

APPENDIX C

Costings Breakdown

Appendix Table C.1 Site 1 and 2

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
1.1	31	1050	Minor Council Roads	44,000
1.11	26	1050	Minor Council Roads	37,700
1.12	60	1050	Minor Council Roads	85,200
1.13	23	1050	Minor Council Roads	32,400
1.14	22	1050	Minor Council Roads	31,200
1.15	67	1050	Minor Council Roads	95,800
1.16	152	1050	VicRoads Roads - Pipe	665,300
2.1	15	450	Developed Private Properties	6,400
2.11	104	450	Pipe Jacking	178,700
2.12	8	600	Minor Council Roads	6,500
2.13	113	750	Pipe Jacking	326,000
2.14	21	825	Minor Council Roads	23,700
2.15	25	825	Minor Council Roads	27,600
2.16	108	825	Pipe Jacking	349,000
2.17	20	825	Pipe Jacking	65,800
2.18	36	825	Pipe Jacking	117,100
2.19	44	825	Railway Line	121,400
2.2	46	825	Minor Council Roads	50,800
2.21	34	825	Minor Council Roads	37,900
2.22	31	825	Minor Council Roads	33,900
2.23	83	825	Minor Council Roads	92,300
2.24	27	1050	Minor Council Roads	38,600

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
2.25	43	1050	Minor Council Roads	60,900
2.26	81	1050	Minor Council Roads	115,100
2.27	80	1050	Minor Council Roads	113,800
2.28	32	1050	Minor Council Roads	45,800
2.29	57	1050	Minor Council Roads	82,100
TOTAL COST			\$2,885,000	
TOTAL COST (including 38.5 % contingency cost)			\$3,996,000	

Appendix Table C. 2 Site 3

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
3.1	19	1200	Minor Council Roads	32,500
3.11	45	1200	Pipe Jacking	239,400
3.12	67	1200	Developed Private Properties	95,900
TOTAL COST			\$368,000	
TOTAL COST (including 38.5 % contingency cost)			\$510,000	

Appendix Table C. 3 Sites 4 and 5

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
4.1	35	525	Minor Council Roads	26,500
4.11	26	525	Minor Council Roads	19,900
4.12	22	525	Minor Council Roads	16,600
4.13	148	525	Minor Council Roads	112,900

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
4.14	9	600	Minor Council Roads	7,400
4.15	49	750	Minor Council Roads	49,800
4.16	70	825	Minor Council Roads	78,000
4.17	34	675	Minor Council Roads	31,500
4.18	66	675	Minor Council Roads	61,000
4.19	8	675	Minor Council Roads	7,600
4.2	49	1050	Minor Council Roads	69,800
4.21	51	1200	Minor Council Roads	84,800
5.1	16	450	Minor Council Roads	11,100
5.11	31	825	VicRoads Roads - Pipe	101,100
5.12	25	825	VicRoads Roads - Pipe	80,300
5.13	99	825	VicRoads Roads - Pipe	319,400
5.14	22	825	VicRoads Roads - Pipe	72,400
5.15	316	900	Minor Council Roads	383,300
5.16	18	900	Minor Council Roads	21,200
TOTAL COST			\$1,555,000	
TOTAL COST (including 38.5 % contingency cost)			\$2,154,000	

Appendix Table C. 4 Site 6

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
6.1	11	825	Minor Council Roads	11,900
6.11	15	450	Minor Council Roads	10,100
6.12	66	675	Reserve	28,900
TOTAL COST			\$51,000	
TOTAL COST (including 38.5 % contingency cost)			\$71,000	

Appendix Table C. 5 Site 7

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
7.1	11	900	Reserve	6,800
Retarding Basin			\$60,600	
TOTAL COST			\$68,000	
TOTAL COST (including 38.5 % contingency cost)			\$94,000	

Appendix Table C. 6 Site 8

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
8.1	26	750	Minor Council Roads	26,400
8.11	10	750	Minor Council Roads	9,900
8.12	75	750	Minor Council Roads	76,000
8.13	12	900	Minor Council Roads	14,700
8.14	12	900	Minor Council Roads	14,600
8.15	11	900	Minor Council Roads	12,900

