

Survey taken 3/1/01

Cross section location		108	109	110	111	112	113	114	115
0h	grass near	0	0	10	0	0	0	0	0
0v	water	0	0	20	0	0	0	0	0
1h	water side	20	8		7	-4	3	4	10
1v	of path	3	4	1	39	10	0	1	1
2h	road side of	5	1	-1	7	20	0	0	3
2v	path	14	0	1	6	30	0	0	0
3h	water side of	4.5	3	6	1	20	11	9	10
3v	road	6	0	25	-6	1	-1	0	3
4h	first 1/4 of	0	8	3	17*	15	12	0	0
4v	roadway	0	3	1	1	10	2	0	0
5h	middle of	9	4	5	3	4	0	0	0
5v	roadway	2	2	5	48	0	0	0	0
6h	last 1/4 of	0	0	0	6	0	0	1	0
6v	roadway	0	0	0	1	0	0	-1	0
7h	land side of	2	0	0	0	0	7	18	0
7v	roadway	0	0	0	0	0	-7	20	0
8h	slope btwn road	0	0	0	0	0	17	0	0
8v	and rails	0	0	0	0	0	26	0	0
9h	railway	0	0	0	0	0	0	0	0
9v		0	0	0	0	0	0	0	0
Notes				Extensive damage between 110 and 112			graben between 7 & 8	sand boil	sand boil
				0v was shear zone with displacements added to 20		sand boil			

Survey taken 3/3/01													
Cross section location	9	11	12	13	14	15	16	17	17b (17+15m)	19	20	22	23
0h grass near	0	0	0		1 (0.5)	43 (17)	0	0	10 (4)	0	0	0	0
0v water	0	0	see notes		5 (2)	33 (13)	see notes	0	35.5 (14)	0	0	0	0
1h water side of	4.5 (1.75)	25 (9.75)	1 (0.5)		2.5 (1)	6.5 (2.5)	5 (2)	49.5 (19.5)	6.5 (2.5)	10 (4)	2 (0.75)	9 (3.5)	2 (0.75)
1v path	5 (2)	-14 (-5.5)	1 (0.5)		-1 (-0.5)	-2.5 (-1)	0	3.5 (1.5)	9 (3.5)	43 (17)	0	5 (2)	1 (0.5)
2h road side of	0	9 (3.5)	0		4 (1.5)	-7.5 (-3)	2.5 (1)	3.5 (1.5)	0	24 (9.5)	0	5 (2)	0
2v path	0	27 (10.5)	-1 (-0.5)		-2 (-0.75)	-2.5 (-1)	10 (4)	3.5 (1.5)	-6.5 (2.5)	0	0	5 (2)	0
3h water side of	2.5 (1)	1 (0.5)	5 (2)		7.5 (3)	7.5 (3)	16.5 (6.5)	0	18 (7)	15 (6)	1 (0.5)	9 (3.5)	10 (4)
3v road	1 (0.5)	5 (2)	-1 (-0.5)		7.5 (3)	76 (30)	5 (2)	1 (0.5)	0	35.5 (14)	0	-1 (-0.50)	19 (7.5)
4h first 1/4 of	0	0	9 (3.5)		1 (0.5)	2.5 (1)	7.5 (3)	1 (0.5)	1 (0.5)	7.5 (3)	9 (3.5)	0	0
4v roadway	0	0	1 (0.5)		0	1 (0.5)	1 (0.5)	0	-7.5 (-3)	-1 (-0.5)	5 (2)	0	0
5h middle of	5 (2)	11.5 (4.5)	9 (3.5)		9 (3.5)	9 (3.5)	48 (19)	2.5 (1)	see notes	0	0	0	0
5v roadway	0	2.5 (1)	4 (1.5)		1 (0.5)	1 (0.5)	6.5 (2.5)	6.5 (2.5)	43 (17)	0	0	0	0
6h last 1/4 of	0	0	0		0	0	0	0	6.5 (2.5)	0	0	0	0
6v roadway	0	0	0		0	0	0	0	0	0	0	0	0
7h land side of	0	1 (0.5)	1 (0.5)		0	0	0	0	0	0	2.5 (1)	0	0
7v roadway	0	0	0		2 (0.75)	0	0	0	0	0	5 (2)	0	0
8h slope btwn road	0	0	0		0	0	0	0	0	0	30.5 (12)	0	0
8v and rails	0	0	0		0	0	0	0	0	0	-2.5 (-1)	0	0
9h railway	0	0	0		0	0	0	0	0	0	23 (9)	0	0
9v	0	0	0		0	0	0	0	0	0	0	0	0
Notes			soil dropped but grass didn't break. Difficult to measure	little horizontal movement. But roadway dropped as a grabben like feature		76 cm was shear zone between sidewalk and road. Sidewalk in grabben	soil dropped but grass didn't break. Difficult to measure. Grabben between 2 & 5		5h unmeasurable due to extensive damage. From 0 to 4 large block rotation. At 6 only pavement- no soil underneath	sand boils on either side	9 on other side of tracks	just north of sand boil	sand boils

MAPPING NOTES

*Measurements are relative along a given line starting from the water side to the track side with gapping positive (horizontal direction) and dropping towards the water positive (vertical). None of the measurements were absolute displacements and none of the measurements were correlated with other cross sectional measurements.

*Measurements were made in cross sectional profiles (0-9) at a number of locations (108-115 and 9-23). The cross sectional measurements were made at the same 10 locations across the roadway (as noted in the tables above). Measurements were made in cm in the initial survey and inches in the second survey. The measurements have been converted to mm in the second table above with the original measurement in brackets.

*The survey lines shown are those recorded by a GPS device and are approximate. Further correlation between recorded displacements, notes taken during surveying, and photographs of the site taken during surveying may provide more accurate placement of the lines.

*Additional information and photographs are available upon request to kammerer@ce.berkeley.edu