
S.S. 180.273
178.918
179.155
179.369
0.0236
1.5:1
0.0236
3:1
2:1
2:1
178.760
TEMP. SLOPE
2:1
2:1
176.30
20+00
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-16
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
185
180
175
170
179.308
179.512
179.308
0.0200
0.0200
2:1
2:1
TEMP. SLOPE
1.5:1
S.S. 175.418
175.760
S.S. 175.836
21+20
178.764
178.968
178.764
0.0200
0.0200
2:1
2:1
TEMP. SLOPE
1.5:1
S.S. 175.119
175.215
S.S. 175.133
21+00
178.414
178.618
178.414
0.0200
0.0200
2:1
2:1
TEMP. SLOPE
1.5:1
S.S. 174.094
175.243
2:1
2:1
173.70
20+80
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-17



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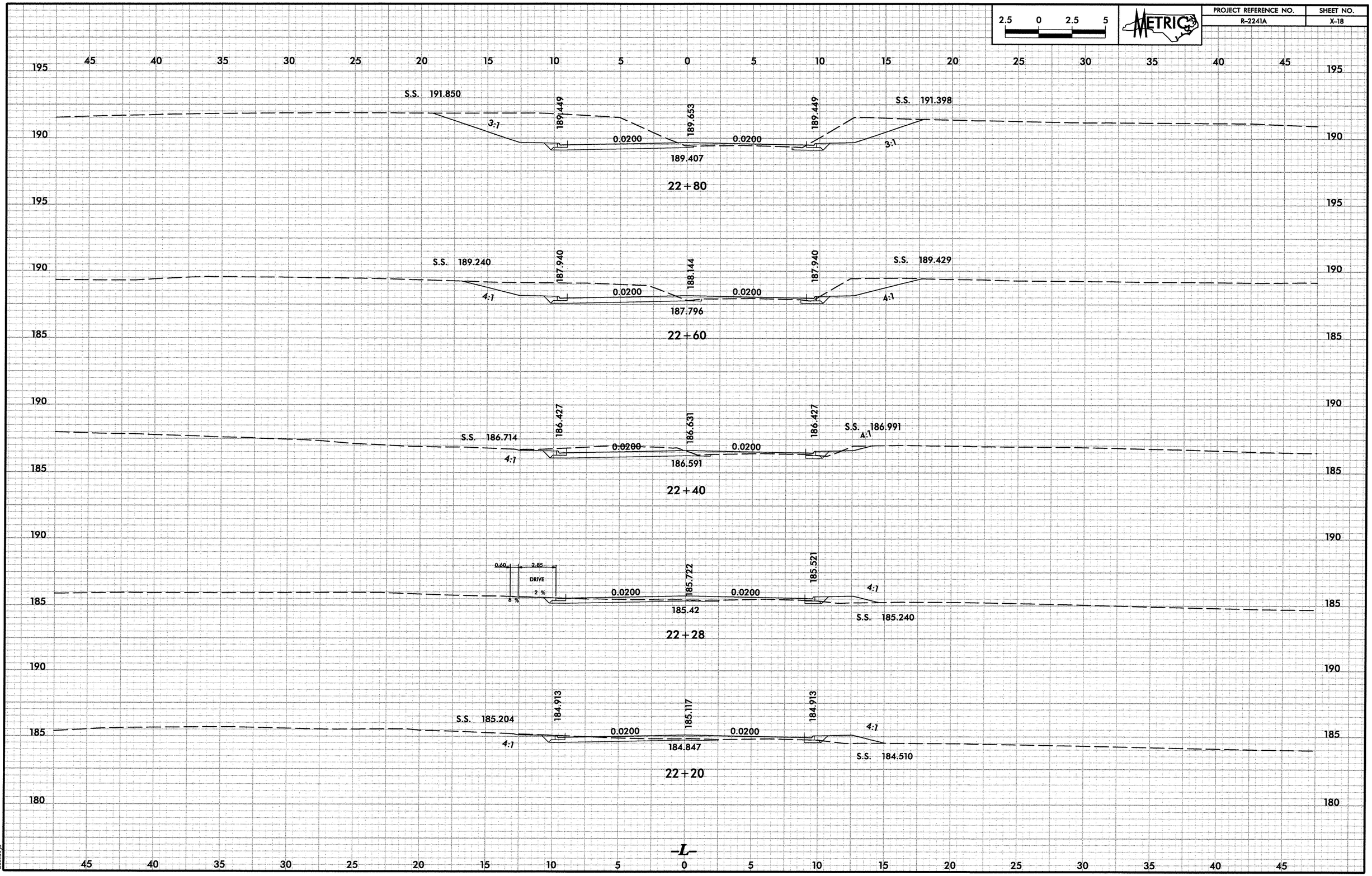
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-18



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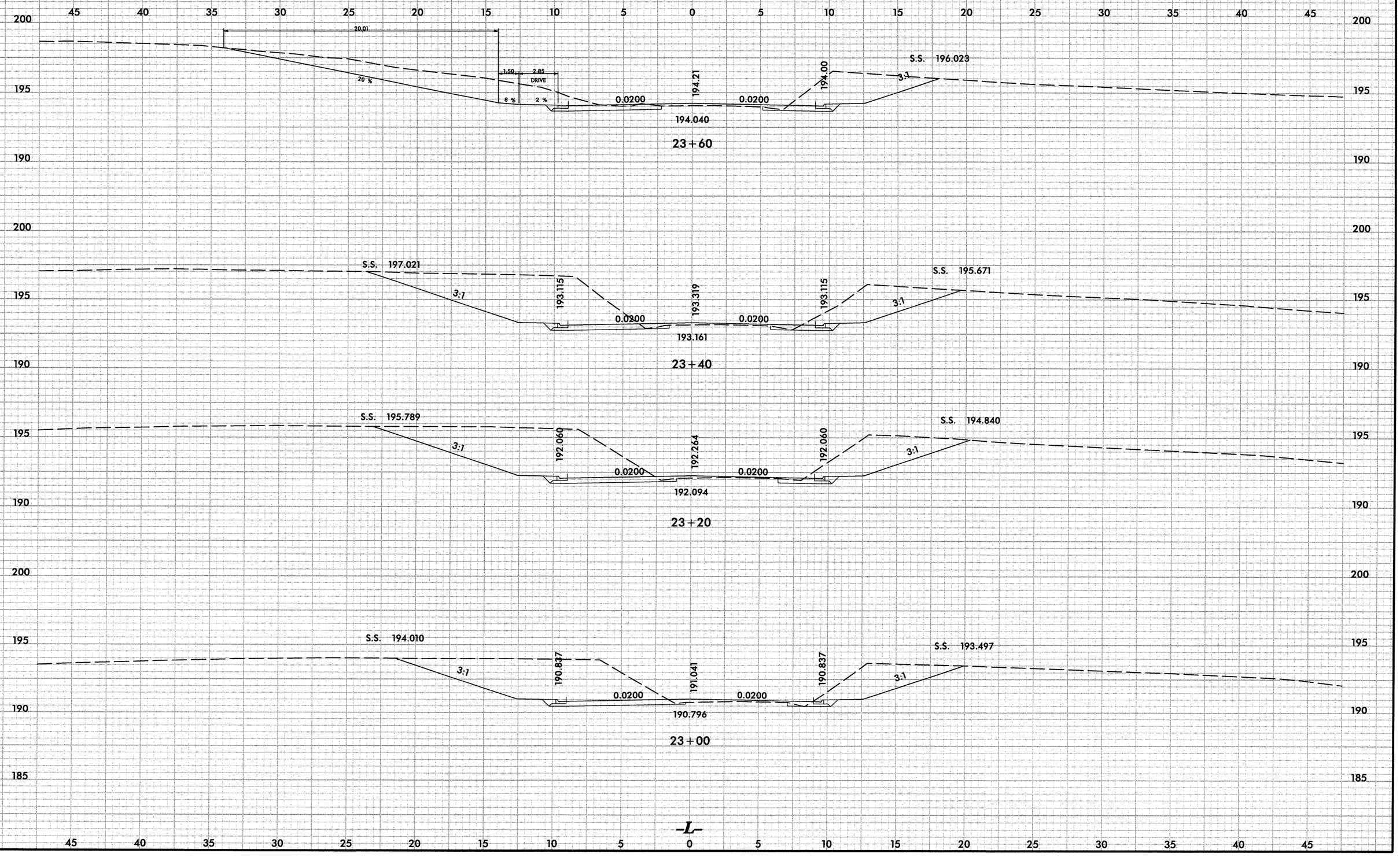
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-19



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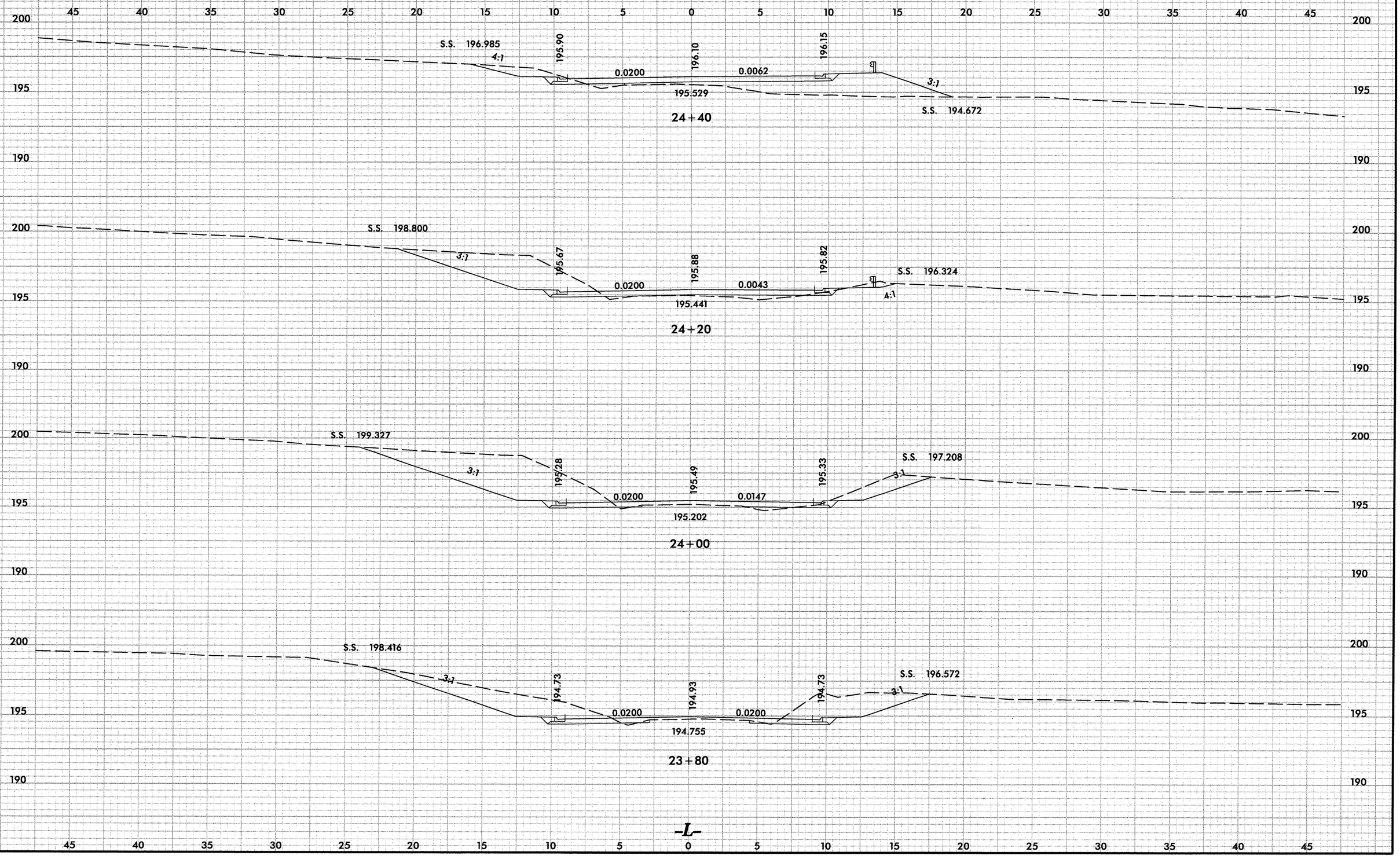
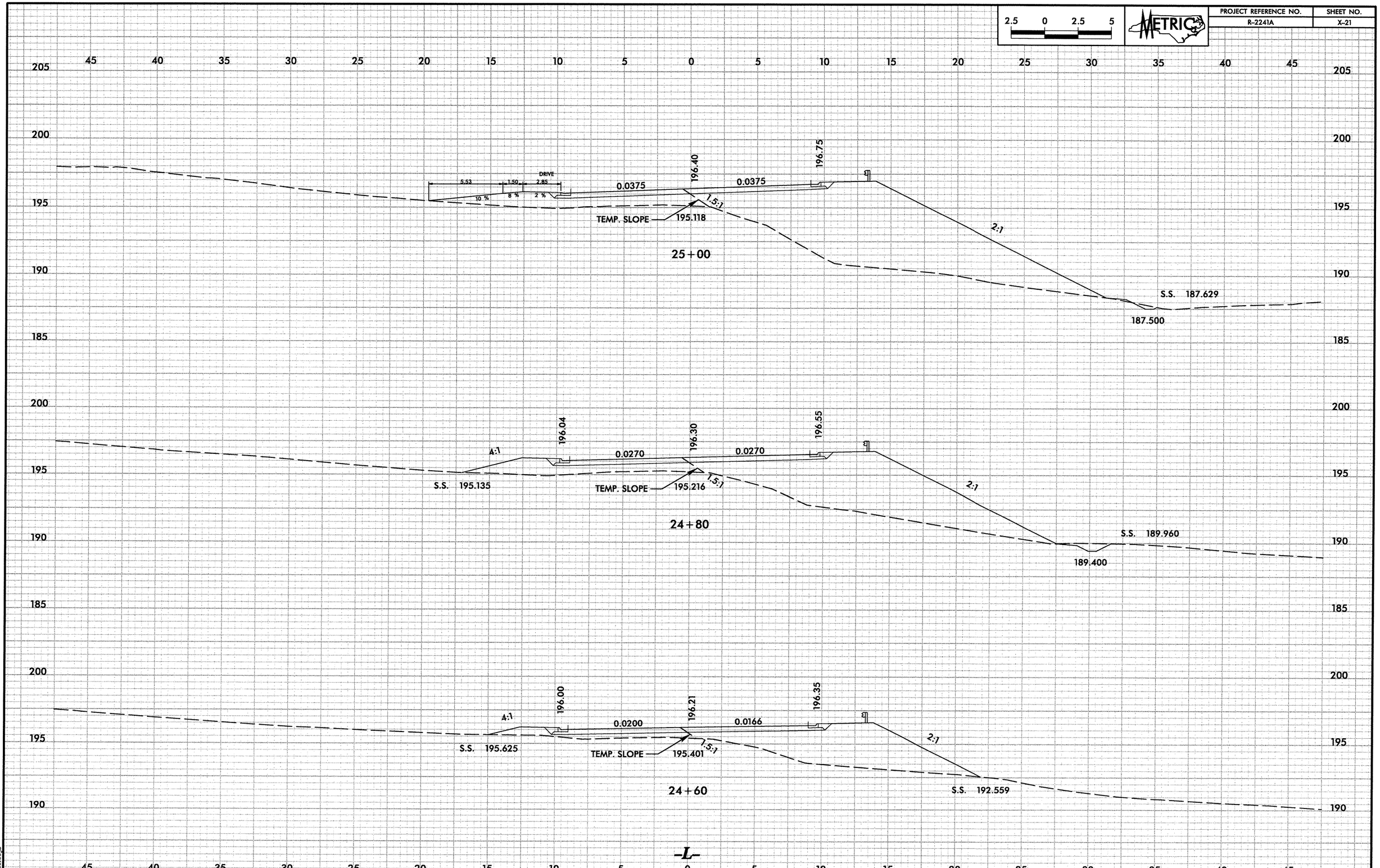
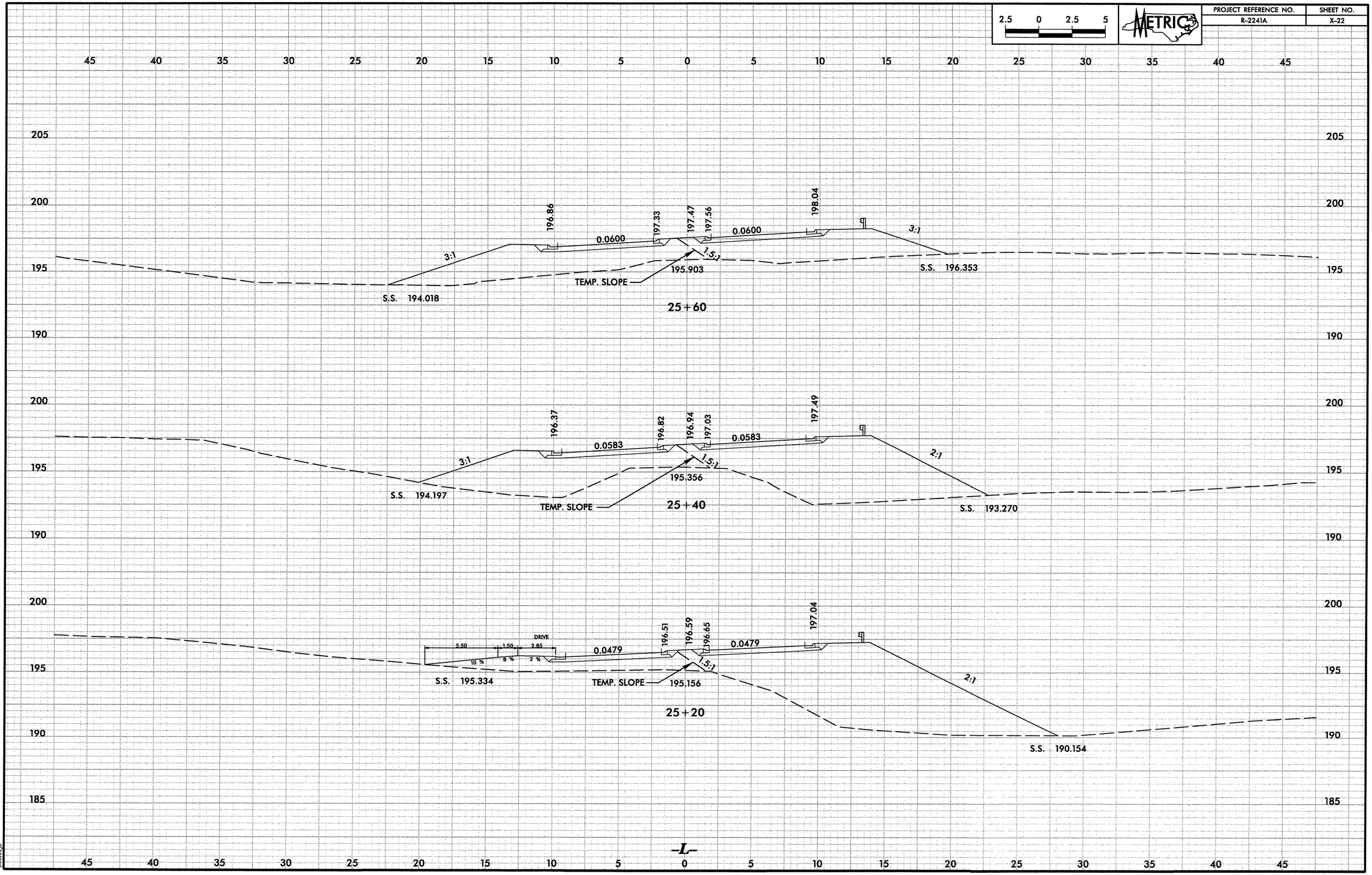


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-20
S.S. 196.985
4:1
195.90
196.10
196.15
0.0200
0.0062
3:1
195.529
S.S. 194.672
24+40
S.S. 198.800
3:1
195.67
195.88
195.82
S.S. 196.324
0.0200
0.0043
4:1
195.441
24+20
S.S. 199.327
3:1
195.28
195.49
195.33
S.S. 197.208
3:1
0.0200
0.0147
195.202
24+00
S.S. 198.416
3:1
194.73
194.93
194.73
S.S. 196.572
3:1
0.0200
0.0200
194.755
23+80
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-21
DRIVE
5.53
1.50
2.85
10 %
8 %
2 %
0.0375
196.40
0.0375
196.75
1.5:1
TEMP. SLOPE
195.118
2:1
25+00
S.S. 187.629
187.500
4:1
196.04
0.0270
196.30
0.0270
196.55
S.S. 195.135
TEMP. SLOPE
195.216
1.5:1
2:1
24+80
S.S. 189.960
189.400
4:1
196.00
0.0200
196.21
0.0166
196.35
S.S. 195.625
TEMP. SLOPE
195.401
1.5:1
2:1
24+60
S.S. 192.559
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-22



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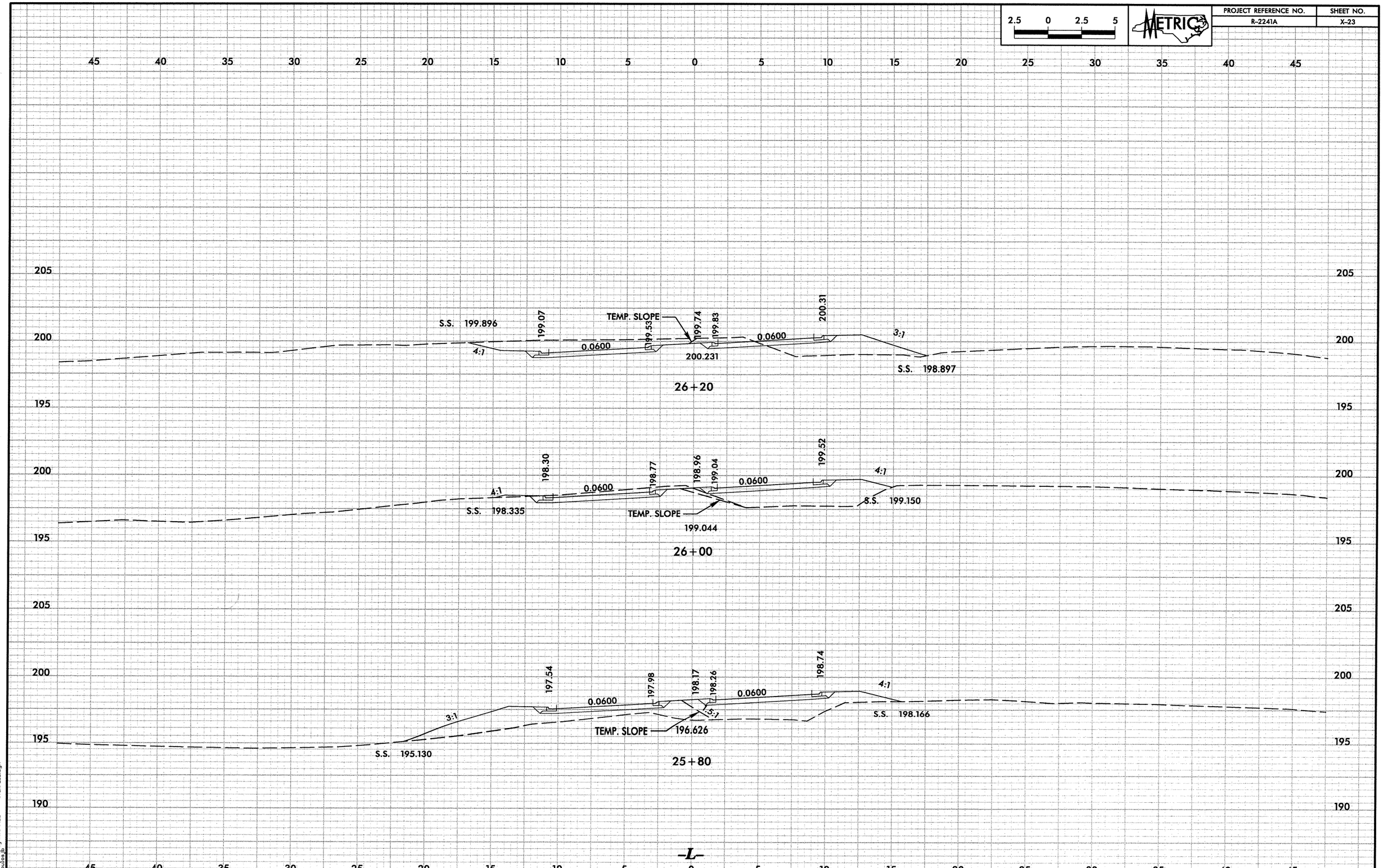
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-23



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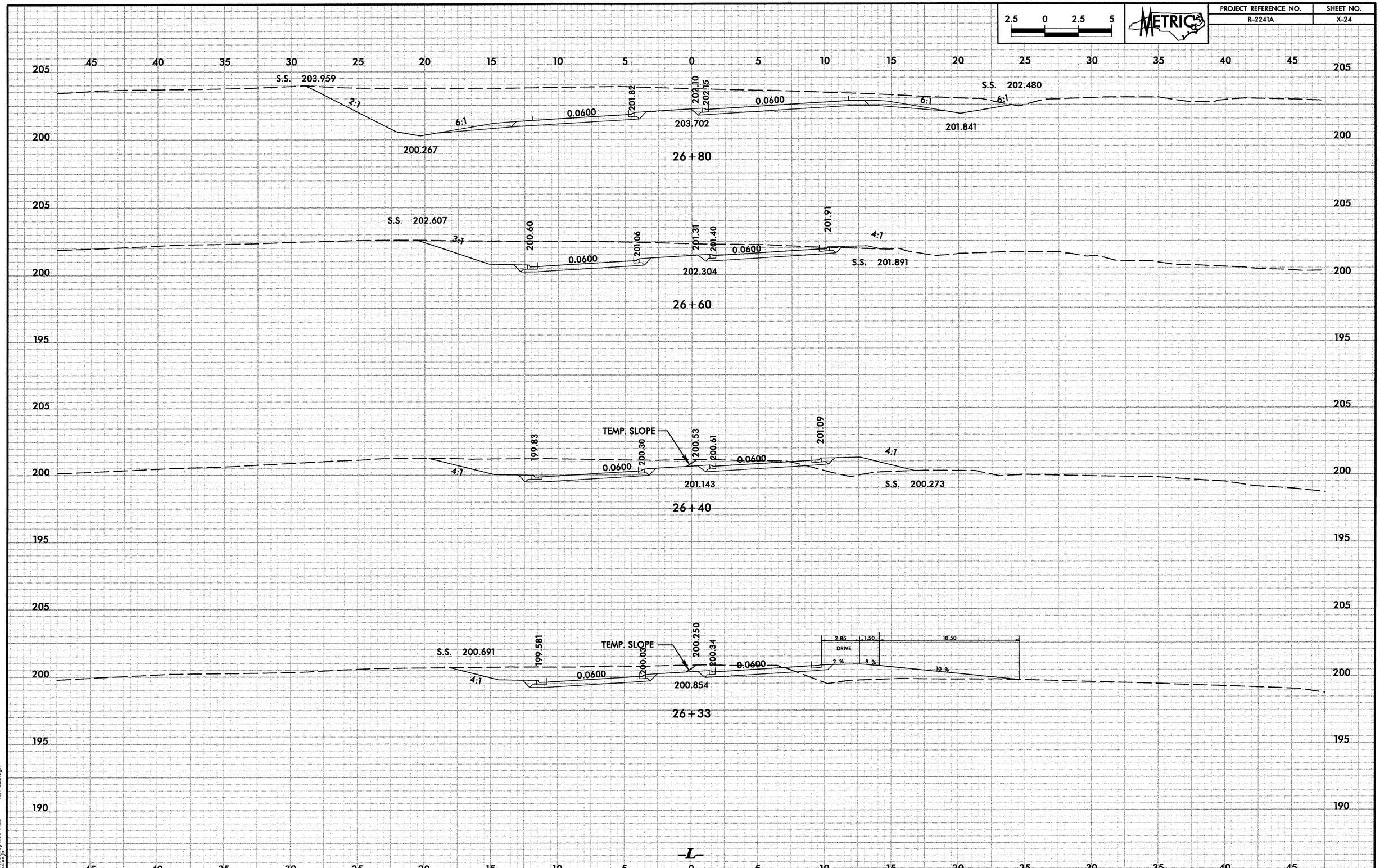
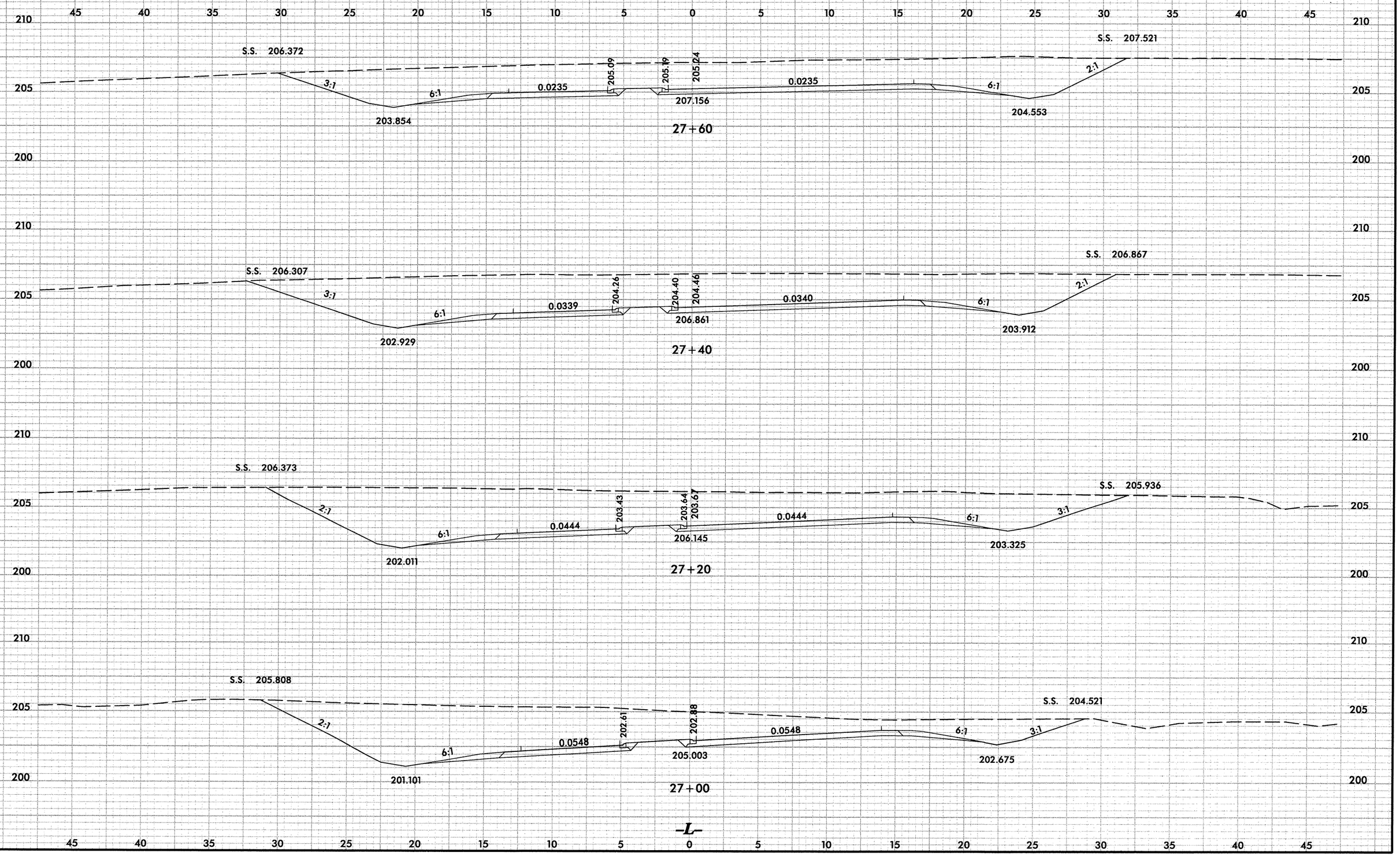
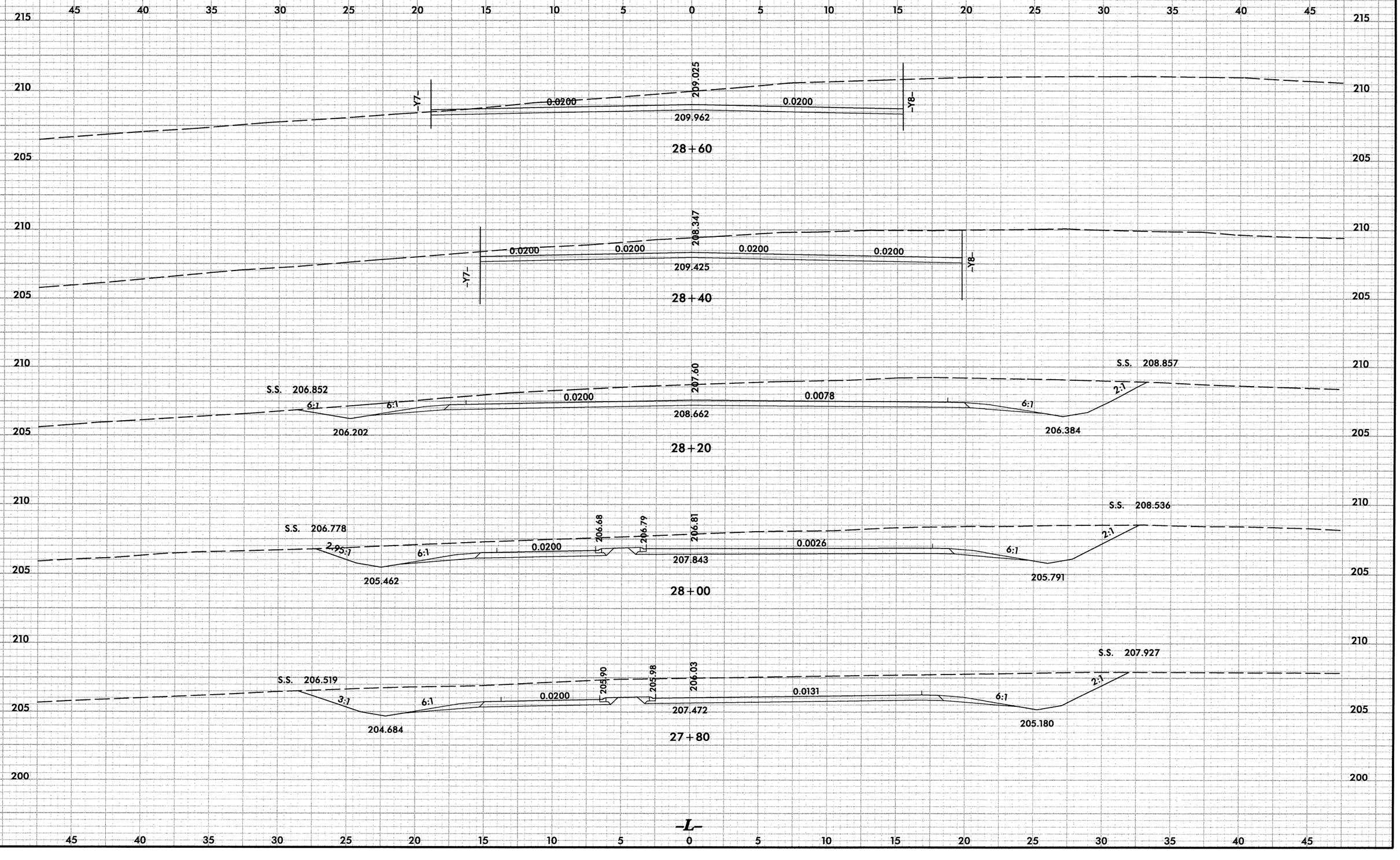


PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-24
METRIC
2.5 0 2.5 5
S.S. 203.959
2:1
6:1
0.0600
201.82
202.10
202.15
203.702
0.0600
6:1
6:1
S.S. 202.480
201.841
200.267
26+80
S.S. 202.607
3:1
200.60
201.06
201.31
201.40
201.91
4:1
0.0600
0.0600
202.304
S.S. 201.891
26+60
TEMP. SLOPE
199.83
200.30
200.53
200.61
201.09
4:1
4:1
0.0600
0.0600
201.143
S.S. 200.273
26+40
S.S. 200.691
199.581
TEMP. SLOPE
200.03
200.250
200.34
2.85
1.50
10.50
DRIVE
2 %
8 %
10 %
4:1
0.0600
0.0600
200.854
26+33
-L-

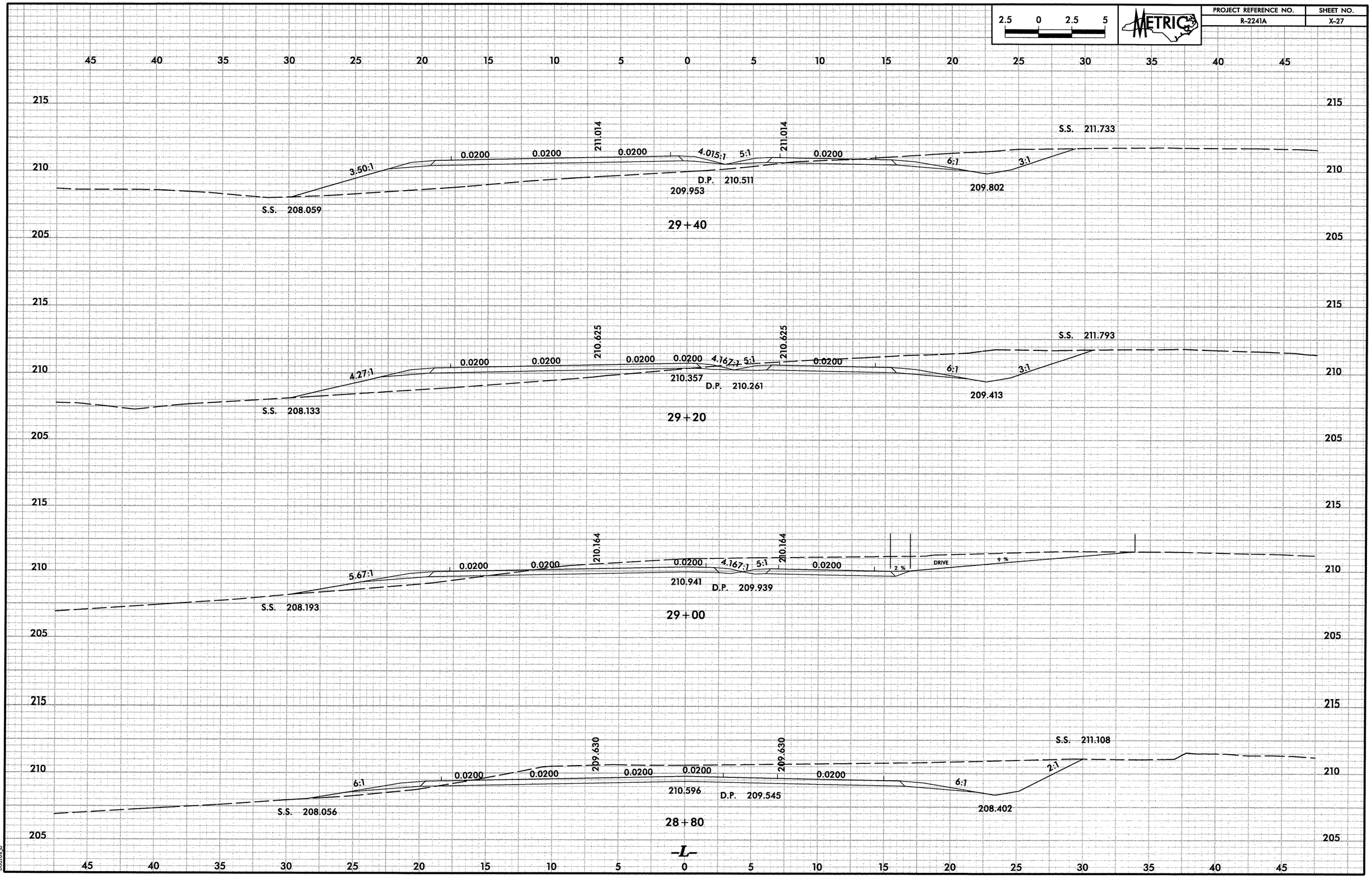
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-25





2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-26
28+60
209.025
209.962
0.0200
0.0200
-Y7-
-Y8-
28+40
208.347
209.425
0.0200
0.0200
0.0200
0.0200
-Y7-
-Y8-
28+20
S.S. 206.852
S.S. 208.857
207.60
208.662
206.202
206.384
6:1
6:1
6:1
2:1
0.0200
0.0078
28+00
S.S. 206.778
S.S. 208.536
206.68
206.79
206.81
207.843
205.462
205.791
2.95:1
6:1
6:1
2:1
0.0200
0.0026
27+80
S.S. 206.519
S.S. 207.927
205.90
205.98
206.03
207.472
204.684
205.180
3:1
6:1
6:1
2:1
0.0200
0.0131
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-27



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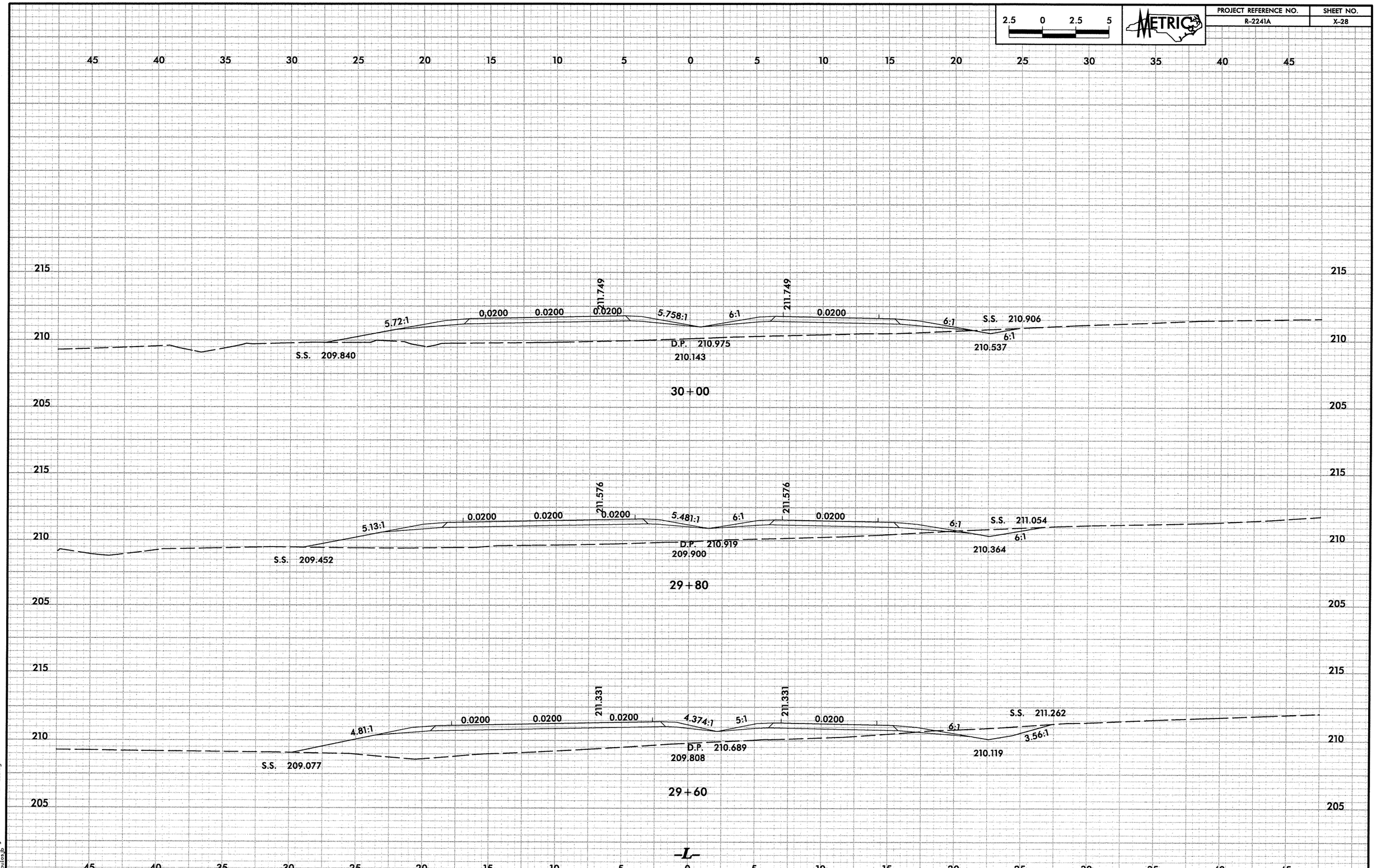
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-28



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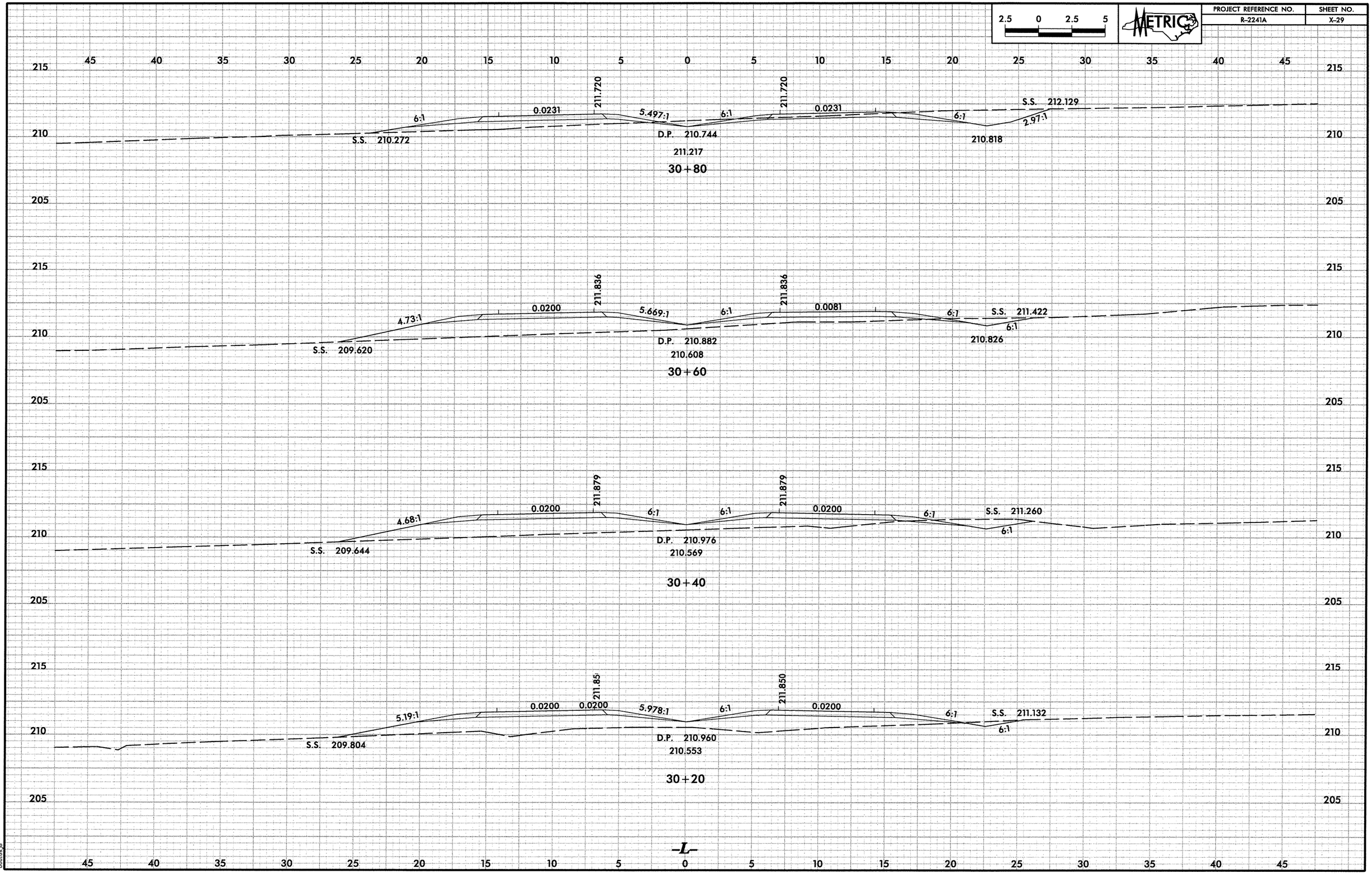
boulos.jb

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-29



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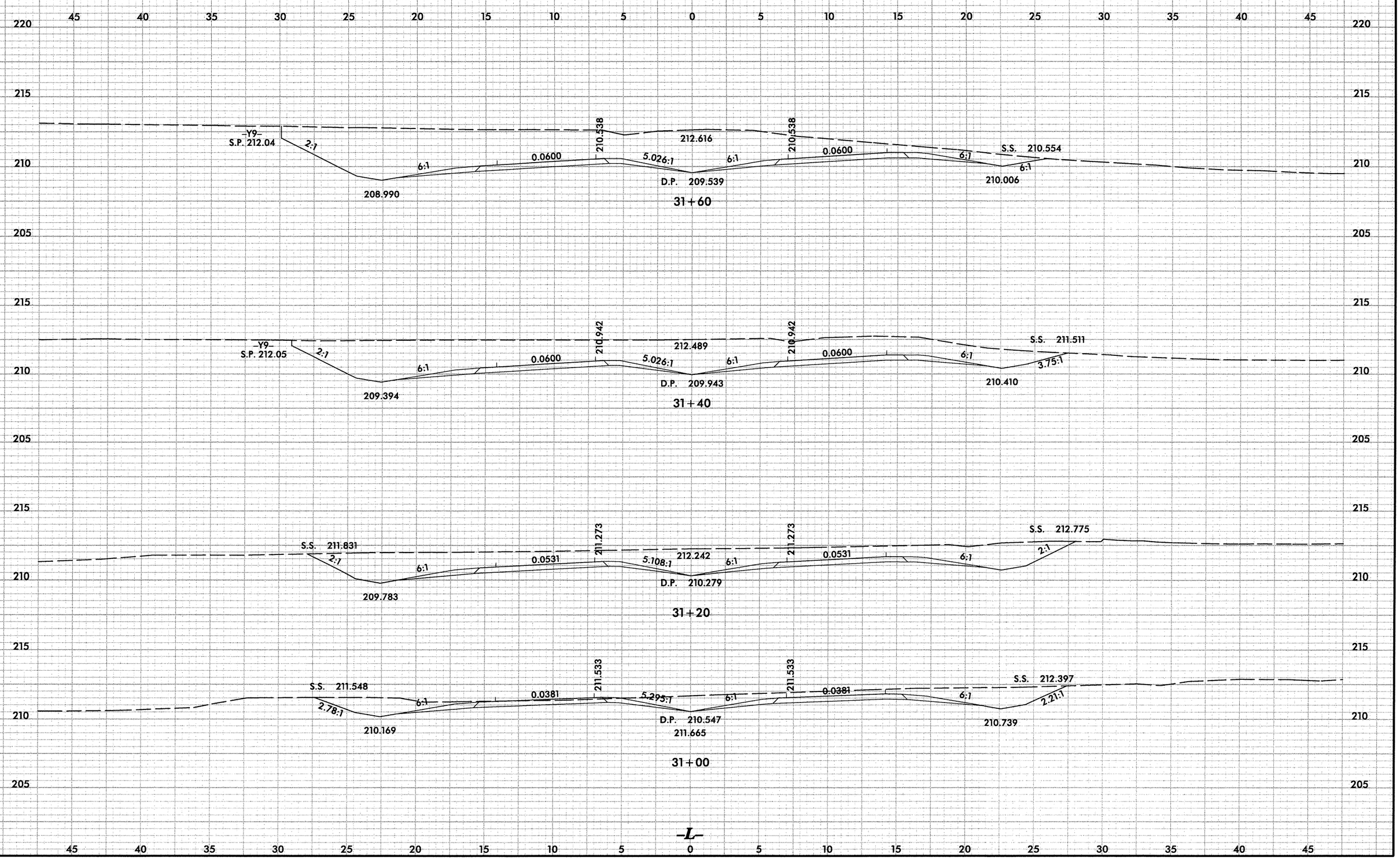
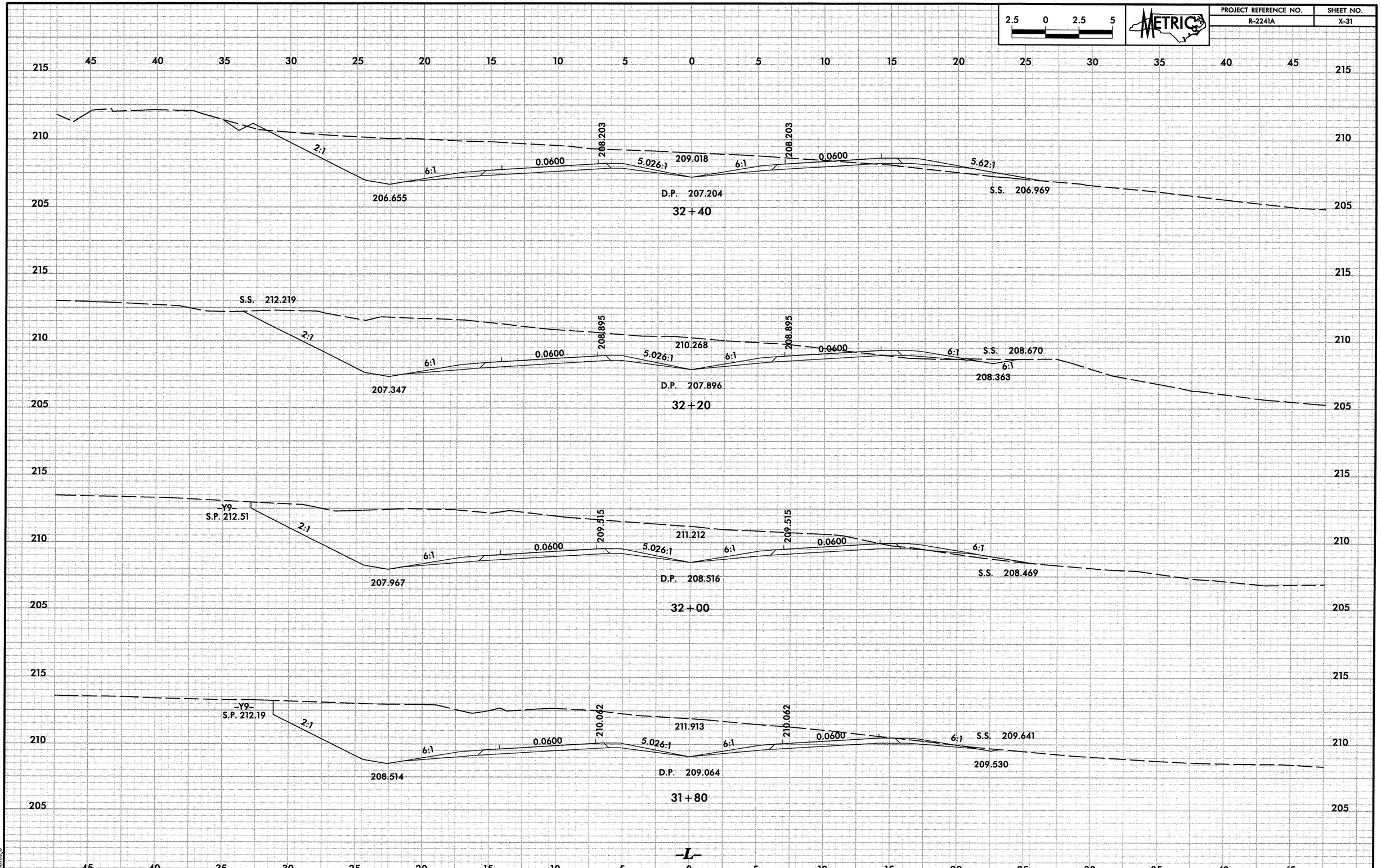
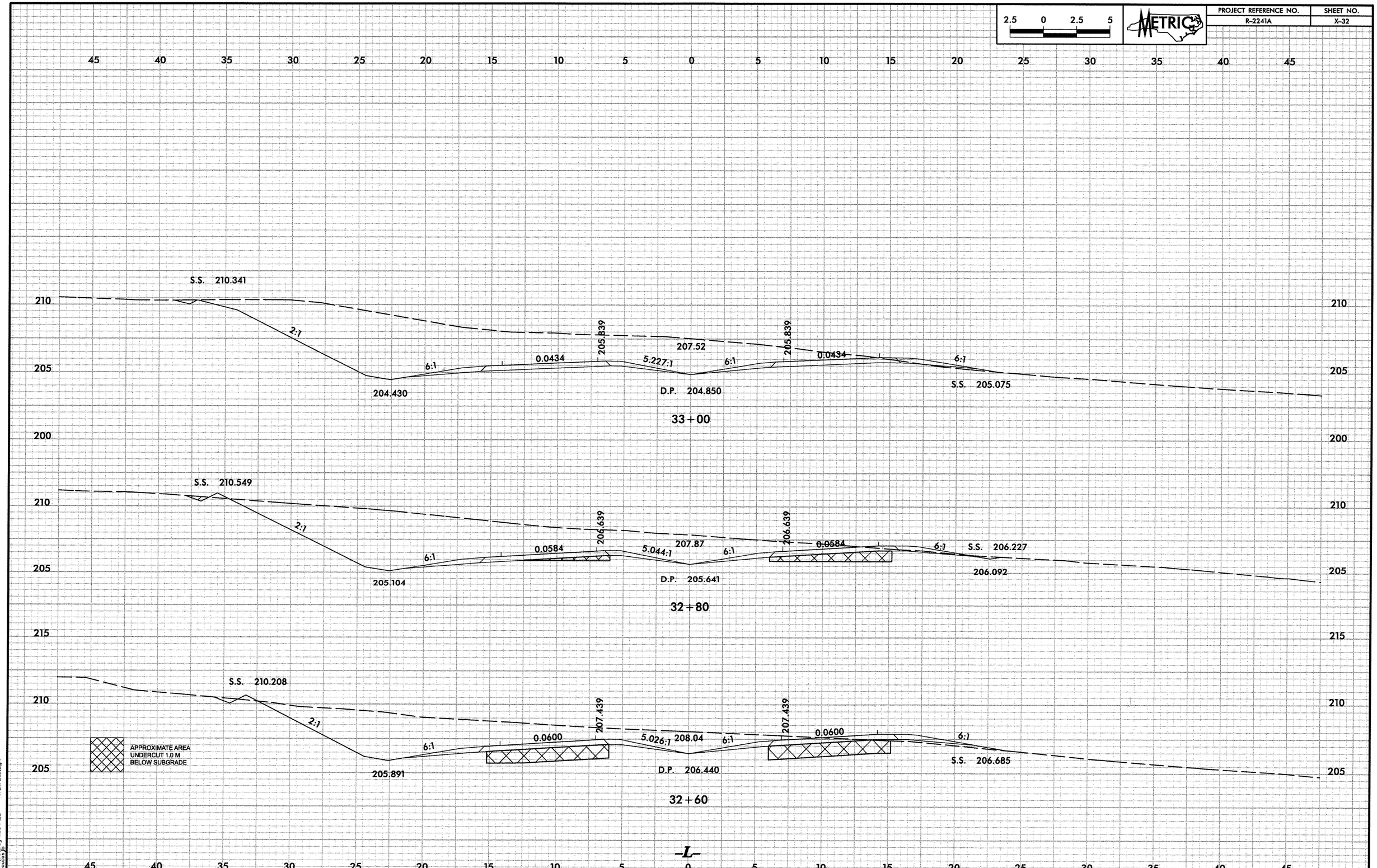
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-30





2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-31
215
210
205
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
2:1
6:1
0.0600
208.203
5.026:1
209.018
6:1
208.203
0.0600
5.62:1
206.655
D.P. 207.204
S.S. 206.969
32+40
S.S. 212.219
2:1
6:1
0.0600
208.895
5.026:1
210.268
6:1
208.895
0.0600
6:1
S.S. 208.670
6:1
207.347
D.P. 207.896
208.363
32+20
-Y9-
S.P. 212.51
2:1
6:1
0.0600
209.515
5.026:1
211.212
6:1
209.515
0.0600
6:1
207.967
D.P. 208.516
S.S. 208.469
32+00
-Y9-
S.P. 212.19
2:1
6:1
0.0600
210.062
5.026:1
211.913
6:1
210.062
0.0600
6:1
S.S. 209.641
208.514
D.P. 209.064
209.530
31+80
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-32