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
8.16	20	900	VicRoads Roads - Pipe	72,300
TOTAL COST			\$227,000	
TOTAL COST (including 38.5 % contingency cost)			\$314,000	

Appendix Table C. 7 Site 9

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
9.1	21	525	Pipe Jacking	41,900
9.11	73	675	Pipe Jacking	185,900
9.12	7	675	Minor Council Roads	6,600
9.13	182	675	Minor Council Roads	168,300
9.14	12	675	Major Council Roads	10,700
9.15	93	675	Pipe Jacking	237,900
9.16	11	675	Minor Council Roads	9,700
9.17	52	675	Pipe Jacking	133,000
TOTAL COST			\$794,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,100,000	

Appendix Table C. 8 Site 10

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
Swale	235	2.5 m Top Width	Reserve	3,700
10.11	14	450	Reserve	3,900
10.12	43	450	Minor Council Roads	30,100

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
TOTAL COST				\$38,000
TOTAL COST (including 38.5 % contingency cost)				\$53,000

Appendix Table C. 9 Site 11

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
11.1	43	450	Minor Council Roads	29,800
11.11	95	450	Minor Council Roads	65,800
11.12	94	450	Minor Council Roads	64,900
11.13	9	825	Minor Council Roads	9,600
11.14	14	825	Minor Council Roads	15,000
11.15	56	825	Pipe Jacking	181,600
11.16	17	825	Reserve	9,400
Speed Humps				30,000
TOTAL COST				\$406,000
TOTAL COST (including 38.5 % contingency cost)				\$562,000

Appendix Table C. 10 Site 12

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
12.1	84	600	Minor Council Roads	70,600
12.11	92	675	Minor Council Roads	85,200
12.12	94	675	Minor Council Roads	86,800
12.13	153	900	Minor Council Roads	185,900

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
12.14	125	1350	Minor Council Roads	241,500
Speed Hump				15,000
TOTAL COST			\$685,000	
TOTAL COST (including 38.5 % contingency cost)			\$949,000	

Appendix Table C. 11 Site 13

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
13.1	30	525	Minor Council Roads	23,200
13.11	43	900	Pipe Jacking	154,600
13.12	92	900	Reserve	58,200
TOTAL COST			\$236,000	
TOTAL COST (including 38.5 % contingency cost)			\$327,000	

Appendix Table C. 12 Site 14

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
14.1	21	450	Minor Council Roads	14,200
14.11	122	450	Minor Council Roads	84,200
14.12	103	450	Minor Council Roads	71,100
14.13	56	450	VicRoads Roads - Pipe	96,700
14.14	17	675	VicRoads Roads - Pipe	42,900
14.15	72	675	VicRoads Roads - Pipe	185,200
14.16	149	750	Minor Council Roads	150,800

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
14.17	10	750	Minor Council Roads	10,600
14.18	255	900	Minor Council Roads	309,100
14.19	21	900	Minor Council Roads	26,000
14.2	100	900	Minor Council Roads	121,100
14.21	142	1050	Minor Council Roads	202,900
14.22	96	1050	Minor Council Roads	136,700
14.23	48	1050	Major Council Roads	68,900
TOTAL COST			\$1,520,000	
TOTAL COST (including 38.5 % contingency cost)			\$2,105,000	

Appendix Table C. 13 Site 15 and 16

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
15.1	19	1350	VicRoads Roads - Pipe	118,200
15.11	27	1350	VicRoads Roads - Pipe	168,100
15.12	25	1350	VicRoads Roads - Pipe	153,500
15.13	56	1350	VicRoads Roads - Pipe	346,800
15.14	72	1350	Major Council Roads	139,500
15.15	13	1350	Major Council Roads	25,300
15.16	37	1350	Major Council Roads	72,700
15.17	231	1350	Major Council Roads	448,100
16.1	27	525	VicRoads Roads - Pipe	53,800
16.11	50	525	VicRoads Roads - Pipe	98,300

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
16.12	34	525	VicRoads Roads - Pipe	67,000
16.13	61	525	VicRoads Roads - Pipe	121,600
16.14	103	900	VicRoads Roads - Pipe	370,400
16.15	31	900	VicRoads Roads - Pipe	112,700
16.16	47	900	VicRoads Roads - Pipe	168,800
16.17	167	900	VicRoads Roads - Pipe	600,400
16.18	116	900	Minor Council Roads	141,100
16.19	74	900	Minor Council Roads	89,300
16.2	12	900	Minor Council Roads	15,000
16.21	80	900	Minor Council Roads	96,700
16.22	164	1200	Minor Council Roads	274,900
16.23	381	1200	Minor Council Roads	636,600
16.24	327	1350	Minor Council Roads	633,300
Speed Humps				120,000
TOTAL COST			\$5,072,000	
TOTAL COST (including 38.5 % contingency cost)			\$7,025,000	

Appendix Table C. 14 Site 17

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
17.1	35	1350	Minor Council Roads	67,100
17.11	31	1350	Minor Council Roads	59,900
17.12	33	1350	Minor Council Roads	63,800

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
17.13	34	1350	Minor Council Roads	66,100
17.14	40	1050	Railway Line	153,000
17.15	82	1050	Major Council Roads	117,500
17.16	60	1050	Major Council Roads	85,200
17.17	55	1200	Major Council Roads	92,400
17.18	50	1350	Major Council Roads	96,200
17.19	20	1350	VicRoads Roads - Pipe	121,500
TOTAL COST			\$923,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,278,000	

Appendix Table C. 15 Site 18

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
18.1	30	1200	Minor Council Roads	49,900
18.11	23	1200	Minor Council Roads	38,600
18.12	34	1200	Minor Council Roads	57,100
18.13	18	1200	Minor Council Roads	30,900
18.14	24	1350	Minor Council Roads	46,400
18.15	24	1350	Minor Council Roads	46,200
18.16	15	525	Minor Council Roads	11,800
18.17	15	525	Minor Council Roads	11,200
18.18	34	1650	Minor Council Roads	85,800
18.19	31	1650	Minor Council Roads	79,100

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
18.2	25	1650	Minor Council Roads	62,700
TOTAL COST			\$520,000	
TOTAL COST (including 38.5 % contingency cost)			\$720,000	

Appendix Table C. 16 Site 19

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
19.1	17	825	Minor Council Roads	19,300
19.11	16	825	Minor Council Roads	18,100
19.12	44	825	Minor Council Roads	49,400
19.13	16	675	VicRoads Roads - Pipe	39,700
19.14	27	675	VicRoads Roads - Pipe	69,200
19.15	28	675	VicRoads Roads - Pipe	71,000
19.16	91	675	VicRoads Roads - Pipe	233,900
19.17	81	825	VicRoads Roads - Pipe	260,600
19.18	10	825	VicRoads Roads - Pipe	33,700
19.19	148	1050	VicRoads Roads - Pipe	646,800
19.2	182	1050	Minor Council Roads	260,900
TOTAL COST			\$1,702,000	
TOTAL COST (including 38.5 % contingency cost)			\$2,357,000	

Appendix Table C. 17 Site 20

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
20.1	12	600	VicRoads Roads - Pipe	27,700
20.11	83	675	Pipe Jacking	212,800
20.12	7	675	Minor Council Roads	6,000
20.13	6	750	Minor Council Roads	6,400
20.14	44	750	Pipe Jacking	125,900
20.15	8	750	Pipe Jacking	22,300
20.16	40	900	Pipe Jacking	144,500
20.17	11	900	Pipe Jacking	38,400
20.18	88	900	Pipe Jacking	314,900
20.19	17	900	Minor Council Roads	20,400
20.2	6	900	Minor Council Roads	6,900
20.21	24	900	Minor Council Roads	28,800
20.22	35	825	Minor Council Roads	39,000
20.23	13	825	Major Council Roads	14,000
20.24	93	825	Major Council Roads	103,500
20.25	38	825	Major Council Roads	41,800
20.26	50	825	Major Council Roads	55,800
20.27	47	825	Major Council Roads	52,600
Speed Humps				45,000
TOTAL COST			\$1,307,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,810,000	