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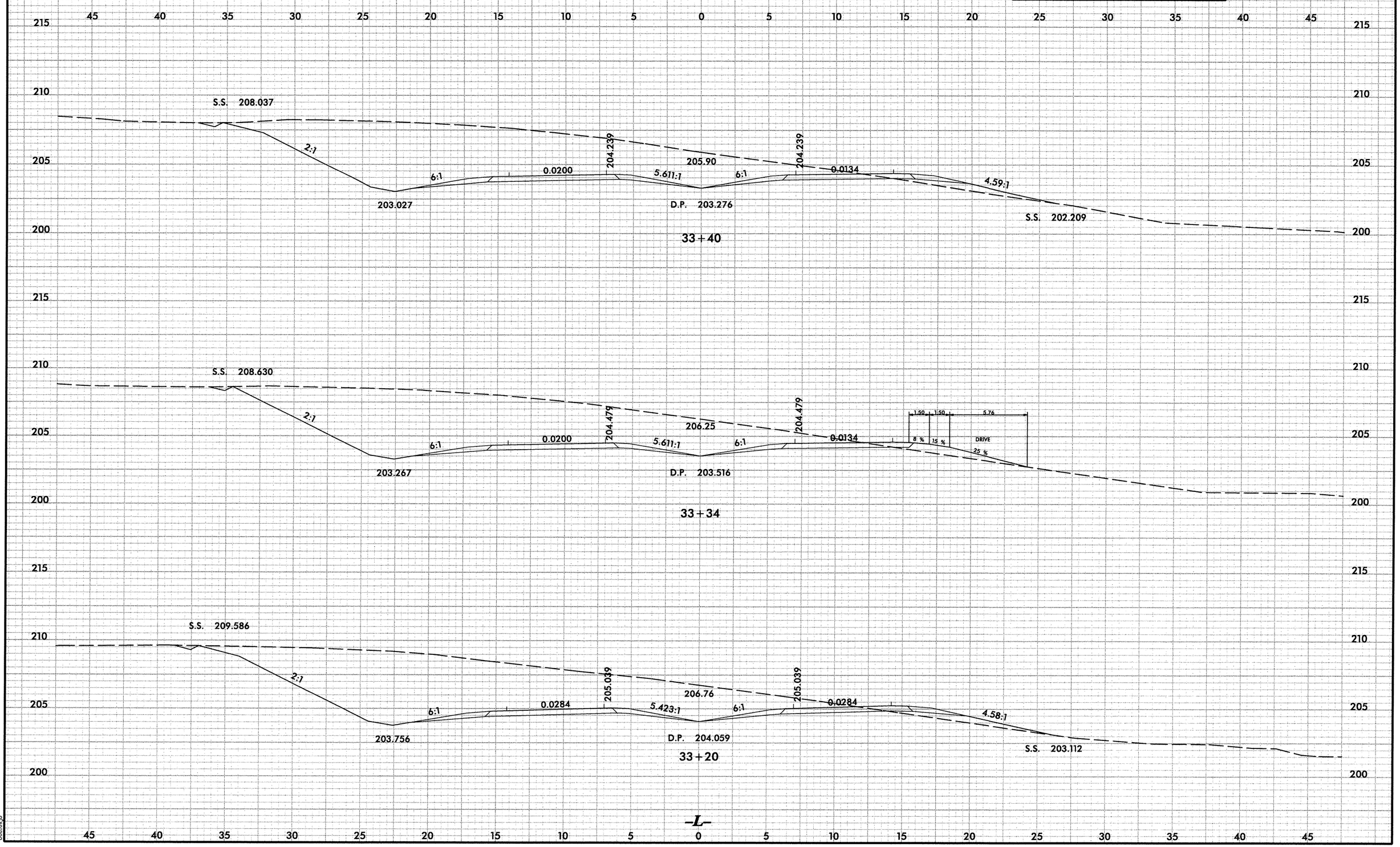
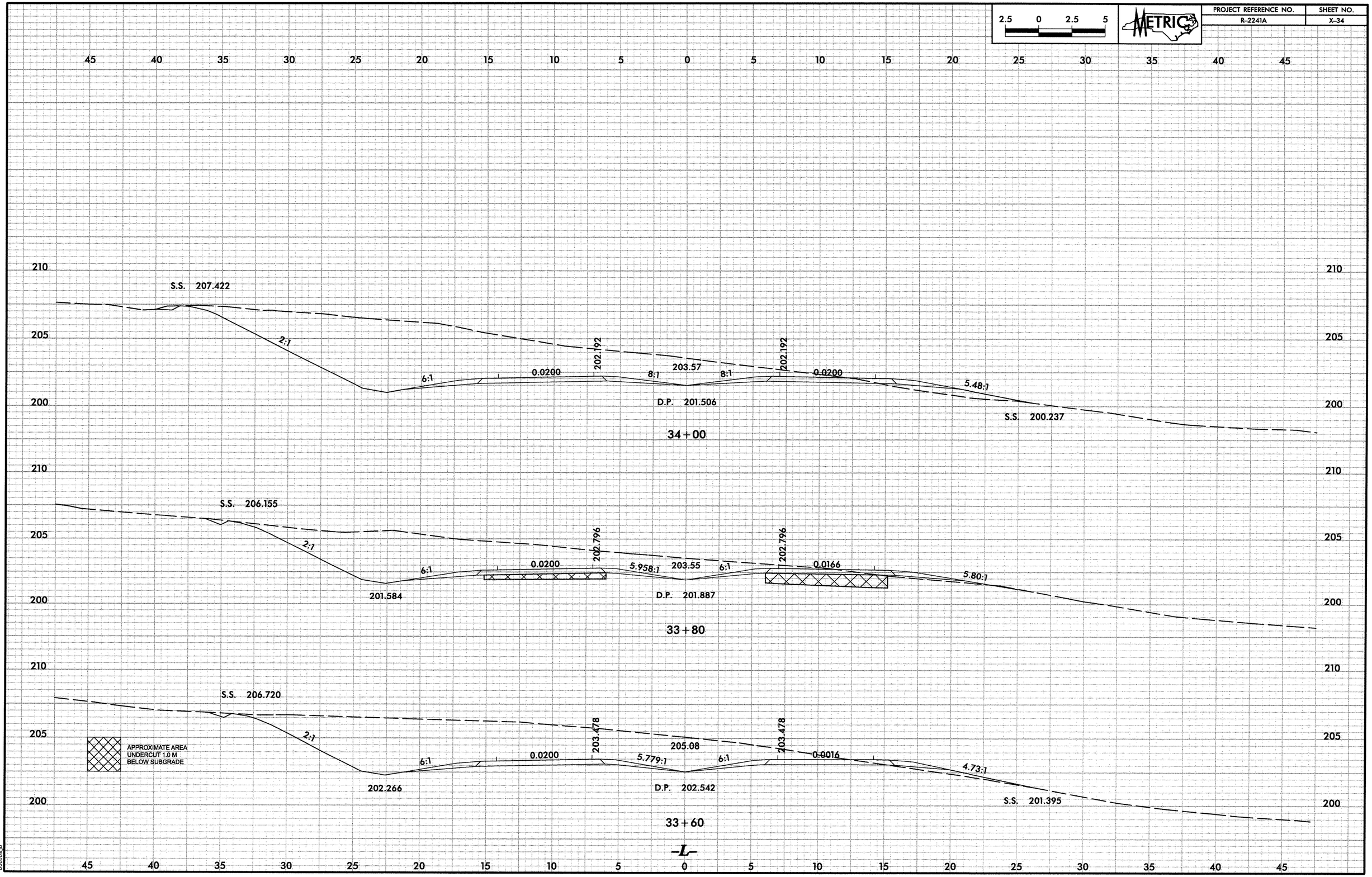
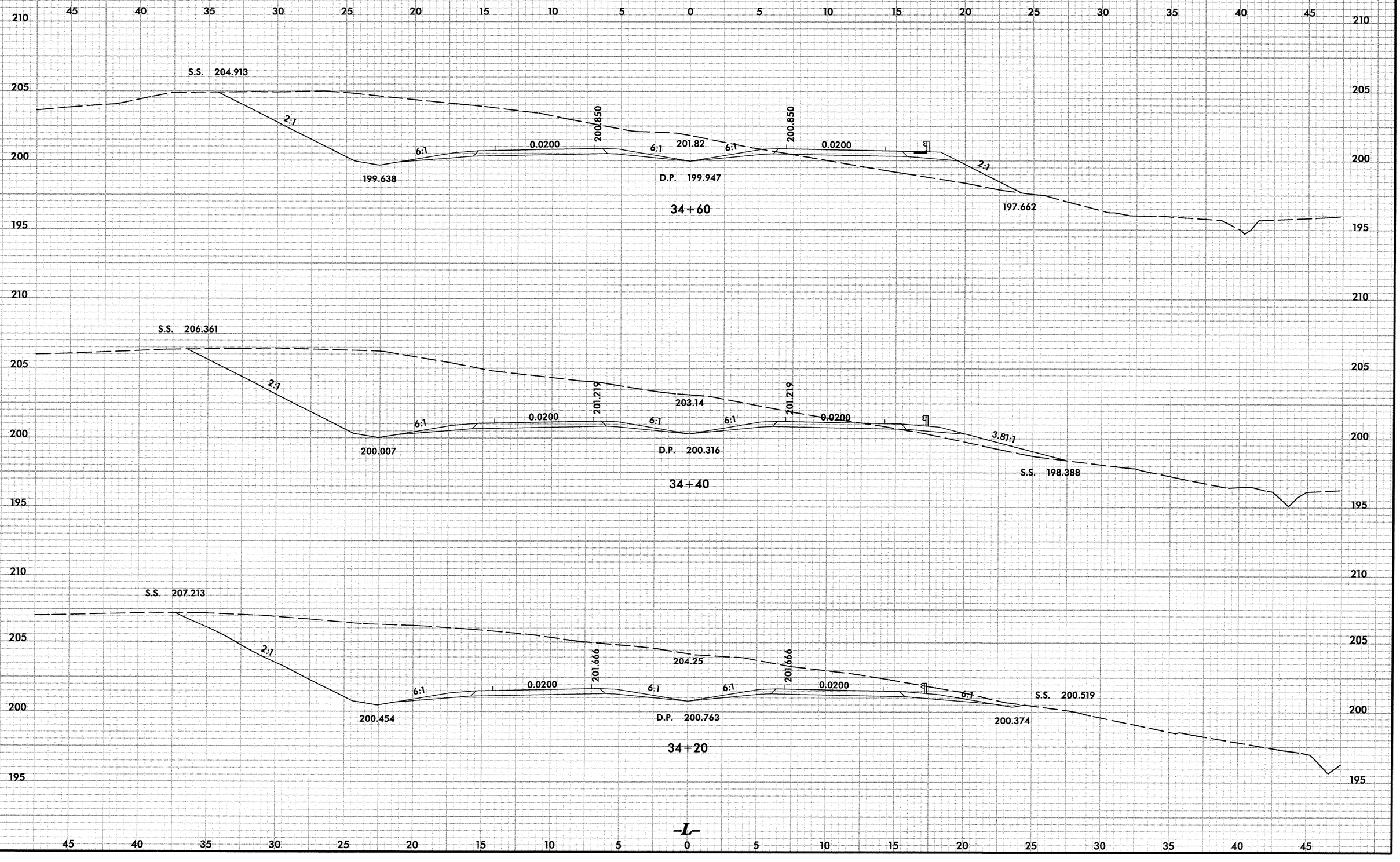


PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-33
METRIC
2.5 0 2.5 5
S.S. 208.037
2:1
6:1
0.0200
204.239
5.611:1
205.90
6:1
204.239
0.0134
4.59:1
203.027
D.P. 203.276
S.S. 202.209
33+40
S.S. 208.630
2:1
6:1
0.0200
204.479
5.611:1
206.25
6:1
204.479
0.0134
1.50
1.50
5.76
8 %
15 %
DRIVE
25 %
203.267
D.P. 203.516
33+34
S.S. 209.586
2:1
6:1
0.0284
205.039
5.423:1
206.76
6:1
205.039
0.0284
4.58:1
203.756
D.P. 204.059
S.S. 203.112
33+20
-L-

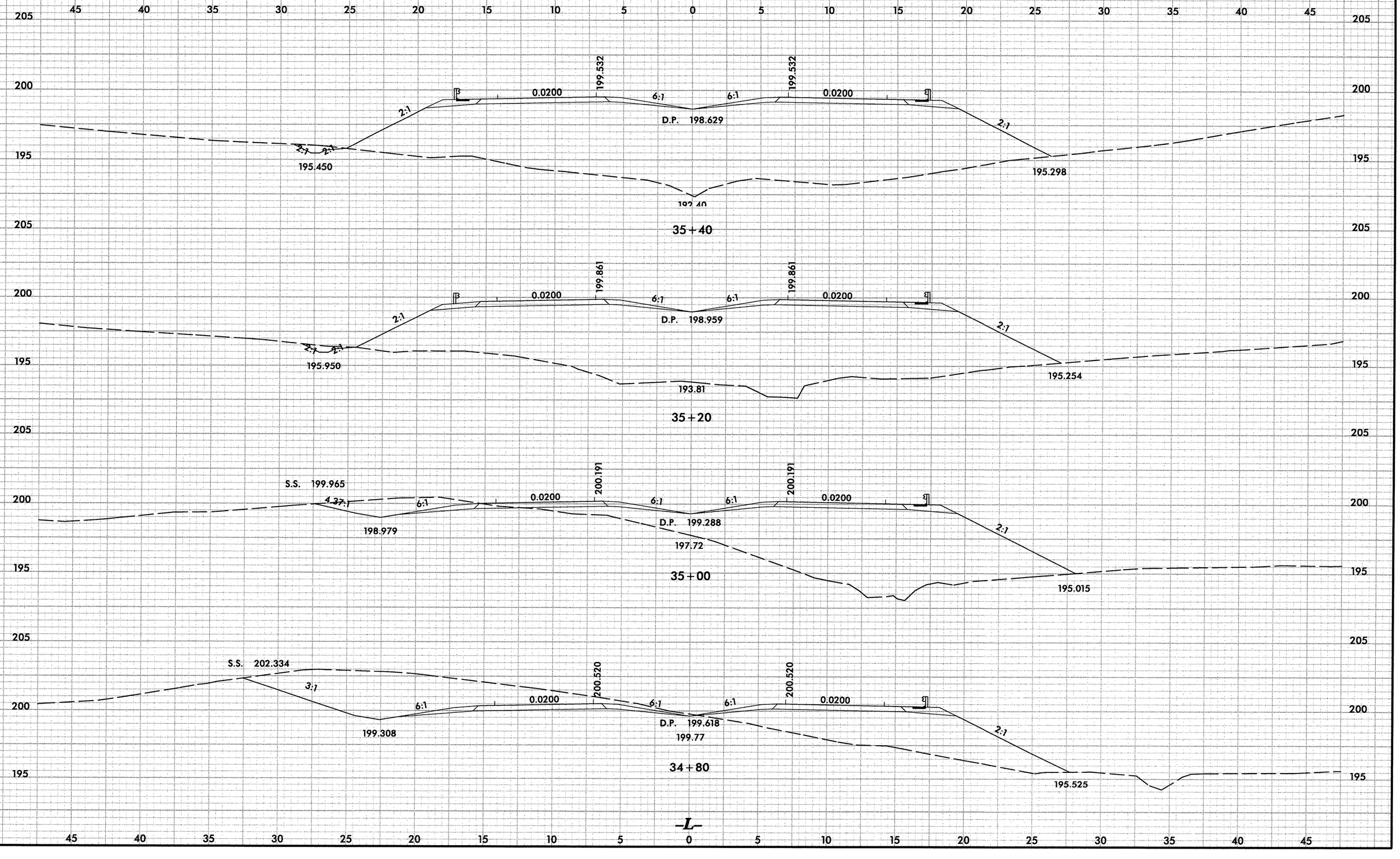


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-34
S.S. 207.422
2:1
6:1
0.0200
202.192
8:1
203.57
8:1
202.192
0.0200
5.48:1
D.P. 201.506
S.S. 200.237
34+00
S.S. 206.155
2:1
6:1
0.0200
202.796
5.958:1
203.55
6:1
202.796
0.0166
5.80:1
201.584
D.P. 201.887
33+80
S.S. 206.720
2:1
6:1
0.0200
203.478
5.779:1
205.08
6:1
203.478
0.0016
4.73:1
202.266
D.P. 202.542
S.S. 201.395
33+60
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-35
S.S. 204.913
2:1
6:1
0.0200
200.850
201.82
199.638
D.P. 199.947
197.662
34+60
S.S. 206.361
201.219
203.14
200.007
D.P. 200.316
3.81:1
S.S. 198.388
34+40
S.S. 207.213
201.666
204.25
200.454
D.P. 200.763
S.S. 200.519
200.374
34+20
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-36



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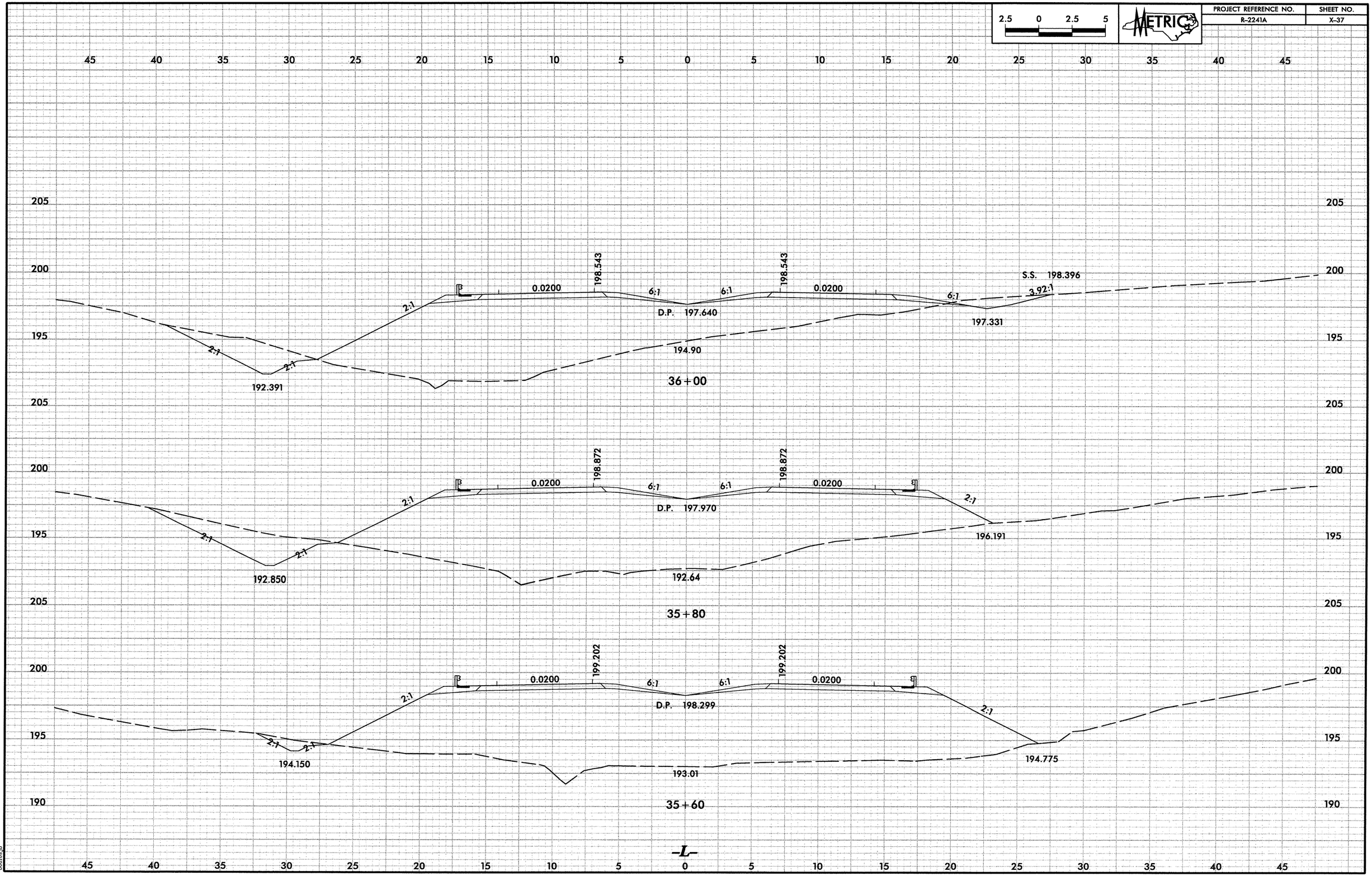
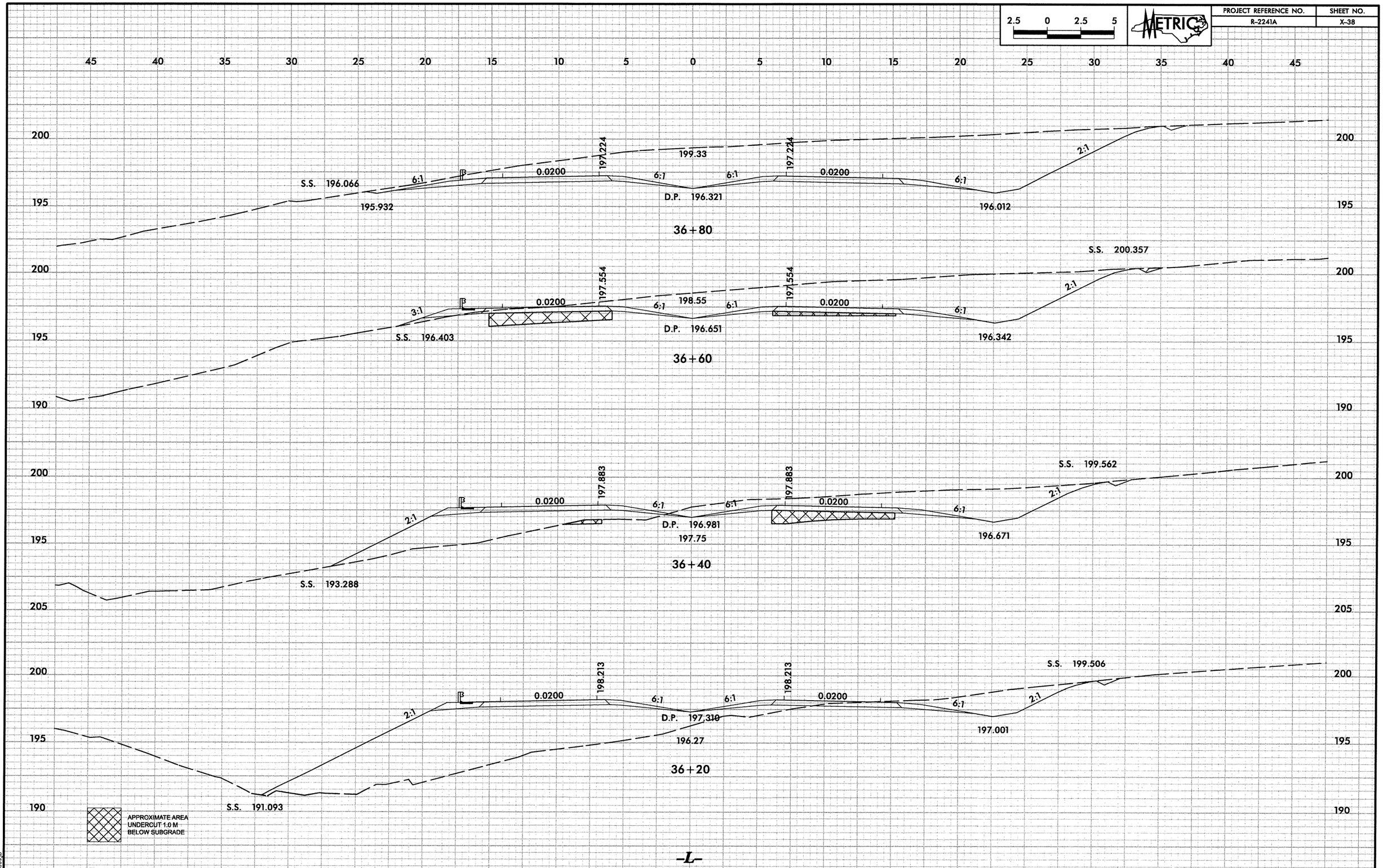
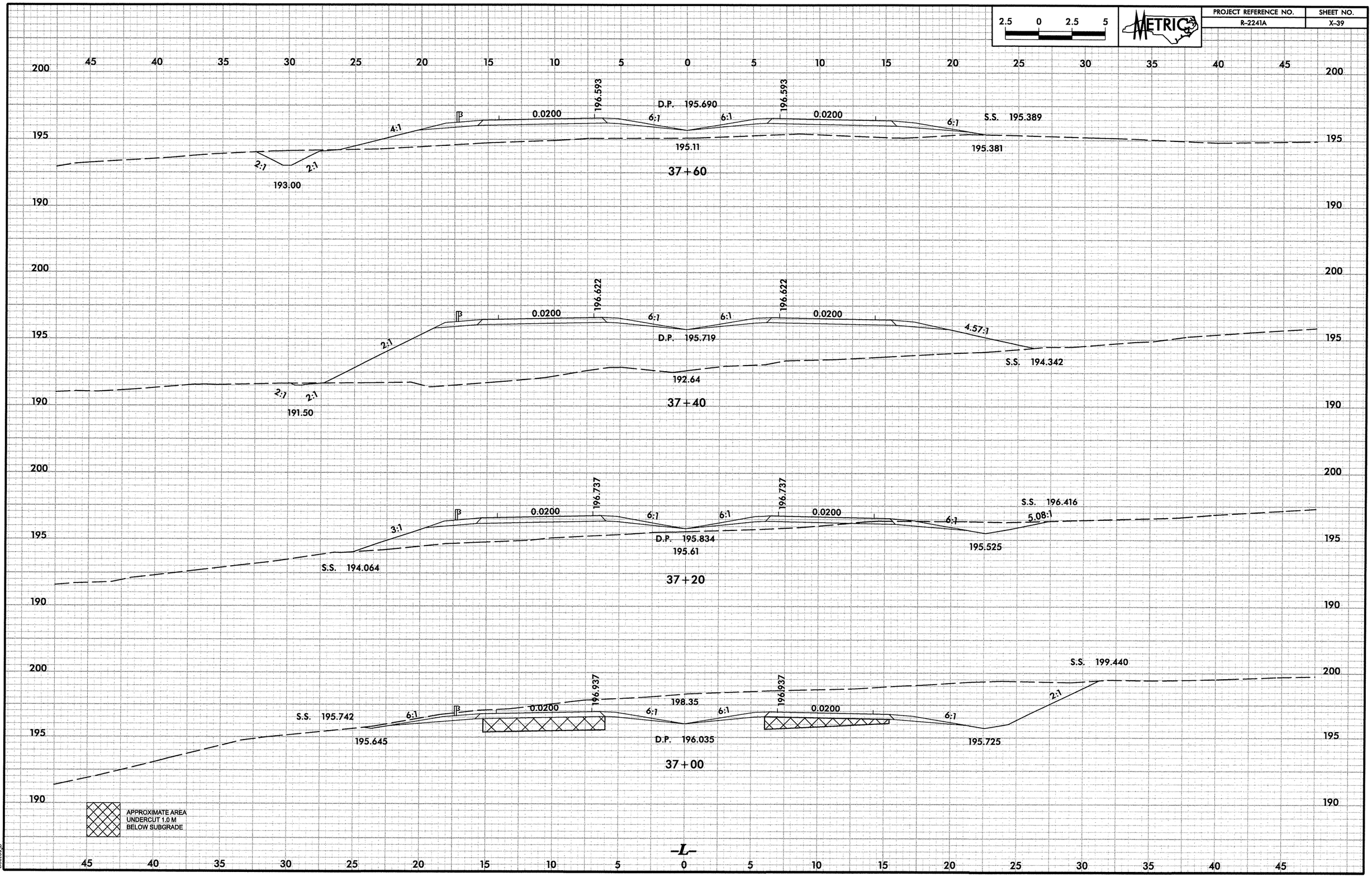


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-37
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
205
200
195
190
198.543
198.543
0.0200
0.0200
6:1
6:1
6:1
2:1
2:1
2:1
S.S. 198.396
3.92:1
D.P. 197.640
197.331
194.90
192.391
36+00
198.872
198.872
0.0200
0.0200
6:1
6:1
2:1
2:1
2:1
D.P. 197.970
196.191
192.850
192.64
35+80
199.202
199.202
0.0200
0.0200
6:1
6:1
2:1
2:1
2:1
2:1
D.P. 198.299
194.150
194.775
193.01
35+60
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-38
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
200
195
190
S.S. 196.066
195.932
6:1
0.0200
197.224
199.33
6:1
6:1
197.224
0.0200
6:1
2:1
D.P. 196.321
196.012
36+80
S.S. 200.357
3:1
0.0200
197.554
198.55
6:1
6:1
197.554
0.0200
6:1
2:1
S.S. 196.403
D.P. 196.651
196.342
36+60
S.S. 199.562
2:1
0.0200
197.883
6:1
6:1
197.883
0.0200
6:1
2:1
D.P. 196.981
197.75
196.671
36+40
S.S. 193.288
205
S.S. 199.506
2:1
0.0200
198.213
6:1
6:1
198.213
0.0200
6:1
2:1
D.P. 197.310
196.27
197.001
36+20
S.S. 191.093
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-39



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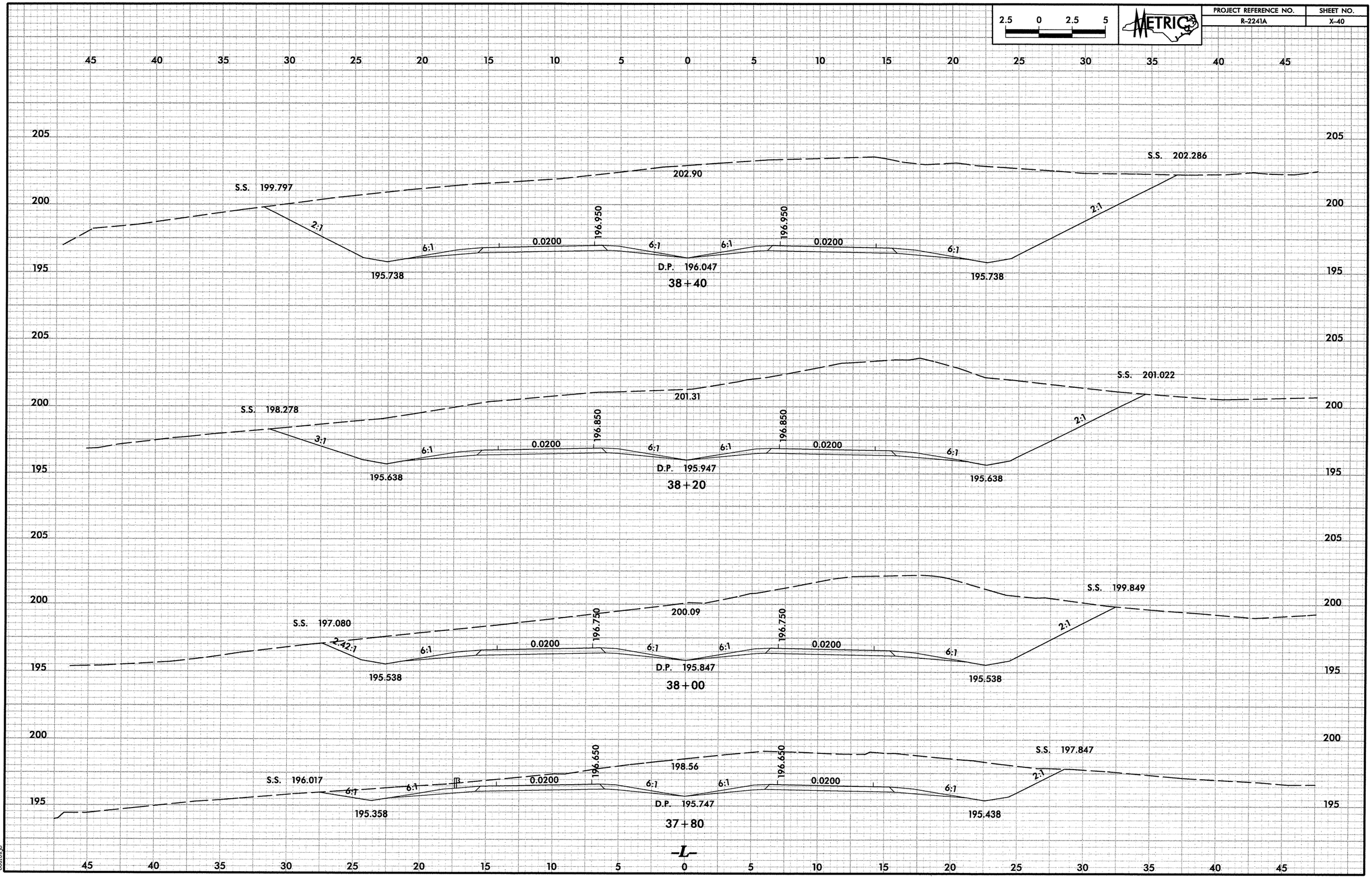
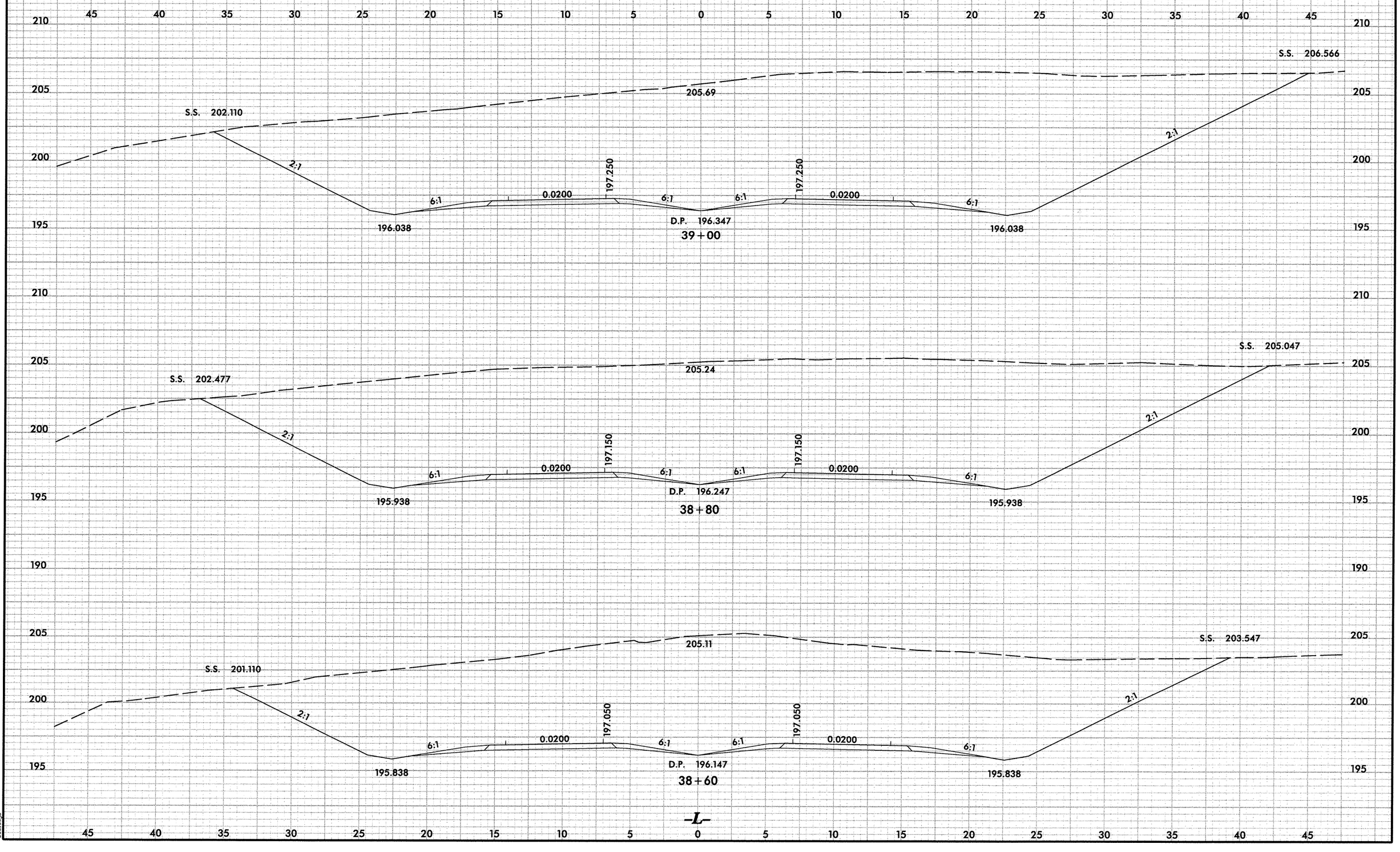
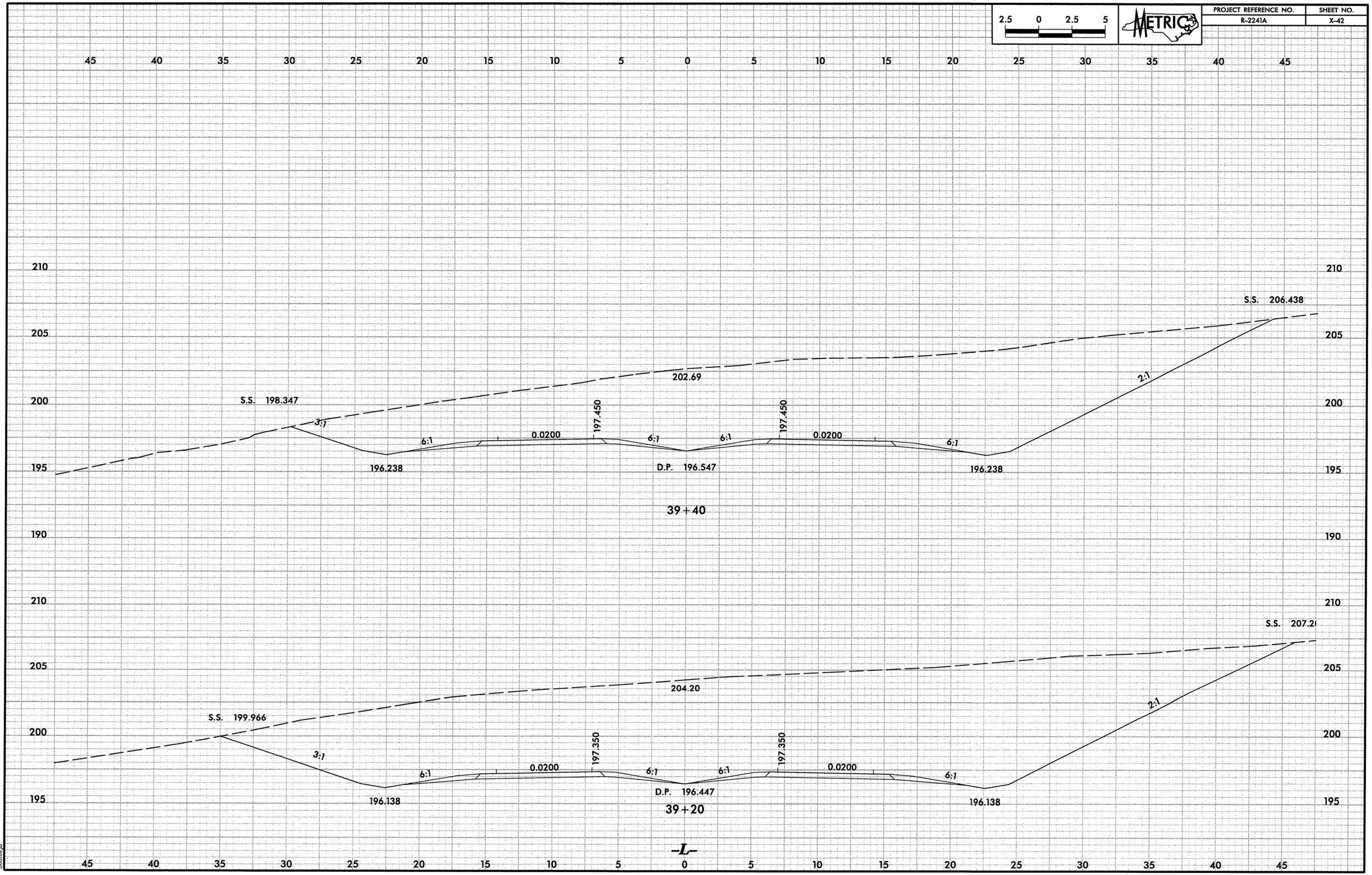


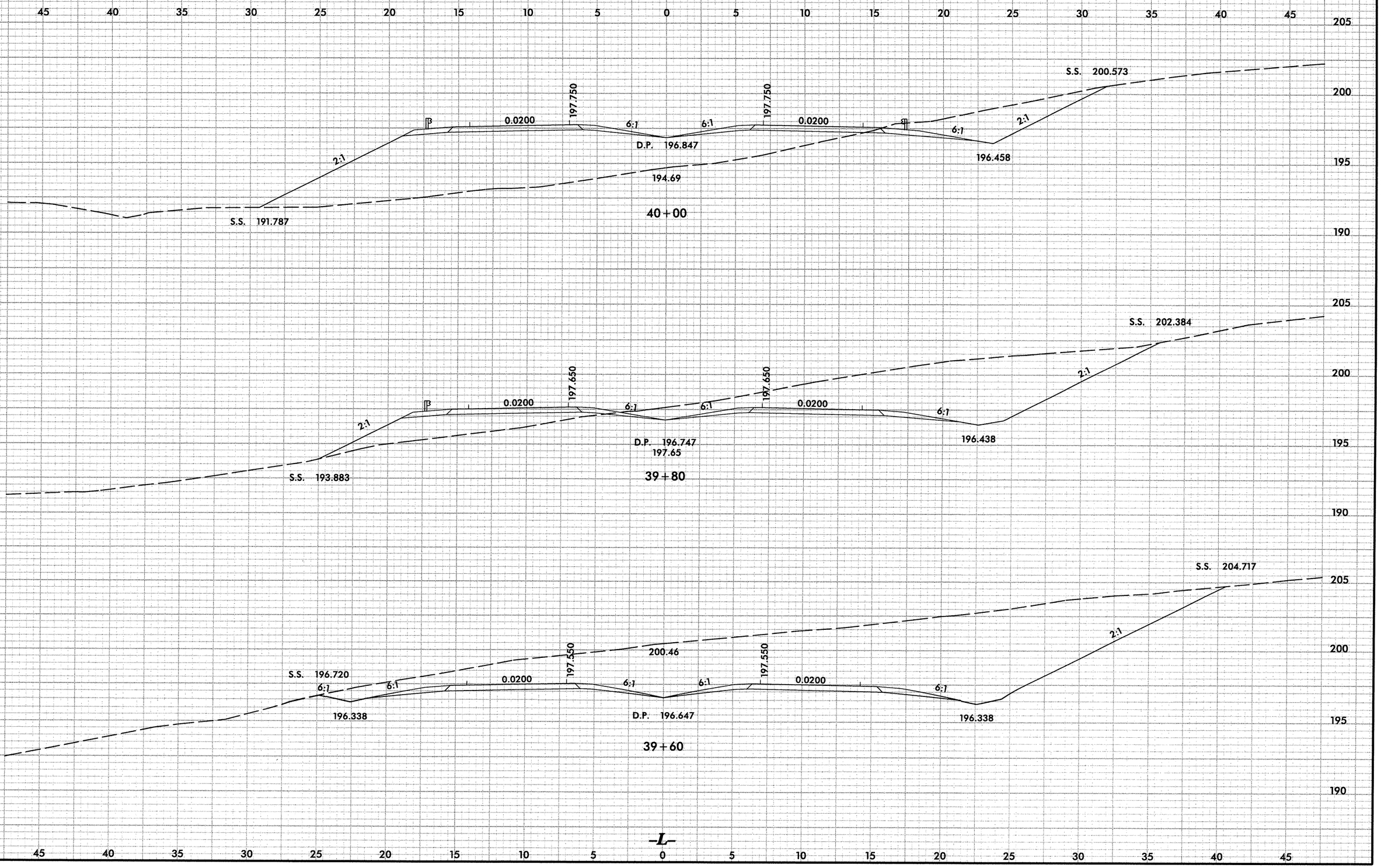
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-40
S.S. 199.797
202.90
S.S. 202.286
2:1
6:1
0.0200
196.950
D.P. 196.047
195.738
38+40
S.S. 198.278
201.31
S.S. 201.022
3:1
196.850
D.P. 195.947
195.638
38+20
S.S. 197.080
200.09
S.S. 199.849
2.42:1
196.750
D.P. 195.847
195.538
38+00
S.S. 196.017
198.56
S.S. 197.847
196.650
D.P. 195.747
195.358
195.438
37+80
-L-



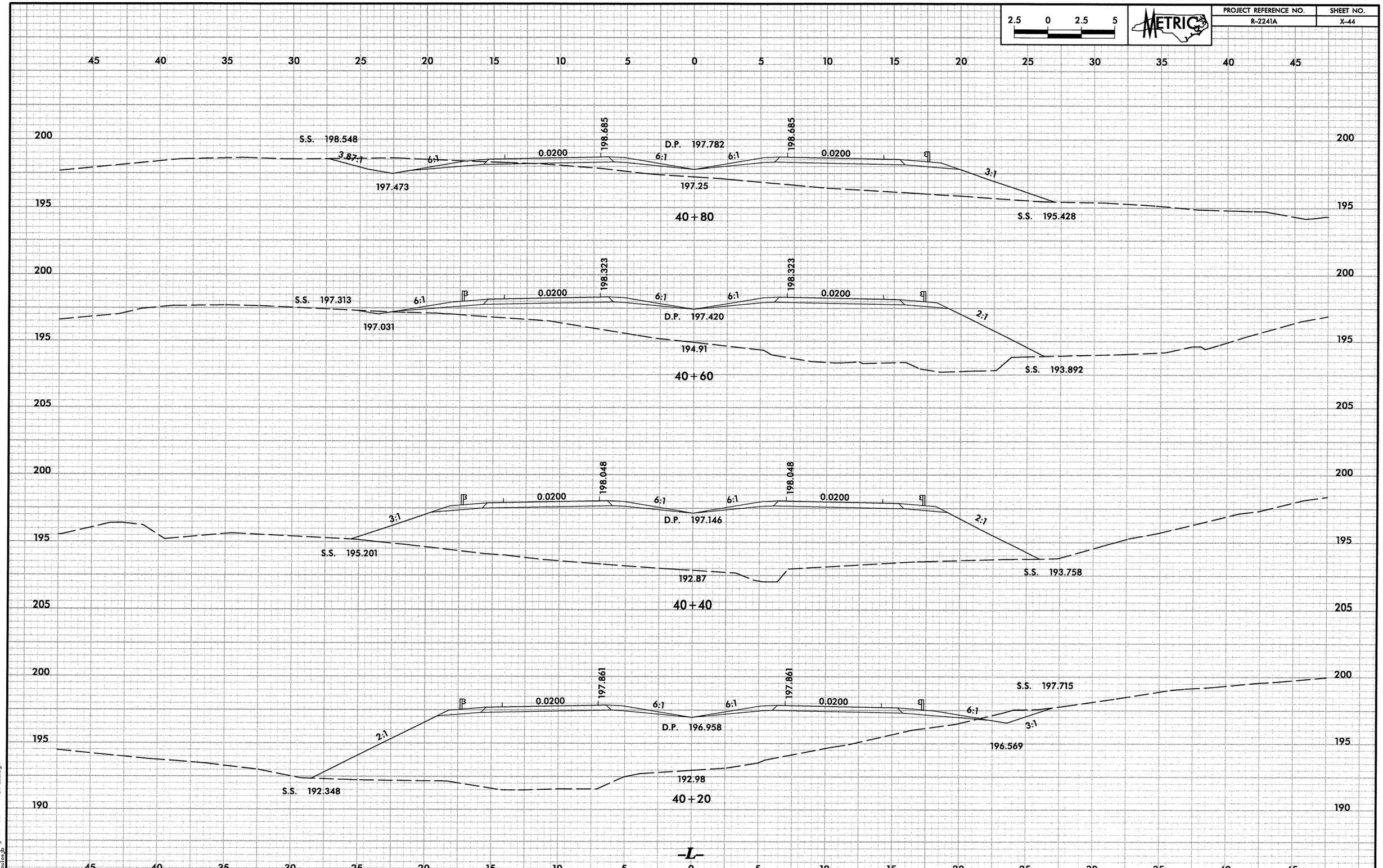
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-41
S.S. 206.566
205.69
S.S. 202.110
2:1
197.250
6:1
0.0200
196.038
D.P. 196.347
39+00
S.S. 205.047
205.24
S.S. 202.477
197.150
195.938
D.P. 196.247
38+80
S.S. 203.547
205.11
S.S. 201.110
197.050
195.838
D.P. 196.147
38+60
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-42
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
210
205
200
195
190
S.S. 206.438
202.69
S.S. 198.347
3:1
6:1
0.0200
197.450
6:1
6:1
197.450
0.0200
6:1
2:1
196.238
D.P. 196.547
196.238
39+40
S.S. 207.2
204.20
S.S. 199.966
3:1
6:1
0.0200
197.350
6:1
6:1
197.350
0.0200
6:1
2:1
196.138
D.P. 196.447
196.138
39+20
-L-

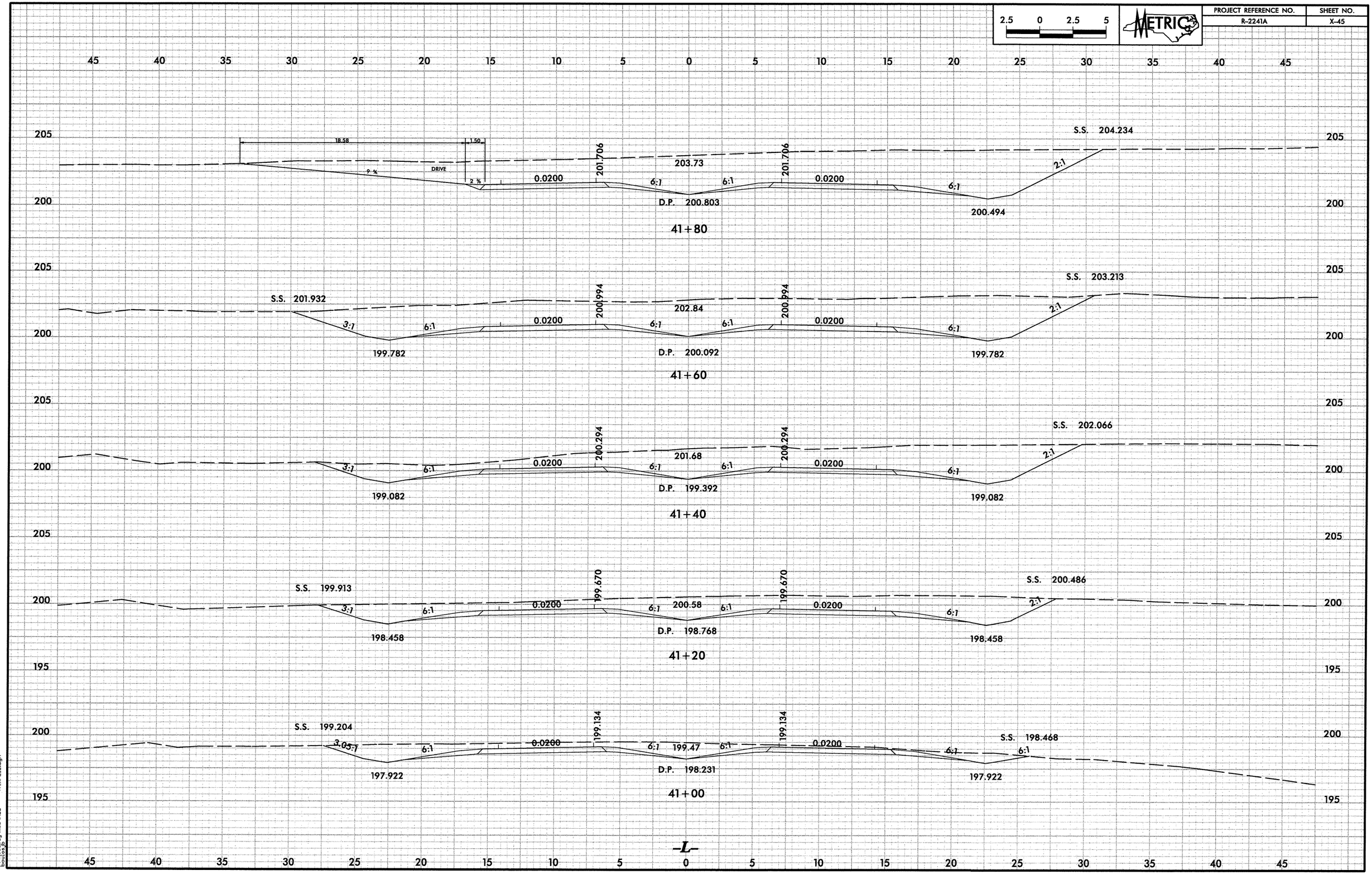


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-43
S.S. 200.573
197.750
0.0200
6:1
D.P. 196.847
196.458
2:1
194.69
S.S. 191.787
40+00
S.S. 202.384
197.650
D.P. 196.747
197.65
196.438
S.S. 193.883
39+80
S.S. 204.717
200.46
197.550
S.S. 196.720
196.338
D.P. 196.647
39+60
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-44
S.S. 198.548
3.87:1
6:1
0.0200
198.685
D.P. 197.782
6:1
6:1
198.685
0.0200
3:1
197.473
197.25
S.S. 195.428
40+80
S.S. 197.313
6:1
0.0200
198.323
6:1
6:1
198.323
0.0200
2:1
197.031
D.P. 197.420
194.91
S.S. 193.892
40+60
3:1
0.0200
198.048
6:1
6:1
198.048
0.0200
2:1
D.P. 197.146
S.S. 195.201
192.87
S.S. 193.758
40+40
2:1
0.0200
197.861
6:1
6:1
197.861
0.0200
6:1
S.S. 197.715
3:1
D.P. 196.958
196.569
192.98
S.S. 192.348
40+20
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-45



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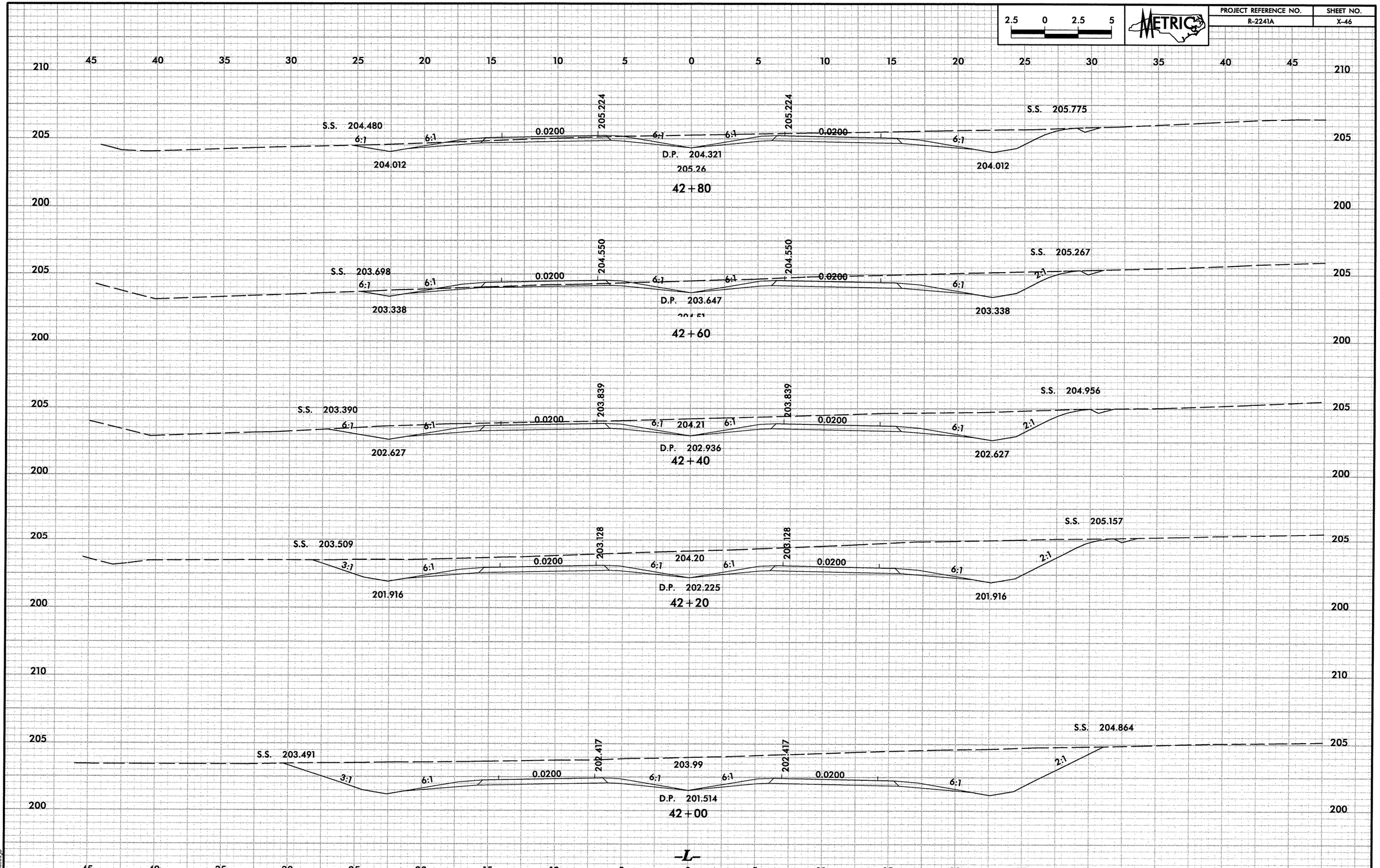
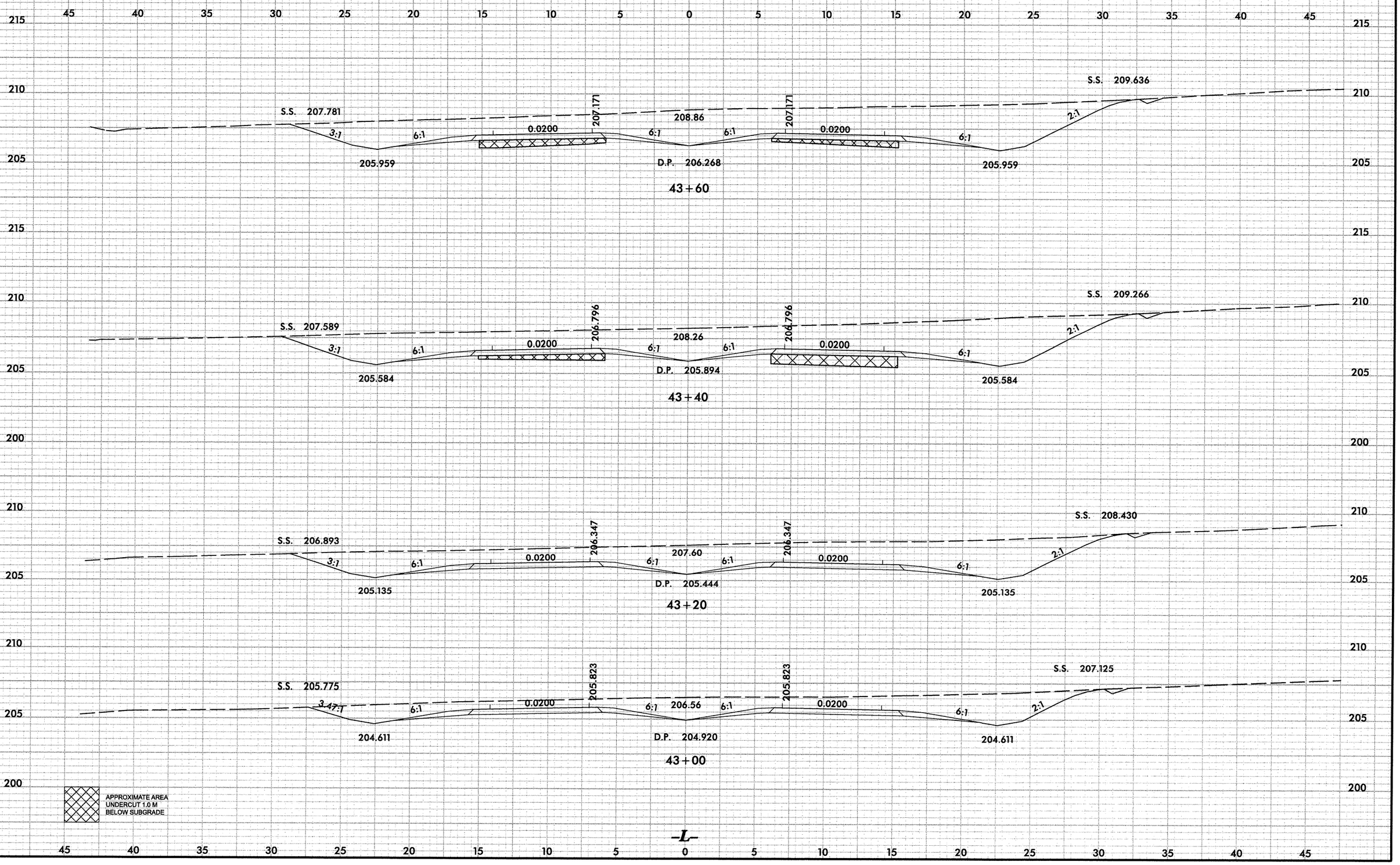
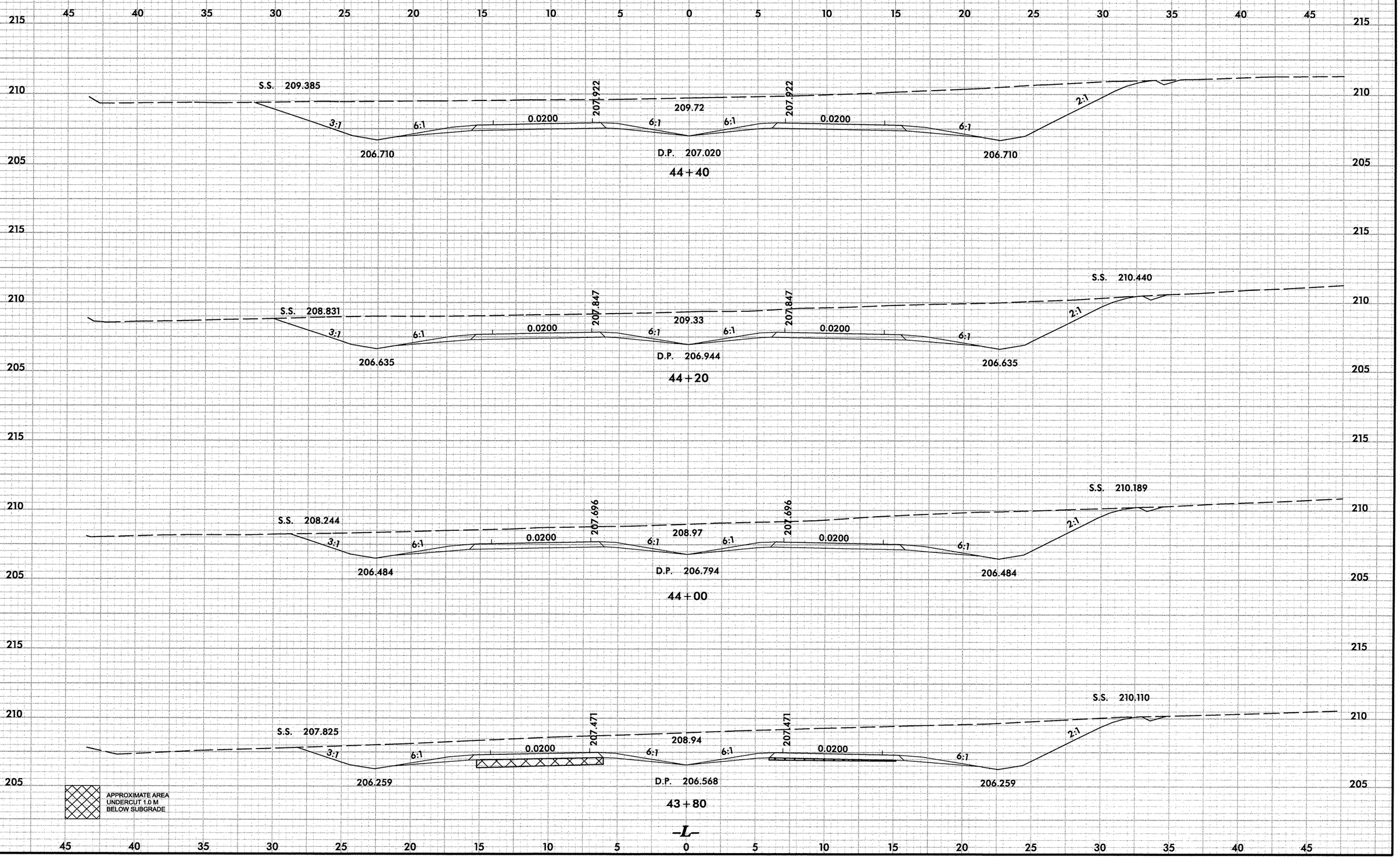
boulos.jb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-46
S.S. 204.480
6:1
6:1
0.0200
205.224
6:1
6:1
205.224
0.0200
6:1
S.S. 205.775
204.012
D.P. 204.321
205.26
204.012
42+80
S.S. 203.698
6:1
6:1
0.0200
204.550
6:1
6:1
204.550
0.0200
6:1
2:1
S.S. 205.267
203.338
D.P. 203.647
203.338
42+60
S.S. 203.390
6:1
6:1
0.0200
203.839
6:1
204.21
6:1
203.839
0.0200
6:1
2:1
S.S. 204.956
202.627
D.P. 202.936
202.627
42+40
S.S. 203.509
3:1
6:1
0.0200
203.128
6:1
204.20
6:1
203.128
0.0200
6:1
2:1
S.S. 205.157
201.916
D.P. 202.225
201.916
42+20
S.S. 203.491
3:1
6:1
0.0200
202.417
6:1
203.99
6:1
202.417
0.0200
6:1
2:1
S.S. 204.864
D.P. 201.514
42+00
-L-