Appendix Table C. 18 Site 21

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
21.1	33	750	Minor Council Roads	33,000
21.11	17	750	Minor Council Roads	16,900
21.12	74	750	Minor Council Roads	75,600
21.13	13	750	Minor Council Roads	13,100
21.14	70	750	Minor Council Roads	70,900
21.15	64	675	Reserve	27,700
TOTAL COST			\$237,000	
TOTAL COST (including 38.5 % contingency cost)			\$328,000	

Appendix Table C. 19 Site 22

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
22.1	43	750	Minor Council Roads	43,200
22.11	79	825	Minor Council Roads	88,100
22.12	18	900	Minor Council Roads	22,100
22.13	26	1050	Minor Council Roads	37,700
22.14	83	1050	Minor Council Roads	118,900
22.15	9	1050	Minor Council Roads	13,400
22.16	47	1050	Minor Council Roads	67,500
22.17	53	1050	Minor Council Roads	75,700
22.18	85	1050	Reserve	66,500

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
22.19	43	1200	Reserve	40,800
22.2	64	1200	Reserve	60,400
TOTAL COST			\$634,000	
TOTAL COST (including 38.5 % contingency cost)			\$878,000	

Appendix Table C. 20 Sites 23 and 25

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
23.1	195	750	Minor Council Roads	197,400
23.11	20	1050	Minor Council Roads	29,200
23.12	44	1050	Minor Council Roads	63,200
23.13	49	1050	Minor Council Roads	69,800
23.14	19	1050	Major Council Roads	26,800
23.15	47	1500	Developed Private Properties	93,000
25.1	33	450	Minor Council Roads	22,900
25.11	151	450	Minor Council Roads	104,500
25.12	41	750	Minor Council Roads	41,400
25.13	92	900	Minor Council Roads	111,300
25.14	113	1050	Minor Council Roads	161,600
25.15	10	1350	Minor Council Roads	18,700
25.16	42	1350	Minor Council Roads	82,000
25.17	12	750	Minor Council Roads	12,200
TOTAL COST			\$1,034,000	

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
TOTAL COST (including 38.5 % contingency cost)				\$1,432,000

Appendix Table C. 21 Site 24

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
24.1	7	600	Minor Council Roads	6,100
24.11	7	600	Minor Council Roads	6,100
24.12	34	600	Minor Council Roads	28,900
24.13	8	600	Minor Council Roads	6,400
24.14	6	600	Minor Council Roads	5,200
24.15	12	600	Minor Council Roads	10,000
24.16	38	600	Minor Council Roads	31,800
24.17	9	600	Minor Council Roads	7,700
24.18	9	600	Minor Council Roads	7,900
24.19	10	600	Minor Council Roads	8,400
24.21	4	600	Minor Council Roads	3,300
24.22	5	600	Minor Council Roads	3,900
24.23	26	600	Minor Council Roads	22,000
24.24	7	600	Minor Council Roads	5,700
24.25	4	600	Minor Council Roads	3,100
24.26	11	600	Minor Council Roads	9,500
24.27	3	600	Minor Council Roads	2,900
24.28	10	600	Minor Council Roads	8,300

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Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
24.29	5	600	Minor Council Roads	4,400
24.3	4	600	Minor Council Roads	3,200
24.31	12	600	Minor Council Roads	10,000
24.32	6	600	Minor Council Roads	4,900
24.33	9	600	Minor Council Roads	7,300
24.34	9	600	Minor Council Roads	7,800
24.35	8	600	Minor Council Roads	7,100
24.36	8	600	Minor Council Roads	6,400
24.37	6	600	Minor Council Roads	5,500
24.38	10	600	Minor Council Roads	8,600
24.39	7	600	Minor Council Roads	5,700
24.4	7	600	Minor Council Roads	5,900
24.41	11	600	Minor Council Roads	9,000
24.42	6	600	Minor Council Roads	5,300
24.43	9	600	Minor Council Roads	7,700
24.44	6	600	Minor Council Roads	5,100
24.45	9	600	Minor Council Roads	7,500
TOTAL COST			\$289,000	
TOTAL COST (including 38.5 % contingency cost)			\$400,000	

Appendix Table C. 22 Site 26

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
26.1	94	1200	Minor Council Roads	157,400
26.11	27	1200	Minor Council Roads	45,800
26.12	34	1200	Minor Council Roads	56,800
26.13	140	1200	Minor Council Roads	234,100
26.14	12	1200	Major Council Roads	20,700
26.15	64	1350	Major Council Roads	124,500
26.16	24	750	Minor Council Roads	24,400
26.17	142	750	Minor Council Roads	144,100
26.18	17	750	Major Council Roads	17,600
26.19	83	1350	Major Council Roads	160,800
26.2	35	1500	Major Council Roads	78,500
26.21	31	1500	Major Council Roads	70,000
26.22	82	1500	Major Council Roads	183,000
26.23	105	1500	Major Council Roads	234,000
TOTAL COST			\$1,552,000	
TOTAL COST (including 38.5 % contingency cost)			\$2,150,000	

Appendix Table C. 23 Site 27

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
27.1	61	675	Minor Council Roads	56,500
27.11	22	675	Minor Council Roads	20,000

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
27.12	41	675	Minor Council Roads	38,000
27.13	24	600	Minor Council Roads	20,100
27.14	43	600	Minor Council Roads	35,900
27.15	38	375	Minor Council Roads	23,900
27.16	24	375	Minor Council Roads	15,300
27.17	34	825	Minor Council Roads	37,400
27.18	9	825	Minor Council Roads	9,600
27.19	10	600	Minor Council Roads	8,000
27.2	20	600	Minor Council Roads	16,600
27.21	10	825	Minor Council Roads	11,300
27.22	18	825	Minor Council Roads	20,500
27.23	46	825	Minor Council Roads	51,600
27.24	30	825	Minor Council Roads	33,600
27.25	27	825	Minor Council Roads	30,300
27.26	21	525	Minor Council Roads	16,200
27.27	16	525	Minor Council Roads	12,200
27.28	13	525	Minor Council Roads	10,200
27.29	61	900	Minor Council Roads	74,400
27.3	7	1350	Major Council Roads	14,000
TOTAL COST			\$555,000	
TOTAL COST (including 38.5 % contingency cost)			\$769,000	

Appendix Table C. 24 Site 28

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
28.1	15	675	Minor Council Roads	14,100
28.11	27	675	Minor Council Roads	25,400
28.12	41	750	Developed Private Properties	30,700
28.13	7	750	Developed Private Properties	4,900
28.14	44	750	Developed Private Properties	32,500
28.15	184	750	Minor Council Roads	186,400
28.16	40	1050	Minor Council Roads	57,800
28.17	18	1050	Minor Council Roads	26,200
28.18	26	1050	Minor Council Roads	37,100
28.19	188	750	Minor Council Roads	190,500
28.2	80	1200	Minor Council Roads	133,900
28.21	187	525	Minor Council Roads	142,700
28.22	77	1200	Minor Council Roads	128,800
28.23	14	1350	Major Council Roads	26,900
28.24	16	1350	Major Council Roads	31,200
28.25	118	1350	Major Council Roads	228,800
28.26	295	1350	Minor Council Roads	571,200
TOTAL COST			\$1,869,000	
TOTAL COST (including 38.5 % contingency cost)			\$2,589,000	