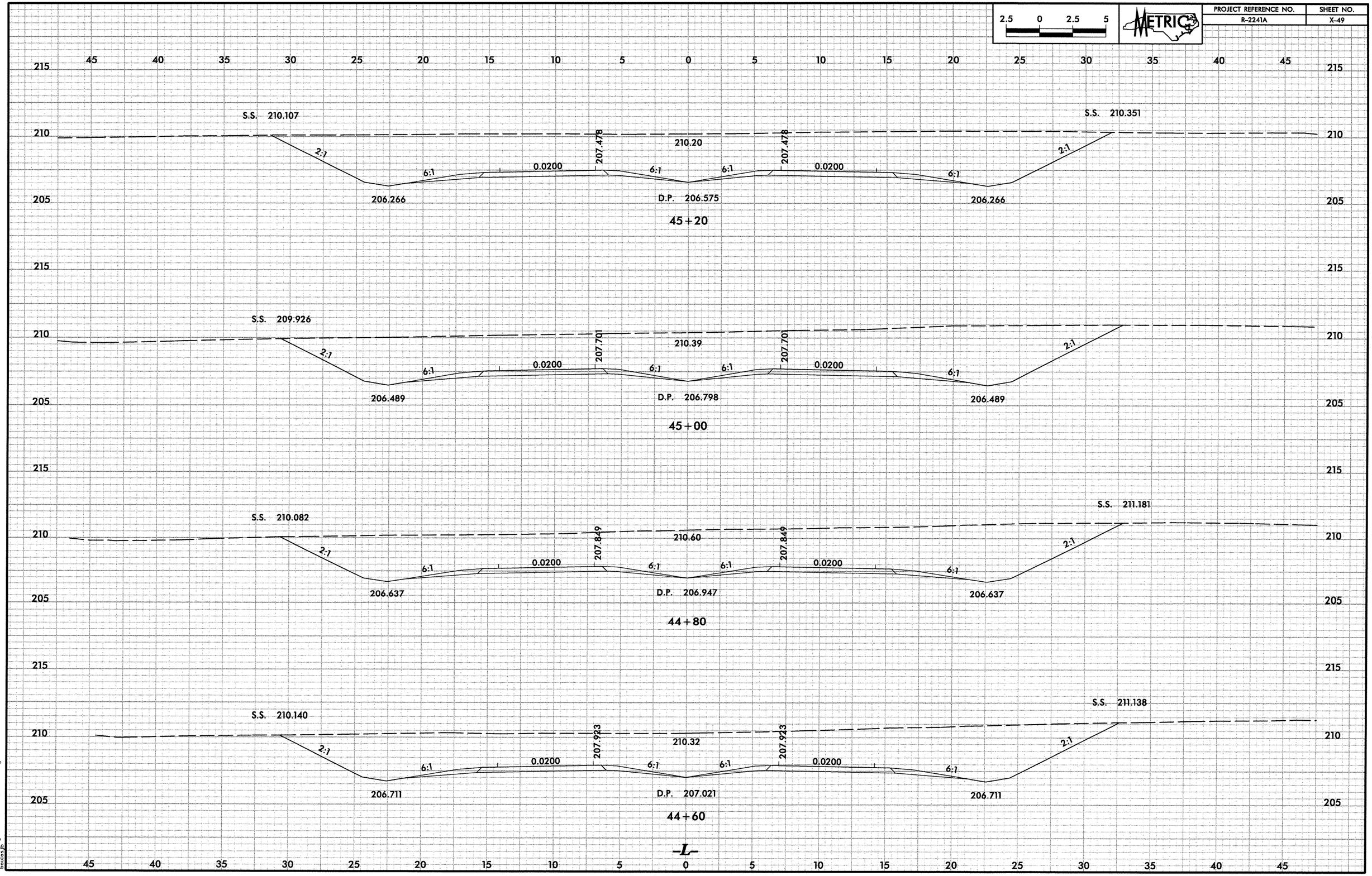


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-47
S.S. 207.781
207.171
208.86
207.171
S.S. 209.636
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
205.959
D.P. 206.268
205.959
43+60
S.S. 207.589
206.796
208.26
206.796
S.S. 209.266
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
205.584
D.P. 205.894
205.584
43+40
S.S. 206.893
206.347
207.60
206.347
S.S. 208.430
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
205.135
D.P. 205.444
205.135
43+20
S.S. 205.775
205.823
206.56
205.823
S.S. 207.125
3.47:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
204.611
D.P. 204.920
204.611
43+00
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

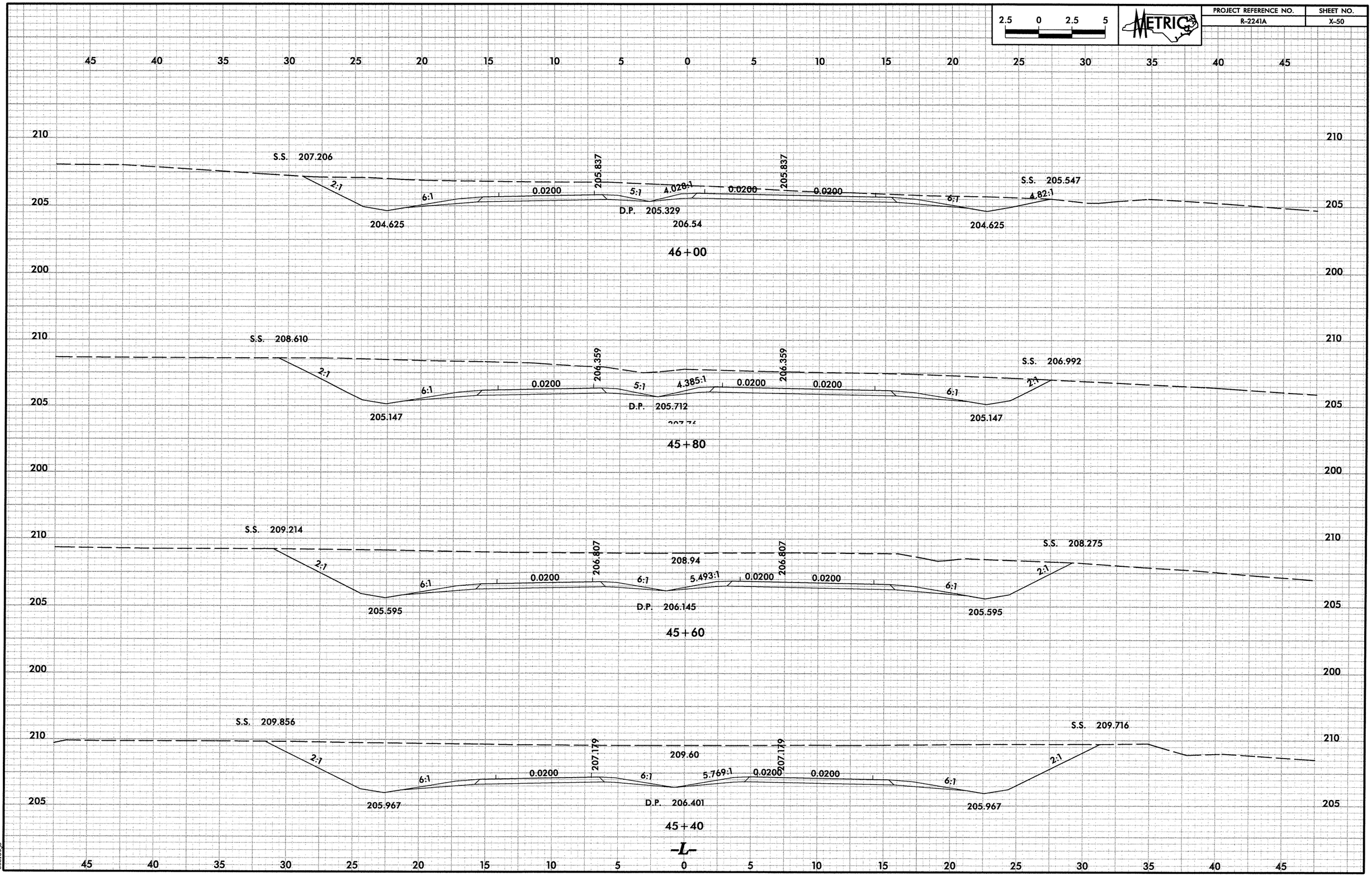


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-48
S.S. 209.385
207.922
209.72
207.922
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
206.710
D.P. 207.020
206.710
44+40
S.S. 208.831
207.847
209.33
207.847
S.S. 210.440
206.635
D.P. 206.944
206.635
44+20
S.S. 208.244
207.696
208.97
207.696
S.S. 210.189
206.484
D.P. 206.794
206.484
44+00
S.S. 207.825
207.471
208.94
207.471
S.S. 210.110
206.259
D.P. 206.568
206.259
43+80
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

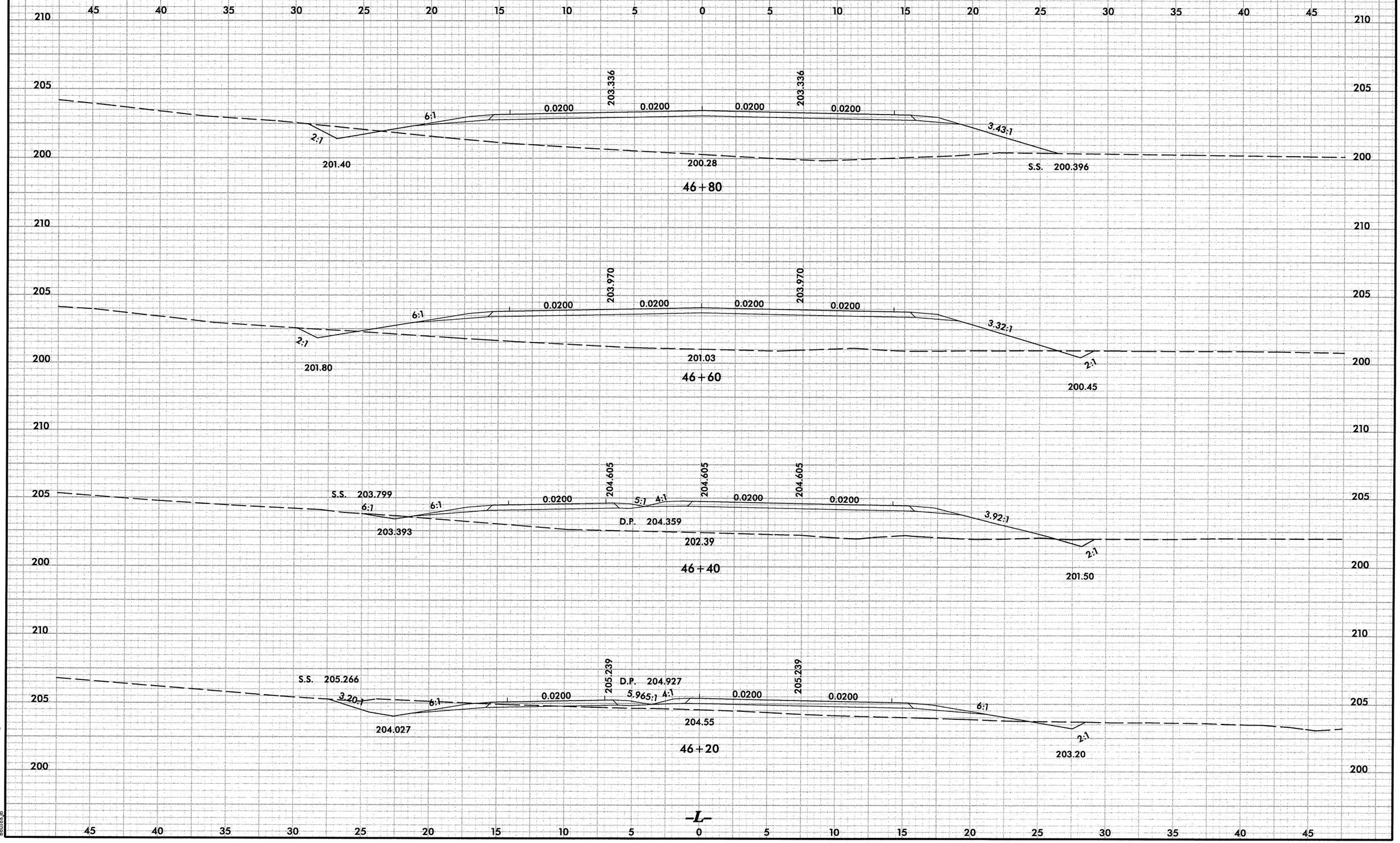
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-49



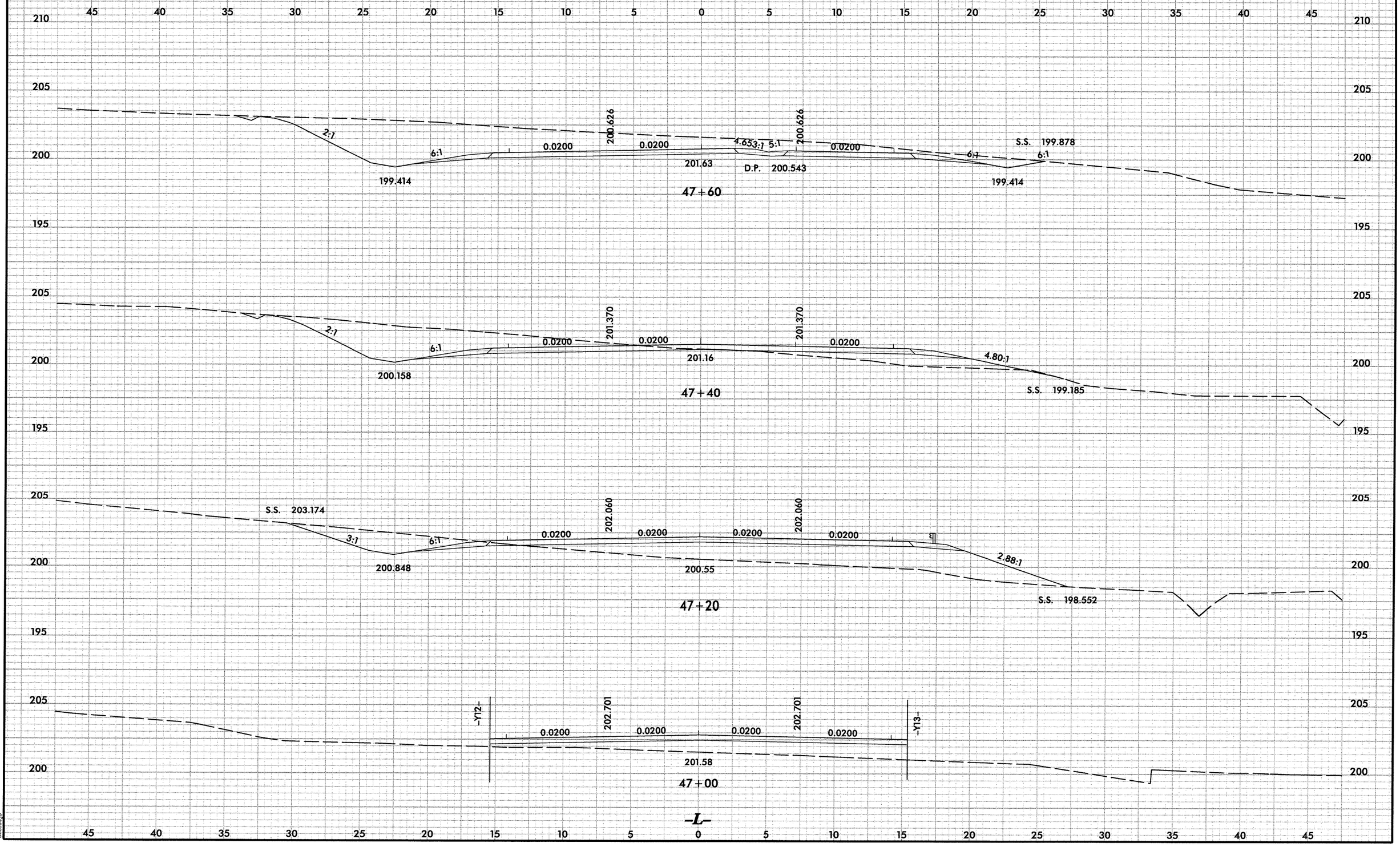
12/11/2012
F:\roadway\xsc\R22 .XPL_L.dgn
boulos.jb



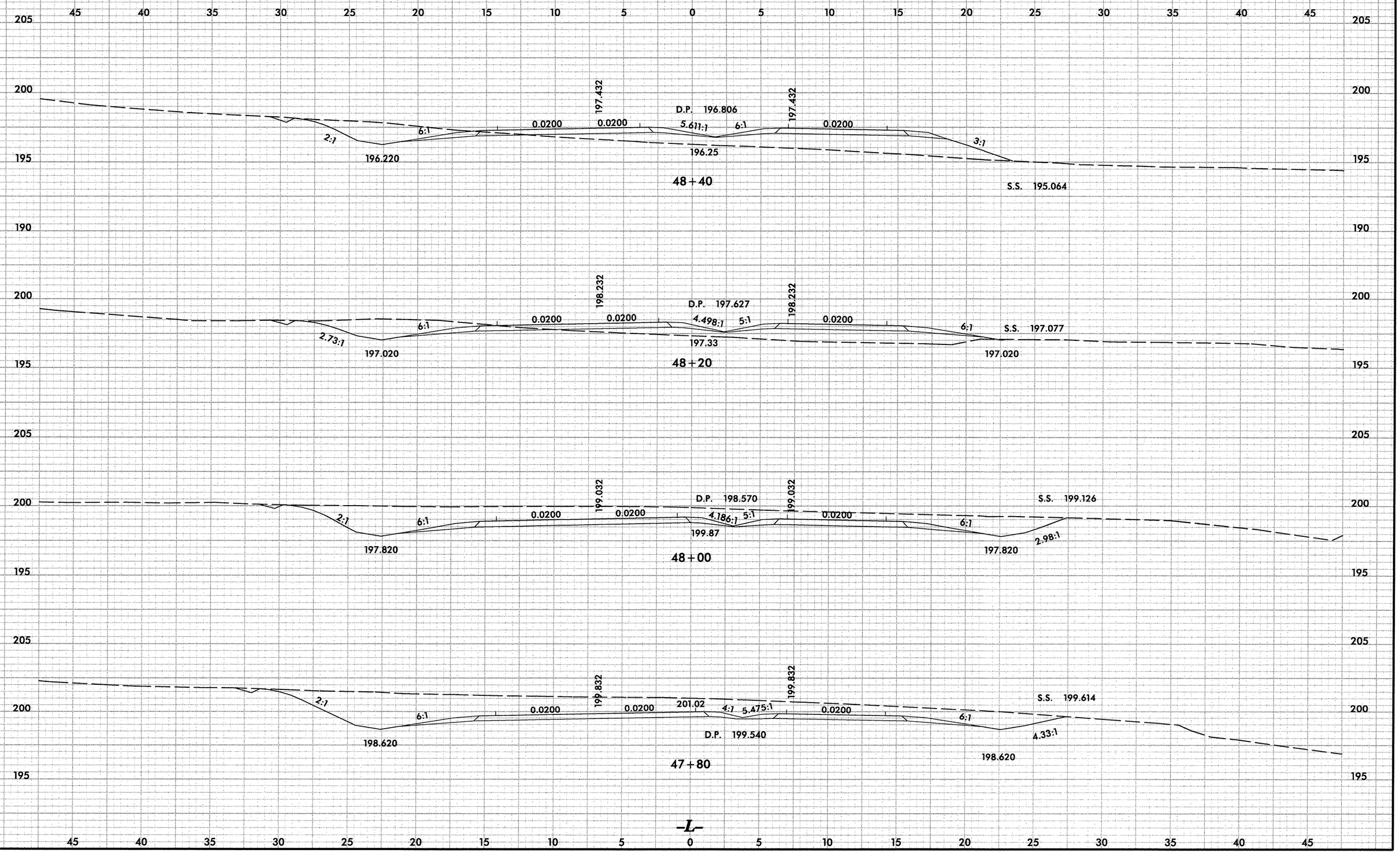
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-50
S.S. 207.206
2:1
6:1
0.0200
205.837
5:1
4.028:1
0.0200
205.837
0.0200
6:1
S.S. 205.547
4.82:1
204.625
D.P. 205.329
206.54
204.625
46+00
S.S. 208.610
2:1
6:1
0.0200
206.359
5:1
4.385:1
0.0200
206.359
0.0200
6:1
S.S. 206.992
2:1
205.147
D.P. 205.712
205.147
45+80
S.S. 209.214
2:1
6:1
0.0200
206.807
208.94
6:1
5.493:1
0.0200
206.807
0.0200
6:1
S.S. 208.275
2:1
205.595
D.P. 206.145
205.595
45+60
S.S. 209.856
2:1
6:1
0.0200
207.179
209.60
6:1
5.769:1
0.0200
207.179
0.0200
6:1
S.S. 209.716
2:1
205.967
D.P. 206.401
205.967
45+40
-L-



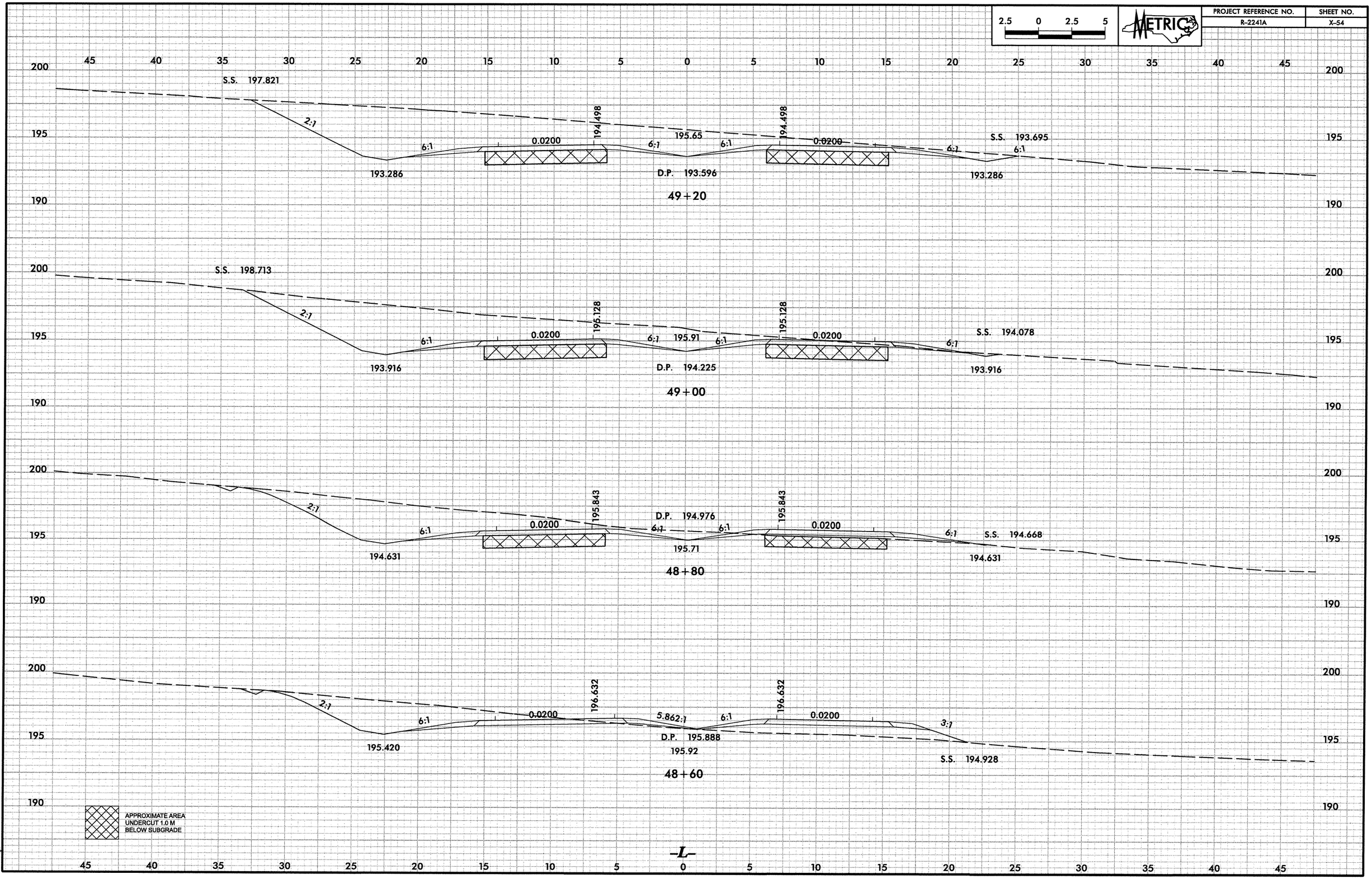
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-51
46+80
203.336
0.0200
6:1
2:1
3.43:1
201.40
200.28
S.S. 200.396
46+60
203.970
3.32:1
201.80
201.03
200.45
46+40
204.605
S.S. 203.799
5:1
4:1
3.92:1
203.393
D.P. 204.359
202.39
201.50
46+20
205.239
S.S. 205.266
D.P. 204.927
3.20:1
5.965:1
204.027
204.55
203.20
-L-



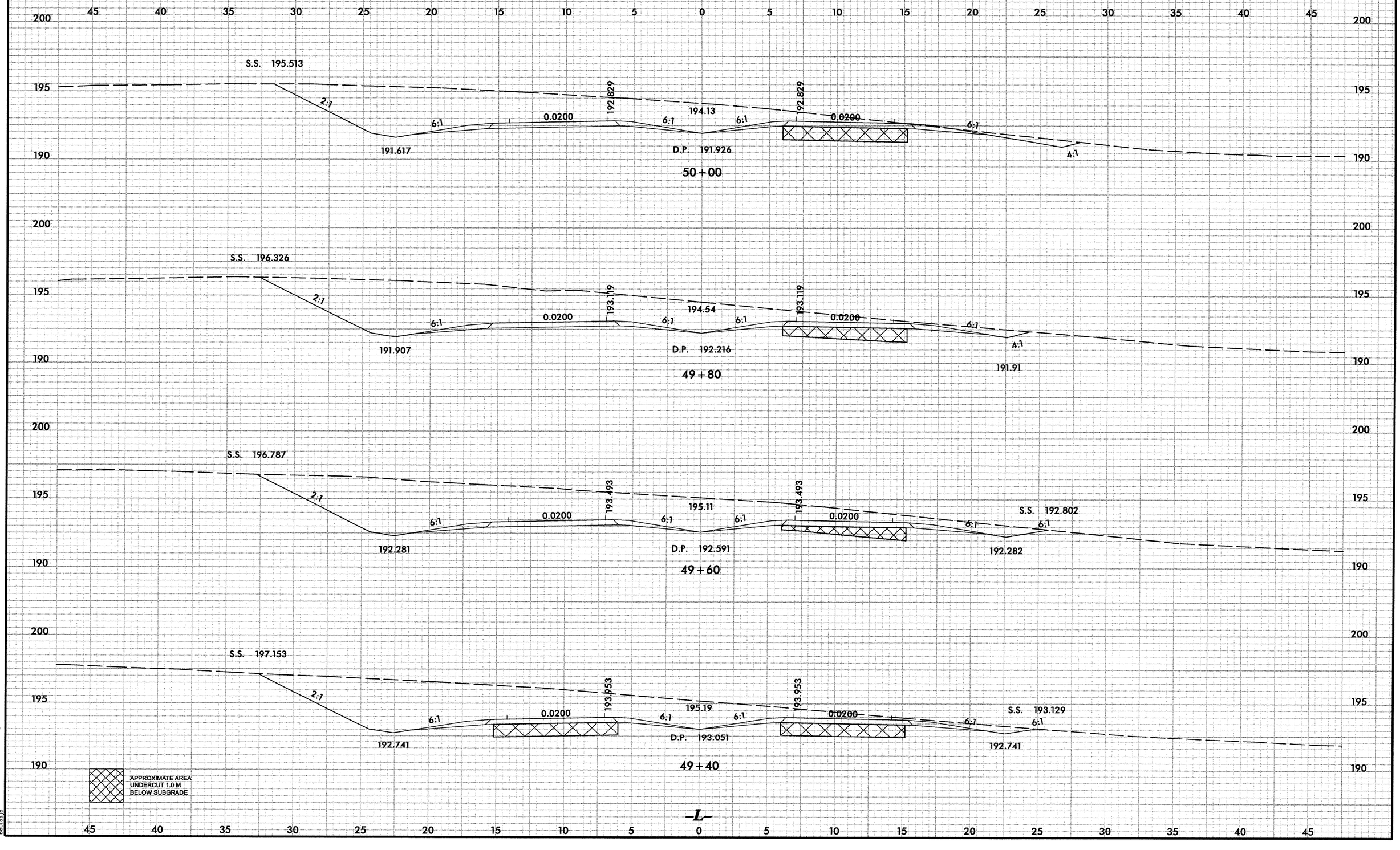
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-52
47+60
2:1
6:1
0.0200
200.626
4.653:1
5:1
201.63
D.P. 200.543
199.414
S.S. 199.878
47+40
201.370
201.16
200.158
4.80:1
S.S. 199.185
47+20
S.S. 203.174
3:1
202.060
200.848
200.55
2.88:1
S.S. 198.552
47+00
-Y12-
-Y13-
202.701
201.58
-L-



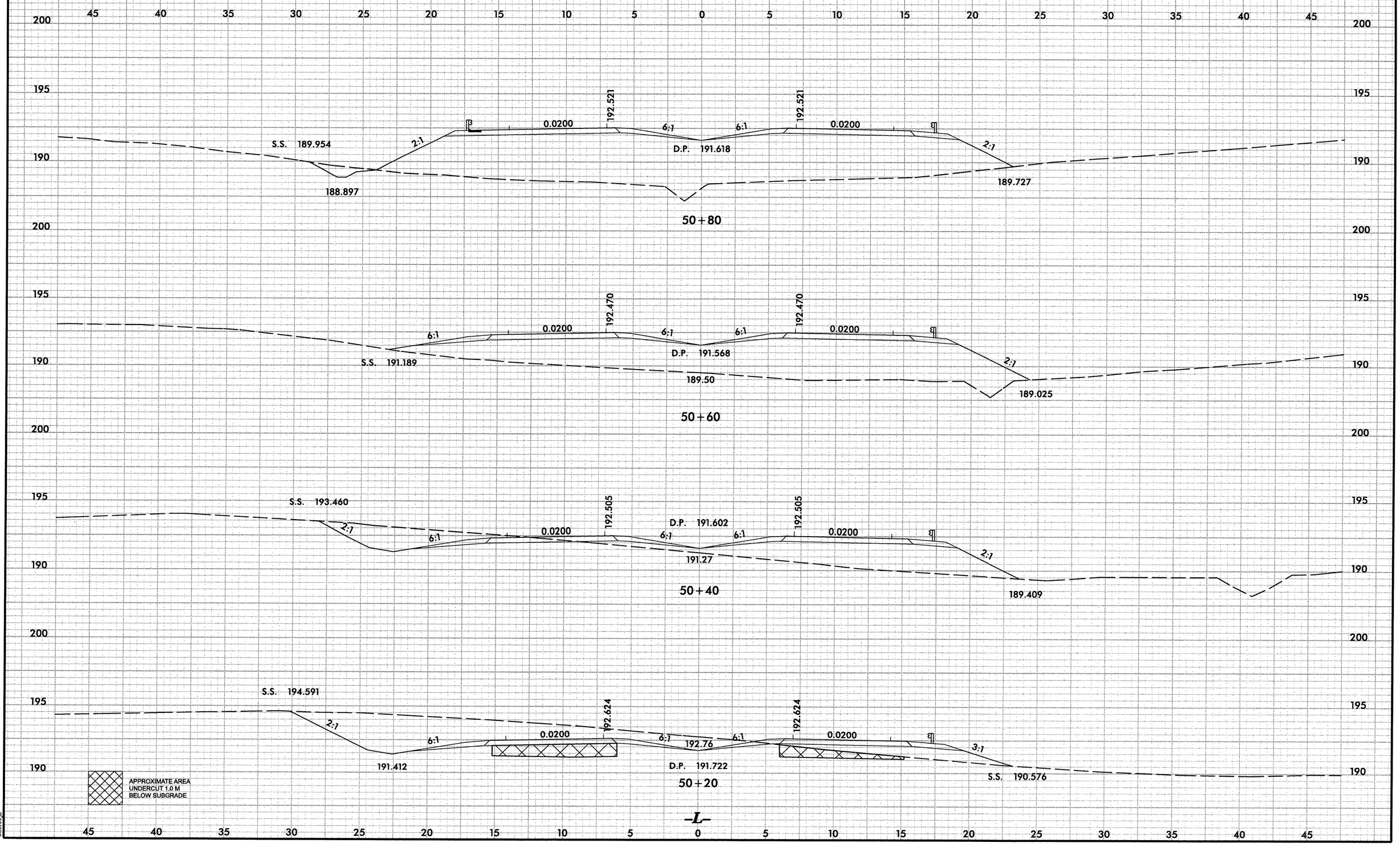
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-53
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
205
200
195
190
197.432
D.P. 196.806
197.432
0.0200
0.0200
5.611:1
6:1
0.0200
2:1
6:1
3:1
196.220
196.25
48+40
S.S. 195.064
198.232
D.P. 197.627
198.232
0.0200
0.0200
4.498:1
5:1
0.0200
6:1
6:1
S.S. 197.077
2.73:1
197.020
197.33
197.020
48+20
199.032
D.P. 198.570
199.032
S.S. 199.126
0.0200
0.0200
4.186:1
5:1
0.0200
2:1
6:1
6:1
199.87
2.98:1
197.820
197.820
48+00
199.832
199.832
S.S. 199.614
2:1
6:1
0.0200
0.0200
201.02
4:1
5.475:1
0.0200
6:1
D.P. 199.540
4.33:1
198.620
198.620
47+80
-L-



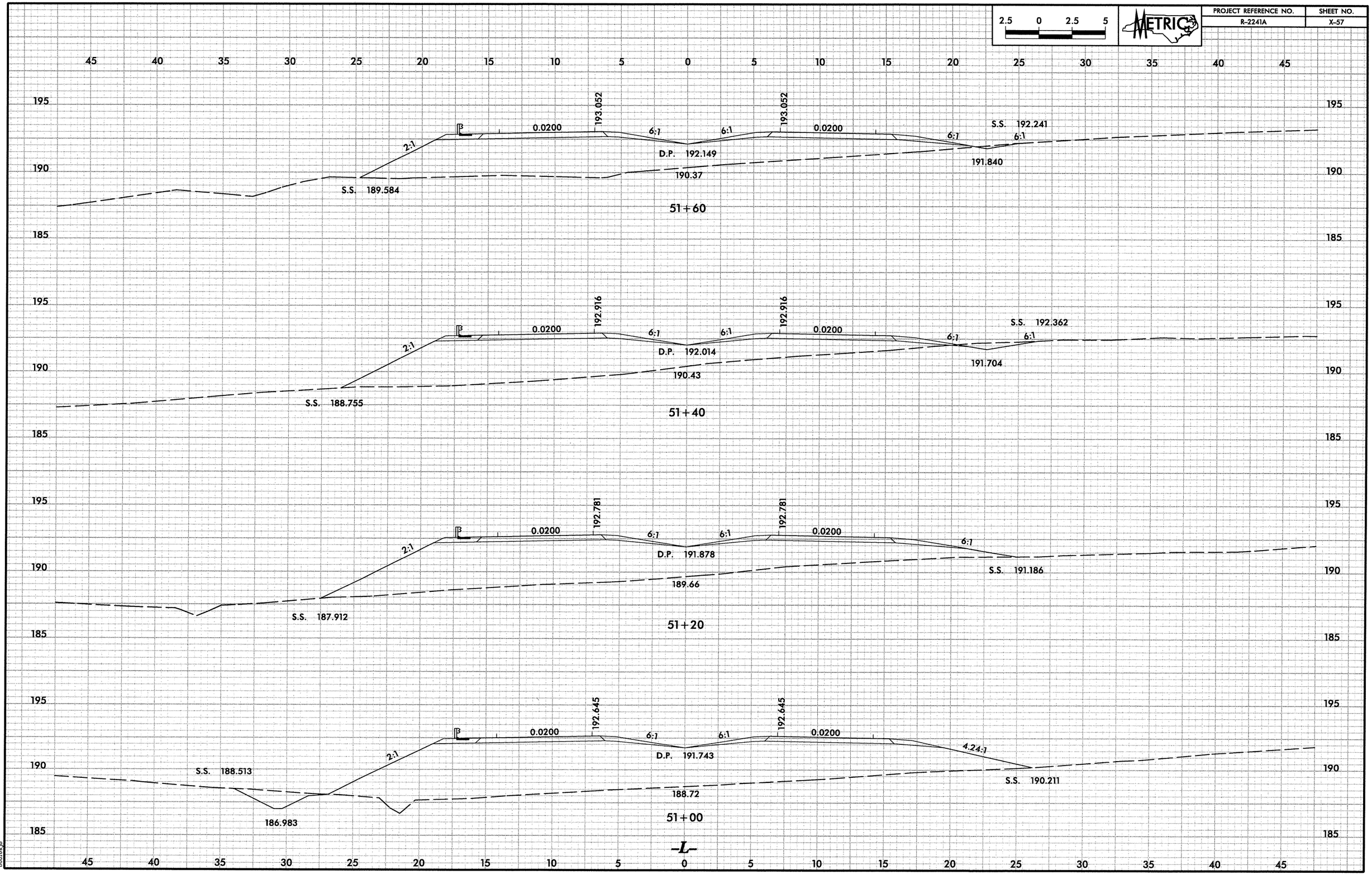
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-54
METRIC
2.5 0 2.5 5
S.S. 197.821
2:1
6:1
0.0200
194.498
195.65
194.498
0.0200
6:1
6:1
6:1
S.S. 193.695
6:1
193.286
D.P. 193.596
193.286
49+20
S.S. 198.713
2:1
6:1
0.0200
195.128
6:1
195.91
6:1
195.128
0.0200
6:1
S.S. 194.078
193.916
D.P. 194.225
193.916
49+00
2:1
6:1
0.0200
195.843
D.P. 194.976
6:1
6:1
195.843
0.0200
6:1
S.S. 194.668
194.631
195.71
194.631
48+80
2:1
6:1
0.0200
196.632
5.862:1
6:1
196.632
0.0200
3:1
195.420
D.P. 195.888
195.92
S.S. 194.928
48+60
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



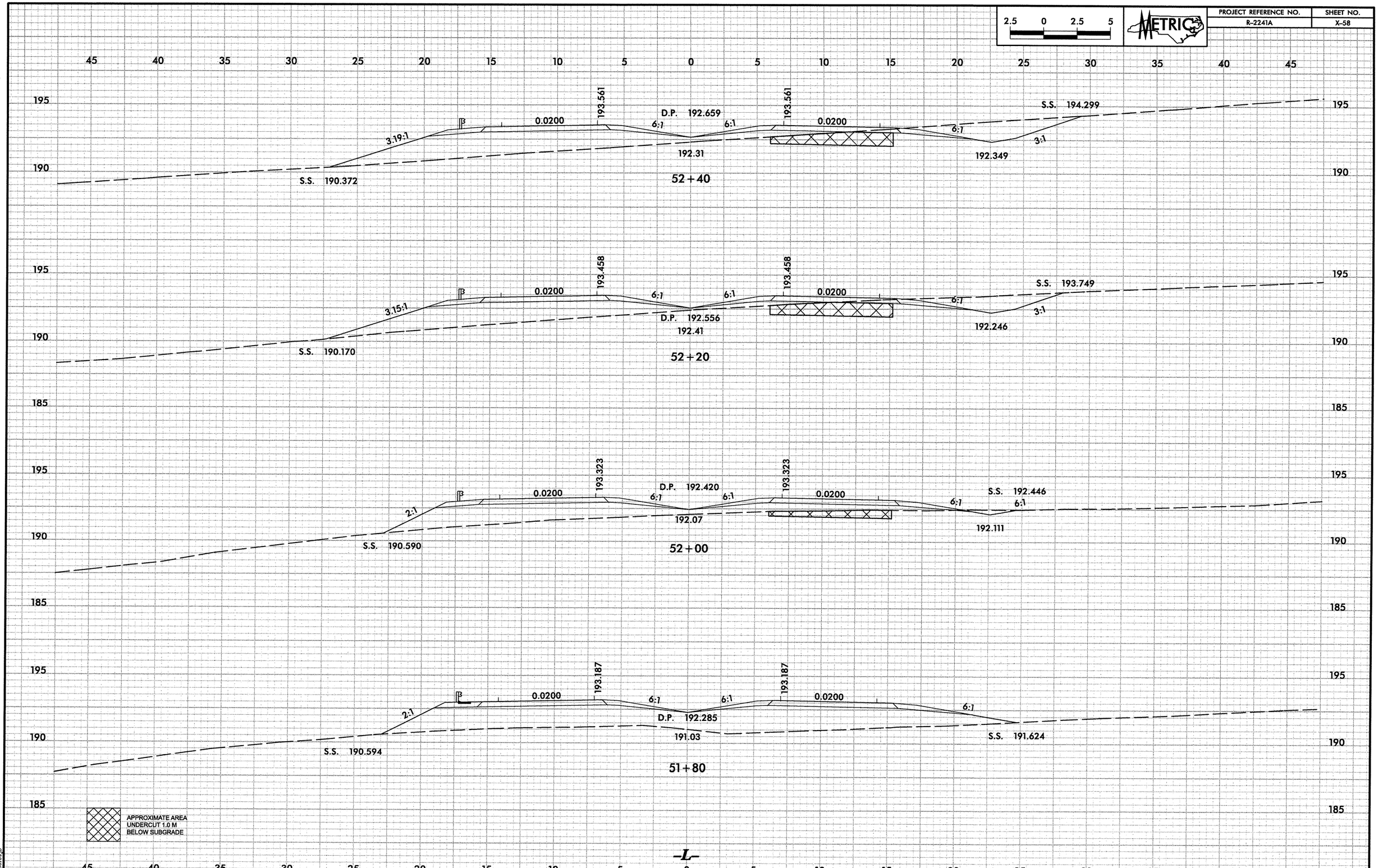
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-55
METRIC
2.5 0 2.5 5
S.S. 195.513
2:1
6:1
0.0200
192.829
194.13
192.829
0.0200
6:1
6:1
6:1
4:1
191.617
D.P. 191.926
50+00
S.S. 196.326
2:1
6:1
0.0200
193.119
194.54
193.119
0.0200
6:1
6:1
6:1
4:1
191.907
D.P. 192.216
191.91
49+80
S.S. 196.787
2:1
6:1
0.0200
193.493
195.11
193.493
0.0200
6:1
6:1
6:1
6:1
S.S. 192.802
192.281
D.P. 192.591
192.282
49+60
S.S. 197.153
2:1
6:1
0.0200
193.953
195.19
193.953
0.0200
6:1
6:1
6:1
6:1
S.S. 193.129
192.741
D.P. 193.051
192.741
49+40
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



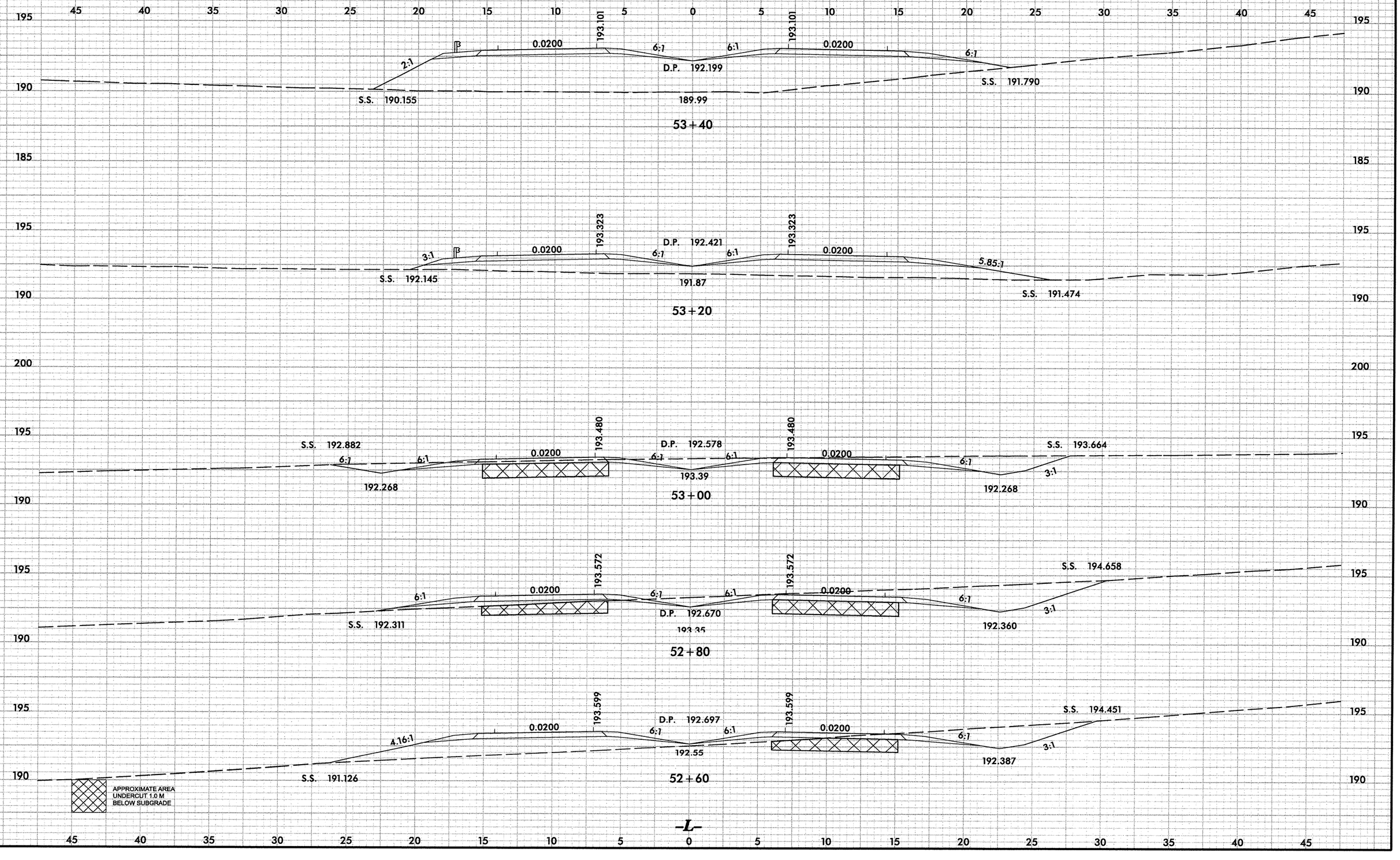
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-56
S.S. 189.954
188.897
2:1
0.0200
192.521
6:1
D.P. 191.618
6:1
192.521
0.0200
2:1
189.727
50+80
S.S. 191.189
6:1
0.0200
192.470
6:1
D.P. 191.568
6:1
192.470
0.0200
2:1
189.50
189.025
50+60
S.S. 193.460
2:1
6:1
0.0200
192.505
D.P. 191.602
6:1
6:1
192.505
0.0200
2:1
191.27
189.409
50+40
S.S. 194.591
2:1
6:1
191.412
0.0200
192.624
6:1
192.76
6:1
192.624
0.0200
3:1
D.P. 191.722
S.S. 190.576
50+20
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



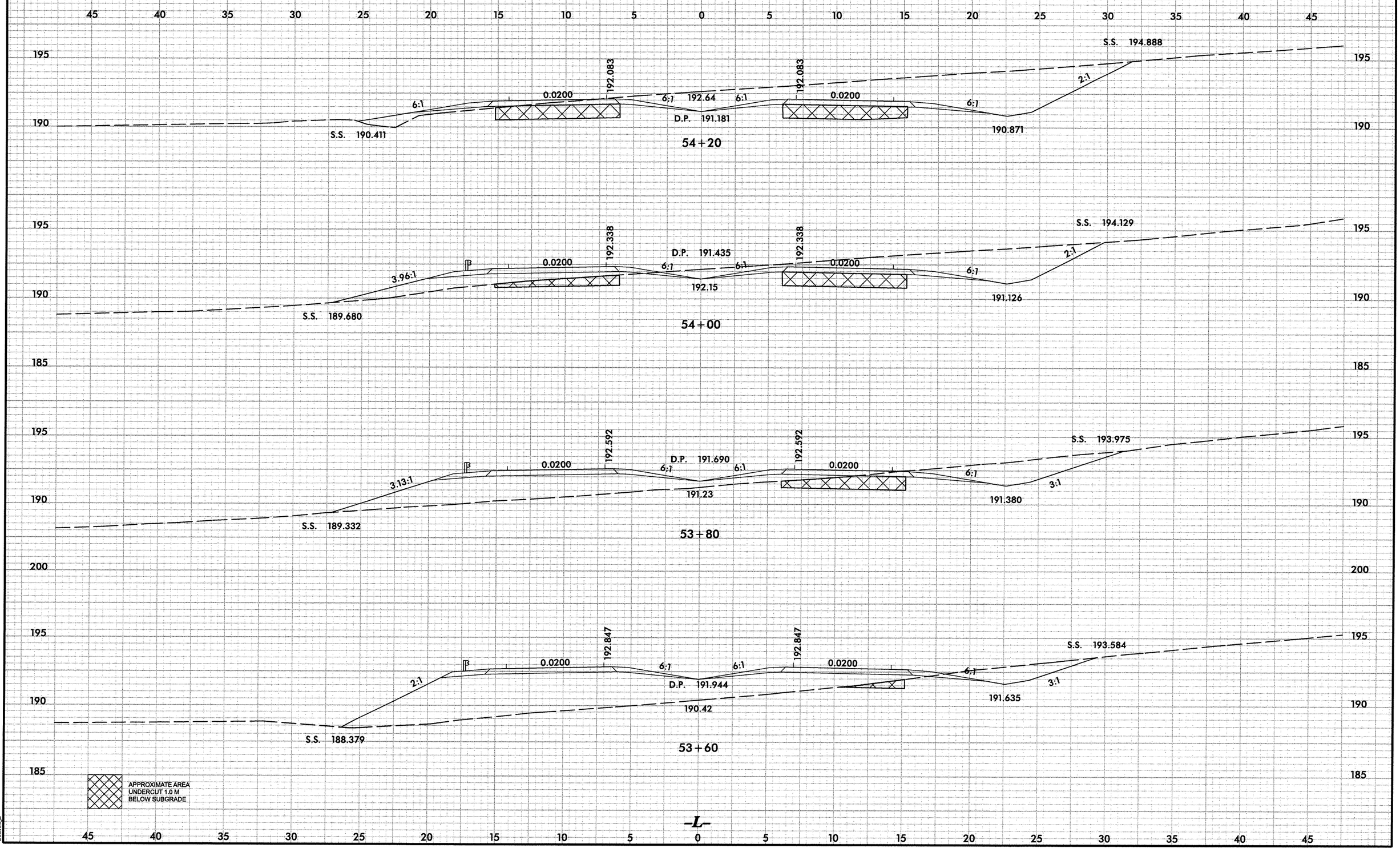
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-57
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
195
190
185
193.052
0.0200
6:1
2:1
D.P. 192.149
190.37
S.S. 189.584
S.S. 192.241
191.840
51+60
192.916
D.P. 192.014
190.43
S.S. 188.755
S.S. 192.362
191.704
51+40
192.781
D.P. 191.878
189.66
S.S. 187.912
S.S. 191.186
51+20
192.645
D.P. 191.743
188.72
S.S. 188.513
186.983
4.24:1
S.S. 190.211
51+00
-L-



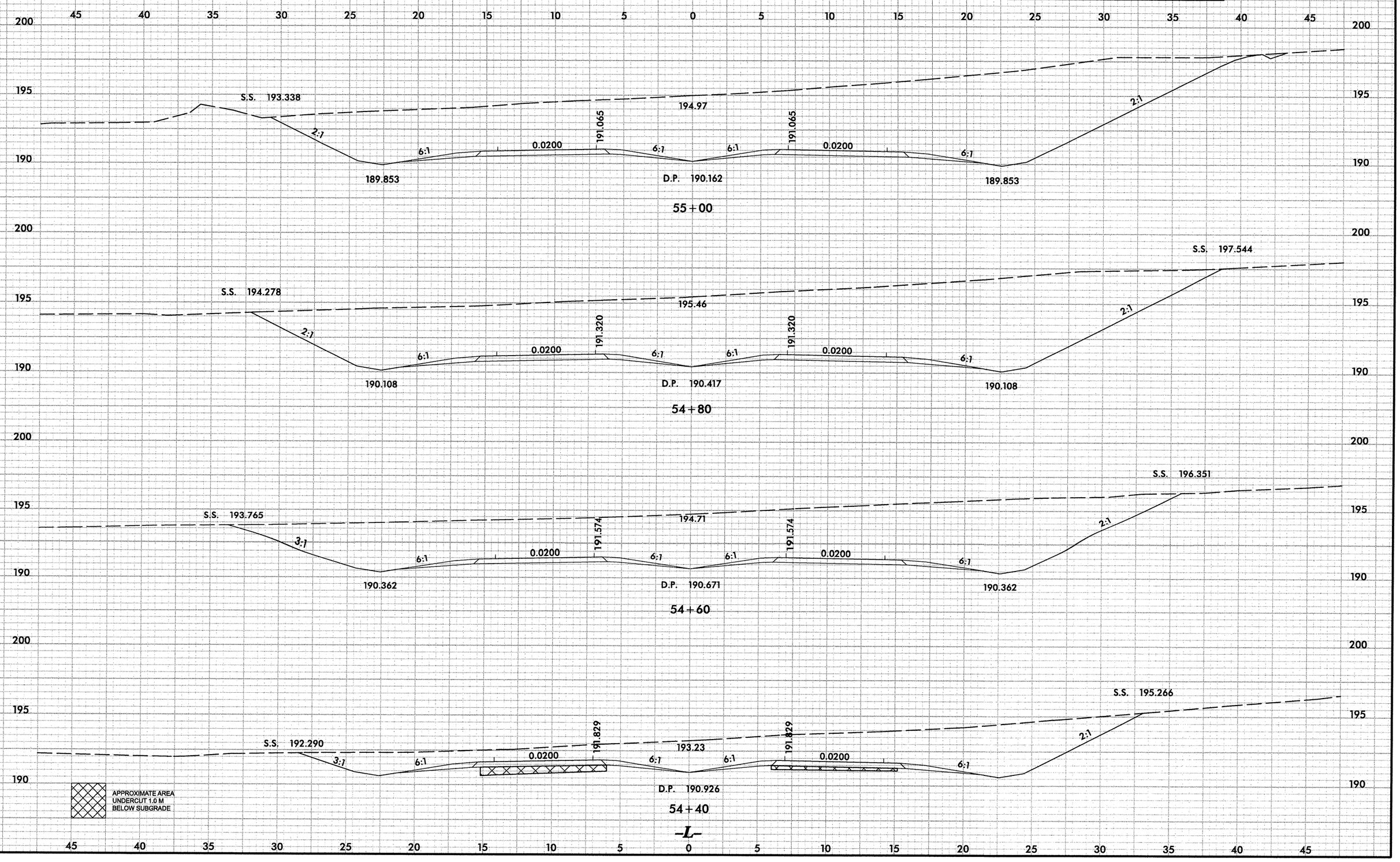
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-58
METRIC
2.5 0 2.5 5
52+40
S.S. 190.372
3.19:1
0.0200
193.561
D.P. 192.659
6:1
192.31
193.561
0.0200
6:1
192.349
3:1
S.S. 194.299
52+20
S.S. 190.170
3.15:1
0.0200
193.458
6:1
D.P. 192.556
192.41
193.458
0.0200
6:1
192.246
3:1
S.S. 193.749
52+00
S.S. 190.590
2:1
0.0200
193.323
D.P. 192.420
6:1
192.07
193.323
0.0200
6:1
192.111
6:1
S.S. 192.446
51+80
S.S. 190.594
2:1
0.0200
193.187
6:1
D.P. 192.285
191.03
193.187
0.0200
6:1
S.S. 191.624
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