Appendix Table C. 25 Site 29

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
29.1	11	900	Minor Council Roads	13,400
29.11	24	900	Minor Council Roads	28,900
29.12	71	900	Minor Council Roads	86,000
29.13	12	900	Minor Council Roads	14,000
29.14	21	900	VicRoads Roads - Pipe	73,900
29.15	24	600	VicRoads Roads - Pipe	54,200
29.16	16	600	VicRoads Roads - Pipe	36,400
29.17	8	600	VicRoads Roads - Pipe	19,000
29.18	54	900	Minor Council Roads	65,900
29.19	27	900	Minor Council Roads	32,700
29.2	34	900	Minor Council Roads	40,800
29.21	21	900	Minor Council Roads	24,900
29.22	210	900	Minor Council Roads	254,500
TOTAL COST			\$745,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,032,000	

Appendix Table C. 26 Site 30

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
30.1	38	675	Minor Council Roads	35,200
30.11	38	675	Minor Council Roads	35,500
30.12	91	1050	Minor Council Roads	130,100

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
30.13	44	1050	VicRoads Roads - Pipe	194,000
30.14	48	675	VicRoads Roads - Pipe	122,700
30.15	12	600	VicRoads Roads - Pipe	27,100
30.16	84	600	Minor Council Roads	70,500
30.17	84	600	Minor Council Roads	70,300
30.18	15	750	Minor Council Roads	15,300
30.19	140	750	Minor Council Roads	141,700
TOTAL COST			\$842,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,166,000	

Appendix Table C. 27 Site 31

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
31.1	15	525	Minor Council Roads	11,300
31.11	94	675	Minor Council Roads	86,900
31.12	14	675	Major Council Roads	12,900
31.13	245	675	Major Council Roads	226,800
31.14	166	675	Minor Council Roads	153,600
TOTAL COST			\$492,000	
TOTAL COST (including 38.5 % contingency cost)			\$681,000	

Appendix Table C. 28 Site 32

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
32.1	75	825	Minor Council Roads	83,500
32.11	13	900	Minor Council Roads	15,200
32.12	57	825	Minor Council Roads	62,800
32.13	17	825	Minor Council Roads	18,800
32.14	7	825	Minor Council Roads	7,900
32.15	12	825	Minor Council Roads	13,000
32.16	50	825	Minor Council Roads	55,000
32.17	9	825	Minor Council Roads	10,500
32.18	73	900	Pipe Jacking	262,400
32.19	67	900	Reserve	42,600
TOTAL COST			\$572,000	
TOTAL COST (including 38.5 % contingency cost)			\$792,000	

Appendix Table C. 29 Site 33

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
33.1	94	600	Minor Council Roads	78,900
33.11	141	600	Minor Council Roads	118,600
33.12	37	600	Minor Council Roads	31,000
33.13	50	600	VicRoads Roads - Pipe	113,600
33.14	59	675	Minor Council Roads	54,600
33.15	47	675	Minor Council Roads	43,000

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
33.16	61	675	Minor Council Roads	56,700
33.17	64	675	Minor Council Roads	59,000
TOTAL COST			\$555,000	
TOTAL COST (including 38.5 % contingency cost)			\$769,000	

Appendix Table C. 30 Site 34

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
34.1	20	750	Minor Council Roads	19,900
34.11	19	750	Minor Council Roads	19,200
34.12	80	750	Minor Council Roads	80,900
34.13	73	825	Minor Council Roads	81,200
34.14	74	825	Reserve	41,700
TOTAL COST			\$243,000	
TOTAL COST (including 38.5 % contingency cost)			\$337,000	

Appendix Table C. 31 Site 35

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
35.1	42	900	Pipe Jacking	149,400
35.11	42	825	Pipe Jacking	136,500
35.12	58	1050	Reserve	45,300
TOTAL COST			\$331,000	

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
TOTAL COST (including 38.5 % contingency cost)				\$458,000

Appendix Table C. 32 Site 36

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
36.1	108	600	Developed Private Properties	61,400
36.12	102	525	Minor Council Roads	78,100
36.13	243	675	Minor Council Roads	225,200
36.14	222	600	Minor Council Roads	186,900
Underground Storage				310,500
TOTAL COST				\$862,500
TOTAL COST (including 38.5 % contingency cost)				\$1,195,000