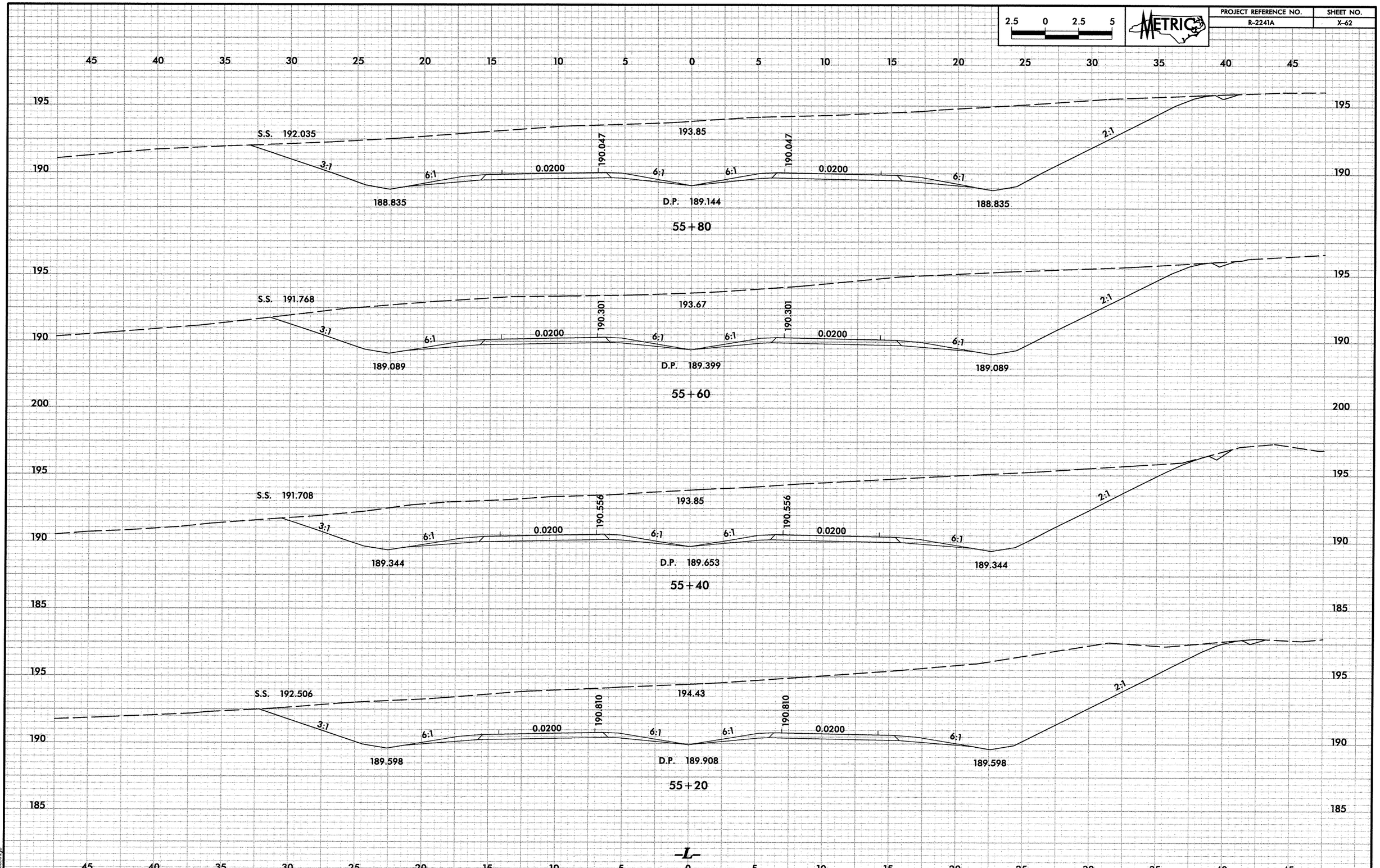
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-59
METRIC
2.5 0 2.5 5
53+40
S.S. 190.155
D.P. 192.199
189.99
S.S. 191.790
0.0200
193.101
2:1
6:1
53+20
S.S. 192.145
D.P. 192.421
191.87
S.S. 191.474
3:1
5.85:1
193.323
53+00
S.S. 192.882
D.P. 192.578
193.39
192.268
S.S. 193.664
193.480
52+80
S.S. 192.311
D.P. 192.670
193.35
192.360
S.S. 194.658
193.572
52+60
S.S. 191.126
D.P. 192.697
192.55
192.387
S.S. 194.451
193.599
4.16:1
APPROXIMATE AREA UNDERCUT 1.0 M BELOW SUBGRADE
-L-



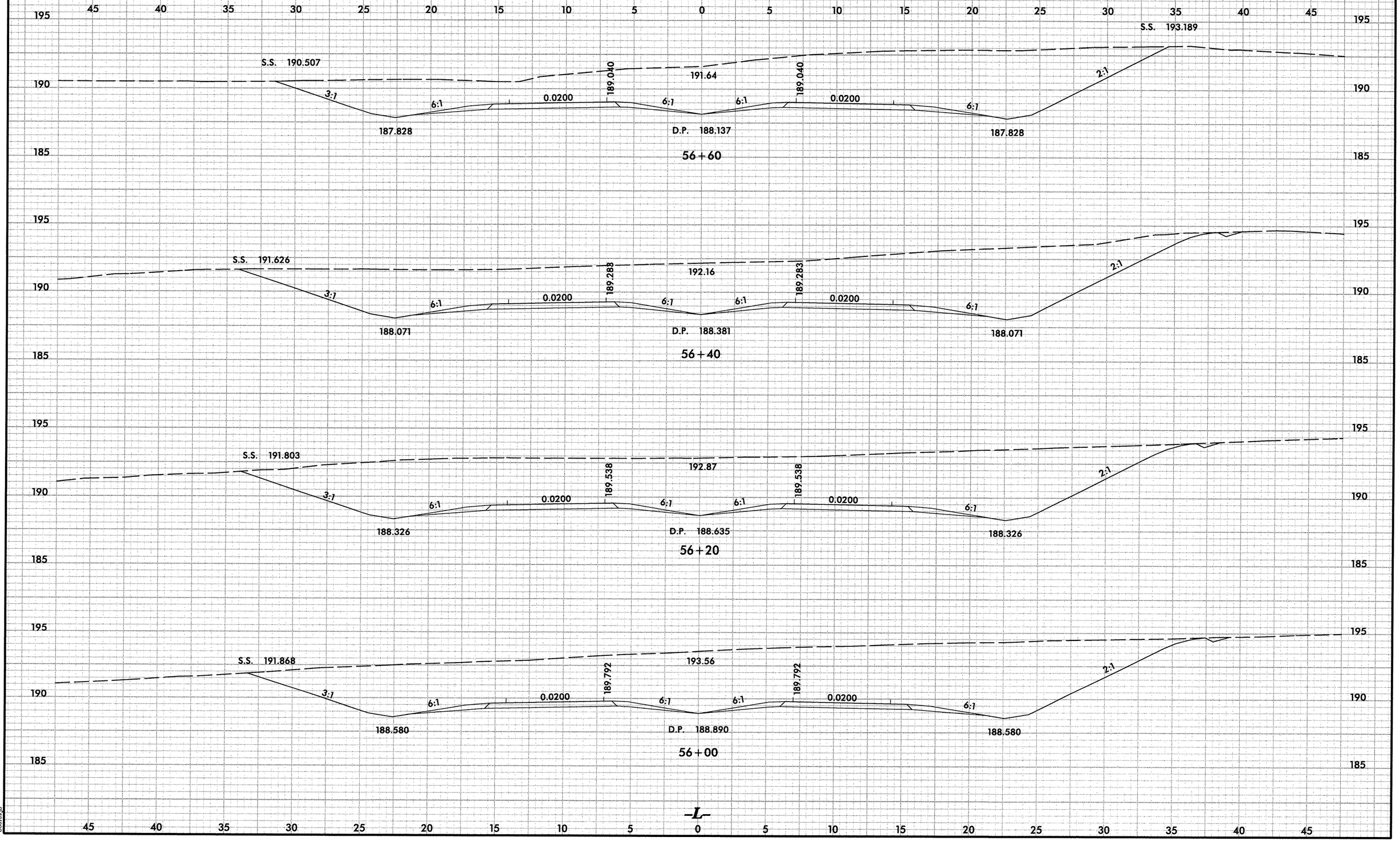
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-60
S.S. 194.888
192.083
192.083
0.0200
0.0200
6:1
6:1
6:1
6:1
2:1
192.64
D.P. 191.181
S.S. 190.411
190.871
54+20
S.S. 194.129
192.338
192.338
D.P. 191.435
0.0200
0.0200
3.96:1
6:1
6:1
6:1
2:1
192.15
191.126
S.S. 189.680
54+00
S.S. 193.975
192.592
192.592
D.P. 191.690
0.0200
0.0200
3.13:1
6:1
6:1
6:1
3:1
191.23
191.380
S.S. 189.332
53+80
S.S. 193.584
192.847
192.847
0.0200
0.0200
2:1
6:1
6:1
6:1
3:1
D.P. 191.944
190.42
191.635
S.S. 188.379
53+60
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



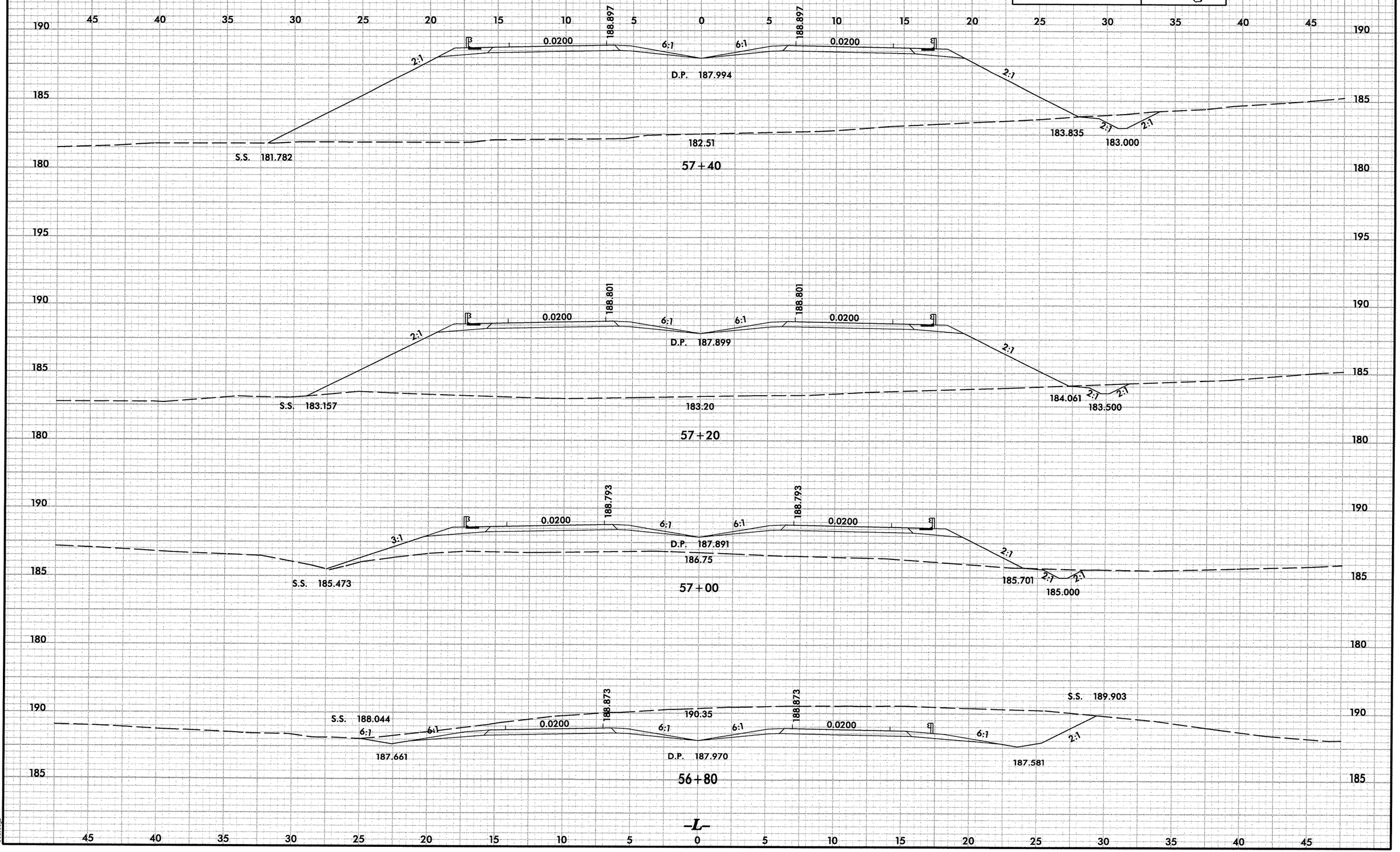
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-61
S.S. 193.338
194.97
191.065
191.065
2:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.853
D.P. 190.162
189.853
55+00
S.S. 194.278
195.46
S.S. 197.544
191.320
191.320
2:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
190.108
D.P. 190.417
190.108
54+80
S.S. 193.765
194.71
S.S. 196.351
191.574
191.574
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
190.362
D.P. 190.671
190.362
54+60
S.S. 192.290
193.23
S.S. 195.266
191.829
191.829
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
D.P. 190.926
54+40
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



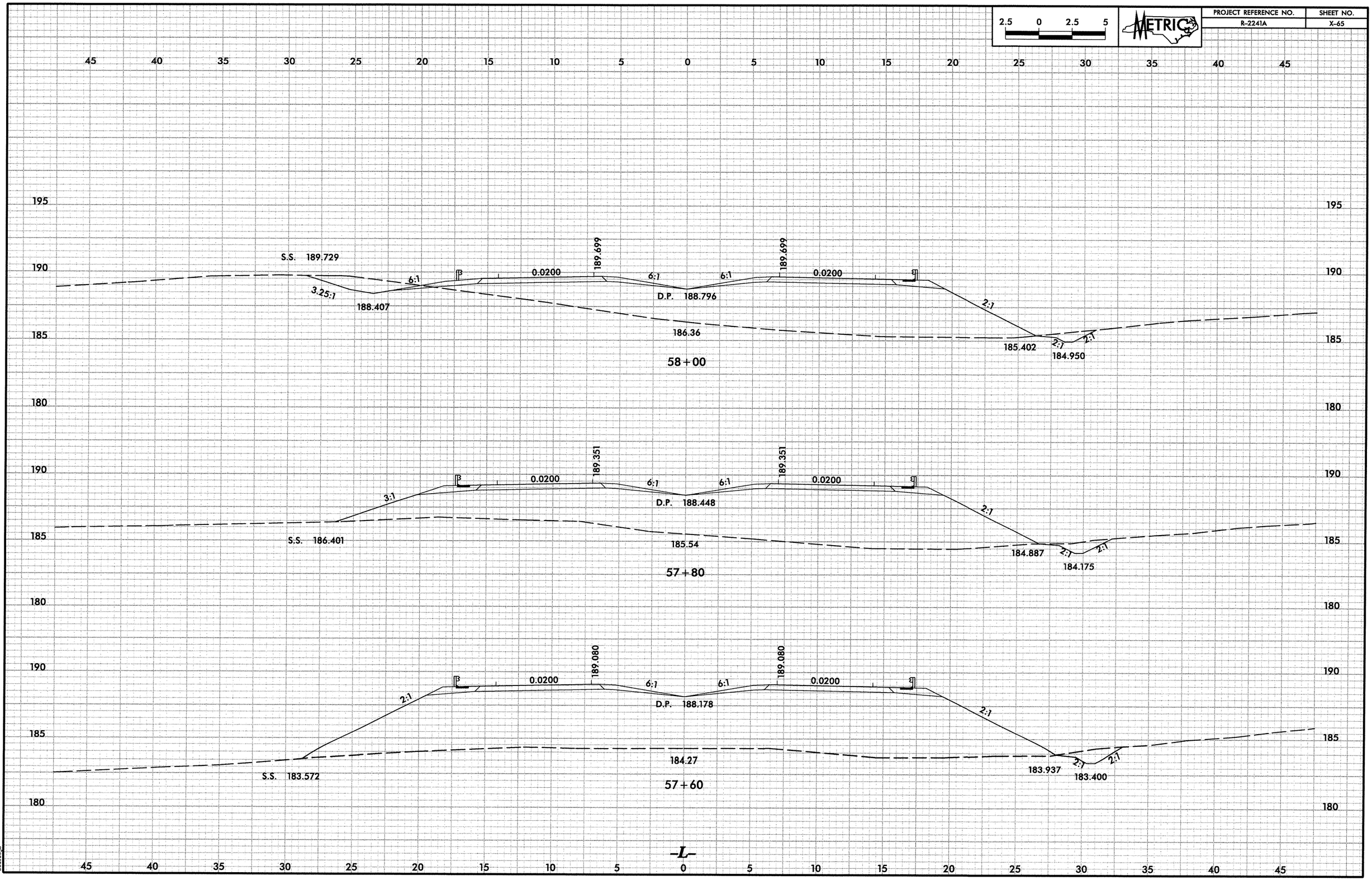
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-62
S.S. 192.035
193.85
190.047
190.047
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
188.835
D.P. 189.144
188.835
55+80
S.S. 191.768
193.67
190.301
190.301
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.089
D.P. 189.399
189.089
55+60
S.S. 191.708
193.85
190.556
190.556
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.344
D.P. 189.653
189.344
55+40
S.S. 192.506
194.43
190.810
190.810
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.598
D.P. 189.908
189.598
55+20
-L-



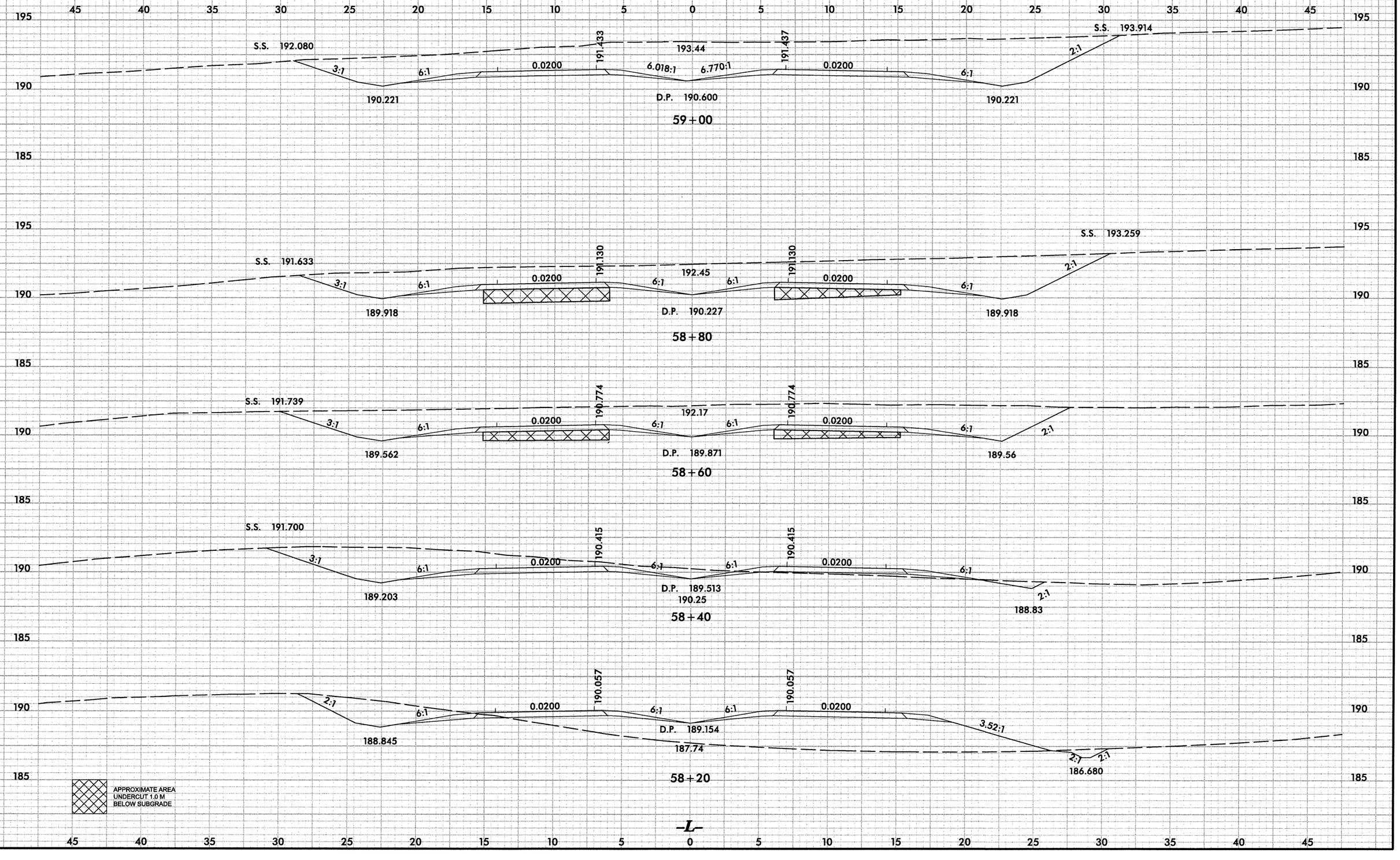
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-63
S.S. 190.507
191.64
189.040
189.040
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
S.S. 193.189
187.828
D.P. 188.137
187.828
56+60
S.S. 191.626
192.16
189.283
189.283
188.071
D.P. 188.381
188.071
56+40
S.S. 191.803
192.87
189.538
189.538
188.326
D.P. 188.635
188.326
56+20
S.S. 191.868
193.56
189.792
189.792
188.580
D.P. 188.890
188.580
56+00
-L-



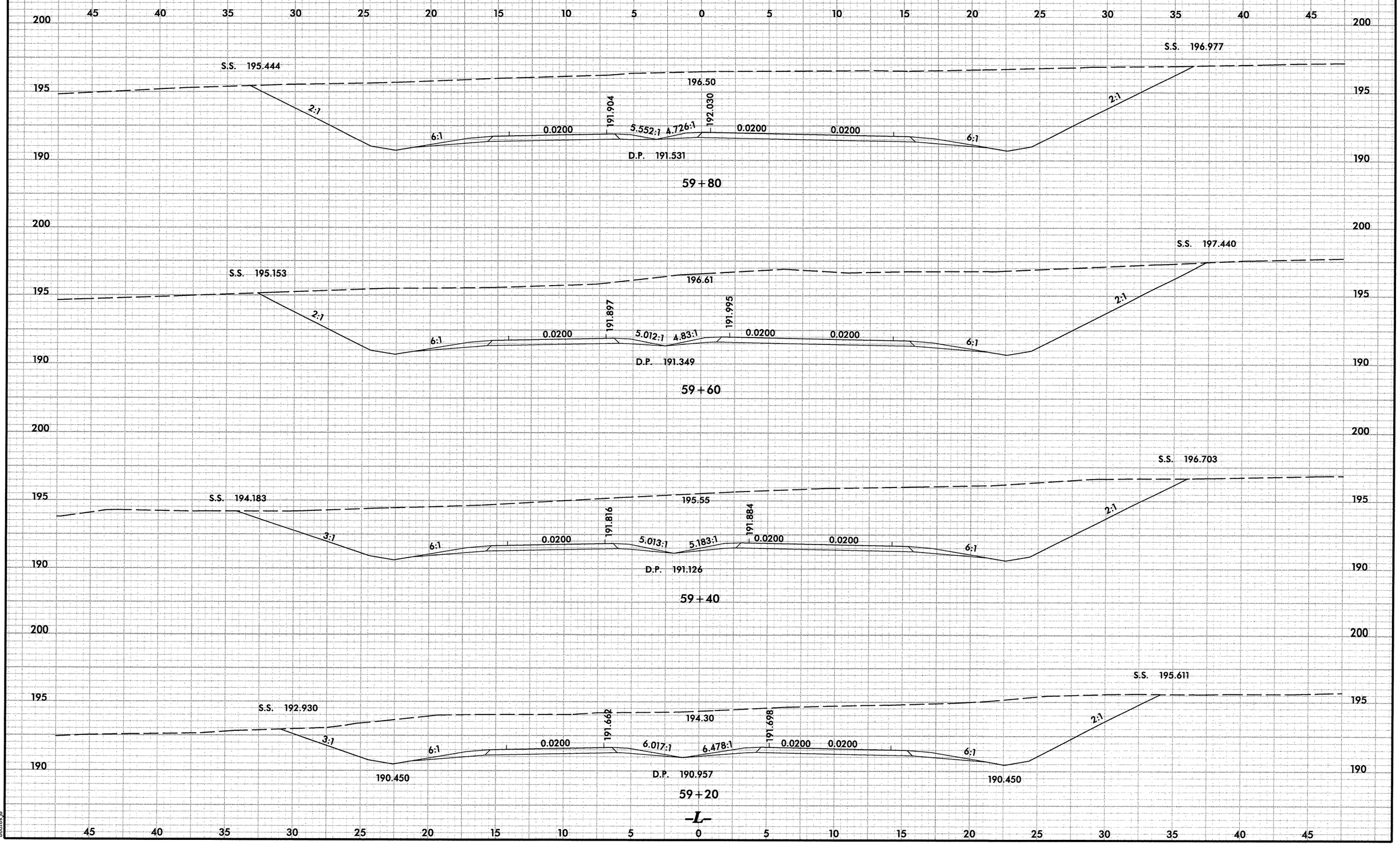
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-64
57+40
D.P. 187.994
S.S. 181.782
182.51
183.835
183.000
0.0200
188.897
6:1
2:1
57+20
D.P. 187.899
S.S. 183.157
183.20
184.061
183.500
188.801
57+00
D.P. 187.891
S.S. 185.473
186.75
185.701
185.000
188.793
3:1
56+80
D.P. 187.970
S.S. 188.044
187.661
190.35
188.873
187.581
S.S. 189.903
-L-



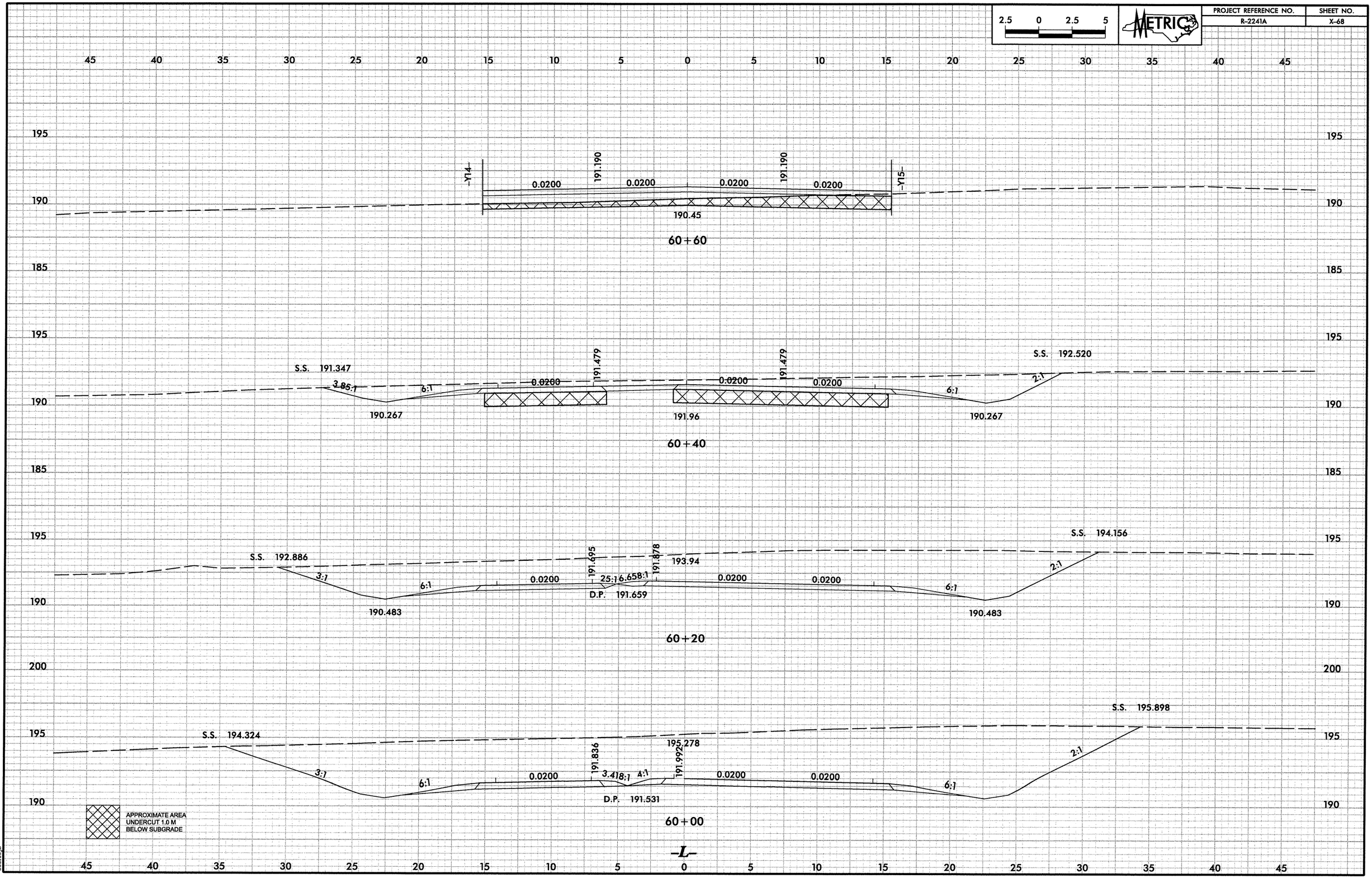
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-65
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
195
190
185
180
S.S. 189.729
3.25:1
188.407
6:1
0.0200
189.699
6:1
D.P. 188.796
6:1
189.699
0.0200
2:1
186.36
185.402
2:1
2:1
184.950
58+00
189.351
0.0200
6:1
6:1
189.351
0.0200
3:1
D.P. 188.448
2:1
S.S. 186.401
185.54
184.887
2:1
2:1
184.175
57+80
189.080
0.0200
6:1
6:1
189.080
0.0200
2:1
D.P. 188.178
2:1
184.27
S.S. 183.572
183.937
2:1
2:1
183.400
57+60
-L-



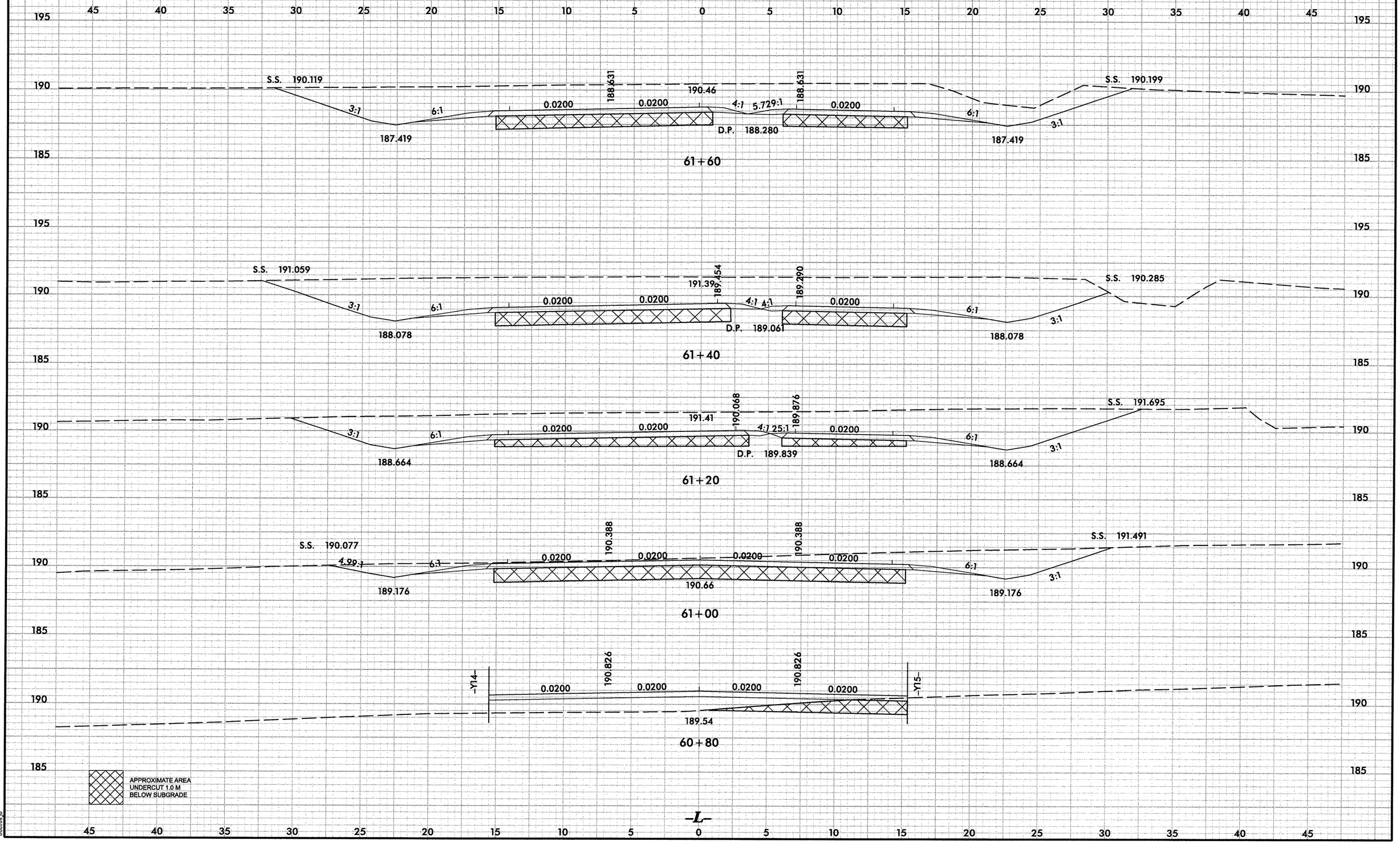
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-66
S.S. 192.080
191.433
193.44
191.437
S.S. 193.914
3:1
6:1
0.0200
6.018:1
6.770:1
0.0200
6:1
2:1
190.221
D.P. 190.600
190.221
59+00
S.S. 191.633
191.130
192.45
191.130
S.S. 193.259
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.918
D.P. 190.227
189.918
58+80
S.S. 191.739
190.774
192.17
190.774
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.562
D.P. 189.871
189.56
58+60
S.S. 191.700
190.415
190.415
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
2:1
189.203
D.P. 189.513
190.25
188.83
58+40
190.057
190.057
2:1
6:1
0.0200
6:1
6:1
0.0200
3.52:1
D.P. 189.154
188.845
187.74
2:1
2:1
186.680
58+20
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



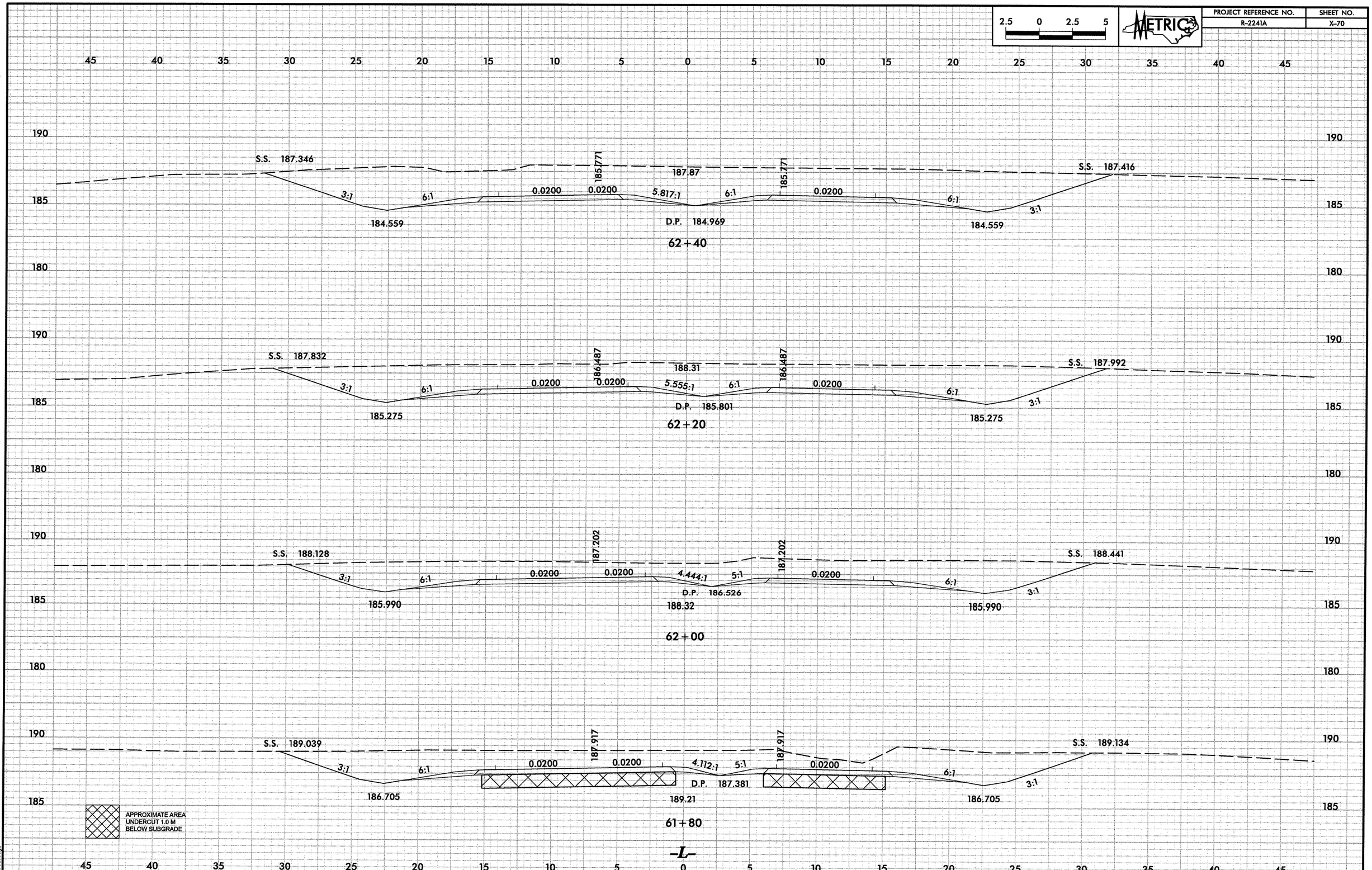
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-67
S.S. 195.444
196.50
S.S. 196.977
2:1
6:1
0.0200
191.904
5.552:1
4.726:1
192.030
0.0200
0.0200
6:1
2:1
D.P. 191.531
59+80
S.S. 195.153
196.61
S.S. 197.440
2:1
6:1
0.0200
191.897
5.012:1
4.83:1
191.995
0.0200
0.0200
6:1
2:1
D.P. 191.349
59+60
S.S. 194.183
195.55
S.S. 196.703
3:1
6:1
0.0200
191.816
5.013:1
5.183:1
191.884
0.0200
0.0200
6:1
2:1
D.P. 191.126
59+40
S.S. 192.930
194.30
S.S. 195.611
3:1
6:1
0.0200
191.662
6.017:1
6.478:1
191.698
0.0200
0.0200
6:1
2:1
190.450
D.P. 190.957
190.450
59+20
-L-



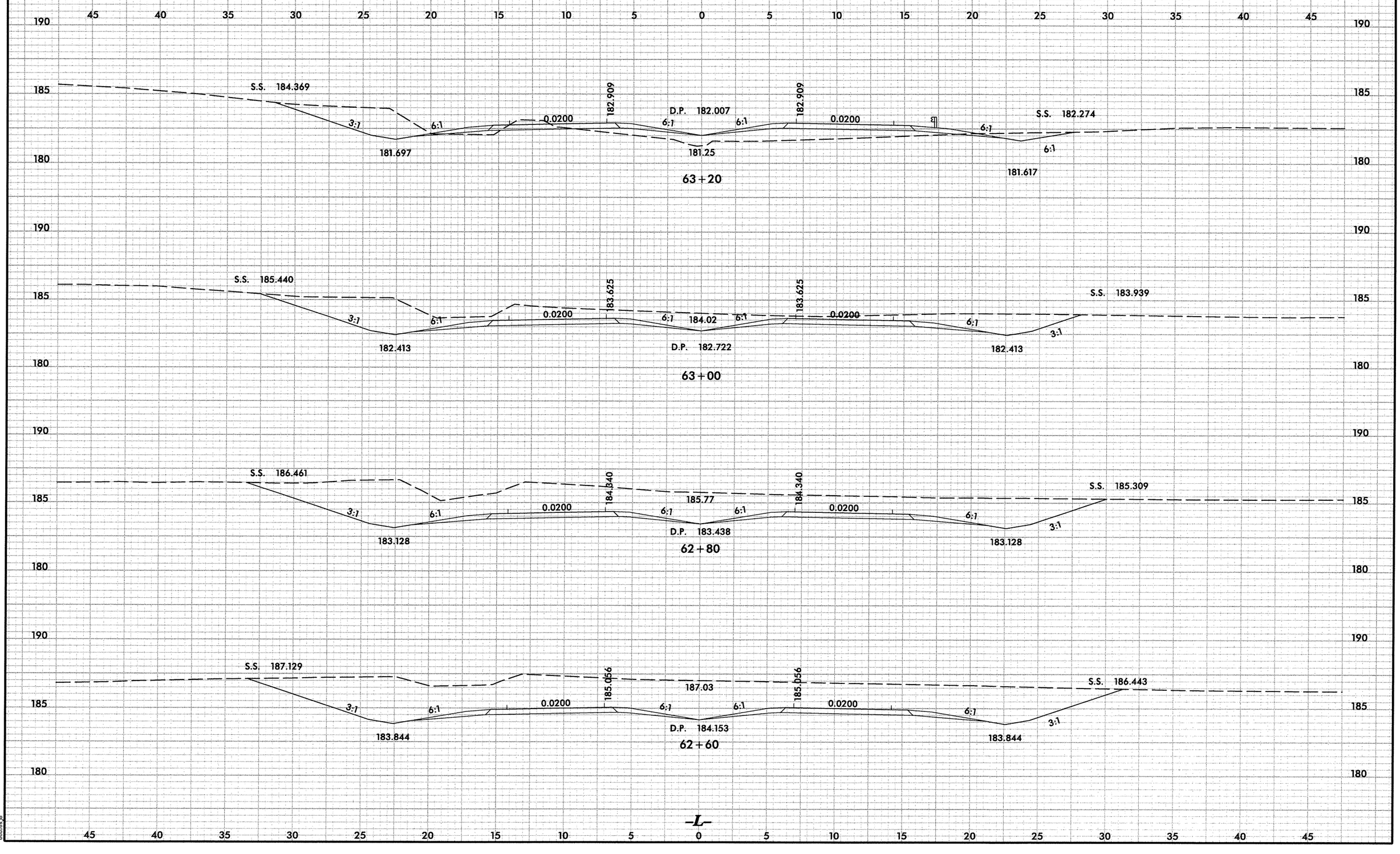
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-68
-Y14-
-Y15-
191.190
0.0200
190.45
60+60
S.S. 191.347
3.85:1
6:1
190.267
191.479
191.96
S.S. 192.520
2:1
60+40
S.S. 192.886
3:1
190.483
191.695
25:1
6.658:1
191.878
193.94
D.P. 191.659
S.S. 194.156
60+20
S.S. 194.324
191.836
3.418:1
4:1
191.992
195.278
D.P. 191.531
S.S. 195.898
60+00
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-69
METRIC
2.5 0 2.5 5
S.S. 190.119
188.631
190.46
188.631
S.S. 190.199
3:1
6:1
0.0200
0.0200
4:1
5.729:1
0.0200
6:1
3:1
187.419
D.P. 188.280
187.419
61+60
S.S. 191.059
189.454
191.39
189.290
S.S. 190.285
3:1
6:1
0.0200
0.0200
4:1
4:1
0.0200
6:1
3:1
188.078
D.P. 189.061
188.078
61+40
190.068
189.876
S.S. 191.695
191.41
3:1
6:1
0.0200
0.0200
4:1
25:1
0.0200
6:1
3:1
188.664
D.P. 189.839
188.664
61+20
190.388
190.388
S.S. 190.077
S.S. 191.491
4.99:1
6:1
0.0200
0.0200
0.0200
0.0200
6:1
3:1
189.176
190.66
189.176
61+00
190.826
190.826
-Y14-
-Y15-
0.0200
0.0200
0.0200
0.0200
189.54
60+80
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

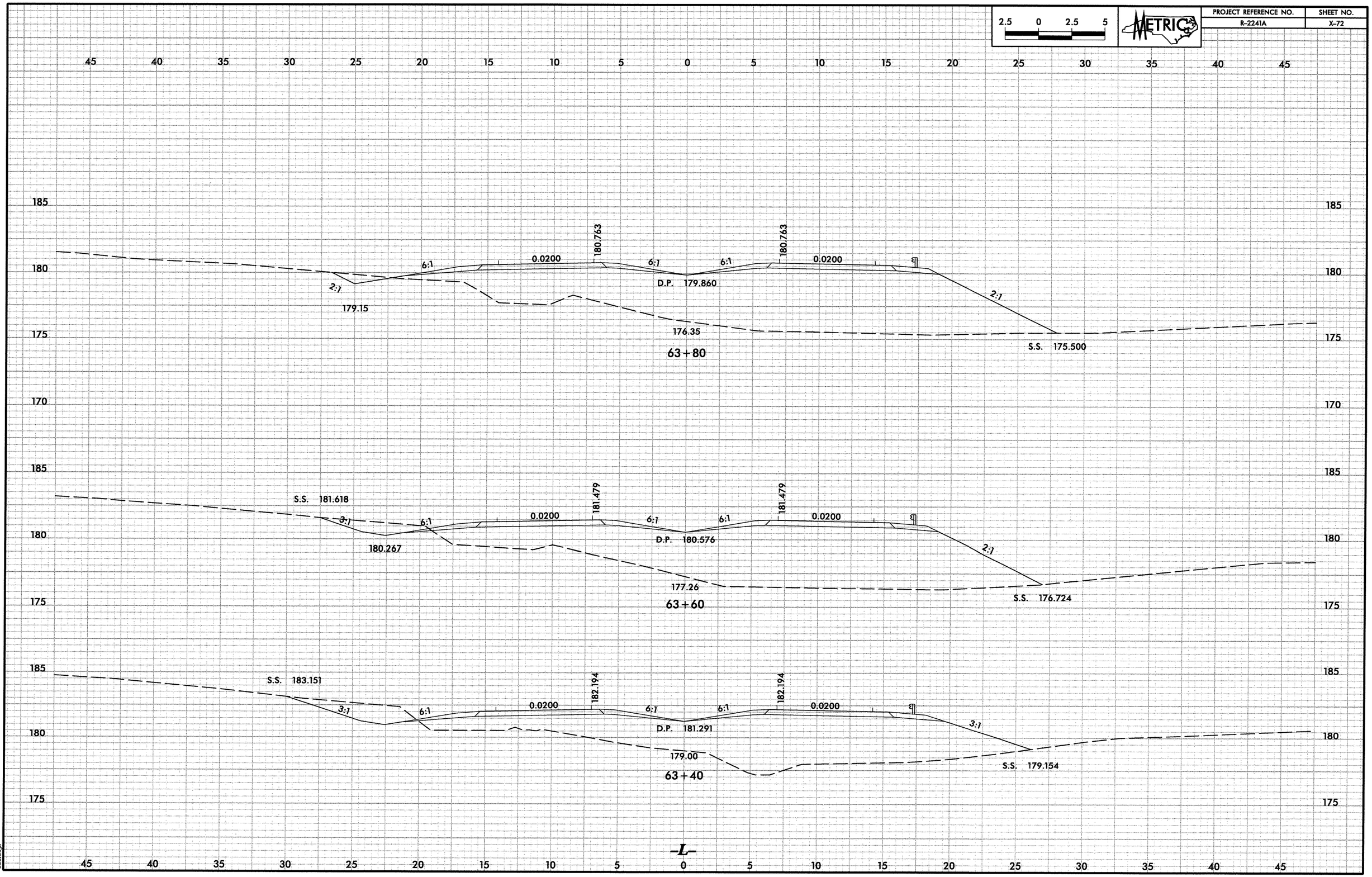


PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-70
METRIC
2.5 0 2.5 5
S.S. 187.346
185.771
187.87
185.771
S.S. 187.416
3:1
6:1
0.0200
0.0200
5.817:1
6:1
0.0200
6:1
3:1
184.559
D.P. 184.969
184.559
62+40
S.S. 187.832
186.487
188.31
186.487
S.S. 187.992
3:1
6:1
0.0200
0.0200
5.555:1
6:1
0.0200
6:1
3:1
185.275
D.P. 185.801
185.275
62+20
S.S. 188.128
187.202
187.202
S.S. 188.441
3:1
6:1
0.0200
0.0200
4.444:1
5:1
0.0200
6:1
3:1
185.990
D.P. 186.526
188.32
185.990
62+00
S.S. 189.039
187.917
187.917
S.S. 189.134
3:1
6:1
0.0200
0.0200
4.112:1
5:1
0.0200
6:1
3:1
186.705
D.P. 187.381
189.21
186.705
61+80
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



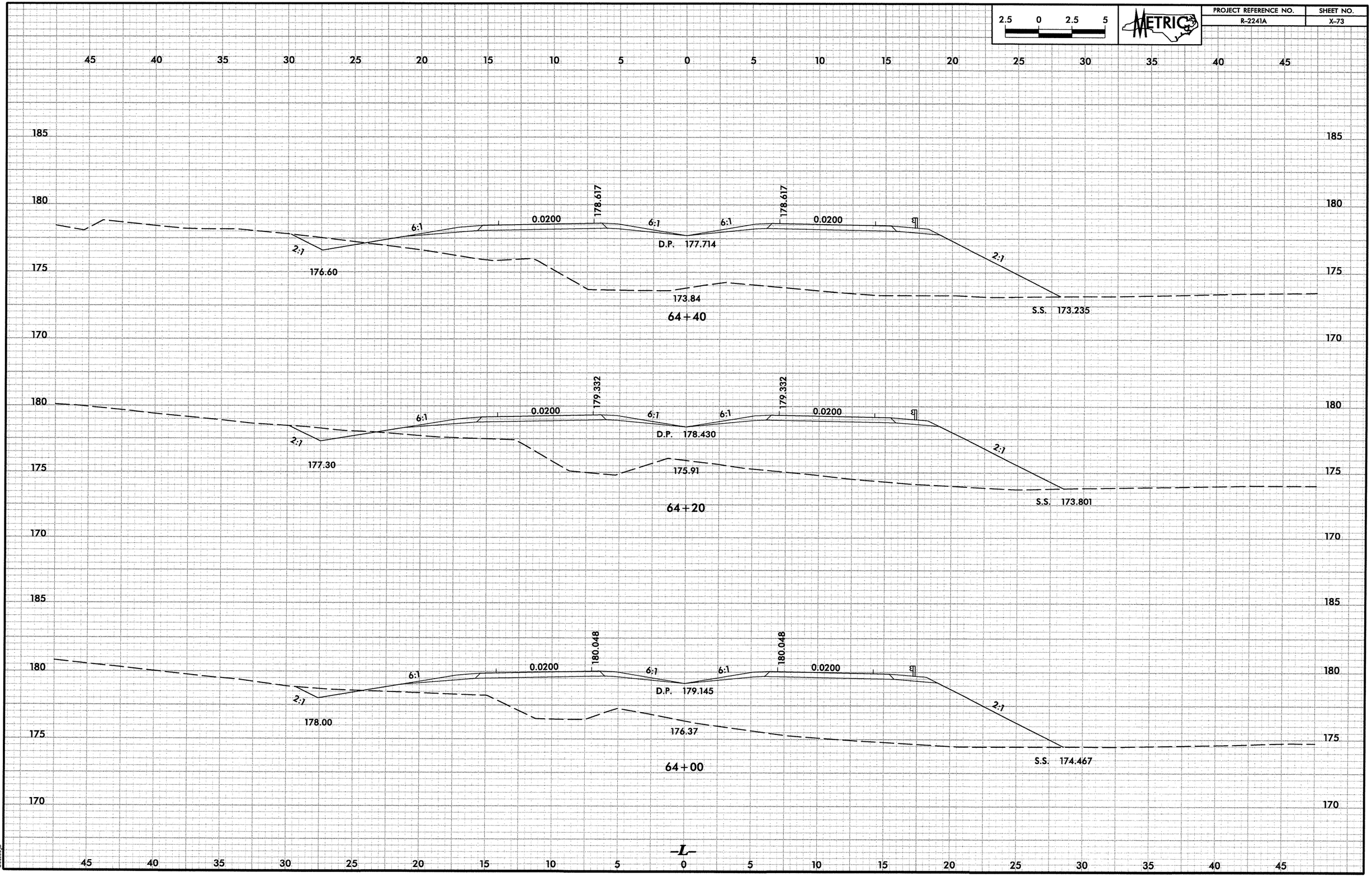
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-71
METRIC
2.5 0 2.5 5
S.S. 184.369
182.909
D.P. 182.007
182.909
S.S. 182.274
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
6:1
181.697
181.25
181.617
63+20
S.S. 185.440
183.625
183.625
S.S. 183.939
3:1
6:1
0.0200
6:1
184.02
6:1
0.0200
6:1
3:1
182.413
D.P. 182.722
182.413
63+00
S.S. 186.461
184.340
184.340
S.S. 185.309
185.77
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
3:1
183.128
D.P. 183.438
183.128
62+80
S.S. 187.129
185.056
185.056
S.S. 186.443
187.03
3:1
6:1
0.0200
6:1
6:1
0.0200
6:1
3:1
183.844
D.P. 184.153
183.844
62+60
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-72

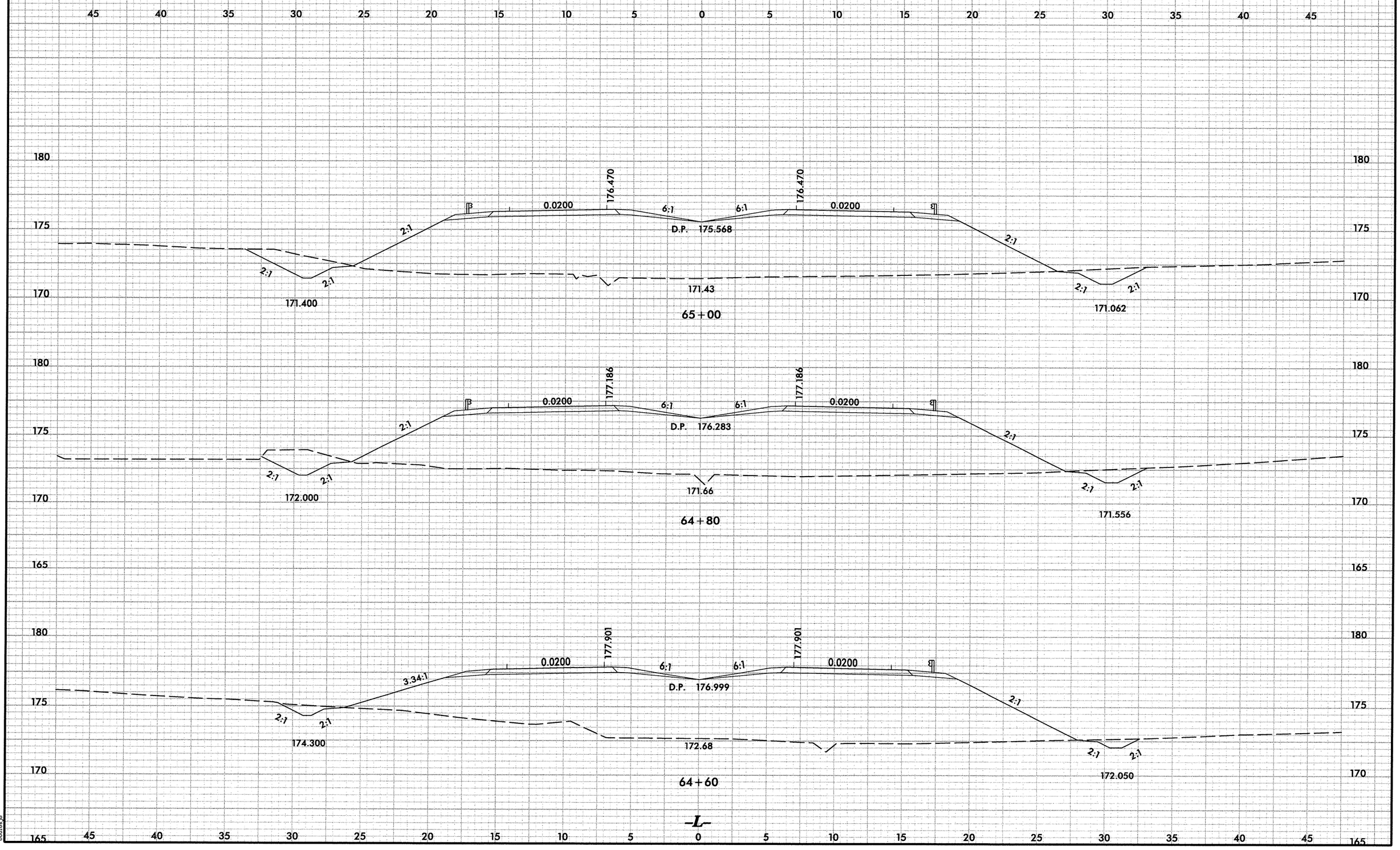


12/11/2012
r:\roadway\xsc\R22 ...Y_XPL_L.dgn
boulos.jb

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-73

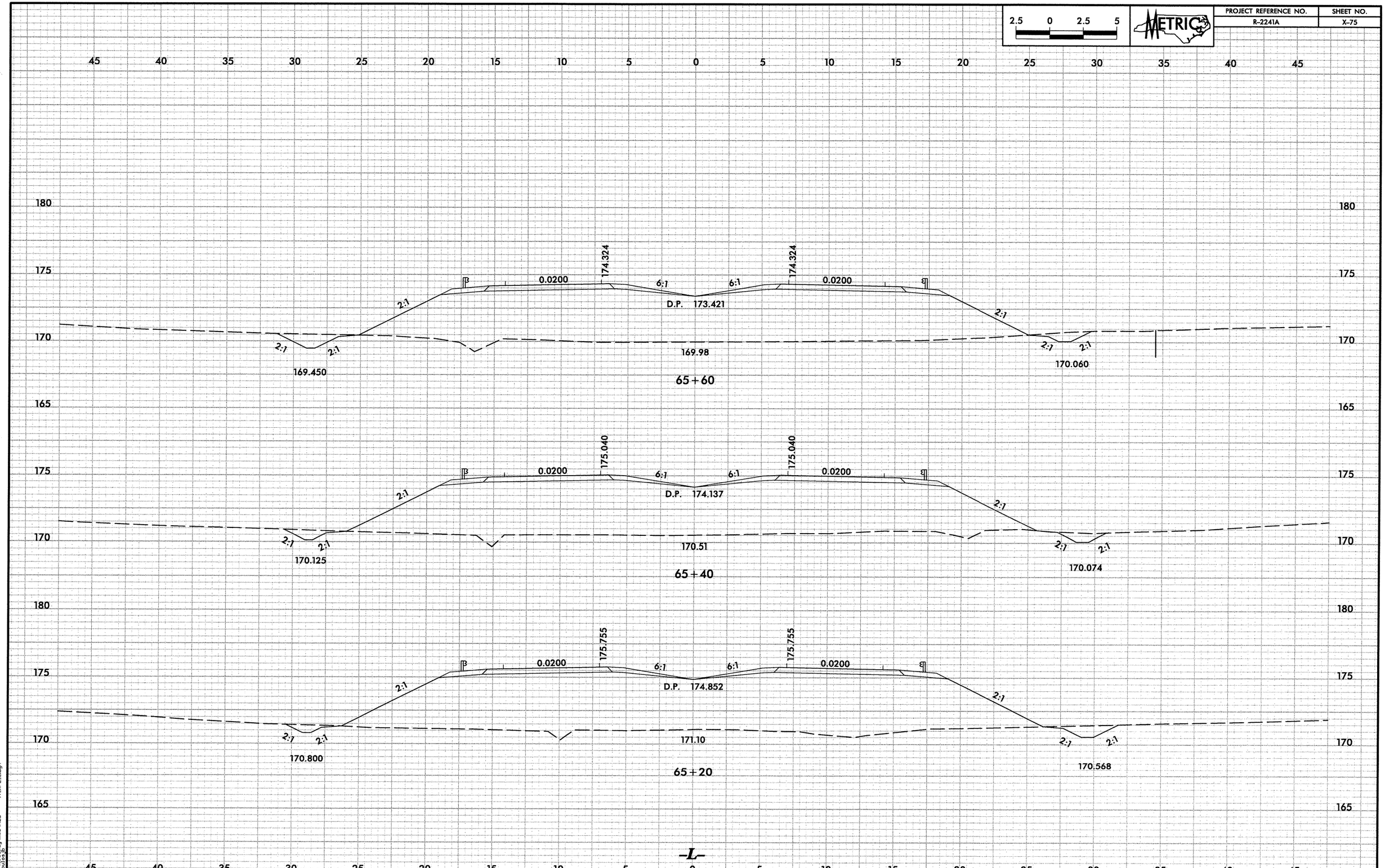


12/11/2012
r:\roadway\xsc\R2...\Y_XPL_L.dgn
boulos.jb



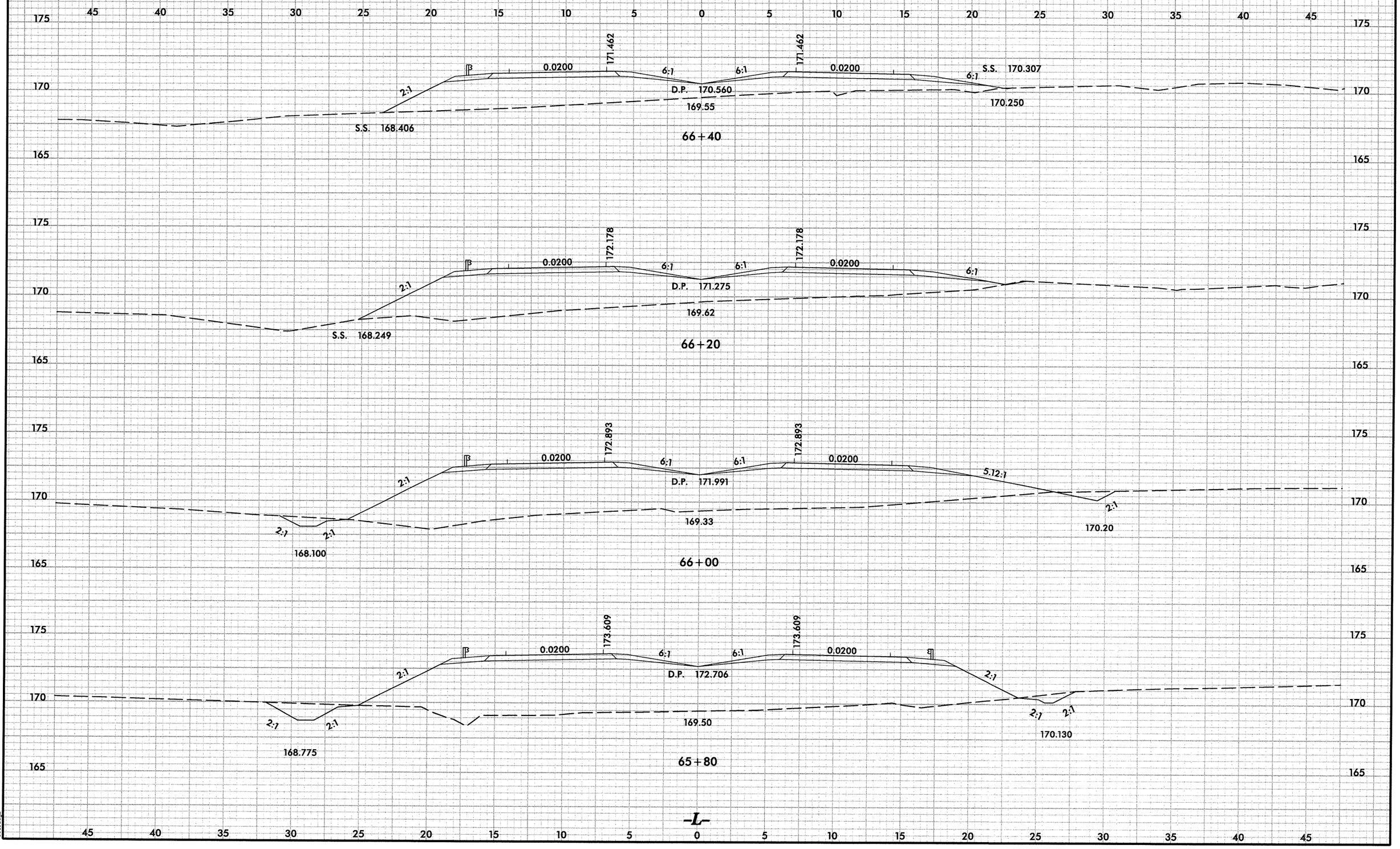
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-74
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
180
175
170
165
176.470
0.0200
6:1
D.P. 175.568
2:1
171.400
171.43
171.062
65+00
177.186
D.P. 176.283
172.000
171.66
171.556
64+80
177.901
3.34:1
D.P. 176.999
174.300
172.68
172.050
64+60
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-75

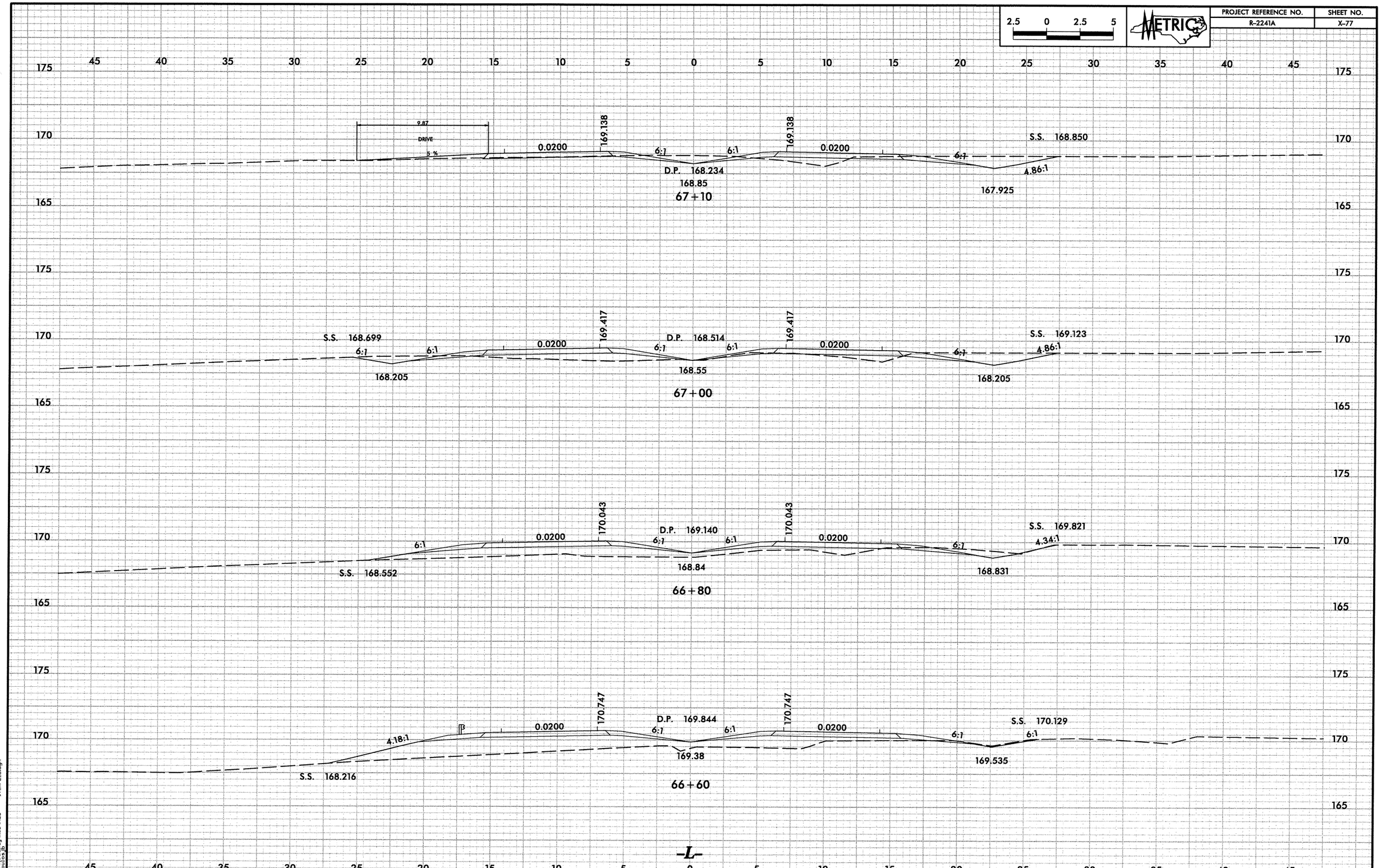


12/11/2012
r:\roadway\xsc\R2c_XPL_L.dgn
boulos.jb

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-76

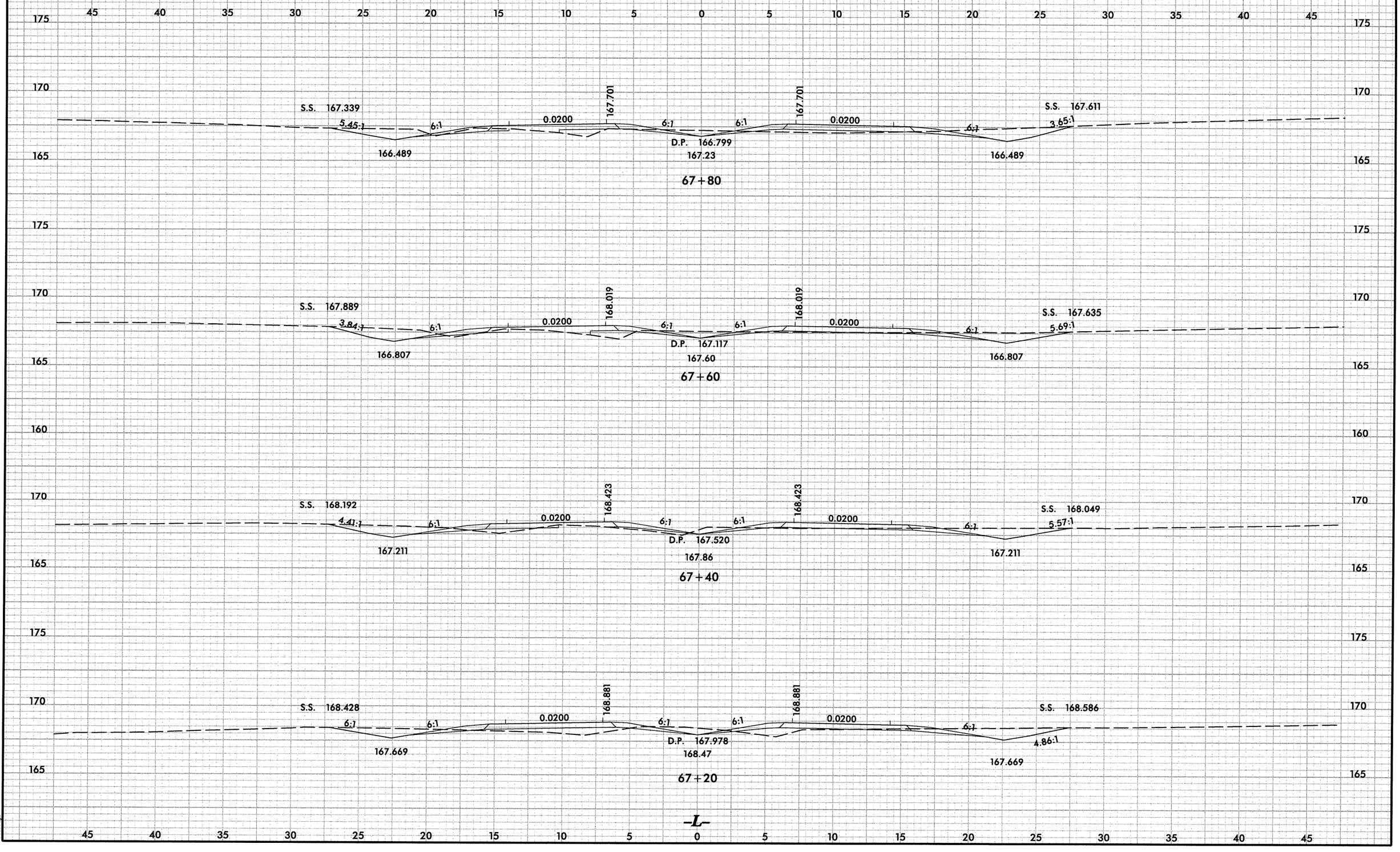


PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-77

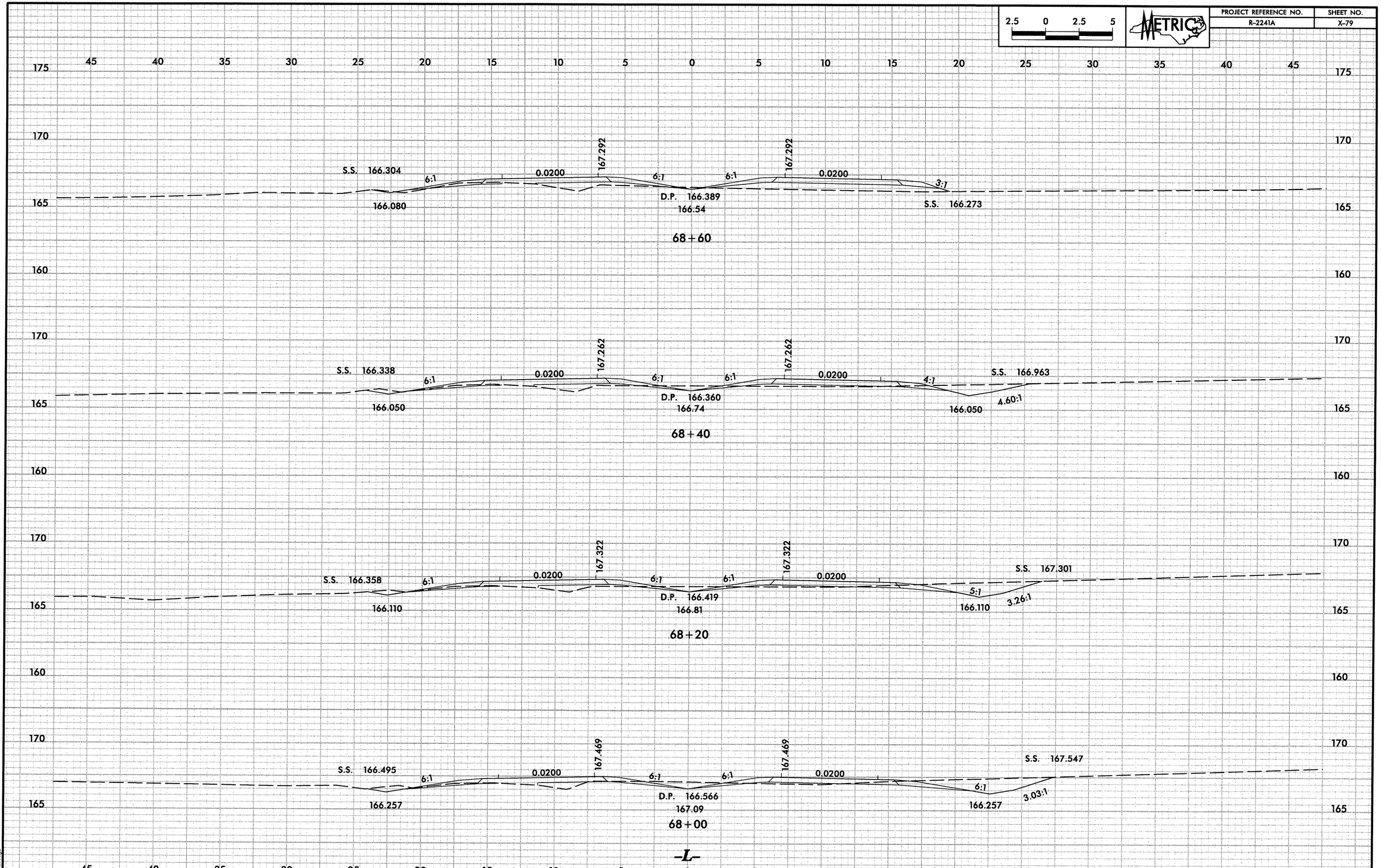


12/11/2012
r:\roadway\xsc\R22 ...Y_XPL_L.dgn
boulos.jb

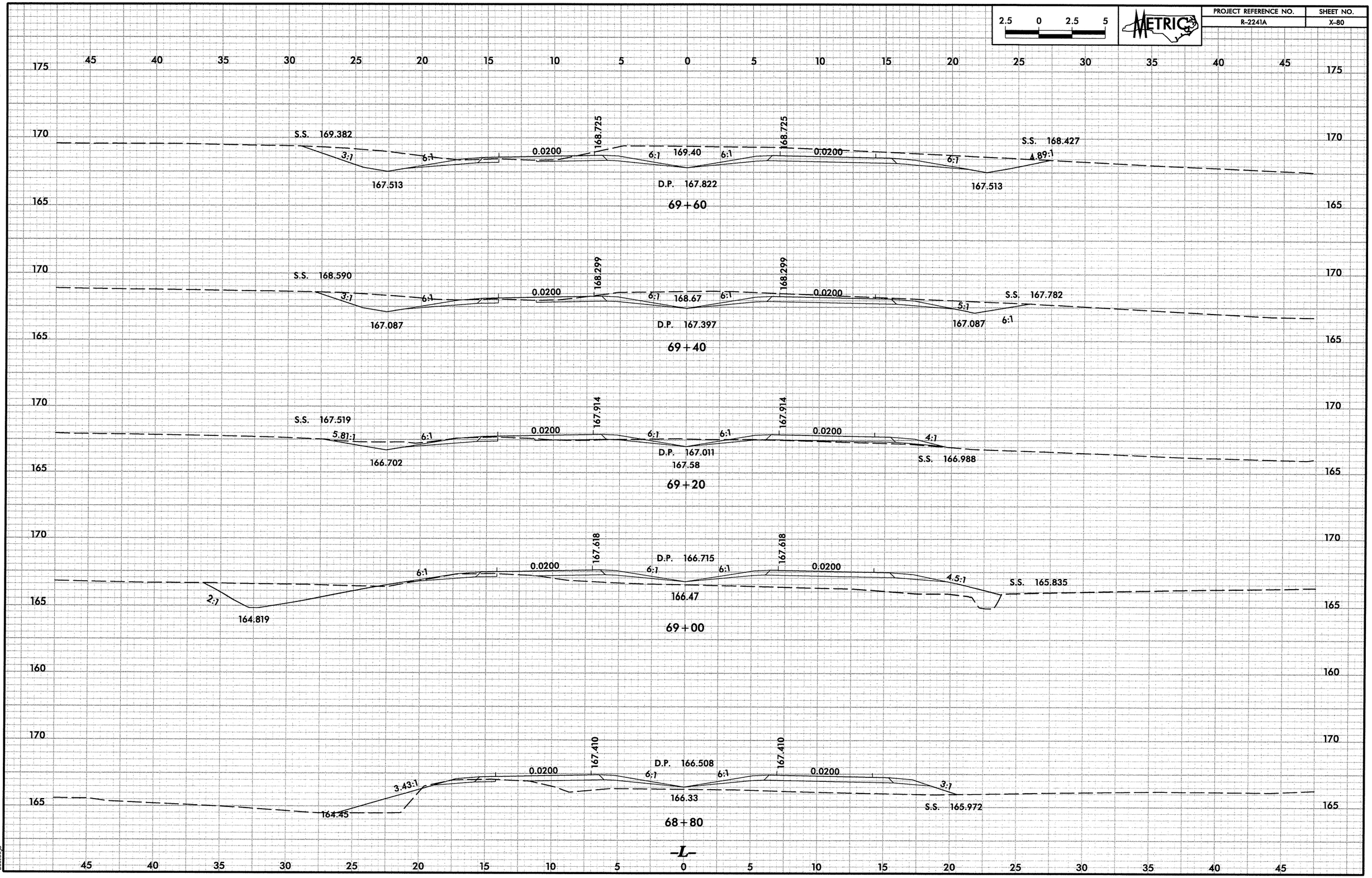
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-78



12/11/2012
r:\roadway\xsc\R2_ _XPL_L.dgn
boulos.jb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-79
S.S. 166.304
6:1
0.0200
167.292
6:1
6:1
167.292
0.0200
3:1
166.080
D.P. 166.389
166.54
S.S. 166.273
68+60
S.S. 166.338
6:1
0.0200
167.262
6:1
6:1
167.262
0.0200
4:1
S.S. 166.963
166.050
D.P. 166.360
166.74
166.050
4.60:1
68+40
S.S. 166.358
6:1
0.0200
167.322
6:1
6:1
167.322
0.0200
5:1
S.S. 167.301
166.110
D.P. 166.419
166.81
166.110
3.26:1
68+20
S.S. 166.495
6:1
0.0200
167.469
6:1
6:1
167.469
0.0200
6:1
S.S. 167.547
166.257
D.P. 166.566
167.09
166.257
3.03:1
68+00
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-80
S.S. 169.382
3:1
6:1
0.0200
168.725
6:1
169.40
6:1
168.725
0.0200
6:1
S.S. 168.427
4.89:1
167.513
D.P. 167.822
167.513
69+60
S.S. 168.590
3:1
6:1
0.0200
168.299
6:1
168.67
6:1
168.299
0.0200
5:1
S.S. 167.782
167.087
D.P. 167.397
167.087
6:1
69+40
S.S. 167.519
5.81:1
6:1
0.0200
167.914
6:1
6:1
167.914
0.0200
4:1
166.702
D.P. 167.011
167.58
S.S. 166.988
69+20
167.618
D.P. 166.715
167.618
0.0200
6:1
6:1
6:1
0.0200
4.5:1
S.S. 165.835
2:1
164.819
166.47
69+00
167.410
D.P. 166.508
167.410
0.0200
6:1
6:1
0.0200
3.43:1
3:1
164.45
166.33
S.S. 165.972
68+80
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-81

2.5 0 2.5 5

METRIC

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

175 / 170 / 165

S.S. 170.199
5.99:1
6:1
169.398
0.0200
170.610
6:1
D.P. 170.069
169.98
6:1
170.688
0.0200
0.0200
6:1
S.S. 169.850
6:1
169.398

70+60

S.S. 169.712
6:1
6:1
168.954
0.0200
170.166
6:1
D.P. 169.505
169.63
6:1
170.218
0.0200
6:1
S.S. 169.368
6:1
168.954

70+40

S.S. 169.444
5.43:1
6:1
168.592
0.0200
169.803
6:1
D.P. 168.994
169.22
6:1
169.823
0.0200
6:1
S.S. 168.849
168.591

70+20

S.S. 169.423
3.50:1
6:1
168.265
0.0200
169.477
6:1
D.P. 168.574
169.29
6:1
169.477
0.0200
6:1
S.S. 168.749
6:1
168.265

70+00

S.S. 169.590
2.77:1
6:1
167.907
0.0200
169.119
6:1
D.P. 168.216
169.51
6:1
169.119
0.0200
6:1
S.S. 168.838
4.75:1
167.907

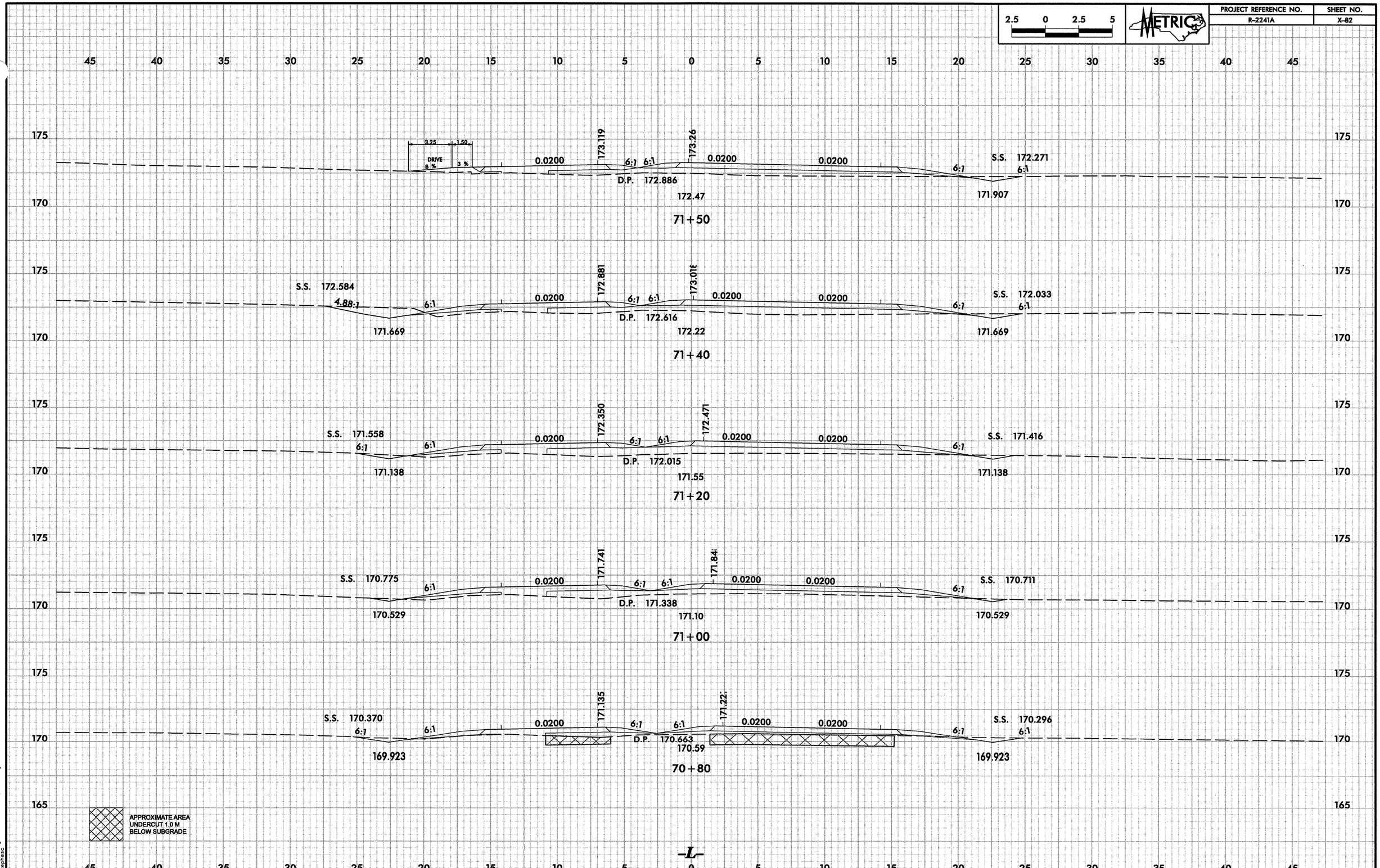
69+80

APPROXIMATE AREA UNDERCUT 1.0 M BELOW SUBGRADE

-L-

2/7/2013
R:\Roadway\Xsec\R2241A_PL_L.dgn
asphalec

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-82

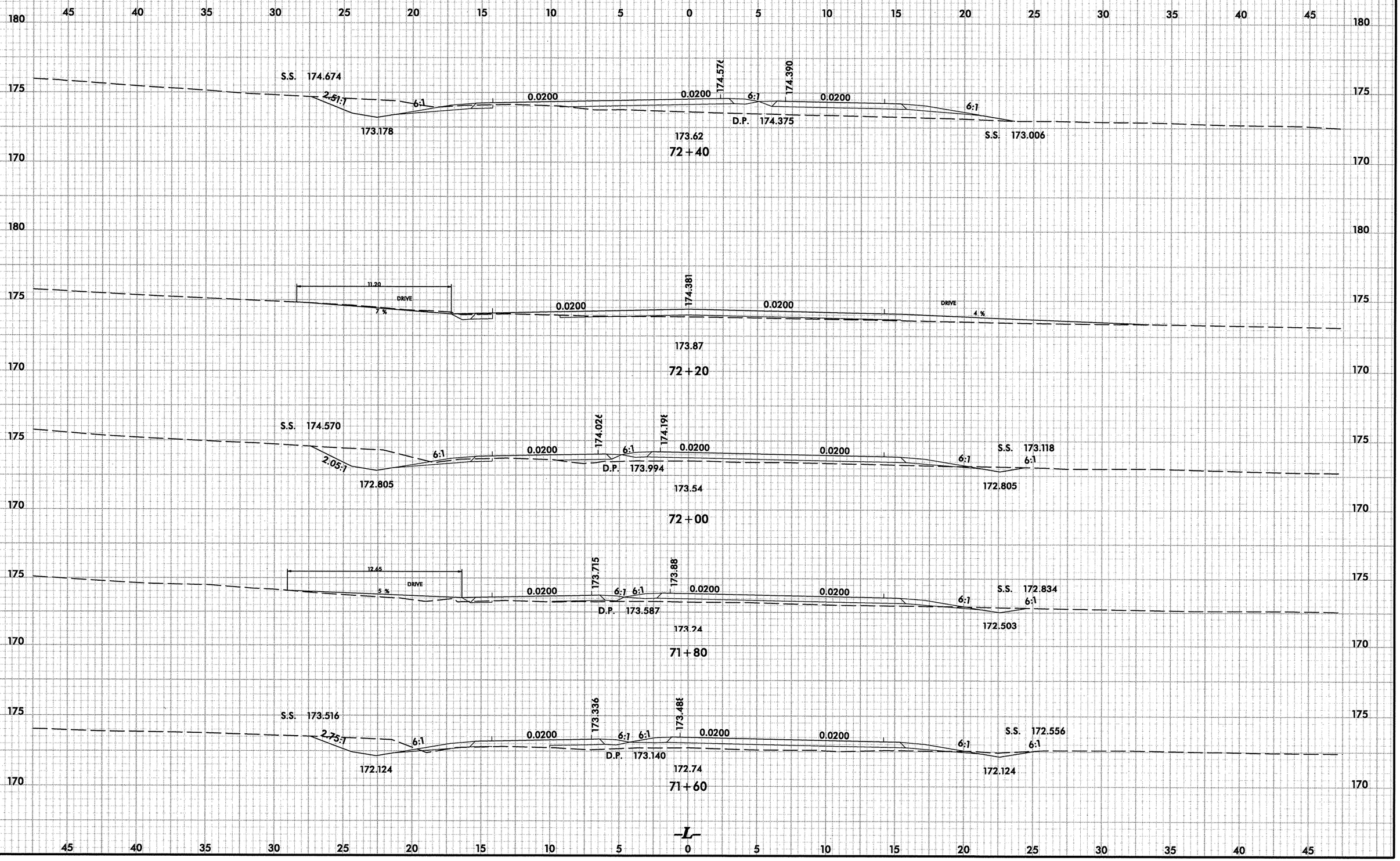


2/7/2013
R:\Roadway\Xsc\R2241A_XPL_L.dgn
stephesc

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-83

2.5 0 2.5 5

METRIC

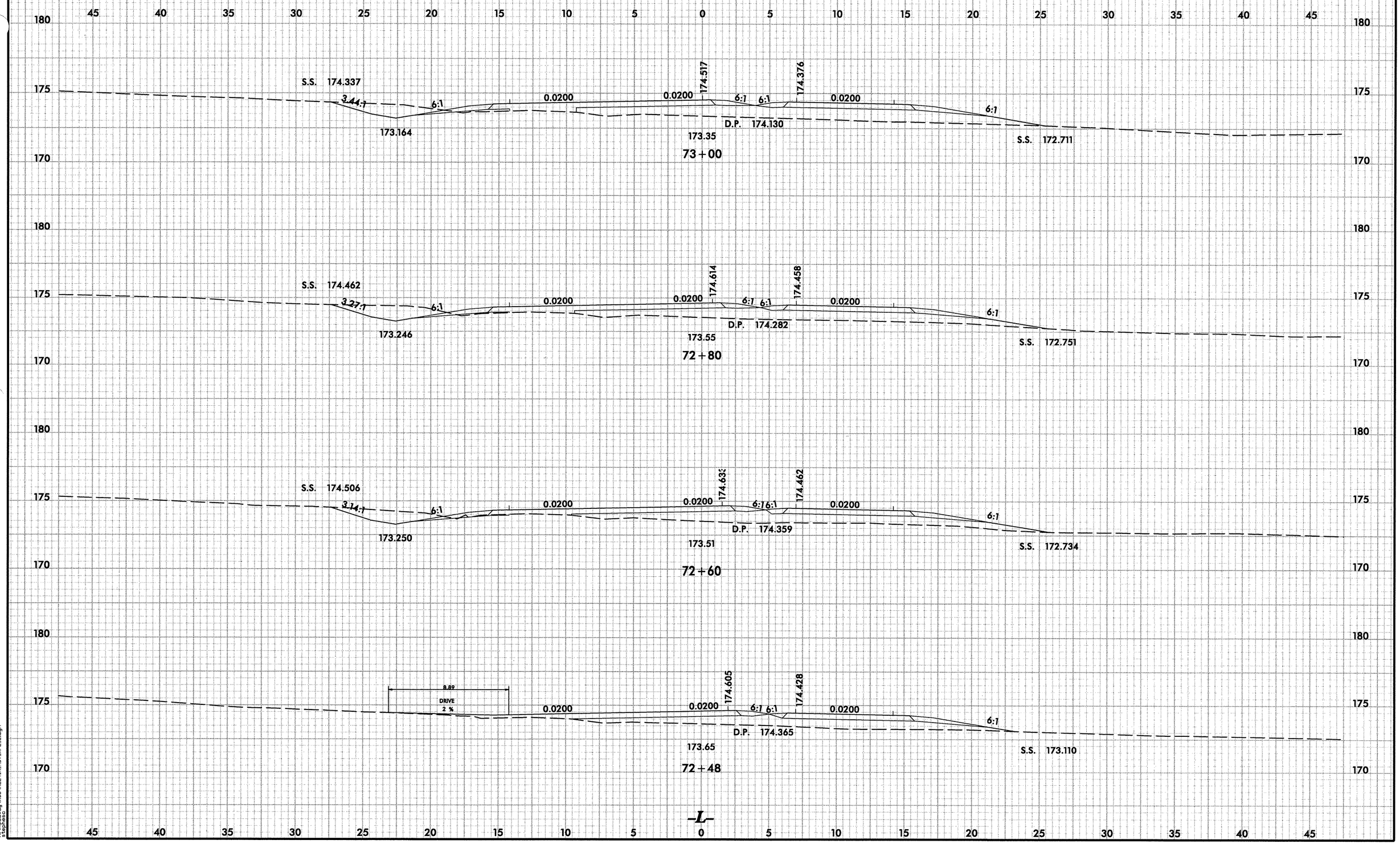


2/2/2013
R:\Projects\Xsec\R2241A_..._XPL_L.dgn
stephens

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-84

2.5 0 2.5 5

METRIC



2/7/2013
R:\Roadway\Xsec\R2241n... ...\XPL_L.dgn
stephens

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-85

2.5 0 2.5 5

METRIC

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

180
175
170

14.06
DRIVE
2 %
0.0200
0.0200
173.969
D.P. 173.431
6:1
6:1
173.870
0.0200
6:1
172.86
S.S. 172.537
73+55

S.S. 173.984
3.43:1
6:1
0.0200
0.0200
174.133
D.P. 173.640
6:1
6:1
174.022
0.0200
6:1
172.810
172.78
S.S. 172.405
73+40

13.15
DRIVE
2 %
0.0200
0.0200
174.238
6:1
6:1
174.120
0.0200
6:1
D.P. 173.768
172.95
S.S. 172.388
73+30

S.S. 174.131
3.64:1
6:1
0.0200
0.0200
174.344
6:1
6:1
174.218
0.0200
6:1
173.006
D.P. 173.902
173.15
S.S. 172.517
73+20

APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE

-L-

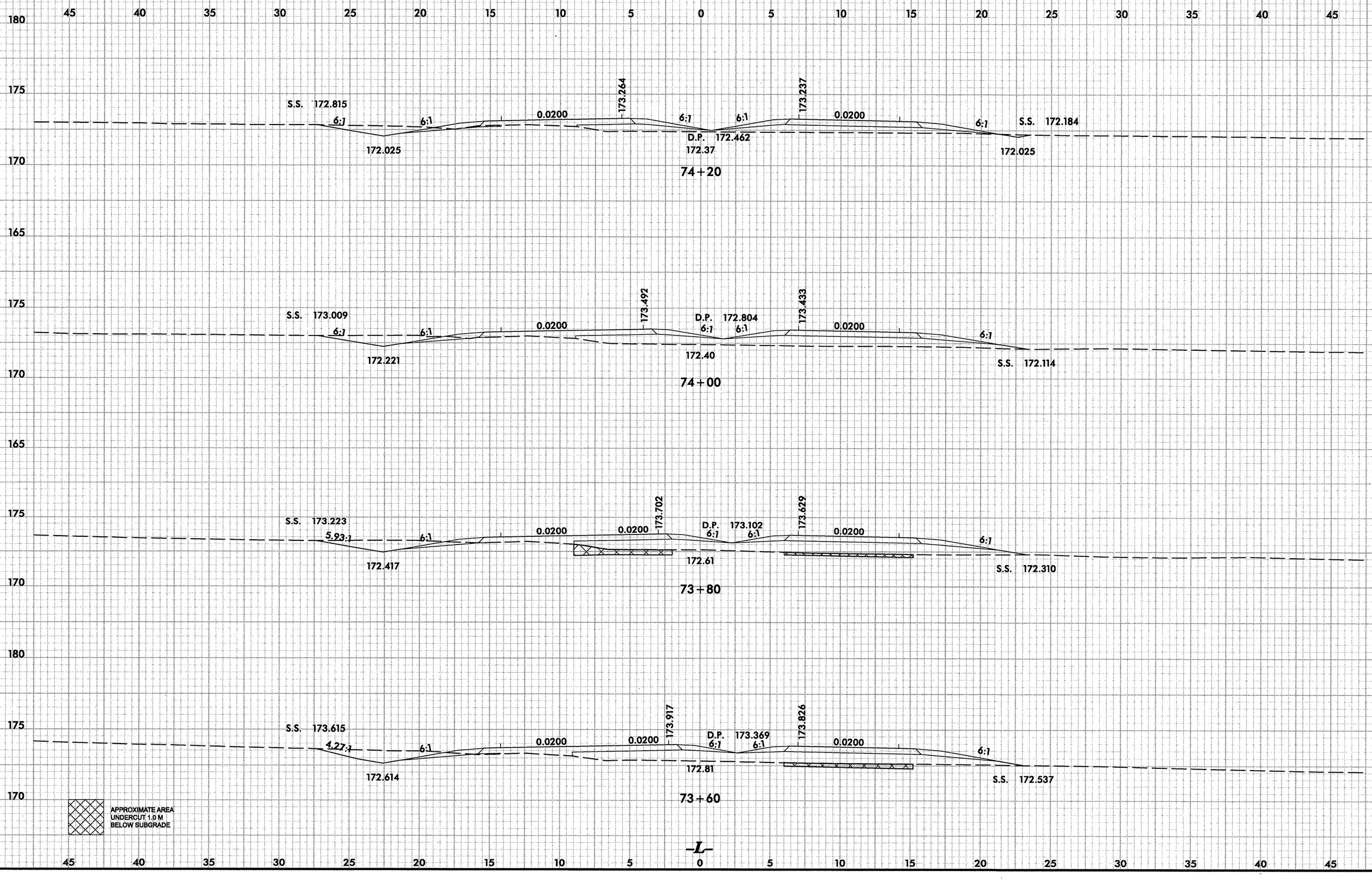
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

2/7/2013
R:\Roadway\Xsec\R2241x..._/_XPL_L.dgn
stephens

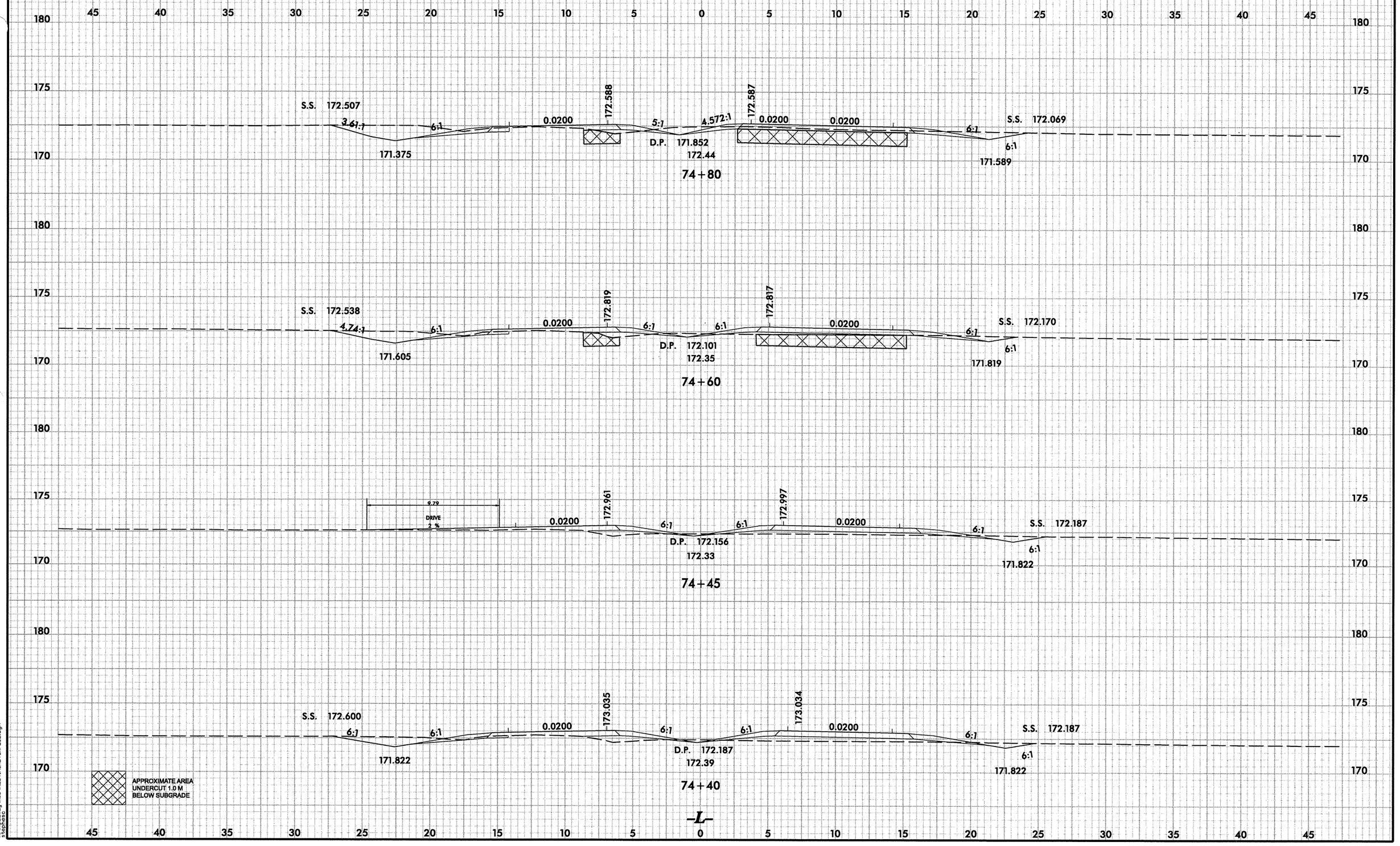
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-86

2.5 0 2.5 5

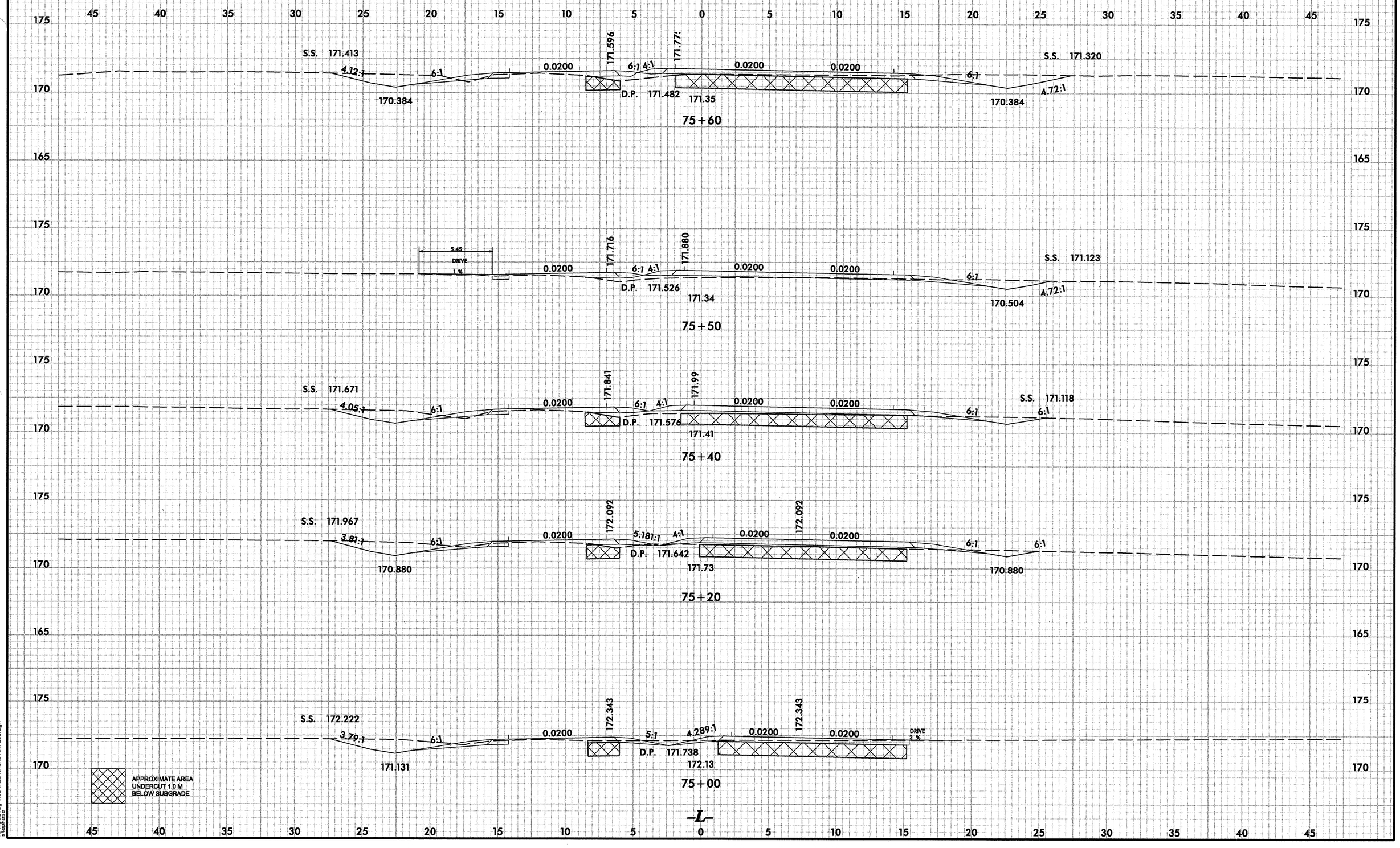
METRIC



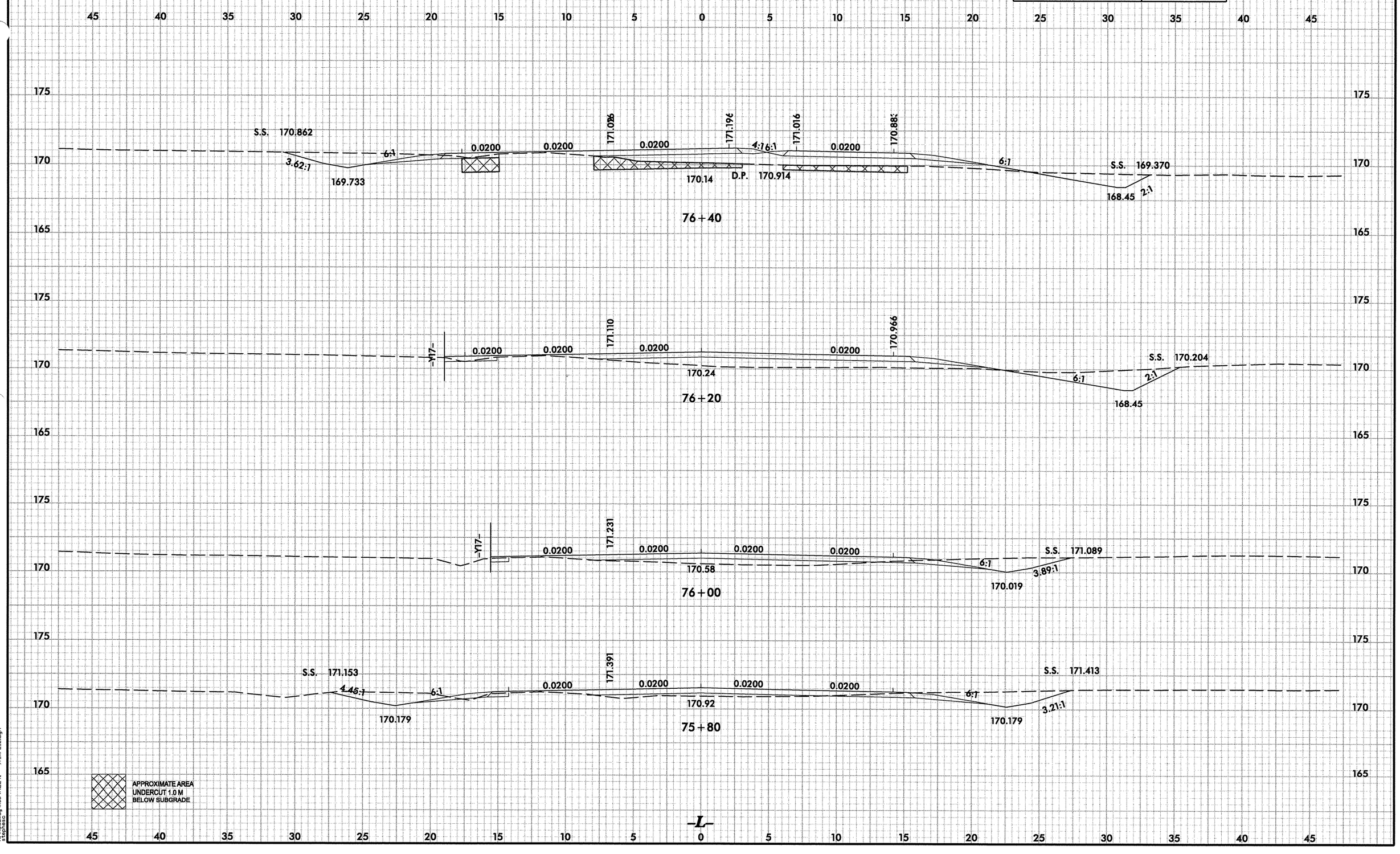
2/7/2013
R:\Projects\XSec\R2241...\XPL_L.dgn
stephlasc



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-87
S.S. 172.507
3.61:1
6:1
171.375
0.0200
172.588
5:1
4.572:1
172.587
0.0200
0.0200
D.P. 171.852
172.44
6:1
S.S. 172.069
6:1
171.589
74+80
S.S. 172.538
4.74:1
6:1
171.605
0.0200
172.819
6:1
6:1
172.817
0.0200
D.P. 172.101
172.35
6:1
S.S. 172.170
6:1
171.819
74+60
9.79
DRIVE
2 %
0.0200
172.961
6:1
6:1
172.997
0.0200
D.P. 172.156
172.33
6:1
S.S. 172.187
6:1
171.822
74+45
S.S. 172.600
6:1
6:1
171.822
0.0200
173.035
6:1
6:1
173.034
0.0200
D.P. 172.187
172.39
6:1
S.S. 172.187
6:1
171.822
74+40
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-88
METRIC
2.5 0 2.5 5
S.S. 171.413
4.12:1
6:1
170.384
0.0200
171.596
6:1 4:1
171.77
D.P. 171.482
171.35
0.0200
0.0200
6:1
S.S. 171.320
4.72:1
170.384
75+60
5.45
DRIVE
1 %
0.0200
171.716
6:1 4:1
171.880
D.P. 171.526
171.34
0.0200
0.0200
6:1
S.S. 171.123
4.72:1
170.504
75+50
S.S. 171.671
4.05:1
6:1
0.0200
171.841
6:1 4:1
171.99
D.P. 171.576
171.41
0.0200
0.0200
6:1
S.S. 171.118
6:1
75+40
S.S. 171.967
3.81:1
6:1
170.880
0.0200
172.092
5.181:1 4:1
D.P. 171.642
171.73
0.0200
172.092
0.0200
6:1
6:1
170.880
75+20
S.S. 172.222
3.79:1
6:1
171.131
0.0200
172.343
5:1
4.289:1
D.P. 171.738
172.13
0.0200
172.343
0.0200
DRIVE
2 %
75+00
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-89
S.S. 170.862
3.62:1
6:1
169.733
0.0200
171.026
171.196
4:1
171.016
170.883
170.14
D.P. 170.914
S.S. 169.370
168.45
2:1
76+40
171.110
170.966
-Y17-
170.24
S.S. 170.204
168.45
76+20
171.231
170.58
S.S. 171.089
3.89:1
170.019
76+00
S.S. 171.153
4.45:1
171.391
170.92
S.S. 171.413
3.21:1
170.179
75+80
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-90

2.5 0 2.5 5 METRIC

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

175 / 170 / 165

S.S. 171.887
2.13:1
6:1
170.179
0.0200
0.0200
171.452
0.0200
5.670:1
D.P. 170.836
171.20
77+40

S.S. 171.095
3.90:1
6:1
170.025
0.0200
0.0200
171.309
0.0200
4.553:1
6:1
D.P. 170.724
170.88
77+20

S.S. 170.741
3:1
6:1
169.88
0.0200
0.0200
171.186
0.0200
4.262:1
170.42
77+00

S.S. 171.044
3:1
6:1
169.62
0.0200
0.0200
0.0200
4:1
169.69
76+80

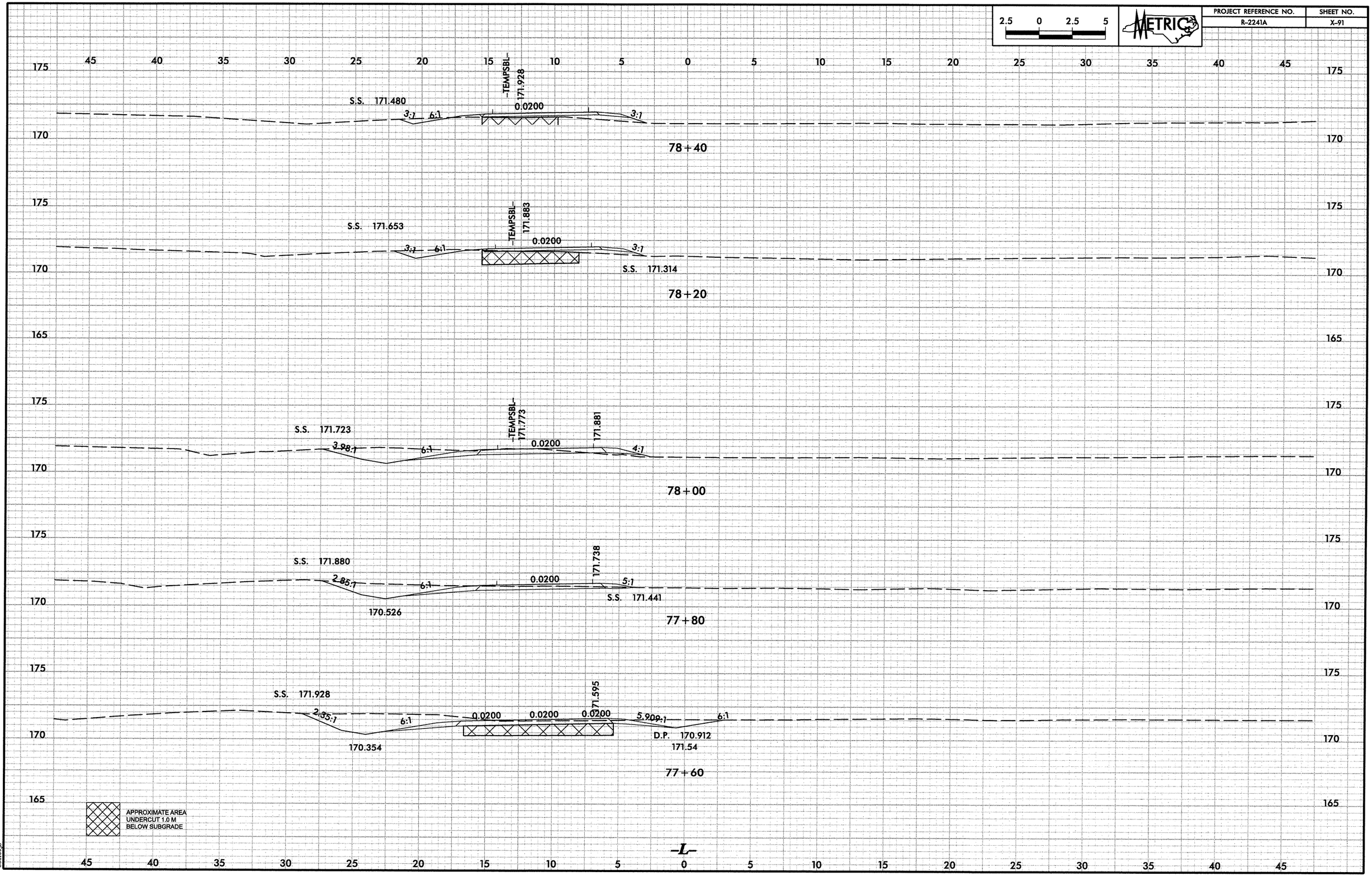
S.S. 170.730
3:1
6:1
169.69
0.0200
0.0200
170.993
0.0200
171.145
4:1
6:1
170.993
0.0200
6:1
170.05
D.P. 170.672
S.S. 169.531
76+60