Appendix Table C. 33 Site 37

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
37.1	27	450	Minor Council Roads	18,800
37.11	14	525	Minor Council Roads	11,000
37.12	119	600	Minor Council Roads	100,300
37.13	100	600	Minor Council Roads	84,600
37.14	26	600	Minor Council Roads	21,700
37.15	8	675	Minor Council Roads	7,500
37.16	9	675	Minor Council Roads	8,300
37.17	108	675	Minor Council Roads	100,200

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
37.18	45	675	Minor Council Roads	42,000
37.19	33	375	Minor Council Roads	20,400
37.2	40	525	Minor Council Roads	30,600
37.21	14	675	Major Council Roads	13,300
TOTAL COST			\$459,000	
TOTAL COST (including 38.5 % contingency cost)			\$636,000	

Appendix Table C. 34 Site 38

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
38.1	16	450	Minor Council Roads	11,100
38.11	11	450	Minor Council Roads	7,800
38.12	18	450	Minor Council Roads	12,200
38.13	9	450	Minor Council Roads	6,400
38.14	13	450	Minor Council Roads	8,700
38.15	16	450	Minor Council Roads	11,100
38.16	63	450	Minor Council Roads	43,700
38.17	59	450	Minor Council Roads	40,700
38.18	63	450	Minor Council Roads	43,300
38.19	265	525	Minor Council Roads	202,300
TOTAL COST			\$387,000	
TOTAL COST (including 38.5 % contingency cost)			\$536,000	

Appendix Table C. 35 Site 39

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
39.1	44	825	Minor Council Roads	49,100
39.11	10	825	Minor Council Roads	11,200
39.12	18	300	Minor Council Roads	9,900
39.13	43	900	Minor Council Roads	52,400
39.14	30	900	Minor Council Roads	36,000
39.15	33	900	Minor Council Roads	40,500
39.16	27	900	Minor Council Roads	32,500
39.17	32	900	Minor Council Roads	38,200
39.18	151	900	Minor Council Roads	182,400
39.19	166	900	Minor Council Roads	201,500
TOTAL COST			\$654,000	
TOTAL COST (including 38.5 % contingency cost)			\$906,000	

Appendix Table C. 36 Site 40

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
40.1	36	825	Minor Council Roads	39,700
40.11	35	825	Minor Council Roads	38,300
40.12	34	600	Minor Council Roads	28,300
40.13	44	1050	Minor Council Roads	62,500
40.14	18	1050	Minor Council Roads	25,100
40.15	36	1050	Minor Council Roads	51,600

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
TOTAL COST				\$245,000
TOTAL COST (including 38.5 % contingency cost)				\$339,000

Appendix Table C. 37 Site 41

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
41.1	30	600	Minor Council Roads	25,500
41.11	67	600	Minor Council Roads	56,300
41.12	33	600	Minor Council Roads	27,500
41.13	43	600	Minor Council Roads	36,600
41.14	84	600	Minor Council Roads	71,100
41.15	101	825	Minor Council Roads	112,100
41.16	77	450	Minor Council Roads	53,600
41.17	116	825	Minor Council Roads	128,800
TOTAL COST				\$512,000
TOTAL COST (including 38.5 % contingency cost)				\$709,000

Appendix Table C. 38 Site 42

Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
42.1	113	750	Major Council Roads	114,200
42.11	316	750	Minor Council Roads	321,100
42.12	106	750	Major Council Roads	107,400
42.13	17	825	Major Council Roads	19,000

MORELAND CITY COUNCIL**10 % AEP FLOOD MITIGATION – DRAINAGE IMPROVEMENT PLAN**



Pipe Reference	Length (m)	Pipe Diameter (mm)	Condition	Total Estimated Basic Cost (\$)
42.14	158	825	Minor Council Roads	175,700
TOTAL COST			\$737,000	
TOTAL COST (including 38.5 % contingency cost)			\$1,021,000	