APPROXIMATE AREA UNDERCUT 1.0 M BELOW SUBGRADE

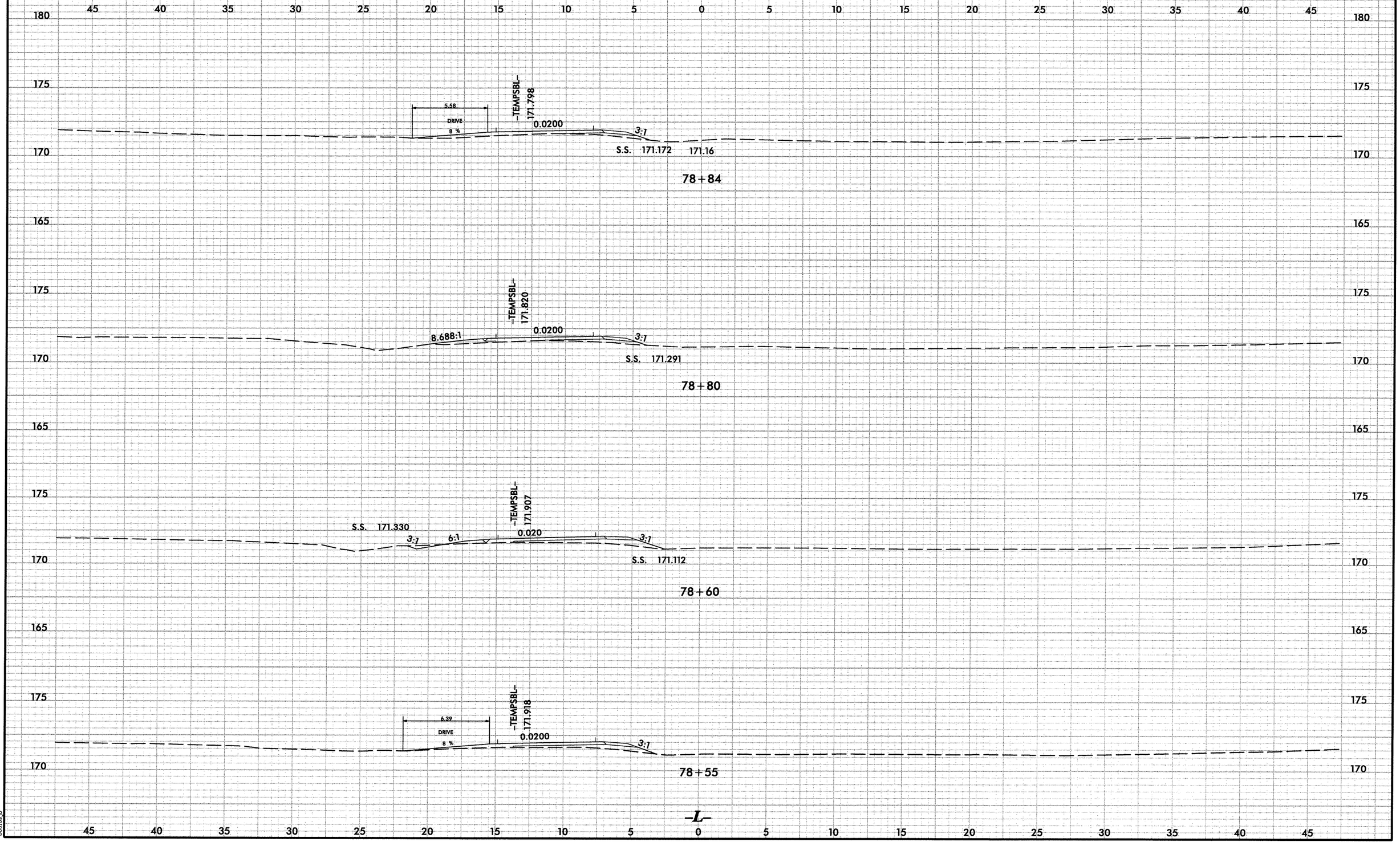
-L-

12/11/2012
jmcdaniel
boules_to

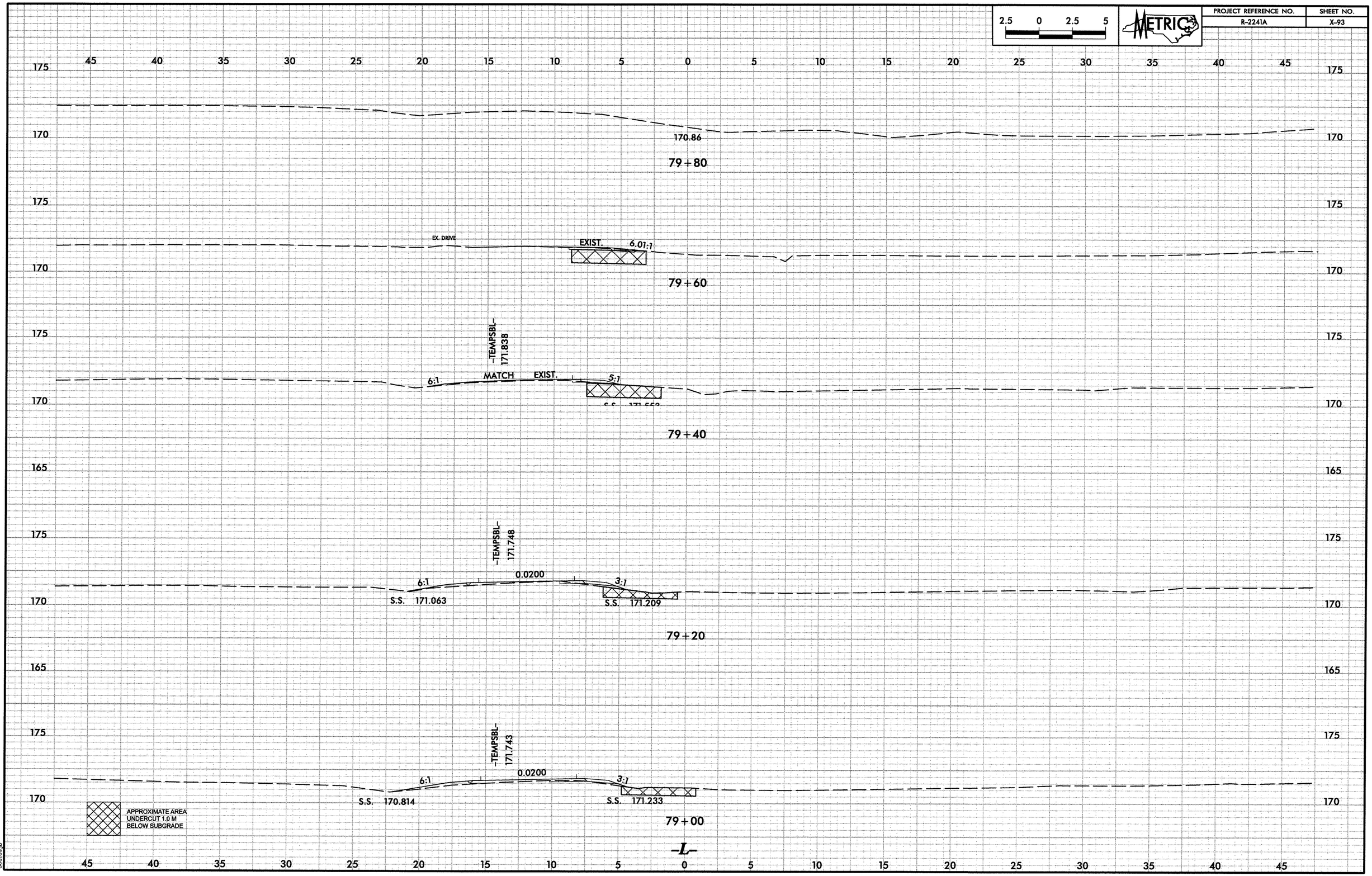
I_XPL_L.dgn



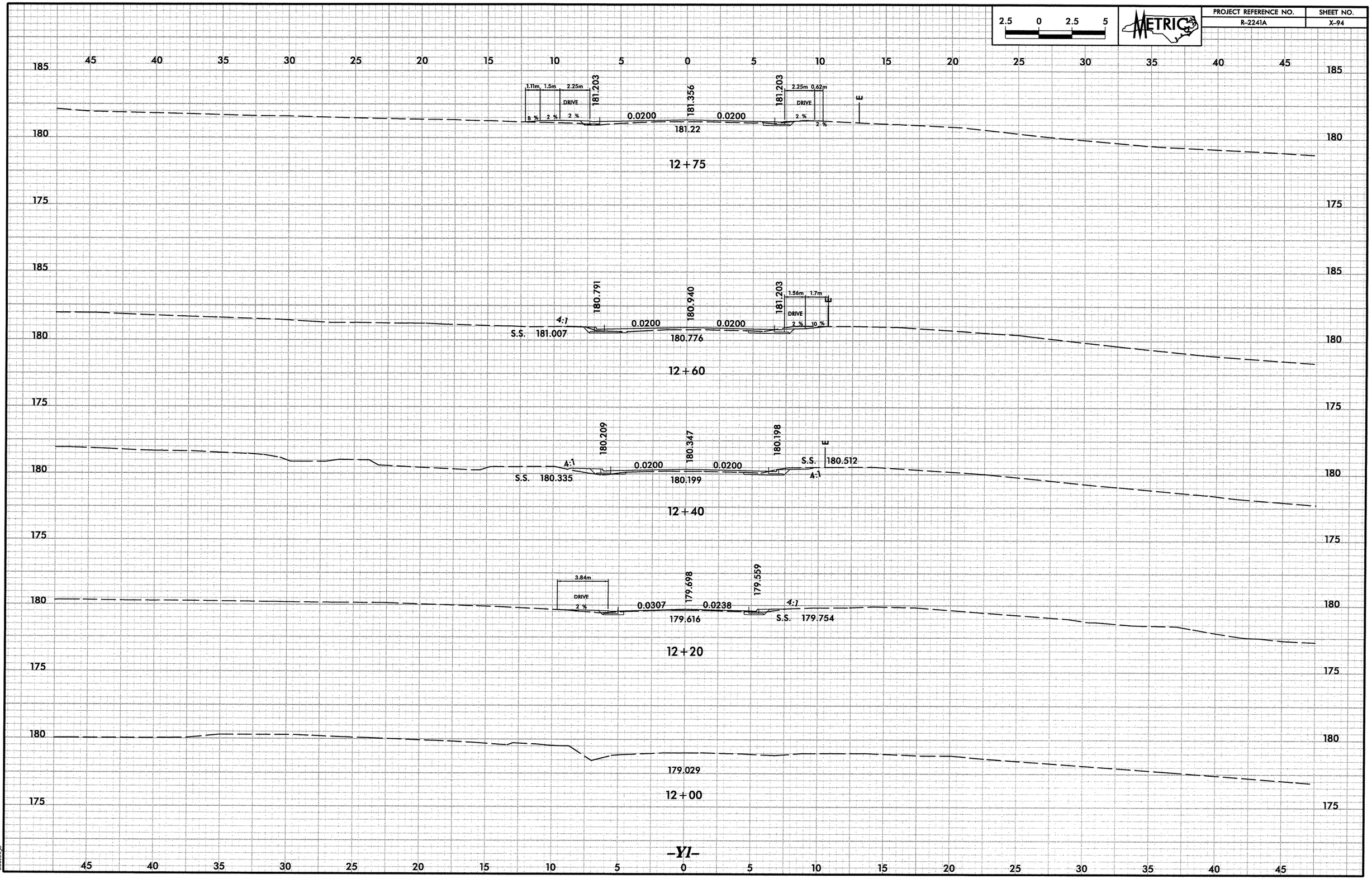
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-91
S.S. 171.480
-TEMPSBL-
171.928
0.0200
3:1
6:1
3:1
78+40
S.S. 171.653
-TEMPSBL-
171.883
0.0200
3:1
6:1
3:1
S.S. 171.314
78+20
S.S. 171.723
-TEMPSBL-
171.773
171.881
3.98:1
6:1
0.0200
4:1
78+00
S.S. 171.880
171.738
2.85:1
6:1
0.0200
5:1
S.S. 171.441
170.526
77+80
S.S. 171.928
171.595
2.35:1
6:1
0.0200
0.0200
0.0200
5.909:1
6:1
D.P. 170.912
171.54
170.354
77+60
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-92
5.58
DRIVE
8 %
-TEMPSBL-
171.798
0.0200
3:1
S.S. 171.172
171.16
78+84
-TEMPSBL-
171.820
8.688:1
0.0200
3:1
S.S. 171.291
78+80
-TEMPSBL-
171.907
S.S. 171.330
3:1
6:1
0.020
3:1
S.S. 171.112
78+60
6.39
DRIVE
8 %
-TEMPSBL-
171.918
0.0200
3:1
78+55
-L-

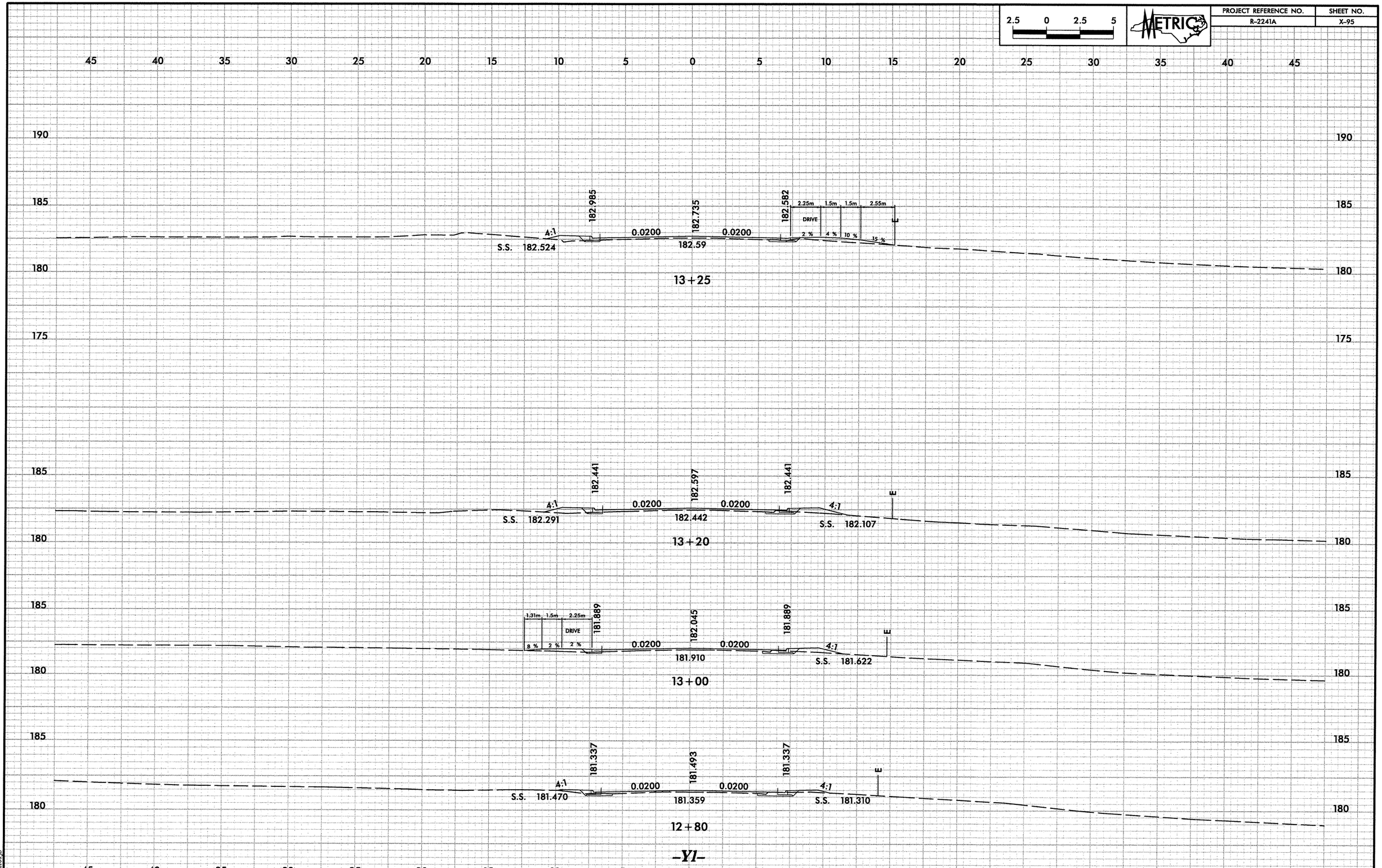


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-93
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
175
170
165
170.86
79+80
EX. DRIVE
EXIST.
6.01:1
79+60
-TEMPSBL-
171.838
6:1
MATCH
EXIST.
5:1
79+40
-TEMPSBL-
171.748
0.0200
6:1
3:1
S.S. 171.063
S.S. 171.209
79+20
-TEMPSBL-
171.743
0.0200
6:1
3:1
S.S. 170.814
S.S. 171.233
79+00
APPROXIMATE AREA
UNDERCUT 1.0 M
BELOW SUBGRADE
-L-

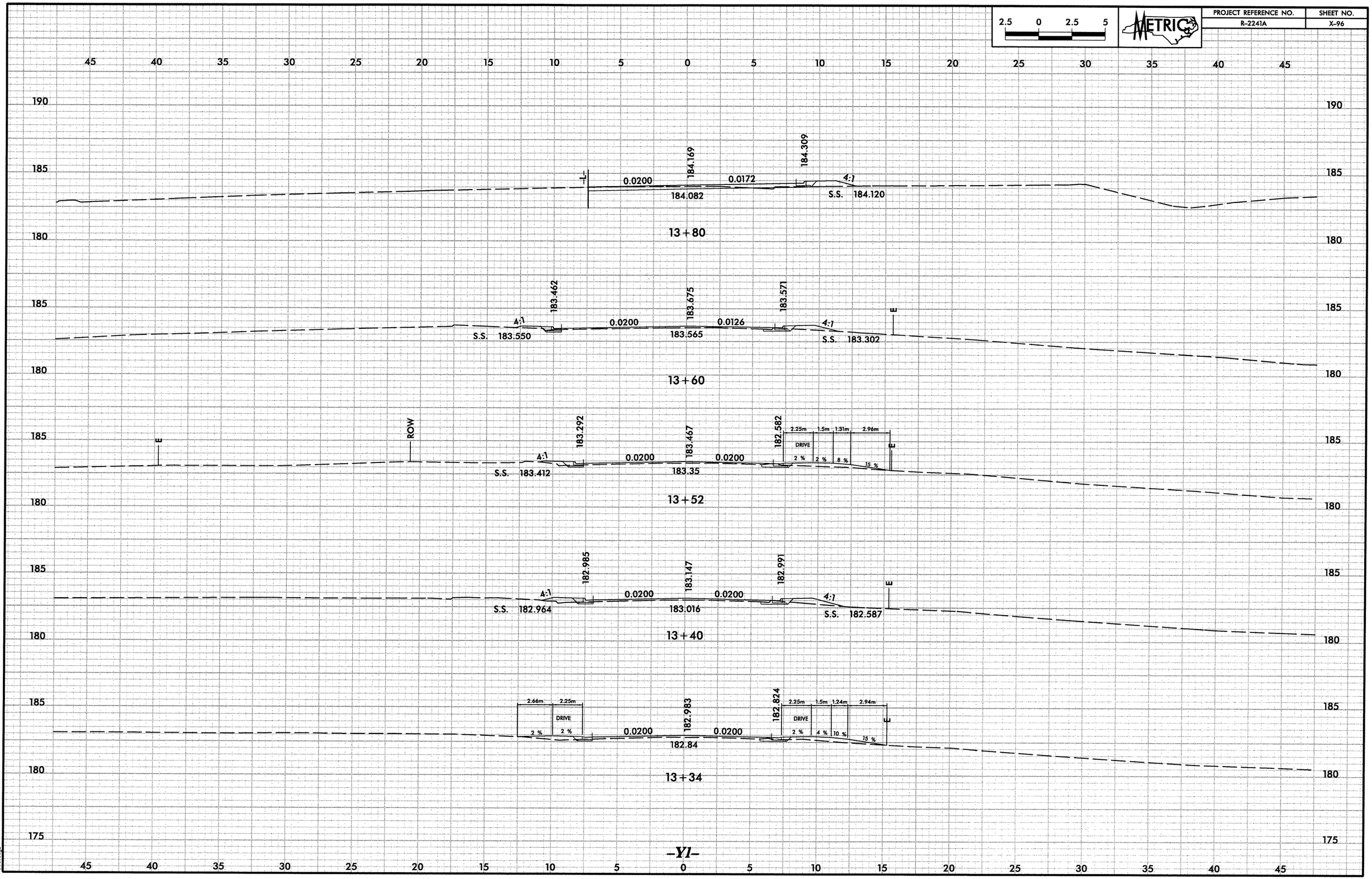


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-94
1.11m 1.5m 2.25m
DRIVE
8 % 2 % 2 %
181.203
181.356
0.0200
0.0200
181.22
181.203
2.25m 0.62m
DRIVE
2 % 2 %
E
12+75
180.791
180.940
181.203
1.56m 1.7m
DRIVE
2 % 10 %
4:1
S.S. 181.007
0.0200
0.0200
180.776
12+60
180.209
180.347
180.198
E
4:1
S.S. 180.335
0.0200
0.0200
180.199
S.S. 180.512
4:1
12+40
3.84m
DRIVE
2 %
179.698
179.559
0.0307
0.0238
4:1
179.616
S.S. 179.754
12+20
179.029
12+00
-Y1-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-95

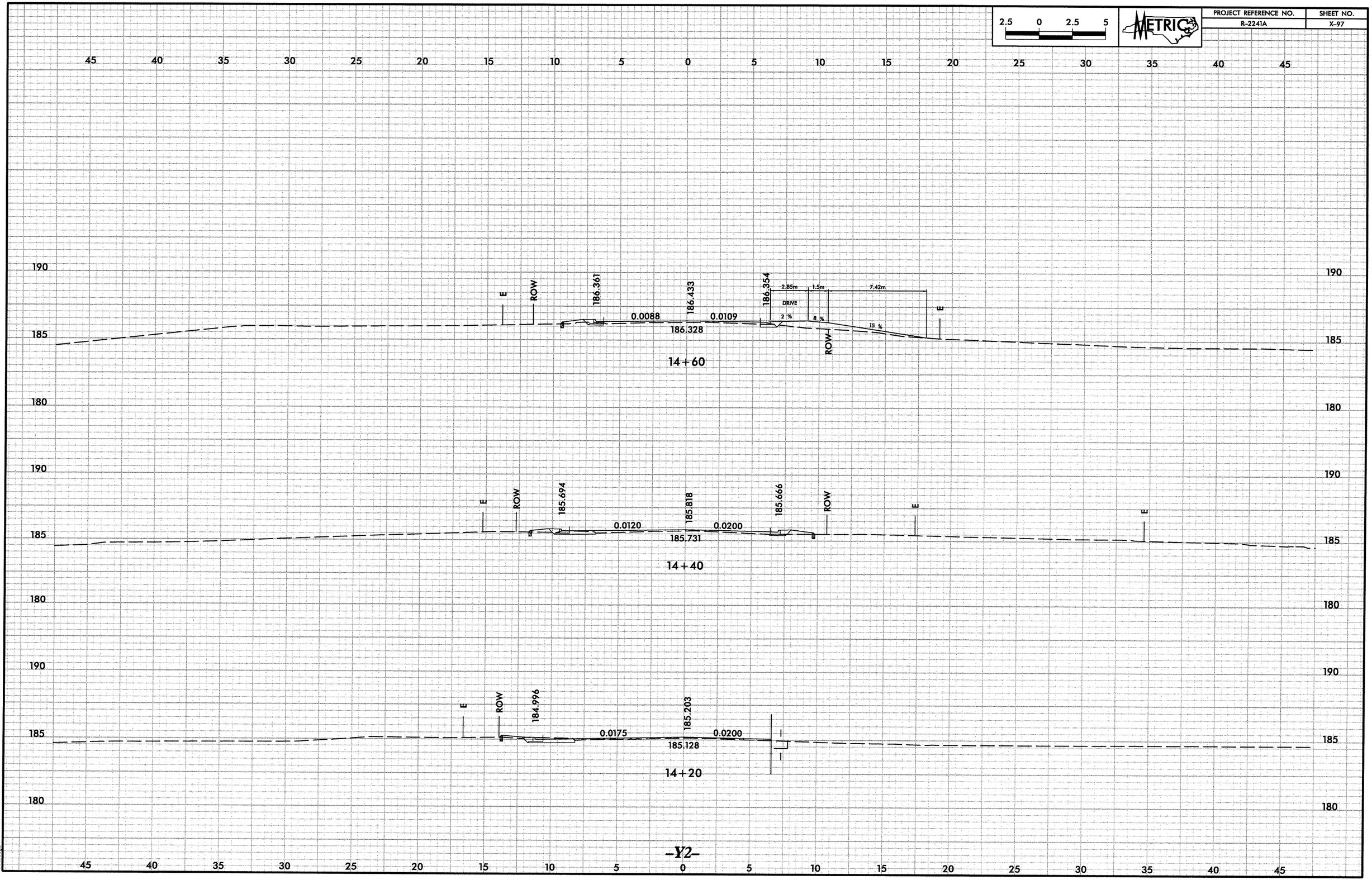


12/11/2012
r:\roadway\xsc\R22_Y_XPL_Y01.dgn
boulos.jb

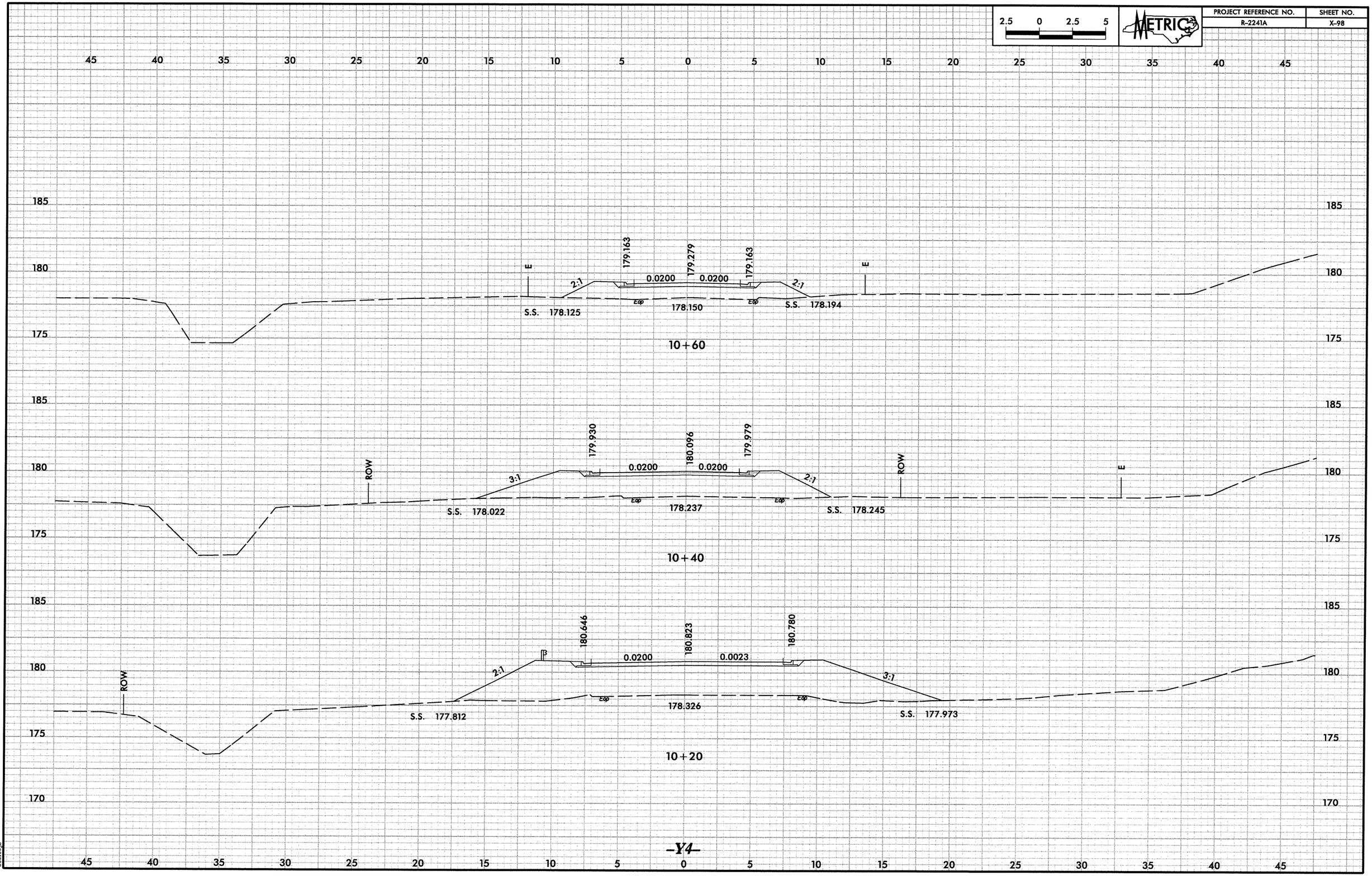


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-96
13+80
0.0200
184.169
0.0172
184.309
4:1
184.082
S.S. 184.120
13+60
183.462
183.675
183.571
4:1
0.0200
0.0126
4:1
S.S. 183.550
183.565
S.S. 183.302
13+52
ROW
183.292
183.467
182.582
2.25m
1.5m
1.31m
2.96m
DRIVE
2 %
2 %
8 %
15 %
4:1
0.0200
0.0200
S.S. 183.412
183.35
13+40
182.985
183.147
182.991
4:1
0.0200
0.0200
4:1
S.S. 182.964
183.016
S.S. 182.587
13+34
2.66m
2.25m
DRIVE
2 %
2 %
182.983
182.824
2.25m
1.5m
1.24m
2.94m
DRIVE
2 %
4 %
10 %
15 %
0.0200
0.0200
182.84
-Y1-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-97

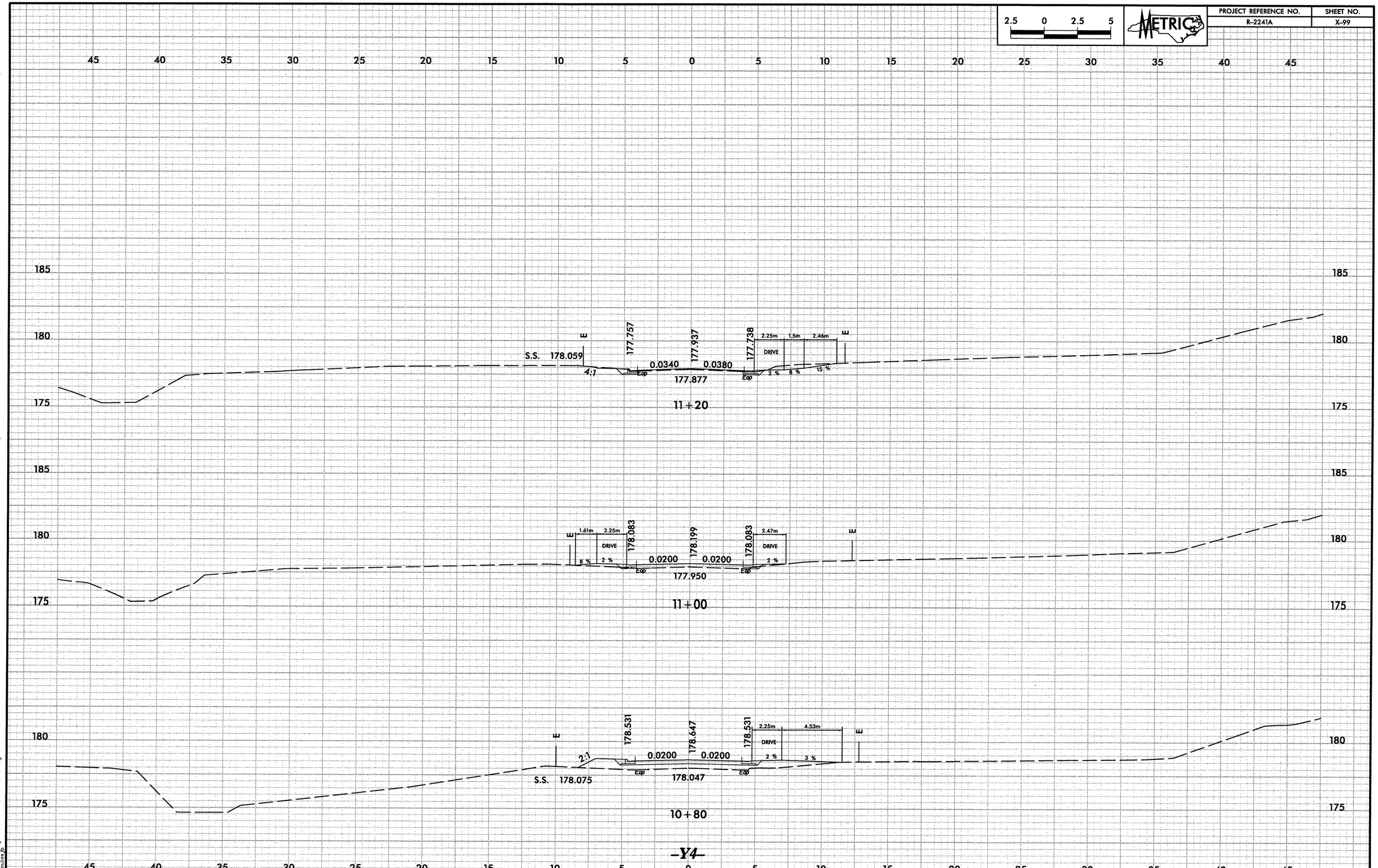


12/11/2012
r:\roadway\xsc\R2_ _Y_XPL_Y02.dgn
boulos.jb

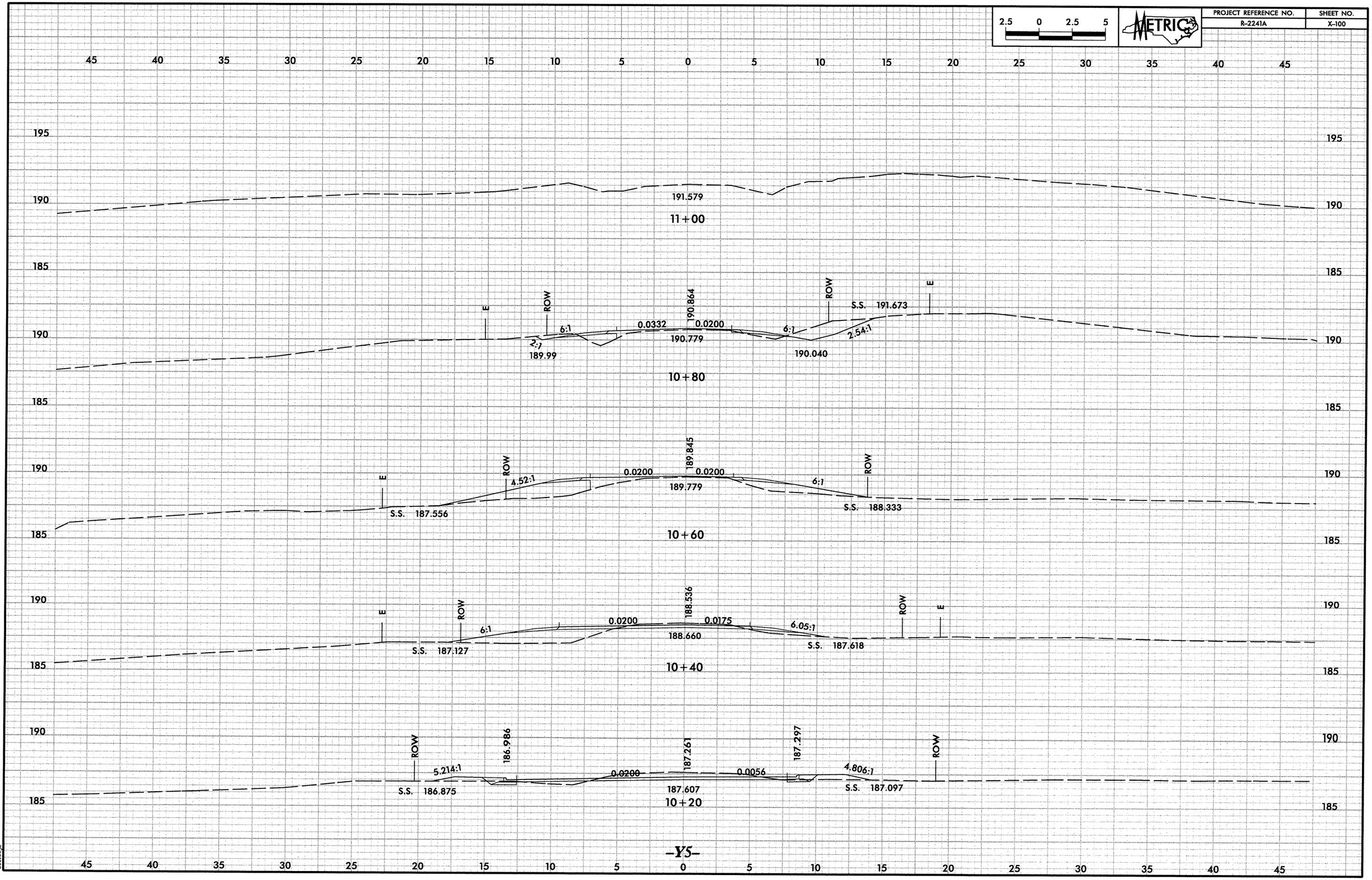


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-98
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
185
180
175
170
E
179.163
179.279
179.163
0.0200
0.0200
2:1
2:1
S.S. 178.125
178.150
S.S. 178.194
10+60
ROW
179.930
180.096
179.979
0.0200
0.0200
3:1
2:1
S.S. 178.022
178.237
S.S. 178.245
10+40
180.646
180.823
180.780
0.0200
0.0023
2:1
3:1
S.S. 177.812
178.326
S.S. 177.973
10+20
-Y4-

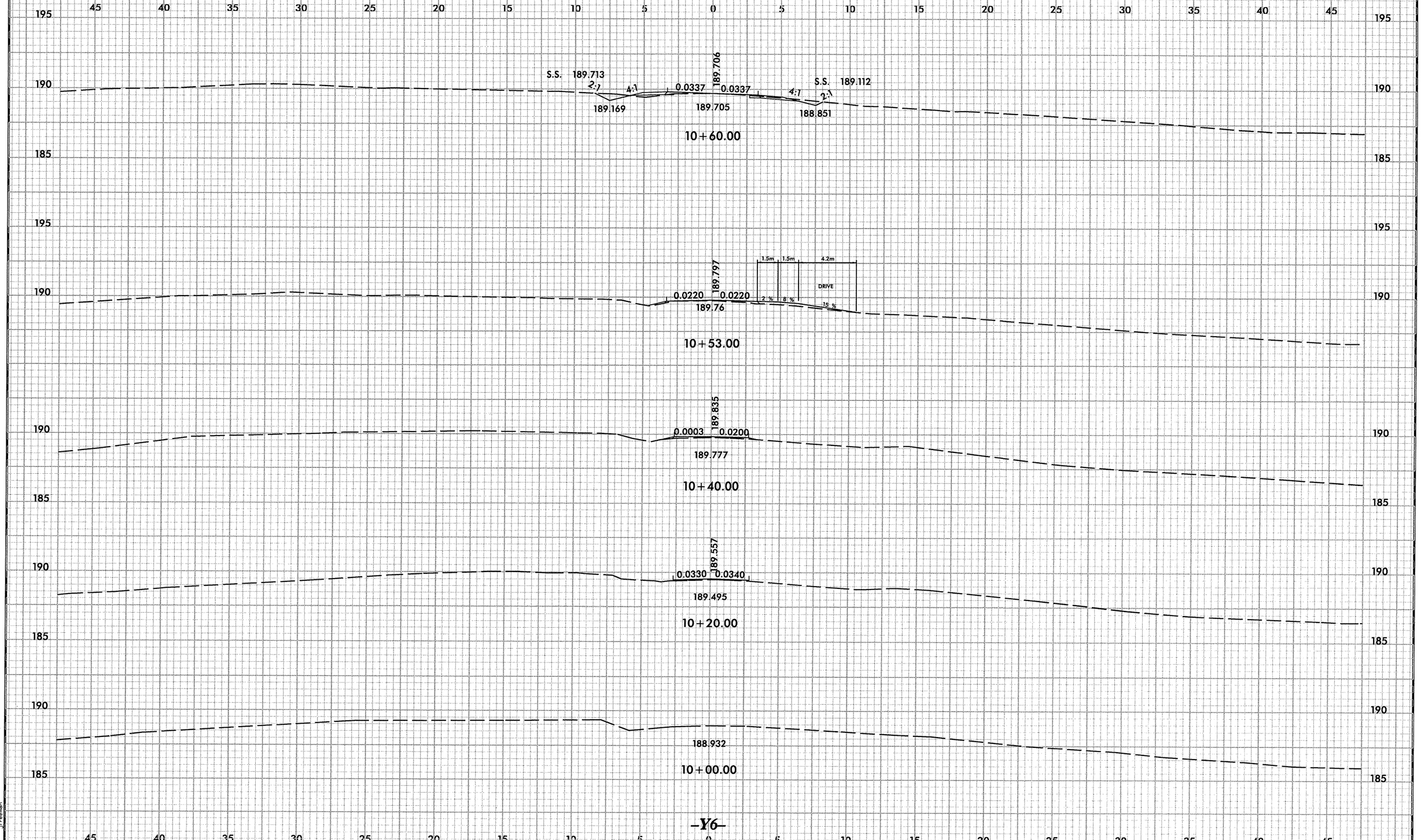
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-99



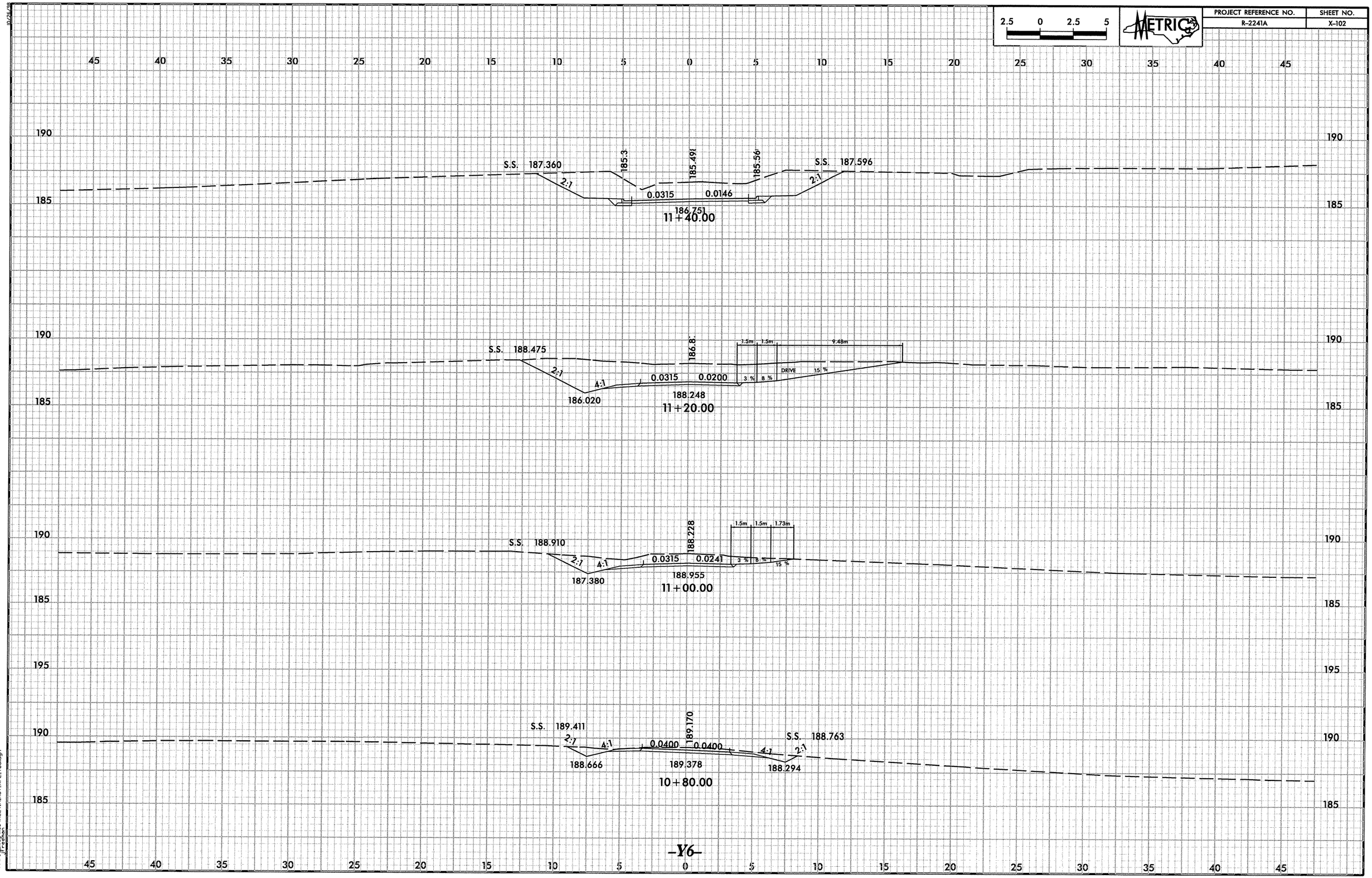
12/11/2012
r:\roadway\xsc\R22 Y_XPL_Y04.dgn
boulos.jb



PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-100
METRIC
2.5 0 2.5 5
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
195
190
185
191.579
11+00
E
ROW
6:1
2:1
189.99
0.0332
190.864
0.0200
190.779
6:1
190.040
2.54:1
S.S. 191.673
10+80
4.52:1
S.S. 187.556
0.0200
189.845
0.0200
189.779
6:1
S.S. 188.333
10+60
6:1
S.S. 187.127
0.0200
188.536
0.0175
188.660
6.05:1
S.S. 187.618
10+40
5.214:1
S.S. 186.875
186.986
0.0200
187.261
187.607
0.0056
187.297
4.806:1
S.S. 187.097
10+20
-Y5-

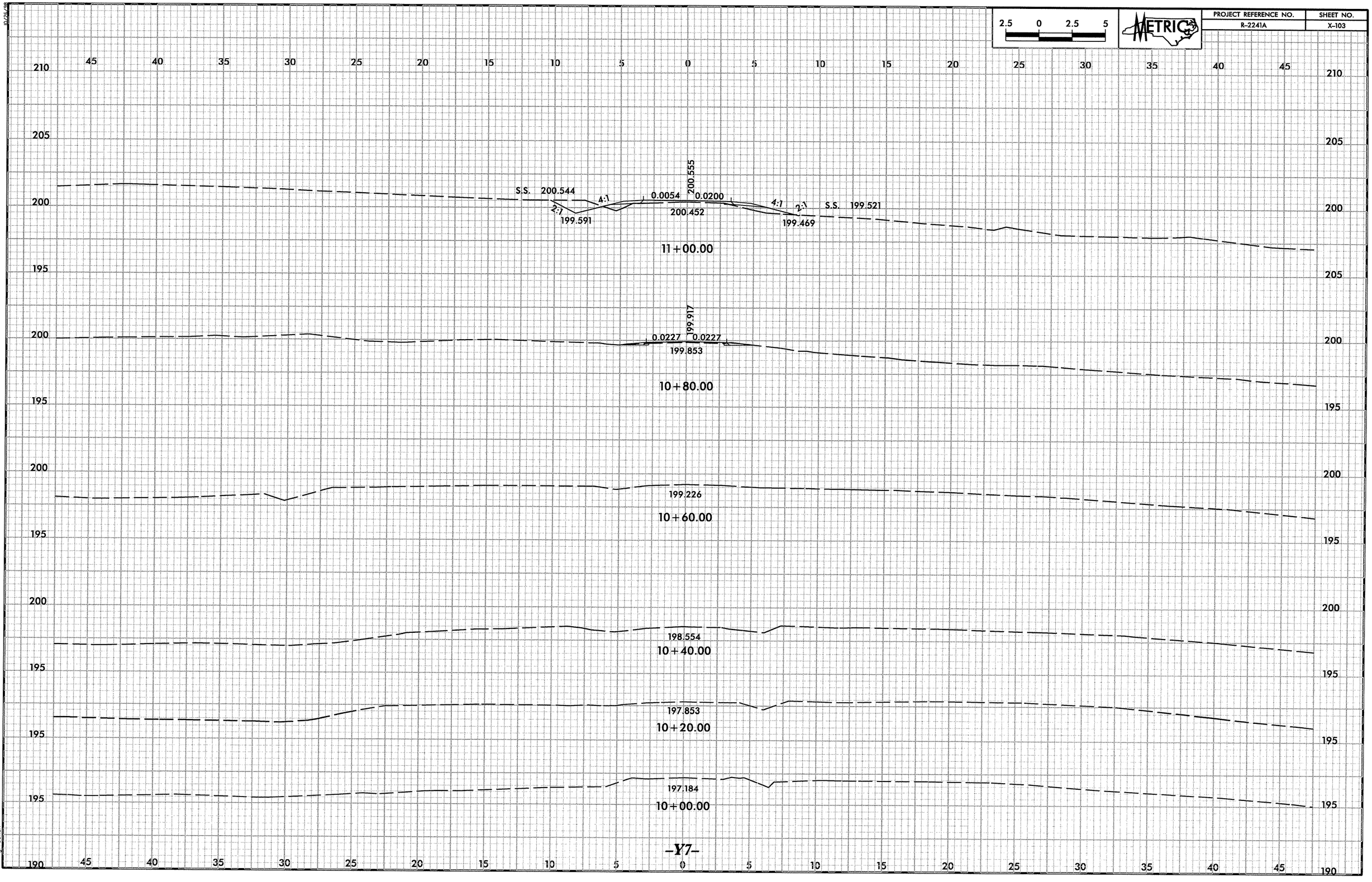


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-101
S.S. 189.713
2:1
4:1
0.0337
189.706
0.0337
189.705
189.169
4:1
2:1
S.S. 189.112
188.851
10+60.00
1.5m
1.5m
4.2m
DRIVE
2 %
8 %
15 %
189.797
0.0220
0.0220
189.76
10+53.00
189.835
0.0003
0.0200
189.777
10+40.00
189.557
0.0330
0.0340
189.495
10+20.00
188.932
10+00.00
-Y6-

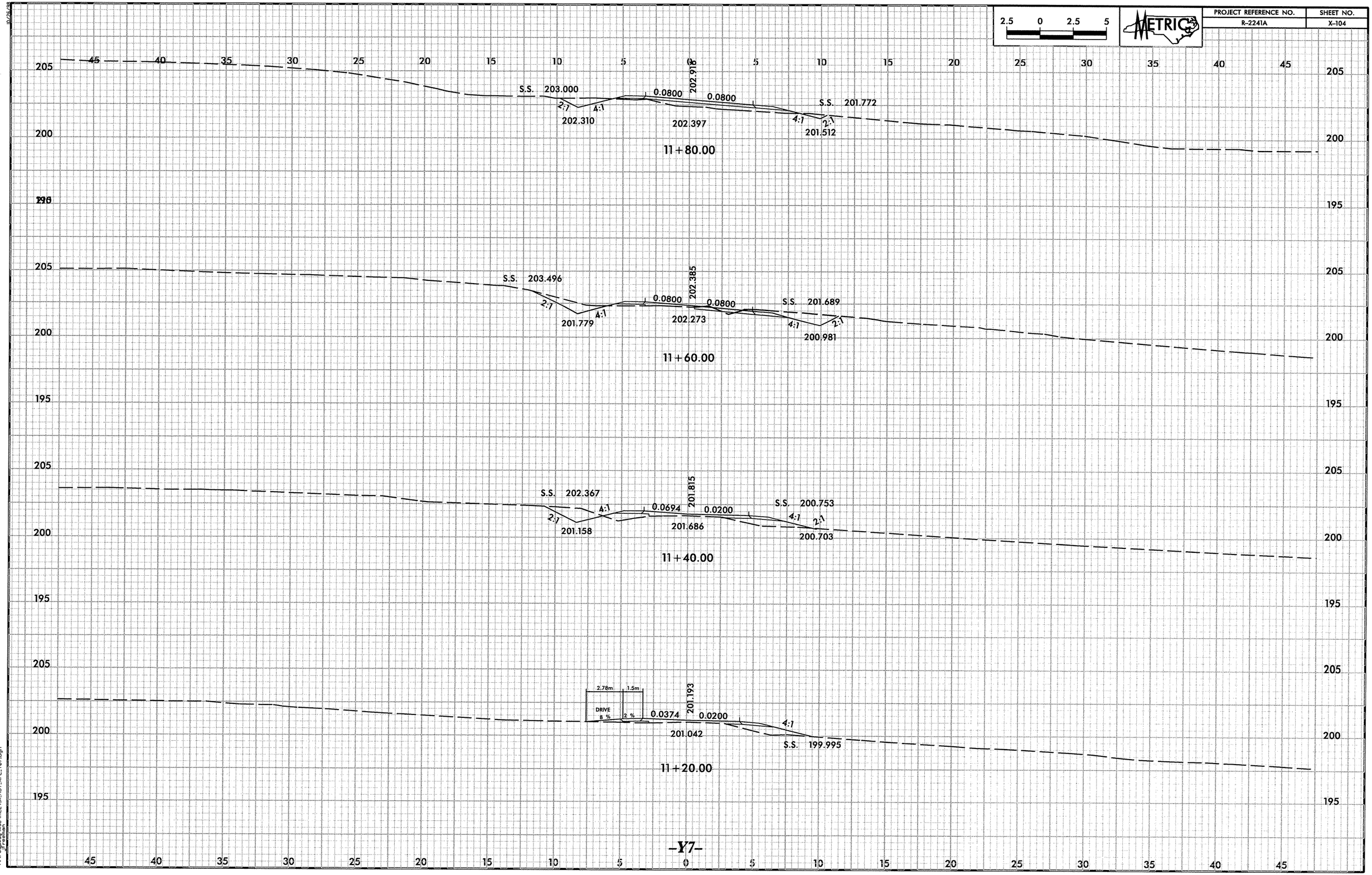


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-102
S.S. 187.360
185.3
185.49
185.56
S.S. 187.596
2:1
0.0315
0.0146
186.751
11+40.00
S.S. 188.475
186.8
1.5m
1.5m
9.48m
DRIVE
3 %
8 %
15 %
4:1
0.0315
0.0200
186.020
188.248
11+20.00
S.S. 188.910
188.228
1.5m
1.5m
1.73m
0.0315
0.0241
187.380
188.955
11+00.00
S.S. 189.411
189.170
S.S. 188.763
0.0400
0.0400
188.666
189.378
188.294
10+80.00

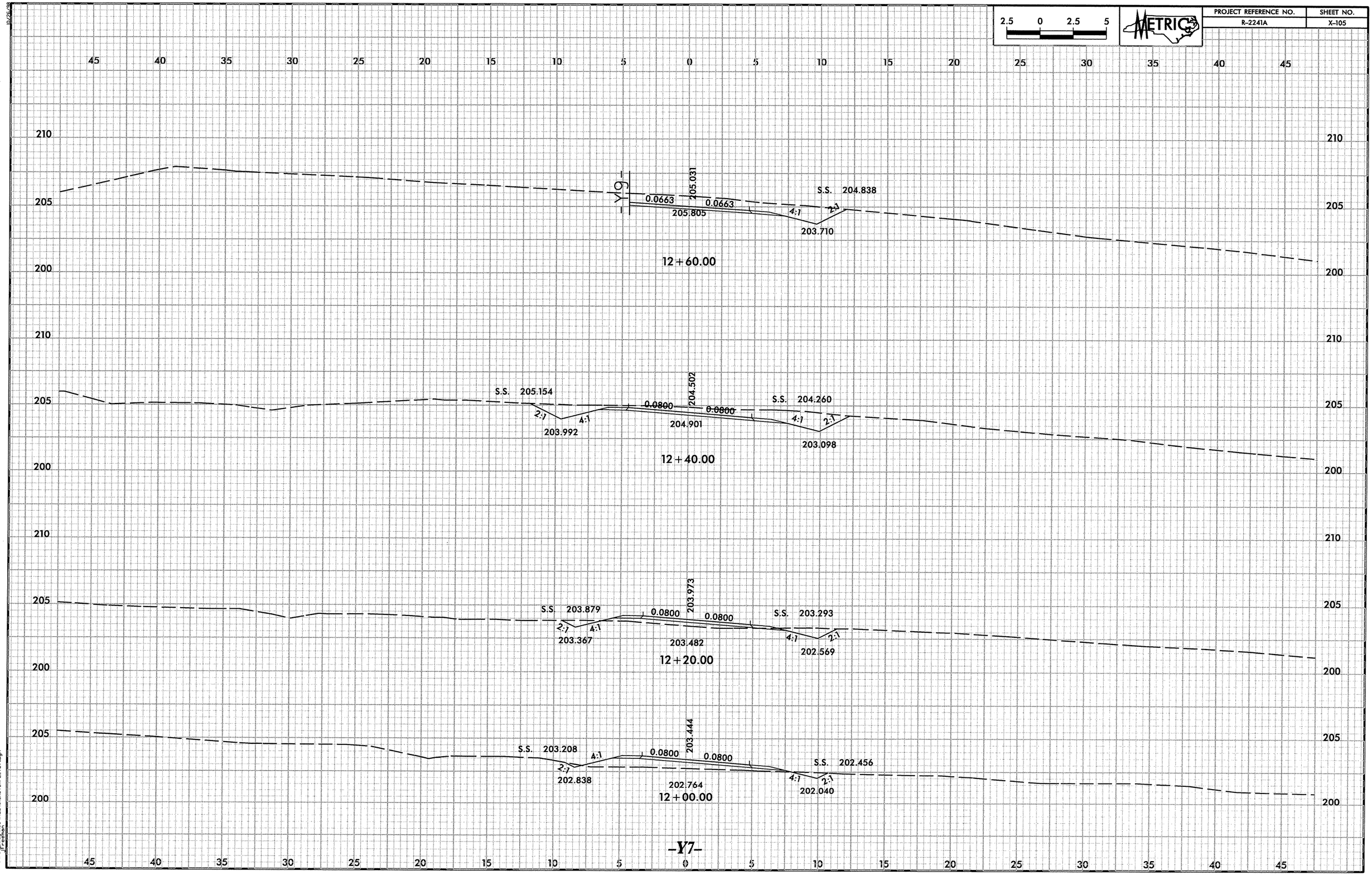
-Y6-



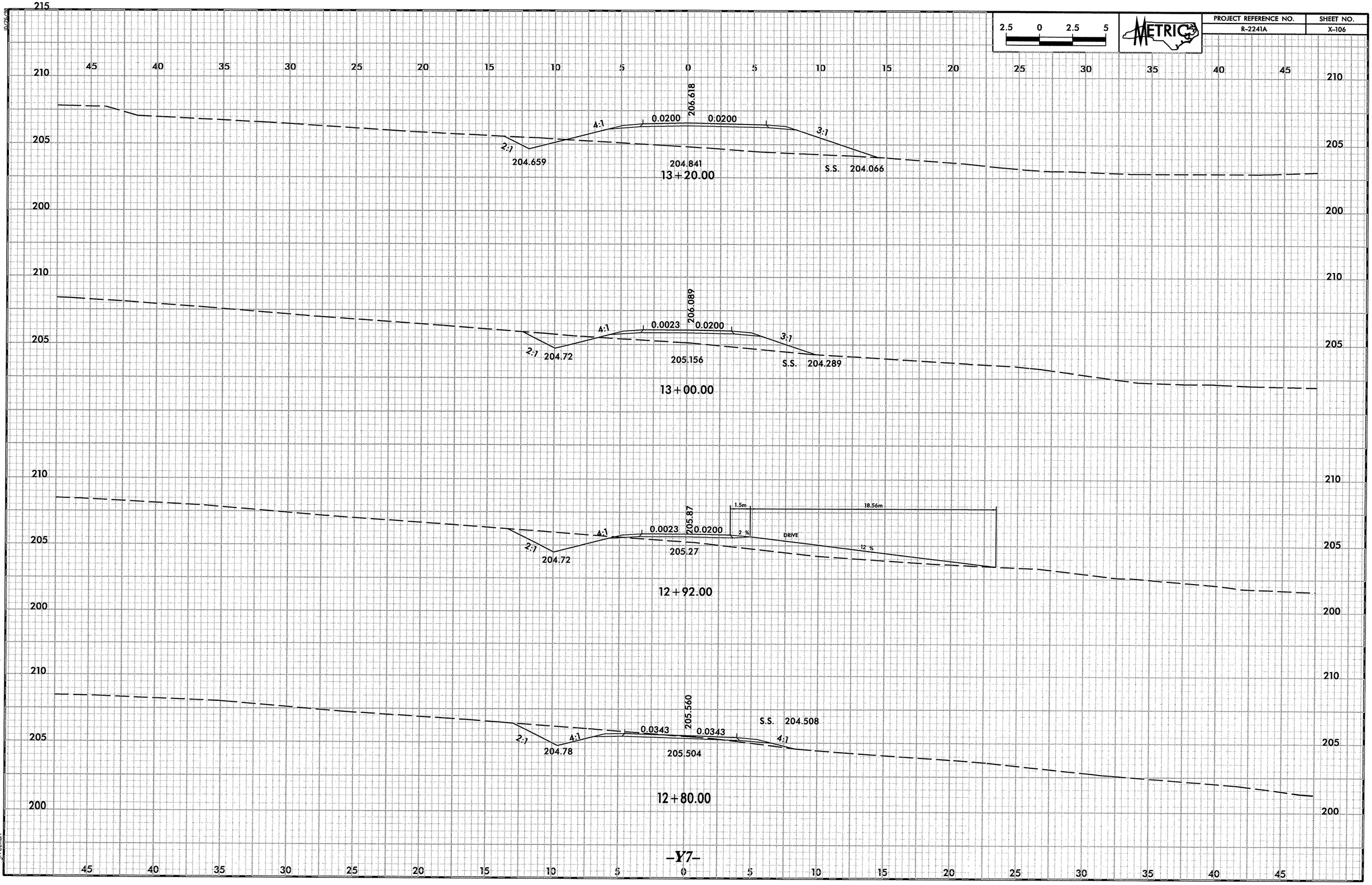
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-103
S.S. 200.544
4:1
2:1
199.591
0.0054
200.555
0.0200
200.452
4:1
2:1
S.S. 199.521
199.469
11+00.00
199.917
0.0227
0.0227
199.853
10+80.00
199.226
10+60.00
198.554
10+40.00
197.853
10+20.00
197.184
10+00.00
-Y7-



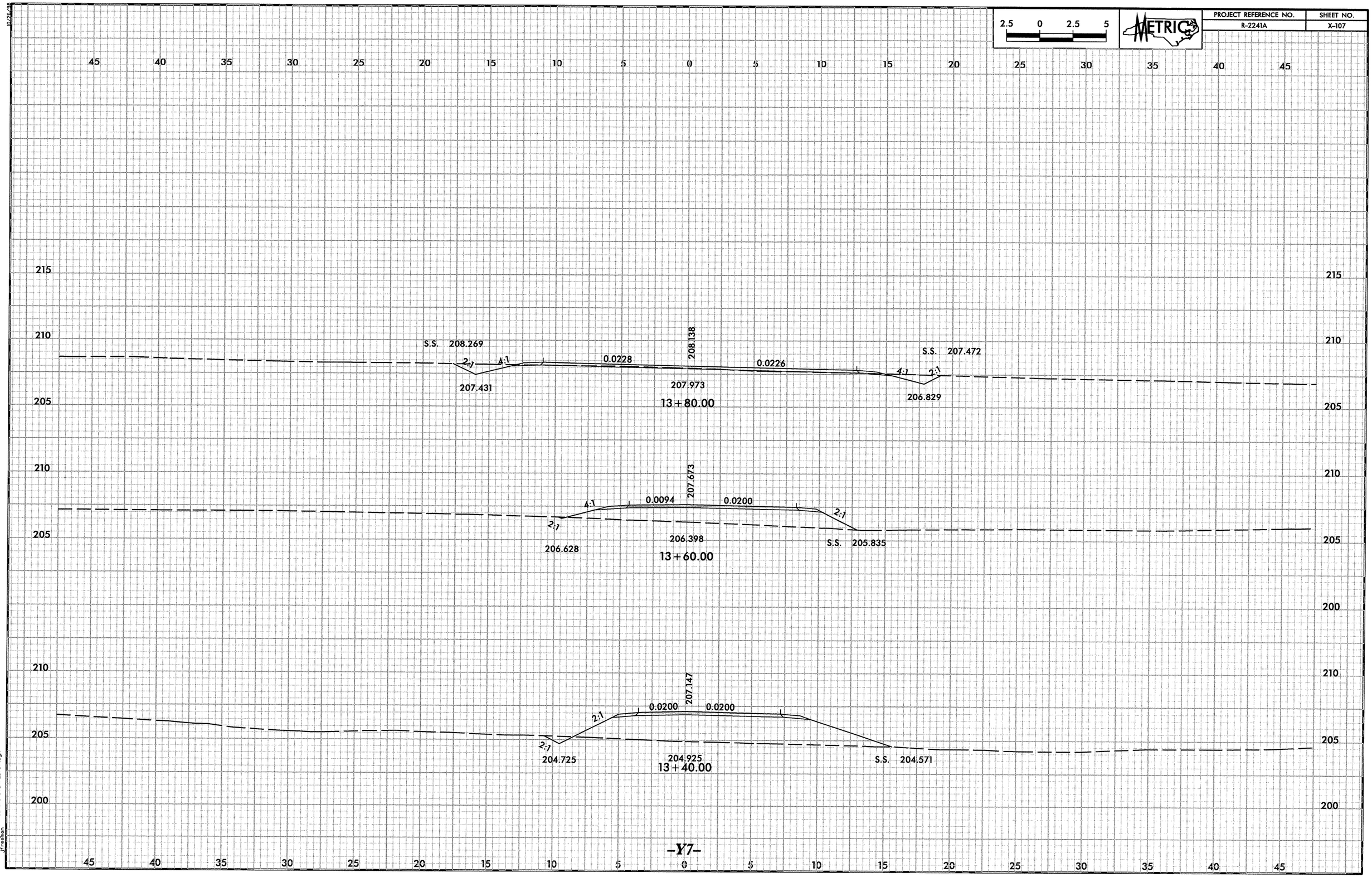
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-104
S.S. 203.000
202.310
0.0800
202.918
0.0800
202.397
S.S. 201.772
201.512
11+80.00
S.S. 203.496
201.779
0.0800
202.385
0.0800
202.273
S.S. 201.689
200.981
11+60.00
S.S. 202.367
201.158
0.0694
201.815
0.0200
201.686
S.S. 200.753
200.703
11+40.00
2.78m
1.5m
DRIVE
8 %
2 %
0.0374
201.193
0.0200
201.042
S.S. 199.995
11+20.00
-Y7-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-105
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
210
205
200
-Y9-
205.031
0.0663
0.0663
205.805
S.S. 204.838
4:1
2:1
203.710
12+60.00
S.S. 205.154
2:1
4:1
203.992
204.502
0.0800
0.0800
204.901
S.S. 204.260
4:1
2:1
203.098
12+40.00
S.S. 203.879
2:1
4:1
203.367
203.973
0.0800
0.0800
203.482
S.S. 203.293
4:1
2:1
202.569
12+20.00
S.S. 203.208
2:1
4:1
202.838
203.444
0.0800
0.0800
202.764
S.S. 202.456
4:1
2:1
202.040
12+00.00
-Y7-

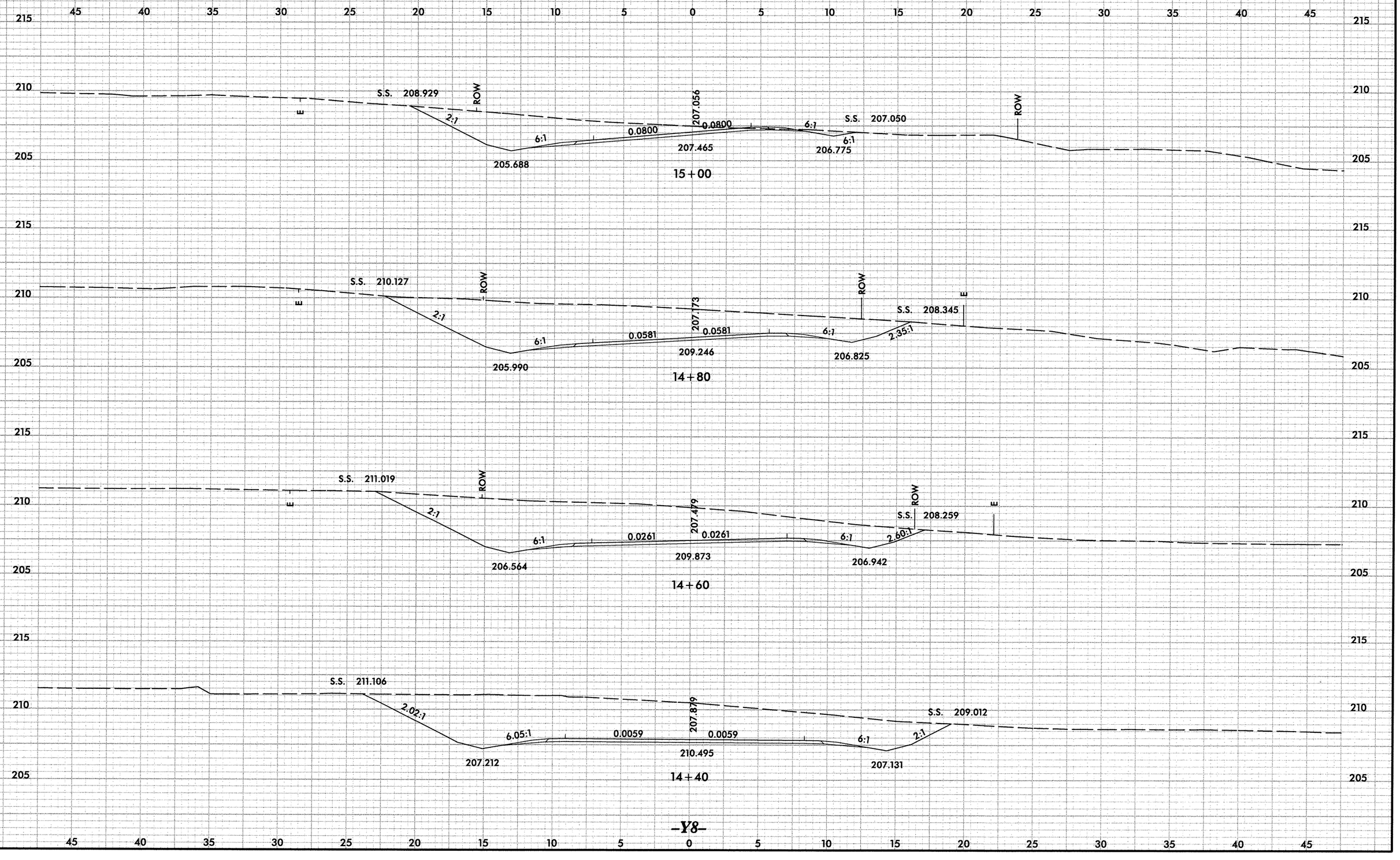


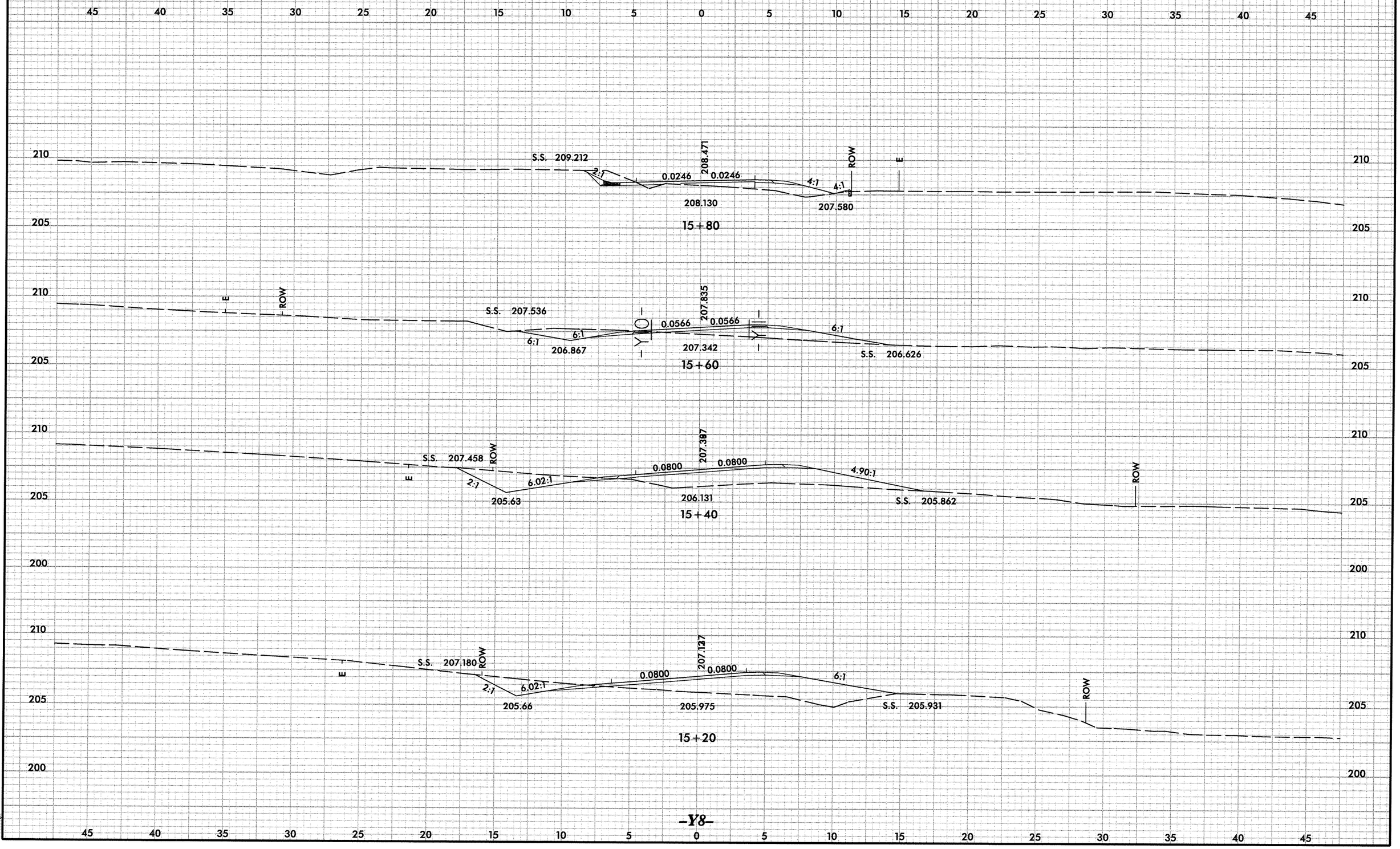
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-106
METRIC
2.5 0 2.5 5
206.618
0.0200
0.0200
4:1
3:1
2:1
204.659
204.841
S.S. 204.066
13+20.00
206.089
0.0023
0.0200
4:1
3:1
2:1
204.72
205.156
S.S. 204.289
13+00.00
205.87
0.0023
0.0200
4:1
2:1
204.72
205.27
1.5m
18.56m
2 %
DRIVE
12 %
12+92.00
205.560
0.0343
0.0343
S.S. 204.508
4:1
2:1
204.78
205.504
12+80.00
-Y7-



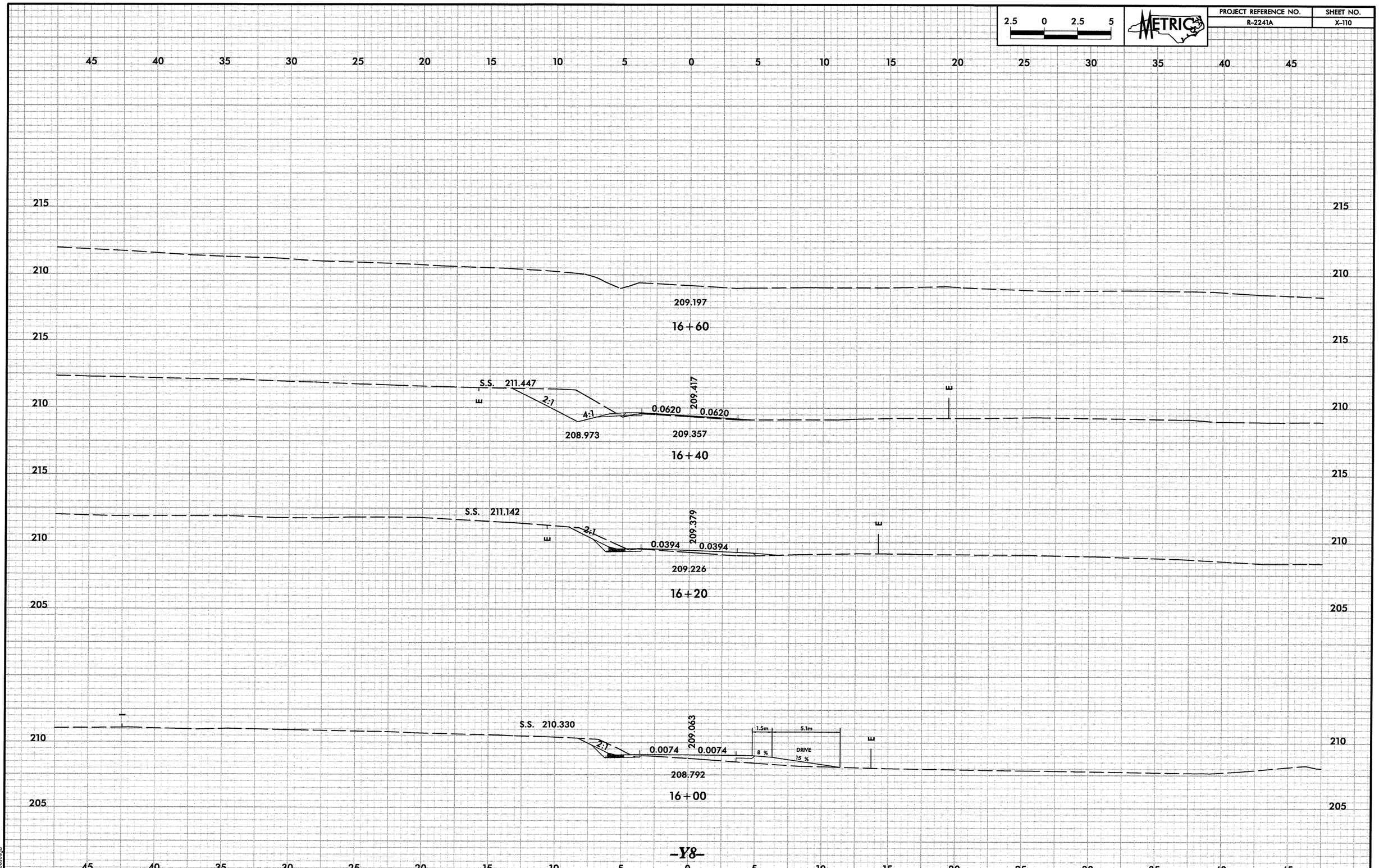
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-107
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
215
210
205
200
S.S. 208.269
2:1
4:1
0.0228
208.138
0.0226
S.S. 207.472
4:1
2:1
207.431
207.973
206.829
13+80.00
207.673
4:1
0.0094
0.0200
2:1
2:1
206.628
206.398
S.S. 205.835
13+60.00
207.147
0.0200
0.0200
2:1
2:1
204.725
204.925
S.S. 204.571
13+40.00
-Y7-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-108





2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-109
S.S. 209.212
2:1
0.0246
208.471
0.0246
4:1
4:1
ROW
E
208.130
207.580
15+80
E
ROW
S.S. 207.536
6:1
6:1
206.867
0.0566
207.835
0.0566
6:1
207.342
S.S. 206.626
15+60
S.S. 207.458
ROW
E
2:1
6.02:1
205.63
0.0800
207.387
0.0800
4.90:1
206.131
S.S. 205.862
ROW
15+40
S.S. 207.180
ROW
E
2:1
6.02:1
205.66
0.0800
207.137
0.0800
6:1
205.975
S.S. 205.931
ROW
15+20
-Y8-



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boulos.jb

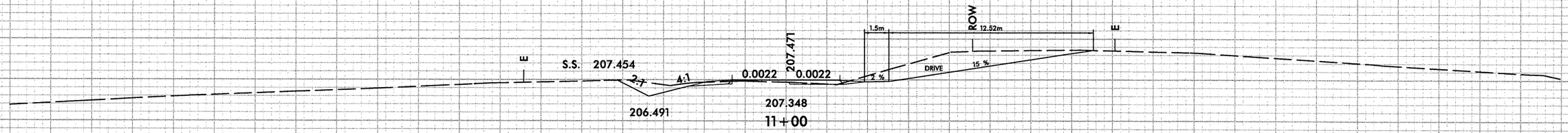
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-111

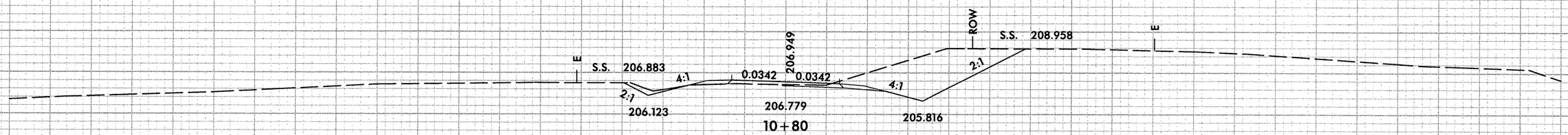
2.5 0 2.5 5

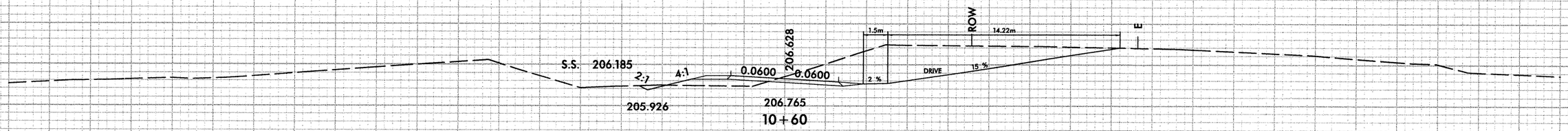
METRIC

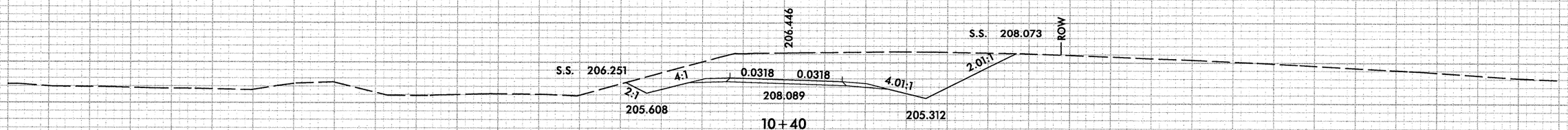
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

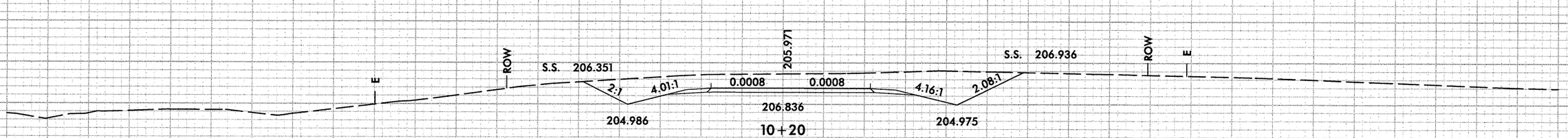
210 205











200

-Y9-

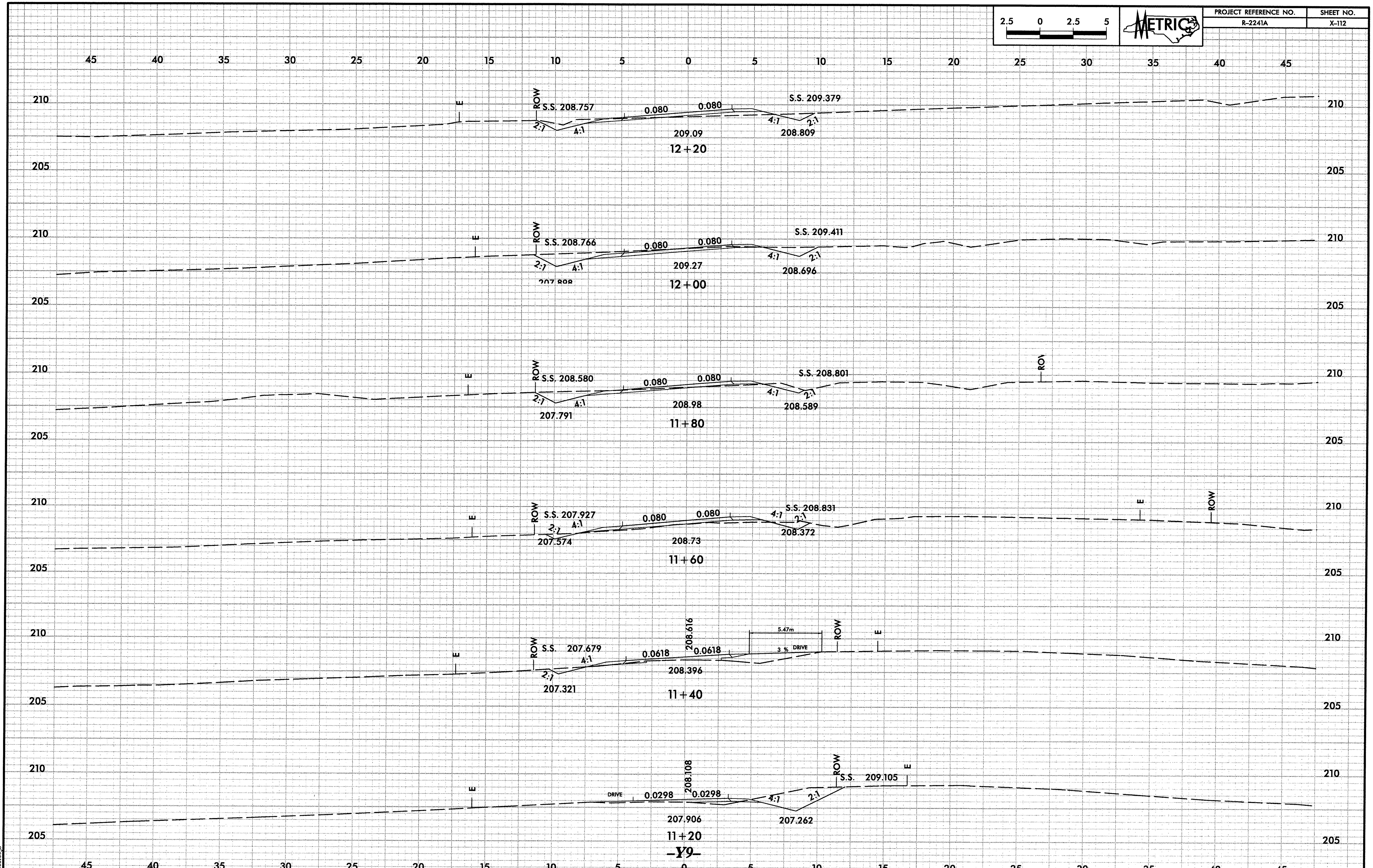
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

12/11/2012
Y_XPL_Y09.dgn

PROJECT REFERENCE NO. R-2241A

SHEET NO. X-112

METRIC



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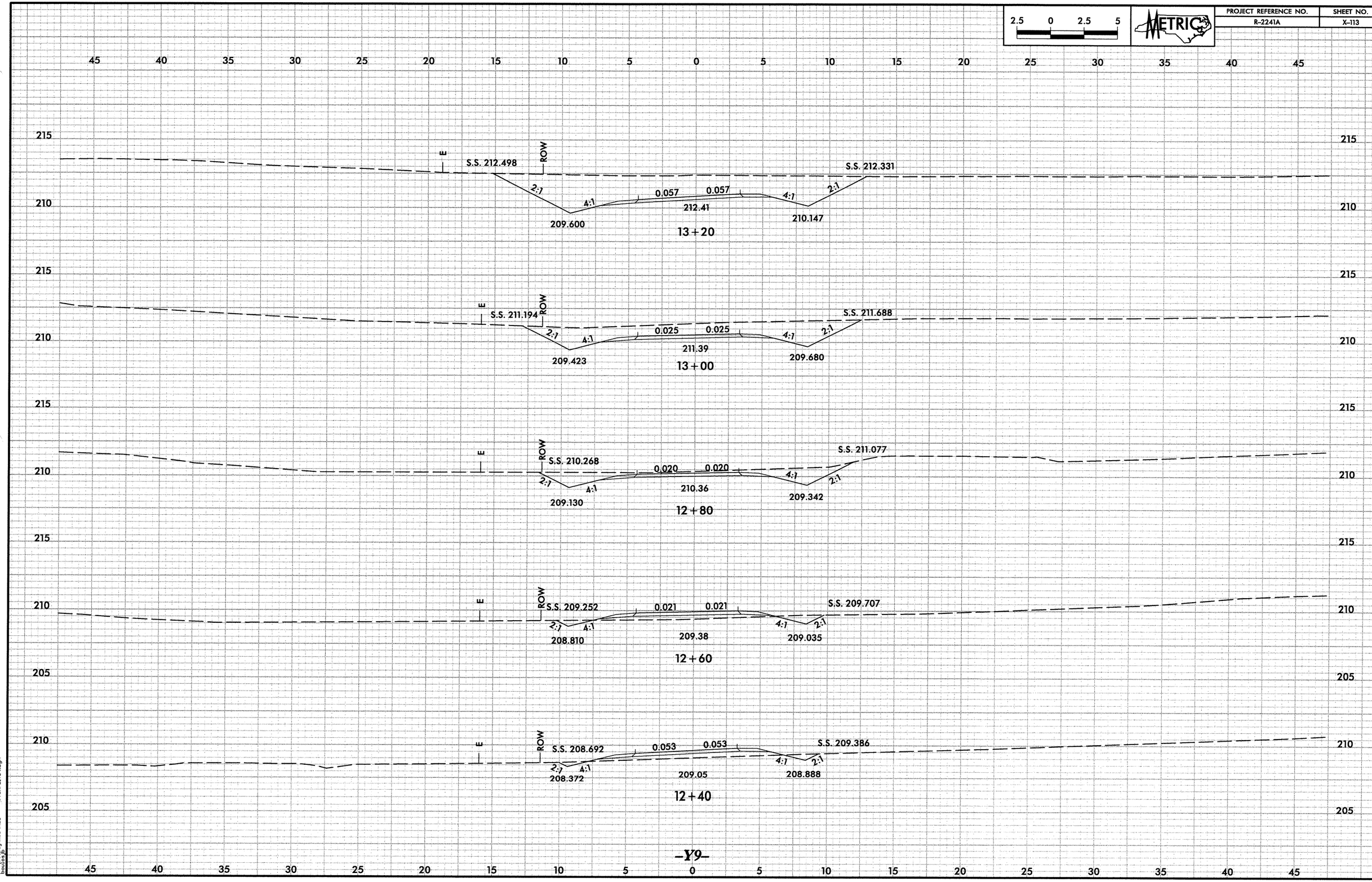
boulos.jb

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-113



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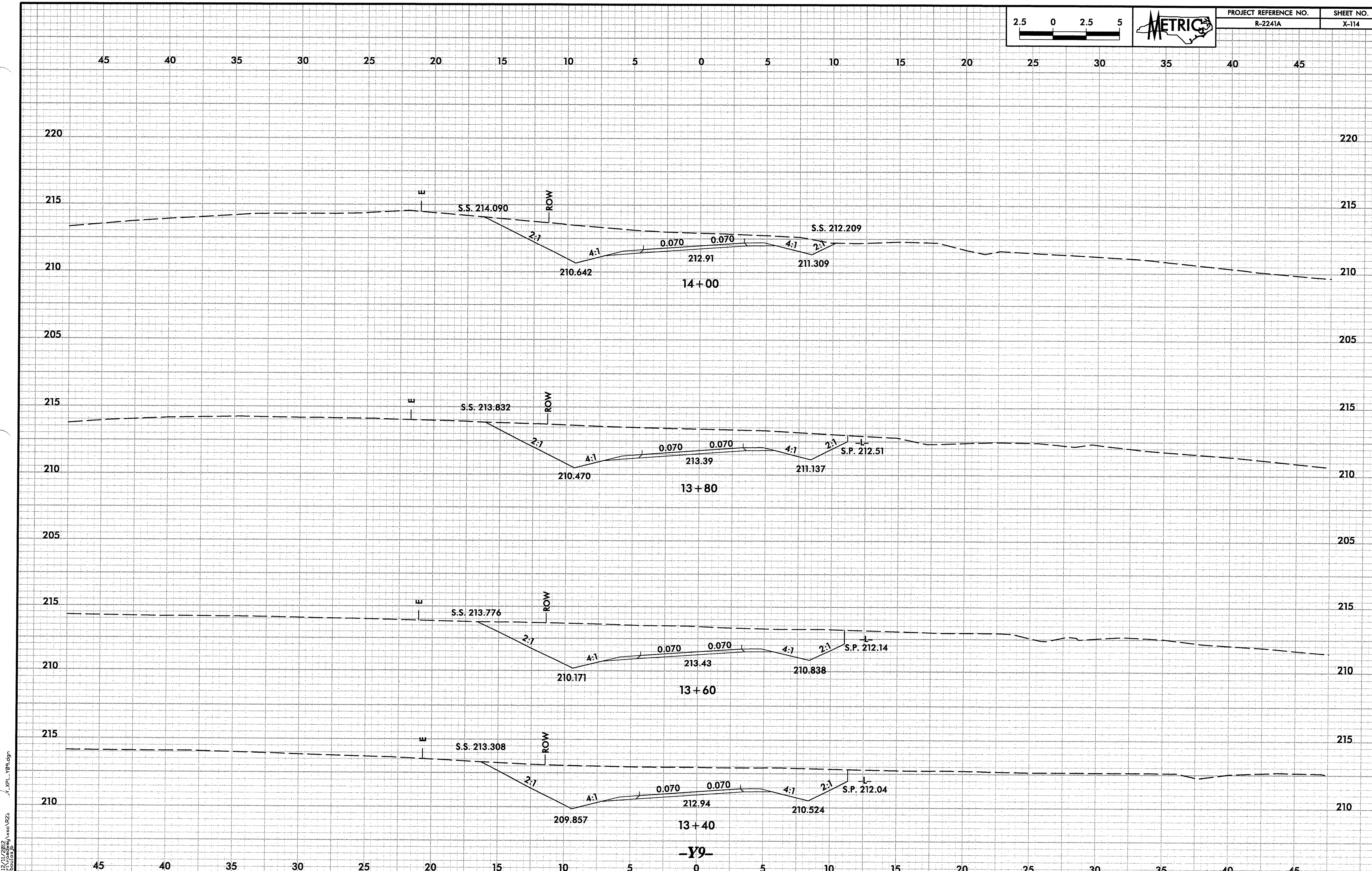
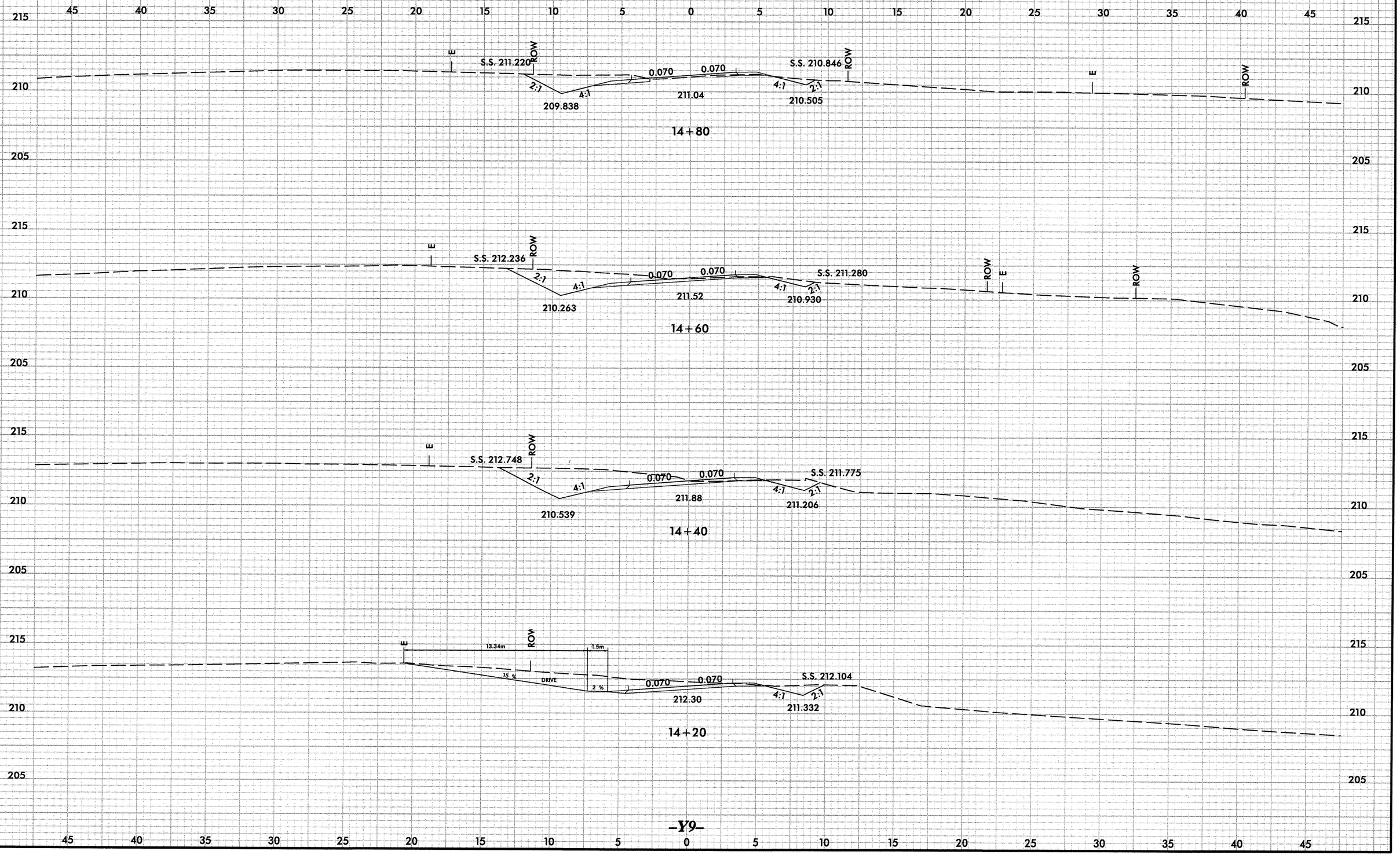
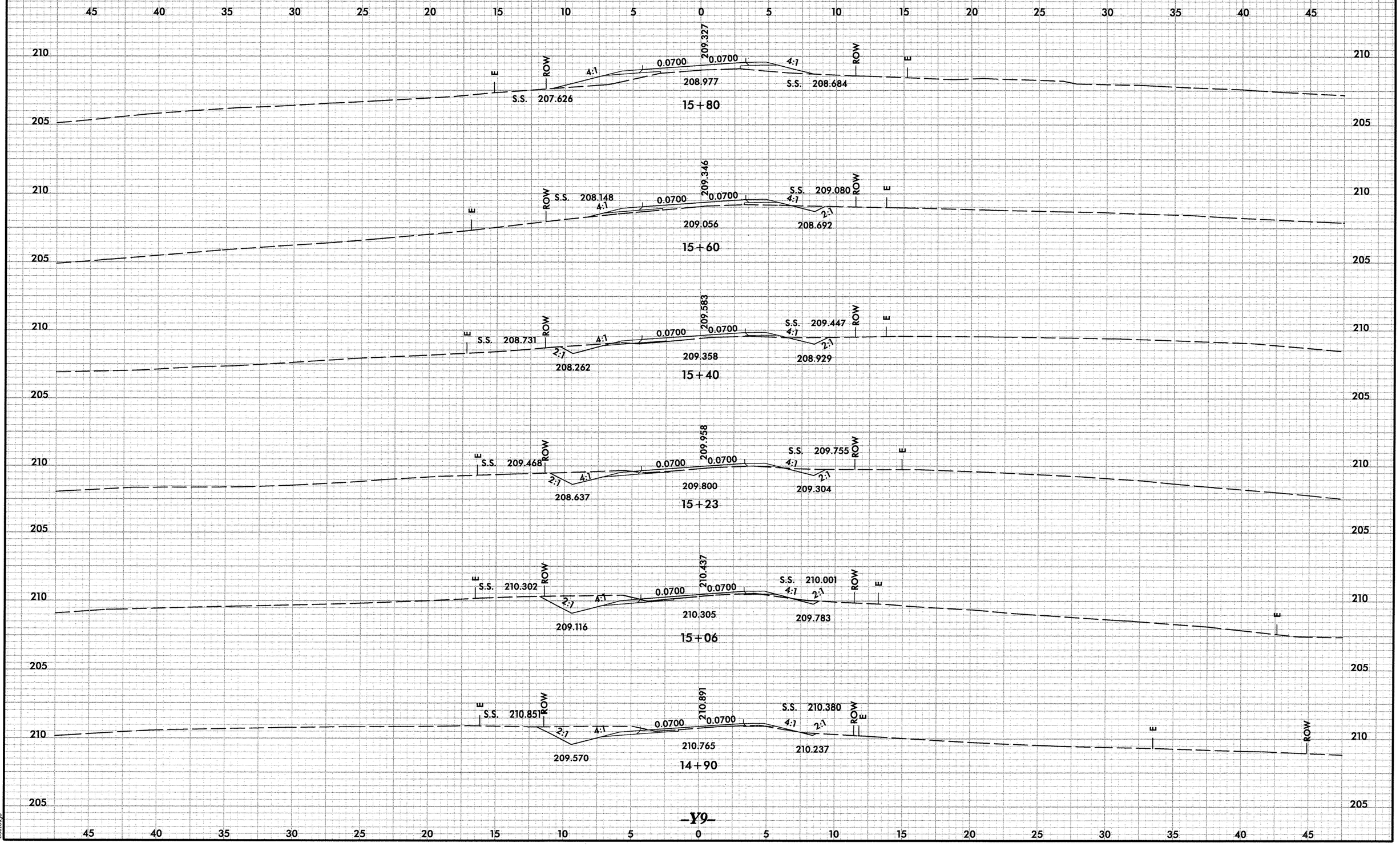
r:\roadway\xso\R22 ...Y_XPL_Y09.dgn
boulos.jb


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO. R-2241A
SHEET NO. X-114
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
220
215
210
205
E
S.S. 214.090
ROW
2:1
4:1
0.070
0.070
4:1
2:1
S.S. 212.209
210.642
212.91
211.309
14+00
E
S.S. 213.832
ROW
2:1
4:1
0.070
0.070
4:1
2:1
-L-
S.P. 212.51
210.470
213.39
211.137
13+80
E
S.S. 213.776
ROW
2:1
4:1
0.070
0.070
4:1
2:1
-L-
S.P. 212.14
210.171
213.43
210.838
13+60
E
S.S. 213.308
ROW
2:1
4:1
0.070
0.070
4:1
2:1
-L-
S.P. 212.04
209.857
212.94
210.524
13+40
-Y9-
12/11/2012
r:\roadway\xsc\R22
Y_XPL_Y09.dgn
boulosjb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-115
S.S. 211.220
ROW
E
2:1
4:1
209.838
0.070
0.070
211.04
S.S. 210.846
4:1
2:1
210.505
14+80
S.S. 212.236
210.263
211.52
S.S. 211.280
210.930
14+60
S.S. 212.748
210.539
211.88
S.S. 211.775
211.206
14+40
13.34m
1.5m
15 %
DRIVE
2 %
212.30
S.S. 212.104
211.332
14+20

2.5 0 2.5 5	METRIC	PROJECT REFERENCE NO.	SHEET NO.
		R-2241A	X-116



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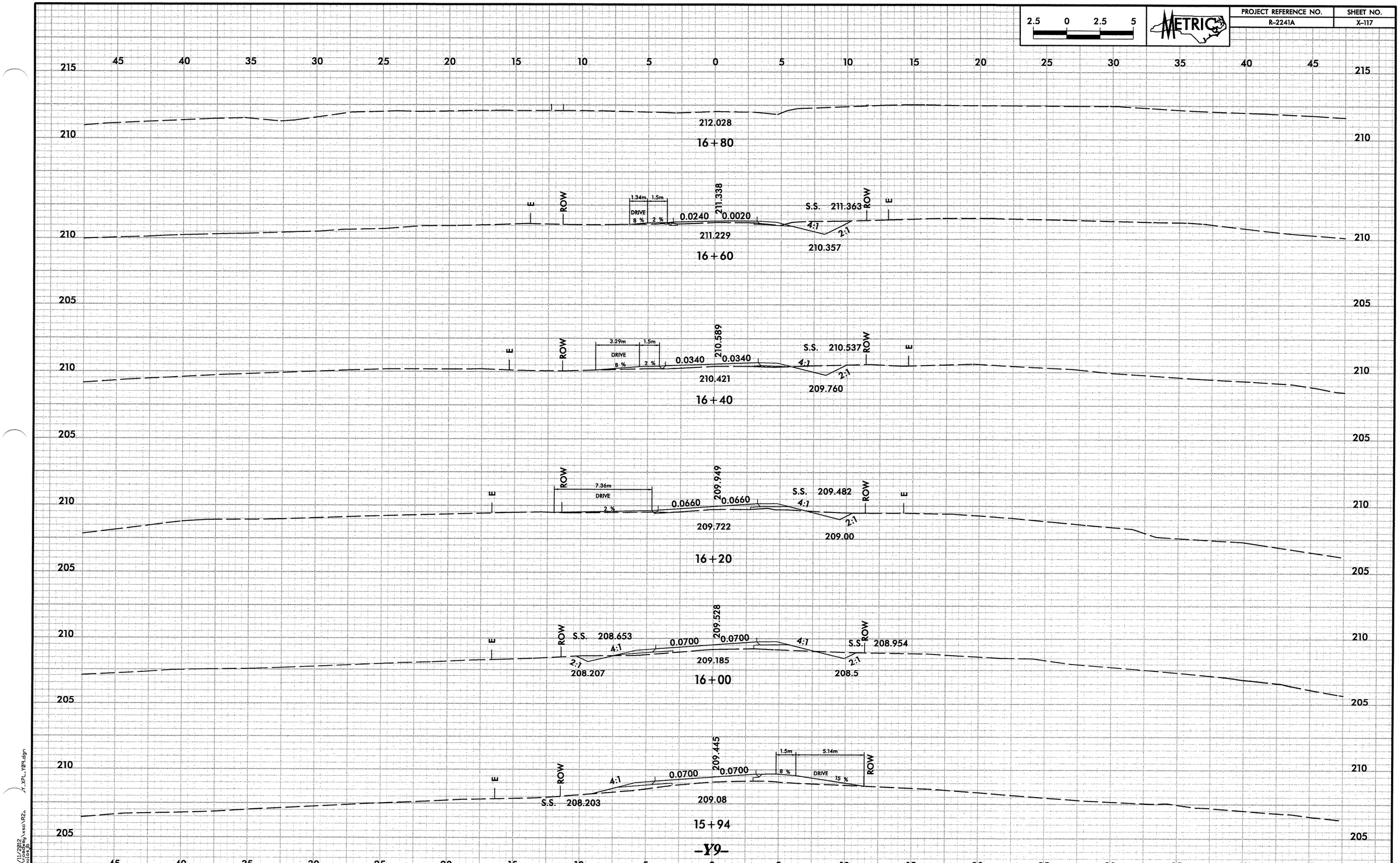
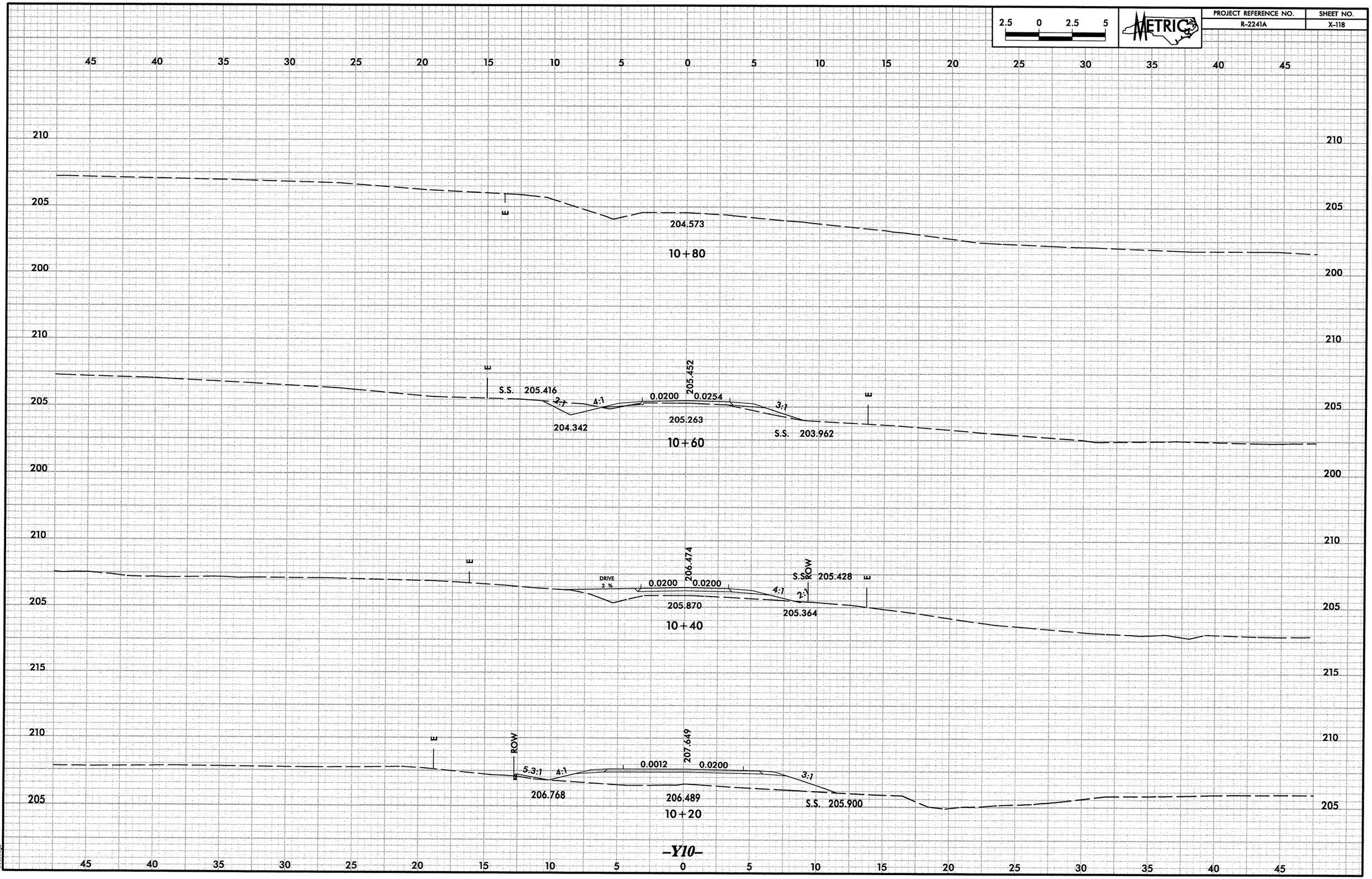
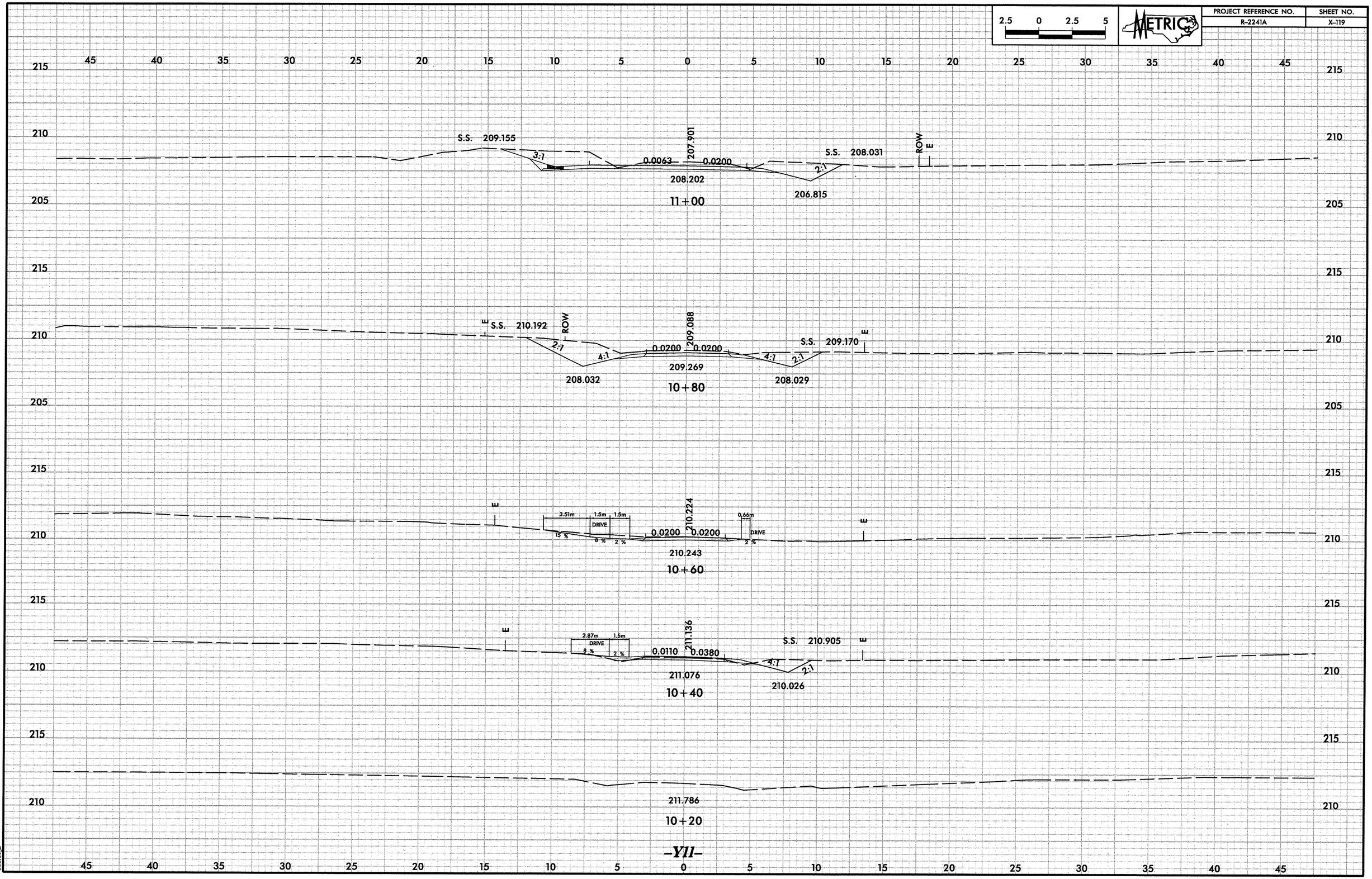
Jr_XPL_Y09.dgn



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-117
212.028
16+80
E
ROW
1.34m
1.5m
DRIVE
8 %
2 %
0.0240
211.338
0.0020
S.S. 211.363
4:1
2:1
211.229
210.357
16+60
3.29m
1.5m
DRIVE
8 %
2 %
0.0340
210.589
0.0340
S.S. 210.537
4:1
2:1
210.421
209.760
16+40
7.36m
DRIVE
2 %
0.0660
209.949
0.0660
S.S. 209.482
4:1
2:1
209.722
209.00
16+20
S.S. 208.653
4:1
0.0700
209.528
0.0700
4:1
S.S. 208.954
2:1
2:1
208.207
209.185
208.5
16+00
1.5m
5.14m
8 %
DRIVE
15 %
0.0700
209.445
0.0700
4:1
S.S. 208.203
209.08
15+94
-Y9-

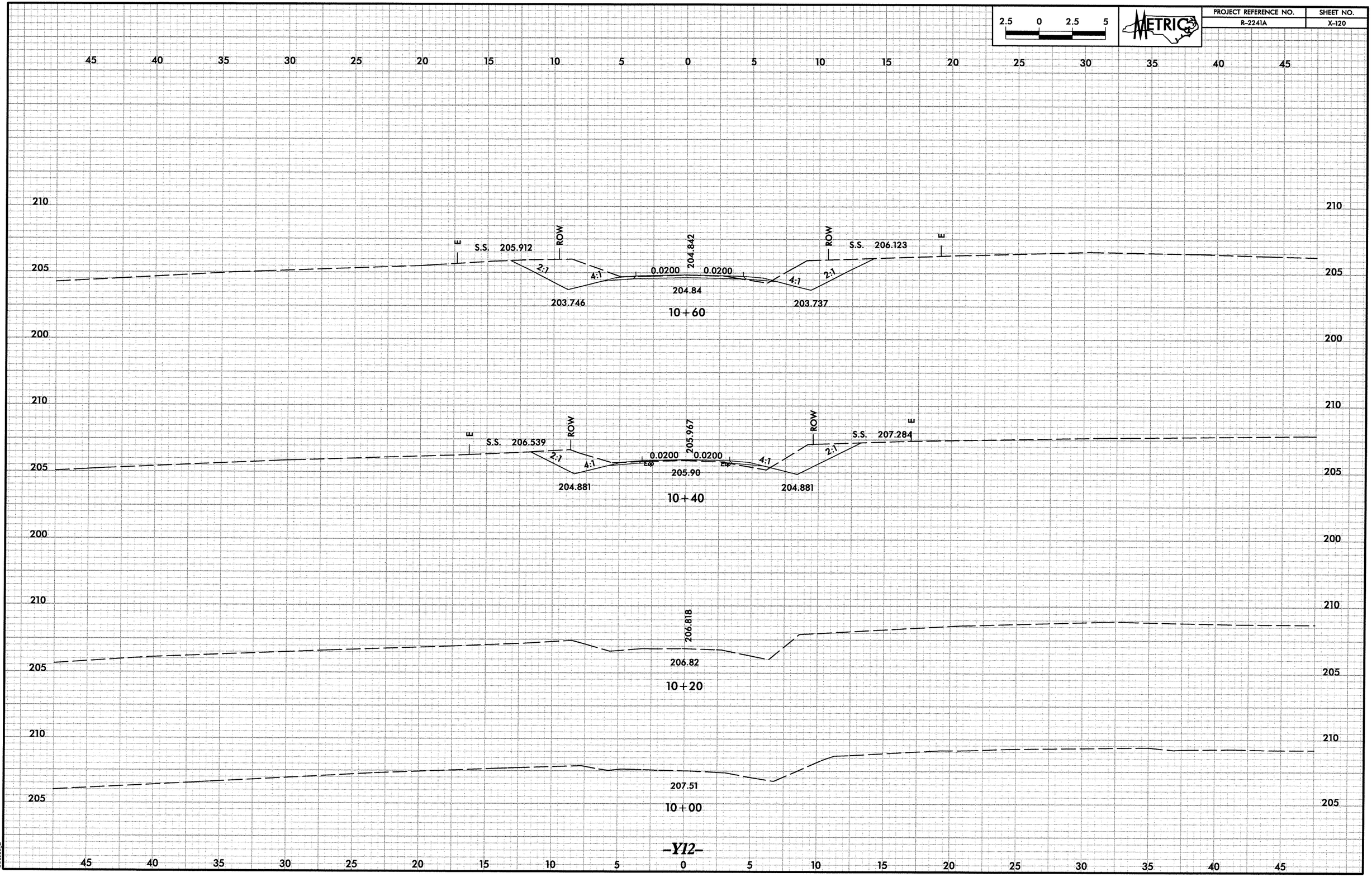


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-118
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
210
205
200
215
E
204.573
10+80
S.S. 205.416
2:1
4:1
0.0200
205.452
0.0254
3:1
204.342
205.263
S.S. 203.962
10+60
DRIVE 2 %
206.474
0.0200
0.0200
S.S. ROW 205.428
4:1
2:1
205.870
205.364
10+40
ROW
5.3:1
4:1
0.0012
207.649
0.0200
3:1
206.768
206.489
S.S. 205.900
10+20
-Y10-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-119
S.S. 209.155
3:1
0.0063
207.901
0.0200
208.202
11+00
S.S. 208.031
2:1
206.815
ROW
E
S.S. 210.192
2:1
4:1
208.032
209.088
0.0200
0.0200
209.269
10+80
S.S. 209.170
4:1
2:1
208.029
3.51m
1.5m
1.5m
DRIVE
15 %
8 %
2 %
210.224
0.0200
0.0200
0.66m
DRIVE
2 %
210.243
10+60
2.87m
1.5m
DRIVE
8 %
2 %
211.136
0.0110
0.0380
211.076
10+40
S.S. 210.905
4:1
2:1
210.026
211.786
10+20
-Y11-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-120



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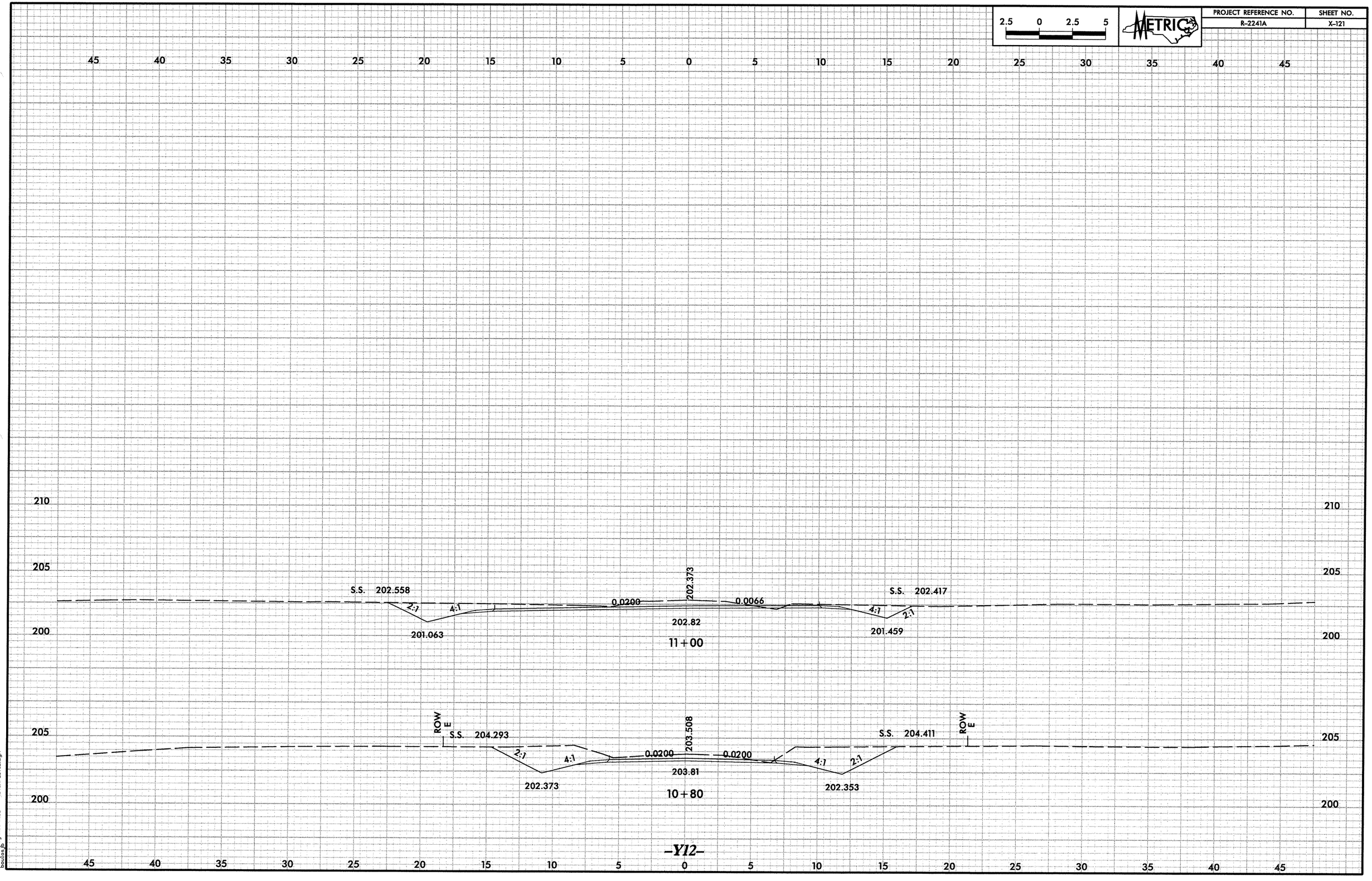
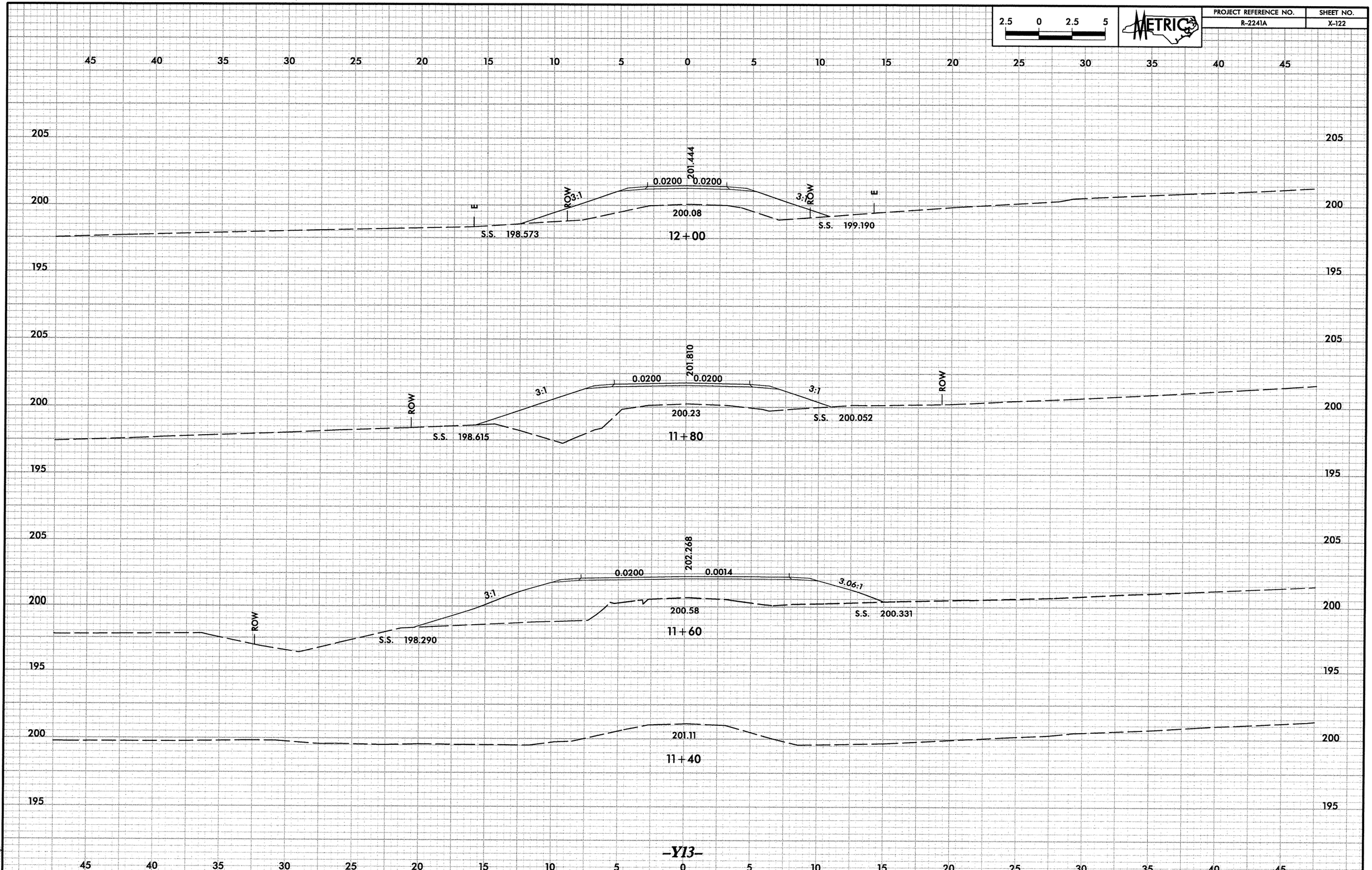
boulos.jb

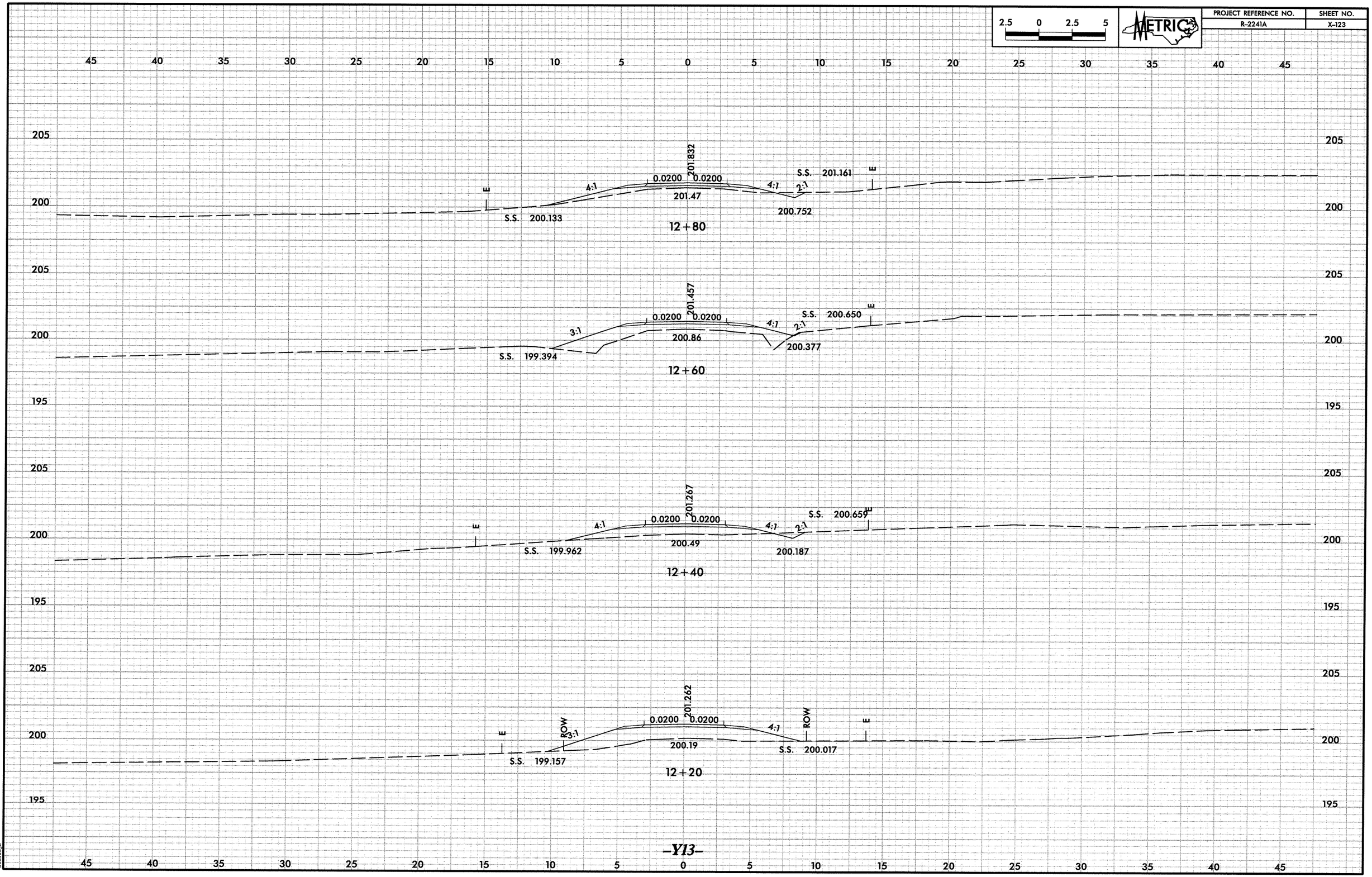


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-121
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
210
205
200
S.S. 202.558
2:1
4:1
201.063
0.0200
202.373
202.82
0.0066
S.S. 202.417
4:1
2:1
201.459
11+00
ROW E
S.S. 204.293
2:1
4:1
202.373
0.0200
203.508
203.81
0.0200
S.S. 204.411
4:1
2:1
202.353
ROW E
10+80
-Y12-

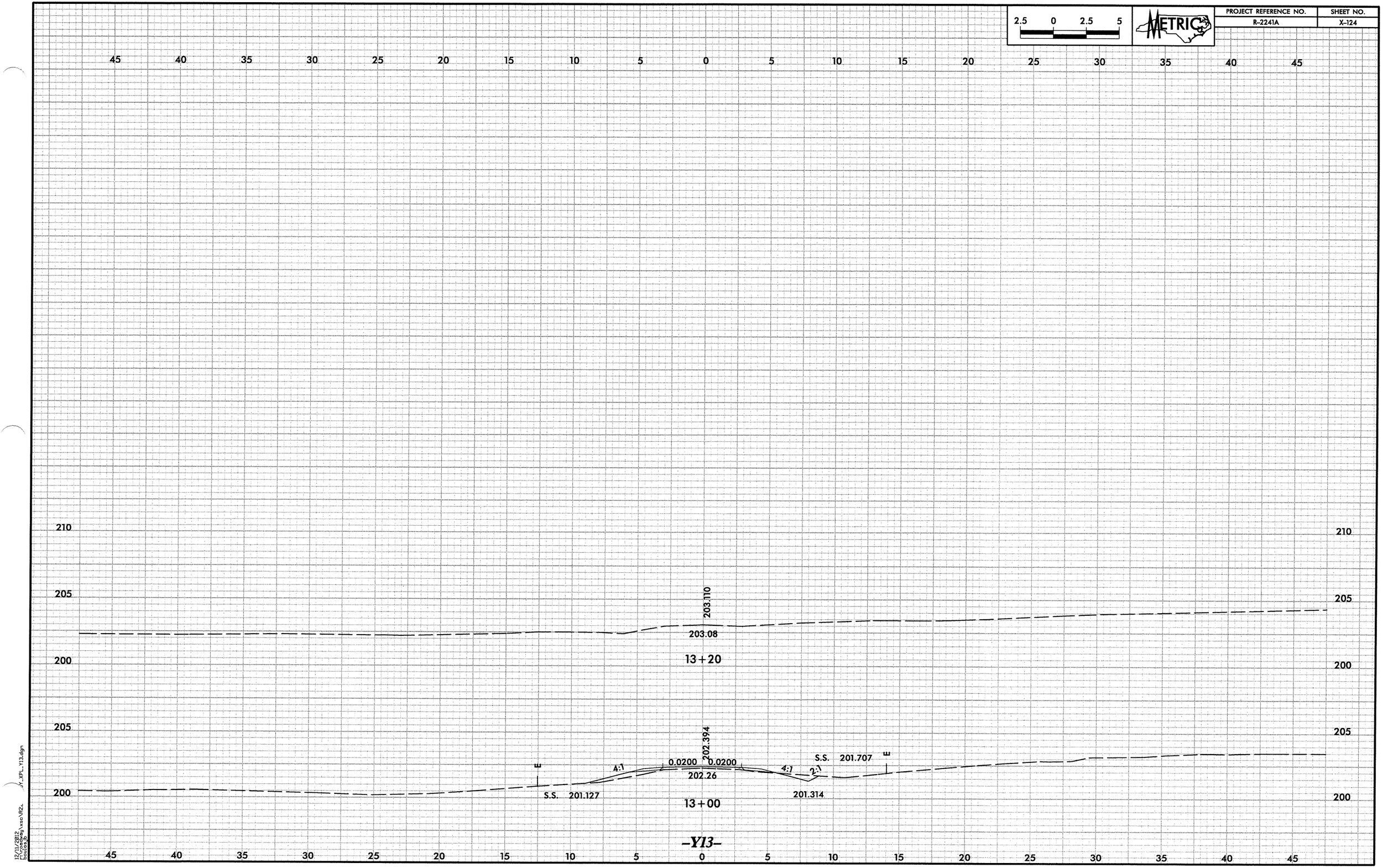
PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-122



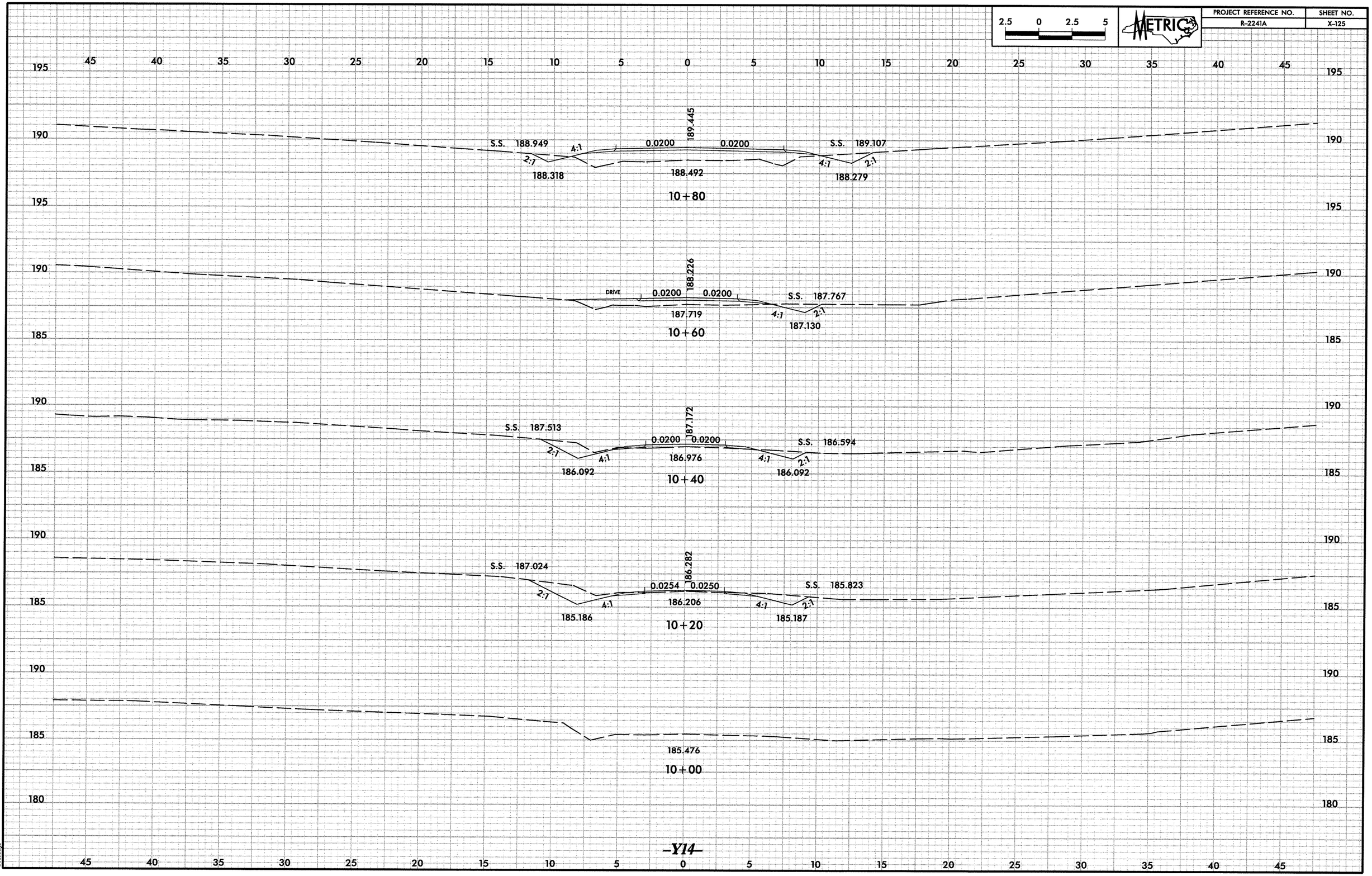
12/11/2012
r:\roadway\xsc\R2_ _Y_XPL_Y13.dgn
boulos.jb



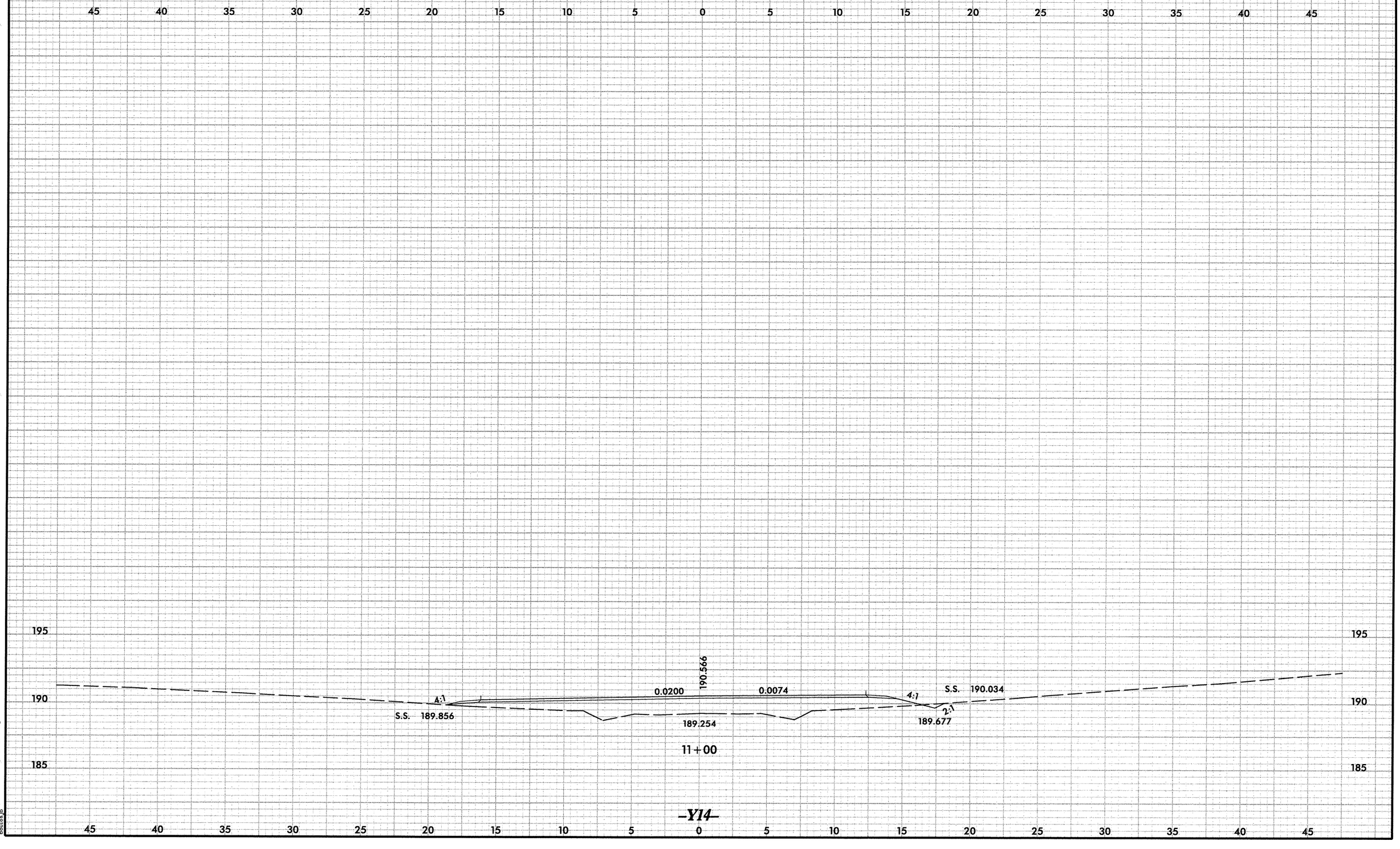
2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-123
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
205
200
195
201.832
0.0200 0.0200
4:1
2:1
S.S. 201.161
E
201.47
200.752
S.S. 200.133
12+80
201.457
0.0200 0.0200
3:1
4:1
2:1
S.S. 200.650
200.86
200.377
S.S. 199.394
12+60
201.267
0.0200 0.0200
4:1
2:1
S.S. 200.659
200.49
200.187
S.S. 199.962
12+40
201.262
0.0200 0.0200
ROW
3:1
4:1
200.19
S.S. 200.017
S.S. 199.157
12+20
-Y13-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-124
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
210
205
200
203.110
203.08
13+20
202.394
0.0200
0.0200
202.26
4:1
4:1
2:1
S.S. 201.707
S.S. 201.127
201.314
13+00
-Y13-



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-125
S.S. 188.949
4:1
2:1
188.318
0.0200
189.445
0.0200
188.492
S.S. 189.107
4:1
2:1
188.279
10+80
DRIVE
0.0200
188.226
0.0200
187.719
S.S. 187.767
4:1
2:1
187.130
10+60
S.S. 187.513
2:1
4:1
186.092
0.0200
187.172
0.0200
186.976
S.S. 186.594
4:1
2:1
186.092
10+40
S.S. 187.024
2:1
4:1
185.186
0.0254
186.282
0.0250
186.206
S.S. 185.823
4:1
2:1
185.187
10+20
185.476
10+00
-Y14-



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boulos.jb

2.5 0 2.5 5	METRIC	PROJECT REFERENCE NO.	SHEET NO.
		R-2241A	X-127

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

200 195 190

192.499

12+20

S.S. 192.971 2:1 4:1 191.232

192.315 0.0200 0.0200 192.278

S.S. 192.420 4:1 2:1 191.235

12+00

S.S. 192.025 2:1 4:1 190.690

191.801 0.0200 0.0200 191.815

S.S. 191.929 4:1 2:1 190.699

11+80

S.S. 191.298 2:1 4:1 189.882

191.053 0.0200 0.0164 191.322

S.S. 191.742 4:1 2:1 189.931

11+60

S.S. 191.099 2:1 4:1 189.467

190.797 0.0200 0.0156 190.684

S.S. 190.877 4:1 2:1 189.903

11+40

–Y15–

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

12/11/2012
bcudding
J:\PL_Y15.dgn
```
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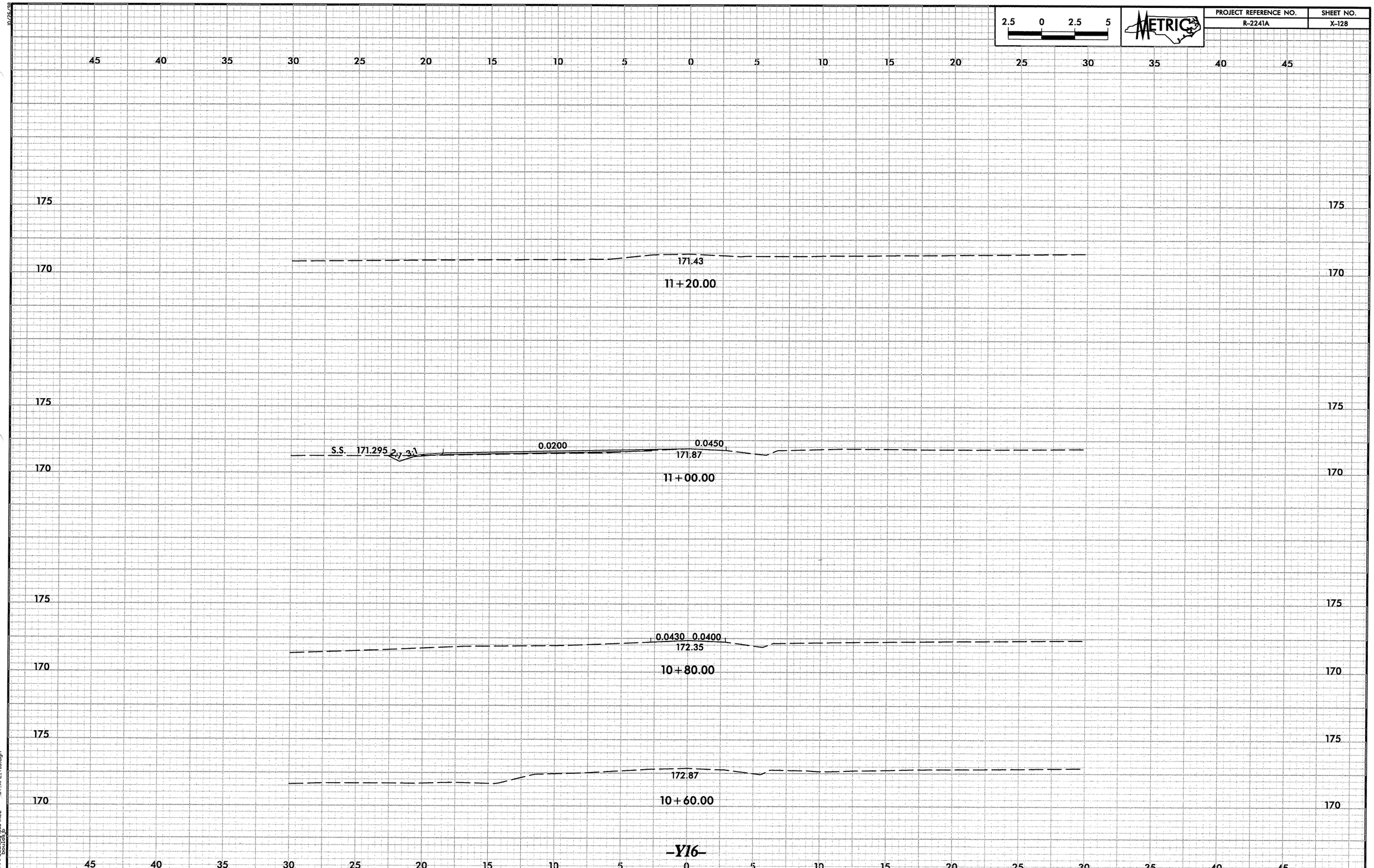


2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-128
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
175
170
171.43
11+20.00
S.S. 171.295 2:1 3:1
0.0200
0.0450
171.87
11+00.00
0.0430 0.0400
172.35
10+80.00
172.87
10+60.00
-Y16-

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-129

2.5 0 2.5 5

METRIC

45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

180 175 170

S.S. 173.951 6:1 0.0690 174.076 0.0690 6:1 S.S. 173.322
173.688 173.885 172.989
11+40

175 170

S.S. 173.704 6:1 0.0370 174.166 0.0370 6:1 S.S. 173.490
174.037
11+20

175 170

S.S. 173.166 6:1 0.0050 174.255 0.0200 6:1 S.S. 172.907
174.172
11+00

175 170

S.S. 174.056 6:1 0.0270 174.345 0.0300 6:1 S.S. 174.015
174.285
10+80

175 170

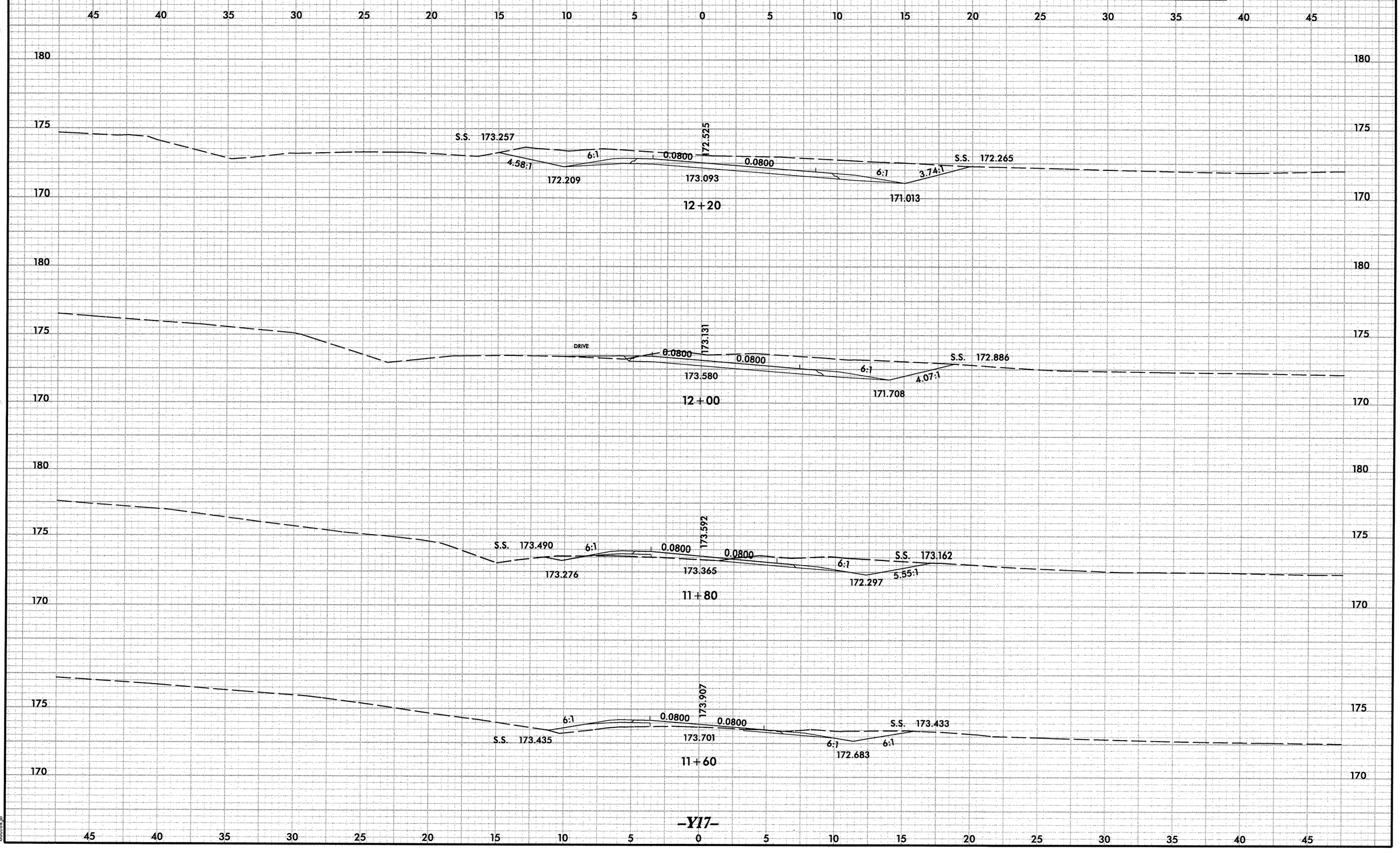
174.409
10+60

175 170

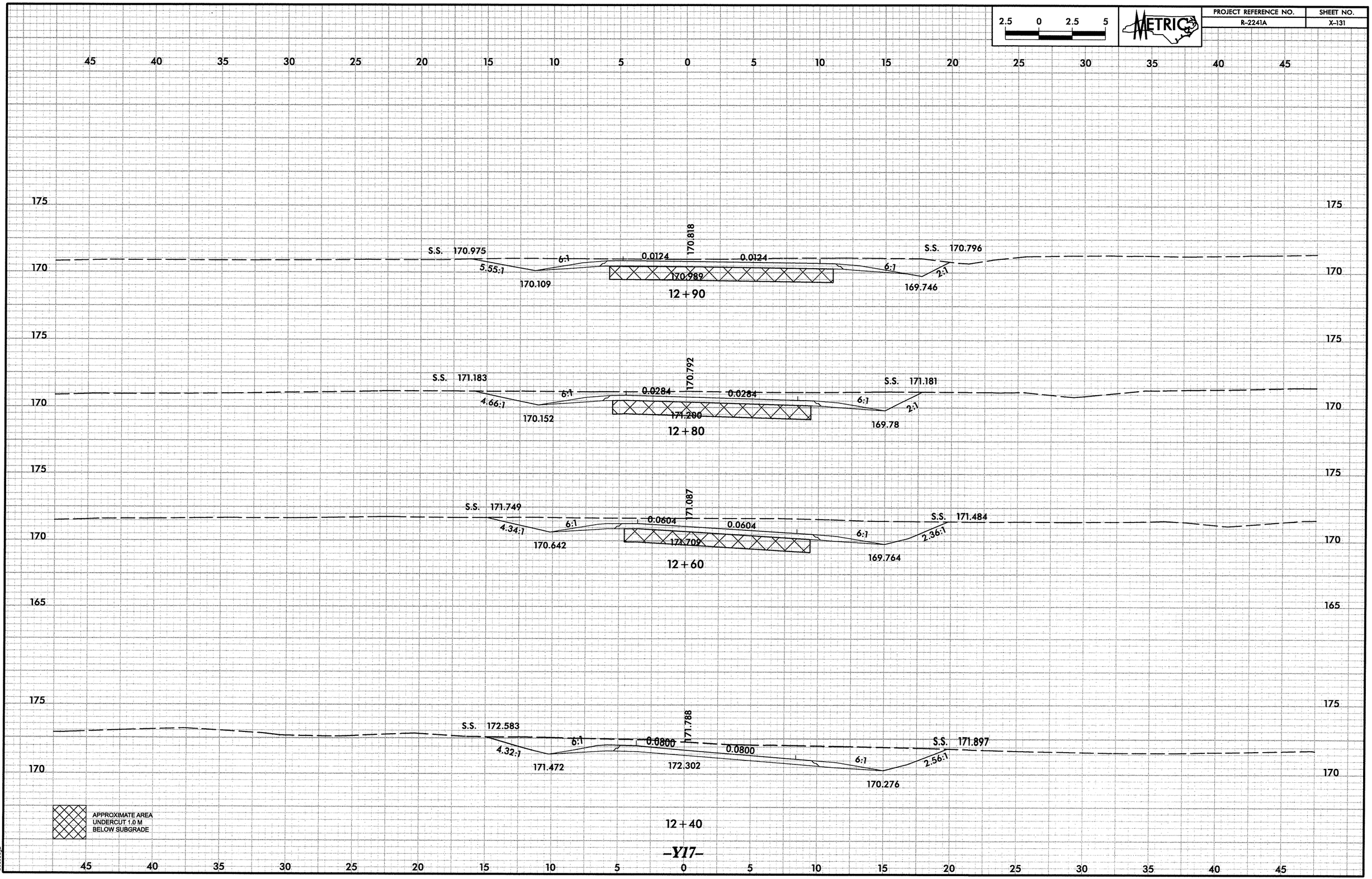
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45

–Y17–

12/11/2012
Y_XPL_Y17.dgn
Plotted by: lvsch
Plotted on: XR22



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-130
S.S. 173.257
172.525
6:1
0.0800
0.0800
4.58:1
172.209
173.093
6:1
3.74:1
S.S. 172.265
171.013
12+20
DRIVE
173.131
0.0800
0.0800
6:1
4.07:1
S.S. 172.886
173.580
171.708
12+00
S.S. 173.490
6:1
0.0800
173.592
0.0800
6:1
S.S. 173.162
173.276
173.365
172.297
5.55:1
11+80
173.907
6:1
0.0800
0.0800
S.S. 173.433
S.S. 173.435
173.701
6:1
6:1
172.683
11+60
-Y17-



12/11/2012
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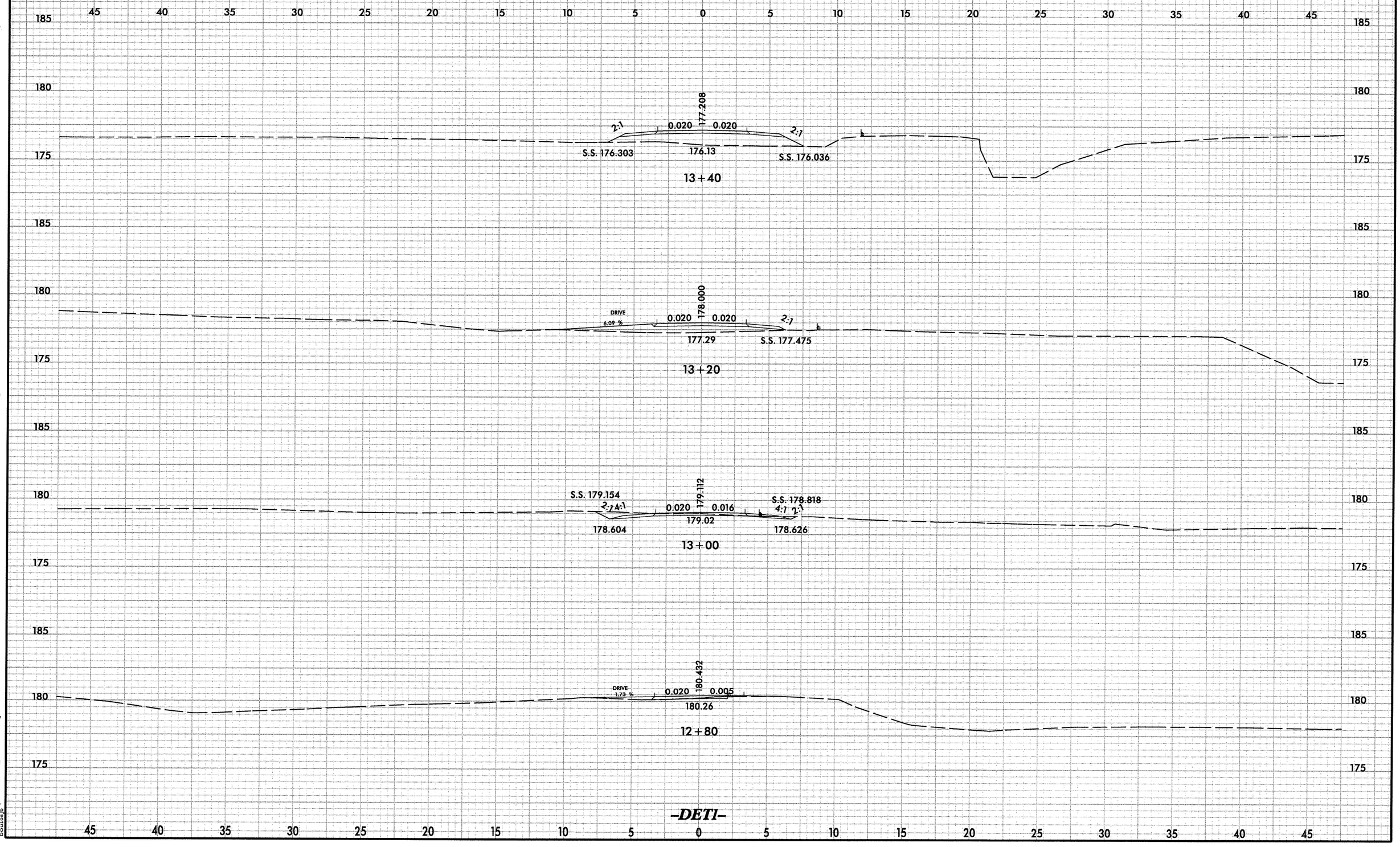
bauloss.jb
Y_XPL_Y17.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-132



12/11/2012
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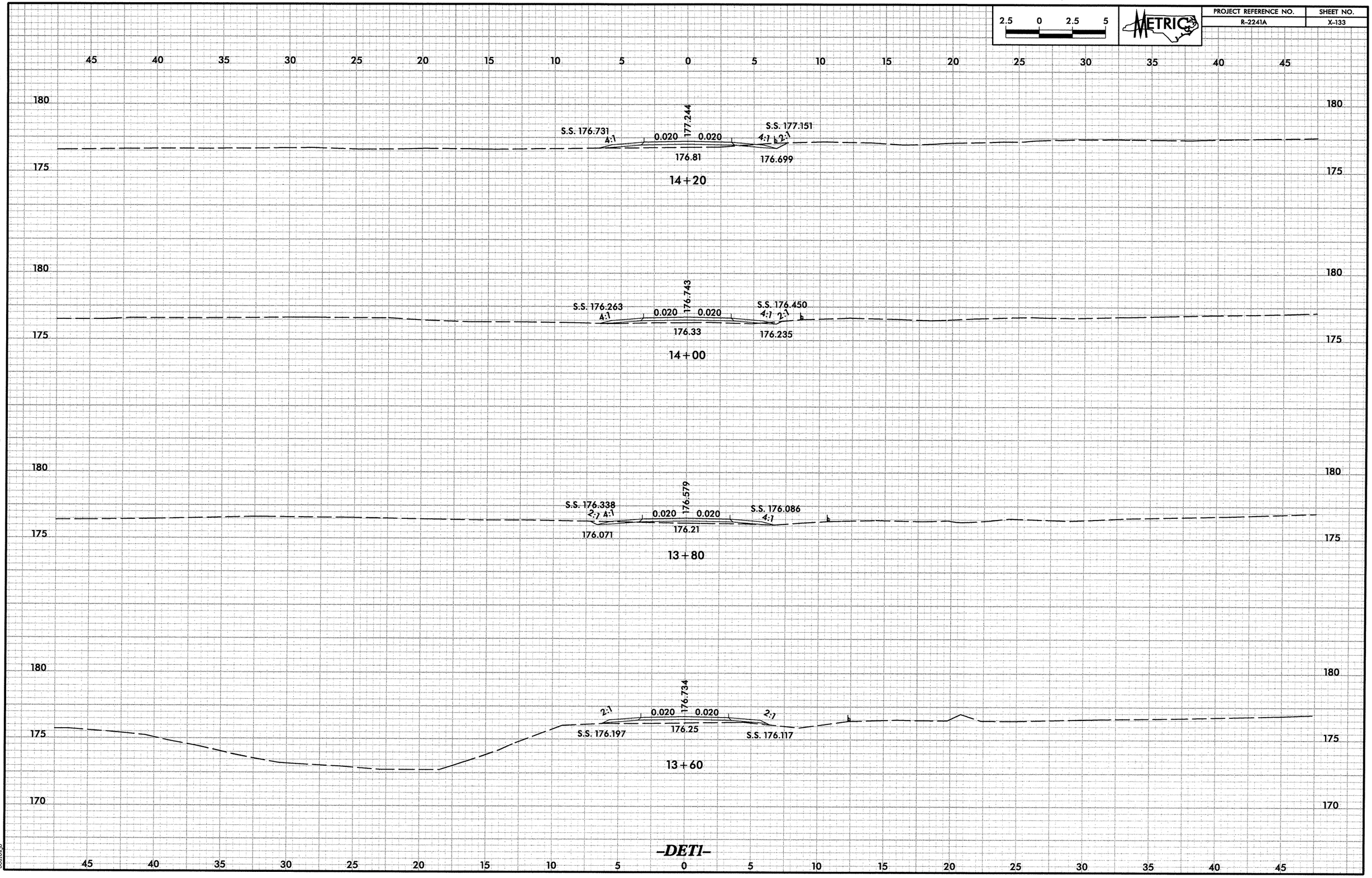
boulosjb

PROJECT REFERENCE NO.	SHEET NO.
R-2241A	X-133



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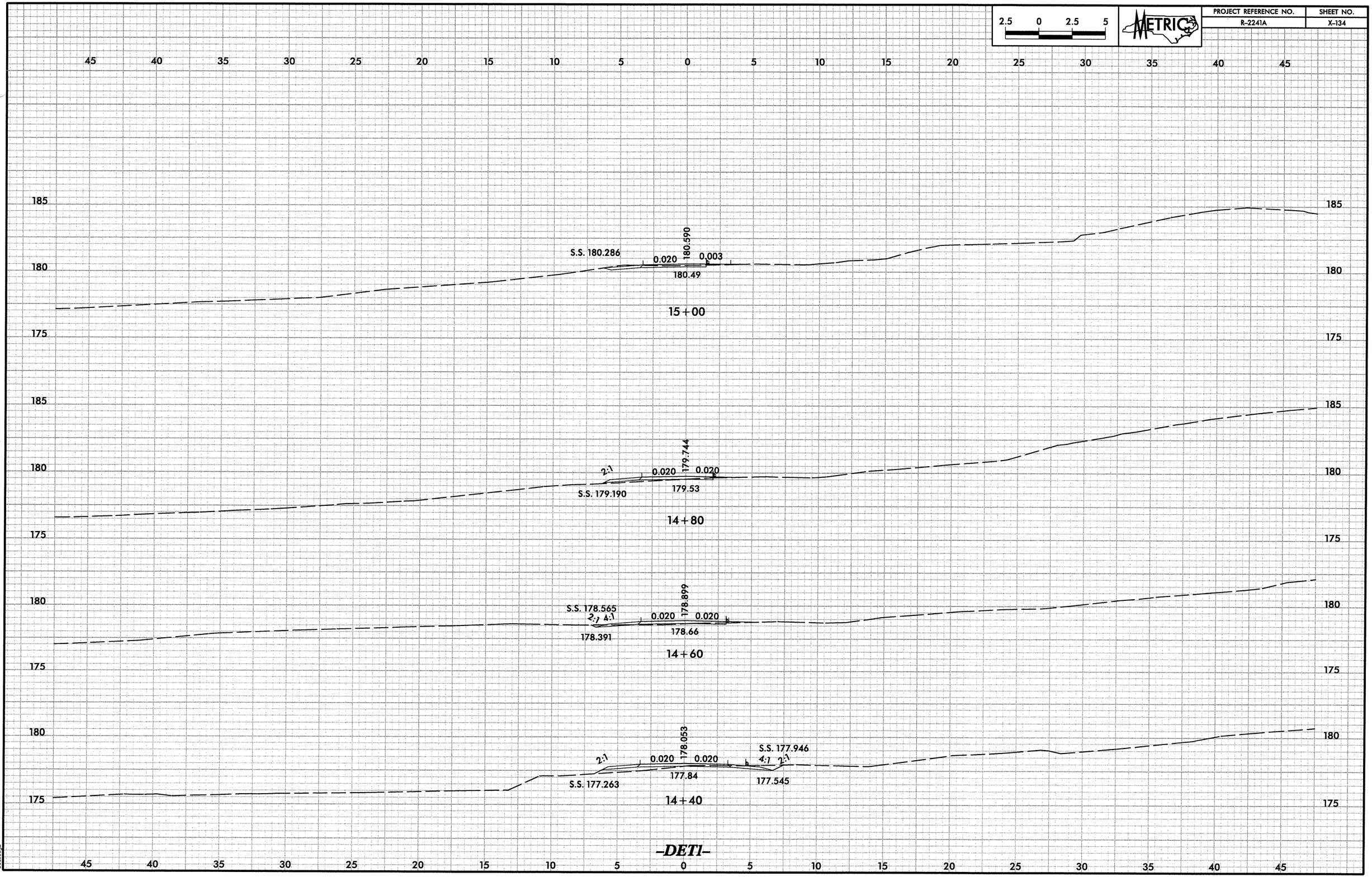
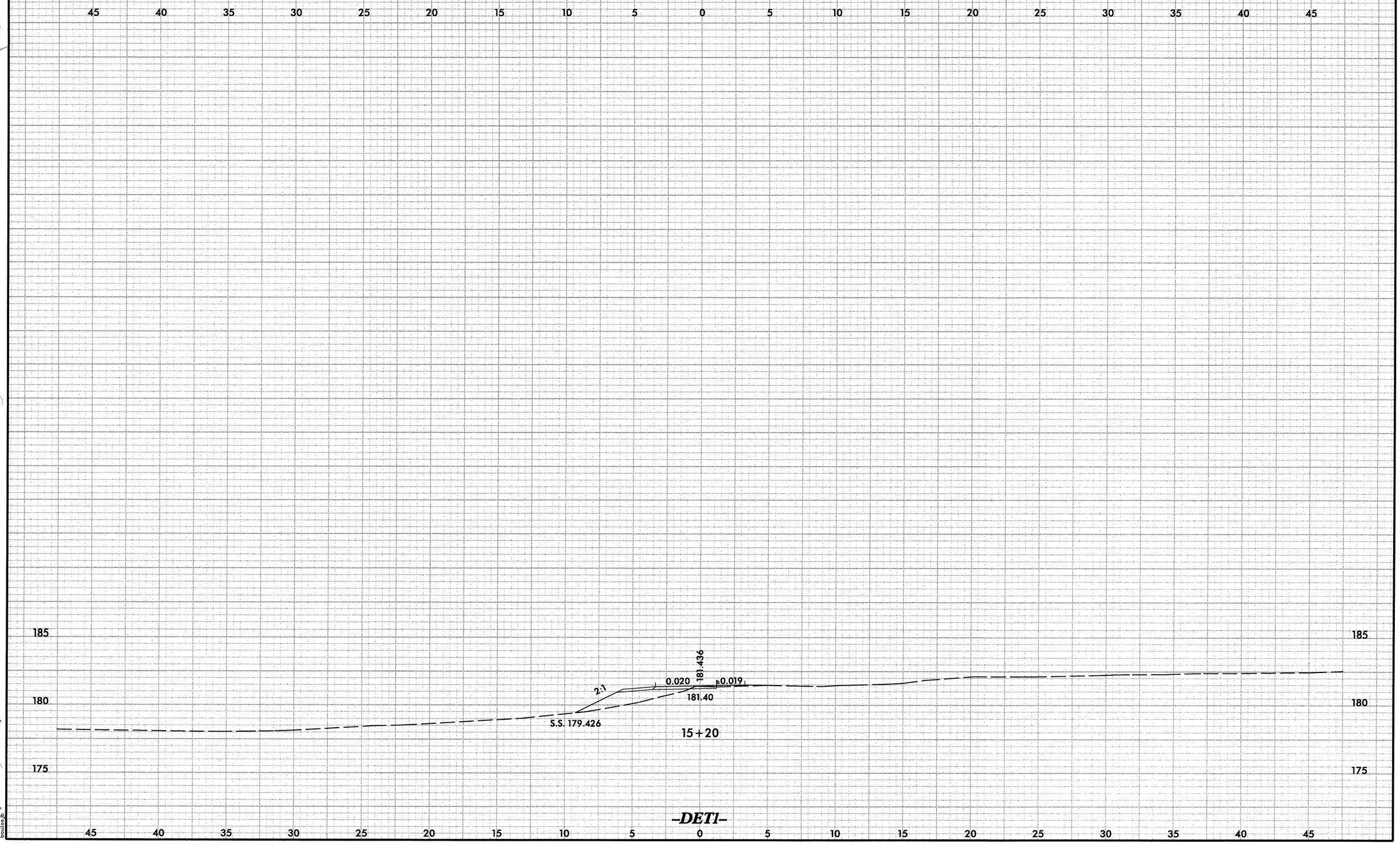
boulos.jb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-134
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
185
180
175
S.S. 180.286
0.020
180.590
0.003
180.49
15+00
2:1
0.020
179.744
0.020
S.S. 179.190
179.53
14+80
S.S. 178.565
2:1 4:1
0.020
178.899
0.020
178.391
178.66
14+60
2:1
0.020
178.053
0.020
S.S. 177.946
4:1 2:1
S.S. 177.263
177.84
177.545
14+40
-DET1-



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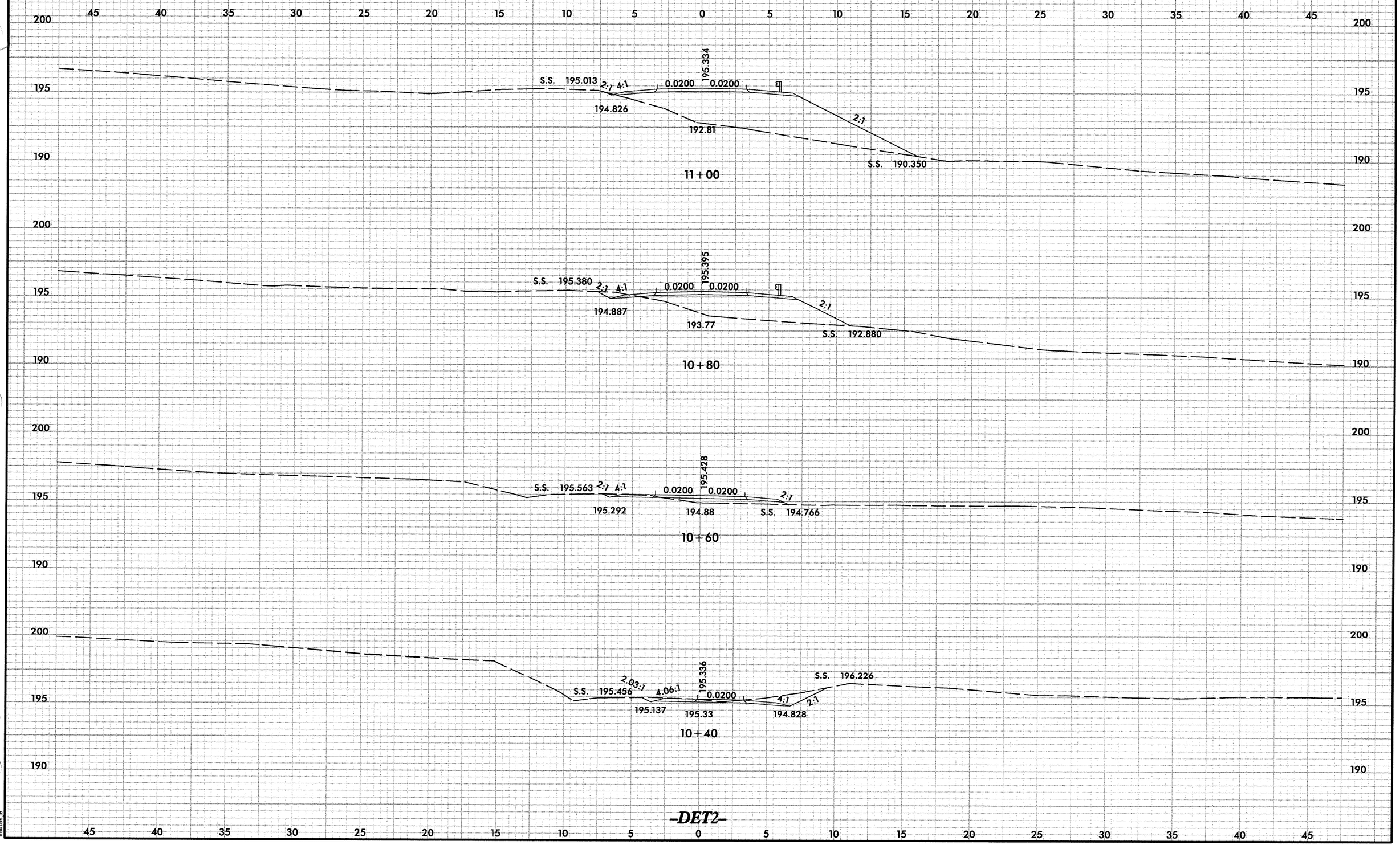
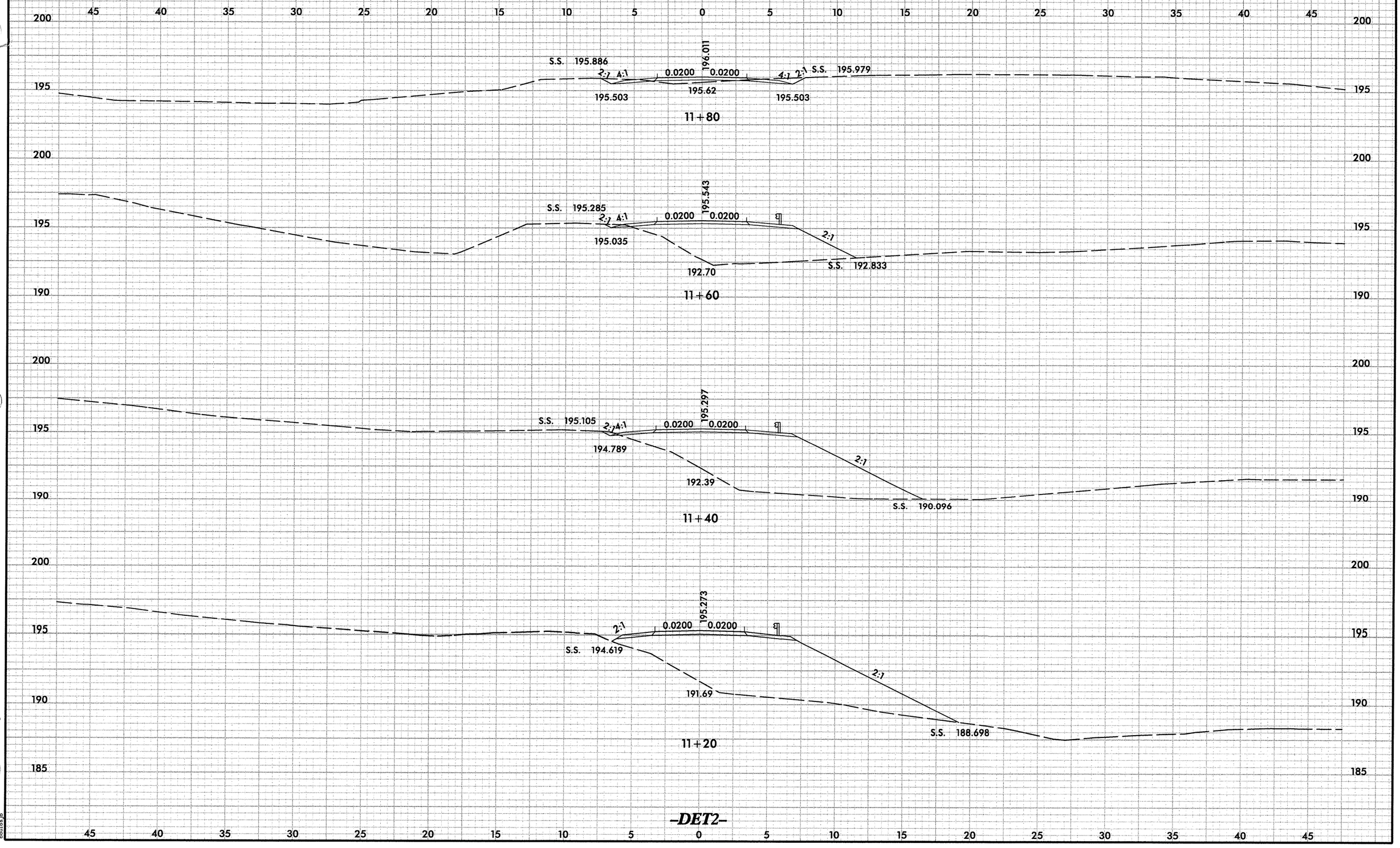
boulosjb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-136
S.S. 195.013
2:1
4:1
0.0200
195.334
0.0200
194.826
192.81
2:1
S.S. 190.350
11+00
S.S. 195.380
2:1
4:1
0.0200
195.395
0.0200
194.887
193.77
2:1
S.S. 192.880
10+80
S.S. 195.563
2:1
4:1
0.0200
195.428
0.0200
2:1
195.292
194.88
S.S. 194.766
10+60
S.S. 195.456
2.03:1
4.06:1
195.336
0.0200
4:1
2:1
S.S. 196.226
195.137
195.33
194.828
10+40
-DET2-



12/11/2012
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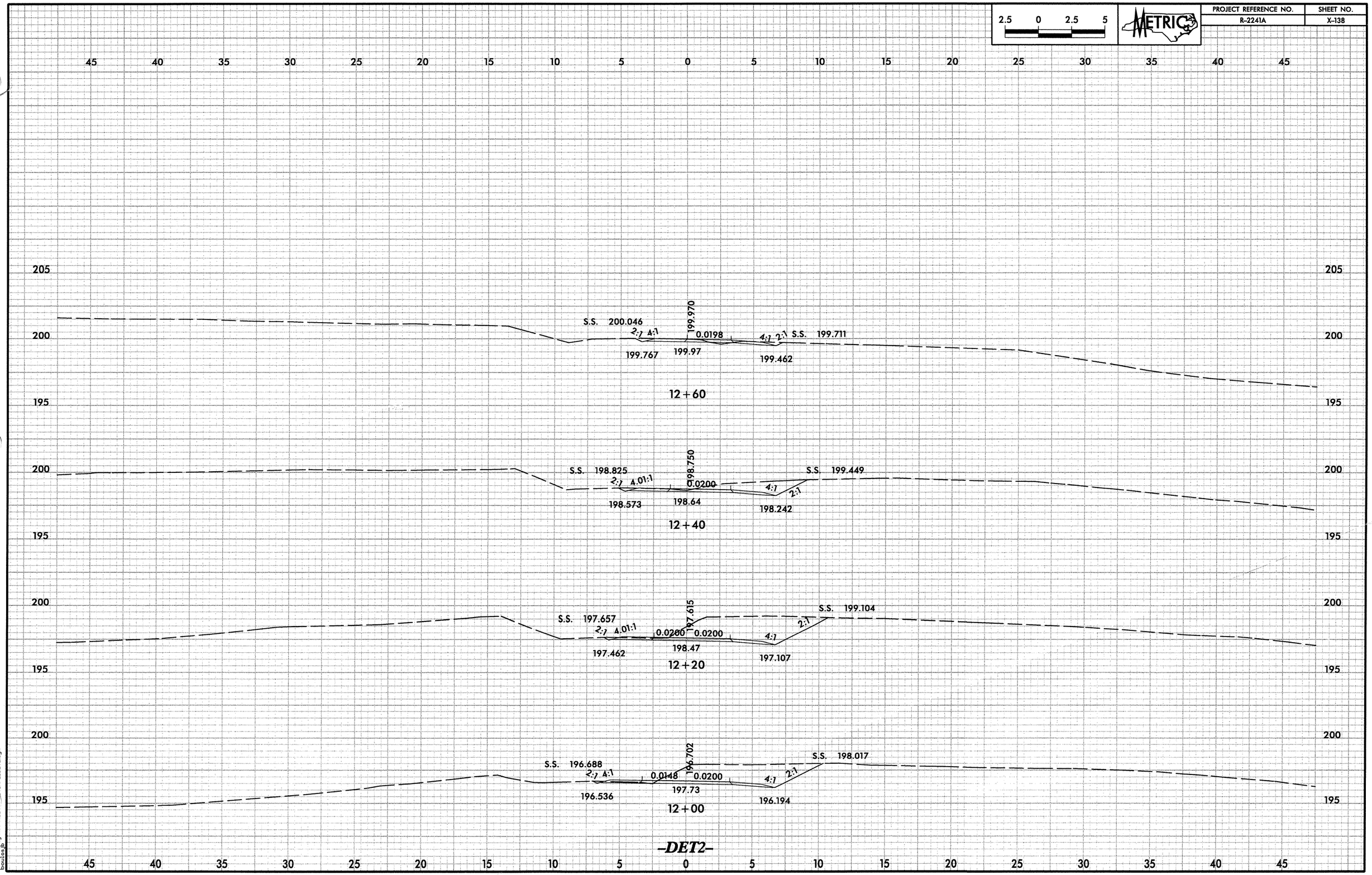
boulos.jb



2.5 0 2.5 5
METRIC
PROJECT REFERENCE NO.
R-2241A
SHEET NO.
X-138
45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45
205
200
195
S.S. 200.046
2:1 4:1
199.970
0.0198
4:1 2:1
S.S. 199.711
199.767
199.97
199.462
12+60
S.S. 198.825
2:1 4.01:1
198.750
0.0200
4:1
2:1
S.S. 199.449
198.573
198.64
198.242
12+40
S.S. 197.657
2:1 4.01:1
197.615
0.0200
0.0200
4:1
2:1
S.S. 199.104
197.462
198.47
197.107
12+20
S.S. 196.688
2:1 4:1
196.702
0.0148
0.0200
4:1
2:1
S.S. 198.017
196.536
197.73
196.194
12+00
-DET2-